

SHEET INDEX		DATE	NO.	REVISION
1	TITLE SHEET	3-23-11	1	ADD RECORDING REFERENCE NOTE FOR USE-IN-COMMON MAINTENANCE AGREEMENTS LOTS 6 & 7 AND LOTS 14 & 15.
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3	SITE DEVELOPMENT PLAN			
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24	FOREST CONSERVATION PLAN			
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29	OFFSITE FOREST CONSERVATION PLAN			
30	REVISED HOUSE TYPES, LOT LINES, GRADING, AND EASEMENTS			
31	REVISED HOUSE TYPES, LOT LINES, GRADING, AND EASEMENTS			

DATE: 3-23-11
 NO.: 1
 REVISION: ADD RECORDING REFERENCE NOTE FOR USE-IN-COMMON MAINTENANCE AGREEMENTS LOTS 6 & 7 AND LOTS 14 & 15.



AS-BUILT CERTIFICATION

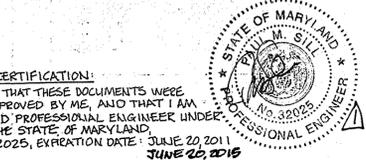
THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET.

Michael D. Adams, Professional Land Surveyor
 MD REG. NO. 21297, EXPIRATION DATE 06-16-15
 DATE: 3/10/14

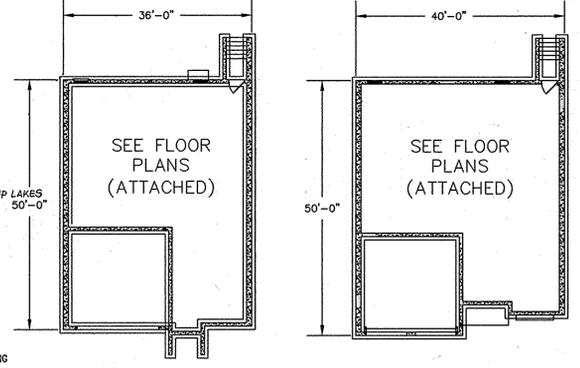
- GENERAL NOTES**
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY AND MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
 - THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
 - THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
 - TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
 - ALL PLAN DIMENSIONS ARE TO FACE OF CURB AND FACE OF BUILDING UNLESS OTHERWISE NOTED.
 - TOPOGRAPHIC SURVEY IS BY FIELD SURVEY, PREPARED BY W.T. BALLARD, DATED 2/22/05.
 - THE BOUNDARY SURVEY FOR THIS PROJECT HAS BEEN PREPARED BY AB CONSULTANTS, DATED 2/22/05.
 - THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NUMBERS "24AA" AND "LEATHER" WERE USED FOR THIS PROJECT.
 - WATER IS PUBLIC. CONTRACT NO. 2738-W, 2738-S & CONTRACT NO. 24-4223-D.
 - SEWER IS PUBLIC. CONTRACT NO. 2738-S, 2738-S & CONTRACT NO. 24-4223-D.
 - STORMWATER MANAGEMENT QUANTITY AND WATER QUALITY TREATMENT PROPOSED FOR THIS SITE WILL BE ACHIEVED VIA STORMTECH CHAMBERS AND WILL BE PRIVATELY MAINTAINED.
 - APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE. EXISTING UTILITIES ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION.
 - A 100-YEAR FLOODPLAIN STUDY IS NOT REQUIRED FOR THIS PROJECT.
 - A WETLAND REPORT HAS BEEN PREPARED BY AB CONSULTANTS, DATED 3/7/05.
 - A TRAFFIC IMPACT ANALYSIS HAS BEEN PREPARED BY THE TRAFFIC GROUP, INC., DATED MARCH 2005.
 - A NOISE STUDY HAS BEEN PREPARED BY STANO ENGINEERING, INC., DATED MARCH 2005.
 - A GEOTECHNICAL STUDY HAS BEEN PREPARED BY AB CONSULTANTS, INC., DATED MARCH 2005.
 - SUBJECT PROPERTY ZONED R-20 PER FEBRUARY 2, 2004 COMPREHENSIVE ZONING PLAN.
 - SEE DEPARTMENT OF PLANNING AND ZONING FILE NO. BA-04-049C FOR CONDITIONAL USE DECISION AND ORDER DATED MARCH 4, 2005.
 - THE CONTRACTOR SHALL TEST EXISTING UTILITIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
 - CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
 - PIPE SHALL NOT BE INSTALLED BY THE CONTRACTOR UNTIL THE LENGTH CALLED FOR AT EACH STATION HAS BEEN APPROVED BY THE ENGINEER IN THE FIELD.
 - NO PIPE SHALL BE LAID UNLESS LINES OF EXCAVATION HAVE BEEN BROUGHT WITHIN 6" OF FINISHED GRADE.
 - ALL STORM DRAIN PIPE BEDDING SHALL BE CLASS 'C' AS SHOWN IN FIG. 11.4, VOLUME 1 OF HOWARD COUNTY DESIGN MANUAL UNLESS OTHERWISE NOTED.
 - ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
 - ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
 - PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN.
 - ALL FILL AREAS WITHIN ROADWAY AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM OF 95% COMPACTION OF AASHTO T80.
 - THE PAVEMENT DETAILS SHOWN FOR THIS SITE REFLECT HOWARD COUNTY STANDARD PAVEMENT SECTIONS AND ARE NOT BASED ON SITE SPECIFIC CONDITIONS. PRIOR TO PAVING, THE FINAL PAVEMENT SECTIONS SHALL BE DETERMINED BY A QUALIFIED GEOTECHNICAL ENGINEER BASED ON IN-SITU TESTING OF THE FINISHED SUBGRADE.
 - THE ON-SITE REFORESTATION CONSERVATION SURETY IS \$50,004.00 (2.30 AC x \$20,500/SF). OFF-SITE MITIGATION WILL BE CONDUCTED FOR THE REMAINING FOREST CONSERVATION OBLIGATION OF 3.66 ACRES.
 - OFFSITE FOREST CONSERVATION EASEMENTS ARE LOCATED ON WATERFORD FARM PROPERTY, PARCELS 3 & 4, FRIENDSHIP LAKES TRACT NO. 20. OFFSITE FOREST CONSERVATION SURETY IS \$192,920.00 (3.66 AC x \$52,500/SF). ON-SITE RETENTION IS 2.11 AC. OFFSITE RETENTION BOND AMOUNT IS \$18,382,322.11 AC x \$8,500/SF. TOTAL FOREST CONSERVATION SURETY AMOUNT IS \$105,066.72.
 - ALL OUTDOOR LIGHTING SHALL COMPLY WITH THE REQUIREMENTS OF ZONING SECTION 134.
 - LANDSCAPING IN ACCORDANCE WITH SECTION 16.124 OF THE LANDSCAPE MANUAL SHALL BE PROVIDED AS SHOWN ON THIS SITE PLAN. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING MUST BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$56,700 FOR REQUIRED PLANTS ONLY.
 - 127 SHADE TREES @ \$30 = \$3,810
 103 EVERGREEN TREES @ \$150 = \$15,450
 21 ORNAMENTAL TREES @ \$150 = \$3,150
 WATER METERS WILL BE LOCATED OUTSIDE OF DWELLINGS.
 - IN ACCORDANCE WITH SECTION 131.1.1.1 OF THE HOWARD COUNTY ZONING REGULATIONS, 7 MODERATE INCOME HOUSING UNITS ARE REQUIRED WITH THE SITE DEVELOPMENT PLAN.
 - THE AGE-RESTRICTED COVENANTS FOR THIS SITE DEVELOPMENT PLAN HAVE BEEN RECORDED IN THE LAND RECORDS OFFICE OF HOWARD COUNTY, MARYLAND DATED 8/21/11, 2006 (RECORDING REFERENCE NO. L186A10211, F815).
 - ARTICLES OF INCORPORATION FOR A HOMEOWNER'S ASSOCIATION (HOA) HAS BEEN RECORDED IN THE LAND RECORDS OFFICE OF HOWARD COUNTY, MARYLAND DATED 8/12/11, 2006 (RECORDING REFERENCE NO. 21152023, Filing No. 1000361992547284).

GENERAL NOTES CONTINUED

- NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE WETLANDS, STREAM OR THEIR BUFFERS AND FOREST CONSERVATION AREAS.
- THIS PROJECT WILL NOT BE PHASED FOR ALLOCATIONS.
- WP-05-130 WAS SUBMITTED ON 6/17/2005 REQUESTING WAIVER OF SUBDIVISION REGULATIONS SECTION 16.116.1 AND 21 AND 2 WHICH PETITIONED FOR A 375' ELEVATED BOARDWALK THAT WOULD CONFLICT WITH THE REGULATIONS THAT PROHIBIT THE GRADING, REMOVAL OF VEGETATIVE COVER AND TREES, PAVING AND NEW STRUCTURE WITHIN 25 FEET OF A WETLAND AND WITHIN 50 FEET OF AN INTERMITTENT STREAM AND 75 FEET OF A PERENNIAL STREAM. THE WAIVER REQUEST WAS APPROVED BY LETTER 7/20/2005 WITH CONDITIONS AS FOLLOWS:
 - THIS WAIVER APPROVAL IS FOR THE PATHWAY DESIGN DISCUSSED AT THE JULY 11, 2005 MEETING HELD WITH THE DPZ STAFF AND DEVELOPER. THE DESIGN INVOLVES THE DELETION OF THE BOARDWALK PORTION OF THE PATHWAY. THE PATHWAY SHALL WRAP AROUND UNIT 03 AND INTERACT WITH THE PRIVATE DRIVE LOCATED IN FRONT OF THAT UNIT. SIMILARLY, THE PATHWAY SHALL TURN IN THE VICINITY OF UNDERGROUND SWIM #1 TO CONNECT WITH PRIVATE DRIVE NEAR UNIT 30.
 - APPROVAL FOR DISTURBANCE INTO THE WETLAND BUFFER (NEEDED FOR THE CONSTRUCTION OF THE PATHWAY, THE PRIVATE ROAD NEAR UNIT 39 AND/OR UNDERGROUND SWIM #2) WILL REQUIRE APPROVAL FROM MDE PRIOR TO SIGNATURE APPROVAL OF THE GRADING OR BUILDING PERMITS. WRITTEN DOCUMENTATION FROM MDE MUST BE PROVIDED WITH THE PERMIT APPLICATION. THE TRACKING NUMBER FOR THESE STATE PERMITS MUST BE REFERENCED ON THE SDP.
- ALL KNOWN PREVIOUS DPZ FILE NUMBERS ARE: F-06-002; WP-05-130; WP-05-140 BA-04-049C.
- MODERATE INCOME HOUSING UNIT AGREEMENT AND MODERATE INCOME HOUSING UNIT COVENANTS FOR THIS SITE DEVELOPMENT PLAN HAVE BEEN RECORDED IN THE LAND RECORDS OFFICE OF HOWARD COUNTY, MARYLAND DATED 3/13/11, 2006 (RECORDING REFERENCE NO. L186A10210, F0210 FOLIO 021).
- ALL TRASH COLLECTION SERVICES WILL BE PRIVATE.
- THE SITE DEVELOPMENT PLAN IS SUBJECT TO BOARD OF APPEALS CASE NO. 09-0082 WHICH WAS APPROVED APRIL 27, 2009 AND ALLOWED FOR THE REMOVAL OF THE COMMUNITY POOL AND REDUCTION OF THE SIZE OF THE COMMUNITY CENTER.
- REFER TO "ENCLAVE AT ELLICOTT STATION" SUBDIVISION PLATS 20823-20824, RECORDED AT THE LAND RECORDS OF HOWARD COUNTY, OCTOBER 27, 2009.
- THE USE-IN-COMMON MAINTENANCE AGREEMENTS FOR LOTS 6 & 7 AND LOTS 14 & 15 HAVE BEEN RECORDED IN THE LAND RECORDS OF HOWARD COUNTY, MARYLAND IN LIBER 13184, FOLIO 365 AND LIBER 13184, FOLIO 275, RESPECTIVELY.

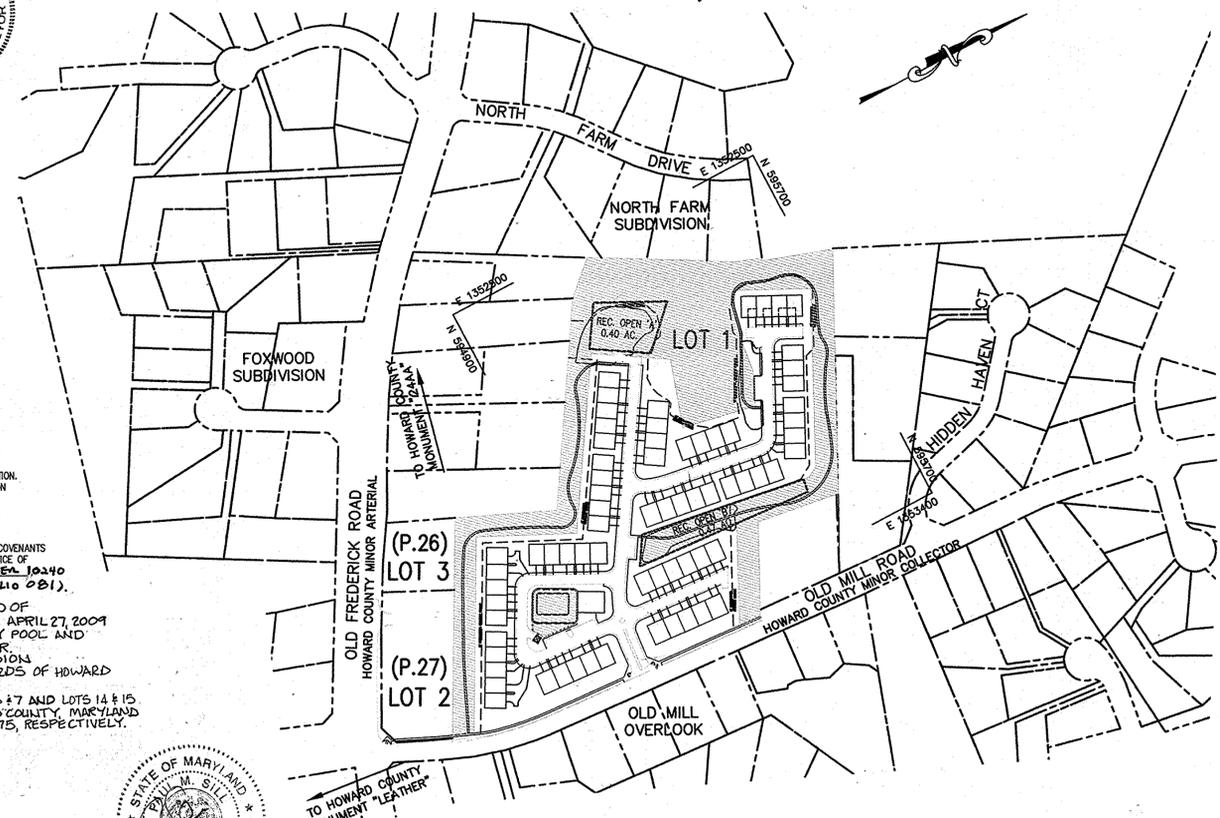


PROFESSIONAL CERTIFICATION:
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
 LICENSE NO. 32025, EXPIRATION DATE: JUNE 20, 2015
 JUNE 20, 2015



UNIT G FIRST FLOOR PLAN NOT TO SCALE
 UNIT H FIRST FLOOR PLAN NOT TO SCALE

SITE DEVELOPMENT PLAN ENCLAVE AT ELLICOTT STATION AGE-RESTRICTED ADULT HOUSING COMMUNITY LOT 1 OF THE HARBIN PROPERTY MINOR SUBDIVISION 2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND



ADDRESS CHART

Lot	Address
1	2503 Painted Sunset Drive
2	2505 Painted Sunset Drive
3	2507 Painted Sunset Drive
4	2509 Painted Sunset Drive
5	2511 Painted Sunset Drive
6	2513 Painted Sunset Drive
7	2515 Painted Sunset Drive
8	2517 Painted Sunset Drive
9	2519 Painted Sunset Drive
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11	2523 Painted Sunset Drive
12	2525 Painted Sunset Drive
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96	2693 Painted Sunset Drive
97	2695 Painted Sunset Drive
98	2697 Painted Sunset Drive
99	2699 Painted Sunset Drive
100	2701 Painted Sunset Drive

SITE ANALYSIS DATA CHART (LOT 1)

TOTAL PROJECT AREA:	(668,691 SF) 15.35 AC.
AREA OF PLAN SUBMISSION:	(668,691 SF) 15.35 AC.
LIMIT OF DISTURBED AREA:	(575,607 SF) 13.21 AC.
PRESENT ZONING DESIGNATION:	R-20
PROPOSED USES FOR SITE AND STRUCTURES:	AGE-RESTRICTED ADULT HOUSING
FLOOR SPACE ON EACH LEVEL OF BUILDING:	
UNIT G - TOTAL	5,300 SF
BASEMENT	1,800 SF
FIRST FLOOR	1,800 SF
SECOND FLOOR	1,700 SF
UNIT H - TOTAL	5,850 SF
BASEMENT	2,000 SF
FIRST FLOOR	2,000 SF
SECOND FLOOR	1,850 SF
COMMUNITY BUILDING	3,200 SF
TOTAL NUMBER OF UNITS ALLOWED:	(5.0/AC) 76 UNITS
TOTAL NUMBER OF UNITS PROPOSED:	(4.2/AC) 69 UNITS
MAXIMUM NUMBER OF TENANTS ON SITE:	NONE*
PARKING SPACES REQUIRED:	161 SPACES
2 SP/DU x 69 DU:	138 SPACES
1 SP x 69 DU/3 (VISITOR):	23 SPACES
H/C SPACE PER 20 VISITOR SPACES:	(2 SPACES INCL. IN VISITOR TOTAL)
PARKING SPACES PROVIDED:	289 SPACES
2 GARAGE SP/DU x 69 DU:	138 SPACES
2 DRIVEWAY SP/DU x 69 DU:	138 SPACES
VISITOR SP @ 1 SP/3 DU:	23 SPACES
H/C SPACE PER 20 VISITOR SPACES:	(2 SPACES INCL. IN VISITOR TOTAL)
OPEN SPACE REQUIRED:	(35%) 5.37 AC.
OPEN SPACE PROVIDED:	(39%) 6.00 AC.
REC. OPEN SPACE REQUIRED (400 SF/UNIT):	0.63 AC.
REC. OPEN SPACE PROVIDED - TOTAL:	-
WALKING TRAIL	0.15 AC.
COMMUNITY BUILDING (PARCEL 'A')	0.37 AC.
REC OPEN 'A'	0.42 AC.
REC OPEN 'B'	0.24 AC.
REC OPEN 'C'	-
BUILDING COVERAGE:	(19.1%) 2.93 AC.
SINGLE FAMILY ATTACHED UNITS (69)	2.88 AC.
COMMUNITY CENTER	0.046 AC.
DPZ FILE REFERENCES:	BA-04-049C

AS-BUILT

10-14-13 3 REVISE FOREST NOTE # 30

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Michael D. Adams 10/14/13
 DIRECTOR DATE

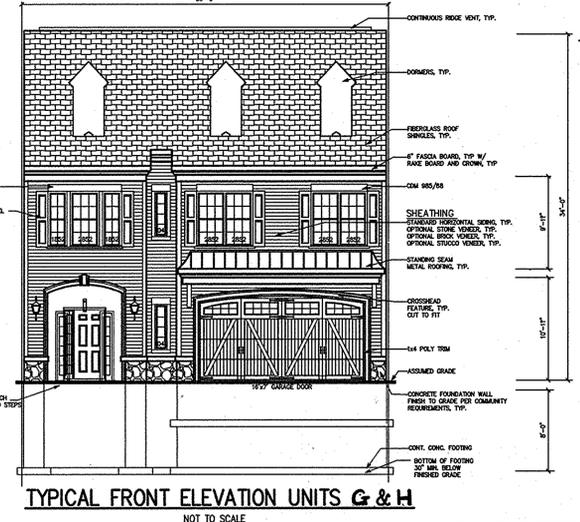
David T. Dows 10/14/13
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

David T. Dows 10/14/13
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

10/14/09 1 REVISE HOUSE TYPES
 AND REVISE REC. OPEN SPACE AREAS

DATE NO. REVISION

OWNER/DEVELOPER:
 Athlone LLC
 9017 Red Branch Road, Suite 201
 Columbia, Maryland 21045
 Attn: Greig Altieri
 410.715.4500



TYPICAL FRONT ELEVATION UNITS G & H NOT TO SCALE

UNIVERSAL DESIGN GUIDELINES

REQUIRED

- FOR MULTI-FAMILY APARTMENT OR CONDO DEVELOPMENTS, AN ACCESSIBLE PATH BETWEEN PARKING, DWELLING UNITS, AND COMMON AREAS THAT MEETS ADA STANDARDS.
- FOR SINGLE FAMILY DETACHED AND ATTACHED DEVELOPMENTS, A "NO-STEP" ACCESS TO THE FRONT ENTRANCE TO THE COMMUNITY BUILDING AND ALL DWELLINGS (A NO-STEP ENTRANCE IS DESIRABLE, BUT NOT REQUIRED AT OTHER ENTRANCES).
- 36" WIDE FRONT DOOR WITH EXTERIOR LIGHTING OF THE ENTRANCE.
- ALL INTERIOR DOORWAYS AT LEAST 32" WIDE (36" IS PREFERABLE)
- HALLWAYS AT LEAST 36" WIDE (40-42" IS PREFERABLE)
- COMPLETE LIVING AREA INCLUDING MASTER BEDROOM AND BATH ON FIRST FLOOR (OR ELEVATOR ACCESS IF MULTI-STORY RENTAL/CONDO APARTMENTS).
- LEVER HANDLES ON INTERIOR AND EXTERIOR DOORS.
- BLOCKING FOR GRAB BARS IN WALLS.
- IN BATHROOM WALLS NEAR TOILET AND SHOWER.

PERMIT INFORMATION CHART

SUBDIVISION NAME:	SECT./AREA:	PARCEL:
ENCLAVE AT ELLICOTT STATION	N/A	26 & 27
PLAT #:	BLOCK #:	ZONE:
20823-20824	8, 14	R-20
TAX MAP NO.:	ELECT. DIST.:	CENSUS TRACT:
17	2 ND	6021
WATER CODE:	SEWER CODE:	
H-03	5758200	

AB CONSULTANTS, INC.
 9450 ANNAPOLIS ROAD
 LANHAM, MARYLAND 20706
 PHONE: (301) 306-3091
 FAX: (301) 306-3092

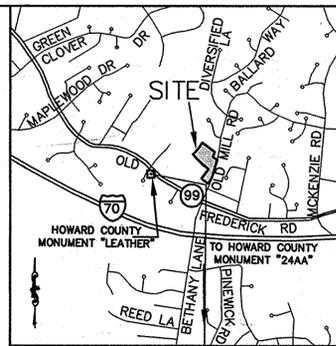
CONTACT: DAVID T. DOWS PHONE: 301-306-3091 x25

PROJECT: ENCLAVE AT ELLICOTT STATION
 AGE-RESTRICTED ADULT HOUSING COMMUNITY
 LOT 1 OF THE HARBIN PROPERTY MINOR SUBDIVISION
 TITLE SHEET

2nd ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
 TAX MAP 17, GRIDS 8 & 14, PARCELS 26 & 27, DEED REF: 4008/458 & 782/706

PROJECT NO. 04-038
 SCALE: 1"=200'
 DATE: 08/04/06
 DRAWN BY: CAD
 CHECKED BY: DTD

SHEET: 1 OF 21



VICINITY MAP
 SCALE 1"=200'

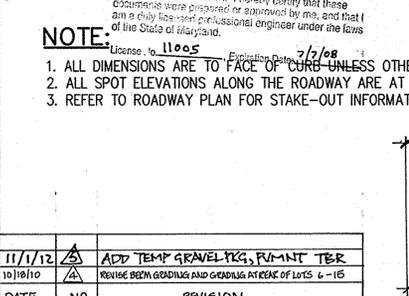
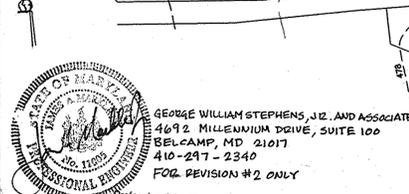
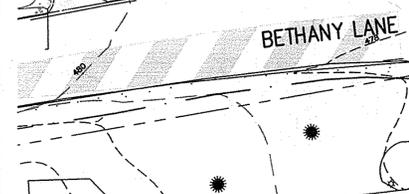
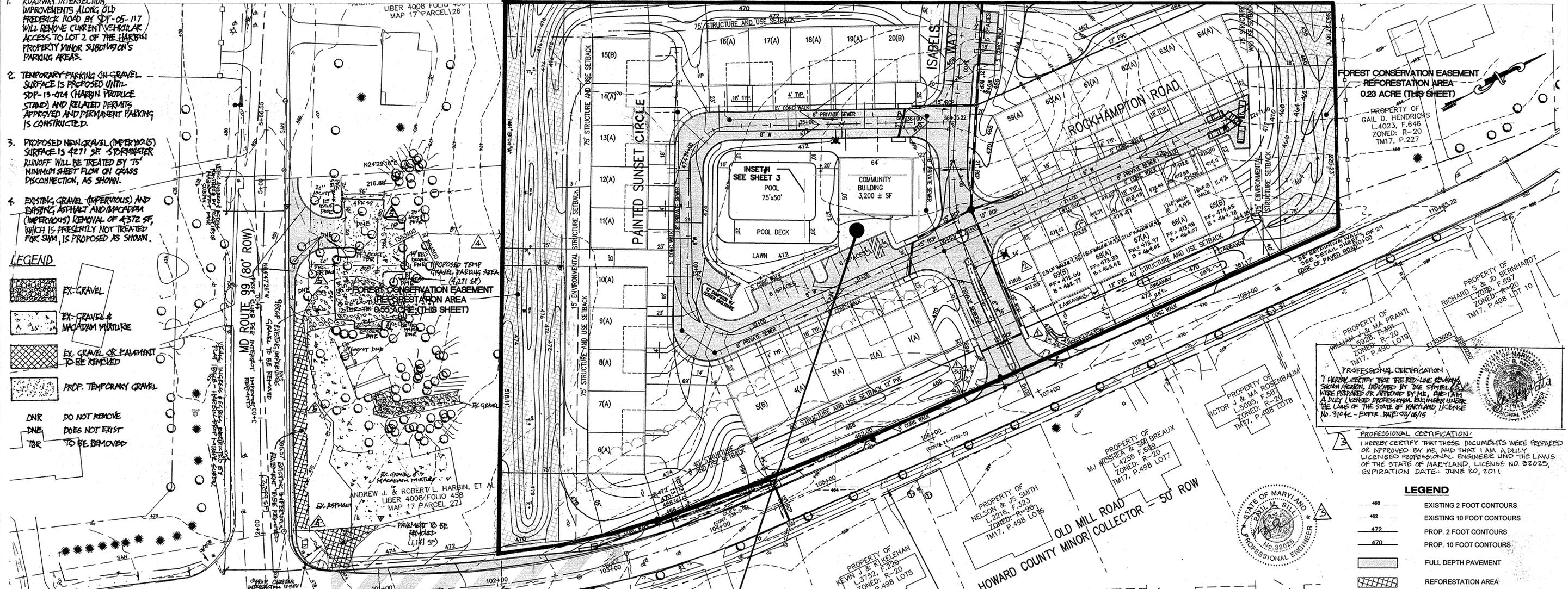
NOTES:

1. ROADWAY INTERSECTION IMPROVEMENTS ALONG OLD FREDERICK ROAD BY SDP-05-117 WILL REMOVE CURRENT VEHICULAR ACCESS TO LOT 2 OF THE HARBIN PROPERTY MINOR SUBDIVISION'S PARKING AREAS.
2. TEMPORARY PARKING ON GRAVEL SURFACE IS PROPOSED UNTIL SDP-13-07A (HARBIN PRODUCE STAND) AND RELATED PERMITS APPROVED AND PERMANENT PARKING IS CONSTRUCTED.
3. PROPOSED NEW GRAVEL (IMPERVIOUS) SURFACE IS 4271 SF. STORMWATER RUNOFF WILL BE TREATED BY 75' MINIMUM SHEET PLOW ON GRASS DISCONNECTION, AS SHOWN.
4. EXISTING GRAVEL (IMPERVIOUS) AND EXISTING ASPHALT AND MACADAM (IMPERVIOUS) REMOVAL OF 4372 SF, WHICH IS PRESENTLY NOT TREATED FOR SWM, IS PROPOSED AS SHOWN.

LEGEND

- EX-GRAVEL
- EX-GRAVEL & MACADAM MIXTURE
- EX-GRAVEL OR PAVEMENT TO BE REMOVED
- PROP. TEMPORARY GRAVEL
- DNR DO NOT REMOVE
- DNE DOES NOT EXIST
- TBR TO BE REMOVED

MATCH LINE - SEE SHEET 3



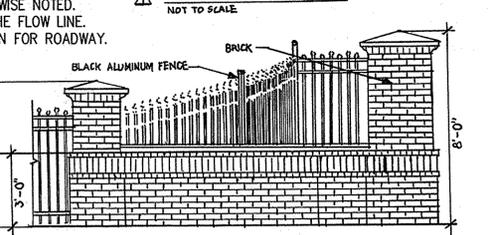
REVISIONS ON SHEET 30 FOR HOUSE TYPES LOT LINES, GRADING & EASEMENTS

AS-BUILT CERTIFICATION

I HEREBY CERTIFY, BY MY SEAL, THAT THE CONDITIONS SHOWN ON THIS PLAN WERE CONSTRUCTED TO THE LINES AND GRADES SHOWN ON THIS "AS-BUILT" PLAN AND MEET THE MANUALLY PLANNED AND SPECIFICATIONS AND ALSO THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND.

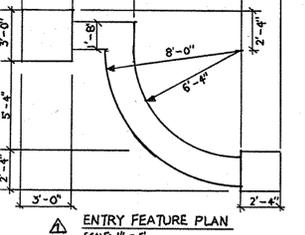
Michael D. Adcock
MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR
NO. REG. NO. 21871, EXPIRATION DATE: 06-16-15

3/10/14 DATE



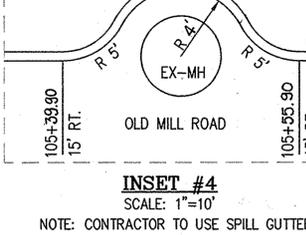
AS-BUILT

NOTE: CONTRACTOR TO USE SPILL GUTTER



AS-BUILT

NOTE: CONTRACTOR TO USE SPILL GUTTER



FOREST CONSERVATION EASEMENT REFORESTATION AREA 0.23 ACRE (THIS SHEET)

PROPERTY OF GAIL D. HENDRICKS L.4023, F.646 ZONED: R-20 TM17, P.227

PROPERTY OF RICHARD S. & JOY BERNHART ZONED: R-20 TM17, P.498 LOT 10

PROPERTY OF WILLIAM J. & MA PRANTI ZONED: R-20 TM17, P.498 LOT 9

PROPERTY OF VICTOR & MA ROSENBAUM ZONED: R-20 TM17, P.498 LOT 8

PROPERTY OF M.J. WISHEA & SM BREAU L.4256, F.604 ZONED: R-20 TM17, P.498 LOT 7

PROPERTY OF NELSON & JS SMITH L.2216, F.323 ZONED: R-20 TM17, P.498 LOT 6

PROPERTY OF KEVIN J. & KLEHMAN L.3752, F.226 ZONED: R-20 TM17, P.498 LOT 5

PROPERTY OF YOUNG H. & YS LEE L.3645, F.704 ZONED: R-20 TM17, P.498 LOT 4

PROPERTY OF LAURENCE W. & CA HOWENSTEIN L.8222, F.552 ZONED: R-20 TM17, P.498 LOT 3

PROPERTY OF CARTER DORIS L. TRUSTEE L.3716, F.209 ZONED: R-20 TM17, P.33

PROPERTY OF ANDREW J. & ROBERT L. HARBIN, ET AL LIBER 4008/FOLIO 458 MAP 17 PARCEL 27

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL 26

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL 25

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL 24

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL 23

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL 22

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL 21

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL 20

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL 19

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL 18

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL 17

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL 16

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL 15

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL 14

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL 13

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL 12

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL 11

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL 10

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL 9

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL 8

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL 7

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL 6

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL 5

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL 4

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL 3

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL 2

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL 1

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL 0

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -1

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -2

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -3

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -4

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -5

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -6

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -7

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -8

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -9

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -10

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -11

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -12

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -13

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -14

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -15

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -16

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -17

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -18

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -19

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -20

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -21

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -22

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -23

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -24

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -25

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -26

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -27

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -28

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -29

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -30

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -31

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -32

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -33

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -34

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -35

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -36

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -37

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -38

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -39

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -40

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -41

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -42

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -43

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -44

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -45

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -46

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -47

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -48

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -49

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -50

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -51

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -52

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -53

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -54

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -55

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -56

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -57

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -58

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -59

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -60

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -61

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -62

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -63

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -64

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -65

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -66

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -67

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -68

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -69

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -70

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -71

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -72

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -73

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -74

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -75

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -76

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -77

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -78

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -79

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -80

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -81

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -82

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -83

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -84

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -85

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -86

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -87

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -88

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -89

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -90

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -91

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -92

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -93

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -94

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -95

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -96

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -97

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -98

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -99

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -100

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -101

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -102

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -103

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -104

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -105

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -106

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -107

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -108

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -109

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -110

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -111

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -112

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -113

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -114

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -115

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -116

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -117

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -118

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -119

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -120

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -121

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -122

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -123

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -124

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -125

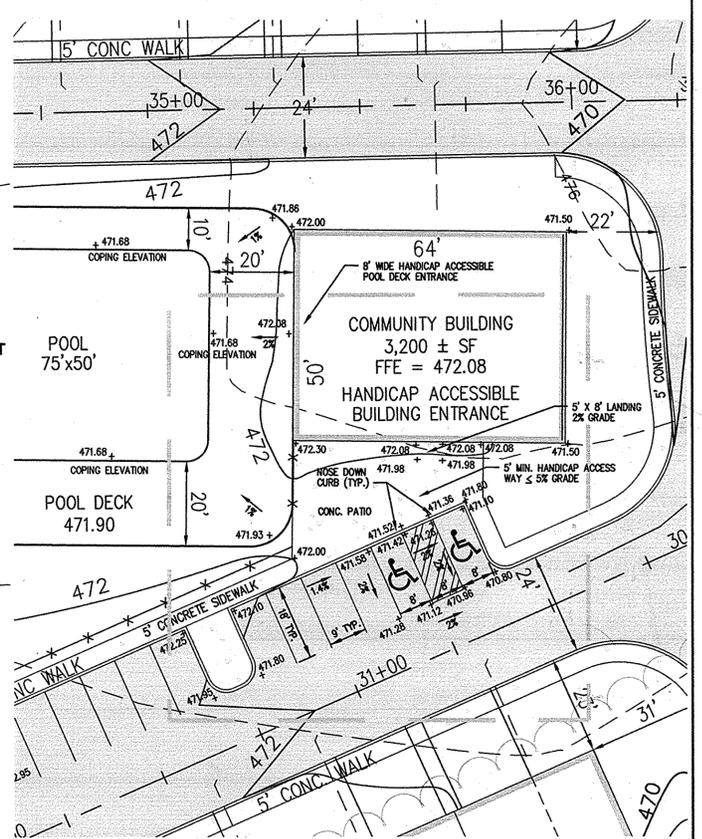
PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -126

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -127

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -128

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -129

PROPERTY OF LIBER 4008/FOLIO 458 MAP 17 PARCEL -130



INSET #3 - OFFSITE PUBLIC WATER, SEWER AND UTILITY EASEMENT
SCALE: 1"=20'

INSET #1 - HANDICAP ACCESS WAY
SCALE: 1"=20'

REVISIONS ON SHEET 31
FOR HOUSE TYPES,
LOT LINE GRADING & EASEMENTS

LEGEND

460	EXISTING 2 FOOT CONTOURS
462	EXISTING 10 FOOT CONTOURS
472	PROP. 2 FOOT CONTOURS
470	PROP. 10 FOOT CONTOURS
[Symbol]	FOREST CONSERVATION EASEMENT
[Symbol]	FULL DEPTH PAVEMENT
[Symbol]	REFORESTATION AREA
[Symbol]	CONCRETE SWW
[Symbol]	SWW DRYWELL
[Symbol]	LIMITS OF STD/MOD CURB AND GUTTER
[Symbol]	EX. WATER LINE
[Symbol]	PROP. WATER LINE
[Symbol]	EX. SEWER LINE
[Symbol]	PROP. SEWER LINE



PROFESSIONAL CERTIFICATION:
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 32025, EXPIRATION DATE: JUNE 20, 2011

AS-BUILT CERTIFICATION

PROPERTY OF GEORGE M & S HOLLOWAY L.835, F.30 ZONED: R-20 TM17, P.28

THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET.
MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR, NO. REG. NO. 21251, EXPIRATION DATE: 10/16/15

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

<i>Mark A. Leager</i>	10/6/16
DIRECTOR	DATE
<i>Windy Roberts</i>	10/6/16
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
10/14/09	REVISION OF HOUSE TYPES, LOT LINES, GRADING & EASEMENTS. SEE SHTS. 30&31 FOR CHANGES
DATE	NO.
	REVISION

OWNER/DEVELOPER:
Athlone LLC
9017 Red Branch Road, Suite 201
Columbia, Maryland 21045
Attn: Greig Altieri
410.715.4500

REVISIONS ON SHEET 30
FOR HOUSE TYPES,
LOT LINE, GRADING & EASEMENTS

MATCHLINE - SEE SHEET 30

- NOTE:**
- ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
 - ALL SPOT ELEVATIONS ALONG THE ROADWAY ARE AT THE FLOW LINE.
 - ALL PROPOSED PUBLIC WATER AND SEWER EXTENSIONS FOR THIS SUBDIVISION ARE UNDER THE CONTRACT # 24-4323-D.

