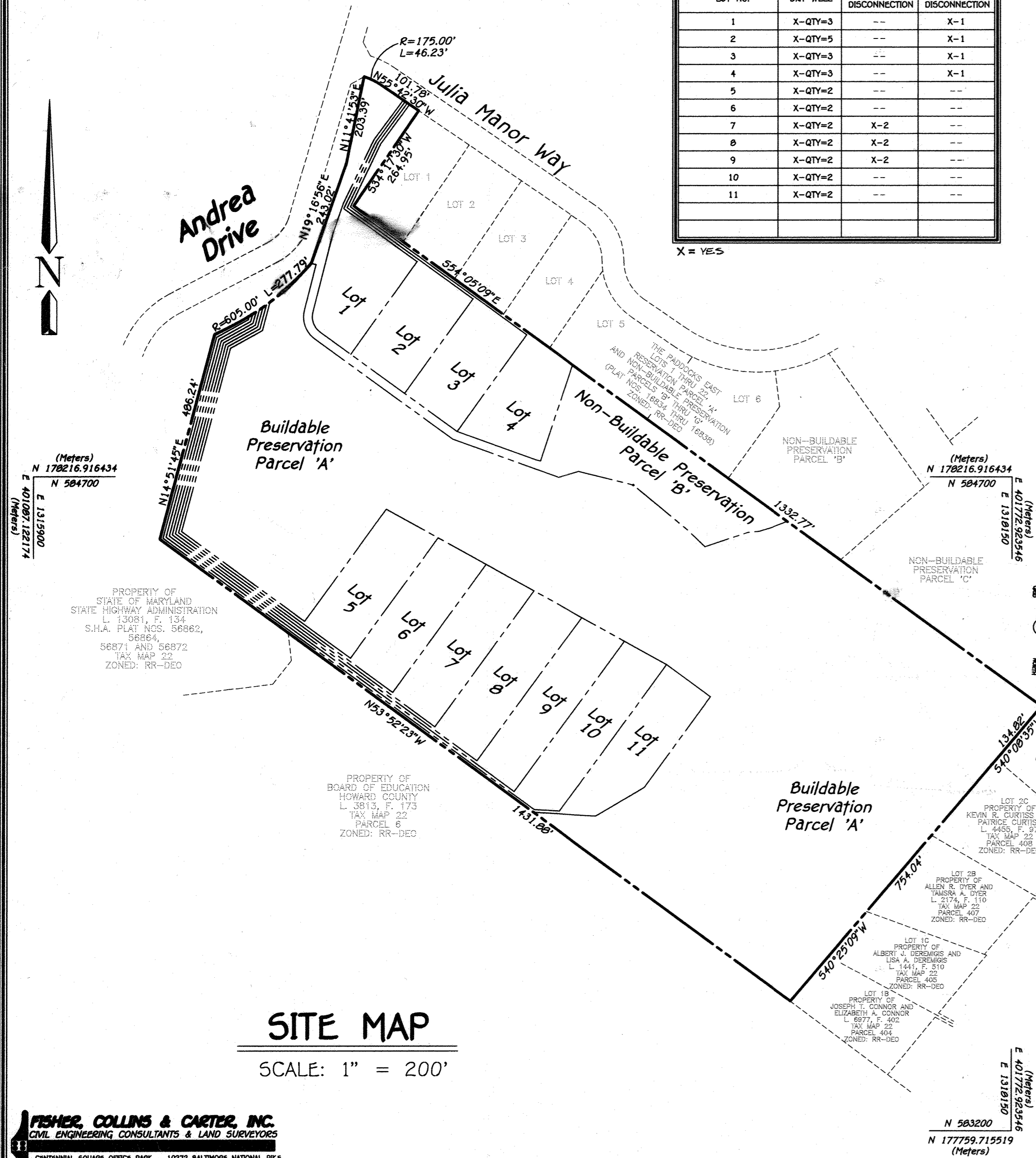


| SHEET INDEX | |
|-------------|--|
| SHEET No. | SHEET |
| 1 | TITLE SHEET |
| 2 | PAUPERS FOLLY LANE - PLAN, PROFILE & ROADWAY SECTION |
| 3 | TERGED DRIVE AND SHARED SEPTIC DRIVEWAY - PLAN |
| 4 | TERGED DRIVE - PROFILE & ROADWAY SECTIONS |
| 5 | SHARED SEPTIC DRIVEWAY - PROFILE & ROADWAY SECTIONS |
| 6-7 | GRADING AND SEDIMENT CONTROL PLAN |
| 8-9 | SEDIMENT AND EROSION CONTROL NOTES AND DETAILS |
| 10-11 | STORMWATER MANAGEMENT NOTES & DETAILS |
| 12-14 | LANDSCAPE PLAN & DETAILS |
| 15-16 | SOILS MAP & DRAINAGE AREA MAP |
| 17-18 | FOREST CONSERVATION PLAN, NOTES & DETAILS |
| 19 | FOREST CONSERVATION PLAN, NOTES & DETAILS |
| 20 | STORM DRAIN PROFILES & SEDIMENT CONTROL DETAILS |

| TRAFFIC CONTROL SIGNS | | | | |
|------------------------|----------|--------|-----------------------------------|----------------|
| ROAD NAME | CL. STA. | OFFSET | POSTED SIGN | SIGN CODE |
| PAUPERS FOLLY LANE | 0+15 | 13' L | STOP | R1-1 |
| PAUPERS FOLLY LANE | 2+00 | 13' R | SPEED LIMIT 25 | R2-1 |
| PAUPERS FOLLY LANE | 1+50 | 13' L | STOP AHEAD | W3-1a |
| PAUPERS FOLLY LANE | 5+50 | 13' R | "TURN" W/ "15 M.P.H." SPEED PLATE | W1-1L w/ W13-1 |
| TERGED DRIVE | 0+15 | 10' L | STOP | R1-1 |
| SHARED SEPTIC DRIVEWAY | 0+15 | 10' L | STOP | R1-1 |

SIGN POSTS: ALL SIGN POST USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED SQUARE TUBE SLEEVE (12 GAUGE) - 3' LONG, A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.

| ROADWAY INFORMATION CHART | | | | |
|---------------------------|------------------------|--------------|--------------|--|
| ROAD NAME | CLASSIFICATION | DESIGN SPEED | R/W WIDTH | |
| PAUPERS FOLLY LANE | PRIVATE ACCESS DRIVE | 25 M.P.H. | 50' EASEMENT | |
| TERGED DRIVE | USE-IN-COMMON DRIVEWAY | 15 M.P.H. | 24' EASEMENT | |
| SHARED SEPTIC DRIVEWAY | PUBLIC ACCESS DRIVEWAY | 25 M.P.H. | | |



| STORMWATER MANAGEMENT PRACTICES | | | |
|---------------------------------|----------|-----------------------|---------------------------|
| LOT No. | DRY WELL | ROOFTOP DISCONNECTION | NON-ROOFTOP DISCONNECTION |
| 1 | X-QTY=3 | --- | X-1 |
| 2 | X-QTY=5 | --- | X-1 |
| 3 | X-QTY=3 | --- | X-1 |
| 4 | X-QTY=3 | --- | X-1 |
| 5 | X-QTY=2 | --- | --- |
| 6 | X-QTY=2 | --- | --- |
| 7 | X-QTY=2 | X-2 | --- |
| 8 | X-QTY=2 | X-2 | --- |
| 9 | X-QTY=2 | X-2 | --- |
| 10 | X-QTY=2 | --- | --- |
| 11 | X-QTY=2 | --- | --- |

FINAL ROAD CONSTRUCTION, GRADING AND STORMWATER MANAGEMENT PLANS

BELVEDERE ESTATES

LOTS 1-11, BUILDABLE PRESERVATION PARCEL 'A' & NON-BUILDABLE PRESERVATION PARCEL 'B'

ZONED: RR-DEO

TAX MAP No. 22 GRID No. 8 PARCEL No. 116



VICINITY MAP
SCALE: 1" = 2000'

THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND

AS-BUILT SURVEY NOTE:
THE INSTRUMENTS USED IN PERFORMING A
AS-BUILT SURVEY: 10 SECOND ROBOTIC
TOTAL STATION & PRISM

DENSITY TABULATIONS

- BASE DENSITY: 39.77 GROSS ACRES / 4.25 = 9.357 UNITS OR 9 SINGLE FAMILY DETACHED HOMES
- MAXIMUM DENSITY (1 LOT PER 2 NET ACRES): 36.30 ACRES / 2 = 18.15 UNITS OR 18 SINGLE FAMILY DETACHED HOMES.
- NUMBER OF PROPOSED DWELLING UNITS = 12 UNITS
- THREE (3) DEVELOPMENT RIGHTS WILL BE IMPORTED TO THIS SUBDIVISION AT THIS TIME PURSUANT TO THE DEO/CEO DENSITY TRANSFER PROVISION OF SECTION 106 OF THE ZONING REGULATIONS.

IN REFERENCE TO GENERAL NOTE 22, SWM FACILITIES THAT ARE CONSTRUCTED ON LOT ARE NOT INCLUDED IN THIS AS-BUILT. AS-BUILT INFORMATION FOR ON LOT SWM FACILITIES ARE INCLUDED IN A SEPARATE SUBMISSION AS PART OF GRADING AND ACCEPTANCE PROCEDURES.

AS-BUILT CERTIFICATION

I hereby certify, by my seal, that to the best of my knowledge and belief the facilities shown on the plan were constructed as shown on this "AS-BUILT" plan meet the approved plans and specifications.

Paul Gerard Cavanaugh
PAUL GERARD CAVANAUGH #27020
Date: June 16, 2017
Professional Engineer
Exp. 1/31/24

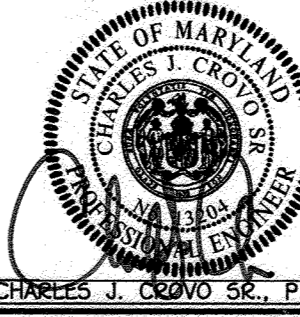
GENERAL NOTES CONTINUED:

- THIS PLAN IS SUBJECT TO A DESIGN MANUAL WAIVER APPROVED BY DEVELOPMENT ENGINEERING DIVISION ON MARCH 24, 2010. THIS WAIVER OF DESIGN MANUAL VOL. 8, SECTION 2.6.8 (TABLE 2.10), WHICH ALLOWS A MAXIMUM OF 9 USERS ON A USE-IN-COMMON DRIVEWAY. THIS WAIVER WAS APPROVED BASED ON THE FOLLOWING INFORMATION:
 - THE JUSTIFICATION LETTER APPROVED BY FCC DATED JULY 23, 2009.
 - IF THE ROAD WAS PUBLIC, ADDITIONAL GRADING WOULD BE REQUIRED AND WOULD HAVE A SIGNIFICANT IMPACT ON ENVIRONMENTAL FEATURES THAT WOULD REQUIRE CUTTING INTO THE EMBANKMENT FOR ROUTE 32.
 - THE USE-IN-COMMON DRIVEWAY WOULD BE VIGNETED TO A COUNTY ROAD STANDARD BUT WILL NOT NEED THE ADDITIONAL ATTRIBUTES WHICH WOULD REQUIRE THE ADDITIONAL GRADING.
- THERE IS AN HISTORIC STRUCTURE (HO-6443) LOCATED ON THIS PROJECT BASED ON THE HOWARD COUNTY INVENTORY MAP. HOWEVER, THE HISTORIC COMMISSION HAS INDICATED THAT ELIGIBILITY IS NOT RECOMMENDED FOR THIS HOUSE. IN ADDITION, A MEETING WAS HELD ON 07/20/17 OF THE HISTORICAL COMMISSION AND THEY HAD NO OBJECTIONS TO THE PLAN.
- THIS PLAN IS SUBJECT TO WAIVER PETITION WP-11-079 TO WAIVE SECTION 16.14 (C) APPROVED ON DECEMBER 6, 2010 SUBJECT TO THE FOLLOWING CONDITIONS:
 - THE DEVELOPER MUST SUBMIT A FINAL PLAN FOR PAUPERS FOLLY TO THE DEPARTMENT OF PLANNING AND ZONING ON OR BEFORE FEBRUARY 22, 2012.
 - THE DEVELOPER MUST SUBMIT A FINAL PLAN FOR PAUPERS FOLLY TO THE DEPARTMENT OF PLANNING AND ZONING ON OR BEFORE AUGUST 20, 2012.
- THIS PLAN IS SUBJECT TO WAIVER PETITION WP-16-012 TO WAIVE SECTION 16.14 (C) APPROVED ON SEPTEMBER 14, 2015 SUBJECT TO THE FOLLOWING CONDITIONS:
 - THE DEVELOPER MUST SUBMIT A FINAL PLAN FOR PAUPERS FOLLY TO THE DEPARTMENT OF PLANNING AND ZONING ON OR BEFORE NOVEMBER 16, 2015.
 - THE CONDITIONS OF APPROVAL OUTLINED IN THE DEVELOPMENT ENGINEERING DIVISION'S MEMO OF SEPTEMBER 8, 2015 SHALL BE ADDRESSED WITH THE FINAL PLAN/PLAN.
- THIS SHARED SEPTIC PLAN IS PROVIDED SEPARATELY BY HYDRO-TERRA, GROUP, 1105 BUSINESS PARKWAY SOUTH, SUITE E, WESTMINSTER, MARYLAND 21157. PH: 410-861-5275, FAX: 410-861-5467, ATTN: MICHAEL HAULES, SENIOR ENGINEER. MR. CHARLES R. CROOKER, P.E. (REG. EXP. 4/22/17). THE OWNERSHIP AND MAINTENANCE RESPONSIBILITIES WILL BE PROVIDED BY HOWARD COUNTY BUREAU OF UTILITIES.
- THE 77' STREAM BUFFER FOR THE PERENNIAL STREAM RUNNING THROUGH BUILDABLE PRESERVATION PARCEL 'A' IS GRANDFATHERED UNDER SP-10-04.
- SP-10-04 WAS SIGNED PRIOR TO 10/6/13 AND THEREFORE THIS PROJECT IS GRANDFATHERED FROM MODERATE INCOME HOUSING UNIT (MIHU) REQUIREMENTS AND FEES.
- THIS PLAN IS SUBJECT TO A BA CASE NO. 16-0099 WHICH ON SEPTEMBER 8, 2016 THE HEARING EXAMINER APPROVED A REDUCTION OF THE 75-FOOT FRONT SETBACK UP TO 11 FEET FOR FOUR (4) EXISTING STRUCTURES IN THE SP-10-04 ZONING DISTRICT. THIS DECISION CONTAINS THE FOLLOWING STIPULATION: (1) THE VARIANCES SHALL APPLY ONLY TO THE FOUR STRUCTURES AS DESCRIBED IN THE PETITION AND SHOWN ON THE VARIANCE PLAN AND NOT TO ANY NEW STRUCTURES, USES OR CHANGE IN USES ON THE SUBJECT PROPERTY OR TO ANY ADDITIONS THEREON.
- DRIVEWAY CURBSET DESIGN SHALL BE VERIFIED AT BUILDING PERMIT.

- BUILDABLE PRESERVATION PARCEL 'A' OWNER: PRIVATE HOME SITE. EASEMENT HOLDER: HOWARD COUNTY, MD. USE: A SINGLE HOME SITE.
- NON-BUILDABLE PRESERVATION PARCEL 'B' OWNER: HOWARD COUNTY, MD. EASEMENT HOLDER: HOWARD COUNTY, MD. USE: FOR SHARED SEPTIC.
- A GRANDFATHERED APPROPRIATIONS PERMIT MUST BE OBTAINED FROM THE MARYLAND DEPARTMENT OF THE ENVIRONMENT TO HOWARD COUNTY HEALTH DEPARTMENT SIGNATURE OF THE FINAL PLAN.
- A PRIVATE RANGE OF ADDRESS SIGN ASSEMBLY SHALL BE FABRICATED AND INSTALLED BY HOWARD COUNTY BUREAU OF HIGHWAYS AT THE DEVELOPER'S/OWNER'S EXPENSE. CONTACT HOWARD COUNTY TRAFFIC DIVISION AT 410-313-5752 FOR DETAILS AND COST ESTIMATES. EACH NUMBER SHALL BE A MINIMUM OF 3" PLAN BLOCK LETTERING. IN ADDITION, THERE SHALL BE AN ADDRESS SIGN AT THE POINT WHERE EACH INDIVIDUAL DRIVEWAY INTERSECTS WITH THE USE-IN-COMMON DRIVEWAY.
- LOT FIELD IS BASED UPON AN APPROVED METEOROLOGICAL BALANCE STUDY THAT WAS PERFORMED FOR THE PERCOLATION CERTIFICATION PLAN AND APPROVED BY HOWARD COUNTY HEALTH DEPARTMENT ON 12/21/09.
- LOT YIELD AND BEDROOM COUNTS ARE SUBJECT TO REVIEW BY MARYLAND DEPARTMENT OF ENVIRONMENT, BUREAU OF UTILITIES AND HOWARD COUNTY HEALTH DEPARTMENT, WHEN THE WATER AND SEWER CONTRACT PLANS WITH THE SHARED SEWERAGE SYSTEM ARE SUBMITTED AT FINAL PLAN DESIGN.

| | |
|--|--|
| LOTS 1-4: USE 5 BEDROOM HOUSE (WITH 150 GPD PER BEDROOM) | USE 750 GPD/HOUSE X 4 HOUSES = 3,000 GPD |
| USE 3,000 GPD/LOT/4 LOTS = 750 S.F. EFFECTIVE AREA | |
| 3,750 S.F./3 (30% WIDE TRENCH) = 1,250 L.F. | |
| USE 1.250 L.F. (20% INCREASES FOR 1" SLOPES) = 1,317 L.F. REQ. | |
| TOTAL TRENCH L.F. REQUIRED = 1,317 | |
| PROVIDED = 1,317 L.F. (LOTS 1-4) | |
- THIS PLAN IS SUBJECT TO WAIVER PETITION WP-10-018 TO WAIVE SECTION 16.12(b)(1)(vi)(vii) AND 16.12(b)(1)(viii), APPROVED ON OCTOBER 28, 2009 SUBJECT TO THE FOLLOWING CONDITIONS:
 - THE PROPOSED USE-IN-COMMON DRIVEWAY SERVING LOTS 5 THRU 11 AND BUILDABLE PRESERVATION PARCEL 'A' SHALL BE CONSIDERED AS A PUBLIC ROAD. JUSTIFICATION FOR WAIVER: SUBSTANTIAL HANDS OR PRACTICAL DIFFICULTY, WHICH S.U.A. EXCEEDED QUOTE, TAKE CONCENTRATION AND CONSTRUCTED THE ROUTE 32/BURNINGWOODS ROAD OVERPASS. IT WAS NECESSARY FOR S.U.A. TO CONSTRUCT A SUPPORTING SLOPE FOR THE FUTURE ROADWAY. THIS SLOPE NOW EXTENDS ACROSS A PORTION OF THE OWNER'S REMAINING PROPERTY INCLUDING THE PORTION CONTAINING THE DRIVEWAY SERVING THE PARI HOUSE LOCATED TO PARCEL 'A'.
 - IN ORDER TO ADDRESS MODIFIED PERIMETER LANDSCAPING REQUIREMENTS, THE APPLICANT SHALL CONSIDER AND PUBLISH ALTERNATIVE LANDSCAPING OPTIONS SUCH AS DECORATIVE FENCING, ORNAMENTAL TREES AND HOUSING ALONG THE USE-IN-COMMON DRIVEWAY THAT COULD BE COMPARED IN A LANDSCAPE AREA LESS THAN 10 FEET IN WIDTH.
- ALL ON-SITE EXISTING STRUCTURES TO REMAIN EXCEPT FOR TWO HORSE STALLS, ONE LOCATED ON PROPOSED LOT 2 AND ONE LOCATED ON PROPOSED LOT 6.

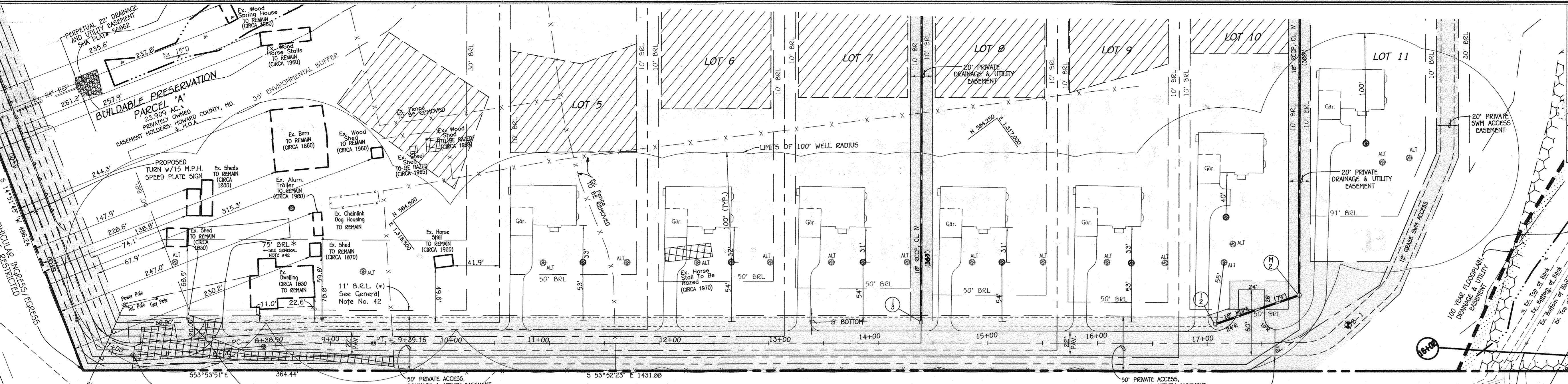
Professional certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly Licensed Professional Engineer under the laws of the State of Maryland. License No. 13204, Expiration Date 11/32/18.



Owner/Developer
BONEMAN PROPERTY INVESTMENT, LLC
12126 Maryland Route 216
Fulton, Maryland 20759
Ph: (410) 707-1976

1/12/17
DATE

TITLE SHEET
BELVEDERE ESTATES
LOTS 1-11, BUILDABLE PRESERVATION PARCEL 'A'
& NON-BUILDABLE PRESERVATION PARCEL 'B'
ZONED: RR-DEO
TAX MAP No. 22 GRID No. 8 PARCEL No. 116 & P/O No. 7
THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
DATE: OCTOBER 11, 2016
SHEET 1 OF 20



APPROVED: DEPARTMENT OF PUBLIC WORKS
 CHIEF, BUREAU OF HIGHWAYS
 DATE: 1/23/2017

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 2-7-17

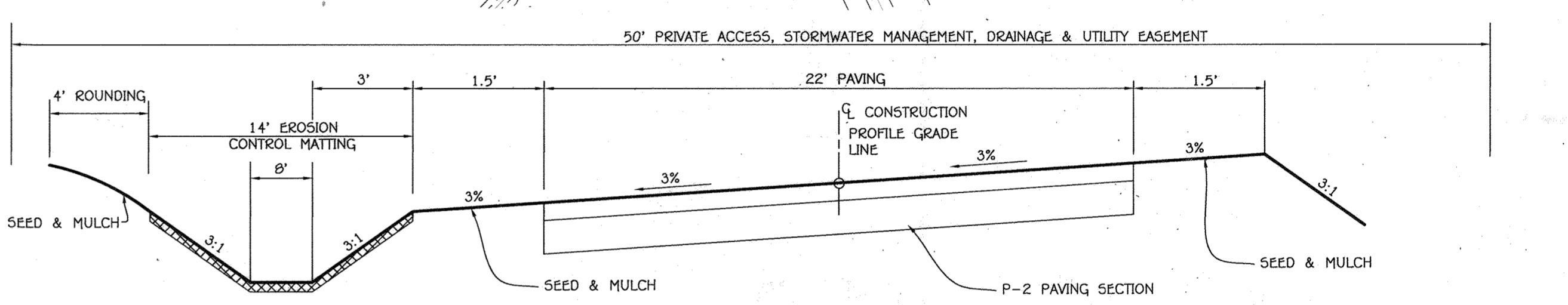
APPROVED: DEVELOPMENT ENGINEERING DIVISION
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 2-3-17

| NO. | DESCRIPTION | DATE |
|-----|---------------------------------------|---------|
| 1 | RENAME PROJECT NAME & OWNER/DEVELOPER | 9/16/17 |

PAUPERS FOLLY LANE
 PRIVATE ACCESS PLACE
 22" PAVING, 50' PRIVATE ACCESS EASEMENT

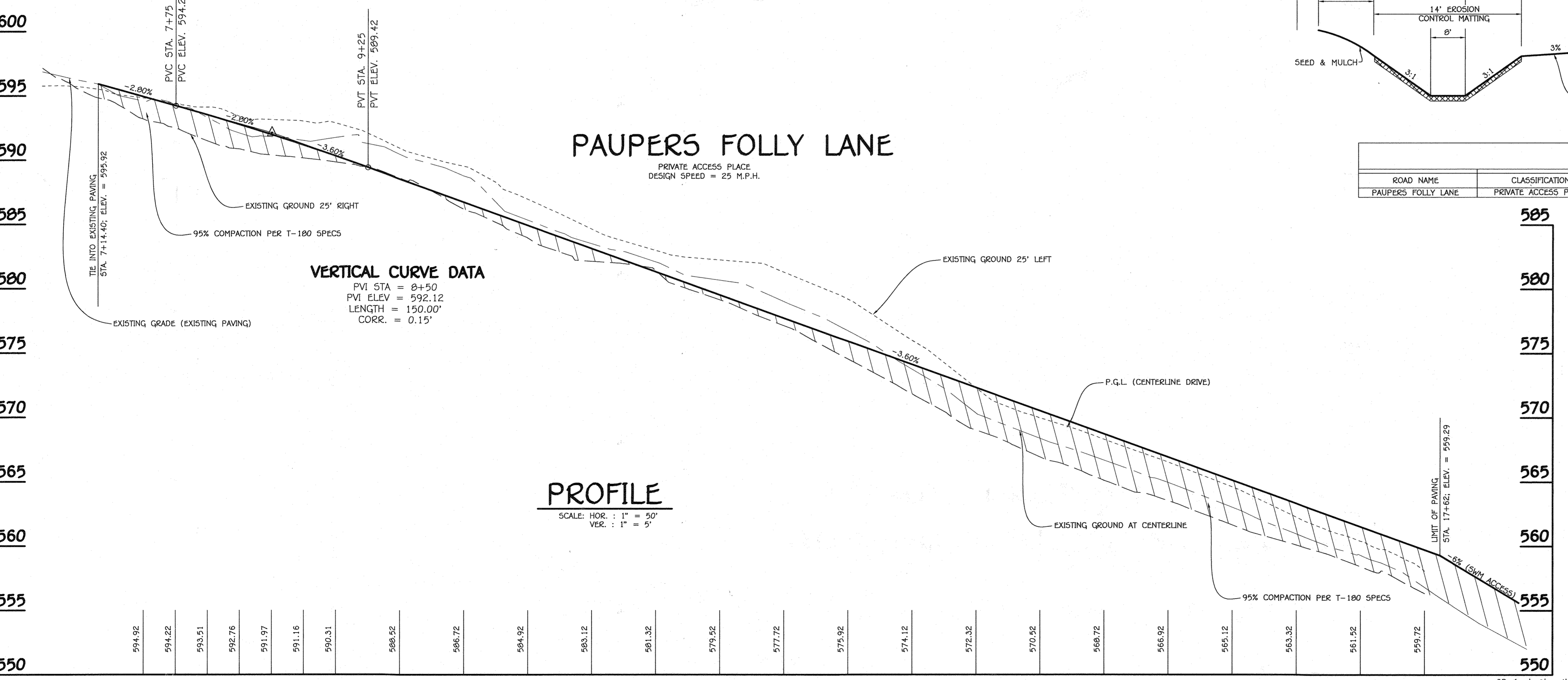
PARCEL 6
 BOARD OF EDUCATION
 HOWARD COUNTY
 LIBER 3613 / FOLIO 173

PLAN
 SCALE: 1" = 50'



TYPICAL ROADWAY SECTION
 NO SCALE

| ROADWAY INFORMATION CHART | | | | | |
|---------------------------|----------------------|--------------|--------|------------------|----------------|
| ROAD NAME | CLASSIFICATION | DESIGN SPEED | ZONING | STATION LIMITS | PAVING SECTION |
| PAUPERS FOLLY LANE | PRIVATE ACCESS PLACE | 25 M.P.H. | RR-DEO | 7+14.40 TO 17+62 | P-2 |



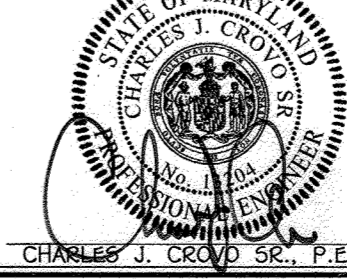
VERTICAL CURVE DATA
 PVI STA = 8+50
 PVI ELEV = 592.12
 LENGTH = 150.00'
 CORR. = 0.15'

PROFILE
 SCALE: HOR. : 1" = 50'
 VER. : 1" = 5'

| SECTION NUMBER | ROAD AND STREET CLASSIFICATION | CALIFORNIA BEARING RATIO (CBR) | | | | | |
|----------------|---|------------------------------------|---------|-----|---------|---------|-----|
| | | 3 TO <5 | 5 TO <7 | >7 | 3 TO <5 | 5 TO <7 | >7 |
| P-2 | PARKING DRIVE ABLES, RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 10 HEAVY TRUCKS PER DAY, LOCAL ROADS, ACCESS PLACE, ACCESS STREET, CURB-SIDE RESIDENTIAL | PAVEMENT MATERIAL (INCHES) | | | | | |
| | | HMA SUPERPAVE FINAL SURFACE | | | | | |
| | | HMA SUPERPAVE INTERMEDIATE SURFACE | | | | | |
| | | HMA SUPERPAVE BASE | | | | | |
| | | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| | | 2.0 | 2.0 | 2.0 | 3.5 | 2.0 | 2.0 |
| | | 8.0 | 4.0 | 3.0 | 4.0 | 4.0 | 4.0 |

AS-BUILT CERTIFICATION
 Note: There is no "AS-BUILT" information provided on this sheet.
 Date: June 16, 2017
 PAUL GERARD CANNANUGH #27020

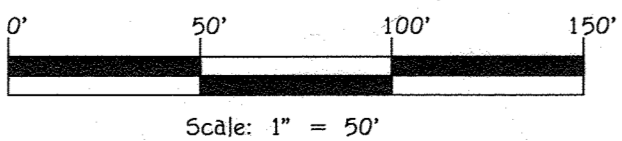
"Professional certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly Licensed Professional Engineer under the laws of the State of Maryland, License No. 13204, Expiration Date 11/3/18."



Owner/Developer
 BOKMAN PROPERTY INVESTMENT, LLC
 12126 Maryland Route 216
 Fulton, Maryland 20789
 Ph: (410) 707-1976

PAUPERS FOLLY LANE PLAN, PROFILE & ROADWAY SECTION
BELVEDERE ESTATES
 LOTS 1-11, BUILDABLE PRESERVATION PARCEL 'A' AND NON-BUILDABLE PRESERVATION PARCEL 'B'
 ZONED: RR-DEO
 TAX MAP No. 22 GRID No. 8 PARCEL No. 116 & P/O No. 7
 THIRD ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 DATE: OCTOBER 11, 2016
 SHEET 2 OF 20

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL FIRE
 CLIKOFF CITY, MARYLAND 21042
 (410) 461-3995

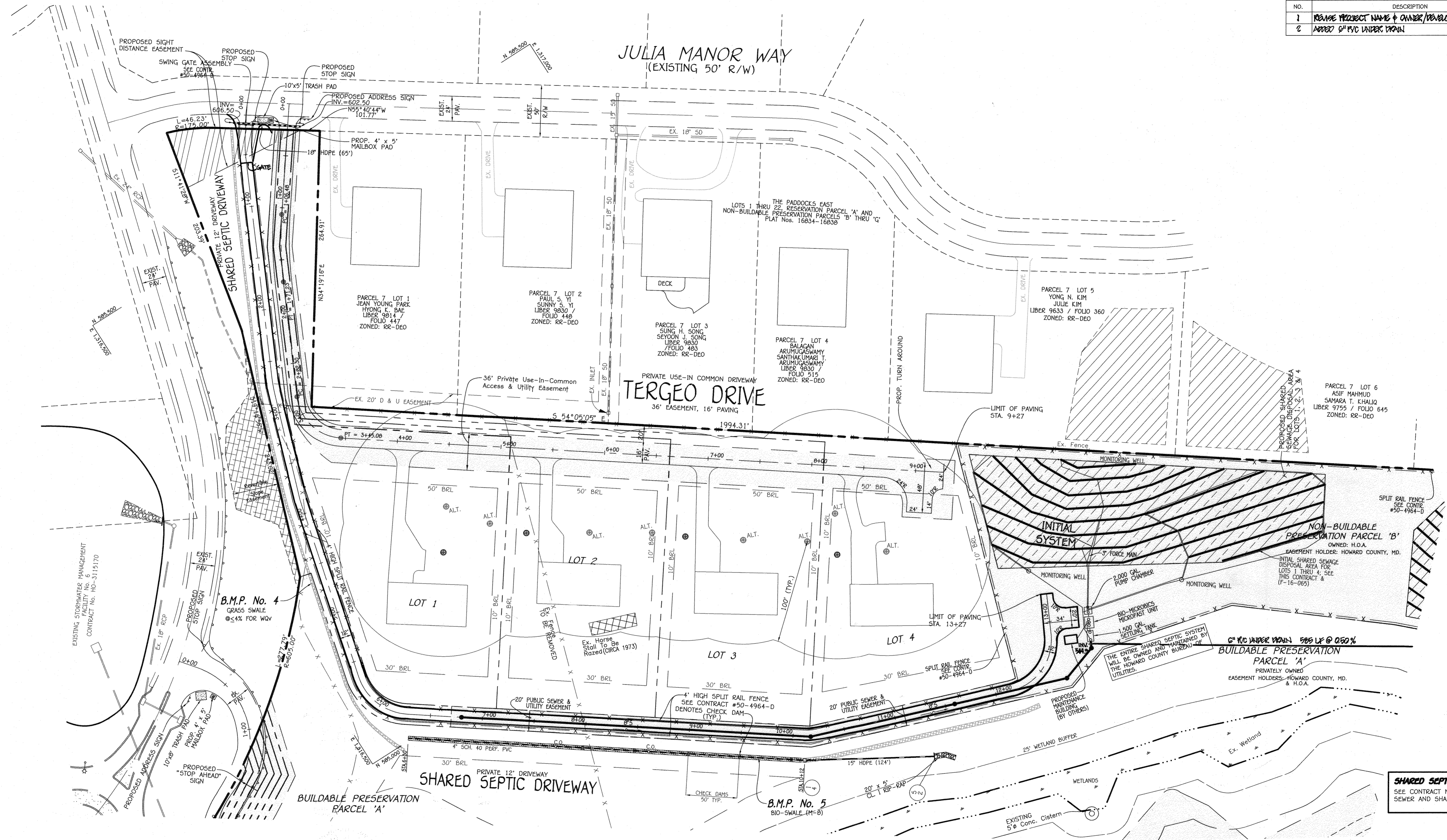


THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET F-16-065

| | | |
|---|---------------------------------------|---------|
| APPROVED: DEPARTMENT OF PUBLIC WORKS | 1/27/2017 | |
| CHIEF, BUREAU OF HIGHWAYS | DATE | |
| APPROVED: DEPARTMENT OF PLANNING AND ZONING | 2-7-17 | |
| CHIEF, DIVISION OF LAND DEVELOPMENT | DATE | |
| CHIEF, DEVELOPMENT ENGINEERING DIVISION | 2-3-17 | |
| DATE | | |
| REVISIONS | | |
| NO. | DESCRIPTION | DATE |
| 1 | REMOVE PROJECT NAME & OWNER/DEVELOPER | 3/16/17 |
| 2 | ADD 6" PVC UNDER DRAIN | 2/13/18 |

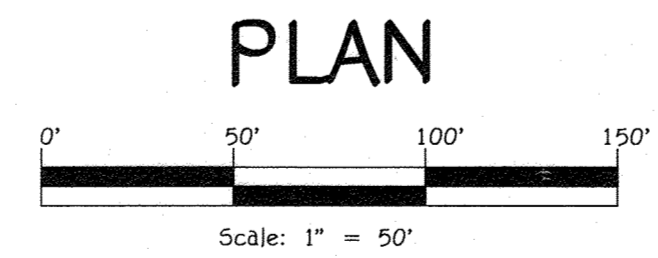
C CURVE DATA
TERGEO DRIVE
 STA. 1+06.49 TO STA. 1+71.23
 RADIUS = 350.00'
 ARC LENGTH = 64.75'
 TAN. = 32.47'
 DELTA = 10°35'59"
 CHORD = 531°09'26"W, 64.66'

C CURVE DATA
TERGEO DRIVE
 STA. 2+82.30 TO STA. 3+45.08
 RADIUS = 45.00'
 ARC LENGTH = 62.78'
 TAN. = 37.71'
 DELTA = 100°06'73"
 CHORD = 514°06'32"E, 57.81'



SHARED SEPTIC NOTE:
 SEE CONTRACT NO. 50-4964-D FOR 8" SEWER AND SHARED SEPTIC.

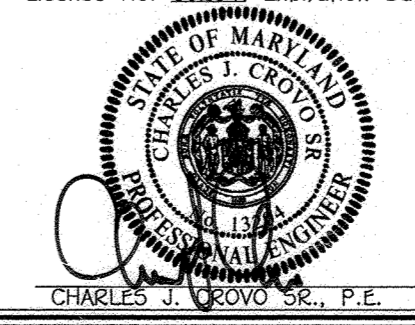
THE PURPOSE OF THIS REDLINE IS TO SHOW THE REDLINE REVISION FOR THE PROPOSED UNDER DRAIN PIPE.



AS-BUILT CERTIFICATION
 I hereby certify, by my seal, that to the best of my knowledge and belief the facilities shown on the plan was constructed as shown on this "AS-BUILT" plan meet the approved plans and specifications.

PAUL CESARO CAVANAUGH #27020
 PROFESSIONAL ENGINEER
 DATE: June 16, 2022
 4/16/24

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. 13224, Expiration Date 11/23/18.



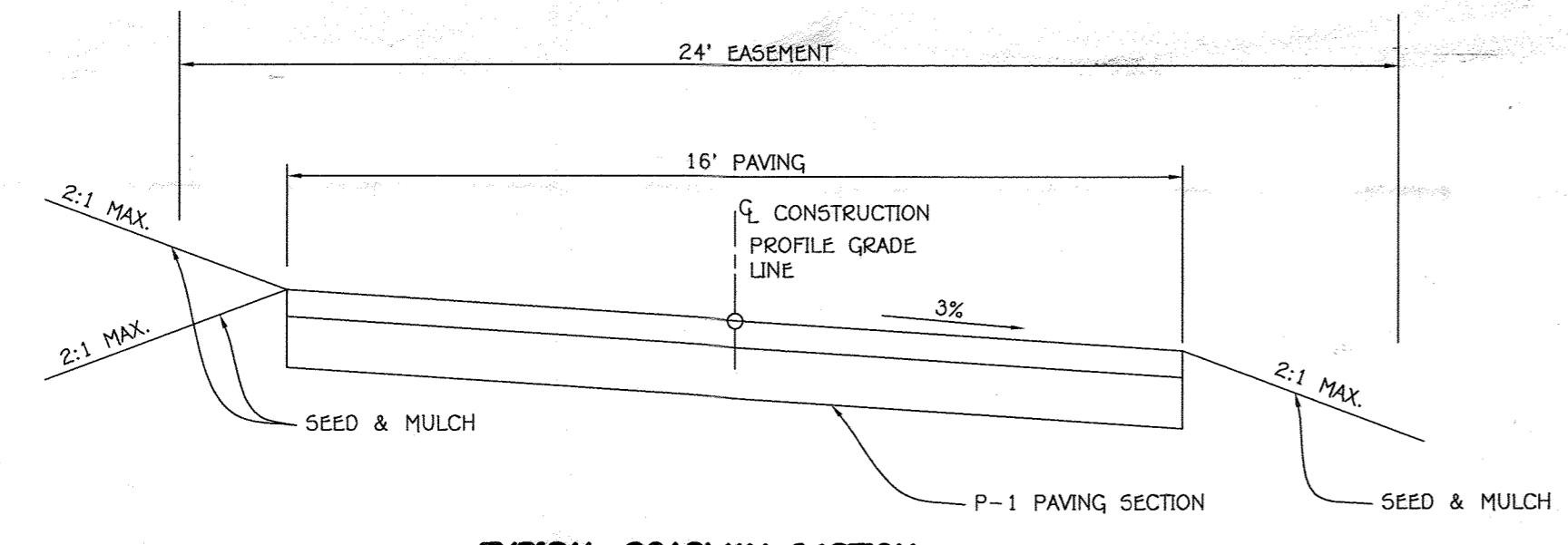
Owner/Developer
BOARDMAN PROPERTY INVESTMENT, LLC
 12126 Maryland Route 216
 Fulton, Maryland 20759
 Ph: (410) 707-1976

TERGEO DRIVE & SHARED SEPTIC DRIVEWAY PLAN
DELVEDERE ESTATES
 LOTS 1-11, BUILDABLE PRESERVATION PARCEL 'A'
 AND NON-BUILDABLE PRESERVATION PARCEL 'B'
 ZONED: RR-DEO
 TAX MAP No. 22 GRID No. 8 PARCEL No. 116 & P/O No. 7
 THIRD ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 DATE: OCTOBER 11, 2016
 SHEET 3 OF 20

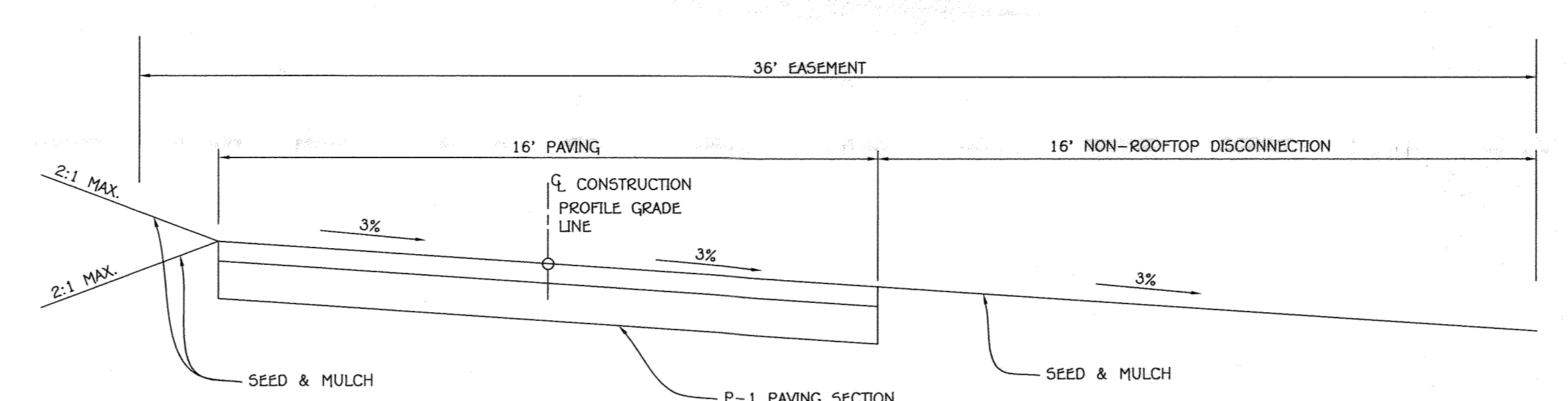
FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10672 BALTIMORE NATIONAL PIKE
 ELKTON CITY, MARYLAND 21042
 (410) 461-2995

K:\5056\PROV\71160 Boardman Property\dwg\FINALS\71160 SHEET 2-5 Road Plans.dwg, 1/10/2017 11:12:28 AM, 11

| | | |
|---|---------------------------------------|---------|
| APPROVED: DEPARTMENT OF PUBLIC WORKS | 1/27/2017 | |
| CHIEF, BUREAU OF HIGHWAYS | DATE | |
| APPROVED: DEPARTMENT OF PLANNING AND ZONING | 2-7-17 | |
| CHIEF, DIVISION OF LAND DEVELOPMENT | DATE | |
| APPROVED: DEPARTMENT OF ENGINEERING | 2-3-17 | |
| CHIEF, DEVELOPMENT ENGINEERING DIVISION | DATE | |
| REVISIONS | | |
| NO. | DESCRIPTION | DATE |
| 1 | CHANGE PROJECT NAME & OWNER/DEVELOPER | 9/19/17 |



TYPICAL ROADWAY SECTION
NO SCALE

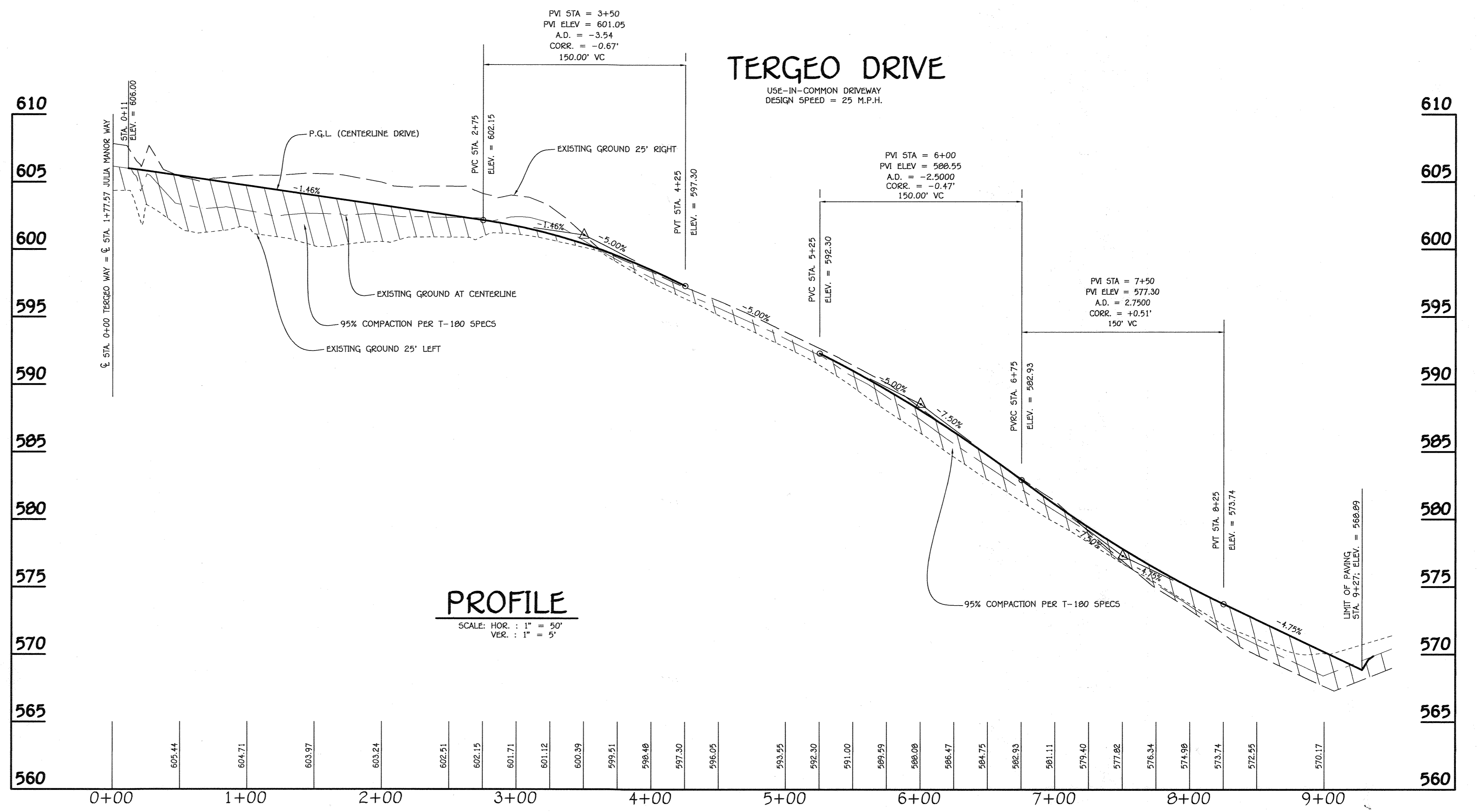


TYPICAL ROADWAY SECTION
NO SCALE

| ROADWAY INFORMATION CHART | | | | | |
|---------------------------|------------------------|--------------|--------|----------------|----------------|
| ROAD NAME | CLASSIFICATION | DESIGN SPEED | ZONING | STATION LIMITS | PAVING SECTION |
| TERGEO DRIVE | USE-IN-COMMON DRIVEWAY | 25 M.P.H. | RR-DEO | 0+00 TO 3+40 | P-1 |

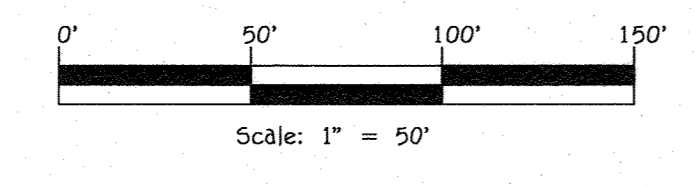
| ROADWAY INFORMATION CHART | | | | | |
|---------------------------|------------------------|--------------|--------|----------------|----------------|
| ROAD NAME | CLASSIFICATION | DESIGN SPEED | ZONING | STATION LIMITS | PAVING SECTION |
| TERGEO DRIVE | USE-IN-COMMON DRIVEWAY | 25 M.P.H. | RR-DEO | 3+40 TO 9+27 | P-1 |

| SECTION NUMBER | ROAD AND STREET CLASSIFICATION | CALIFORNIA BEARING RATIO (CBR) | | | | | | | |
|----------------|---|--|--|-----|-----|---------|-----|-----|-----|
| | | 3 TO <5 | | | | 5 TO <7 | | | |
| P-1 | PARKING BAYS: RESIDENTIAL AND NON-RESIDENTIAL PARKING DRIVE ASIDES: RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 2 HEAVY TRUCKS PER DAY | PAVEMENT MATERIAL (INCHES) | | | | | | | |
| | | 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 |
| | | HMA SUPERPAVE INTERMEDIATE SURFACE N/A | | N/A | N/A | N/A | N/A | N/A | N/A |
| | | 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) | | 8.5 | 7.0 | 5.0 | 4.0 | 4.0 | 4.0 |



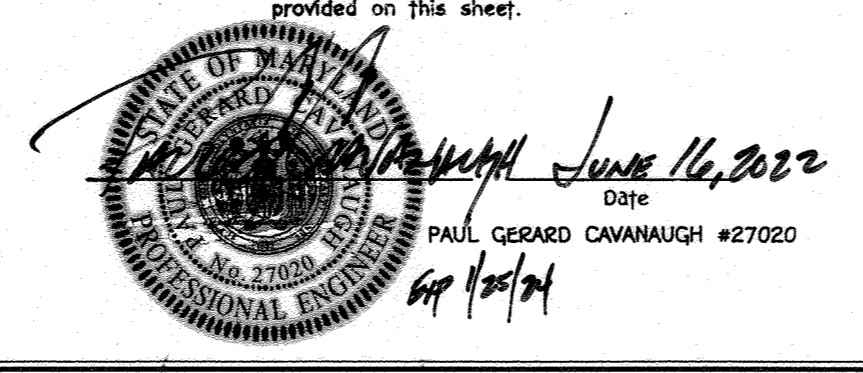
PROFILE
SCALE: HOR. : 1" = 50'
VER. : 1" = 5'

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CONTINENTAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELICOTT CITY, MARYLAND 21042
(410) 461-2899



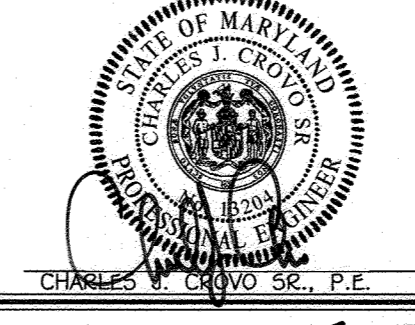
AS-BUILT CERTIFICATION

Note: There is no "AS-BUILT" information provided on this sheet.



