

VOGEL ENGINEERING + TIMMONS GROUP

8407 Main Street Ellicott City, MD 21043
P 410.461.7666 F 410.461.8961 www.timmons.com

August 15, 2018

Mr. Jayesh Pancholi
Department of Planning & Zoning
Development Engineering Division (DED)
3430 Court House Drive
Ellicott City, Maryland 21043

Re: Jack's Landing - Lot 4
(F-08-101 Redline)

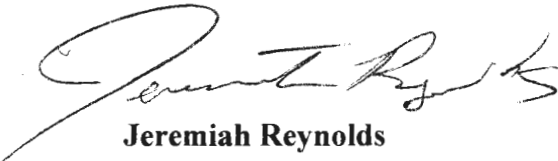
Dear Mr. Pancholi

This letter is in response to your comments dated August 06, 2018.

The redline plan for Jack's Landing – Lot 4 (F-08-101) has been revised. The SWM design for the lot has been changed from the original redline submission. We are now proposing the use of rooftop disconnects, pervious pavement, and drywells. All relevant details and notes for drywells and pervious pavement have been added to the plans. A copy of the SWM computations has been affixed to each copy of the revised redline submission. It is noted that the DOC fee must be paid prior to redline approval. All documentation for the DOC package will be submitted along with the Simplified ECP submission for this lot. That will be submitted within the next few days.

Should you have any questions regarding this matter, please do not hesitate to contact this office.

Sincerely,
VOGEL ENGINEERING + TIMMONS GROUP



Jeremiah Reynolds

TRANSMITTAL OF PLANS FOR REVIEW
DEPARTMENT OF PLANNING & ZONING
DEVELOPMENT ENGINEERING DIVISION

Rev. Eng. JP

8/15/18

TO:

- DAN WARD, LITTLE PATUXENT WATER RECLAMATION PLANT
- MARK KREIS, BUREAU OF ENVIRONMENTAL SERVICES (SDP - TOWNHOUSE & APT.)
- REAL ESTATE SERVICES DIVISION (PLAT & ROAD CONST. DRWGS.)
- TRAFFIC ENG DIV.(SKETCH, PREL., FINAL RDS & PLAT & COM. SDP)
- TRANSPORTATION AND SPECIAL PROJECTS
- BUREAU OF HIGHWAYS (ROAD CONST. DRWGS. & RED-LINE)
- DIVISION OF LAND DEVELOPMENT
(DESIGN WAIVERS - SDP & ROAD CONST. DRWGS. - RED-LINE)
- INSPECTIONS, LICENSES & PERMITS (COMMERCIAL SDP - RED-LINE)
- SOIL CONSERVATION SERVICES (SDP & ROAD CONST. DRWGS. - RED-LINE)
- RONALD G. LEPSON, CHIEF, BUREAU OF ENGINEERING (DESIGN WAIVERS)
- PARRIS ZIRKENBACH, TRAFFIC ENG. DIV.(PREL., FINAL RDS & PLAT& COMMERCIAL SDP - STREET LIGHT LAYOUT)
- STATE HIGHWAY ADMINISTRATION
- FIRE AND RESCUE

Health Dept.

SUBJECT: SUBDIVISION PLANS FOR REVIEW

COMMENTS DUE: 8/29/18

P & Z FILE NUMBER: F-08-101

NAME OF PLAN: Jack's Landing

ENCLOSURE: _____

- | | |
|--|---|
| <input type="checkbox"/> SKETCH PLAN | <input type="checkbox"/> SITE DEVELOPMENT PLAN |
| <input type="checkbox"/> SKETCH PRELIMINARY PLAN | <input type="checkbox"/> INDUSTRIAL WASTE SURVEY |
| <input type="checkbox"/> PRELIMINARY PLAN | <input checked="" type="checkbox"/> RED-LINE ROAD CONST |
| <input type="checkbox"/> FINAL PLAT | <input type="checkbox"/> RED-LINE SDP |
| <input type="checkbox"/> FINAL PLAN | <input type="checkbox"/> TRAFFIC STUDY/APFO |
| <input type="checkbox"/> DESIGN WAIVER | <input type="checkbox"/> WAIVER PETITION |

SUBMISSION RECEIVED FROM: DP&Z / _____ : *Vogel*

Please return the redline drawing back to DED.

RETURN COMMENTS TO DEVELOPMENT ENGINEERING DIVISION EITHER ON THIS FORM OR VIA E-MAIL TO REVIEW ENGINEER

Comments:

SIGNED BY: _____ DIVISION: _____ DATE: _____

13-31
JACK'S CANDLING LOT 4

$$\text{AREA} = 13,560.00 \text{ s.f.}$$

$$\text{Imp.} = 4105.00 \text{ s.f.}$$

$$1\% = 4105/13560 = 30$$

$$RV = (0.009)(30) + 0.05 = 0.32$$

Soils = GgB 'B'

$$PE = 1.6''$$

$$\text{ESDV} = (1.6'')(0.32)(13560)/12$$

579 cf (REQUIRED)

ESDV PROVIDED

① Rooftop Disconnect CREDIT (#1)

$$\text{ESDV} = \frac{(0.95)(1.0)(500)}{12} = \del{49.5} \text{ cf. } 40 \text{ c.f.}$$

② Rooftop Disconnect Credit (#2)

$$\text{ESDV} = \frac{(0.95)(1.0)(617)}{12} = \del{56} \text{ cf. } 49 \text{ c.f.}$$

③

④ DRY WELL #1

$$D.A = 843 \text{ s.f.}$$

$$RV = 0.05 + (0.009)(100) = 0.95$$

HSG = B

$$\text{Imp. AREA} = 843 \text{ s.f.}$$

$$I\% = 100\%$$

Req WQV PE for D.W. #1 = 1.0 in

Req. WQV QE for D.W. #1 = $\text{ESDV}_{PE} \times RV = 1.0 \times 0.95 = 0.95$

Req. WQV for D.W. #1 = $\text{WQV}_{QE} \times \text{Area}/12 = 0.95 \times 843/12 = 67 \text{ c.f.}$

Req $\text{ESDV}_{PE} = 2.6''$

Req. $\text{ESDV}_{QE} = \text{ESDV}_{PE} \times RV = 2.6 \times 0.95 = 2.47$

Req. $\text{ESDV} = \text{ESDV}_{QE} \times \text{Area}/12 = 2.47 \times 843/12 = 174 \text{ c.f.}$

STORAGE CALCULATION DW #1

DRYWELL SURFACE AREA = ~~64~~ 87 s.f.

DEPTH OF DRYWELL MEDIA (D) = 5 ft

POROSITY OF MEDIA (n) = 0.40

~~64~~ x 5 x 0.40 = ~~128~~ 174

DRYWELL STORAGE = SURFACE AREA x D x n = ~~64 x 5 x 0.40~~ = 174 c.f.

(174 x 12) / (0.95 x 64) = 2.6

ACTUAL PE = 2.6

#2

(5)

DRYWELL ~~AREA~~ AREA = AREA = 617 s.f.

ESDV PE = 2.6"

I = 100%

ESDV QE = 2.47

RV = 0.95

Req. ESDV = (2.47 x 617) / 12 = 127 c.f.

STORAGE CALC. DW #2

DRYWELL SURFACE AREA = ~~64~~ 64 s.f.

DEPTH of D.W. = 5'

Porosity = 0.40

STORAGE = ~~64~~ 64 x 5 x 0.40 = 128 c.f.

ACTUAL PE = (128 x 12) / (0.95 x 617) = 2.6

SUMMARY

FACILITY	ESDV
ROOFTOP DISC. #1	40 45 c.f.
ROOFTOP DISC. #2	45 = 25 c.f.
ROOFTOP DISC. #3	= 24 c.f.
DRYWELL #1 (87 s.f. 5' DEEP)	174 c.f.
DRYWELL #2 (64 s.f. 5' DEEP)	128 c.f.
TOTAL	391 128 c.f.
ESDV REQ.	579 c.f.

PE = 2.6

TOTAL imp. Contributory Area = 1014 s.f.

PERVIOUS PAVEMENT

SURFACE AREA = 452 s.f.

~~RECALC~~
~~1014 x 0.95 x 0.023 x 43560 / 12 = 206 c.f.~~
~~(1 x 0.95 x 0.023 x 43560) / 12 = 206 c.f.~~

PROVIDED

~~1014~~ SURFACE AREA x 0.196 = 452 x 0.196 = 89 c.f.

ADDITIONAL DEPTH = 452 x 1 x 0.3 = 136

PROVIDED = 225 c.f.

REQ.

D.A. = 1014 / 43560 = 0.023

Rv = 0.95

I = 100

PE = 2.6

ESDV Req. = $\left[(2.6 \times 0.95 \times 0.023) \times 43560 \right] / 12 = 206 \text{ c.f.}$

ESDV PROVIDED

VOLUME

ROOFTOP DISC. #1 40 c.f.

" " #2 25 c.f.

" " #3 24 c.f.

DRY WELL #1 174 c.f. PE 2.6

" #2 128 c.f. PE 2.6

PERVIOUS CONCRETE 225 c.f.

TOTAL 616 c.f.

REQ 579 c.f.

