



TECHNICAL STAFF REPORT

The Estates at River Hill

Planning Board Quasi-Judicial Public Hearing of December 14, 2017

Derrick Jones, *Staff Planner*

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email: djones@howardcountymd.gov

- Case No./Petitioner:** PB Case No. 434 / Trinity Quality Homes, Inc.
- Project Name:** The Estates at River Hill, SP-17-007
Lots 1-15, Buildable Preservation Parcel A and Non-Buildable Preservation
Parcels B and C
- Owner:** Rene L. Gelber and Jeanne M. Gelber
- Engineering Consultant:** Vogel Engineering, Inc.
- Request:** For the Planning Board to approve a Preliminary Equivalent Sketch Plan, SP-17-007, to subdivide 16 single-family detached lots (including one buildable preservation parcel) and two non-buildable preservation parcels. The site is 42.41 acres, zoned RR-DEO (Rural Residential), and is subject to Section 105.0. of the Zoning Regulations, the Sustainable Growth and Agricultural Preservation Act of 2012 (SB 236), and Section 1.105 of the Rules and Procedures of the Howard County Planning Board. The property is in Growth Tier III, which is defined as an area not planned for sewer service, not dominated by agricultural or forest land, not designated for preservation, but planned for large lot developments with private septic systems.
- Location:** The address is 13550 Allnutt Lane in the Highland area - at the terminus of Allnutt Lane. It is in the Fifth Election District, Howard County, Maryland; Tax Map 34, Grid 23, Parcel 389.
- DPZ Recommendation:** Approval, subject to complying with Subdivision Review Committee (SRC) comments and any conditions by the Planning Board.

two local newspapers at least 30 days prior to the hearing are on file.

- B. **Regulatory Compliance** - The project is subject to Howard County Subdivision and Land Development Regulations, Howard County Zoning Regulations, DPW Design Manuals, the MDE (Maryland Department of Environment) Storm Water Design Manual, Adequate Public Facilities Ordinance, Forest Conservation Manual, Landscape Manual, Soils Conservation District, Health Department, Department of Recreation and Parks, and Senate Bill 236.
- C. **General Plan** – The proposed development is consistent with PlanHoward 2030 and is located within the Rural West Allocation Area land use designation. It is outside the Planned Service Area (PSA) and is subject to the Sustainable Growth and Agricultural Preservation Act (Senate Bill 236). This act limits septic systems for major residential subdivisions, preserves rural natural and agricultural resources, and protects the Chesapeake Bay and its tributaries.
- D. **Pre-submission Community Meeting** - The developer conducted two pre-submission community meetings - March 29, 2016, and February 21, 2017.
- E. **Site History:**
- The Greene property, Lot 1, subdivision plat was recorded June 17, 1982, and there has been no further subdivision until now.
 - Environmental Concept Plan (ECP-16-064) was submitted July 13, 2016, and approved December 21, 2016.
 - Alternative Compliance Petitions (WP-17-034 and WP-17-128) were submitted October 21, 2016, and June 7, 2017. They seek alternative compliance for Section 16.120(b)(6)(ii)a. to allow lot pipestems that exceed 1,500 feet; Section 16.116(a)(2) to disturb a 100' stream buffer for driveway crossings; Section 16.115(c)(2) to disturb a floodplain for driveway crossings, and Section 16.1205(a)(7) to remove ten specimen trees. A decision on these has been deferred until after the Planning Board has made a decision.
- F. **Bulk Regulations** (In accordance with Section 105.0.E. of the Zoning Regulations):
- Density - RR-DEO permits one dwelling unit per 4.25 acres. Since gross site area is 42.41 acres, nine lots are permitted, but 16 are proposed. Seven lots are imported through the density exchange option, per Section 106.0.B. and E. of the zoning regulations, which establishes criteria for transferring density between qualifying properties.
 - Lot Size Requirements – The subdivision complies with the RR-DEO cluster development minimum 40,000 square foot lot size.
 - Minimum Lot Width - The subdivision complies with the minimum 100 foot lot width, which is measured at the front building restriction line.
 - Building Restriction Setbacks - The subdivision complies with all setbacks, per Section 105.0.E.4.a. and b.

II. Site Analysis

- A. **Existing Site Conditions** - The 42.4-acre site is located at the terminus of Allnutt Lane in Highland, MD. It contains a house, a barn and several outbuildings. The property is currently a farmette, with large horse pastures, lawn areas, and woods.



Existing House (to remain) at 13550 Allnutt Lane

B. Site and Density Information Chart:

Total Gross Area.....	42.41 acres
Minus 100-Year Floodplain Area.....	7.50 acres
Minus 25% of Greater Steep Slope Area.....	0.00 acres
Net Site Area.....	34.91 acres
Forested Area.....	12.60 acres
Base Density Permitted (1 unit per 4.25 acres)..... <i>Gross Area</i>	9 units
Total Number of Dwellings Permitted with Density Transfer (1 unit per 2 acres)..... <i>Net Area</i>	17 units
Number of Dwellings Proposed..... <i>* Seven development rights are imported from a sending parcel</i>	16 units *
Area of the Residential Lots.....	20.63 acres
Area of the Preservation Parcels	21.10 acres

C. **Access and Frontage** - The subdivision will gain access and have public road frontage from Allnutt Lane extended. Allnutt Lane has a 50 foot-wide right of way and will be extended by the developer from its current terminus at the west property line.

D. **Water and Sewer Service** – Since the site is not in the Planned Service Area for public water and sewer service, homes will have private wells and septic systems.

E. Existing Environmental Site Characteristics:

- **General Site Features** – A house, surrounded by a maintained lawn, horse farm, barn and outbuilding, are located in the northern portion of the site. A large pasture is in the northeastern portion of the property. Approximately 12 acres of forest and open fields and pastures occupy the balance of the property.



The Estates at River Hill site

- **Environmental Resources** - Eco-Science Professionals, Inc. did a field study March 2016 to verify onsite wetlands and streams. DPZ confirmed the presence of streams, wetlands, and floodplains. In March 2016 a forest stand delineation was performed by a DNR qualified professional, which located two forest stands that total 12.6 acres. Twenty-five specimen trees (trees 30" or greater in diameter) were identified.

F. Proposed Development Plan:

- **Subdivision Plan** - The subdivision includes 15 single-family residential lots, one buildable preservation parcel, and two non-buildable preservation parcels. The 16 residential lots make up 20.63 acres and six will front onto Allnutt Lane extended, which will be a 22 foot wide public road with street trees on both sides, but no sidewalks or street lights. Allnutt Lane will extend approximately 440' and terminate in a cul-de-sac. The remaining 10 lots will gain access to Allnutt Lane via two 16 foot wide pipestem driveways. Two non-buildable preservation parcels (Parcels B and C) protect the site's environmentally sensitive areas (wetlands, streams, floodplains).