Owner/Developer
BOARMAN PROPERTY INVESTMENT, LLC
12126 Maryland Route 216
Fulton, Maryland 20759
Ph# (410) 707-1976

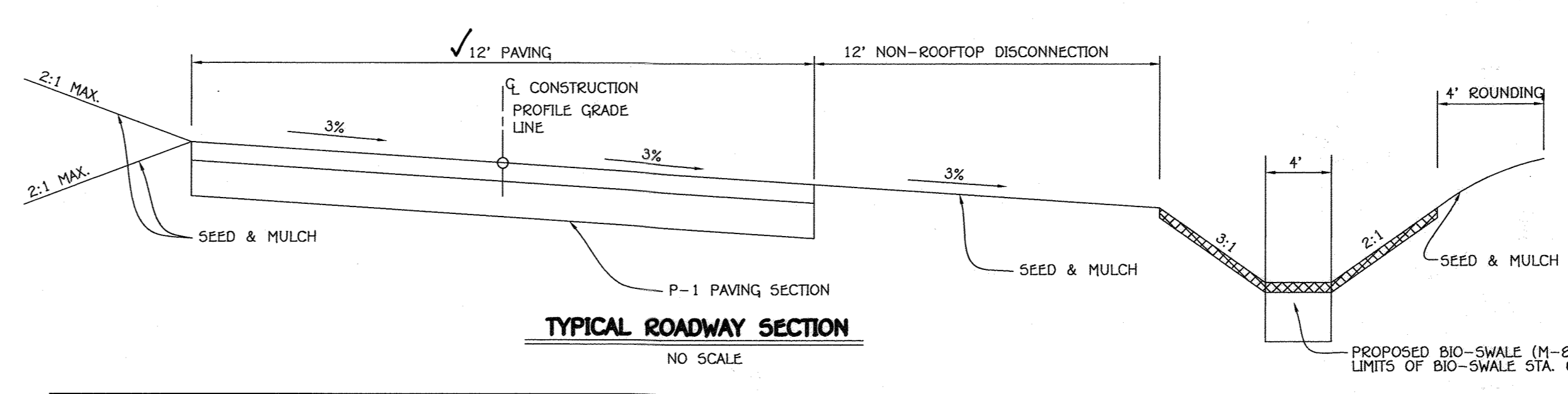
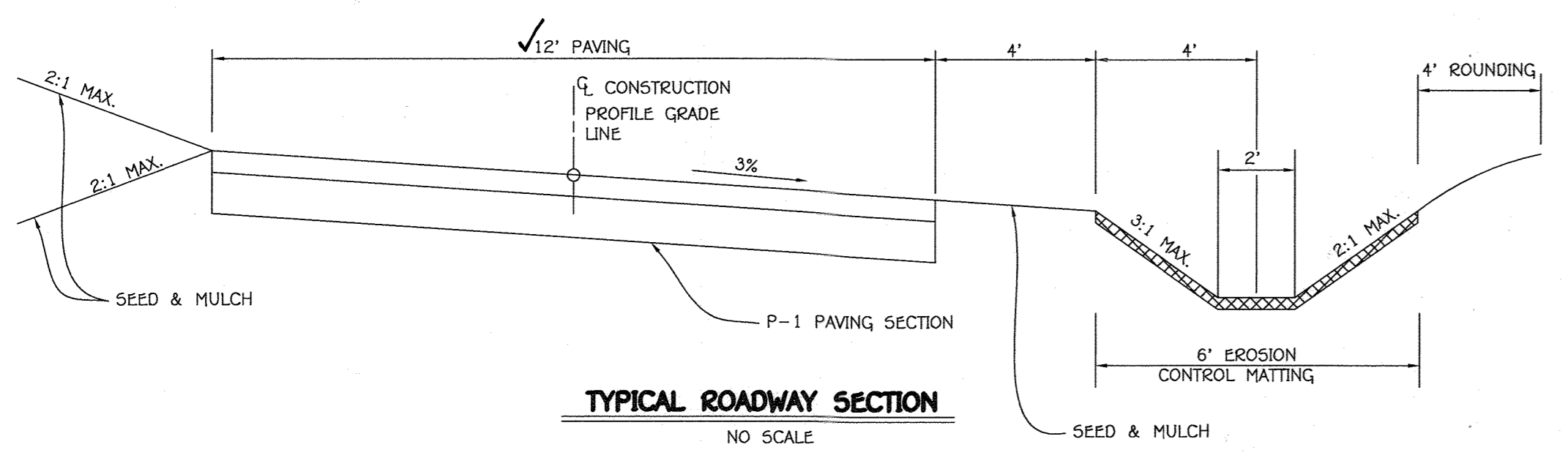
"Professional certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly Licensed Professional Engineer under the laws of the State of Maryland, License No. 133294, Expiration Date 11/3/218."



1/2/17
DATE

TERGEO DRIVE PROFILE & ROADWAY SECTIONS
BELVEUERE ESTATES
LOTS 1-11, BUILDABLE PRESERVATION PARCEL 'A'
AND NON-BUILDABLE PRESERVATION PARCEL 'B'
ZONED: RR-DEO
TAX MAP No. 22 GRID No. 8 PARCEL No. 116 & P/O No. 7
THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
DATE: OCTOBER 11, 2016
SHEET 4 OF 20

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



APPROVED: DEPARTMENT OF PUBLIC WORKS
 CHIEF, BUREAU OF HIGHWAYS *M. M. ...* 1/27/2017
 DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DIVISION OF LAND DEVELOPMENT *K. S. ...* 2-7-17
 DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION *D. P. ...* 2-3-17
 DATE

| REVISIONS | | |
|-----------|---------------------------------------|---------|
| NO. | DESCRIPTION | DATE |
| 1 | REMOVE PROJECT NAME & OWNER/DEVELOPER | 3/16/17 |

ROADWAY INFORMATION CHART

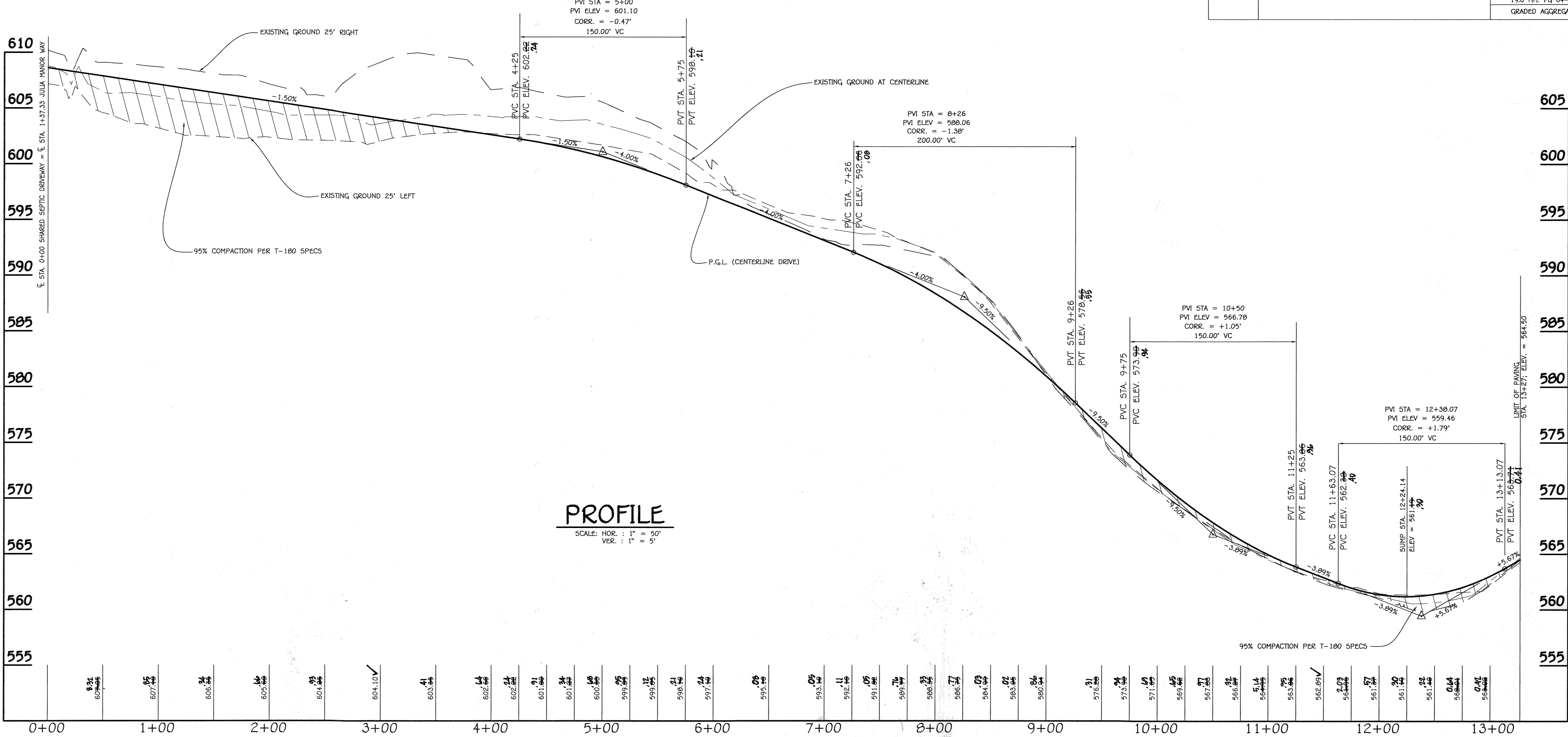
| ROAD NAME | CLASSIFICATION | DESIGN SPEED | ZONING | Q. STATION LIMITS | PAVING SECTION |
|------------------------|------------------------|--------------|--------|-------------------|----------------|
| SHARED SEPTIC DRIVEWAY | PUBLIC ACCESS DRIVEWAY | 25 M.P.H. | RR-DEO | 0+00 TO 6+12 | P-1 |

ROADWAY INFORMATION CHART

| ROAD NAME | CLASSIFICATION | DESIGN SPEED | ZONING | Q. STATION LIMITS | PAVING SECTION |
|------------------------|------------------------|--------------|--------|-------------------|----------------|
| SHARED SEPTIC DRIVEWAY | PUBLIC ACCESS DRIVEWAY | 25 M.P.H. | RR-DEO | 6+12 TO 13+27 | P-1 |

| SECTION NUMBER | ROAD AND STREET CLASSIFICATION | CALIFORNIA BEARING RATIO (CBR) | | | | | | |
|----------------|--|---|---------|------------------|---------|-----------------------|-----|-----|
| | | 3 TO <5 | 5 TO <7 | >7 | 3 TO <5 | 5 TO <7 | >7 | |
| P-1 | PARKING BAYS: RESIDENTIAL AND NON-RESIDENTIAL PARKING DRIVE ASLES: RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 2 HEAVY TRUCKS PER DAY | PAVEMENT MATERIAL (INCHES) | | MIN HMA WITH GAB | | HMA WITH CONSTANT GAB | | |
| | | 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 |
| | | HMA SUPERPAVE INTERMEDIATE SURFACE N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | | 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) | | 8.5 | 7.0 | 5.0 | 4.0 | 4.0 |

SHARED SEPTIC DRIVEWAY
(OWNED AND MAINTAINED BY THE HOWARD COUNTY BUREAU OF UTILITIES)

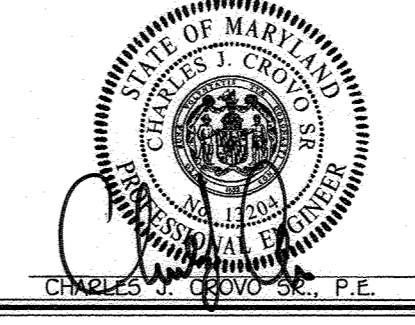


AS-BUILT CERTIFICATION

I hereby certify, by my seal, that to the best of my knowledge and belief the facilities shown on the plan was constructed as shown on this "AS-BUILT" plan meet the approved plans and specifications.

Paul Gerard Cavanaugh
 Date: June 14, 2022
 PAUL GERARD CAVANAUGH #27020
 SEP 1/25/24

"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. 13324, Expiration Date 11/3/18."

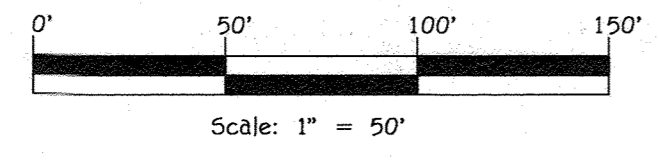


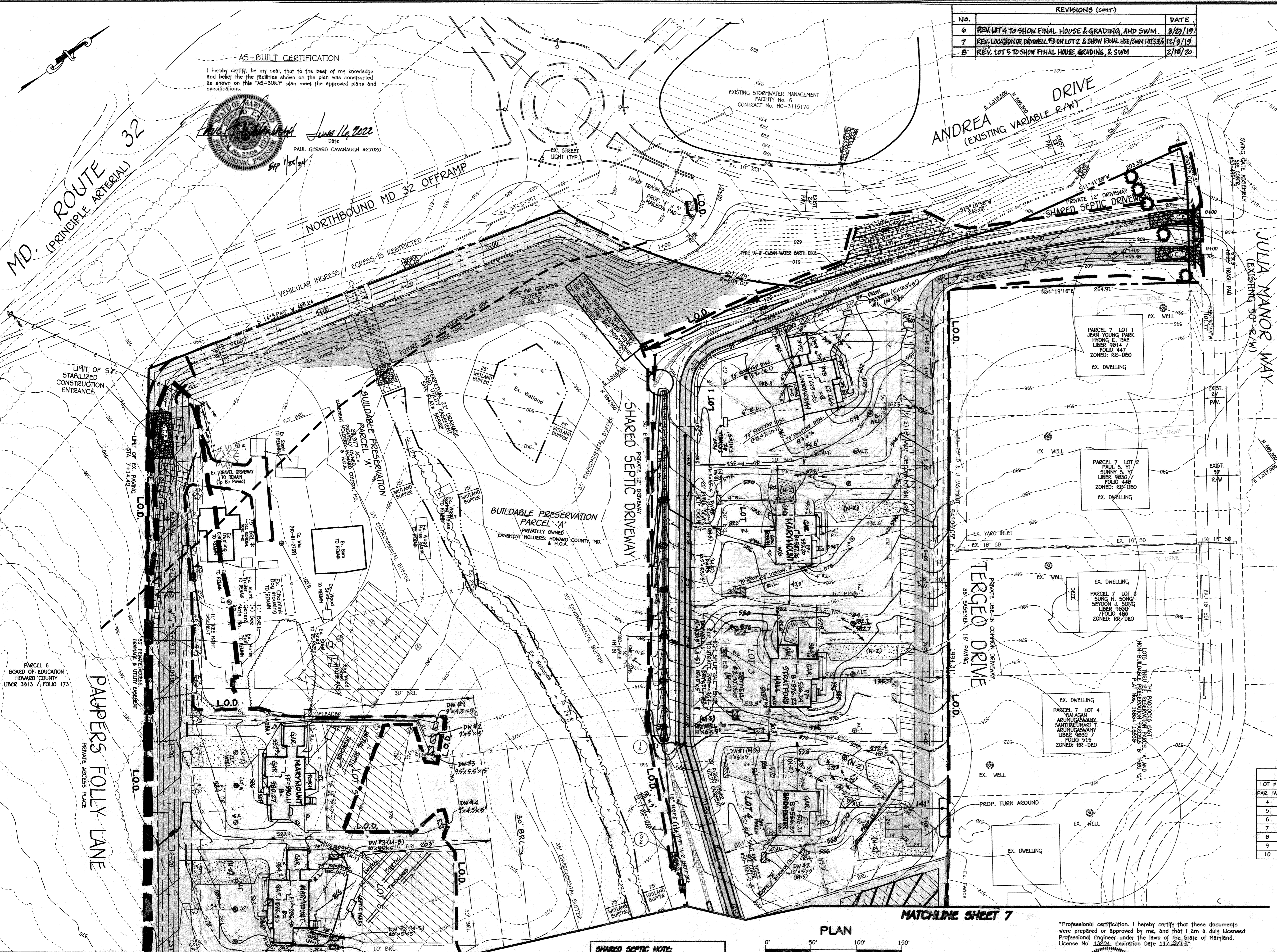
Owner/Developer
BOARMAN PROPERTY INVESTMENT, LLC
 12126 Maryland Route 216
 Fulton, Maryland 20759
 Ph: (410) 707-1976

SHARED SEPTIC DRIVEWAY PROFILE & ROADWAY SECTIONS
BELVEDERE ESTATES
 LOTS 1-11, BUILDABLE PRESERVATION PARCEL 'A' AND NON-BUILDABLE PRESERVATION PARCEL 'B'

ZONED: RR-DEO
 TAX MAP No. 22 GRID No. 9 PARCEL No. 116 & P/O No. 7
 THIRD ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 DATE: OCTOBER 11, 2016
 SHEET 5 OF 20

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 GAITHERSBURG, MARYLAND 20878
 (410) 461-2895





| REVISIONS (Cont.) | | |
|-------------------|--|---------|
| NO. | DESCRIPTION | DATE |
| 6 | REV. LOT 4 TO SHOW FINAL HOUSE & GRADING, AND SWM | 8/29/19 |
| 7 | REV. LOCATION OF DRYWELL #3 ON LOT 2 & SHOW FINAL HSE/SWM LOTS 3,6 | 12/9/19 |
| 8 | REV. LOT 5 TO SHOW FINAL HOUSE, GRADING, & SWM | 2/10/20 |

AS-BUILT CERTIFICATION
 I hereby certify, by my seal, that to the best of my knowledge and belief the facilities shown on the plan was constructed as shown on this "AS-BUILT" plan meet the approved plans and specifications.

PAUL GERARD CAVANAUGH #27020
 Date: June 16, 2022
 Seal: [Professional Engineer Seal]

DESIGN CERTIFICATION
 I hereby certify that this plan has been designed in accordance with current Maryland Erosion and Sediment Control Laws, Regulations and Standards, that it represents a practical and workable plan based on my personal knowledge of the site, and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

Designer's Signature: [Signature]
 Date: 1/31/17
 Printed Name: CHARLES J. CROW SR.
 P.E., R.L.S., or R.L.A. (circle one)
 MD Registration No. 13204

OWNER/DEVELOPER CERTIFICATION
 I/We certify that any clearing, grading, construction or development will be done pursuant to this approved erosion and sediment control plan, including inspecting and maintaining controls and that the responsible personnel involved in the construction project will have a certificate of training at a Maryland Department of the Environment (MDE) approved training program for the control on erosion and sediment prior to beginning the project. I certify right-of-entry for periodic on-site evaluation by Howard County, the Howard Soil Conservation District and/or MDE.

Owner/Developer's Signature: [Signature]
 Date: 1-3-17
 Printed Name & Title: GEORGE BOARMAN

Approved: This Plan is Approved For Soil Erosion And Sediment Control By The Howard Soil Conservation District.

Howard Soil Conservation District: [Signature]
 Date: 1/4/17

Approved: Department of Planning And Zoning
 Chief, Division of Land Development: [Signature]
 Date: 2-7-17

Chief, Development Engineering Division: [Signature]
 Date: 2-3-17

Approved: Howard County Department of Public Works
 Chief, Bureau of Highways: [Signature]
 Date: 1/27/2017

| REVISIONS | | |
|-----------|---|----------|
| NO. | DESCRIPTION | DATE |
| 1 | REVISE PROJECT NAME & OWNER/DEVELOPER | 3/6/17 |
| 2 | REVISE STREET TREE SPACING AND POSITION (OUTSIDE PARKING) | 11/09/17 |
| 3 | REV. LOT 1 TO SHOW FINAL HOUSE, GRADING, & SWM | 3/6/19 |
| 4 | REV. LOTS 3&4 TO SHOW FINAL HOUSE, GRADING, & SWM | 7/13/19 |
| 5 | REV. LOT 2 TO SHOW FINAL HOUSE, GRADING, & SWM | 8/1/19 |

LEGEND

| SYMBOL | DESCRIPTION |
|-------------------------------|-------------------------------|
| --- (dashed) | EXISTING CONTOUR 2' INTERVAL |
| --- (dashed) | EXISTING CONTOUR 10' INTERVAL |
| --- (solid) | PROPOSED CONTOUR 2' INTERVAL |
| --- (solid) | PROPOSED CONTOUR 10' INTERVAL |
| -TP-TP- | TREE PROTECTION |
| -SF-SF- | SILT FENCE |
| -SSF-SSF- | SUPER SILT FENCE |
| L.O.D. | LIMIT OF DISTURBANCE |
| R.G. | RAINGARDEN |
| [Wavy lines] | WETLANDS |
| [Dotted lines] | WETLAND BUFFER |
| [Hatched] | FLOODPLAIN |
| [Circle with cross] | WELL |
| [Star] | EXISTING TREE |
| [Line with cross] | EXISTING TREE LINE |
| [Square with cross] | PROPOSED HOUSE |
| [Diagonal lines] | 15% TO 24.99% SLOPES |
| [Steeper diagonal lines] | 25% OR GREATER SLOPES |
| [Wavy lines with cross-hatch] | FOREST CONSERVATION EASEMENT |
| [Wavy lines] | STREAM |
| [Dashed line] | STREAM BANK BUFFER |
| [Circle with dot] | EX. STREET LIGHT |

DRIVEWAY CULVERT DATA

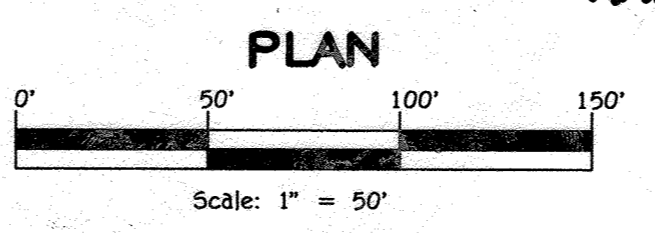
| LOT # | AREA AC. | SLOPE (%) | Q10 (cfs) | PIPE SIZE | LENGTH | INV. IN | INV. OUT | REMARKS |
|----------|----------|-----------|-----------|-----------|--------|---------|----------|-----------|
| PAR. 'A' | 0.29 | 3.41% | 0.75 | 12" CIP | 44' | 593.00 | 591.50 | EX. HOUSE |
| 4 | 1.39 | 4.00% | 4.73 | 14" CIP | 24' | 569.00 | 568.04 | |
| 5 | 0.43 | 4.00% | 1.07 | 12" CIP | 16' | 582.50 | 581.86 | |
| 6 | 0.76 | 4.00% | 1.90 | 12" CIP | 16' | 576.74 | 576.10 | |
| 7 | 1.10 | 4.00% | 2.75 | 12" CIP | 16' | 571.70 | 571.06 | |
| 8 | 1.47 | 4.00% | 3.77 | 12" CIP | 16' | 566.69 | 566.05 | |
| 9 | 1.86 | 4.00% | 4.66 | 14" CIP | 16' | 561.50 | 560.86 | |
| 10 | 2.39 | 4.00% | 5.98 | 14" CIP | 16' | 557.00 | 556.36 | |

HOUSE CONSTRUCTION NOTES:
 1. THIS HOWARD (SCD) STANDARD SEDIMENT CONTROL PLAN MAY NOT BE USED TO OBTAIN PERMITS FOR HOUSE CONSTRUCTION FOR THIS PROJECT.
 2. HOUSES MAY NOT BE BUILT USING THIS DRAWING.

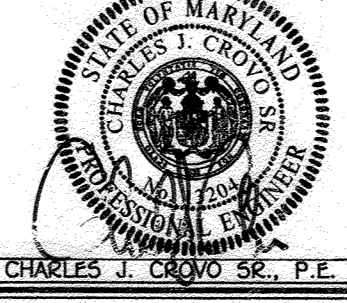
GRADING & SEDIMENT CONTROL PLAN
DELVEVERE ESTATES
 LOTS 1-11, BUILDABLE PRESERVATION PARCEL 'A' AND NON-BUILDABLE PRESERVATION PARCEL 'B'
 ZONED: RR-DEO
 TAX MAP No. 22 GRID No. 8 PARCEL No. 116 & P/O No. 7
 THIRD ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 DATE: OCTOBER 11, 2016
 SHEET 6 OF 20

SHARED SEPTIC NOTE:
 SEE CONTRACT No. 50-4964-D FOR 8" SEWER AND SHARED SEPTIC.

SEPTIC CONTROL NOTE:
 ANY EARTH DIKS INTERRUPTED BY THE INSTALLATION OF UTILITY CONSTRUCTION ARE TO BE REPAIRED IMMEDIATELY.



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. 13204, Expiration Date 11/23/13.



Owner/Developer
 CROWMAN PROPERTY INVESTMENT, LLC
 12126 Maryland Route 216
 Fulton, Maryland 20759
 Ph: (410) 707-1976

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PARK
 ELICOTT CITY, MARYLAND 21042
 (410) 461-2899

K:\SPRINT\1160 Boorman Property\Final\1160 SLY1160 SHEET 6-7 Grading Plans.dwg 1/27/2017 11:43:39 AM, 11

SEDIMENT BAFFLE DESIGN:
TRAP #1:
 LENGTH L = 139.00'
 We = (A/2)² = (12000/2)² = 77'
 We X 2 = 154'
 L1 + L2 = 132' > 154' ∴ OK
 TOP OF BAFFLE BOARD = 556.10

TRAP #2:
 LENGTH L = 85.9'
 We = (A/2)² = (7840/2)² = 63'
 We X 2 = 126'
 L1 + L2 = 129' > 126' ∴ OK
 TOP OF BAFFLE BOARD = 547.21

TEMPORARY SEDIMENT TRAP No. 2
S.O.S.T.
 INITIAL D.A. = 1.35 Ac.
 FINAL D.A. = 4.60 Ac.
 STORAGE REQUIRED
 WET = 1800 x 4.60 = 8280 CUFT.
 DRY = 1800 x 4.60 = 8280 CUFT.
 STORAGE PROVIDED
 WET = 8200 CUFT. @ ELEV. 547.21
 DRY = 11,021 CUFT. @ ELEV. 548.75
 BOTTOM ELEV. = 546.00
 STORAGE DEPTH = 1.0' (WET), 2.20' (DRY)
 TOP OF EMBANKMENT = 552.00
 CLEAN OUT ELEV. = 546.50
 WEIR CREST ELEV. = 548.80
 WEIR LENGTH = 20'
 1 YR. EXISTING Q = 0.05 CFS
 STORE THE 1-YEAR STORM IN THE TRAP AT ELEV. 548.75

HOUSE CONSTRUCTION NOTES:
 1. THIS HOWARD (SCD) STANDARD SEPTIC CONTROL PLAN MAY NOT BE USED TO OBTAIN PERMITS FOR HOUSE CONSTRUCTION FOR THIS PROJECT.
 2. HOUSES MAY NOT BE BUILT USING THIS DRAWING.

SHARED SEPTIC NOTE:
 SEE CONTRACT No. 50-4964-D FOR 8' SEWER AND SHARED SEPTIC.

SEDIMENT CONTROL NOTE:
 ANY EARTH DIKES INTERRUPTED BY THE INSTALLATION OF UTILITY CONSTRUCTION ARE TO BE REPAIRED IMMEDIATELY.

TEMPORARY SEDIMENT TRAP NOTE:
 THE SHARED SEWAGE DRAINFIELD MUST BE FENCED OFF PRIOR TO CONSTRUCTION OF THE TEMPORARY SEDIMENT TRAP AND REMAIN IN PLACE DURING ITS USE AND ULTIMATE REMOVAL TO PROTECT THE DISPOSAL AREA FROM CONSTRUCTION ACTIVITY.

LEGEND

| SYMBOL | DESCRIPTION |
|------------------------------|-------------------------------|
| --- | EXISTING CONTOUR 2' INTERVAL |
| --- | EXISTING CONTOUR 10' INTERVAL |
| --- | PROPOSED CONTOUR 2' INTERVAL |
| --- | PROPOSED CONTOUR 10' INTERVAL |
| -TP-TP- | TREE PROTECTION |
| -SF-SF- | SILT FENCE |
| -SSF-SSF- | SUPER SILT FENCE |
| L.O.D. | LIMIT OF DISTURBANCE |
| R.G. | RAINGARDEN |
| WETLANDS | WETLANDS |
| WETLAND BUFFER | WETLAND BUFFER |
| FLOODPLAIN | FLOODPLAIN |
| WELL | WELL |
| EXISTING TREE | EXISTING TREE |
| EXISTING TREE LINE | EXISTING TREE LINE |
| PROPOSED HOUSE | PROPOSED HOUSE |
| 15% TO 24.99% SLOPES | 15% TO 24.99% SLOPES |
| 25% OR GREATER SLOPES | 25% OR GREATER SLOPES |
| FOREST CONSERVATION EASEMENT | FOREST CONSERVATION EASEMENT |
| STREAM | STREAM |
| STREAM BANK BUFFER | STREAM BANK BUFFER |
| EX. STREET LIGHT | EX. STREET LIGHT |

DESIGN CERTIFICATION
 I hereby certify that this Plan has been designed in accordance with the current Maryland Erosion and Sediment Control Laws, Regulations and Standards, that it represents a Practical and Workable Plan Based on My Personal Knowledge of the Site, and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

Designer's Signature: *Charles J. Cavanaugh*
 Printed Name: **CHARLES J. CAVANAUGH**
 Registration No. **13304**
 P.E., R.L.S., or R.L.A. (circle one)

OWNER/DEVELOPER CERTIFICATION
 I/We certify that any clearing, grading, construction or development will be done pursuant to this approved Erosion and Sediment Control Plan, including Inspecting and Maintaining Controls and that the Responsible Personnel Involved in the Construction Project will have a Certificate of Training At A Maryland Department of the Environment (MDE) Approved Training Program For The Control On Erosion And Sediment Prior To Beginning The Project. I Certify Right-of-entry For Periodic On-site Evaluation By Howard County, The Howard Soil Conservation District And/or MDE.

Owner's/Developer's Signature: *George Boardman*
 Printed Name & Title: **GEORGE BOARDMAN**
 Date: **1-3-17**

Approved: This Plan is Approved For Soil Erosion And Sediment Control By The Howard Soil Conservation District.
 Howard Soil Conservation District
 Date: **1/17/17**

Approved: Department of Planning And Zoning
 Chief, Division Of Land Development
 Date: **2-7-17**

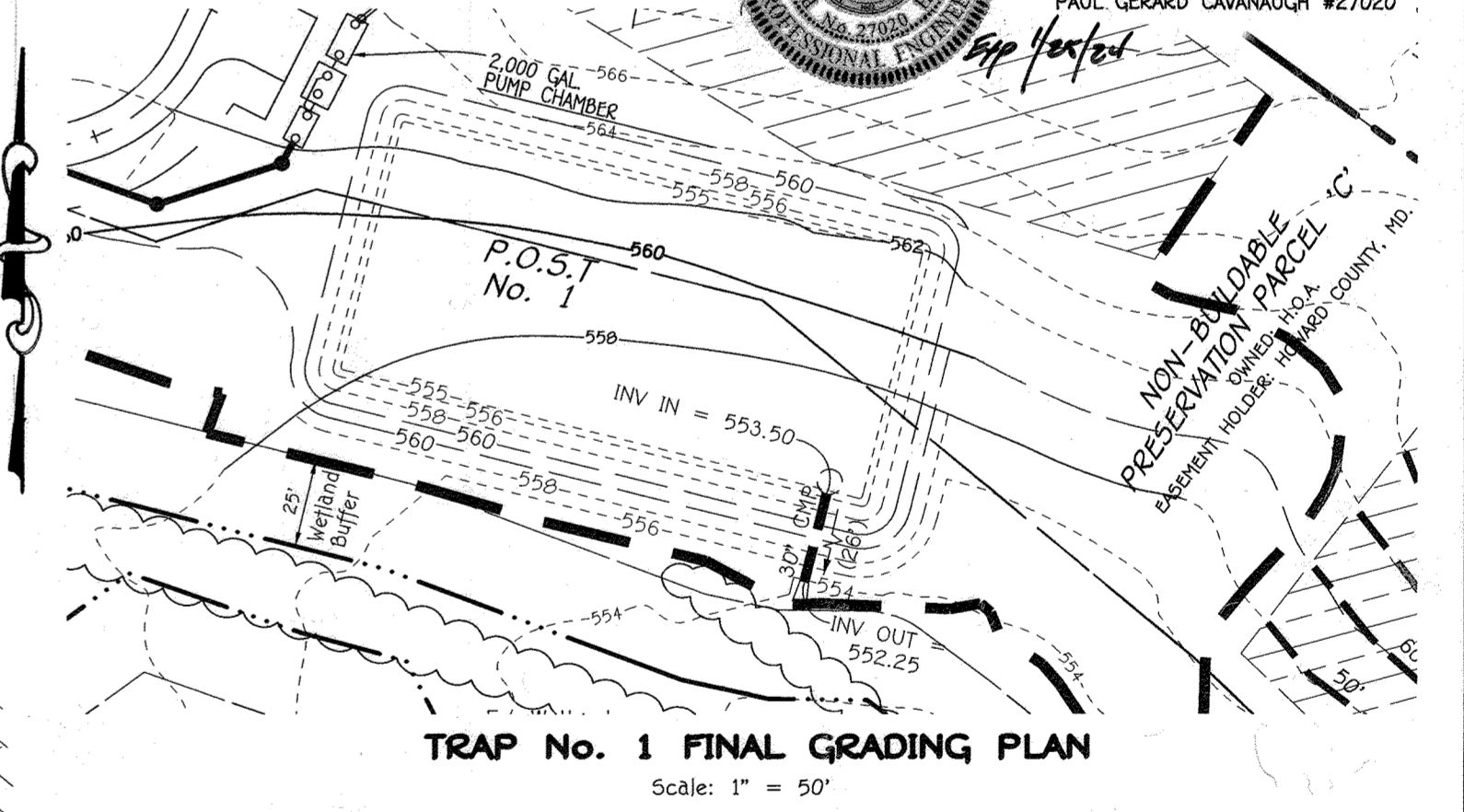
Approved: Howard County Department of Public Works
 Chief, Bureau Of Highways
 Date: **1/27/2017**

REVISIONS

| NO. | DESCRIPTION | DATE |
|-----|---|----------|
| 1 | REMOVE PROJECT NAME & OWNER/DEVELOPER | 3/6/17 |
| 2 | REMOVE EXISTING 18" ALUMINUM DOWNSPOUTS (PAUPERS FOLLY LANE) | 11/29/17 |
| 3 | REMOVE 6" PVC UNDER DRAIN | 9/19/18 |
| 4 | REV. LOTS 8 & 10 TO SHOW FINAL HOUSE, GRADING & SWIM | 7/15/19 |
| 5 | REV. LOT 11 TO SHOW FINAL HOUSE, GRADING & R/OF LEADERS TO M-6 | 8/29/19 |
| 6 | REV. LOT 11 TO SHOW FINAL HOUSE, GRADING; REV. GRADING ON ADJACENT PRES. PAR. A FOR BENEFIT OF LOT 11 | 12/19/19 |
| 7 | REV. LOTS 7 & 8 TO SHOW FINAL HOUSE, GRADING & SWIM | 3/8/20 |
| 8 | REV. LOTS 9 & 10 TO SHOW FINAL HOUSE, GRADING & SWIM | 6/23/20 |

AS-BUILT CERTIFICATION
 I hereby certify, by my seal, that to the best of my knowledge and belief the facilities shown on the plan was constructed as shown on this "AS-BUILT" plan meet the approved plans and specifications.

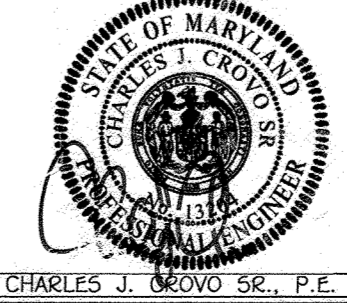
Date: **June 16, 2020**
 PAUL GERARD CAVANAUGH #27020
 Professional Engineer



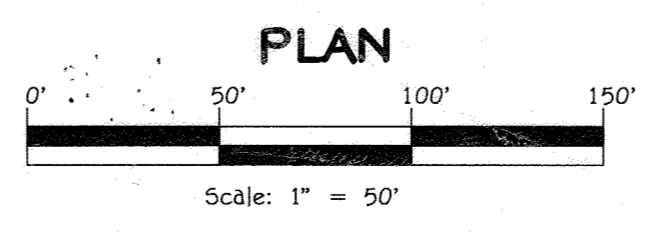
THE PURPOSE OF THIS RECLINE IS TO SHOW THE RECLINE REASON FOR THE PROPOSED UNDER DRAIN PIPE.

NOTE: SEE SHEET 10 FOR FINAL GRADING WHEN SEDIMENT TRAP #2 IS REMOVED.

"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. 13304, Expiration Date 11/3/218."

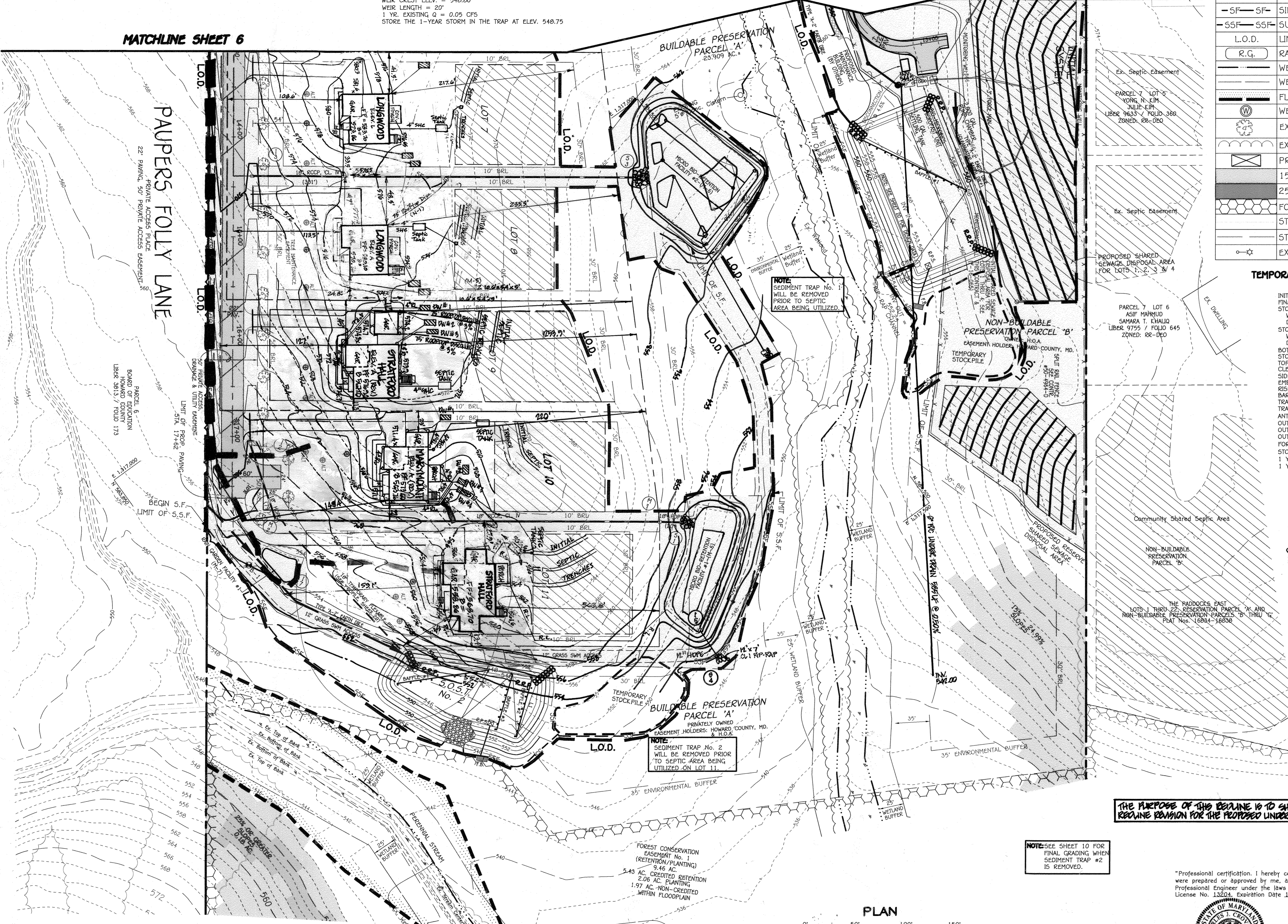


Owner/Developer
BOARDMAN PROPERTY INVESTMENT, LLC
 12126 Maryland Route 216
 Fulton, Maryland 20759
 Ph# (410) 707-1976