15-79

GENERAL NOTES

- PROJECT BACKGROUND:
 - LOCATION: TAX MAP 34 GRID 3
 - PARCELS: 41
 - ZONING: R-20
 - SUBDIVISION: JACK'S LANDING
 - GROSS AREA: 25.81 AC.
 - DISTURBED AREA: 2.59 AC.
 - AREA OF PLAN SUBMISSION: 25.81 AC.
 - MINIMUM LOT SIZE: 40,000 SF
 - PROPOSED USE FOR SITE: RESIDENTIAL
 - TOTAL NUMBER OF UNITS: 9
 - TYPE OF PROPOSED UNIT: SFD
 - DEED REFERENCES: L-3172/F.336
 - DPZ REFERENCES: F-08-101, SP-06-14, BA-89-45E, WP-13-184, WP-10-25, WP-11-093, WP-12-096, WP-13-112
- ALL ASPECTS OF THE PROJECT ARE IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE UNLESS WAIVERS HAVE BEEN APPROVED. THE CONTRACTOR IS NOT TO BE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK ON THESE DRAWINGS.
- MISS UTILITY: 1-800-257-7777
- VERIZON TELEPHONE COMPANY: 1-800-257-7777
- HOWARD COUNTY UTILITIES: 410-313-2366
- AT&T CABLE DIVISION: 1-800-393-3553
- B.G.&E. CO. CONTRACTOR SERVICES: 410-550-4620
- B.G.&E. CO. UNDERGROUND DAMAGE CONTROL: 410-787-4620
- STATE HIGHWAY ADMINISTRATION: 410-531-5533
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/ CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO START OF WORK.
- ANY DAMAGE TO PUBLIC RIGHT-OF-WAY, PAVING, OR EXISTING UTILITIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- THE PROJECT BOUNDARY SHOWN HEREON IS BASED ON A FIELD RUN BOUNDARY SURVEY PREPARED BY ROBERT H. VOGEL ENGINEERING, INC. DATED NOVEMBER 2013.
- 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 NOS. 34HB AND 34HC WERE USED FOR THIS PROJECT.
- THE SUBJECT PROPERTY IS ZONED RR-DEO IN ACCORDANCE WITH THE 2-82-04 COMPREHENSIVE ZONING PLAN AND 2014 ZONING REGULATIONS EFFECTIVE ON 7/29/2004.
- TOPOGRAPHY SHOWN HEREON IS OBTAINED FROM CURRENT HOWARD COUNTY GIS DATA.
- EXISTING UTILITIES LOCATED FROM ROAD CONSTRUCTION PLANS, FIELD SURVEYS, PUBLIC WATER AND SEWER EXTENSION PLANS AND AVAILABLE RECORD DRAWINGS. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTOR'S INFORMATION. CONTRACTOR SHALL LOCATE EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE. SOIL TYPES SHOWN HEREON ARE IN ACCORDANCE WITH THE WEB SOIL SURVEY, HOWARD COUNTY MARYLAND.
- THE EXISTING DWELLING AND ACCESSORY STRUCTURES ON THE SITE WILL BE ABANDONED AND REMOVED PRIOR TO RECORDATION OF THE FINAL PLAN.
- THE BEST OF THE OWNERS KNOWLEDGE, THERE ARE NO BURIAL GROUNDS OR CEMETERIES LOCATED ON THE SUBJECT PROPERTY.
- A FLOODPLAIN REPORT FOR THIS PROJECT WAS PREPARED BY CAPITOL DEVELOPMENT DESIGN, INC. JULY 3, 2006.
- NO STEEP SLOPES OVER 20.00% SF CONTIGUOUS ARE LOCATED ON-SITE.
- A TRAFFIC STUDY HAS BEEN PREPARED BY THE TRAFFIC GROUP, 2004.
- NEITHER TRIADELPHIA MILL ROAD OR HIGHLAND ROAD IS A SCENIC ROAD.
- TRIADELPHIA MILL ROAD IS CLASSIFIED AS A MINOR COLLECTOR. HIGHLAND ROAD IS CLASSIFIED AS A MAJOR COLLECTOR.
- A NOISE STUDY IS NOT REQUIRED FOR THIS SUBDIVISION.
- STREET LIGHTS ARE NOT REQUIRED FOR THIS DEVELOPMENT.
- ALL DRIVEWAY ENTRANCES SHALL UTILIZE HOWARD COUNTY STANDARD DETAIL NO. R-6-06
- DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
 - A) WIDTH - 12 FEET (16 FEET IF SERVING MORE THAN ONE RESIDENCE)(18' FOR THE USE-IN-COMMON ASSOCIATED WITH THIS PROJECT. SEE GENERAL NOTE NUMBER 38)
 - B) SURFACE - 6 INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING
 - C) GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE, AND MINIMUM 45 FOOT TURNING RADIUS
 - D) STRUCTURES (CULVERTS/BRIDGES) - MUST SUPPORT 25 GROSS TON LOADING (H25 LOADING)
 - E) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD EVENTS WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE
 - F) STRUCTURE CLEARANCES - SUFFICIENT TO ENSURE ALL WEATHER USE
 - G) MAINTENANCE - MINIMUM 12 FEET
- THIS PROPERTY IS NOT LOCATED WITHIN THE METROPOLITAN DISTRICT.
- WATER AND SEWER FOR THIS PROJECT WILL BE PRIVATE WELLS & SEPTIC SYSTEMS.
- A REVISION PERCOLATION TESTIFICATION PLAN WAS PREPARED BY ROBERT H. VOGEL ENGINEERING, INC. DATED AUGUST 2013, AND APPROVED BY THE HOWARD COUNTY HEALTH DEPARTMENT ON 09/23/2014, 2014.
- THE PROPOSED DWELLINGS SHALL HAVE AN AUTOMATIC FIRE PROTECTION SPRINKLER SYSTEM.
- NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAM(S), OR THEIR REQUIRED BUFFERS, FLOODPLAIN AND FOREST CONSERVATION EASEMENT AREAS.
- WETLANDS AND STREAMS SHOWN HEREON ARE BASED ON A FIELD INVESTIGATION PREPARED BY GRAY HILL LLC, DATED JANUARY 2006. THERE ARE NO PROPOSED DISTURBANCES TO THE WETLANDS OR ASSOCIATED BUFFERS.
- THE PROPOSED SUBDIVISION AND RELATED CONSTRUCTION WILL NOT AFFECT ENVIRONMENTAL FEATURES OR BUFFERS.
- FOREST STAND DELINEATION AND SPECIMEN TREES ARE SHOWN HEREON PER PLAN BY CAPITOL DEVELOPMENT DESIGN, INC. DATED OCTOBER 6, 2006.
- SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT, NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT, HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.
- TOTAL FOREST CONSERVATION OBLIGATION OF THIS PROJECT WILL BE FULFILLED BY ON-SITE AFForestation OF 5.03 ACRES WHICH IS SUFFICIENT TO MEET THE BREAK-EVEN POINT OF 5.03 ACRES. REQUIRED AFForestation, FINANCIAL SURETY IN THE AMOUNT OF \$109,504 (\$19,008 x 0.50) WILL BE POSTED AS PART OF DEPARTMENT OF PUBLIC WORKS DEVELOPER'S AGREEMENT TO THIS PLAN.
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. A FINANCIAL SURETY FOR THE PERIMETER LANDSCAPING IN THE AMOUNT OF \$25,500.00 FOR THE REQUIRED 59 SHADE TREES (\$17,700), 51 EVERGREENS (\$7,650) AND 5 SHRUBS (\$150 - TRASH PAD) SHALL BE POSTED WITH THE DEVELOPER'S AGREEMENT FOR THIS PLAN.
- IN ACCORDANCE WITH SECTION 16.124(E) STREET TREES ARE NOT REQUIRED ALONG TRIADELPHIA MILL ROAD OR HIGHLAND ROAD AS NO IMPROVEMENTS ARE PROPOSED. NO INTERNAL STREETS ARE PROPOSED. A PRIVATE RANGE OF ADDRESS SIGNS SHALL BE FABRICATED AND INSTALLED BY HOWARD COUNTY BUREAU OF HIGHWAYS AT THE DEVELOPERS/OWNERS EXPENSE. CONTACT HOWARD COUNTY TRAFFIC DIVISION AT 410-343-2430 FOR DETAILS AND COST ESTIMATES.
- TRASH AND RECYCLING COLLECTION WILL BE AT TRIADELPHIA MILL ROAD WITHIN 5' OF THE EDGE OF THE COUNTY ROADWAY.
- STORMWATER MANAGEMENT TO BE PROVIDED FOR THIS DEVELOPMENT BY ENVIRONMENTAL SITE DESIGN UTILIZING: ROOFTOP & NON-ROOFTOP DISCONNECTIONS, RAIN BARRELS, RAIN GARDENS, AND GRASS SWALES, DRYWELLS AND PERVIOUS PAVEMENT.
- ALL PRACTICES WILL BE PRIVATELY OWNED AND MAINTAINED.
- THIS PLAN IS SUBJECT TO A DESIGN MANUAL WAIVER OF DESIGN MANUAL VOLUME III, SECTION 2.6.A TO ALLOW MORE THAN 6 USERS TO SHARE A SINGLE USE-IN-COMMON DRIVEWAY. ON OCTOBER 10, 2013, THE CHIEF OF THE DEVELOPMENT ENGINEERING DIVISION APPROVED THE REQUEST BASED UPON JUSTIFICATION PROVIDED IN THE WAIVER REQUEST LETTER AND THE GRANTING OF SAID REQUEST WILL NOT IMPACT THE COUNTY'S EXISTING AND FUTURE INFRA-STRUCTURE SYSTEMS. SUBJECT TO AN 18' PAVING WIDTH WITH FLUSH CONCRETE CURB IN A 40 FOOT USE-IN-COMMON ACCESS EASEMENT.
- THIS PLAN IS SUBJECT TO WAIVER PETITION #WP-13-184 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, SECTION 16.144(R)(3), REQUIRING THE SUBMISSION OF REVISED PLANS WITHIN 45 DAYS OF REQUEST OR THE FINAL PLAN FOR F-08-101/DUNFARMIN ESTATES SHALL BECOME VOID SUBJECT TO THE FOLLOWING CONDITIONS:
 - THIS DEPARTMENT WILL GRANT A 6 MONTH EXTENSION FROM THE JUNE 30, 2013, DEADLINE BY WHICH TO SUBMIT REVISED PLANS FOR F-08-101. THE NEW DEADLINE DATE BY WHICH TO SUBMIT REVISED PLANS IS ON OR BEFORE JANUARY 6, 2014.
 - COMPLIANCE WITH THE ATTACHED COMMENTS FROM THE DEVELOPMENT ENGINEERING DIVISION DATED JULY 9, 2013. THIS SUBDIVISION MUST BE REDESIGNED TO MEET NEW STORMWATER MANAGEMENT REQUIREMENTS.
- BUILDABLE PRESERVATION PARCEL 'A' IS INTENDED TO PROTECT THE EXISTING POND, STREAM AND WETLANDS AND ASSOCIATED BUFFERS, AND ESTABLISH FOREST CONSERVATION (AFForestation).
- THE USE-IN-COMMON MAINTENANCE AGREEMENT FOR LOTS 1 TO 8; LOTS 1 TO 3 AND LOTS 4 AND 5 SHALL BE RECORDED IN THE LAND RECORDS OFFICE OF HOWARD COUNTY, MD. SIMULTANEOUSLY WITH THE PLAN.
- B.G.&E. HAS REVIEWED AND APPROVED THE PROPOSED TRASH PAD SCREENING AND PERIMETER TREE PLANTINGS.
- ALL EXISTING WELLS AND ON-SITE SEWAGE DISPOSAL SYSTEM COMPONENTS MUST BE PROPERLY ABANDONED AND NOTIFICATION OF SUCH SUBMITTED TO THE HEALTH DEPARTMENT PRIOR TO HEALTH SIGNATURE OF THE FINAL RECORD PLAN.
- ALL WELLS MUST BE DRILLED PRIOR TO HEALTH SIGNATURE OF THE FINAL RECORD PLAN.