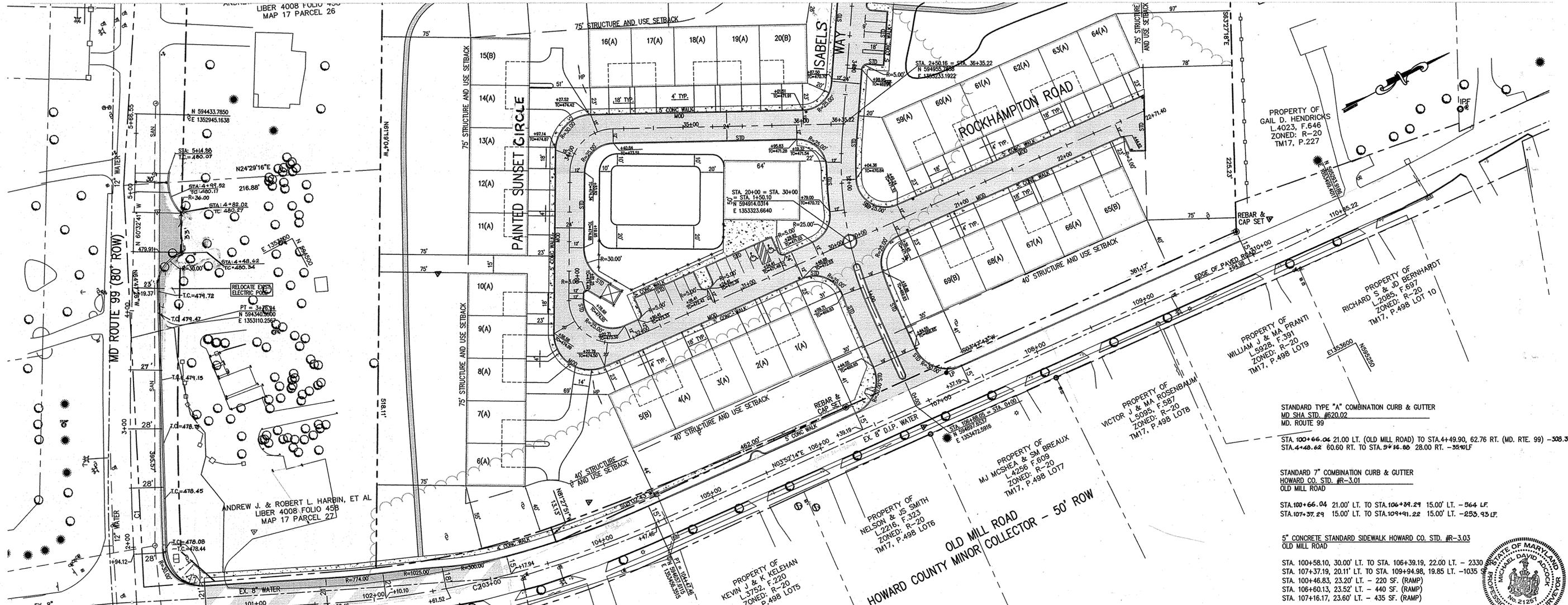


AB CONSULTANTS, INC.
9450 ANNAPOLIS ROAD
LANHAM, MARYLAND 20706
PHONE: (301) 306-3091
FAX: (301) 306-3092
CONTACT: DAVID T. DOWS PHONE: 301-306-3091 x25

PROJECT: ENCLAVE AT ELLICOTT STATION
AGE-RESTRICTED ADULT HOUSING COMMUNITY
LOT 1 OF THE HARBIN PROPERTY MINOR SUBDIVISION
SITE DEVELOPMENT PLAN
2nd ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
TAX MAP 17, GRIDS 8 & 14, PARCELS 26 & 27, DEED REF: 4008/468 & 782/708

PROJECT NO. 04-038
SCALE: 1"=40'
DATE: 08/04/06
DRAWN BY: CADD
CHECKED BY: DTD
SHEET: 3 OF 31

MATCH LINE - SEE SHEET 5



PROPERTY OF GAIL D. HENDRICKS
L.4023, F.646
ZONED: R-20
TM17, P.227

PROPERTY OF RICHARD S. & JO BEINHARDT
L.2055, F.657
ZONED: R-20
TM17, P.498 LOT 10

PROPERTY OF WILLIAM J. & MA PRANTI
L.5928, F.391
ZONED: R-20
TM17, P.498 LOTS

PROPERTY OF VICTOR J. & MA ROSENBAUM
L.5095, F.587
ZONED: R-20
TM17, P.498 LOTS

PROPERTY OF MJ MCSHEA & SM BREAUX
L.4256, F.609
ZONED: R-20
TM17, P.498 LOT 7

PROPERTY OF NELSON & J.S. SMITH
L.2216, F.323
ZONED: R-20
TM17, P.498 LOTS

PROPERTY OF KEVIN J. & K. KELEHAN
L.3752, F.220
ZONED: R-20
TM17, P.498 LOTS

PROPERTY OF YOUNG H. & YS LEE
L.3645, F.704
ZONED: R-20
TM17, P.498 LOT 4

PROPERTY OF LAURENCE W. & CA HOWENSTEIN
L.8222, F.552
ZONED: R-20
TM17, P.498 LOT 1

PROPERTY OF CARTER DORIS L. TRUSTEE
L.3716, F.209
ZONED: R-20
TM17, P.33

PROPERTY OF ANDREW J. & ROBERT L. HARBIN, ET AL
LIBER 4008 FOLIO 45B
MAP 17 PARCEL 27

PROPERTY OF LIBER 4008 FOLIO 45B
MAP 17 PARCEL 26

PROPERTY OF ANDREW J. & ROBERT L. HARBIN, ET AL
LIBER 4008 FOLIO 45B
MAP 17 PARCEL 27

PROPERTY OF ANDREW J. & ROBERT L. HARBIN, ET AL
LIBER 4008 FOLIO 45B
MAP 17 PARCEL 27

PROPERTY OF ANDREW J. & ROBERT L. HARBIN, ET AL
LIBER 4008 FOLIO 45B
MAP 17 PARCEL 27

PROPERTY OF ANDREW J. & ROBERT L. HARBIN, ET AL
LIBER 4008 FOLIO 45B
MAP 17 PARCEL 27

STANDARD TYPE "A" COMBINATION CURB & GUTTER
MD SHA STD. #620.02
MD. ROUTE 99
STA. 100+66.04 21.00' LT. (OLD MILL ROAD) TO STA. 44+49.90, 62.76 RT. (MD. RTE. 99) - 308.31 LF.
STA. 4+48.62 60.60 RT. TO STA. 5+14.88 28.00 RT. - 35.90 LF

STANDARD 7" COMBINATION CURB & GUTTER
HOWARD CO. STD. #R-3.01
OLD MILL ROAD
STA. 100+66.04 21.00' LT. TO STA. 106+24.21 15.00' LT. - 564 LF.
STA. 107+37.29 15.00' LT. TO STA. 109+91.22 15.00' LT. - 253.93 LF.

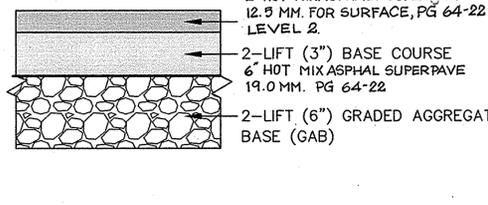
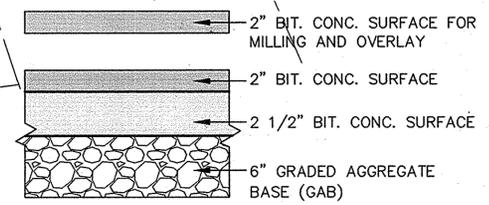
5" CONCRETE STANDARD SIDEWALK HOWARD CO. STD. #R-3.03
OLD MILL ROAD
STA. 100+58.10, 30.00' LT. TO STA. 106+39.19, 22.00 LT. - 2330
STA. 107+37.19, 20.11' LT. TO STA. 109+94.98, 19.85 LT. - 1035
STA. 100+46.83, 23.20' LT. - 220 SF. (RAMP)
STA. 106+60.13, 23.52' LT. - 440 SF. (RAMP)
STA. 107+16.17, 23.60' LT. - 435 SF. (RAMP)

I HEREBY CERTIFY, BY MY SEAL, THAT THE CONDITIONS SHOWN ON THIS PLAN WERE CONSTRUCTED TO THE LINES AND GRADES SHOWN ON THIS "AS-BUILT" PLAN, AND MEET THE APPROVED PLANS AND SPECIFICATIONS AND ALSO THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND.
MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR
MD REG. NO. 21251, EXPIRATION DATE: 06-16-15

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
DIRECTOR
CHIEF DEVELOPMENT ENGINEERING DIVISION
CHIEF, DIVISION OF LAND DEVELOPMENT

DATE	NO.	REVISION

OWNER/DEVELOPER:
Athlone LLC
9017 Red Branch Road, Suite 201
Columbia, Maryland 21045
Attn: Greig Altieri
410.715.4500

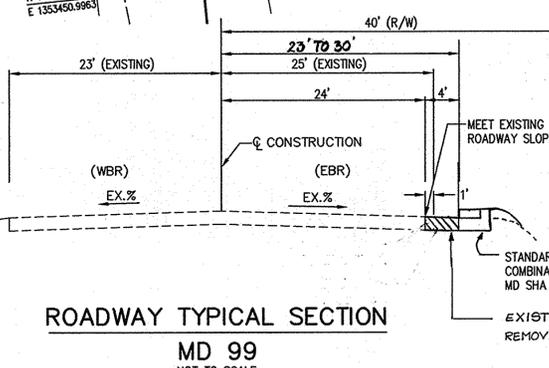


HOWARD COUNTY PAVING SECTION - P2
(HO. CO. DETAIL R-2.01)
NOT TO SCALE

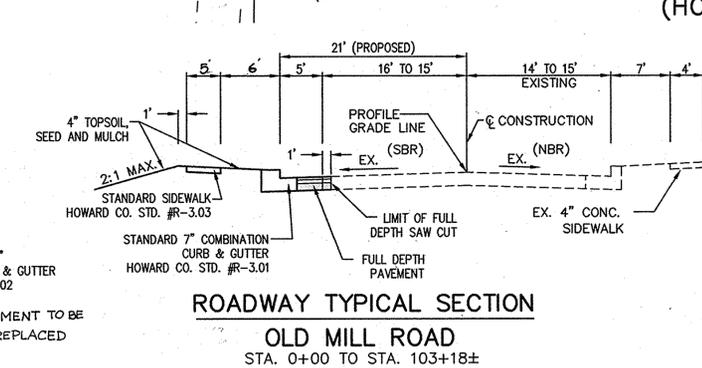
MD 99 PAVING SECTION
NOT TO SCALE

AS-BUILT

CURVE	DELTA	R	T	L	LC	D	PI	
							NORTHING	EASTING
C1	7°29'05"	2500.00'	163.5257'	326.5862	326.3540	2.2918	594260.1373	1353252.6450
C2	20°41'04"	795.00'	145.0805'	287.0028	285.4468	7.2070	594512.8618	1353446.5584



ROADWAY TYPICAL SECTION
MD 99
NOT TO SCALE



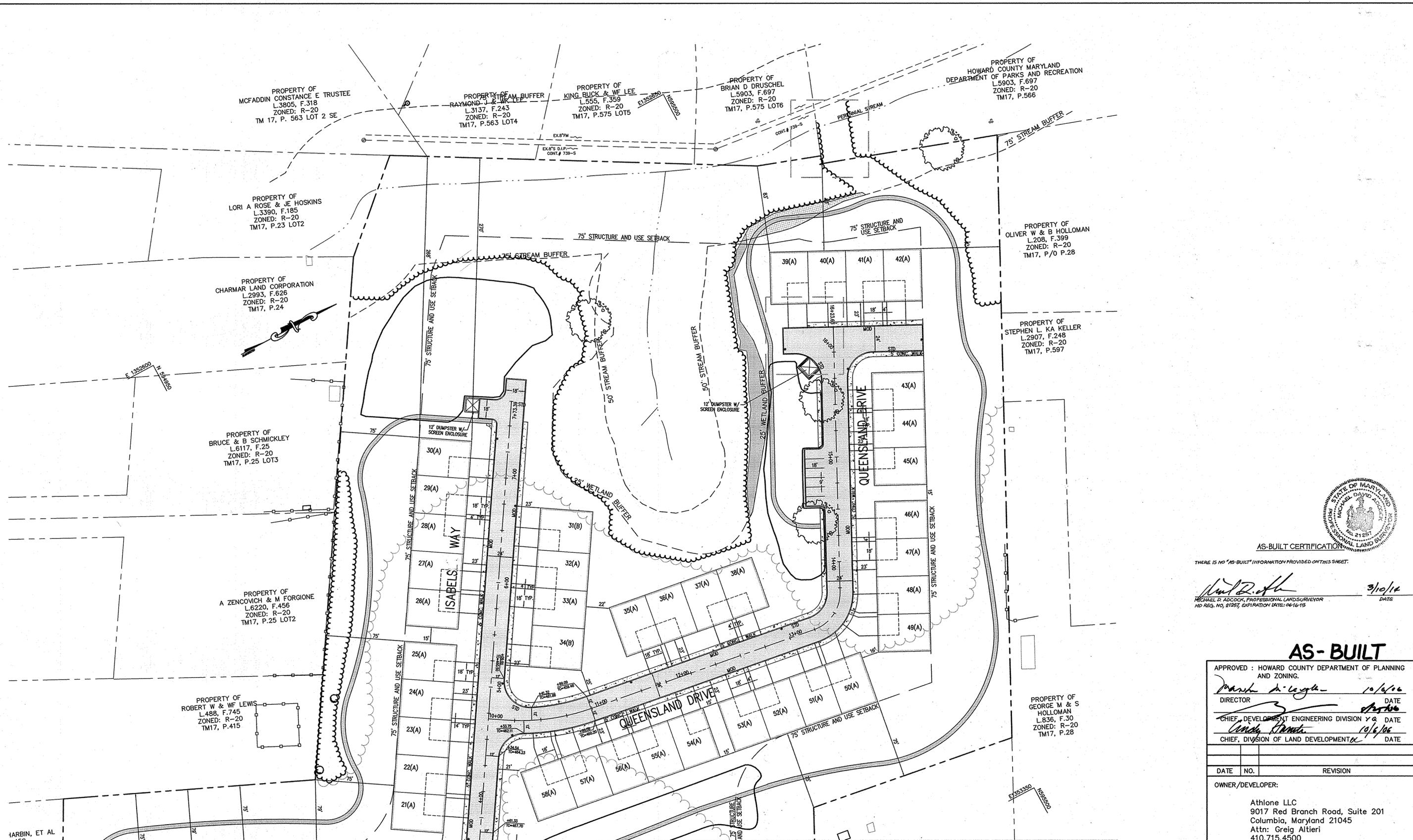
ROADWAY TYPICAL SECTION
OLD MILL ROAD
STA. 0+00 TO STA. 103+18±
NOT TO SCALE

- NOTE:
1. AN ASTERISK (*) DENOTES THE LIMITS OF STD/MOD CURB AND GUTTER.



AB CONSULTANTS, INC.
9450 ANNAPOLIS ROAD
LANHAM, MARYLAND 20706
PHONE: (301) 306-3091
FAX: (301) 306-3092
CONTACT: DAVID T. DOWS PHONE: 301-306-3091 x25

PROJECT: ENCLAVE AT ELLICOTT STATION
AGE-RESTRICTED ADULT HOUSING COMMUNITY
LOT 1 OF THE HARBIN PROPERTY MINOR SUBDIVISION
ROADWAY PLAN
2nd ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
TAX MAP 17, GRIDS 8 & 14, PARCELS 26 & 27, DEED REF: 4008/458 & 782/706



PROPERTY OF
MCFADDIN CONSTANCE E TRUSTEE
L.3805, F.318
ZONED: R-20
TM 17, P. 563 LOT 2 SE

PROPERTY OF
RAYMOND J. & WIFE
L.3137, F.243
ZONED: R-20
TM17, P.563 LOT4

PROPERTY OF
KING BUCK & Wf LEE
L.555, F.359
ZONED: R-20
TM17, P.575 LOTS

PROPERTY OF
BRIAN D DRUSCHEL
L.5903, F.697
ZONED: R-20
TM17, P.575 LOTS

PROPERTY OF
HOWARD COUNTY MARYLAND
DEPARTMENT OF PARKS AND RECREATION
L.5903, F.697
ZONED: R-20
TM17, P.566

PROPERTY OF
LORI A ROSE & JE HOSKINS
L.3390, F.185
ZONED: R-20
TM17, P.23 LOT2

PROPERTY OF
CHARMAR LAND CORPORATION
L.2993, F.626
ZONED: R-20
TM17, P.24

PROPERTY OF
BRUCE & B SCHMICKLEY
L.6117, F.25
ZONED: R-20
TM17, P.25 LOTS

PROPERTY OF
A ZENCOVICH & M FORGIONE
L.6220, F.456
ZONED: R-20
TM17, P.25 LOT2

PROPERTY OF
ROBERT W & Wf LEWIS
L.488, F.745
ZONED: R-20
TM17, P.415

PROPERTY OF
OLIVER W & B HOLLOMAN
L.208, F.399
ZONED: R-20
TM17, P/O P.28

PROPERTY OF
STEPHEN L. KA KELLER
L.2907, F.248
ZONED: R-20
TM17, P.597

PROPERTY OF
GEORGE M & S
HOLLOMAN
L.836, F.30
ZONED: R-20
TM17, P.28

MATCH LINE - SEE SHEET 4

- NOTE:
1. AN ASTERISK (*) DENOTES THE LIMITS OF STD/MOD CURB AND GUTTER.



AS-BUILT CERTIFICATION

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

Michael D. Adcock 3/10/16
MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR DATE
MD REG. NO. 21251, EXPIRATION DATE: 06-16-15

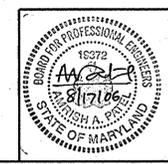
AS-BUILT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Frank A. Logan 10/6/16
DIRECTOR DATE
George M. Holloman 10/6/16
HOLLOMAN DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION
Wanda Standa 10/6/16
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE	NO.	REVISION

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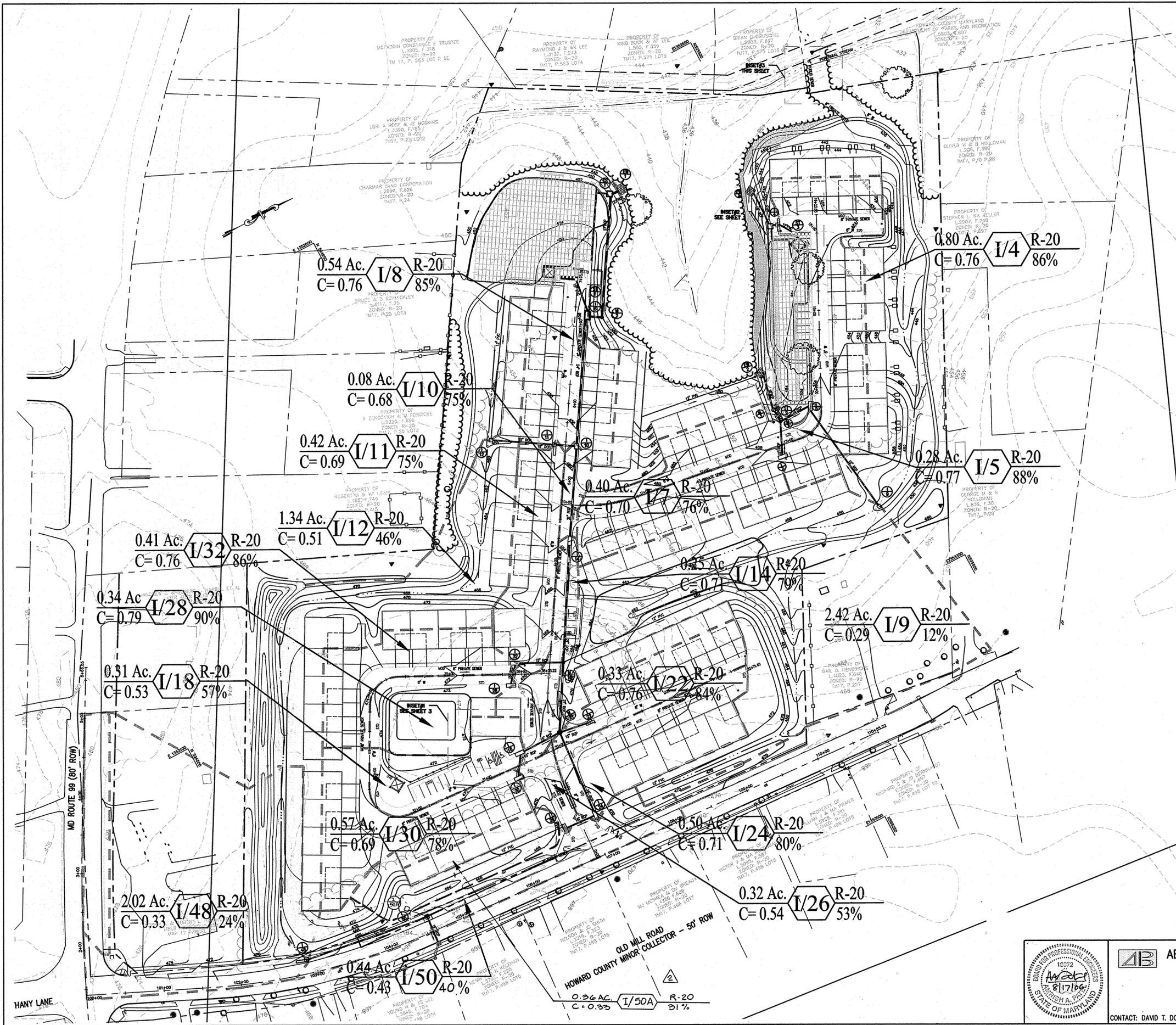


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PHONE: (301) 306-3091
FAX: (301) 306-3092
CONTACT: DAVID T. DOWS PHONE: 301-306-3091 x25

PROJECT: **ENCLAVE AT ELLICOTT STATION**
AGE-RESTRICTED ADULT HOUSING COMMUNITY
LOT 1 OF THE HARBIN PROPERTY MINOR SUBDIVISION
ROADWAY PLAN

2nd ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
TAX MAP 17, GRIDS 8 & 14, PARCELS 26 & 27, DEED REF: 4008/458 & 782/706

PROJECT NO. 04-038
SCALE: 1"=40'
DATE: 08/04/06
DRAWN BY: CADD
CHECKED BY: DTD
SHEET: 5 OF 21



LEGEND:
 --- DRAINAGE DIVIDE
 --- AS-BUILT CERTIFICATION



THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET.
Michael D. Adcock 3/10/10
 MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR DATE
 MD REG. NO. 21257, EXPIRATION DATE 06-16-15

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
Mark A. Wagoner 3/10/10
 DIRECTOR DATE
Michael D. Adcock 3/10/10
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
Michael D. Adcock 3/10/10
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE



DATE	NO.	REVISION
10/19/10	1	REVISE BEEM GRADING AND GRADING AT EDGE OF LOTS 6-15
1/25/11	2	ADD INLET I-50A

OWNER/DEVELOPER:
 Athlone LLC
 9017 Red Branch Road, Suite 201
 Columbia, Maryland 21045
 Attn: Greig Altieri
 410.715.4500

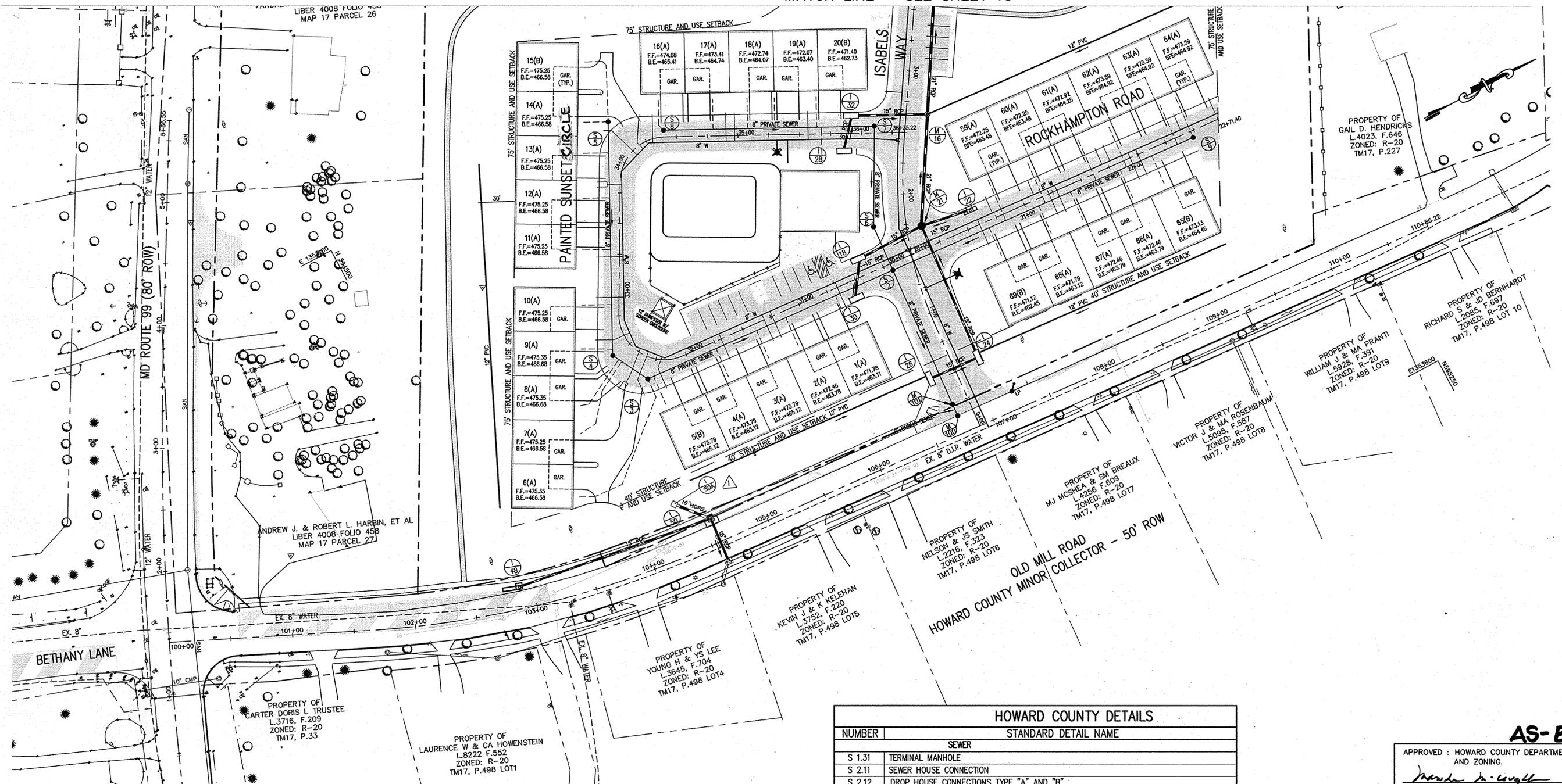
AS-BUILT



AB CONSULTANTS, INC.
 9450 ANNAPOLIS ROAD
 LANHAM, MARYLAND 20706
 PHONE: (301) 306-3091
 FAX: (301) 306-3092
 CONTACT: DAVID T. DOWS PHONE: 301-306-3091 x25

PROJECT: ENCLAVE AT ELLICOTT STATION
 AGE-RESTRICTED ADULT HOUSING COMMUNITY
 LOT 1 OF THE HARBIN PROPERTY MINOR SUBDIVISION
STORM DRAIN STUDY
 2nd ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 2nd ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
 TAX MAP 17, GRIDS 8 & 14, PARCELS 26 & 27, DEED REF: 4008/458 & 782/706
 PROJECT NO. 04-038
 SCALE: 1" = 60'
 DATE: 08/04/06
 DRAWN BY: CADD
 CHECKED BY: DTD
 SHEET: 8 OF 31

MATCH LINE - SEE SHEET 10



HOWARD COUNTY DETAILS	
NUMBER	STANDARD DETAIL NAME
SEWER	
S 1.31	TERMINAL MANHOLE
S 2.11	SEWER HOUSE CONNECTION
S 2.12	DROP HOUSE CONNECTIONS TYPE "A" AND "B"
S 2.22	CLEANOUT FOR SEWER HOUSE CONNECTION
S 3.11	STREAM CROSSING DETAILS
S 3.13	WATER, SEWER CLEARANCE REQUIREMENTS
STORM DRAIN	
SD 3.01	STANDARD STORM DRAIN DETAIL
SD 4.02	TYPE "A-10" INLET
SD 4.14	YARD INLET
SD 5.21	TYPE "C" ENDWALL
GENERAL DETAILS	
S 5.01	4"-0" BRICK MANHOLE FOR USE WITH PIPES 24" AND SMALLER

AS-BUILT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Mark A. Lough 10/6/14
DIRECTOR DATE

Andy K... .. 10/6/14
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
Andy K... .. 10/6/14
CHIEF, DIVISION OF LAND DEVELOPMENT & DATE

9/23/11	1	ADD INLET I-50A
DATE	NO.	REVISION

OWNER/DEVELOPER:
Athlone LLC
9017 Red Branch Road, Suite 201
Columbia, Maryland 21045
Attn: Greig Altieri
410.715.4500



For Revision #1

AS-BUILT CERTIFICATION

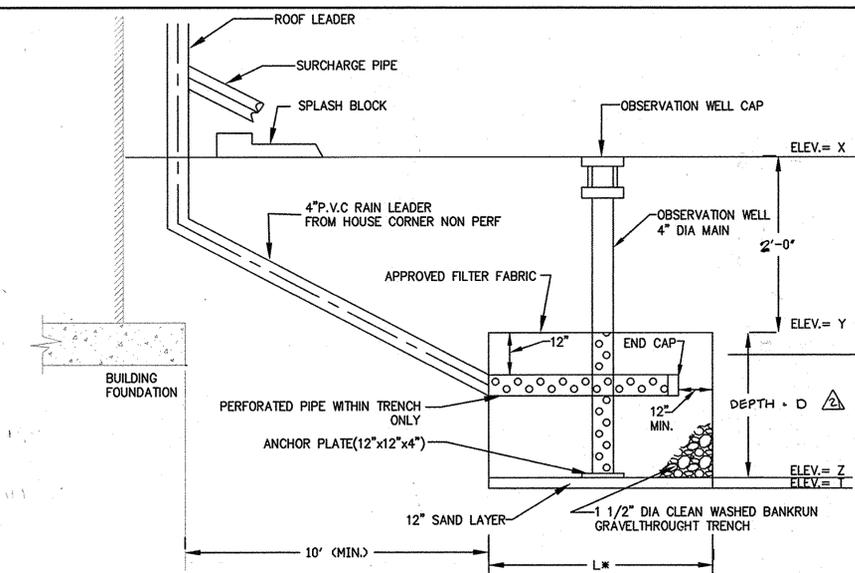
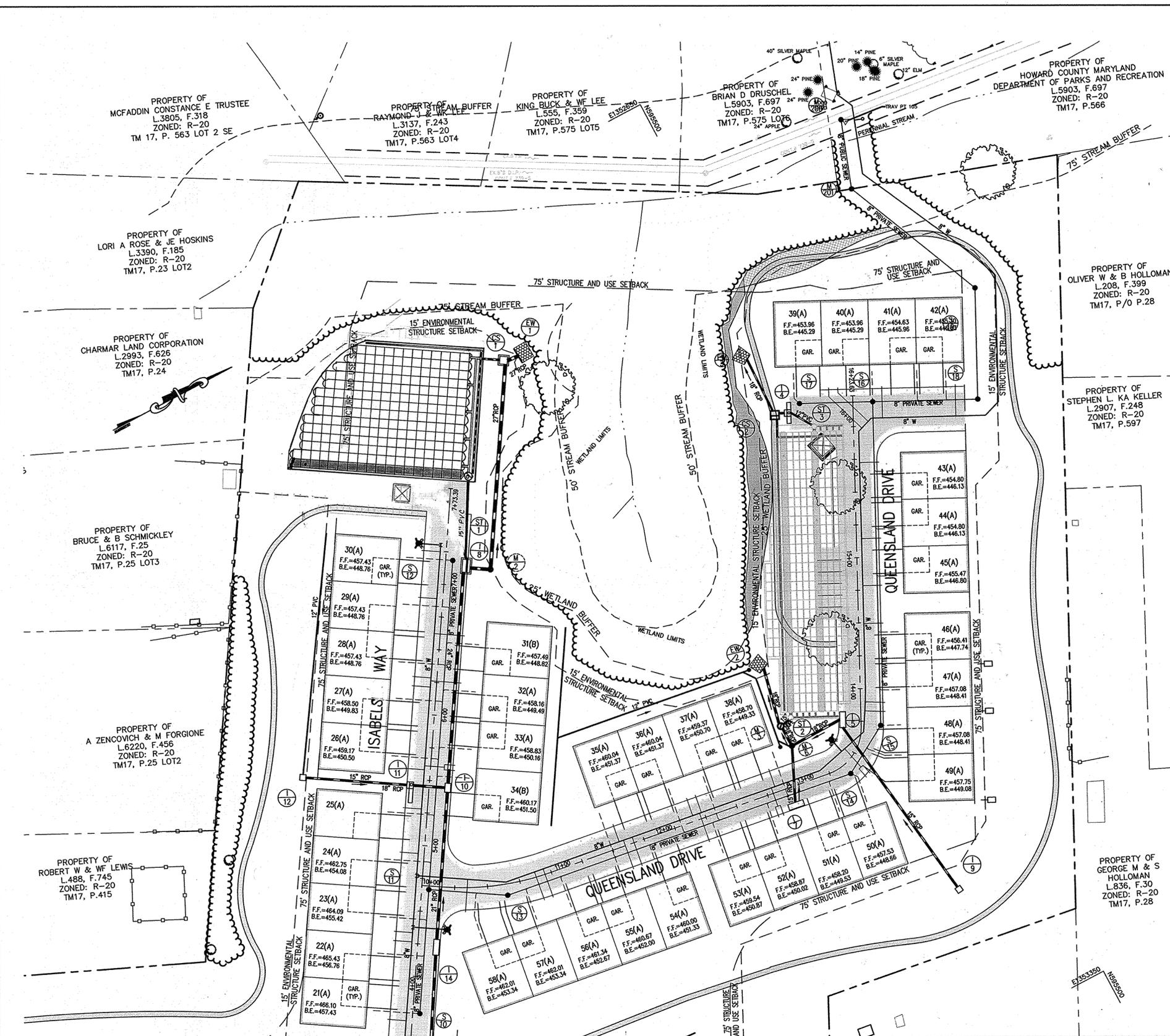


I HEREBY CERTIFY, BY MY SEAL, THAT THE CONDITIONS SHOWN ON THIS PLAN WERE CONSTRUCTED TO THE LINES AND GRADES SHOWN ON THIS "AS-BUILT" PLAN, AND MEET THE APPROVED PLANS AND SPECIFICATIONS AND ALSO THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND.
Michael D. Adcock 3/10/14
MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR
MD REG. NO. 21257, EXPIRATION DATE: 06-16-15



AB CONSULTANTS, INC.
9450 ANNAPOLIS ROAD
LANHAM, MARYLAND 20706
PHONE: (301) 306-3091
FAX: (301) 306-3092
CONTACT: DAVID T. DOWS PHONE: 301-306-3091 x25

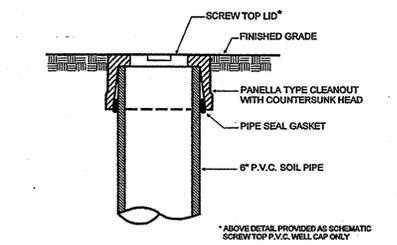
PROJECT: ENCLAVE AT ELLICOTT STATION
AGE-RESTRICTED ADULT HOUSING COMMUNITY
LOT 1 OF THE HARBIN PROPERTY MINOR SUBDIVISION
UTILITY PLAN
2nd ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
TAX MAP 17, GRIDS 8 & 14, PARCELS 26 & 27, DEED REF: 4008/458 & 782/706
PROJECT NO. 04-038
SCALE: 1"=40'
DATE: 08/04/08
DRAWN BY: CADD
CHECKED BY: DTD
SHEET: 9 OF 21



DRYWELL DETAIL
N.T.S.
* FOR L SEE CHART

LOT #	DRYWELL	L	B	D	X	Y	Z	T
39(A)	39A	6'	4'	3.93'	442.5'	440.5'	437.17'	434.17'
	39B	6'	4'	3.93'	445.0'	443.0'	439.47'	436.47'
40(A)	40A	6'	4'	3.93'	445.0'	443.0'	439.47'	436.47'
	40B	6'	4'	3.93'	445.5'	443.5'	440.17'	437.17'
41(A)	41A	6'	4'	3.93'	445.5'	443.5'	440.17'	437.17'
	41B	6'	4'	3.93'	445.5'	443.5'	440.17'	437.17'
42(A)	42A	6'	4'	3.93'	445.5'	443.5'	440.17'	437.17'
	42B	6'	4'	3.93'	445.8'	443.8'	442.47'	441.47'
43(A)	43A	6'	4'	3.93'	446.8'	444.8'	443.8'	442.8'
	43B	6'	4'	3.93'	441.2'	433.2'	428.2'	427.2'
44(A)	44A	6'	4'	3.93'	444.0'	436.0'	431.0'	430.0'
	44B	6'	4'	3.93'	444.0'	436.0'	431.0'	430.0'
45(A)	45A	6'	4'	3.93'	444.0'	436.0'	431.0'	430.0'
	45B	6'	4'	3.93'	444.0'	436.0'	431.0'	430.0'
46(A)	46A	6'	4'	3.93'	444.1'	436.1'	431.1'	430.1'
	46B	6'	4'	3.93'	447.5'	439.5'	434.5'	433.5'
47(A)	47A	6'	4'	3.93'	447.5'	442.5'	441.5'	440.5'
	47B	6'	4'	3.93'	447.5'	442.5'	441.5'	440.5'
48(A)	48A	6'	4'	3.93'	452.5'	450.5'	448.5'	446.5'
	48B	6'	4'	3.93'	452.5'	450.5'	448.5'	446.5'
49(A)	49A	6'	4'	3.93'	454.5'	452.5'	449.5'	447.5'
	49B	6'	4'	3.93'	454.5'	452.5'	449.5'	447.5'

Appendix D.8. Miscellaneous Details for Compliance with Performance Criteria
Detail 4 Observation Well for Infiltration Practices



- EACH OBSERVATION WELL / CLEANOUT SHALL INCLUDE THE FOLLOWING:
- FOR AN UNDERGROUND FLUSH MOUNTED OBSERVATION WELL / CLEANOUT, PROVIDE A TUBE MADE OF NON-CORROSIVE MATERIAL, SCHEDULE 40 OR EQUAL, AT LEAST THREE FEET LONG WITH AN INSIDE DIAMETER OF AT LEAST 6 INCHES.
 - THE TUBE SHALL HAVE A FACTORY ATTACHED CAST IRON OR HIGH IMPACT PLASTIC COLLAR WITH RIBS TO PREVENT ROTATION WHEN REMOVING SCREW TOP LID. THE SCREW TOP LID SHALL BE CAST IRON OR HIGH IMPACT PLASTIC THAT WILL WITHSTAND ULTRA-VIOLET RAYS.

AS-BUILT

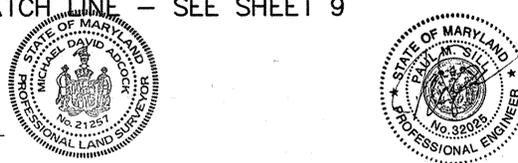
10.30.10	REUSE DRYWELLS LOTS 39-42
APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
<i>David T. Dows</i>	10/4/06
DIRECTOR	DATE
<i>Michael D. Adcock</i>	10/4/06
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
<i>Michael D. Adcock</i>	10/4/06
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
4-9-10	Remove drywells lots 39-42 and revise depths of drywells lots 47-49.
DATE	NO. REVISION
OWNER/DEVELOPER:	
Athlone LLC 9017 Red Branch Road, Suite 201 Columbia, Maryland 21045 Attn: Greig Altieri 410.715.4500	

AS-BUILT CERTIFICATION

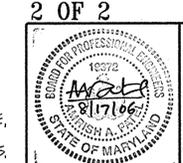
I HEREBY CERTIFY, BY MY SEAL, THAT THE CONDITIONS SHOWN ON THIS PLAN WERE CONSTRUCTED TO THE LINES AND GRADES SHOWN ON THIS "AS-BUILT" PLAN, AND MEET THE APPROVED PLANS AND SPECIFICATIONS AND ALSO THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND.

Michael D. Adcock
MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR.
NO. REG. NO. 21257, EXPIRATION DATE: 06-15-15

3/10/14
DATE



PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 32025, EXPIRATION DATE: JUNE 20, 2011.



