

ENVIRONMENTAL CONCEPT PLAN

THE SETTLEMENT

AT SAVAGE MILL

8550 & 8554 FAIR STREET

PARCEL 93

6TH ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

SHEET INDEX	
NO	DESCRIPTION
1	COVER SHEET
2	OVERALL PLAN
3	EXISTING CONDITIONS & FOREST STAND DELINEATION PLAN
4	FOREST STAND DELINEATION NOTES & TABULATIONS
5	ENVIRONMENTAL CONCEPT PLAN
6	ENVIRONMENTAL CONCEPT PLAN DETAILS

DESIGN NARRATIVE

NATURAL RESOURCE PROTECTION AND ENHANCEMENT

EXISTING NATURAL RESOURCE FEATURES ON THIS PROPERTY CONSIST OF UPLAND FORESTED AREAS AND STEEP SLOPES, AS WELL AS FLOODPLAIN AREAS AND STREAM BUFFERS. EXISTING NATURAL RESOURCE FEATURES ADJACENT TO THE PROPERTY CONSIST OF UPLAND AND STREAM VALLEY FOREST, STEEP SLOPES AND THE LITTLE PATUXENT RIVER. WITH THE PROPOSED DESIGN, EXISTING NATURAL FLOW PATTERNS HAVE BEEN MAINTAINED AND RECHARGE OF GROUNDWATER WILL BE PROVIDED, ENHANCING THE WATER QUALITY FOR DOWNSTREAM FEATURES. DISTURBANCE TO LIMITED PORTIONS OF THE STEEP SLOPE AREAS WILL BE REQUIRED TO PROVIDE FOR ADEQUATE STORM DRAIN/STORMWATER OUTFALLS FROM THE SITE. DISTURBANCE ASSOCIATED WITH THE STORM DRAIN OUTFALL WILL BE TEMPORARY IN NATURE; THE AREA IN QUESTION WILL BE STABILIZED/RESTORED UPON COMPLETION OF THE PROPOSED WORK. DISTURBANCE TO FORESTED AREAS HAS BEEN LIMITED TO THE MINIMUM NECESSARY TO PROVIDE THE SITE IMPROVEMENTS, STORMWATER MANAGEMENT, AND SEDIMENT CONTROLS ASSOCIATED WITH THE DEVELOPMENT. DISTURBANCE HAS BEEN MINIMIZED THROUGH THE INCORPORATION OF RETAINING WALLS, AND NARROWER PRIVATE STREETS. NO IMPACTS TO STREAM BUFFERS OR FLOODPLAINS ARE PROPOSED WITH THIS PLAN.

MAINTENANCE OF NATURAL FLOW PATTERNS

NATURAL FLOW PATTERNS ON THIS SITE GENERALLY MOVE TO THE EAST, THE WEST, AND THE SOUTH AS THE SITE IS LOCATED ON A RIDGE AND OUTFALLS TO THE EXISTING SAVAGE MILL RACE, A FLAT SWALE WHICH EVENTUALLY DISCHARGES INTO THE LITTLE PATUXENT RIVER. THIS PATTERN WOULD BE LARGELY UNCHANGED WITH THE PROPOSED DEVELOPMENT. THE DRAINAGE FROM THE STORMWATER FACILITIES WOULD OUTFALL AT THE WESTERN PORTION OF THE SITE TO THE EXISTING MILL RACE, WHERE A SIGNIFICANT PORTION OF THE DRAINAGE LEAVES THE SITE TODAY. THE OUTFALL WOULD BE CONSTRUCTED IN A MANNER TO MINIMIZE OFFSITE DRAINAGE IMPACTS.

REDUCTION OF IMPERVIOUS AREAS

IMPERVIOUS AREAS WILL BE REDUCED ON THIS SITE THROUGH THE IMPLEMENTATION OF ALTERNATIVE SURFACES. PERMEABLE PAVEMENT WILL BE PROVIDED IN PORTIONS OF THE ALLEYS TO INCREASE GROUNDWATER RECHARGE.

INTEGRATION OF SEDIMENT CONTROL FEATURES

SEDIMENT CONTROL FOR THIS SITE WILL BE PROVIDED BY A STABILIZED CONSTRUCTION ENTRANCE, SEDIMENT TRAPS LOCATED AT THE DOWNHILL SIDE OF THE PROJECT SITE, EARTH DIKES, SILT FENCE, AND SUPER SILT FENCE. A STOCKPILE AREA WILL BE PROVIDED AT THE MIDDLE OF THE SITE. SEDIMENT CONTROL DESIGN WILL INCLUDE A DETAILED SEQUENCE OF CONSTRUCTION TO MINIMIZE OFFSITE IMPACTS AND TO REQUIRE THE INSTALLATION OF THE STORMWATER FEATURES IN SUCH A MANNER THAT THEY WILL FUNCTION FULLY UPON COMPLETION OF CONSTRUCTION.

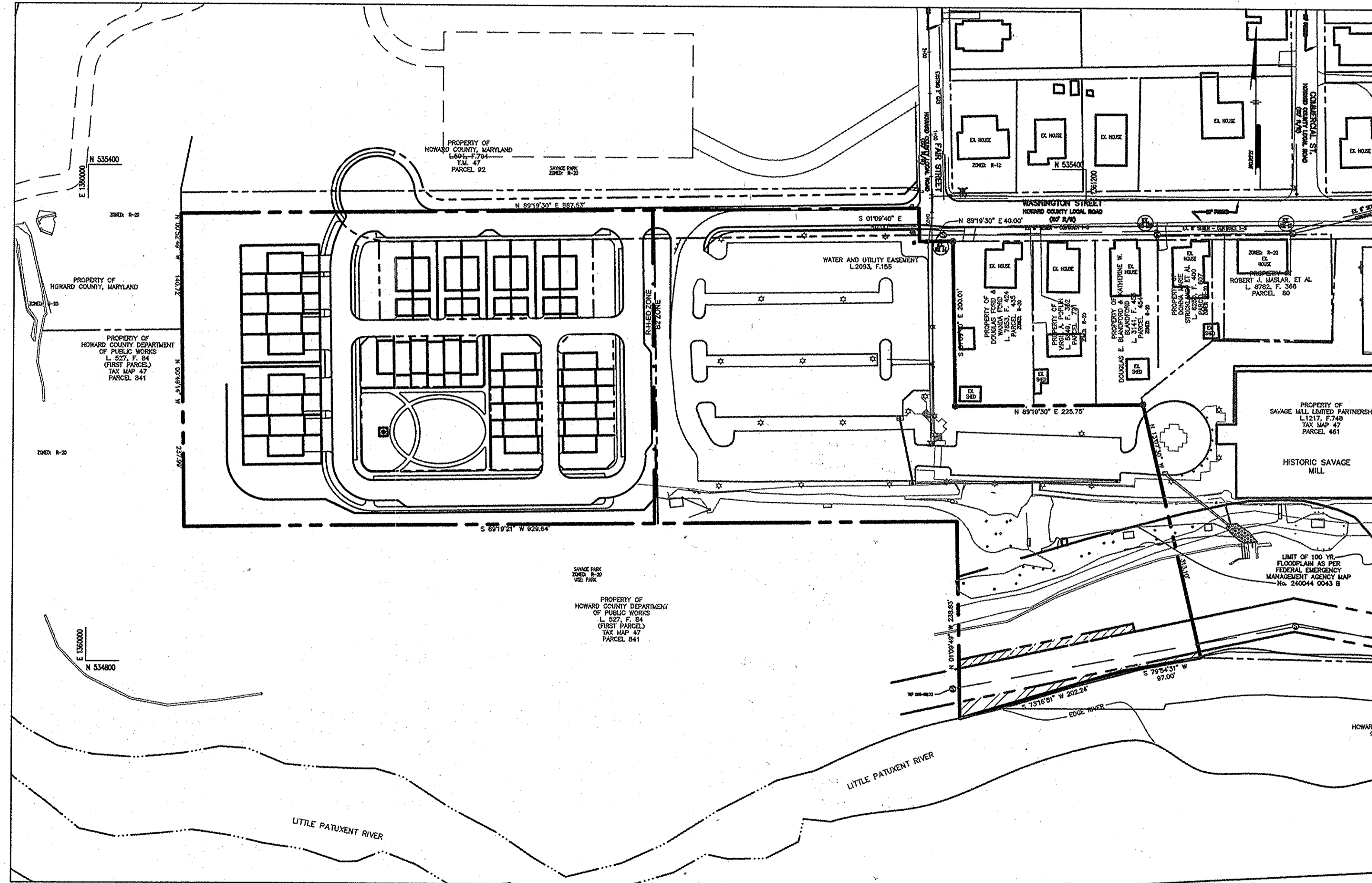
IMPLEMENTATION OF ESD PLANNING TECHNIQUES AND PRACTICES

ESD FOR THIS PROJECT IS PROVIDED THROUGH THE USE OF ALTERNATIVE SURFACES, DRY WELLS, AND TWELVE MICRO-BIORETENTION FACILITIES. PERMEABLE PAVEMENT (MDE DESIGNATION A-2) WILL BE USED IN PORTIONS OF THE ALLEYS. DRY WELLS (MDE DESIGNATION M-5) WILL BE PROVIDED TO TREAT HALF THE ROOFTOP AREAS FOR 19 HOUSES LOCATED WITHIN 'B' HYDROLOGIC SOILS GROUP. TWELVE MICRO-BIORETENTION FACILITIES (MDE DESIGNATION M-6) WILL BE PROVIDED THROUGHOUT THE PROJECT SITE AND ADJACENT TO THE WASHINGTON STREET EXTENDED RIGHT-OF-WAY TO TREAT THE BULK OF THE SITE.