SUPPLEMENTAL INFORMATION PLAN

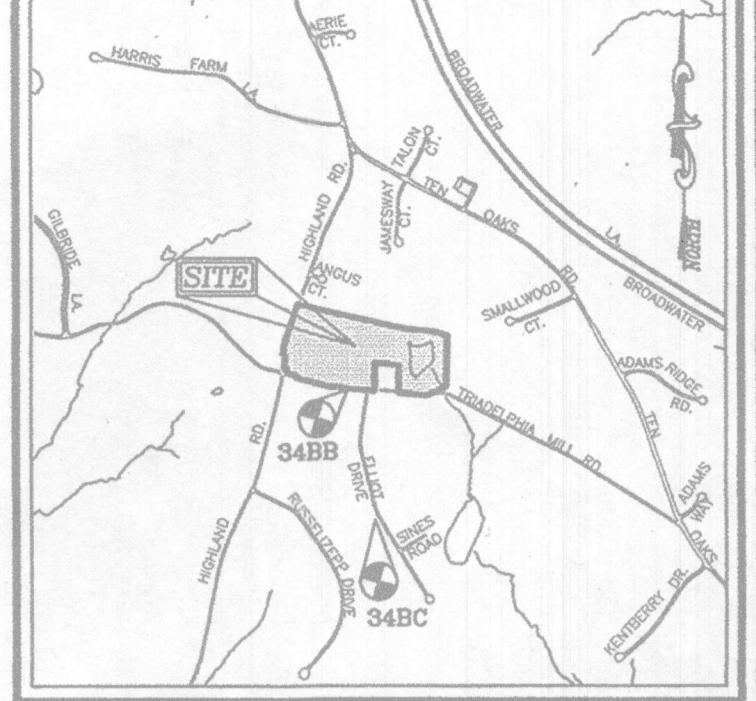
JACK'S LANDING

LOTS 1-8, BUILDABLE PRESERVATION PARCEL A, AND NON-BUILDABLE PRESERVATION PARCEL B

A SUBDIVISION OF TAX MAP 34 PARCEL 414 (L. 3172 / F. 336)

COORDINATE TABLE

NO.	NORTH	EAST
100	564164.76	1320101.32
104	563933.93	1320596.78
106	564514.92	1320465.39
107	564474.86	1320611.96
125	564789.83	1319943.64
201	563848.91	1320405.75
202	563874.46	1320098.68
203	563895.24	1319849.10
204	563933.66	1319387.50
205	564028.22	1319033.64
206	564046.72	1319038.79
207	564085.41	1318930.29
208	564110.06	1318920.52
209	564130.33	1318903.86
210	564152.86	1318900.84
211	564266.49	1318905.25
212	564269.29	1318887.35
213	564357.15	1318898.21
214	564458.77	1318924.35
216	564551.85	1320136.43



VICINITY MAP
SCALE: 1"=2,000'
ADC MAP COORDINATE: 4933.06 & 66

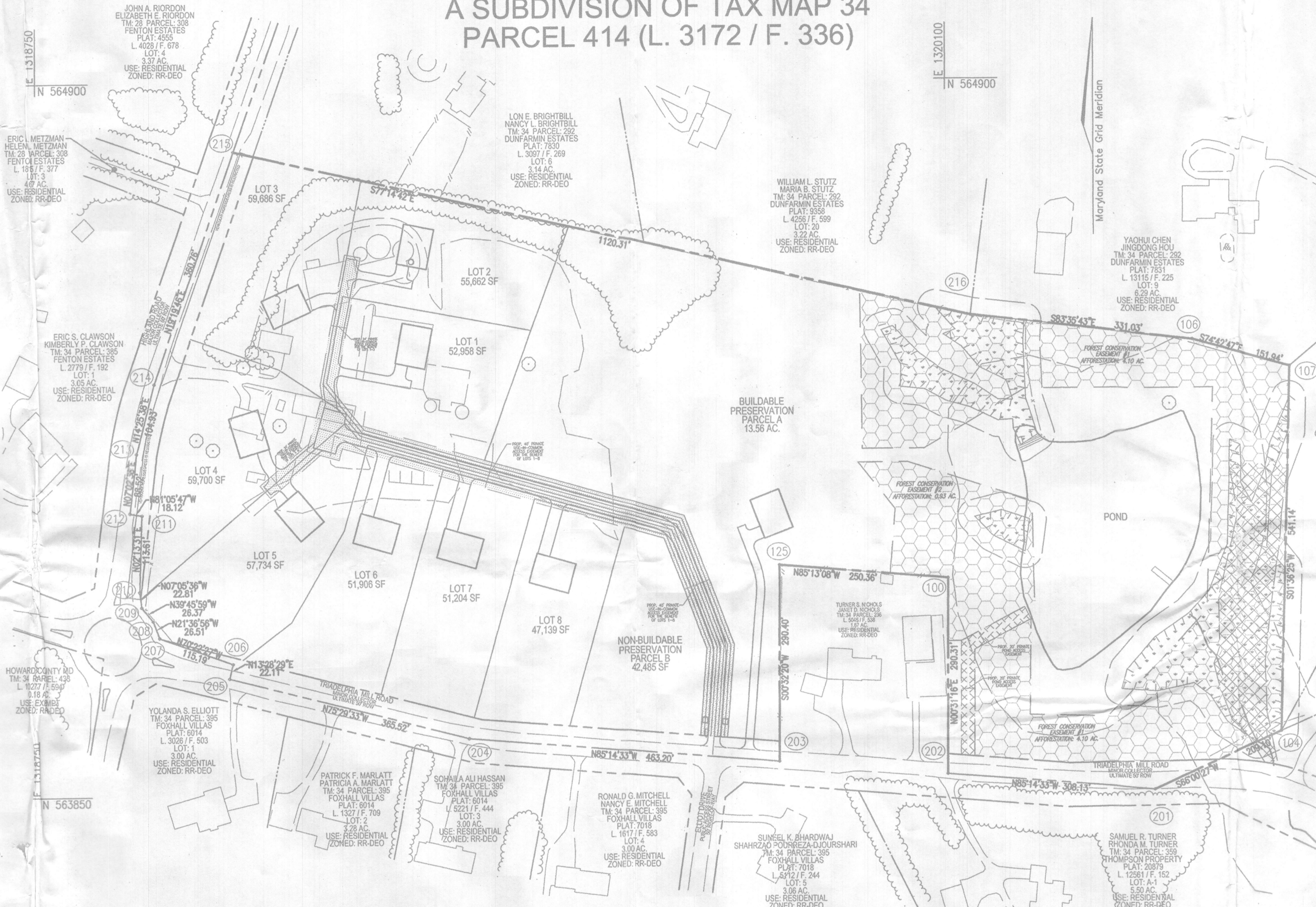
BENCHMARKS
HOWARD COUNTY BENCHMARK 34BB (CONC. MON.) N 563,899.232 E 131,950.973 ELEV. 559.29
SOUTH SIDE OF TRIADELPHIA MILL ROAD APPROX. 13' EAST OF CENTERLINE OF DRIVEWAY FOR HOUSE # 13295.
HOWARD COUNTY BENCHMARK 34BC (CONC. MON.) N 562,546.600 E 1,319,851.319 ELEV. 529.572
SOUTH SIDE OF ELLICOTT DRIVE EAST OF CENTERLINE FOR THE DRIVEWAY FOR HOUSE NUMBER 13318.

LEGEND:

[Symbol]	PROPERTY LINE
[Symbol]	EXISTING RIGHT-OF-WAY LINE
[Symbol]	PROPOSED RIGHT-OF-WAY LINE
[Symbol]	ADJACENT PROPERTY LINE
[Symbol]	EXISTING CURB AND GUTTER
[Symbol]	EXISTING EDGE OF PAVING
[Symbol]	EXISTING WETLANDS
[Symbol]	EXISTING WETLANDS BUFFER
[Symbol]	EXISTING TREELINE
[Symbol]	EXISTING TREES
[Symbol]	EXISTING WOOD FENCE
[Symbol]	EXISTING METAL FENCE
[Symbol]	EXISTING STREAM
[Symbol]	EXISTING STREAM BUFFER
[Symbol]	OBVIOUSLY NOT CRITICAL FLOODPLAIN
[Symbol]	PROPOSED TREELINE
[Symbol]	PROP. FOREST CONSERVATION EASEMENT (AFForestation) PLAN
[Symbol]	PROP. USE-IN-COMMON ACCESS EASEMENT PLAN
[Symbol]	PROP. PRIVATE POND ACCESS EASEMENT PLAN

OWNER
MARTY A. HOWARD
P.O. BOX 740
CLARKSVILLE, MD 21029

DEVELOPER
LAND DESIGN & DEVELOPMENT, INC.
5300 DORSEY HALL DR, SUITE 102
ELLICOTT CITY, MD 21042
ATTN: MR. DONALD R. REUWER
(443) 367-0422



COVER SHEET
SCALE: 1"=100'

SCALE 1"=100'

MINIMUM LOT SIZE CHART

LOT	GROSS AREA	PIPESTEM AREA	NET AREA	MIN. LOT SIZE
1	52,950 SF	3,235 SF	49,715 SF	40,000 SF
2	55,682 SF	5,228 SF	50,454 SF	40,000 SF
3	59,686 SF	4,341 SF	55,345 SF	40,000 SF
4	59,700 SF	4,214 SF	55,486 SF	40,000 SF
5	57,734 SF	3,952 SF	53,782 SF	40,000 SF
6	51,906 SF	3,331 SF	48,575 SF	40,000 SF
7	51,204 SF	2,585 SF	48,619 SF	40,000 SF
8	47,139 SF	1,848 SF	45,291 SF	40,000 SF