AB CONSULTANTS, INC.
9450 ANNAPOLIS ROAD
LANHAM, MARYLAND 20706
PHONE: (301) 306-3091
FAX: (301) 306-3092

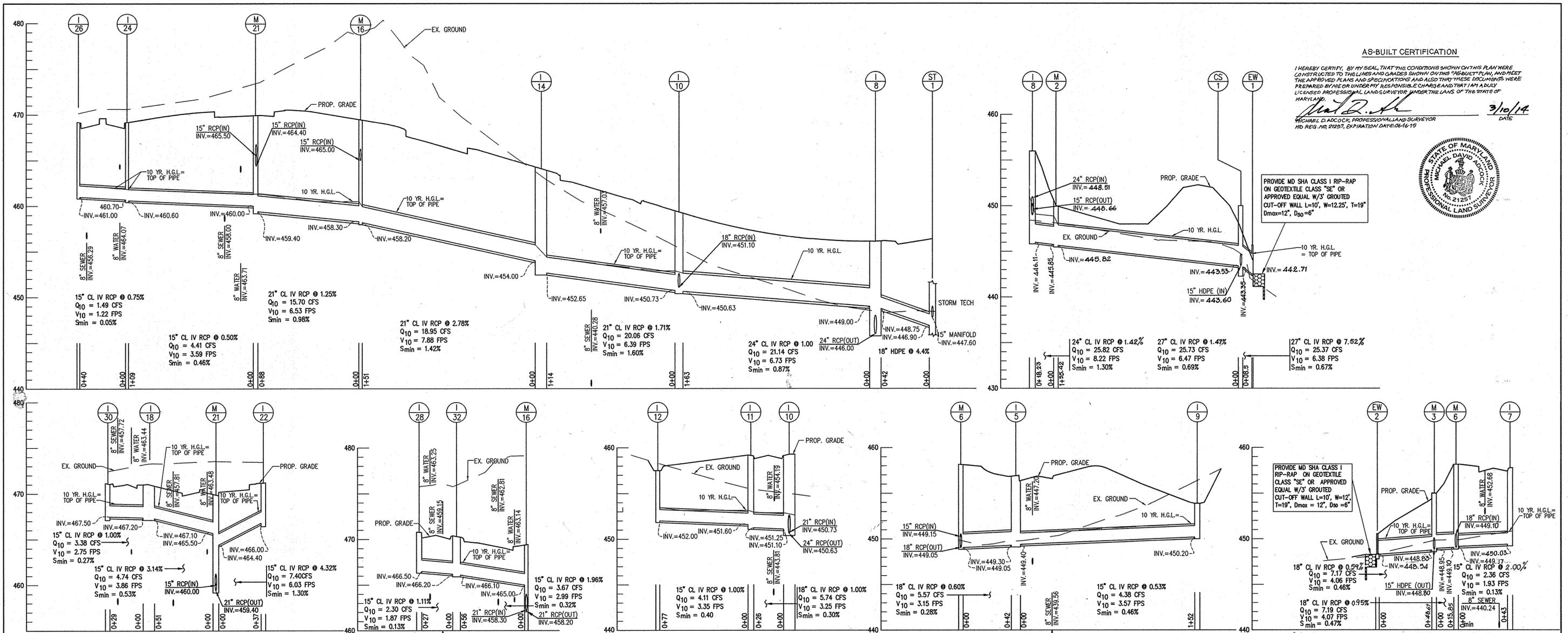
CONTACT: DAVID T. DOWS PHONE: 301-306-3091 X25

PROJECT **ENCLAVE AT ELLICOTT STATION**
AGE-RESTRICTED ADULT HOUSING COMMUNITY
LOT 1 OF THE HARBIN PROPERTY MINOR SUBDIVISION

UTILITY PLAN

2nd ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
TAX MAP 17, GRIDS 8 & 14, PARCELS 26 & 27, DEED REF: 4008/458 & 782/706

PROJECT NO. 04-038
SCALE: 1"=40'
DATE: 08/04/06
DRAWN BY: CADD
CHECKED BY: DTD
SHEET: 10 OF 31



AS-BUILT CERTIFICATION

I HEREBY CERTIFY, BY MY SEAL, THAT THE CONDITIONS SHOWN ON THIS PLAN WERE CONSTRUCTED TO THE LINES AND GRADES SHOWN ON THIS AS-BUILT PLAN, AND MEET THE APPROVED PLANS AND SPECIFICATIONS AND ALSO THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND.

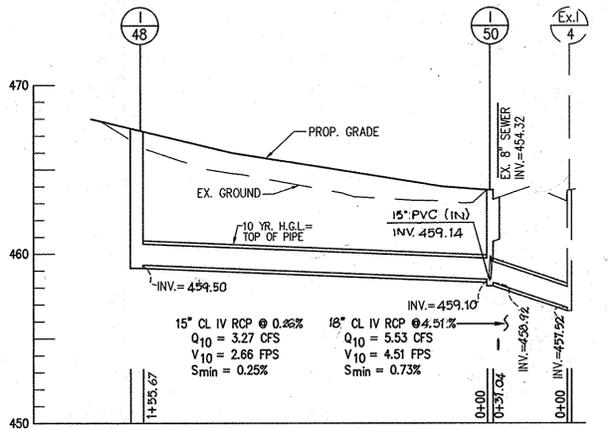
Michael D. Adcock 3/10/14
 MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR
 MD REG. NO. 21257, EXPIRATION DATE 06-16-19



PROVIDE MD SHA CLASS I RIP-RAP ON GEOTEXTILE CLASS "SE" OR APPROVED EQUAL W/3' GROUDED OUT-OFF WALL L=10', W=12.25', T=19" Dmax=12", D50=6"

STORM DRAIN STRUCTURE SCHEDULE

STRUCTURE NUMBER	TYPE	TOP ELEV	INVERT OUT	STATION	NORTHING	EASTING	REMARKS
I-26	A-10 INLET	469.03	461.00	0+53, 19' LT.	-	-	A-10 INLET HO. CO. STD. # SD. 4.02
I-24	A-10 INLET	469.03	460.60	0+51, 19' RT.	-	-	A-10 INLET HO. CO. STD. # SD. 4.02
I-22	A-10 INLET	469.96	459.40	20+58, 12' LT.	-	-	A-10 INLET HO. CO. STD. # SD. 4.02
M-21	4'-0" BRICK MANHOLE	472.23	465.60	1+72, 12' RT.	-	-	4'-0" MANHOLE HO. CO. STD. # G 5.01
I-30	A-10 INLET	471.40	467.50	30+55, 12' LT.	-	-	A-10 INLET HO. CO. STD. # SD. 4.02
I-18	A-10 INLET	471.18	467.10	30+41, 12' RT.	-	-	A-10 INLET HO. CO. STD. # SD. 4.02
M-16	4'-0" BRICK MANHOLE	469.36	462.15	-	594978.87	1353229.03	4'-0" MANHOLE HO. CO. STD. # G 5.01
I-28	A-10 INLET	470.76	466.50	35+86, 12' RT.	-	-	A-10 INLET HO. CO. STD. # SD. 4.02
I-14	A-10 INLET	463.93	458.40	4+23, 12' RT.	-	-	A-10 INLET HO. CO. STD. # SD. 4.02
I-12	YARD INLET	457.50	452.00	-	595031.66	1352932.05	YARD INLET HO. CO. STD. # SD. 4.14
I-10	A-10 INLET	458.68	453.00	5+47, 12' RT.	-	-	A-10 INLET HO. CO. STD. # SD. 4.02
I-8	A-10 INLET	456.41	446.11	7+17, 12' RT.	-	-	MODIFIED A-10 INLET HO. CO. STD. # SD. 4.02
CS-1	SEE DETAIL	450.00	443.35	-	595316.35	1352723.13	SEE DRAWINGS ON SHEET 11
EW-1	TYPE "C" ENDWALL	449.82	442.71	-	-	-	TYPE "C" ENDWALL HO. CO. STD. # SD. 5.21
I-7	A-10 INLET	458.20	450.03	12+93, 12' LT.	-	-	A-10 INLET HO. CO. STD. # SD. 4.02
M-6	4'-0" BRICK MANHOLE	458.32	449.10	-	595371.84	1353087.08	4'-0" MANHOLE HO. CO. STD. # G 5.01
I-5	A-10 INLET	456.79	449.30	13+77, 12' LT.	-	-	A-10 INLET HO. CO. STD. # SD. 4.02
M-3	4'-0" BRICK MANHOLE	459.55	448.83	-	995369.94	1353071.34	MODIFY 4'-0" MANHOLE HO. CO. STD. # G 5.01
EW-2	TYPE "C" ENDWALL	450.64	448.54	-	-	-	TYPE "C" ENDWALL HO. CO. STD. # SD. 5.21
I-4	STD. 15" COG INLET	452.00	445.90	16+12, 49' LT.	-	-	MODIFIED A-15 INLET MD. SHA STD. # 374.61
CS-2	SEE DETAIL	451.71	445.55	-	595478.98	1352857.49	SEE DRAWINGS ON SHEET 11
EW-3	TYPE "C" ENDWALL	444.19	442.03	-	-	-	TYPE "C" ENDWALL HO. CO. STD. # SD. 5.21
I-50	A-10 INLET	469.56	458.92	104+58, 15' LT.	-	-	MODIFIED A-10 COS INLET SHA. STD. #
I-48	STD. 15" COG INLET	461.71	459.80	102+85-16' LT.	-	-	STD. 15" COG INLET SHA. STD. # 374.51
I-50A	YARD INLET	462.68	458.58	-	594648.75	1352413.00	YARD INLET HO. CO. STD. # SD. 4.14

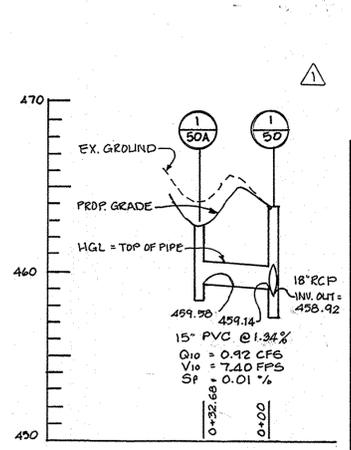
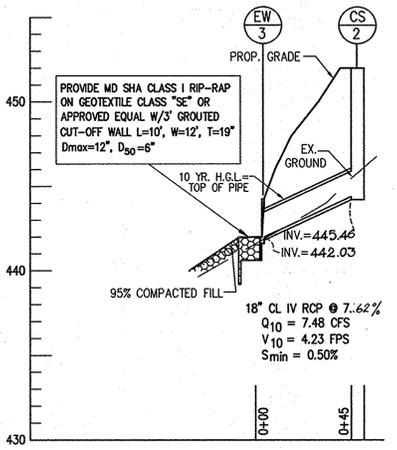


STORM DRAIN PIPE SCHEDULE

SIZE	TYPE	LENGTH
15"	RCP CL. III	594'
18"	RCP CL. III	6'
21"	RCP CL. III	350'
24"	RCP CL. III	178'
27"	RCP CL. III	49'
15"	HDPE	21'

NOTE
 STA. & OFFSET IS TO CL STRUCTURE & FACE OF CURB. WHEN THERE IS NO CURB STA. & OFFSET IS CL OF STRUCTURE

PROFILE SCALE:
 1"=40' (HOR.)
 1"=5' (VERT.)



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Howard M. Coughlin 10/6/06
 DIRECTOR DATE

Andy K. Smith 10/6/06
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

04-23-11 | 1 | ADD INLET I-50A

OWNER/DEVELOPER:
 Athlone LLC
 9017 Red Branch Road, Suite 201
 Columbia, Maryland 21045
 Attn: Greig Altieri
 410.715.4500

AS-BUILT



AB CONSULTANTS, INC.
 9450 ANNAPOLIS ROAD
 LANHAM, MARYLAND 20706
 PHONE: (301) 306-3091
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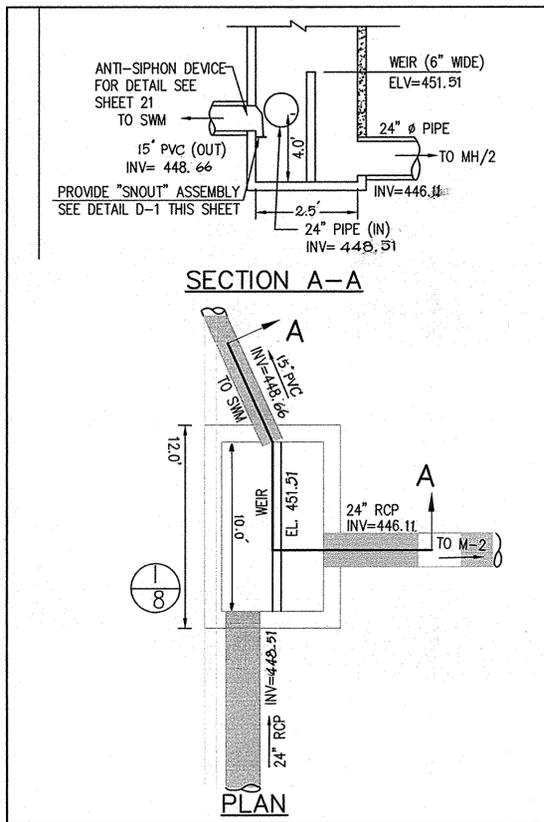
CONTACT: DAVID T. DOWS PHONE: 301-306-3091 x25

PROJECT: ENCLAVE AT ELICOTT STATION
 AGE-RESTRICTED ADULT HOUSING COMMUNITY
 LOT 1 OF THE HARBIN PROPERTY MINOR SUBDIVISION
 STORM DRAIN PROFILES

2nd ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
 TAX MAP 17, GRIDS 8 & 14, PARCELS 26 & 27, DEED REF: 4008/458 & 782/706

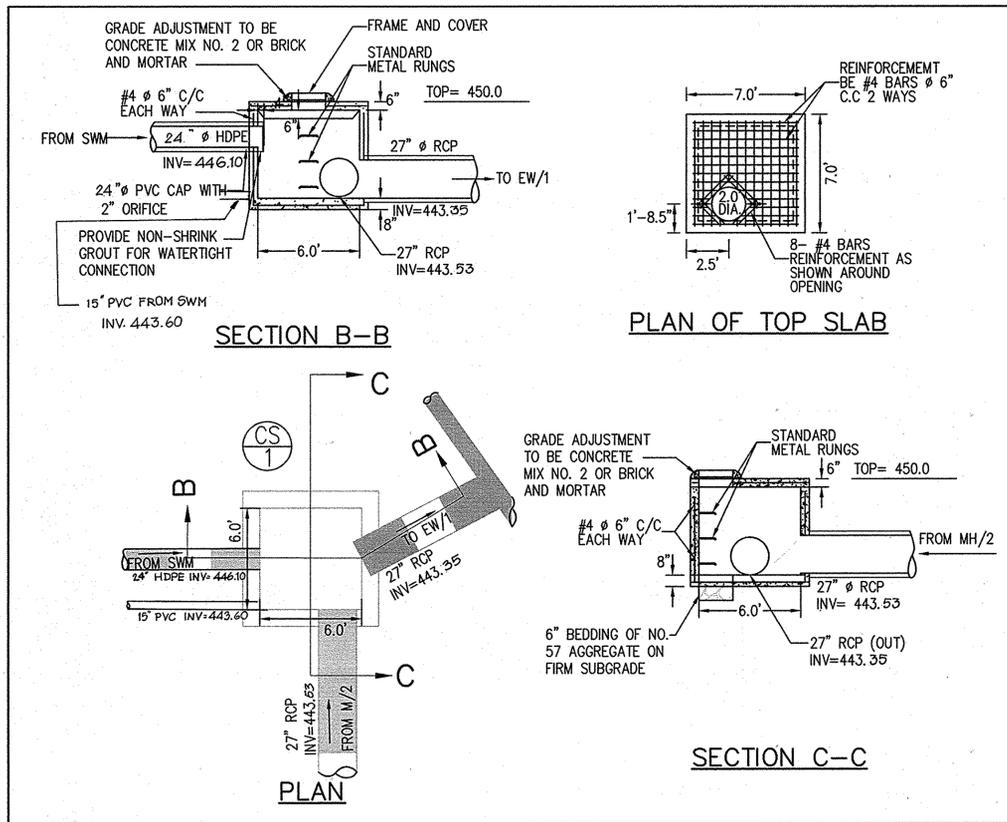
PROJECT NO. 04-038
 SCALE: AS SHOWN
 DATE: 08/04/06
 DRAWN BY: CADD
 CHECKED BY: DTD

SHEET: 11 OF 21



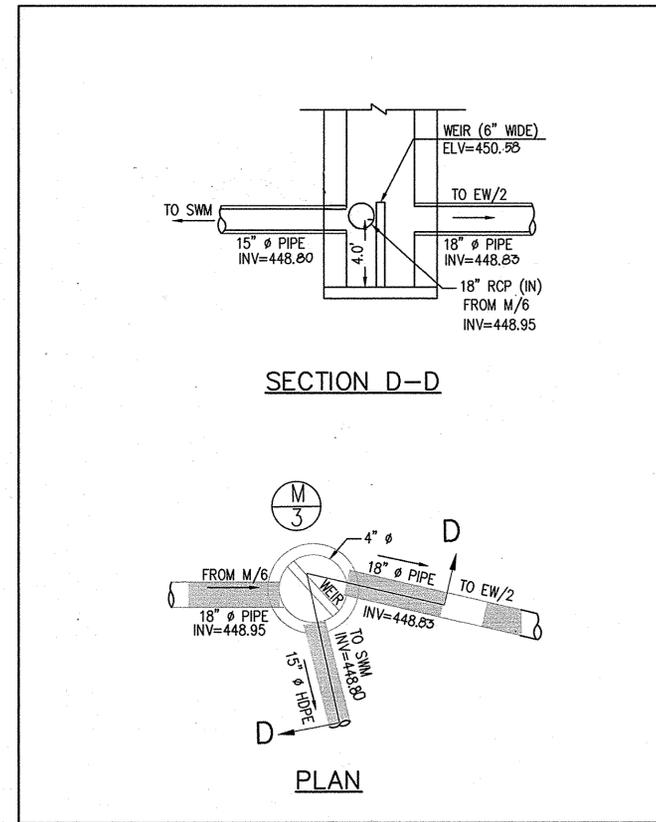
STORM DRAIN STRUCTURE 1/8 (FLOW SPLITTER)

MODIFIED A-10 INLET HO. CO. STD. # SD. 4.02
SCALE: 1"=5'



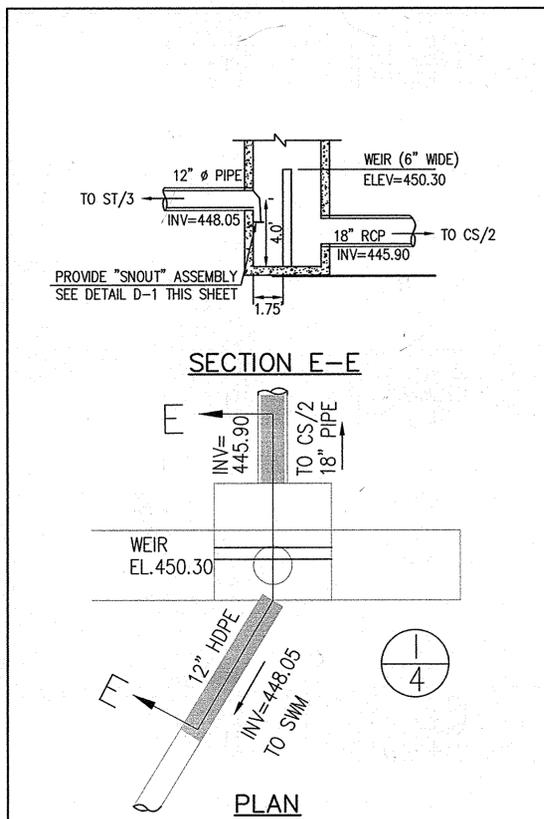
CONTROL STRUCTURE CS/1

SCALE: 1"=5'



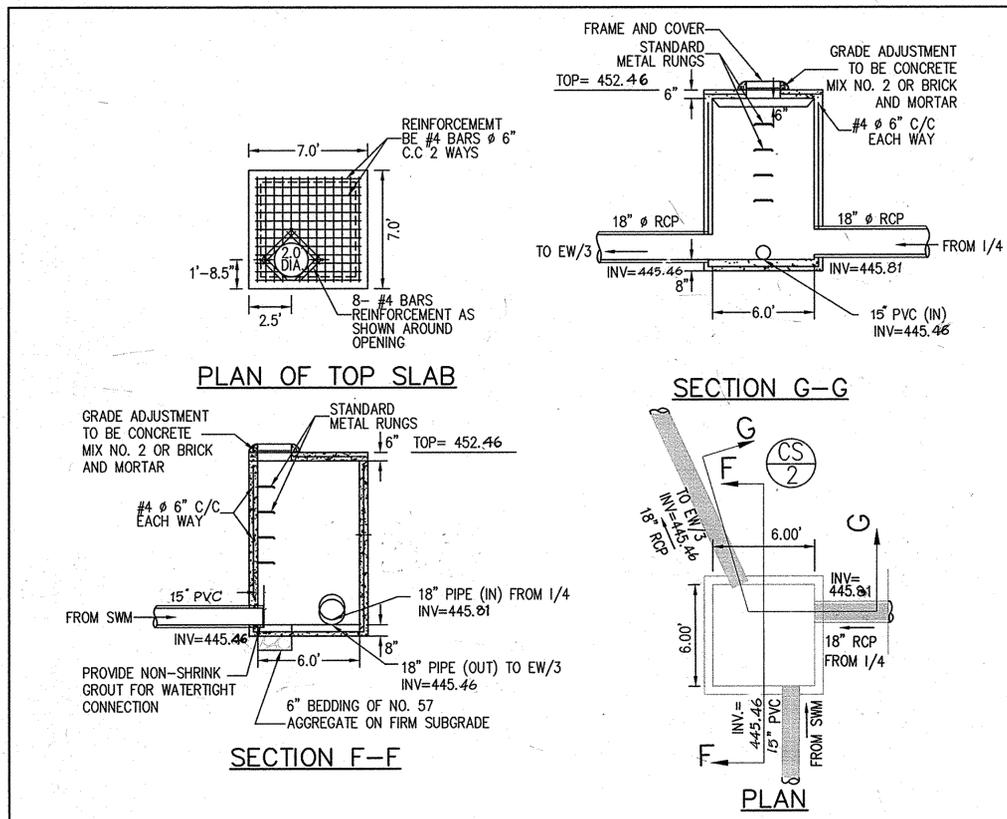
STORM DRAIN STRUCTURE M/3 (FLOW SPLITTER)

MODIFIED 4' MANHOLE HO. CO. STD. # G5.01
SCALE: 1"=5'



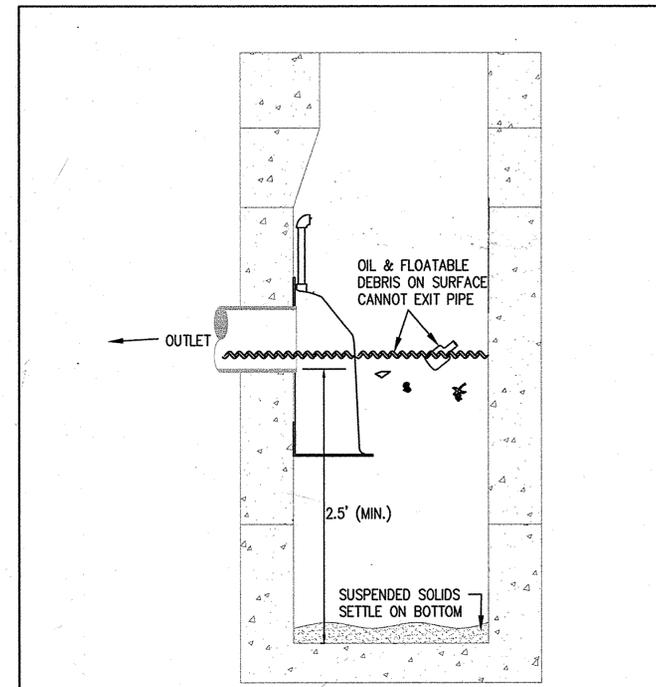
STORM DRAIN STRUCTURE 1/4 (FLOW SPLITTER)

MODIFIED BASE UNIT OF A-15 INLET MD. SHA STD. # 374.61
SCALE: 1"=5'



CONTROL STRUCTURE CS/2

SCALE: 1"=5'



SNOUT CATCH BASIN INSTALLATION-D1

NOT TO SCALE



AS-BUILT CERTIFICATION

I HEREBY CERTIFY, BY MY SEAL, THAT THE CONDITIONS SHOWN ON THIS PLAN WERE CONSTRUCTED TO THE LINES AND GRADES SHOWN ON THIS AS-BUILT PLAN, AND MEET THE APPROVED PLANS AND SPECIFICATIONS AND ALSO THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND.
MICHAEL D. ADAMS, PROFESSIONAL LAND SURVEYOR
M.D. REG. NO. 21257, EXPIRATION DATE: 06-16-15
3/10/14 DATE

NOTE

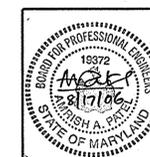
I-8, I-4, CS-1, CS-2, MH-3:
CONTRACTOR TO SUBMIT SHOP DRAWINGS SIGN AND SEALED BY MARYLAND REGISTERED PROFESSIONAL ENGINEER AND OBTAIN APPROVAL FROM HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS PRIOR TO ORDERING AND INSTALLING THE STRUCTURE

AS-BUILT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
<i>Markus K. Cougle</i>	10/6/06
DIRECTOR	DATE
<i>Chris K. Kania</i>	10/6/06
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
<i>Chris K. Kania</i>	10/6/06
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE

DATE	NO.	REVISION

OWNER/DEVELOPER:
Athlone LLC
9017 Red Branch Road, Suite 201
Columbia, Maryland 21045
Attn: Greg Altieri
410.715.4500



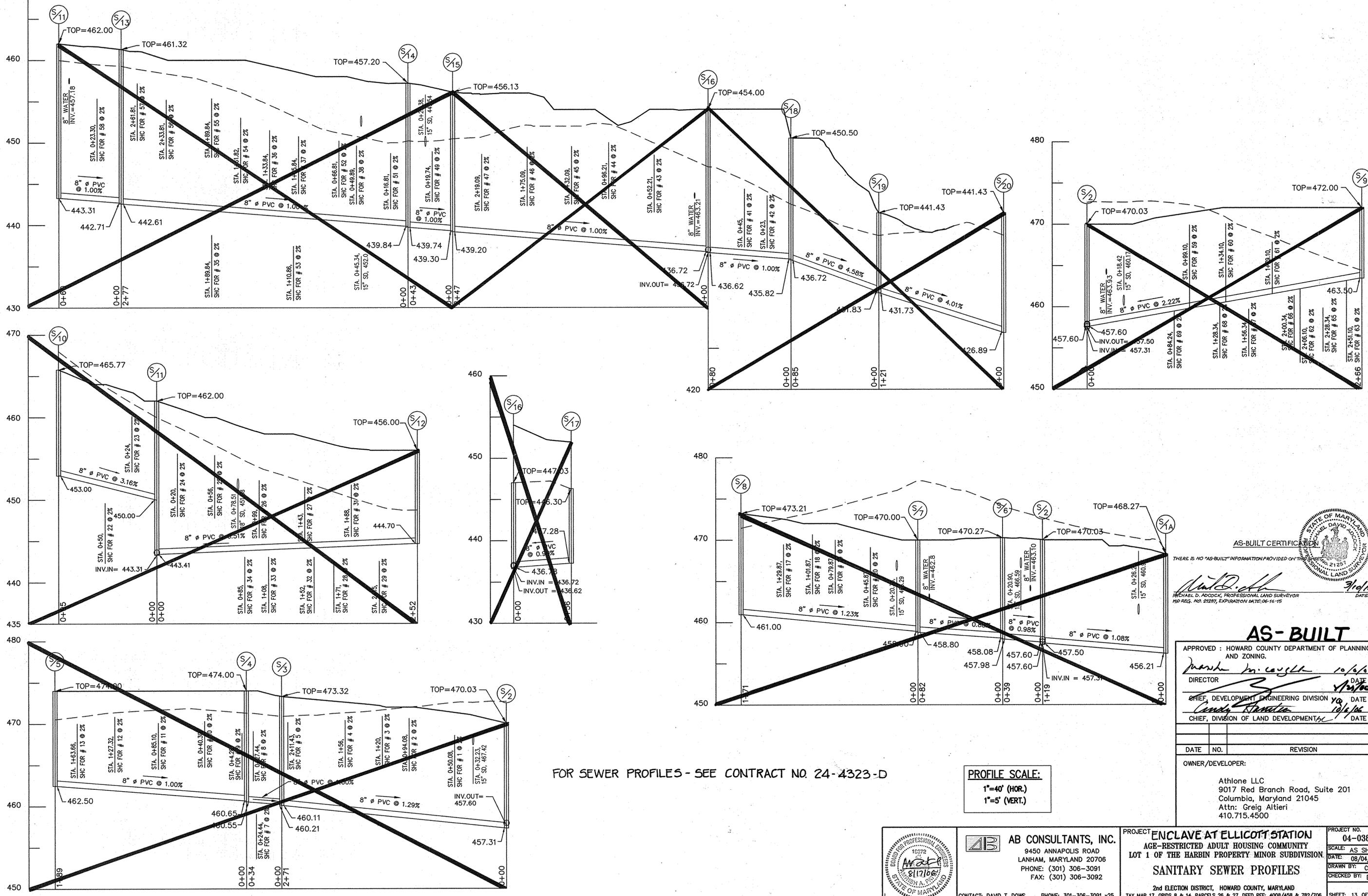
AB CONSULTANTS, INC.
9450 ANNAPOLIS ROAD
LANHAM, MARYLAND 20706
PHONE: (301) 306-3091
FAX: (301) 306-3092

CONTACT: DAVID T. DOWS PHONE: 301-306-3091 x25

PROJECT: ENCLAVE AT ELLICOTT STATION
AGE-RESTRICTED ADULT HOUSING COMMUNITY
LOT 1 OF THE HARBIN PROPERTY MINOR SUBDIVISION
STORMWATER MANAGEMENT DETAILS

2nd ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
TAX MAP 17, GRIDS 8 & 14, PARCELS 26 & 27, DEED REF: 4008/458 & 782/706

PROJECT NO. 04-038
SCALE: AS SHOWN
DATE: 08/04/06
DRAWN BY: CADD
CHECKED BY: DTD
SHEET: 12 OF 21



FOR SEWER PROFILES - SEE CONTRACT NO. 24-4323-D

PROFILE SCALE:
 1"=40' (HOR.)
 1"=5' (VERT.)

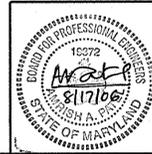
AS-BUILT CERTIFICATION
 THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS PLAN.
 MICHAEL D. ADDOCK, PROFESSIONAL LAND SURVEYOR
 MD REG. NO. 21297, EXPIRATION DATE: 06-16-15
 DATE: 10/16/06

AS-BUILT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
 Director: *Mark M. Coyle* 10/16/06
 Chief, Development Engineering Division: *Carolyn R. Strickland* 10/16/06
 Chief, Division of Land Development: *[Signature]* 10/16/06

DATE	NO.	REVISION

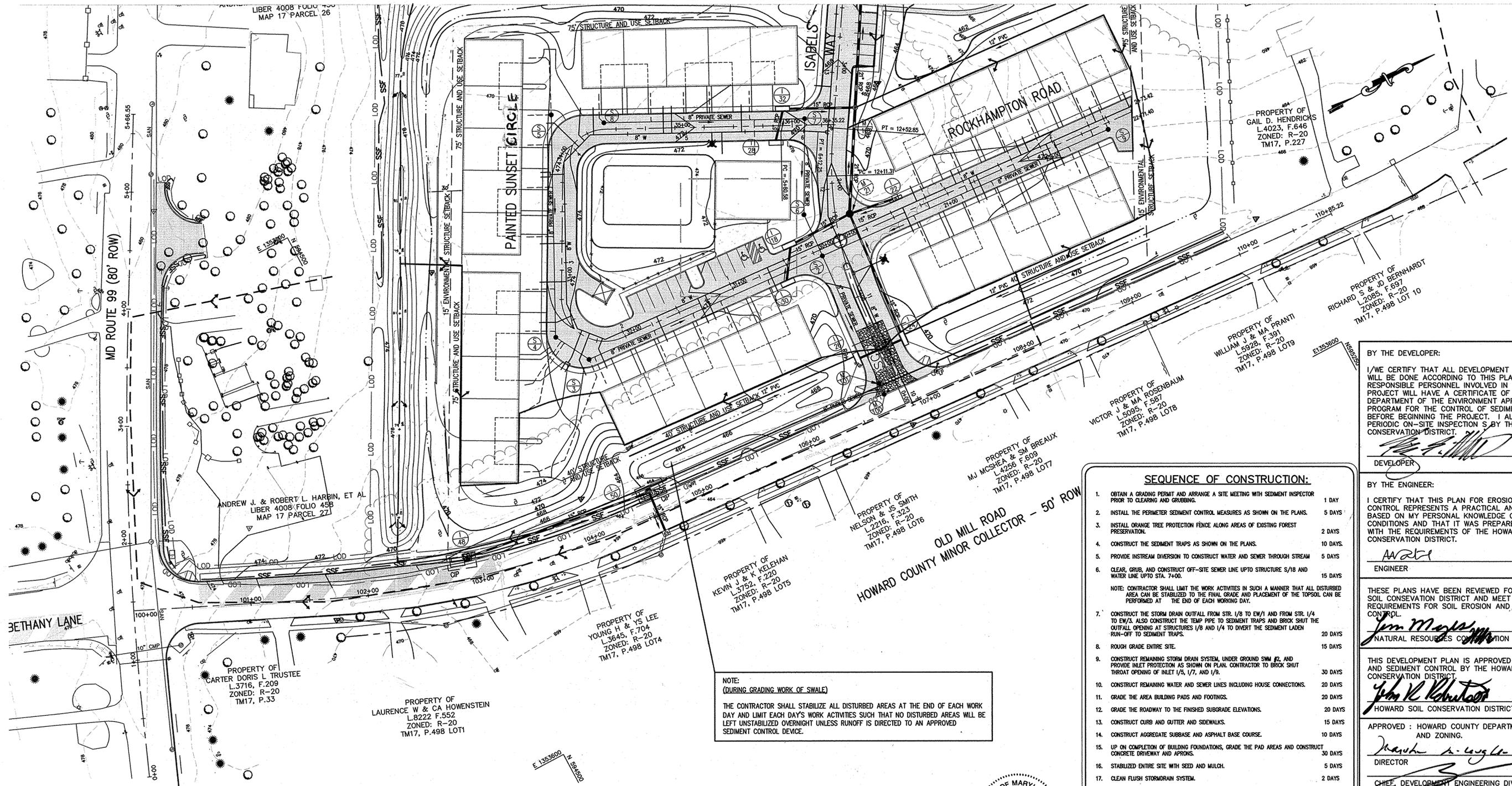
OWNER/DEVELOPER:
 Athlone LLC
 9017 Red Branch Road, Suite 201
 Columbia, Maryland 21045
 Attn: Greig Altieri
 410.715.4500



AB CONSULTANTS, INC.
 9450 ANNAPOLIS ROAD
 LANHAM, MARYLAND 20706
 PHONE: (301) 306-3091
 FAX: (301) 306-3092
 CONTACT: DAVID T. DOWS PHONE: 301-306-3091 x25

PROJECT: ENCLAVE AT ELLICOTT STATION
 AGE-RESTRICTED ADULT HOUSING COMMUNITY
 LOT 1 OF THE HARBIN PROPERTY MINOR SUBDIVISION
SANITARY SEWER PROFILES
 2nd ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
 TAX MAP 17, GRIDS 8 & 14, PARCELS 26 & 27, DEED REF: 4008/458 & 782/706

PROJECT NO. 04-038
 SCALE: AS SHOWN
 DATE: 08/04/06
 DRAWN BY: CADD
 CHECKED BY: DTD
 SHEET: 13 OF 21



LEGEND:

- SILT FENCE
- SUPER SILT FENCE
- EX. DRAINAGE DIVIDE FOR SEDIMENT TRAP
- PROP. DRAINAGE DIVIDE FOR SEDIMENT TRAP
- LOD - LIMIT OF DISTURBANCE
- STABILIZED CONSTRUCTION ENTRANCE
- CURB INLET PROTECTION (CIP)
- ED A-2 - EARTH DIKE

NOTE:
(DURING GRADING WORK OF SWALE)
THE CONTRACTOR SHALL STABILIZE ALL DISTURBED AREAS AT THE END OF EACH WORK DAY AND LIMIT EACH DAY'S WORK ACTIVITIES SUCH THAT NO DISTURBED AREAS WILL BE LEFT UNSTABILIZED OVERNIGHT UNLESS RUNOFF IS DIRECTED TO AN APPROVED SEDIMENT CONTROL DEVICE.