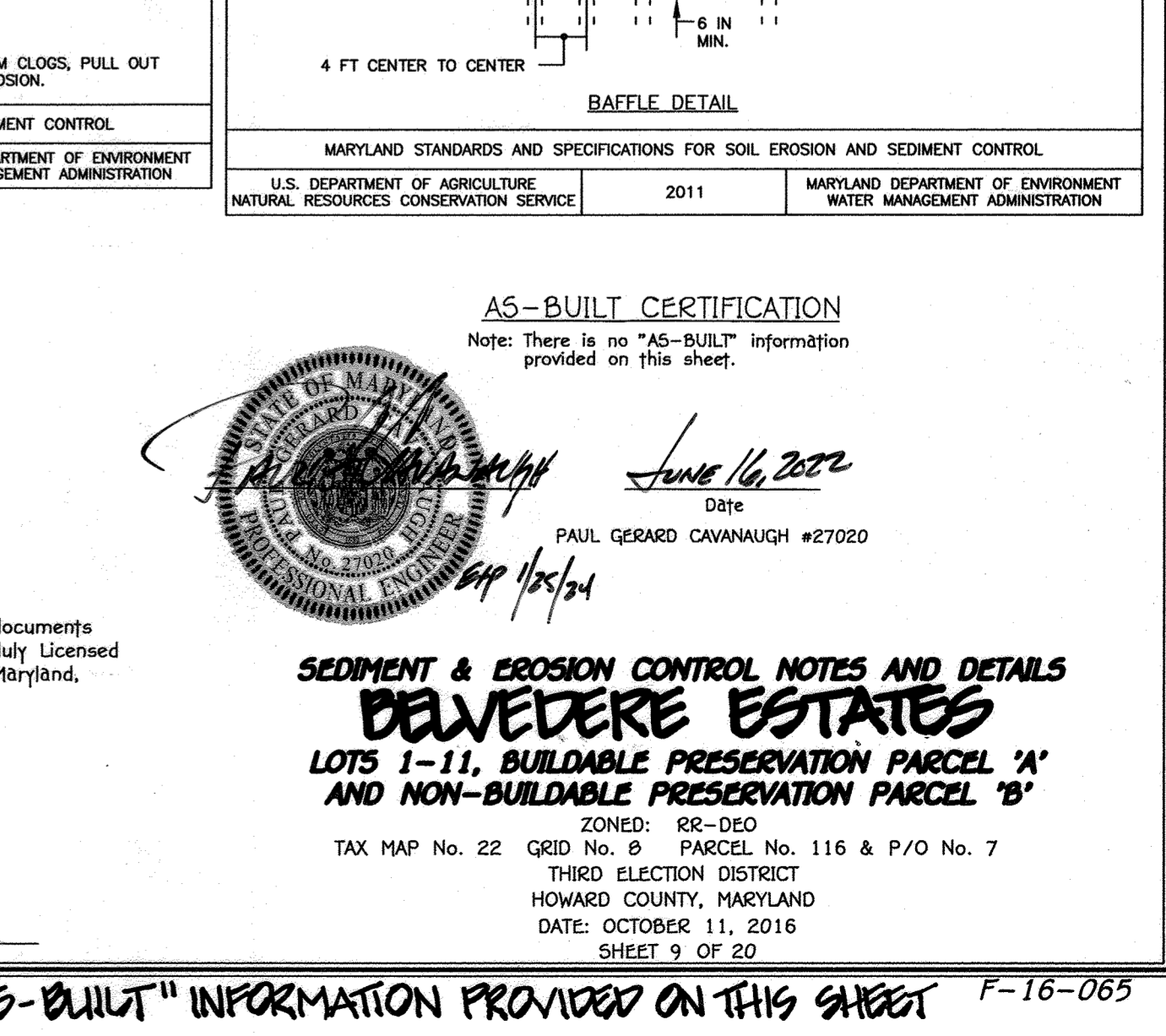
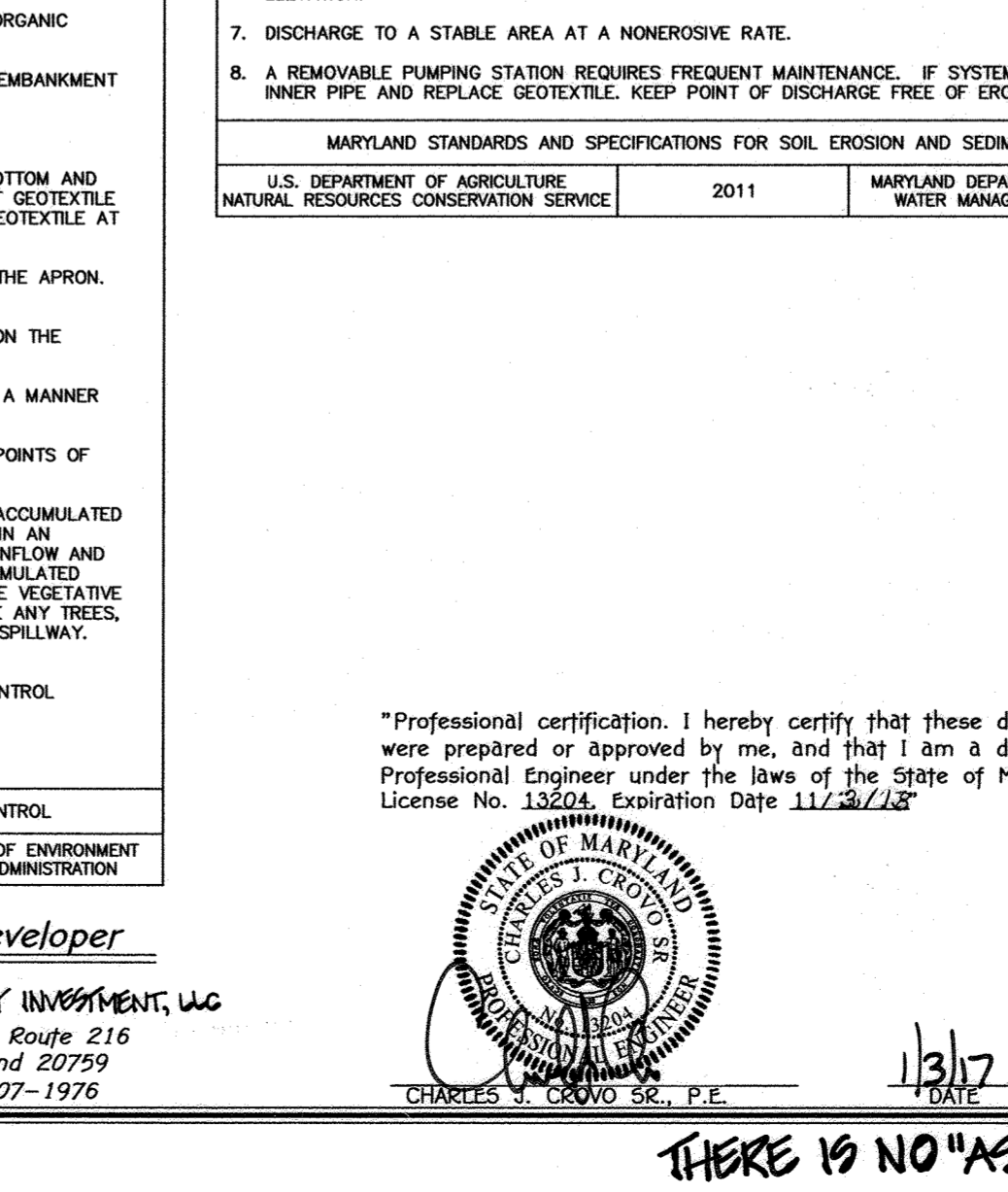
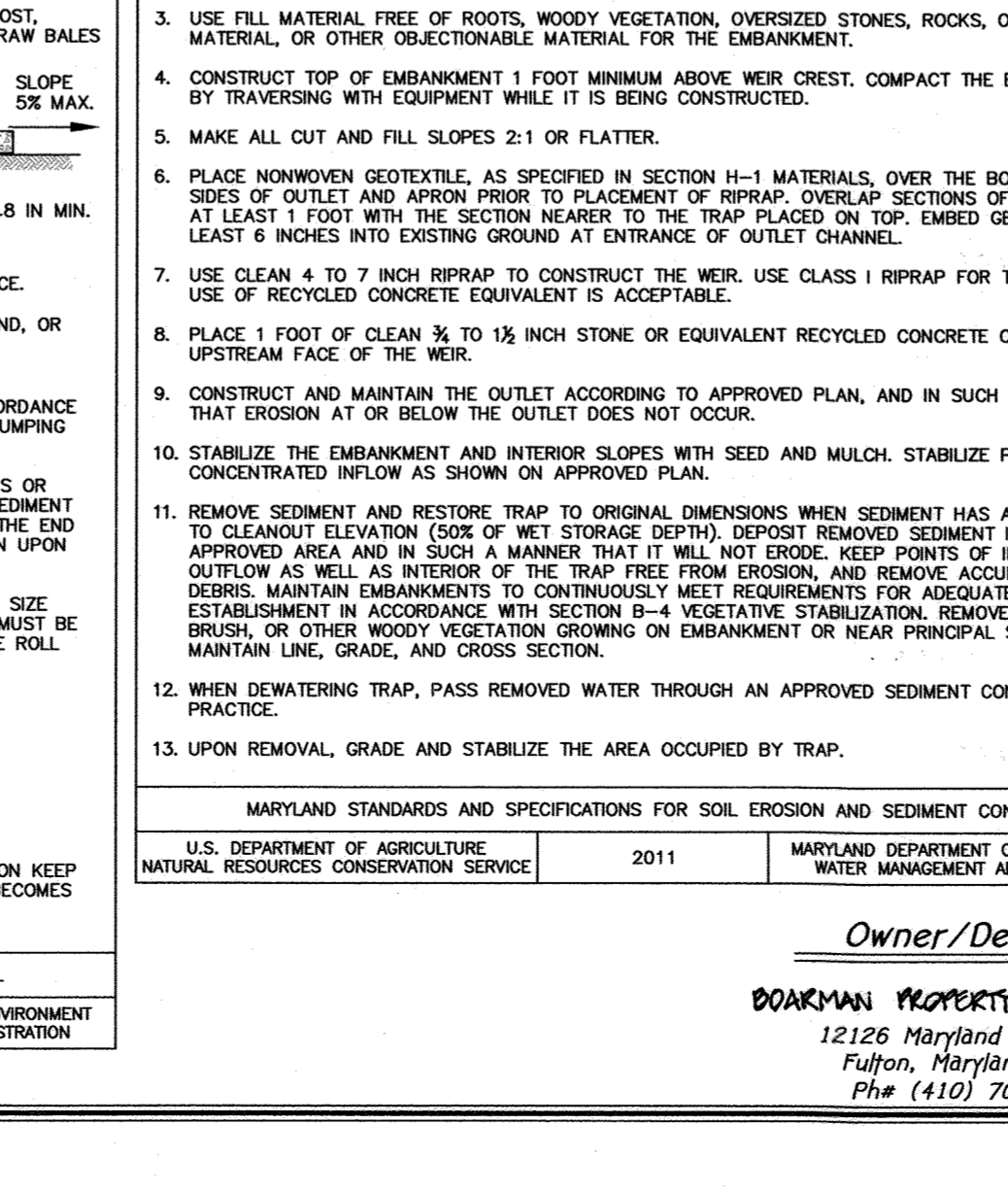
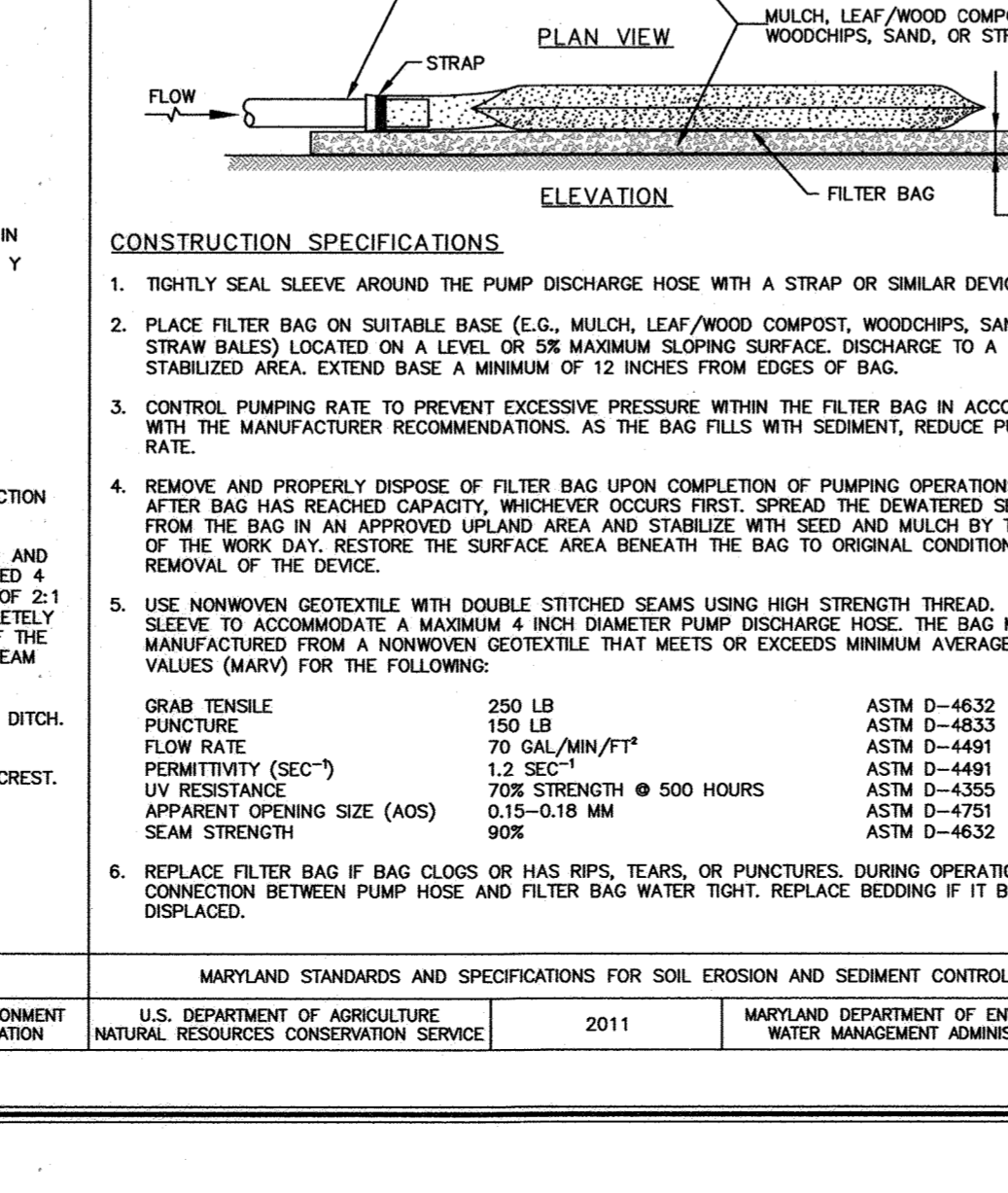
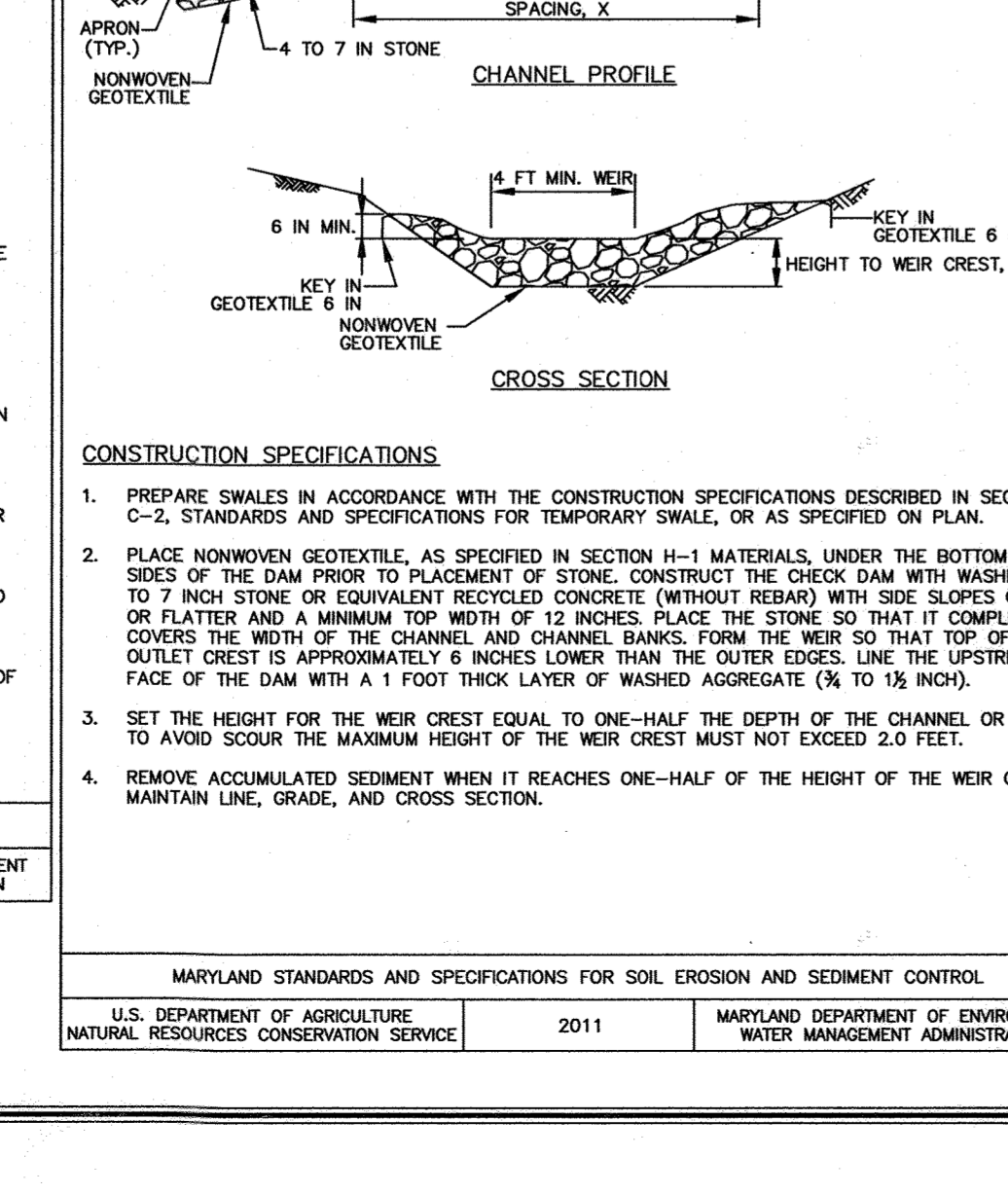
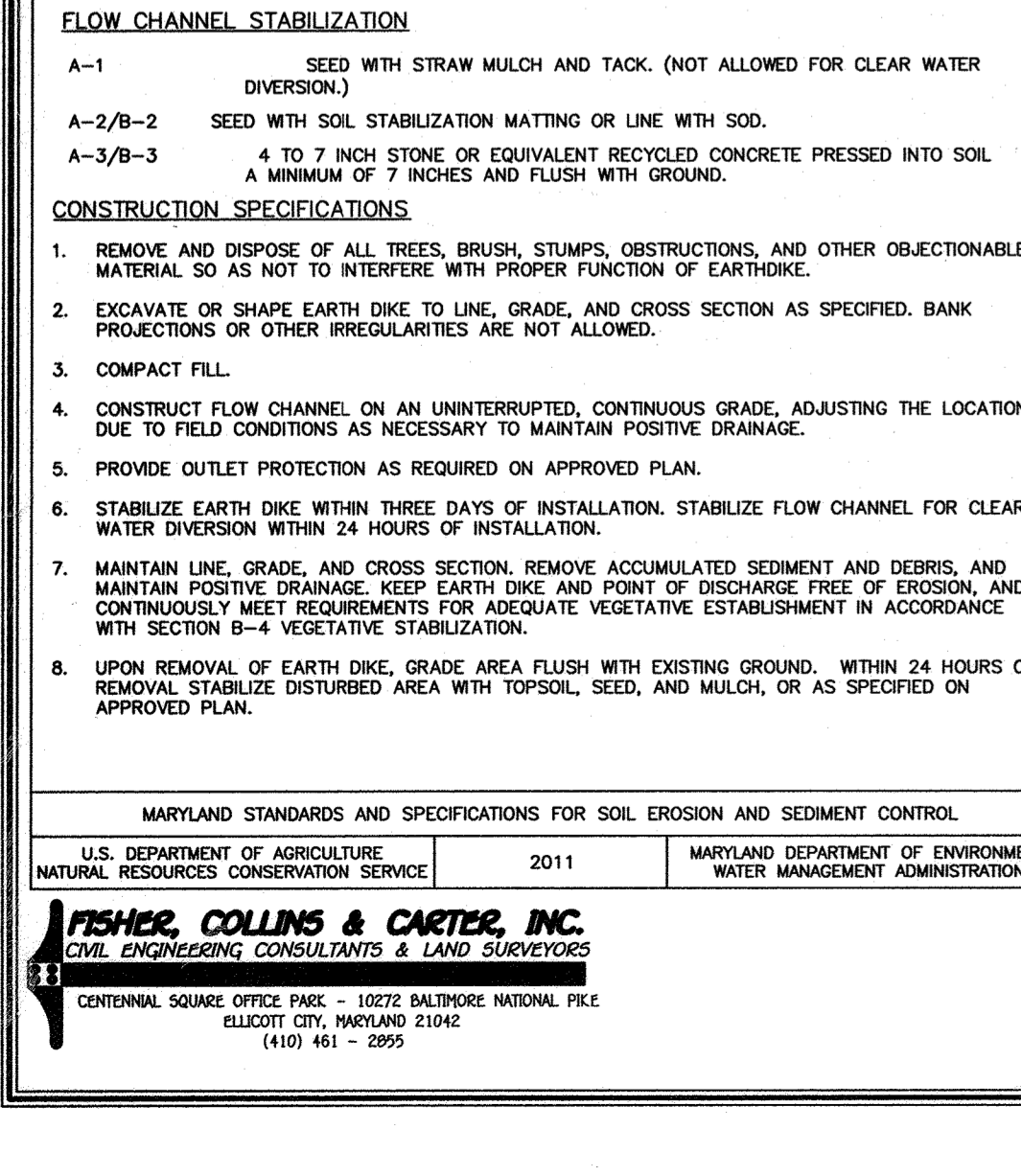
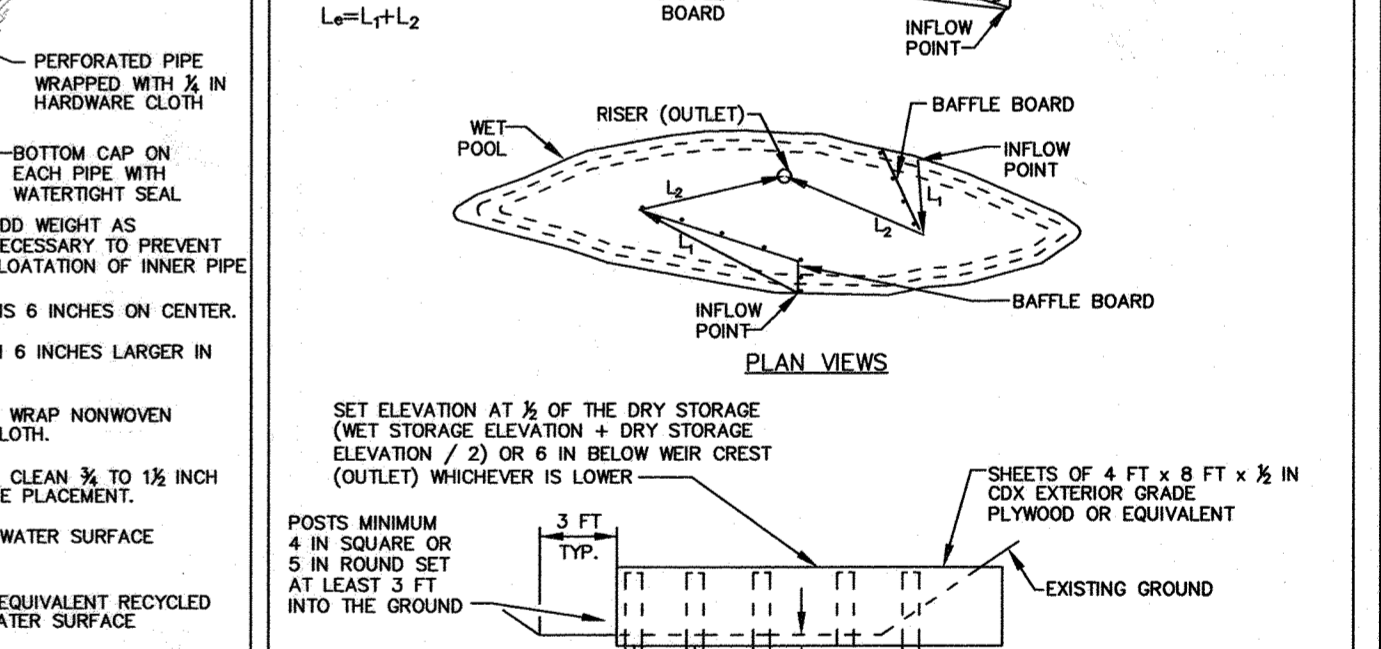
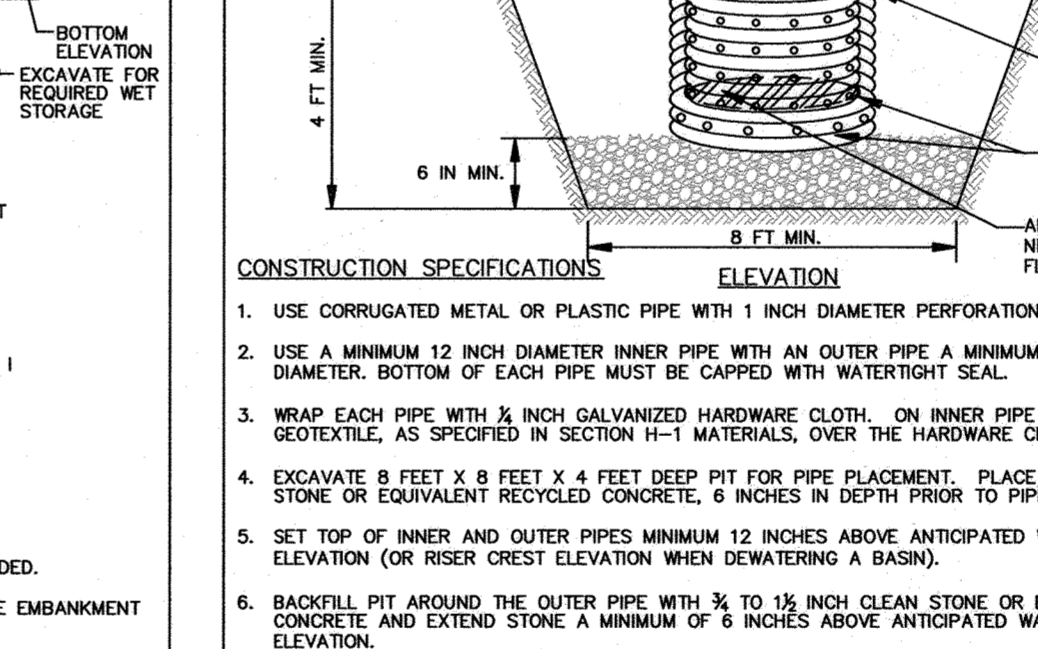
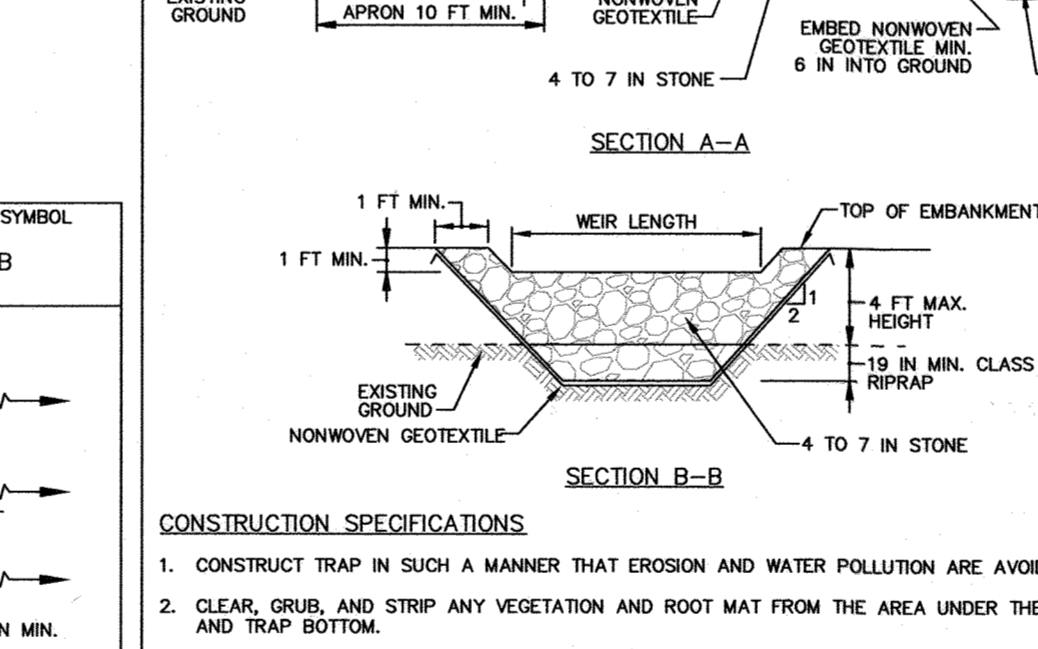
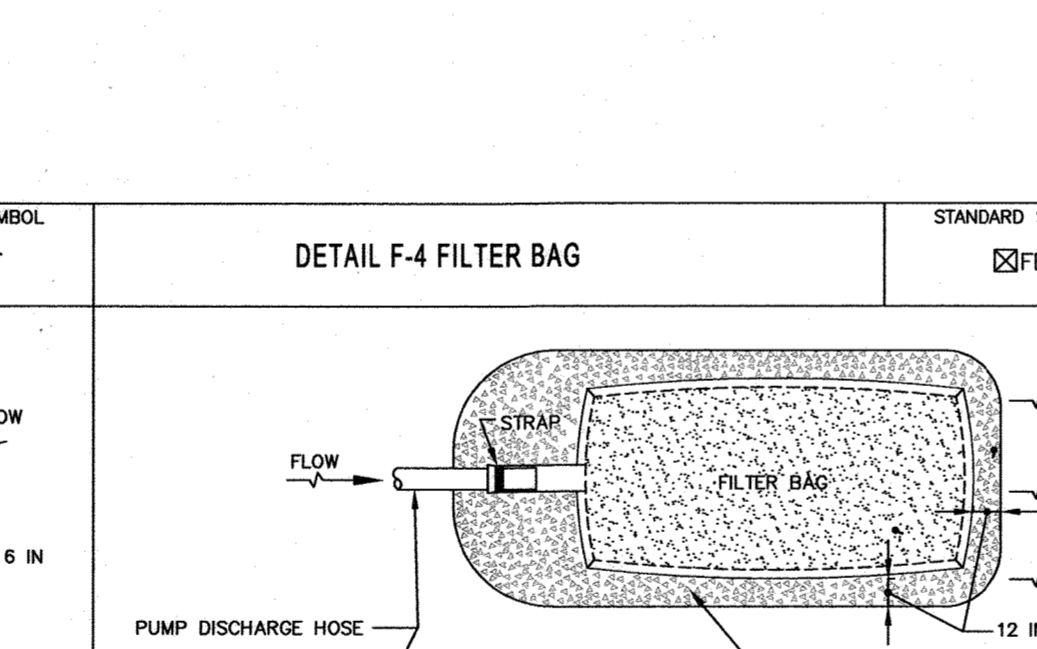
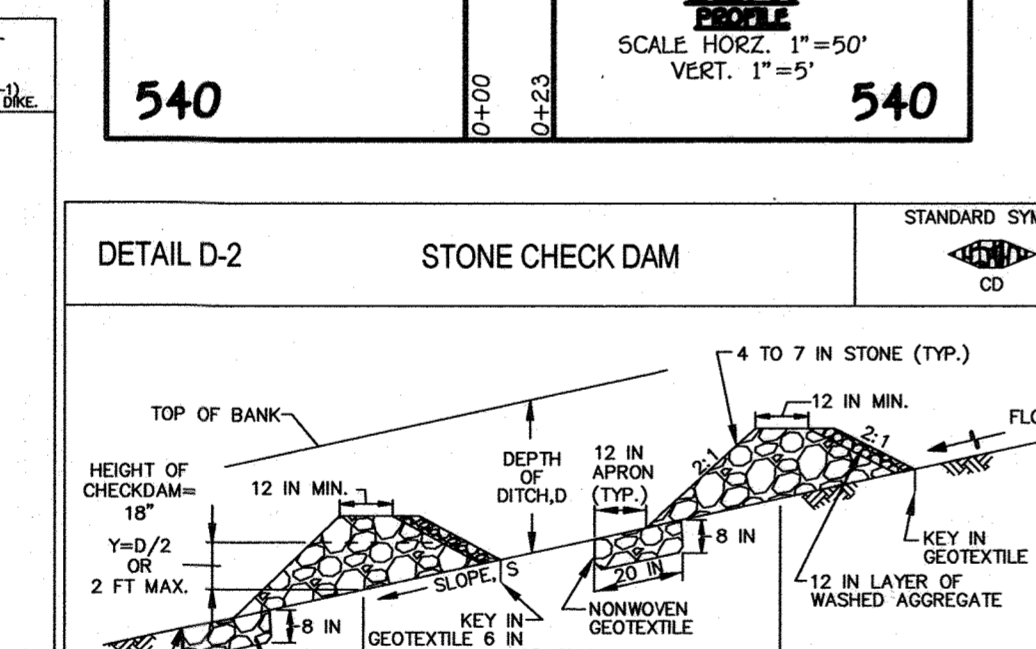
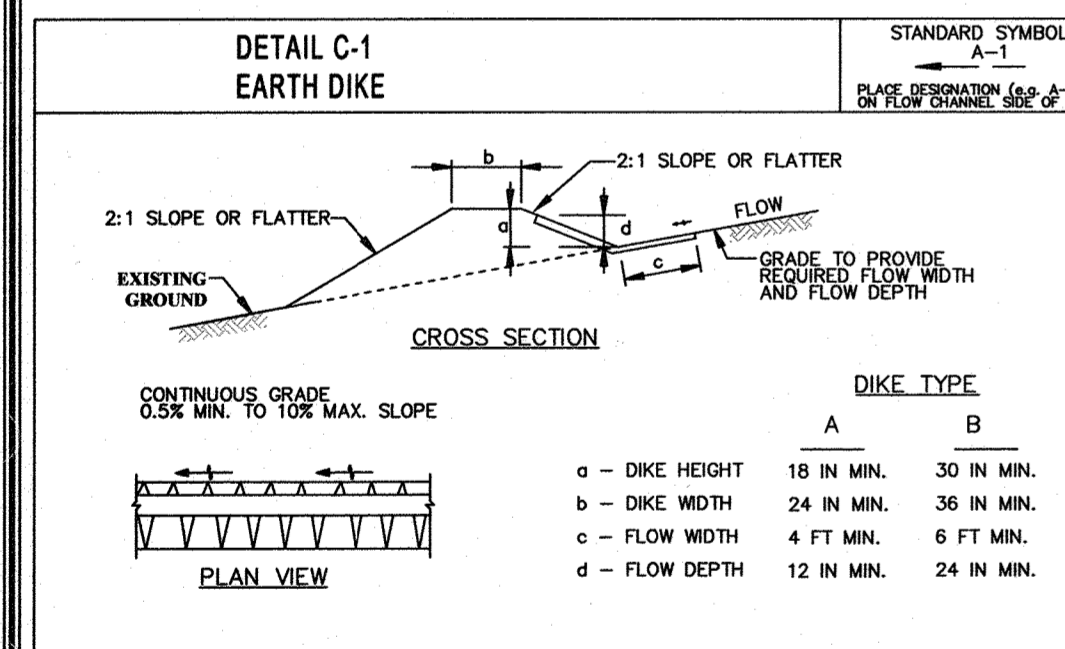
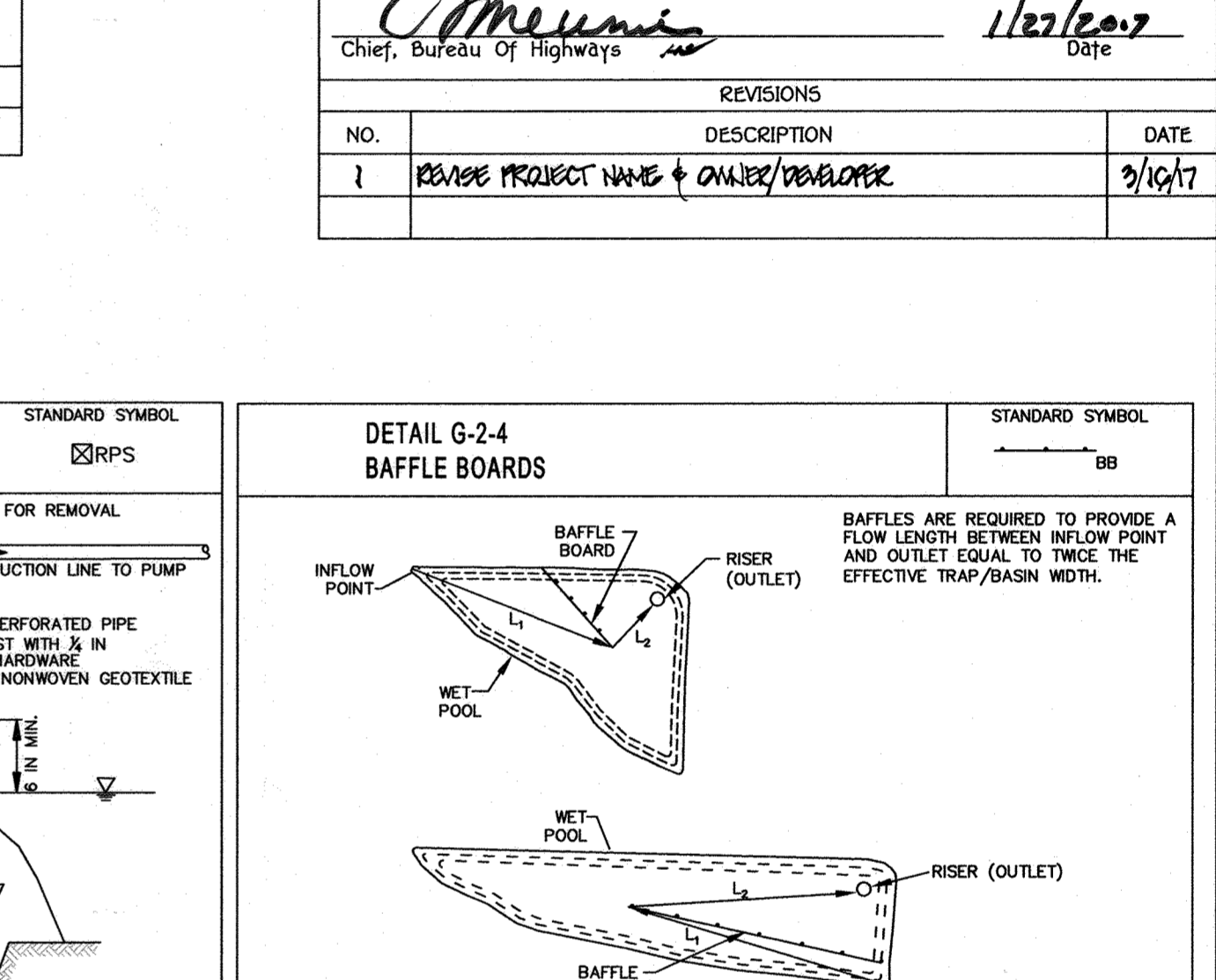
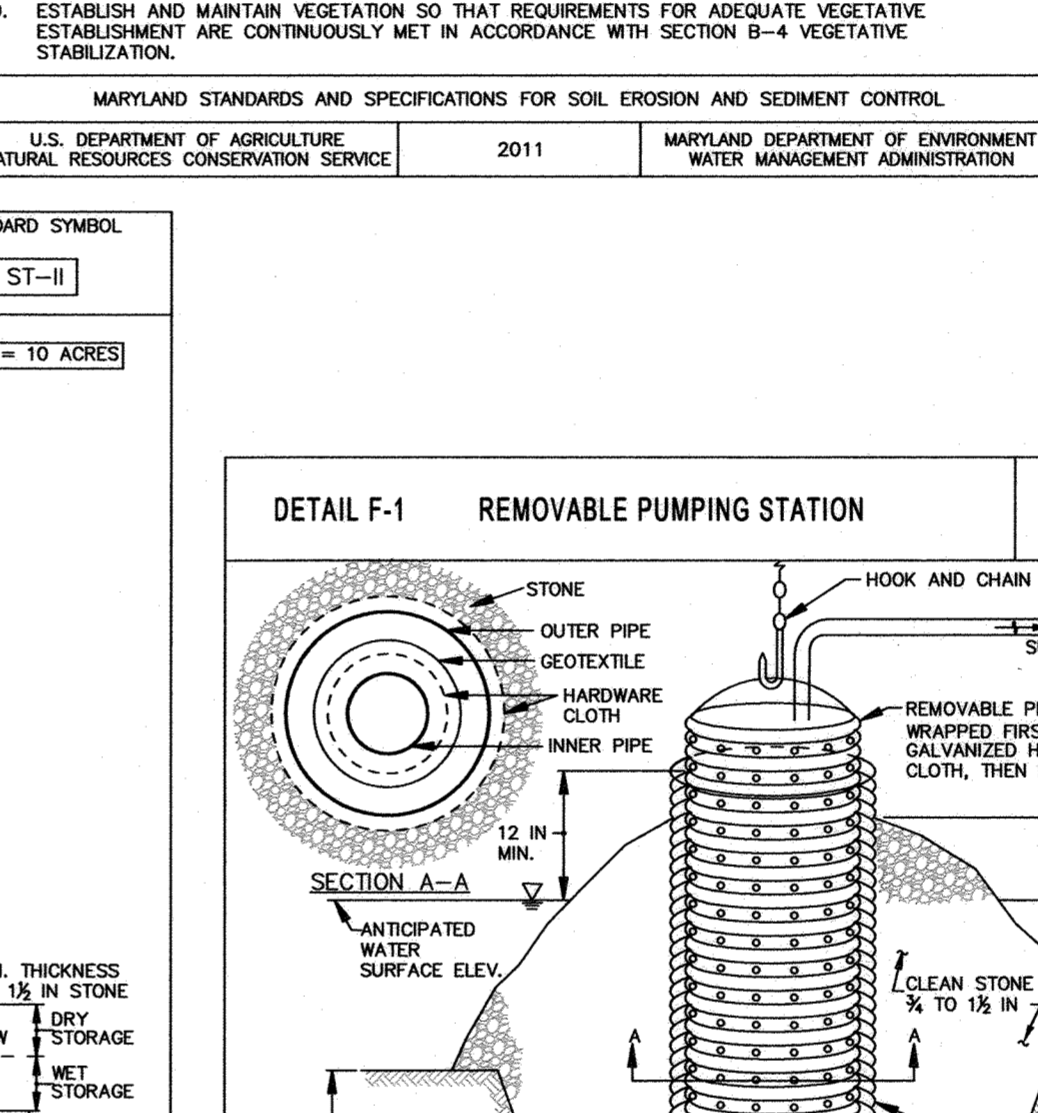
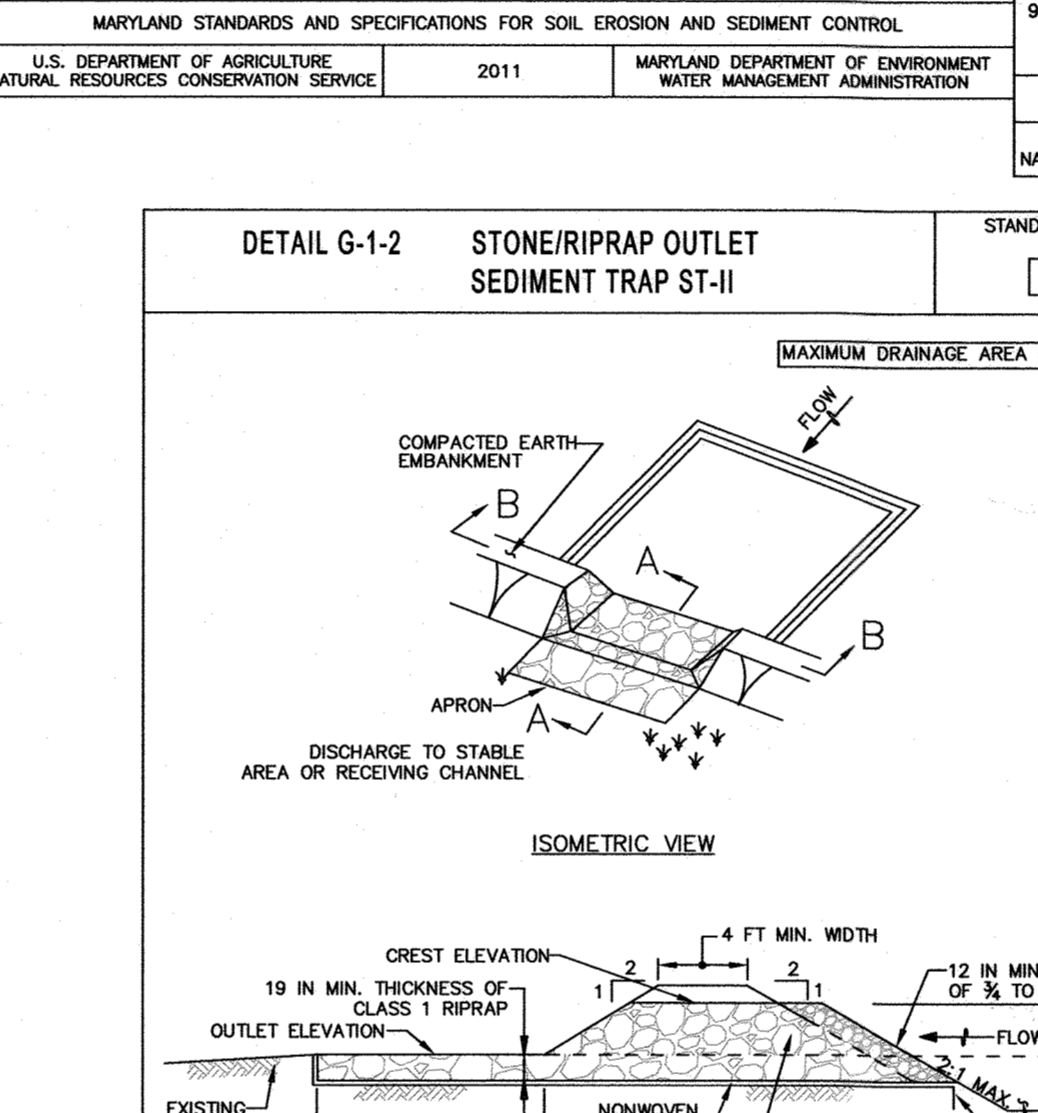
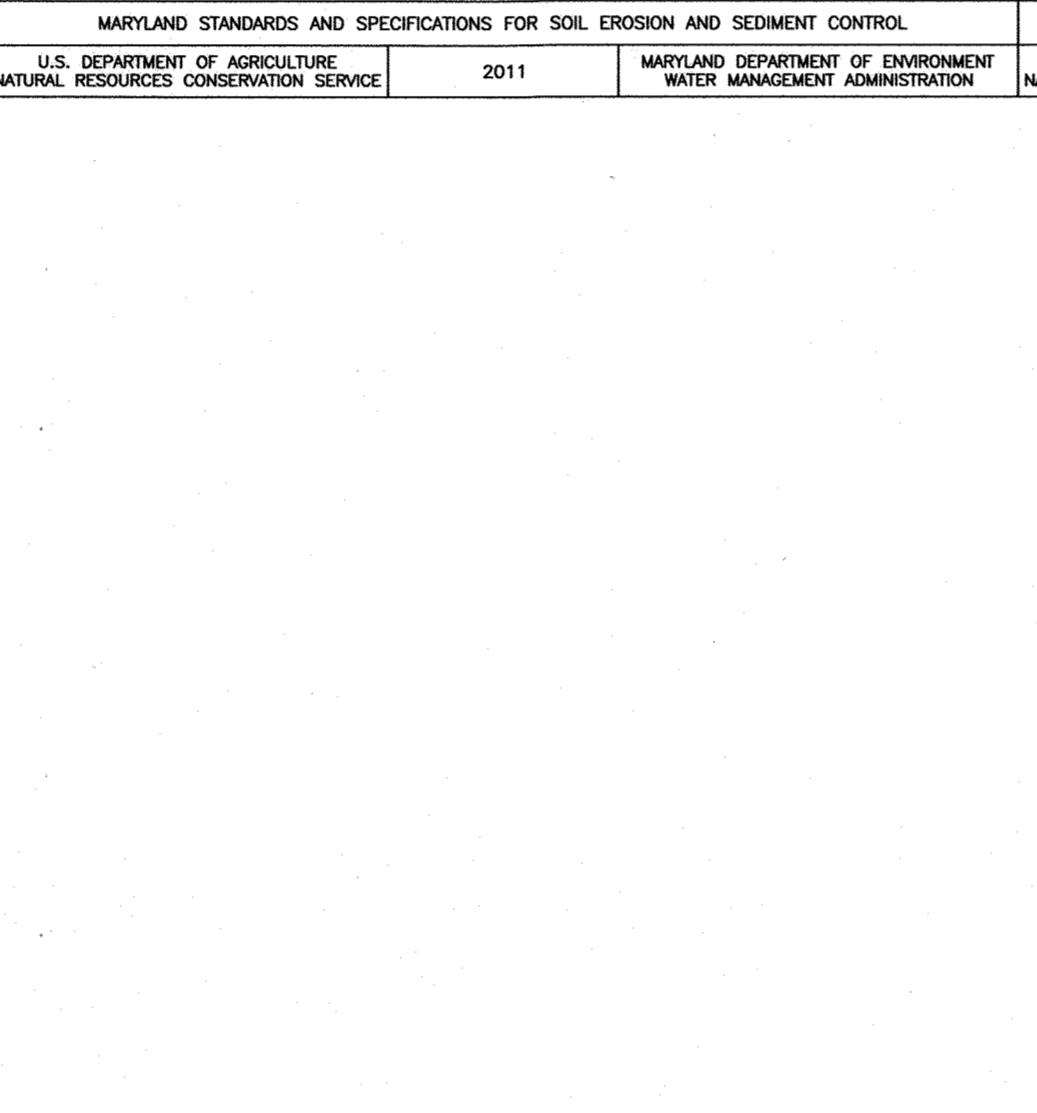
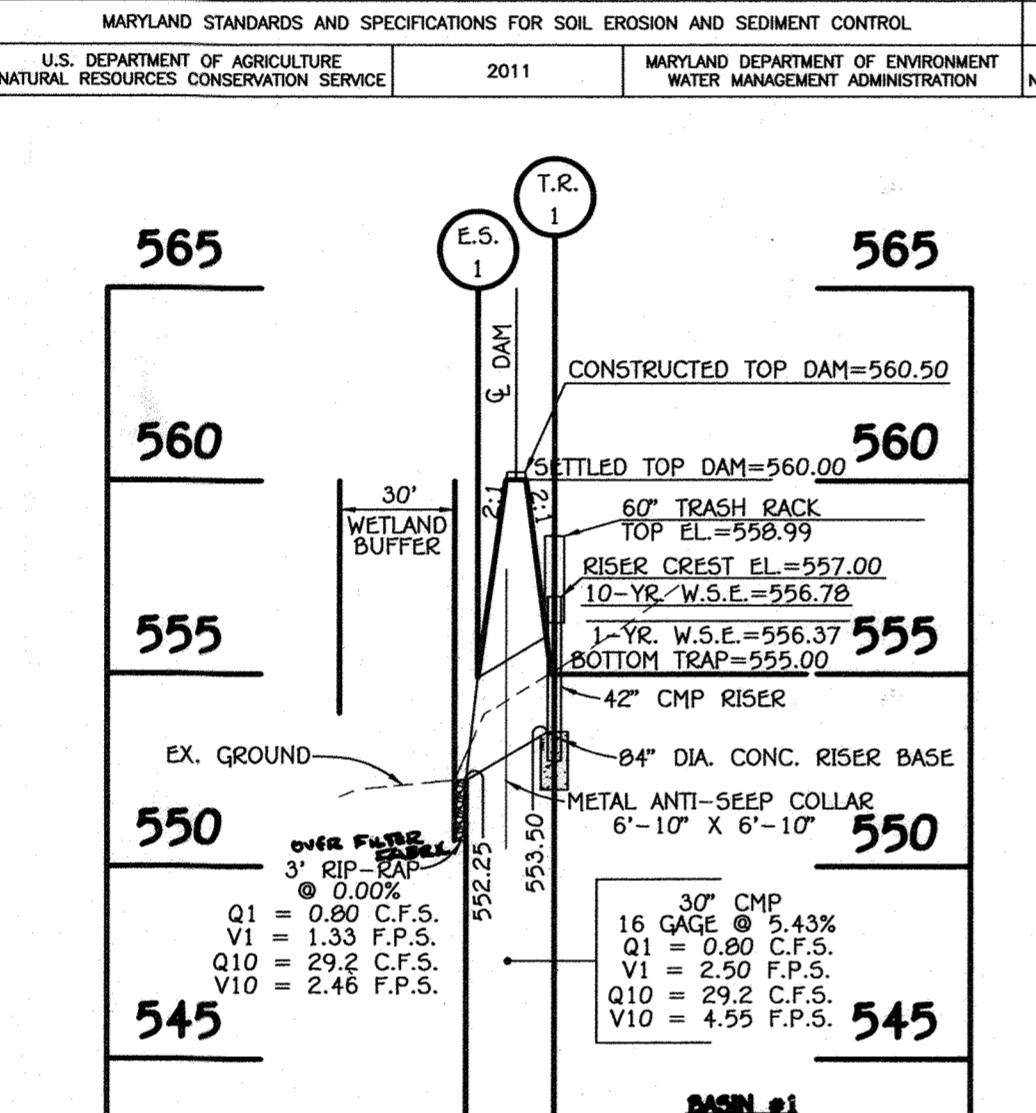
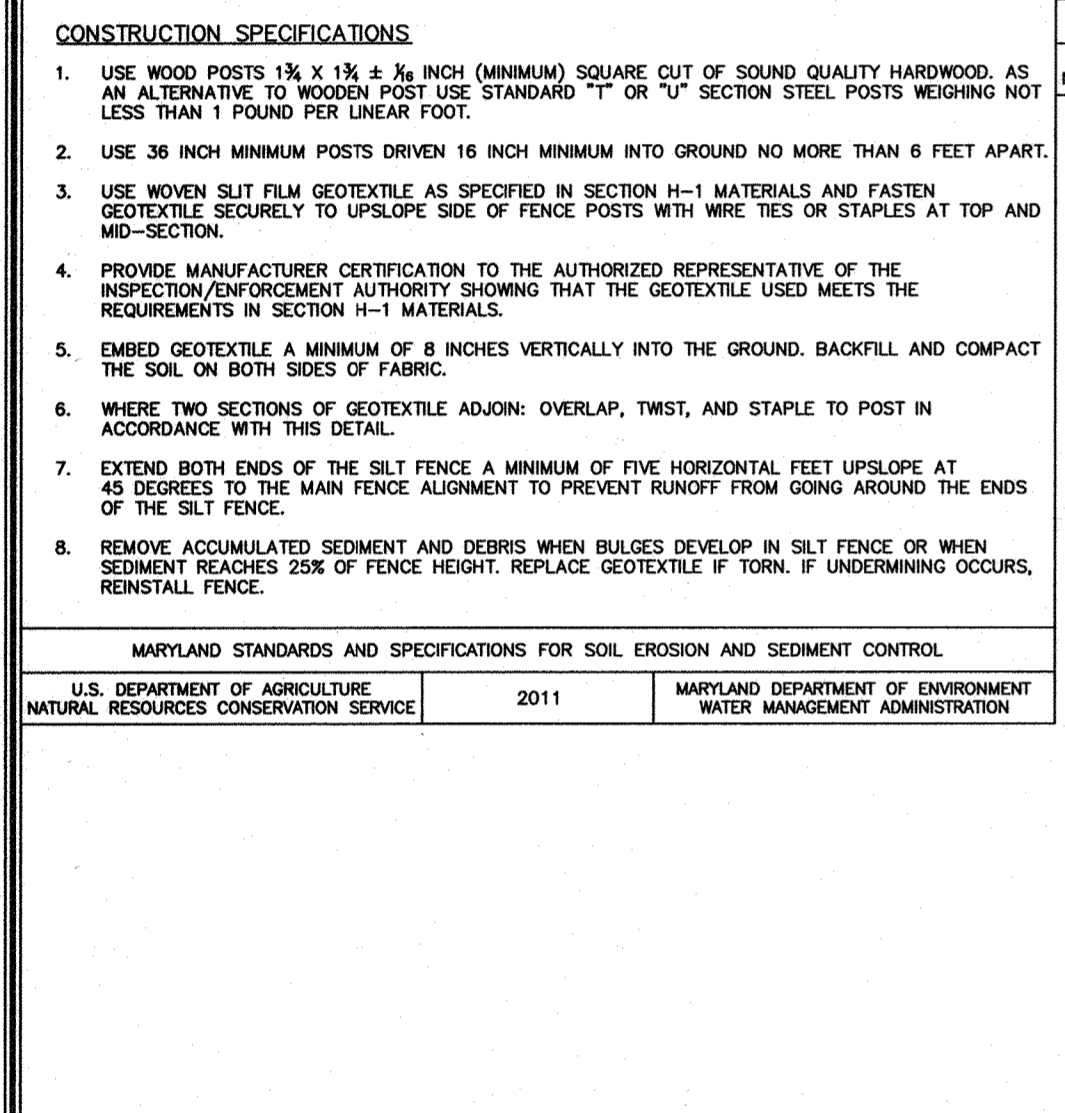
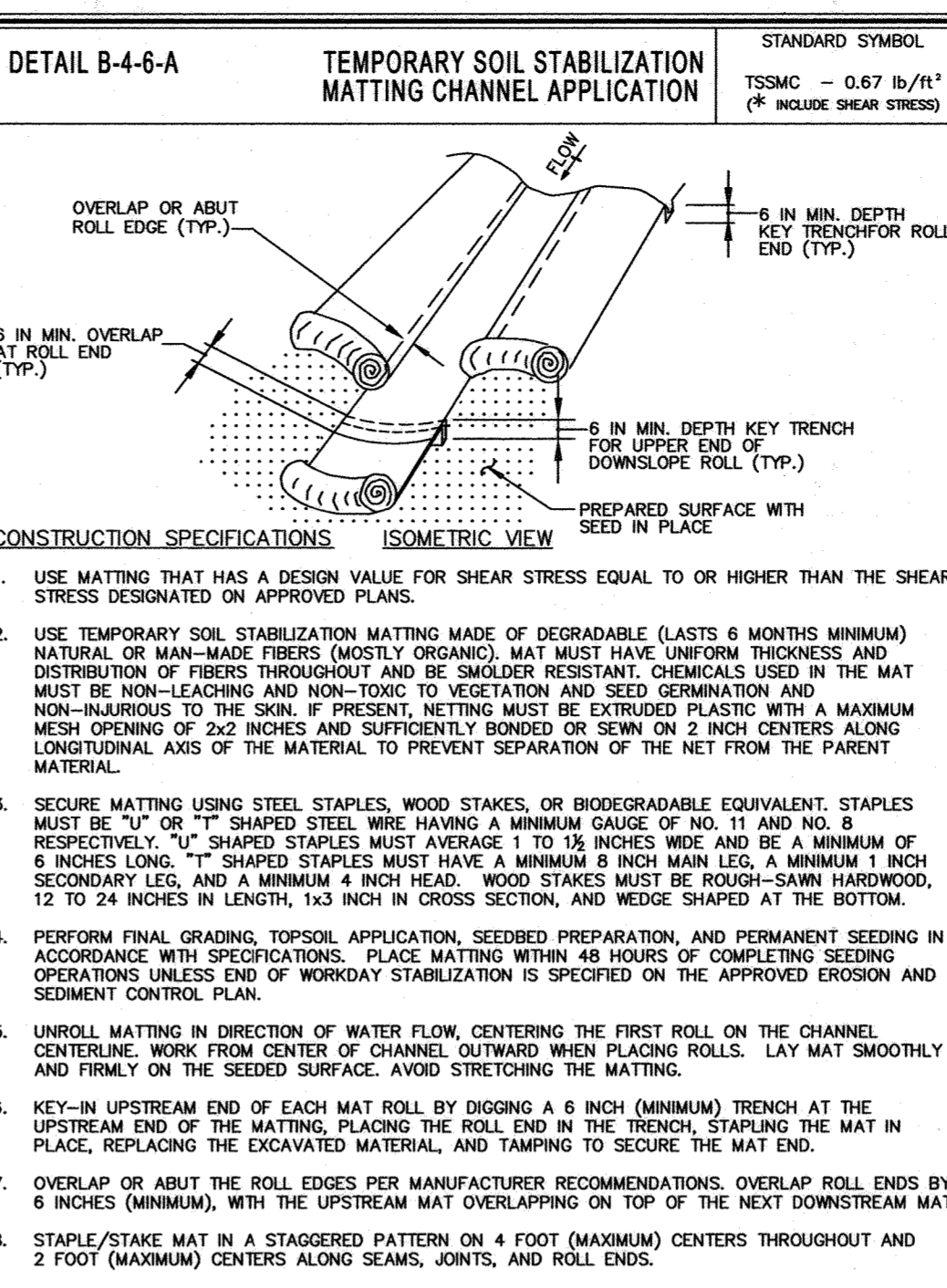
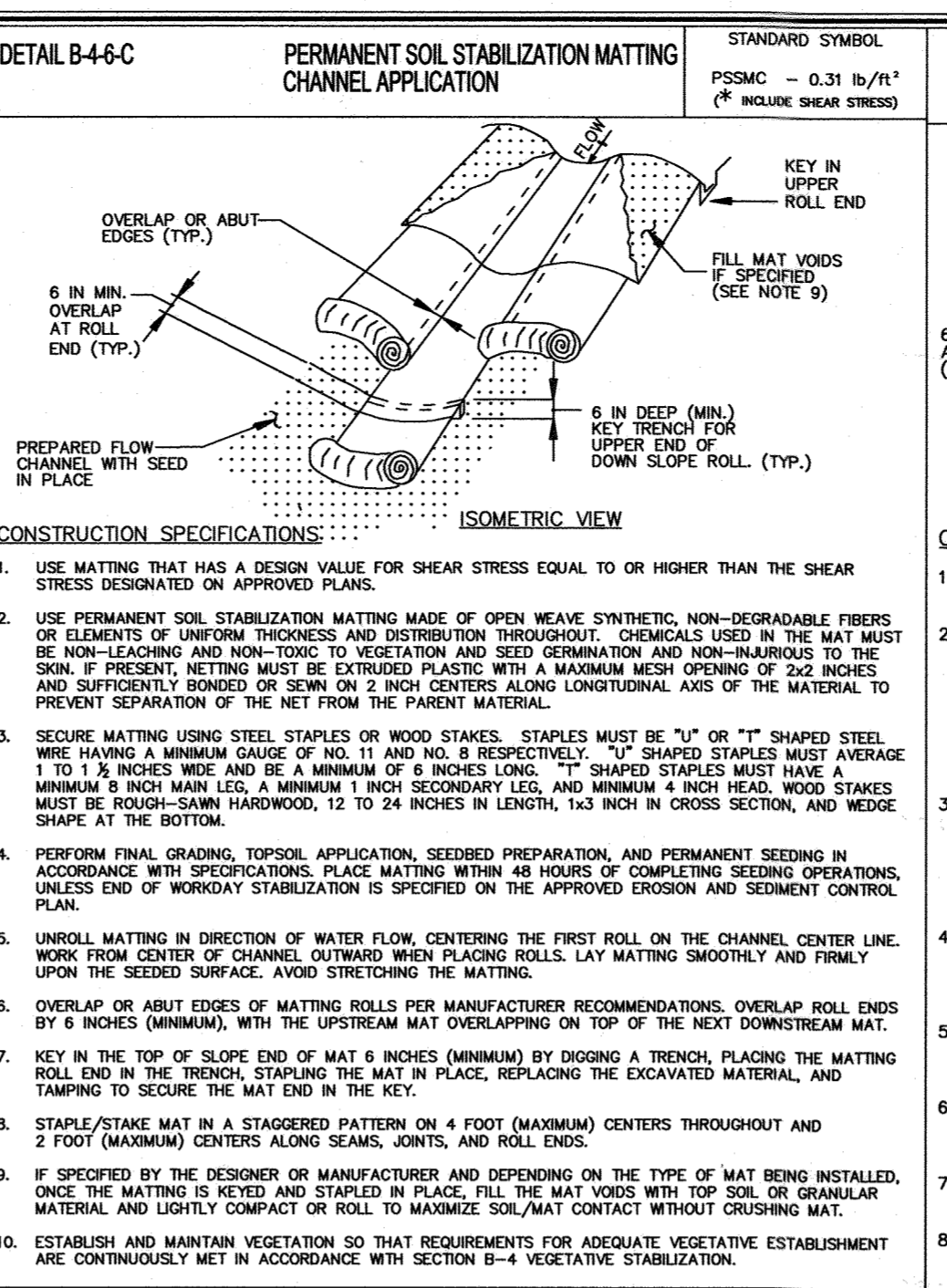
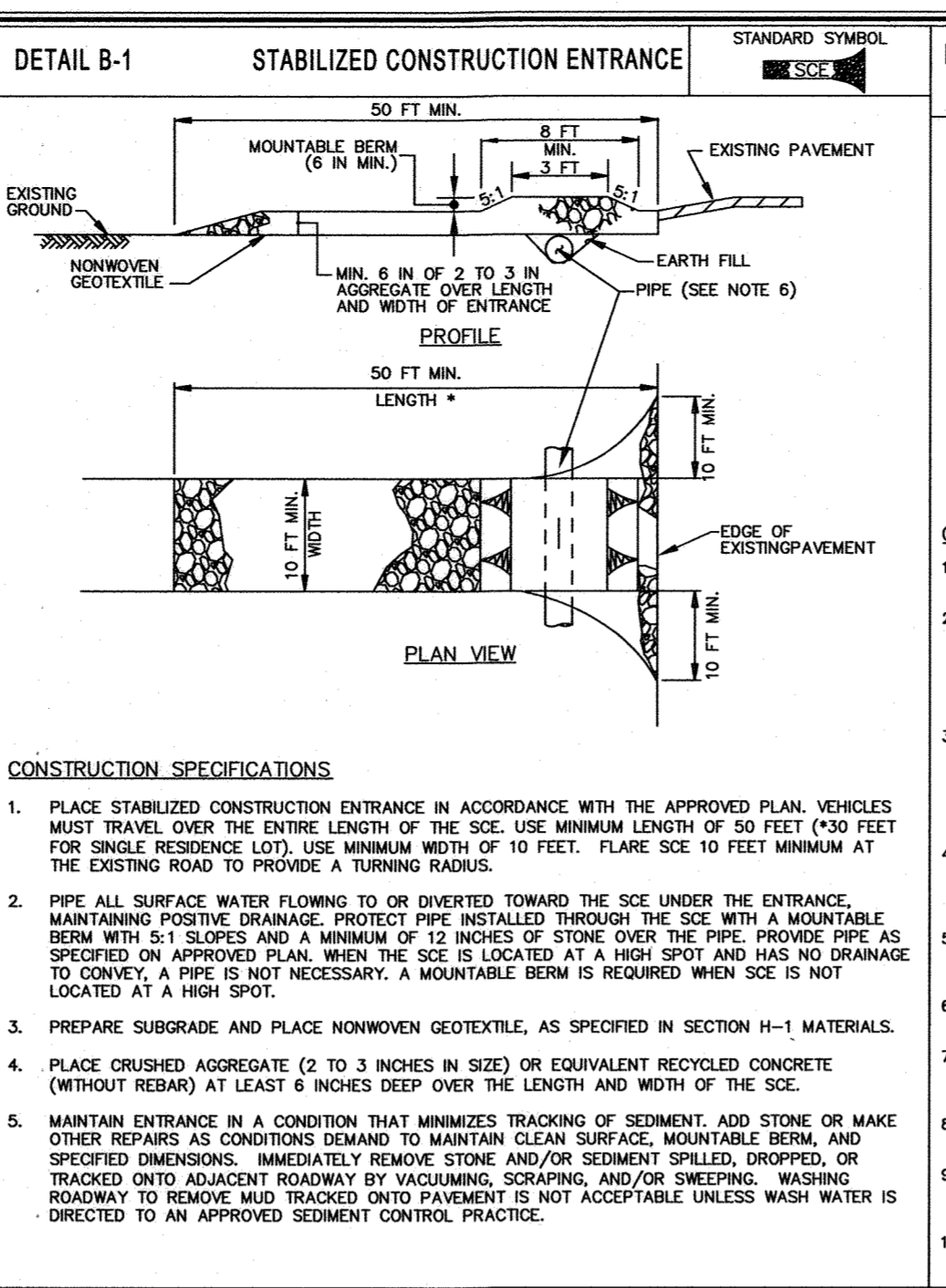
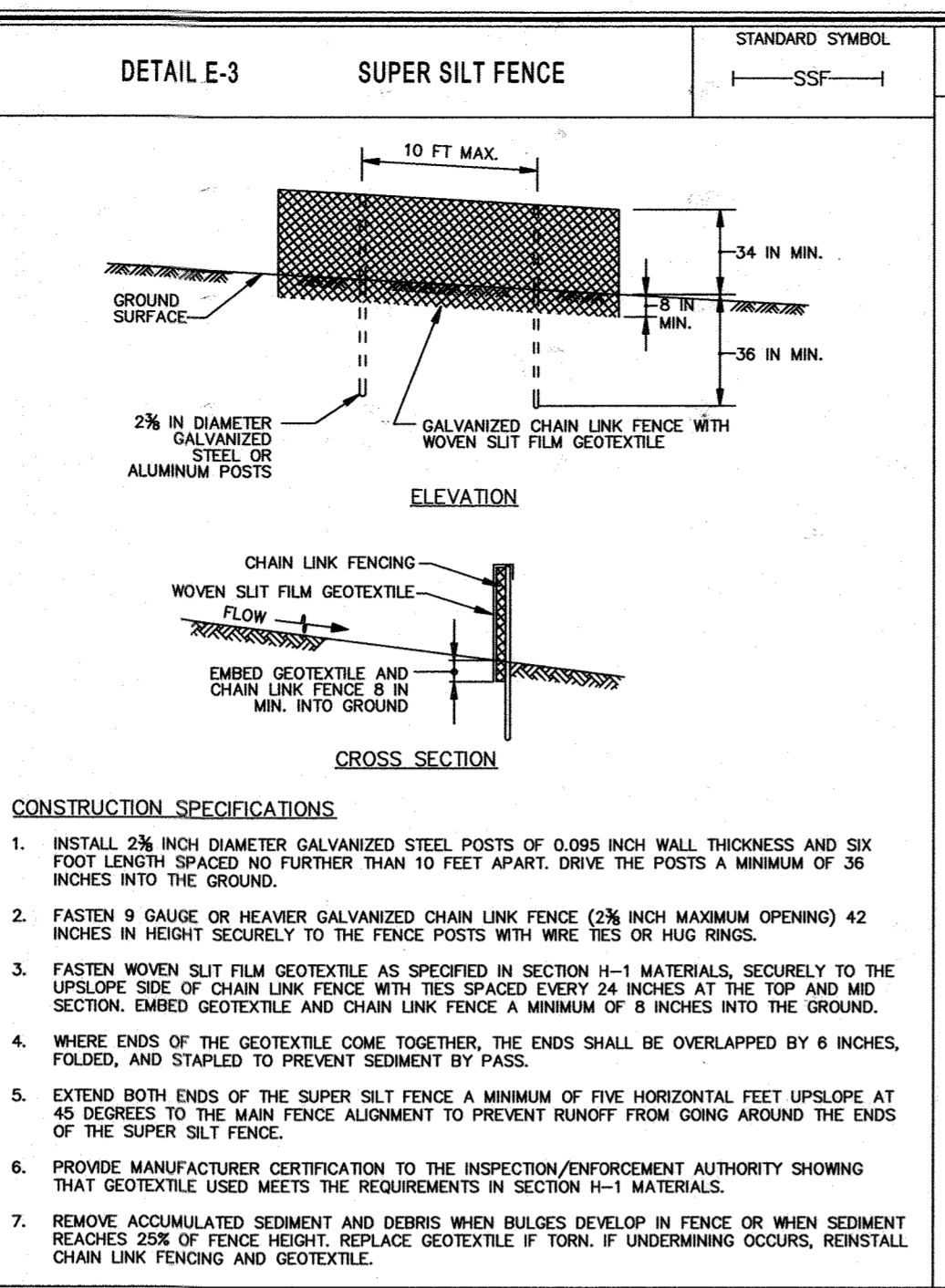
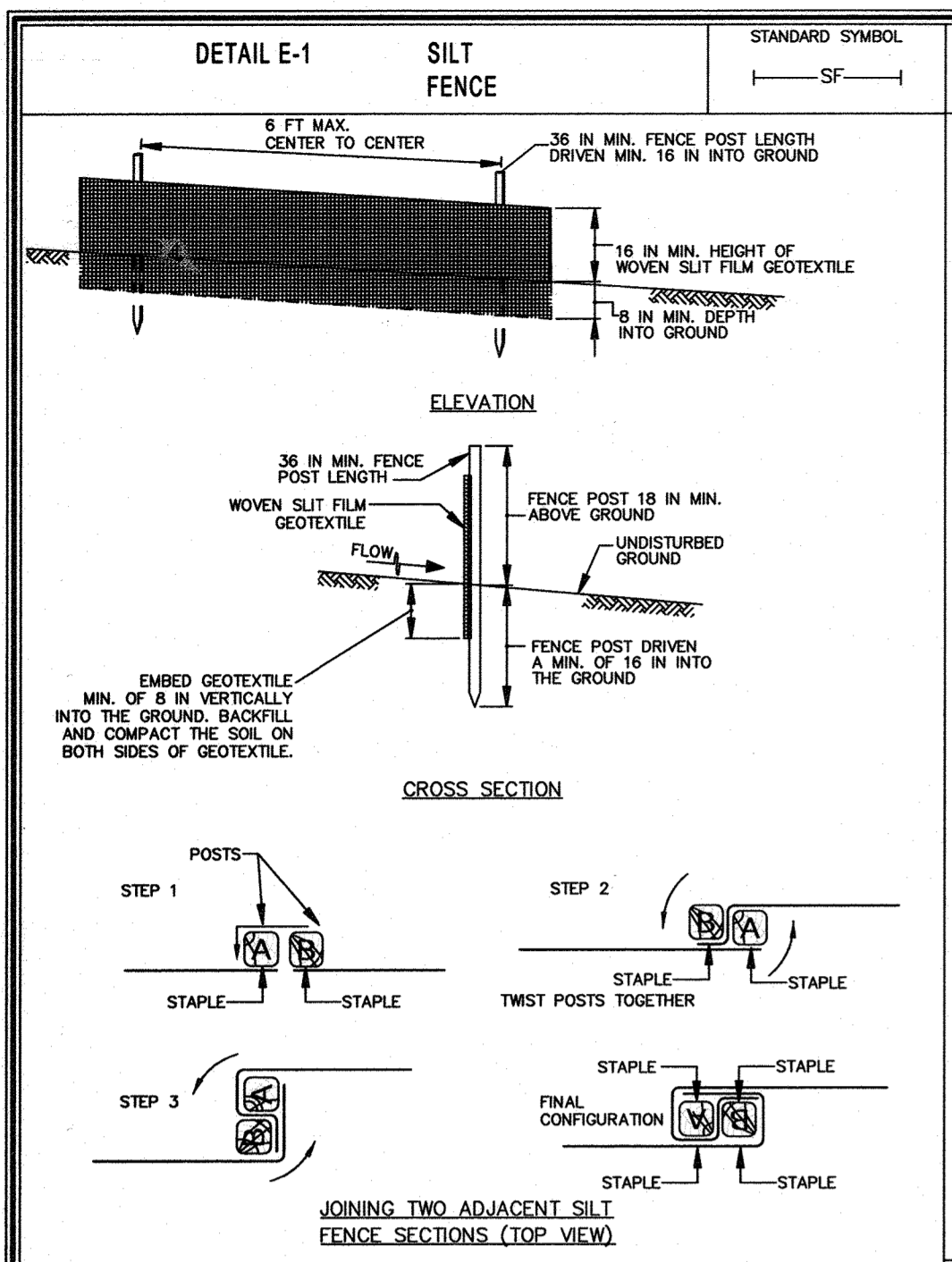
MATCHLINE SHEET 6