SHEET INDEX

DESCRIPTION	SHEET NO.
COVER SHEET	1 OF 12
SITE LAYOUT PLAN	2 OF 12
SITE LAYOUT PLAN	3 OF 12
SITE DETAILS AND PROFILES	4 OF 12
USE-IN-COMMON DRIVEWAY GRADINGS, SEDIMENT CONTROL PLAN, AND SOILS MAP	5 OF 12
SOILS MAP, GRADING & SEDIMENT CONTROL PLAN	6 OF 12
ULTIMATE GRADING, SEDIMENT CONTROL, AND SWM PLAN	7 OF 12
GRADING, SOIL EROSION, AND SEDIMENT CONTROL NOTES AND DETAILS	8 OF 12
STORM WATER MANAGEMENT NOTES AND DETAILS	9 OF 12
LANDSCAPE AND FOREST CONSERVATION PLAN	10 OF 12
LANDSCAPE AND FOREST CONSERVATION PLAN	11 OF 12
LANDSCAPE AND FOREST CONSERVATION PLAN NOTES AND DETAILS	12 OF 12

NO.	REVISION	DATE
2	REVISE THE HOUSE AND WELL LOCATIONS ON LOT 4	08/14/18

SUPPLEMENTAL INFORMATION PLAN

COVER SHEET

JACK'S LANDING

LOTS 1-8, BUILDABLE PRESERVATION PARCEL A, AND NON-BUILDABLE PRESERVATION PARCEL B

A SUBDIVISION OF TAX MAP 34 PARCEL 414 (L. 3172 / F. 336)

TAX MAP: 34 GRID: 03
5TH ELECTION DISTRICT

PARCELS: 414
ZONED: RR-DEO
HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS

8407 MAIN STREET
ELLICOTT CITY, MD 21043

TEL: 410.461.7666
FAX: 410.461.8961

PROFESSIONAL CERTIFICATE

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-20-2014.

DESIGN BY: RHV
DRAWN BY: JMR
CHECKED BY: RHV
DATE: MARCH 2014
SCALE: AS SHOWN
W.O. NO.: 13-31

1 SHEET OF 12

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

John Edwards 7-8-14
CHIEF, DEVELOPMENT ENGINEERING DIVISION

Robert H. Vogel 7-09-14
CHIEF, DIVISION OF LAND DEVELOPMENT

LOT TABULATION

TOTAL NO. OF PROPOSED DTS/PARCELS: 10

- LOTS 1-8
- BUILDABLE PRESERVATION PARCEL A
- NON-BUILDABLE PRESERVATION PARCEL B

TOTAL NO. OF DWELLING UNITS: 9

NO. OF SINGLE FAMILY DETACHED: 9

ERIC A. METZMAN
HELEN L. METZMAN
TM: 26 PARCEL: 308
FENTON ESTATES
PLAT: 4565
L. 1815 / F. 377
LOT: 3
4.67 AC.
USE: RESIDENTIAL
ZONED: RR-DEO

ERIC S. CLAWSON
KIMBERLY P. CLAWSON
TM: 34 PARCEL: 385
FENTON ESTATES
PLAT: 4435
L. 2779 / F. 192
LOT: 1
3.05 AC.
USE: RESIDENTIAL
ZONED: RR-DEO

HOWARD COUNTY MD
TM: 34 PARCEL: 434
L. 10273 / F. 594
C. 18 AC.
USE: EXEMPT
ZONED: RR-DEO

YOLANDA S. ELLIOTT
TM: 34 PARCEL: 395
FOXHALL VILLAS
PLAT: 6014
L. 3026 / F. 503
LOT: 1
3.00 AC.
USE: RESIDENTIAL
ZONED: RR-DEO

PATRICK F. MARLATT
PATRICIA A. MARLATT
TM: 34 PARCEL: 395
FOXHALL VILLAS
PLAT: 6014
L. 1327 / F. 708
LOT: 2
3.28 AC.
USE: RESIDENTIAL
ZONED: RR-DEO

SOHAILA ALI HASSAN
TM: 34 PARCEL: 395
FOXHALL VILLAS
PLAT: 6014
L. 5221 / F. 444
LOT: 3
3.00 AC.
USE: RESIDENTIAL
ZONED: RR-DEO

RONALD G. MITCHELL
NANCY E. MITCHELL
TM: 34 PARCEL: 395
FOXHALL VILLAS
PLAT: 7018
L. 1817 / F. 583
LOT: 4
3.00 AC.
USE: RESIDENTIAL
ZONED: RR-DEO

LON E. BRIGHTBILL
NANCY L. BRIGHTBILL
TM: 34 PARCEL: 292
DUNFARMIN ESTATES
PLAT: 7830
L. 3097 / F. 269
LOT: 6
3.14 AC.
USE: RESIDENTIAL
ZONED: RR-DEO

WILLIAM L. STUTZ
MARIA B. STUTZ
TM: 34 PARCEL: 292
DUNFARMIN ESTATES
PLAT: 9388
L. 4256 / F. 699
LOT: 20
3.22 AC.
USE: RESIDENTIAL
ZONED: RR-DEO

BUILDABLE
PRESERVATION
PARCEL A
13.56 AC.
PRIVATELY OWNED WITH THE
JACK'S LANDING HOMEOWNERS
ASSOCIATION AND HOWARD COUNTY,
MD AS THE EASEMENT HOLDERS

NON-BUILDABLE
PRESERVATION
PARCEL B
42.485 SF
PRIVATELY OWNED WITH THE
JACK'S LANDING HOMEOWNERS
ASSOCIATION AND HOWARD COUNTY,
MD AS THE EASEMENT HOLDERS

TURNER S. NICHOLS
JANET D. NICHOLS
TM: 34 PARCEL: 238
L. 5345 / F. 538
1.67 AC.
USE: RESIDENTIAL
ZONED: RR-DEO

LEGEND:

- PROPERTY LINE
- EXISTING RIGHT-OF-WAY LINE
- PROPOSED RIGHT-OF-WAY LINE
- ADJACENT PROPERTY LINE
- EXISTING CURB AND GUTTER
- EXISTING EDGE OF PAVING
- EXISTING TREELINE
- EXISTING TREES
- EXISTING WOOD FENCE
- EXISTING METAL FENCE
- PROPOSED TREELINE
- PROPOSED USE-IN-COMMON ACCESS EASEMENT PLAT
- PROPOSED SEPTIC EASEMENT
- PROPOSED WELL PAD
- EXISTING UTILITY POLE
- PROPOSED STORMDRAIN
- PROPOSED CONCRETE

SPECIMEN TREE CHART

NO.	SIZE	COMMON NAME	COMMENTS
ST-1	40" DBH	ELM	TO REMAIN
ST-2	40" DBH	ELM	TO REMAIN
ST-3	42" DBH	OAK	TO REMAIN
ST-4	36" DBH	OAK	TO REMAIN
ST-5	44" DBH	PINE	TO REMAIN
ST-6	42" DBH	ELM	TO REMAIN
ST-7	40" DBH	MULTI-STEM	TO REMAIN

NOTE: FOR SPECIMEN TREES 3, 4, & 5 TREE PROTECTION FENCING WILL BE REQUIRED.

OWNER
MARTY A. HOWARD
P.O. BOX 740
CLARKSVILLE, MD 21029

DEVELOPER
LAND DESIGN & DEVELOPMENT, INC.
5300 DORSEY HALL DR., SUITE 102
ELLICOTT CITY, MD 21042
ATTN: MR. DONALD R. REUWER
(443) 367-0422

NO.	REVISION	DATE
1	REV HOUSE LOCATION & DRIVEWAY ON PRESERVATION PARCEL A	JAN. 2019
2	REVISE THE HOUSE AND WELL LOCATIONS ON LOT 4	08/14/18

SUPPLEMENTAL INFORMATION PLAN

SITE LAYOUT PLAN

JACK'S LANDING
LOTS 1-8, BUILDABLE PRESERVATION PARCEL A
AND NON-BUILDABLE PRESERVATION PARCEL B
A SUBDIVISION OF TAX MAP 34
PARCEL 414 (L. 3172 / F. 336)

TAX MAP: 34 GRID: 03 PARCELS: 414
5TH ELECTORAL DISTRICT ZONED: RR-DEO
HOWARD COUNTY, MARYLAND

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



DESIGN BY: RHY
DRAWN BY: JMK
CHECKED BY: RHY
DATE: MARCH 2014
SCALE: AS SHOWN
W.O. NO.: 13-31

PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193 EXPIRATION DATE: 09-27-2014