SEQUENCE OF CONSTRUCTION:

1. OBTAIN A GRADING PERMIT AND ARRANGE A SITE MEETING WITH SEDIMENT INSPECTOR PRIOR TO CLEARING AND GRUBBING.	1 DAY
2. INSTALL THE PERIMETER SEDIMENT CONTROL MEASURES AS SHOWN ON THE PLANS.	5 DAYS
3. INSTALL ORANGE TREE PROTECTION FENCE ALONG AREAS OF EXISTING FOREST PRESERVATION.	2 DAYS
4. CONSTRUCT THE SEDIMENT TRAPS AS SHOWN ON THE PLANS.	10 DAYS
5. PROVIDE INSTREAM DIVERSION TO CONSTRUCT WATER AND SEWER THROUGH STREAM	5 DAYS
6. CLEAR, GRUB, AND CONSTRUCT OFF-SITE SEWER LINE UP TO STRUCTURE S/18 AND WATER LINE UP TO STA. 74+00.	15 DAYS
NOTE: CONTRACTOR SHALL LIMIT THE WORK ACTIVITIES IN SUCH A MANNER THAT ALL DISTURBED AREA CAN BE STABILIZED TO THE FINAL GRADE AND PLACEMENT OF THE TOPSOIL CAN BE PERFORMED AT THE END OF EACH WORKING DAY.	
7. CONSTRUCT THE STORM DRAIN OUTFALL FROM STR. 1/8 TO EW/1 AND FROM STR. 1/4 TO EW/3. ALSO CONSTRUCT THE TEMP PIPE TO SEDIMENT TRAPS AND BRICK SHUT THE OUTFALL OPENING AT STRUCTURES 1/8 AND 1/4 TO DIVERT THE SEDIMENT LOAD RUN-OFF TO SEDIMENT TRAPS.	20 DAYS
8. ROUGH GRADE ENTIRE SITE.	15 DAYS
9. CONSTRUCT REMAINING STORM DRAIN SYSTEM, UNDER GROUND SMM #2, AND PROVIDE INLET PROTECTION AS SHOWN ON PLAN. CONTRACTOR TO BRICK SHUT THROAT OPENING OF INLET 1/5, 1/7, AND 1/9.	30 DAYS
10. CONSTRUCT REMAINING WATER AND SEWER LINES INCLUDING HOUSE CONNECTIONS.	20 DAYS
11. GRADE THE AREA BUILDING PADS AND FOOTINGS.	20 DAYS
12. GRADE THE ROADWAY TO THE FINISHED SUBGRADE ELEVATIONS.	20 DAYS
13. CONSTRUCT CURB AND GUTTER AND SIDEWALKS.	15 DAYS
14. CONSTRUCT AGGREGATE SUBBASE AND ASPHALT BASE COURSE.	10 DAYS
15. UP ON COMPLETION OF BUILDING FOUNDATIONS, GRADE THE PAD AREAS AND CONSTRUCT CONCRETE DRIVEWAY AND APRONS.	30 DAYS
16. STABILIZED ENTIRE SITE WITH SEED AND MULCH.	5 DAYS
17. CLEAN FLUSH STORMDRAIN SYSTEM.	2 DAYS
18. OPEN BRICK SHUT OPENING AT INLET 1/4, 1/5, 1/7, 1/8 AND 1/9. REMOVE TEMPORARY PIPE FROM SEDIMENT TRAP #2. BRICK SHUT THROAT OPENING OF 15" PVC AT INLET 1/8 AND EXTEND THE 15" PVC FOR THE PERMANENT CONDITION AS SHOWN ON THE PLAN.	2 DAYS
19. REMOVE DEPOSITED SEDIMENTS AND GRADE THE TRAPS AREA FOR THE STORMWATER MANAGEMENT FACILITY #1. AS SHOWN ON PLAN.	5 DAYS
20. CONSTRUCT STORMWATER MANAGEMENT FACILITY #1, REMAINING HOUSE PAD AND REMAINING STORMDRAIN SYSTEM. OPEN BRICK SHUT OPENING AT INET 1/8 AFTER FINISHING CONSTRUCTION OF SMM FACILITY #1.	20 DAYS
21. CONSTRUCT THE REMAINING ASPHALT SURFACE COURSE.	5 DAYS
22. UP ON SEDIMENT CONTROL INSPECTOR'S APPROVAL REMOVE ALL SEDIMENT CONTROL MEASURES AND STABILIZE ALL DISTURBED AREAS.	1 DAY

BY THE DEVELOPER:
I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.
[Signature] 8/18/06
DEVELOPER DATE

BY THE ENGINEER:
I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
[Signature] 8/18/06
ENGINEER DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.
[Signature] 9/15/06
NATURAL RESOURCES COMMUNITY SERVICE DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
[Signature] 9/15/06
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
[Signature] 10/6/06
DIRECTOR DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
[Signature] 10/10/06
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE	NO.	REVISION
10/18/10	1	REVISE BEEN GRADING AND GRADING AT REAR OF LOTS 6-15

OWNER/DEVELOPER:
Athlone LLC
9017 Red Branch Road, Suite 201
Columbia, Maryland 21045
Attn: Greig Altieri
410.715.4500

AS-BUILT CERTIFICATE

THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THESE PLANS.
[Signature] 9/10/14
MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR
NO. REG. NO. 21201, EXPIRATION DATE: 06/16/15



AB CONSULTANTS, INC.
9450 ANNAPOLIS ROAD
LANHAM, MARYLAND 20706
PHONE: (301) 306-3091
FAX: (301) 306-3092

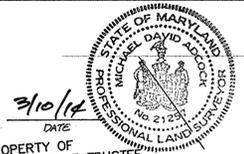
PROJECT: ENCLAVE AT ELLICOTT STATION
AGE-RESTRICTED ADULT HOUSING COMMUNITY
LOT 1 OF THE HARBIN PROPERTY MINOR SUBDIVISION
GRADING, EROSION AND SEDIMENT CONTROL PLAN

PROJECT NO. 04-038
SCALE: 1"=40'
DATE: 08/04/06
DRAWN BY: CADD
CHECKED BY: DTD

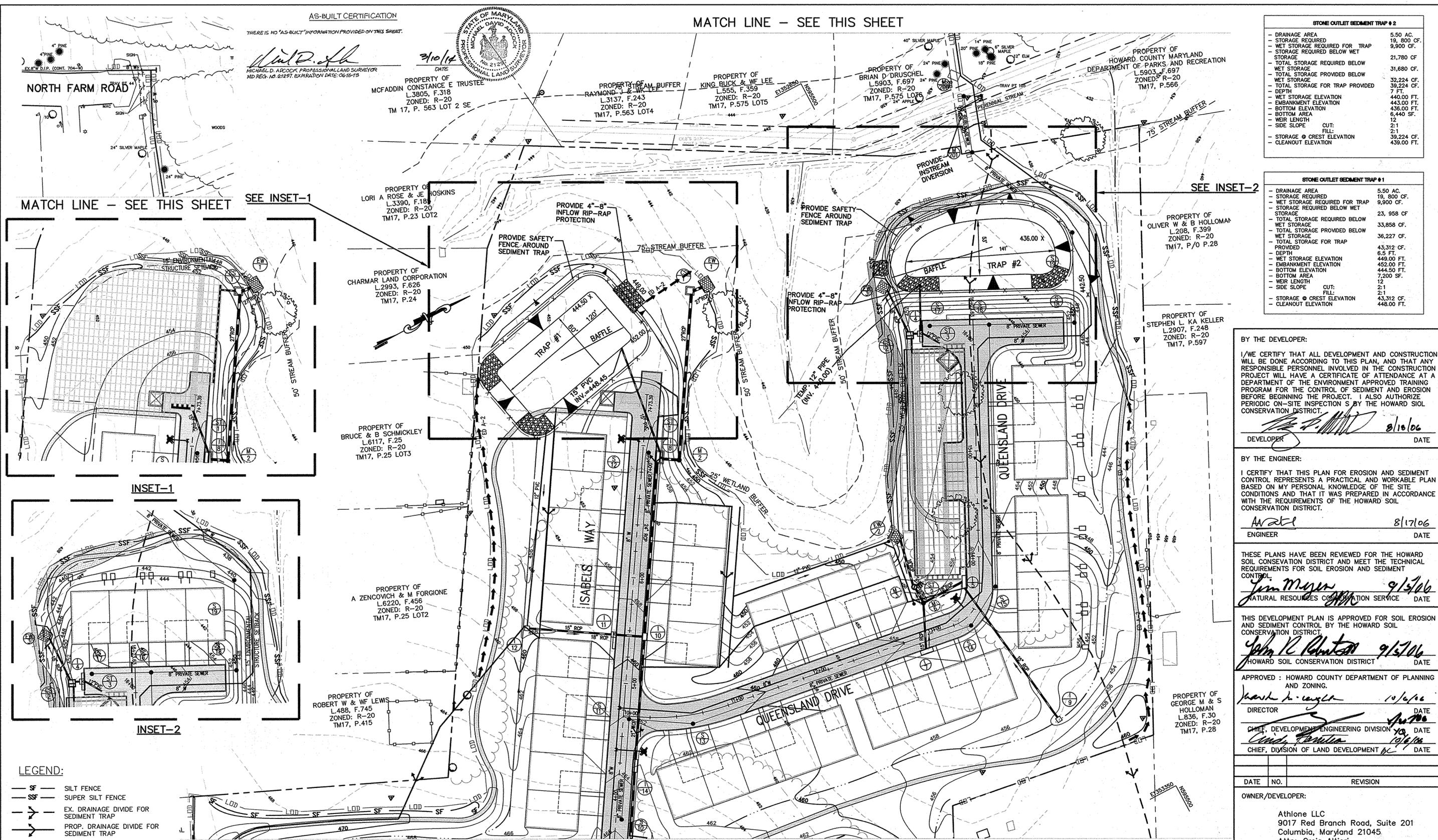
AS-BUILT CERTIFICATION

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

Michael D. Adcock, Professional Land Surveyor
MD REG. NO. 21297, EXPIRATION DATE: 06/16/13



MATCH LINE - SEE THIS SHEET

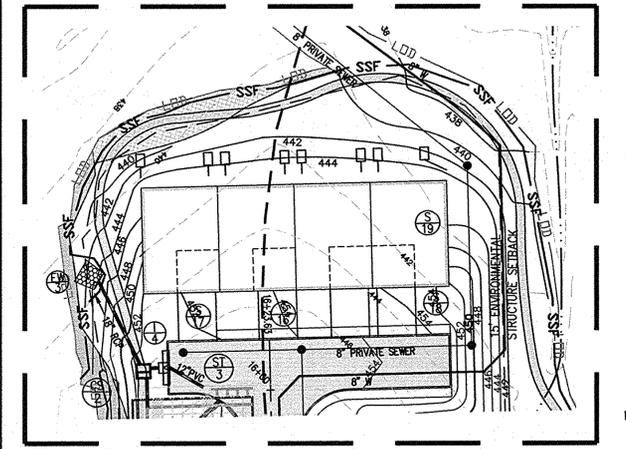
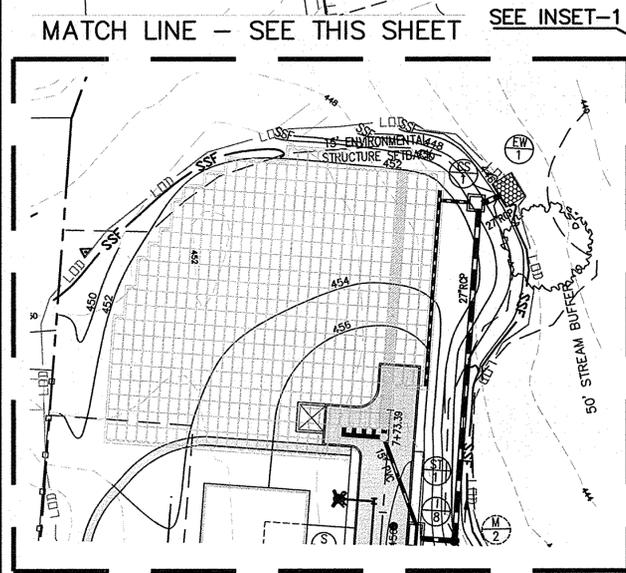


STONE OUTLET SEDIMENT TRAP #2

- DRAINAGE AREA	5.50 AC.
- STORAGE REQUIRED	19,800 CF.
- WET STORAGE REQUIRED FOR TRAP	9,900 CF.
- STORAGE REQUIRED BELOW WET STORAGE	21,780 CF.
- TOTAL STORAGE REQUIRED BELOW WET STORAGE	31,680 CF.
- TOTAL STORAGE PROVIDED BELOW WET STORAGE	32,224 CF.
- WET STORAGE FOR TRAP PROVIDED	7 FT.
- DEPTH	440.00 FT.
- EMBANKMENT ELEVATION	443.00 FT.
- BOTTOM ELEVATION	436.00 FT.
- WEIR LENGTH	6,440 SF.
- SIDE SLOPE	CUT: 2:1
- STORAGE @ CREST ELEVATION	2:1
- CLEANOUT ELEVATION	39,224 CF.
	439.00 FT.

STONE OUTLET SEDIMENT TRAP #1

- DRAINAGE AREA	5.50 AC.
- STORAGE REQUIRED	19,800 CF.
- WET STORAGE REQUIRED FOR TRAP	9,900 CF.
- STORAGE REQUIRED BELOW WET STORAGE	23,958 CF.
- TOTAL STORAGE REQUIRED BELOW WET STORAGE	33,858 CF.
- TOTAL STORAGE PROVIDED BELOW WET STORAGE	36,227 CF.
- WET STORAGE FOR TRAP PROVIDED	43,312 CF.
- DEPTH	6.5 FT.
- WET STORAGE ELEVATION	449.00 FT.
- EMBANKMENT ELEVATION	452.00 FT.
- BOTTOM ELEVATION	444.50 FT.
- BOTTOM AREA	7,200 SF.
- WEIR LENGTH	12
- SIDE SLOPE	CUT: 2:1
- STORAGE @ CREST ELEVATION	2:1
- CLEANOUT ELEVATION	43,312 CF.
	448.00 FT.



BY THE DEVELOPER:

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

[Signature] 8/10/06
DEVELOPER DATE

BY THE ENGINEER:

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

[Signature] 8/17/06
ENGINEER DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

[Signature] 9/13/06
NATURAL RESOURCES CONSERVATION SERVICE DATE

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

[Signature] 9/13/06
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

[Signature] 10/6/06
DIRECTOR DATE

[Signature] 10/6/06
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE	NO.	REVISION

OWNER/DEVELOPER:

Athlone LLC
9017 Red Branch Road, Suite 201
Columbia, Maryland 21045
Attn: Greig Altieri
410.715.4500

- LEGEND:**
- SF — SILT FENCE
 - SSF — SUPER SILT FENCE
 - EX. DRAINAGE DIVIDE FOR SEDIMENT TRAP
 - PROP. DRAINAGE DIVIDE FOR SEDIMENT TRAP
 - LOD — LIMIT OF DISTURBANCE
 - STABILIZED CONSTRUCTION ENTRANCE
 - CURB INLET PROTECTION (CIP)
 - ED A-2 — EARTH DIKE

NOTE: STOCK PILE WILL NOT BE PERMITTED OUTSIDE THE LIMITS OF DISTURBANCE



AB CONSULTANTS, INC.
9450 ANNAPOLIS ROAD
LANHAM, MARYLAND 20706
PHONE: (301) 306-3091
FAX: (301) 306-3092

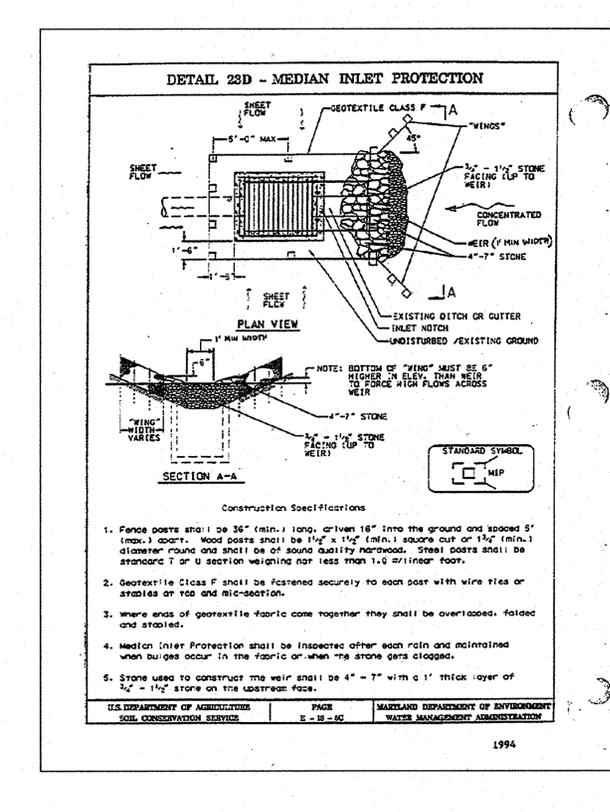
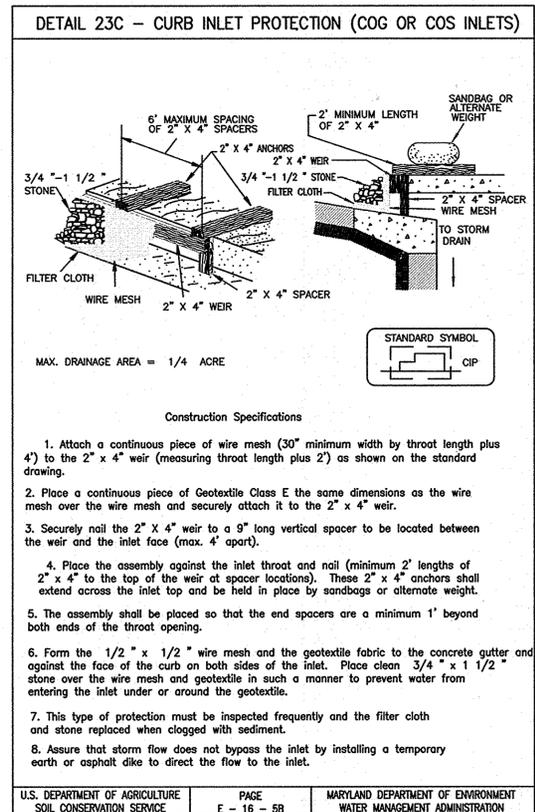
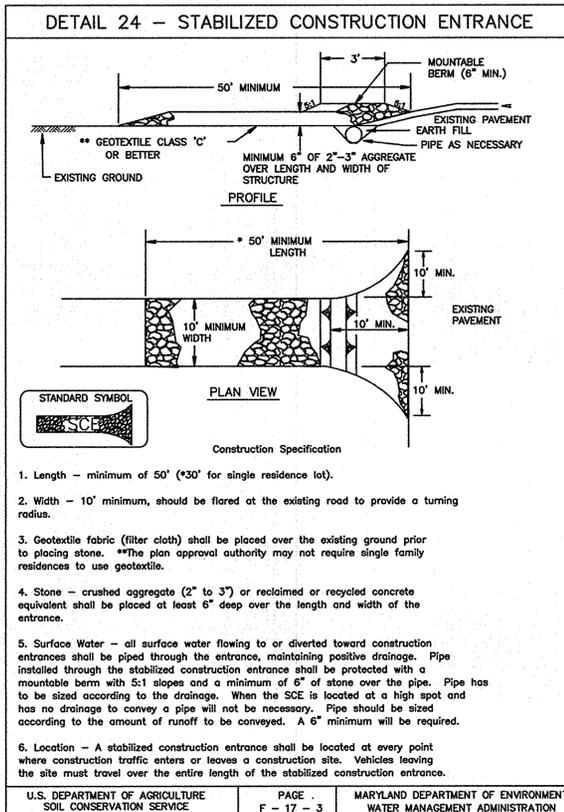
CONTACT: DAVID T. DOWS PHONE: 301-306-3091 x25

AS-BUILT

PROJECT: ENCLAVE AT ELLICOTT STATION
AGE-RESTRICTED ADULT HOUSING COMMUNITY
LOT 1 OF THE HARBIN PROPERTY MINOR SUBDIVISION
GRADING, EROSION AND SEDIMENT CONTROL PLAN

2nd ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
TAX MAP 17, GRIDS 8 & 14, PARCELS 26 & 27, DEED REF: 4008/458 & 782/706

PROJECT NO. 04-038
SCALE: 1"=40'
DATE: 08/04/06
DRAWN BY: CADD
CHECKED BY: DTD
SHEET: 15 OF 21



Temporary Seeding

Vegetation - annual grass or grain used to provide cover on disturbed areas for up to 12 months. For longer duration of vegetative cover, Permanent Seeding is required.

A. Seed Mixtures - Temporary Seeding

- Select one or more of the species or mixtures listed in Table 26 for the appropriate Plant Hardness Zone (from Figure 5) and enter them in the Temporary Seeding Summary below, along with application rates and seeding dates. Seeding depths can be estimated using Table 26. If this Summary is not put on the plans and completed, then Table 26 must be put on the plans.
- For sites having soil test performed, the rates shown on this table shall be deleted and the rates recommended by the testing agency shall be written in. Soil tests are not required for Temporary Seeding.

TEMPORARY SEEDING SUMMARY					FERTILIZER RATE (10-10-10)	LIME RATE
NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATE	SEEDING DEPTH		
1	BARLEY	122	2/1-4/30	1"-2"	600 LBS/AC (15 LB/1000SF)	2 TONS/AC (100LB/1000SF)
2	WEeping LOVEGRASS	4	5/1-8/14	1/4"-1/2"		
3	RYE	140	8/15-11/15	1"-2"		

Permanent Seeding

Seeding grass and legumes to establish ground cover for a minimum period of one year on disturbed areas generally receiving low maintenance.

A. Seed Mixtures - Permanent Seeding

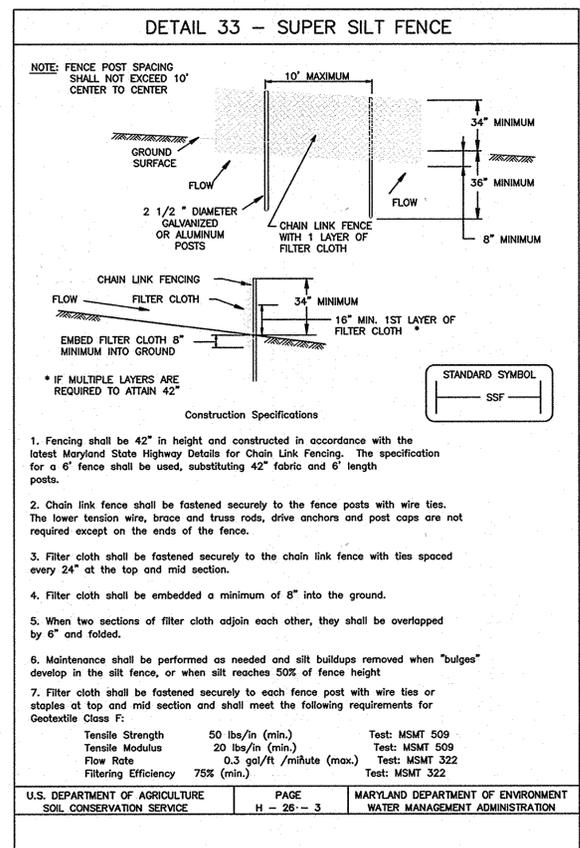
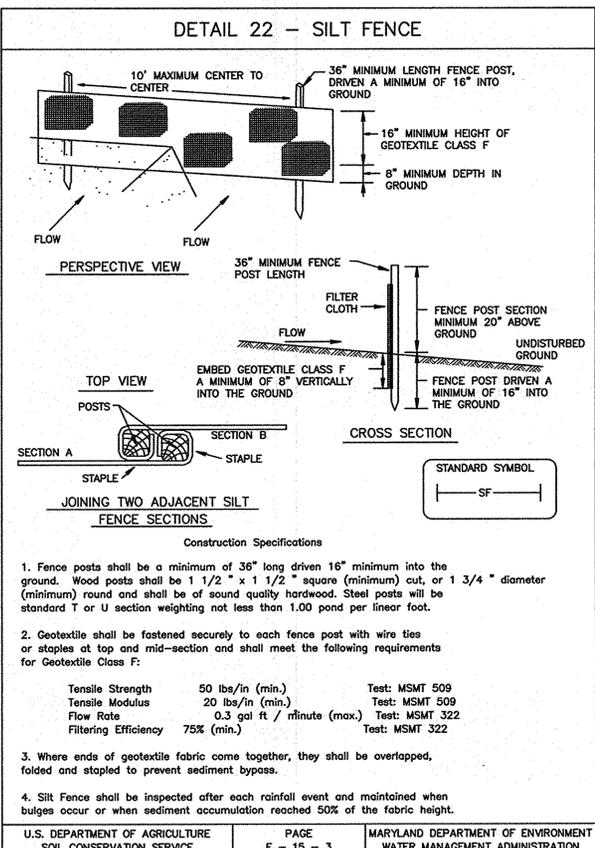
- Select one or more of the species or mixtures listed in Table 25 for the appropriate Plant Hardness Zone (from Figure 5) and enter them in the Permanent Seeding Summary below, along with application rates and seeding dates. Seeding depths can be estimated using Table 25. If this Summary is not put on the construction plans and completed, then Table 25 must be put on the plans. Additional planting specifications for exceptional sites such as shorelines, streambanks, or dunes or for special purposes such as wildlife or aesthetic treatment may be found in USDA-SCS Technical Field Office guide, Section 342 - Critical Area Planting. For special lawn maintenance areas, see Sections IV and V Turfgrass.
- For sites having disturbed area over 5 acres, the rates shown on this table shall be deleted and the rates recommended by the soil testing agency shall be written in.
- For areas receiving low maintenance, apply ureaform fertilizer (46-0-0) at 3 1/2 lbs/1000 sq. ft. (150 lbs/acre), in addition to the above soil amendments shown in the table below, to be performed at the time of seeding.

PERMANENT SEEDING SUMMARY					FERTILIZER RATE (10-20-20)	LIME RATE
NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATE	SEEDING DEPTH		
1	TALL FESCUE (85%)	125	3/1-5/15	1/4"-1/2"	(2 LB/1000 SF) (4 LB/1000 SF) (4 LB/1000 SF)	(100LB/1000SF)
2	PERENNIAL RYEGRASS (10%)	15	8/15-10/15	1/4"-1/2"		
3	KENTUCKY BLUEGRASS (5%)	10	8/15-10/15	1/4"-1/2"		

Note: Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.

- Place topsoil (if required) and apply soil amendments as specified in 20.0 Stabilization - Section I - Vegetative Stabilization Methods and Materials.
- Topsoil Application
 - When topsoiling, maintain needed erosion and sediment control practices such as diversions, Silt Stabilization Structures, Earth Dikes, Slope Soil Fences and Sediment Traps and Basins.
 - Grade on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4" - 8" higher in elevation.
 - Topsoil shall be uniformly distributed in a 4" - 8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets.
 - Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.
- Alternative for Permanent Seeding - Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below:
 - Composted Sludge Material used as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for sites having disturbed areas over 5 acres shall conform to the following requirements:
 - Composted sludge shall be supplied by, or originate from, a person or persons that permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06.
 - Composted sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a pH of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use.
 - Composted sludge shall be applied at a rate of 1 ton/1,000 square feet.
 - Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3 the normal lime application rate.

References: Guideline Specifications, Soil Preparation and Sodding, Md-VA, Pub. #1, Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institutes.



STANDARD EROSION AND SEDIMENT CONTROL NOTES

- A minimum of 48 hours notice must be given to the Howard County Department of Inspections, Licenses and permits, sediment control divisions prior to the start of any construction (313-1855).
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1994 Maryland standards and specifications for soil erosion and sediment control and revisions thereto.
- Following initial soil disturbance or re-disturbance, permanent or temporary stabilization shall be completed within: A) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes, and all slopes steeper than 3:1 B) 14 days as to all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around the perimeter in accordance with vol. 1, chapter 7, of the Howard county design manual, storm drainage.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1994 Maryland standards and specifications for soil erosion and sediment control for permanent seeding, sod, temporary seeding, and mulching. (see 6). Temporary stabilization with mulch alone shall only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard county sediment control inspector.
- Site Analysis:

Total area of site	15.52 Acres
Area Disturbed	13.157 Acres
Area to be roofed or paved	6.088 Acres
Area to be vegetatively stabilized	7.069 Acres
Total cut	0 Cu. Yards
Total fill	33,300 Cu. Yards

 offsite waste/borrow location to have an active grading permit.
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- Additional sediment controls must be provided, if deemed necessary by the Howard county sediment control inspector.
- On all sites with disturbed areas in excess of 2 Acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.
- Trenches for the construction of utilities is limited to three pipe lengths or that which shall be back-filled and stabilized within one working day, whichever is shorter.
- Site grading will begin only after all perimeter sediment control measures have been installed and are in a functioning condition.
- Sediment will be removed from traps when its depth reaches clean out elevation shown on the plans.
- Cut and fill quantities provided under site analysis do not represent bid quantities. Bid quantities do not distinguish between topsoil, structural fill or embankment material. The contractor shall familiarize himself with site conditions which may affect the work.

AS-BUILT CERTIFICATION

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

Michael D. Adcock, PROFESSIONAL LAND SURVEYOR
MD REG. NO. 21257, EXPIRATION DATE: 06-16-13

DATE: 3/19/14

21.0 STANDARD AND SPECIFICATIONS FOR TOPSOIL

Definition
Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

Purpose
To provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.

Conditions Where Practice Applies

- This practice is limited to areas having 2:1 or flatter slopes where:
 - The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
 - The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
 - The original soil to be vegetated contains material toxic to plant growth.
 - The soil is so acidic that treatment with limestone is not feasible.
- For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.

Construction and Material Specifications

- Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experiment Station.
- Topsoil Specifications - Soil to be used as topsoil must meet the following:
 - Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Rejected topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 1/2" in diameter.
 - Topsoil must be free of plants or plant parts such as bermuda grass, quackgrass, johnsongrass, nutsedge, poison ivy, thistle, or others as specified.
 - Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.
- For sites having disturbed areas under 5 acres:
 - Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization Section I - Vegetative Stabilization Methods and Materials.
- For sites having disturbed areas over 5 acres:
 - On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
 - pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.
 - Organic content of topsoil shall be not less than 1.5 percent by weight.
 - Topsoil having soluble salt content greater than 500 parts per million shall not be used.
 - No sod or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) To permit dissipation of phyto-toxic materials.

BY THE DEVELOPER:

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

[Signature] 2/19/06
DEVELOPER DATE

BY THE ENGINEER:

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

[Signature] 8/17/06
ENGINEER DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

[Signature] 9/13/06
NATURAL RESOURCES ADMINISTRATION SERVICE DATE

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

[Signature] 9/15/06
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

[Signature] 10/6/06
DIRECTOR DATE

[Signature] 10/6/06
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 10/6/06
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE	NO.	REVISION

OWNER/DEVELOPER:

Athlone LLC
9017 Red Branch Road, Suite 201
Columbia, Maryland 21045
Attn: Greig Altieri
410.715.4500

PROJECT NO. 04-038
SCALE: NONE
DATE: 08/04/06
DRAWN BY: CADD
CHECKED BY: DTD
SHEET: 16 OF 21

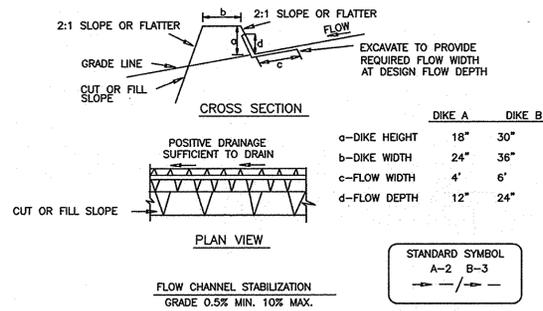
AS-BUILT

AB CONSULTANTS, INC.
9450 ANNAPOLIS ROAD
LANHAM, MARYLAND 20706
PHONE: (301) 306-3091
FAX: (301) 306-3092

CONTACT: DAVID T. DOWS PHONE: 301-306-3091 x25

PROJECT ENCLAVE AT ELLICOTT STATION
AGE-RESTRICTED ADULT HOUSING COMMUNITY
LOT 1 OF THE HARBIN PROPERTY MINOR SUBDIVISION
EROSION & SEDIMENT CONTROL
NOTES AND DETAILS
2nd ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
TAX MAP 17, GRIDS 8 & 14, PARCELS 26 & 27, DEED REF: 4008/458 & 782/706

DETAIL 1 - EARTH DIKE

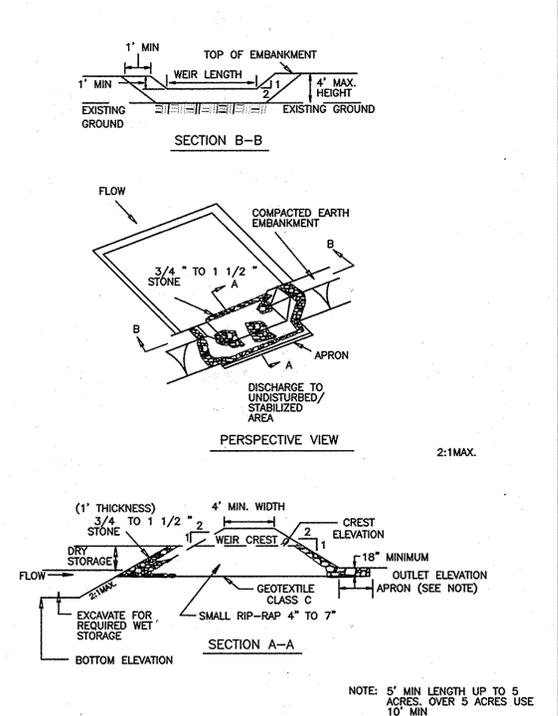


- DIKE A DIKE B**
- | | |
|---------------|---------|
| a-DIKE HEIGHT | 18" 30" |
| b-DIKE WIDTH | 24" 36" |
| c-FLOW WIDTH | 4' 6' |
| d-FLOW DEPTH | 12" 24" |
- CONSTRUCTION SPECIFICATIONS**
1. Seed and cover with straw mulch.
 2. Seed and cover with Erosion Control Matting or line with sod.
 3. 4" - 7" stone or recycled concrete equivalent pressed into the soil 7" minimum
1. All temporary earth dikes shall have uninterrupted positive grade to an outlet. Spot elevations may be necessary for grades less than 1%.
 2. Runoff diverted from a disturbed area shall be conveyed to a sediment trapping device.
 3. Runoff diverted from an undisturbed area shall outlet directly into an undisturbed, stabilized area at a non-erosive velocity.
 4. All trees, brush, stumps, obstructions, and other objectional material shall be removed and disposed of so as not to interfere with the proper functioning of the dike.
 5. The dike shall be excavated or shaped to line, grade and cross section as required to meet the criteria specified herein and be free of bank projections or other irregularities which will impede normal flow.
 6. Fill shall be compacted by earth moving equipment.
 7. All earth removed and not needed for construction shall be placed so that it will not interfere with the functioning of the dike.
 8. Inspection and maintenance must be provided periodically and after each rain event.

STONE/RIP-RAP OUTLET SEDIMENT TRAP - ST IV

- Construction Specifications**
1. The area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.
 2. The fill material for the embankment shall be free of roots or other woody vegetation as well as over-sized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed. Maximum height of embankment shall be 4', measured at centerline of embankment.
 3. All cut and fill slopes shall be 2:1 or flatter.
 4. Elevation of the top of any dike directing water into trap must equal or exceed the height of trap embankment.
 5. Storage area provided shall be figured by computing the volume measured from top of excavation. (For storage requirements see Table 9).
 6. Geotextile Class C shall be placed over the bottom and sides of the outlet channel prior to placement of stone. Section of fabric must overlap at least 1' with section nearest the entrance placed on top. Fabric shall be embedded at least 6" into existing ground at entrance of outlet channel.
 7. 4" - 7" stone shall be used to construct the weir and 4" - 12" or Class 1 rip-rap shall be used to construct the outlet channel.
 8. Outlet - An outlet shall include a means of conveying the discharge in an erosion free manner to an existing stable channel. Protection against scour at the discharge point shall be provided as necessary.
 9. Outlet channel must have positive drainage from the trap.
 10. Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to 1/2 of the wet storage depth of the trap (900 cf/ac). Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.
 11. The structure shall be inspected periodically after each rain and repaired as needed.
 12. Construction of traps shall be carried out in such a manner that sediment pollution is abated. Once constructed, the top and outside face of the embankment shall be stabilized with seed and mulch. Points of concentrated inflow shall be protected in accordance with Grade Stabilization Structure criteria. The remainder of the interior slopes should be stabilized (one time) with seed and mulch upon trap completion and monitored and maintained erosion free during the life of the trap.
 13. The structure shall be dewatered by approved methods, removed and the area stabilized when the drainage area has been properly stabilized.

DETAIL 10A - STONE/RIP-RAP OUTLET SEDIMENT TRAP - ST IV



MGWC 4.2: UTILITY CROSSING

Temporary in-stream construction

- DESCRIPTION**
- The work should consist of installing erosion control devices in and adjacent to the construction of utility crossings.
- INSTALLATION GUIDELINES**
- All erosion and sediment control devices, including dewatering basins, should be implemented as the first order of business according to a plan approved by the WMA or local authority. (See the 1994 Maryland Standards and Specifications for Soil Erosion and Sediment Control.) The proposed construction sequence is as follows (refer to Detail 4.2):
1. The contractor should insure that a continuous perimeter control barrier is in place to minimize the amount of pollutants entering the flow. A diversion pipe as shown in MGWC 1.4: Diversion Pipe or other measure should be installed and sandbag or stone barriers as shown in MGWC 1.3: Sandbag/Stone Diversion should be constructed according to specifications to divert the streamflow.
 2. Excavated topsoil and subsoil should be kept separate, placed on the upland side of the excavation, and replaced in their natural order.
 3. All construction should take place during stream low flows. The length of construction time should be limited to a maximum of 5 consecutive days for each crossing.
 4. All utility crossings should be placed a minimum of 3 feet (1 meter) beneath the stream bed unless an alternative section is specifically approved by the WMA. For instances where a 3-foot cover is not viable, two alternate stabilization options are given in the Detail 4.2. A low flow channel shall be constructed through all riprap placements across the stream bed.
 5. The stream should be diverted by an approved temporary stream diversion, the construction area should be dewatered, and any disturbed banks should be stabilized. The contractor may elect to construct the utility crossing in two stages. In this case, a WMA approved flow barrier may be constructed to keep the construction area dry.
 6. Once the crossing is completed, the diversion should be removed from upstream to downstream. Sediment control devices, including perimeter erosion controls, are to remain in place until all disturbed areas are stabilized in accordance with an approved sediment and erosion control plan and the inspection authority approves their removal.

BY THE DEVELOPER:

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

[Signature] 8/13/06
DEVELOPER DATE

BY THE ENGINEER:

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

[Signature] 8/17/06
ENGINEER DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

[Signature] 9/5/06
NATURAL RESOURCES DIVISION DATE

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

[Signature] 9/5/06
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

[Signature] 9/5/06
DIRECTOR DATE

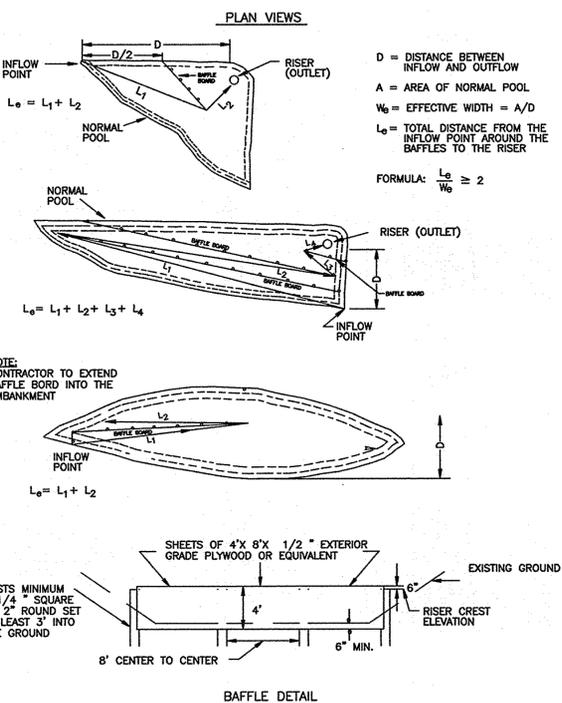
[Signature] 9/5/06
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 9/5/06
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

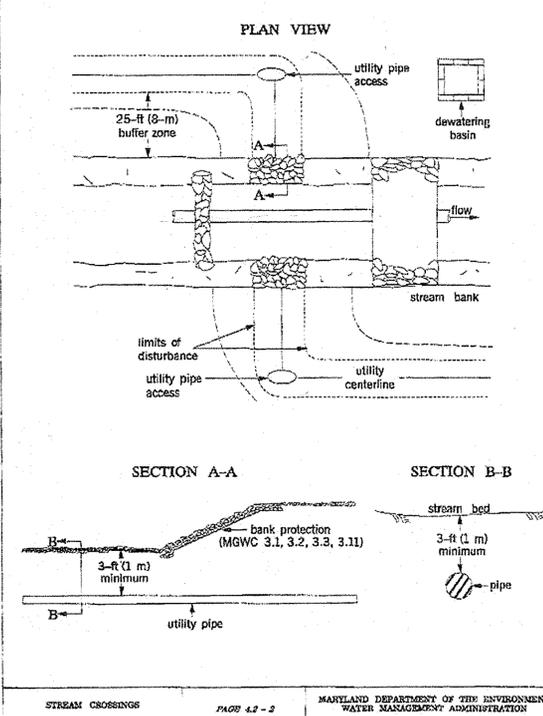
OWNER/DEVELOPER:

Athlone LLC
9017 Red Branch Road, Suite 201
Columbia, Maryland 21045
Attn: Greig Altieri
410.715.4500

DETAIL 18 - SEDIMENT BASIN BAFFLES



**Maryland's Guidelines To Waterway Construction
DETAIL 4.2(a): UTILITY CROSSING**



AB CONSULTANTS, INC.	
TRAP #1	
JOB NAME: VILLAS OF ATHLONE	
POINT OF STUDY # A	
CONDITION: PROPOSED CONDITION	
1-YR., 24 HR. EXTENDED DETENTION DESIGN	
PROPOSED CONDITION	
Drainage Area, A =	7.57 Acres
RCN =	86
Tc =	0.22 Hrs.
1-yr. rainfall depth, P =	2.60 Inches
From TR 55 Manual, Eqn. 2.3, Runoff depth, qa = [(P-0.25)^2] / (P+0.85) =	1.33 Inches
From Tc & P, find unit peak discharge, qu =	1012.80 csm/in
Peak Discharge, qi = qu.A.qa =	11.95 CFS
qu & extended detention time T, qo/qi =	0.018
Fig D 11.2-MDE T=24 hours	
Peak Outflow discharge, qo=(qo/qi)xi =	0.22 CFS
Vs/Vr = 0.683-1.43(qo/qi)+1.64(qo/qi)^2-0.804(qo/qi)^3 =	0.66
Extended Detention Storage Volume, Vs = (Vs/Vr)xiqaxA/12 =	0.55 Ac.Ft.
Corresponding storage elevation =	451.50
Corresponding Headwater Depth, ho =	3.95 Ft.
Orifice Area, A, reqd. = qo/(C*(2gho)^0.5) =	0.022 SF.
C =	0.60
g =	32.2
Dia. of Orifice, d=(4A/Pi)^0.5 =	0.17 Ft.
	2.0 Inches
Use	2" diameter orifice.