- **Forest Conservation** – The site has 12.60 acres of forest, but 5.19 acres will be cleared (7.41 acres to remain). A 3.60 acre forest planting requirement will be met by placing the 7.41 acres into Public Forest Conservation Easements 1, 2 and 3. In addition, 3.60 acres of tree planting (afforestation) will be placed into Public Forest Conservation Easements 4 and 5. These easements will be located in Non-Buildable Preservation Parcels B and C and recorded with a forthcoming plat. The easements (along with the deed of forest conservation) will serve to protect and preserve forests from future development and/or disturbance. The Department of Recreation and Parks will own the two preservation parcels and manage the forest conservation areas.
- **Landscaping** - The subdivision will comply with the Landscape Manual's perimeter and street tree planting requirements.
- **Stormwater Management** - Stormwater management (SWM) will provide environmental site design (ESD) to the maximum extent practicable (MEP), in accordance with Chapter 5 of the M.D.E. Storm Water Design Manual, Volumes I and II. Stormwater management will utilize micro-bioretenion facilities (M-6), a bio-swale (M-8), rooftop disconnects (N-1), non-rooftop disconnects (N-2), sheetflow to buffer (N-3), and dry-wells (M-5).
- **Adequate Public Facilities Ordinance (APFO):**

Roads Test - The Highland Road and Brighton Dam Road and the Highland Road and Mink Hollow Road intersections were tested. The Development Engineering Division (DED) determined that both will operate at an acceptable level-of-service.

Schools Test - This project is in the Rural West Allocation (Planning) Area, the West School Region, the Dayton Oaks Elementary School District, and the Lime Kiln Middle School District. Following a signed Decision and Order, the housing unit allocations and the open/closed schools tests will be performed.

III. Planning Board Criteria:

In accordance with Maryland Senate Bill 236 (SB-236) "The Sustainable Growth and Agricultural Preservation Act of 2012", the following criteria must be considered by the Planning Board when evaluating this Preliminary Equivalent Sketch Plan.

1. **The cost of providing local governmental services to the residential major subdivision unless a local jurisdiction's Adequate Public Facilities Ordinance already requires a review of government services.**

Howard County has an Adequate Public Facilities Ordinance, therefore, this requirement has been met.

2. **The potential environmental issues or a natural resources inventory related to the proposed residential major subdivision.**

The site has two perennial streams that enter from the north and south, combine, and then flow east to Carroll Branch. Floodplains are associated with the streams and are shown on the plans. The environmental assessment also shows the southern stream channel to include wetlands that extend beyond the floodplain. These are generally forested, although some have a limited tree canopy. Section 16.116.(a) of the Subdivision and Land Development Regulations requires a 100-foot buffer for a perennial stream and a 25-foot buffer for a wetland. It also prohibits disturbing streams and wetlands and requires them to be located in a non-buildable preservation parcel.

Some minor disturbances to stream buffers are proposed to accommodate use-in-common driveways, which requires an Alternative Compliance Petition (WP-17-034).

This site contains 25 specimen trees between 30” to 62.5” in diameter, which vary by species (oak, maple, poplar) and condition. The developer proposes removing ten due to poor tree health and driveway/house locations. Removal has been requested through Alternative Compliance Petition (WP-17-128).

The subdivision avoids and preserves existing environmental resources as much as possible and eliminates on-going disturbances related to horse farm operations. An existing stream crossing will be retained to access the existing house, which will remain, and lots 12-15 and buildable preservation parcel A. Minor disturbances to the stream buffer are proposed to retrofit the existing driveway so that it meets current county standards.

A bridge crossing is proposed along southern portion of the site to access lots 4-9. The bridge and abutments will be designed to avoid disturbing the stream and impacts to the 100-year floodplain. The driveway approaches to the bridge require minor disturbances to the stream buffer, which are addressed by Alternative Compliance Petition (WP-17-034).

SRC Action: The developer was notified that subdivision plan, SP-17-007, was **technically complete** in a November 8, 2017, letter; subject to complying with Subdivision Review Committee (SRC) comments and any conditions by the Planning Board.

Recommendation: The Department of Planning and Zoning recommends the Planning Board approve Preliminary Equivalent Sketch Plan, SP-17-007, The Estates at River Hill, subject to complying with the SRC comments and any conditions by the Planning Board.

Please note that this file is available for public review by appointment at the Department of Planning and Zoning’s public service counter, Monday through Thursday, 8:00 a.m. to 5:00 p.m. and on Friday 8:00 a.m. to 3:00 p.m.