E 1318750
IN 564600

E 1318750
IN 563850

E 1320000
IN 564600

MATCHLINE - SEE SHEET 3

MATCHLINE - SEE SHEET 3

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

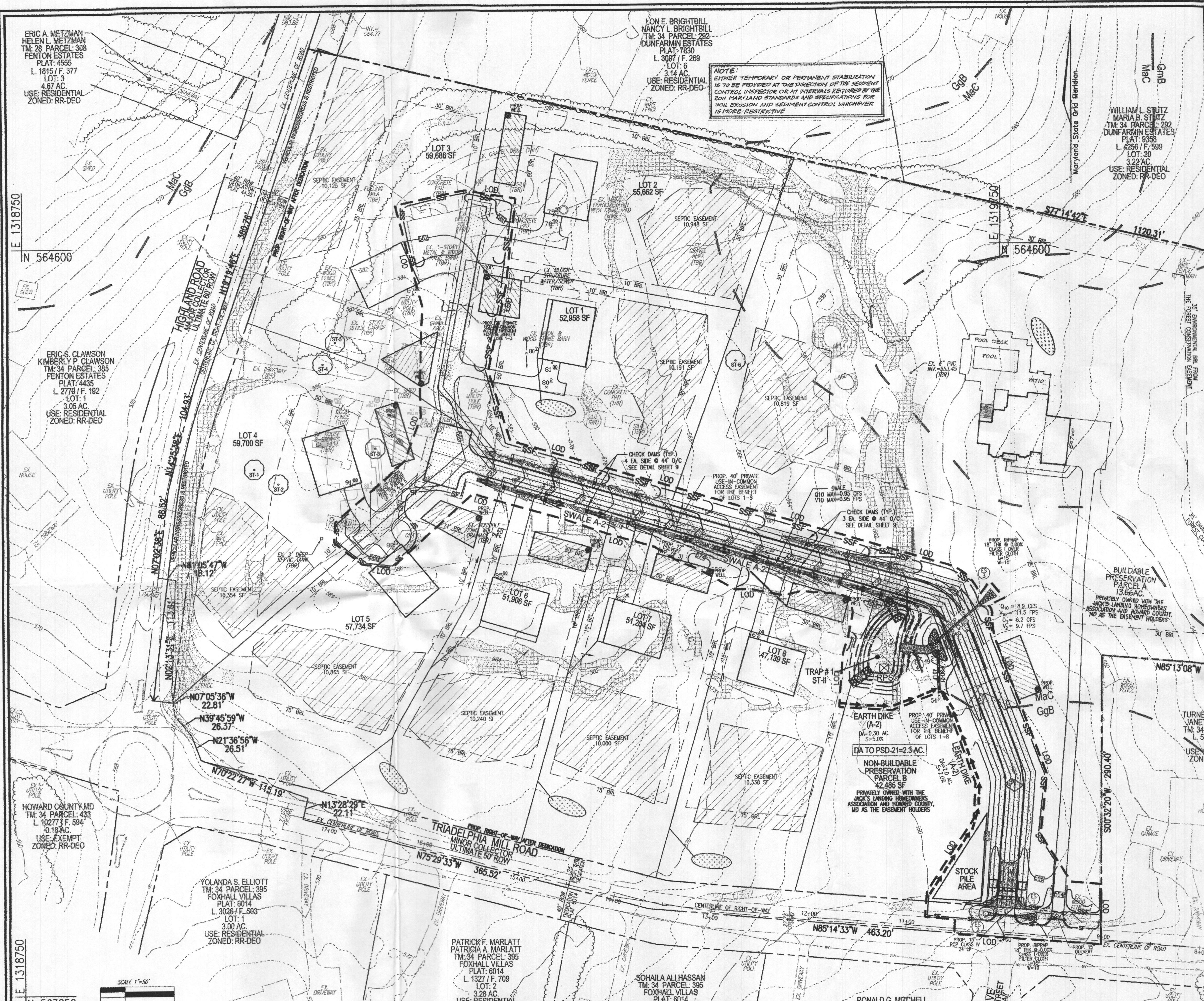
17-8-14
17-09-14
DATE
DATE

MINIMUM LOT SIZE CHART

LOT	GROSS AREA	PIPESTEM AREA	NET AREA	MIN. LOT SIZE
1	52,958 SF	3,235 SF	49,722 SF	40,000 SF
2	55,662 SF	5,226 SF	50,436 SF	40,000 SF
3	59,886 SF	4,341 SF	55,545 SF	40,000 SF
4	59,700 SF	4,214 SF	55,486 SF	40,000 SF
5	57,734 SF	3,952 SF	53,782 SF	40,000 SF
6	51,906 SF	3,331 SF	48,575 SF	40,000 SF
7	51,204 SF	2,585 SF	48,619 SF	40,000 SF
8	47,139 SF	1,848 SF	45,291 SF	40,000 SF

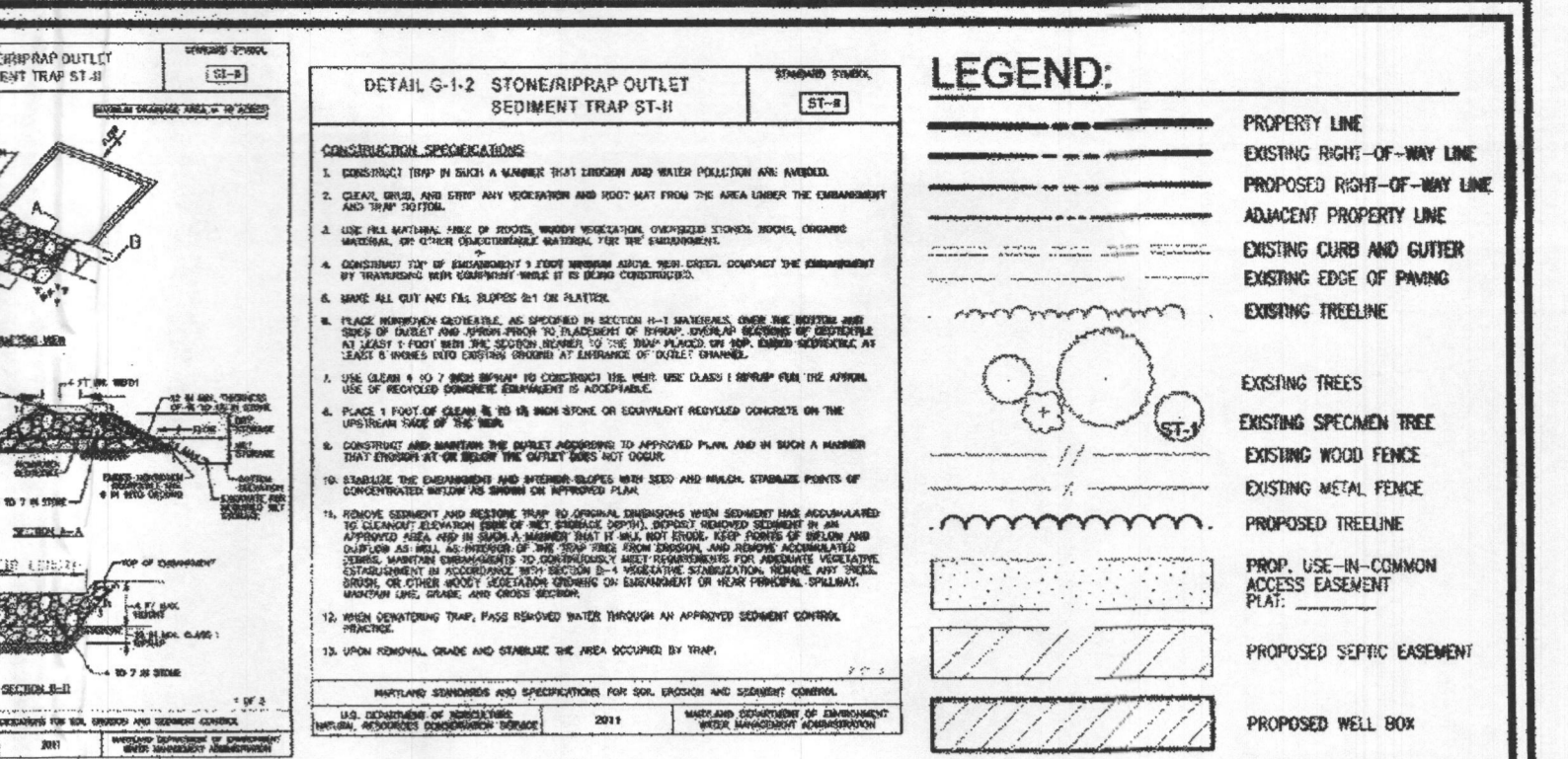
SCALE 1"=50'

LAYOUT PLAN
SCALE: 1"=50'



MATCHLINE - SEE SHEET 5

MATCHLINE - SEE SHEET 5



DETAIL G-1-2 STONE/RIPRAP OUTLET SEDIMENT TRAP ST-II

STONE/RIPRAP OUTLET SEDIMENT TRAP ST-II, TRAP NO.	1	2
DRAINAGE AREA - TOTAL	1.30	ACRES
DRAINAGE AREA - STORM	2.04	ACRES
DRAINAGE AREA - TRAIL	1.80	ACRES
TOTAL STORAGE REQUIRED	7394	CF
TOTAL STORAGE PROVIDED	7678	CF
NET STORAGE REQUIRED	3672	CF
NET STORAGE PROVIDED	3963	CF
DRY STORAGE REQUIRED	3672	CF
DRY STORAGE PROVIDED	3796	CF
EXISTING GROUND ELEVATION AT OUTLET (NET STORAGE ELEVATION)	555.90	FT
SOIL BOTTOM ELEVATIONS	60 & 25	FT
SOIL LENGTH	8	FT
NEAR CREST DRY STORAGE ELEVATION*	555.50	FT
CLEAROUT ELEVATION	550.70	FT
TOP OF EMBANKMENT ELEVATION	556.50	FT
SOIL SLOPE	2:1	FT
EMBANKMENT TOP WIDTH	4	FT
OUTLET PROTECTION - LENGTH	19	FT
OUTLET PROTECTION - WIDTH	19	IN

SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	GROUP	K-FACTOR	ERODIBLE
GbB	GLADSTONE LOAM, 3 TO 8 PERCENT SLOPES	B	.20	NO
GgB	GLENNVILLE LOAM, 3 TO 8 PERCENT SLOPES	B	.20	NO
GmB	GLENNVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES	C	.37	YES
GnB	GLENNVILLE-BAILE SILT LOAMS, 0 TO 8 PERCENT SLOPES	C	.37	YES
McC	MANOR LOAM, 8 TO 15 PERCENT SLOPES	C	.24	NO

NOTE: HEREIN, ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT.

