

GENERAL NOTES

- 1. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
2. THE CONTRACTOR IS TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK ON THESE DRAWINGS:

- 3. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO START OF WORK.
4. ANY DAMAGE TO PUBLIC RIGHTS-OF-WAY, PAVING, OR EXISTING UTILITIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.

- 5. EXISTING UTILITIES LOCATED FROM ROAD CONSTRUCTION PLANS AND AVAILABLE RECORD DRAWINGS, APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTOR'S INFORMATION. CONTRACTOR SHALL LOCATE EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE.
6. TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

- 7. IN ACCORDANCE WITH SECTION 128 OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS, OR EXTERIOR STAIRWAYS NOT MORE THAN 16 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS. PORCHES OR DECKS, OPEN OR ENCLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK.
8. DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:

- 9. ALL ASPECTS OF THE PROJECT ARE IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS.
10. THE PROJECT BOUNDARY SHOWN HEREON IS BASED ON A BOUNDARY SURVEY PREPARED BY FISHER, COLLINS & CARTER, INC. DATED FEBRUARY 14, 2000, WHICH WAS VERIFIED AS CORRECT BY ROBERT H. VOGEL ENGINEERING, INC. IN MARCH 2010.
11. THE TOPOGRAPHY SHOWN HEREON IS BASED ON AN AERIAL TOPOGRAPHIC SURVEY PREPARED BY WINGS AERIAL MAPPING COMPANY, INC. PHOTOGRAPHED MARCH 1995.

- 12. WATER AND SEWER FOR THIS PROJECT WILL BE PROVIDED THROUGH CONTRACT # 14-4520-D. WATER SHED IS THE PATAPSCO RIVER.
13. STORM WATER MANAGEMENT TO BE PROVIDED FOR THIS DEVELOPMENT BY MICRO PLOT EXTENDED DETENTION FACILITY LOCATED IN OPEN SPACE LOT 87. THE FACILITY IS HAZARD CLASS 'A' AND WILL BE PRIVATELY OWNED BY HOA AND SWM FACILITY TO BE JOINTLY MAINTAINED BY HOA AND HOWARD COUNTY PUBLIC WORKS.
14. STREAMS SHOWN ON-SITE ARE BASED ON A FIELD INVESTIGATION PREPARED BY CHESAPEAKE ENVIRONMENTAL DATED MARCH, 1995, AS SHOWN ON S-98-016.

- 15. THE 100-YR FLOODPLAIN DRAINAGE AND UTILITY EASEMENT SHOWN ON-SITE IS BASED ON A FLOODPLAIN STUDY PREPARED BY ROBERT H. VOGEL ENGINEERING, INC., DATED OCT. 2007.
16. FOREST STAND DELINEATION PLAN PREPARED BY CHESAPEAKE ENVIRONMENTAL AND APPROVED ON 10/19/99 UNDER P-99-16. (FOR LOTS 1, 2, 3 & BULK PARCEL 'A' AND FOR OPEN SPACE LOT 4 & BULK PARCEL 'B').
17. FOREST CONSERVATION PLAN PREPARED BY CHESAPEAKE ENVIRONMENTAL AND APPROVED ON NOVEMBER 10, 1999 UNDER P-99-16. (FOR LOTS 1, 2, 3 & BULK PARCEL 'A' AND FOR OPEN SPACE LOT 4 AND BULK PARCEL 'B').

- 18. THE PRIVATE EASEMENTS SHOWN HEREON ARE TO BE MAINTAINED BY THE HOMEOWNERS ASSOCIATION.
19. AUTUMN RIVER PHASE I: EXISTING FOREST EASEMENT COMBINED WITH FUTURE PHASE. AUTUMN RIVER PHASE II: 13.41 AC. RETENTION IN CREDITED EASEMENT. AUTUMN RIVER PHASE III: 9.42 AC. RETENTION REQUIRED, PROVIDED BY A FOREST BANK, COLLEGE AVENUE PUMP STATION AUTUMN RIVER BULK PARCEL 'B', SDP-10-081.
20. A TRAFFIC IMPACT ANALYSIS WAS PREPARED BY THE TRAFFIC GROUP AND APPROVED ON FEBRUARY 8, 1999 UNDER S-98-16.

- 21. ALL LANDSCAPING REQUIREMENTS AS SET FORTH IN SECTION 16.124 OF THE HOWARD COUNTY SUBDIVISION REGULATIONS AND THE LANDSCAPE MANUAL SHALL BE COMPLIED WITH.
22. STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURES AND POLES SHALL BE IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL, VOLUME III (2006), SECTION 5.5.A. A MINIMUM OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND THE ADJACENT PROPERTY.
23. SEDIMENT AND EROSION CONTROL IS PROVIDED FOR THIS SITE. THIS PROPERTY IS WITHIN THE METROPOLITAN DISTRICT.

- 24. THE ACCOMMODATION OF AND ACCESS TO THE GRAVE SITE (OPEN SPACE 94) WAS APPROVED BY THE PLANNING BOARD ON JANUARY 27, 1999.
25. A NOISE STUDY IS NOT REQUIRED FOR THIS SUBDIVISION.
26. OPEN SPACE LOT 108 OWNED AND MAINTAINED BY HOWARD COUNTY, MARYLAND DEPARTMENT OF RECREATION AND PARKS. OPEN SPACE LOT 109 TO BE OWNED AND MAINTAINED BY THE HOA.
27. EXISTING HOUSE AND SHED TO BE REMOVED FROM OPEN SPACE LOT 103 AND OPEN SPACE LOT 108. SET PLAT #14513 & PLAT #15794.

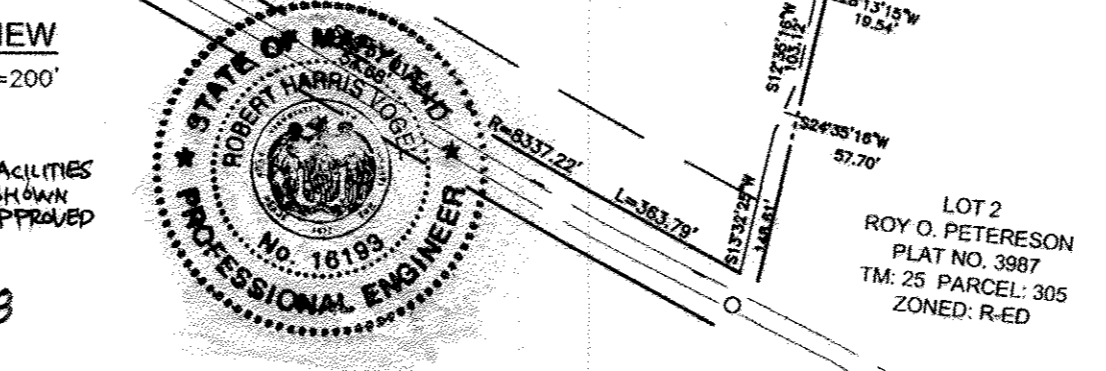
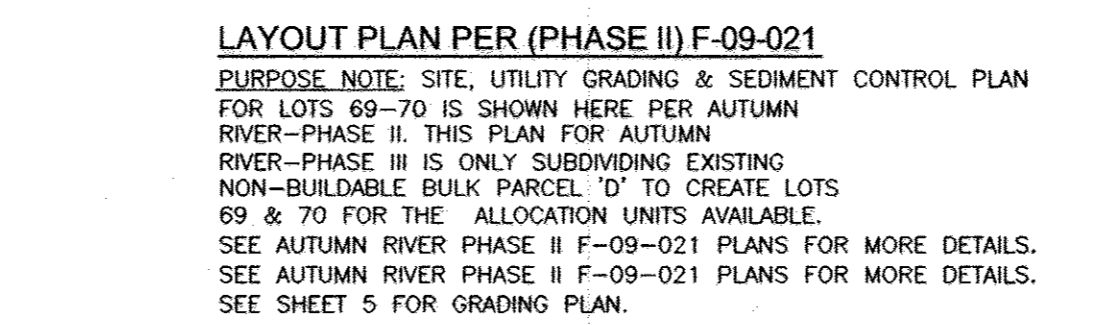
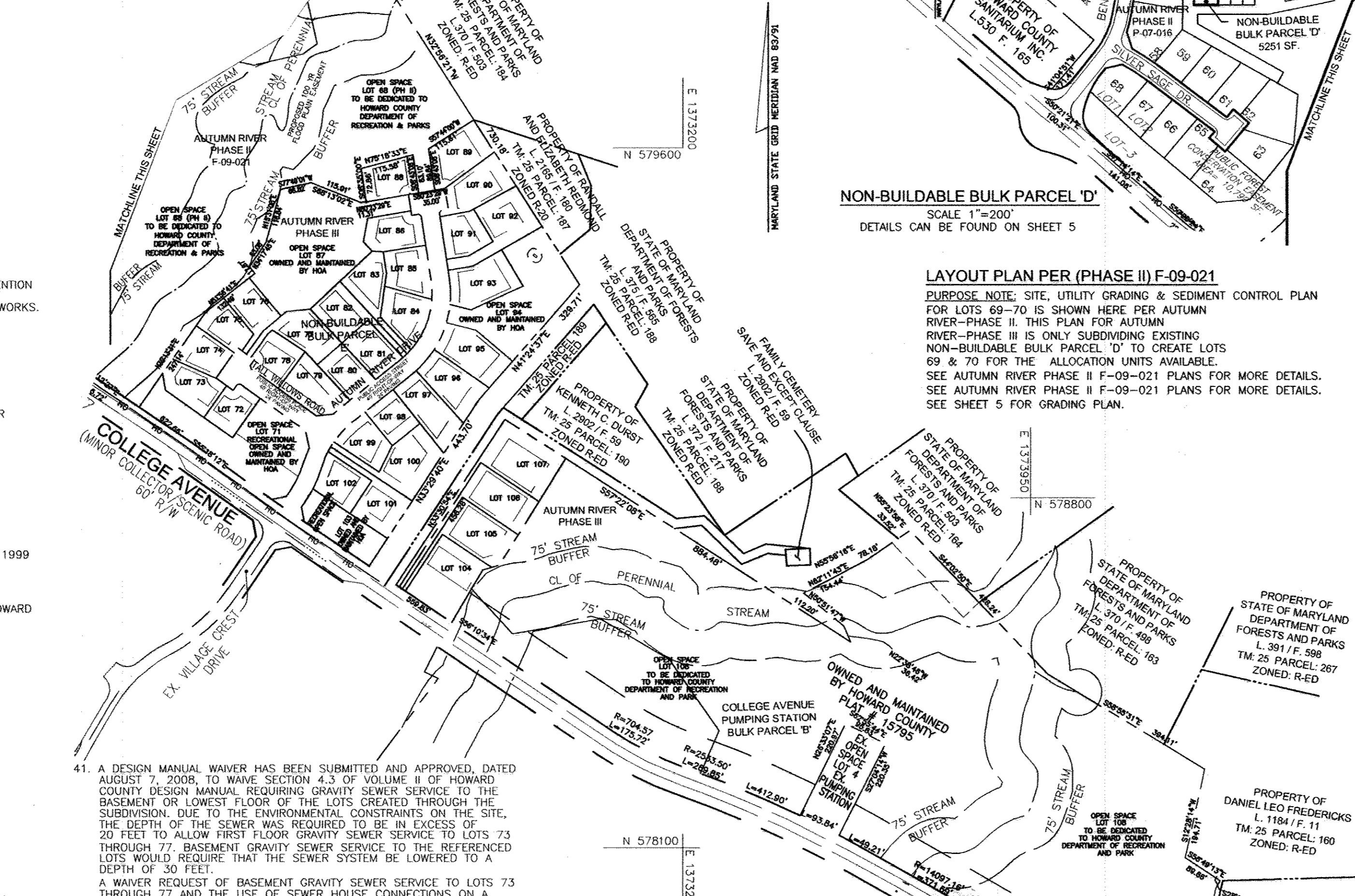
- 28. THE PLANNING BOARD APPROVED THE AMENDED SKETCH PLAN (S-98-16). THE PLAN WAS SIGNED ON FEBRUARY 8, 1999 AND PB 325 WAS APPROVED ON JANUARY 14, 1999.
29. LOTS 75-77, 82-83, 88-89, 100-101, 104-107 WILL UTILIZE A USE-IN-COMMON DRIVEWAY. HOWARD COUNTY STANDARD DETAIL NO. R-6-06 WILL BE UTILIZED FOR THE ENTRANCE AT THE INTERSECTION OF THE PUBLIC ROAD AND EACH DRIVEWAY. THE USE-IN-COMMON DRIVEWAY MAINTENANCE AGREEMENTS ARE TO BE RECORDED AMONG THE LAND RECORDS OF HOWARD COUNTY, MARYLAND. THE MAINTENANCE AGREEMENT FOR THE USE-IN-COMMON LOTS 75 & 89 WAS RECORDED WITH F-09-021.
30. REFUSE COLLECTION, SNOW REMOVAL, AND MAINTENANCE FOR LOTS 75, 76, 77, 82, 83, 100, 101, 104, 105, 106 & 107 SHALL BE PROVIDED AT THE JUNCTION OF PRIVATE USE-IN-COMMON ACCESS EASEMENT AND THE RIGHT-OF-WAY OF PROPOSED ROAD.

- 31. COLLEGE AVENUE IS A SCENIC ROAD. 35' WIDE FOREST BUFFER WILL BE RETAINED WHERE IT CURRENTLY EXISTS AND A TYPE B LANDSCAPE BUFFER WILL BE ADDED IN AREAS WHERE A 35' FOREST DOES NOT CURRENTLY EXIST. SPECIES TYPICALLY OCCURRING IN THE EXISTING FORESTED AREA ALONG THE ROADWAY WILL BE USED FOR THE TYPE B LANDSCAPE BUFFER.
32. TREE PROTECTION FENCING WILL BE PROVIDED AT THE LIMITS OF DISTURBANCE WHERE GRADING IS ADJACENT TO ENVIRONMENTAL AREAS AND RETENTION FOREST CONSERVATION AREAS. THIS SUBDIVISION COMPLIES WITH THE AMENDED 4TH EDITION OF THE SUBDIVISION AND ZONING REGULATIONS, BOTH AS AMENDED BY COUNCIL BILL 75-2003.
33. THE OPEN SPACE SHOWN HEREON IS HEREBY DEDICATED TO A PROPERTY OWNERS ASSOCIATION FOR THE RESIDENTS OF THIS SUBDIVISION AND RECORDING REFERENCES OF THE ARTICLES OF INCORPORATION AND RESTRICTIONS ARE SHOWN HEREON. OPEN SPACE LOT 108 TO BE OWNED AND MAINTAINED BY THE HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS. OPEN SPACE LOTS 71, 87, 94, AND 103 ARE TO BE OWNED AND MAINTAINED BY THE HOA. EXISTING OPEN SPACE LOT 4 (PUMPING STATION) TO BE OWNED AND MAINTAINED BY DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY.

FINAL ROAD CONSTRUCTION PLAN AUTUMN RIVER PHASE III

LOTS 72-86, 88-93, 95-102, 104-107, OPEN SPACE LOTS 71, 87, 94, 103, 108 AND 109 RESUBDIVISION OF COLLEGE AVENUE PUMPING STATION BULK PARCEL 'B' AND AUTUMN RIVER PHASE II NON-BUILDABLE BULK PARCELS 'D' & 'E' HOWARD COUNTY, MARYLAND

COORDINATE LIST table with columns: POINT, NORTH, EAST. Rows include points 138, 141, 185, 186, 191, 192, 193, 194, 228.

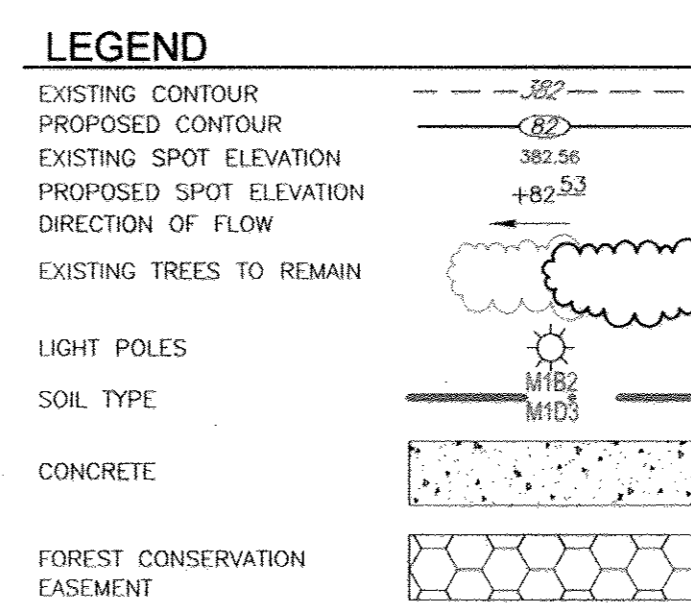


AS-BUILT CERTIFICATION. I HEREBY CERTIFY BY MY SEAL, THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS AS-BUILT PLAN AND MEET THE APPROVED PLANS AND SPECIFICATIONS.

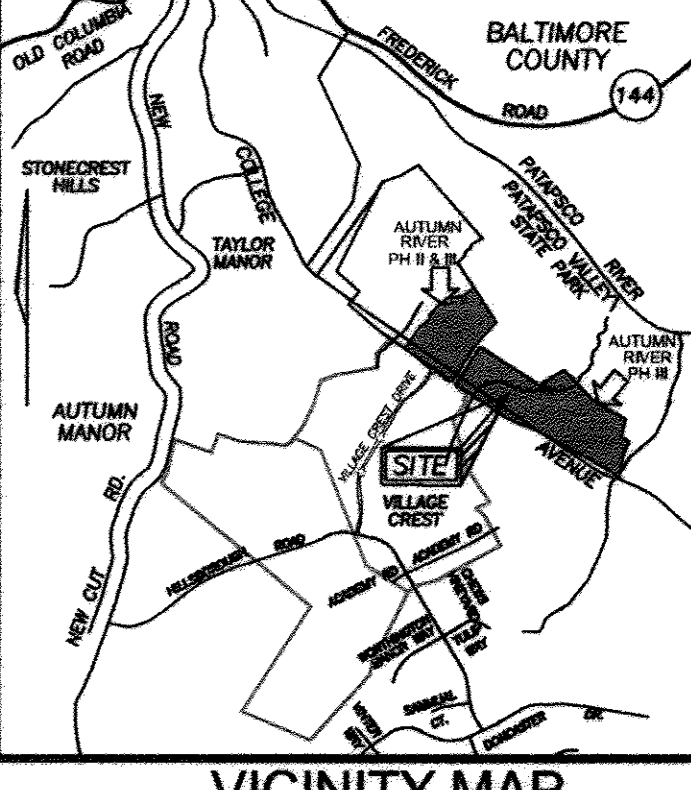
MILESTONES CHART table with columns: PHASE, ALLOCATIONS, YEAR. Rows include Phase I, II, III and a TOTAL row.

AUTUMN RIVER DENSITY TABULATION table with columns: PHASE, TOTAL SUBDIVISION AREA (GROSS AREA), PREVIOUSLY RECORDED PLATS, FLOODPLAIN, STEEP SLOPES, NET AREA, UNITS PERMITTED BY NET AREA, UNITS PROPOSED, TOTAL UNITS REMAINING. Rows include Phase I, II, III and a TOTAL row.

SKETCH PLAN S-98-016 APPROVED 95 UNITS PLUS 2 EXISTING UNITS TOTALING 97 UNITS (LETTER DATED OCTOBER 15, 2005) \* PHASE II PLAN PROPOSED 58 UNITS PLUS 2 EXISTING UNITS FOR A TOTAL OF 60 UNITS \*\* THIS PLAN PROPOSES 33 UNITS PLUS 2 UNITS FROM THE RESUBDIVISION OF PHASE II NON BUILDABLE BULK PARCEL D INTO 2 LOTS FOR A TOTAL OF 35 UNITS



BENCHMARKS table with columns: HOWARD COUNTY BENCHMARK #, COORDINATE, ELEVATION. Rows include #2411 and #2413. MINIMUM LOT SIZE CHART table with columns: LOT NO., GROSS AREA, PIPE AREA, LOT SIZE. Rows include lots 76-107.



SITE ANALYSIS: GENERAL SITE DATA. PRESENT ZONING: R-ED. LOCATION EAST SIDE OF COLLEGE AVENUE, APPROX. 1.5 MILES SOUTH OF HISTORIC ELICOTT CITY. ELECTION DISTRICT: 2ND. TAX MAP: 25, PARCELS 172 & 279. DEED REFERENCE: LIBER 3883 AT FOLIO 725 (PARCEL 172) LIBER 3883 AT FOLIO 725 (PARCEL 279).

AREA TABULATION (PHASE III) table with columns: AREA OF FLOOD PLAN, AREA OF ROAD RIGHT-OF-WAY, AREA OF OPEN SPACE, AREA OF BUILDABLE LOTS, OPEN SPACE LOT, OPEN SPACE LOT, OPEN SPACE LOT, OPEN SPACE LOT, OPEN SPACE LOT. Rows include various areas and lots.

OPEN SPACE TABULATION-PHASE III. AUTUMN RIVER PHASE I, II, III REQUIRED OPEN SPACE = 17.70 AC. AUTUMN RIVER PHASE I (PLAT# 14513) = CREDITED OPEN SPACE PROVIDED=0.48 AC. AUTUMN RIVER PHASE II=CREDITED OPEN SPACE PROVIDED= 24.94 AC. PHASE II, LOT 68 (TRANSFER TO PHASE III) :-0.38 AC.\* PHASE II, LOT 68 (TRANSFER FROM PHASE III) :+0.16 AC. AUTUMN RIVER PHASE III=CREDITED OPEN SPACE PROVIDED= 24.716 AC. AUTUMN RIVER PHASE III = CREDITED OPEN SPACE REQUIRED = 0.00 AC. AUTUMN RIVER PHASE III = CREDITED OPEN SPACE PROVIDED = 21.52 AC. AUTUMN RIVER PHASE III = NON-CREDITED OPEN SPACE PROVIDED = 0.426 AC. AUTUMN RIVER PUMP STATION OPEN SPACE LOT 4 = 0.48 AC. (PLAT #15794 & 15795) TOTAL CREDITED OPEN SPACE FOR AUTUMN RIVER = 47.49 AC. \*PH-II OPEN SPACE UTILIZED FOR OPEN SPACE PH-III FOR POND GRADING. (LOT-79 PH-II SHAPE MODIFIED). RECREATIONAL FACILITIES SUCH AS BASKETBALL OR TENNIS COURTS, FENCES, SWIMMING POOLS, PLAYGROUND EQUIPMENT OR TOT LOTS, ETC. THAT ARE PERMANENTLY ATTACHED TO THE GROUND ARE CONSIDERED TO BE STRUCTURES AND ARE NOT PERMITTED WITHIN THE PROPOSED RECREATIONAL AREA ON LOTS 71 & 103. AUTUMN RIVER PHASE I, II, III = RECREATION OPEN SPACE REQUIRED: 22,900 SF TOTAL SINGLE FAMILY DETACHED UNITS = 78 x 250 SF/UNITS = 19,500 SF TOTAL SINGLE FAMILY ATTACHED UNITS = 17 x 2010 SF/UNITS = 3,400 SF TOTAL RECREATION OPEN SPACE REQUIRED = 22,900 SF. AUTUMN RIVER PHASE I RECREATION OPEN SPACE PROVIDED = 0 SF. AUTUMN RIVER PHASE II RECREATION OPEN SPACE PROVIDED = 11,000 SF. AUTUMN RIVER PHASE III RECREATION OPEN SPACE REQUIRED = 11,900 SF. AUTUMN RIVER PHASE III RECREATION OPEN SPACE PROVIDED = 18,324 SF. TOTAL RECREATION OPEN SPACE FOR AUTUMN RIVER = 29,324 SF.

SHEET INDEX table with columns: DESCRIPTION, SHEET NO. Rows include COVER SHEET, FINAL ROAD CONSTRUCTION PLAN, FINAL ROAD CONSTRUCTION PROFILES AND DETAILS, GRADING, SEDIMENT AND EROSION CONTROL PLAN, LANDSCAPE AND FOREST CONSERVATION PLAN, LANDSCAPE AND FOREST CONSERVATION DETAILS, M.O.T., MARKING PLAN AND IMPROVEMENTS, COLLEGE AVENUE.

OWNERS: AUTUMN RIVER CORPORATION, 4100 COLLEGE AVE., ELICOTT CITY MD 21042-7819. DEVELOPER: AUTUMN DEVELOPMENT CORPORATION, C/O LAND DESIGN & DEVELOPMENT, INC., 5300 DORSEY HILL DR STE 102, ELICOTT CITY MD 21042-7819. ATTN: MR. DONALD R. REUWER (443) 367-0422.

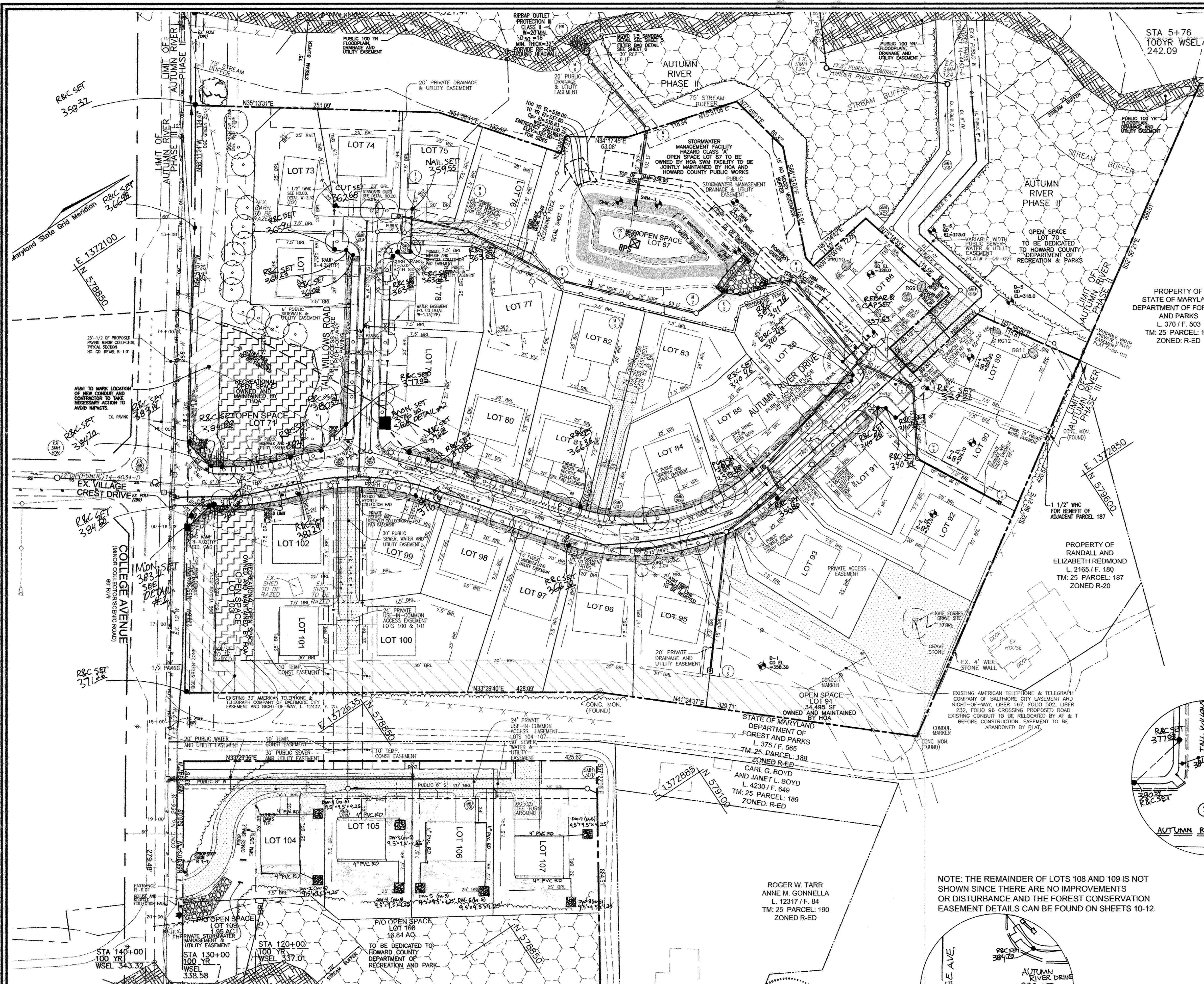
LOT TABULATION: TOTAL NO. OF PROPOSED LOTS = 35. TOTAL 35 DWELLING UNITS FOR THIS SUBMISSION. NO. OF SINGLE FAMILY DETACHED: 33. NO. OF SINGLE FAMILY ATTACHED: 2 (5251 SF). NO. OF OPEN SPACE LOTS: 6. NO. OF EXISTING OPEN SPACE (LOT 4): 1. PARKING TABULATION-PHASE III: TOTAL NUMBER OF UNITS ALLOWED AND PROPOSED ATTACHED UNITS: 02 (LOTS 109 & 110). REQUIRED AT 2.0 SPACES PER DU: 04. PARKING SPACES REQUIRED: 2 SPACES PER UNIT=04 SPACES. 0.3 SPACES PER UNIT FOR GUEST/OVERFLOW PARKING= 01 SPACE. TOTAL PARKING SPACES REQUIRED: = 05 SPACES. PARKING SPACES PROVIDED: UNIT= 2 GARAGE/1 DRIVEWAY= 03 SPACES. 2 SPACES IN GARAGE= 04 SPACES (FOR 02 UNITS). 1 SPACE ON DRIVEWAY = 02 SPACES (FOR 02 UNITS). PARKING ON SITE= 05 SPACES. TOTAL PARKING SPACES PROVIDED: = 06 SPACES. IN ACCORDANCE WITH SECTIONS 133.C.1.a AND 133.D.2.g OF THE ZONING REGULATIONS, GARAGES IN ATTACHED DWELLING UNITS MUST BE USED FOR PARKING ONLY.

BEST MANAGEMENT PRACTICES FOR WORKING IN NONTIDAL WETLANDS, WETLAND BUFFERS, WATERWAYS, AND 100-YEAR FLOODPLAIN. 1) NO EXCESS FILL, CONSTRUCTION MATERIAL, OR DEBRIS SHALL BE STOCKPILED OR STORED IN THE WETLANDS OR BUFFER. 2) PLACE MATERIALS IN A LOCATION AND MANNER WHICH DOES NOT ADVERSELY IMPACT SURFACE OR SUBSURFACE WATER FLOW INTO OR OUT OF THE NONTIDAL WETLANDS. 3) DO NOT USE THE EXCAVATED MATERIAL AS BACKFILL IF IT CONTAINS WASTE METAL PRODUCTS, UNSIGHTLY DEBRIS, TOXIC MATERIAL OR ANY OTHER DELETERIOUS SUBSTANCE. IF ADDITIONAL BACKFILL IS REQUIRED, USE CLEAN MATERIAL FREE OF WASTE METAL PRODUCTS, UNSIGHTLY DEBRIS, TOXIC MATERIAL OR ANY OTHER DELETERIOUS SUBSTANCE. 4) PLACE HEAVY EQUIPMENT ON MATS OR SUITABLY OPERATE THE EQUIPMENT TO PREVENT DAMAGE TO THE NONTIDAL WETLANDS OR BUFFER. 5) REPAIR AND MAINTAIN ANY SERVICEABLE STRUCTURE OR FILL SO THERE IS NO PERMANENT LOSS OF NONTIDAL WETLANDS IN EXCESS OF NONTIDAL WETLANDS LOST UNDER THE ORIGINAL STRUCTURE OR FILL. 6) RECTIFY ANY NONTIDAL WETLANDS TEMPORARILY IMPACTED BY ANY 7) ALL STABILIZATION IN THE WETLAND AND BUFFER SHALL BE OF THE FOLLOWING RECOMMENDED SPECIES: ANNUAL RYERGRASS (LOUIN MULTIFLORUM), WHEAT (STRATA ITALICA), BARLEY (HORDEUM SP.), OATS (UNOLA SP.) AND/OR RYE (SECALE CEREALE). THESE SPECIES WILL ALLOW FOR THE STABILIZATION OF THE SITE WHILE ALSO ALLOWING FOR THE VOLUNTARY REVEGETATION OF NATURAL WETLAND SPECIES. OTHER NON-PERSISTENT VEGETATION MAY BE ACCEPTABLE, BUT MUST BE APPROVED BY THE DIVISION. KENNYACK 33 FESCUE SHALL NOT BE UTILIZED IN THE WETLAND OR BUFFER AREAS SEEDED AND MULCHED TO REDUCE EROSION AFTER CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED. 8) AFTER INSTALLATION HAS BEEN COMPLETED, MAKE POST CONSTRUCTION GRADES AND ELEVATIONS OF NONTIDAL WETLANDS THE SAME AS THE ORIGINAL GRADES AND ELEVATIONS IN TEMPORARILY IMPACTED AREAS. 9) TO PROTECT AQUATIC SPECIES, IN-STREAM WORK IS PROHIBITED AS DETERMINED BY THE CLASSIFICATION OF THE STREAM USE 1 MATTERS. IN-STREAM WORK SHALL NOT BE CONDUCTED DURING THE PERIOD MARCH 1 THROUGH JUNE 15, INCLUSIVE, DURING ANY YEAR. 10) STORMWATER RUNOFF FROM IMPERVIOUS SURFACES SHALL BE CONTROLLED TO PREVENT THE WASHING OF DEBRIS INTO THE WATERWAY. 11) CULVERTS SHALL BE CONSTRUCTED AND ANY RIPRAP PLACED SO AS NOT TO OBSTRUCT THE MOVEMENT OF AQUATIC SPECIES, UNLESS THE PURPOSE OF THE ACTIVITY IS TO IMPOUND WATER.

REVISION table with columns: NO., REVISION, DATE. Row 1: REVISE THE POND GABION FOREBAY ELEVATION AND REMOVE RAIN GARDEN ON LOTS 104-107 AND ILLUSTRATE DRYWELLS AS APPROVED ON SDP-14-047.