THE RELATIVELY HIGH DENSITY OF THE COMMUNITY THE REQUIRED ROADWAYS, THE REQUIRED PUBLIC UTILITIES AND ASSOCIATED EASEMENTS, AND THE STEEP SLOPES OUTSIDE OF PAVED AREAS SLOPING TOWARD THE MILL RACE LEAVE LITTLE SUITABLE OPEN AREA FOR ADDITIONAL ESD PRACTICES TO TREAT THE TOTAL CHANNEL PROTECTION VOLUME (CPV). THE ESD PRACTICES HAVE BEEN SIZED TO PROVIDE THE WATER QUALITY VOLUME (WQV) AND AS MUCH AS IS FEASIBLE OF THE CPV. THE REMAINING CPV WILL BE STORED IN AN UNDERGROUND STORAGE FACILITY BENEATH THE OPEN SPACE.

GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- THE EXISTING TOPOGRAPHY IS PROVIDED BY PENNONI ASSOCIATES, INC., DATED NOVEMBER 28, 2006.
- THE BOUNDARY SURVEY IS PROVIDED BY PENNONI ASSOCIATES, INC., DATED DECEMBER 5, 2006.
- THE COORDINATES SHOWN HEREON ARE IN MARYLAND COORDINATE SYSTEM NAD 83/91 BASED ON THE HOWARD COUNTY GEODETIC CONTROL. HOWARD COUNTY MONUMENT NOS. 47EC AND 47FB WERE USED FOR THIS PROJECT.
- WATER IS PUBLIC, CONTRACT 3W.
- SEWER IS PUBLIC, CONTRACT 1S.
- 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 FOR THIS PROJECT IS NOT REQUIRED. THE FLOODPLAIN SHOWN IS FROM A HOWARD COUNTY FLOODPLAIN STUDY PREPARED BY CHEM HILL CONSULTANTS AND PROGRESSIVE ENGINEERING CONSULTANTS DATED JANUARY 1986.
- NO WETLANDS ARE FOUND ON THIS PROJECT PER FIELD VISIT BY PENNONI ASSOCIATES, INC. IN DECEMBER OF 2006 AND OCTOBER OF 2013.
- SUBJECT PROPERTY ZONED B-2 AND R-H-ED PER THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN.
- ALL ELEVATIONS SHOWN ARE BASED NAVD88.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
- ALL LIGHTING IS TO BE DIRECTED/REFLECTED AWAY FROM ADJACENT PUBLIC ROADS AND RESIDENTIALLY ZONED PROPERTIES, AND BE IN ACCORDANCE WITH SECTION 134 OF THE HOWARD COUNTY ZONING REGULATIONS.
- THERE ARE NO EXISTING STRUCTURES ONSITE.
- BASED ON AVAILABLE COUNTY MAPS AND RECORDS, THERE ARE NO HISTORIC STRUCTURES OR KNOWN CEMETERIES LOCATED ON THE SUBJECT PROPERTY. THE HISTORIC SAVAGE MILL AND MILL RACE STRUCTURE ARE LOCATED ON PROPERTY ADJACENT TO THIS PROJECT.
- TWENTY-NINE (29) SPECIMEN TREES EXIST ON SITE. SEE SPECIMEN TREE CHART WITHIN THIS PLAN SET.
- APPLICABLE DPZ FILE REFERENCES: SDP-85-146, SDP-80-155, SDP-85-31, SDP-85-51, SDP-90-191, WP-02-16, WP-07-105, BA-07-01, BA-07-17V, AA-07-05, & SDP-07-076.
- APPROVAL OF THIS ECP DOES NOT CONSTITUTE APPROVAL OF SUBSEQUENT AND ASSOCIATED SUBDIVISION PLANS, SITE DEVELOPMENT PLANS OR RED-LINE REVISIONS. REVIEW OF THIS PLAN FOR COMPLIANCE WITH THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE HOWARD COUNTY ZONING REGULATIONS SHALL OCCUR DURING THE SUBDIVISION PLAN, SITE DEVELOPMENT PLAN OR RED-LINE REVISION REVIEW PROCESS. THE APPLICANT AND CONSULTANT SHOULD EXPECT ADDITIONAL AND MORE DETAILED REVIEW COMMENTS (INCLUDING COMMENTS THAT MAY ALTER THE OVERALL SITE DESIGN) AS THIS PROJECT PROGRESSES THROUGH THE PLAN REVIEW PROCESS.
- THE PRESUBMISSION COMMUNITY MEETING OCCURED ON MARCH 11, 2014 AT 7:00 PM AT CARROLL BALDWIN HALL, 9035 BALTIMORE STREET, SAVAGE, MD 20763.



LOCATION PLAN

SCALE: 1" = 100'

GENERAL NOTES CONT.

- LAND CONDOMINIUM PLAT TITLED "SAVAGE MILL LAND CONDOMINIUM" WAS RECORDED ON JUNE 30, 2008. THIS PLAT SHOWS LAND UNITS A, B, AND C, WHICH ARE REFLECTED ON THIS PLAN. THESE CONDOMINIUM PARCELS WILL BE VACATED IN THE FUTURE WITH THE PROPOSED SUBDIVISION.
- FOREST INTERIOR DWELLING SPECIES (FIDS) PROTECTIVE MEASURES AS OUTLINED IN CORRESPONDENCE WITH MD-DNR WILL BE ADDRESSED IN GREATER DETAIL ON THE SUBDIVISION AND SITE DEVELOPMENT PLANS. IN GENERAL THE STRATEGIES OUTLINED IN THE JULY 25, 2014 LETTER FOR PROTECTION OF THESE SPECIES AND THEIR HABITATS WILL INCLUDE ENVIRONMENTAL SITE DESIGN MEASURES FOR STORMWATER MANAGEMENT, LIMITATION ON CLEARING TO THE MINIMUM NEEDED, AND SOIL STABILIZATION MEASURES.
- THE DEVELOPER IS IN THE PROCESS OF EXPLORING AN ALTERNATIVE LAYOUT FOR THIS SITE WHICH WOULD SHIFT THE DEVELOPMENT TO THE NORTH AND EAST, AWAY FROM THE LITTLE PATUXENT RIVER. THE DEVELOPER IS WORKING WITH HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS TO EXPLORE THE POSSIBILITY OF A LAND SWAP WHICH WOULD ALLOW THIS SHIFT IN THE DEVELOPMENT. SHOULD THE LAYOUT BE REVISED, A REVISED ENVIRONMENTAL CONCEPT PLAN WILL BE SUBMITTED FOR REVIEW.

SITE ANALYSIS DATA

NOTE: DENSITY CALCULATIONS CAN ONLY BE MADE USING THE R-H-ED PORTION OF THE PROPERTY.

AREA OF SITE (PARCEL 93): 10.06 ACRES (438,213.6 SF)
 LIMIT OF DISTURBED AREA TOTAL: 5.84 ACRES ± (254,429 SF±)
 PRESENT ZONING: R-H-ED (RESIDENTIAL) & B-2 (BUSINESS)
 EXISTING USES: PARKING AND VACANT WOODED LOT
 PROPOSED USES: RESIDENTIAL LOTS AND A PARKING LOT

PROPOSED NUMBER OF UNITS:
 DUPLEX UNITS: 8
 TOWNHOUSE UNITS: 27
 TOTAL NUMBER OF UNITS: 35

% BUILDING COVERAGE: 39,477 SF / 438,213.6 SF = 9.0%

PARKING REQUIRED:
 2 SPACES PER DWELLING UNIT
 35 X 2.0 = 70 SPACES REQUIRED
 70 SPACES PROVIDED IN UNIT GARAGES

VISITOR PARKING REQUIRED:
 0.50 SPACES PER DWELLING UNIT
 35 X 0.50 = 17.5 = 18 SPACES REQUIRED
 20 SPACES PROVIDED ON STREET

TOTAL REQUIRED PARKING: 88 SPACES
 TOTAL PROPOSED PARKING: 90 SPACES
 (NOTE: THE EXISTING SAVAGE MILL PARKING LOT WILL NOT BE USED FOR RESIDENTIAL PARKING PURPOSES.)