THIS PLAN MAY NOT BE USED TO OBTAIN GRADING OR BUILDING PERMITS FOR THE SHOWN HOUSES

OWNER
 MARTY A. HOWARD
 P.O. BOX 740
 CLARKSVILLE, MD 21029

DEVELOPER
 LAND DESIGN & DEVELOPMENT, INC.
 5300 DORSEY HALL DR., SUITE 102
 ELLICOTT CITY, MD 21042
 ATTN: MR. DONALD R. REUWER
 (443) 367-0422

NO.	REV.	HOUSE LOCATION & DRIVEWAY ON PRESERVATION PARCEL A	REVISION	DATE
2			REVISE THE HOUSE AND WELL LOCATIONS ON LOT 4	08/14/18
1			REV. HOUSE LOCATION & DRIVEWAY ON PRESERVATION PARCEL A	JAN. 2018

**SUPPLEMENTAL INFORMATION PLAN
 USE-IN-COMMON DRIVEWAY GRADING, SEDIMENT CONTROL PLAN, AND SOILS MAP**

JACK'S LANDING
 LOTS 1-8, BUILDABLE PRESERVATION PARCEL A,
 AND NON-BUILDABLE PRESERVATION PARCEL B
 A SUBDIVISION OF TAX MAP 34
 PARCEL 414 (L. 3172 / F. 336)

TAX MAP: 34 CRD: 03 PARCELS: 414
 5TH ELECTION DISTRICT ZONED: RR-DEO
 HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET ELLICOTT CITY, MD 21043 TEL: 410.461.7666 FAX: 410.461.8966

PROFESSIONAL CERTIFICATE

DESIGN BY: RHV
 DRAWN BY: RHV
 CHECKED BY: JMR
 DATE: MARCH 2014
 SCALE: AS SHOWN
 W.O. NO.: 13-31

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 18183, EXPIRATION DATE 08-23-2014

5 SHEET OF 12

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

7-8-14
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

7-09-14
 CHIEF, DIVISION OF LAND DEVELOPMENT

BY THE DEVELOPER:

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

6/24/14
 SIGNATURE OF DEVELOPER

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

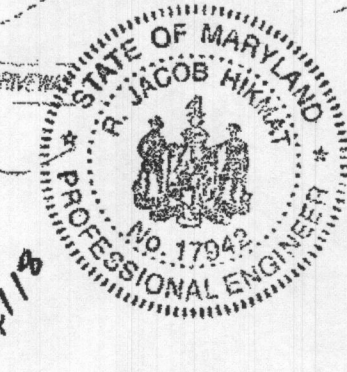
7/1/2014
 HOWARD S.C.D.

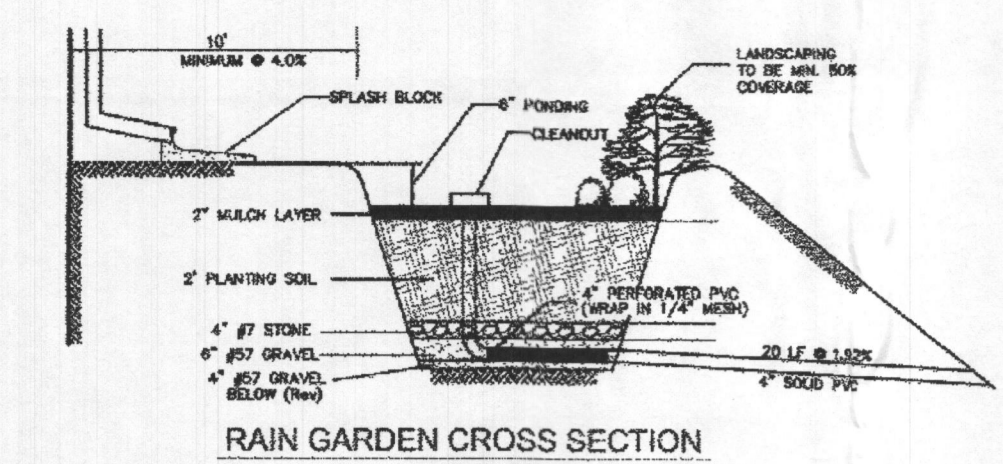
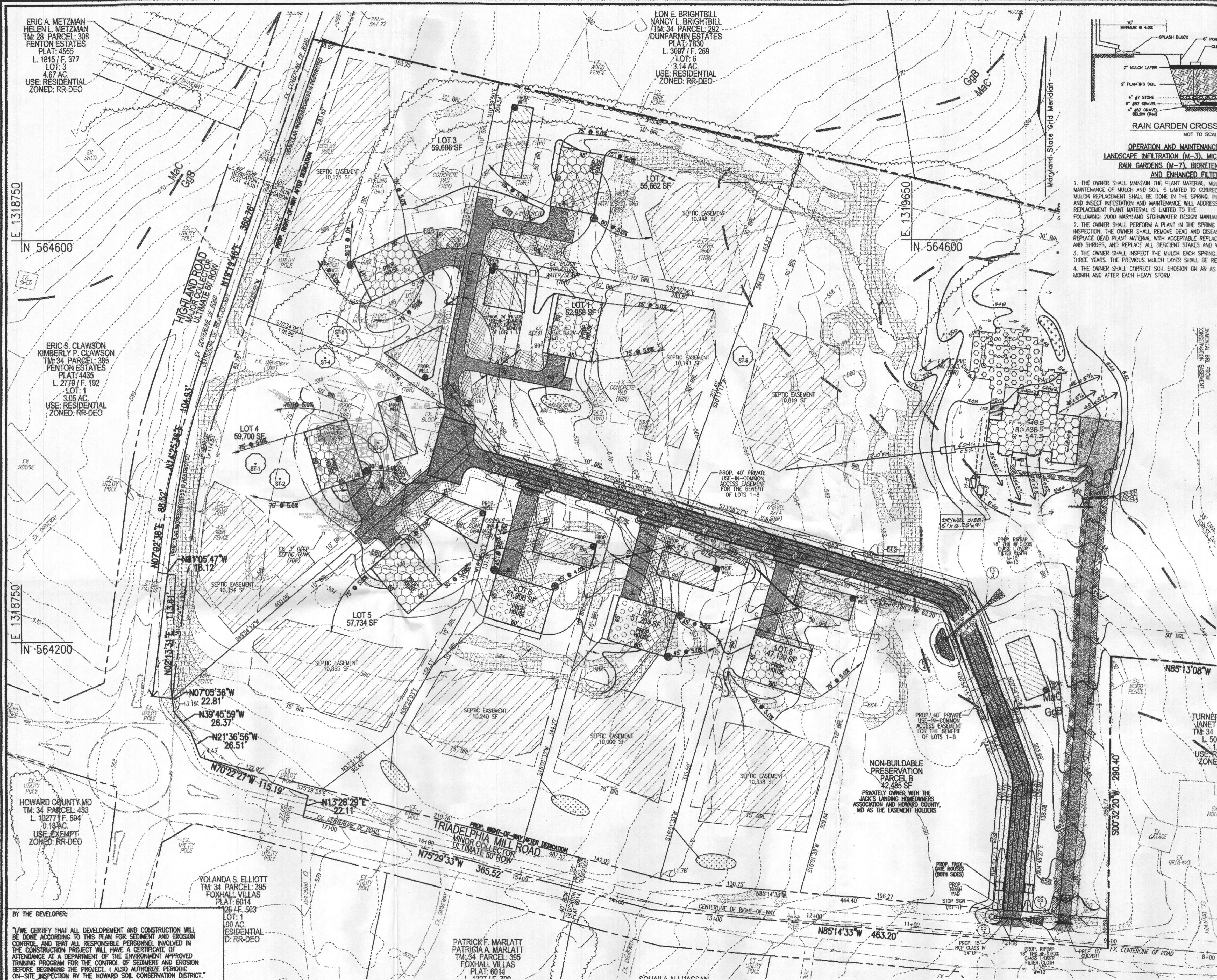
GRADING & SEDIMENT CONTROL PLAN
 SCALE: 1"=50'

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.

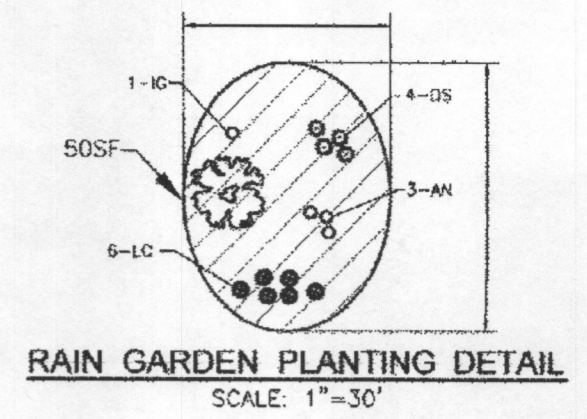
6/28/14
 SIGNATURE OF ENGINEER





OPERATION AND MAINTENANCE SCHEDULE FOR LANDSCAPE INFILTRATION (M-3), MICRO-BIORETENTION (M-6) RAIN GARDENS (M-7), BIORETENTION SWALE (M-8), AND ENHANCED FILTERS (M-9)

1. THE OWNER SHALL MAINTAIN THE PLANT MATERIAL, MULCH LAYER AND SOIL LAYER ANNUALLY. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSEST INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND SPRING ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL VOLUME II, TABLE A.4.1 AND 2.
2. THE OWNER SHALL PERFORM A PLANT IN THE SPRING AND IN THE FALL OF EACH YEAR. DURING THE INSPECTION, THE OWNER SHALL REMOVE DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, REPLACE DEAD PLANT MATERIAL WITH ACCEPTABLE REPLACEMENT PLANT MATERIAL, TREAT DISEASED TREES AND SHRUBS, AND REPLACE ALL DEFICIENT STAKES AND WIRES.
3. THE OWNER SHALL INSPECT THE MULCH EACH SPRING. THE MULCH SHALL BE REPLACED EVERY TWO TO THREE YEARS. THE PROPOSED MULCH LAYER SHALL BE REMOVED BEFORE THE NEW LAYER IS APPLIED.
4. THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.