Valdis Lazdins, Director
Department of Planning and Zoning

11/22/17
Date

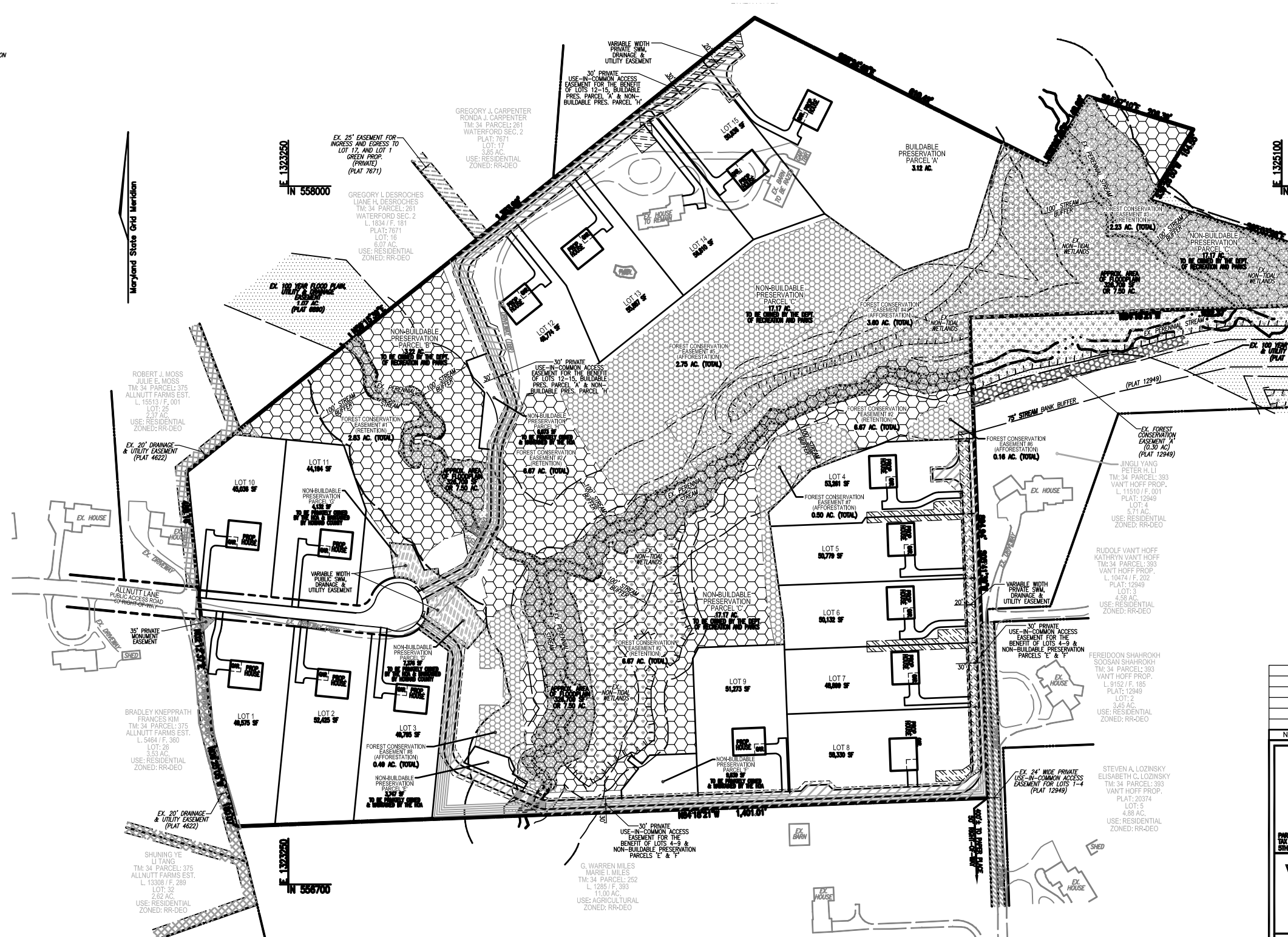
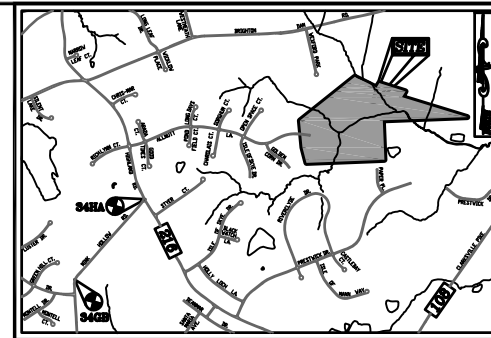
LEGEND:

- PROPERTY LINE
- RIGHT-OF-WAY LINE
- ADJACENT PROPERTY LINE
- EXISTING EDGE OF PAVING
- EXISTING STREAM BUFFER
- EXISTING STREAM
- EXISTING WETLANDS
- EXISTING WETLAND BUFFER
- EX. PUBLIC 100-YEAR FLOOD PLAIN
- PROP. PRIVATE USE-IN-COMMON ACCESS EASEMENT
- PROP. VARIABLE WIDTH PRIVATE SWM, DRAINAGE & UTILITY EASEMENT
- EX. 25' EASEMENT FOR INGRESS AND EGRESS TO LOT 17, AND LOT 1 GREEN PROP. (PRIVATE) (PLAT 7671)
- EX. 24' WIDE PRIVATE USE-IN-COMMON ACCESS EASEMENT FOR LOTS 1-4 (PLAT 12949)
- EX. FOREST CONSERVATION EASEMENT #1 (PLAT 12949)
- EX. 20' DRAINAGE & UTILITY EASEMENT (PLAT 4622)
- PROP. PUBLIC SWM, DRAINAGE & UTILITY EASEMENT
- PROP. 35' PRIVATE MONUMENT EASEMENT

THE ESTATES AT RIVER HILL

LOTS 1-15, BUILDABLE PRESERVATION PARCEL 'A', AND NON-BUILDABLE PRESERVATION PARCELS 'B' - 'H'

A RE-SUBDIVISION OF THE "GREENE PROPERTY", LOT 1
13550 ALLNUTT LANE
HIGHLAND, MD 20777



TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR _____ DATE _____

OVERALL PLAN
SCALE: 1"=100'

OWNER
RENE L. GELBER
JEANNE M. GELBER
13550 ALLNUTT LANE
HIGHLAND, MD 20777
(410) 480-0023

DEVELOPER
TRINITY QUALITY HOMES, INC.
JEANNE M. GELBER
13550 ALLNUTT LANE
ELLICOTT CITY, MD 21043
(410) 480-0023

NO.	REVISION	DATE

PRELIMINARY EQUIVALENT SKETCH PLAN
OVERALL PLAN SHEET
THE ESTATES AT RIVER HILL
LOTS 1-15, BUILDABLE PRESERVATION PARCEL 'A',
AND NON-BUILDABLE PRESERVATION PARCELS 'B' - 'H'
A RE-SUBDIVISION OF THE "GREENE PROPERTY", LOT 1

PROJ. NO. 309
SAY MAP: 34 GRID: 23
SAY ELECTION DISTRICT

ZONED: RR-DEO
L. 4772 / F. 285
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

STATE OF MARYLAND
ROBERT H. VOGEL, PE No. 16193

DESIGN BY: RHV
DRAWN BY: JMR
CHECKED BY: RHV
DATE: NOVEMBER 2017
SCALE: AS SHOWN
W.O. NO.: 15-39

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193 EXPIRATION DATE: 09-27-2018

1 SHEET OF 1

LEGEND:

- PROPERTY LINE
RIGHT-OF-WAY LINE
ADJACENT PROPERTY LINE
EXISTING EDGE OF PAVING
EXISTING STREAM BUFFER
EXISTING STREAM
EXISTING WETLANDS
EXISTING WETLAND BUFFER
EX. PUBLIC 100-YEAR FLOOD PLAN
PROP. PRIVATE USE-IN-COMMON ACCESS EASEMENT
PROP. VARIABLE WIDTH PRIVATE SWM, DRAINAGE & UTILITY EASEMENT
EX. 25' EASEMENT FOR INGRESS AND EGRESS TO LOT 17, AND LOT 1 GREEN PROP. (PRIVATE) (PLAT 7671)
EX. 24' WIDE PRIVATE USE-IN-COMMON ACCESS EASEMENT FOR LOTS 1-4 (PLAT 12949)
EX. FOREST CONSERVATION EASEMENT 'A' (PLAT 12949)
EX. 20' DRAINAGE & UTILITY EASEMENT (PLAT 4622)
PROP. PUBLIC SWM, DRAINAGE & UTILITY EASEMENT
PROP. 35' PRIVATE MONUMENT EASEMENT