AS-BUILT CERTIFICATION

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

[Signature]
MICHAEL D. ADDOCK, PROFESSIONAL LAND SURVEYOR
MD REG. NO. 5129, EXPIRATION DATE: 04-16-15

AB CONSULTANTS, INC.	
TRAP #2	
JOB NAME: VILLAS OF ATHLONE	
POINT OF STUDY # B	
CONDITION: PROPOSED CONDITION	
1-YR., 24 HR. EXTENDED DETENTION DESIGN	
PROPOSED CONDITION	
Drainage Area, A =	7.68 Acres
RCN =	84
Tc =	0.20 Hrs.
1-yr. rainfall depth, P =	2.60 Inches
From TR 55 Manual, Eqn. 2.3, Runoff depth, qa = [(P-0.25)^2] / (P+0.85) =	1.20 Inches
From Tc & P, find unit peak discharge, qu =	931.30 csm/in
Peak Discharge, qi = qu.A.qa =	11.18 CFS
qu & extended detention time T, qo/qi =	0.020
Fig D 11.2-MDE T=24 hours	
Peak Outflow discharge, qo=(qo/qi)xi =	0.22 CFS
Vs/Vr = 0.683-1.43(qo/qi)+1.64(qo/qi)^2-0.804(qo/qi)^3 =	0.66
Extended Detention Storage Volume, Vs = (Vs/Vr)xiqaxA/12 =	0.50 Ac.Ft.
Corresponding storage elevation =	450.25
Corresponding Headwater Depth, ho =	4.50 Ft.
Orifice Area, A, reqd. = qo/(C*(2gho)^0.5) =	0.022 SF.
C =	0.60
g =	32.2
Dia. of Orifice, d=(4A/Pi)^0.5 =	0.17 Ft.
	2.0 Inches
Use	2" diameter orifice.

AS-BUILT

AB CONSULTANTS, INC.
9450 ANNAPOLIS ROAD
LANHAM, MARYLAND 20706
PHONE: (301) 306-3091
FAX: (301) 306-3092

PROJECT ENCLAVE AT ELLICOTT STATION
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NOTES AND DETAILS

2nd ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
TAX MAP 17, GRIDS 8 & 14, PARCELS 26 & 27, DEED REF: 4008/458 & 782/706

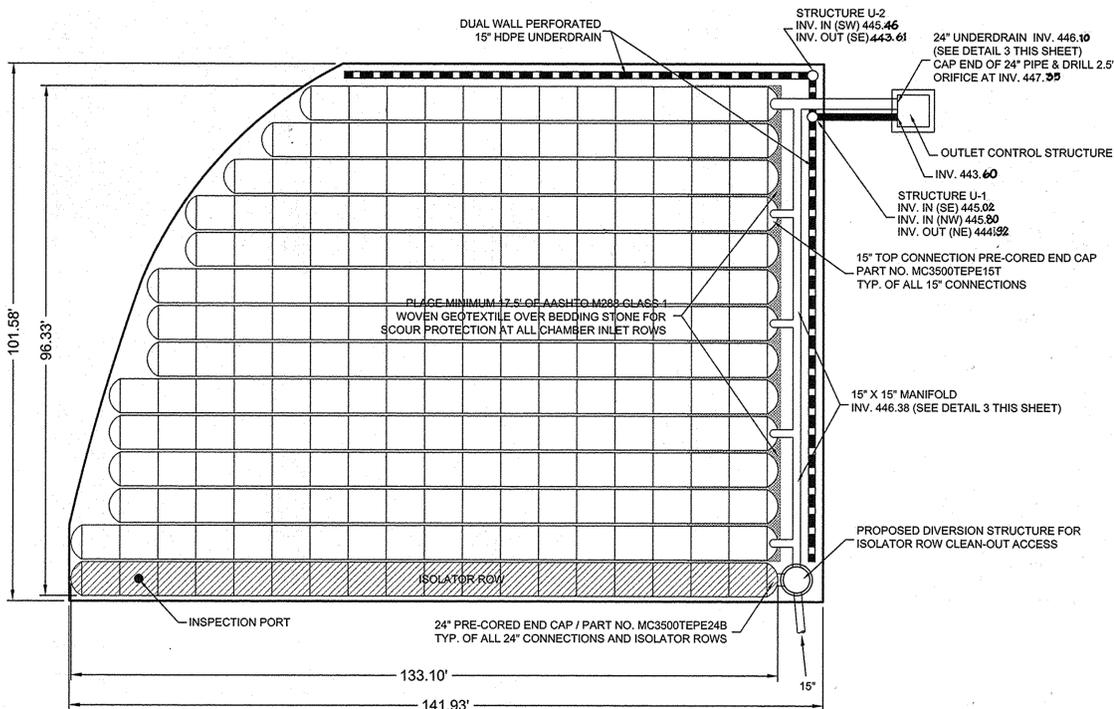
PROJECT NO. 04-038
SCALE: NONE
DATE: 08/04/06
DRAWN BY: CADD
CHECKED BY: DTD
SHEET: 17 OF 21

LAYOUT

221 STORMTECH MC-3500 CHAMBERS
 28 STORMTECH MC-3500 END CAPS
 INSTALLED WITH 15" COVER STONE, 40% STONE VOID
 INSTALLED SYSTEM VOLUME (PERIMETER STONE INCLUDED): 46,406 CF

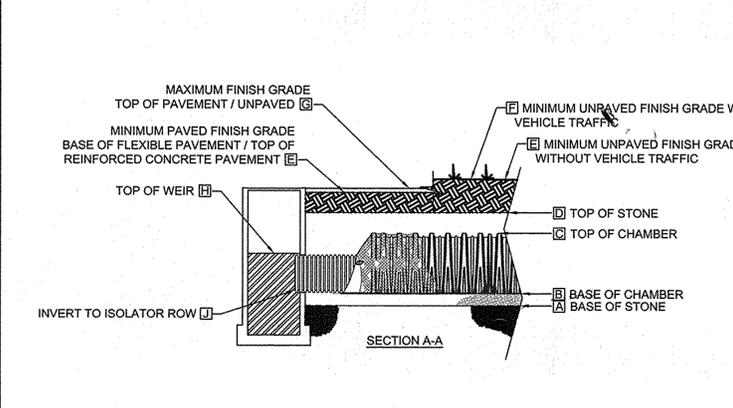
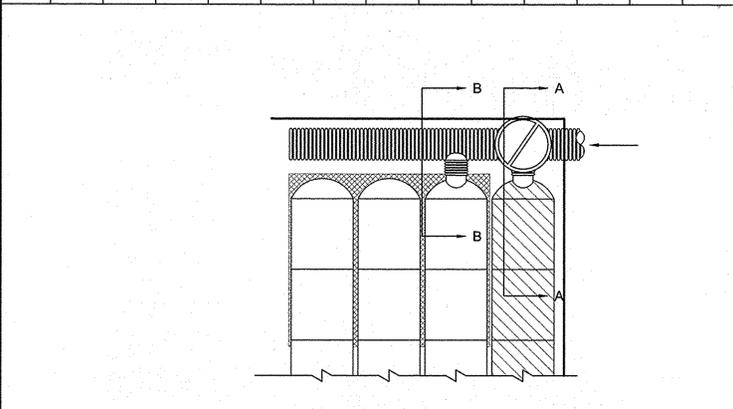
PROPOSED ELEVATIONS

MAX. GRADE (TOP OF PAVEMENT/UNPAVED): 456.50
 MIN. GRADE (UNPAVED): 452.75
 MIN. GRADE (BASE OF FLEXIBLE PAVEMENT): 452.25
 MIN. GRADE (TOP OF REINFORCED CONCRETE PAVEMENT): 452.25
 TOP OF STONE: 451.25
 TOP OF CHAMBER: 450.00
 15" X 15" MANIFOLD INVERT: 448.20
 24" INVERT TO ISOLATOR ROW(S): 446.42
 BOTTOM OF CHAMBER: 446.25
 15" UNDERDRAIN: 445.84
 BOTTOM OF STONE: 445.00

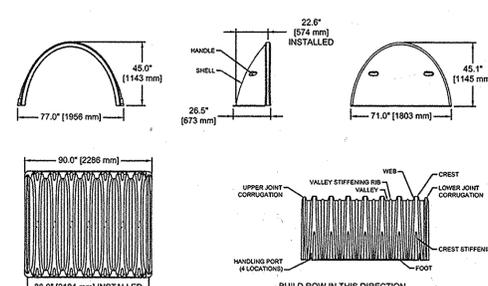


1 PLAN VIEW LAYOUT

BEAD 1/ ONLY	A	B	C	D	E	F	G	H	J	K	KK	L	LL
	445.00	446.25	450.00	451.25	452.25	452.75	456.50	447.67	446.42	15"	446.25	15"	446.38



2 MC-3500 ELEVATIONS

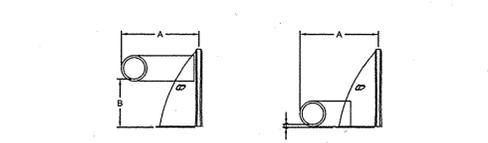


NOMINAL MC-3500 CHAMBER SPECIFICATIONS

SIZE (L x W x H)	90" x 77" x 45" [2286 mm x 1958 mm x 1143 mm]
CHAMBER STORAGE	115.0 cu ft [3.25 m³]
MINIMUM INSTALLED STORAGE	175.8 cu ft [5.01 m³]
WEIGHT	124 lbs [56.2 kg]

NOMINAL MC-3500 END CAP SPECIFICATIONS

SIZE (L x W x H)	26.5" x 71" x 45" [673 mm x 1803 mm x 1143 mm]
ENDCAP STORAGE	15.8 cu ft [0.44 m³]
MINIMUM INSTALLED STORAGE	45.6 cu ft [1.29 m³]
WEIGHT	43 lbs [19.5 kg]

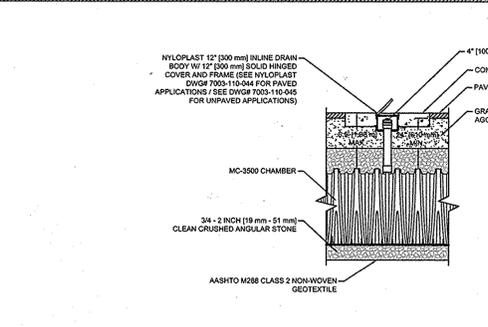


STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "8"
 STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"

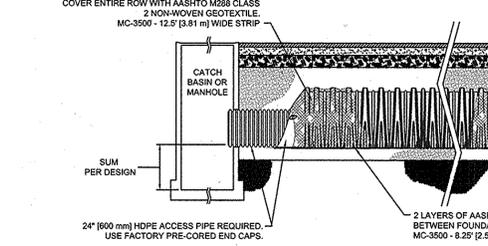
PARTS	STUB	A	B	C	N/A
MC3500TEPE127	12" (300 mm)	47.62" (1.21 m)	28.36" (0.70 m)		
MC3500TEPE128	12" (300 mm)	49.53" (1.25 m)		1.35" (34 mm)	
MC3500TEPE151	15" (375 mm)	55.50" (1.40 m)	23.50" (594 mm)		
MC3500TEPE155	15" (375 mm)	53.56" (1.36 m)		1.50" (38 mm)	
MC3500TEPE181	18" (450 mm)	61.39" (1.56 m)	20.00" (509 mm)		
MC3500TEPE185	18" (450 mm)	59.71" (1.44 m)		1.77" (45 mm)	
MC3500TEPE248	24" (600 mm)			2.06" (52 mm)	

NOTE: ALL DIMENSIONS ARE NOMINAL.
 STORMTECH INVENTORIED MANIFOLDS AND PRE-CORED END CAPS INCLUDE 24" (600 mm) BOTTOM (MC3500TEPE248), 16" (400 mm) BOTTOM (MC3500TEPE188) AND 15" (375 mm) TOP (MC3500TEPE151). OTHER PIPE SIZES AND PRE-CORED END CAPS ARE AVAILABLE UPON SPECIAL ORDER.

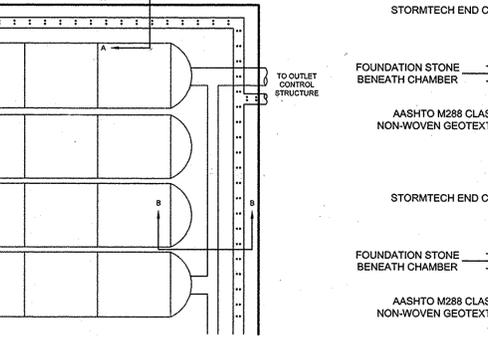
4 MC-3500 TECHNICAL SPEC.



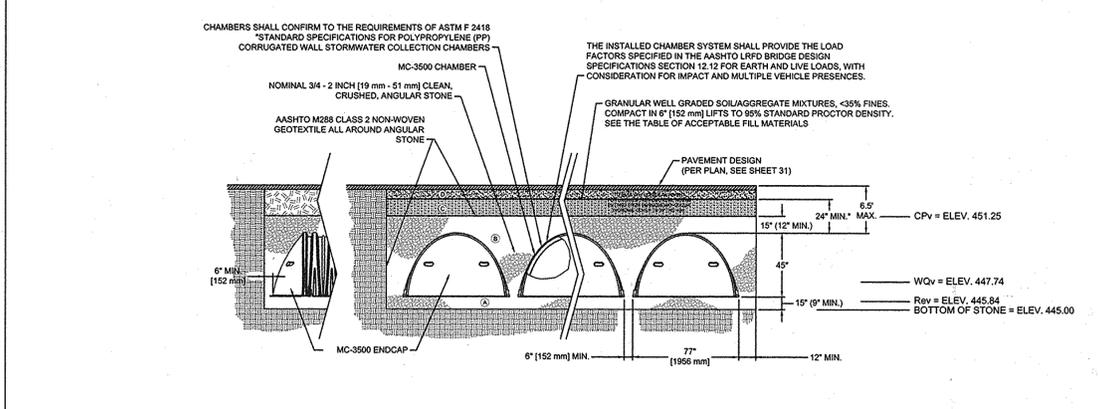
5 MC-3500 INSPECTION PORT DETAIL



6 MC-3500 ISOLATOR ROW™ DETAIL



7 MC-3500 UNDERDRAIN DETAIL



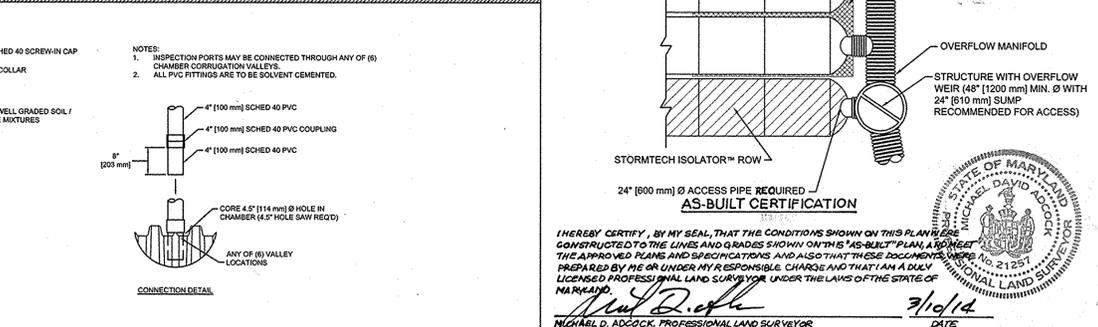
8 MC-3500 STANDARD CROSS SECTION

ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 CHAMBER SYSTEMS

MATERIAL LOCATION	DESCRIPTION	AASHTO M33 DESIGNATION¹	COMPACTION/DENSITY REQUIREMENT
① FILL MATERIAL FOR LAYER 'T' STARTS FROM THE TOP OF THE 'D' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PRE-ENGINEERED PLANS. CHECK PLANS FOR PAVEMENT SUBBASE REQUIREMENTS.	N/A	PREPARE PER ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRONGER MATERIAL REQUIREMENTS.
② FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE EMBANKMENT STONE OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THIS LAYER.	GRANULAR WELL-GRADED SOIL/ AGGREGATE MIXTURES, <3% FINES. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIES OF THE LAYER.	3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 76, 8, 89, 9, 10	BEGIN COMPACTION AFTER 20" (510 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. CONTACT ADDITIONAL LAYERS IN 6" (152 mm) LIFTS TO A MIN. 96% STANDARD PROCTOR DENSITY.
③ EMBEDMENT STONE SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE TO THE 'D' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE. NOMINAL SIZE DISTRIBUTION BETWEEN 3/4" - 2 INCH (19 - 51 mm)	3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
④ FOUNDATION STONE BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE. NOMINAL SIZE DISTRIBUTION BETWEEN 3/4" - 2 INCH (19 - 51 mm)	3, 35, 4, 467, 5, 56, 57	PLATE COMPACTION OR ROLL TO ACHIEVE A 95% STANDARD PROCTOR DENSITY. ¹

PLEASE NOTE:
 1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE "CLEAN, CRUSHED, ANGULAR #4 (AASHTO M33) STONE."
 2. AS AN ALTERNATE TO PROCTOR TESTING AND FIELD DENSITY MEASUREMENTS ON OPEN GRADED STONE, STORMTECH COMPACTION REQUIREMENTS ARE MET FOR "W" LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (152 mm) LIFTS USING TWO FULL COVERAGES WITH AN APPROPRIATE COMPACTOR.

9 STORMTECH ACCEPTABLE FILL MATERIALS



10 MC-3500 MANIFOLD DETAIL

- 11 MC-3500 NOTES**
- ALL DESIGN SPECIFICATIONS FOR STORMTECH MC-3500 CHAMBERS SHALL BE IN ACCORDANCE WITH THE STORMTECH MC-3500 DESIGN MANUAL.
 - THE INSTALLATION OF STORMTECH MC-3500 CHAMBERS SHALL BE IN ACCORDANCE WITH THE LATEST STORMTECH MC-3500 INSTALLATION INSTRUCTIONS.
 - THE CONTRACTOR IS ADVISED TO REVIEW AND UNDERSTAND THE INSTALLATION INSTRUCTIONS PRIOR TO BEGINNING SYSTEM INSTALLATION. CALL 1-888-892-2694 OR VISIT WWW.STORMTECH.COM TO RECEIVE A COPY OF THE LATEST STORMTECH MC-3500 INSTALLATION INSTRUCTIONS.
 - CHAMBERS SHALL MEET THE DESIGN REQUIREMENTS AND LOAD FACTORS SPECIFIED IN SECTION 12.12 OF THE LATEST EDITION OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.

AS-BUILT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Director: Thomas R. Butler DATE: 5/25/11
 Chief, Development Engineering Division: [Signature] DATE: 5-23-11
 Chief, Division of Land Development: [Signature] DATE: 5-25-11

DATE: _____ NO. _____ REVISION _____

STORMTECH MC-3500 CHAMBERS
 REVISED SWM FACILITY #1
 ENCLAVE AT ELLICOTT STATION
 LOTS 1-69, OPEN SPACE LOT 70
 AND PARCEL 'A'
 PLAT NO. 20823-20826 PART OF PARCELS 26 & 27
 HOWARD COUNTY, MARYLAND

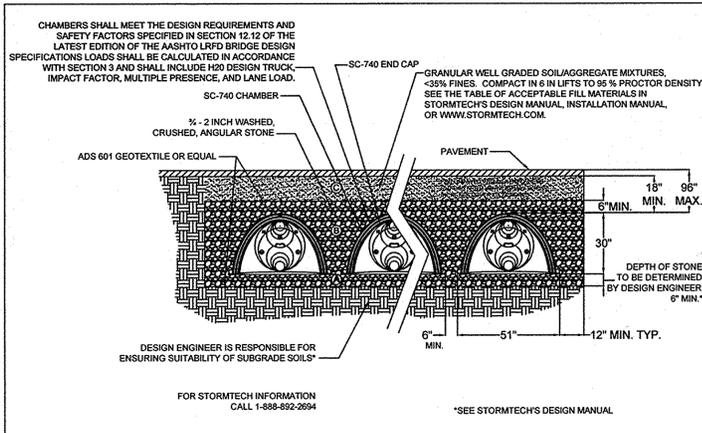
TAX MAP 17 GRIDS B & 14
 2ND ELECTION DISTRICT

Sill · Adcock & Associates · LLC
 Engineers · Surveyors · Planners
 3300 North Ridge Road, Suite 160
 Ellicott City, Maryland 21043
 Phone: 443.325.7682 Fax: 443.325.7685
 Email: info@silland.com

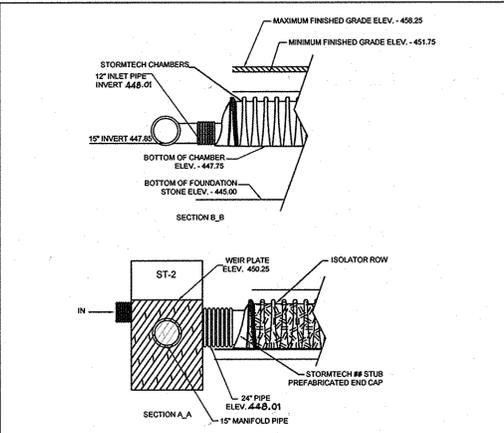
OWNER/DEVELOPER
 HERBRON MANOR I, LLC
 5485 HARPERS FARM ROAD, SUITE 200
 COLUMBIA, MD 21044
 410-964-4440

DESIGN BY: PS
 DRAWN BY: SJT
 CHECKED BY: PS
 SCALE: AS SHOWN
 DATE: MAY 2, 2011
 PROJECT #: 08-080
 SHEET #: 18 of 31

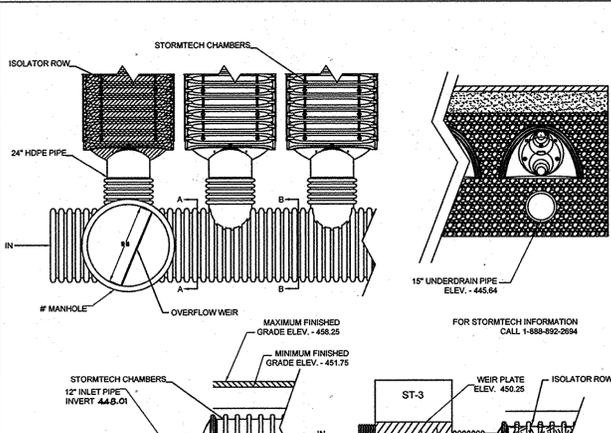
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 35562 EXPIRATION DATE: 31-MAR-12



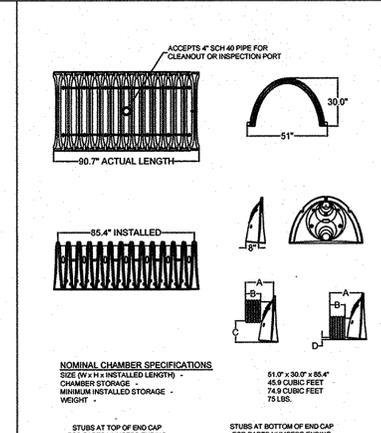
ST 1.0 SC-740 TYPICAL CROSS SECTION



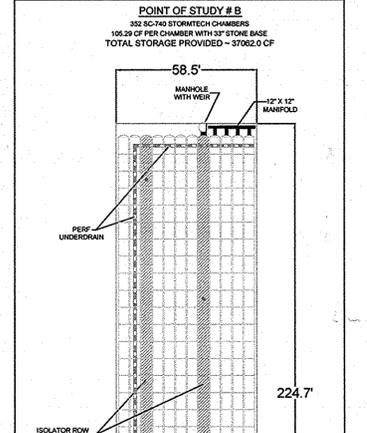
ST 2.0 STORMTECH ELEVATIONS @ ST-2



ST 3.0 STORMTECH ELEVATIONS @ ST-3



ST 9.0 TECHNICAL DETAILS



ST 10.0 STORMTECH SC-740 CHAMBER LAYOUT

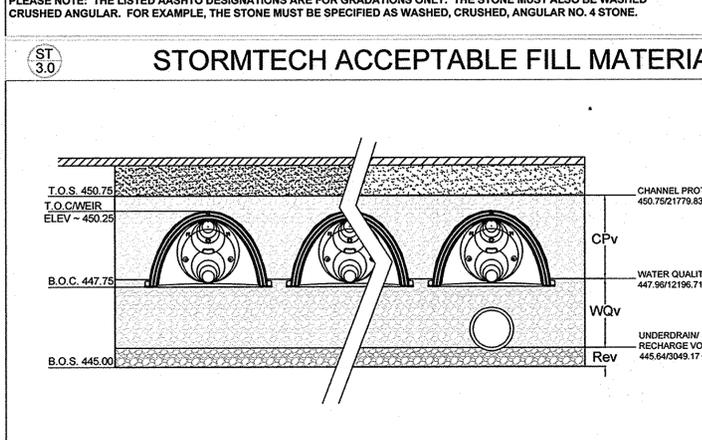
**ACCEPTABLE FILL MATERIALS
STORMTECH SC-740 CHAMBER SYSTEMS**

MATERIAL LOCATION	DESCRIPTION	AASHTO M43 DESIGNATION	AASHTO M145 DESIGNATION	COMPACTION/DENSITY REQUIREMENT
FILL MATERIAL FROM 18" TO GRADE ABOVE CHAMBERS	ANY SOIL/ROCK MATERIALS, NATIVE SOILS OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	N/A	PREPARE PER ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRONGER MATERIAL AND PREPARATION REQUIREMENTS.
FILL MATERIAL FOR 6" TO 18" ELEVATION ABOVE CHAMBERS (24" FOR UNPAVED INSTALLATIONS)	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES. COMPACT IN 6" LIFTS TO A MINIMUM 95% STANDARD PROCTOR DENSITY. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 LBS. DYNAMIC FORCE NOT TO EXCEED 20,000 LBS.	3, 357, 4, 467, 5, 56, 57, 6, 8, 89, 9, 10	A-1, A-2, A-3	COMPACT IN 6" LIFTS TO A MINIMUM 95% STANDARD PROCTOR DENSITY. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 LBS. DYNAMIC FORCE NOT TO EXCEED 20,000 LBS.
EMBEDMENT STONE SURROUNDING AND TO A 6" ELEVATION ABOVE CHAMBERS	WASHED ANGULAR STONE WITH THE MAJORITY OF PARTICLES BETWEEN 1/2" - 2 INCH	3, 357, 4, 467, 5, 56, 57	N/A	NO COMPACTION REQUIRED
FOUNDATION STONE BELOW CHAMBERS	WASHED ANGULAR STONE WITH THE MAJORITY OF PARTICLES BETWEEN 1/2" - 2 INCH	3, 357, 4, 467, 5, 56, 57	N/A	PLATE COMPACT OR ROLL TO ACHIEVE A 95% STANDARD PROCTOR DENSITY

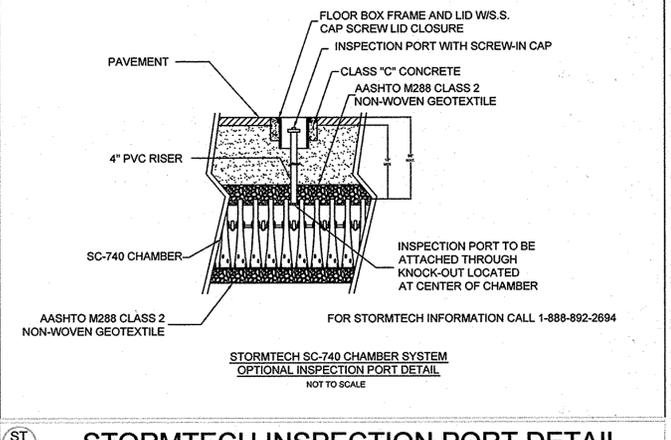
PLEASE NOTE: THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE WASHED CRUSHED ANGULAR. FOR EXAMPLE, THE STONE MUST BE SPECIFIED AS WASHED, CRUSHED, ANGULAR NO. 4 STONE.

NOTES:

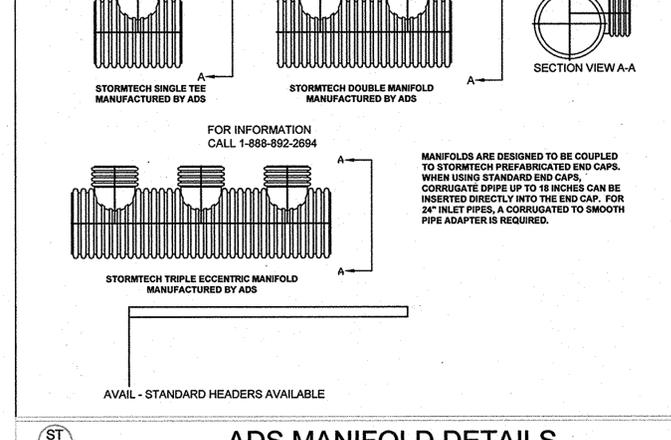
- ALL DESIGN SPECIFICATIONS FOR STORMTECH CHAMBERS SHALL BE IN ACCORDANCE WITH THE STORMTECH DESIGN MANUAL.
- THE INSTALLATION OF STORMTECH CHAMBERS SHALL BE IN ACCORDANCE WITH THE LATEST STORMTECH INSTALLATION INSTRUCTIONS.
- THE CONTRACTOR IS ADVISED TO REVIEW AND UNDERSTAND THE INSTALLATION INSTRUCTIONS PRIOR TO BEGINNING SYSTEM INSTALLATION. CALL 1-888-892-2694 OR VISIT WWW.STORMTECH.COM TO RECEIVE A COPY OF THE LATEST STORMTECH INSTALLATION INSTRUCTIONS.
- CHAMBERS SHALL MEET THE DESIGN REQUIREMENTS AND SAFETY FACTORS SPECIFIED IN SECTION 12.12 OF THE LATEST EDITION OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.



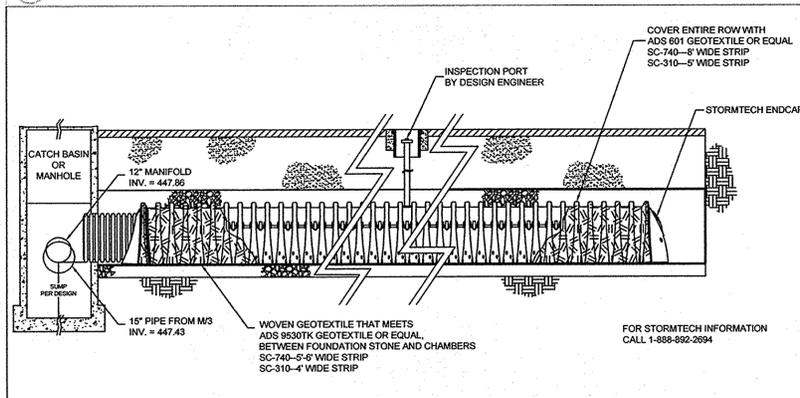
ST 3.0 STORMTECH ACCEPTABLE FILL MATERIALS



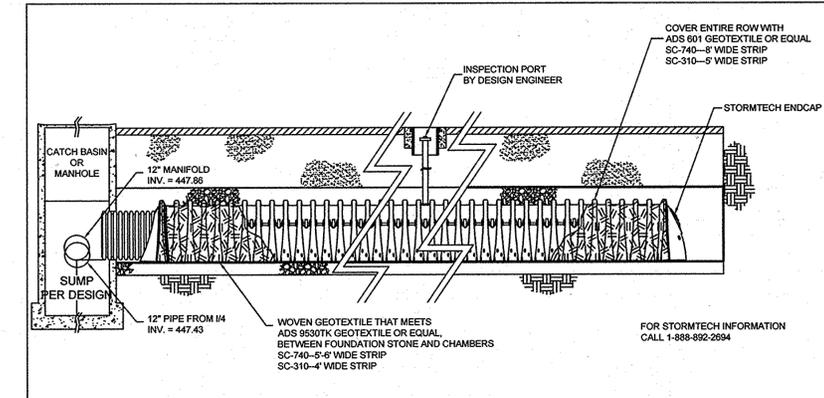
ST 5.0 STORMTECH INSPECTION PORT DETAIL



ST 7.0 ADS MANIFOLD DETAILS



ST 6.0 STORMTECH ISOLATOR ROW DETAIL @ ST/2



ST 6.0 STORMTECH ISOLATOR ROW DETAIL @ ST/3

CHAMBERS SHALL MEET THE DESIGN REQUIREMENTS AND SAFETY FACTORS SPECIFIED IN SECTION 12.12 OF THE LATEST EDITION OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS LOADS SHALL BE CALCULATED IN ACCORDANCE WITH SECTION 3 AND SHALL INCLUDE H20 DESIGN TRUCK, IMPACT FACTOR, MULTIPLE PRESENCE, AND LANE LOAD.

AS-BUILT CERTIFICATION

I HEREBY CERTIFY, BY MY SEAL, THAT THE CONDITIONS SHOWN ON THIS PLAN WERE CONSTRUCTED TO THE LINES AND DIMENSIONS SHOWN ON THIS "AS-BUILT" PLAN, AND MEET THE APPROVED PLANS AND SPECIFICATIONS AND ALSO THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND.

Michael D. Adcock 3/10/14 DATE
MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR
MD REG. NO. 21297, EXPIRES 03/10/15

AS-BUILT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Mark H. Cagle 10/26/06 DATE
DIRECTOR

David J. ... DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION

... DATE
CHIEF, DIVISION OF LAND DEVELOPMENT

DATE NO. REVISION

OWNER/DEVELOPER:
Athlone LLC
9017 Red Branch Road, Suite 201
Columbia, Maryland 21045
Attn: Greig Altieri
410.715.4500

AB CONSULTANTS, INC.
9450 ANNAPOLIS ROAD
LANHAM, MARYLAND 20706
PHONE: (301) 306-3091
FAX: (301) 306-3092

CONTACT: DAVID T. DOWS PHONE: 301-306-3091 x25

PROJECT: ENCLAVE AT ELLICOTT STATION
AGE-RESTRICTED ADULT HOUSING COMMUNITY
LOT 1 OF THE HARBIN PROPERTY MINOR SUBDIVISION
SWM FACILITY #2

PROJECT NO. 04-038
SCALE: AS SHOWN
DATE: 08/04/06
DRAWN BY: CADD
CHECKED BY: DTD

2nd ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
TAX MAP 17, GRIDS 8 & 14, PARCELS 26 & 27, DEED REF: 4008/458 & 782/706

SHEET: 19 OF 21
SDP-05-117

13.0 Inspection and Maintenance



13.1 TREATMENT TRAIN INSPECTION AND MAINTENANCE

The StormTech recommended treatment train inlet system has three tiers of treatment upstream of the StormTech chambers. It is recommended that inspection and maintenance (I&M) be initiated at the furthest upstream treatment tier and continue downstream as necessary. The following I&M procedures follow this approach providing I&M information in the following order: Tier 1 - Pretreatment (BMP); Tier 2 - StormTech Isolator Row, and; Tier 3 - Eccentric Pipe Header System.

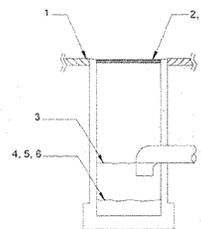
13.2 CATCHBASIN/MANHOLE I&M

Typically a stormwater system will have catchbasins and manholes upstream of the detention/retention system. In some cases these may be the only pre-treatment devices. Regular I&M of catchbasins and manholes should be scheduled and performed as part of a site's routine maintenance plan.

Catchbasin/Manhole - Step-by-Step Maintenance Procedures

- 1) Inspect catch basins and manholes upstream of StormTech chambers for sediment
- 2) Remove grate or cover
- 3) Skim off oils and floatables
- 4) Using a stadia rod, measure the depth of sediment
- 5) If sediment is at a depth greater than 6" proceed to step 6. If not proceed to step 7.
- 6) Vacuum or manually remove sediment
- 7) Replace grate
- 8) Record depth & date and schedule next inspection

Figure 17 - Catchbasin/Manhole I&M Steps



13.3 PRE-TREATMENT DEVICE I&M

Manufacturer's I&M procedures should be followed for proprietary pretreatment devices such as baffle boxes, swirl concentrators, oil-water separators, and filtration units. Table 10 provides some general guidelines but is not a substitute for a manufacturer's specific instructions.

TABLE 10 - Pretreatment Inspection and Maintenance Guidelines

SEDIMENT CONTROL INSPECTION	INSPECTION*	MAINTENANCE**
StormTech Isolator™ Row	Bi-Annually	JetVac - Culvert Cleaning Nozzle Preferred
Sediment Basin	Quarterly or after large storm event	Excavate sediment
Catch Basin Sump	Quarterly	Excavate, pump, or vacuum
Sedimentation Structure	Quarterly	Excavate, pump, or vacuum
Catch Basin Filter Bags	After all storm events	Clean and/or replace filter bags
Porous Pavement	Quarterly	Sweep Pavement
Pipe Header Design	Quarterly	Excavate, pump, or vacuum
Water Quality Inlet	Quarterly	Excavate, pump, or vacuum
Sand Filters	Quarterly or after storm event	Remove & replace sand filter

* This schedule does not account for regional or site variables. Local municipal guidelines should be followed for inspection when available.
 ** The methods stated are minimum guidelines for removal and clearing of system. Other methods may apply.

13.4 ISOLATOR™ ROW INSPECTION

Regular inspection and maintenance are essential to assure a properly functioning stormwater system. Inspection is easily accomplished through the manhole or optional inspection ports of an Isolator Row. Please follow local and OSHA rules for a confined space entry.

Inspection ports can allow inspection to be accomplished completely from the surface without the need for a confined space entry. Inspection ports provide visual access to the system with the use of a flashlight. A stadia rod may be inserted to determine the depth of sediment. If upon visual inspection it is found that sediment has accumulated to an average depth exceeding 3 inches, cleanout is required.