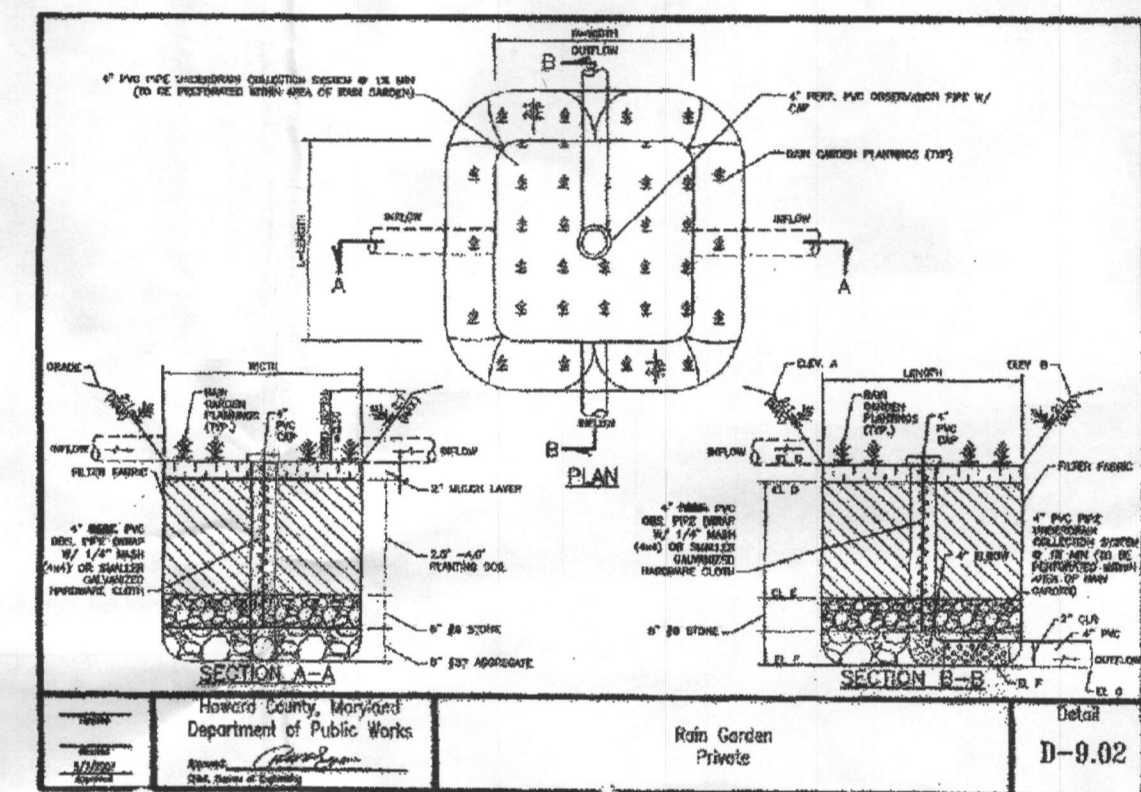


RAIN GARDEN PLANTING DETAIL SCALE: 1"=30'

LEGEND:

[Symbol]	PROPERTY LINE
[Symbol]	EXISTING RIGHT-OF-WAY LINE
[Symbol]	EXISTING RIGHT-OF-WAY LINE
[Symbol]	ADJACENT PROPERTY LINE
[Symbol]	EXISTING CURB AND GUTTERS
[Symbol]	EXISTING EDGE OF PAVING
[Symbol]	EXISTING TIE LINE
[Symbol]	EXISTING TREES
[Symbol]	EXISTING SPLOMCH TREE
[Symbol]	EXISTING WOOD FENCE
[Symbol]	EXISTING METAL FENCE
[Symbol]	PROPOSED TREE LINE
[Symbol]	PROP. USE-IN-COMMON ACCESS EASEMENT PLAT.
[Symbol]	PROPOSED SEPTIC EASEMENT
[Symbol]	PROPOSED WELL BOX
[Symbol]	EXISTING UTILITY POLE
[Symbol]	PROPOSED STORMWATER
[Symbol]	PROPOSED CONCRETE
[Symbol]	EXISTING 10' CONTOUR
[Symbol]	EXISTING 2' CONTOUR
[Symbol]	SOILS
[Symbol]	PROPOSED 10' CONTOUR
[Symbol]	PROPOSED 2' CONTOUR
[Symbol]	PROPOSED SPOT ELEVATION
[Symbol]	EXISTING STEEP SLOPES
[Symbol]	EXISTING MODERATE SLOPES

- "MICRO-BIORETENTION" PLANTING SCHEDULE NOTES:**
1. ALL PLANT MATERIALS SHALL BE FULL AND HEAVY, BE WELL FORMED AND SYMMETRICAL, CONFORM TO THE MOST CURRENT AAN SPECIFICATIONS AND BE INSTALLED IN ACCORDANCE WITH HOWARD COUNTY PLANTING SPECIFICATIONS.
 2. CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING.
 3. FINAL LOCATION OF PLANT MATERIAL MAY NEED TO VARY TO MEET FINAL FIELD CONDITIONS. TREES SHALL NOT BE PLANTED IN THE BOTTOM OF DRAINAGE SWALES.
 4. CONTRACTOR SHALL VERIFY PLANT QUANTITIES PRIOR TO BIDDING. IF PLAN DIFFERS FROM LANDSCAPE SCHEDULE, THE PLAN SHALL GOVERN.
 5. SEE SHEET 10 FOR TYPICAL PLANTING SPECIFICATIONS AND DETAILS.
 6. MICROBIORETENTION AREAS ARE TO BE PLANTED BASED ON A MINIMUM DENSITY OF 1000 STEMS PER PLANTED ACRE (0.229 STEMS PER SQUARE FOOT). ABOVE PLANTING RATIOS ARE TO BE APPLIED TO THE AREAS PROVIDED IN THE ESDv SUMMARY.



SWHM LEGEND

[Symbol]	NON-BARREL	[Symbol]	NON-ROOFTOP DISCONNECT (M-1)
[Symbol]	1/2" OR MORE TO DRY SWALE (M-4)	[Symbol]	ROOFTOP DISCONNECTS (M-1)
[Symbol]	MINUTE WATERWORKING (M-1) & ROOFTOP DISCONNECTS (M-1)	[Symbol]	ROOFTOP TO RAIN-GARDEN (M-7)
[Symbol]	RAIN GARDEN (M-7)	[Symbol]	OVERFLOW TO BUFFER (M-3)
[Symbol]	ROOFTOP TO DRYWELL (M-8)	[Symbol]	ROOFTOP DISCONNECT (M-1)
[Symbol]	PERVIOUS PAVEMENT (M-5)		

OWNER
MARTY A. HOWARD
P.O. BOX 740
CLARKSVILLE, MD 21029

DEVELOPER
LAND DESIGN & DEVELOPMENT, INC.
5300 DORSEY HALL DR., SUITE 102
ELLCOTT CITY, MD 21042
ATTN: MR. DONALD R. REUWER
(410) 367-0422

BY THE DEVELOPER:
I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL AND THAT ALL 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 PRIOR TO BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

SIGNATURE OF DEVELOPER: [Signature]
DATE: 6/24/14

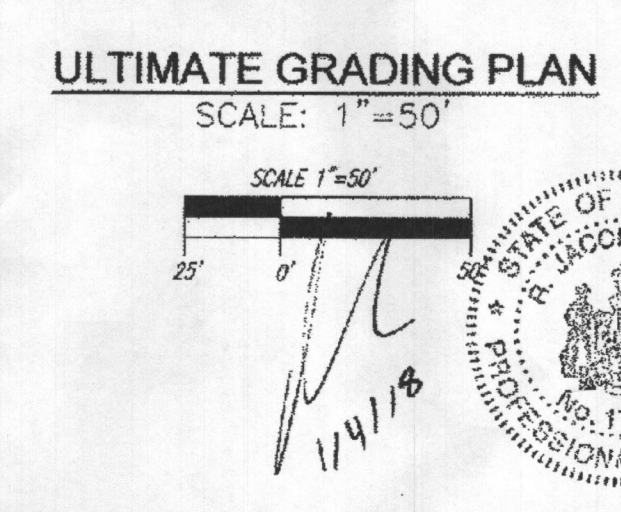
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
CHIEF, DEVELOPMENT ENGINEERING DIVISION: [Signature]
DATE: 7-8-14

CHIEF, DIVISION OF LAND DEVELOPMENT: [Signature]
DATE: 7-9-14

SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	GROUP	K-FACTOR	ERODIBLE
GbB	GLADSTONE LOAM, 3 TO 8 PERCENT SLOPES	B	.20	NO
GcB	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	B	.20	NO
GmB	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES	C	.37	YES
GnB	GLENVILLE-BAILE SILT LOAMS, 0 TO 8 PERCENT SLOPES	C	.37	YES
MoC	MANOR LOAM, 8 TO 15 PERCENT SLOPES	C	.24	NO

SOILS INFORMATION FROM USDA WEB SOIL SURVEY WEBSITE
NOTE: HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT



(6) RAINGARDEN PLANT LIST (8.0' x 10' EACH)

QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE
1	PLATANUS X ACERIFOLIA	LONDON PLANE TREE	2 1/2"-3" Cal.
1	ILEX GLABRA	INK BERRY	2'-3' HT.
1	LOBELIA CARDINALIS	CARDINAL FLOWER LOBELIA	1 GAL. CONTAINER
4	DRYOPTERIS SP.	WOOD FERN	1 GAL. CONTAINER
3	ASTER NOVAE-ANGLIAE	NEW ENGLAND ASTER	1 GAL. CONTAINER

NOTE:
THIS SHEET IS NOT TO BE USED FOR GRADING UNDER THIS PLAN. THIS PLAN SHOWS THE ULTIMATE GRADING OF THE LOTS ON THE SITE AND IS CONCEPTUAL ONLY. SEE SHEET 5 FOR GRADING AND SEDIMENT CONTROL UNDER THIS PLAN.