FINAL ROAD CONSTRUCTION PLAN AUTUMN RIVER - PHASE III COVER SHEET. LOTS 72-86, 88-93, 95-102, 104-107. RESUBDIVISION OF COLLEGE AVENUE PUMPING STATION BULK PARCEL 'B' AND AUTUMN RIVER PHASE II NON-BUILDABLE BULK PARCELS 'D' & 'E' HOWARD COUNTY, MARYLAND. S-98-16, P-99-16, F-00-131, F-01-08, P.B.325, P.B.148, PLAT#15794 & 15795, 14515, P-07-016, P-08-006, WP-09-063. PARCELS 172 & 279 TAX MAP #25 GRID 14 & 21. 2ND ELECTION DISTRICT. HOWARD COUNTY, MARYLAND.

ROBERT H. VOGEL ENGINEERING, INC. ENGINEERS • SURVEYORS • PLANNERS. 8407 MAIN STREET, ELICOTT CITY, MD 21043. TEL: 410-461-7666. FAX: 410-461-8961. DESIGN BY: JCO. DRAWN BY: KG. CHECKED BY: RHV. DATE: FEBRUARY 2011. SCALE: AS SHOWN. W.O. NO.: 04-145. 1 SHEET OF 13. AS-BUILT JUNE 2018.



**LEGEND:**

- 24' PRIVATE USE-IN COMMON ACCESS EASEMENT
- AQUATIC BENCH
- PROP. ROAD WIDENING 4' PAVING ALONG FRONTAGE OF THE PROPERTY
- FOREST CONSERVATION AREA (RETENTION)
- RECREATION OPEN SPACE
- 6' PUBLIC SIDEWALK & UTILITY EASEMENT
- PROPOSED CURB AND GUTTER
- EXISTING EASEMENT (FIELD LOCATED)
- PROPOSED STREET TREE
- WETLANDS BUFFER
- STREAM CENTERLINE
- STREAM BUFFER
- PROP. STREET LIGHT
- PROP. STREET SIGNS
- EXISTING FENCE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- PROPOSED SIDEWALK
- PUBLIC 100 YR FLOODPLAIN DRAINAGE & UTILITY EASEMENT
- EXISTING FOREST CONSERVATION EASEMENT

**STREET TREE CALCULATIONS**

STREET NAME	LINEAR FEET	NO. REQUIRED	NO. PROVIDED
AUTUMN RIVER DRIVE	1656/40	41	41
TALL WILLOWS ROAD	512/40	13	13
COLLEGE AVE-RD IMPROV.	407/30	14	17

**LIGHT LOCATIONS**

STATION	OFFSET	FIXTURE/POLE TYPE	
COLLEGE AVENUE	15+92.39	29.55' LEFT	150 WATT HPS VAPOR PREMIER POST-TOP FIXTURE MOUNTED ON A 14' BLACK FIBERGLASS POLE
COLLEGE AVENUE	19+98	25.47' LEFT	
AUTUMN RIVER DRIVE	1+74.90	16.80' RIGHT	
AUTUMN RIVER DRIVE	2+35.67	16.34' LEFT	
AUTUMN RIVER DRIVE	4+75.31	23.23' LEFT	100 WATT HPS VAPOR PREMIER POST-TOP FIXTURE MOUNTED ON A 14' BLACK FIBERGLASS POLE
AUTUMN RIVER DRIVE	6+97	17' RIGHT	
AUTUMN RIVER DRIVE	7+98.15	20' LEFT	
TALL WILLOWS ROAD	2+23	17.52' RIGHT	

**SIGNAGE LOCATION CHART**

STREET	STATION	TYPE	LOCATION
AUTUMN RIVER DRIVE	R1-1	("STOP")	SIGN AT STA 0+46.83, 17' LEFT
AUTUMN RIVER DRIVE	R2-1	("SPEED LIMIT 25")	SIGN AT STA 1+22.91, 15' RIGHT
COLLEGE AVENUE "PRIVATE DRIVE"	19+82	27' LEFT	STREET NAME SIGN
COLLEGE AVENUE "PRIVATE DRIVE"	19+47	31' LEFT	STOP SIGN
TALL WILLOWS ROAD	R1-1	("STOP")	SIGN AT STA 0+26, 18' LEFT

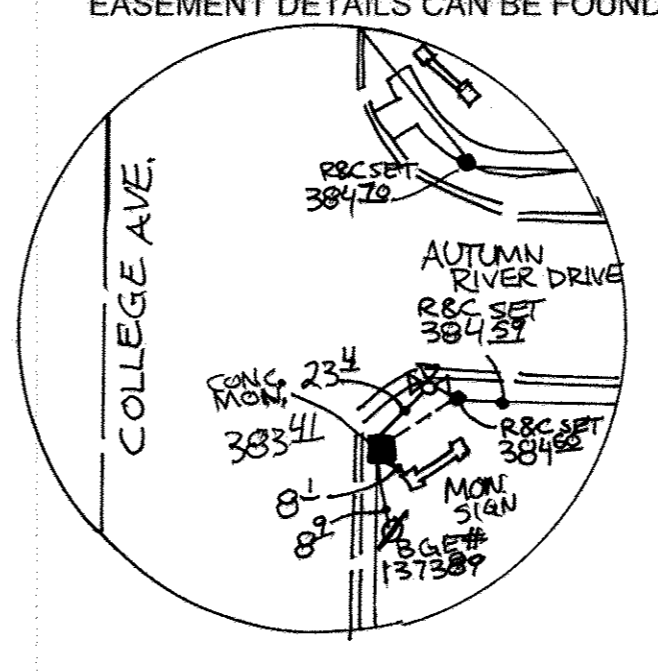
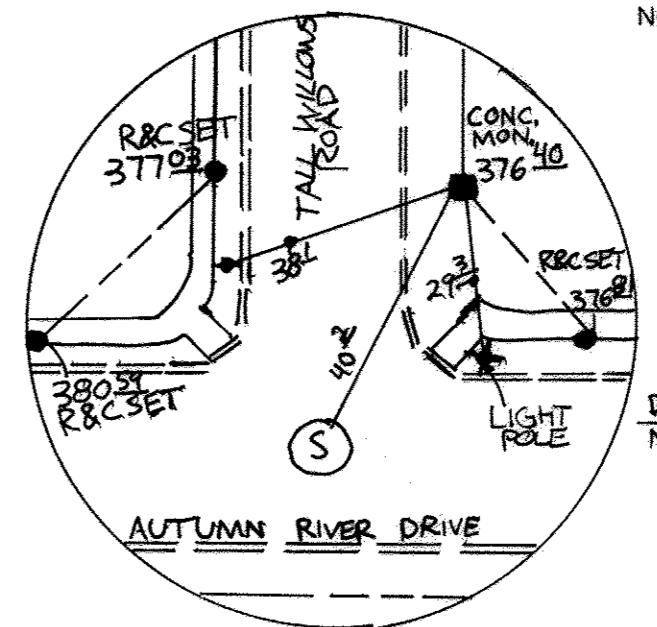
**CURVE TABLE**

CURVE	LENGTH	RADIUS	DELTA ANGLE	TANGENT	CHORD DIRECTION	CHORD LENGTH
C1	76.48	250.00	17°31'38"	38.54	N26°25'33"E	76.18
C2	129.11	220.00	33°37'28"	66.47	S33°01'55"W	127.26
C3	107.14	200.00	30°41'33"	54.89	N36°02'06"E	105.86

**LINE TABLE**

LINE	LENGTH	BEARING
L1	61.02	S35°11'21"W
L2	170.01	S51°22'52"W
L3	54.21	S20°41'20"W
L4	232.50	S08°43'08"E
L5	256.09	N54°37'13"W

NOTE: A MINIMUM OF 20' IS REQUIRED BETWEEN ANY STREET LIGHT AND ANY TREE



**OWNERS**  
 AUTUMN RIVER CORPORATION  
 4100 COLLEGE AVE.  
 ELLICOTT CITY MD 21042-7819  
 21043 - 5506  
 (410) 465-3500

**DEVELOPER**  
 AUTUMN DEVELOPMENT CORPORATION  
 C/O LAND DESIGN & DEVELOPMENT, INC.  
 5300 DORSEY HALL DR STE 102  
 ELLICOTT CITY MD 21042-7819  
 ATTN: MR. DONALD R. REUWER  
 (443) 367-0422

**FINAL ROAD CONSTRUCTION PLAN**  
**AUTUMN RIVER - PHASE III**  
**FINAL ROAD CONSTRUCTION PLAN**  
 LOTS 72-86, 88-93, 95-102, 104-107  
 OPEN SPACE LOTS 71, 87, 94, 103, 108 AND 109  
 RESUBDIVISION OF COLLEGE AVENUE PUMPING STATION BULK PARCEL 'B'  
 AND AUTUMN RIVER PHASE II NON-BUILDABLE BULK PARCELS 'D' & 'E'  
 HOWARD COUNTY, MARYLAND  
 S-98-16, P-98-16, F-00-131, F-01-08, P.B.325, P.B.148, PLAT#15794 & 15795,  
 PLAT#14513 TO 14515, F-07-016, P-08-006, WP-09-083, F-09-021.  
 TAX MAP #25 GRID 14 & 21 PARCELS 172 & 279  
 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**ROBERT H. VOGEL ENGINEERING, INC.**  
 ENGINEERS • SURVEYORS • PLANNERS  
 8407 MAIN STREET ELLICOTT CITY, MD 21043 TEL: 410.461.7666 FAX: 410.461.8961

**DESIGN BY:** JCO  
**DRAWN BY:** KH  
**CHECKED BY:** RHV  
**DATE:** FEBRUARY 2011  
**SCALE:** 1" = 50'  
**W.O. NO.:** 04-145

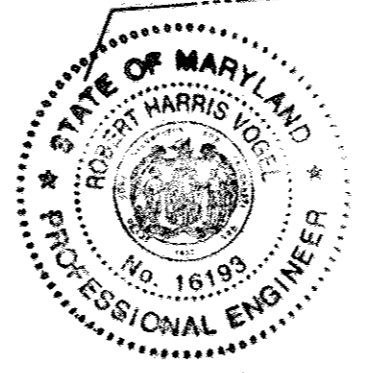
**PROFESSIONAL CERTIFICATE**  
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND UNDER NO. 18193 EXPIRATION DATE 09-27-2012

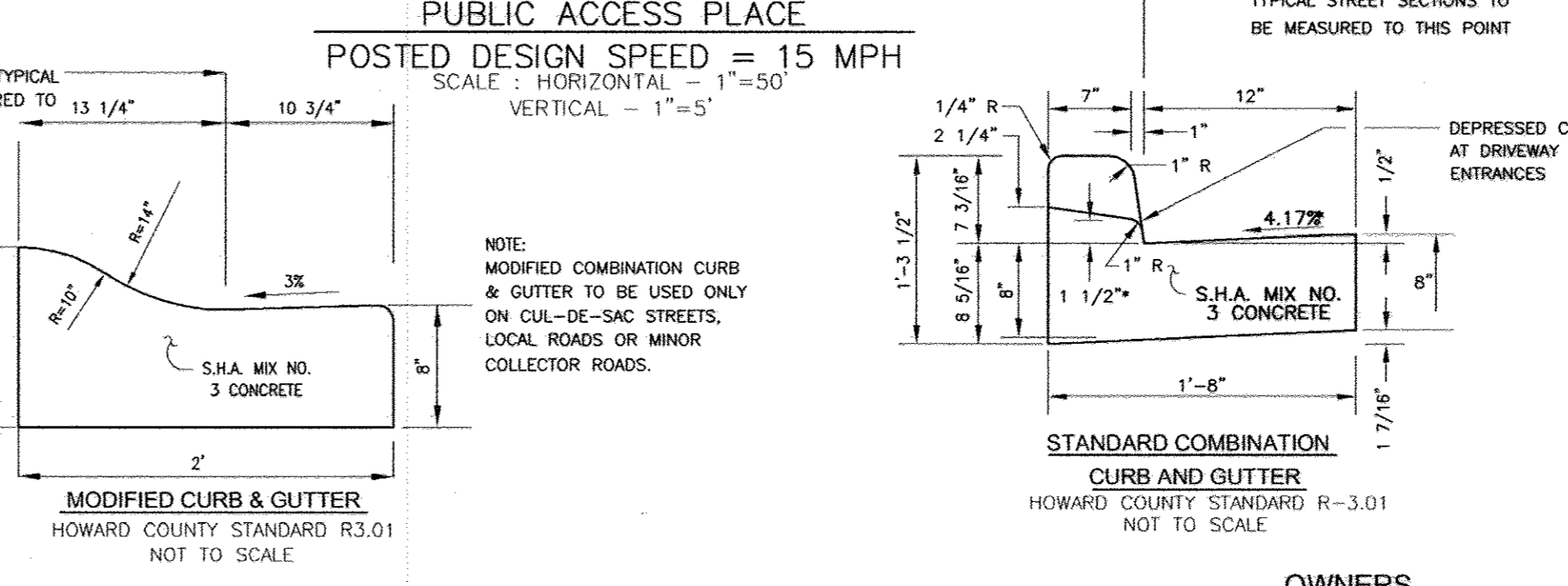
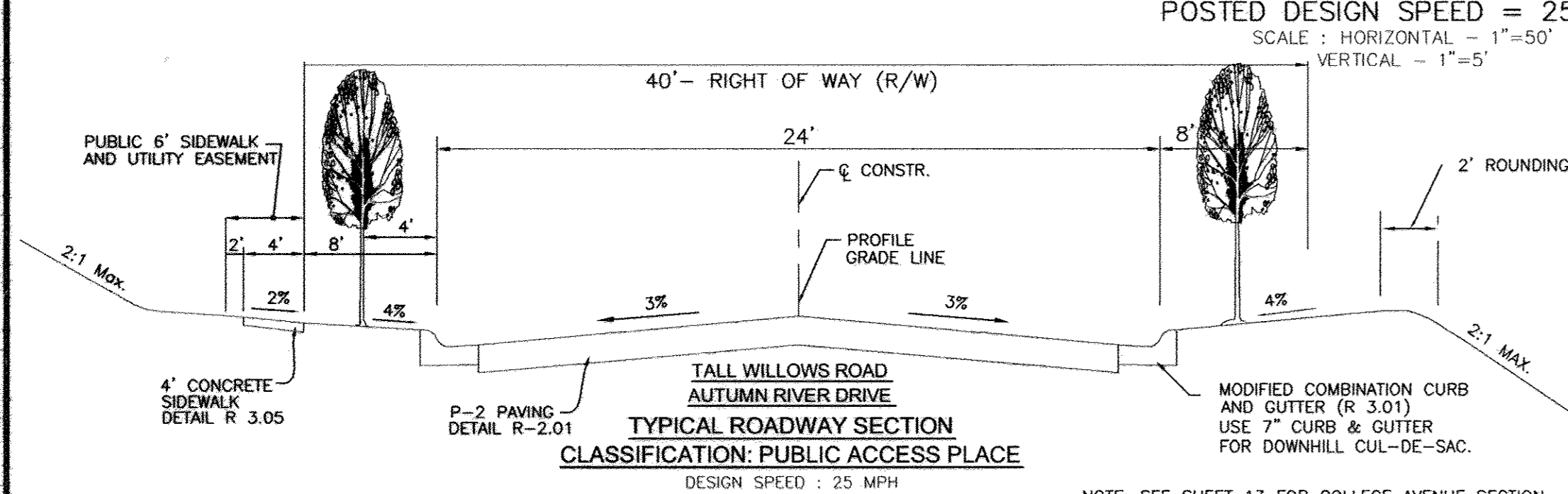
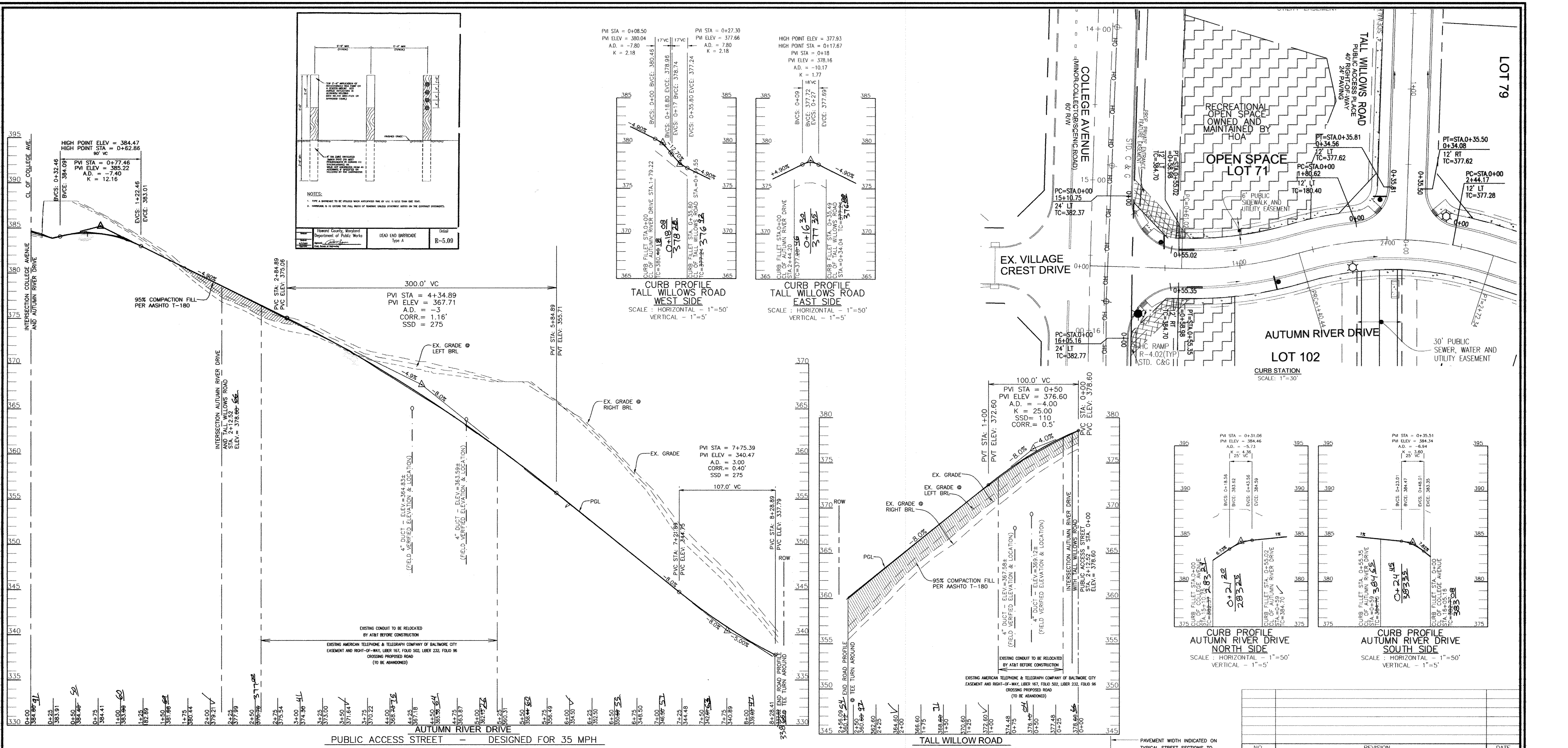
2 SHEET OF 13

APPROVED: DEPARTMENT OF PUBLIC WORKS  
 WITH 7/16/11 3-16-2011  
 CHIEF, BUREAU OF HIGHWAYS  
 APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 CHIEF, DIVISION OF LAND DEVELOPMENT

**"AS-BUILT" CERTIFICATION**  
 I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE AS-BUILT PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.  
 ROBERT H. VOGEL, P.E. #16193  
 CERTIFY MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED UPON ON-SITE INSPECTIONS AND MATERIAL TESTS WHICH ARE CONDUCTED DURING CONSTRUCTION. THE ON-SITE TEST INSPECTION AND TESTS DEEMED SUFFICIENT AND APPROPRIATE BY COMMONLY ACCEPTED ENGINEERING STANDARDS CERTIFY DOES NOT MEAN OR IMPLY A GUARANTEE BY THE ENGINEER NOR DOES AN ENGINEER'S CERTIFICATION RELIEVE ANY OTHER PARTY FROM MEETING COMMONLY ACCEPTED INDUSTRY PRACTICES.

**"AS-BUILT" CERTIFICATION**  
 I HEREBY CERTIFY, BY MY SEAL, THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS "AS-BUILT" PLAN AND MEET THE APPROVED PLANS AND SPECIFICATIONS.  
 ROGER W. TARR  
 ANNE M. GONNELLA  
 L. 12317 / F. 84  
 TM: 25 PARCEL: 190  
 ZONED: R-ED

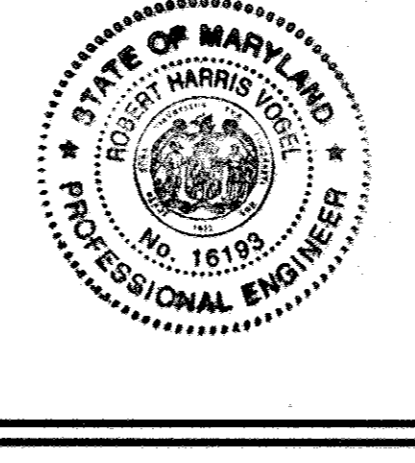




APPROVED: DEPARTMENT OF PUBLIC WORKS  
 DATE: 3-16-2011  
 APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
 DATE: 2/23/11  
 APPROVED: CHIEF, DIVISION OF LAND DEVELOPMENT  
 DATE: 3/24/11

**"AS-BUILT" CERTIFICATION**  
 I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE AS-BUILT PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.  
 ROBERT H. VOGEL, P.E. #16193  
 DATE: 6/25/18

**AS-BUILT CERTIFICATION**  
 I HEREBY CERTIFY, BY MY SEAL, THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS "AS-BUILT" PLAN AND MEET THE APPROVED PLANS AND SPECIFICATIONS.  
 DATE: 6/25/18



**OWNERS**  
 AUTUMN RIVER CORPORATION  
 4100 COLLEGE AVE.  
 ELLICOTT CITY MD 21042-7819  
 21043 - 5506  
 (410) 465-3500

**DEVELOPER**  
 AUTUMN DEVELOPMENT CORPORATION  
 C/O LAND DESIGN & DEVELOPMENT, INC.  
 5300 DORSEY HALL DR. STE 102  
 ELLICOTT CITY MD 21042-7819  
 ATTN: MR. DONALD R. REUMER  
 (443) 367-0422

**FINAL ROAD CONSTRUCTION PLAN**  
**AUTUMN RIVER - PHASE III**  
**FINAL ROAD CONSTRUCTION PROFILES AND DETAILS**

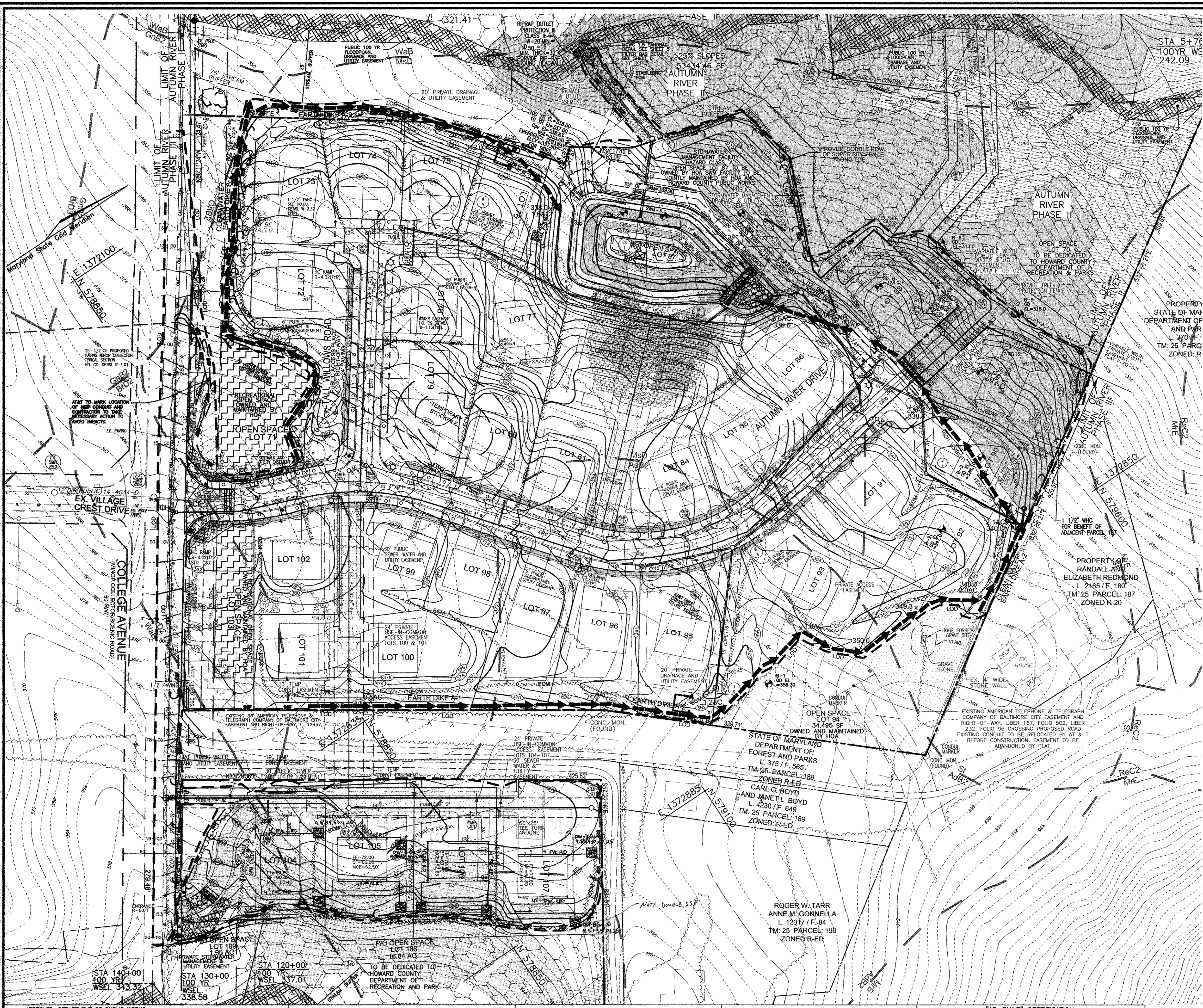
LOTS 72-86, 88-93, 95-102, 104-107  
 OPEN SPACE LOTS 71, 87, 94, 103, 108 AND 109  
 RESUBDIVISION OF COLLEGE AVENUE PUMPING STATION BULK PARCEL 'B'  
 AND AUTUMN RIVER PHASE II NON-BUILDABLE BULK PARCELS 'D' & 'E'  
 HOWARD COUNTY, MARYLAND

S-98-16, P-99-16, F-00-131, F-01-08, P.B.325, P.B.148, PLAT#15794 & 15795,  
 PLAT#14513 TO 14515, P-07-016, P-08-006, WP-09-063, F-09-021,  
 TAX MAP P25 GRID 14 & 21 PARCELS 172 & 279  
 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**ROBERT H. VOGEL**  
**ENGINEERS • SURVEYORS • PLANNERS**  
 8407 MAIN STREET ELLICOTT CITY, MD 21043 TEL: 410.461.7666 FAX: 410.461.8961

**PROFESSIONAL CERTIFICATE**  
 DESIGN BY: JCO  
 DRAWN BY: KG  
 CHECKED BY: RHV  
 DATE: FEBRUARY 2011  
 SCALE: AS SHOWN  
 W.O. NO.: G4-145

3 SHEET OF 13



**LEGEND:**

	EXISTING CONTOUR		EXISTING FOREST
	PROPOSED CONTOUR		FOREST RETENTION AREA (RETENTION)
	EXISTING CURB AND GUTTER		RECREATION OPEN SPACE
	PROPOSED CURB AND GUTTER		6' PUBLIC SIDEWALK & UTILITY EASEMENT
	EXISTING TREELINE		PROPOSED 33' AMERICAN TELEPHONE & TELEGRAPH COMPANY OF BALTIMORE CITY EASEMENT AND RIGHT-OF-WAY, LIBER 167, FOLD 502 & LIBER 232, FOLD 96
	EXISTING FENCE		24' PRIVATE USE IN COMMON ACCESS EASEMENT
	RIGHT-OF-WAY LINE		PROP. ROAD WIDENING 4' PAVING ALONG FRONTAGE OF THE PROPERTY
	PROPOSED SIDEWALK		AQUATIC BENCH
	MODERATE SLOPES (15% - 24.99%)		SOILS BOUNDARY
	STEEP SLOPE (>25%)		NO WOODY BUFFER
	PUBLIC 100 YR FLOODPLAIN DRAINAGE & UTILITY EASEMENT		WETLANDS
	SILT FENCE		EROSION CONTROL MATTING
	SUPER SILT FENCE		EARTHWORK
	LIMIT OF DISTURBANCE		STABILIZED CONSTRUCTION ENTRANCE
	CURB INLET PROTECTION		HIGH VISIBILITY FENCE
	AT GRADE INLET PROTECTION		REMOVABLE PUMP STATION
	WETLANDS BUFFER		
	STREAM CENTERLINE		
	STREAM BUFFER		
	PROP. STREET LIGHT		
	PROP. STREET SIGNS		
	150-WATT POST TOP		
	100-WATT POST TOP		
	HIGH VISIBILITY FENCE		
	REMOVABLE PUMP STATION		

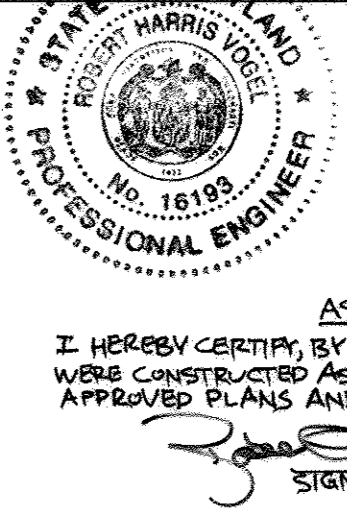
- GENERAL NOTES**
- ALL EARTH DIKES ARE TO BE PLACED IN WORKING ORDER AT THE END OF EACH WORKING DAY.
  - IMBRICATE SF/SSF IN 25' SEGMENTS AS REQUIRED UPHILL BY 2' IN ELEVATION.
  - NO IN STREAM CONSTRUCTION MAY OCCUR FROM 3/1 TO 6/15.
  - PROVIDE IMMEDIATE STABILIZATION OF ALL LIMIT OF DISTURBANCE WITHIN BUFFER AREA WITH EROSION CONTROL MATTING.
  - CONSTRUCTION FROM STORMDRAIN MH-7 TO HW 1 SUBJECT TO MDE PERMIT--- WHICH PROHIBIT CONSTRUCTION IN THE STREAM FROM MARCH 1ST. TO JUNE 15TH.
  - PROVIDE HIGH VISIBLE FENCING ALONG INTERNAL DIKES, WITH MOUNTABLE BERM AT ANY OPENING NEEDED FOR CONSTRUCTION TRAFFIC.

**SOILS LEGEND**

SYMBOL	NAME / DESCRIPTION	GROUP
Ade2	ALDINO SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	C
Ade3	ALDINO SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	C
Bd2	BRANDYWINE LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	C
Bd3	BRANDYWINE LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED	C
Bd3	BRANDYWINE LOAM, 15 TO 25 PERCENT SLOPES, SEVERELY ERODED	C
Gnb2	GLENNVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	C
Leb2	LEGORE SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	C
Lgc3	LEGORE SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	C
Mf2	MONTALTO LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	C
Msd	MONTALTO LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	C
Msf	MONTALTO AND RELAY VERY STONY SILT LOAMS, 3 TO 25 PERCENT SLOPES	C
Ne2	NESHAMINY SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	B
Re2	WATCHUNG SILT LOAM, 3 TO 8 PERCENT SLOPES	B
St	STONY LAND	B
Wa2	WATCHUNG SILT LOAM, 3 TO 8 PERCENT SLOPES	D

**BASIN**

EX. DRAINAGE AREA:	1.4 AC.
PROP. DRAINAGE AREA:	8.00 AC.
WET STORAGE REQUIRED:	14,400 CF
DRY STORAGE PROVIDED:	14,400 CF
DRY STORAGE REQUIRED:	14,400 CF
DRY STORAGE PROVIDED:	14,400 CF
TOTAL STORAGE REQUIRED:	28,800 CF
TOTAL STORAGE PROVIDED:	28,800 CF
BOTTOM ELEVATION:	338.60
WEIR ELEVATION:	329.00-334.74
WEIR STORAGE ELEVATION:	334.74-338.60
DRY STORAGE ELEVATION:	9.60'
TOTAL STORAGE DEPTH:	340.30
CLEANOUT ELEVATION:	331.87
SIDE SLOPES:	3:1
EMERGENCY SPILLWAY:	N/A



I HEREBY CERTIFY BY MY SEAL THAT THE PLANS SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS "AS-BUILT" PLAN AND MEET THE APPROVED PLANS AND SPECIFICATIONS.

Signature: *[Signature]* 6/25/18  
DATE

NO.	REVISION	DATE
1	REVISE THE POND BASIN FOREBAY ELEVATION AND REMOVE RAINGARDEN ON LOTS 104-107 AND ILLUSTRATE DRYWELLS AS APPROVED ON SDP-14-04T	3-27-18

NOTE: THE REMAINDER OF LOTS 108 AND 109 ARE NOT SHOWN SINCE THERE ARE NO IMPROVEMENTS OR DISTURBANCE AND THE FOREST CONSERVATION EASEMENT DETAILS CAN BE FOUND ON SHEETS 10-12.

**FINAL ROAD CONSTRUCTION PLAN**  
**AUTUMN RIVER - PHASE III**  
**GRADING, SEDIMENT AND EROSION CONTROL PLAN**

LOTS 72-86, 88-93, 95-102, 104-107  
OPEN SPACE LOTS 71, 87, 94, 103, 108 AND 109  
RESUBDIVISION OF COLLEGE AVENUE PUMPING STATION BULK PARCEL 'B' AND AUTUMN RIVER PHASE III NON-BUILDABLE BULK PARCELS 'D' & 'E'  
HOWARD COUNTY, MARYLAND

S-98-16, P-99-16, F-00-131, F-01-08, P.B.325, P.B.148, PLAT#15794 & 15795,  
PLAT#14513 TO 14515, P-07-016, P-08-006, WP-09-063, F-09-021,  
TAX MAP #25 GRID 14 & 21  
2ND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

**ROBERT H. VOGEL**  
**ENGINEERS - SURVEYORS - PLANNERS**

8407 MAIN STREET  
ELICOTT CITY, MD 21043  
TEL: 410.461.7666  
FAX: 410.461.8961

**DESIGNER CERTIFICATE**

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. 16193, EXPIRATION DATE: 08-27-2012.