AREA OF WETLANDS AND WETLAND BUFFERS: 0.00 AC

AREA OF FLOODPLAIN AND FLOODPLAIN BUFFERS: 1.24 AC

AREA OF FOREST: 6.22 AC

AREA OF STEEP SLOPES:
 15%-25%: 0.55 AC± (23,866 SF±)
 25%+: 1.58 AC± (68,619 SF±)

AREA OF ERODIBLE SOILS: 5.89 AC± (256,623 SF±)

IMPERVIOUS AREA:
 EXISTING: 96,204 SF±
 PROPOSED: 117,560 SF± (INCLUDES AREAS PROPOSED FOR PERVIOUS SURFACES)

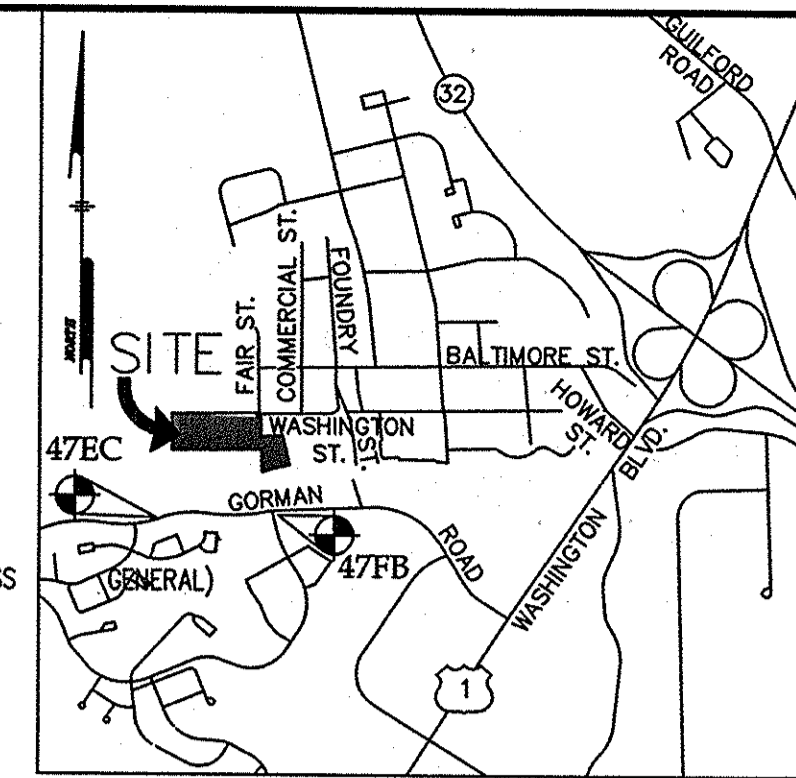
GREEN AREA:
 EXISTING: 342,132 SF±
 PROPOSED: 254,023 SF±

ZONE B-2 SETBACKS:

PUBLIC RIGHT-OF-WAY: 30 FEET
 RESIDENTIAL DISTRICT: 30 FEET
 PARKING USES: 10 FEET

ZONE R-H-ED SETBACKS:

SFA FRONT OR SIDE: 20 FEET
 SFA FRONT OR SIDE WITH DETACHED GARAGE: 20 FEET
 REAR TO PUBLIC STREET: 40 FEET
 REAR TO PRIVATE STREET: 20 FEET
 REAR TO INTERNAL ALLEY: 5 FEET



VICINITY MAP

SCALE: 1"=2,000'
 HOWARD COUNTY
 ADC MAP 40 GRIDS E4
 ADC MAP USE LICENSE #3652

BENCHMARKS

HOWARD COUNTY SURVEY CONTROL: 47EC
 ELEVATION: 233.691
 N 534,235.4111 E 1,359,948.1162
 LOCATION IS 12' FROM FACE OF CURB ALONG GORMAN ROAD.
 HOWARD COUNTY SURVEY CONTROL: 47FB
 ELEVATION: 207.423
 N 534,235.4111 E 1,361,228.6517
 LOCATION IS 2' FROM EDGE OF GORMAN ROAD AT INTERSECTION WITH KNIGHTS BRIDGE ROAD.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Paul Adams 12-17-14
 CHIEF, DEVELOPMENT ENGINEERING DIVISION P. DATE
Walter D. ... 12/15/14
 CHIEF, DIVISION OF LAND DEVELOPMENT TM DATE

DATE	NO.	REVISION

DEVELOPER
 BOZZUTO HOMES, INC.
 ATTN: DUNCAN SLIDELL
 7850 WALKER DRIVE, SUITE 400
 GREENBELT, MARYLAND 20770
 T: 301-623-1525

OWNER
 SAVAGE MILL REMAINDER, LLC
 ATTN: JAY WINER
 8373 PINEY ORCHARD PARKWAY, SUITE 102
 ODONTON, MARYLAND 21113-1580
 T: 410-551-9116

PROJECT
THE SETTLEMENT
AT SAVAGE MILL

AREA
 TAX MAP 47, PARCEL 93, GRID 11
 ZONED B-2 & R-H-ED 6TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

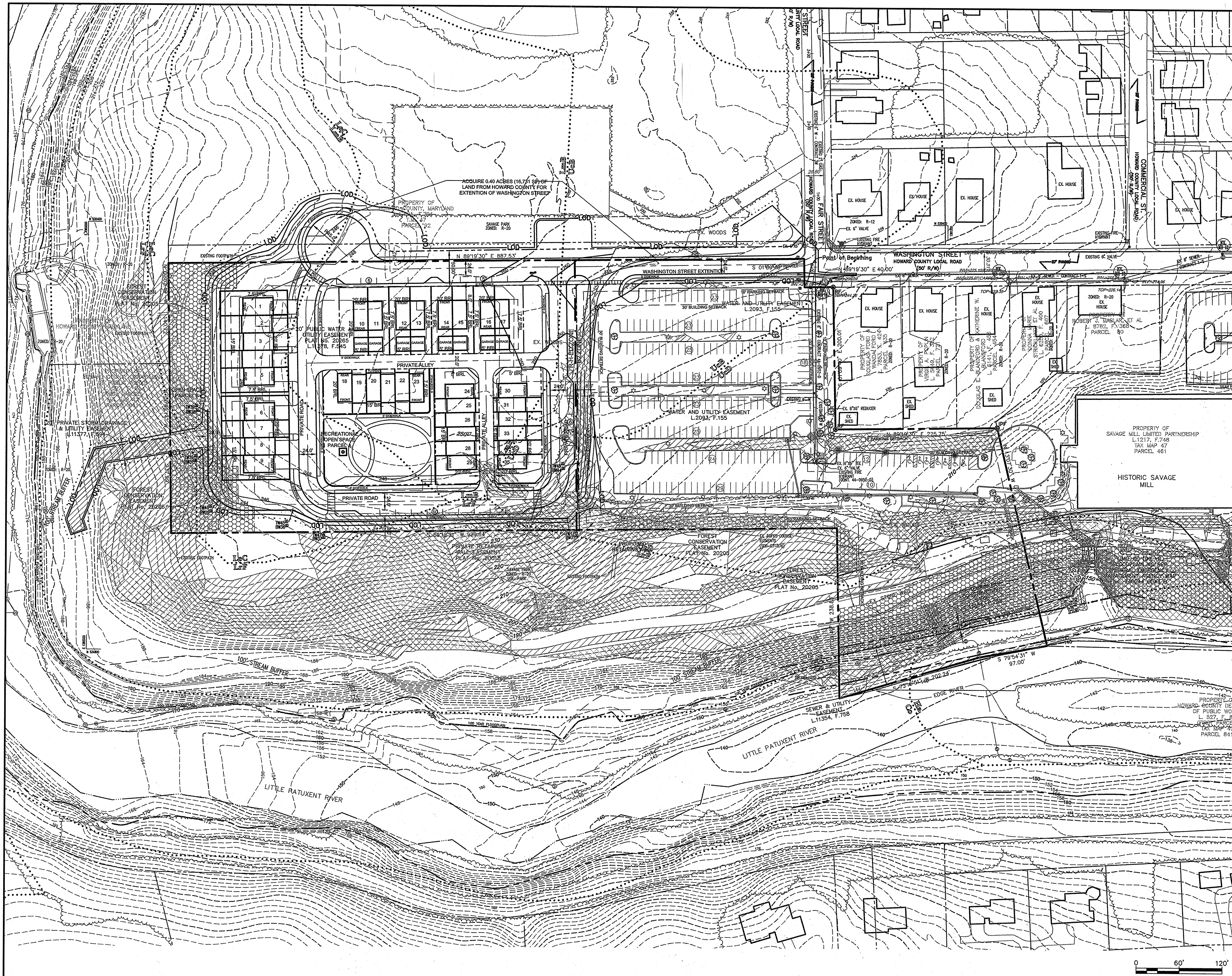
TITLE
COVER SHEET

Pennoni Associates Inc.
 Consulting Engineers
 8818 Centre Park Drive Suite 200
 Columbia, MD 21045
 T 410.997.8900
 F 410.997.9282