SITE DATA

LOCATION: TAX MAP 34, BLOCK 23
PARCEL: 389
5TH ELECTION DISTRICT
PRESENT ZONING: RR-DEO
GROSS AREA OF PROJECT: 42.41 AC.
AREA OF RIGHT-OF-WAY DEDICATION: 0.60 AC.
LIMIT OF DISTURBANCE: 16.32 AC.
PROPOSED USE OF SITE: RESIDENTIAL (SFD)
NUMBER OF RESIDENTIAL LOTS PROPOSED: 16 LOTS
AREA OF RESIDENTIAL LOTS PROPOSED: 20.63 AC.
IMPERVIOUS AREA: 3.35 AC.
AREA OF STREAM/BUFFER: 12.75 AC.
AREA OF WETLANDS/BUFFER: 9.11 AC.
AREA OF MODERATE SLOPES (15% - 24.99%): 0.00 AC.
AREA OF STEEP SLOPES (25% OR GREATER): 0.00 AC.
AREA OF FLOOD PLAIN: 7.50 AC.
NET PROJECT AREA: 34.91 AC.
AREA OF EXISTING FOREST COVER: 12.60 AC.
AREA OF ERODIBLE SOILS: 0.39 AC.
AREA MANAGED BY ESDV (THIS PLAN): 16.32 AC.
*IMPERVIOUS AREA: 3.35 AC.
*GREEN AREA: 12.97 AC.
DPZ REFERENCES: ECP-16-064, WP-17-034, WP-17-128

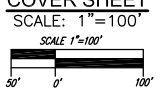
LOT AREA TABULATION

Table with columns: LOT, GROSS AREA, PIPESTEM AREA, NET AREA. Lists 16 lots with their respective areas.

DENSITY EXCHANGE TABULATION

Table with columns: RECEIVING PARCEL INFORMATION, GROSS ACREAGE OF PARCEL, NET ACREAGE OF PARCEL, MAXIMUM NUMBER OF UNITS ALLOWED BY RIGHT, MAXIMUM NUMBER OF DENSITY UNITS ALLOWED, PROPOSED PROJECT UNITS, NUMBER OF UNITS REQUIRED, SENDING PARCEL INFORMATION.

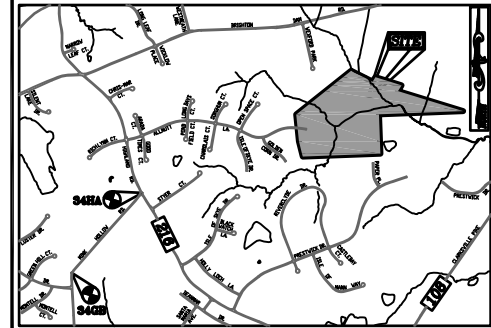
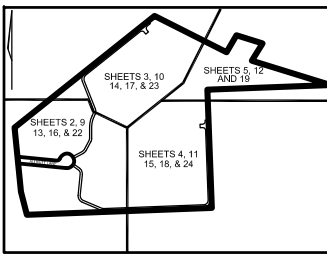
COVER SHEET



PARKING TABULATION:

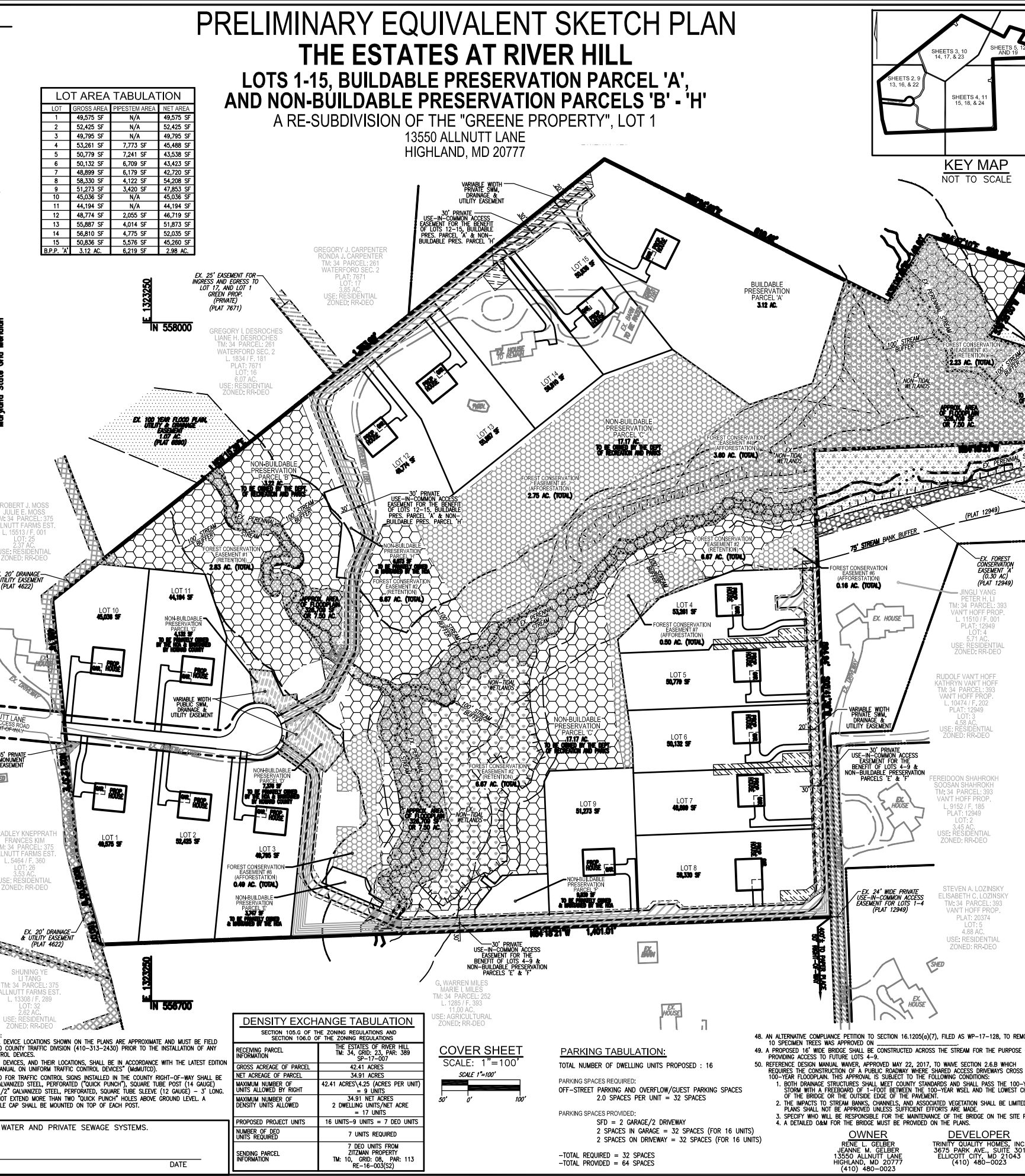
TOTAL NUMBER OF DWELLING UNITS PROPOSED: 16
PARKING SPACES REQUIRED: 64
PARKING SPACES PROVIDED: 64