DESIGN BY: JCO  
DRAWN BY: KG  
CHECKED BY: RHV  
DATE: FEBRUARY 2011  
SCALE: 1" = 50'  
W.O. NO.: 04-145

4 SHEET OF 13

APPROVED: DEPARTMENT OF PUBLIC WORKS

*[Signature]* 3-16-2011  
DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 3/23/11  
DATE

APPROVED: CHIEF, DIVISION OF LAND DEVELOPMENT

*[Signature]* 3/24/11  
DATE

BY THE DEVELOPER:

I HEREBY CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION SHALL BE DONE IN ACCORDANCE TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

*[Signature]* 2/4/11  
SIGNATURE OF DEVELOPER  
DATE

BY THE ENGINEER:

I HEREBY CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

*[Signature]* 2/7/11  
SIGNATURE OF ENGINEER  
ROBERT H. VOGEL  
DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

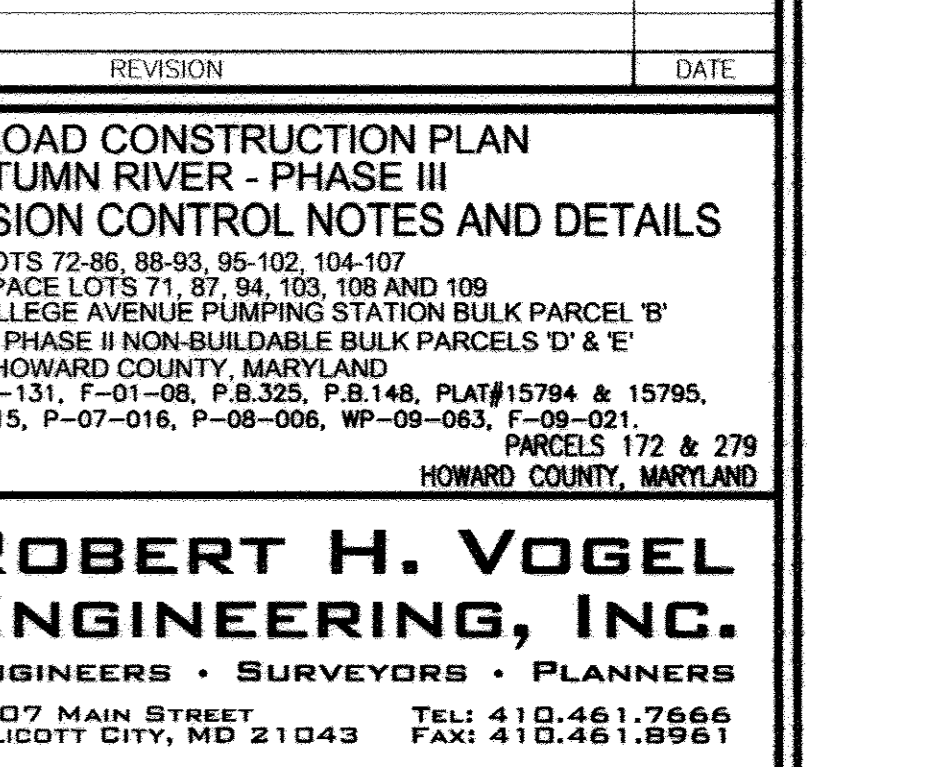
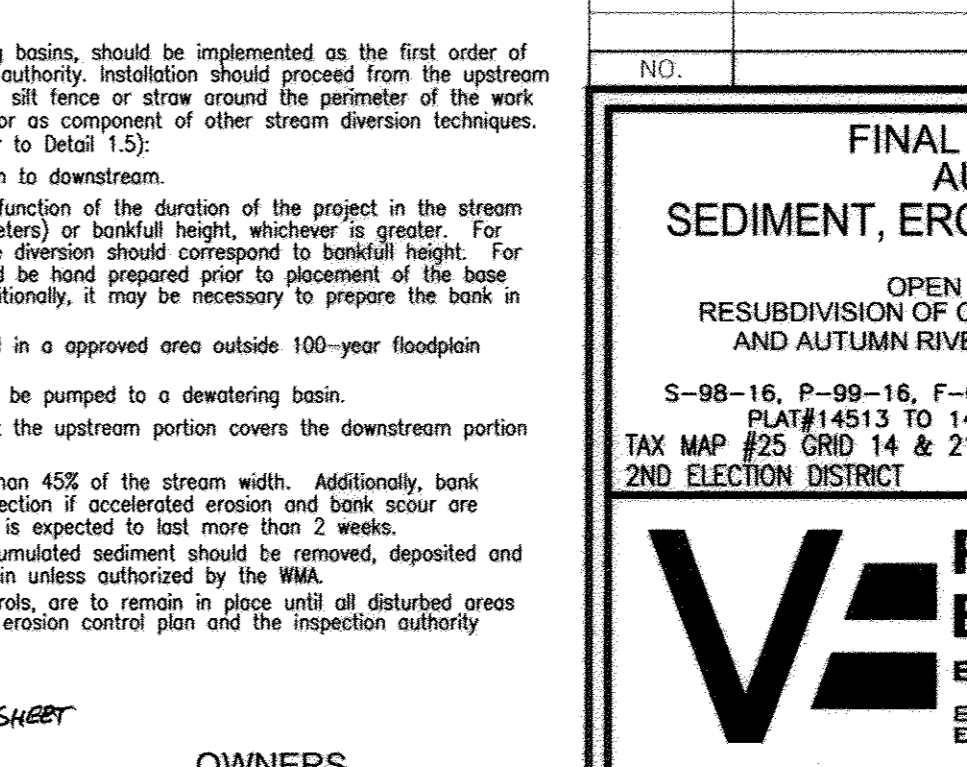
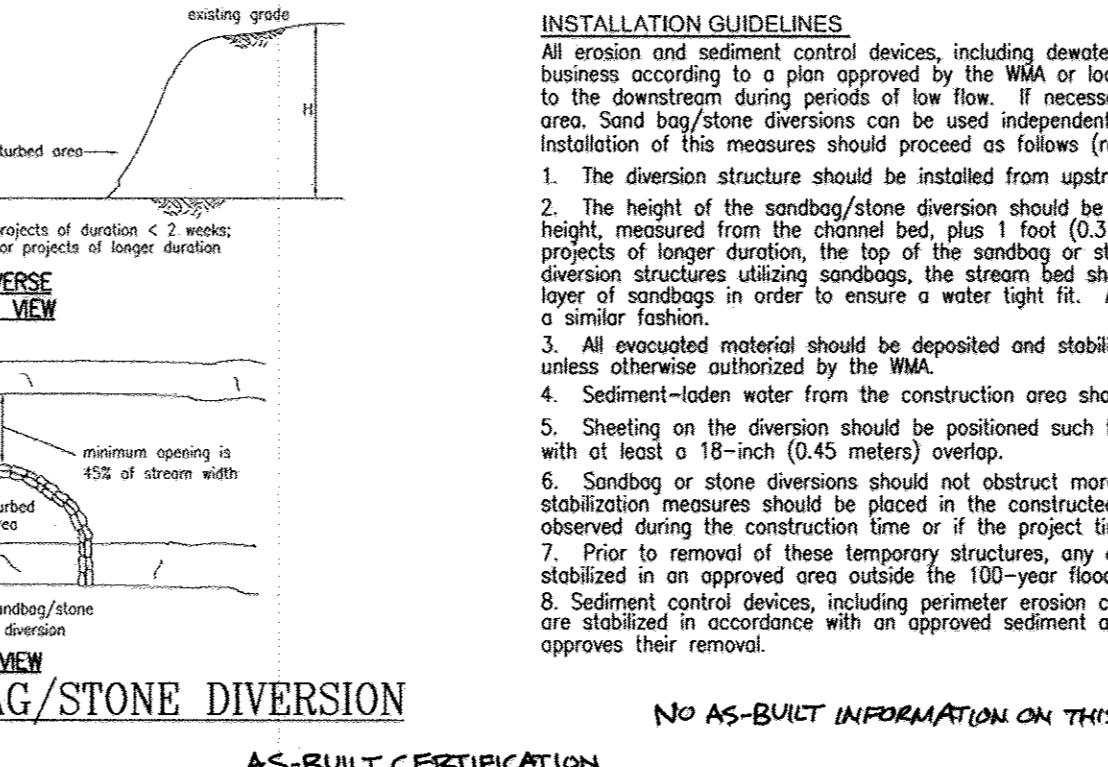
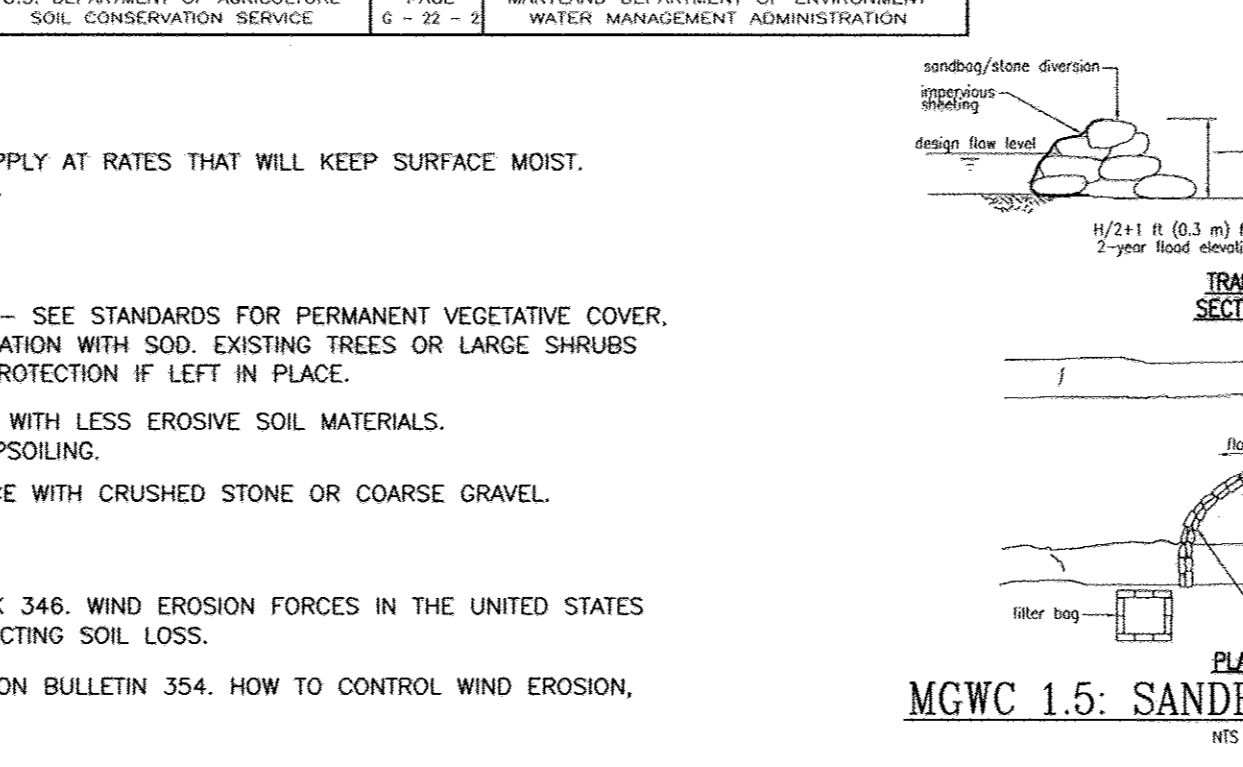
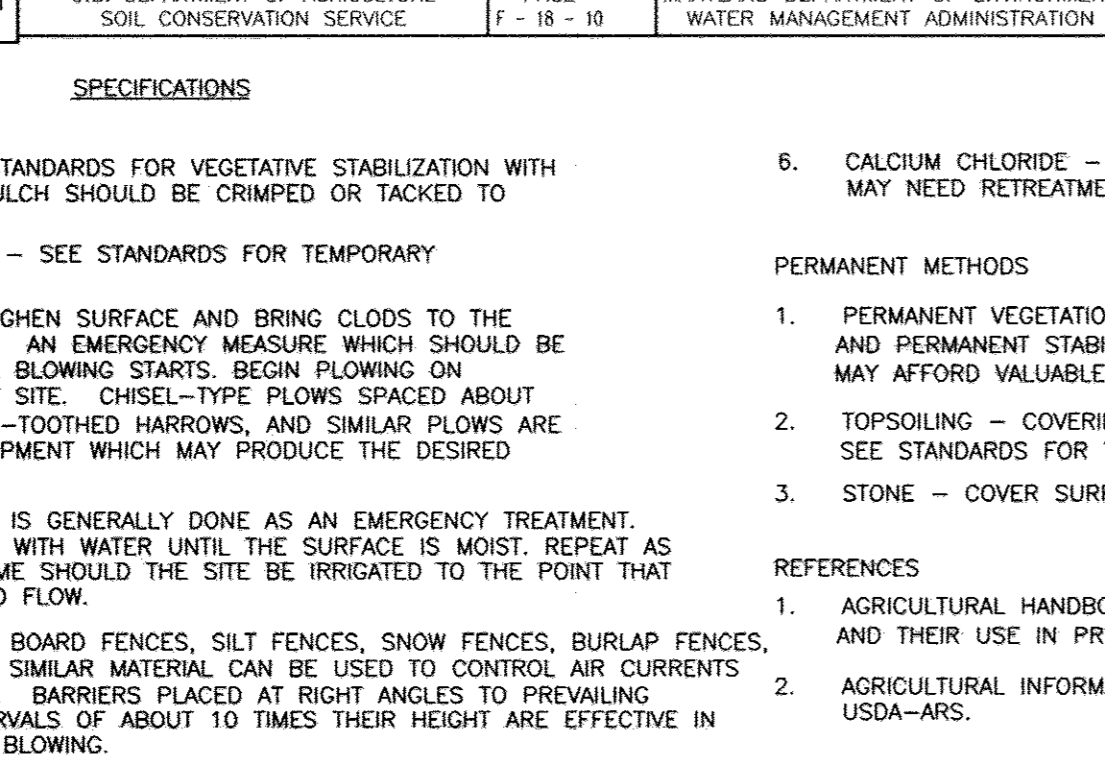
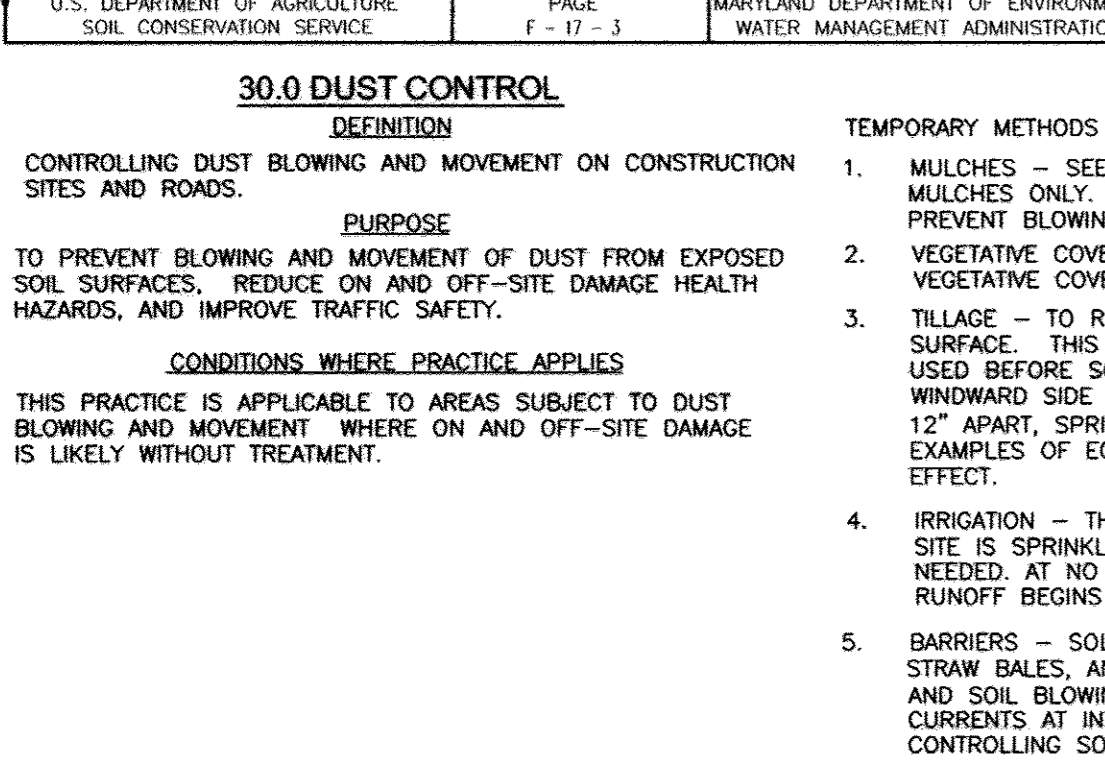
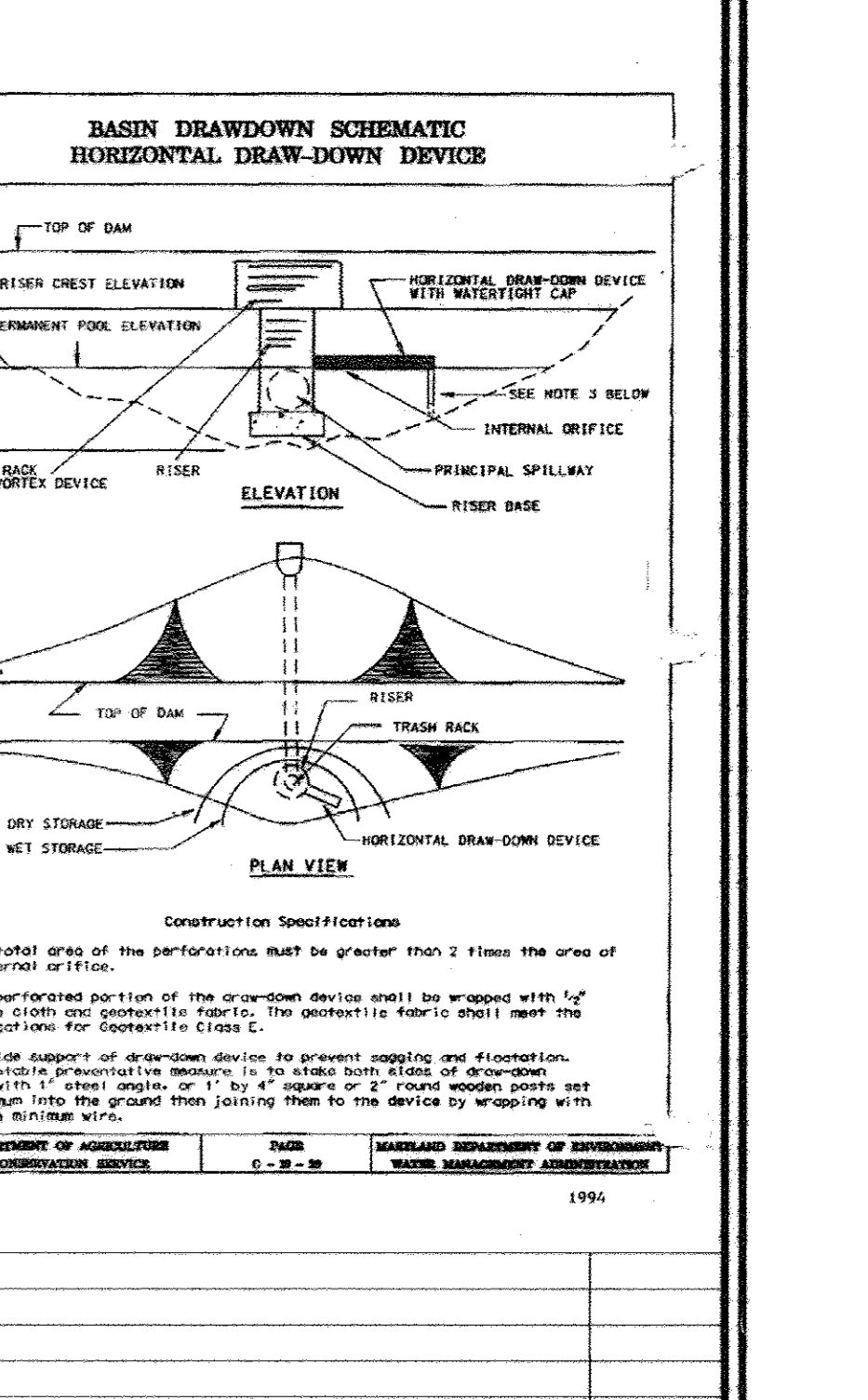
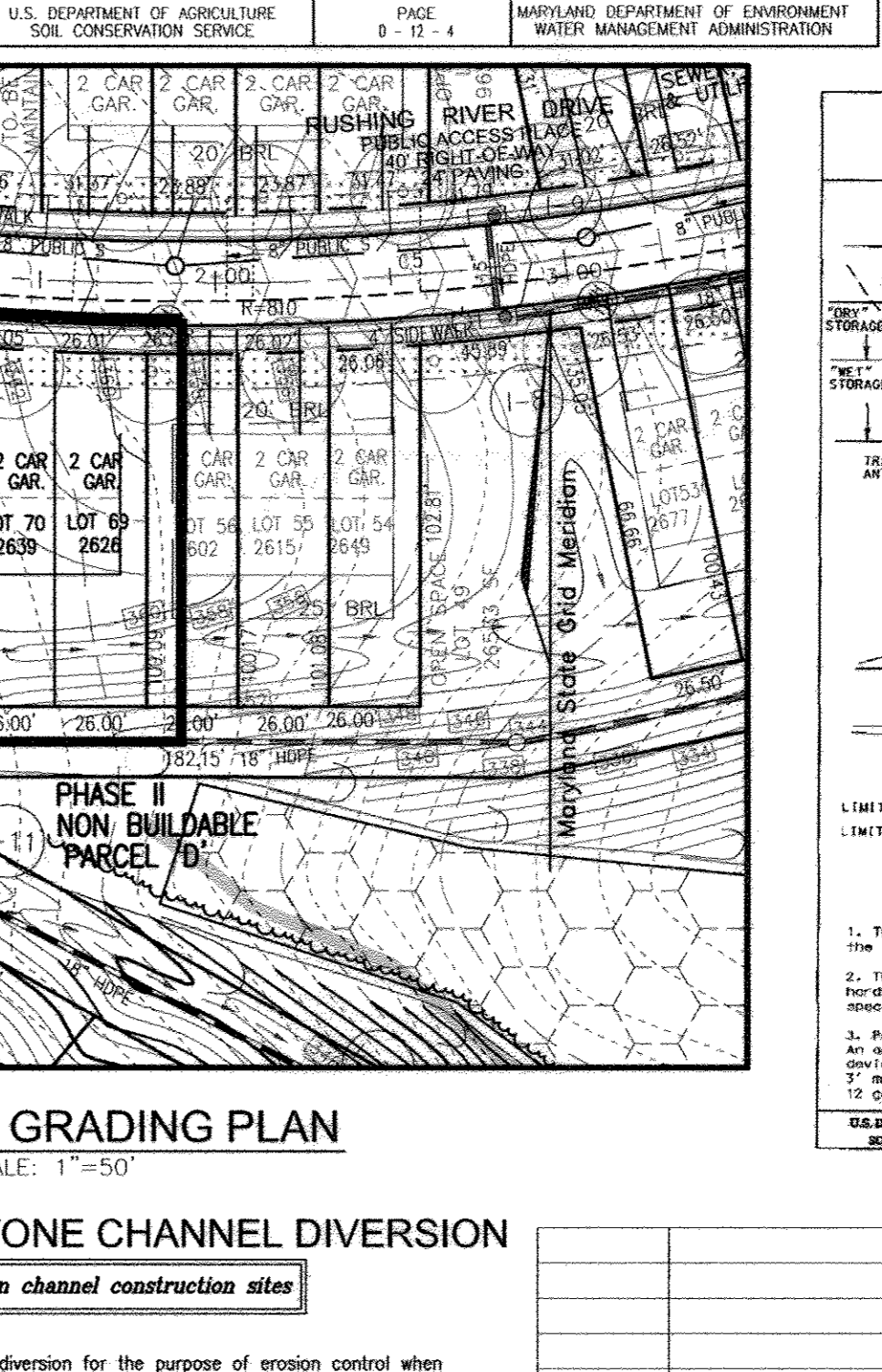
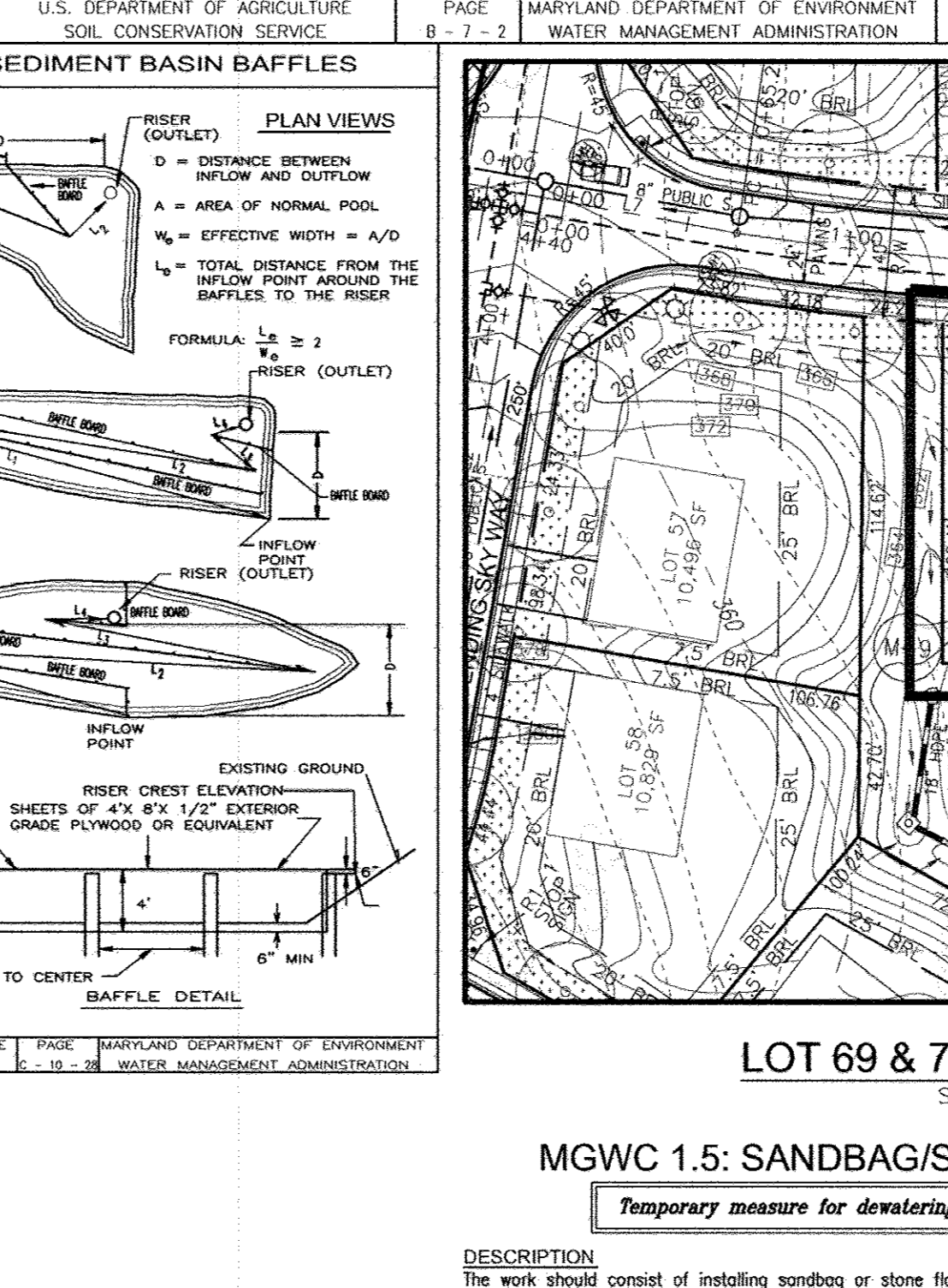
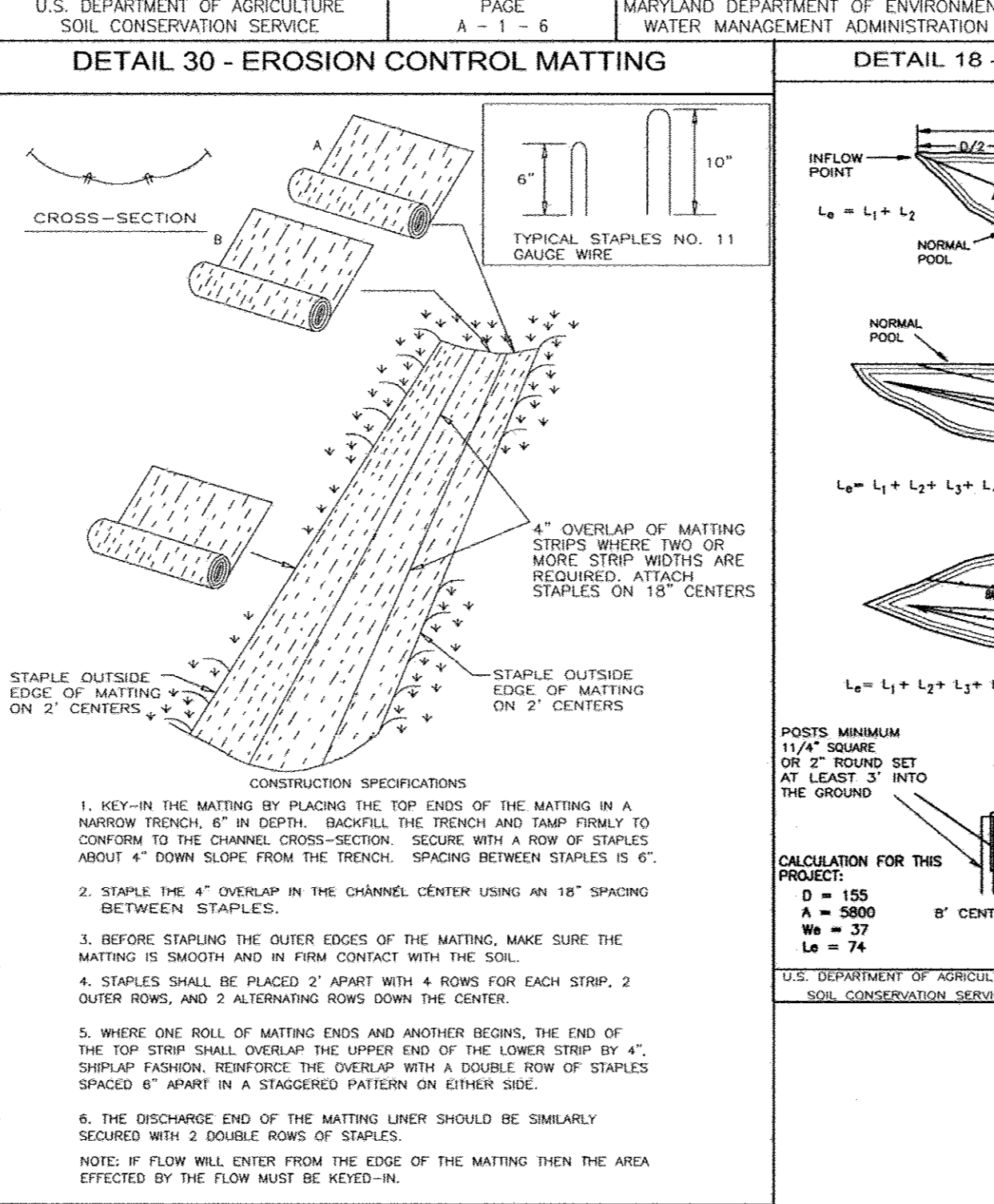
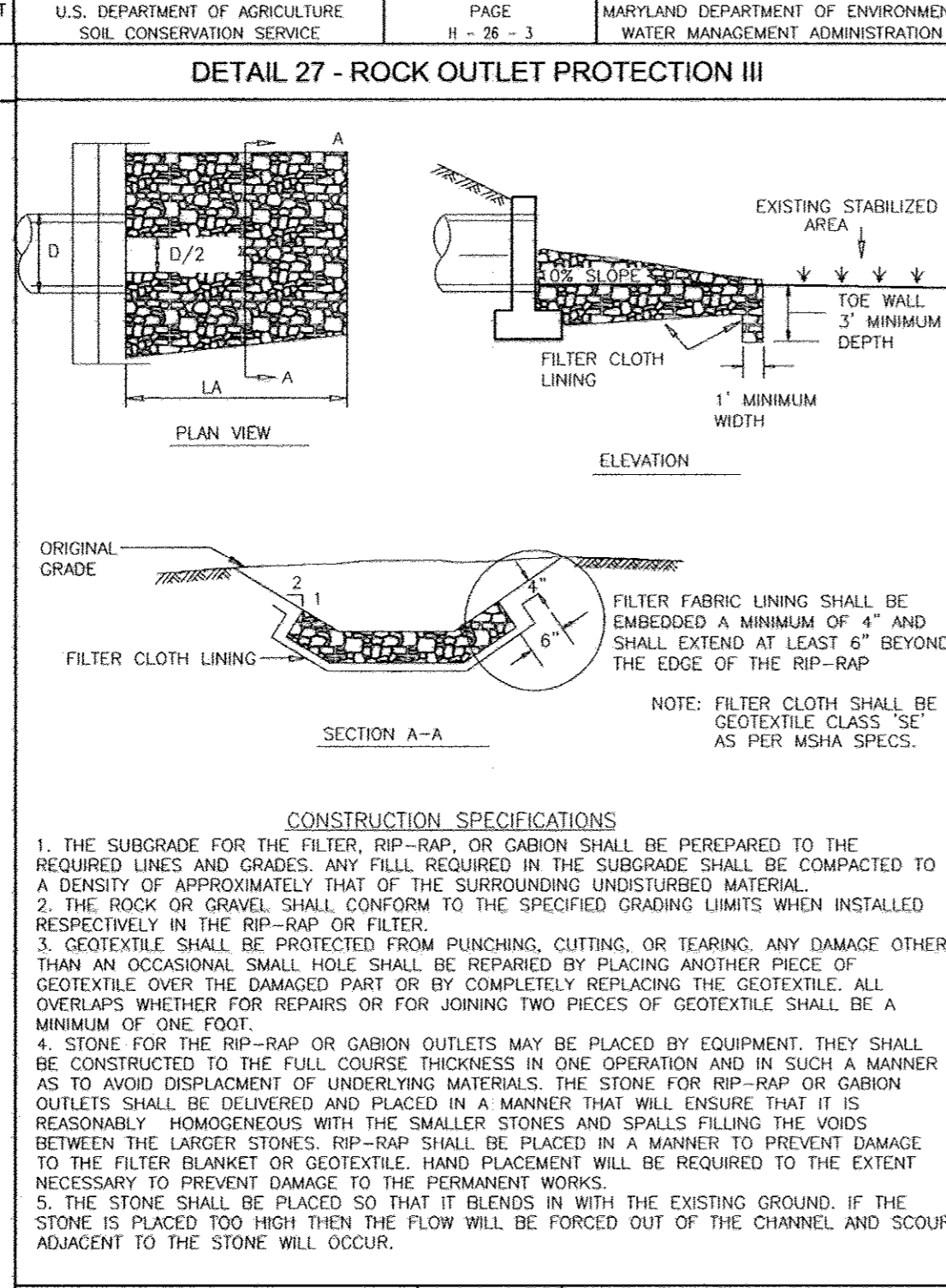
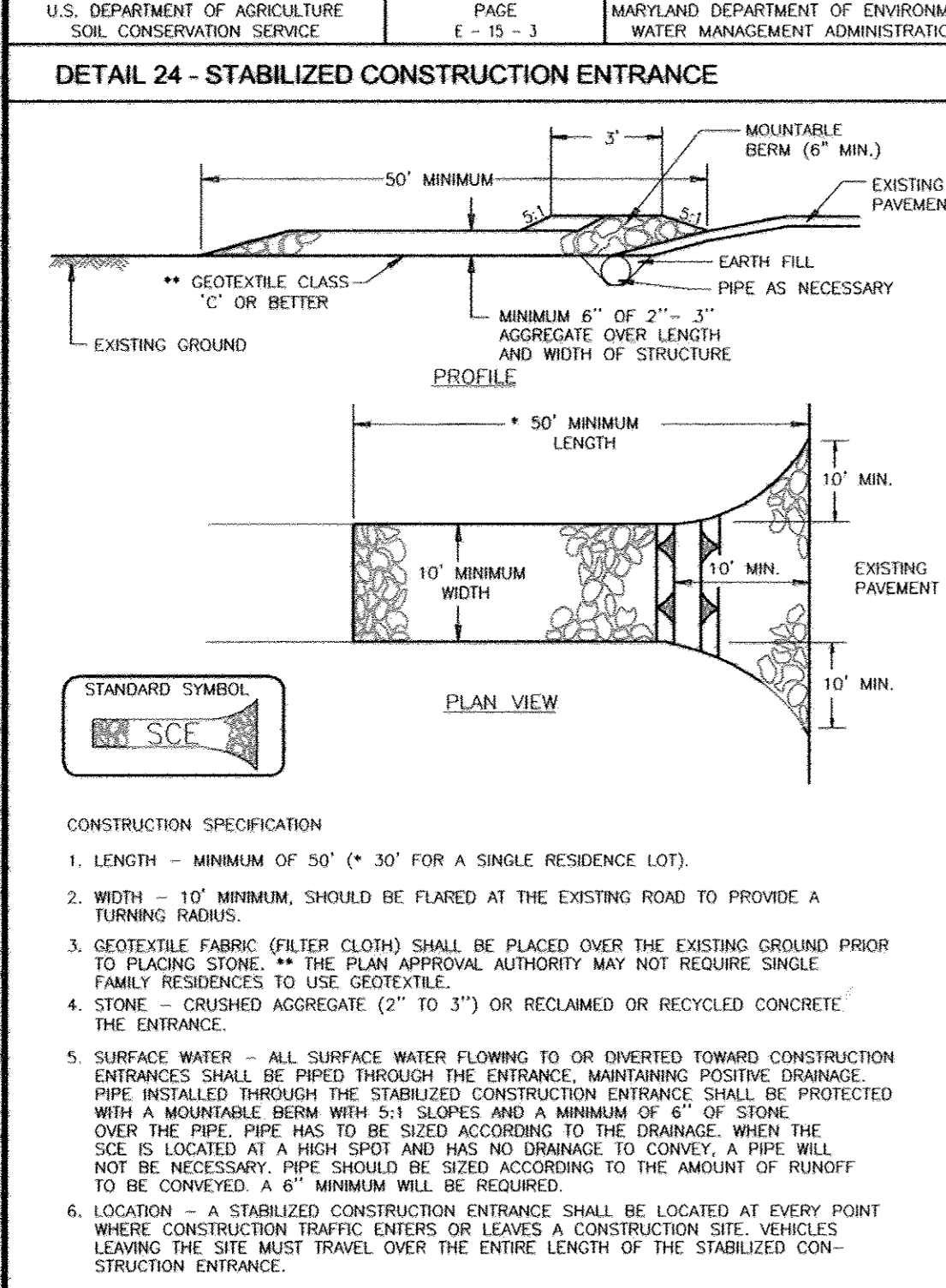
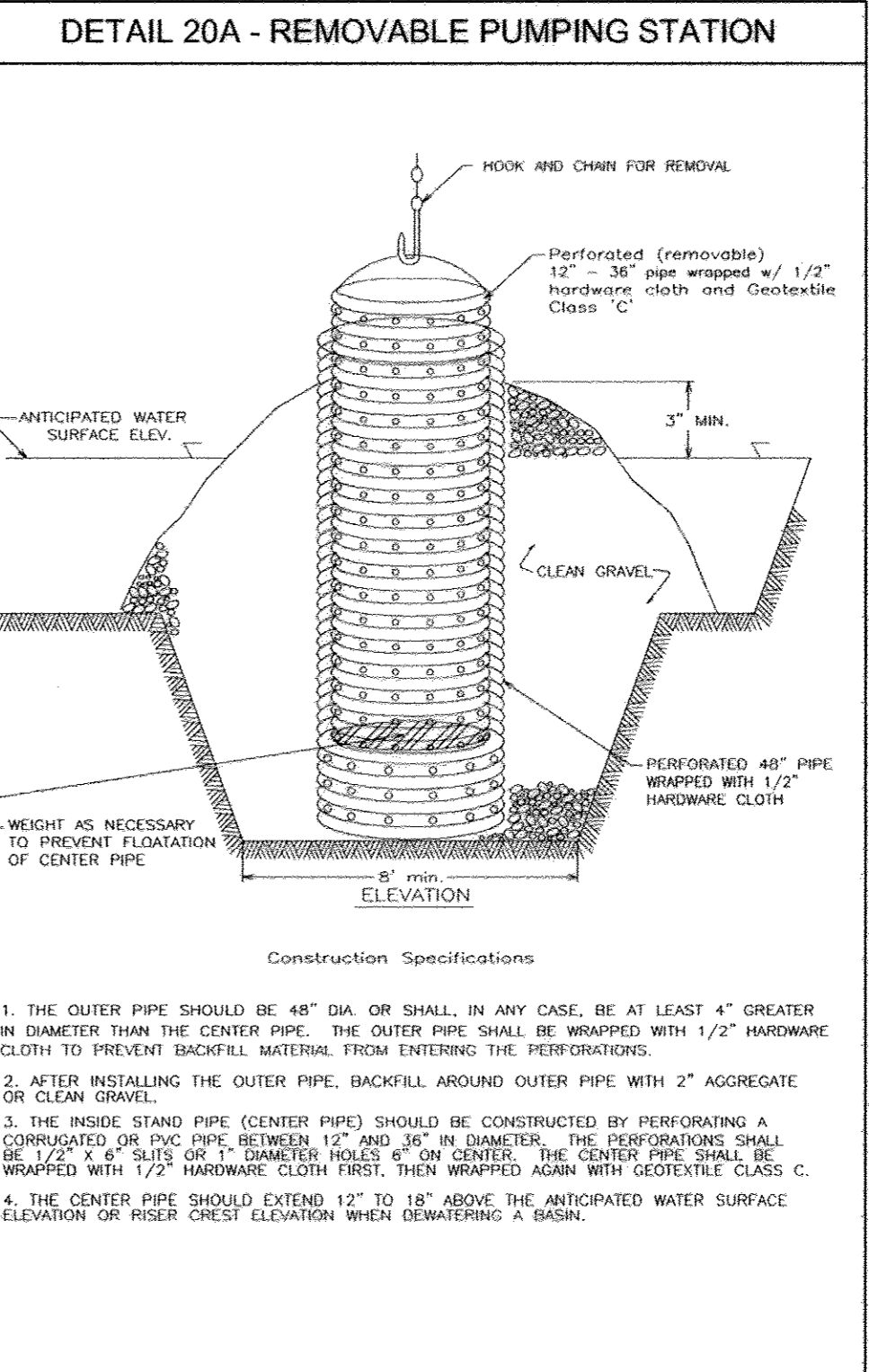
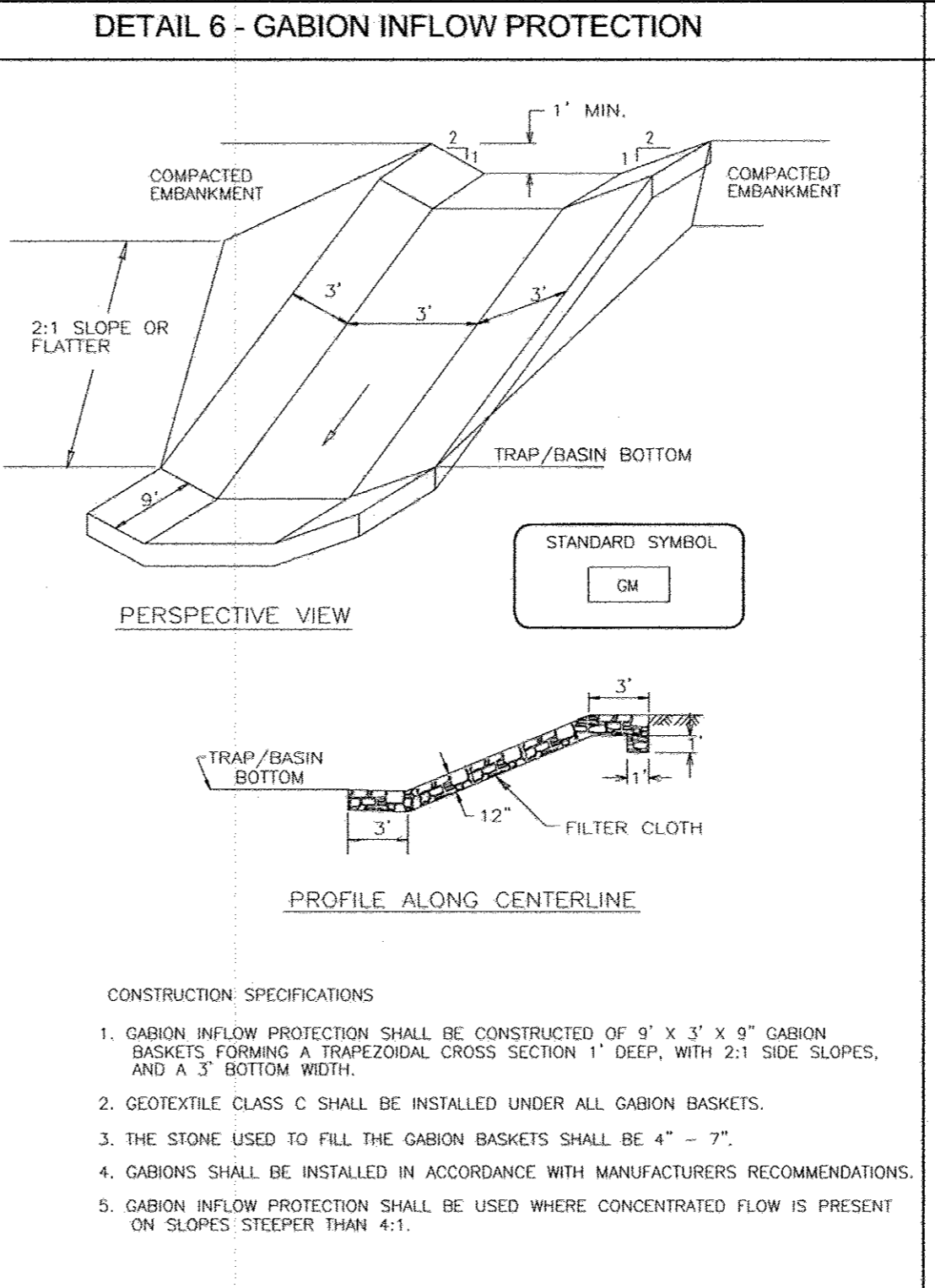
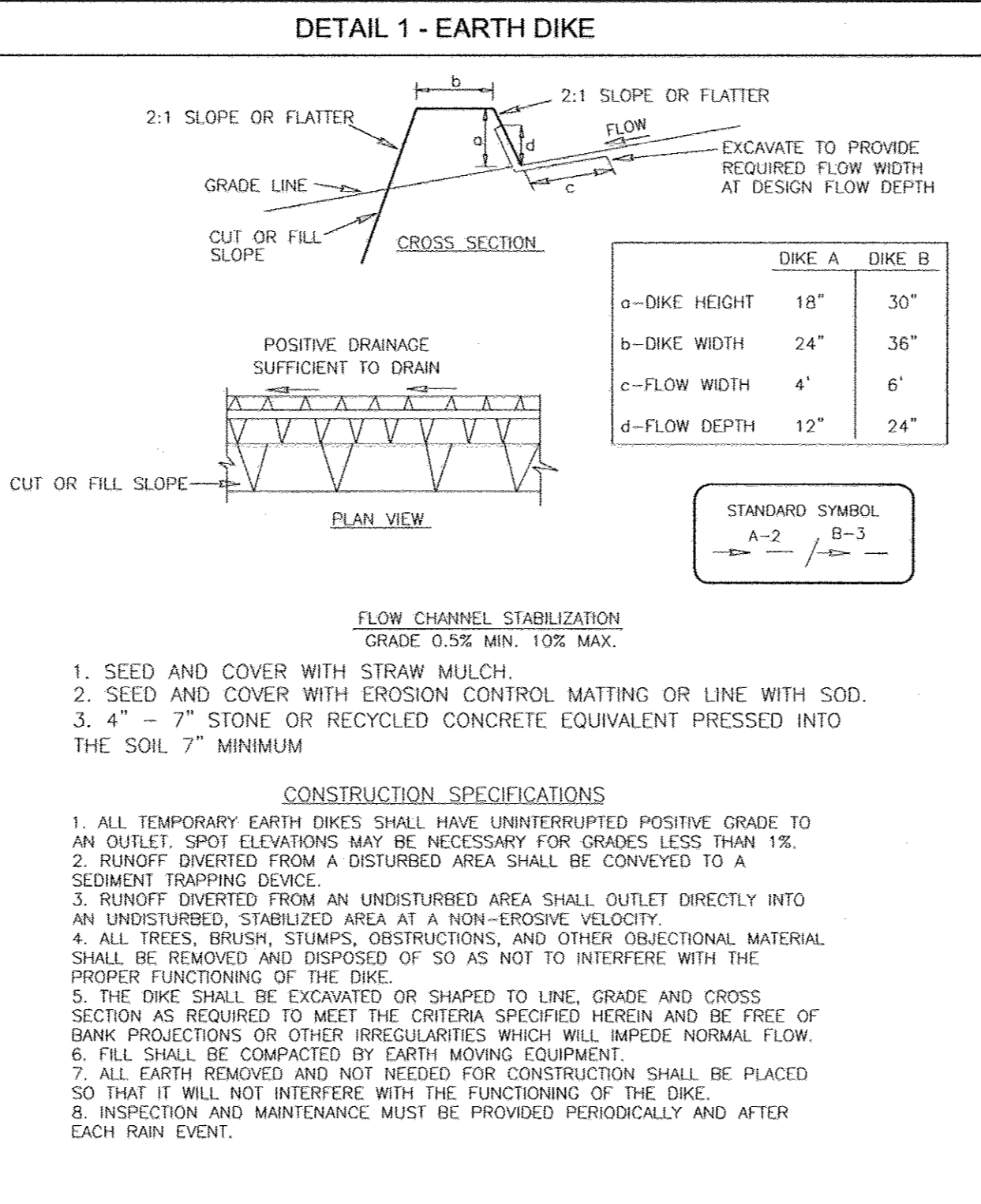
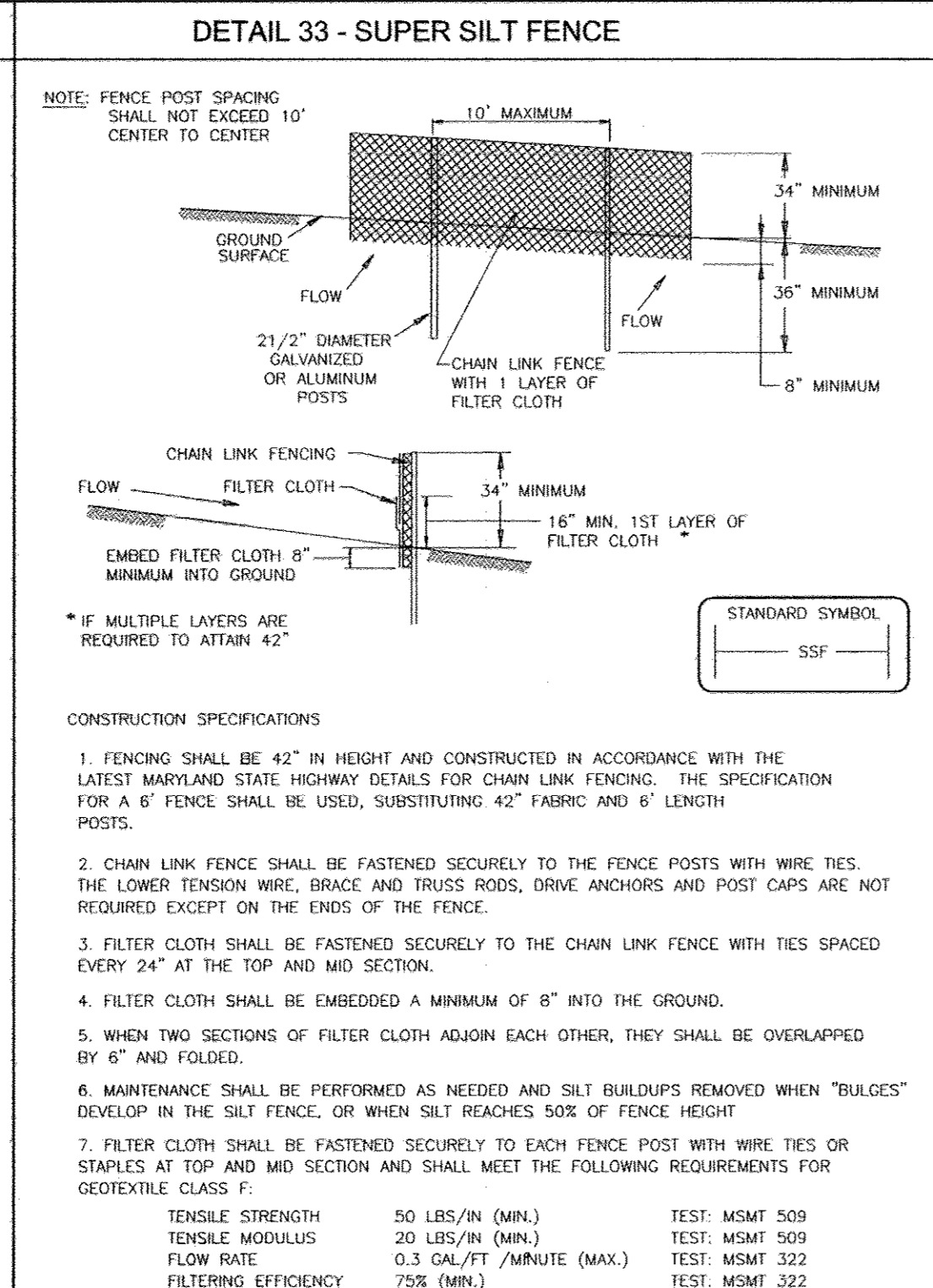
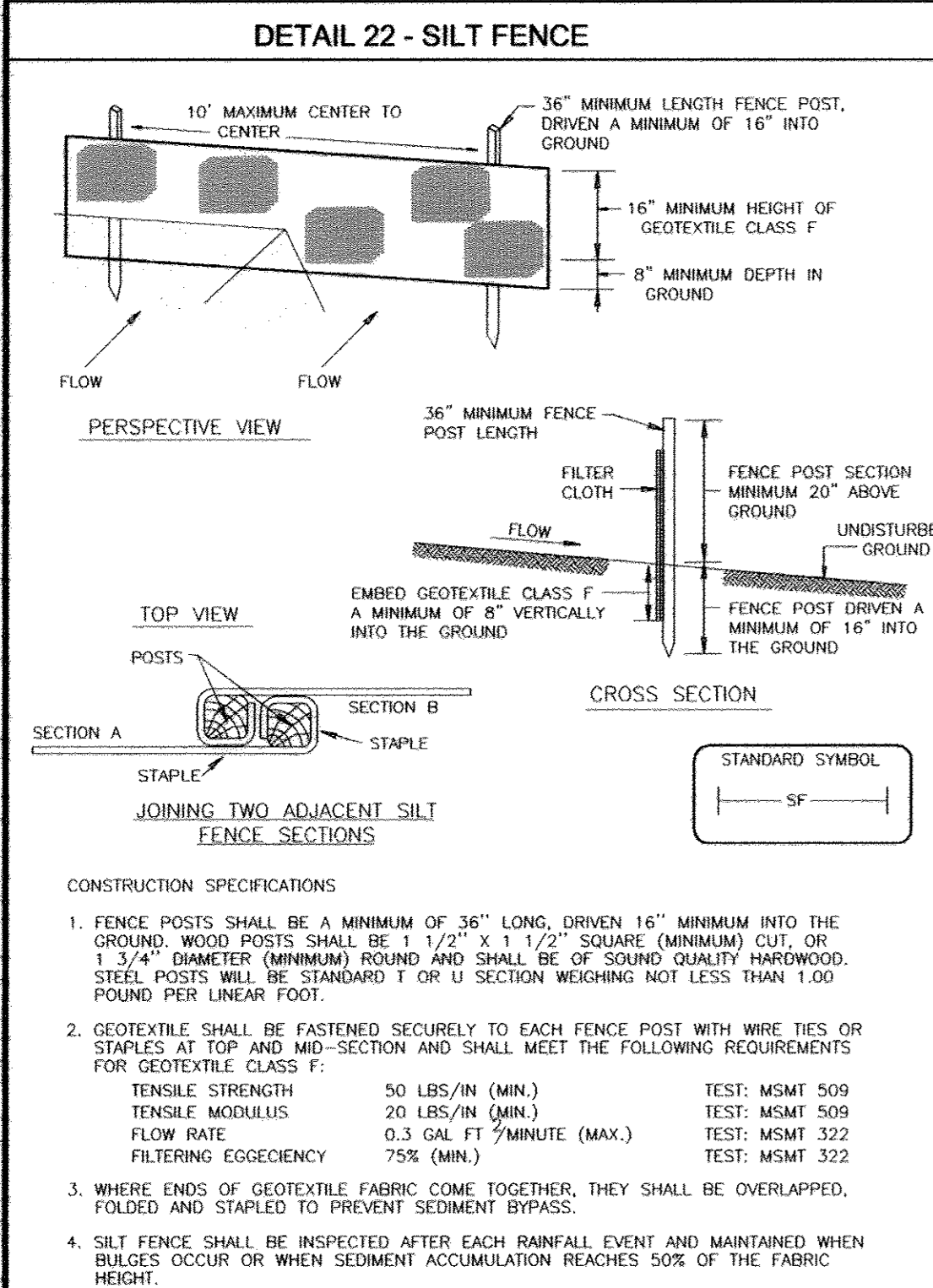
*[Signature]* 3/9/11  
DATE  
HOWARD S.C.D.