A StormTech Isolator Row should initially be inspected immediately after completion of the site's construction. While every effort should be made to prevent sediment from entering the system during construction, it is during this time that excess amounts of sediments are most likely to enter any stormwater system. Inspection and maintenance, if necessary, should be performed prior to passing responsibility over to the site's owner. Once in normal service, a StormTech Isolator Row should be inspected bi-annually until an understanding of the sites characteristics is developed. The site's maintenance manager can then revise the inspection schedule based on experience or local requirements.

13.5 ISOLATOR ROW MAINTENANCE

JetVac maintenance is required if sediment has been collected to an average depth of 3 inches or more inside the Isolator Row. The JetVac process utilizes a high pressure water nozzle to propel itself down the Isolator Row while scouring and suspending sediments. As the nozzle is retrieved, a wave of suspended sediments is flushed back into the manhole for vacuuming. Most sewer and pipe maintenance companies have vacuum/JetVac combination vehicles. Fixed nozzles designed for culverts or large diameter pipe cleaning are preferable. Rear facing jets with an effective spread of at least 45° are best. Most JetVac reels have a minimum of 400 feet of hose allowing maintenance of an Isolator Row up to 50 chambers long. The JetVac process shall only be performed on StormTech Rows that have AASHTO class 1 woven geotextile over their argular base stone.

13.6 ECCENTRIC PIPE HEADER INSPECTION

These guidelines do not supersede a pipe manufacturer's recommended I&M procedures. Consult with the manufacturer of the pipe header system for specific I&M procedures. Inspection of the header system should be carried out quarterly. On sites which generate higher levels of sediment more frequent inspections may be necessary. Headers may be accessed through risers, access ports or manholes. Measurement of sediment may be taken with a stadia rod or similar device. Cleanout of sediment should occur when the sediment volume has reduced the storage area by 25% or the depth of sediment has reached approximately 25% of the diameter of the structure.

13.7 ECCENTRIC PIPE HEADER MAINTENANCE

Cleanout of accumulated material should be accomplished by vacuum pumping the material from the header. Cleanout should be accomplished during dry weather. Care should be taken to avoid flushing sediments out through the outlet pipes and into the chamber rows.

Eccentric Header Step-by-Step Maintenance Procedures

1. Locate manholes, access ports or risers connected to the header system
2. Remove grates or covers
3. Using a stadia rod, measure the depth of sediment
4. If sediment is at a depth of about 25% pipe volume or 25% pipe diameter proceed to step 5. If not proceed to step 6.
5. Vacuum pump the sediment. Do not flush sediment out into pipes.
6. Replace grates and covers
7. Record depth & date and schedule next inspection

STORMTECH ISOLATOR™ ROW - STEP-BY-STEP MAINTENANCE PROCEDURES

Step 1) Inspect Isolator Row for sediment

- A) Inspection ports (if present)
 - i. Remove lid from floor box frame
 - ii. Remove cap from inspection riser
 - iii. Using a flashlight and stadia rod, measure depth of sediment
 - iv. If sediment is at, or above, 3 inch depth proceed to Step 2. If not proceed to step 3.
- B) All Isolator Rows
 - i. Remove cover from manhole at upstream end of Isolator Row
 - ii. Using a flashlight, inspect down Isolator Row through outlet pipe
 1. Mirrors on poles or cameras may be used to avoid a confined space entry
 2. Follow OSHA regulations for confined space entry if entering manhole
 - iii. If sediment is at, or above the lower row of s s d wall holes (approximately 3 inches) proceed to Step 2. If not proceed to Step 3

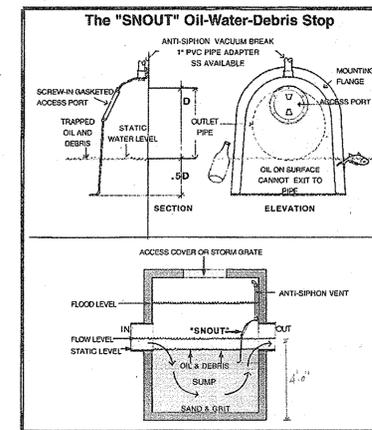
Step 2) Clean out Isolator Row using the JetVac process

- A) A fixed culvert cleaning nozzle with rear facing nozzle spread of 45 inches or more is preferable
- B) Apply multiple passes of JetVac until backflush water is clean
- C) Vacuum manhole sump as required

Step 3) Replace all caps, lids and covers

Step 4) Inspect & clean catch basins and manholes upstream of the StormTech system following the procedures for Classic Manifold Inlet System

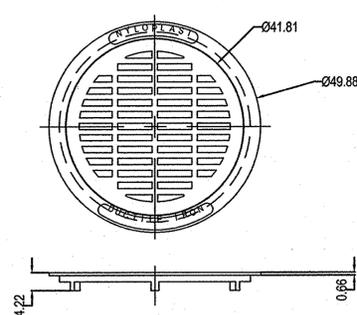
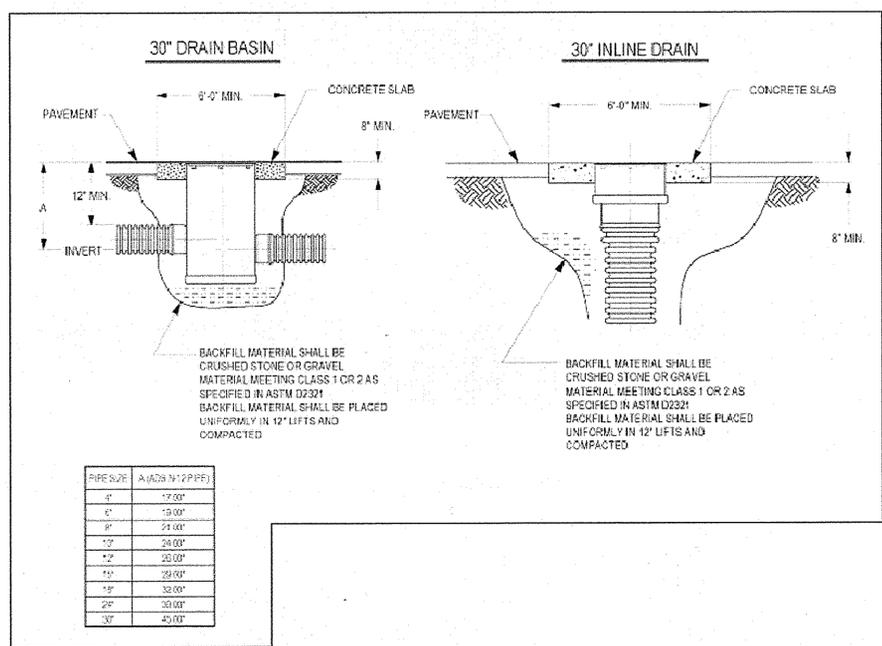
Best Management Products, Inc.



For additional information visit our web-site at: www.bestmp.com
 or contact: T.J. Mullen 888-354-7585, 215-884-6195 fax, tjm@bestmp.com

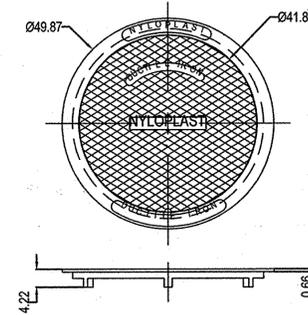
Best Management Products, Inc. • 53 Mt Archer Rd. • Lyme CT • 800-504-8008 • 860-434-3195 fax

ST 6.0 INSPECTION & MAINTENANCE



NYLOPLAST 30" GRATES/COVERS

STANDARD GRATE HAS H-25 HEAVY DUTY RATING
 SOLID COVER HAS H-25 HEAVY DUTY RATING
 QUALITY MATERIALS SHALL CONFORM TO ASTM
 A536 GRADE 70-50-05
 MATERIAL: DUCTILE IRON
 PAINT: CASTINGS ARE FURNISHED WITH A BLACK PAINT
 LOCKING DEVICE AVAILABLE UPON REQUEST
 PRICE INCLUDES FRAME & GRATE/COVER



* SIZE OF OPENING MEETS REQUIREMENTS OF AMERICAN DISABILITY ACT AS STATED IN FEDERAL REGISTER PART III, DEPARTMENT OF JUSTICE, 28 CFR PART 36, NONDISCRIMINATION ON THE BASIS OF DISABILITY BY PUBLIC ACCOMMODATIONS AND IN COMMERCIAL FACILITIES; FINAL RULE.

AS-BUILT CERTIFICATION

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

Michael D. Adcock 3/16/14
 MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR DATE
 MD REG. NO. 81881, EXPIRATION DATE: 06-16-15



AS-BUILT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
Marsha DeLoach 10/14/06 DATE
 DIRECTOR
David Hunter 10/14/06 DATE
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE NO. REVISION

OWNER/DEVELOPER:
 Athlone LLC
 9017 Red Branch Road, Suite 201
 Columbia, Maryland 21045
 Attn: Greig Altieri
 410.715.4500



AB CONSULTANTS, INC.
 9450 ANNAPOLIS ROAD
 LANHAM, MARYLAND 20706
 PHONE: (301) 306-3091
 FAX: (301) 306-3092

PROJECT: ENCLAVE AT ELLICOTT STATION
 AGE-RESTRICTED ADULT HOUSING COMMUNITY
 LOT 1 OF THE HARBIN PROPERTY MINOR SUBDIVISION
STORMTECH SC-740
CHAMBER DETAILS
 2nd ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
 TAX MAP 17, GRIDS 8 & 14, PARCELS 26 & 27, DEED REF: 4008/458 & 782/708

CONTACT: DAVID T. DOWS PHONE: 301-306-3091 x25 PROJECT NO. 04-038 SCALE: DATE: 08/04/06 DRAWN BY: CADD CHECKED BY: DTD SHEET: 20 OF 21

CONSTRUCTION SPECIFICATIONS

These specifications are appropriate to all ponds within the scope of the Standard for practice MD-378. All references to ASTM and AASHTO specifications apply to the most recent version.

Site Preparation

Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and stripped of topsoil. All trees, vegetation, roots and other objectionable material shall be removed. Channel banks and sharp breaks shall be sloped to no steeper than 1:1. All trees shall be cleared and grubbed within 15 feet of the toe of the embankment.

Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush, and stumps shall be cut approximately level with the ground surface. For dry stormwater management ponds, a minimum of a 25-foot radius around the inlet structure shall be cleared.

All cleared and grubbed material shall be disposed of outside and below the limits of the dam and reservoir as directed by the owner or his representative. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable location for use on the embankment and other designated areas.

Earth Fill

Material - The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6", frozen or other objectionable materials. Fill material for the center of the embankment, and cut off trench shall conform to Unified Soil Classification GC, SC, CH, or CL and must have at least 30% passing the #200 sieve. Consideration may be given to the use of other materials in the embankment if designed by a geotechnical engineer. Such special designs must have construction supervised by a geotechnical engineer.

Materials used in the outer shell of the embankment must have the capability to support vegetation of the quality required to prevent erosion of the embankment.

Placement - Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 8 inch thick (before compaction) layers which are to be continuous over the entire length of the fill. The most permeable borrow material shall be placed in the downstream portions of the embankment. The principal spillway must be installed concurrently with fill placement and not excavated into the embankment.

Compaction - The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of heavy equipment or compaction shall be achieved by a minimum of four complete passes of a sheepfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction will be obtained with the equipment used. The fill material shall contain sufficient moisture so that if formed into a ball it will not crumble, yet not be so wet that water can be squeezed out.

When required by the reviewing agency the minimum required density shall not be less than 95% of maximum dry density with a moisture content within $\pm 2\%$ of the optimum. Each layer of fill shall be compacted as necessary to obtain that density, and is to be certified by the Engineer at the time of construction. All compaction is to be determined by AASHTO Method T-99 (Standard Proctor).

Cut Off Trench - The cutoff trench shall be excavated into impervious material along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation, with the minimum width being four feet. The depth shall be at least four feet below existing grade or as shown on the plans. The side slopes of the trench shall be 1 to 1 or flatter. The backfill shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability.

Embankment Core - The core shall be parallel to the centerline of the embankment as shown on the plans. The top width of the core shall be a minimum of four feet. The height shall extend up to at least the 10 year water elevation or as shown on the plans. The side slopes shall be 1 to 1 or flatter. The core shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability. In addition, the core shall be placed concurrently with the outer shell of the embankment.

Structure Backfill

Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a concrete structure or pipe, unless there is a compacted fill of 24" or greater over the structure or pipe.

Structure backfill may be flowable fill meeting the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 313 as modified. The mixture shall have a 100-200 psi, 28 day unconfined compressive strength. The flowable fill shall have a minimum pH of 4.0 and a minimum resistivity of 2,000 ohm-cm. Material shall be placed such that a minimum of 6" (measured perpendicular to the outside of the pipe) of flowable fill shall be under (bedding), over and, on the sides of the pipe. It only needs to extend up to the spring line for rigid conduits. Average slump of the fill shall be 7" to assure flowability of the material. Adequate measures shall be taken (sand bags, etc.) to prevent floating the pipe. When using flowable fill, all metal pipe shall be bituminous coated. Any adjoining soil fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers

or other manually directed compaction equipment. The material shall completely fill all voids adjacent to the flowable fill zone. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a structure or pipe unless there is a compacted fill of 24" or greater over the structure or pipe. Backfill material outside the structural backfill (flowable fill) zone shall be of the type and quality conforming to that specified for the core of the embankment or other embankment materials.

Pipe Conduits

All pipes shall be circular in cross section.

Corrugated Metal Pipe - All of the following criteria shall apply for corrugated metal pipe:

1. Materials - (Polymer Coated steel pipe) - Steel pipes with polymeric coatings shall be allowed to operate closer than four feet, measured horizontally, to any part of a structure. This pipe and its appurtenances shall conform to the requirements of AASHTO Specifications M-245 & M-246 with watertight coupling bands or flanges.

Materials - (Aluminum Coated Steel Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-274 with watertight coupling bands or flanges. Aluminum Coated Steel Pipe, when used with flowable fill or when soil and/or water conditions warrant the need for increased durability, shall be fully bituminous coated per requirements of AASHTO Specification M-190 Type A. Any aluminum coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound. Aluminum surfaces that are in contact with concrete shall be painted with one coat of zinc chromate primer or two coats of asphalt.

Materials - (Aluminum Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-196 or M-211 with watertight coupling

bands or flanges. Aluminum Pipe, when used with flowable fill or when soil and/or water conditions warrant for increased durability, shall be fully bituminous coated per requirements of AASHTO Specification M-190 Type A. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer or two coats of asphalt. Hot dip galvanized bolts may be used for connections. The pH of the surrounding soils shall be between 4 and 9.

2. Coupling bands, anti-seep collars, end sections, etc., must be composed of the same material and coatings as the pipe. Metals must be insulated from dissimilar materials with use of rubber or plastic insulating materials at least 24 mils in thickness.

3. Connections - All connections with pipes must be completely watertight. The drain pipe or barrel connection to the riser shall be welded all around when the pipe and riser are metal. Anti-seep collars shall be connected to the pipe in such a manner as to be completely watertight. Dimple bands are not considered to be watertight.

All connections shall use a rubber or neoprene gasket when joining pipe sections. The end of each pipe shall be re-rolled an adequate number of corrugations to accommodate the bandwidth. The following type connections are acceptable for pipes less than 24 inches in diameter: flanges on both ends of the pipe with a circular 3/8 inch closed cell neoprene gasket, pre-punched to the flange bolt circle, sand-wiched between adjacent flanges; a 12-inch wide standard lap type band with 12-inch wide by 3/8-inch thick closed cell circular neoprene gasket; and a 12-inch wide hanger type band with o-ring gaskets having a minimum diameter of 1/2 inch greater than the corrugation depth. Pipes 24 inches in diameter and larger shall be connected by a 24 inch long annular corrugated band using a minimum of 4 (four) rods and nuts, 2 on each connecting pipe end. A 24-inch wide by 3/8-inch thick closed cell neoprene gasket will be installed with 12 inches on the end of

each pipe. Flanged joints with 3/8 inch closed cell gaskets the full width of the flange is also acceptable.

Helically corrugated pipe shall have either continuously welded seams or have lock seams with internal caulking or a neoprene bead.

4. Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

5. Backfilling shall conform to "Structure Backfill".
6. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Reinforced Concrete Pipe - All of the following criteria shall apply for reinforced concrete pipe:

1. Materials - Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM C-361.

2. Bedding - Reinforced concrete pipe conduits shall be laid in a concrete bedding / cradle for their entire length. This bedding / cradle shall consist of high slump concrete placed under the pipe and up the sides of the pipe at least 50% of its outside diameter with a minimum thickness of 6 inches. Where a concrete cradle is not needed for structural reasons, flowable fill may be used as described in the "Structure Backfill" section of this standard. Gravel bedding is not permitted.

3. Laying pipe - Bell and spigot pipe shall be placed with the bell end upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed for the entire line, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the original line and grade of

the pipe. The first joint must be located within 4 feet from the riser.

4. Backfilling shall conform to "Structure Backfill".

Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Plastic Pipe - The following criteria shall apply for plastic pipe:

1. Materials - PVC pipe shall be PVC-1120 or PVC-1220 conforming to ASTM D-1785 ASTM D-2241. Corrugated High Density Polyethylene (HDPE) pipe, couplings and fittings shall conform to the following: 4" - 10" inch pipe shall meet the requirements of AASHTO M252 Type S, and 12" through 24" inch shall meet the requirements of AASHTO M294 Type S.

2. Joints and connections to anti-seep collars shall be completely watertight.

3. Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

4. Backfilling shall conform to "Structure Backfill".

Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Drainage Diaphragms - When a drainage diaphragm is used, a registered professional engineer will supervise the design and construction inspection.

Concrete

Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 414, Mix No. 3.

Rock Riprap

All borrow areas shall be graded to provide proper drainage and left in a slightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching in accordance with the Natural Resources Conservation Service Standards and Specifications for Critical Area Planting (MD-342) or as shown on the accompanying drawings.

Erosion and Sediment Control

Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized. State and local laws concerning pollution abatement will be followed. Construction plans shall detail erosion and sediment control measures.

OPERATION AND MAINTENANCE

An operation and maintenance plan in accordance with Local or State Regulations will be prepared for all ponds. As a minimum, the dam inspection checklist located in Appendix A shall be included as part of the operation and maintenance plan and performed at least annually. Written records of maintenance and major repairs needs to be retained in a file. The issuance of a Maintenance and Repair Permit for any repairs or maintenance that involves the modification of the dam or spillway from its original design and specifications is required. A permit is also required for any repairs or reconstruction that involve a substantial portion of the structure. All indicated repairs are to be made as soon as practical.

AS-BUILT CERTIFICATION

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

Michael D. Arco
MICHAEL D. ARCO, PROFESSIONAL LAND SURVEYOR
MD. REG. NO. 21281, EXPIRATION DATE: 06-16-15

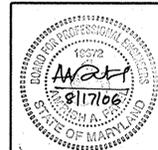


AS-BUILT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
David H. Gough 10/26/06
DIRECTOR DATE
David H. Gough 10/26/06
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
David H. Gough 10/26/06
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE	NO.	REVISION

OWNER/DEVELOPER:
Athlone LLC
9017 Red Branch Road, Suite 201
Columbia, Maryland 21045
Attn: Greig Altieri
410.715.4500



AB CONSULTANTS, INC.
9450 ANNAPOLIS ROAD
LANHAM, MARYLAND 20708
PHONE: (301) 306-3091
FAX: (301) 306-3092

CONTACT: DAVID I. DOWS PHONE: 301-306-3091 x25

PROJECT: ENCLAVE AT ELLICOTT STATION
AGE-RESTRICTED ADULT HOUSING COMMUNITY
LOT 1 OF THE HARBIN PROPERTY MINOR SUBDIVISION
MD 378 SPECIFICATION

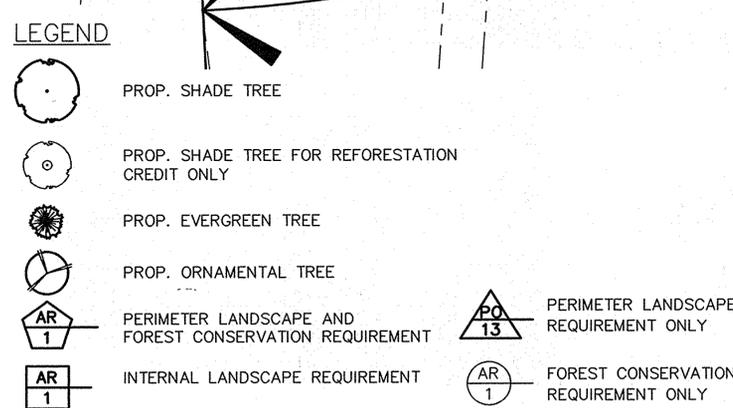
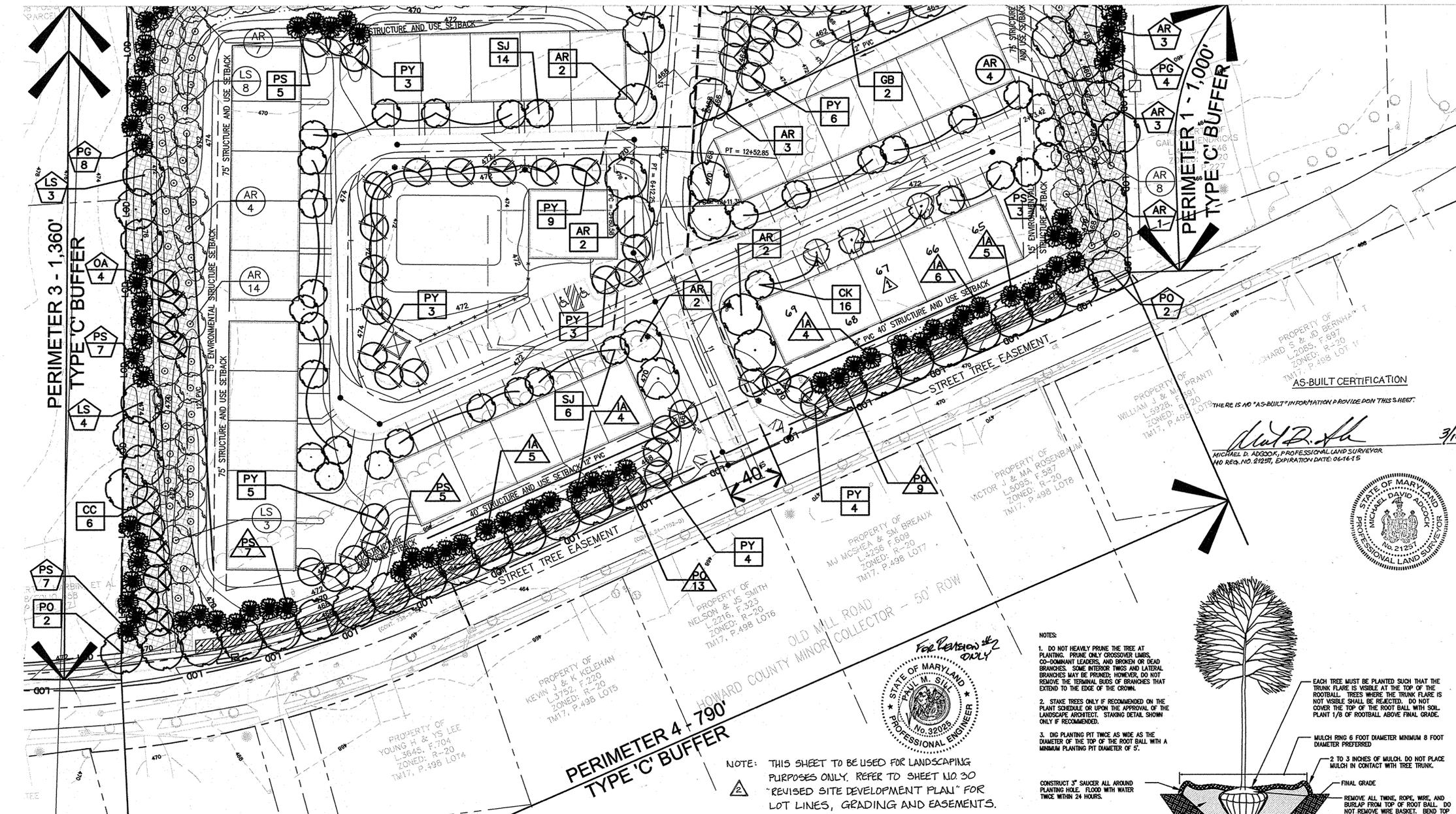
2nd ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
TAX MAP 17, GRIDS 8 & 14, PARCELS 26 & 27, DEED REF: 4008/458 & 762/706

PROJECT NO. 04-038
SCALE: NONE
DATE: 08/04/06
DRAWN BY: CADD
CHECKED BY: DTD
SHEET: 21 OF 91

MATCH LINE - SEE SHEET 24

PLANTING SPECIFICATIONS

- Plants, related material, and operations shall meet the detailed description, as given on the plans and as described herein. Where discrepancies exist between Standards & Guidelines referenced within these specifications and the Howard County Landscape Manual, the latter takes precedence.
- All plant material, unless otherwise specified, that is not nursery grown, uniformly branched, does not have a vigorous root system, and does not conform to the most recent edition of the American Association of Nurserymen (AAN) Standards will be rejected. Plant material that is not healthy, vigorous, free from defects, decay, disfiguring roots, unsound injuries, abrasions of the bark, plant disease, insect pest eggs, borers and all forms of insect infestations or objectionable disfigurements will be rejected. Plant material that is weak or which has been cut back from larger grades to meet specified requirements will be rejected. Trees with forked leaders will be rejected. All B & B plants shall be freshly dug; no healed-in plants or plants from cold storage will be accepted.
- Unless otherwise specified, all general conditions, planting operations, details and planting specifications shall conform to the most recent edition of the "Landscape Specification Guidelines" by the Landscape Contractors Association of MD, DC, & VA, (hereinafter "Landscape Guidelines") approved by the Landscape Contractors Association of Metropolitan Washington and the Potomac Chapter of the American Society of Landscape Architects.
- Contractor shall guarantee all plant material for a period of one year after date of acceptance in accordance with the appropriate section on 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 all relevant and appropriate utility companies, utility contractors, and "Miss Utility" a minimum of 48 hours prior to the beginning of any work. Contractor may make minor adjustments in spacing and location of plant material to avoid conflicts with utilities. Major changes will require the approval of the landscape architect. Damage to existing structure and utilities shall be repaired at the expense of the Contractor.
- Protection of existing vegetation to remain shall be accomplished via the temporary installation of 4 foot high snow fence at the drip line, see detail.
- Contractor is responsible for installing all material in the proper planting season for each plant type. All planting is to be completed within growing season of completion of site construction. Do not plant Pinus strobus or Xcupressa parisi beylandii between November 15 and March 15. Landscape plants are not to be installed before site is graded to final grade.
- Contractor to regrade, fine grade, sod, hydroseed and straw mulch all areas disturbed by their work.
- Bid shall be based on actual site conditions. No extra payment shall be made for work arising from actual site conditions differing from those indicated on drawings and specifications.
- Plant quantities are provided for the convenience of the contractor only. If discrepancies exist between quantities shown on plan and those shown on the plant list, the quantities on the plan take precedence. Where discrepancies on the plan exist between the symbols and the callout letter, the number of symbols take precedence.
- All shrubs and groundcover areas shall be planted in continuous planting beds, prepared as specified, unless otherwise indicated on plans. (See Specification 13). Beds to be mulched with minimum 2" and maximum 3" of composted, double-shredded hardwood mulch throughout.
- Positive drainage shall be maintained on planting beds (minimum 2 percent slope).
- Bed preparation shall be as follows: Till to a minimum depth of 6" 1 yard of Compro or Leafgro per 200 SF of planting bed, and 1 yard of topsoil per 100 SF of bed. Add 3 lbs of standard 5-10-5 fertilizer per cubic yard of planting mix and till. Ericaceous plants (Azaleas, Rhododendrons, etc.); top dress after planting with iron sulfate or comparable product according to package directions. Taxus baccata 'repandens' (English weeping yew); Top dress after planting with 1/4 to 1/2 cup lime each.
- Planting mix: For trees not in a prepared bed, mix 50% Compro or Leafgro with 50 hole to use as backfill, see tree planting detail.
- Weed & insect control: Incorporate a pre-emergent herbicide into the planting bed following recommended rates on the label. For tree planting, apply pre-emergent on top of soil and root ball before mulching. Caution: For areas to be planted with a ground cover, be sure to carefully check the chemical used to assure its adaptability to the specific groundcover to be treated. Maintain the mulch weed-free for the extent of the warranty period. Under no circumstances is a pesticide containing chlorpyrifos to be used as a means of pest control.
- Water: All plant material planted shall be watered thoroughly the day of planting. All plant material not yet planted shall be properly protected from drying out until planted. At a minimum, water unplanted plant material daily and as necessary to avoid desiccation.
- Pruning: Do not heavily prune trees and shrubs at planting. Prune only broken, dead, or diseased branches.
- All areas within contract limits disturbed during or prior to construction not designated to receive plants and mulch shall be fine graded, grass seed planted, and covered with straw mulch.



GENERAL NOTES

- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
- THIS PLAN IS FOR LANDSCAPING PURPOSES ONLY.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
- ALL MATERIAL SELECTED SHALL BE EQUAL TO OR BETTER THAN THE REQUIREMENTS OF THE "USA STANDARD FOR NURSERY STOCK", LATEST EDITION, AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
- ALL MATERIAL SHALL BE PLANTED IN ACCORDANCE WITH THE MINIMUM STANDARDS CITED IN THE LATEST EDITION OF "LANDSCAPE SPECIFICATION GUIDELINES" PUBLISHED BY THE LANDSCAPE CONTRACTORS ASSOCIATION.
- AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTINGS SHALL BE OF THE PROPER HEIGHT AND/OR SPREAD REQUIREMENTS IN ACCORDANCE WITH THIS PLAN.
- NO SUBSTITUTIONS OR RELOCATION OF PLANTS MAY BE MADE WITHOUT PRIOR APPROVAL FROM THE LANDSCAPE ARCHITECT.
- FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING MUST BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$56,700 FOR REQUIRED PLANTS ONLY.
 127 SHADE TREES @ \$300 = \$38,100
 103 EVERGREEN TREES @ \$150 = \$15,450
 21 ORNAMENTAL TREES @ \$150 = \$3,150

NOTE: THIS SHEET TO BE USED FOR LANDSCAPING PURPOSES ONLY. REFER TO SHEET NO 30 "REVISED SITE DEVELOPMENT PLAN" FOR LOT LINES, GRADING AND EASEMENTS.

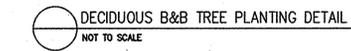
- NOTES:**
- SELECT ONLY NURSERY STOCK WITH A SINGLE LEADER UNLESS OTHERWISE SPECIFIED ON PLAN. PLANTS WITH CO-DOMINANT, MISSING, OR DAMAGED LEADERS SHALL BE REJECTED.
 - STAKE TREES ONLY IF RECOMMENDED ON THE PLANT SCHEDULE OR UPON THE APPROVAL OF THE LANDSCAPE ARCHITECT. STAKING DETAIL SHOWN ONLY IF RECOMMENDED.
 - DIG PLANTING PIT TWICE AS WIDE AS THE DIAMETER OF THE TOP OF THE ROOT BALL WITH A MINIMUM PLANTING PIT DIAMETER OF 5".

CONSTRUCT 3" SAUCER ALL AROUND PLANTING HOLE. FLOOD WITH WATER TWICE WITHIN 24 HOURS.
 BACKFILL WITH PLANTING MIX (SEE PLANTING SPECIFICATIONS). TAMP SOIL AROUND ROOT BALL BASE FIRMLY WITH FOOT PRESSURE SO THAT ROOT BALL DOES NOT SHIFT.

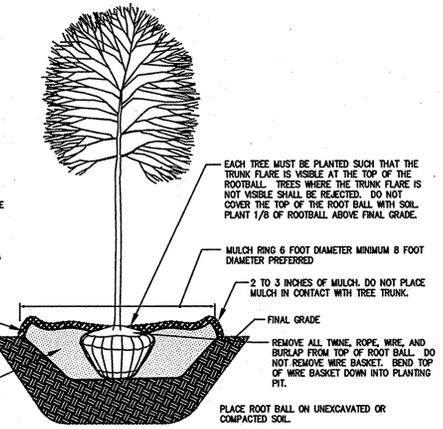
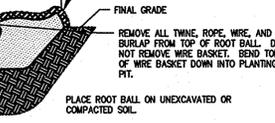


- NOTES:**
- DO NOT HEAVILY PRUNE THE TREE AT PLANTING. PRUNE ONLY CROSSOVER LIMBS, CO-DOMINANT LEADERS, AND BROKEN OR DEAD BRANCHES. SOME INTERIOR TWIGS AND LATERAL BRANCHES MAY BE PRUNED; HOWEVER, DO NOT REMOVE THE TERMINAL BUDS OF BRANCHES THAT EXTEND TO THE EDGE OF THE CROWN.
 - STAKE TREES ONLY IF RECOMMENDED ON THE PLANT SCHEDULE OR UPON THE APPROVAL OF THE LANDSCAPE ARCHITECT. STAKING DETAIL SHOWN ONLY IF RECOMMENDED.
 - DIG PLANTING PIT TWICE AS WIDE AS THE DIAMETER OF THE TOP OF THE ROOT BALL WITH A MINIMUM PLANTING PIT DIAMETER OF 5".

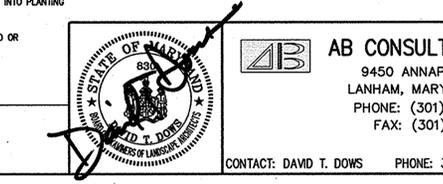
CONSTRUCT 3" SAUCER ALL AROUND PLANTING HOLE. FLOOD WITH WATER TWICE WITHIN 24 HOURS.
 BACKFILL WITH PLANTING MIX (SEE PLANTING SPECIFICATIONS). TAMP SOIL AROUND ROOT BALL BASE FIRMLY WITH FOOT PRESSURE SO THAT ROOT BALL DOES NOT SHIFT.



- NOTES:**
- EACH TREE MUST BE PLANTED SUCH THAT THE TRUNK FLARE IS VISIBLE AT THE TOP OF THE ROOTBALL. TREES WHERE THE TRUNK FLARE IS NOT VISIBLE SHALL BE REJECTED. DO NOT COVER THE TOP OF THE ROOT BALL WITH SOIL. PLANT 1/8 OF ROOTBALL ABOVE FINAL GRADE.
 - MULCH RING 6 FOOT DIAMETER MINIMUM 8 FOOT DIAMETER PREFERRED
 - 2 TO 3 INCHES OF MULCH. DO NOT PLACE MULCH IN CONTACT WITH TREE TRUNK.
 - FINAL GRADE
 - REMOVE ALL TWINE, ROPE, WIRE, AND BURLAP FROM TOP OF ROOT BALL. DO NOT REMOVE WIRE BASKET. BEND TOP OF WIRE BASKET DOWN INTO PLANTING PIT.
 - PLACE ROOT BALL ON UNEXCAVATED OR COMPACTED SOIL.



GEORGE WILLIAM STEPHENS JR & ASSOCIATES INC.
 4692 MILLENNIUM DR. - SUITE 100
 BELCAMP, MD. 21017
 410-291-2340



AS-BUILT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
<i>Frank A. Loyce</i>	10/6/16
DIRECTOR	DATE
<i>Michael D. Adcock</i>	1/27/16
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
<i>Michael D. Adcock</i>	1/27/16
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
<i>Michael D. Adcock</i>	1/27/16
2/11/10	RELOCATE TREES LOTS 66-68
10/18/10	ADDED NOTE REFERING TO PURPOSE OF PLAN.
DATE	NO. REVISION
OWNER/DEVELOPER:	
Athlone LLC 9017 Red Branch Road, Suite 201 Columbia, Maryland 21045 Attn: Greig Altieri 410.715.4500	

AB CONSULTANTS, INC.
 9450 ANNAPOLIS ROAD
 LANHAM, MARYLAND 20706
 PHONE: (301) 306-3091
 FAX: (301) 306-3092

PROJECT: **ENCLAVE AT ELLICOTT STATION**
 AGE-RESTRICTED ADULT HOUSING COMMUNITY
 LOT 1 OF THE HARBIN PROPERTY MINOR SUBDIVISION
LANDSCAPE PLAN & NOTES

2nd ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
 TAX MAP 17, GRIDS 8 & 14, PARCELS 26 & 27, DEED REF: 4008/458 & 782/706

PROJECT NO. 04-038
 SCALE: 1"=40'
 DATE: 08/04/06
 DRAWN BY: CADD
 CHECKED BY: DTD

SHEET: 22 OF 21

AS-BUILT CERTIFICATION

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

Michael D. Adcock
MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR
MD REG. NO. 81227, EXPIRATION DATE: 06-16-15



PROPERTY OF
MCFADDIN CONSTANCE E TRUSTEE
L.3803, F.318
ZONED: R-20
TM17, P.563 LOT 2 SE

PROPERTY OF
RAYMOND L. KING
L.3137, F.243
ZONED: R-20
TM17, P.575 LOT4

PROPERTY OF
KING RUSK & WIFE
L.555, F.359
ZONED: R-20
TM17, P.575 LOTS

PROPERTY OF
LORI A ROSE & JE HOSKINS
L.3390, F.185
ZONED: R-20
TM17, P.23 LOT2

PROPERTY OF
CHARMAR LAND CORPORATION
L.2993, F.628
ZONED: R-20
TM17, P.24

PROPERTY OF
BRUCE & B SCHMICKLEY
L.617, F.25
ZONED: R-20
TM17, P.25 LOT3

PROPERTY OF
A ZENCOVICH & M FORGIONE
L.8220, F.456
ZONED: R-20
TM17, P.25 LOT2

PROPERTY OF
ROBERT W & WIFE JEAN
L.188, F.745
ZONED: R-20
TM17, P.415

PROPERTY OF
GEORGE M & S
HOLLOMAN
L.136, F.30
ZONED: R-20
TM17, P.28

PERIMETER 2 - 570'
TYPE 'C' BUFFER

PERIMETER 3 - 1,360'
TYPE 'C' BUFFER

PERIMETER 1 - 1,000'
TYPE 'C' BUFFER

MATCH LINE - SEE SHEET 23

PERIMETER	ADJACENT TO PERIMETER PROPERTIES			ADJACENT TO ROADWAYS
	1	2	3	4
LANDSCAPE TYPE *	C	C	C	C
LINEAR FEET OF ROADWAY FRONTAGE/ PERIMETER	1,000'±	570'±	1360'±	790'±
CREDIT FOR EXISTING VEGETATION (YES/NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	YES 280'±	YES 570'±	YES 600'±	NO
CREDIT FOR WALL, FENCE, BERM OR DRIVE AISLE (YES/NO/LINEAR FEET)	NO	NO	NO	YES 40'±
LINEAR FEET REMAINING	740'±	-	760'±	750'±
NUMBER OF PLANTS REQUIRED				
SHADE TREES	19	-	19	19
EVERGREEN TREES	38	-	38	38
SHRUBS	-	-	-	-
NUMBER OF PLANTS PROVIDED**				
SHADE TREES	23	-	14	21
EVERGREEN TREES	31	-	14	26
SMALL FLOWERING TREES	7	-	-	-
SHRUBS	-	-	-	-

* C = 1 SHADE TREE/ 40 LF; 1 EVERGREEN/ 20 LF
** EXCESS RESIDENTIAL REDEVELOPMENT INTERNAL LANDSCAPING OF 24 SHADE TREE EQUIVALENT WILL SATISFY PERIMETER AND DEFICIT OF 12 SHADE TREE EQUIVALENT AND 2 EVERGREEN TREES

SCHEDULE C - RESIDENTIAL DEVELOPMENT INTERNAL LANDSCAPING	
NUMBER OF DWELLING UNITS	69
NUMBER OF SHADE TREES REQUIRED (1/1 SFA; 1/3 APTS)	69
NUMBER OF TREES PROVIDED	
SHADE TREES	69
OTHER TREES (2:1 SUBSTITUTION)	-

PLANT LIST				
SYMBOL	QTY.	SCIENTIFIC/COMMON NAME	SIZE	ROOT
AR	42	Acer rubrum 'Red Sunset' Red Sunset Red maple	2 1/2 - 3" cal.	B&B
CJ	29	Cercidiphyllum japonicum Katsura tree	2 1/2 - 3" cal.	B&B
CK	16	Cladrasia kentukea 'Rosea' Pink-flowered yellowwood	2 1/2 - 3" cal.	B&B
GB	12	Ginkgo biloba Ginkgo	2 1/2 - 3" cal.	B&B
LS	27	Liquidambar styraciflua Sweet gum	2 1/2 - 3" cal.	B&B
PO	24	Platanus occidentalis Sycamore	2 1/2 - 3" cal.	B&B
SJ	20	Sophora japonica 'Princeton Upright' Princeton Upright Japanese Pagodatree	2 1/2 - 3" cal.	B&B
IA	24	Ilex attenuata 'Fosteri' Foster's holly	5'-6' ht.	B&B
IO	9	Ilex opaca American holly	5'-6' ht.	B&B
PG	17	Picea glauca White spruce	6'-8' ht.	B&B
PS	58	Pinus strobus White pine	6'-8' ht.	B&B
CC	20	Cercis canadensis Eastern redbud	1 1/2 - 2" cal.	B&B
OA	15	Oxydendrum arboreum Sourwood	1 1/2 - 2" cal.	B&B
PY	51	Prunus yedoensis Yoshino cherry	1 1/2 - 2" cal.	B&B

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 YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

[Signature] Sept 13, 2006
SIGNATURE DATE

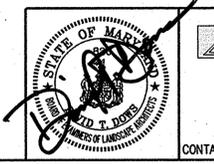
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
[Signature] 10/6/06
DIRECTOR DATE
[Signature] 10/6/06
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
[Signature] 10/6/06
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE NO. REVISION
OWNER/DEVELOPER:
Athlone LLC
9017 Red Branch Road, Suite 201
Columbia, Maryland 21045
Attn: Greig Altieri
410.715.4500

NOTE: TOTAL REQUIRED LANDSCAPE PLANTING:
204 SHADE TREES + 114 EVERGREEN TREES
TOTAL PROVIDED LANDSCAPE PLANTING:
170 SHADE TREES + 194 EVERGREEN AND FLOWERING TREES.