MATCHLINE SHEET 6



FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PARK
 ELLEOTT CITY, MARYLAND 21042
 (410) 461-2095

GRADING & SEDIMENT CONTROL PLAN
BELVEDERE ESTATES
 LOTS 1-11, BUILDABLE PRESERVATION PARCEL 'A' AND NON-BUILDABLE PRESERVATION PARCEL 'B'
 ZONED: RR-DEO
 PARCEL No. 8 PARCEL No. 116 & P/O No. 7
 TAX MAP No. 22 GRID No. 2
 THIRD ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 DATE: OCTOBER 11, 2016
 SHEET 7 OF 20



DESIGN CERTIFICATION

I hereby certify that this plan has been designed in accordance with Current Maryland Erosion and Sediment Control Laws, Regulations and Standards. That it Represents a Practical and Workable Plan Based on My Personal Knowledge of the Site, and that it was Prepared in Accordance with the Requirements of The Howard Soil Conservation District.

Designer's Signature: *Charles J. Cravo* Date: 1/3/17
 Printed Name: CHARLES J. CRAVO, P.E. Registration No. 13204 P.E., R.L.S., or R.L.A. (circle one)

OWNER/DEVELOPER CERTIFICATION

"I/We Certify that Any Clearing, Grading, Construction or Development Will be Done Pursuant to This Approved Erosion and Sediment Control Plan, Including Inspecting and Maintaining Controls And That the Responsible Personnel Involved in the Construction Project Will Have a Certificate of Training At A Maryland Department of the Environment (MDE) Approved Training Program For the Control On Erosion And Sediment Prior To Beginning the Project. I Certify Right-of-entry For Periodic On-site Evaluation by Howard County, the Howard Soil Conservation District And/or MDE."

Owner/Developer's Signature: *George Boarman* Date: 1-3-17
 Printed Name: GEORGE BOARMAN

Approved: This Plan is Approved For Soil Erosion And Sediment Control By The Howard Soil Conservation District.
 Signature: *John P. Roberts* Date: 1/4/17
 Title: Howard Soil Conservation District
 Approved: Department of Planning And Zoning
 Signature: *Walt Schuch* Date: 2-7-17
 Title: Chief, Division of Land Development
 Signature: *John P. Roberts* Date: 2-3-17
 Title: Chief, Development Engineering Division 4
 Approved: Howard County Department of Public Works
 Signature: *George Boarman* Date: 1/22/2017
 Title: Chief, Bureau of Highways

REVISIONS

| NO. | DESCRIPTION | DATE |
|-----|---------------------------------------|---------|
| 1 | RENAME PROJECT NAME & OWNER/DEVELOPER | 3/16/17 |

AS-BUILT CERTIFICATION

Note: There is no "AS-BUILT" information provided on this sheet.

Signature: *Paul Gerard Cavanaugh* Date: June 16, 2002
 Title: PAUL GERARD CAVANAUGH #27020

SEDIMENT & EROSION CONTROL NOTES AND DETAILS
 BELVEDERE ESTATES
 LOTS 1-11, BUILDABLE PRESERVATION PARCEL 'A'
 AND NON-BUILDABLE PRESERVATION PARCEL 'B'
 ZONED: RS-DEO
 TAX MAP No. 22 GRID No. 8 PARCEL No. 116 & P/O No. 7
 THIRD ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 DATE: OCTOBER 11, 2016
 SHEET 9 OF 20

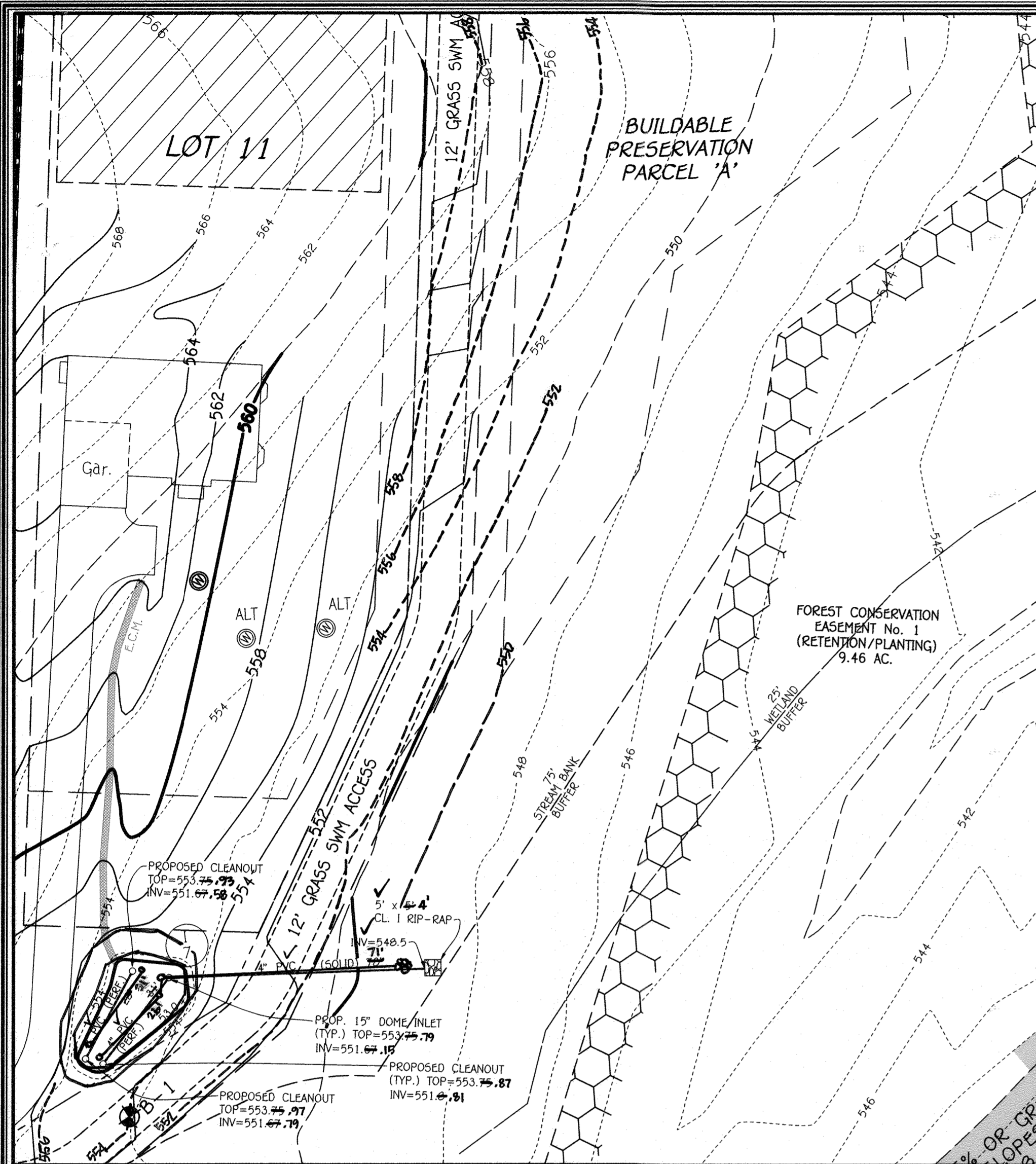
"Professional certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly Licensed Professional Engineer under the laws of the State of Maryland, License No. 13204, Expiration Date 11/2/18"

Signature: *Charles J. Cravo* Date: 1/3/17
 Title: CHARLES J. CRAVO SE, P.E.

Owner/Developer
 BOARMAN PROPERTY INVESTMENT, LLC
 12126 Maryland Route 216
 Fulton, Maryland 20759
 P.O. Box (410) 707-1976

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

K:\SOPROD\1110 Boarman Property\dwg\FINAL\571160 SHEET 9 Sed Con Details.dwg, 12/20/2017 2:01:19 PM, PL



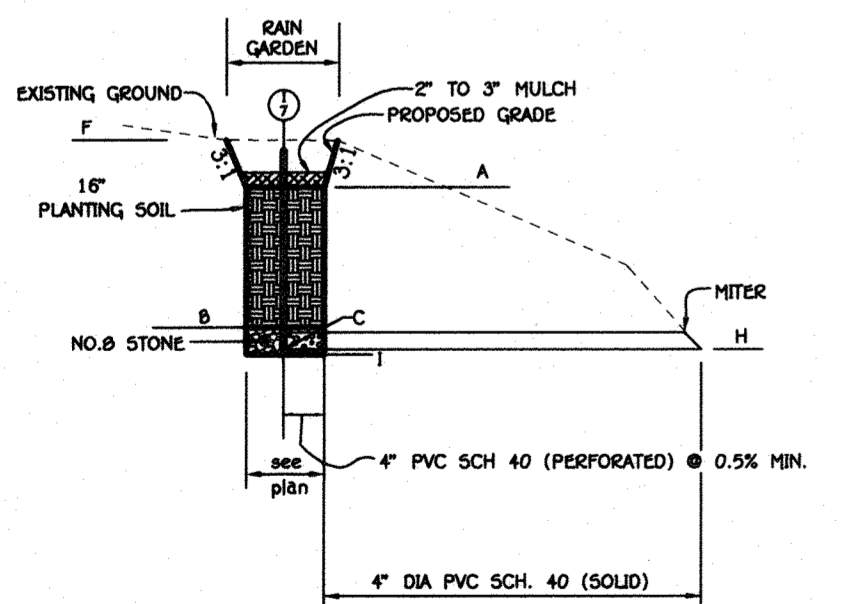
| POINT | ELEVATION |
|-------|-----------|
| A | 551.67 |
| B | 551.08 |
| C | 551.08 |
| D | 554.0 |
| E | 550.85 |
| F | 552.17 |
| G | 554.75 |

RAIN GARDEN PLAN VIEW (M-7)
SCALE: 1" = 30'

OPERATION AND MAINTENANCE SCHEDULE FOR RAINGARDEN AREAS (M-7)

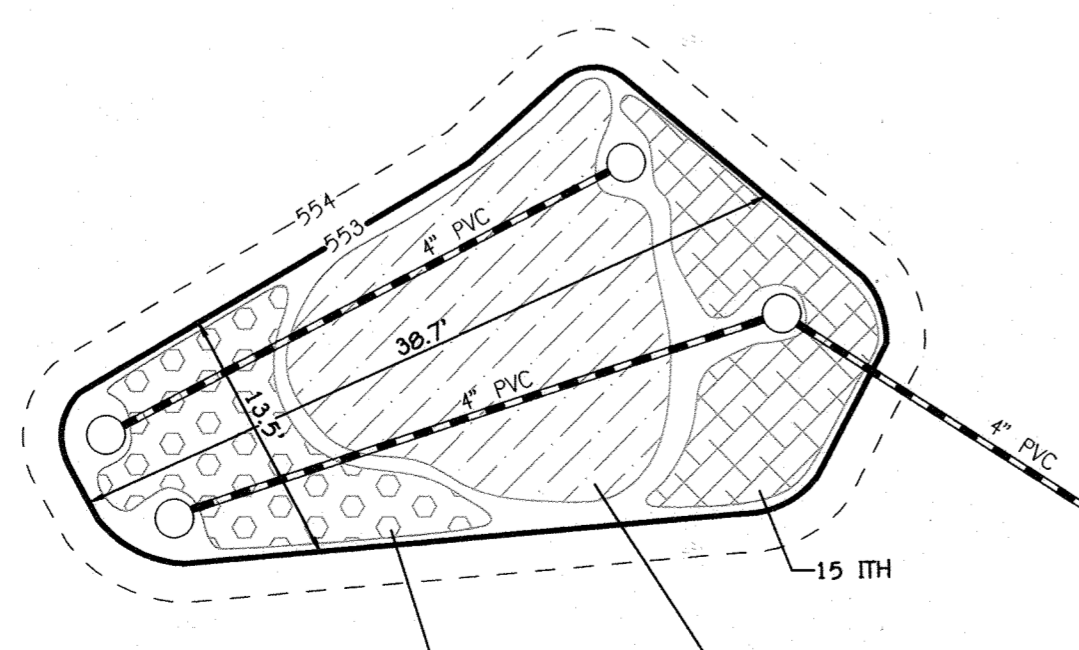
- The owner shall maintain the plant material, mulch layer and soil layer annually; maintenance of mulch and soil is limited to correcting areas of erosion or wash out. Any mulch replacement shall be done in the spring. Plant material shall be checked for disease and insect infestation and maintenance will address dead material and pruning. Acceptable replacement plant material is limited to the following: 2000 Maryland stormwater design manual volume II, table A-4.1 and 2.
- The owner shall perform a plant in the spring and in the fall each year; during the inspection, the owner shall remove dead and diseased vegetation considered beyond treatment, replace dead plant material with acceptable replacement plant material. Treat diseased trees and shrubs and replace all deficient stakes and wires.
- The owner shall inspect the mulch each spring. The mulch shall be replaced every two to three years. The previous mulch layer shall be removed before the new layer is applied.
- The owner shall correct soil erosion on an as needed basis, with a minimum of once per month and after each heavy storm.

| QTY. | SYM. | BOTANICAL/COMMON NAME | SIZE | CONT. | REMARKS |
|------|------|--|---------------|--------|------------------------|
| 50 | CHG | Chelone glabra White Turtlehead | #1 | Cont. | 24" O.C. |
| 15 | IGS | Ilex glabra "Shamrock" Hollyberry | 24"-30" Ht. | Cont. | 30" o.c./Male Cultivar |
| 15 | ITH | Itea virginica "Little Henry" Dwarf Virginia Sweetspire | 18" - 24" Ht. | 3 Gal. | 30" o.c. min. |



PROFILE ALONG VARIABLE PVC OUTLET
NOT TO SCALE

TYPICAL RAINGARDEN DETAIL (M-7)
NOT TO SCALE



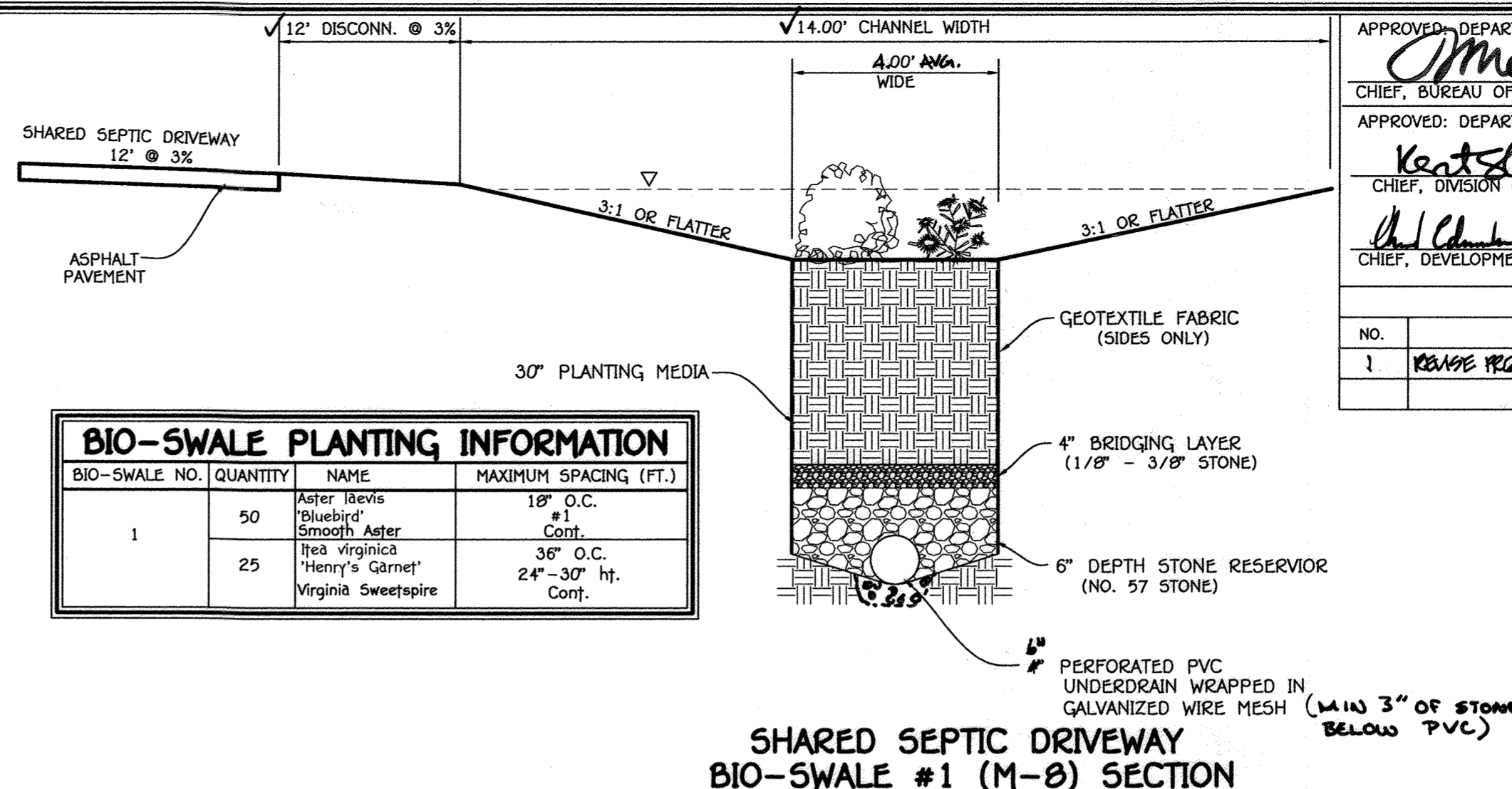
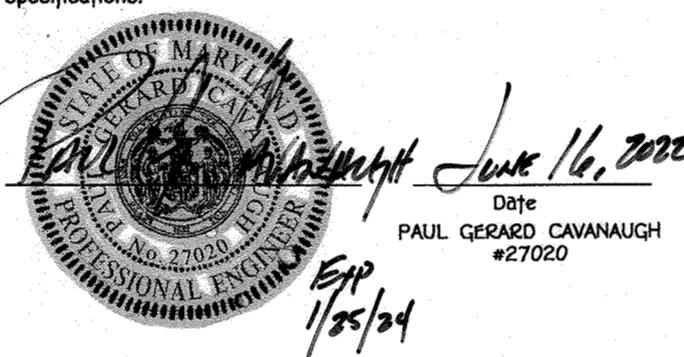
RAIN GARDEN LANDSCAPING (M-7)
SCALE: 1" = 10'

NOTES:

- UNDERDRAIN PIPE SHALL BE 4" TO 6" DIAMETER, SLOTTED OR PERFORATED RIGID PLASTIC PIPE (ASTM F 798, TYPE PS 28 OR AASHTO-M-278) IN A GRAVEL LAYER. THE PREFERRED MATERIAL IS SLOTTED 4" RIGID PIPE (E.G., PVC OR HDPE).
- PERFORATIONS SHALL BE 3/8" DIAMETER LOCATED 6" ON CENTER WITH A MINIMUM OF FOUR HOLES PER ROW. PIPE SHALL BE WRAPPED WITH A 1/4" (NO. 4 OR 4 x 4) GALVANIZED HARDWARE CLOTH.
- GRAVEL LAYER SHALL BE (NO. 57 STONE PREFERRED) AT LEAST 3" THICK ABOVE AND BELOW THE UNDERDRAIN.
- THE MAIN COLLECTOR PIPE SHALL BE AT A MINIMUM 0.5% SLOPE.
- A RIGID, NON PERFORATED OBSERVATION WELL MUST BE PROVIDED (ONE PER EVERY 1,000 SQ.FT.) TO PROVIDE A CLEANOUT PORT AND MONITOR PERFORMANCE OF THE FILTER.
- A 4" LAYER OF PEA GRAVEL (1/8" TO 3/8" STONE) SHALL BE LOCATED BETWEEN THE PLANTING MEDIA AND UNDERDRAIN TO PREVENT MIGRATION OF FINES INTO THE UNDERDRAIN. THIS LAYER MAY BE CONSIDERED PART OF THE FILTER BED WHEN BED THICKNESS EXCEEDS 24".

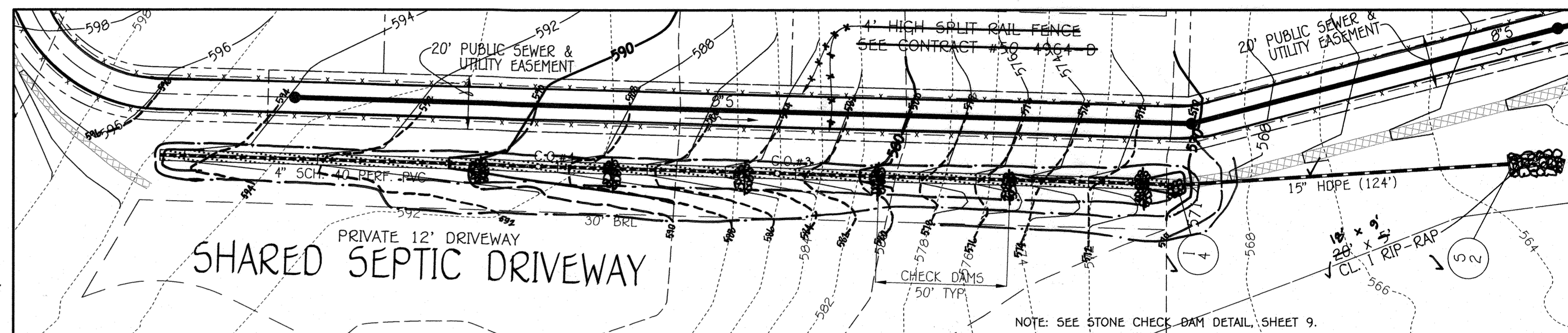
AS-BUILT CERTIFICATION

I hereby certify, by my seal, that to the best of my knowledge and belief the facilities shown on the plan was constructed as shown on this "AS-BUILT" plan meet the approved plans and specifications.