**"AS-BUILT" CERTIFICATION**

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE AS-BUILT PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

*[Signature]* 6/25/18  
DATE

ROBERT H. VOGEL, P.E. #16193  
I HEREBY MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED UPON ON-SITE INSPECTIONS AND MATERIAL TESTS WHICH ARE CONDUCTED DURING CONSTRUCTION. THE ON-SITE SITE INSPECTION AND TESTS DEEMED SUFFICIENT AND APPROPRIATE BY COMMONLY ACCEPTED ENGINEERING STANDARDS CERTIFY DOES NOT MEAN OR IMPLY A GUARANTEE BY THE ENGINEER NOR DOES AN ENGINEER'S CERTIFICATION RELIEVE ANY OTHER PARTY FROM MEETING COMMONLY ACCEPTED INDUSTRY PRACTICES.



APPROVED: DEPARTMENT OF PUBLIC WORKS  
*[Signature]* 3-16-2011  
CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*[Signature]* 3/23/11  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

APPROVED: DIVISION OF LAND DEVELOPMENT  
*[Signature]* 3/24/11  
CHIEF, DIVISION OF LAND DEVELOPMENT

BY THE DEVELOPER:  
*[Signature]* 2/6/11  
SIGNATURE OF DEVELOPER

BY THE ENGINEER:  
I HEREBY CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING WITH A "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.  
*[Signature]* 2/7/11  
SIGNATURE OF ENGINEER  
ROBERT H. VOGEL

THIS DEVELOPMENT PLAN IS APPROVED FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.  
*[Signature]* 3/9/11  
DATE

AS-BUILT CERTIFICATION  
I HEREBY CERTIFY, BY MY SEAL, THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS "AS-BUILT" PLAN AND MEET THE APPROVED PLANS AND SPECIFICATIONS.  
*[Signature]* 1619# 6/25/18  
SIGNATURE  
DATE

PROFESSIONAL ENGINEER  
STATE OF MARYLAND  
ROBERT H. VOGEL, P.E. No. 16193

**OWNERS**  
AUTUMN RIVER CORPORATION  
4100 COLLEGE AVE.  
ELICOTT CITY, MD 21042-7819  
21043 5506  
(410) 465-2500

**DEVELOPER**  
AUTUMN DEVELOPMENT CORPORATION  
/O LAND DESIGN & DEVELOPMENT, INC.  
5300 DORSEY HALL DR STE 102  
ELICOTT CITY MD 21042-7819  
ATTN: MR. DONALD R. REUIJER  
(443) 367-0422

**PROFESSIONAL CERTIFICATE**  
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. 16193, EXPIRATION DATE 09-27-2012.

DESIGN BY: JCO  
DRAWN BY: KG  
CHECKED BY: RHV  
DATE: FEBRUARY 2011  
SCALE: AS SHOWN  
W.O. NO.: 04-145

5 SHEET OF 13



SOILS LEGEND		
SYMBOL	NAME / DESCRIPTION	GROUP
AdB2	ALDINO SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	C
AdC2	ALDINO SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	C
BbB2	BRANDYWINE LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	C
BbD2	BRANDYWINE LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED	C
BbD3	BRANDYWINE LOAM, 15 TO 25 PERCENT SLOPES, SEVERELY ERODED	C
GnB2	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	C
LgB2	LEGORE SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	C
LgC3	LEGORE SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	C
MfE	MONTALTO LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	C
MfD	MONTALTO LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	C
MfF	MONTALTO AND RELAY VERY STONY SILT LOAMS, 3 TO 25 PERCENT SLOPES	C
NeC2	NESHAMINY SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	B
ReC2	WATCHUNG SILT LOAM, 3 TO 8 PERCENT SLOPES	B
St	STONY LAND	D
WbB	WATCHUNG SILT LOAM, 3 TO 8 PERCENT SLOPES	D

LEGEND:	
	EXISTING CONTOUR
	PROPOSED CONTOUR
	PROPOSED STORM DRAIN
	PROPOSED STORM DRAIN INLET
	EXISTING TREELINE (FIELD LOCATED)
	WETLANDS BUFFER
	STREAM CENTERLINE
	STREAM BUFFER
	150-WAIT POST TOP
	100-WAIT POST TOP
	PROP. STREET LIGHT
	PROP. STREET SIGNS
	EXISTING FENCE
	PROPERTY LINE
	RIGHT-OF-WAY LINE
	M1B2
	M1D3
	SOILS BOUNDARY
	MODERATE SLOPES (15% - 24.99%)
	STEEP SLOPE (>25%)
	PUBLIC 100 YR FLOODPLAIN DRAINAGE & UTILITY EASEMENT
	EXISTING FOREST CONSERVATION EASEMENT
	FOREST CONSERVATION AREA (RETENTION)
	RECREATION OPEN SPACE
	6' PUBLIC SIDEWALK & UTILITY EASEMENT
	DRAINAGE AREA DIVIDE
	20' PUBLIC DRAINAGE & UTILITY EASEMENT
	PROP. ROAD WIDENING 4' PAVING ALONG FRONTAGE OF THE PROPERTY

NO AS-BUILT INFORMATION ON THIS SHEET

AS-BUILT CERTIFICATION

I HEREBY CERTIFY, BY MY SEAL, THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS PLAN AND MEET THE APPROVED PLANS AND SPECIFICATIONS.

Signature: *[Signature]* DATE: 6/25/18

Professional Engineer Seal: STATE OF MARYLAND, ROBERT H. VOGEL, No. 16193

NO.	REVISION	DATE
1	REVISE THE POND GABION FOREBAY ELEVATION AND REMOVE RAIN GARDEN ON LOTS 104-107 AND ILLUSTRATE DRYWELLS AS APPROVED ON SHEET 10-12	3-27-18

**FINAL ROAD CONSTRUCTION PLAN**  
**AUTUMN RIVER - PHASE III**  
**STORMDRAIN DRAINAGE AREA MAP**

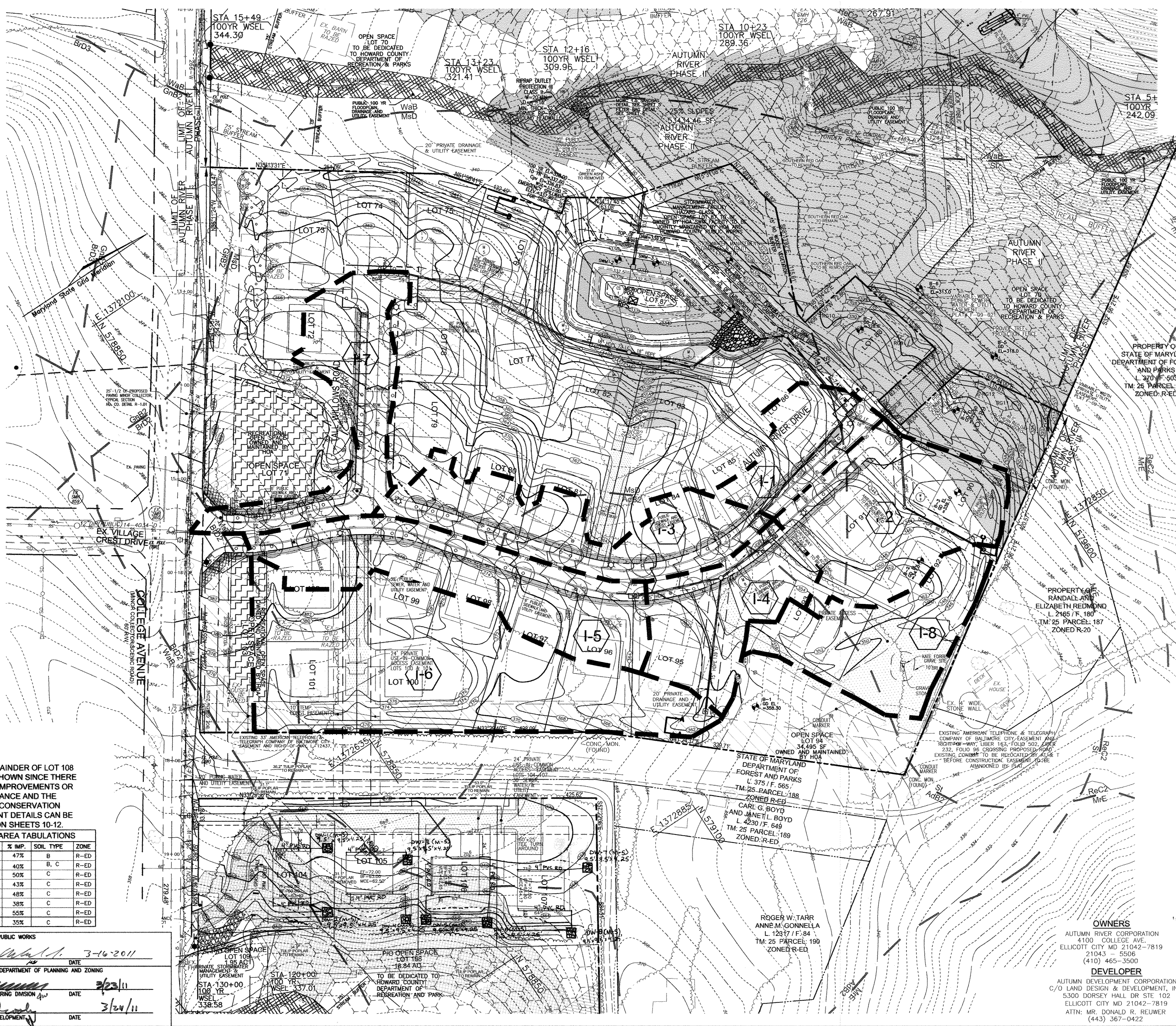
LOTS 72-86, 88-93, 95-102, 104-107  
 OPEN SPACE LOTS 71, 87, 94, 103, 108 AND 109  
 RESUBDIVISION OF COLLEGE AVENUE PUMPING STATION BULK PARCEL 'B' AND AUTUMN RIVER PHASE II NON-BUILDABLE BULK PARCELS 'D' & 'E'  
 HOWARD COUNTY, MARYLAND

S-98-16, P-98-16, F-00-131, F-01-08, P.B.325, P.B.148, PLAT#15794 & 15795.  
 PLAT#14513 TO 14515, P-07-016, P-08-006, WP-09-063, PARCELS 172 & 279  
 TAX MAP #25 GRID 14 & 21  
 2ND ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

**ROBERT H. VOGEL**  
**ENGINEERS • SURVEYORS • PLANNERS**  
 8407 MAIN STREET TEL: 410.461.7666  
 ELLICOTT CITY, MD 21043 FAX: 410.461.8961

DESIGNER		DEVELOPER	
DESIGN BY:	JCO	AUTUMN RIVER CORPORATION	4100 COLLEGE AVE.
DRAWN BY:	KG	ELLICOTT CITY MD 21042-7819	21043 - 5506
CHECKED BY:	RHV	(410) 465-3500	
DATE:	FEBRUARY 2011	<b>DEVELOPER</b>	AUTUMN DEVELOPMENT CORPORATION
SCALE:	AS SHOWN	C/O LAND DESIGN & DEVELOPMENT, INC.	5300 DORSEY HALL DR STE 102
W.O. NO.:	04-145	ELLICOTT CITY MD 21042-7819	ATTN: MR. DONALD R. RUIWER
			(443) 367-0422

AS-BUILT JUNE 2018 F-10-067



NOTE: THE REMAINDER OF LOT 108 IS NOT SHOWN SINCE THERE ARE NO IMPROVEMENTS OR DISTURBANCE AND THE FOREST CONSERVATION EASEMENT DETAILS CAN BE FOUND ON SHEETS 10-12.