DESIGNED BY: JSN
 DRAWN BY: JSN
 PROJECT NO: BOZH1302
 DATE: AUGUST 21, 2014
 SCALE: 1"=100'
 DRAWING NO. 1 OF 6

ADDRESS CHART	
PARCEL NUMBER	STREET ADDRESS
93	8550 & 8554 FAIR STREET

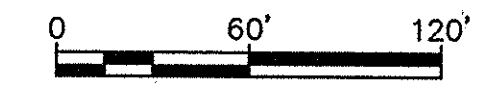
SUBDIVISION NAME	SECT./AREA	PARCEL
PLAT NO. OR L/F	GRID #	ZONING
L. 5725 F. 320	11	R-H-ED
TAX MAP NO.	ELECT. DIST.	CENSUS TRACT
47	6	6069.02

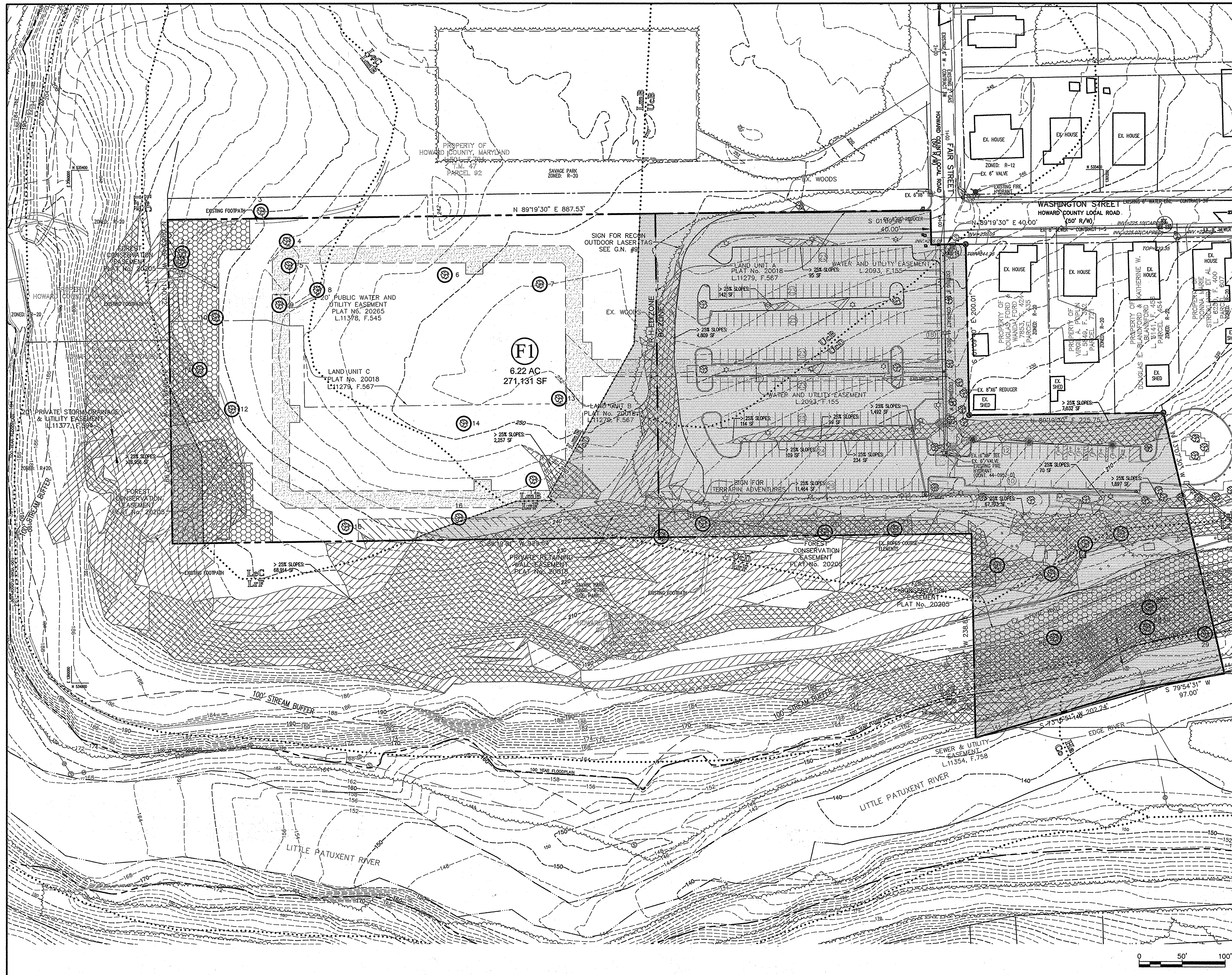


LEGEND

EXISTING CONTOURS	
PROPERTY LINE AND RIGHT OF WAY	
EX. TREELINE	
FLOODPLAIN	
STREAM BUFFER	
SOILS	
PROPOSED LIMIT OF DISTURBANCE	
PROPOSED TREELINE	
15-25% SLOPES	
>25% SLOPES	

APPROVED : DEPARTMENT OF PLANNING AND ZONING	
<i>[Signature]</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	12-17-14 DATE
<i>[Signature]</i> CHIEF, DIVISION OF LAND DEVELOPMENT	12/15/14 DATE
DATE	NO. REVISION
DEVELOPER	
BOZZUTO HOMES, INC. ATTN: DUNCAN SLIDELL 7850 WALKER DRIVE, SUITE 400 GREENBELT, MARYLAND 20770 T: 301-623-1525	
OWNER	
SAVAGE MILL REMAINDER, LLC ATTN: JAY WINER 8373 PINEY ORCHARD PARKWAY, SUITE 102 ODENTON, MARYLAND 21113-1580 T: 410-551-9116	
PROJECT	
THE SETTLEMENT AT SAVAGE MILL	
AREA	
TAX MAP 47, PARCEL 93, GRID 11 ZONED B-2 & R-H-ED 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TITLE	
OVERALL PLAN	
 Pennoni Associates Inc. Consulting Engineers 8818 Centre Park Drive Suite 200 Columbia, MD 21045 T 410.997.8900 F 410.997.9282	
	DESIGNED BY: JSN DRAWN BY: JSN PROJECT NO: BOZH1302 DATE: AUGUST 21, 2014 SCALE: 1"=60' DRAWING NO. 2 OF 6





LEGEND

- EXISTING CONTOURS
- PROPERTY LINE AND RIGHT OF WAY
- EX. TREELINE
- FLOODPLAIN
- STREAM BUFFER
- SOILS
- 15-25% SLOPES
- >25% SLOPES
- SPECIMEN TREE
- PLANT COMMUNITY
- EXISTING ERODIBLE SOILS
- EXISTING FOREST CONSERVATION EASEMENTS

APPROVED : DEPARTMENT OF PLANNING AND ZONING

[Signature] 12-17-14
 CHIEF, DEVELOPMENT ENGINEERING DIVISION, DATE

[Signature] 12-15-14
 CHIEF, DIVISION OF LAND DEVELOPMENT, DATE

DATE	NO.	REVISION

DEVELOPER
 BOZZUTO HOMES, INC.
 ATTN: DUNCAN SLIDELL
 7850 WALKER DRIVE, SUITE 400
 GREENBELT, MARYLAND 20770
 T: 301-623-1525

OWNER
 SAVAGE MILL REMAINDER, LLC
 ATTN: JAY WINER
 8373 PINY ORCHARD PARKWAY, SUITE 102
 ODENTON, MARYLAND 21113-1580
 T: 410-551-9116