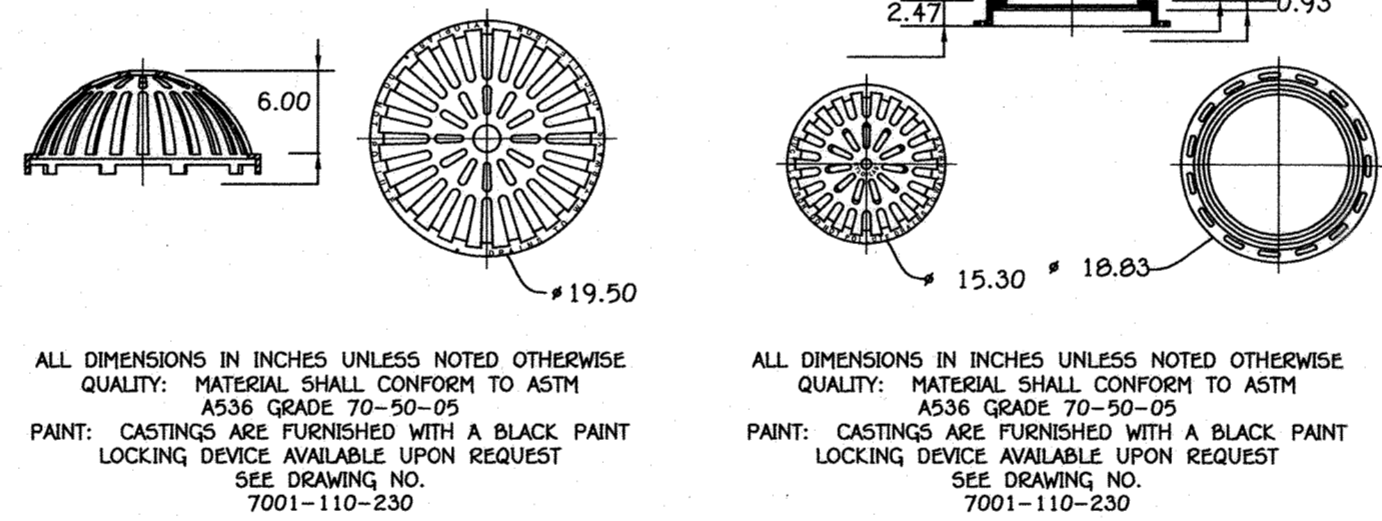


| BIO-SWALE NO. | QUANTITY | NAME | MAXIMUM SPACING (FT.) |
|---------------|----------|---|-------------------------|
| 1 | 50 | Aster Ibrevis Bluebird Smooth Aster | 18" O.C. |
| | 25 | Itea virginica "Henry's Garnet" Virginia Sweetspire | 36" O.C. 24"-30" Ht. |

BIO-SWALE #1 (M-8) SECTION

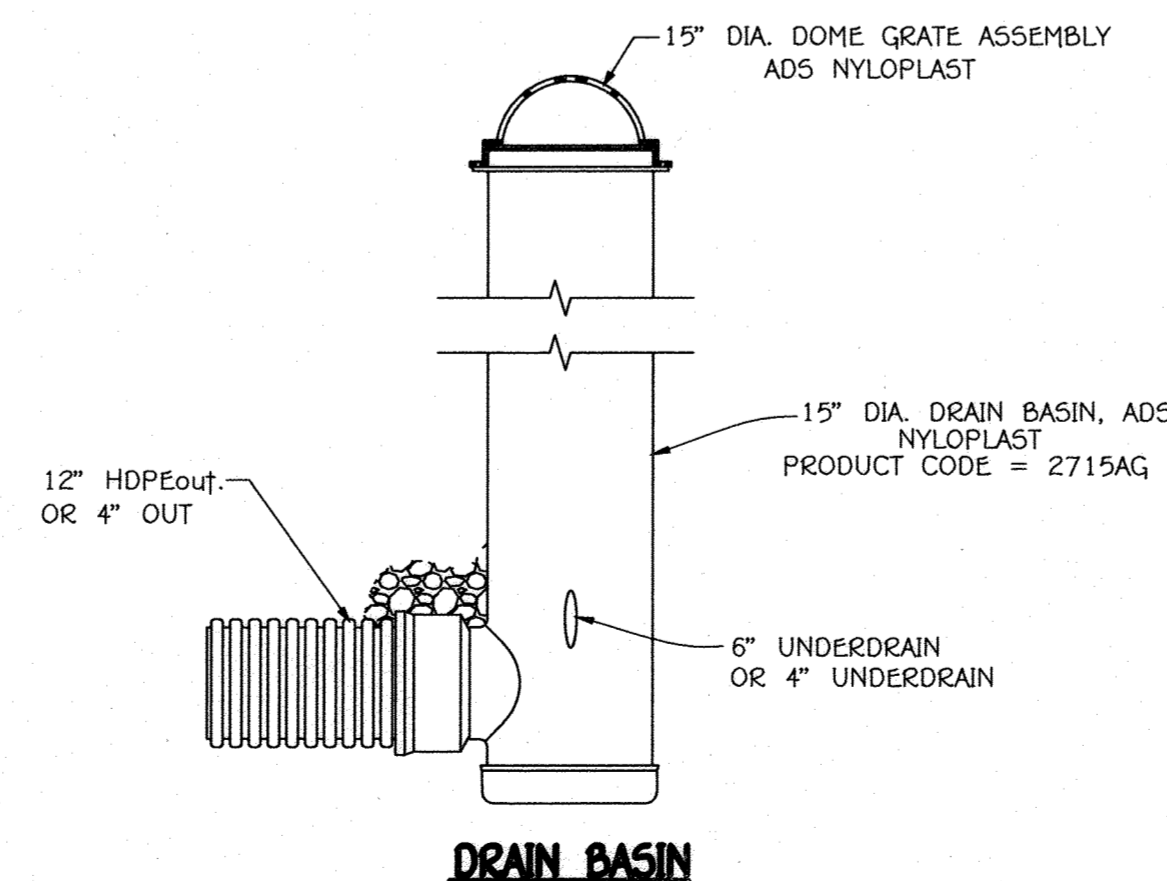


BIO-SWALE #1 PLAN VIEW (M-8)
SCALE: 1" = 30'

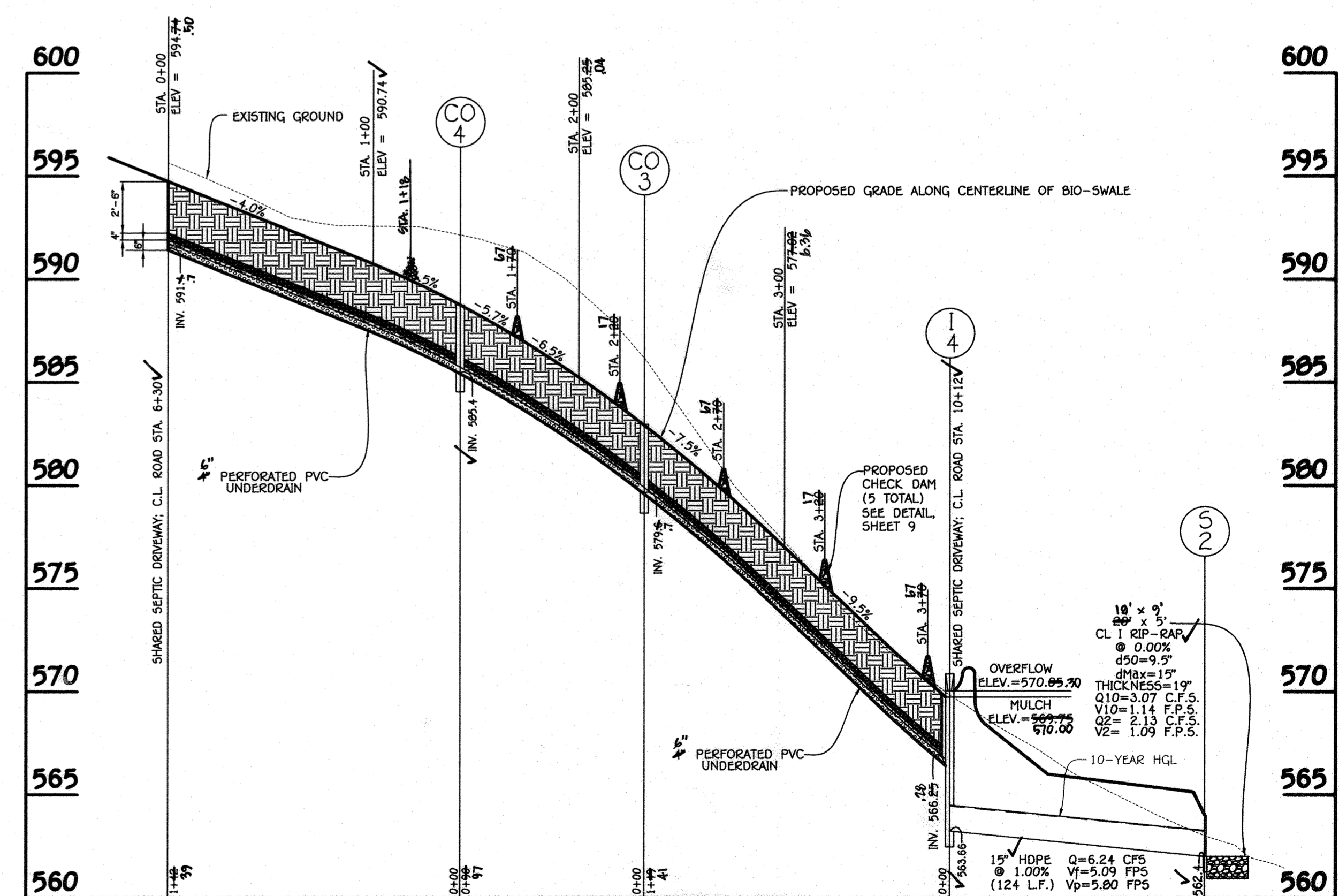


18" DOME GRATE ASSEMBLY
NYLOPLAST OR EQUAL

15" DOME GRATE ASSEMBLY
NYLOPLAST OR EQUAL



DRAIN BASIN
NO SCALE



BIO-SWALE #1 PROFILE
SCALE: HOR. 1" = 30'
VER. 1" = 5'

"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. 13524, Expiration Date 11/23/18."



Owner/Developer
BOKEMAN PROPERTY INVESTMENT, LLC
12126 Maryland Route 216
Fulton, Maryland 20759
Ph: (410) 707-1976

| | | |
|---|---------------------------------------|---------|
| APPROVED: DEPARTMENT OF PUBLIC WORKS | | |
| Chief, Bureau of Highways | 1/27/2017 | |
| APPROVED: DEPARTMENT OF PLANNING AND ZONING | | |
| Chief, Division of Land Development | 2-7-17 | |
| APPROVED: DEVELOPMENT ENGINEERING DIVISION | | |
| Chief, Development Engineering Division | 2-3-17 | |
| REVISIONS | | |
| No. | DESCRIPTION | DATE |
| 1 | REMOVE PROJECT NAME & OWNER/DEVELOPER | 9/16/17 |

STORMWATER MANAGEMENT NOTES & DETAILS
DELVEDERE ESTATES
LOTS 1-11, BUILDABLE PRESERVATION PARCEL 'A'
AND NON-BUILDABLE PRESERVATION PARCEL 'B'
ZONED: RR-DEO
GRID No. 9 PARCEL No. 116 & P/O No. 7
THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
DATE: OCTOBER 11, 2016
SHEET 10 OF 20

OPERATION AND MAINTENANCE SCHEDULE FOR BIO-RETENTION AREAS (M-6)

- The owner shall maintain the plant material, mulch layer and soil layer annually; maintenance of mulch and soil is limited to correcting areas of erosion or wash out. Any mulch replacement shall be done in the spring. Plant material shall be checked for disease and insect infestation and maintenance will address dead material and pruning. Acceptable replacement plant material is limited to the following: 2000 Maryland stormwater design manual volume 1, Table A.4.1 and 2.
- The owner shall perform a plant in the spring and in the fall each year; during the inspection, the owner shall remove dead and diseased vegetation considered beyond treatment, replace dead plant material with acceptable replacement plant material. Treat diseased trees on shrubs and replace all deficient stakes and wires.
- The owner shall inspect the mulch each spring. The mulch shall be replaced every two to three years. The previous mulch layer shall be removed before the new layer is applied.
- The owner shall correct soil erosion on an as needed basis, with a minimum of once per month and after each heavy storm.

B.4.C Specifications for Micro-Bioretenion, Rain Gardens, Landscape Infiltration & Infiltration Berms

- Material Specifications**
The allowable materials to be used in these practices are detailed in Table B.4.1.
- Filtering Media or Planting Soil**
The soil shall be a uniform mix, free of stones, stumps, roots or other similar objects larger than two inches. No other materials or substances shall be mixed or dumped within the micro-bioretenion practices that may be harmful to plant growth, or prove a hindrance to the planting or maintenance operations. The planting soil shall be free of Bermuda grass, Quackgrass, Johnson grass, or other noxious weeds as specified under COMAR 15.08.01.05.
The planting soil shall be tested and shall meet the following criteria:
Soil Component - Loamy Sand or Sandy Loam (USDA Soil Textural Classification)
Organic Content - Minimum 10% by dry weight (ASTM D 2974). In general, this can be met with a mixture of loamy sand (60%-65%) and compost (35% to 40%) or sandy loam (30%), coarse sand (30%), and compost (40%).
Clay Content - Media shall have a clay content of less than 5%.

pH Range should be between 5.5 - 7.0. Amendments (e.g., lime, iron sulfate plus sulfur) may be mixed into the soil to increase or decrease pH.
There shall be at least one soil test per project. Each test shall consist of both the standard soil test for pH, and additional tests of organic matter, and soluble salts. A textural analysis is required from the site stockpiled topsoil. If topsoil is imported, then a texture analysis shall be performed for each location where the topsoil was excavated.

It is very important to minimize compaction of both the base of bioretention practices and the required backfill, when possible, use excavation hoses to remove original soil. If practices are excavated using a loader, the contractor should use wide track or marsh track equipment, or light equipment with turf type tires. Use of equipment with narrow tracks or narrow tires, rubber tires with large lugs, or high-pressure tires will cause excessive compaction resulting in reduced infiltration rates and is not acceptable. Compaction will significantly contribute to design failure.

Compaction can be alleviated at the base of the bioretention facility by using a primary tilling operation such as a chisel plow, ripper, or subsoiler. These tilling operations are to restructure the soil profile through the 12 inch compaction zone. Substitute methods must be approved by the engineer. Rototillers typically do not till deep enough to reduce the effects of compaction from heavy equipment.

Rototill 2 to 3 inches of sand into the base of the bioretention facility before backfilling the optional sand layer. Pump any ponded water before preparing (rototilling) the sand.
When backfilling the topsoil over the sand layer, first place 3 to 4 inches of topsoil over the sand, then rototill the sand/topsoil to create a gradation zone. Backfill the remainder of the topsoil to final grade.

When backfilling the bioretention facility, place soil in lifts 12 to 18". Do not use heavy equipment within the bioretention basin. Heavy equipment can be used around the perimeter of the basin to supply soil and sand. Grade bioretention materials with light equipment such as a compact loader or a dozer/loader with marsh tracks.

4. **Plant Material**
Recommended plant material for micro-bioretenion practices can be found in Appendix A, Section A.2.3.

5. **Plant Installation**
Compost is a better organic material source, is less likely to float, and should be placed in the invert and other low areas. Mulch should be placed in surrounding to a uniform thickness of 2" to 3" shredded or chipped hardwood mulch is the only accepted mulch. Pine mulch and wood chips will float and move to the perimeter of the bioretention area during a storm event and are not acceptable. Shredded mulch must be well aged (6 to 12 months) for acceptability.

Rootstock of the plant material shall be kept moist during transport and on-site storage. The plant root ball should be planted so 1/8" of the ball is above final grade surface. The diameter of the planting pit shall be at least six inches larger than the diameter of the planting ball. Set and maintain the plant straight during the entire planting process. Thoroughly water ground bed cover after installation.

Trees shall be braced using 2" by 2" stakes only as necessary and for the first growing season only. Stakes are to be equally spaced on the outside of the tree ball.
Grasses and legume seed should be drilled into the soil to a depth of at least one inch. Grass and legume plugs shall be planted following the non-grass ground cover planting specifications.

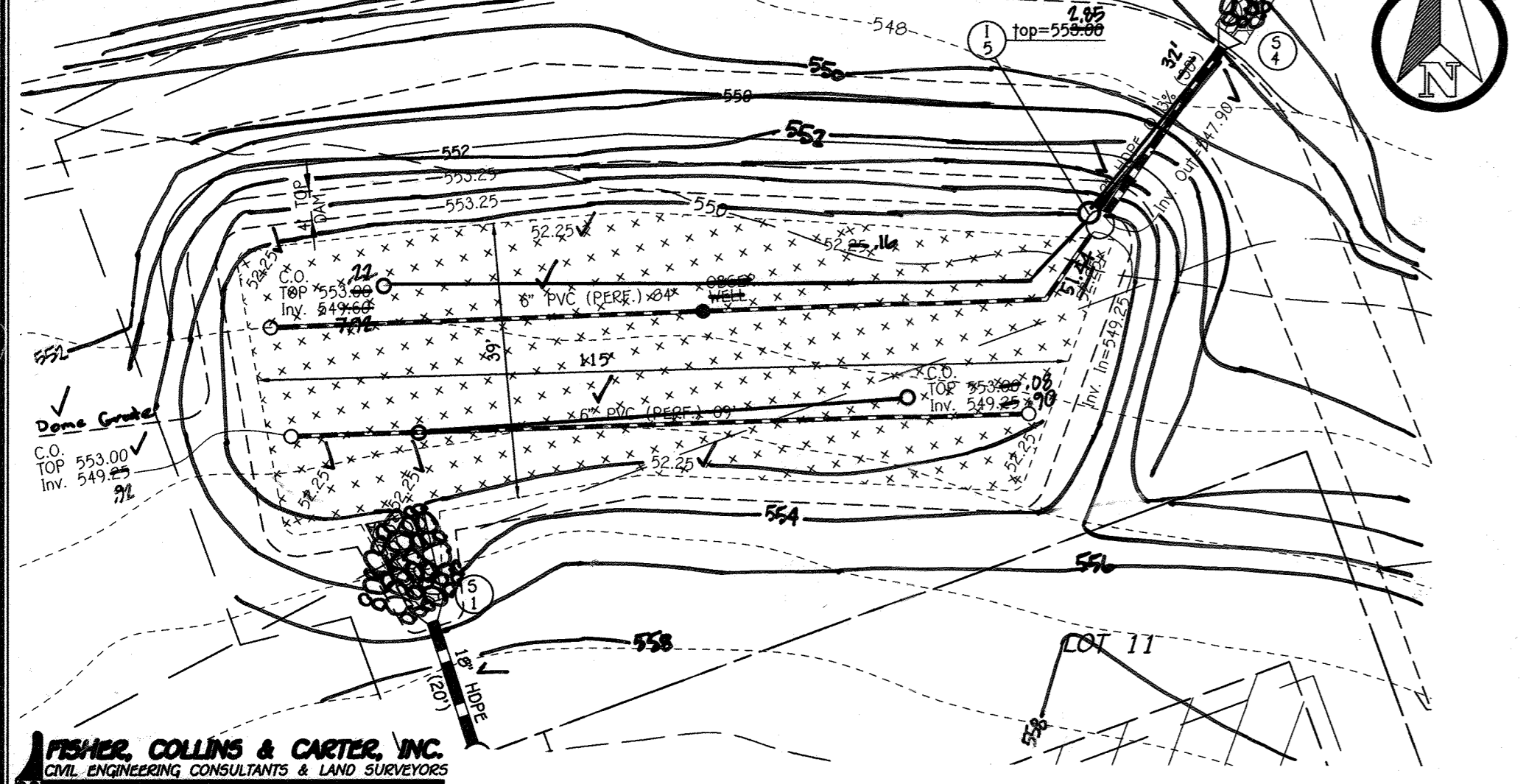
The topsoil specifications provide enough organic material to adequately supply nutrients from natural cycling. The primary function of the bioretention structure is to improve water quality, adding fertilizers, detritus, or at a minimum, insecticides is not allowed. Only acid fertilizer if wood chips or mulch are used to amend the soil. Rototill urea fertilizer at a rate of 2 pounds per 1000 square feet.

6. **Underdrains**
Underdrains should meet the following criteria:
Pipe - should be 78" diameter, slotted or perforated rigid plastic pipe (ASTM F 758, Type PS 28, or AASHTO-M-278) in a gravel layer. The preferred material is slotted, 4 rigid pipe (e.g., PVC or HDPE).
The main collector pipe for underdrain systems shall be constructed at a minimum slope of 0.5%. Observation wells and/or clean-out pipes must be provided (one minimum per every 1000 square feet of surface area).

7. **Miscellaneous**
These practices may not be constructed until all contributing drainage area has been stabilized.

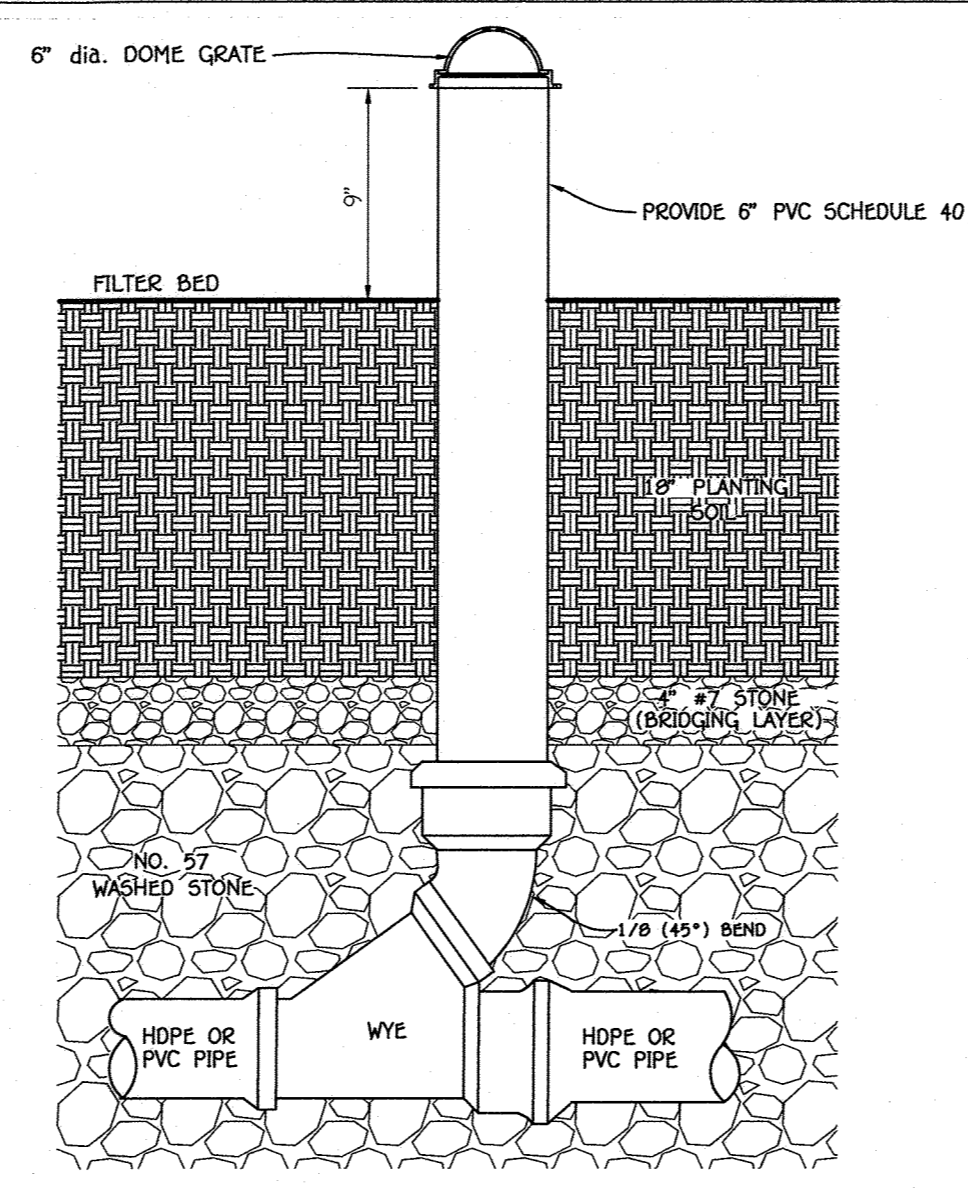
The main collector pipe shall be at a minimum 0.5% slope.
A rigid, non-perforated observation well must be provided (one per every 1,000 square feet) to provide a clean-out port and monitor performance of the filter.

BUILDABLE PRESERVATION PARCEL 'A'



MICRO BIO-RETENTION FACILITY #1 M-6
SCALE: 1"=20'

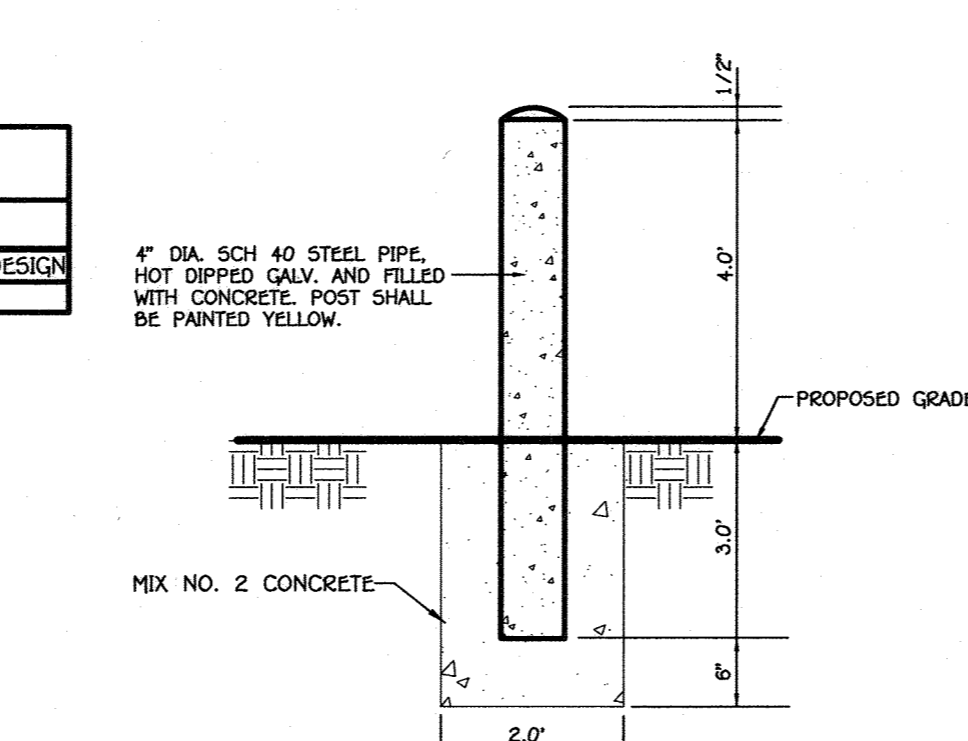
FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10275 BALTIMORE NATIONAL PIKE
ELICOTT CITY, MARYLAND 21042
4100 481 - 2995



TYPICAL CLEAN-OUT DETAIL
NO SCALE

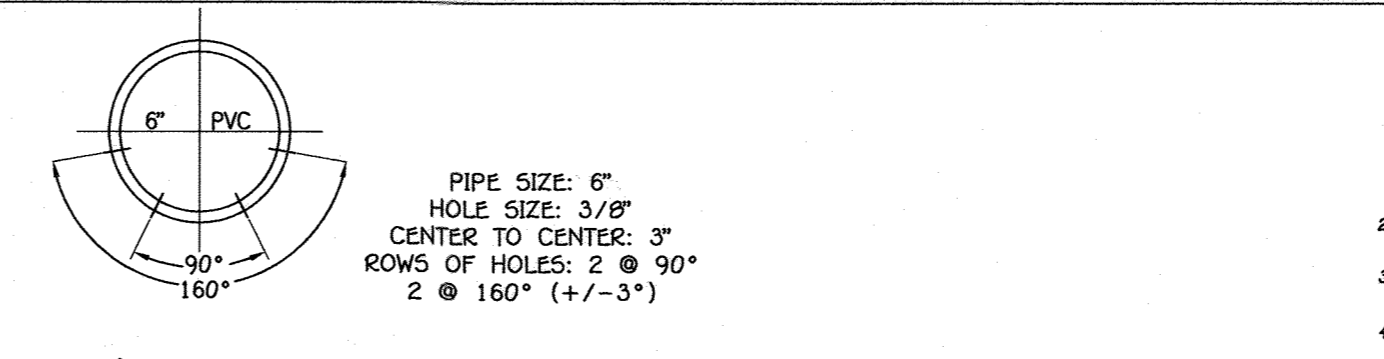
MICROBIORETENTION NOTES:

- ONLY THE SIDES OF MICROBIORETENTION ARE TO BE WRAPPED IN FILTER FABRIC. FILTER FABRIC BETWEEN LAYER OR AT THE BOTTOM OF THE MICROBIORETENTION WILL CAUSE THE MBR TO FAIL AND THEREFORE SHALL NOT BE INSTALLED.
- WRAP THE PERFORATED HDPE UNDERDRAIN PIPE WITH 3/8" MESH (4X4) OR SMALLER GALVANIZED HARDWARE CLOTH.
- PROVIDE 5" MINIMUM SPACING BETWEEN UNDER DRAIN AND PERFORATED PIPE THROUGH STONE RESERVOIR OR SPACE PIPE EQUALLY ACROSS BOTTOM FOR SMALL BIOS. (SEE PLANS)

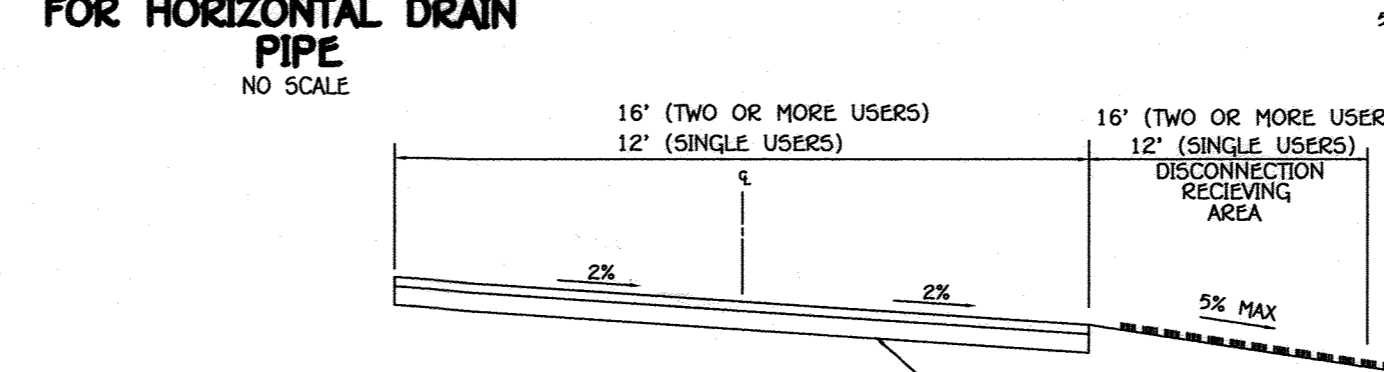


TYPICAL METAL BOLLARD DETAIL
NOT TO SCALE (STD. G-7.42)

4" DIA. SCH 40 STEEL PIPE, NOT DIPPED GALV. AND FILLED WITH CONCRETE. POST SHALL BE PAINTED YELLOW.



SCH40 PVC PERFORATED UNDERDRAIN PIPE DETAIL FOR HORIZONTAL DRAIN PIPE
NO SCALE

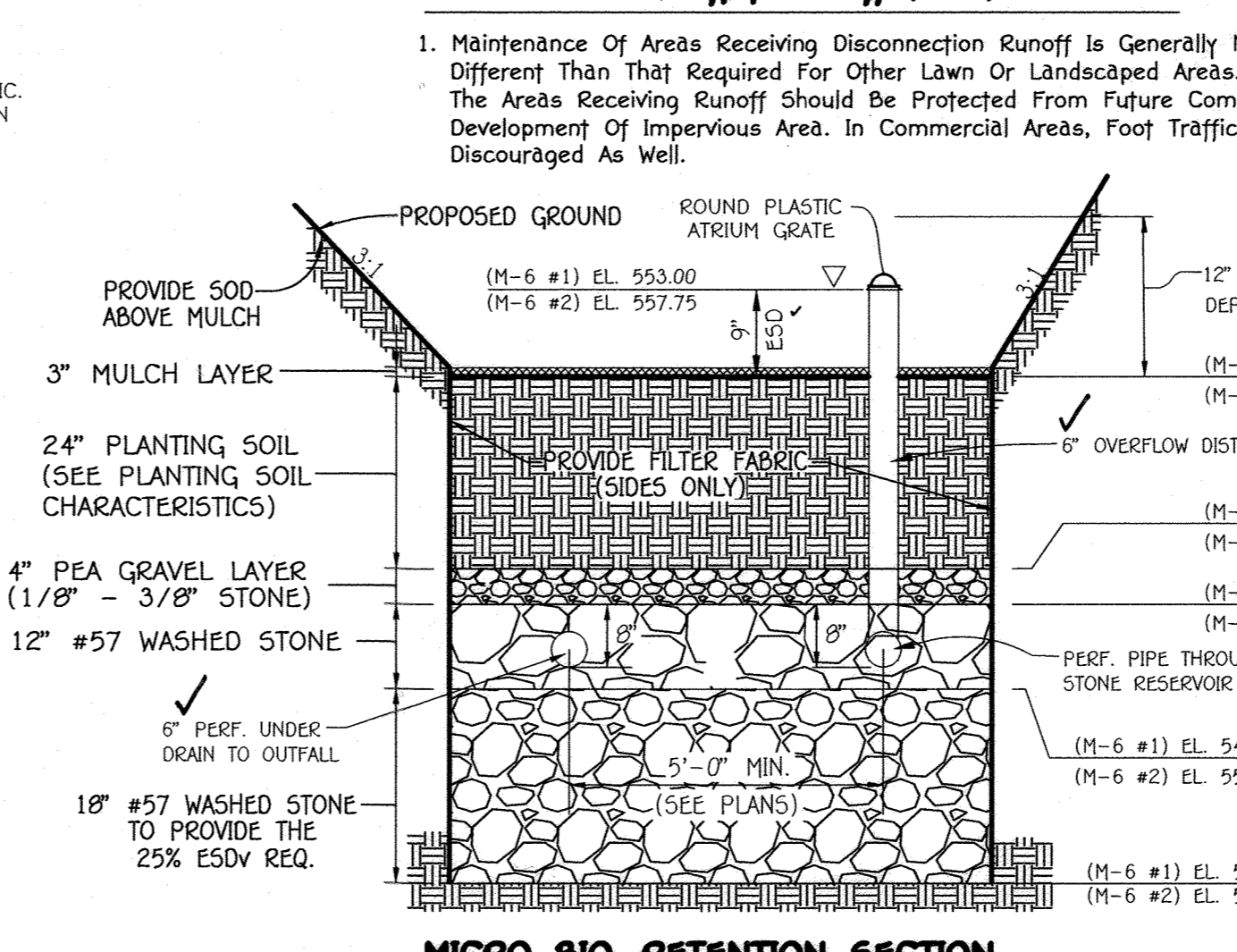


TYPICAL PRIVATE DRIVE CROSS SLOPE SECTION (N-2)
NOT TO SCALE

NOTE: ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.

Operation & Maintenance Schedule For Privately Owned And Maintained Disconnection Of Non-rooftop Runoff (N-2)

- Maintenance of Areas Receiving Disconnection Runoff is Generally No Different Than That Required For Other Lawn or Landscaped Areas. The Areas Receiving Runoff Should be Protected From Future Compaction Or Development Of Impervious Area. In Commercial Areas, Foot Traffic Should be Discouraged As Well.



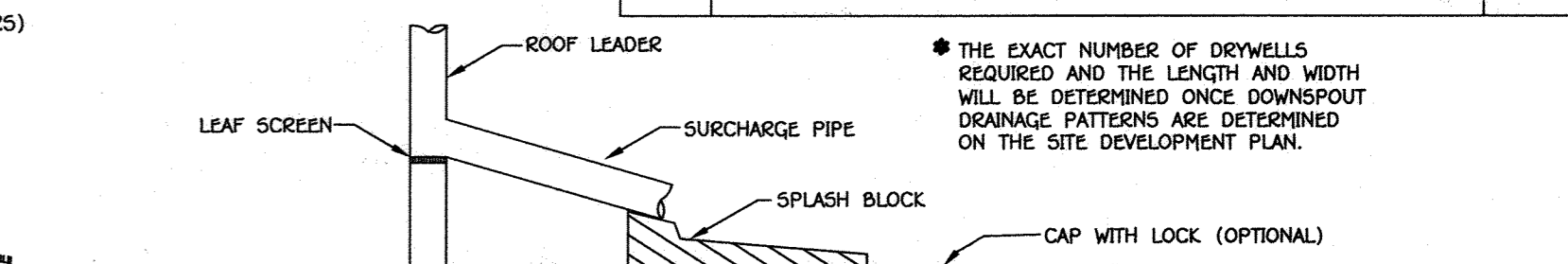
MICRO BIO-RETENTION SECTION WITH 6" OVERFLOW DISTRIBUTION PIPE
NO SCALE

PROVIDE 500-ABOVE MULCH
3" MULCH LAYER
24" PLANTING SOIL (SEE PLANTING SOIL CHARACTERISTICS)
4" PEA GRAVEL LAYER (1/8" - 3/8" STONE)
12" #57 WASHED STONE
6" PERF. UNDER DRAIN TO OUTFALL
18" #57 WASHED STONE TO PROVIDE THE 25% ESDV REQ.

STORMWATER MANAGEMENT NOTES

- STORMWATER MANAGEMENT IS PROVIDED IN ACCORDANCE WITH THE 2000 MARYLAND STORMWATER DESIGN MANUAL. CREDITS ARE GIVEN FOR DISCONNECTION OF IMPERVIOUS COVERS.
- MAXIMUM CONTRIBUTING ROOF TOP AREA TO EACH DOWNSPOUT SHALL BE LESS THAN 500 SQ. FT.
- DRYWELLS SHALL BE PROVIDED AT LOCATIONS WHERE THE LENGTH OF DISCONNECTION IS LESS THAN 75' AT 5% THE SIZE AND CONSTRUCTION OF THE DRYWELL SHALL BE IN ACCORDANCE WITH THE FIGURE 5.2 OF THE MANUAL AND THE DETAIL SHOWN ON THIS SHEET.
- FINAL GRADING WILL BE SHOWN ON PLOT PLAN.

| | | |
|---|---|---------|
| APPROVED: DEPARTMENT OF PUBLIC WORKS CHIEF, BUREAU OF HIGHWAYS <i>[Signature]</i> 1/23/2017 DATE | APPROVED: DEPARTMENT OF PLANNING AND ZONING CHIEF, DIVISION OF LAND DEVELOPMENT <i>[Signature]</i> 2-7-17 DATE | |
| CHIEF, DEVELOPMENT ENGINEERING DIVISION <i>[Signature]</i> 2-3-17 DATE | | |
| NO. | DESCRIPTION | DATE |
| 1 | REVISE PROJECT NAME & OWNER/DEVELOPER | 2/16/17 |



DRY WELL DETAIL (M-5)
NOT TO SCALE

NOTE: THE EXACT NUMBER OF DRYWELLS REQUIRED AND THE LENGTH AND WIDTH WILL BE DETERMINED ONCE DOWNSPOUT DRAINAGE PATTERNS ARE DETERMINED ON THE SITE DEVELOPMENT PLAN.

PERF. P.V.C. PIPE W/CAP PER AREA 5 TIMES PIPE AREA
OBSERVATION WELL 4-6 INCH PERFORATED PVC PIPE ON CONCRETE FOOTPLATE
FILTER FABRIC TOP AND SIDES (NON-WOVEN) MSHA CL. 'C'
12" SAND, ROTOTILL BELOW TRENCH BOTTOM
NOTE: TRENCH MAY NOT BE INSTALLED IN FILL

Operation And Maintenance Schedule For Drywells (M-5)

- The owner shall inspect the monitoring wells and structures on a quarterly basis and after every heavy storm event.
- The owner shall record the water levels and sediment build up in the monitoring wells over a period of several days to insure trench drainage.
- The owner shall maintain a log book to determine the rate at which the facility drains.
- When the facility becomes clogged so that it does not drain down within a seventy two (72) hour time period, corrective action shall be taken.
- The maintenance log book shall be available to Howard County for inspection to insure compliance with operation and maintenance criteria.
- Once the performance characteristics of the infiltration facility have been verified, the monitoring schedule can be reduced to an annual basis unless the performance data indicates that a more frequent schedule is required.

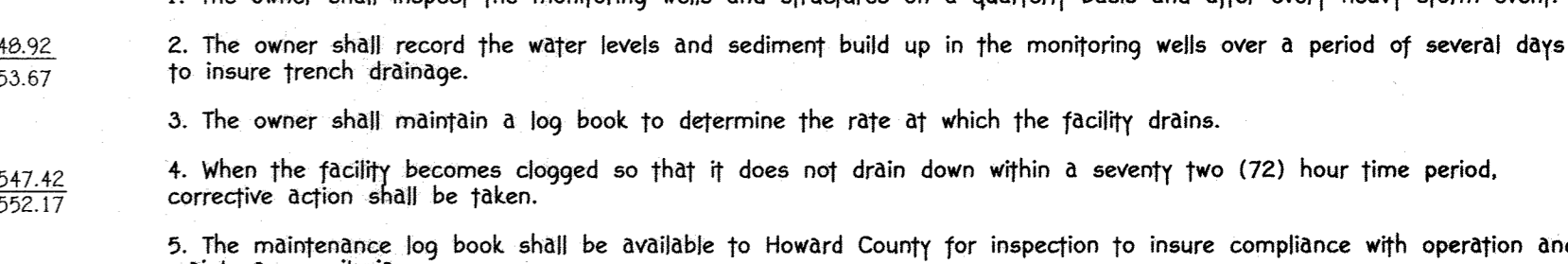
NOTE: SEE SHEET 13 FOR MICRO BIO-RETENTION LANDSCAPING PLANS.

AS-BUILT CERTIFICATION

I hereby certify, by my seal, that to the best of my knowledge and belief the facilities shown on the plan was constructed as shown on this "AS-BUILT" plan meet the approved plans and specifications.

DATE: *[Signature]* 6/14/2020
PAUL GERARD CAVANAUGH #27020

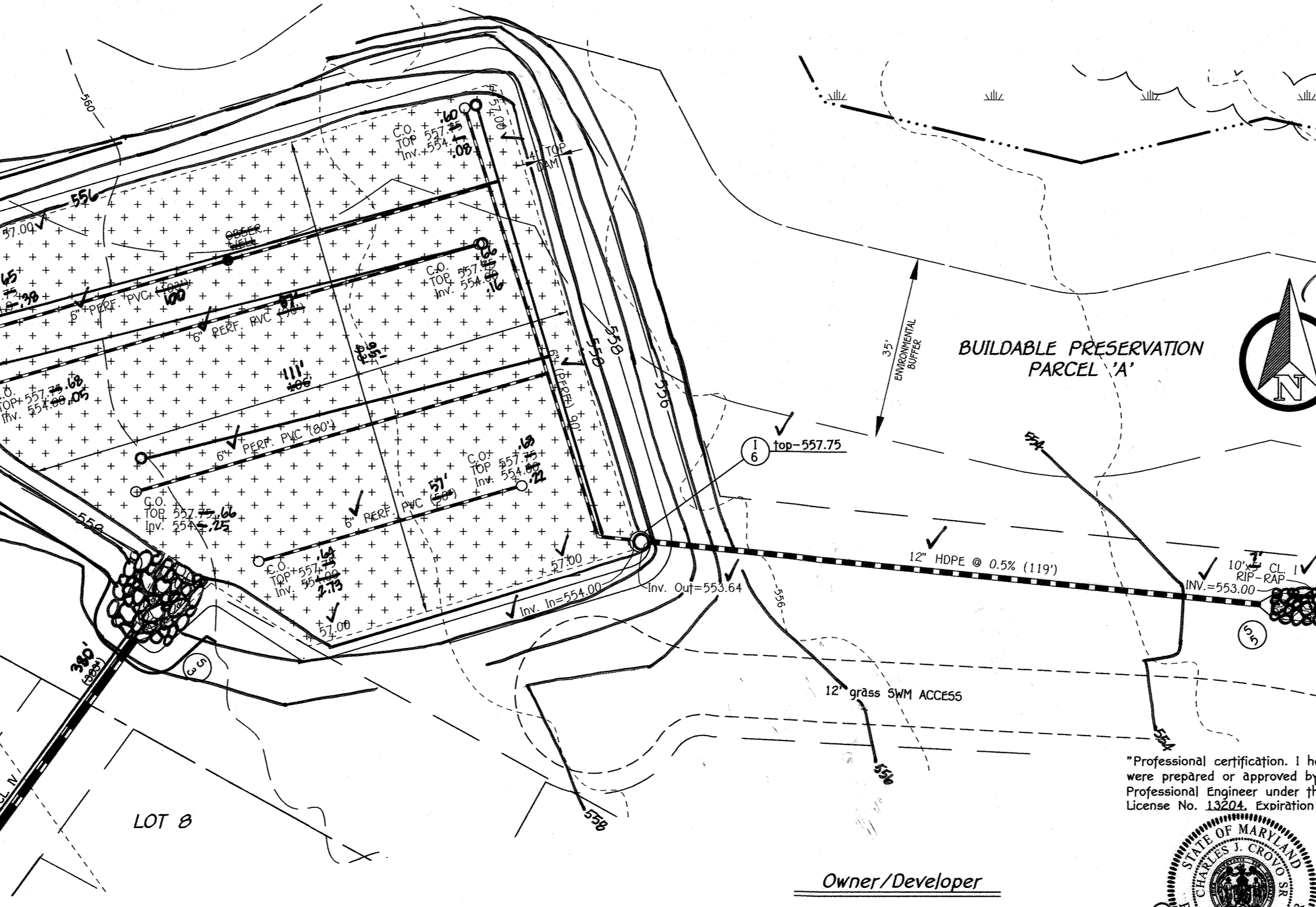
GUTTER DRAIN FILTER DETAIL
NOT TO SCALE



DRY WELL CHART

| LOT NO. | ESD REQUIRED (CUBIC FEET) | ESD PROVIDED (CUBIC FEET) | NO. OF DRYWELLS | *0 | L | W |
|---------|---------------------------|---------------------------|-----------------|----|-----|-----|
| LOT 1 | 198 CU.FT. | 471 CU.FT. | 3 | 4' | 14' | 7' |
| LOT 2 | 198 CU.FT. | 785 CU.FT. | 5 | 4' | 14' | 7' |
| LOT 3 | 198 CU.FT. | 471 CU.FT. | 3 | 4' | 14' | 7' |
| LOT 4 | 110 CU.FT. | 176 CU.FT. | 2 | 4' | 10' | 5' |
| LOT 5 | 110 CU.FT. | 640 CU.FT. | 2 | 4' | 20' | 10' |
| LOT 6 | 110 CU.FT. | 640 CU.FT. | 2 | 4' | 20' | 10' |
| LOT 7 | 40 CU.FT. | 204 CU.FT. | 2 | 4' | 16' | 8' |
| LOT 8 | 40 CU.FT. | 204 CU.FT. | 2 | 4' | 16' | 8' |
| LOT 9 | 40 CU.FT. | 204 CU.FT. | 2 | 4' | 16' | 8' |
| LOT 10 | 110 CU.FT. | 640 CU.FT. | 2 | 4' | 20' | 10' |
| LOT 11 | 110 CU.FT. | 160 CU.FT. | 2 | 4' | 10' | 5' |

NOTE: THE MAXIMUM ALLOWABLE DRAINAGE AREA TO A SINGLE DRYWELL SHALL NOT EXCEED 1,000 SQ.FT. NOTE: THE DRYWELL DIMENSIONS ARE CONCEPTUAL AND FINAL DIMENSIONS WILL BE PROVIDED WITH INDIVIDUAL BUILDING PERMITS WHEN FINAL HOUSE MODELS ARE SHOWN.



MICRO BIO-RETENTION FACILITY #2 AND DIMENSION PLAN M-6
SCALE: 1"=20'

Owner/Developer
BOARDMAN PROPERTY INVESTMENT, LLC
12126 Maryland Route 216
Fulton, Maryland 20759
Ph: (410) 707-1976

"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. 13204, Expiration Date 11/3/18."

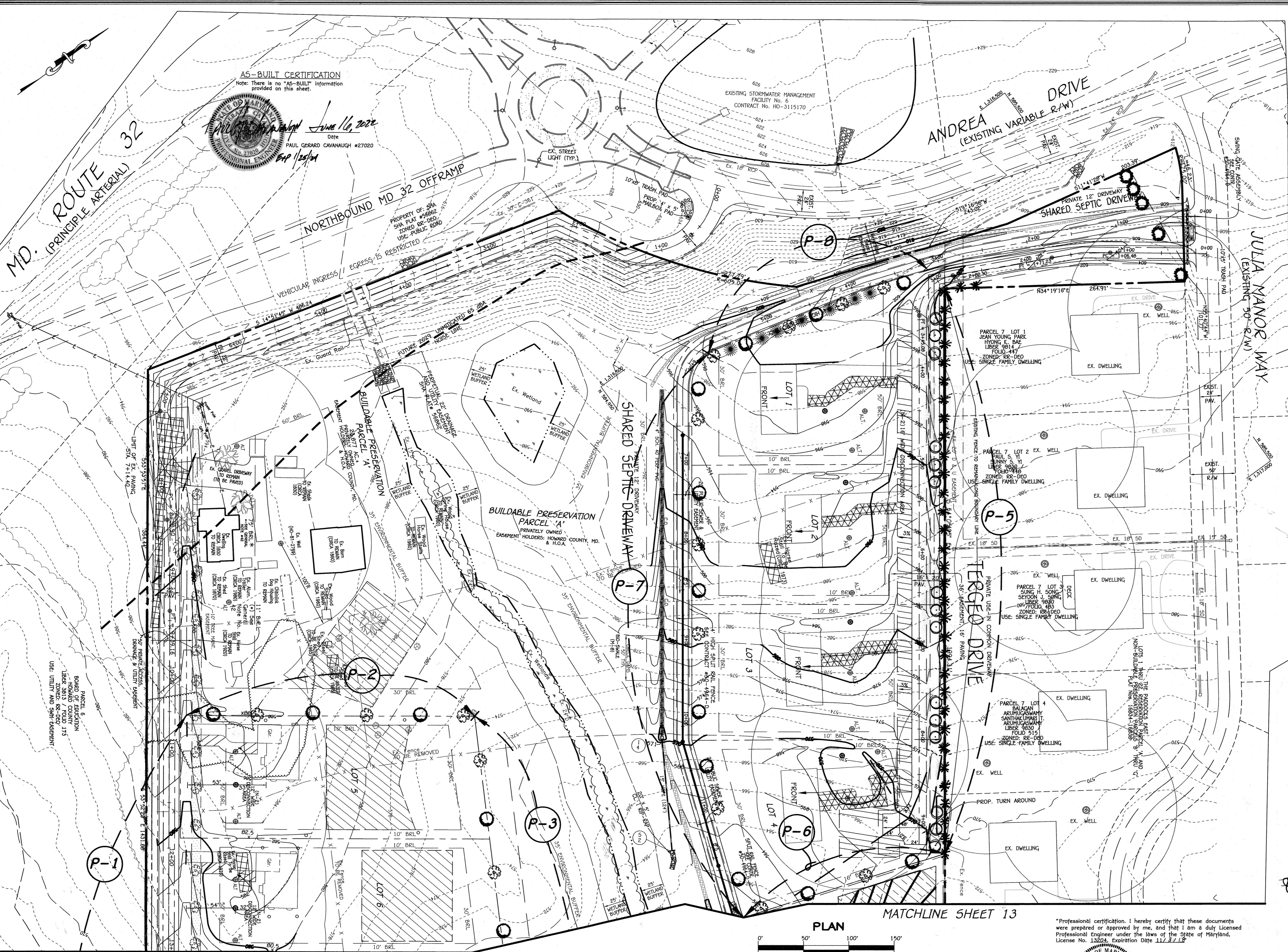
DATE: *[Signature]* 1/23/17

STORMWATER MANAGEMENT NOTES & DETAILS BELVEDERE ESTATES

LOTS 1-11, BUILDABLE PRESERVATION PARCEL 'A' AND NON-BUILDABLE PRESERVATION PARCEL 'B'
ZONED: RR-DEO
TAX MAP No. 22 GRID No. 8 PARCEL No. 116 & P/O No. 7
THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
DATE: OCTOBER 11, 2016
SHEET 11 OF 20

DATE: 1/23/17

"AS-BUILT" F-16-065



AS-BUILT CERTIFICATION
 Note: There is no "AS-BUILT" information provided on this sheet.
 PAUL GERARD CAVANAUGH #27020
 Date: June 16, 2022
 6/16/22/PM

APPROVED: DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Highways
 APPROVED: DEPARTMENT OF PLANNING AND ZONING
 Chief, Division of Land Development
 Chief, Development Engineering Division

| NO. | DESCRIPTION | DATE |
|-----|---|----------|
| 1 | REMOVE PROJECT NAME & OWNER INFORMATION | 3/16/17 |
| 2 | REMOVE STREET TREE PLANTING BOUNDARIES AND PLACE THEM ALONG P-3 & REVISED P-5 PLANTINGS | 11/29/17 |

NOTES:
 Should any tree designated for preservation for which landscaping credit is given, die prior to release of bonds, the owner will be required to replace the tree with the equivalent species or with a tree which will obtain the same height, spread and growth characteristics. The replacement tree must be a minimum of 3 inches in caliper and installed as required in the Howard County Landscape Manual.