INTERNAL STREET TREE REQUIREMENTS	
LENGTH OF PROPOSED PRIVATE ROADS	2,303 LF
NUMBER OF SHADE TREES REQUIRED (1 PER 40 LF)	58
NUMBER OF TREES PROVIDED	
SHADE TREES	32
OTHER TREES (2:1 SUBSTITUTION)	52

EXTERNAL STREET TREE REQUIREMENTS	
LENGTH OF EXISTING COUNTY ROAD (PERIMETER 4)	790 LF
NUMBER OF SHADE TREES REQUIRED (1 PER 40 LF)	20
NUMBER OF TREES PROVIDED	
SHADE TREES	11
OTHER TREES (2:1 SUBSTITUTION)	18

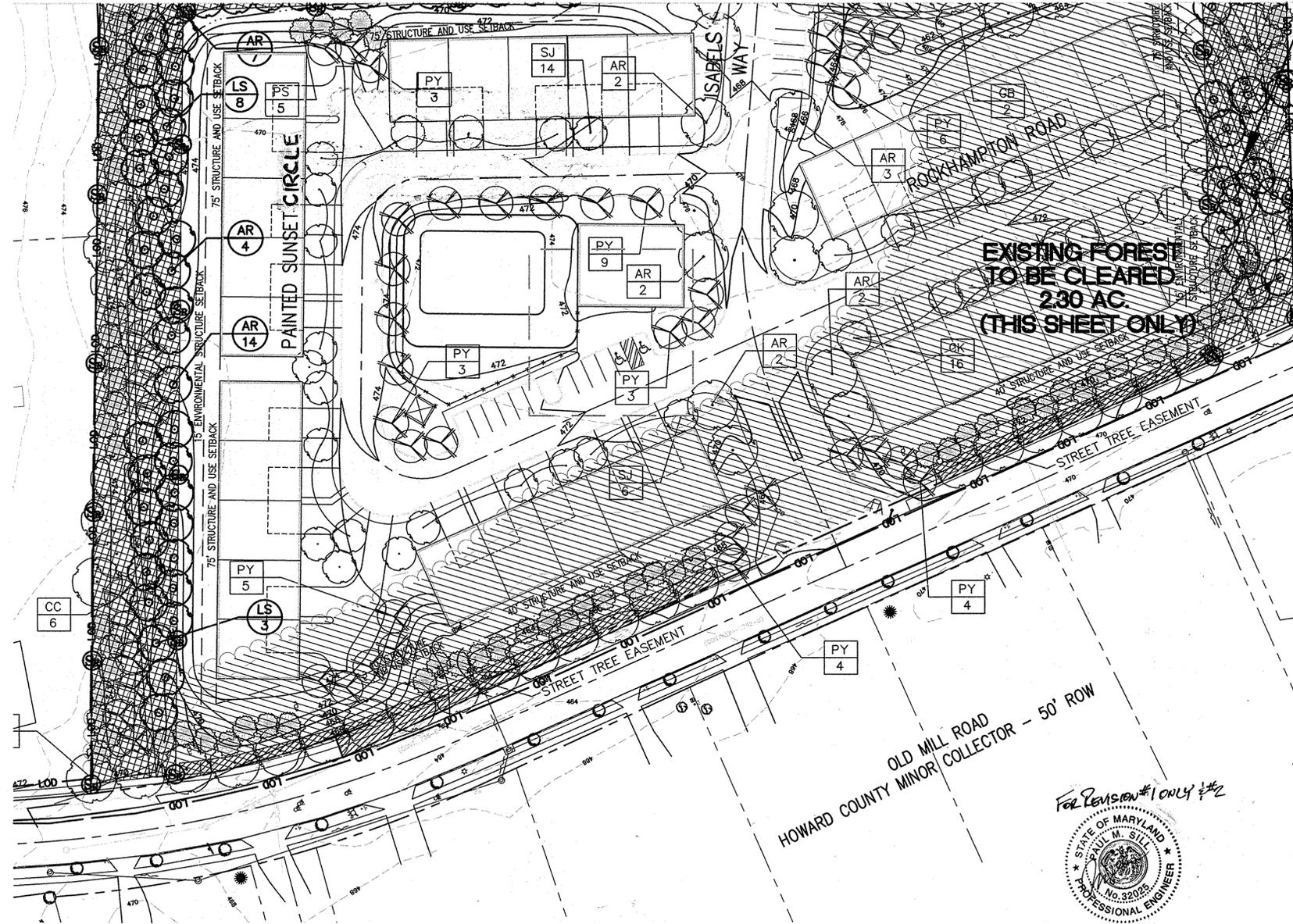


AS-BUILT

AB CONSULTANTS, INC.
9450 ANNAPOLIS ROAD
LANHAM, MARYLAND 20706
PHONE: (301) 306-3091
FAX: (301) 306-3092

PROJECT: ENCLAVE AT ELLICOTT STATION
AGE-RESTRICTED ADULT HOUSING COMMUNITY
LOT 1 OF THE HARBIN PROPERTY MINOR SUBDIVISION
LANDSCAPE PLAN & NOTES
2nd ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
TAX MAP 17, GRIDS 8 & 14, PARCELS 26 & 27, DEED REF: 4008/458 & 782/706
PROJECT NO. 04-038
SCALE: 1"=40'
DATE: 08/04/06
DRAWN BY: CADD
CHECKED BY: DTD
SHEET: 23 OF 24

MATCH LINE - SEE SHEET 26



FOREST CONSERVATION EASEMENT 3 REFORESTATION - 0.26 AC. (THIS SHEET ONLY)

GENERAL NOTES:

- TWO (2) FOREST STANDS EXIST ON-SITE.
- NO 100-YEAR FLOODPLAIN EXISTS ON-SITE.
- NO CRITICAL HABITATS OF RARE, THREATENED OR ENDANGERED SPECIES WERE OBSERVED.
- NO TREES, SHRUBS, OR PLANTS IDENTIFIED AS RARE, THREATENED OR ENDANGERED WERE OBSERVED.
- THERE ARE NO KNOWN CEMETERY OR BURIAL PLOTS LOCATED ON THE SITE, ACCORDING TO THE HOWARD COUNTY CEMETERY SITE MAP.
- THERE ARE NO KNOWN HISTORIC STRUCTURES OR SITES LOCATED ON THE SITE, ACCORDING TO THE HOWARD COUNTY HISTORIC PROPERTIES MAP.
- THE SITE CONTAIN CuB & Gb2, WHICH CONTAIN HYDRIC INCLUSIONS.
- THE HOWARD COUNTY FOREST CONSERVATION MANUAL SUPERSEDES ANY DISCREPANCIES BETWEEN THE MANUAL AND THESE PLANS.
- SEE FOREST STAND DELINEATION REPORT DATED FEBRUARY 2, 2005 FOR FIELD INVESTIGATION NARRATIVE.
- THE ON-SITE REFORESTATION CONSERVATION SURETY IS \$50,094.00 (2.30 Ac x \$0.50/SF). OFFSITE MITIGATION WILL BE CONDUCTED FOR THE REMAINING FOREST CONSERVATION OBLIGATION OF 3.64 ACRES. OFF-SITE MITIGATION OFFSITE FOREST CONSERVATION EASEMENTS ARE LOCATED ON WATERFORD FARM PROPERTY, PARCEL '3', AND T.M. 20, P.20. OFFSITE FOREST CONSERVATION SURETY IS \$19,279.20 (3.64 Ac x \$0.50/SF). ON-SITE RETENTION IS 2.11 AC. ON-SITE RETENTION BOND AMOUNT IS \$18,382.32 (2.11 AC x \$0.20/SF). TOTAL FOREST CONSERVATION SURETY AMOUNT IS \$105,066.72.

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



Howard County Forest Conservation Worksheet

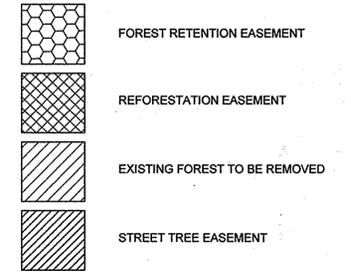
Project Name: Harbin Property
State File #:
Date: May 20, 2005

Net Tract Area	Acres
A. Total Tract Area	A = 17.60
B. Other Deductions	B = 0.00
C. Net Tract Area (A-B-C)	C = 17.60
Land Use Category: Residential - Suburban	
D. Afforestation Threshold (Net Tract Area X 15%)	D = 2.64
E. Conservation Threshold (Net Tract Area X 20%)	E = 3.52
Existing Forest Cover	
F. Existing Forest Cover within the Net Tract Area	F = 8.16
G. Area of Forest Above Conservation Threshold	G = 4.64
Break Even Point	
H. Break Even (Amount of forest that must be retained so that no mitigation is required)	H = 4.45
I. Forest Clearing Permitted Without Mitigation	I = 3.71
Proposed Forest Clearing	
J. Total Area of Forest to be Cleared	J = 6.03
K. Total Area of Forest to be Retained	K = 2.11
Planting Requirements	
L. Reforestation for Clearing Above the Conservation Threshold	L = 1.16
M. Reforestation for Clearing Below the Conservation Threshold	M = 2.82
N. Credit for Retention Above the Conservation Threshold	N = 0.00
P. Total Reforestation Required P = L + M - N	P = 3.98
Q. Total Afforestation Required	Q = 0.00
R. Total Planting Requirement R = P + Q	R = 3.98

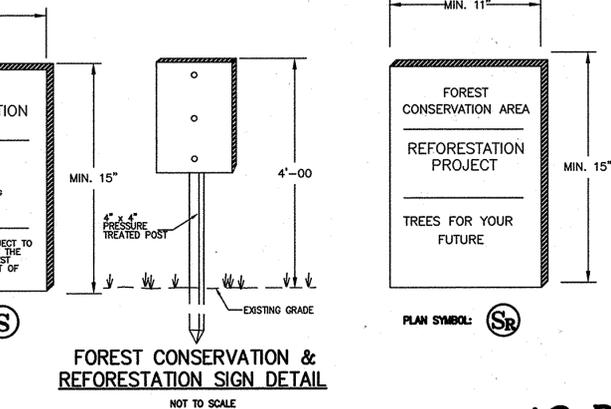
FOREST CONSERVATION MITIGATION TABULATION

TOTAL PLANTING REQUIREMENT = 3.98 AC
TOTAL ONSITE PLANTING = 2.30
FORCON BASE AREA 1 = 1.01
FORCON BASE AREA 2 = 1.29
TOTAL OFFSITE PLANTING = 1.68
ONSITE RETENTION EASEMENT = 2.11 AC
OFFSITE RETENTION EASEMENT = 0
TOTAL RETENTION PROVIDED = 2.11 AC

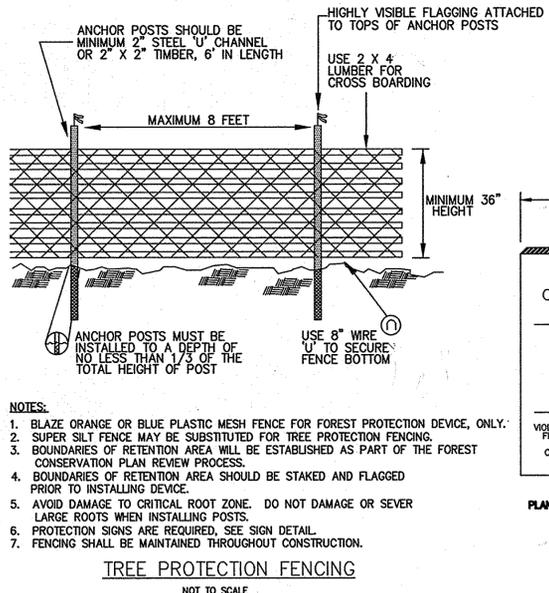
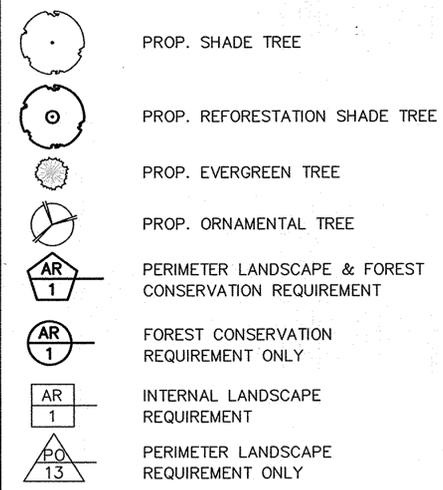
LEGEND



NOTE: THIS SHEET TO BE USED FOR LANDSCAPING PURPOSES ONLY. REFER TO SHEET NO. 30 "REVISED SITE DEVELOPMENT PLAN" FOR LOT LINES, GRADING AND EASEMENTS.



LEGEND



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Director: [Signature] DATE: 10/6/06

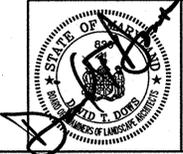
Chief, Development Engineering Division: [Signature] DATE: 10/16/06

Chief, Division of Land Development: [Signature] DATE: 10/16/06

10/18/10: [Signature] ADDED NOTE REFERRING TO PURPOSE OF PLAN.

10/14/13: [Signature] REVISED FOREST CONSERVATION EASEMENTS

OWNER/DEVELOPER: Athlone LLC, 9017 Red Branch Road, Suite 201, Columbia, Maryland 21045, Attn: Greig Altieri, 410.715.4500



AB CONSULTANTS, INC.
9450 ANNAPOLIS ROAD
LANHAM, MARYLAND 20706
PHONE: (301) 306-3091
FAX: (301) 306-3092

PROJECT: ENCLAVE AT ELLICOTT STATION
AGE-RESTRICTED ADULT HOUSING COMMUNITY
LOT 1 OF THE HARBIN PROPERTY MINOR SUBDIVISION

FOREST CONSERVATION PLAN

2nd ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
TAX MAP 17, GRIDS 8 & 14, PARCELS 26 & 27, DEED REF: 4008/458 & 782/706

PROJECT NO. 04-038
SCALE: 1"=40'
DATE: 08/04/06
DRAWN BY: CADD
CHECKED BY: DTD
SHEET: 24 OF 31

AS-BUILT

NOTES:

1. DO NOT HEAVILY PRUNE THE TREE AT PLANTING. PRUNE ONLY CROSSOVER LIMBS, CO-DOMINANT LEADERS, AND BROKEN OR DEAD BRANCHES. SOME INTERIOR TWIGS AND LATERAL BRANCHES MAY BE PRUNED; HOWEVER, DO NOT REMOVE THE TERMINAL BUDS OF BRANCHES THAT EXTEND TO THE EDGE OF THE CROWN.

2. STAKE TREES ONLY IF RECOMMENDED ON THE PLANT SCHEDULE OR UPON THE APPROVAL OF THE LANDSCAPE ARCHITECT. STAKING DETAIL SHOWN ONLY IF RECOMMENDED.

3. DIG PLANTING PIT TWICE AS WIDE AS THE DIAMETER OF THE TOP OF THE ROOT BALL WITH A MINIMUM PLANTING PIT DIAMETER OF 5".



EACH TREE MUST BE PLANTED SUCH THAT THE TRUNK FLARE IS VISIBLE AT THE TOP OF THE ROOTBALL. TREES WHERE THE TRUNK FLARE IS NOT VISIBLE SHALL BE REJECTED. DO NOT COVER THE TOP OF THE ROOT BALL WITH SOIL. PLANT 1/8" OF ROOTBALL ABOVE FINAL GRADE.

MULCH RING 6 FOOT DIAMETER MINIMUM 8 FOOT DIAMETER PREFERRED

2 TO 3 INCHES OF MULCH. DO NOT PLACE MULCH IN CONTACT WITH TREE TRUNK.

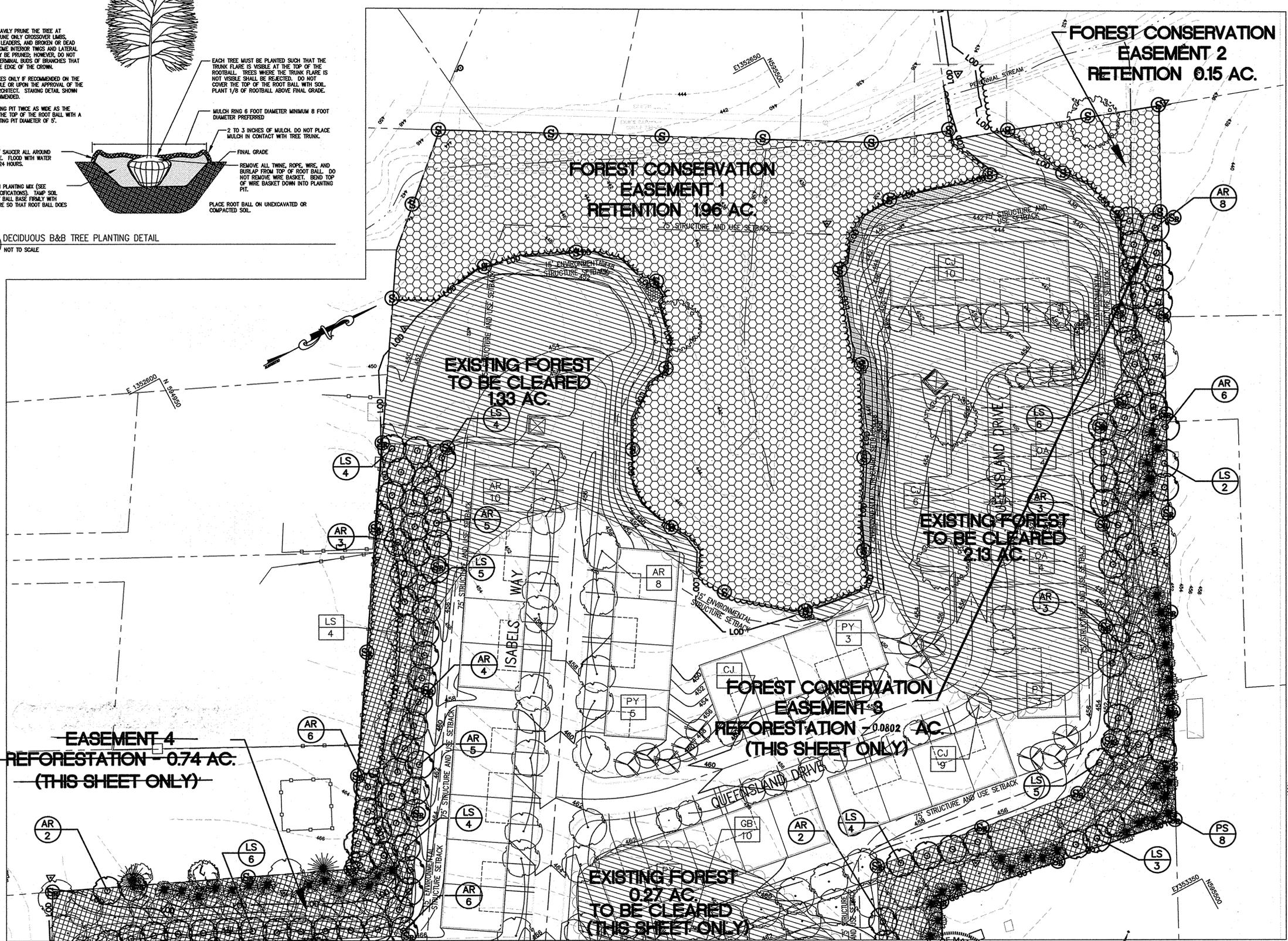
REMOVE ALL TWINE, ROPE, WIRE, AND BURLAP FROM TOP OF ROOT BALL. DO NOT REMOVE WIRE BASKET. SEND TOP OF WIRE BASKET DOWN INTO PLANTING PIT.

PLACE ROOT BALL ON UNEXCAVATED OR COMPACTED SOIL.

CONSTRUCT 3" SAUCER ALL AROUND PLANTING HOLE. FLOOD WITH WATER TWICE WITHIN 24 HOURS.

BACKFILL WITH PLANTING MIX (SEE PLANTING SPECIFICATIONS). TAMP SOIL AROUND ROOT BALL BASE FIRMLY WITH FOOT PRESSURE SO THAT ROOT BALL DOES NOT SIFT.

DECIDUOUS B&B TREE PLANTING DETAIL
NOT TO SCALE



REFORESTATION PLANT SCHEDULE

FOREST CONSERVATION EASEMENT 3

SYMBOL	QTY.	SCIENTIFIC/ COMMON NAME	SIZE	ROOT
AR	44	Acer rubrum 'Red Sunset' Red Sunset Red Maple	2 1/2 - 3" cal.	B&B
LS	32	Liquidambar styraciflua Sweet gum	2 1/2 - 3" cal.	B&B
PO	2	Platanus occidentalis Sycamore	2 1/2 - 3" cal.	B&B
CC	7	Cercis Canadensis Eastern redbud	1 1/2 - 2" cal.	B&B
IO	9	Ilex opaca American holly	5 - 6' ht.	B&B
PG	9	Picea glauca White spruce	5 - 6' ht.	B&B
PS	21	Pinus strobus White pine	5 - 6' ht.	B&B
TOTAL	124			

FOREST CONSERVATION EASEMENT 4

SYMBOL	QTY.	SCIENTIFIC/ COMMON NAME	SIZE	ROOT
AR	59	Acer rubrum 'Red Sunset' Red Sunset Red Maple	2 1/2 - 3" cal.	B&B
LS	45	Liquidambar styraciflua Sweet gum	2 1/2 - 3" cal.	B&B
CC	7	Cercis Canadensis Eastern redbud	1 1/2 - 2" cal.	B&B
OA	7	Oxydendrum arboreum Sourwood	1 1/2 - 2" cal.	B&B
PG	8	Picea glauca White spruce	5 - 6' ht.	B&B
PS	28	Pinus strobus White pine	5 - 6' ht.	B&B
TOTAL	154			

NOTE: REFER TO SHEET NO. 30 AND 31
"REVISED SITE DEVELOPMENT PLAN"
FOR LOT LINES, GRADING AND EASEMENTS.

REFORESTATION REQUIREMENT VS. PROVIDED PLANTING TABULATION

FOREST CONSERVATION EASEMENT 3		
TOTAL REFORESTATION AREA		1.01 AC.
# OF 2" CALIPER REQUIRED:		78 (0.78 AC.)
* (74/100 2"-CAL/ACRE)		
# OF 1" CALIPER REQUIRED:		46 (0.23 AC.)
* (53/200 1"-CAL/ACRE)		
# OF 2" CALIPER PROVIDED:		78 (0.78 AC.)
# OF 1" CALIPER PROVIDED:		46 (0.23 AC.)
FOREST CONSERVATION EASEMENT 4		
TOTAL REFORESTATION AREA		1.29 AC.
# OF 2" CALIPER REQUIRED:		104 (1.04 AC.)
* (104/100 2"-CAL/ACRE)		
# OF 1" CALIPER REQUIRED:		50 (0.25 AC.)
* (49/200 1"-CAL/ACRE)		
# OF 2" CALIPER PROVIDED:		104 (1.04 AC.)
# OF 1" CALIPER PROVIDED:		50 (0.25 AC.)

* DENSITY: 100 2" CALIPER TREE/ACRE
200 1" CALIPER TREE/ACRE

AS-BUILT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Director: *Mark A. Coughlin* 10/6/06 DATE

Chief, Development Engineering Division: *[Signature]* DATE

Chief, Division of Land Development: *[Signature]* 10/6/06 DATE



10/14/13	1	REVISED FOREST CONSERVATION EASEMENTS
DATE	NO.	REVISION

OWNER/DEVELOPER:

Athlone LLC
9017 Red Branch Road, Suite 201
Columbia, Maryland 21045
Attn: Greig Altieri
410.715.4500

MATCH LINE - SEE SHEET 25

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

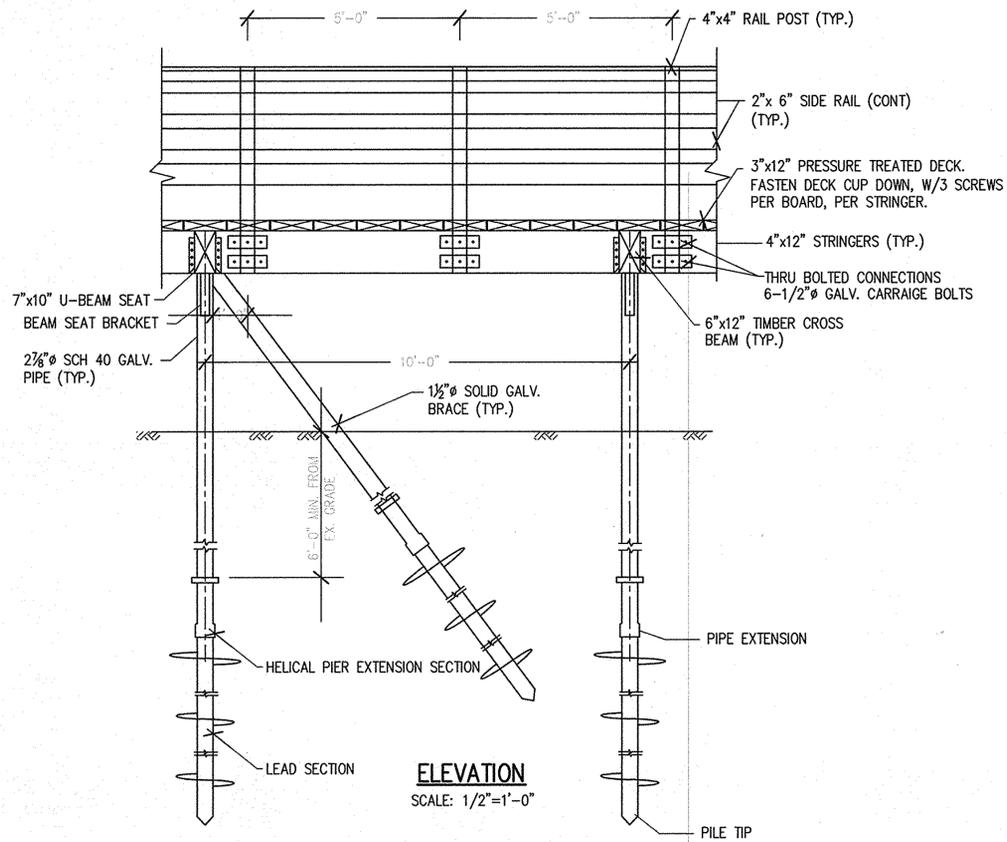
Michael D. Adcock
MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR
MD REG. NO. 81297, EXPIRATION DATE: 06-16-15



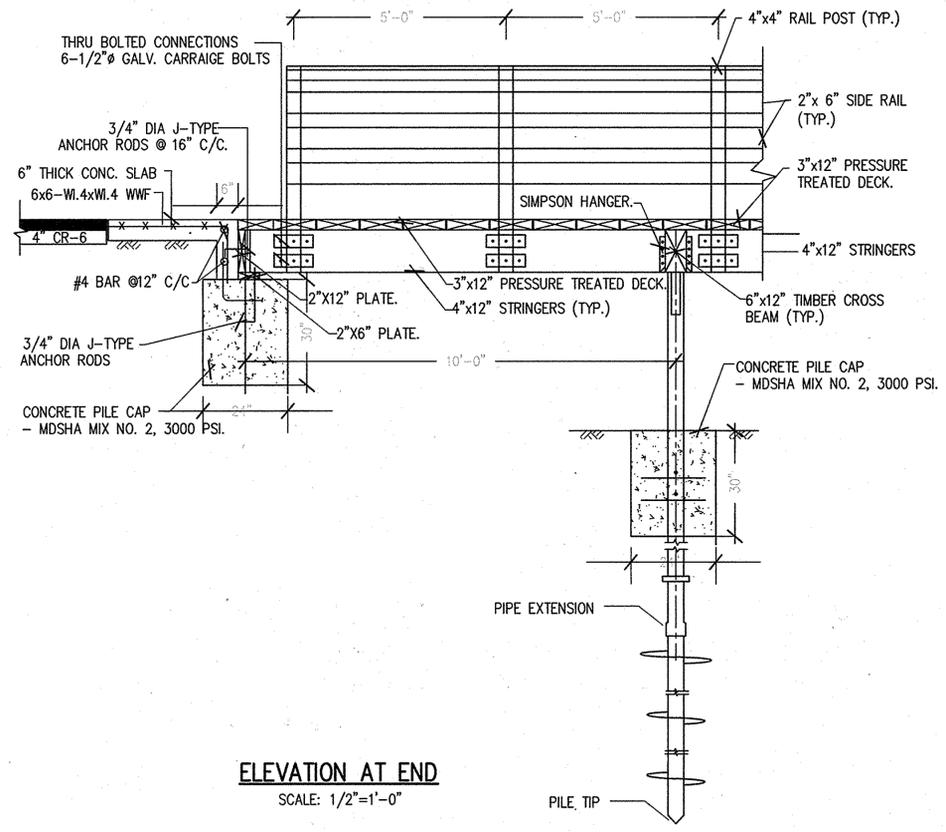
AB CONSULTANTS, INC.
9450 ANNAPOLIS ROAD
LANHAM, MARYLAND 20706
PHONE: (301) 306-3091
FAX: (301) 306-3092

PROJECT: ENCLAVE AT ELICOTT STATION
AGE-RESTRICTED ADULT HOUSING COMMUNITY
LOT 1 OF THE HARBIN PROPERTY MINOR SUBDIVISION
FOREST CONSERVATION PLAN
2nd ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
TAX MAP 17, GRIDS 8 & 14, PARCELS 26 & 27, DEED REF: 4008/458 & 782/706

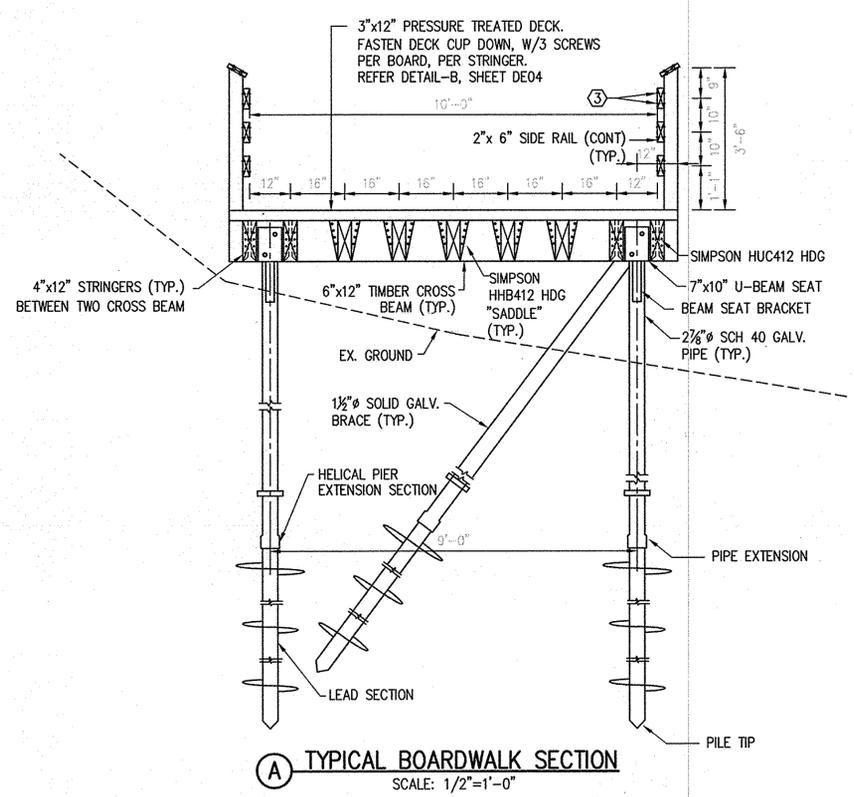
PROJECT NO. 04-038
SCALE: 1"=40'
DATE: 08/04/06
DRAWN BY: CADD
CHECKED BY: DTD
SHEET: 25 OF 31



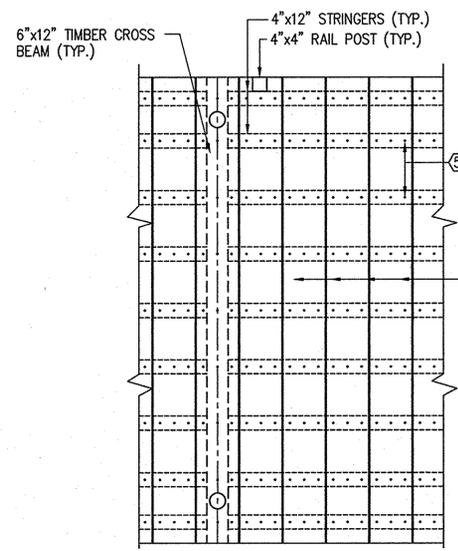
ELEVATION
SCALE: 1/2"=1'-0"



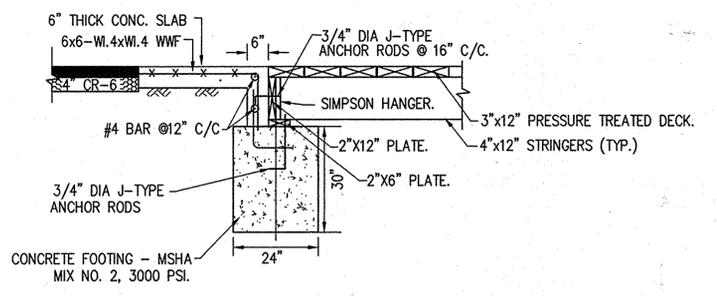
ELEVATION AT END
SCALE: 1/2"=1'-0"



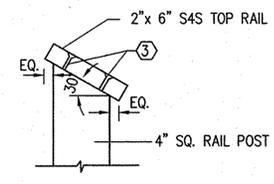
A TYPICAL BOARDWALK SECTION
SCALE: 1/2"=1'-0"



B DECKING DETAIL
SCALE: 1/2"=1'-0"



D TYPICAL CONNECTION DETAIL
SCALE: 1/2"=1'-0"



E TOP RAIL DETAIL
SCALE: N.T.S.