PRELIMINARY EQUIVALENT SKETCH PLAN
THE ESTATES AT RIVER HILL
LOTS 1-15, BUILDABLE PRESERVATION PARCEL 'A', AND NON-BUILDABLE PRESERVATION PARCELS 'B' - 'H'
A RE-SUBDIVISION OF THE "GREENE PROPERTY", LOT 1
13550 ALLNUTT LANE
HIGHLAND, MD 20777



BENCHMARKS
HOWARD COUNTY BENCHMARK 34GB (CONC. MON.)
N 553966.73 E 131752.53 ELEV. 505.18
LOCATION: MINK HOLLOW RD. 0.45 MI. SW OF HIGHLAND RD.

- GENERAL NOTES
1. THE PROJECT BOUNDARY IS BASED ON PRECISION INPUT FROM RECORD PLAT #5208, GREENE PROPERTY, LOT 1.
2. THE EXISTING TOPOGRAPHY HAS BEEN TAKEN FROM THE EXISTING SURVEY AND SHOWN WITH FIELD RUN SURVEYS PREPARED BY ROBERT H. VOGEL ENGINEERING, INC., DATED MARCH AND MAY OF 2016.
3. 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. 34HA AND 34GB WERE USED FOR THIS PROJECT.
4. THE SUBJECT PROPERTY IS ZONED "RR-DEO" IN ACCORDANCE WITH THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN.
5. THIS SITE IS NOT LOCATED IN A HISTORIC DISTRICT OR IN THE METROPOLITAN DISTRICT.
6. TO THE BEST OF THE OWNERS KNOWLEDGE, THERE ARE NO BURIAL GROUNDS, CEMETERIES, OR HISTORIC STRUCTURES LOCATED ON THIS PROPERTY.
7. AN ENVIRONMENTAL CONCEPT PLAN (ECP-16-064) WAS APPROVED ON DECEMBER 21, 2016.
8. A PRE-SUBMISSION COMMUNITY MEETING WAS HELD ON MARCH 23, 2016 AT 6:00 PM AT THE BOARD ROOM AT CLARET HALL. A SECOND COMMUNITY MEETING WAS HELD ON FEBRUARY 21, 2017, AT THE SAME TIME AND LOCATION AS THE FIRST.
9. THIS PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS, UNLESS ALTERNATIVE COMPLIANCE REQUESTS HAVE BEEN APPROVED.
10. A TOTAL OF 23 LOTS ARE PROPOSED UNDER THIS PLAN.
11. THE PROPOSED UNITS SHALL HAVE AN AUTOMATIC FIRE PROTECTION SPRINKLER SYSTEM.
12. ALLNUTT LANE IS CLASSIFIED AS A PUBLIC ACCESS ROAD. NO IMPROVEMENTS TO THE EXISTING ROAD ARE PROPOSED. THE PROPOSED EXTENSION OF ALLNUTT LANE SHALL CONFORM WITH GUIDELINES WITHIN THE DESIGN MANUAL.
13. 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 SERVING MORE THAN ONE RESIDENCE).
B) SURFACE - 6 INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING.
C) GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% CHANGE AND MINIMUM OF 45-FOOT TURNING RADIUS.
D) STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOADING).
E) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100-YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE.
F) STRUCTURE CLEARANCES - MINIMUM 12 FEET.
G) MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE.
14. AN APFD TRAFFIC STUDY WAS PREPARED BY THE TRAFFIC GROUP AND APPROVED SEPTEMBER 21, 2017.
15. A NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT.
16. IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL - VOLUME 2 - SECTION 2.9.B. AND THE HOWARD COUNTY ZONING REGULATIONS SECTION 133.0.0.2.2, PARKING IS REQUIRED AT 2.0 SPACES PER UNIT OFF STREET PARKING TO INCLUDE GARAGE SPACES, DRIVEWAY, PARKING PADS AND COURSES. GARAGES COUNT AS TWO SPACES. SEE TABULATION THIS SHEET.
17. STREET LIGHTING IS NOT REQUIRED FOR THIS SITE IN ACCORDANCE WITH SECTION 16.13.5 OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
18. ALL LOTS/RESIDENTIAL UNITS IN THIS SUBDIVISION ARE SUBJECT TO THE MIHU FEE-IN-LIEU REQUIREMENT THAT IS TO BE CALCULATED AND PAID TO THE DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS AT THE TIME OF BUILDING PERMIT ISSUANCE BY THE APPLICANT.
19. IN ACCORDANCE WITH SECTION 16.121(A)(2) OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, OPEN SPACE IS NOT REQUIRED FOR PROJECTS ZONED RR-DEO.
20. IN ACCORDANCE WITH SECTIONS 105.0 AND 106.0 OF THE ZONING REGULATIONS, THIS PROJECT IS BEING DEVELOPED UTILIZING THE CLUSTER ZONING REQUIREMENTS AND DENSITY EXCHANGE OPTION. THIS SUBDIVISION REQUIRES 7 DWELLING UNITS FROM AN ELIGIBLE SENDING PARCEL.
21. FLAG AND PIPESTEM LOTS, BOUNDARY COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPESTEM AND ROAD RIGHT-OF-WAY LINE AND NOT ONTO THE PIPESTEM LOT DRIVEWAY.
22. LOTS 4 - 12-15, BUILDABLE PRESERVATION PARCEL 'A', AND NON-BUILDABLE PRESERVATION PARCELS 'B', 'C', 'E', 'F', AND 'H' WILL UTILIZE A USE-IN-COMMON DRIVEWAY. A USE-IN-COMMON MAINTENANCE AGREEMENT FOR THE SHARED DRIVEWAYS SHALL BE RECORDED SIMULTANEOUSLY WITH THE FINAL PLAN.
23. A PRIVATE RANGE OF ADDRESS SIGN ASSEMBLY SHALL BE FABRICATED BY HOWARD COUNTY BUREAU OF HIGHWAYS AT THE DRIVEWAY ACCESS POINT ONTO ALLNUTT LANE AT THE DEVELOPER'S/OWNER'S EXPENSE. CONTACT THE COUNTY TRAFFIC DIVISION AT 410-313-5752 FOR DETAILS AND COST ESTIMATES. THE R1-1 (STOP) SIGN AND THE STREET NAME SIGN (S1) ASSIGNED FOR THIS DEVELOPMENT MUST BE INSTALLED BEFORE THE BASE PAVING IS COMPLETED.
24. LOCATION OF EXISTING WELL AND SEPTIC SYSTEM FEATURES ON GREENE PROPERTY, LOT 1, TAKEN FROM PUBLIC RECORDS AND FIELD SURVEYS.
25. THE WELL AND SEPTIC SYSTEM DISTRIBUTION BOX AND TRENCHES SERVING THE EXISTING HOUSE MUST BE PROPERLY ABANDONED, WITH DOCUMENTATION SUBMITTED TO THE HEALTH DEPARTMENT, PRIOR TO THE HEALTH DEPARTMENT SIGNATURE OF THE FINAL RECORD PLAT.