At the time of plant installation, all trees listed and approved on the landscape plan, shall comply with the proper height requirement in accordance with the Howard County Landscape Manual. In addition, no substitutions or relocations of the required plantings may be made without prior review and approval from the Department of Planning and Zoning. Any deviations from the approved Landscape Plan may result in denial or delay in the release of landscape surety until such time as all required materials are planted and/or revisions are made to the road drawing plans.

The Owner, tenants and/or their agents shall be responsible for maintenance of the required perimeter landscaping. 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 the other required landscaping shall be permanently maintained in good condition, and when necessary, repaired or replaced.

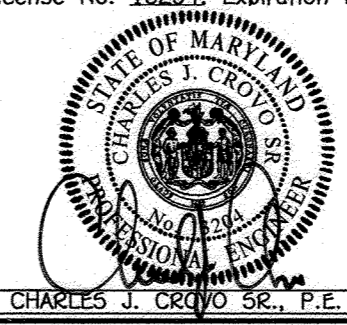
| LEGEND | |
|---------------------|-------------------------------|
| SYMBOL | DESCRIPTION |
| ---576--- | EXISTING CONTOUR 2' INTERVAL |
| ---580--- | EXISTING CONTOUR 10' INTERVAL |
| ---576--- | PROPOSED CONTOUR 2' INTERVAL |
| ---580--- | PROPOSED CONTOUR 10' INTERVAL |
| -TP-TP- | TREE PROTECTION |
| -SF-SF- | SILT FENCE |
| -SSF-SSF- | SUPER SILT FENCE |
| L.O.D. | LIMIT OF DISTURBANCE |
| R.G. | RAINGARDEN |
| [Wavy Line] | WETLANDS |
| [Dashed Line] | WETLAND BUFFER |
| [Stippled Area] | FLOODPLAIN |
| [Circle with W] | WELL |
| [Star] | EXISTING TREE |
| [Star with Line] | EXISTING TREE LINE |
| [Star with Circle] | PROPOSED TREE LINE |
| [Square with X] | PROPOSED HOUSE |
| [Diagonal Lines] | 15% TO 24.99% SLOPES |
| [Cross-hatch] | 25% OR GREATER SLOPES |
| [Hexagonal Pattern] | FOREST CONSERVATION EASMENT |
| [Wavy Line] | STREAM |
| [Dashed Line] | STREAM BANK BUFFER |
| [Circle with X] | EX. STREET LIGHT |

LANDSCAPE DEVELOPER'S CERTIFICATE
 I/we certify that the landscaping shown on this plan will be done according to the plan, Section 15.124 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 year guarantee of plant materials will be submitted to the Department of Planning and Zoning.

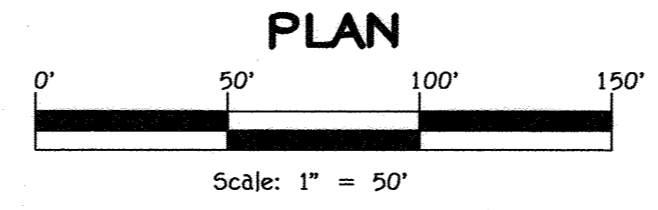
George Boorman 1-3-17
 Date

LANDSCAPE PLAN & DETAILS
BELVEDERE ESTATES
 LOTS 1-11, BUILDABLE PRESERVATION PARCEL 'A' AND NON-BUILDABLE PRESERVATION PARCEL 'B'
 ZONED: RR-DEO
 TAX MAP No. 22 GRID No. 8 PARCEL No. 116 & P/O No. 7
 THIRD ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 DATE: OCTOBER 11, 2016
 SHEET 12 OF 20

*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. 13204, expiration Date 11/23/18



Owner/Developer
 BOARDMAN PROPERTY INVESTMENT, LLC
 12128 Maryland Route 216
 Fulton, Maryland 20729
 Ph: (410) 707-1976



MATCHLINE SHEET 13

MATCHLINE SHEET 13

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PARK
 ELLICOTT CITY, MARYLAND 21042
 (410) 461-2099

THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET F-16-065

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 above shown on the plant list and the American Association of Nurserymen (A.A.N.) Standards. Plant material shall be healthy, vigorous, free from defects, decay, disfiguring roots, sun scald injuries, abrasions of the bark, plant disease, insect pest eggs, borers, and all forms of insect infestations or objectionable infestations. Plant material shall be well rooted and back from larger orders to meet specified requirements will be rejected. Trees with forked leaders will not be accepted. All plants shall be freshly dug, no heated-in plants from cold storage will be accepted.

Unless otherwise specified, all general conditions, planting operations, details and planting specifications 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 National Chapter of the American Society of Landscape Architects, both in effect, including all amendments.

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 "Miss 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 a 4 foot high snow fence or blizzard safety fence at the contractor's expense.

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 the 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 plant list 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.

Proper drainage shall be maintained in planting beds 2 percent slope.

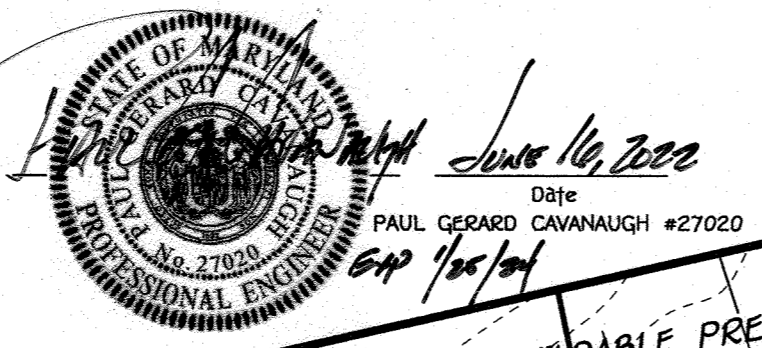
Planting mix shall be as follows: Deciduous Plants - Two parts topsoil, one part well-rotted cow or horse manure. Add 3 lbs. of extended fertilizer per cubic yard of planting mix. Evergreen Plants - Two parts topsoil, one part humus or other approved organic material. Add 3 lbs. of evergreen (acidic) fertilizer per cubic yard of planting mix. Topsoil shall conform to the Landscape Guidelines.

Wood 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 delineated 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.

AS-BUILT CERTIFICATION

Note: There is no "AS-BUILT" information provided on this sheet.



ESD TREES/SHRUBS/PERENNIALS - MICRO BIO-RETENTION

| QTY. | SYM. | BOTANICAL/Common Name | SIZE | CONT. | REMARKS |
|------|------|--|---------------|--------|--------------------------|
| 37 | CHG | Chelone glabra White Turtlehead | #1 | Conf. | 24" O.C. |
| 32 | IGS | Ilex glabra 'Shamrock' Inkberry | 24"-30" Ht. | Conf. | 30" o.c./Male Cultivar |
| 32 | ITH | Itea virginica 'Little Henry' Dwarf Virginia Sweetspire | 18" - 24" Ht. | 3 Gal. | 30" o.c. min. |
| 8 | BNH | Betula nigra 'Heritage' River Birch | 10"-12" Ht. | B & B | Multistem (3 stems min.) |

APPROVED: DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF HIGHWAYS: *[Signature]* DATE: 1/27/2017

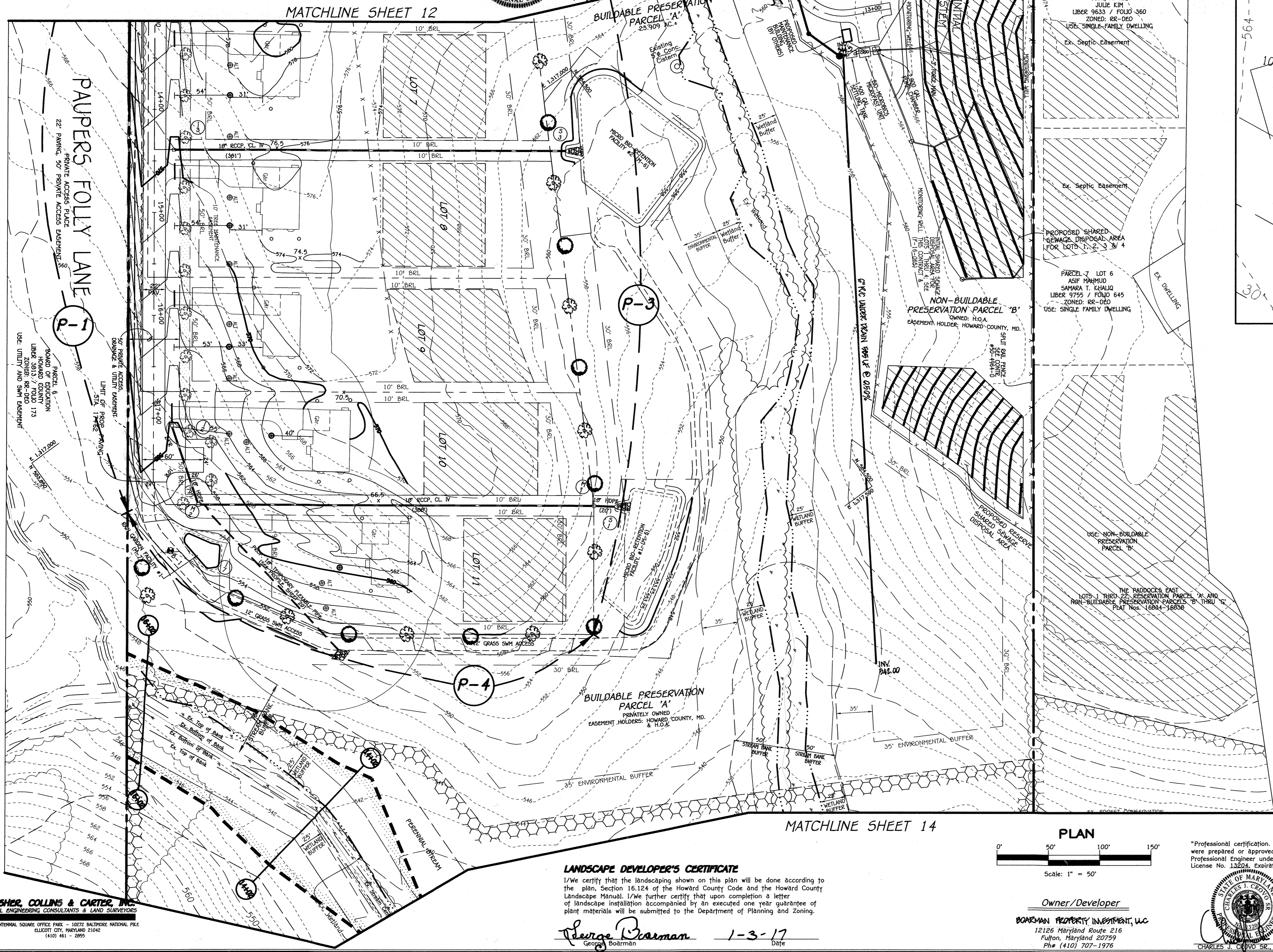
APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT: *[Signature]* DATE: 2-7-17

CHIEF, DEVELOPMENT ENGINEERING DIVISION: *[Signature]* DATE: 2-3-17

REVISIONS

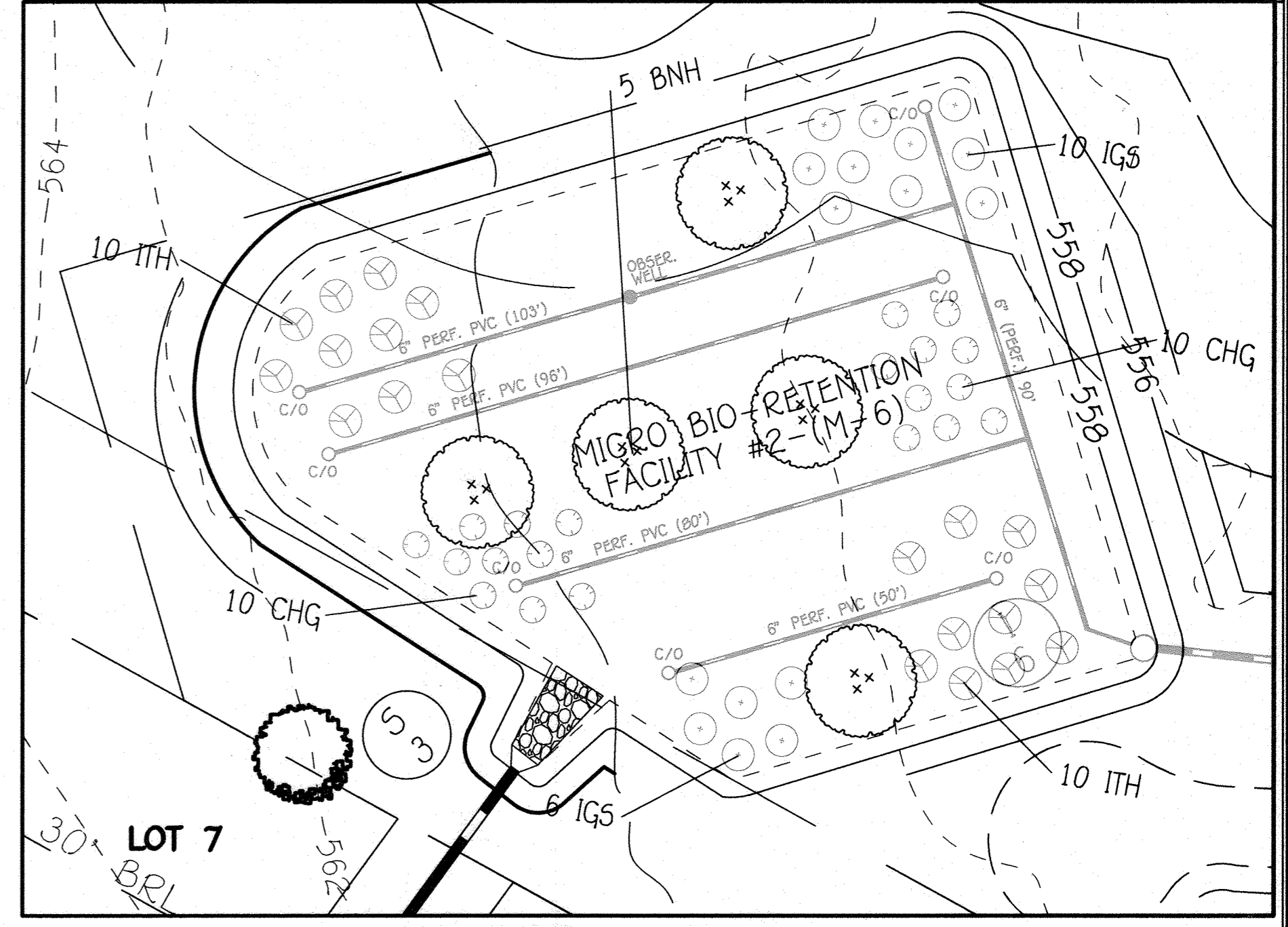
| NO. | DESCRIPTION | DATE |
|-----|--|---------|
| 1 | REVISE PROJECT NAME & OWNER/DEVELOPER | 2/2/17 |
| 2 | REVISE STREET CROSSING SOUTHERN BOLLERS (ADJUST PAUL LANE) | 1/15/17 |
| 3 | ADDED 6" PVC UNDER DRAIN | 2/2/17 |



MATCHLINE SHEET 12

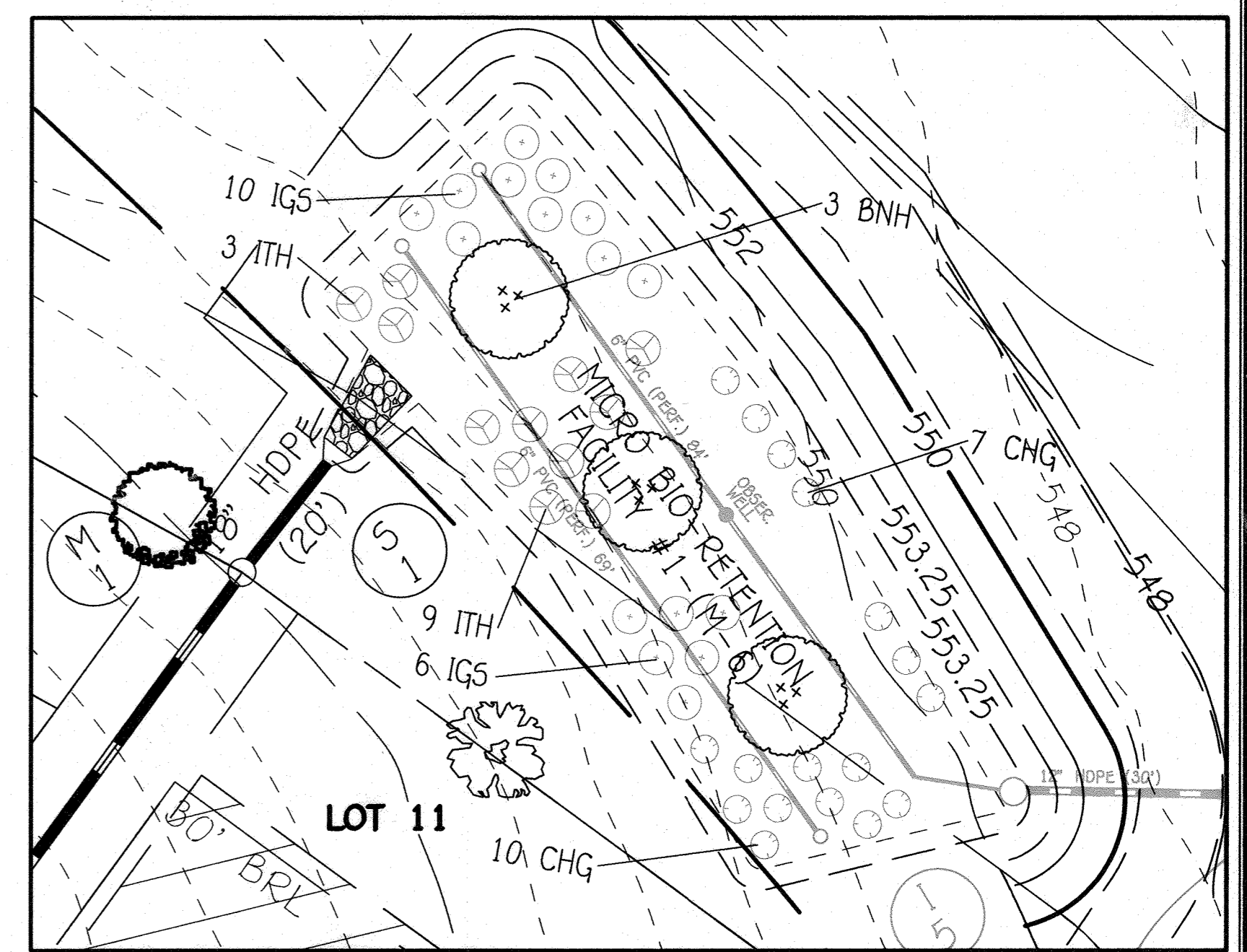
MATCHLINE SHEET 12

MATCHLINE SHEET 14



MICRO BIO-RETENTION PLANTING PLAN

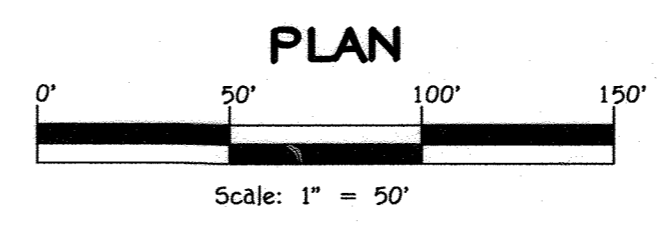
SCALE: 1" = 20'



MICRO BIO-RETENTION PLANTING PLAN

SCALE: 1" = 20'

THE PURPOSE OF THIS REDLINE IS TO SHOW THE REDLINE REVISION FOR THE PROPOSED UNDER DRAIN PIPE.



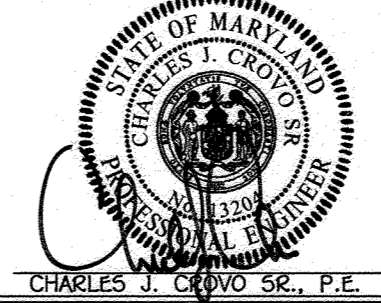
LANDSCAPE DEVELOPER'S CERTIFICATE

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 letter of landscape installation accompanied by an executed one year guarantee of plant materials will be submitted to the Department of Planning and Zoning.

George Boorman 1-3-17
George Boorman Date

Owner/Developer
BOORMAN PROPERTY INVESTMENT, LLC
12126 Maryland Route 216
Fulton, Maryland 20759
Ph: (410) 707-1976

"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. 13224, Expiration Date 11/3/18."



LANDSCAPE PLAN & DETAILS
BELVEDERE ESTATES
LOTS 1-11, BUILDABLE PRESERVATION PARCEL 'A'
AND NON-BUILDABLE PRESERVATION PARCEL 'B'

TAX MAP NO. 22 GRID NO. 8 PARCEL NO. 116 & P/O NO. 7
ZONED: RR-DEO
THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
DATE: OCTOBER 11, 2016
SHEET 13 OF 20

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

| SCHEDULE A - PERIMETER LANDSCAPING | | | | | | | | | | | | |
|------------------------------------|--------------------------------|----------------|---|--|--|---------------------------|-----------------|--------|---------------------------|-----------------|------------------|--------|
| PERIMETER | CATEGORY (PROPERTIES/ROADWAYS) | LANDSCAPE TYPE | LINEAR FEET OF ROADWAY FRONTAGE PERIMETER | CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED) | CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED) | NUMBER OF PLANTS REQUIRED | | | NUMBER OF PLANTS PROVIDED | | | |
| | | | | | | SHADE TREES | EVERGREEN TREES | SHRUBS | SHADE TREES | EVERGREEN TREES | ORNAMENTAL TREES | SHRUBS |
| P-1 | FRONT TO ROAD | N/A | 837' | NO | NO | - | - | - | - | - | - | - |
| P-2 | ADJACENT TO PERIMETER | A | 342' | NO | NO | 6 | - | - | 6 | - | - | - |
| P-3 | ADJACENT TO PERIMETER | A | 859' | NO | NO | 14 | - | - | 14 | - | - | - |
| P-4 | ADJACENT TO PERIMETER | A | 493' | NO | NO | 8 | - | - | 8 | - | - | - |
| P-5 | ADJACENT TO PERIMETER | A | 621' | NO | NO | 10 | - | - | 10 | - | - | - |
| P-6 | ADJACENT TO PERIMETER | A | 223' | NO | NO | 4 | - | - | 4 | - | - | - |
| P-7 | ADJACENT TO PERIMETER | A | 634' | NO | NO | 11 | - | - | 11 | - | - | - |
| P-8 | ADJACENT TO ROADWAY | B | 280' | NO | NO | 6 | 7 | - | 6 | 7 | - | - |

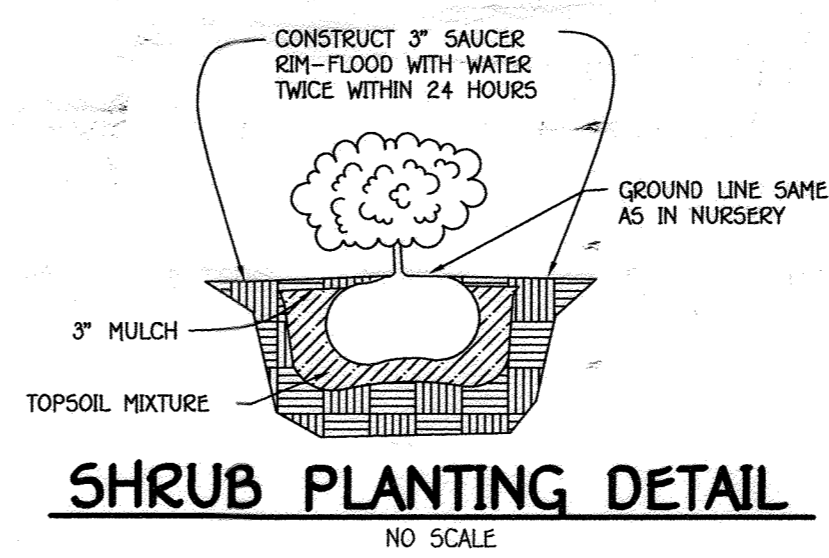
NOTE: IN ORDER TO ADDRESS MODIFIED PERIMETER LANDSCAPING REQUIREMENTS PER WP-10-018, THE P-5 PERIMETER LANDSCAPING WILL CONSIST OF 34 WHITE PINES AND 19 ORNAMENTAL TREES (PART OF PAUPERS FOLLY LANE, STREET TREE REQUIREMENT).

| STREET TREE SCHEDULE | | | |
|--|---|------------------|--|
| QTY. | BOTANICAL AND COMMON NAME | SIZE | COMMENTS |
| 194/40 = 4.85' 5 TREES | ACER RUBRUM "OCTOBER GLORY" RED MAPLE | 2 1/2-3" CAL. | 40' APART ON PUBLIC R/W (JULIA MANOR WAY) |
| 1048' x 2 = 2096' 2096' / 40 = 52.4 52 TREES | PRUNUS SARGENTII SARGENT CHERRY | 2 1/2-3" CAL. | 40' APART ON PRIVATE EASEMENT (PAUPERS FOLLY LANE) |

NOTES: 1. FINAL PLACEMENT OF STREET TREES WILL OCCUR IN THE FIELD AND BE PLACED A MINIMUM OF 30 FEET FROM ALL SIGNS AND INTERSECTIONS WHEN PLANTED BETWEEN SIDEWALK AND CURB, BE LOCATED WITH CONSIDERATION OF UNDERGROUND UTILITIES AND STRUCTURES AND MAINTAIN A MINIMUM 5 FEET DISTANCE ON CENTER FROM A DRAIN INLET STRUCTURE, 5 FEET FROM AN OPEN SPACE ACCESS STRIP AND 10 FEET FROM A DRIVEWAY.

2. FINANCIAL SURETY FOR THE 57 PRIVATELY OWNED STREET TREES HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$17,100.00

* 9. 15 SARGENT CHERRY TREES HAVE BEEN PLACED ALONG TERGO DRIVE.



| PLANT LIST (SCHEDULE 'A') | | | |
|---------------------------|------|---|-------------------|
| SYMBOL | QTY. | BOTANICAL AND COMMON NAME | SIZE |
| (Symbol) | 24 | PRUNUS SARGENTII SARGENT CHERRY | 2 1/2-3" CAL. |
| (Symbol) | 25 | CORNUS FLORIDA 'CHEROKEE BRAVE' CHEROKEE BRAVE DOGWOOD | 8' - 10' HT. |
| (Symbol) | 41 | PINUS STROBUS EASTERN WHITE PINE | 6' - 8' HT. |
| (Symbol) | 12 | AZALEA 'EXBURY' EXBURY AZALEA (red, pink, yellow, orange, white) | 18"-24" SPREAD |

NOTE: TREE TYPES MAY BE SUBSTITUTED WITH A HOWARD COUNTY APPROVED SPECIES FROM THE HOWARD COUNTY LANDSCAPE MANUAL.

FINANCIAL SURETY FOR THE REQUIRED 49 SHADE TREES, 57 EVERGREEN TREES, & 12 SHRUBS SHALL BE PROVIDED WITH THE DEVELOPER'S AGREEMENT FOR THIS FINAL PLAN IN THE AMOUNT OF \$19,110.00

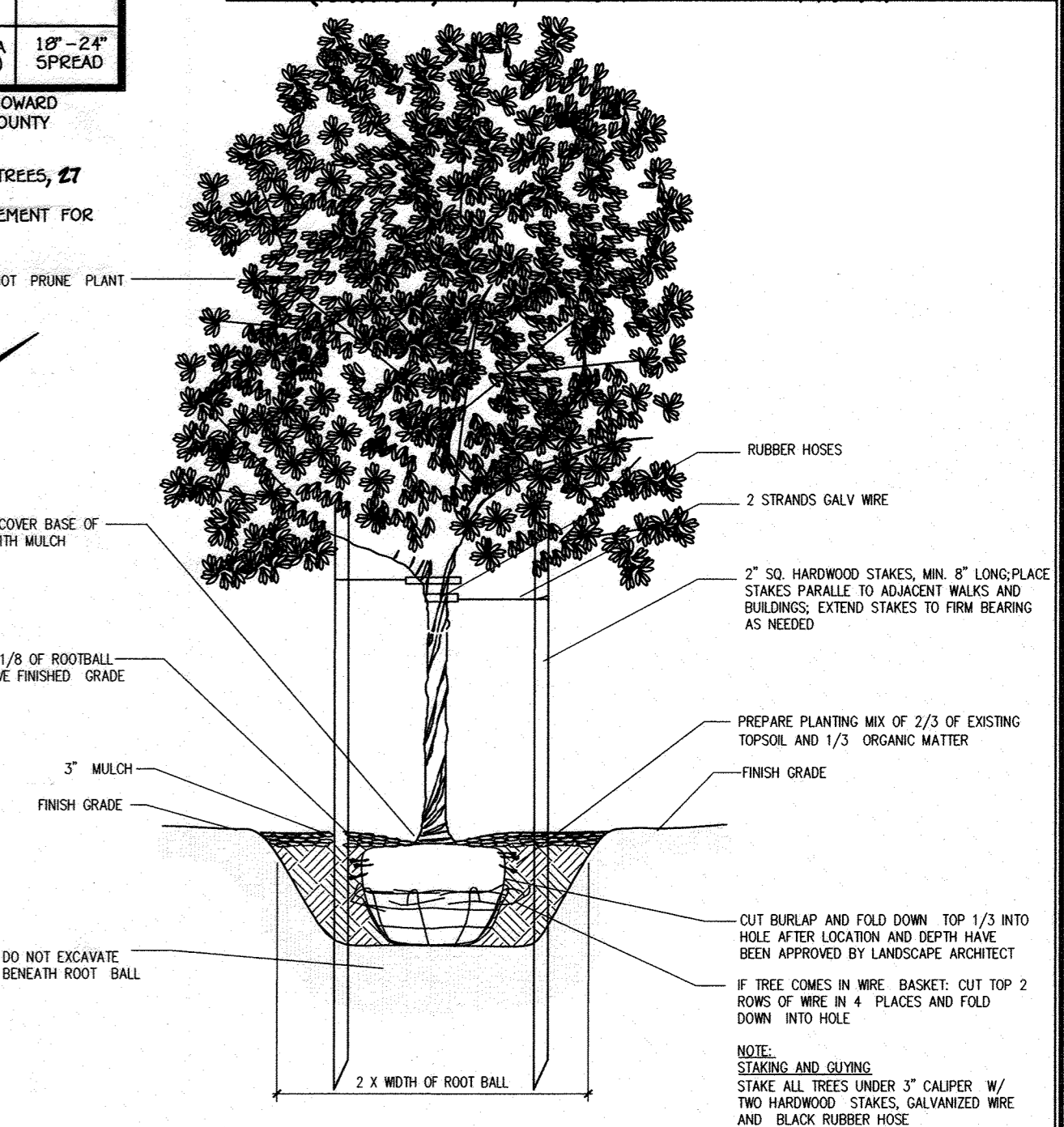
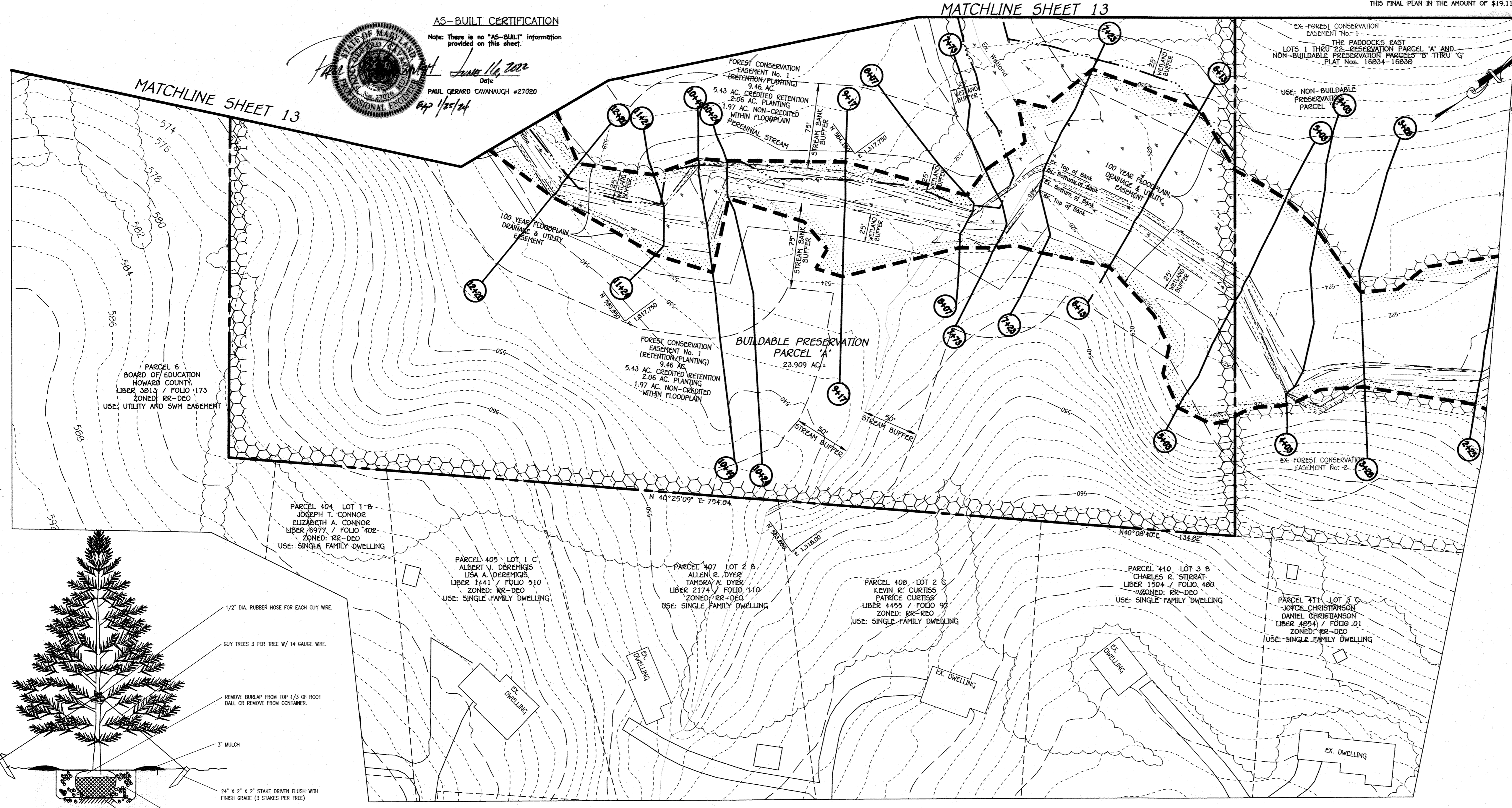
APPROVED: DEPARTMENT OF PUBLIC WORKS
 1/23/2017
 CHIEF, BUREAU OF HIGHWAYS
 APPROVED: DEPARTMENT OF PLANNING AND ZONING
 2-7-17
 CHIEF, DIVISION OF LAND DEVELOPMENT
 2-3-17
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

| REVISIONS | | |
|-----------|--|----------|
| NO. | DESCRIPTION | DATE |
| 1 | REMOVE PROJECT NAME & OWNER/DEVELOPER | 3/16/17 |
| 2 | REMOVE PERIMETER LANDSCAPING, STREET TREE REQUIREMENT & PLANT LIST (SCHEDULE 'A'), CHANGE TO PERIMETER STREET TREE REQUIREMENT | 11/07/17 |

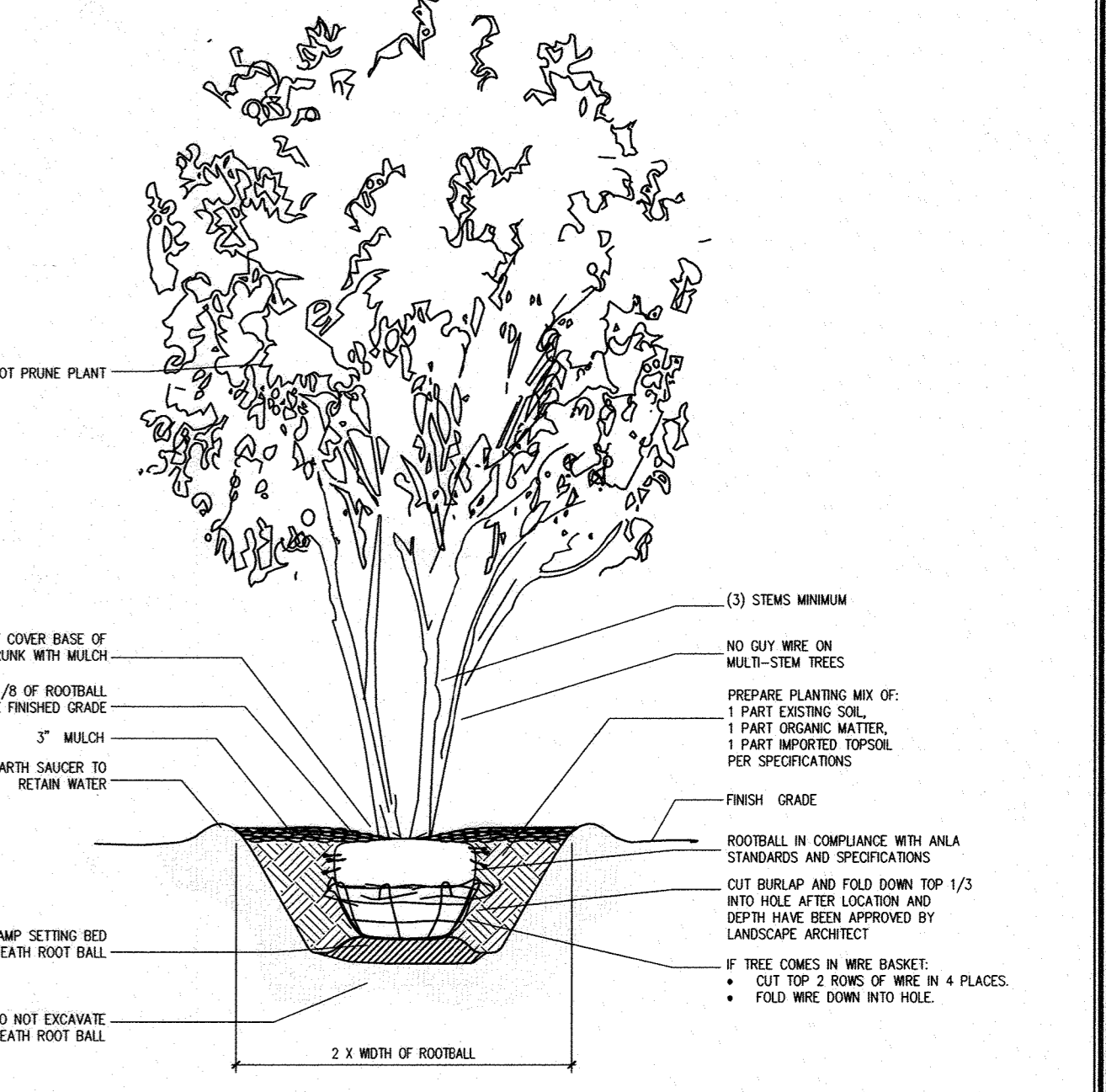
AS-BUILT CERTIFICATION

Note: There is no "AS-BUILT" information provided on this sheet.

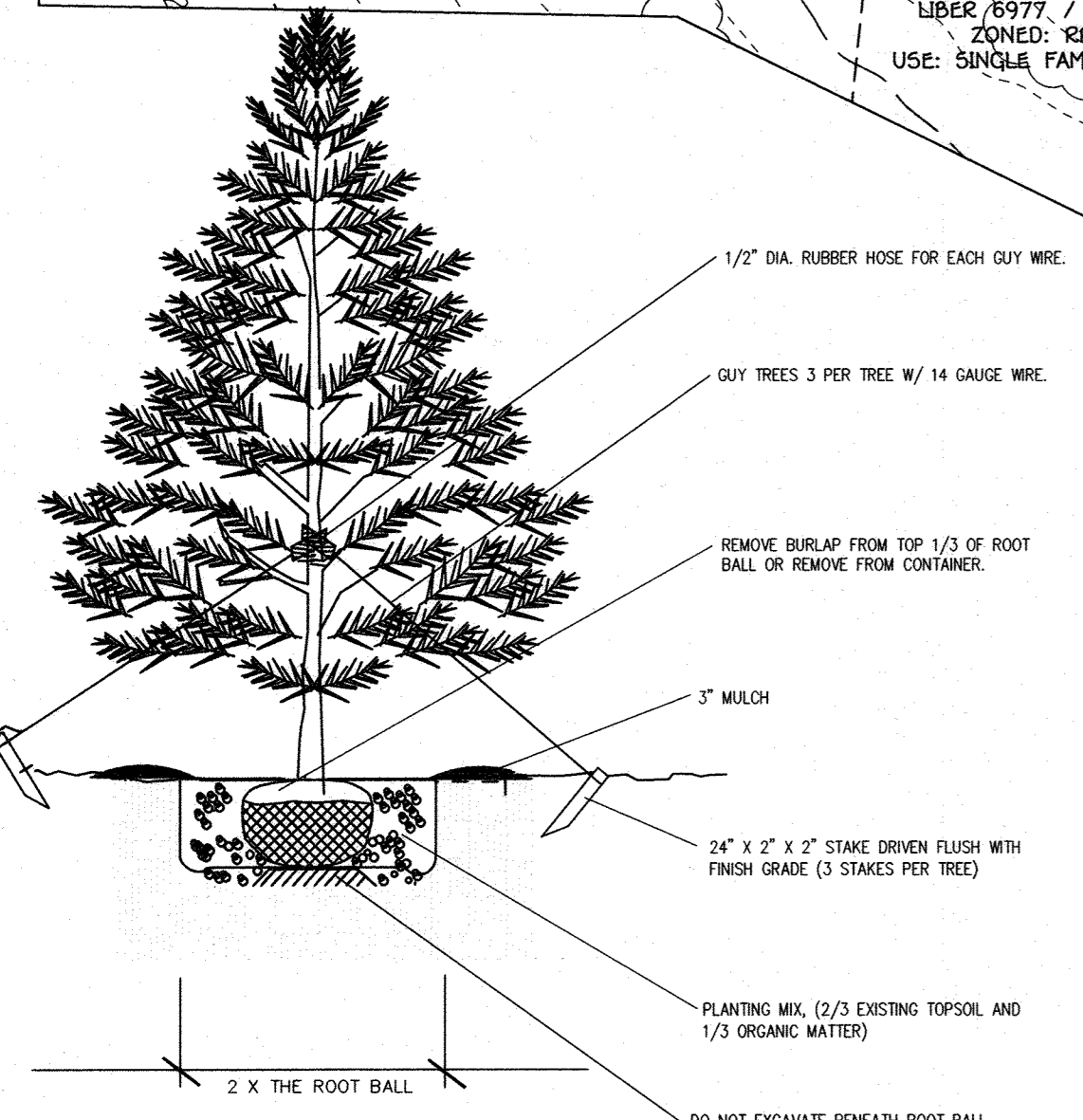
PAUL CERARD CAVANAUGH #27020
 6/12/2017
 6/12/2017



DECIDUOUS TREE - TYPICAL PLANTING DETAIL



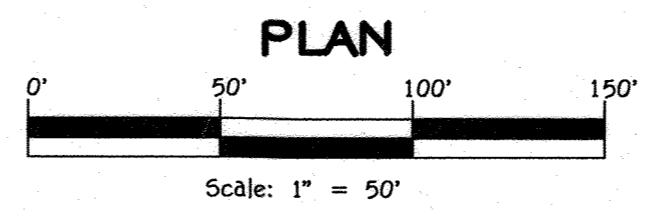
MULTISTEM TREE - TYPICAL PLANTING DETAIL



EVERGREEN TREE - TYPICAL PLANTING DETAIL

| TRASH/RECYCLE PAD LANDSCAPING | | |
|-------------------------------|--------------------------------|-------------------------|
| LINEAR FEET OF PERIMETER | PAUPERS FOLLY LANE PAD: 26 LF; | TERGO DRIVE PAD: 20 LF; |
| NUMBER OF SHRUBS PROVIDED: | 7 | 5 |

NOTES: 1. THE TRASH/RECYCLE PAD LANDSCAPING WILL BE MAINTAINED BY THE USERS OF THE PRIVATE USE-IN-COMMON MAINTENANCE AGREEMENT.
 2. THE LANDSCAPING SHALL BE INSTALLED AROUND THE PERIMETER OF THE PAD EXCLUDING THE SIDE ADJACENT TO THE PUBLIC ROAD RIGHT-OF-WAY.



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 letter of landscape installation accompanied by an executed one year guarantee of plant materials will be submitted to the Department of Planning and Zoning.

George Boardman 1-3-17
 George Boardman Date

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10776 BALTIMORE NATIONAL PIKE
 ELICOTT CITY, MARYLAND 21042
 (410) 461-2895

Owner/Developer
 BOARDMAN PROPERTY INVESTMENT, LLC
 12126 Maryland Route 216
 Fulton, Maryland 20759
 PH: (410) 707-1976

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. 13326. Expiration Date 11/3/18.

LANDSCAPE PLAN & DETAILS
BELVEDERE ESTATES
 LOTS 1-11, BUILDABLE PRESERVATION PARCEL 'A'
 AND NON-BUILDABLE PRESERVATION PARCEL 'B'
 ZONED: RR-DEO
 PARCEL No. 9 PARCEL No. 116 & P/O No. 7
 TAX MAP No. 22 GRID No. 9
 THIRD ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 DATE: OCTOBER 11, 2016
 SHEET 14 OF 20

THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET F-16-065

APPROVED: DEPARTMENT OF PUBLIC WORKS
 CHIEF, BUREAU OF HIGHWAYS *1/23/17*
 DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DIVISION OF LAND DEVELOPMENT *2-7-17*
 DATE

2-3-17
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE

| REVISIONS | | |
|-----------|---------------------------------------|---------|
| NO. | DESCRIPTION | DATE |
| 1 | REVISE PROJECT NAME & OWNER/DEVELOPER | 9/16/17 |

| DRAINAGE AREA DATA | | | | | |
|--------------------|----------|--------|--------|--------|---|
| DRAINAGE AREA | AREA | % IMP. | ZONED | % IMP. | REMARKS |
| A | 0.83 AC. | --- | RR-DEO | --- | BIO-SHALE AREA |
| B | 0.54 AC. | --- | RR-DEO | --- | SOURCE EX FOR TRS&P AND-RESIDUAL PLOT #1 |
| C | 0.90 AC. | 0.44 | RR-DEO | 72% | TO I-2 |
| D | 0.98 AC. | --- | RR-DEO | --- | RAIN GARDEN AREA |
| E | 1.70 AC. | 0.43 | RR-DEO | 26% | TO I-3 |
| F | 1.50 AC. | --- | RR-DEO | --- | TRAILER EX FOR TRS&P AND-RESIDUAL PLOT #1 |

AS-BUILT CERTIFICATION

Note: There is no "AS-BUILT" information provided on this sheet.