AS-BUILT

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
 Director: *[Signature]* 10/6/16
 DATE: 10/6/16
 Chief, Development Engineering Division: *[Signature]* 10/6/16
 DATE: 10/6/16
 Chief, Division of Land Development: *[Signature]* 10/6/16
 DATE: 10/6/16

DATE	NO.	REVISION

OWNER/DEVELOPER:
 Athlone LLC
 9017 Red Branch Road, Suite 210
 Columbia, Maryland 21045
 Attn: Greig Altieri
 410.715.4500

NOTE: BOARDWALK PENDING WAIVER REQUEST

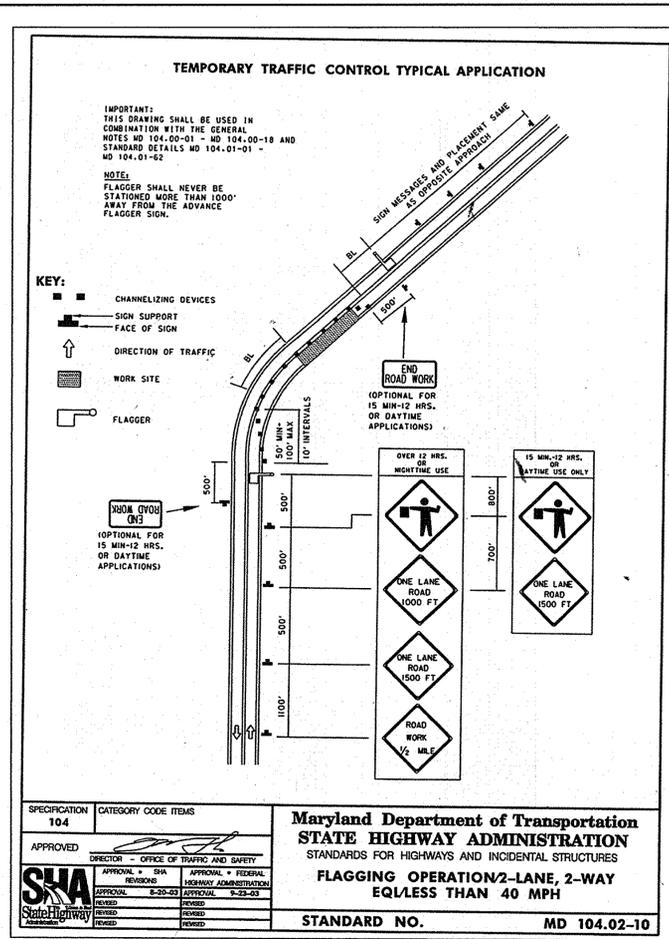
AS-BUILT CERTIFICATE
 THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS PROJECT.
 MICHAEL D. ADOCK, PROFESSIONAL LAND SURVEYOR
 MD REG. NO. 21251, EXPIRATION DATE: 06-16-15
 DATE: 10/16



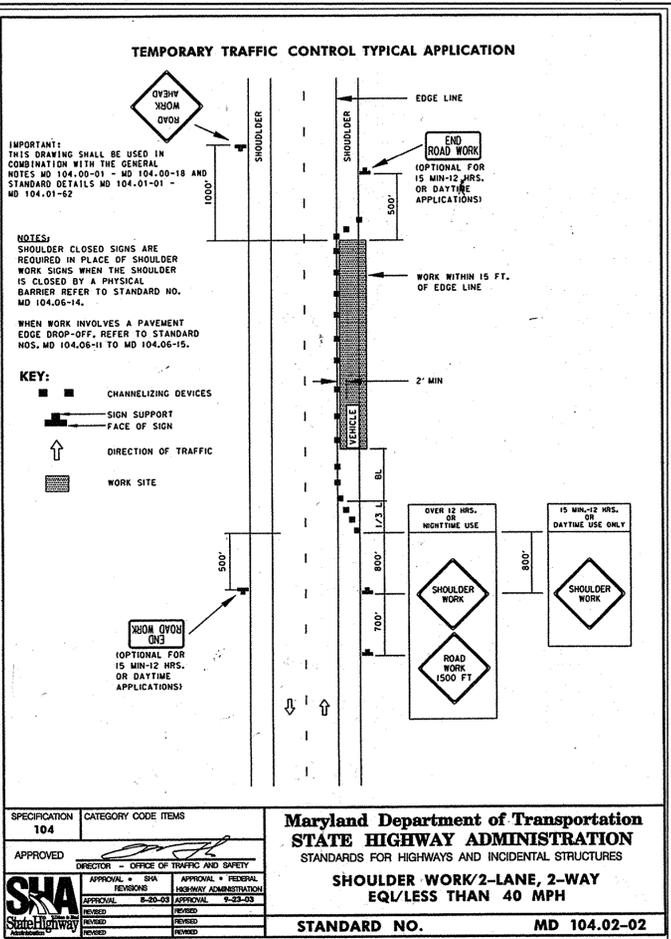
AB CONSULTANTS, INC.
 9450 ANNAPOLIS ROAD
 LANHAM, MARYLAND 20706
 PHONE: (301) 306-3091
 FAX: (301) 306-3092
 CONTACT: DAVID T. DOWS PHONE: 301-306-3091 x25

PROJECT: **ENCLAVE AT ELLICOTT STATION**
 AGE-RESTRICTED ADULT HOUSING COMMUNITY
 LOT 1 OF THE HARBIN PROPERTY MINOR SUBDIVISION
BOARDWALK DETAILS
 2nd ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
 TAX MAP 17, GRIDS 8 & 14, PARCELS 26 & 27, DEED REF: 4008/458 & 782/706

PROJECT NO. 04-038
 SCALE: AS SHOWN
 DATE: 08/04/06
 DRAWN BY: CAD
 CHECKED BY: DTD
 SHEET: 26 OF 21



- NOTES:**
- ALL SIGNAGE AND PAVEMENT MARKINGS MUST BE IN ACCORDANCE WITH THE LATEST MUTCD STANDARDS.
 - CONTRACTOR TO REMOVE EXISTING PAVEMENT MARKING WITH IN LIMIT OF PROP. PAVEMENT MARKING BY GRINDING.
 - ALL NEW PAVEMENT MARKINGS AND SIGN LOCATION SHALL BE APPROVED BY A COUNTY TRAFFIC ENGINEER PRIOR TO INSTALLATION. CALL 410-313-5752
 - 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 POST CAP SHALL BE MOUNTED ON TOP OF EACH POST.



LEGEND:

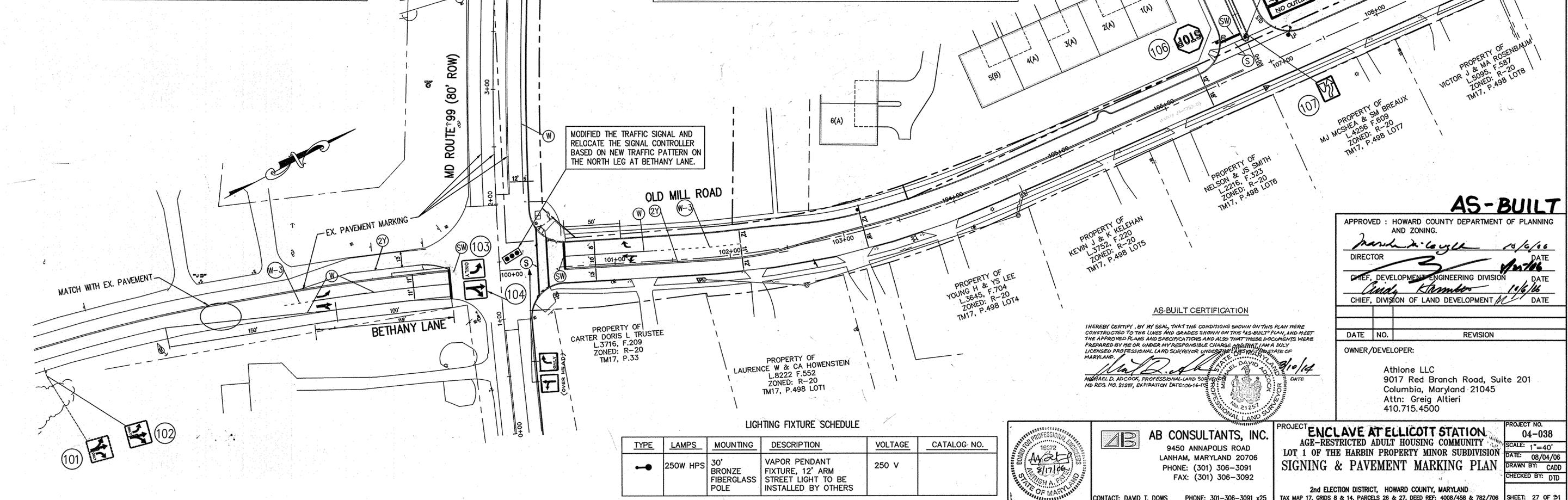
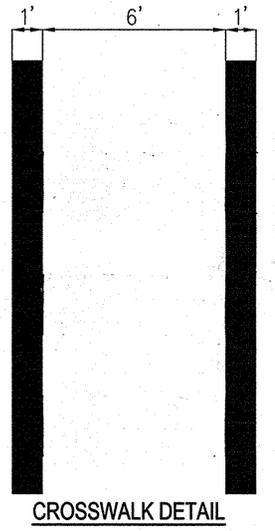
- 2Y 5 INCH SOLID YELLOW(DOUBLE) LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKING
- W 5 INCH SOLID WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKING
- W-3 5 INCH PUPPY (2-6-2) WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKING
- S 12 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKING
- SW 24 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKING
- LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKING ARROW
- TRAFFIC FLOW

SIGN SCHEDULE

KEY	SIGN	REMARK	CODE NUMBER		
			1	2	3
	101	REMOVE EX. SIGN			1
	102	INSTALL NEW SIGN	6.25		
	103	R3-5 INSTALL NEW SIGN (OVERHEAD)	7.5		
	104	R3-6(1)(R) INSTALL NEW SIGN (OVERHEAD)	7.5		
	106	R1-1 INSTALL NEW SIGN	4.0	1	
	107	R4-7 INSTALL NEW SIGN	3.0	1	
	108	INSTALL NEW SIGN (CONTACT THE COUNTY TRAFFIC ENGINEER FOR STREET SIGN DETAILS)	2.0	1	

CODE DESCRIPTION UNIT

1	SHEET ALUMINUM SIGN	S.F.
2	SIGN SUPPORT (AS PER NOTE #4)	L.F.
3	REMOVE EXISTING SIGN	EA.



LIGHTING FIXTURE SCHEDULE

TYPE	LAMPS	MOUNTING	DESCRIPTION	VOLTAGE	CATALOG NO.
●	250W HPS	30' BRONZE FIBERGLASS POLE	VAPOR PENDANT FIXTURE, 12' ARM STREET LIGHT TO BE INSTALLED BY OTHERS	250 V	

AS-BUILT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Howard A. Loyell 11/6/06
DIRECTOR DATE

David K. Krammer 11/6/06
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

David K. Krammer 11/6/06
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

OWNER/DEVELOPER:

Athlone LLC
9017 Red Branch Road, Suite 201
Columbia, Maryland 21045
Attn: Greig Altieri
410.715.4500

PROJECT ENCLAVE AT ELLICOTT STATION
AGE-RESTRICTED ADULT HOUSING COMMUNITY
LOT 1 OF THE HARBIN PROPERTY MINOR SUBDIVISION
SIGNING & PAVEMENT MARKING PLAN

PROJECT NO. 04-038
SCALE: 1"=40'
DATE: 08/04/06
DRAWN BY: CADD
CHECKED BY: DTD
SHEET: 27 OF 21

AB CONSULTANTS, INC.
9450 ANNAPOLIS ROAD
LANHAM, MARYLAND 20706
PHONE: (301) 306-3091
FAX: (301) 306-3092

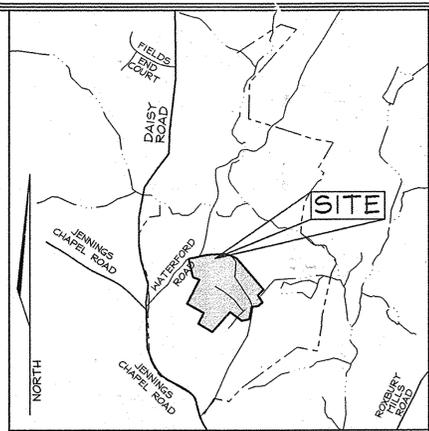
CONTACT: DAVID T. DOWS PHONE: 301-306-3091 x25

LEGEND

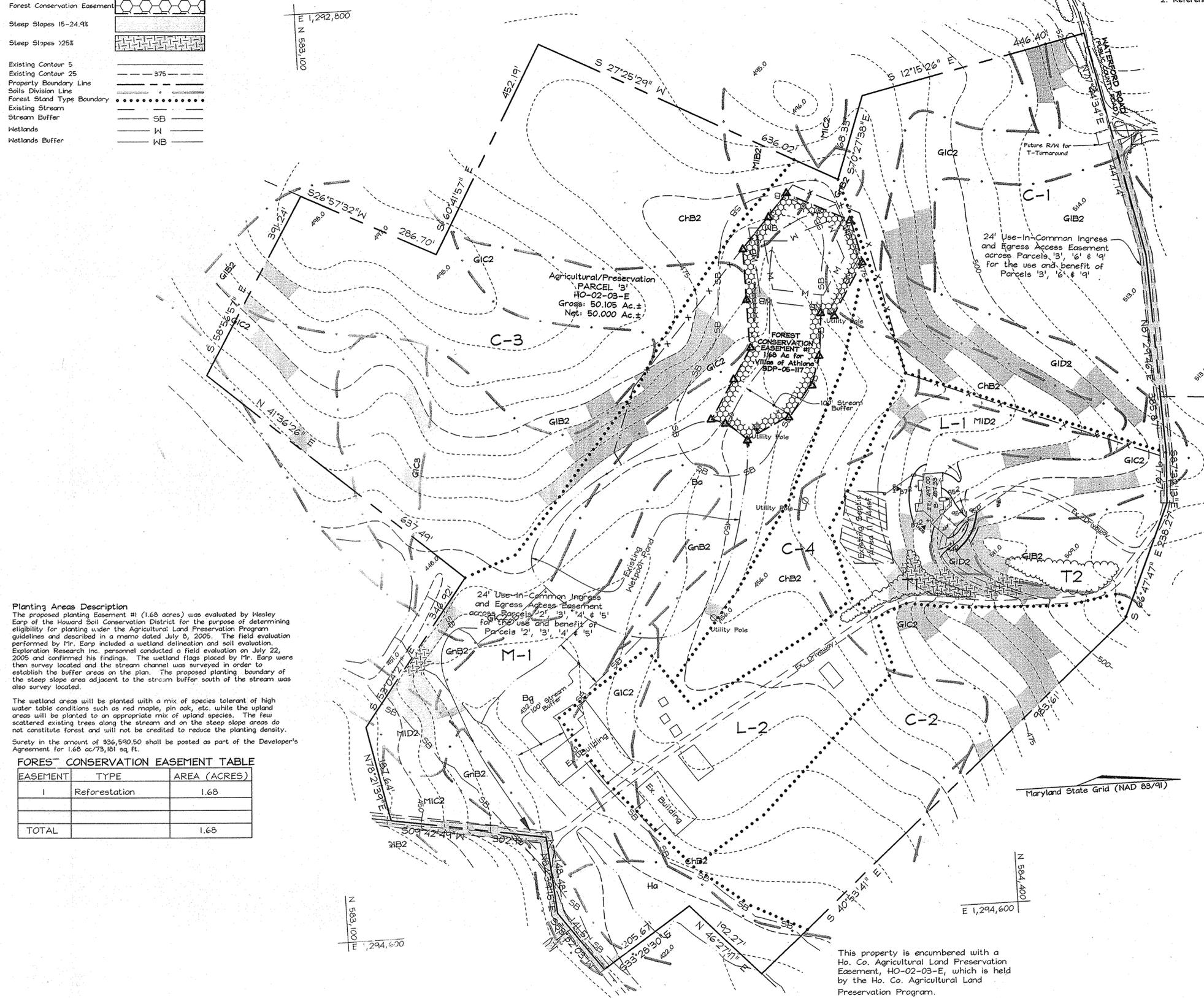
- Forest Easement Signage
- Forest Conservation Easement
- Steep Slopes 15-24.9%
- Steep Slopes >25%
- Existing Contour 5
- Existing Contour 25
- Property Boundary Line
- Soils Division Line
- Forest Stand Type Boundary
- Existing Stream
- Stream Buffer
- Wetlands
- Wetlands Buffer

GENERAL NOTES

1. Parcel 3 is an existing Howard County Agricultural Preservation Parcel HO-02-03-E with an existing house.
2. Reference: L 6235, F 0054



VICINITY MAP
SCALE: 1"=2000'



FOREST STAND ANALYSIS TABLE

KEY	TYPE OF COMMUNITY	AREA Acres	SOIL INFORMATION			EXISTING VEGETATION (Type and approx. %)	STAND CHARACTERISTICS			FOREST AREA IN SENSITIVE ENVIRONMENTS
			SOIL TYPE	TYPICAL FOREST COVER	WOODLAND SUITABILITY INDEX		HABITAT VALUE	SIZE AVG. DIAM.	AGE	
T-1	Tree Group	0.18	GIC2	Mixed Oak	N/A	N/A	N/A	N/A	N/A	N/A
T-2	Tree Group	0.19	GIB2	Mixed Oak	N/A	N/A	N/A	N/A	N/A	N/A
C-1	Crop Field	7.9%	GIB2 GIC2 GID2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
C-2	Crop Field	4.63	ChB2 GIC2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
C-3	Crop Field	13.09	ChB2 GIC2 MIB2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
C-4	Crop Field	2.39	ChB2 GIB2 GIC2 MID2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
L-1	Laun (Farm Stead)	4.74	ChB2 GIB2 GIC2 MID2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
L-2	Laun	3.55	ChB2 GIC2 GIB2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M-1	Meadow	13.38	Ba ChB2 GIC2 GIB2 Ha MIB2 MIC2 MID2	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Planting Areas Description
The proposed planting Easement #1 (1.68 acres) was evaluated by Wesley Earp of the Howard Soil Conservation District for the purpose of determining eligibility for planting under the Agricultural Land Preservation Program guidelines and described in a memo dated July 8, 2005. The field evaluation performed by Mr. Earp included a wetland delineation and soil evaluation. Exploration Research Inc. personnel conducted a field evaluation on July 22, 2005 and confirmed his findings. The wetland flags placed by Mr. Earp were then surveyed located and the stream channel was surveyed in order to establish the buffer areas on the plan. The proposed planting boundary of the steep slope area adjacent to the stream buffer south of the stream was also surveyed located.

The wetland areas will be planted with a mix of species tolerant of high water table conditions such as red maple, pin oak, etc. while the upland areas will be planted to an appropriate mix of upland species. The few scattered existing trees along the stream and on the steep slope areas do not constitute forest and will not be credited to reduce the planting density. Surety in the amount of \$36,540.50 shall be posted as part of the Developer's Agreement for 1.68 ac/73,181 sq. ft.

FOREST CONSERVATION EASEMENT TABLE

EASEMENT	TYPE	AREA (ACRES)
1	Reforestation	1.68
TOTAL		1.68

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 10/6/06
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 10/6/06
 DIRECTOR

SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	SOIL GROUP
Ba	loam	D
ChB2	loam, 3 to 8 percent slopes, moderately eroded	B
GIB2	loam, 3 to 8 percent slopes, moderately eroded	B
GIC2	loam, 8 to 15 percent slopes, moderately eroded	B
GID2	loam, 15 to 25 percent slopes, moderately eroded	B
GnB2	silt loam, 3 to 8 percent slopes, moderately eroded	C
MID2	loam, 15 to 25 percent slopes, moderately eroded	B

LOCATION MAP
SCALE: 1"=100'

This property is encumbered with a Ho. Co. Agricultural Land Preservation Easement, HO-02-03-E, which is held by the Ho. Co. Agricultural Land Preservation Program.

OWNER/ DEVELOPER
Charles Sharp
4003 Jennings Chapel Road
Brookville, MD 20833-2204
(410)-489-4630



FSH Associates
Engineers Planners Surveyors
8318 Forrest Street, Ellicott City, MD 21043
Tel: 410-750-2251 Fax: 410-750-7350
E-mail: FSH@fsassociates.com

Forest Stand Narrative
Total acreage of the site is 50.11 acres.
T-1 This tree group is 0.18 Ac. in size and contains steep slopes. The canopy is dominated by black oak, Quercus velutina, and red maple, Acer rubrum. The area is currently mowed and the understorey is sparse, with steep slopes consisting of 0.14 Ac.
T-2 This tree group is 0.19 Ac. in size. The canopy is dominated by black oak, Quercus velutina, red maple, Acer rubrum, shingle oak, Quercus imbricaria, and black cherry, Prunus serotina. Understorey consists of overstorey saplings, scarlet oak, Quercus coccinea and black walnut, Juglans nigra.
L-1 This 4.74 Ac. area surrounds an existing house and various farm out buildings. The area contains laun and ornamental tree plantings. The area contains 1.02 acres of environmentally sensitive areas, steep slopes are covered by L-1.
L-2 This 3.55 Ac. area surrounds existing farm buildings located on the southeast corner of the property. This area contains laun and various ornamental plantings. The area contains no environmentally sensitive areas.
C-1 This 7.9% Ac. crop area is currently in active crop land production. The area contains 1.10 acres of environmentally sensitive areas, steep slopes covered by C-1.
C-2 This 4.63 Ac. crop area is currently in active crop production. C-2 contains 0.53 acres of steep slopes.
C-3 This 13.09 Ac. crop area is currently in active crop production. The area contains 0.50 acres of steep slopes.
C-4 This 2.39 Ac. crop area is currently in active crop production. The area does not contain any environmentally sensitive areas.
M-1 This 13.38 Ac. open field area contains grazing pastures and open field. The area contains wetlands, streams and associated buffers, and steep slopes.

AS-BUILT CERTIFICATION

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

Michael D. Adcock, Professional Land Surveyor
 DATE: 3/19/14



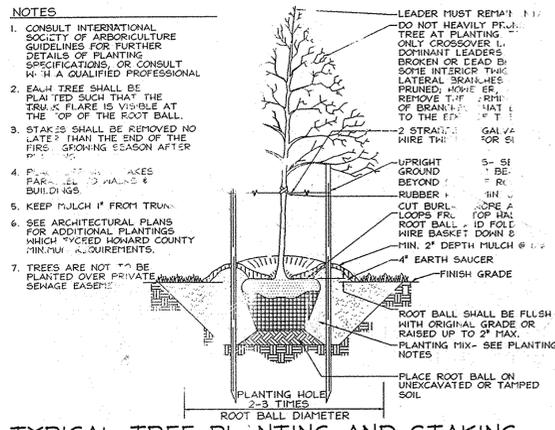
AS-BUILT

OFFSITE FOREST MITIGATION PLAN
for ENCLAVE AT ELLICOTT STATION
SDP-05-117
on Waterford Farm, Parcel 3

TAX MAP 20 GRID 12 PARCEL 130
4TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

DESIGN BY: RAB
 DRAWN BY: MAB
 CHECKED BY: SLH
 SCALE: 1"=100'
 DATE: Apr 25, 2006
 P.L.O. No.: 3082
 SHEET No.: 26 OF 31

EXPLORATION RESEARCH INC.
ENVIRONMENTAL LANDSCAPE ARCHITECTS
8318 FORREST STREET
ELLICOTT CITY, MARYLAND 21043
TEL: (410) 750-1150 FAX: (410) 750-7350
EMAIL: EXPLOR@EXPLORRESEARCH.COM



TYPICAL TREE PLANTING AND STAKING
DECIDUOUS TREES UP TO 2-1/2" CALIPER NOT TO SCALE

FCE #1 PLANTING AREA: 1.68 Ac. (200 TPA)

Qty	Botanical Name	Common Name	Min. Size	Spacing	Notes
48	<i>Acer rubrum</i>	Red Maple	1" cal.	15' o.c.	1" cal. Balled and Burlaped
48	<i>Platanus occidentalis</i>	Sycamore	1" cal.	15' o.c.	
30	<i>Quercus alba</i>	White Oak	1" cal.	15' o.c.	
48	<i>Quercus palustris</i>	Pin Oak	1" cal.	15' o.c.	
18	<i>Salix nigra</i>	Black Willow	1" cal.	15' o.c.	
48	<i>Cercis canadensis</i>	Redbud	1" cal.	15' o.c.	
48	<i>Amelanchier canadensis</i>	Service Berry	1" cal.	15' o.c.	
48	<i>Pinus taeda</i>	Loblolly Pine	1" cal.	15' o.c.	
336	Total Plantings				

Plant Selection and Density Spacing Requirements.
Planting size and density shall vary with a combination of planting stock, which will be determined at the time of planting. Planting quantity and spacing are based on square footage credit, which varies by material size. A total of 43,560 sq. ft. of planting credit must be fulfilled for each acre planted. This credit can be fulfilled with any combination of material size in accordance with the following chart.

Plant Material Size Table *

Material Size	Spacing	TPA	Sq. Ft. Credit per plant	Comments
2" caliper trees	20' x 20'	100	435.6	B & B
1" caliper trees	15' x 15'	200	217.8	B & B
seedlings or whips	11' x 11'	360	126	Container 1-3 gal. w/tree shelters
seedlings	8' x 8'	700	62	Bare root or container grown

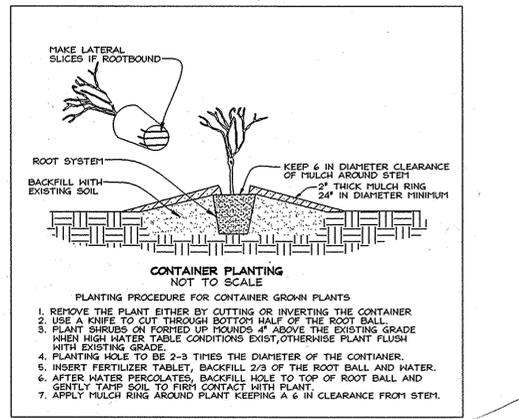
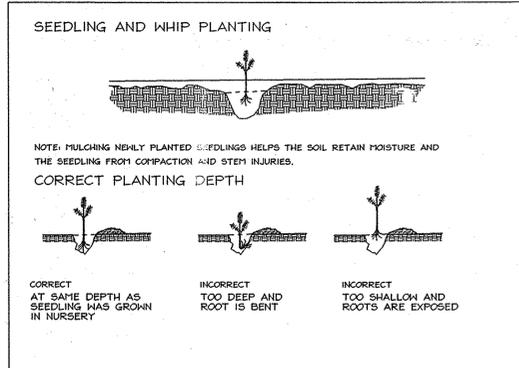
Overstory Planting Alternate Species List *

COMMON NAME	SCIENTIFIC NAME
Black Gum	<i>Nyssa sylvatica</i>
Hickory	<i>Carolina tomentosa</i>
Chestnut Oak	<i>Quercus prinus</i>
Northern Red Oak	<i>Quercus rubra</i>
Scarlet Oak	<i>Quercus coccinea</i>
Virginia Pine	<i>Pinus virginiana</i>
Eastern Redcedar	<i>Juniperus virginiana</i>

Understory Planting Alternate Species List *

COMMON NAME	SCIENTIFIC NAME
Service Berry	<i>Amelanchier canadensis</i>
Eastern Hornbeam	<i>Ostrya virginiana</i>
American Holly	<i>Ilex opaca</i>
Boxelder	<i>Acer negundo</i>
Hackberry	<i>Celtis occidentalis</i>
Fringetree	<i>Chionanthus virginicus</i>

* Size, species and quantities listed are suggested plantings and may be substituted, but only in conformance with the Howard County Forest Conservation Manual, and as approved by DPZ.



Reforestation Afforestation Protection Sign
Min. 11"
Forest Conservation Area
REFORESTATION PROJECT
Min. 15"
Trees for Your Future
SIGN DETAIL: PERMANENT SIGN

SIGNAGE NOTE: ALL TREE PROTECTION SIGNS SHALL BE PLACED ON METAL "T" POSTS OR PRESSURE TREATED WOOD POLES. NO ATTACHMENT OF SIGNS TO TREES IS PERMITTED.

Reforestation Area

- Initial planting inspection to verify ERI quality.
- Reforestation areas may winter-early spring planting from year to year ground is no longer frozen conditions permit.
- Soil amendments and fertilizers shall be applied to the site of soil. Organic material content of soil shall be determined and soil amendments shall be applied based on soil test results. Organic materials shall be applied based on soil test results. Organic materials shall be applied based on soil test results.
- Plant materials shall be provided in accordance with the specifications for size, form, breakage, desiccation, insect damage, and other factors. Plant materials shall be provided in accordance with the specifications for size, form, breakage, desiccation, insect damage, and other factors.
- Newly planted trees may require watering during the first growing season. The initial watering shall be applied within 14 days of planting. Subsequent watering shall be applied at intervals of 14 days during the first growing season. Watering shall be applied at intervals of 14 days during the first growing season.
- Planting holes shall be excavated to a minimum diameter of 2.5 to 3 times the diameter of the root ball or container. Mechanical augering is preferred with scarification of sides of each hole.
- All nursery stock may be sprayed with deer repellent containing methiocarb such as Repellex(TM). All nursery stock to be grown with deer repellent tablets in growing medium, such as Repellex(TM).

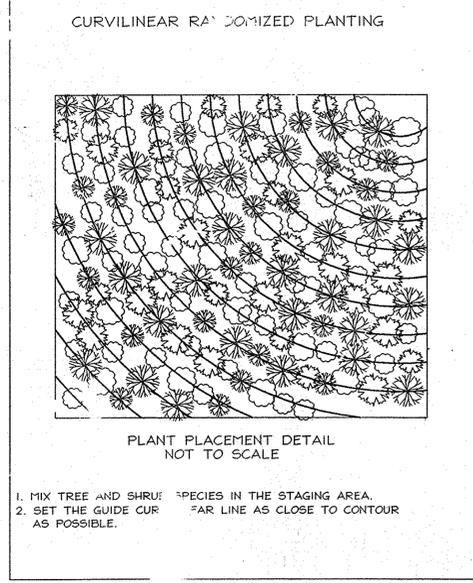
Reforestation Area Monitoring Notes

- Monthly visits during the first growing season are to assess the success of the plantings and to determine if supplemental watering, pest control, invasive plant management, mowing or other actions are necessary. Early spring visits will document winter kill and autumn visits will document summer kill.
- The minimum survival rate shall be 75% of the total number of trees planted per acre at the end of the two year maintenance period. Wild tree seedlings from natural regeneration on the planting site may be counted up to 50% toward the total survival count, if they are heavily native species at least 12 inches tall.
- Survival will be determined by a stratified random sample of the plantings. The species composition of the sample population should be proportionate to the amount of each species in the site planting to be sampled.
- Effective monitoring will assess plant survival during the first growing season and make recommendations for reinforcement planting if required at that time.

Forest Tree Protection and Management Notes

- Any significant changes made to the Forest Conservation Plan shall be made with the prior approval of the Howard County Dept. of Planning and Zoning.
- Forest protection and management to be in accordance with a forest management plan. The plan shall be prepared by a MD licensed forester to facilitate the landowners management objectives, such as wildlife enhancement, water quality, aesthetics, forest products, etc.
- Future forest harvests may be conducted under a Howard County approved forest harvest plan, prepared by a MD licensed forester.

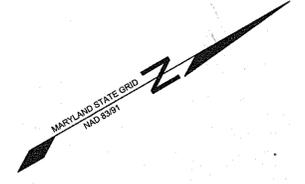
AS-BUILT CERTIFICATION
THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET.
Michael D. Adcock 3/10/14
MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR
MD REG. NO. 21257, EXPIRATION DATE: 06-16-15
DATE



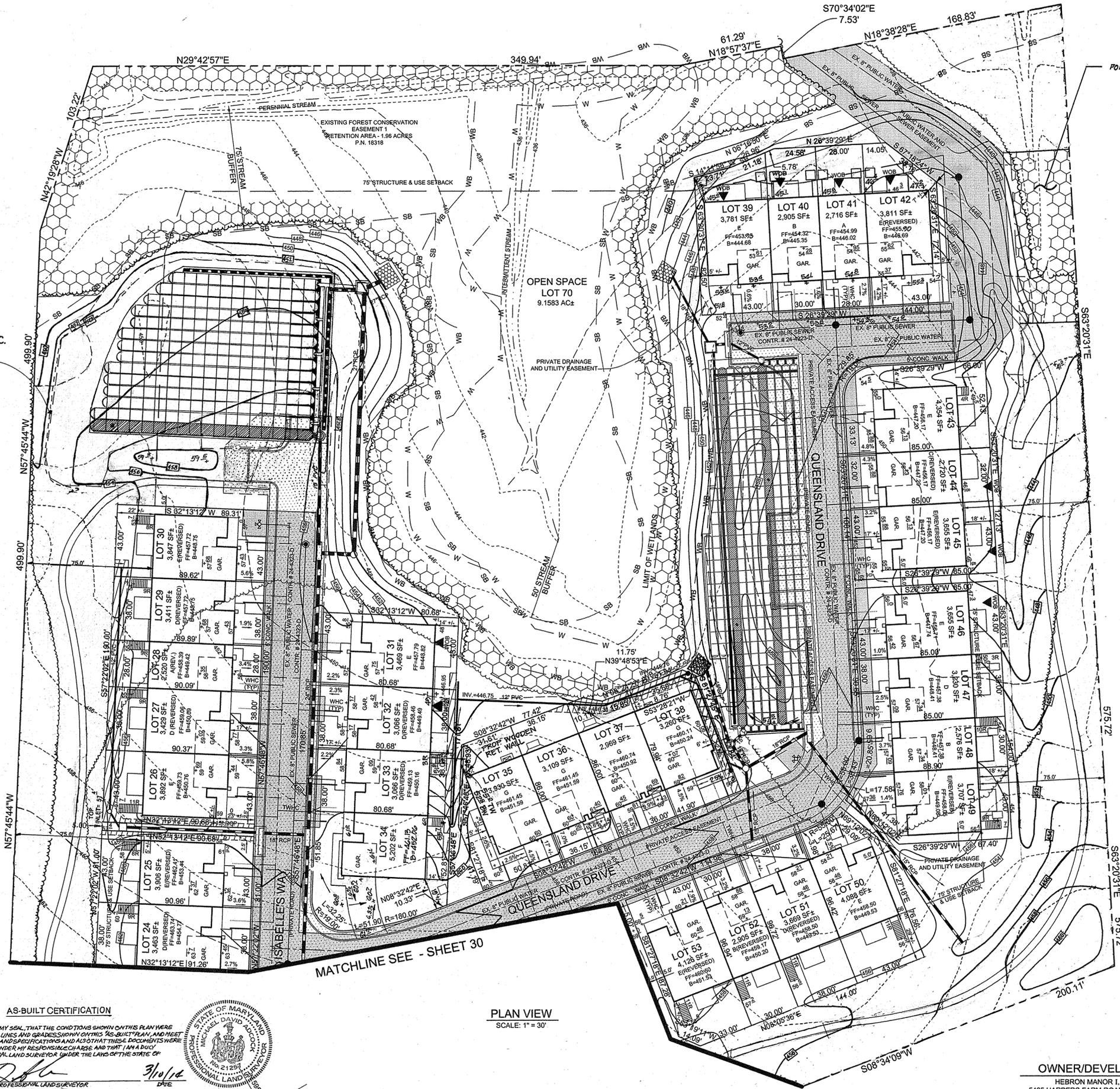
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
DATE: 12/10/14
DATE: 12/10/14
DATE: 12/10/14

LICENSED LANDSCAPE ARCHITECT
3169
ROBERT ANDREW BENNETT, INC.
OWNER/DEVELOPER
Charles Sharp
4003 Jennings Chapel Road
Brookville, MD 20833-2204
(410)-489-4630
FSH Associates
Engineers Planners Surveyors
318 Forrest Street, Ellicott City, MD 21043
Tel: 410-750-2251 Fax: 410-750-7350
E-mail: FSHAssociates@cs.com

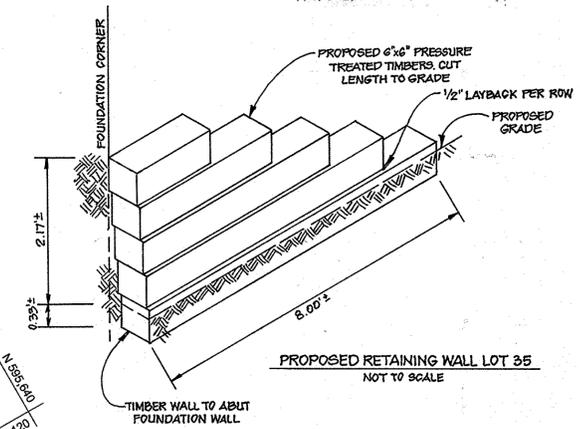
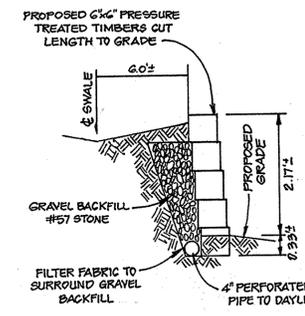
AS-BUILT
OFFSITE FOREST MITIGATION PLAN
for ENCLAVE AT ELLICOTT STATION
SDP-05-117
on Waterford Farm, Parcel 3
TAX MAP 20, GRID 12 PARCEL 180
4TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DESIGN BY: RAB
DRAWN BY: RAB
CHECKED BY: SLF
SCALE: As Shown
DATE: April 25, 2008
No. 205
SHEET No. 29 OF 29



REVISED REC. AREA 'A' 0.4206 AC±



PART OF PREVIOUSLY RECORDED FOREST CONSERVATION EASEMENT 3 PLAT NO. 1831B REFORESTATION - 0.0802 AC± TO REMAIN



- NOTE:**
- FOR ALL INFORMATION PERTAINING TO AREAS OUTSIDE OF THE BOUNDARY SHOWN ON THIS SHEET, SEE SHEET 3.
 - THIS PLAN IS PROVIDED TO SHOW THE SIMPLE LOTS, NEW HOUSE TYPES ON LOTS 1-34, 39-64, REVISED GRADING, PUBLIC SEWER AND REVISED EASEMENTS. FOR ALL OTHER INFORMATION REFER TO OTHER SHEETS IN THIS PLAN SET.

LEGEND

EXISTING CONTOUR	---	382
PROPOSED CONTOUR	---	382.3
EXISTING SPOT ELEVATION	+	82.53
PROPOSED SPOT ELEVATION	+	82.53
DIRECTION OF FLOW	---	
EXISTING TREELINE	---	
PROPOSED TREELINE	---	
EXISTING STREAMBANK BUFFER	---	SB
EXISTING WETLANDS	---	W
EXISTING WETLAND BUFFER	---	WB
PROPOSED PRIVATE ACCESS, SEWER, DRAINAGE AND UTILITY EASEMENT	---	
PROPOSED PUBLIC ACCESS EASEMENT	---	
PROPOSED PRIVATE DRAINAGE AND UTILITY EASEMENT	---	
PROPOSED PUBLIC WATER AND SEWER EASEMENT	---	
EXISTING FOREST CONSERVATION EASEMENTS	---	
PROPOSED PRIVATE SEWER EASEMENT	---	
PROPOSED FIRE HYDRANT	---	
WALK OUT BASEMENT	---	
PROPOSED SEWER CLEANOUT	---	
SWM DRYWELL - SEE SHEET 10 FOR SIZING	---	
PROPOSED SHC	---	
PROPOSED SHC	---	
EXISTING SHC	---	
EXISTING SHC	---	

AS-BUILT

DATE	NO.	REVISION
10-14-13	4	REVISE FOREST CONSERVATION EASEMENTS
05-03-11	3	REVISE STORMTECH UNDERGROUND SWM FACILITY LAYOUT, ASSOCIATED GRADING, LIMITS OF REFORESTATION AREA, ASSOCIATED STORMDRAINAGE
10-20-10	2	REPLACE RAIN BARRELS W/ DRYWELLS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Director: *Mona E. Suttler* 12/2/10 DATE

Chief, Development Engineering Division: *Michael D. Adcock* 11/5/10 DATE

Chief, Division of Land Development: *Kate Schaefer* 12/2/10 DATE

04-09-10 1 Revise easements lots 32-35, as-built grades lots 35-38, swale grading lots 43-46, remove shrubbery lots 49-51, add rain barrels lots 51-54, add ret. wall detail. REVISION

REVISED SITE DEVELOPMENT PLAN
ENCLAVE AT ELLICOTT STATION
 LOTS 1-69, OPEN SPACE LOT 70
 AND PARCEL 'A'
 PLAT NO. 20823-20826 PART OF PARCELS 26 & 27
 TAX MAP 17 GRIDS 8 & 14 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

Sill · Adcock & Associates · LLC
 Engineers · Surveyors · Planners
 3300 North Ridge Road, Suite 160
 Ellicott City, Maryland 21043
 Phone: 443.325.7682 Fax: 443.325.7685
 Email: info@silladcock.com

DESIGN BY: PS
 DRAWN BY: AM
 CHECKED BY: PS
 SCALE: AS SHOWN
 DATE: DECEMBER 10, 2009
 PROJECT #: 08-080
 SHEET #: 31 OF 31

AS-BUILT CERTIFICATION

I HEREBY CERTIFY, BY MY SEAL, THAT THE CONDITIONS SHOWN ON THIS PLAN WERE CONSTRUCTED TO THE LINES AND GRADES SHOWN ON THIS AS-BUILT PLAN, AND MEET THE APPROVED PLANS AND SPECIFICATIONS AND ALSO THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND.

Michael D. Adcock 3/10/14 DATE
 MICHAEL D. ADCOCK, PROFESSIONAL LAND SURVEYOR
 MD REG. NO. 01251, EXPIRATION DATE: 04-14-15

STATE OF MARYLAND
 MICHAEL D. ADCOCK
 PROFESSIONAL LAND SURVEYOR
 No. 21251
 04-14-15

PLAN VIEW SCALE: 1" = 30'

OWNER/DEVELOPER
 HEBRON MANOR I, LLC
 5485 HARPERS FARM ROAD, SUITE 200
 COLUMBIA, MD 21044
 410-964-4440