DRAINAGE AREA TABULATIONS					
NO.	AREA	'C'	% IMP.	SOIL TYPE	ZONE
1-1	0.29 AC.	0.39	47%	B	R-ED
1-2	0.61 AC.	0.37	40%	B, C	R-ED
1-3	0.61 AC.	0.44	50%	C	R-ED
1-4	0.44 AC.	0.37	43%	C	R-ED
1-5	0.72 AC.	0.42	48%	C	R-ED
1-6	1.31 AC.	0.31	38%	C	R-ED
1-7	0.50 AC.	0.53	55%	C	R-ED
1-8	0.52 AC.	0.31	35%	C	R-ED

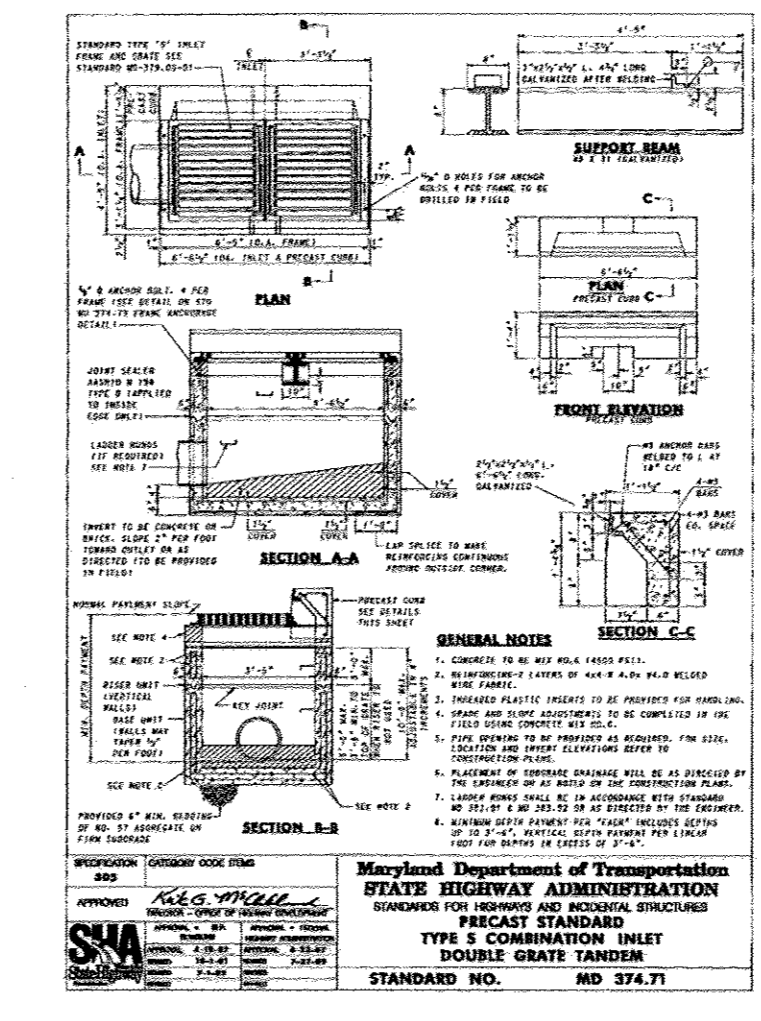
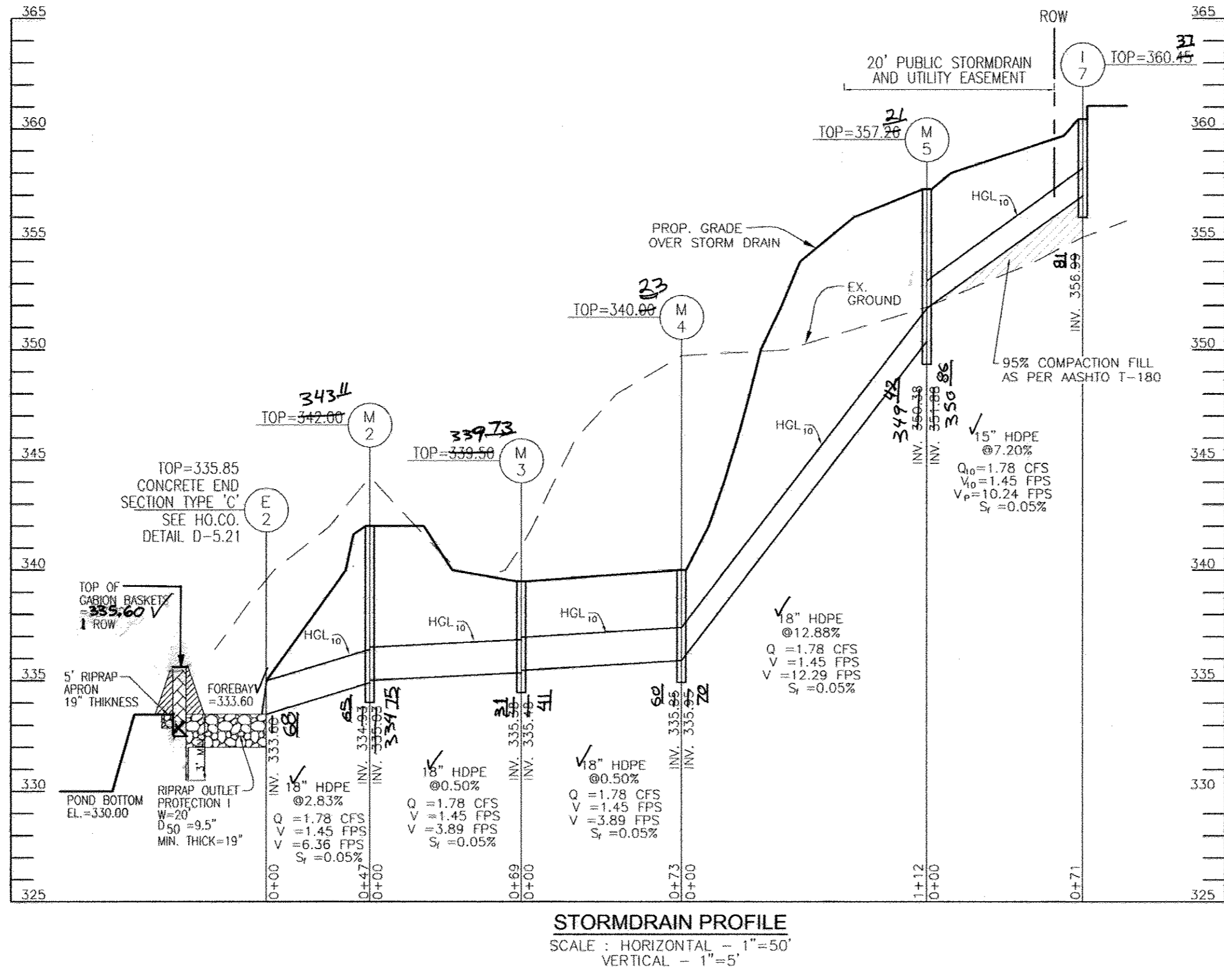
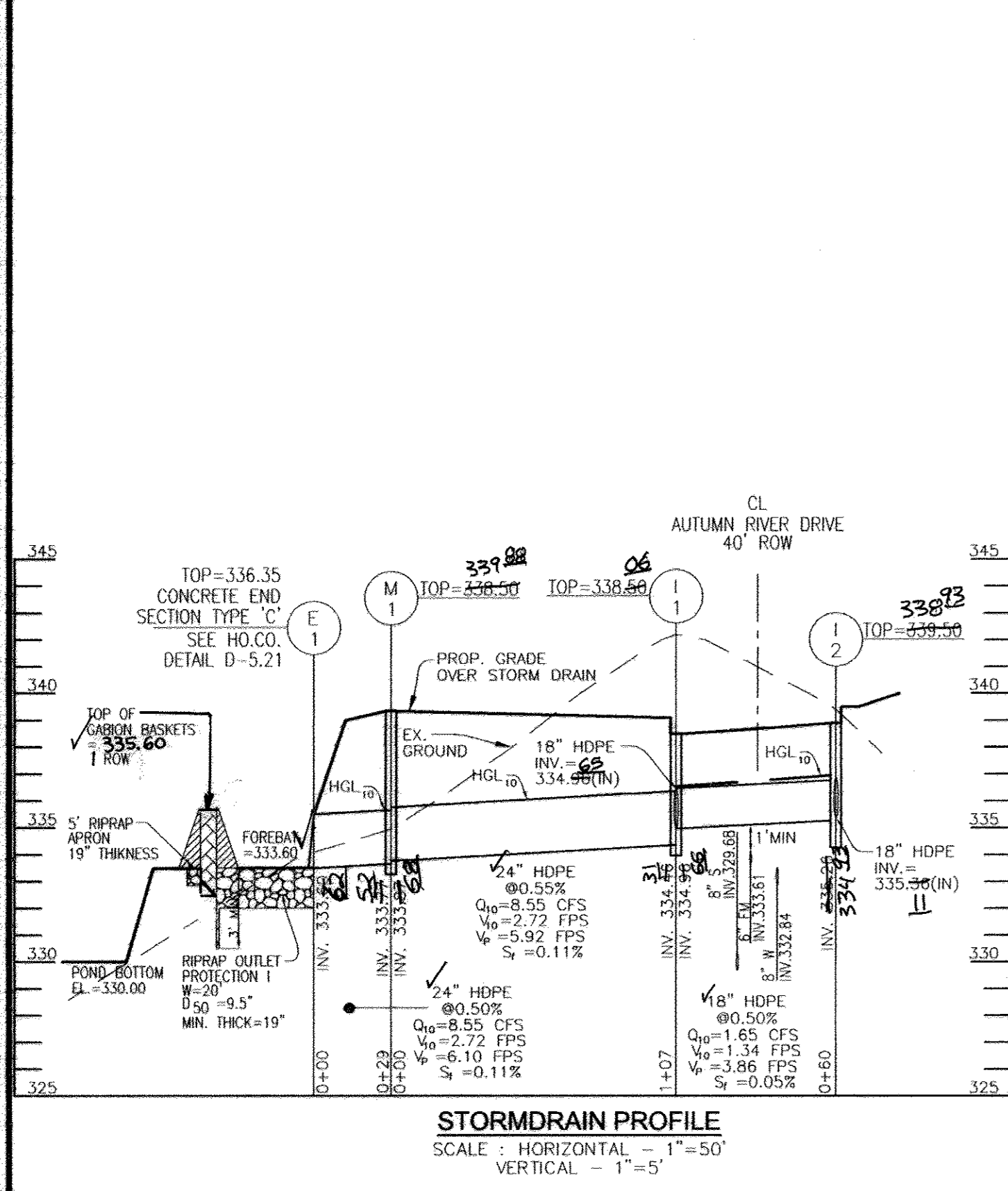
APPROVED: DEPARTMENT OF PUBLIC WORKS

*[Signature]* DATE: 3-16-2011  
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*[Signature]* DATE: 3/23/11  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

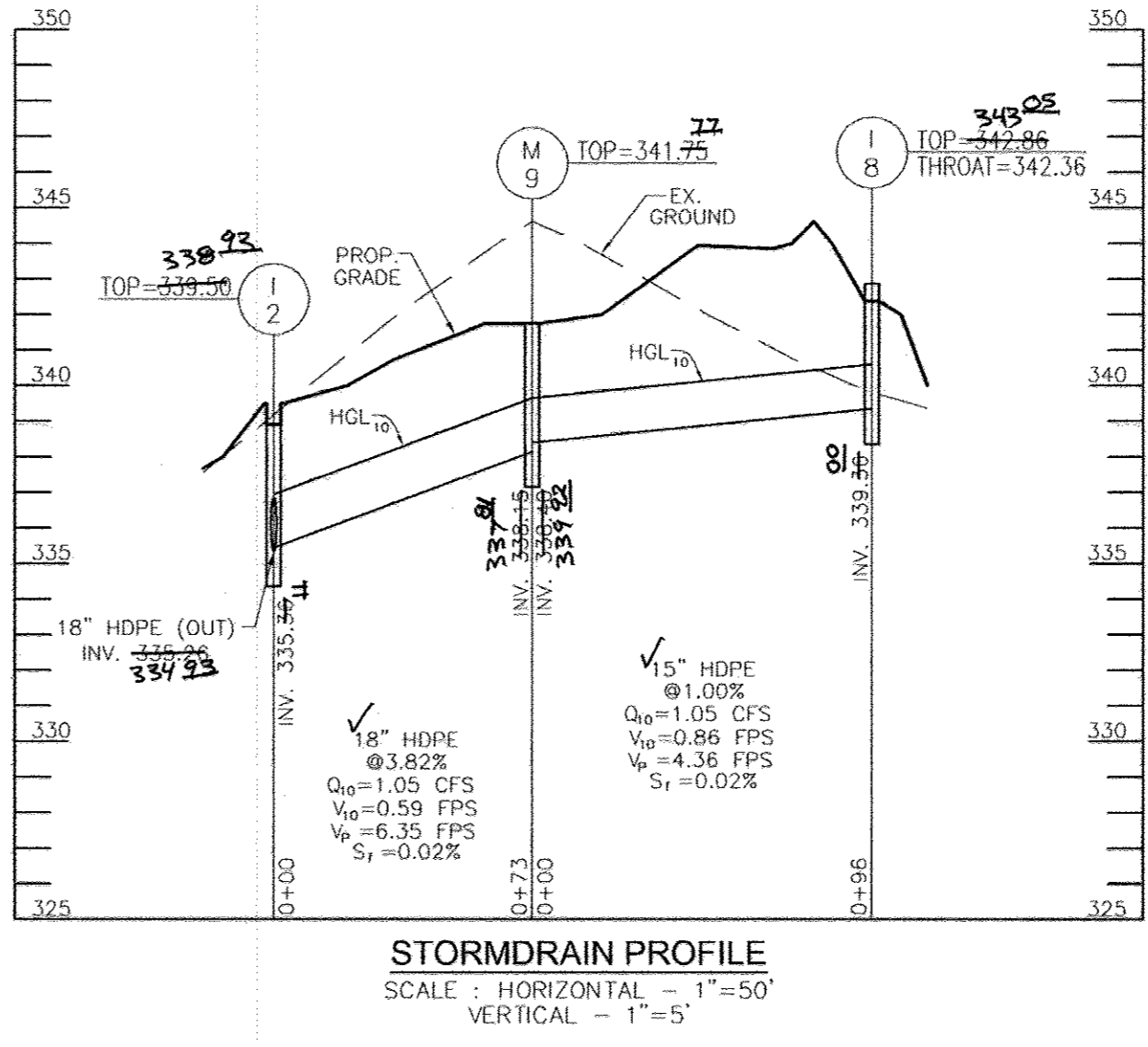
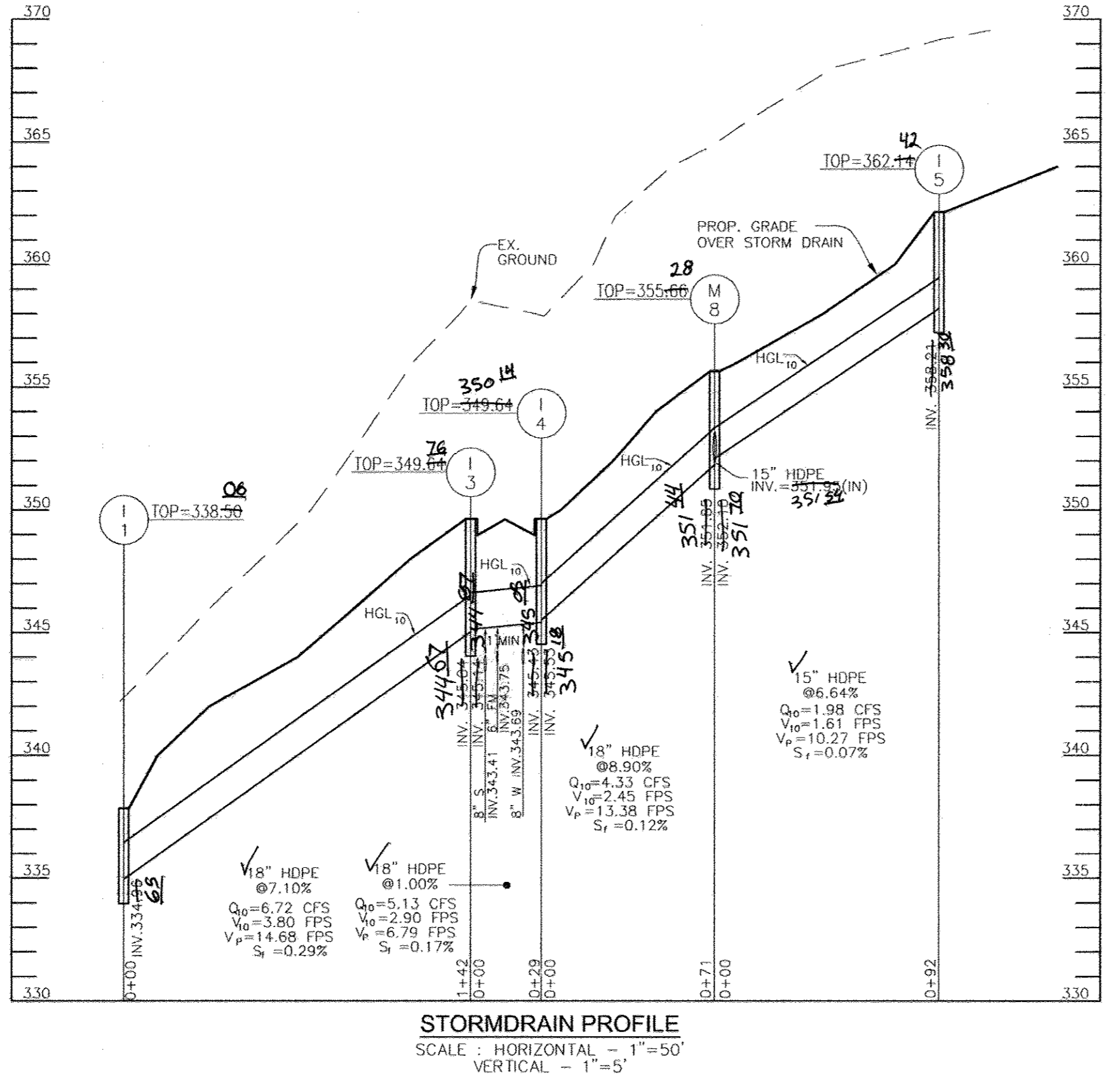
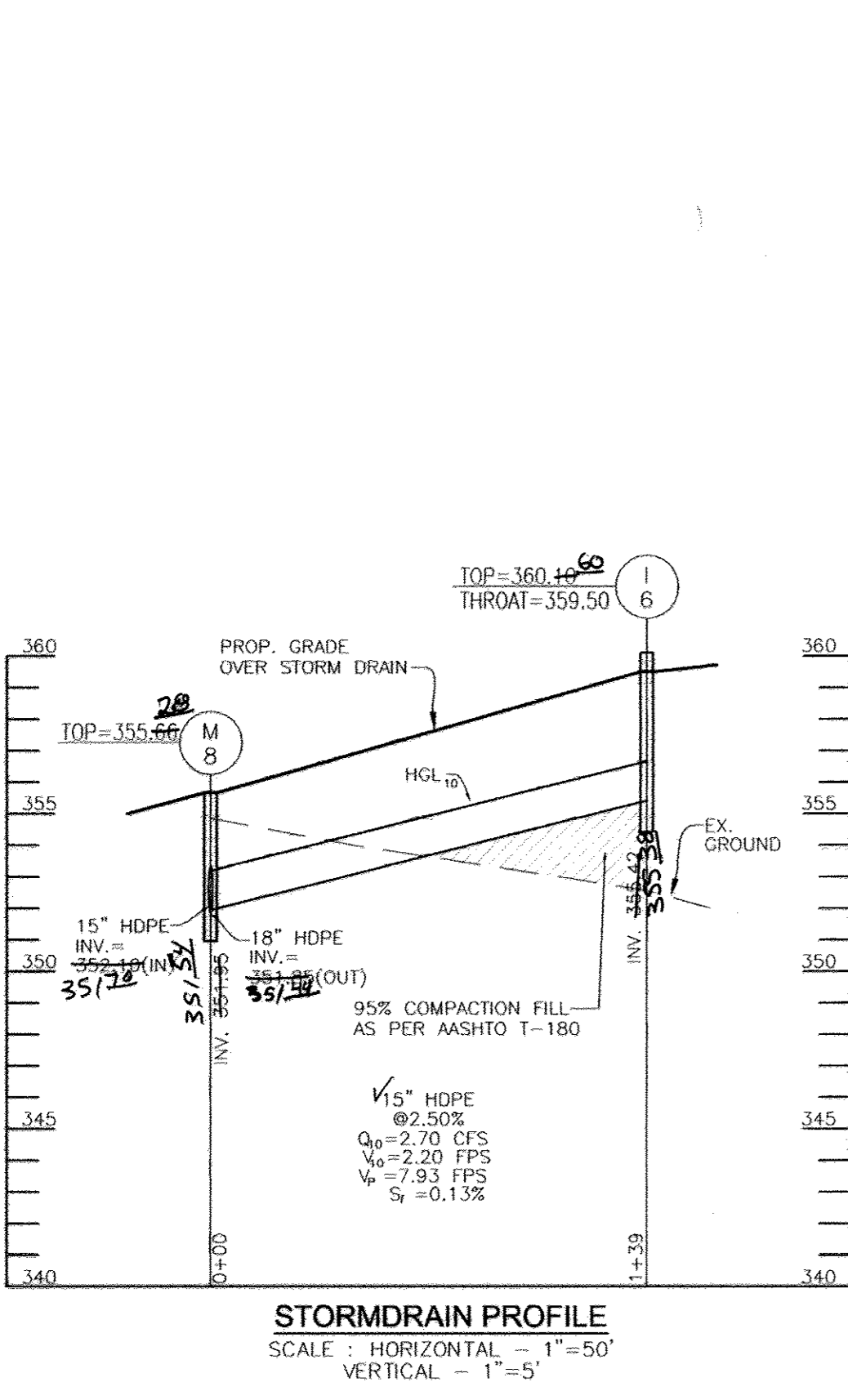
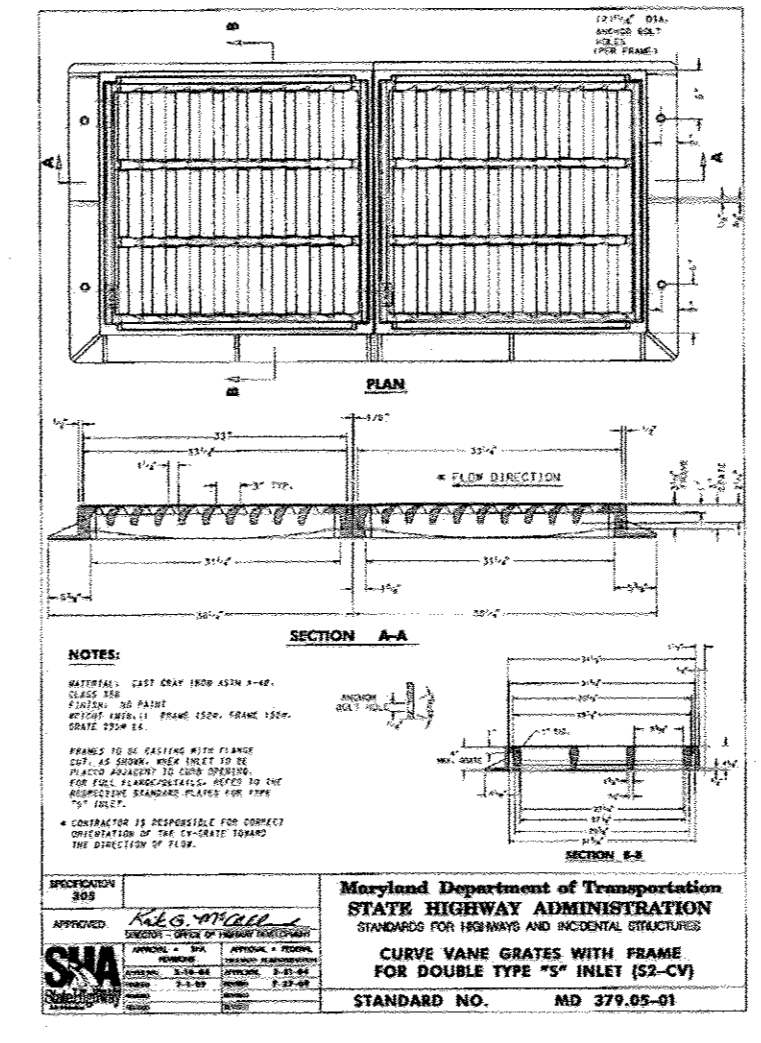
*[Signature]* DATE: 3/24/11  
 CHIEF, DIVISION OF LAND DEVELOPMENT



STRUCTURE SCHEDULE							
NO.	TYPE	LOCATION	TOP ELEV.*	THROAT	INV. IN	INV. OUT	REMARKS
I-1	TYPE 'DOUBLE S' INLET	AUTUMN RIVER DRIVE 8+05.56,30.121'L	338.50		334.96	334.46	MD 374.71
I-2	TYPE 'DOUBLE S' INLET	AUTUMN RIVER DRIVE 8+28.41,27.37'R	339.50		335.36	335.26	MD 374.71
I-3	TYPE 'A-10' INLET	AUTUMN RIVER DRIVE 6+62.43,12'L	349.64		345.14	345.04	D-4.03
I-4	TYPE 'A-10' INLET	AUTUMN RIVER DRIVE 6+62.43,12'R	349.64		345.53	345.43	D-4.03
I-5	TYPE 'A-10' INLET	AUTUMN RIVER DRIVE 5+01.65,12'R	362.14			358.21	D-4.03
I-6	TYPE 'D' INLET	N. 579166.48 E. 1372804.58	360.10	359.50		355.42	D-4.10
I-7	TYPE 'A-10' INLET	FALL WILLOWS ROAD 2+56.09,24.63'R	360.45			356.99	MD 374.71
I-8	TYPE 'D' INLET	N. 579510.07 E. 1372825.81	342.86	342.36			D-4.10
M-1	STANDARD 4' PRECAST MANHOLE	N. 579459.62 E. 1372518.52	338.50		333.87	333.77	G-5.12
M-2	STANDARD 4' PRECAST MANHOLE	N. 579356.99 E. 1372491.32	342.00		335.03	334.93	G-5.12
M-3	STANDARD 4' PRECAST MANHOLE	N. 579309.69 E. 1372440.55	339.50		335.48	335.38	G-5.12
M-4	STANDARD 4' PRECAST MANHOLE	N. 579260.03 E. 1372387.55	340.00		335.95	335.85	G-5.12
M-5	STANDARD 4' PRECAST MANHOLE	N. 579205.68 E. 1372290.07	357.26		351.88	350.38	G-5.12
M-6	STANDARD 4' PRECAST MANHOLE	N. 579419.02 E. 1372305.45	317.00		311.20	310.08	G-5.12
M-7	STANDARD 4' PRECAST MANHOLE	N. 579408.47 E. 1372216.17	330.00		324.00	320.00	G-5.12
M-8	STANDARD 4' PRECAST MANHOLE	N. 579258.99 E. 1372695.32	355.66		351.95	351.85	G-5.12
M-9	STANDARD 4' PRECAST MANHOLE	N. 579464.55 E. 1372741.52	341.75		338.40	338.15	G-5.12
E-1	24" HDPE END SECTION TYPE 'C'	N. 579435.76 E. 1372501.49	336.35		333.60		
E-2	18" HDPE END SECTION TYPE 'C'	N. 579403.73 E. 1372489.23	335.85		333.60		
E-3	12" TYPE 'C' ENDWALL	N. 579360.23 E. 1372371.05	334.75			333.00	D-5.21
CS-1	CONCRETE CONTROL STRUCTURE	N. 579363.42 E. 1372367.07					SEE DETAIL SHEET 10
HW-1	30" TYPE 'A' HEADWALL	N. 579409.82 E. 1372208.62	314.00			310.00	D-5.12

\* TOP ELEV.=TOP OF THE CURB AT CENTER OF THE INLET FOR TYPE S AND A-10 INLET, AND TOP OF THE FRAME & COVER FOR TYPE D INLET.