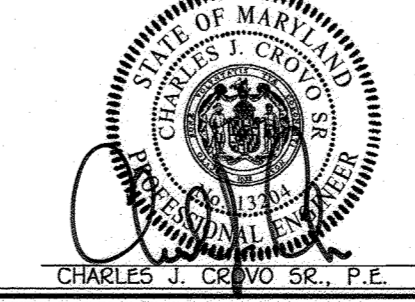
PAUL GERARD CAVANAUGH
 PAUL GERARD CAVANAUGH #27020
 DATE *June 16, 2018*
 EXP *1/15/21*

SOILS LEGEND

| SOIL | NAME | CLASS |
|------|--|-------|
| GgB | Glennig loam, 3 to 8 percent slopes | B |
| GgC | Glennig loam, 8 to 15 percent slopes | B |
| GmB | Glennville silt loam, 3 to 8 percent slopes | C |
| GnB | Glennville-Balle silt loams, 0 to 8 percent slopes | C |
| LaB | Legore silt loam, 3 to 8 percent slopes | C |
| LaC | Legore silt loam, 8 to 15 percent slopes | C |
| 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

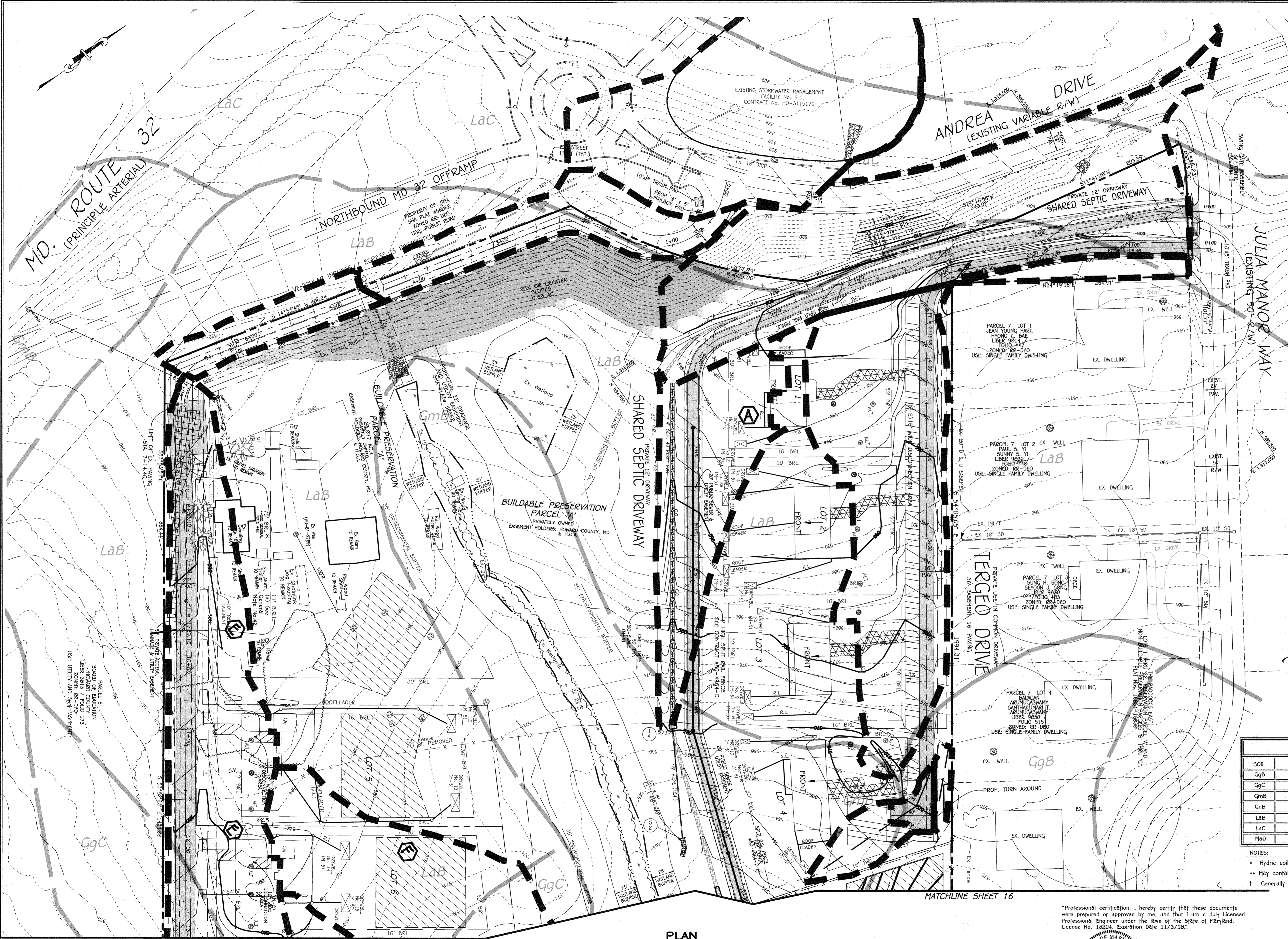
"Professional certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly Licensed Professional Engineer under the laws of the State of Maryland, License No. 133204, Expiration Date 11/23/18."



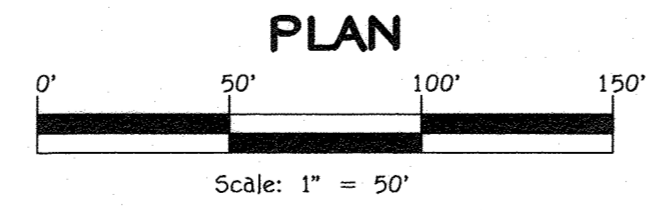
Owner/Developer
BONHOMME PROPERTY INVESTMENT, LLC
 12126 Maryland Route 216
 Fulton, Maryland 20779
 Ph: (410) 707-1976

SOILS MAP & DRAINAGE AREA MAP
BEVEDERE ESTATES
 LOTS 1-11, BUILDABLE PRESERVATION PARCEL 'A' AND NON-BUILDABLE PRESERVATION PARCEL 'B'
 ZONED: RR-DEO
 TAX MAP No. 22 GRID No. 8 PARCEL No. 116 & P/O No. 7
 THIRD ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 DATE: OCTOBER 11, 2016
 SHEET 15 OF 20

THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET F-16-065



FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10072 BALTIMORE NATIONAL PIKE
 ELKLOTT CITY, MARYLAND 21042
 (410) 461-2892



MATCHLINE SHEET 16

MATCHLINE SHEET 16

K:\SDS\PROJ\1168 Bonhomme Property\Final\151160 SHEET 15-16 Drainage area map.dwg, 1/6/2017 11:58:05 PM, 11

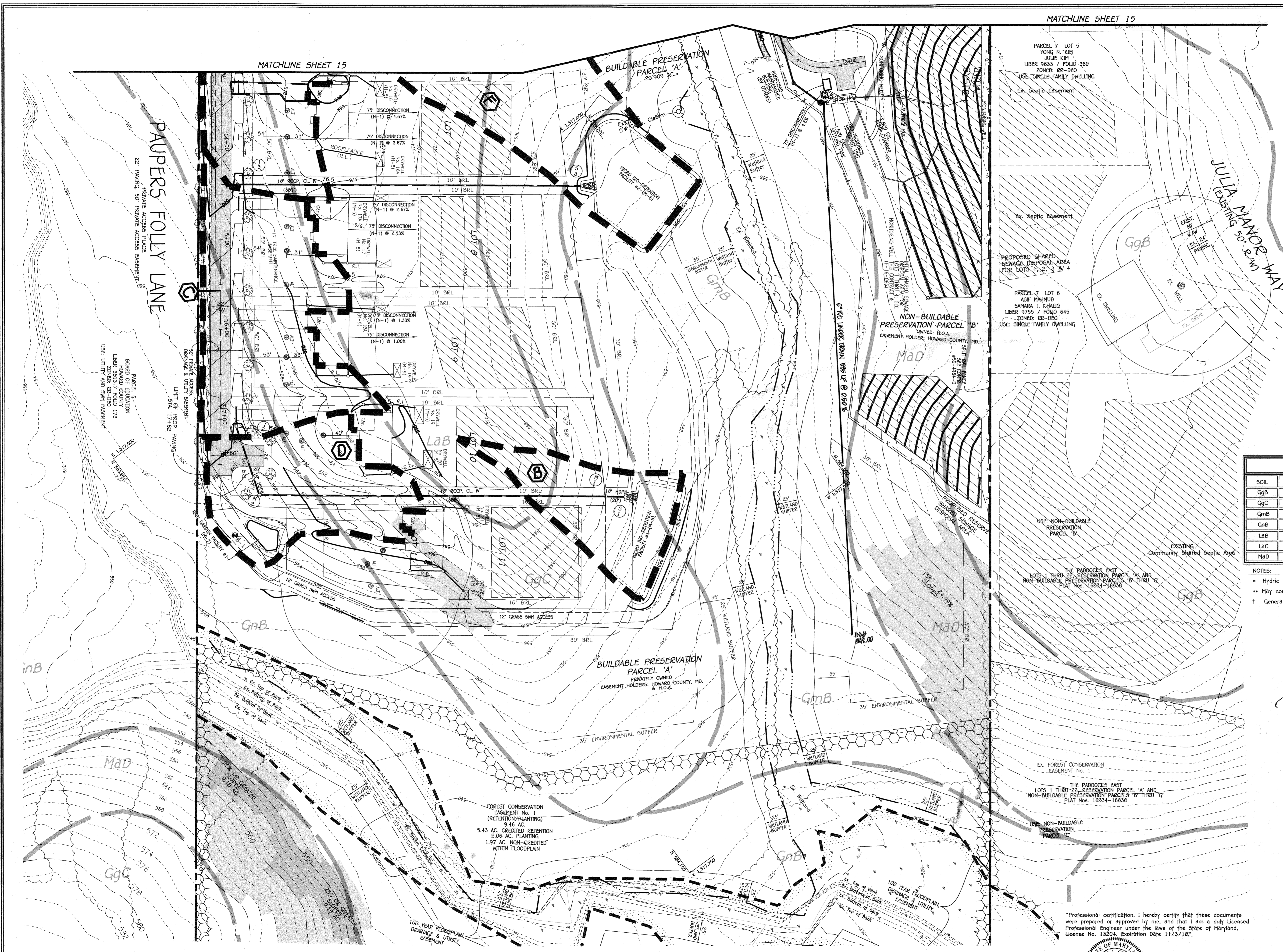
APPROVED: DEPARTMENT OF PUBLIC WORKS
 CHIEF, BUREAU OF HIGHWAYS
1/27/2017
 DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DIVISION OF LAND DEVELOPMENT
2-7-17
 DATE

2-3-17
 DATE

REVISIONS

| NO. | DESCRIPTION | DATE |
|-----|---------------------------------------|---------|
| 1 | REVISE PROJECT NAME & OWNER/DEVELOPER | 2/15/17 |
| 2 | ADDED 6" PVC UNDER DRAIN | 2/15/17 |



SOILS LEGEND

| SOIL | NAME | CLASS |
|------|---|-------|
| GgB | Glenely loam, 3 to 8 percent slopes | B |
| GgC | Glenely loam, 8 to 15 percent slopes | B |
| GmB | Glenville silt loam, 3 to 8 percent slopes | C |
| GnB | Glenville-Balle silt loams, 0 to 8 percent slopes | C |
| LaB | Legore silt loam, 3 to 8 percent slopes | C |
| LaC | Legore silt loam, 8 to 15 percent slopes | C |
| MaD | Manor loam, 15 to 25 percent slopes | B |

NOTES:

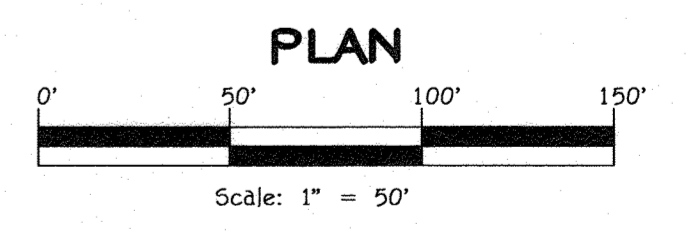
- Hydic soils and/or contains hydric inclusions
- May contain hydric inclusions
- Generally only within 100-year floodplain areas

AS-BUILT CERTIFICATION

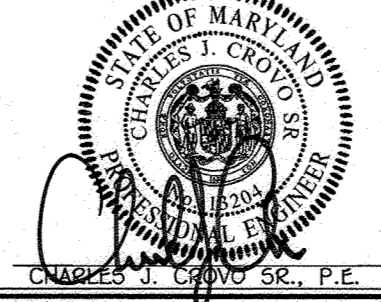
Note: There is no "AS-BUILT" information provided on this sheet.

Paul Gerard Cavanaugh
 Date: *June 16, 2022*
 PAUL GERARD CAVANAUGH #27020
6/16/22

THE PURPOSE OF THIS REBARLINE IS TO SHOW THE REBARLINE REMAIN FOR THE PROPOSED UNDER DRAIN PIPE



*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. 13204, Expiration Date 11/30/18.



Owner/Developer
BOARMAN PROPERTY INVESTMENT, LLC
 12125 Maryland Route 216
 Fulton, Maryland 20759
 Ph: (410) 707-1976

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK - 10722 BALTIMORE NATIONAL PIKE
 ELLSWORTH CITY, MARYLAND 21042
 (410) 461-2929

SOILS MAP & DRAINAGE AREA MAP
BELVEDERE ESTATES
 LOTS 1-11, BUILDABLE PRESERVATION PARCEL 'A' AND NON-BUILDABLE PRESERVATION PARCEL 'B'
 ZONED: RR-DEO
 TAX MAP No. 22 GRID No. 8 PARCEL No. 116 & P/O No. 7
 THIRD ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 DATE: OCTOBER 11, 2016
 SHEET 16 OF 20

| Forest Stand Data | | | | | |
|-------------------|----------------|-----------|--|-------------------|-------------------------|
| Key | Community Type | Acreage | Dominant Vegetation | General Condition | Priority |
| F1 | Oak-Poplar | 5.4 (NTA) | Liriodendron tulipifera, Quercus alba, Quercus velutina, Acer rubrum, Carya glabra | Good | 3.5 +/- buffers, slopes |

| Wetland Data | | |
|----------------|-------------------------|---|
| Wetland system | Cowardin classification | Dominant vegetation |
| A | PFO1A/C | Acer rubrum, Salix nigra, Nysa sylvatica, Typha latifolia, Boehmeria cylindrica, Symlocarpus foetidus, Osmunda cinnamomea, Impatiens capensis |

| LEGEND | |
|-----------------------------|-------------------------------|
| SYMBOL | DESCRIPTION |
| --- | EXISTING CONTOUR 2' INTERVAL |
| --- | EXISTING CONTOUR 10' INTERVAL |
| --- | PROPOSED CONTOUR 2' INTERVAL |
| --- | PROPOSED CONTOUR 10' INTERVAL |
| TP | TREE PROTECTION |
| SF | SILT FENCE |
| SS | SUPER SILT FENCE |
| L.O.D. | LIMIT OF DISTURBANCE |
| R.G. | RAINGARDEN |
| WETLANDS | WETLANDS |
| WETLAND BUFFER | WETLAND BUFFER |
| FLOODPLAIN | FLOODPLAIN |
| WELL | WELL |
| EXISTING TREE | EXISTING TREE |
| EXISTING TREE LINE | EXISTING TREE LINE |
| PROPOSED TREE LINE | PROPOSED TREE LINE |
| PROPOSED HOUSE | PROPOSED HOUSE |
| 15% TO 24.9% SLOPES | 15% TO 24.9% SLOPES |
| 25% OR GREATER SLOPES | 25% OR GREATER SLOPES |
| FOREST CONSERVATION EASMENT | FOREST CONSERVATION EASMENT |
| STREAM | STREAM |
| STREAM BANK BUFFER | STREAM BANK BUFFER |
| EX. STREET LIGHT | EX. STREET LIGHT |

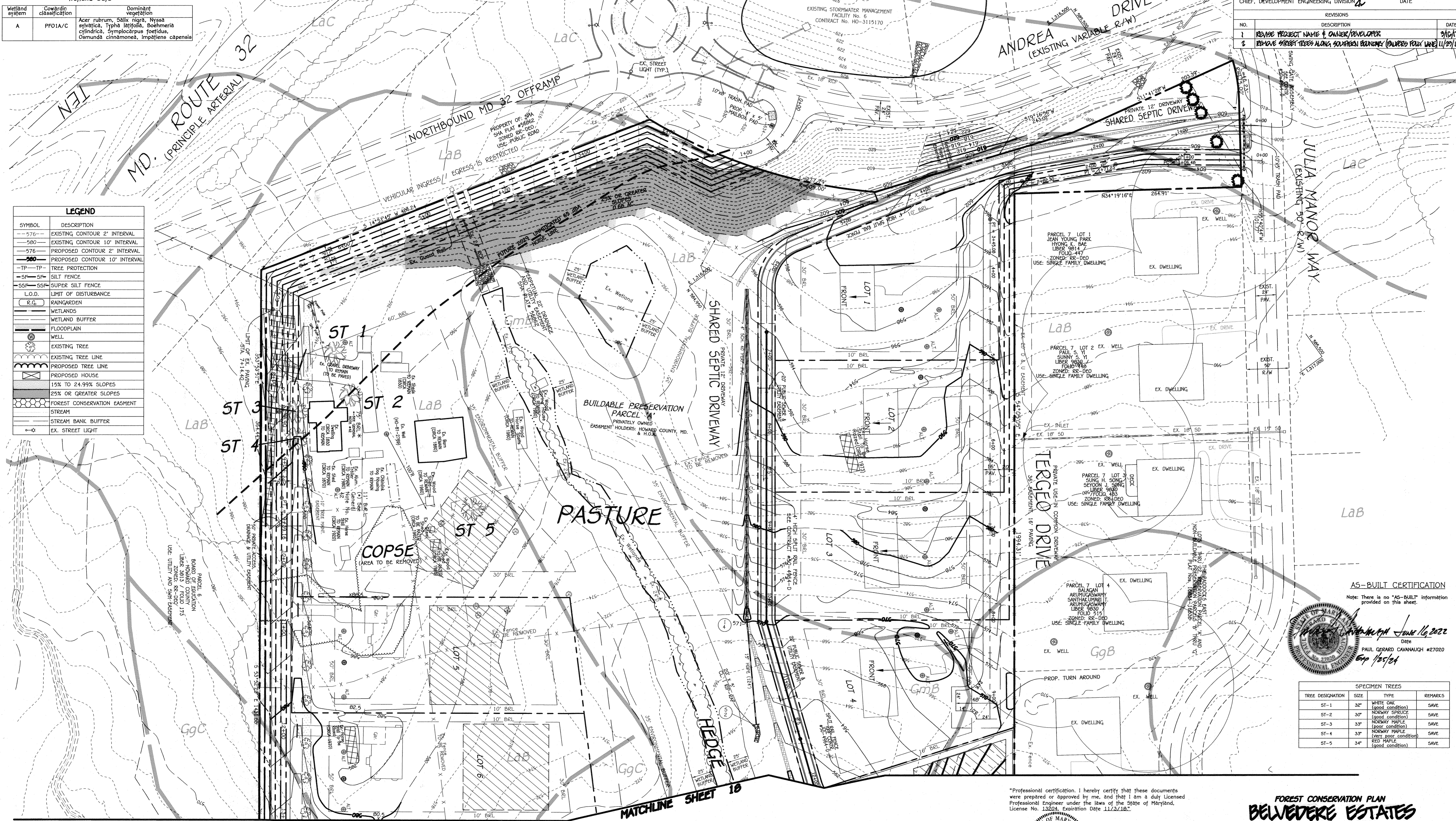
GENERAL NOTES:

- No rare, threatened or endangered species were observed on the property or their habitats.
- Surrounding land use is primarily medium density residential development and agriculture.
- The existing home is surrounded by a maintained lawn area that contains numerous trees and ornamental species. The majority of the site is used as horse pasture. The pastures are heavily grazed. Forested areas are present in the eastern end of the site. A broad swale runs through the middle of the pasture area that contains wetlands and is designated as a hedge row.
- There are no cemeteries located onsite.
- This is a historic structure located on this project based on the Howard County Inventory Map and a more recent meeting by the Historic District Committee has been conducted.

APPROVED: DEPARTMENT OF PUBLIC WORKS
 CHIEF, BUREAU OF HIGHWAYS
 APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DIVISION OF LAND DEVELOPMENT
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

1/27/2017
 DATE
 2-7-17
 DATE
 2-3-17
 DATE

| NO. | DESCRIPTION | DATE |
|-----|--|----------|
| 1 | REMOVE PROJECT NAME & OWNER/DEVELOPER | 9/16/17 |
| 2 | REMOVE STREET TREES ALONG SOUTHERN BOUNDARY (PAVING PAUL LANE) | 11/29/17 |



AS-BUILT CERTIFICATION
 Note: There is no "AS-BUILT" information provided on this sheet.

PAUL GERARD CAVANAUGH #27020
 Date: June 16, 2022
 6/16/22

| TREE DESIGNATION | SIZE | TYPE | REMARKS |
|------------------|------|------------------------------------|---------|
| ST-1 | 32" | WHITE OAK (good condition) | SAVE |
| ST-2 | 30" | NORWAY SPRUCE (good condition) | SAVE |
| ST-3 | 33" | NORWAY MAPLE (good condition) | SAVE |
| ST-4 | 33" | NORWAY MAPLE (over poor condition) | SAVE |
| ST-5 | 34" | RED MAPLE (good condition) | SAVE |

"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. 13304. Expiration Date 11/3/18."

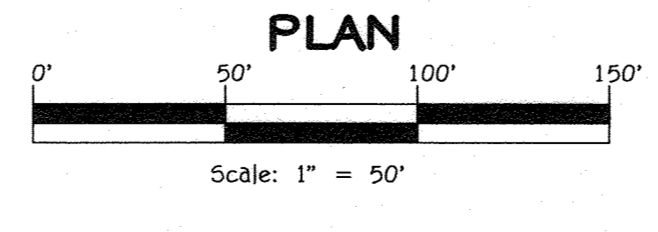
FOREST CONSERVATION PLAN
BELVEDERE ESTATES
 LOTS 1-11, BUILDABLE PRESERVATION PARCEL 1A AND NON-BUILDABLE PRESERVATION PARCEL 1B

TAX MAP No. 22 GRID No. 9 PARCEL No. 116 & P/O No. 7
 THIRD ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 DATE: OCTOBER 11, 2016
 SHEET 17 OF 20

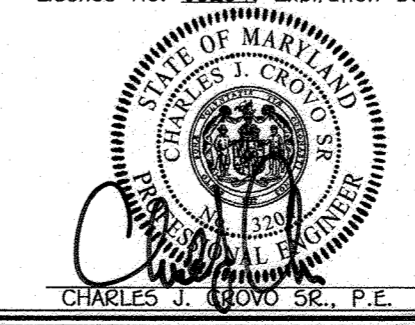
FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL: SQUARE OFFICE PARK - 10775 BALTIMORE NATIONAL PIKE
 ELIJAH CITY, MARYLAND 21042
 (410) 461-2895

Eco-Science Professionals, Inc.
 CONSULTING ECOLOGISTS

MD DNR Qualified Professional
 USACOE Wetland Delineator
 Certification: WDCP93M06100448
 JPC 1/10/17
 JOHN P. CANOLES



Owner/Developer
BORRMAN PROPERTY INVESTMENT, LLC
 12126 Maryland Route 216
 Fulton, Maryland 20759
 Ph: (410) 707-1976



1/17/17
 DATE

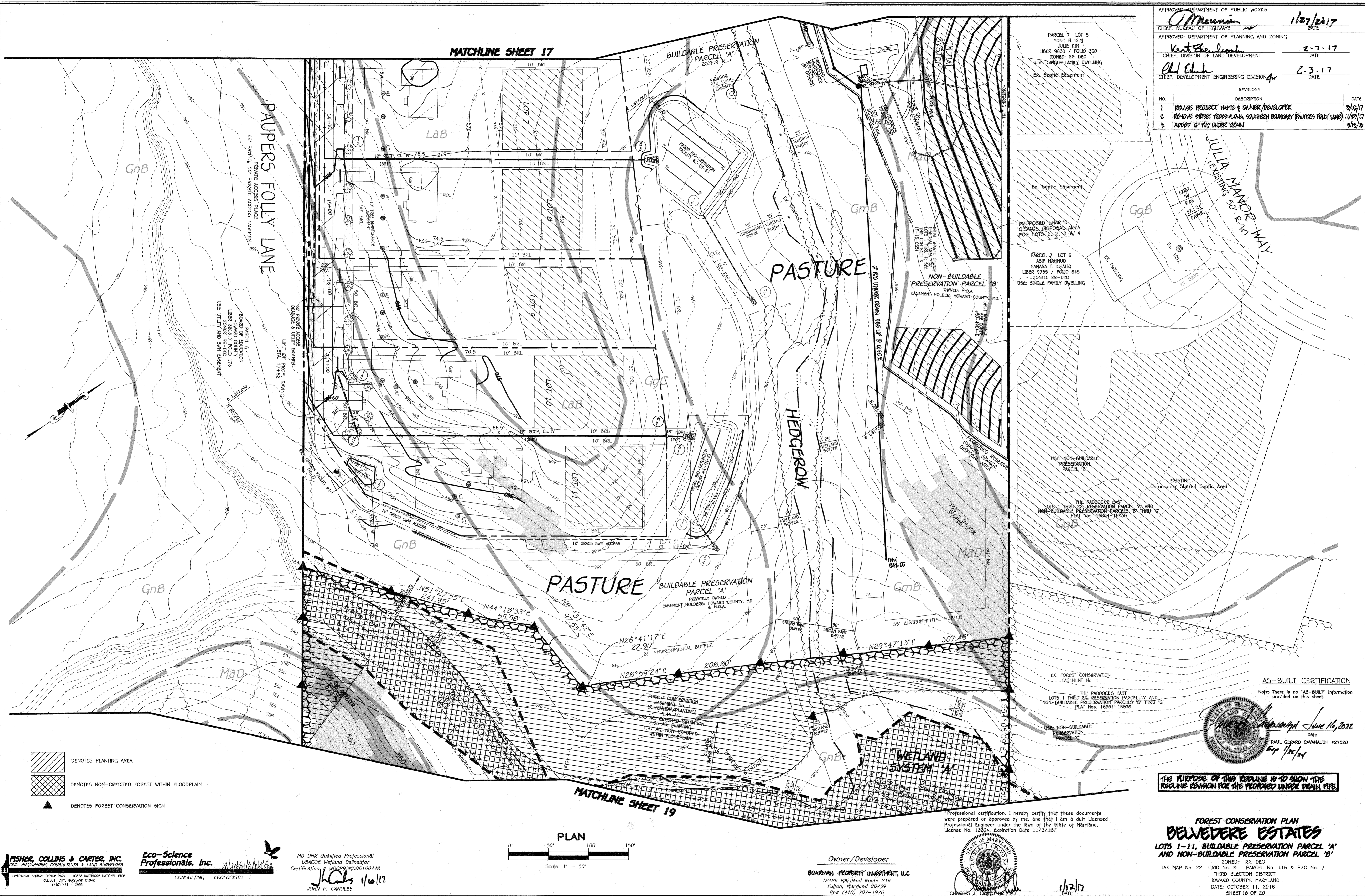
THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET F-16-065

APPROVED: DEPARTMENT OF PUBLIC WORKS
O'Meara 1/27/2017
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Kevin Sheehy 2-7-17
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Ch. Ch. 2-3-17
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

| NO. | DESCRIPTION | DATE |
|-----|--|----------|
| 1 | REMOVE PROJECT NAME & OWNER/DEVELOPER | 2/16/17 |
| 2 | REMOVE EXISTING TREE MAINT. SOUTHERN BOUNDARY (PAUPERS FOLLY LANE) | 11/29/17 |
| 3 | ADDED 6" RIG UNDER DRAIN | 2/19/18 |



DENOTES PLANTING AREA

DENOTES NON-CREDITED FOREST WITHIN FLOODPLAIN

DENOTES FOREST CONSERVATION SIGN

AS-BUILT CERTIFICATION

Note: There is no "AS-BUILT" information provided on this sheet.

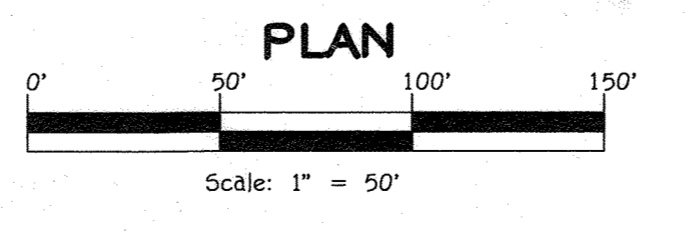
Paul Gerard Cavanaugh June 16, 2022
 Date
 PAUL GERARD CAVANAUGH #27020
 6/16/22

THE PURPOSE OF THIS REQUIRE IS TO SHOW THE REASON FOR THE PROPOSED UNDER DRAIN PIPE

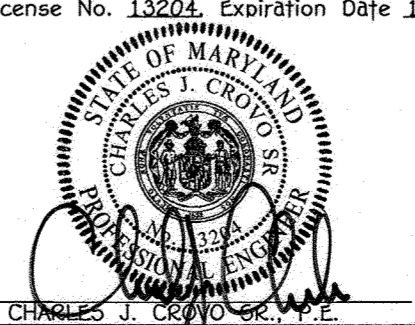
FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS

Eco-Science Professionals, Inc.
 CONSULTING ECOLOGISTS

MD DMC Qualified Professional
 USACE Wetland Designer
 Certification: WDCP93MD06100448
John P. Canoles 1/10/17
 JOHN P. CANOLES



Owner/Developer
BOARDMAN PROPERTY INVESTMENT, LLC
 12126 Maryland Route 216
 Fulton, Maryland 20759
 PH# (410) 707-1976



1/12/17
 DATE

FOREST CONSERVATION PLAN
BELVEDERE ESTATES
LOTS 1-11, BUILDABLE PRESERVATION PARCEL 'A'
AND NON-BUILDABLE PRESERVATION PARCEL 'B'

ZONED: RR-D20
 TAX MAP No. 22 GRID No. B PARCEL No. 116 & P/O No. 7
 THIRD ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 DATE: OCTOBER 11, 2016
 SHEET 18 OF 20

| SOILS LEGEND | | |
|--------------|---|-------|
| SOIL | NAME | CLASS |
| ** Ba | Baile silt loam | D |
| Cha | Chester silt loam, 0 to 3 percent slopes | B |
| ChB2 | Chester silt loam, 3 to 8 percent slopes, moderately eroded | B |
| ChC2 | Chester silt loam, 8 to 15 percent slopes, moderately eroded | B |
| CgB2 | Chester gravelly silt loam, 3 to 8 percent slopes, moderately eroded | B |
| CgC2 | Chester gravelly silt loam, 8 to 15 percent slopes, moderately eroded | B |
| * Ca | Comus silt loam | B |
| Eka | Elloak silt loam, 0 to 3 percent slopes | B |
| EkB2 | Elloak silt loam, 3 to 8 percent slopes, moderately eroded | B |
| EkC2 | Elloak silt loam, 8 to 15 percent slopes, moderately eroded | B |
| EkD2 | Elloak silt loam, 15 to 25 percent slopes, moderately eroded | B |
| * Gnb2 | Glenville silt loam, 3 to 8 percent slopes, moderately eroded | C |
| Glc2 | Glenelg loam, 0 to 15 percent slopes, moderately eroded | B |
| Glc3 | Glenelg loam, 8 to 15 percent slopes, severely eroded | B |
| Gld2 | Glenelg loam, 15 to 25 percent slopes, moderately eroded | B |
| Mie | Manor loam, 25 to 45 percent slopes | B |
| Mib2 | Manor loam, 3 to 8 percent slopes, moderately eroded | B |
| Mid2 | Manor loam, 15 to 25 percent slopes, moderately eroded | B |
| Mgb2 | Manor gravelly loam, 3 to 8 percent slopes, moderately eroded | B |
| Mgc2 | Manor gravelly loam, 8 to 15 percent slopes, moderately eroded | B |
| Mnd | Manor very stony loam, 3 to 25 percent slopes | B |

- NOTES:
- * Hydric soils and/or contains hydric inclusions
 - ** May contain hydric inclusions
 - † Generally only within 100-year floodplain areas

ON-SITE SIGNAGE

FOREST RETENTION AREA

MACHINERY, DUMPING OR STORAGE OF ANY MATERIALS IS PROHIBITED

VIOLATORS ARE SUBJECT TO FINES AS IMPOSED BY THE MARYLAND FOREST CONSERVATION ACT OF 1991

NOTE: SIGNAGE SHALL REMAIN IN PERPETUITY.

NOTE:

THE CONTRACTOR SHALL REMOVE ALL OLD AND NEW JUNK, TRASH, DEBRIS AND OTHER UNNATURAL ITEMS FROM THE FORESTS, FLOODPLAINS, STREAMS, WETLANDS AND BUFFER AREAS. IT SHALL BE THE DEVELOPER'S RESPONSIBILITY (NOT THE COUNTY'S) TO KEEP THESE AREAS CLEAN OF DEBRIS AND ENCROACHMENT FOR THE ENTIRE 2-YEAR MAINTENANCE PERIOD.

EXISTING CONDITIONS/FSD NARRATIVE

The subject property is currently utilized as a residential/agricultural property. A residence and several associated buildings and facilities are located in the western end of the site. The home is surrounded by a maintained lawn area that contains numerous trees and ornamental species. Notable landscape and ornamental trees include Norway maple, white pine, spruce. The pasture is used as horse pasture. The pasture is heavily grazed. Hedgerows are present along the fence lines. These hedgerows are dominated by black cherry, sassafras, red maple, tulip poplar, multiflora rose, Japanese honeysuckle and raspberry.

Forested areas are present in the eastern end of the site. The forest is an oak/poplar association with red maple and ash being more common in the wetlands areas along the stream valley that crosses the rear of the site. The drier hillside within the forest limits are dominated by poplar, white oak, red oak, black gum and black cherry. Wetland and stream resources are present on the site. An isolated wetland is present within the pasture, intermittent stream/wetland system bisects the property before joining a perennial second order stream that crosses the rear of the site.

FCP NOTES

1. Any Forest Conservation Easement (FCE) area shown hereon is subject to protective covenants which may be found in the Land Records of Howard County which restrict the disturbance and use of these areas.
2. Limits of disturbance shall be restricted to areas outside the limit of temporary fencing or within the shown limits of disturbance.
3. There shall be no clearing, grading, construction or disturbance of vegetation in the Forest Conservation Easement, except as permitted by Howard County DPZ. Permanent signage shall be retained on the easement limits in perpetuity.
4. No stockpiling, parking areas, equipment cleaning areas, etc. shall occur within areas designated as Forest Conservation Easements.
5. Temporary fencing shall be used to protect forest resources during construction. The fencing shall be installed along limits of disturbance occurring within 50 feet of the proposed forest retention limits.
6. The Forest Conservation Act requirements will be met through the onsite retention of 5.43 acres of forest and 2.06 acres of onsite afforestation. Total Forest Conservation Obligation = 7.49 ac. A surety for onsite afforestation @ \$0.50/af for 89,734 sf. = \$44,867 is required.
7. There are 5 specimen trees located on the plan. There are no trees that would be considered champion trees located onsite.

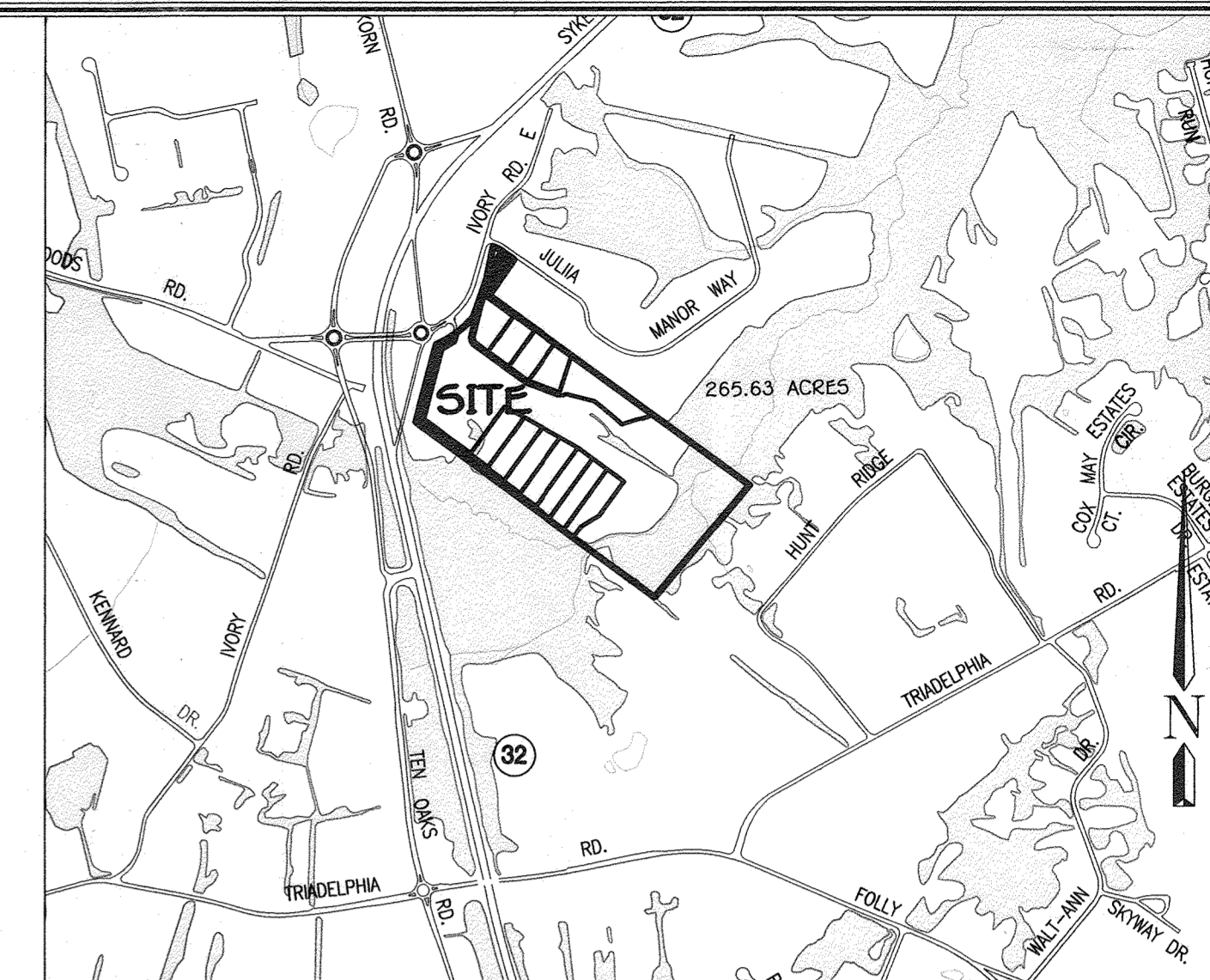
FCE Planting Area - 2.06 acres

Planting required: (350 WHIPS PER ACRE) = 2.06 x 350 = 721 WHIPS

| QTY | Species | Size | Spacing |
|--------------------------|--|-----------|----------|
| 100 | Acer rubrum - Red maple | 2-3' whip | 11' o.c. |
| 100 | Cornus florida - Flowering dogwood | 2-3' whip | 11' o.c. |
| 120 | Liriodendron tulipifera - Tulip poplar | 2-3' whip | 11' o.c. |
| 80 | Prunus serotina - Black cherry | 2-3' whip | 11' o.c. |
| 100 | Quercus alba - White oak | 2-3' whip | 11' o.c. |
| 51 | Quercus palustris - Pin oak | 2-3' whip | 11' o.c. |
| 110 | Robinia pseudo-acacia - Black locust | 2-3' whip | 11' o.c. |
| 60 | Viburnum prunifolium - Blackhaw | 2-3' whip | 11' o.c. |
| 721 Total whip plantings | | | |

FOREST CONSERVATION WORKSHEET VERSION 1.0

| | | |
|--|-----------|-------|
| BASIC SITE DATA: | | |
| A. TOTAL TRACT AREA | | 39.77 |
| B. AREA WITHIN 100 YEAR FLOODPLAIN | | 2.30 |
| C. AREA TO REMAIN IN AGRICULTURAL PRODUCTION | | 37.47 |
| D. NET TRACT AREA | | 37.47 |
| LAND USE CATEGORY: | MDR | |
| INFORMATION FOR CALCULATIONS: | | |
| E. AFFORESTATION THRESHOLD | 20% x D = | 7.49 |
| F. FOREST CONSERVATION THRESHOLD | 25% x D = | 9.37 |
| G. EXISTING FOREST COVER (EXCLUDING FLOODPLAIN) | | 5.43 |
| H. AREA OF FOREST ABOVE AFFORESTATION THRESHOLD | | 0 |
| I. AREA OF FOREST ABOVE CONSERVATION THRESHOLD | | 0 |
| BREAK EVEN POINT: | | |
| J. FOREST RETENTION ABOVE THRESHOLD WITH NO MITIGATION | | 0 |
| K. CLEARING PERMITTED WITHOUT MITIGATION | | 0 |
| L. PROPOSED FOREST CLEARING | | 0 |
| M. TOTAL AREA OF FOREST TO BE CLEARED | | 0 |
| N. TOTAL AREA OF FOREST TO BE RETAINED | | 5.43 |
| PLANTING REQUIREMENTS: | | |
| O. REFORESTATION FOR CLEARING ABOVE CONSERVATION THRESHOLD | | 0 |
| P. REFORESTATION FOR CLEARING BELOW CONSERVATION THRESHOLD | | 0 |
| Q. CREDIT FOR RETENTION ABOVE CONSERVATION THRESHOLD | | 0 |
| R. TOTAL REFORESTATION REQUIRED | | 0 |
| S. TOTAL AFFORESTATION REQUIRED | | 2.06 |
| T. TOTAL REFORESTATION AND AFFORESTATION REQUIRED | | 2.06 |



VICINITY MAP

SCALE: 1" = 1000'

AFFORESTATION PLAN

A. Planting Plan and Methods

Plant species selection was based on our knowledge regarding plant communities in Maryland's Piedmont Plateau and information provided in the soil survey on typical vegetation for the soil type on the planting site. Species selection was also based on our knowledge of plant availability in the nursery industry. Afforestation will be accomplished through a mixed planting of whips. Container grown stock is recommended for bare-root stock may be used to help control afforestation costs. If bare-root stock is used the root systems of all plants will be dipped in an anti-desiccant gel prior to planting to improve moisture retention in the root system.

Prior to planting the proposed Forest Conservation Easement all mulch in the planting area shall be removed. Removal of the mulch may be performed with mowing and herbicide treatments. Physical removal of all top growth following a periodic herbicide treatment of stump sprouts is recommended. Native tree and shrub species occurring within the rose thickets shall be retained wherever possible. Herbicide treatments shall occur on 2 month intervals during the first growing season and then annually thereafter until the sprouts are dead for subsequent years. Herbicide use shall be made specifically to address woody plant material and shall be applied as per manufacturer's specifications. Care should be taken not to spray planted trees or naturally occurring native tree/shrub seedlings. It is recommended that initiation of rose removal begin at least six months prior to planting.

B. Planting and Soil Specifications

Plant material will be installed in accordance with the Planting Detail and Planting Specifications shown on the Forest Conservation Plan. Amendments to existing soil will be in accordance with the Planting Specifications shown on the Forest Conservation Plan. Soil disturbance will be limited to individual planting locations.

C. Maintenance of Plantings

For information regarding maintenance of the afforestation plantings, see Post Construction Management Plans.

D. Guarantee Requirements

A 90 percent survival rate of the afforestation plantings will be required after one growing season. All plant material below the 90 percent survival threshold will be replaced at the beginning of the second growing season. At the end of the second growing season, a 75 percent survival rate will be required. All plant material below the 75 percent survival threshold will be replaced by the beginning of the next growing season.

E. Security for Afforestation

Section 16-1209 of the Howard County Forest Conservation Act requires that a developer shall post a security bond, letter of credit, etc. with the County to ensure that all work is done in accordance with the FCP.

F. Pre-Construction Meeting

Upon signing of limits of disturbance a pre-construction meeting will be held between the developer, contractor and appropriate County Inspector. The purpose of the meeting will be to verify that all sediment control is in order, and to notify the contractor of possible penalties for noncompliance with the FCP.

G. Storage Facilities/Equipment Cleaning

All equipment storage, parking, sanitary facilities, material stockpiling, etc. associated with construction of the project will be restricted to those areas outside of the proposed Forest Conservation Easement. Cleaning of equipment will be limited to areas within the LDO of the proposed home site. Material resulting from equipment cleaning will be contained to prevent runoff into environmentally sensitive areas.

H. Sequence of Construction

The following timetable represents the proposed timetable for development. The items outlined in the Forest Conservation Plan will be enacted within two (2) years of subdivision approval.

I. Below find a proposed sequence of construction.

1. Install all signage and sediment control devices.
2. Hold pre-construction meeting between developer, contractor and County Inspector.
3. Build access roads, install well and septic systems, and construct houses. Utilize all disturbed areas accordingly.
4. Begin mulch removal. Install permanent protective signage for easements and initiate plantings in accordance with Forest Conservation Plan. Plantings will be completed within two (2) years of subdivision approval.
5. Remove sediment control.
6. Hold post-construction meeting with County inspectors to assure compliance with FCP. Submit Certification of Installation.
7. Monitor and maintain plantings for 2 years. E. Construction Monitoring

Eco-Science Professionals, or another qualified professional designated by the developer, will monitor construction of the project to ensure that all activities are in compliance with the Forest Conservation Plan.

F. Post-Construction Meeting

Upon completion of construction, Eco-Science Professionals, or another qualified professional designated by the developer, will notify the County that construction has been completed and arrange for a post-construction meeting to review the project site. The meeting will allow the County Inspector to verify that afforestation plantings have been installed.

POST-CONSTRUCTION MANAGEMENT PLAN

Howard County requires a two year post-construction management plan be prepared as part of the forest conservation plan. The plan goes into effect upon acceptance of the construction certification of completion by the County, Eco-Science Professionals, or another qualified professional designated by the developer, will be responsible for implementation of the post-construction management plan.

The following items will be incorporated into the plan: A. Fencing and Signage

Permanent signage indicating the limits of the retention/afforestation area shall be maintained. B. General Site Inspections/Maintenance of Plantings

Site inspections will be performed a minimum of three times during the growing season. The purpose of the inspections will be to assess the health of the afforestation plantings. Appropriate measures will be taken to rectify any problems which may arise.

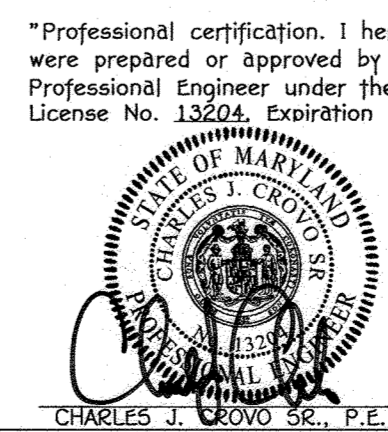
In addition, maintenance of the afforestation plantings will involve the following steps:

1. Watering - All plant material shall be watered twice a month during the 1st growing season, more or less frequently depending on weather conditions. During the second growing season, once a month during May-September, if needed.
2. Removal of invasive species and noxious weeds. Old field successional species will be retained.
3. Identification of serious plant pests and diseases, treatment with appropriate agent.
4. Pruning of dead branches.
5. After 12 and 24 months, replacement of plants, if required, in accordance with the Guarantee Requirements shown on the FCP.
6. Education

The developer will provide appropriate materials to property owners informing them of the location and purpose of the afforestation area. Materials may include site plans and information explaining the intent of the forest conservation law.