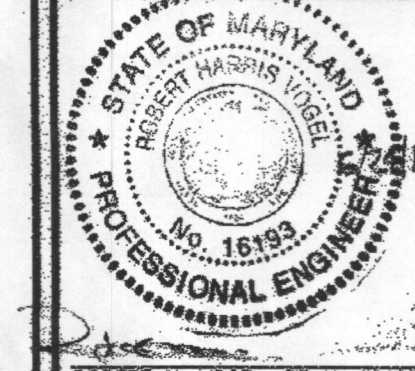
1	REVISE THE HOUSE AND WELL LOCATIONS ON LOT 4	08/14/18
2	REVISE HOUSE LOCATION, GRADING AND SWIMMING POOL ON BUILDABLE PRESERVATION PARCELS A AND B AND RAIN GARDEN DETAIL	JAN 2018
NO.	REVISION	DATE

SUPPLEMENTAL INFORMATION PLAN
ULTIMATE GRADING, SEDIMENT CONTROL AND STORMWATER MANAGEMENT PLAN
JACK'S LANDING
LOTS 1-8, BUILDABLE PRESERVATION PARCEL A, AND NON-BUILDABLE PRESERVATION PARCEL B
A SUBDIVISION OF TAX MAP 34
PARCEL 414 (L. 3172 F. 336)

TAX MAP: 34 GRID: 03
5TH ELECTION DISTRICT

PARCELS: 414
ZONED: RR-DEO
HOWARD COUNTY, MARYLAND

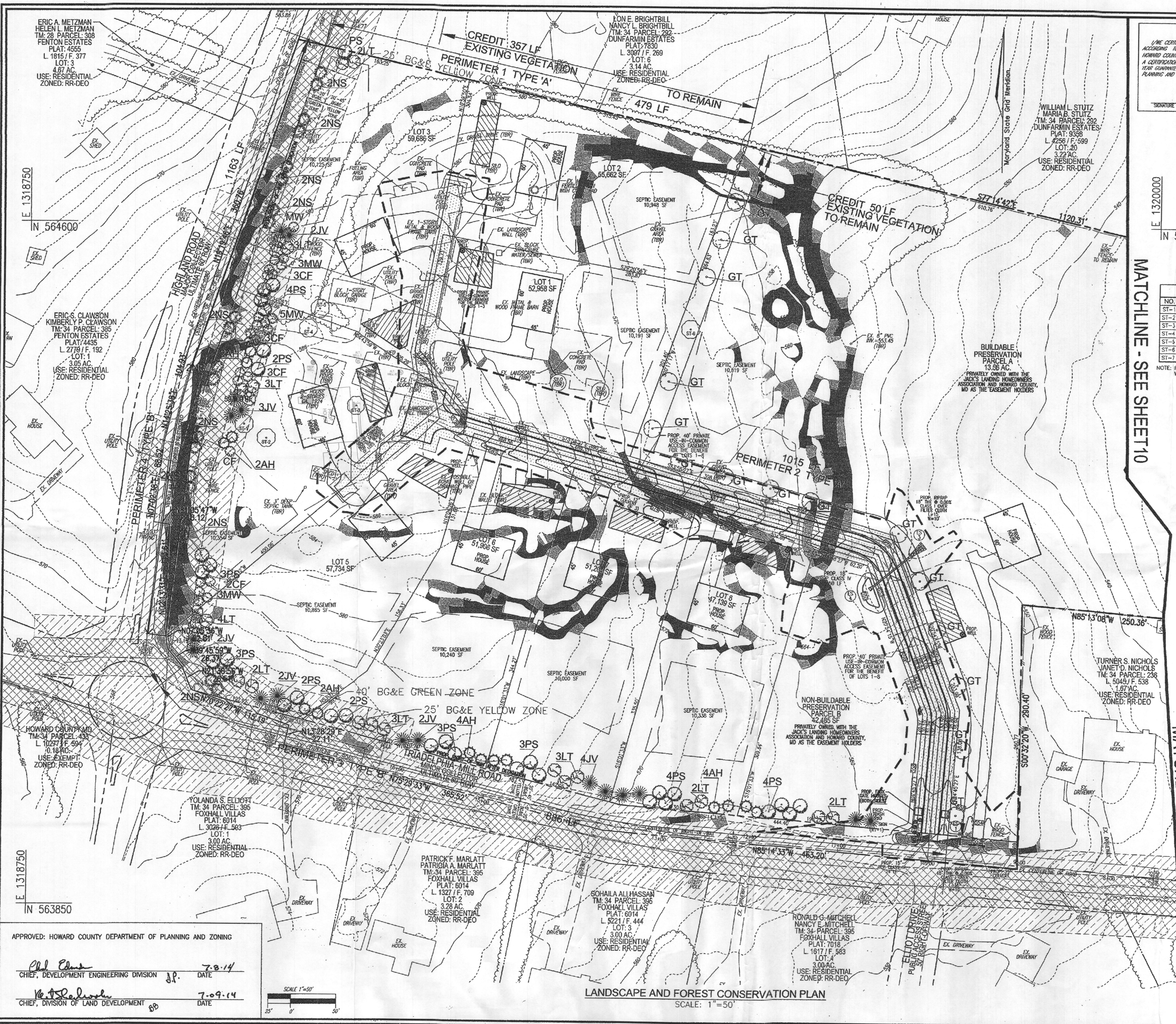
ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELLCOTT CITY, MD 21043
TEL: 410-461-7656
FAX: 410-461-8961



DESIGN BY: RHY
DRAWN BY: JMR
CHECKED BY: JMR
DATE: MARCH 2014
SCALE: AS SHOWN
W.O. NO.: 13-31

PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 18193, EXPIRATION DATE: 08-27-2014

7 SHEET OF 12



DEVELOPER/BUILDER'S CERTIFICATE

I HEREBY CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN SECTION 18.12M OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I FURTHER CERTIFY THAT UPON COMPLETION A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE (1) YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

SIGNATURE OF DEVELOPER: *[Signature]* DATE: 4/2/14

LEGEND:

- PROPERTY LINE
- EXISTING RIGHT-OF-WAY LINE
- PROPOSED RIGHT-OF-WAY LINE
- ADJACENT PROPERTY LINE
- EXISTING CURB AND GUTTER
- EXISTING LINE OF PAVING
- EXISTING TREELINE
- EXISTING TREES
- EXISTING WOOD FENCE
- EXISTING METAL FENCE
- PROPOSED TREELINE
- PROP. USE-IN-COMMON ACCESS EASEMENT PLAT
- PROPOSED SEPTIC EASEMENT
- PROPOSED WELL BOX
- EXISTING UTILITY POLE
- PROPOSED STORMDRAIN
- PROPOSED CONCRETE
- EXISTING 10' CONTOUR
- EXISTING 2' CONTOUR
- SOILS
- PROPOSED 10' CONTOUR
- PROPOSED 2' CONTOUR
- PROPOSED SPOT ELEVATION
- EXISTING STEEP SLOPES
- EXISTING MODERATE SLOPES
- EXISTING BG&E GREEN ZONE
- EXISTING BG&E YELLOW ZONE
- PROPOSED FOREST CONSERVATION SIGN

SPECIMEN TREE CHART

NO.	SIZE	COMMON NAME	COMMENTS
ST-1	40" DBH	ELM	TO REMAIN
ST-2	40" DBH	ELM	TO REMAIN
ST-3	42" DBH	OAK	TO BE REMOVED
ST-4	36" DBH	OAK	TO REMAIN
ST-5	44" DBH	PINE	TO REMAIN
ST-6	42" DBH	ELM	TO REMAIN
ST-7	40" DBH	MULTI-STEM	TO REMAIN

NOTE: FOR SPECIMEN TREES 4 & 5 TREE PROTECTION FENCING WILL BE REQUIRED

- B.G. & E. NOTES:**
- THE LANDSCAPING ON WIREZONE (40' FROM BG&E POLES) IS IN ACCORDANCE WITH BG&E LIST OF TREES AND PLANTS.
 - B.G. & E. RESERVES THE RIGHT TO TRIM, TOP OR CUT DOWN ANY TREE IN PROXIMITY TO THE LINE THAT IN THE OPINION OF B.G. & E. SHOULD BE DEEMED A HAZARD TO THE SAFE AND RELIABLE DELIVERY OF ELECTRICITY.
 - THE DEPARTMENT OF PLANNING AND ZONING MAY AUTHORIZE THE TRIMMING OR REMOVAL OF TREES OR VEGETATION IMMEDIATELY ADJACENT TO THE BG&E R/W OR EASEMENT, IF B.G. & E. DETERMINES THE TREES ARE COMPROMISING THE SAFETY OF A TRANSMISSION LINE LOCATED WITHIN THEIR UTILITY R/W OR EASEMENT, IF B.G. & E. INTENDS TO TRIM OR REMOVE TREES WITHIN A FOREST CONSERVATION EASEMENT, A LETTER SPECIFYING THE LOCATION AND SCOPE OF WORK NEEDS TO BE SENT TO DPZ AT LEAST 30 DAYS IN ADVANCE OF UNDERTAKING THE WORK. DPZ UNDERSTANDS CONSTELLATION ENERGY'S NEED TO PROTECT ITS TRANSMISSION LINES AND WILL NOT UNREASONABLY WITHHOLD PERMISSION.

- FSD NOTES:**
- NO RARE, THREATENED OR ENDANGERED SPECIES OR THEIR APPROPRIATE HABITAT WERE OBSERVED ON THE PROPERTY.
 - SURROUNDING LAND USE IS MEDIUM-HIGH DENSITY RESIDENTIAL DEVELOPMENT.
 - THERE ARE NO FORESTS PRESENT ON SUBJECT PROPERTY.
 - SPECIMEN TREES ARE SHOWN HEREON PER THE 10-6-2006 CAPITOL DEVELOPMENT DESIGN, INC. DELINEATION.

OWNER
 MARTY A. HOWARD
 P.O. BOX 740
 CLARKSVILLE, MD 21029

DEVELOPER
 LAND DESIGN & DEVELOPMENT, INC.
 5300 DORSEY HALL DR., SUITE 102
 ELLICOTT CITY, MD 21042
 ATTN: MR. DONALD R. REUWER.
 (443) 367-0422

NO.	REVISION	DATE
2	REVISE THE HOUSE AND WELL LOCATIONS ON LOT 4	08/14/18

SUPPLEMENTAL INFORMATION PLAN
LANDSCAPE AND FOREST CONSERVATION PLAN
JACK'S LANDING
 LOTS 1-8, BUILDABLE PRESERVATION PARCEL A,
 AND NON-BUILDABLE PRESERVATION PARCEL B
 A SUBDIVISION OF TAX MAP 34
 PARCEL 414 (L. 3172 / F. 338)

TAX MAP: 34 GRID: 03
 5TH ELECTION DISTRICT

PARCELS: 414
 ZONED: RR-DEO
 HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET
 ELLICOTT CITY, MD 21043
 TEL: 410.461.7666
 FAX: 410.461.5961

PROFESSIONAL CERTIFICATE

DESIGN BY: RHV
 DRAWN BY: JMR
 CHECKED BY: RHV
 DATE: MARCH 2014
 SCALE: AS SHOWN
 W.O. NO.: 13-31

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 18193 EXPIRATION DATE: 09-27-2014

10 SHEET OF 12

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 7-8-14
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 7-09-14
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

SCALE 1"=50'

LANDSCAPE AND FOREST CONSERVATION PLAN
 SCALE: 1"=50'

MATCHLINE - SEE SHEET 10

MATCHLINE - SEE SHEET 10