PIPE SCHEDULE		
PIPE SIZE	TYPE	TOTAL LENGTH
15"	HDPE	504 LF
18"	HDPE	821 LF
24"	RCP	201 LF



APPROVED: DEPARTMENT OF PUBLIC WORKS  
*William R. ...* 3-16-2011  
CHIEF, BUREAU OF HIGHWAYS  
DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*...* 2/20/11  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
DATE

*...* 3/24/11  
CHIEF, DIVISION OF LAND DEVELOPMENT  
DATE



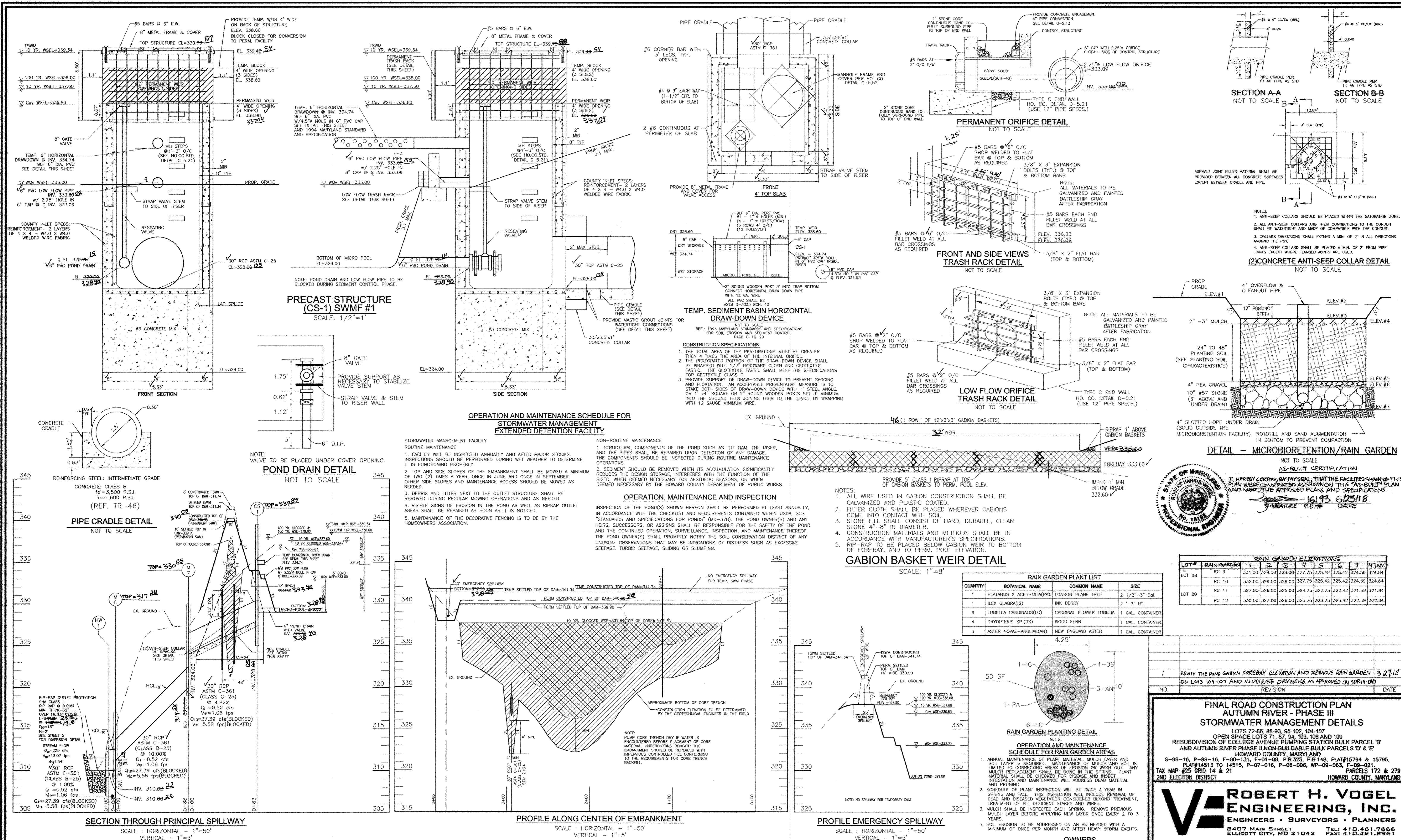
**AS-BUILT CERTIFICATION**  
I HEREBY CERTIFY, BY MY SEAL, THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS AS-BUILT PLAN AND MEET THE APPROVED PLANS AND SPECIFICATIONS.  
*...* 16193 6/25/18  
SIGNATURE P.E.# DATE

**OWNERS**  
AUTUMN RIVER CORPORATION  
4100 COLLEGE AVE.  
ELLCOTT CITY MD 21042-7819  
21043 - 5506  
(410) 465-3500

**DEVELOPER**  
AUTUMN DEVELOPMENT CORPORATION  
C/O LAND DESIGN & DEVELOPMENT, INC.  
5300 DORSEY HALL DR STE 102  
ELLCOTT CITY MD 21042-7819  
ATTN: MR. DONALD R. REUWER  
(443) 367-0422

<b>FINAL ROAD CONSTRUCTION PLAN</b> <b>AUTUMN RIVER - PHASE III</b> <b>STORMDRAIN PROFILES</b> LOTS 72-86, 88-93, 95-102, 104-107 OPEN SPACE LOTS 71, 87, 94, 103, 108 AND 109 RESUBDIVISION OF COLLEGE AVENUE PUMPING STATION BULK PARCEL 'B' AND AUTUMN RIVER PHASE II NON-BUILDABLE BULK PARCELS 'D' & 'E' HOWARD COUNTY, MARYLAND S-98-16, P-98-16, F-00-131, F-01-08, P.B.148, PLAT#15794 & 15795, PLAT#14513 TO 14515, P-07-016, P-08-006, WP-09-063, F-09-021, TAX MAP #25 GRID 14 & 21 PARCELS 172 & 279 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
<b>ROBERT H. VOGEL</b> <b>ENGINEERS • SURVEYORS • PLANNERS</b> 8407 MAIN STREET ELLICOTT CITY, MD 21043 TEL: 410.461.7666 FAX: 410.461.8961		
DESIGN BY: JCO DRAWN BY: KG CHECKED BY: RHV DATE: FEBRUARY 2011 SCALE: AS SHOWN W.O. NO.: 04-145	PROFESSIONAL CERTIFICATE 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. 16193, EXPIRATION DATE: 09-27-2015.	NO. 8 SHEET OF 13





APPROVED: DEPARTMENT OF PUBLIC WORKS  
 DATE: 3/16/2011  
 APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
 DATE: 3/23/11  
 APPROVED: CHIEF, DIVISION OF LAND DEVELOPMENT  
 DATE: 3/24/11

BY THE DEVELOPER:  
 I HEREBY CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION SHALL BE DONE IN ACCORDANCE TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.  
 SIGNATURE OF DEVELOPER: [Signature]  
 DATE: 2/4/11

BY THE ENGINEER:  
 I HEREBY CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.  
 SIGNATURE OF ENGINEER: [Signature]  
 DATE: 2/17/11

THIS DEVELOPMENT PLAN IS APPROVED FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.  
 DATE: 3/9/11

"AS-BUILT" CERTIFICATION  
 I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE AS-BUILT PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.  
 DATE: 6/25/18  
 SIGNATURE: [Signature]

OWNERS  
 AUTUMN RIVER CORPORATION  
 4100 COLLEGE AVE.  
 ELLICOTT CITY, MD 21042-7819  
 21043 - 5506  
 (410) 465-3500

DEVELOPER  
 AUTUMN DEVELOPMENT CORPORATION  
 C/O LAND DESIGN & DEVELOPMENT, INC.  
 5300 DORSEY HALL DR. STE 102  
 ELLICOTT CITY, MD 21042-7819  
 ATTN: MR. DONALD R. REULWER  
 (443) 367-0422

PROFESSIONAL CERTIFICATE  
 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. 16193, EXPIRATION DATE: 09-27-2019.  
 DESIGN BY: JCO  
 DRAWN BY: KG  
 CHECKED BY: RHV  
 DATE: FEBRUARY 2011  
 SCALE: AS SHOWN  
 W.D. NO.: 04-145  
 9 SHEET OF 13

STATE OF MARYLAND  
 PROFESSIONAL ENGINEER  
 I HEREBY CERTIFY, BY MY SEAL, THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS "AS-BUILT" PLAN AND MEET THE APPROVED PLANS AND SPECIFICATIONS.  
 DATE: 6/25/18  
 SIGNATURE: [Signature]

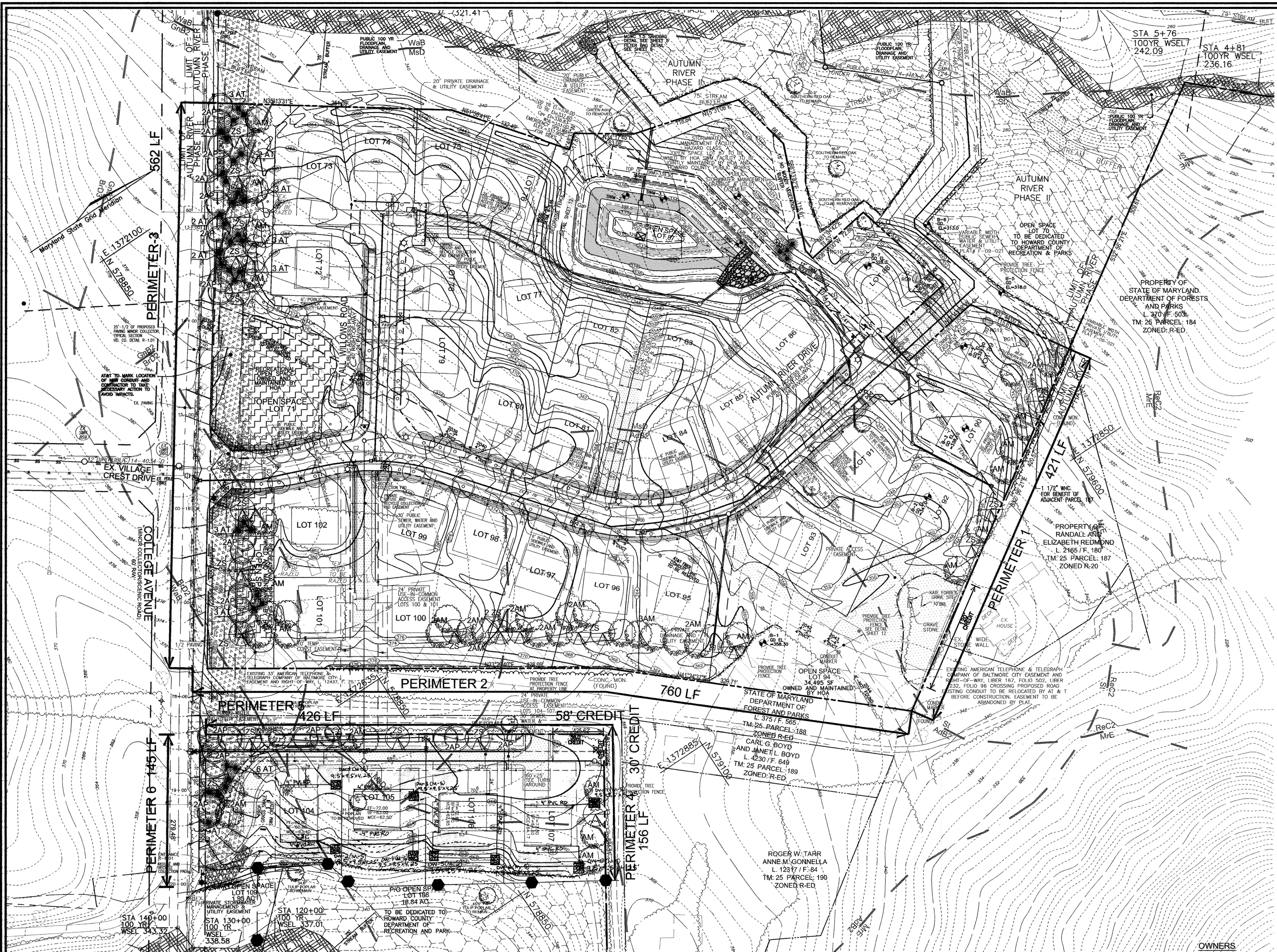
REVISIONS

NO.	REVISION	DATE
1	REVISE THE POND GABION FOREBAY ELEVATION AND REMOVE RAIN GARDEN ON LOTS 104-107 AND ILLUSTRATE DRYWELLS AS APPROVED ON SDP-14-097	3-27-18

FINAL ROAD CONSTRUCTION PLAN  
 AUTUMN RIVER - PHASE III  
 STORMWATER MANAGEMENT DETAILS  
 LOTS 72-86, 88-93, 95-102, 104-107  
 OPEN SPACE LOTS 71, 87, 94, 103, 108 AND 109  
 RESUBDIVISION OF COLLEGE AVENUE PUMPING STATION BULK PARCEL 'B' AND AUTUMN RIVER PHASE II NON-BUILDABLE BULK PARCELS 'D' & 'E'  
 HOWARD COUNTY, MARYLAND  
 S-98-16, P-98-16, F-00-131, F-01-08, P.B.325, P.B.148, PLAT#15794 & 15795,  
 PLAT#14513 TO 14515, P-07-016, P-08-006, WP-09-063, F-09-021.  
 TAX MAP #25 GRID 14 & 21 PARCELS 172 & 279  
 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

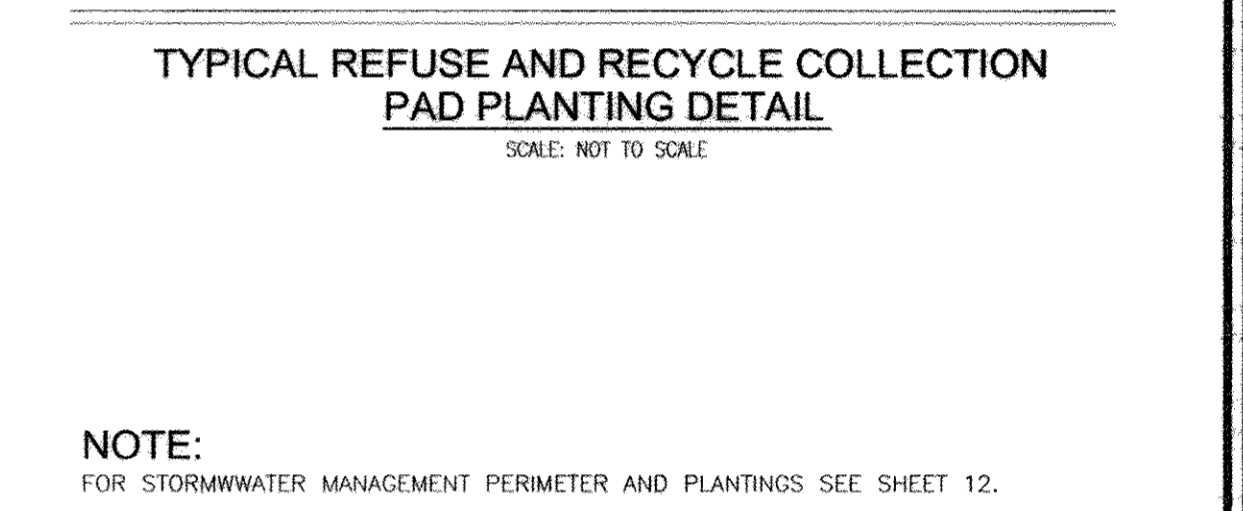
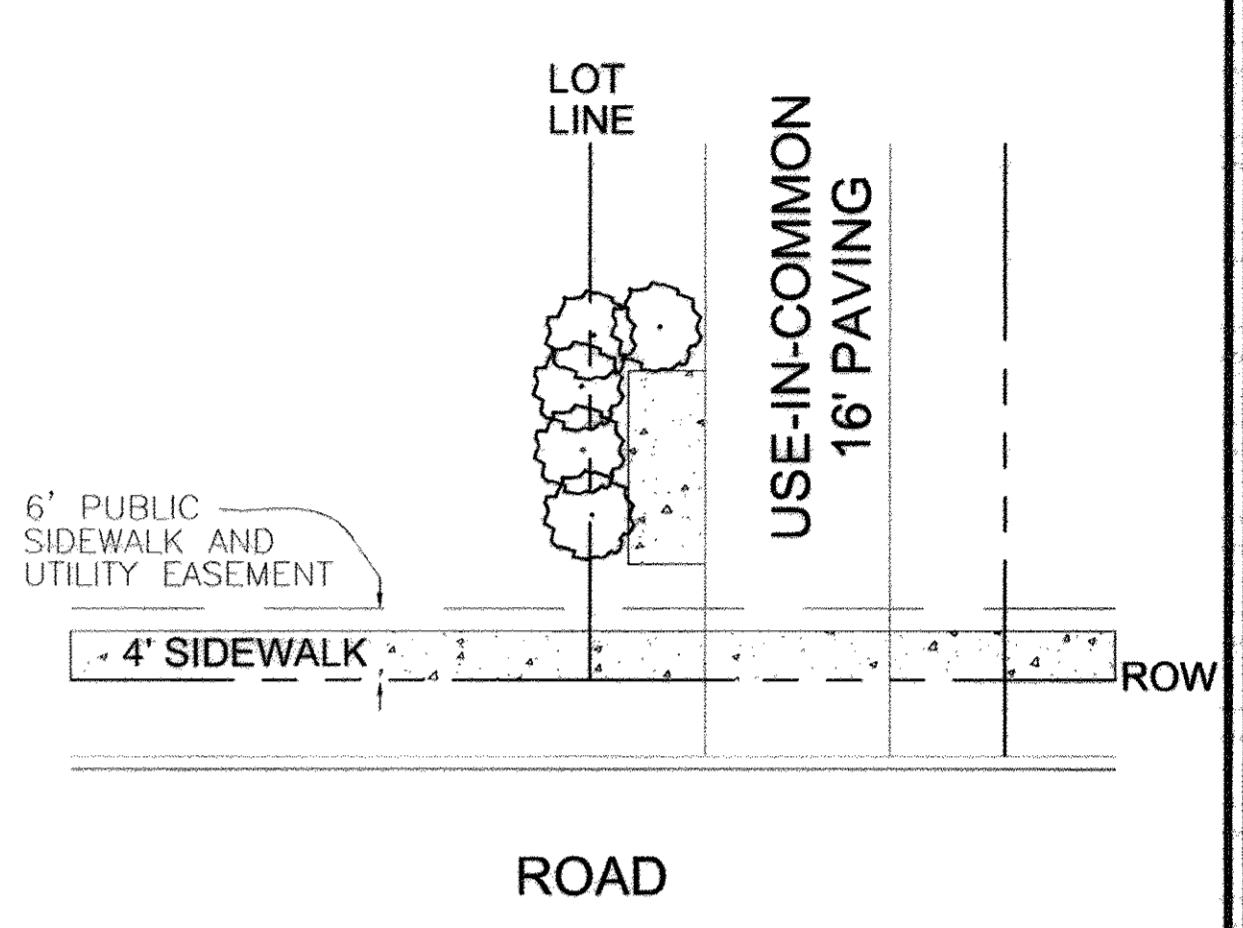
ROBERT H. VOGEL  
 ENGINEERS - SURVEYORS - PLANNERS  
 8407 MAIN STREET  
 ELLICOTT CITY, MD 21043  
 TEL: 410.461.7666  
 FAX: 410.461.8951

AS-BUILT JUNE 2018  
 F-10-067



**LEGEND**

	24' PRIVATE USE-IN COMMON ACCESS EASEMENT		FOREST CONSERVATION (RETENTION)
	20' PUBLIC DRAINAGE & UTILITY EASEMENT		PUBLIC 100 YR FLOODPLAIN EASEMENT
	EX. FOREST CONSERVATION		40' WIDE B&E WIREZONE
	AQUATIC BENCH		FOREST CONSERVATION EASEMENT SIGN
	PROP. ROAD WIDENING		TREE PROTECTION FENCE
	4' PAVING ALONG FRONTAGE OF THE PROPERTY		SPECIMEN TREE PROTECTION FENCE
	PROPOSED TREE		TREE PROTECTION FENCE H.O.C.D. DETAIL L-5-02
	WETLANDS BUFFER		RECREATION OPEN SPACE
	STREAM CENTERLINE		LANDSCAPE PERIMETER
	STREAM BUFFER		
	6' PUBLIC SIDEWALK & UTILITY EASEMENT		



**NOTE:**  
FOR STORMWATER MANAGEMENT PERIMETER AND PLANTINGS SEE SHEET 12.

NO AS-BUILT INFORMATION ON THIS SHEET

**AS-BUILT CERTIFICATION**  
I HEREBY CERTIFY, BY MY SEAL, THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS "AS-BUILT" PLAN AND MEET THE APPROVED PLANS AND SPECIFICATIONS.

1693 GRS18  
SIGNATURE P.E. # DATE



NO.	REVISION	DATE
1	REVISE THE POND GARDEN PORCH ELEVATION AND REMOVE RAIN GARDEN ON LOTS 104-107 AND ILLUSTRATE DRIVELLS AS APPROVED ON SP4-047	3-21-18

**FINAL ROAD CONSTRUCTION PLAN  
AUTUMN RIVER - PHASE III  
LANDSCAPE AND FOREST CONSERVATION PLAN**

LOTS 72-86, 88-93, 95-102, 104-107  
OPEN SPACE LOTS 71, 87, 94, 103, 108 AND 109  
RESUBDIVISION OF COLLEGE AVENUE PUMPING STATION BULK PARCEL 'B' AND AUTUMN RIVER PHASE II NON-BUILDABLE BULK PARCELS 'D' & 'E' HOWARD COUNTY, MARYLAND

S-98-16, P-99-16, F-00-131, F-01-08, P.B.325, P.B.148, PLAT#15794 & 15795, PLAT#14513 TO 14515, P-07-016, P-08-006, WP-09-063, F-09-021  
TAX MAP #25 GRID 14 & 21 PARCELS 172 & 279  
2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**ROBERT H. VOGEL ENGINEERING, INC.**  
ENGINEERS - SURVEYORS - PLANNERS  
8407 MAIN STREET #21043 ELLICOTT CITY, MD 21043 TEL: 410-461-7666 FAX: 410-461-8966

**OWNERS**  
AUTUMN RIVER CORPORATION  
4100 COLLEGE AVE.  
ELLICOTT CITY MD 21042-7819  
21043 - 5506  
(410) 465-3500

**DEVELOPER**  
AUTUMN DEVELOPMENT CORPORATION  
C/O LAND DESIGN & DEVELOPMENT, INC.  
5300 DORSEY HALL DR STE 102  
ELLICOTT CITY MD 21042-7819  
ATTN: MR. DONALD R. REUIWER  
(443) 367-0422

**PROFESSIONAL CERTIFICATE**  
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. 16193 EXPIRATION DATE: 09-27-2017

DESIGN BY: JCO  
DRAWN BY: KG  
CHECKED BY: RHV  
DATE: FEBRUARY 2011  
SCALE: 1" = 50'  
W.O. NO.: 04-145

APPROVED: DEPARTMENT OF PUBLIC WORKS

*[Signature]* 3-14-2011  
CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 3/22/11  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

*[Signature]* 3/24/11  
CHIEF, DIVISION OF LAND DEVELOPMENT

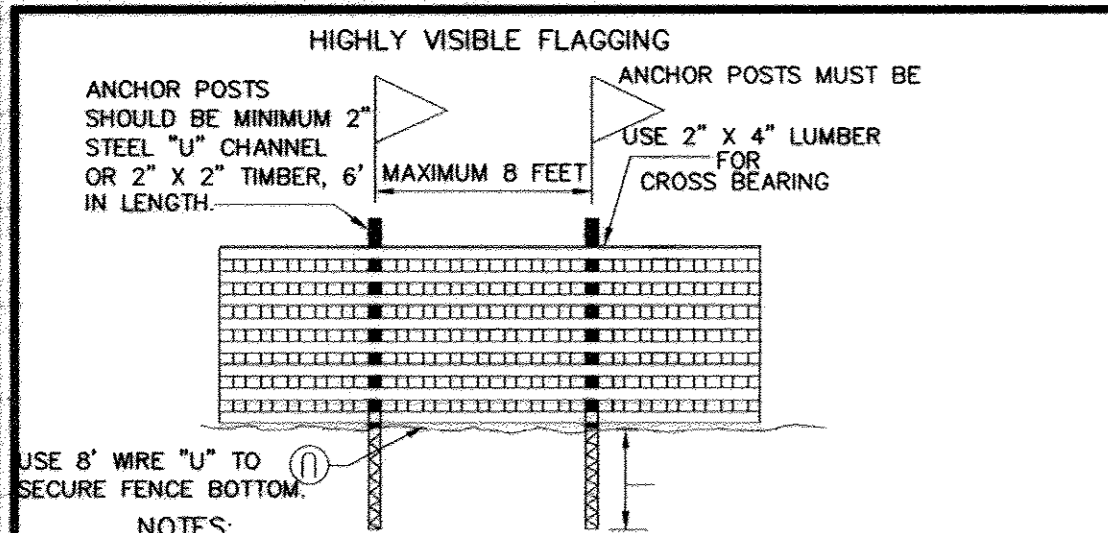
**DEVELOPER'S/BUILDER'S CERTIFICATE**

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

DATE: 3/24/11

*[Signature]* 3/24/11  
J. CHRIS OGLE  
DNR QUALIFIED PROFESSIONAL





**HOWARD COUNTY FOREST CONSERVATION WORKSHEET**

ZONED R-ED  
NET TRACT AREA: 31.01 AC  
A. TOTAL TRACT AREA: 0.76 AC  
B. AREA WITHIN 100 YEAR FLOODPLAIN: 30.25 AC  
C. NET TRACT AREA

LAND USE CATEGORY  
INPUT THE NUMBER "1" UNDER THE APPROPRIATE LAND USE ZONING, AND LIMIT TO ONLY ONE ENTRY. ZONED R-ED.  
ARA MDR IDA HDR MPD CIA  
0 0 0 1 0 0 0

E. AFFOREST THRESHOLD: 15% X D = 4.54 AC  
F. CONSERVATION THRESHOLD: 20% X D = 6.05 AC  
G. EXISTING FOREST COVER:  
H. EXISTING FOREST COVER (EXCLUDING FLOODPLAIN): 22.91 AC  
I. AREA OF FOREST ABOVE CONSERVATION THRESHOLD: 16.86 AC  
J. BREAK EVEN POINT: 9.42 AC  
K. CLEARING PERMITTED WITHOUT MITIGATION: 13.49 AC  
L. PROPOSED FOREST CLEARING:  
M. TOTAL AREA OF FOREST TO BE CLEARED: 5.49 AC  
N. TOTAL AREA OF FOREST TO BE RETAINED: 17.65 AC  
O. REFORESTATION FOR CLEARING ABOVE CONSERVATION THRESHOLD: 0.00 AC  
P. REFORESTATION FOR CLEARING BELOW CONSERVATION THRESHOLD: 0.00 AC  
Q. CREDIT FOR RETENTION ABOVE CONSERVATION THRESHOLD: 0.00 AC  
R. TOTAL REFORESTATION REQUIRED (N+P-Q): 0.00 AC  
S. TOTAL AFFORESTATION REQUIRED: 0.00 AC  
T. TOTAL REFORESTATION AND AFFORESTATION REQUIRED: 0.00 AC

**NOTES:**  
1. FOREST PROTECTION DEVICE ONLY. 2. RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS. 3. BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING DEVICE. 4. ROOF DAMAGE SHOULD BE AVOIDED.

**BLAZE ORANGE PLASTIC MESH**  
**TYPICAL TREE PROTECTION FENCE DETAIL**

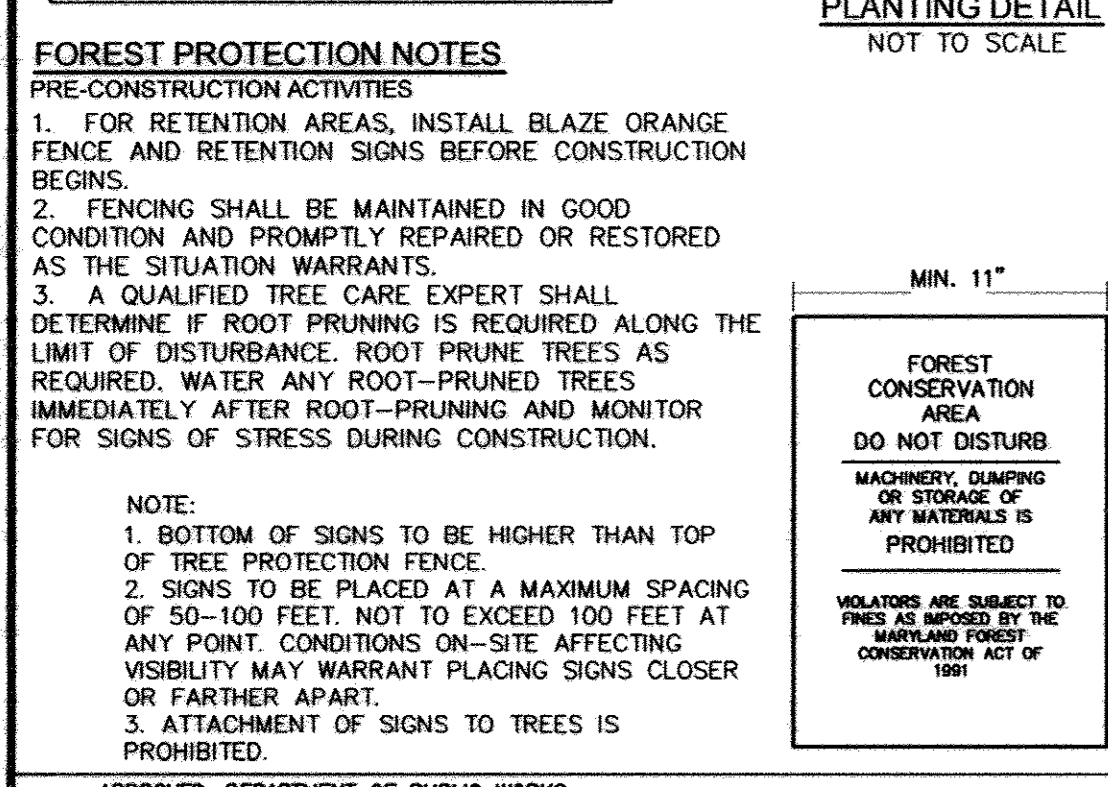
**LANDSCAPE NOTES**  
1. A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.  
2. AT THE TIME OF PLANT INSTALLATION, ALL SHRUBS AND TREES LISTED AND APPROVED FOR THIS SITE BE OF THE PROPER HEIGHT REQUIREMENT IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATION OF THE REQUIRED PLANTING MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION 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 APPLICABLE PLANS.  
3. THE OWNER, TENANTS AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.  
4. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.  
5. NO CLEARING OF EXISTING VEGETATION IS PERMITTED WITHIN THE LANDSCAPE EDGE FOR WHICH CREDIT IS BEING TAKEN; HOWEVER, LANDSCAPE MAINTENANCE IS AUTHORIZED.  
6. CONTRACTOR SHALL CERTIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING.  
7. FINAL LOCATION OF PLANT MATERIAL MAY NEED TO VARY TO MEET FINAL FIELD CONDITIONS. TREES SHALL NOT BE PLANTED IN THE BOTTOM OF DRAINAGE SWALES.

**B & E NOTES:**  
1. THE LANDSCAPING ON WZONE (40' FROM BGE POLES) IS IN ACCORDANCE WITH BGE LIST OF TREES AND PLANTS.  
2. BGE RESERVES THE RIGHT TO TRIM, TOP OR CUT DOWN ANY TREE IN PROXIMITY TO THE LINE THAT IN THE OPINION OF BGE SHALL BE DEEMED A HAZARD TO THE SAFE AND RELIABLE DELIVERY OF ELECTRICITY.  
3. THE DEPARTMENT OF PLANNING AND ZONING MAY AUTHORIZE THE TRIMMING OR REMOVAL OF TREES OR VEGETATION IMMEDIATELY ADJACENT TO THE BGE R/W OR EASEMENT, IF BGE DETERMINES THE TREES ARE COMPROMISING THE SAFETY OR A TRANSMISSION LINE LOCATED WITHIN THEIR UTILITY R/W OR EASEMENT. IF BGE DEVELOPER'S AGREEMENT

STREET TREES ARE PROVIDED FOR THIS PROJECT IN ACCORDANCE WITH SECTION 16.124(a)(1) OF THE SUBDIVISION REGULATIONS AND THE LANDSCAPE MANUAL. A FINANCIAL SURETY IN THE AMOUNT OF \$21,300.00 TO BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT FOR THE REQUIRED 71 PUBLIC STREET TREES.  
FINANCIAL SURETY FOR THE REQUIRED PERIMETER LANDSCAPING PROVIDED PER THE AMOUNT TO BE POSTED WITH THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$34,240.00 FOR THE REQUIRED 29 SHADE TREES, 115 EVERGREEN TREES/SHRUBS, PAL TREES, 69 SHRUBS AND 422 LF OF DECORATIVE FENCING.

**EX. FOREST CONSERVATION EASEMENT**  
TABLE TOTAL RETENTION: 17.62 AC.

FOREST CONSERVATION EASEMENT 1	RETENTION AREA : 2.29 AC.
FOREST CONSERVATION EASEMENT 2	RETENTION AREA : 0.65 AC.
FOREST CONSERVATION EASEMENT 3	RETENTION AREA : 13.67 AC.
FOREST CONSERVATION EASEMENT 4	RETENTION AREA : 0.79 AC.
FOREST CONSERVATION EASEMENT 5	RETENTION AREA : 0.02 AC.
TOTAL PROP. RETENTION AREA:	17.42 AC.
EXISTING FOREST CONSERVATION EASEMENT RETENTION AREA :	0.23 PLANT # 14514
TOTAL RETENTION AREA:	17.65 AC.



**FOREST PROTECTION NOTES**  
**PRE-CONSTRUCTION ACTIVITIES**  
1. FOR RETENTION AREAS, INSTALL BLAZE ORANGE FENCE AND RETENTION SIGNS BEFORE CONSTRUCTION BEGINS.  
2. FENCING SHALL BE MAINTAINED IN GOOD CONDITION AND PROMPTLY REPAIRED OR RESTORED AS THE SITUATION WARRANTS.  
3. A QUALIFIED TREE CARE EXPERT SHALL DETERMINE IF ROOT PRUNING IS REQUIRED ALONG THE LIMIT OF DISTURBANCE. ROOT PRUNING, TREES AS REQUIRED, WATER ANY ROOT-PRUNED TREES IMMEDIATELY AFTER ROOT-PRUNING AND MONITOR FOR SIGNS OF STRESS DURING CONSTRUCTION.