26. THIS PROPERTY IS IN GROWTH TIER III, PER SB-236. MAJOR SUBDIVISIONS OF 5 LOTS OR MORE ARE PERMITTED UTILIZING ON-LINE COMMUNITY SEPTIC SYSTEMS OR A SHARED FACILITY IN HOWARD COUNTY SUBJECT TO PLANNING BOARD REVIEW AND APPROVAL RECOMMENDATION.
27. WATER AND SEWER SERVICE TO BE PROVIDED BY PRIVATE WELLS AND SEPTIC SYSTEMS.
28. NO RARE, THREATENED OR ENDANGERED SPECIES OR THEIR HABITATS WERE OBSERVED ON THE PROPERTY.
29. THERE IS APPROXIMATELY 7.50 ACRES OF 100-YR FLOODPLAIN LOCATED WITHIN THE LIMITS OF THIS SITE.
30. APPROXIMATE FLOODPLAIN DELINEATION GENERATED FROM PRELIMINARY HEC-RAS ANALYSIS, PREPARED BY ROBERT H. VOGEL ENGINEERING, INC.
31. WETLANDS SHOWN ON-SITE ARE BASED ON A FIELD INVESTIGATION PERFORMED BY JOHN CANOLES OF ECO-SCIENCE PROFESSIONALS, INC. DATED JUNE 10, 2016. THERE WILL BE LIMITED DISTURBANCES TO THE PERENNIAL STREAM SYSTEM, STREAM BUFFERS, WETLANDS OR WETLAND BUFFERS.
32. A FOREST STAND DELINEATION AND ENVIRONMENTAL AND ENVIRONMENTAL ASSESSMENT WAS PERFORMED BY JOHN CANOLES OF ECO-SCIENCE PROFESSIONALS, INC., DATED JUNE 10, 2016.
33. NO GRADING, REMOVAL OF VEGETATION OR TREES, PAVING OR ROAD STRUCTURES SHALL BE PERMITTED WITHIN THE WETLANDS, STREAMS, OR THEIR REQUIRED BUFFERS, FOREST CONSERVATION EASEMENT AREAS AND 100-YEAR FLOODPLAIN, UNLESS WAIVER APPROVAL IS GRANTED.
34. WETLANDS AND THEIR BUFFERS WILL NOT BE IMPACTED BY THE CONSTRUCTION OF THE SITE.
35. AN ALTERNATIVE COMPLIANCE PETITION (WP-17-034) HAS BEEN FILED FOR A STREAM CROSSING/STREAM BUFFER DISTURBANCES. A SEPARATE ALTERNATIVE COMPLIANCE HAS BEEN FILED FOR THE REMOVAL OF SPECIMEN TREES.
36. FOREST CONSERVATION REQUIREMENTS AS SET FORTH IN SECTION 16.1202 OF THE HOWARD COUNTY CODE AND THE FOREST CONSERVATION MANUAL, 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.
37. THE FOREST CONSERVATION OBLIGATION TO BE FULFILLED BY THE PLACEMENT OF 7.41 ACRES INTO RETENTION EASEMENTS AND BY THE PLACEMENT OF 3.90 ACRES INTO AFFORESTATION EASEMENT. 3.90 ACRES OF ADDITIONAL AFFORESTATION HAVE BEEN PROVIDED FOR THE PURPOSE OF A FOREST BANK. PLAN DEVELOPERS AGREEMENT.
38. PERIMETER LANDSCAPING AND TRASH PAD SCREENING FOR THIS DEVELOPMENT SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 16.124 OF THE LANDSCAPE MANUAL. POSTING OF FINANCIAL SURETY WILL BE PROVIDED IN CONNECTION WITH THE FINAL PLAN AND PLAT.
39. LANDSCAPING IS PROVIDED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. A FINANCIAL SURETY IN THE AMOUNT OF \$29,100.00 FOR THE REQUIRED 78 SHADE TREES, 19 STREET TREES AND 10 SHRUBS SHALL BE POSTED AT THE TIME OF FINAL PLAT SUBMISSION.
40. CERTIFIED TEST PITS HAVE BEEN PROVIDED TO VERIFY THAT GROUNDWATER AND ROCK ARE NOT PRESENT AT RAIN GARDEN AND MICRO-BIORETENTION LOCATIONS. INFORMATION REGARDING THE FINDINGS IS LOCATED IN THE SWM REPORT.
41. STORM WATER MANAGEMENT TO BE PROVIDED FOR THIS DEVELOPMENT BY ENVIRONMENTAL SITE DESIGN UTILIZING MICRO-BIORETENTION FACILITIES (M-6), A BIO-SWALE (M-8), ROOFTOP DISCONNECTS (N-1), NON-ROOFTOP DISCONNECTS (N-2), SHEETFLOW TO BUFFER (N-3), AND DRY WELLS (M-5). THE FACILITIES WILL BE PRIVATELY OWNED AND MAINTAINED BY THE HOMEOWNERS ASSOCIATION OR THE PRIVATE LOT OWNER. REFERENCE 2010 MDE STORMWATER DESIGN MANUAL, CHAPTER 9.
42. THIS PROJECT IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE ZONING REGULATIONS EFFECTIVE OCTOBER 6, 2013.
43. PER SECTION 105.0.0.1.4, NON-BUILDABLE PRESERVATION PARCELS 'B' AND 'C' WILL BE DEDICATED TO THE HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS WITH HOWARD COUNTY MD AS THE EASEMENT HOLDER.
44. PROTECTIVE DEVICES THAT DETER HEAVY EQUIPMENT MUST BE INSTALLED AROUND WELLS PRIOR TO COMMENCEMENT OF GRADING OPERATIONS. TO ENHANCE VISIBILITY OF THE WELLS LOCATIONS, PLASTIC ORANGE FENCING SHOULD BE INCLUDED.
45. ANY CHANGES TO A PRIVATE SEWAGE DISPOSAL AREA SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
46. ALL WELLS AND SEPTIC SYSTEMS LOCATED WITHIN 100' OF THE PROPERTY BOUNDARIES AND 200' DOWN GRADIENT OF ANY WELLS OR SEPTIC SYSTEMS HAVE BEEN SHOWN.
47. THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND DEPARTMENT OF ENVIRONMENT.
48. AN ALTERNATIVE COMPLIANCE PETITION TO SECTION 16.1205(6)(7), FILED AS WP-17-128, TO REMOVE 10 SPECIMEN TREES WAS APPROVED ON 11/10/2017.
49. A PROPOSED 18' WIDE BRIDGE SHALL BE CONSTRUCTED ACROSS THE STREAM FOR THE PURPOSE OF PROVIDING ACCESS TO LOTS 4-9.
50. REFERENCE DESIGN MANUAL W/AVR, APPROVED MAY 22, 2017, TO WAIVE SECTION 2.6.B WHICH REQUIRES THE CONSTRUCTION OF A PUBLIC ROADWAY WHERE SHARED ACCESS DRIVEWAYS CROSS A 100-YEAR FLOODPLAIN. THIS APPROVAL IS SUBJECT TO THE FOLLOWING CONDITIONS:
1. BOTH DRAINAGE STRUCTURES SHALL MEET COUNTY STANDARDS AND SHALL PASS THE 100-YEAR FLOOD WITH A FREEBOARD OF 1-FOOT BETWEEN THE 100-YEAR WSEL AND THE LOWEST CHORD OF THE BRIDGE OR THE OUTSIDE EDGE OF THE PAVEMENT.
2. THE IMPACTS TO STREAM BANKS, CHANNELS, AND ASSOCIATED VEGETATION SHALL BE LIMITED. THE PLANS SHALL NOT BE APPROVED UNLESS SUFFICIENT EFFORTS ARE MADE.
3. SPECIFY WHO WILL BE RESPONSIBLE FOR THE MAINTENANCE OF THE BRIDGE ON THE SITE PLANS.
4. A DETAILED O&M FOR THE BRIDGE MUST BE PROVIDED ON THE PLANS.