PROJECT
**THE SETTLEMENT
 AT SAVAGE MILL**

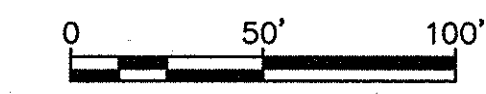
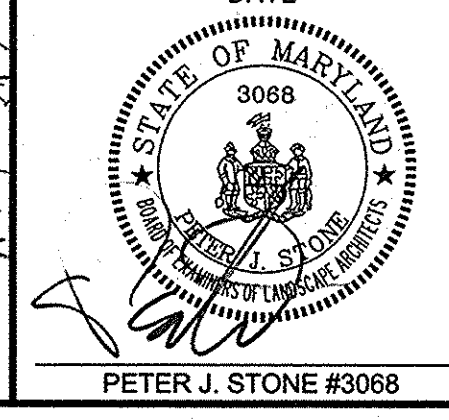
AREA
 TAX MAP 47, PARCEL 93, GRID 11
 ZONED B-2 & R-H-ED 6TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TITLE
**EXISTING CONDITIONS & FOREST
 STAND DELINEATION PLAN**

Pennoni
 Pennoni Associates Inc.
 Consulting Engineers
 8818 Centre Park Drive Suite 200
 Columbia, MD 21045
 T 410.997.8900
 F 410.997.9282

12-9-14
 DATE

DESIGNED BY : JSN
 DRAWN BY : JSN
 PROJECT NO : BOZH1302
 DATE : AUGUST 21, 2014
 SCALE : 1"=50'
 DRAWING NO. 3 OF 6



SOILS CHART

MAP SYMBOL	NAME	STRUCTURAL LIMITATIONS DWELLINGS W/ BASEMENTS	EROSION HAZARD	HYDRIC (Y/N)	SLOPE (%)	SOIL GROUP	K FACTOR
Co	CODORUS AND HATBORO SILT LOAMS	VERY LIMITED	LOW	N	0-3	D	0.37
Ha	HATBORO-CODORUS SILT LOAMS	VERY LIMITED	LOW	N	0-3	D	0.37
LeC	LEGORE SILT LOAM	SOMEWHAT LIMITED	MODERATE	N	8-15	B	0.28
LmB	LEGORE-MONTALTO SILT LOAMS	NOT LIMITED	MODERATE	N	3-8	C	0.32
LrF	LEGORE-RELAY GRAVELLY LOAMS	VERY LIMITED	SEVERE	N	25-65	B	0.20
UcB	URBAN LAND-CHILLUM-BELTSVILLE COMPLEX	NOT RATED	LOW	N	0-5	B	0.37
UcD	URBAN LAND-CHILLUM-BELTSVILLE COMPLEX	NOT RATED	MODERATE	N	5-15	B	0.37

SOURCE: NATURAL RESOURCES CONSERVATION SERVICE WEB SOIL SURVEY HOWARD SOIL CONSERVATION DISTRICT SOIL MAP NUMBER 24

PLANT COMMUNITY SUMMARY

SYMBOL	COMMUNITY	AREA	PRIORITY RETENTION
F1	FOREST	6.22 Ac.±	HIGH

AREA CHART

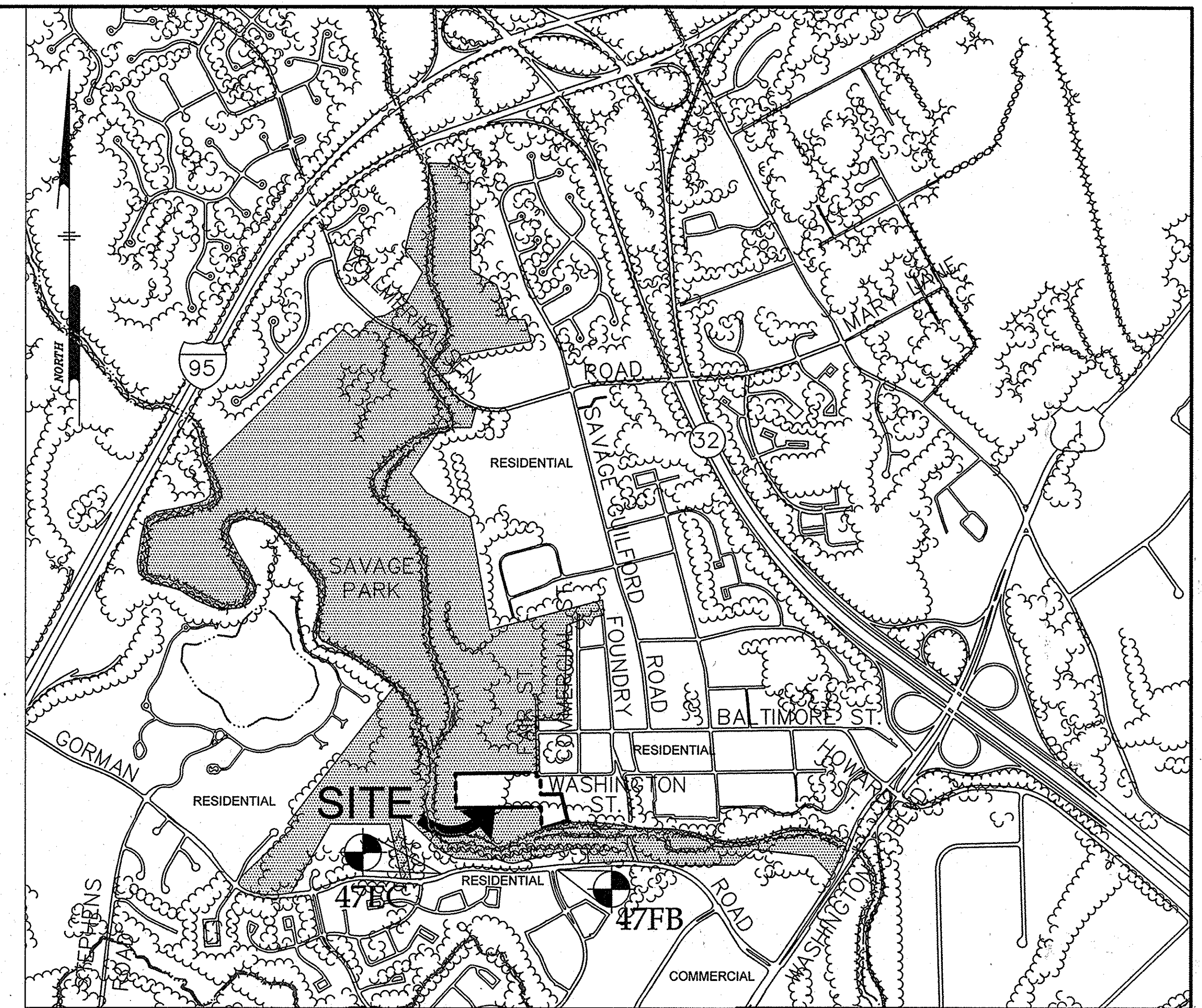
AREA	ACRES
TOTAL TRACT AREA	10.06
EXISTING FOREST	6.22
LAND WITHIN STREAM BUFFERS	0
LAND WITHIN FLOODPLAIN	1.24
FOREST WITHIN STREAM BUFFERS	0
FOREST WITHIN FLOODPLAIN	1.17

SPECIMEN TREE CHART

KEY	SPECIES	SIZE	CONDITION
1	TULIP POPLAR (Liriodendron tulipifera)	38"	GOOD
2	TULIP POPLAR (Liriodendron tulipifera)	31"	GOOD
3	TULIP POPLAR (Liriodendron tulipifera)	34"	GOOD
4	TULIP POPLAR (Liriodendron tulipifera)	33"	GOOD
5	TULIP POPLAR (Liriodendron tulipifera)	35"	GOOD
6	TULIP POPLAR (Liriodendron tulipifera)	30"	GOOD
7	BITTERNUT HICKORY (Carya cordiformis)	38"	GOOD
8	TULIP POPLAR (Liriodendron tulipifera)	32"	POOR
9	TULIP POPLAR (Liriodendron tulipifera)	34"	GOOD
10	TULIP POPLAR (Liriodendron tulipifera)	32"	GOOD
11	TULIP POPLAR (Liriodendron tulipifera)	32"	GOOD
12	TULIP POPLAR (Liriodendron tulipifera)	31"	POOR
13	TULIP POPLAR (Liriodendron tulipifera)	34"	GOOD
14	TULIP POPLAR (Liriodendron tulipifera)	35"	GOOD
15	TULIP POPLAR (Liriodendron tulipifera)	30"	GOOD
16	BITTERNUT HICKORY (Carya cordiformis)	32"	GOOD
17	TULIP POPLAR (Liriodendron tulipifera)	30"	GOOD
18	TULIP POPLAR (Liriodendron tulipifera)	27"	GOOD
19	TULIP POPLAR (Liriodendron tulipifera)	30"	GOOD
20	SYCAMORE (Platanus occidentalis)	30"	GOOD
21	TULIP POPLAR (Liriodendron tulipifera)	25"	GOOD
22	TULIP POPLAR (Liriodendron tulipifera)	27"	GOOD
23	SYCAMORE (Platanus occidentalis)	30"	GOOD
24	SYCAMORE (Platanus occidentalis)	38"	GOOD
25	SYCAMORE (Platanus occidentalis)	30"	GOOD
26	SYCAMORE (Platanus occidentalis)	30"	GOOD
27	TULIP POPLAR (Liriodendron tulipifera)	30"	GOOD
28	TULIP POPLAR (Liriodendron tulipifera)	28"	GOOD
29	TULIP POPLAR (Liriodendron tulipifera)	30"	GOOD