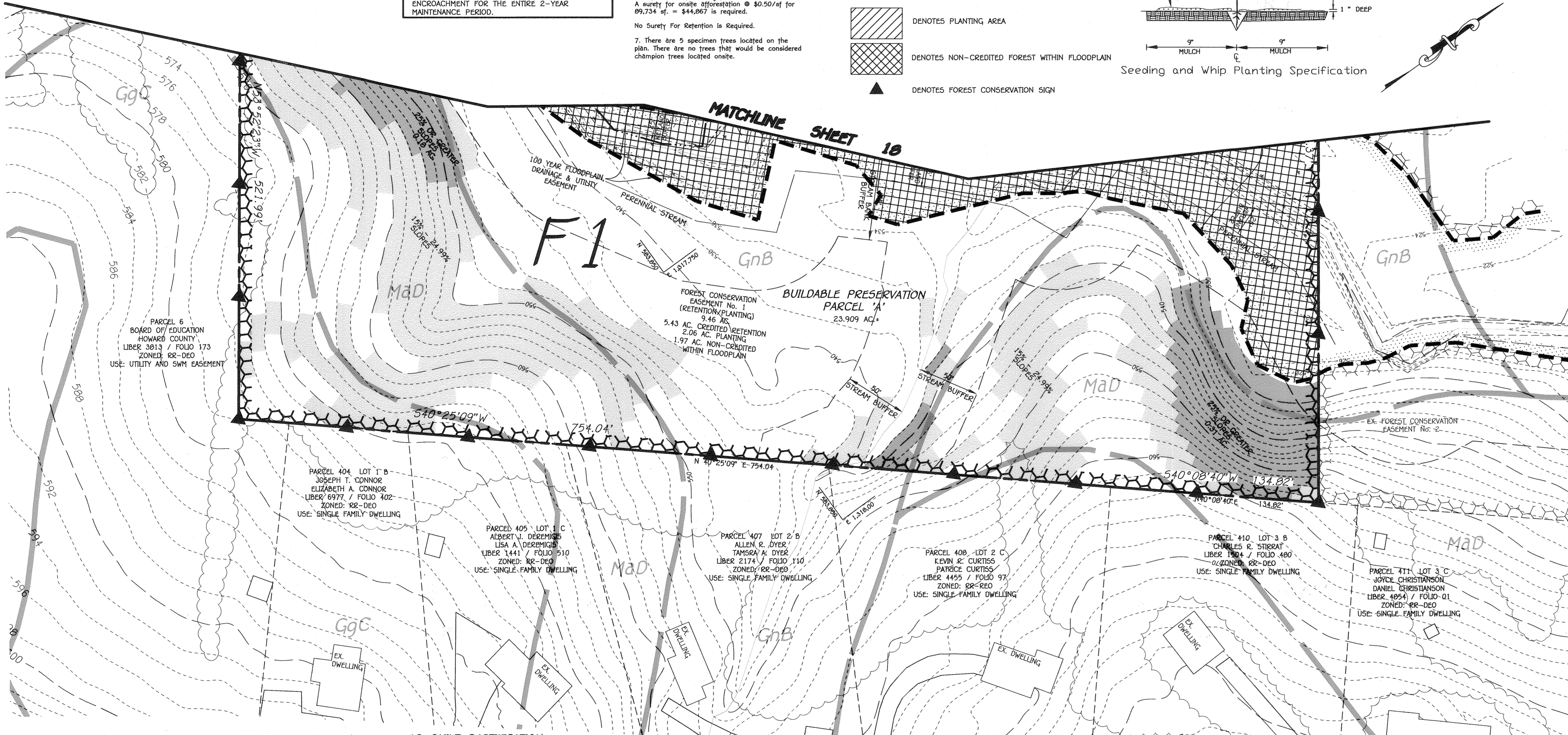
D. Final Inspection

At the end of the two year post-construction management period, Eco-Science Professionals, or another qualified professional, will submit to the administrator of the Howard County Forest Conservation Program certification that all retention/afforestation requirements have been met. Upon acceptance of this certification, the County will release the developer from all future obligations and restore the developer's bond.



"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. 13204, Expiration Date 11/3/18."

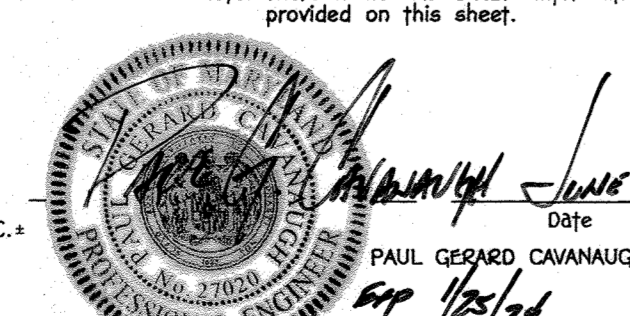
Owner / Developer
 BOARDMAN PROPERTY INVESTMENT, LLC
 12126 Maryland Route 216
 Fulton, Maryland 20759
 P.O. Box 1410 707-1976



- #### SITE ANALYSIS INFORMATION
1. GROSS AREA = 39.77 AC.*
 2. NET TRACT AREA = 37.47 AC.*
 3. STREAM ACREAGE = 0.27 AC.*
 4. STREAM BUFFER ACREAGE = 4.89 AC.*
 5. WETLAND ACREAGE = 2.24 AC.*
 6. WETLAND BUFFER ACREAGE = 5.64 AC.*
 7. FLOODPLAIN ACREAGE = 2.30 AC.*
 8. FORESTED AREA WITHIN 1 SQ. MILE = 265.63 AC.*
 9. STEEP SLOPE 25% OR GREATER ACREAGE = 1.17 AC.*
 10. WATERSHED NAME = MIDDLE PATUXENT RIVER
 11. WATERSHED NUMBER = 2131106

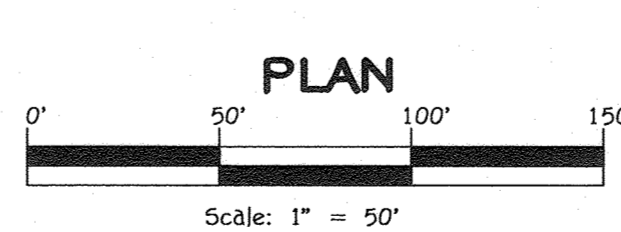
AS-BUILT CERTIFICATION

Note: There is no "AS-BUILT" information provided on this sheet.



MD DNR Qualified Professional
 USACOE Wetland Delinitor
 Certification # WDCP93MD06100448
 Paul Gerard Cavanaugh #27020
 Date: June 16, 2022
 Date: 1/10/17
 JOHN P. CANOLES

| APPROVED: DEPARTMENT OF PUBLIC WORKS | | |
|---|---------------------------------------|-----------|
| CHIEF, BUREAU OF HIGHWAYS | <i>[Signature]</i> | 1/27/2017 |
| APPROVED: DEPARTMENT OF PLANNING AND ZONING | | |
| CHIEF, DIVISION OF LAND DEVELOPMENT | <i>[Signature]</i> | 2-7-17 |
| CHIEF, DEVELOPMENT ENGINEERING DIVISION | <i>[Signature]</i> | 2-3-17 |
| REVISIONS | | |
| NO. | DESCRIPTION | DATE |
| 1 | REVISE PROJECT NAME & OWNER/DEVELOPER | 3/17/17 |

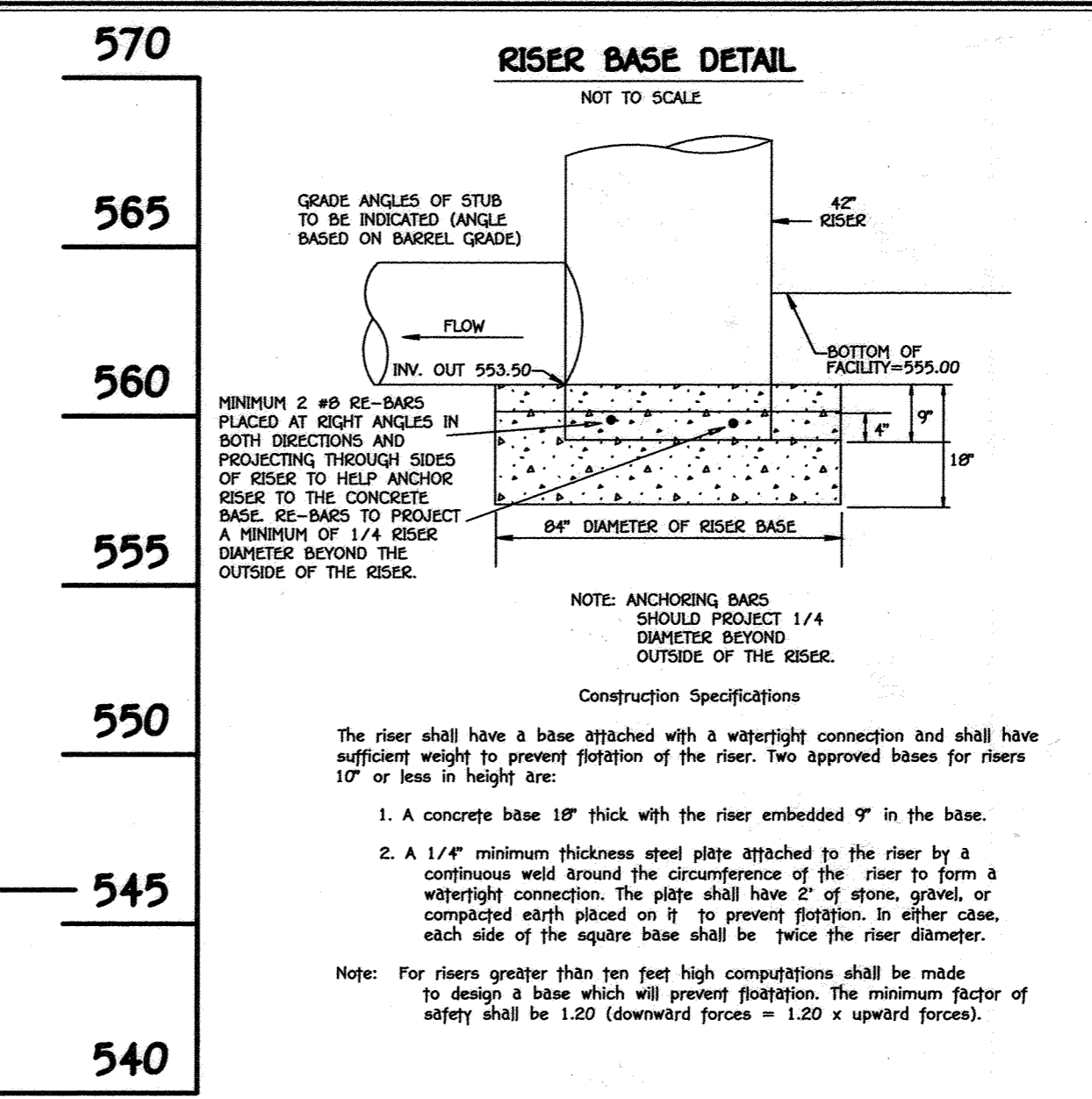
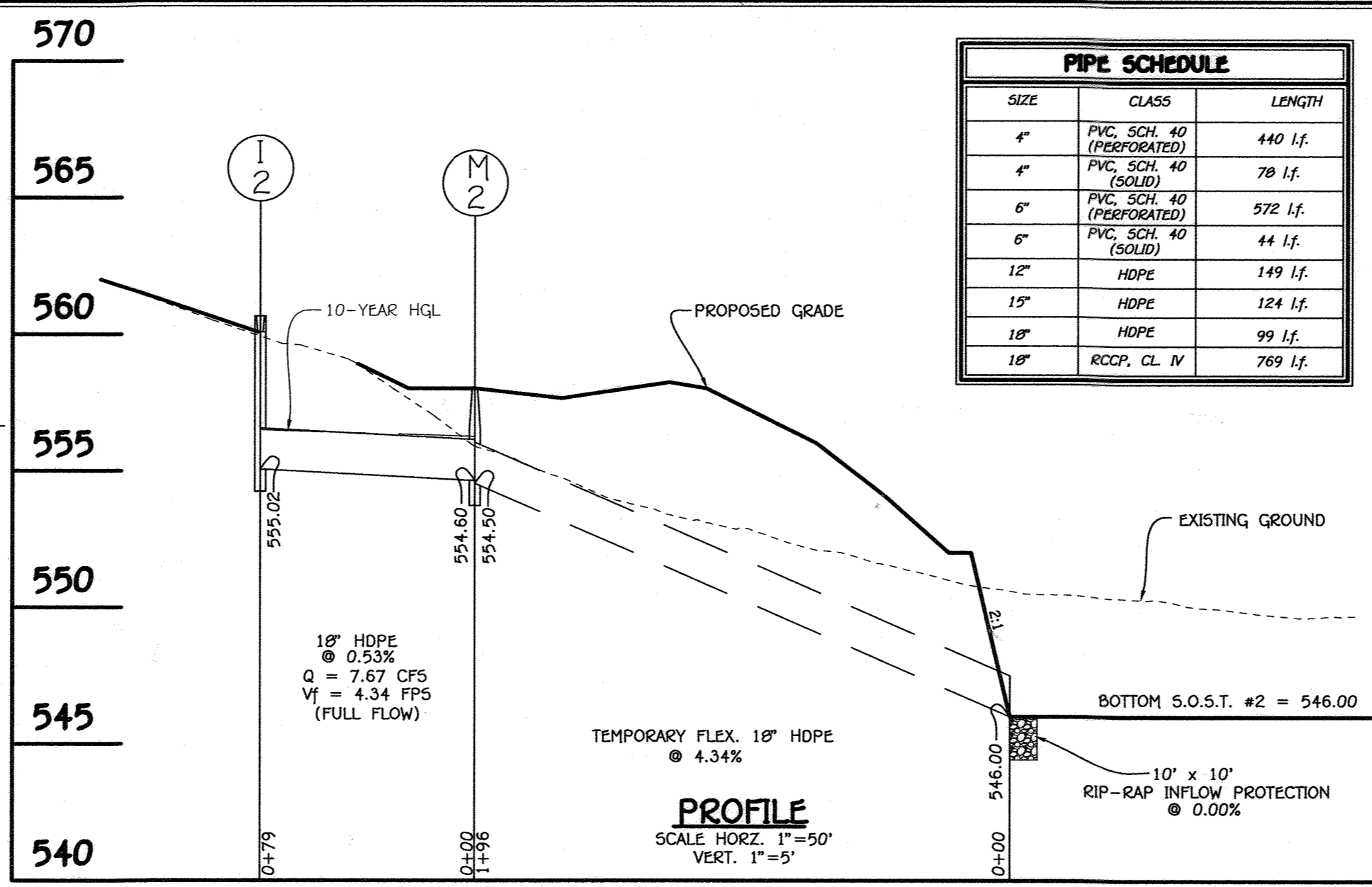
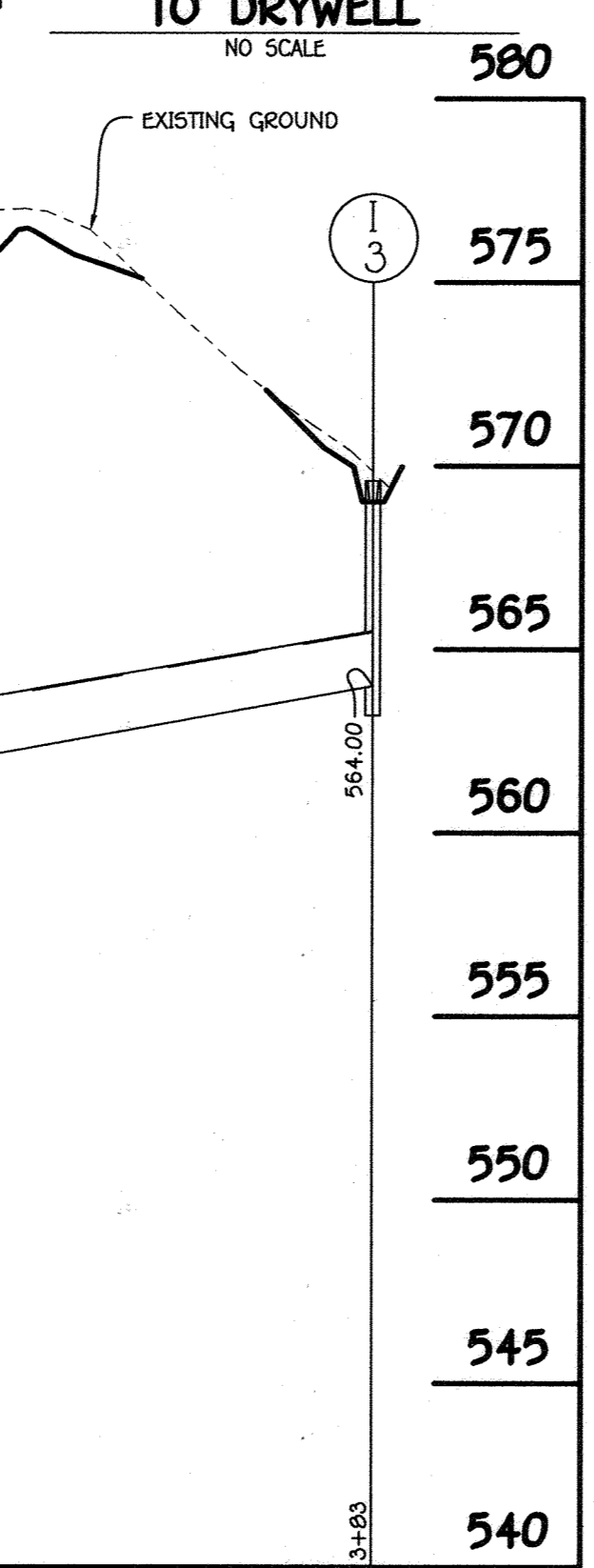
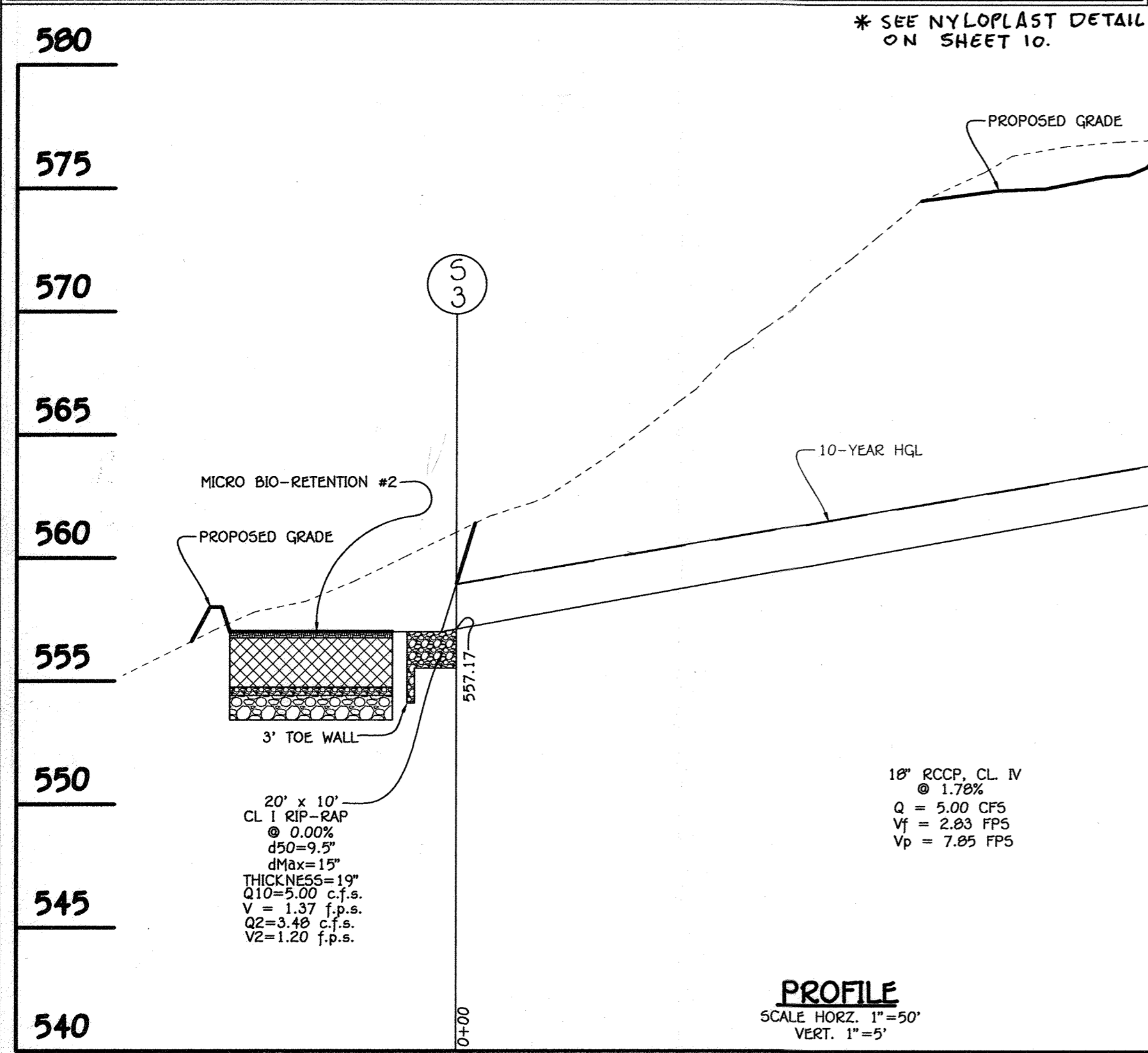
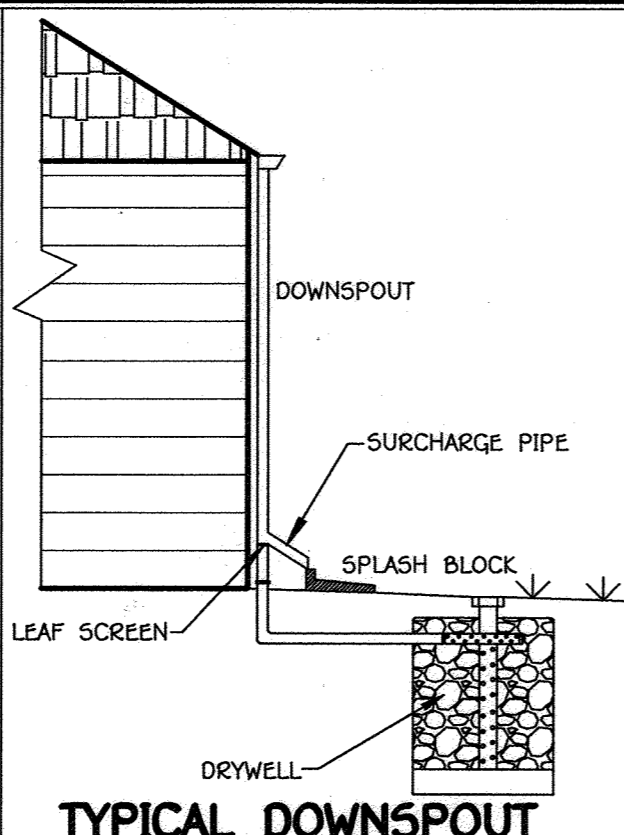


FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELICOTT CITY, MARYLAND 21042
 (410) 461-2095

Eco-Science Professionals, Inc.
 CONSULTING ECOLOGISTS

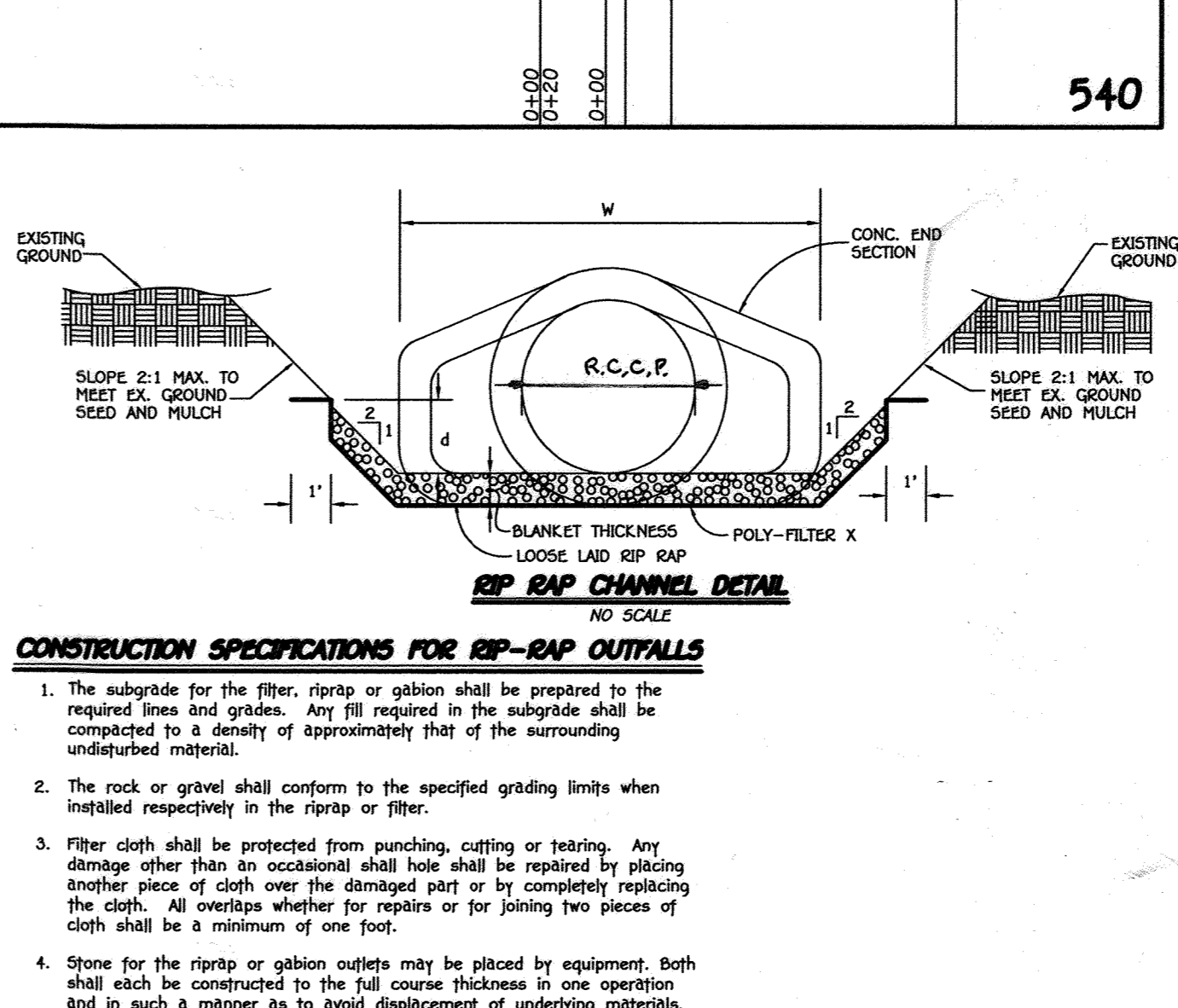
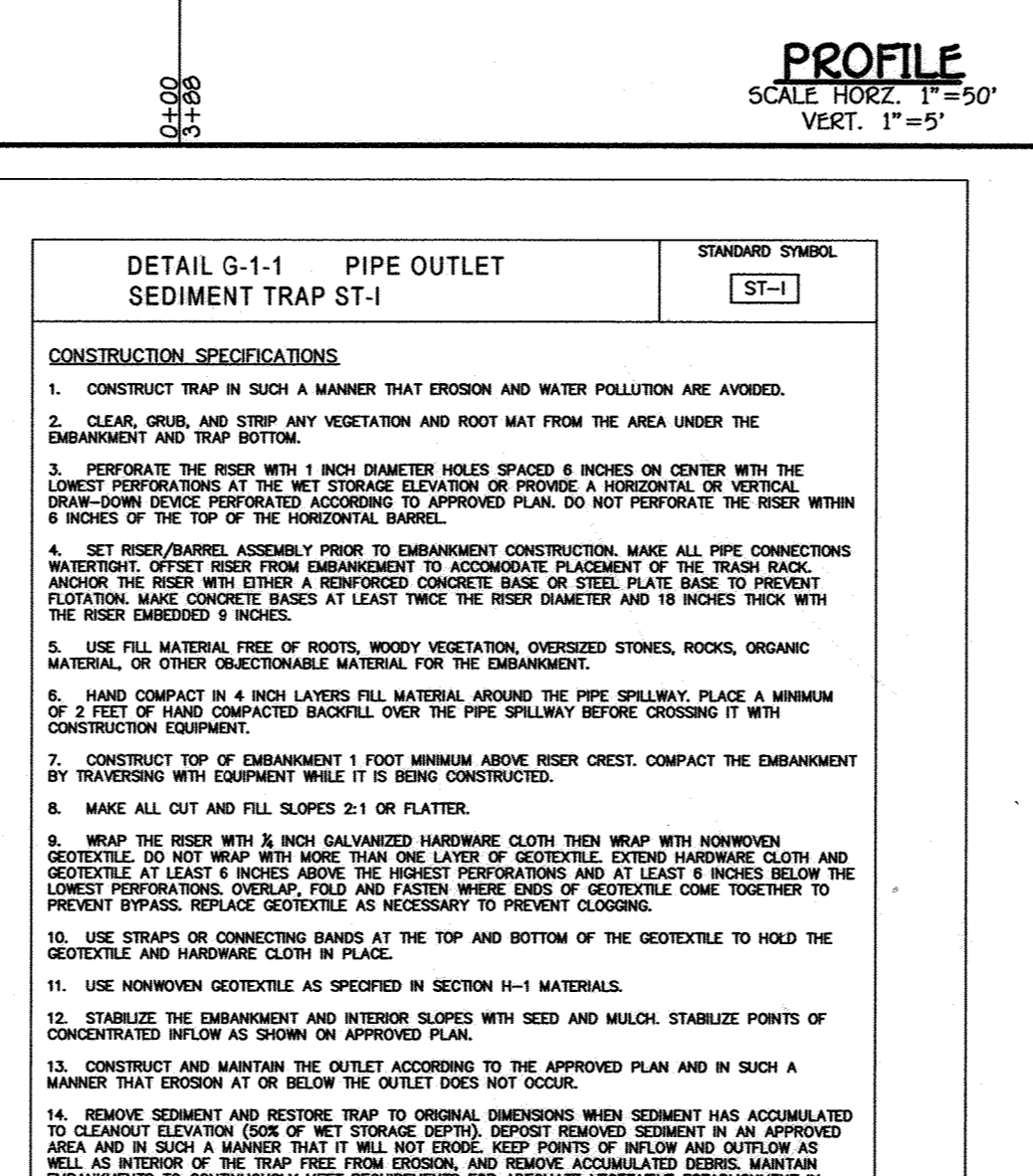
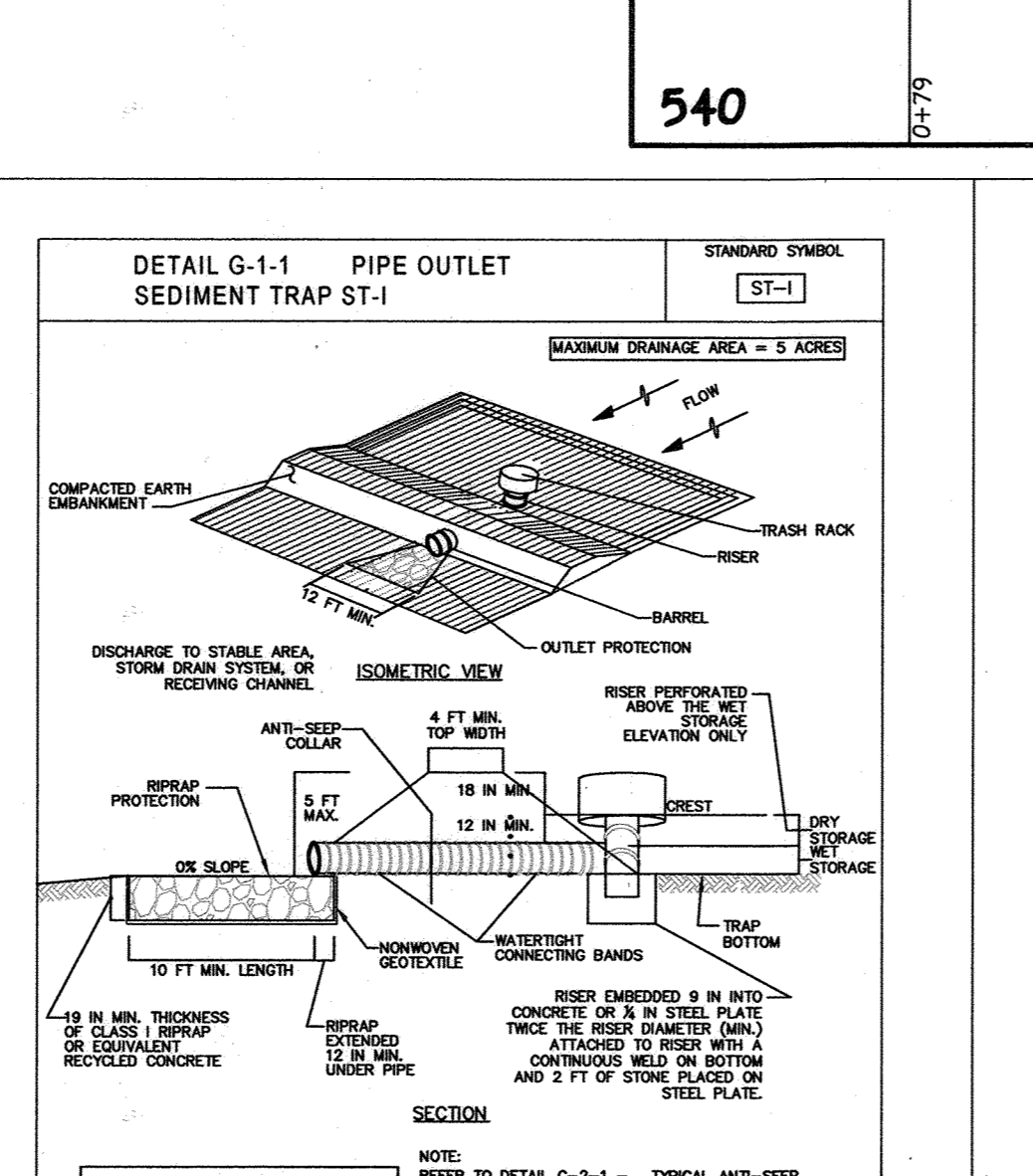
STRUCTURE SCHEDULE

| STRUCTURE NO. | TOP ELEVATION | INV. IN | INV. OUT | NORTH | EAST | TYPE | REMARKS |
|---------------|---------------|--------------|--------------|-----------|------------|-------------------------|----------------|
| I-2 | THROAT 560.07 | --- | 555.02 (18") | 583982.07 | 1317051.09 | 10" INLET | D - 4.10 |
| I-3 | THROAT 569.01 | --- | 564.00 (18") | 584140.59 | 1316834.88 | 10" INLET | D - 4.10 |
| I-4 | THROAT 570.05 | 566.25 (4") | 563.66 (15") | 584777.86 | 1316852.18 | 10" INLET | D - 4.10 |
| I-5 | 553.00 | 549.25 (6") | 547.90 (12") | 584237.91 | 1317467.35 | 15" DRAIN BASIN | *ADS NYLOPLAST |
| I-6 | 557.75 | 554.00 (6") | 553.64 (12") | 584468.17 | 1317157.23 | 15" DRAIN BASIN | *ADS NYLOPLAST |
| I-7 | 553.75 | 551.67 (4") | 551.67 (4") | 583938.01 | 1317182.64 | 15" DRAIN BASIN | *ADS NYLOPLAST |
| M-1 | 559.89 | 552.48 (18") | 552.38 (18") | 584289.45 | 1317356.00 | 4" STD. MANHOLE | G - 5.12 |
| M-2 | 558.00 | 554.60 (18") | 554.50 (18") | 583957.70 | 1317128.44 | SHALLOW MANHOLE | G - 5.12 |
| S-1 | 553.78 | 552.28 (18") | --- | 584286.12 | 1317369.16 | FLARED END SECTION | ADS OR EQUAL |
| S-2 | 563.65 | 562.40 (15") | --- | 584714.05 | 1316959.61 | TYPE 'C' END WALL (15") | D - 5.21 |
| S-3 | 558.67 | 557.17 (18") | --- | 584450.93 | 1317061.31 | CONC. END SECTION | D - 5.51 |
| S-4 | 548.80 | 547.00 (12") | --- | 584237.55 | 1317498.98 | FLARED END SECTION | ADS OR EQUAL |
| S-5 | 554.00 | 553.00 (12") | --- | 584456.39 | 1317276.89 | FLARED END SECTION | ADS OR EQUAL |



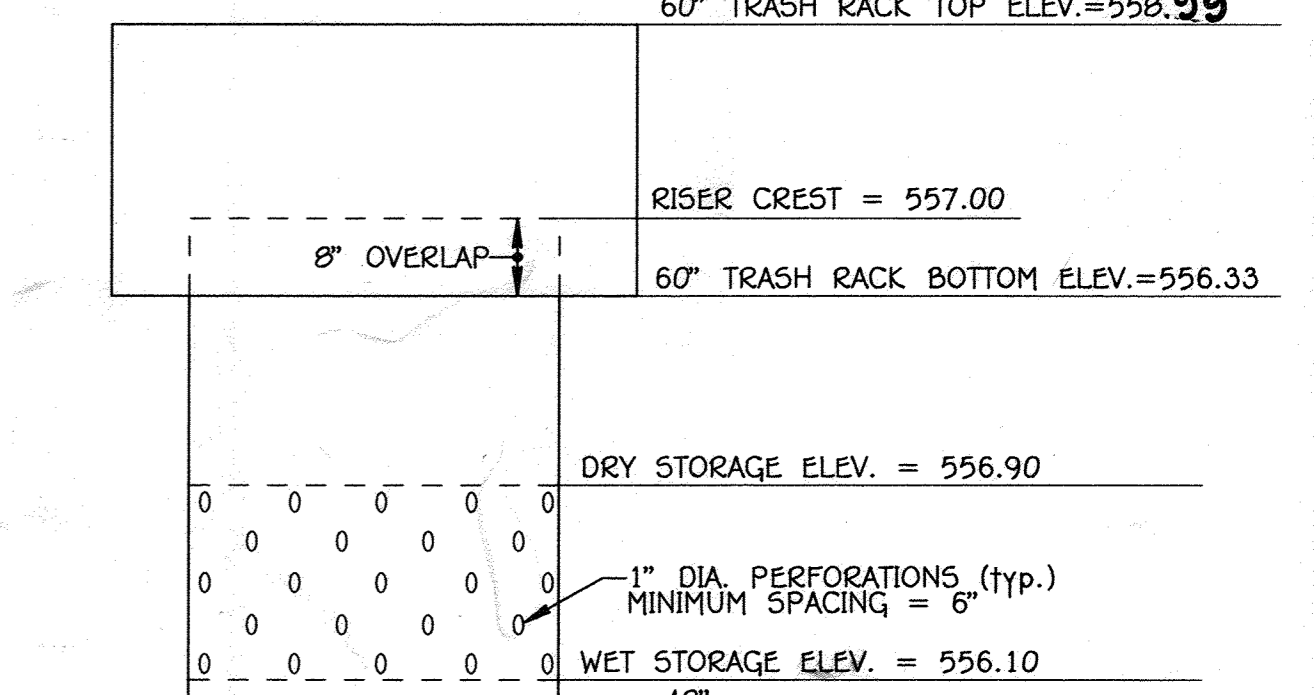
DETAIL G-2-3 CONCENTRIC TRASH RACK AND ANTI-VORTEX DEVICE

| RISER DIAM. (IN.) | DIAM. THICKNESS (GAUGE) | H (IN.) | MINIMUM SIZE SUPPORT BAR | MINIMUM TOE THICKNESS (GAUGE) | STIFFENER |
|-------------------|-------------------------|---------|---------------------------------------|-------------------------------|----------------------------|
| 12 | 18 | 16 | 1/4" REBAR | 18 | N/A |
| 15 | 21 | 16 | 1/4" REBAR | 18 | N/A |
| 18 | 27 | 16 | 1/4" REBAR | 18 | N/A |
| 21 | 30 | 16 | 1/4" REBAR | 18 | N/A |
| 24 | 36 | 16 | 1/4" REBAR | 18 | N/A |
| 27 | 42 | 16 | 1/4" REBAR | 14 | N/A |
| 36 | 54 | 16 | 1/4" REBAR | 12 | N/A |
| 42 | 60 | 14 | 1/4" REBAR | 12 | N/A |
| 48 | 72 | 12 | 1/4" PIPE OR 1/4" x 1/4" x 1/4" ANGLE | 10 | N/A |
| 54 | 78 | 12 | 1/4" PIPE OR 1/4" x 1/4" x 1/4" ANGLE | 10 | N/A |
| 60 | 90 | 12 | 1/4" PIPE OR 1/4" x 1/4" x 1/4" ANGLE | 8 | N/A |
| 66 | 96 | 10 | 1/4" PIPE OR 1/4" x 1/4" x 1/4" ANGLE | 8 | 2 x 2 x 1/4" ANGLE |
| 72 | 102 | 10 | 1/4" PIPE OR 1/4" x 1/4" x 1/4" ANGLE | 8 | 2 1/2 x 2 1/2 x 1/4" ANGLE |
| 78 | 114 | 10 | 1/4" PIPE OR 1/4" x 1/4" x 1/4" ANGLE | 8 | 2 1/2 x 2 1/2 x 1/4" ANGLE |
| 84 | 120 | 10 | 1/4" PIPE OR 1/4" x 1/4" x 1/4" ANGLE | 8 | 2 1/2 x 2 1/2 x 1/4" ANGLE |



RIP-RAP CHANNEL DESIGN DATA

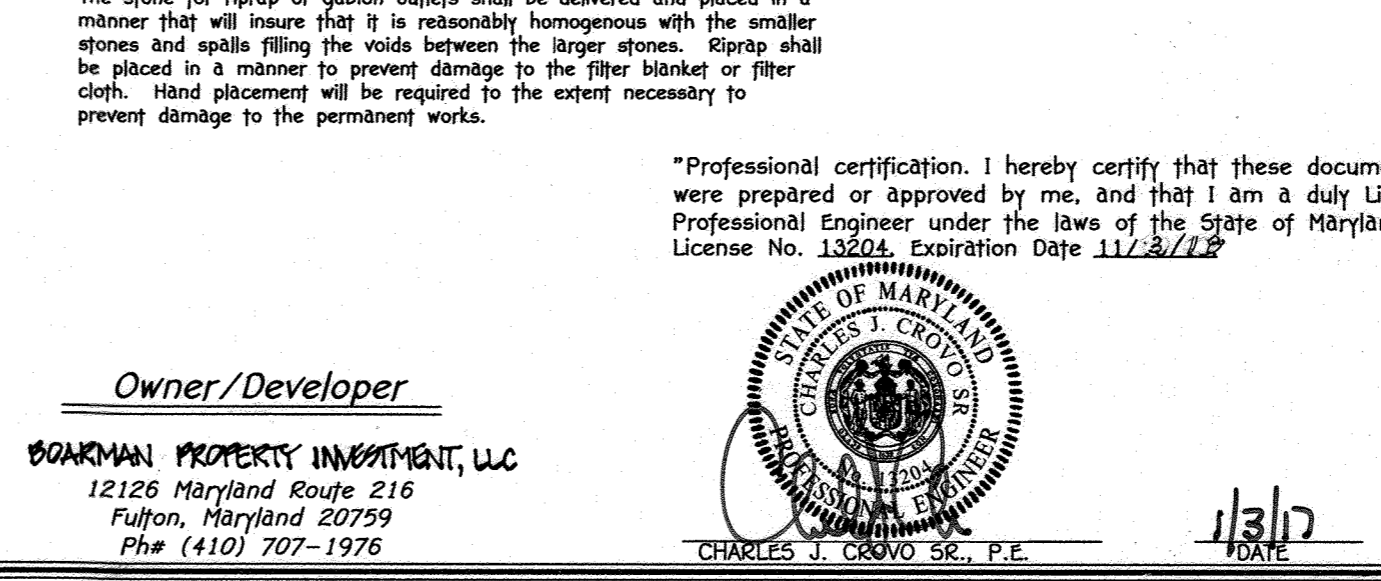
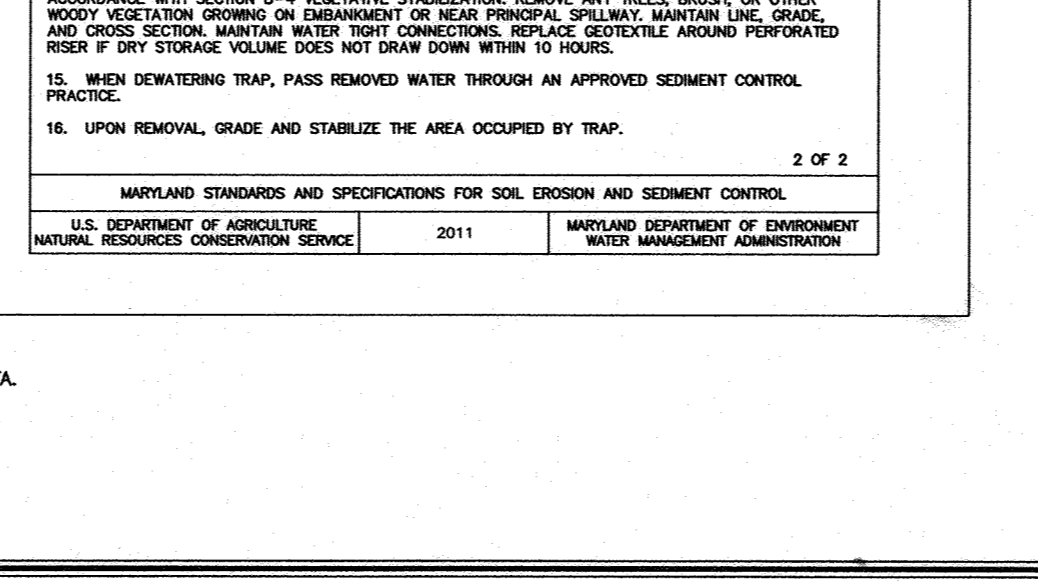
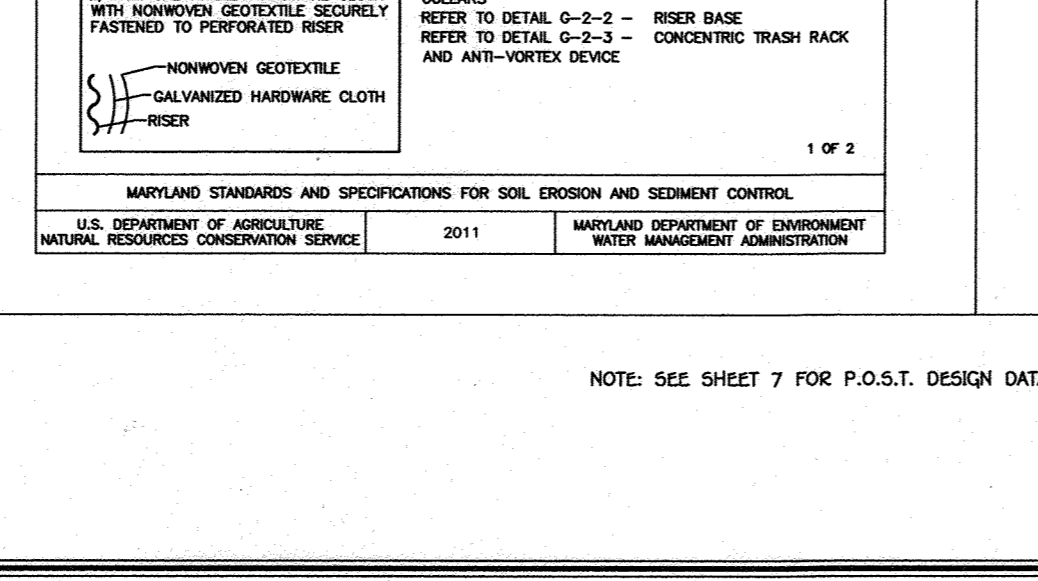
| STRUCTURE | AREA | WETTED PERIMETER | R | R ^{2/3} | S | S ^{1/2} | W | d | N | V | Q | RIP-RAP SIZE (D ₅₀) | BLANKET THICKNESS |
|-----------|-------|------------------|--------|------------------|--------|------------------|----|------|------|------|-------|---------------------------------|-------------------|
| S-1 | 1.86 | 8.98 | 0.2071 | 0.3482 | 0.0050 | 0.0707 | 8' | 0.22 | 0.04 | 0.92 | 1.70 | 9.5" | 15" |
| S-2 | 2.69 | 9.40 | 0.2862 | 0.4325 | 0.0050 | 0.0707 | 8' | 0.04 | 0.04 | 1.14 | 3.07 | 9.5" | 15" |
| S-3 | 3.71 | 9.88 | 0.3759 | 0.5186 | 0.0050 | 0.0707 | 8' | 0.42 | 0.04 | 1.37 | 5.00 | 9.5" | 15" |
| S-4 | 2.93 | 7.19 | 0.4075 | 0.5480 | 0.0050 | 0.0707 | 5' | 0.49 | 0.04 | 1.44 | 4.20 | 9.5" | 15" |
| S-5 | 2.06 | 6.61 | 0.3116 | 0.4578 | 0.0050 | 0.0707 | 5' | 0.36 | 0.04 | 1.21 | 2.40 | 9.5" | 15" |
| S-6 | 10.00 | 12.47 | 0.8019 | 0.8625 | 0.0050 | 0.0707 | 8' | 1.00 | 0.04 | 2.27 | 22.30 | 9.5" | 15" |



AS-BUILT CERTIFICATION

I hereby certify, by my seal, that to the best of my knowledge and belief the facilities shown on the plan was constructed as shown on this "AS-BUILT" plan meet the approved plans and specifications.

DATE: Jan 16, 2022
 PAUL GEARD CAVANAH
 #27020



STORM DRAIN PROFILES & SEDIMENT CONTROL DETAILS

BELVEDERE ESTATES

LOTS 1-11, BUILDABLE PRESERVATION PARCEL 'A'
AND NON-BUILDABLE PRESERVATION PARCEL 'B'

ZONED: R2-DEO
 TAX MAP NO. 22 GRID NO. 8 PARCEL NO. 116 & P/O NO. 7
 THIRD ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 DATE: OCTOBER 11, 2016
 SHEET 20 OF 20

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. 13204, Expiration Date 11/2/22

Owner/Developer
 BOARDMAN PROPERTY INVESTMENT, LLC
 12126 Maryland Row #216
 Fulton, Maryland 20759
 PH# (410) 707-1976

1/3/17
 CHARLES J. CRAVO SR., P.E.
 DATE