SHEET INDEX table with columns: COVER SHEET, DESCRIPTION, SHEET NO. Lists various sheets including site layout, grading, drainage, and landscape plans.

Professional certificate for Robert H. Vogel Engineering, Inc. including project name, location, and sheet information.

MATCHLINE - SHEET 2

NOTE: NO AREAS OF STEEP SLOPES AS HATCHED HEREON ARE REGULATED PER SECTION 16.116 OF THE HOWARD COUNTY SUB. REG'S.

MATCHLINE - SHEET 2
MATCHLINE - SHEET 3

WARNING!
INSTALL HIGHLY VISIBLE AND PROTECTIVE DEVICES AROUND WELLS PRIOR TO COMMENCEMENT OF GRADING OPERATIONS. MAINTAIN PROTECTIVE DEVICES THROUGHOUT DURATION OF CONSTRUCTION ACTIVITIES

NOTE: LOCATE STOCKPILE AS SHOWN HEREON OR AS DIRECTED BY THE SEDIMENT CONTROL INSPECTOR. STOCKPILES EXCEEDING 15 FEET IN HEIGHT SHALL BE BENCHED.

LEGEND:

- PROPERTY LINE
- RIGHT-OF-WAY LINE
- ADJACENT PROPERTY LINE
- EXISTING EDGE OF PAVING
- EXISTING STREAM BUFFER
- EXISTING STREAM
- EXISTING TREETLINE
- PROPOSED TREETLINE
- EXISTING WETLANDS
- EXISTING WETLAND BUFFER
- EXISTING SPECIMEN TREES
- EXISTING WOOD FENCE
- EXISTING METAL FENCE
- EX. PUBLIC 100-YEAR FLOOD PLAN
- EX. 20' DRAINAGE & UTILITY EASEMENT (PLAT 12945)
- PROP. PRIVATE USE-IN-COMMON ACCESS EASEMENT
- PROP. PUBLIC SWM, DRAINAGE & UTILITY EASEMENT
- PROP. 35' PRIVATE MONUMENT EASEMENT
- EXISTING 10' CONTOUR
- EXISTING 2' CONTOUR
- SOILS
- PROPOSED 10' CONTOUR
- PROPOSED 2' CONTOUR
- EXISTING STEEP SLOPES (20% SLOPES OR GREATER)
- EXISTING MODERATE SLOPES (15% TO 19.99% SLOPES)
- PROP. SEWAGE DISPOSAL AREA
- PROP. WELL AREA
- LIMIT OF DISTURBANCE
- STABILIZED CONSTRUCTION ENTRANCE
- SUPER SILT FENCE
- SILT FENCE
- DIVERSION FENCE

SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	GROUP	K-FACTOR	ERODIBLE
BuA	BAILL SILT LOAM, 0 TO 3 PERCENT SLOPES	C/D	.37	NO
Co	ODORUS AND HATBORO SILT LOAMS, 0 TO 3 PERCENT SLOPES	C	.32	NO
GbB	GLADSTONE LOAM, 3 TO 8 PERCENT SLOPES	A	.28	NO
GbC	GLADSTONE LOAM, 8 TO 15 PERCENT SLOPES	A	.28	NO
GmB	GLENNVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES	C	.43	YES
Ha	HATBORO-CODORUS SILT LOAMS, 0 TO 3 PERCENT SLOPES	B/D	.37	YES

-SOILS INFORMATION FROM USDA WEB SOIL SURVEY WEBSITE
-HOWARD COUNTY SOILS MAP NUMBER 16 - CLARKSVILLE NW

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

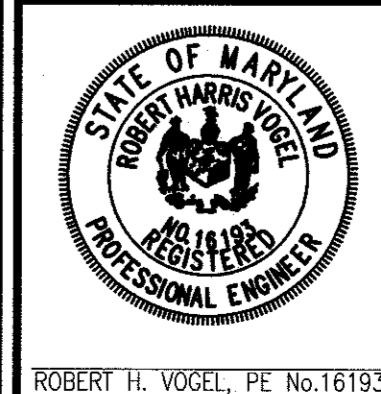
NO.	REVISION	DATE

PRELIMINARY EQUIVALENT SKETCH PLAN
PRELIMINARY SEDIMENT CONTROL PLAN

THE ESTATES AT RIVER HILL
LOTS 1-15, BUILDABLE PRESERVATION PARCEL 'A',
AND NON-BUILDABLE PRESERVATION PARCELS 'B' - 'H'
A RE-SUBDIVISION OF THE 'GREENE PROPERTY', LOT 1

PARCEL: 389 ZONED: RR-DEO
TAX MAP: 34 GRID: 23 4772 / F. 285
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

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



DESIGN BY: RHV
DRAWN BY: KG
CHECKED BY: RHV
DATE: NOVEMBER 2017
SCALE: AS SHOWN
W.O. NO.: 15-39

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE 09-27-2018.