GENERAL NOTES:

1. THE SITE IS LOCATED AT 8550 & 8554 FAIR STREET, SAVAGE, MD 20763 (TAX MAP 47, PARCEL 93) AND IS PART OF THE HISTORIC SAVAGE MILL PROPERTY. THE SITE CONSISTS OF 10.06 ACRES.
2. BOUNDARY INFORMATION PROVIDED BY PENNONI ASSOCIATES, INC., DATED DECEMBER 5, 2006. TOPOGRAPHIC INFORMATION PROVIDED BY PENNONI ASSOCIATES, INC., DATED NOVEMBER 28, 2006.
3. THE SOILS ON SITE ARE CODORUS AND HATBORO SILT LOAMS (0-3% SLOPES) - Co, HATBORO-CODORUS SILT LOAMS (0-3% SLOPES) - Ha, LEGORE SILT LOAM (8-15% SLOPES) - LeC, LEGORE-MONTALTO SILT LOAMS (3-8% SLOPES) - LmB, LEGORE-RELAY GRAVELLY LOAMS (25-65% SLOPES) - LrF, URBAN LAND-CHILLUM-BELTSVILLE COMPLEX (0-5% SLOPES) - UcB, AND URBAN LAND-CHILLUM-BELTSVILLE COMPLEX (5-15% SLOPES) - UcD ACCORDING TO THE NATURAL RESOURCES CONSERVATION SERVICE WEB SOIL SURVEY.
4. SUBJECT PROPERTY ZONED B-2 AND R-H-ED PER THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN. CURRENTLY, THE SITE IS PARTIALLY USED AS A PARKING LOT & IS PARTIALLY UNDEVELOPED WITH 4.22 ACRES OF FOREST. THE FORESTED PORTION OF THE PROPERTY IS CURRENTLY BEING USED AS AN OUTDOOR LASER TAG COURSE.
5. THIS SITE IS LOCATED IN THE LITTLE PATUXENT RIVER WATERSHED.
6. THERE ARE NO STREAMS OR WETLANDS LOCATED ON THIS SITE. HOWEVER, THERE IS A 100 YEAR FLOODPLAIN LOCATED ON THE PROPERTY, AS WELL AS A STREAM BUFFER.
7. THERE IS ONE EXISTING FOREST STAND LOCATED ON SITE, AS SHOWN ON THE PLAN. IT IS A HIGH PRIORITY FOREST STAND DUE TO PROTECTED ENVIRONMENTAL SYSTEMS, SUCH AS STREAMS AND WETLANDS.
8. THERE ARE 29 SPECIMEN TREES LOCATED ON SITE, AS SHOWN ON THE PLAN. NO STATE CHAMPION TREES OR TREES 75% THE SIZE OF CHAMPION TREES ARE FOUND ON THE SITE.
9. FIELD WORK FOR THIS INVENTORY WAS CONDUCTED ON DECEMBER 12, 2006 AND OCTOBER 16, 2013 BY JONATHAN NORMAN, PLANNER OF PENNONI ASSOCIATES, INC. UNDER THE SUPERVISION OF PETER J. STONE, RLA OF PENNONI ASSOCIATES, INC.
10. THE SITE HAS A FOREST CONSERVATION THRESHOLD OF 20% AND AN AFFORESTATION THRESHOLD OF 15%.
11. NO EXISTING STRUCTURES OR CEMETERIES ARE PRESENT ON THE SITE.
12. NO RARE, THREATENED, OR ENDANGERED PLANTS OR ANIMALS OR CRITICAL HABITATS WERE OBSERVED IN THE FIELD.
13. THIS FOREST STAND DELINEATION (FSD) HAS BEEN PREPARED IN ACCORDANCE WITH HOWARD COUNTY REGULATIONS.



VICINITY MAP
SCALE: 1"=2,000'
HOWARD COUNTY
ADC MAP 40 GRIDS E4
ADC MAP USE LICENSE #3652

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature]
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE 12-17-14
[Signature]
CHIEF, DIVISION OF LAND DEVELOPMENT DATE 12-15-14

DATE	NO.	REVISION

DEVELOPER
BOZZUTO HOMES, INC.
ATTN: DUNCAN SLIDELL
7850 WALKER DRIVE, SUITE 400
GREENBELT, MARYLAND 20770
T: 301-623-1525

OWNER
SAVAGE MILL REMAINDER, LLC
ATTN: JAY WINER
8373 PINEY ORCHARD PARKWAY, SUITE 102
ODENTON, MARYLAND 21113-1580
T: 410-651-9116

PROJECT
**THE SETTLEMENT
AT SAVAGE MILL**

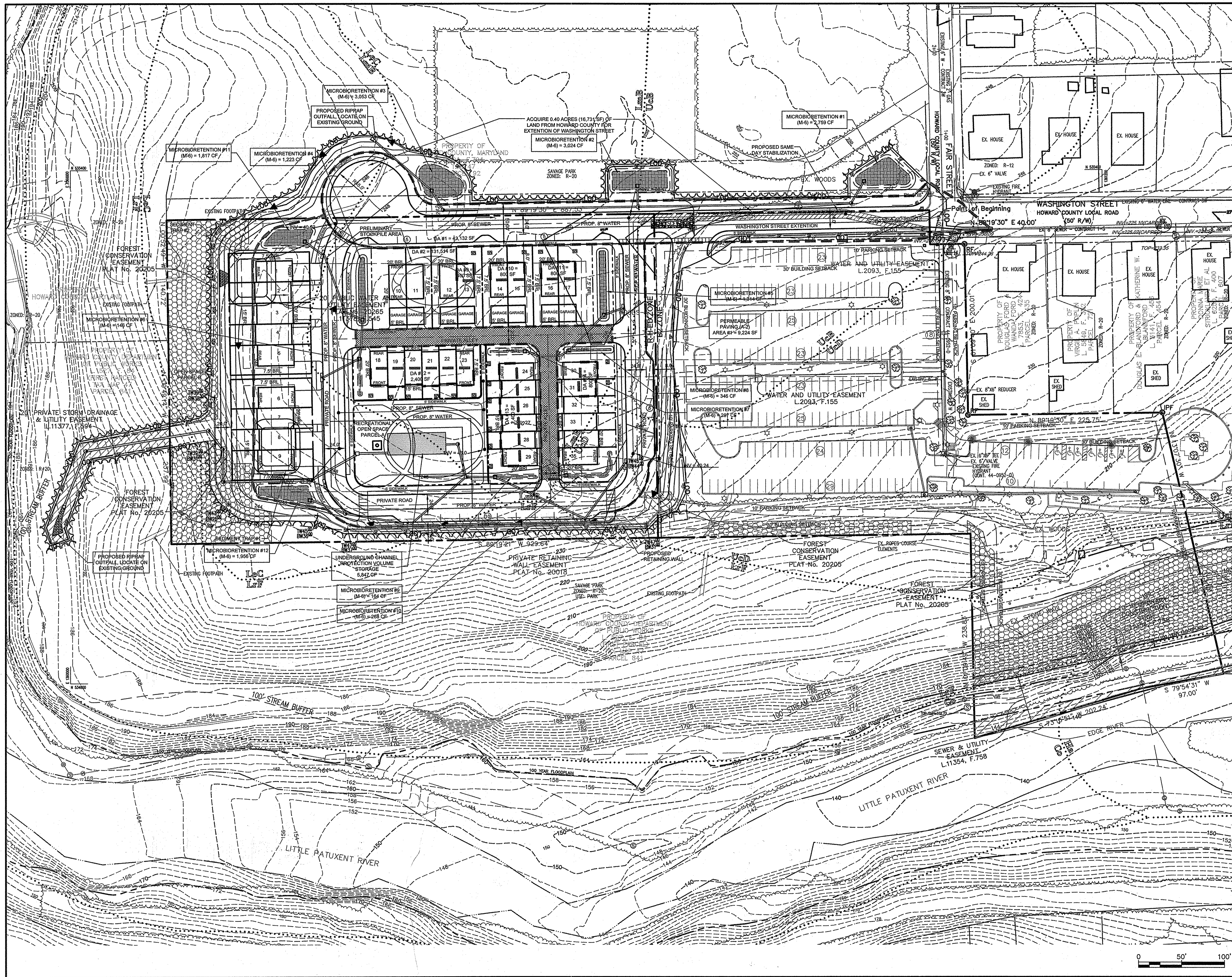
AREA
TAX MAP 47, PARCEL 93, GRID II
ZONED B-2 & R-H-ED 8TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
**FOREST STAND DELINEATION
NOTES & TABULATIONS**