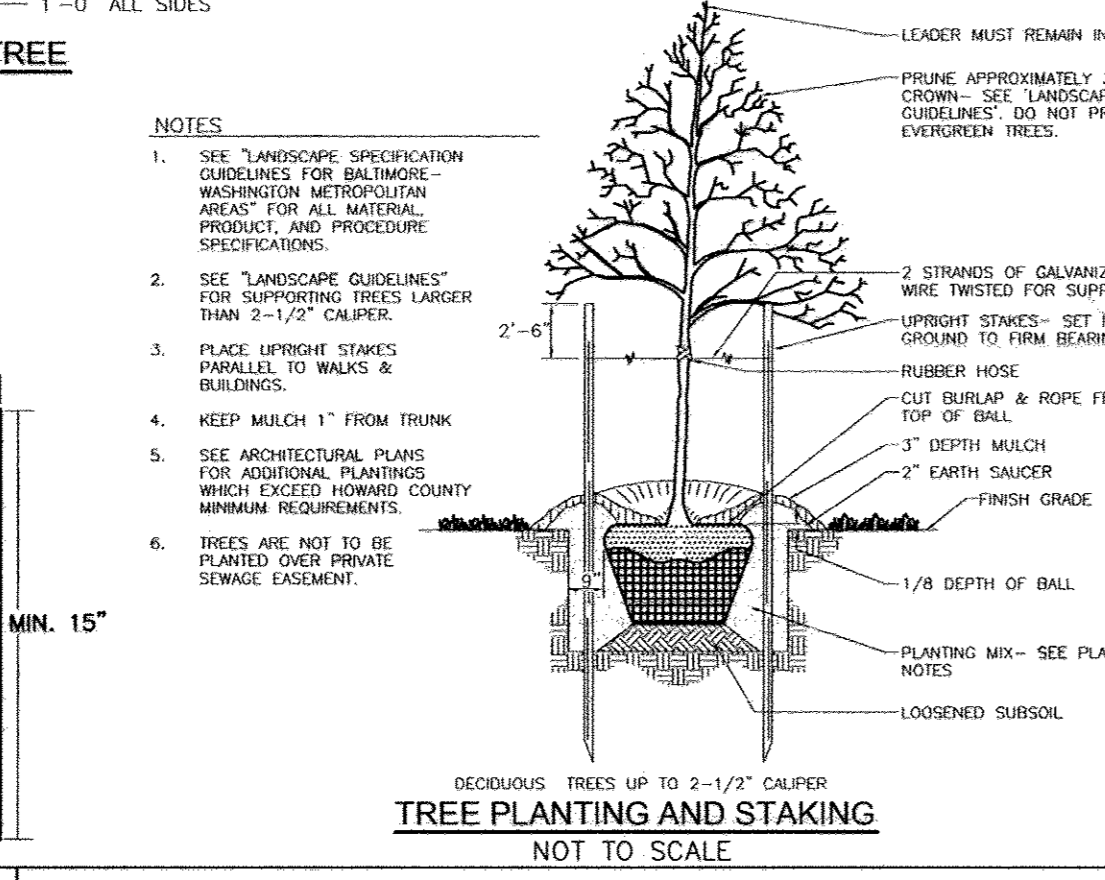
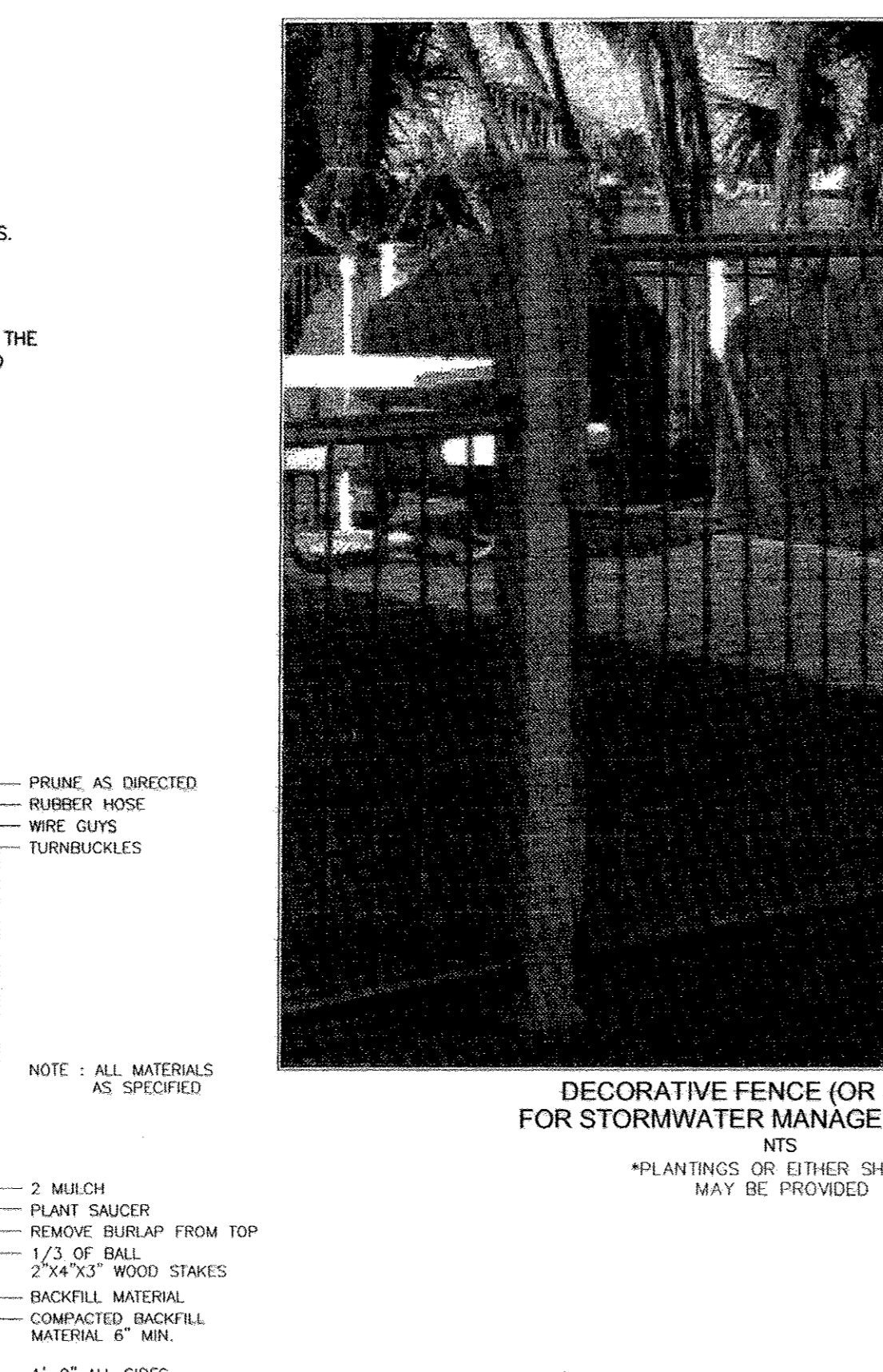
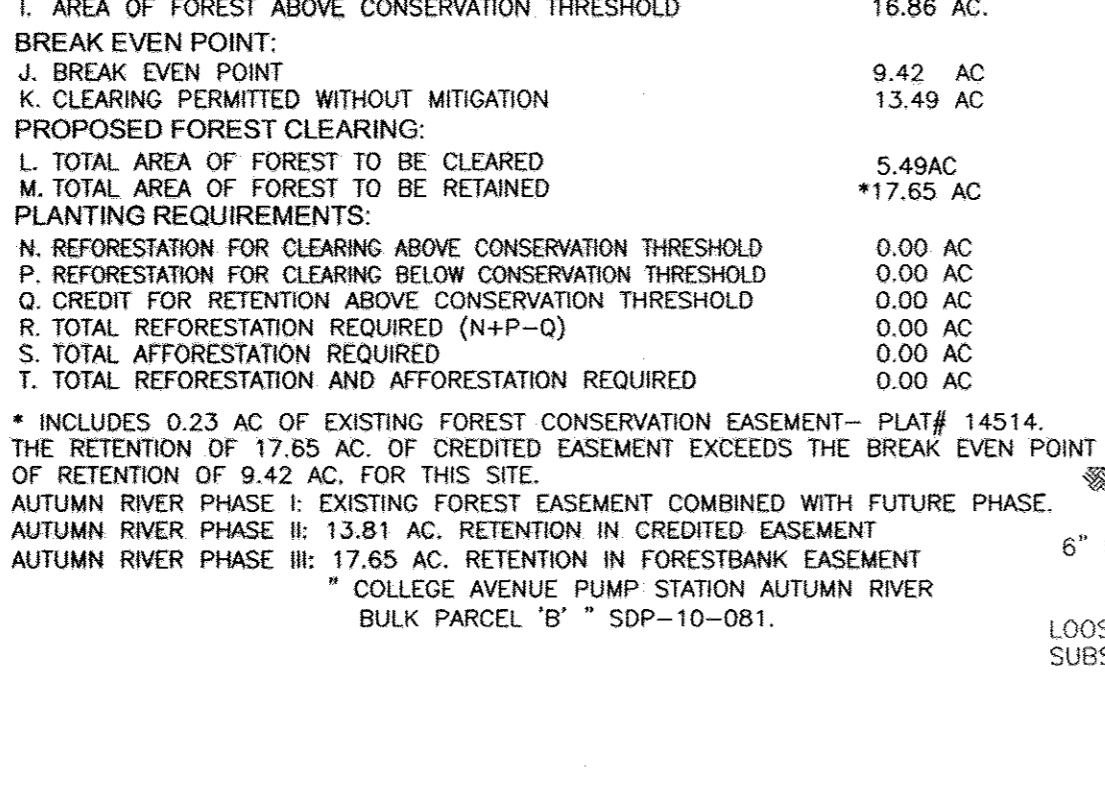
NOTE:  
1. BOTTOM OF SIGNS TO BE HIGHER THAN TOP OF TREE PROTECTION FENCE.  
2. SIGNS TO BE PLACED AT A MAXIMUM SPACING OF 50-100 FEET. NOT TO EXCEED 100 FEET AT ANY POINT. CONDITIONS ON-SITE AFFECTING VISIBILITY MAY WARRANT PLACING SIGNS CLOSER OR FARTHER APART.  
3. ATTACHMENT OF SIGNS TO TREES IS PROHIBITED.

APPROVED: DEPARTMENT OF PUBLIC WORKS  
DATE: 3-16-2011

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
DATE: 3/21/11

APPROVED: DEVELOPMENT ENGINEERING DIVISION  
DATE: 3/24/11

APPROVED: CHIEF, DIVISION OF LAND DEVELOPMENT  
DATE: 3/24/11



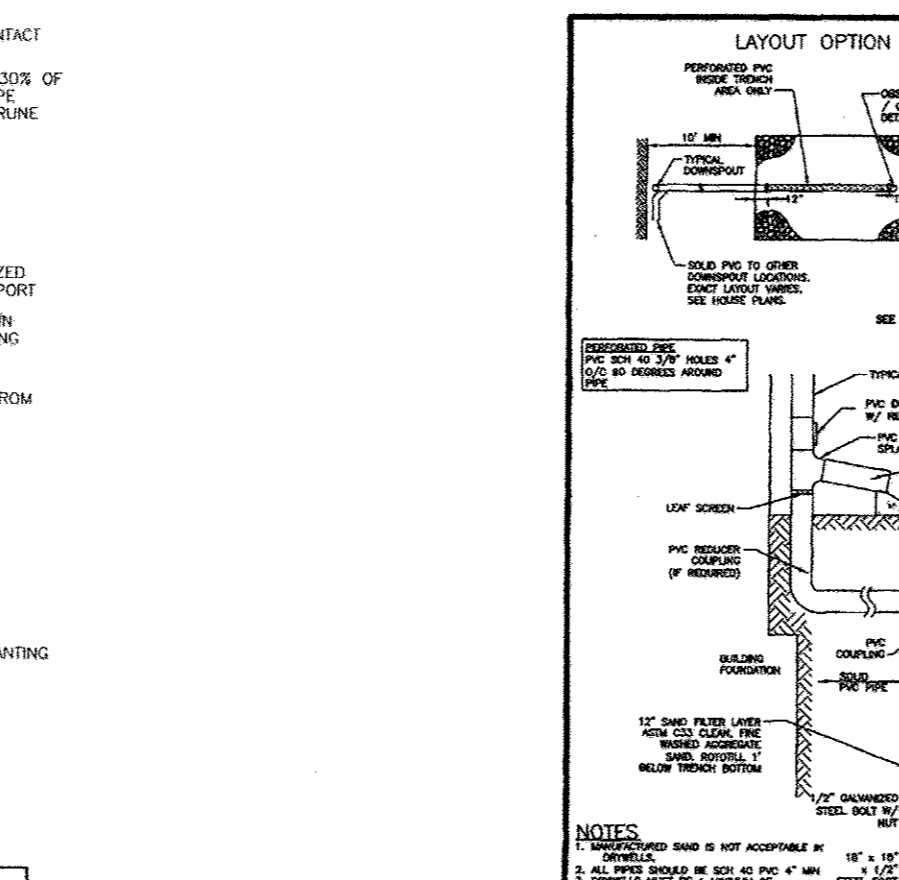
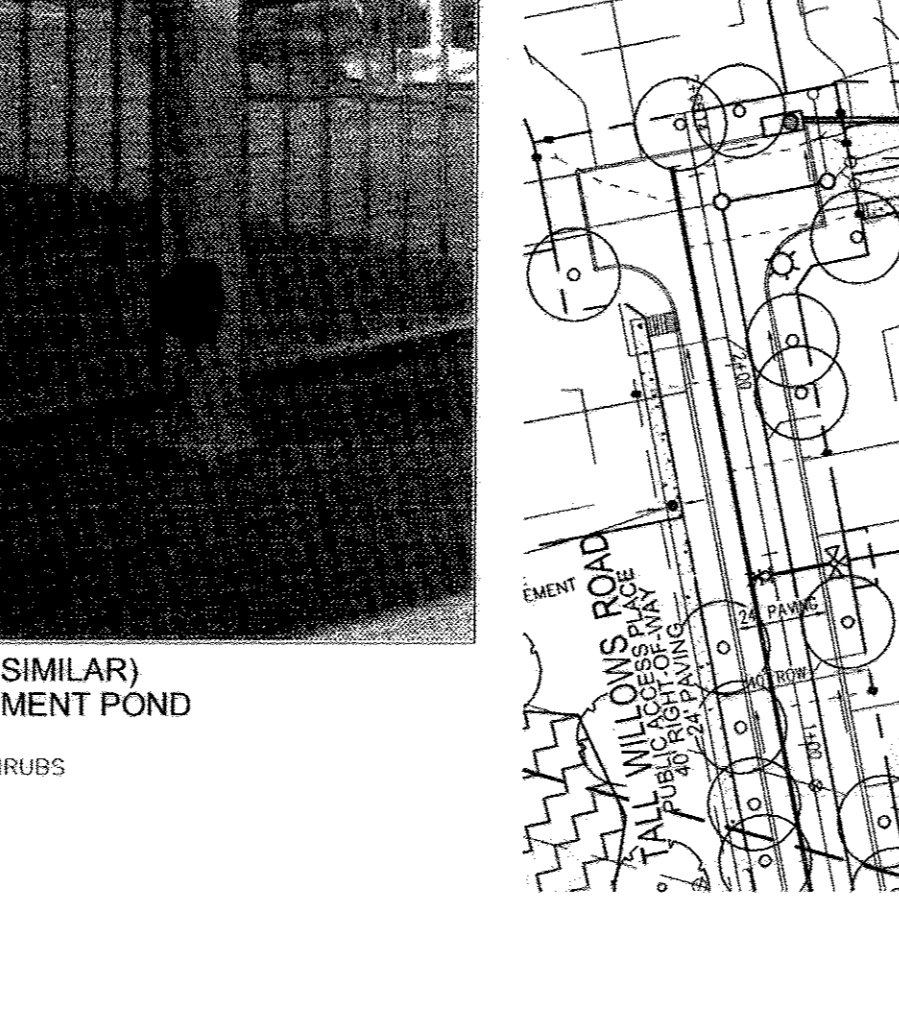
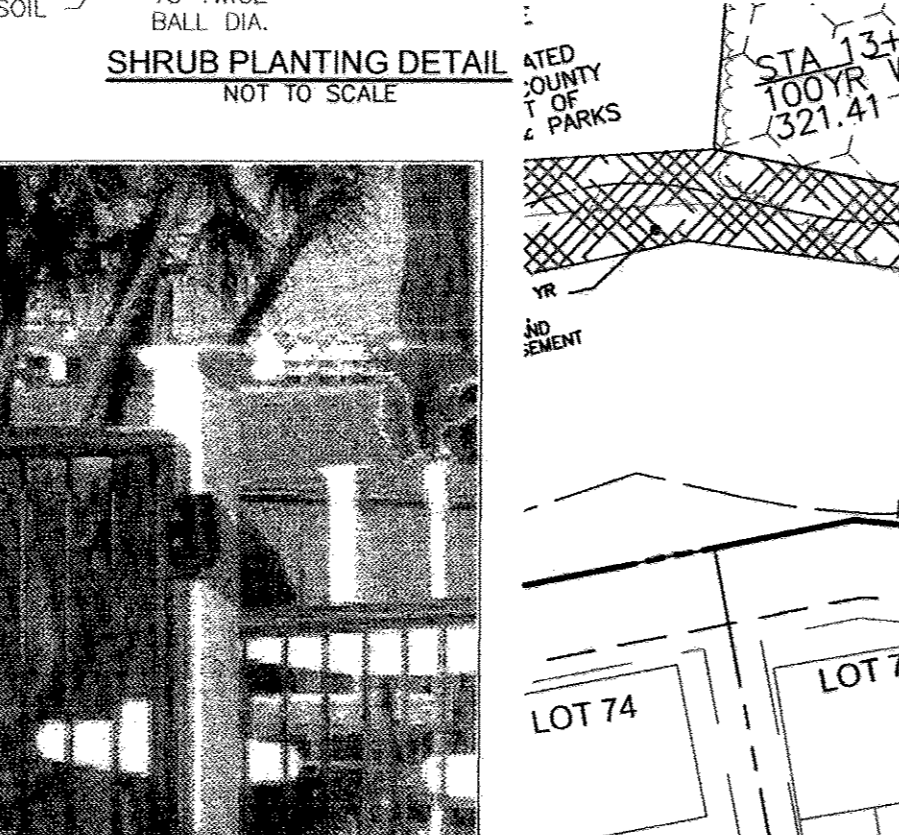
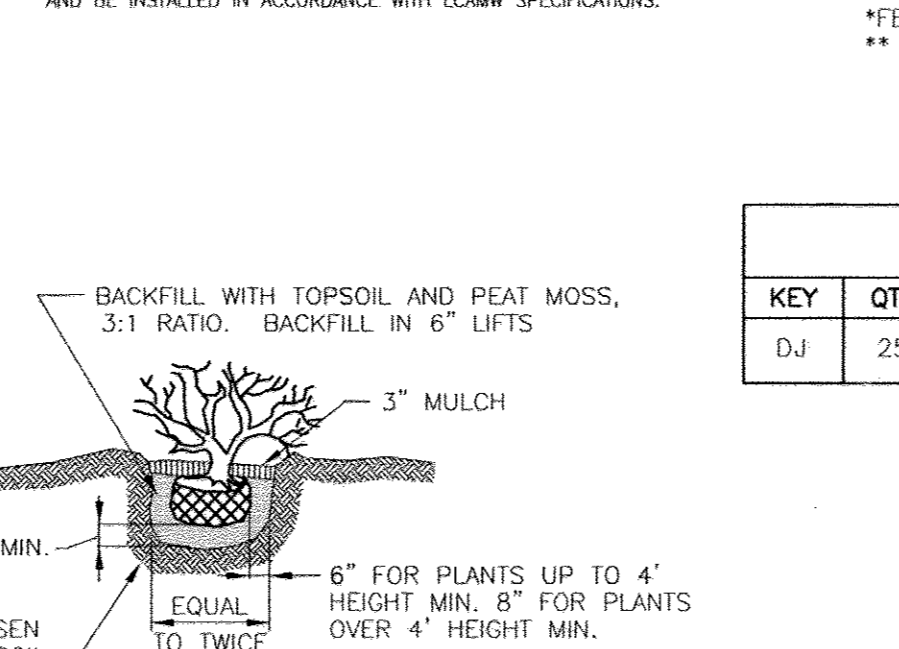
**DEVELOPER'S/BUILDER'S CERTIFICATE**

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

DATE: 3/24/11  
SIGNATURE OF DEVELOPER: [Signature]  
DATE: 3/24/11  
DATE: 3/24/11

**MICROPOOL POND HAZARD CLASS 'A' HERBACEOUS LANDSCAPE SCHEDULE**

KEY	QUAN.	BOTANICAL NAME	SIZE	REMARKS
IP	43	IRIS PSEUDACORUS YELLOW WATER IRIS	PLUG 1.5' OC	
NL	200	NUPHAR LUTEUM SPATTERDOCK	PLUG 1.5' OC	
SL	650	SAKITARRA LATIFOLIA DUCK POTATO (DO NOT PLANT TUBERS)	PLUG 4' OC	
VA	300	VALISNERIA AMERICANA WILD CELERY	PLUG 2' OC	
CE	200	CYPERUS ESCULENTUS YELLOW NUT SEDGE	PLUG 2' OC	



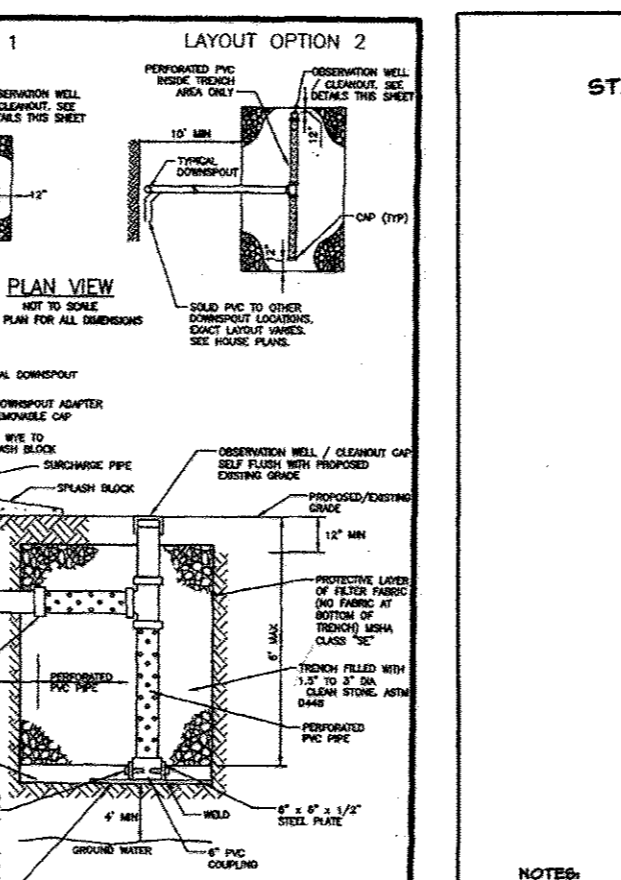
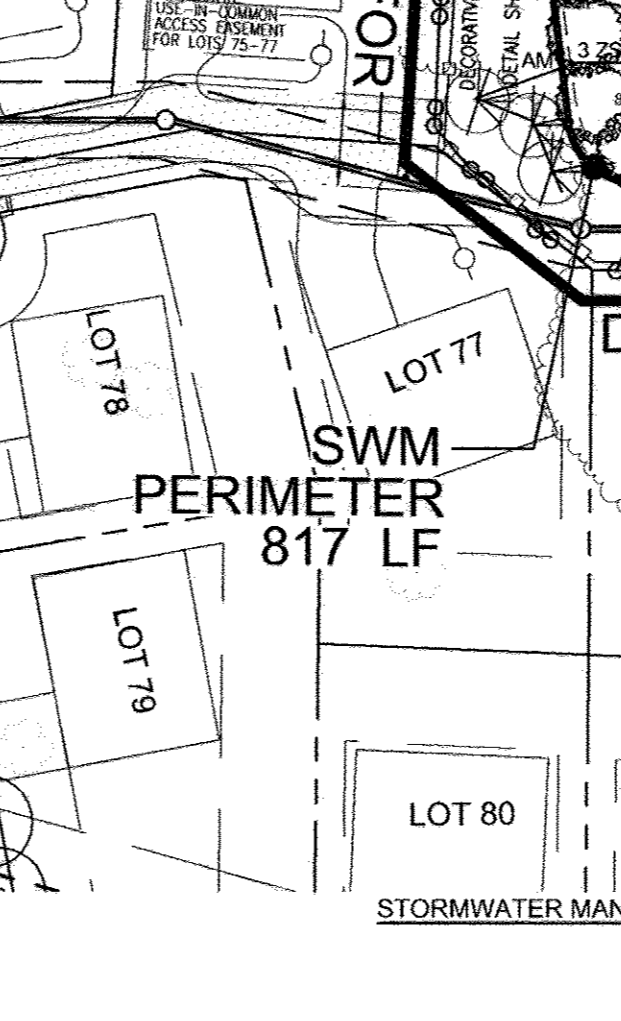
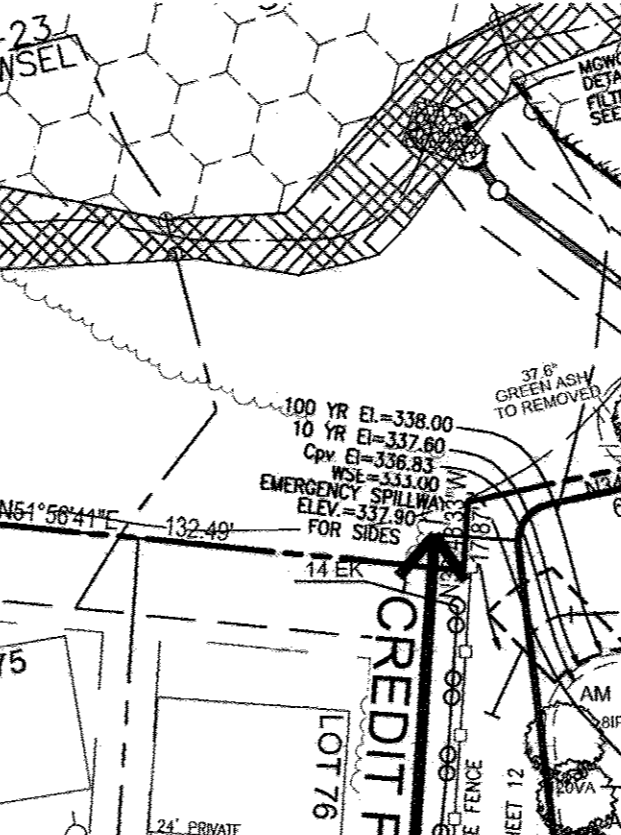
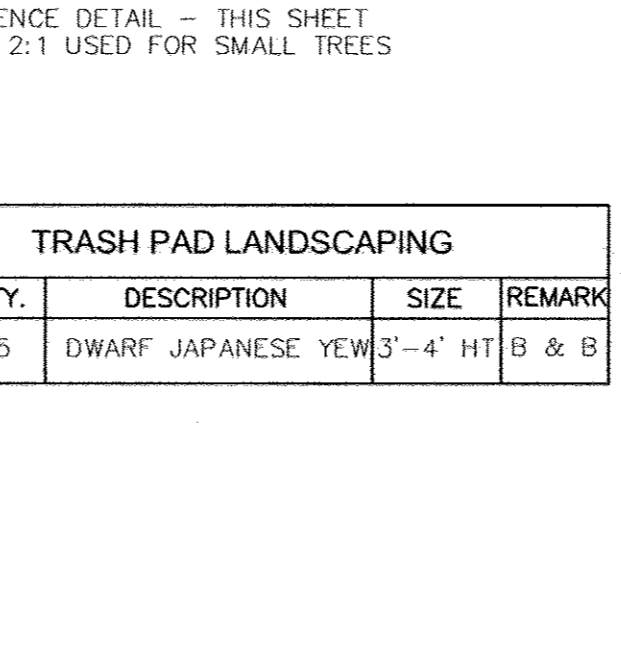
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DATE: 3/24/11  
SIGNATURE OF DEVELOPER: [Signature]  
DATE: 3/24/11  
DATE: 3/24/11

**SCHEDULE D: STORMWATER MANAGEMENT AREA LANDSCAPING-TYPE 'B' BUFFER**

CATEGORY	SWMF
LINEAR FEET OF PERIMETER	817'
CREDIT FOR EXISTING VEGETATION (YES, NO, AND LINEAR FEET)	YES: 250' NO: 0'
CREDIT FOR FENCE (YES, NO, AND %) (YES, NO, AND %) (YES, NO, AND %)	YES: 422' NO: 0%
NUMBER OF TREES PROVIDED	145*
SHADE TREES 1:50	5
EVERGREEN TREES 1:40	4
NUMBER OF TREES PROVIDED	10**
SHADE TREES	4
EVERGREEN TREES	4.5



**DEVELOPER'S/BUILDER'S CERTIFICATE**

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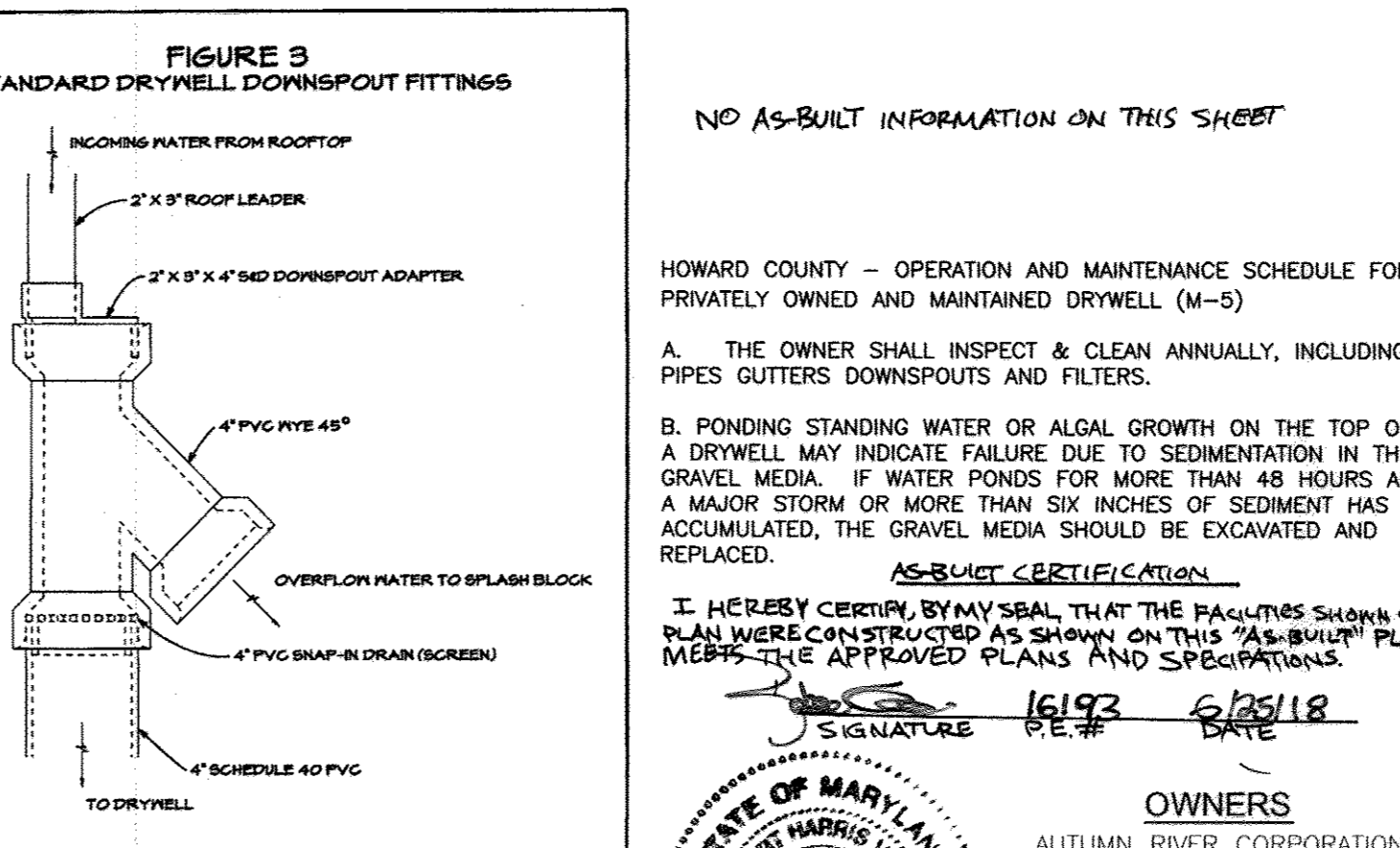
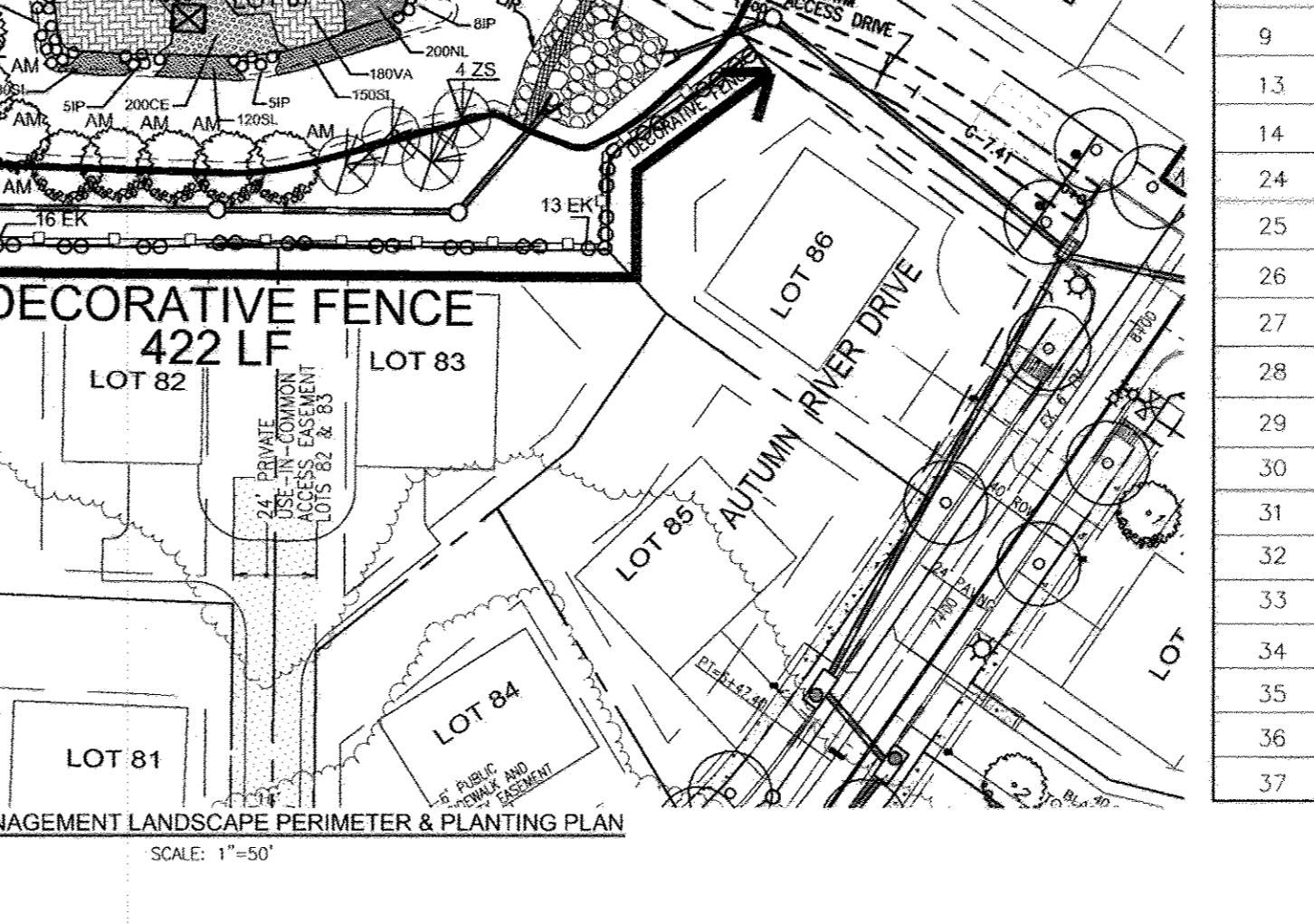
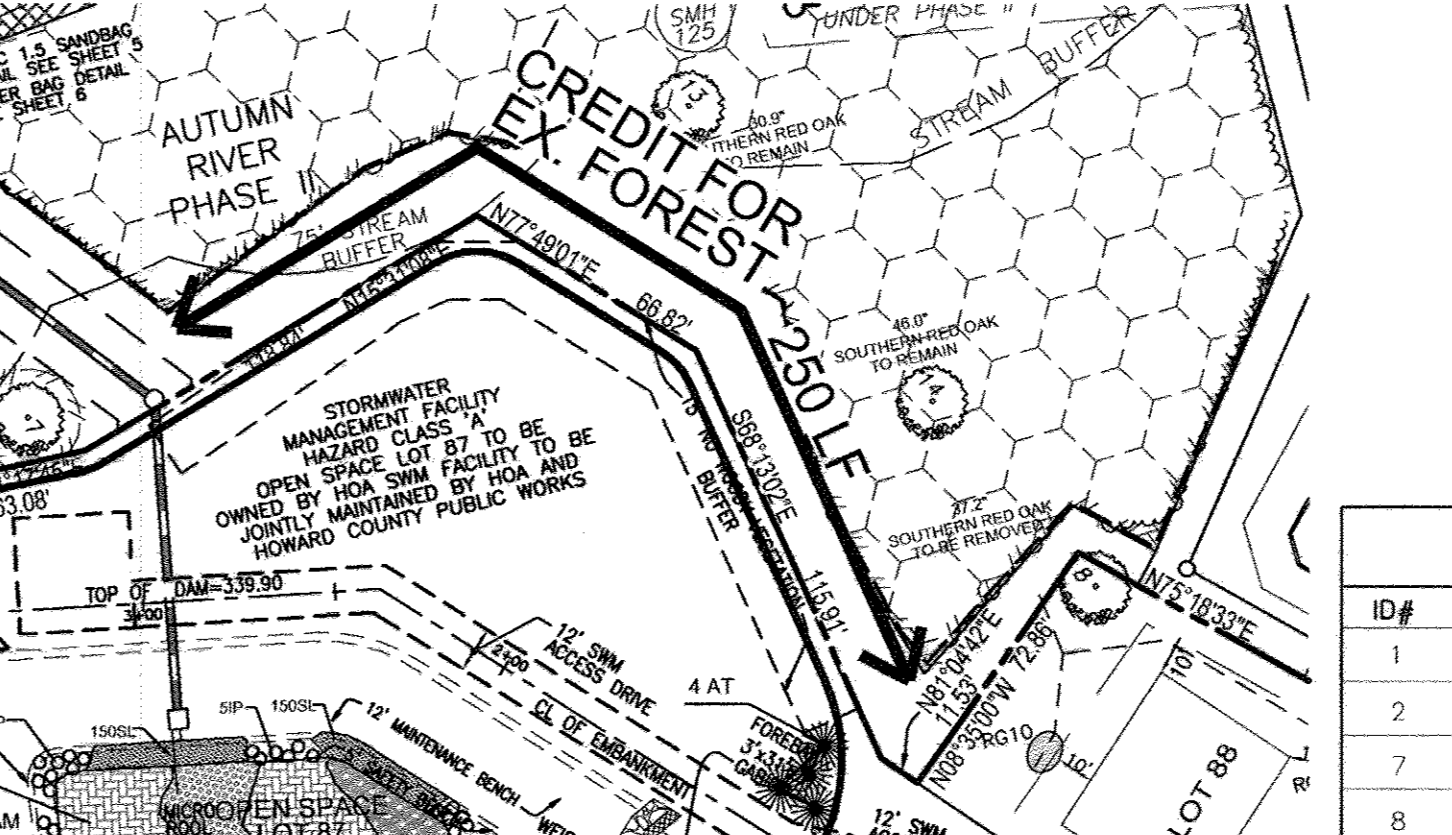
DATE: 3/24/11  
SIGNATURE OF DEVELOPER: [Signature]  
DATE: 3/24/11  
DATE: 3/24/11

**PERIMETER PLANT LIST**

KEY	QTY	BOTANICAL NAME / COMMON NAME	SIZE	REMARKS
AP	26	ACER PALMATUM ATROPURPUREUM JAPANESE RED MAPLE (SHADE TREES-GROWTH HEIGHT=20') FOR BGE WIREZONE	4'-6" HT.	B & B
AT	35	ARBORVITAE TECHNY THUJA OCCIDENTALIS, 'TECHNY' (EVERGREEN TREE) MATURE HEIGHT -20') FOR BGE WIREZONE	6'-8" HT.	B & B
AM	40	AMUR MAPLE (ACER GINNALA)	4'-6" HT.	B & B
ZS	22	ZELKOVA SERRATA 'VILLAGE GREEN' GREEN JAPANESE ZELKOVA	2 1/2"-3" Col.	B & B

**SWM PERIMETER PLANT LIST**

KEY	QTY	BOTANICAL NAME / COMMON NAME	SIZE	REMARK
AT	4	ARBORVITAE TECHNY THUJA OCCIDENTALIS, 'TECHNY' (EVERGREEN TREE) MATURE HEIGHT -20')	6'-8" HT.	B & B
AM	10	AMUR MAPLE (ACER GINNALA)	4'-6" HT.	B & B
ZS	7	ZELKOVA SERRATA 'VILLAGE GREEN' GREEN JAPANESE ZELKOVA (ADDITIONAL)	2 1/2"-3" Col.	B & B
EK	43	EUONYMUS KIAUTSCHOVICUS 'MANHATTAN' MANHATTAN EUONYMUS	2 1/2"-3" Col.	B & B



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DATE: 3/24/11  
SIGNATURE OF DEVELOPER: [Signature]  
DATE: 3/24/11  
DATE: 3/24/11

**STREET TREE CALCULATIONS**

STREET NAME	LINEAR FEET	NO. REQUIRED	NO. PROVIDED
AUTUMN RIVER DRIVE	1656/40	41	41
TALL WILLOWS ROAD	512/40	13	13
COLLEGE AVE-RD IMPROV.	407/30	14	17*

\* SINCE THE AT&T EASEMENT BORDERS THE RIGHT-OR-WAY OF COLLEGE AVENUE THE REQUIRED STREET TREES HAVE BEEN RELOCATED WITHIN OPEN SPACE LOT 71.