Pennonni
Pennonni Associates Inc.
Consulting Engineers
8818 Centre Park Drive Suite 200
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

DATE 11-13-14
DESIGNED BY: JSN
DRAWN BY: JSN
PROJECT NO: BOZH1302
DATE: AUGUST 21, 2014
SCALE: AS SHOWN
DRAWING NO. 4 OF 6

PETER J. STONE #3068



LEGEND

- EXISTING CONTOURS
- PROPERTY LINE AND RIGHT OF WAY
- EX. TREELINE
- FLOODPLAIN
- STREAM BUFFER
- SOILS
- PROPOSED DRYWELL
- PROPOSED BIORETENTION FACILITY
- PROPOSED PERMEABLE PAVING
- PROPOSED DRAINAGE AREA
- PROPOSED STORM DRAIN
- PROPOSED LIMIT OF DISTURBANCE
- PROPOSED TREELINE
- PROPOSED EARTH DIKE
- PROPOSED SILT FENCE
- PROPOSED SUPER SILT FENCE
- PROPOSED STABILIZED CONSTRUCTION ENTRANCE
- PROPOSED WATER SEWER
- PROPOSED SAME DAY STABILIZATION

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 12-17-14
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 12/15/14
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE	NO.	REVISION

DEVELOPER: BOZZUTO HOMES, INC.
ATTN: DUNCAN SLIDELL
7850 WALKER DRIVE, SUITE 400
GREENBELT, MARYLAND 20770
T: 301-623-1525

OWNER: SAVAGE MILL REMAINDER, LLC
ATTN: JAY WINER
8373 PINEY ORCHARD PARKWAY, SUITE 102
ODENTON, MARYLAND 21113-1580
T: 410-551-9116

PROJECT: **THE SETTLEMENT AT SAVAGE MILL**

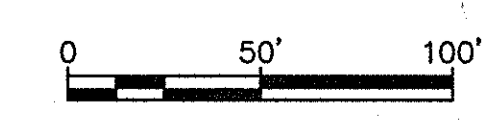
AREA: TAX MAP 47, PARCEL 93, 6611
ZONED B-2 & R-H-ED 6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

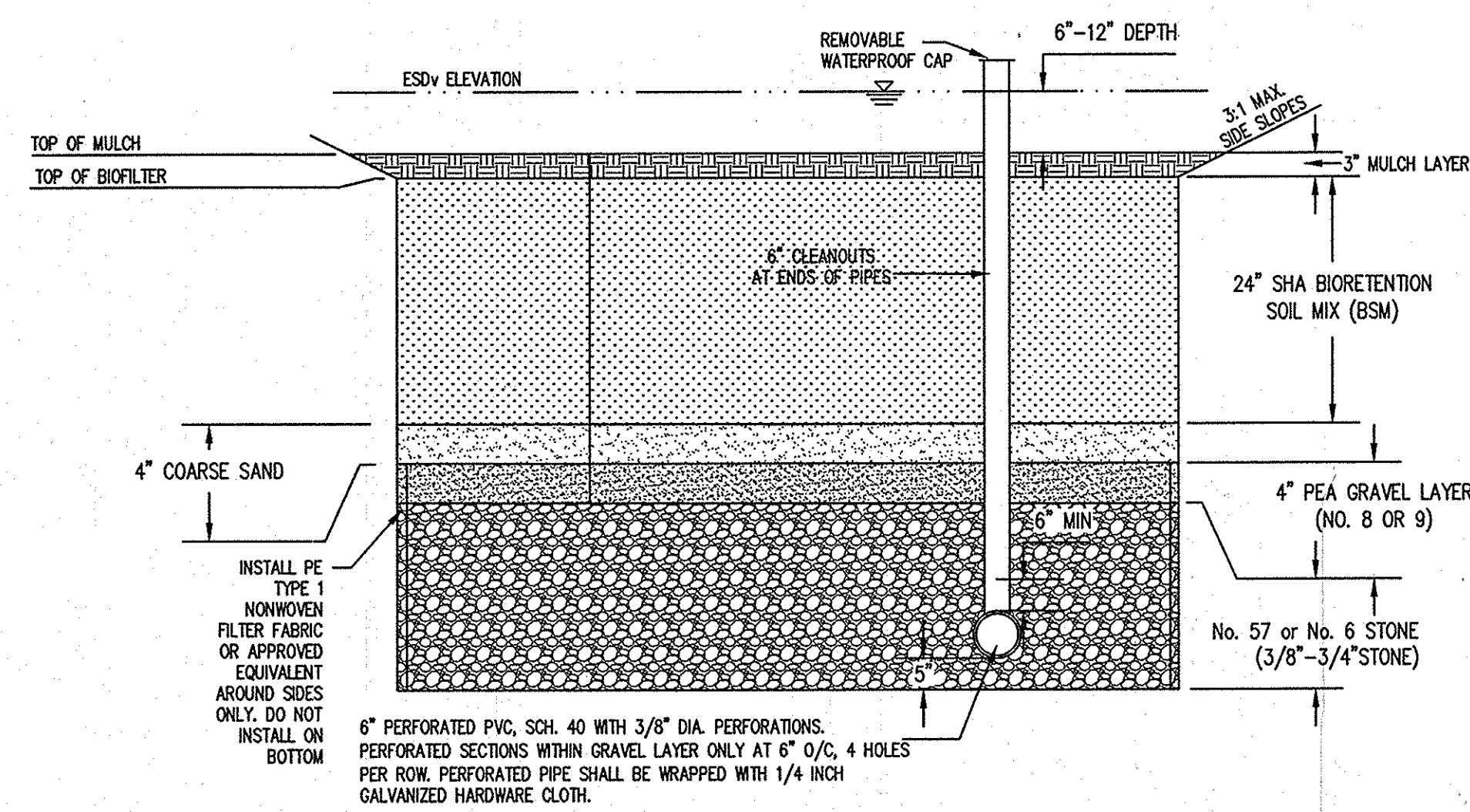
TITLE: **ENVIRONMENTAL CONCEPT PLAN**

Pennoni Associates Inc.
 Consulting Engineers
 8818 Centre Park Drive Suite 200
 Columbia, MD 21045
 T 410.997.6900
 F 410.997.9282

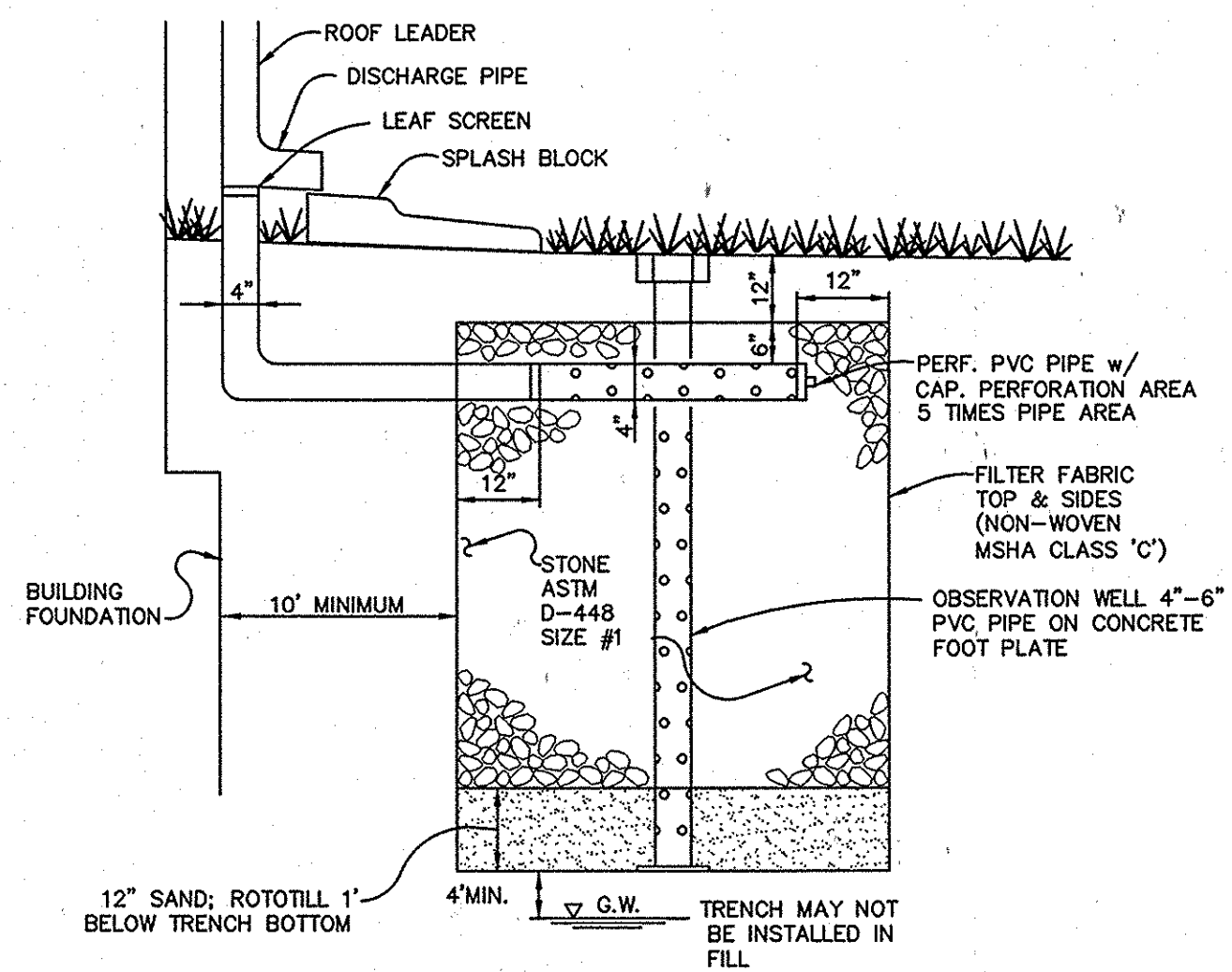
SEAL: [Professional Engineer Seal]

DESIGNED BY: JSN
 DRAWN BY: JSN
 PROJECT NO: BOZH1302
 DATE: AUGUST 21, 2014
 SCALE: 1"=50'
 DRAWING NO. 5 OF 6



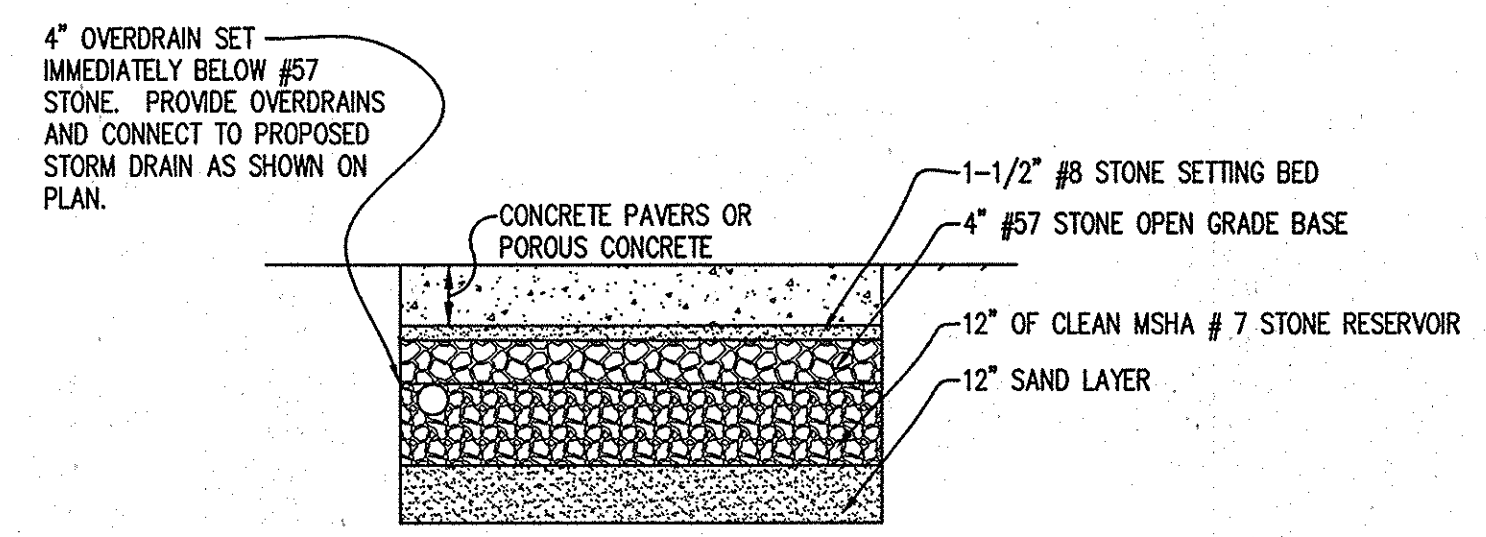


MICRO BIORETENTION TYPICAL SECTION
NOT TO SCALE



DRYWELL DETAIL
NOT TO SCALE

LOT #	DA (SF)	VOL. REQ. (CF)	DEPTH (FT)	LENGTH (FT)	WIDTH (FT)
13-31	400	32	4.0	5	4



- NOTES:**
- ALL PERMEABLE PAVEMENT SHALL BE INSTALLED BY A CERTIFIED INSTALLER.
 - PERMEABLE PAVEMENT SHALL HAVE A PERMEABILITY RATE OF 8 INCHES PER HOUR OR GREATER. SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO PLACEMENT OF ANY PERMEABLE PAVEMENT.
 - THE BOTTOM OF THE SUB-BASE SHALL BE LEVEL WITH ADJUSTMENTS ACCOMPLISHED BY STEPPING SUBGRADE LEVELS AT 1-FOOT CONTOUR INTERVALS PER THE GEOTECHNICAL REPORT AND ENGINEER'S DIRECTIVE.
 - ALL ADJUSTMENT TO EXISTING GRADE SHALL BE ACCOMPLISHED USING SUB-BASE MATERIAL.
 - SOILS SHALL NOT BE COMPACTED. CONSTRUCTION SHOULD BE PERFORMED WITH LIGHTWEIGHT, WIDE TRACKED EQUIPMENT TO MINIMIZE COMPACTION. EXCAVATED MATERIALS SHALL BE PLACED IN A CONTAINED AREA. LOADED DUMP TRUCKS DELIVERING THE INITIAL SAND MATERIAL SHALL ENTER EACH STEPPED AREA FROM BOTH ENDS AND SHALL LIMIT TRAVEL TO THE MINIMUM WIDTH POSSIBLE TO LIMIT SOIL COMPACTION TO THE MINIMUM AREA POSSIBLE.
 - SUB-BASE SHALL BE CLEAR AND FREE OF FINES. THE SUB-BASE SHALL BE PLACED IN LIFTS AND LIGHTLY ROLLED.

PERMEABLE PAVMENT
NOT TO SCALE

TREATMENT	ESDv REQUIRED TO MEET Cp	ESDv REQUIRED TO MEET Wqv	ESDv PROVIDED
PERMEABLE PAVEMENTS (A-2)	-	-	1,901 cf
MICRO-BIORETENTION (M-6)	-	-	16,366 cf
DRY WELLS (M-5)	-	-	760 cf
TOTAL	23,934 cf	12,173 cf	19,027 cf

APPROVED : DEPARTMENT OF PLANNING AND ZONING

[Signature] 12-17-14
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 12/15/14
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE	NO.	REVISION

DEVELOPER
BOZZUTO HOMES, INC.
ATTN: DUNCAN SLIDELL
7850 WALKER DRIVE, SUITE 400
GREENBELT, MARYLAND 20770
T: 301-623-1525

OWNER
SAVAGE MILL REMAINDER, LLC
ATTN: JAY WINER
8373 PINEY ORCHARD PARKWAY, SUITE 102
ODENTON, MARYLAND 21113-1580
T: 410-551-9116

PROJECT
**THE SETTLEMENT
AT SAVAGE MILL**

AREA
TAX MAP 47, PARCEL 93, GRID 11
ZONED B-2 & R-H-ED 6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
**ENVIRONMENTAL CONCEPT PLAN
DETAILS**

Pennoni Associates Inc.
Consulting Engineers
8818 Centre Park Drive Suite 200
Columbia, MD 21045
T 410.997.8900
F 410.997.9282

SEAL

DESIGNED BY : JSN
DRAWN BY : JSN
PROJECT NO : BOZH1302
DATE : AUGUST 21, 2014
SCALE : AS SHOWN
DRAWING NO. 6 OF 6

BY: *[Signature]* 11/19/14
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 36826, EXPIRATION DATE: 2-15-2017