**PUBLIC ACCESS PLACE STREET TREE SCHEDULE**

KEY	QTY	BOTANICAL NAME	SIZE	REM.
54	ACER RUBRUM 'AUTUMN FLAME' AUTUMN FLAME RED MAPLE	2 1/2"-3" CAL.	B & B	
17	AMUR MAPLE (SHADE TREES-GROWTH HEIGHT=20') ACER GINNALA COLLEGE AVENUE	2 1/2"-3" CAL.	B & B	

**SCHEDULE A: PERIMETER LANDSCAPE EDGE**

CATEGORY	ADJACENT TO PERIMETER PROPERTIES						TOTAL
	1	2	3	4	5	6	
PERIMETER/FRONTAGE DESIGNATION							
LANDSCAPE TYPE							
LINEAR FEET ROADWAY, PERIMETER/FRONTAGE	421'	760'	562'	156'	426'	145'	
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET DESCRIBE BELOW IF NEEDED)	YES* 120'	NO	NO	YES* 30'	YES* 58'	NO	
CREDIT FOR WALL FENCE OR BERM (YES, NO, LINEAR FEET DESCRIBE BELOW IF NEEDED)	NO	NO	NO	NO	NO	NO	
NUMBER OF PLANTS REQUIRED (LF REMAINING)	301*	760*	562*	126*	368*	145*	44
SHADE TREES	1:60 5	1:60 13	1:40 14	1:60 2	1:60 6	1:40 4	35
EVERGREEN TREES			1:20 28			1:20 7	44
SHRUBS							35
NUMBER OF PLANTS PROVIDED	10**	26**	28**	4**	12**	8**	88
SHADE TREES							35
EVERGREEN TREES							35
OTHER TREES (2:1 SUBSTITUTION)							35
SHRUBS (10:1 SUBSTITUTION) (DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)							35

\* EXISTING WOODS TO REMAIN \*\* 2:1 USED FOR SMALL TREES

**EXISTING SHADE TREES**

ID#	SCIENTIFIC NAME	COMMON NAME	DBH	VIGOR	T. B. R. / REMAIN
1	FAGUS GRANDIFOLIA	AMERICAN BEECH	46.0	GOOD	TO BE REMOVED
2	QUERCUS NIGRA	BLACK OAK	47.0	EXCELLENT	TO BE REMOVED
7	FRAXINUS PENNSYLVANICA	GREEN ASH	30.6	GOOD	TO BE REMOVED
8	QUERCUS FALCATA	SOUTHERN RED OAK	37.2	FAIR	TO BE REMOVED
9	QUERCUS FALCATA	SOUTHERN RED OAK	51.3	FAIR	TO BE REMOVED
13	QUERCUS FALCATA	SOUTHERN RED OAK	30.9	GOOD	TO REMAIN
14	QUERCUS FALCATA	SOUTHERN RED OAK	32.4	GOOD	TO REMAIN
24	LIRIODENDRON TULIPIFERA	TULIP POPLAR	53.0	EXCELLENT	TO REMAIN
25	LIRIODENDRON TULIPIFERA	TULIP POPLAR	51.0	EXCELLENT	TO REMAIN
26	QUERCUS FALCATA	SOUTHERN RED OAK	46.0	EXCELLENT	TO BE REMOVED
27	LIRIODENDRON TULIPIFERA	TULIP POPLAR	36.2	EXCELLENT	TO REMAIN
28	LIRIODENDRON TULIPIFERA	TULIP POPLAR	45.5	POOR	TO REMAIN
29	FAGUS GRANDIFOLIA	AMERICAN BEECH	36.7	GOOD	TO REMAIN
30	LIRIODENDRON TULIPIFERA	TULIP POPLAR	31.1	GOOD	TO REMAIN
31	LIRIODENDRON TULIPIFERA	TULIP POPLAR	34.9	GOOD	TO REMAIN
32	LIRIODENDRON TULIPIFERA	TULIP POPLAR	31.3	POOR	TO BE REMOVED
33	LIRIODENDRON TULIPIFERA	TULIP POPLAR	30.0	GOOD	TO REMAIN
34	QUERCUS NIGRA	BLACK OAK	33.4	GOOD	TO REMAIN
35	FAGUS GRANDIFOLIA	AMERICAN BEECH	35.3	GOOD	TO REMAIN
36	FAGUS GRANDIFOLIA	AMERICAN BEECH	34.7	POOR	TO REMAIN
37	QUERCUS FALCATA	SOUTHERN RED OAK	34.8	GOOD	TO REMAIN

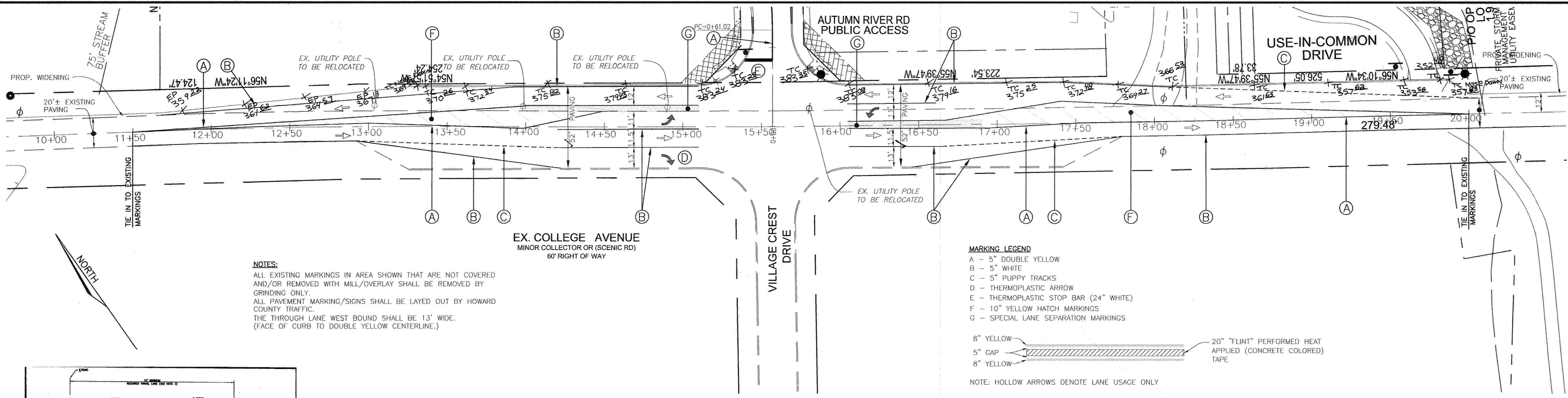
**FINAL ROAD CONSTRUCTION PLAN**  
**AUTUMN RIVER - PHASE III**  
**LANDSCAPE AND FOREST CONSERVATION DETAILS**

LOTS 72-86, 88-93, 95-102, 104-107  
OPEN SPACE LOTS 71, 87, 94, 103, 108 AND 109  
RESUBDIVISION OF COLLEGE AVENUE PUMPING STATION BULK PARCEL 'B' AND AUTUMN RIVER PHASE II NON-BUILDABLE BULK PARCELS 'D' & 'E'  
HOWARD COUNTY, MARYLAND  
S-98-16, P-99-16, F-00-131, F-01-08, P.B.325, P.B.148, PLAT#15794 & 15795,  
PLAT#14513 TO 14515, P-07-016, P-08-006, WP-09-063, F-09-021.  
TAX MAP #25 GRID 14 & 21  
2ND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

**ROBERT H. VOGEL ENGINEERING, INC.**  
ENGINEERS • SURVEYORS • PLANNERS  
8407 MAIN STREET ELLICOTT CITY, MD 21043 TEL: 410.461.7666 FAX: 410.461.8961

DESIGN BY: JCO  
DRAWN BY: KG  
CHECKED BY: RHV  
DATE: FEBRUARY 2011  
SCALE: AS SHOWN  
W.D. NO.: 04-145

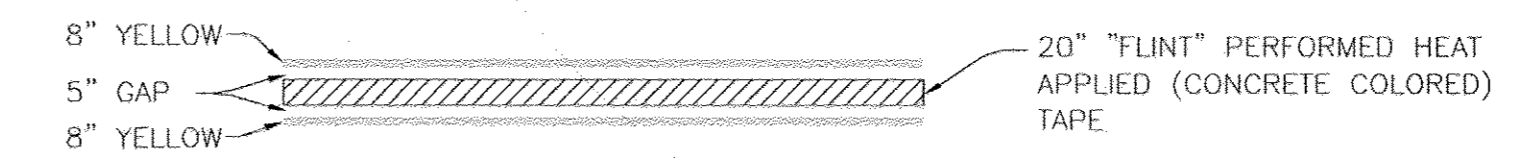
PROFESSIONAL CERTIFICATE  
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED AND APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 161



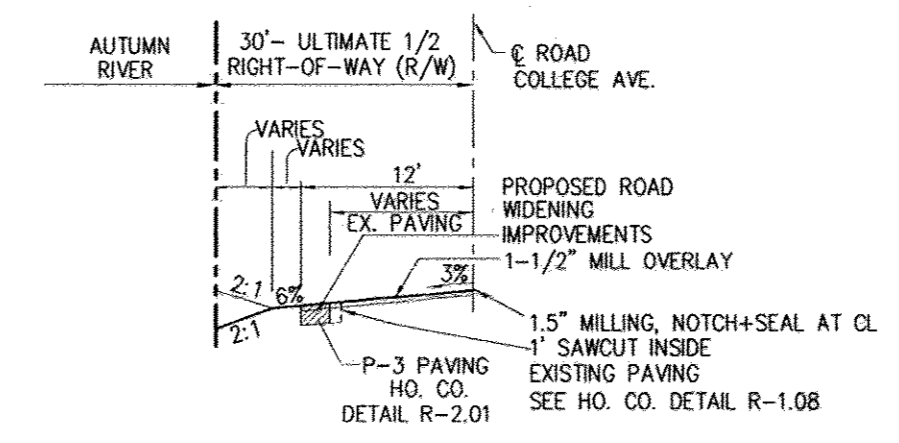
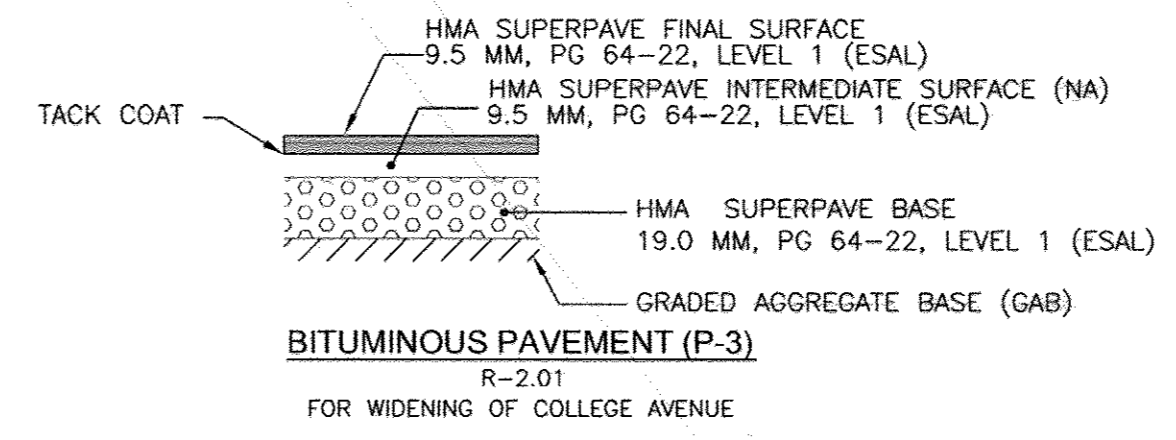
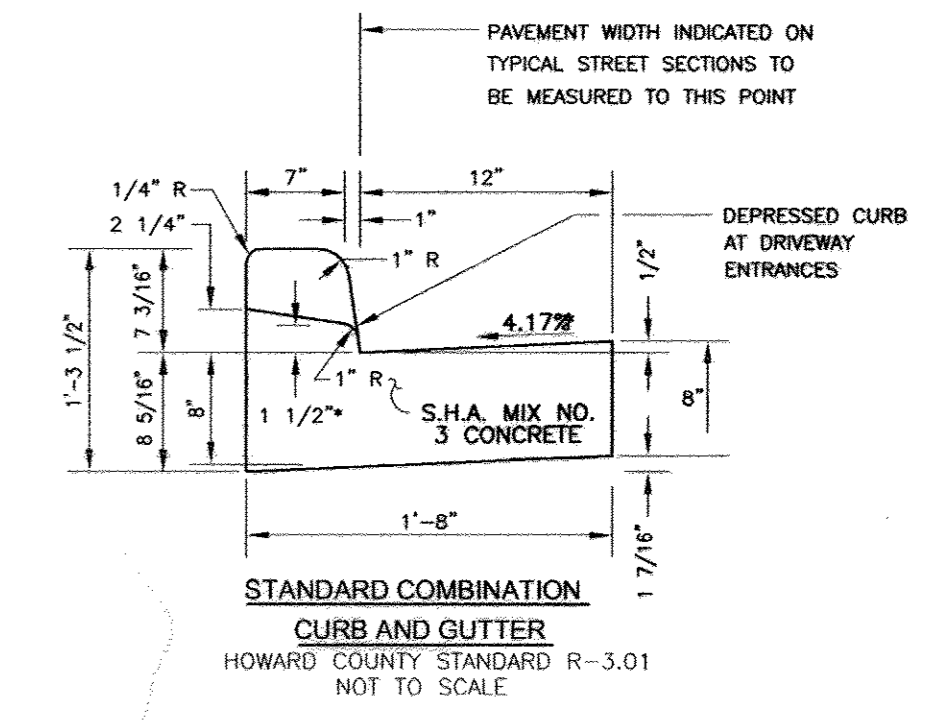
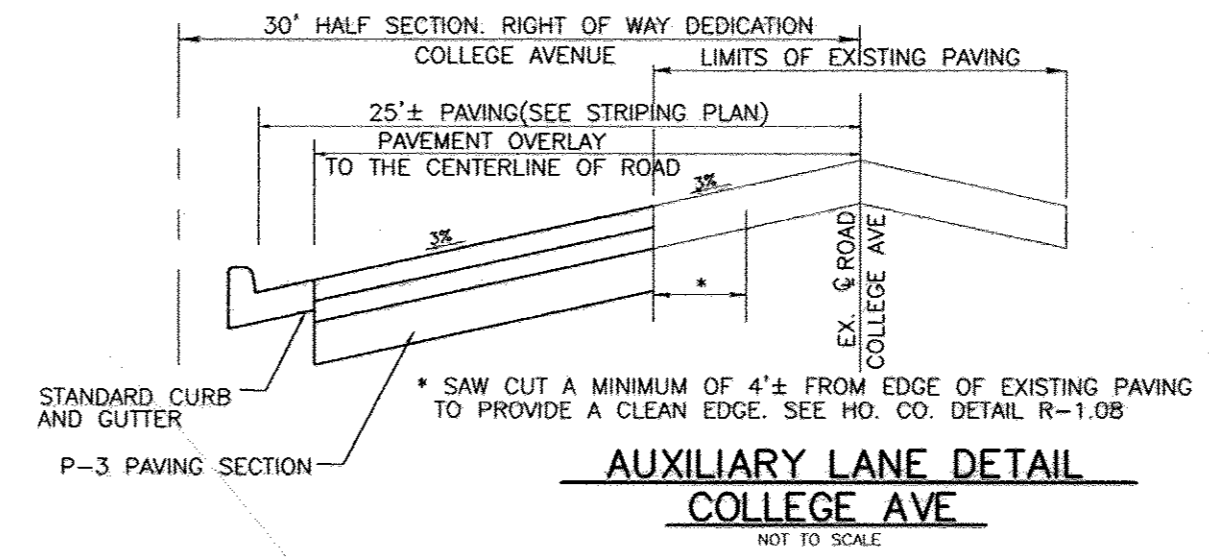
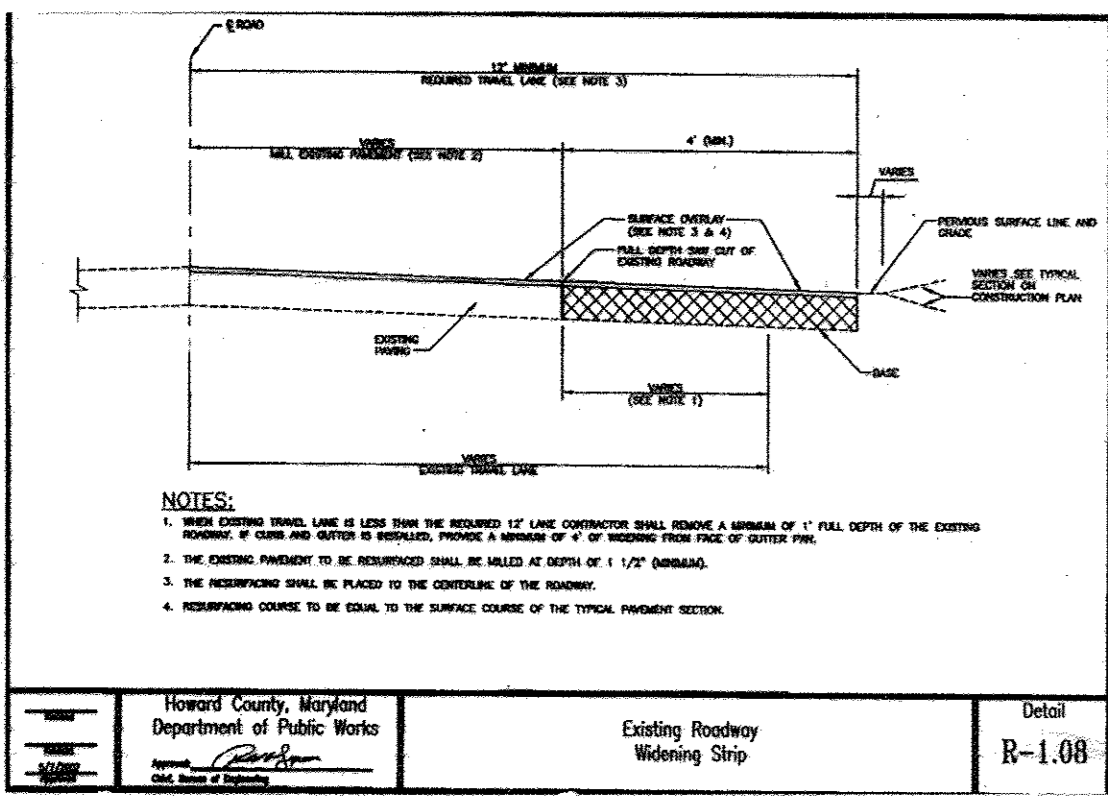
**NOTES:**  
 ALL EXISTING MARKINGS IN AREA SHOWN THAT ARE NOT COVERED AND/OR REMOVED WITH MILL/OVERLAY SHALL BE REMOVED BY GRINDING ONLY.  
 ALL PAVEMENT MARKING/SIGNS SHALL BE LAYED OUT BY HOWARD COUNTY TRAFFIC.  
 THE THROUGH LANE WEST BOUND SHALL BE 13' WIDE. (FACE OF CURB TO DOUBLE YELLOW CENTERLINE.)

**MARKING LEGEND**

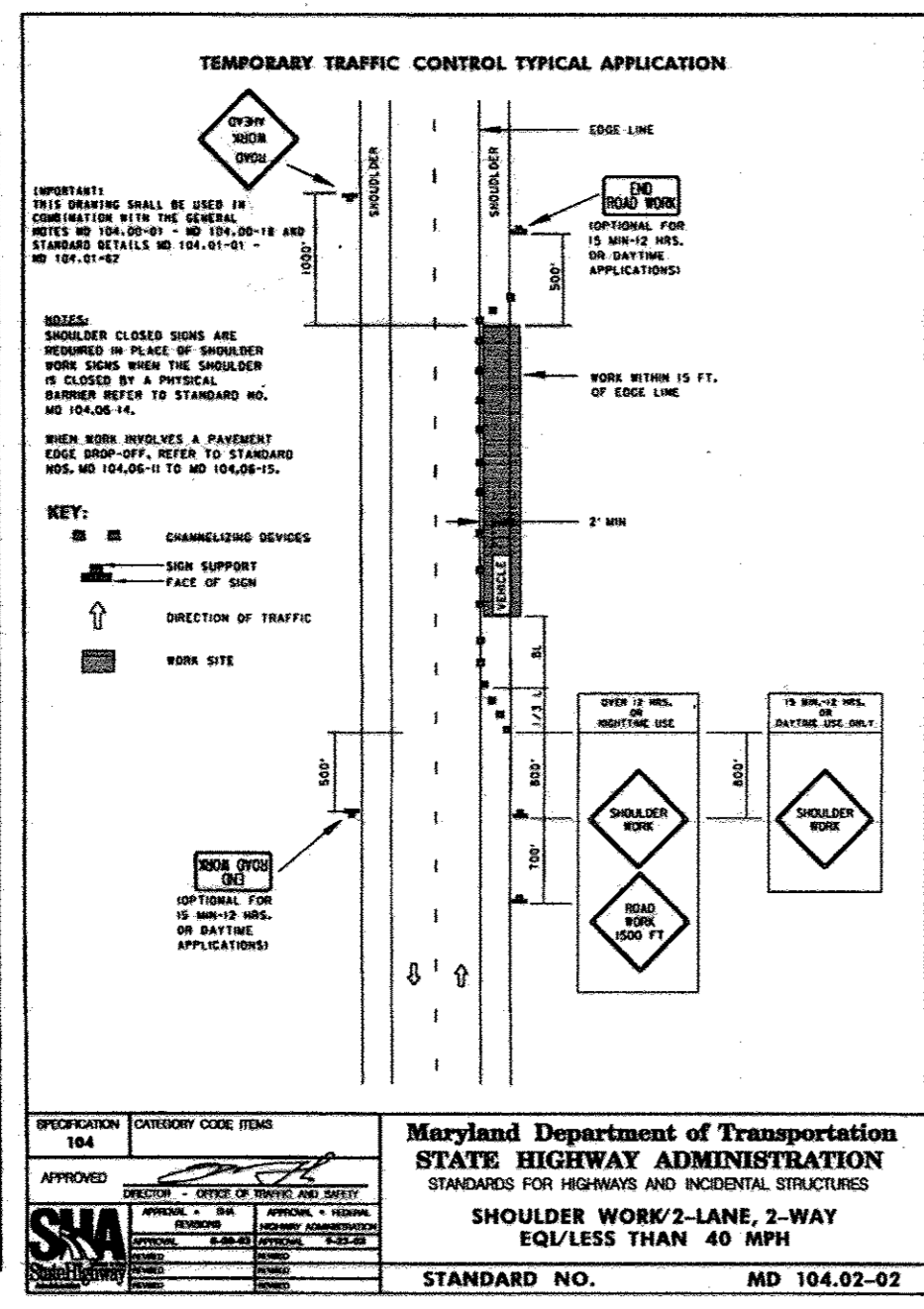
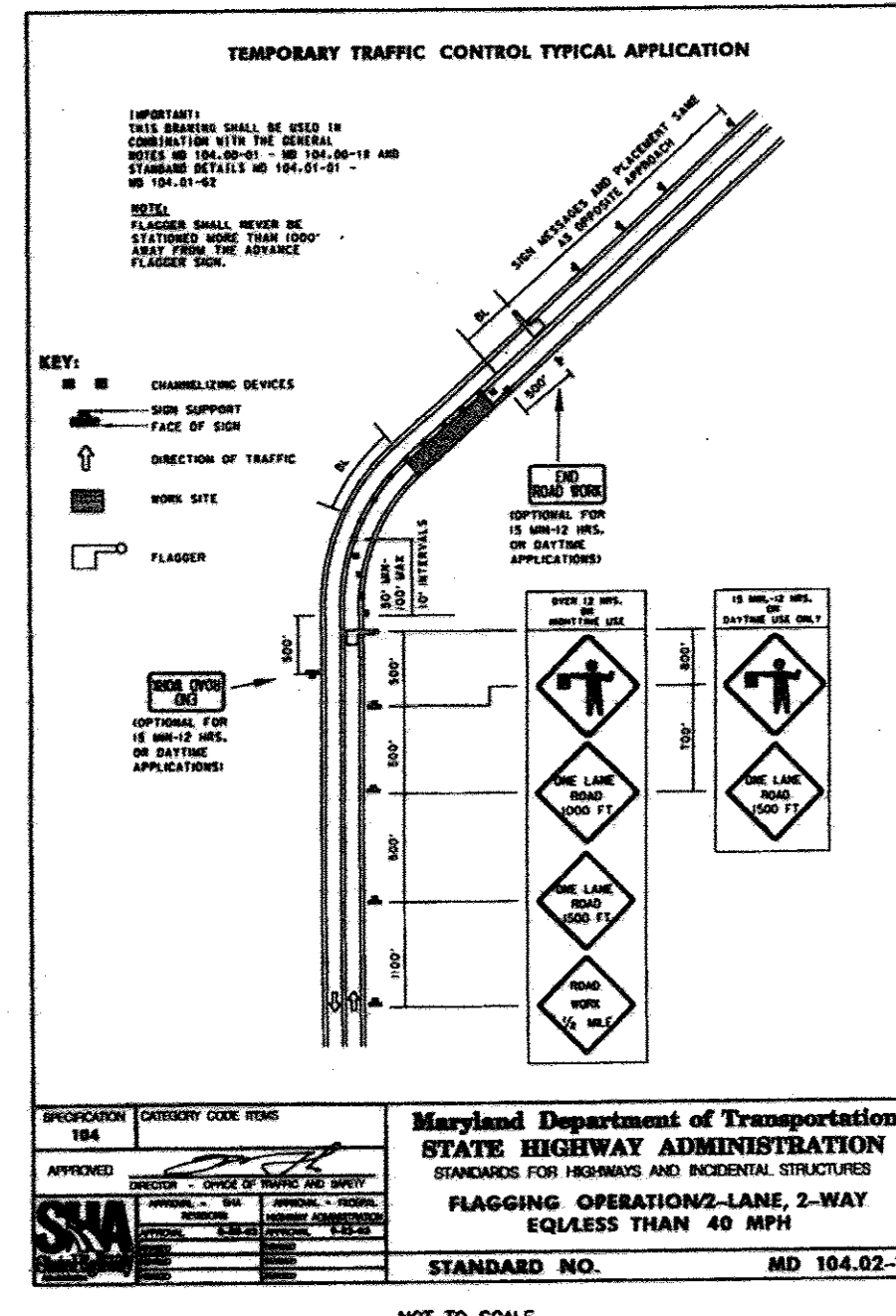
- A - 5" DOUBLE YELLOW
- B - 5" WHITE
- C - 5" PUPPY TRACKS
- D - THERMOPLASTIC ARROW
- E - THERMOPLASTIC STOP BAR (24" WHITE)
- F - 10" YELLOW HATCH MARKINGS
- G - SPECIAL LANE SEPARATION MARKINGS



NOTE: HOLLOW ARROWS DENOTE LANE USAGE ONLY



I HEREBY CERTIFY BY MY SEAL, THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS AS-BUILT PLAN AND MEET THE APPROVED PLANS AND SPECIFICATIONS.  
 SIGNATURE: *Robert H. Vogel* DATE: 6/25/18



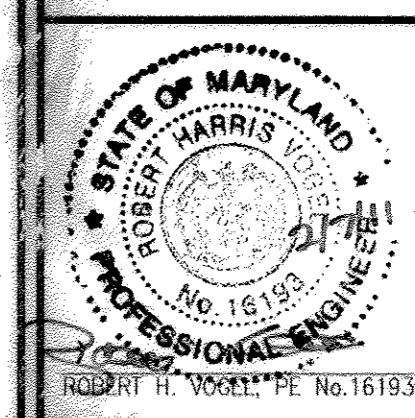
APPROVED: DEPARTMENT OF PUBLIC WORKS  
 DATE: 3-16-200  
 APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
 DATE: 3/23/11  
 DATE: 3/24/11

**"AS-BUILT" CERTIFICATION**  
 I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE AS-BUILT PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.  
 ROBERT H. VOGEL, P.E. #16193  
 DATE: 6/25/18

NO.	REVISION	DATE

**FINAL ROAD CONSTRUCTION PLAN**  
**AUTUMN RIVER - PHASE III**  
**M.O.T.-PAVEMENT MARKING PLAN & IMPROVEMENTS**  
 LOTS 72-86, 88-93, 95-102, 104-107  
 OPEN SPACE LOTS 71, 87, 94, 103, 108 AND 109  
 RESUBDIVISION OF COLLEGE AVENUE PUMPING STATION BULK PARCEL 'B'  
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 TAX MAP #25 GRID 14 & 21 PARCELS 172 & 279  
 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**ROBERT H. VOGEL**  
**ENGINEERS - SURVEYORS - PLANNERS**  
 8407 MAIN STREET TEL: 410.461.7666  
 ELLICOTT CITY, MD 21043 FAX: 410.461.8951



**PROFESSIONAL CERTIFICATE**  
 DESIGN BY: JCO  
 DRAWN BY: KG  
 CHECKED BY: RHV  
 DATE: FEBRUARY 2011  
 SCALE: 1" = 30'  
 W.O. NO.: 04-145  
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 13 SHEET OF 13