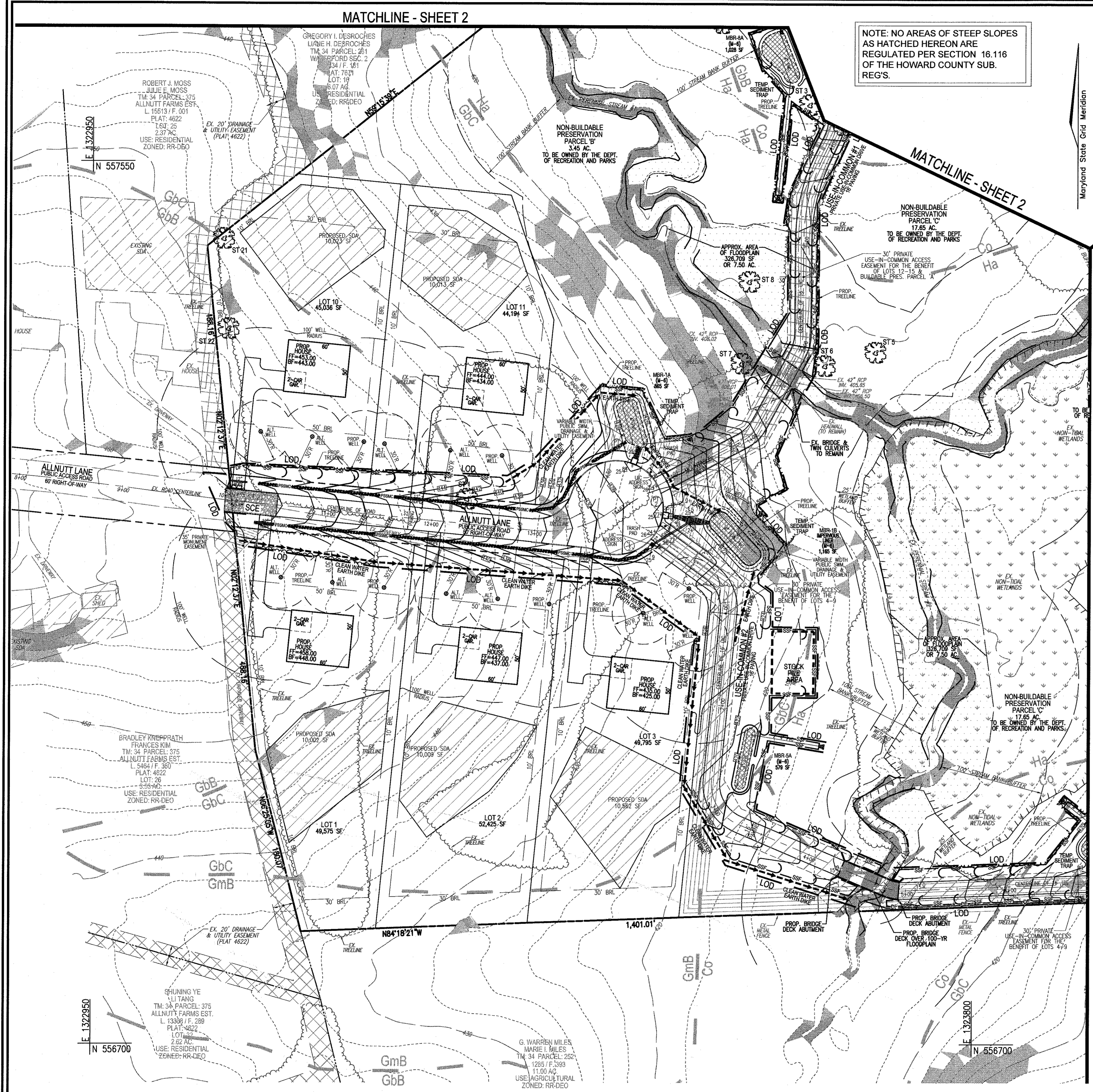
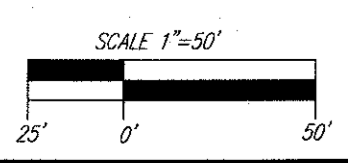
1 SHEET OF 3

OWNER
RENE L. GELBER
JEANNE M. GELBER
13550 ALLNUTT LANE
HIGHLAND, MD 20777
(410) 480-0023

DEVELOPER
TRINITY QUALITY HOMES, INC.
3675 PARK AVE., SUITE 301
ELLICOTT CITY, MD 21043
(410) 480-0023

PRELIMINARY SEDIMENT CONTROL PLAN

SCALE: 1"=50'



MATCHLINE - SHEET 3

E 1322950
N 557550

E 1322950
N 556700

E 1322900
N 556700

SOILS LEGEND				
SYMBOL	NAME / DESCRIPTION	GROUP	K-FACTOR	ERODIBLE
GbA	BALF SILT LOAM, 0 TO 3 PERCENT SLOPES	C/D	.37	YES
Gc	CODORUS AND HAYBROOK SILT LOAMS, 0 TO 3 PERCENT SLOPES	C	.32	NO
GbB	GLADSTONE LOAM, 3 TO 8 PERCENT SLOPES	A	.28	NO
GcC	GLADSTONE LOAM, 8 TO 15 PERCENT SLOPES	A	.28	NO
GbB	GLENNVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES	C	.43	YES
Hb	HAYBROOK-CODORUS SILT LOAMS, 0 TO 3 PERCENT SLOPES	B/D	.37	YES

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

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LEGEND:	
	PROPERTY LINE
	RIGHT-OF-WAY LINE
	ADJACENT PROPERTY LINE
	EXISTING EDGE OF PAWING
	EXISTING STREAM BUFFER
	EXISTING STREAM
	EXISTING TREELINE
	PROPOSED TREELINE
	EXISTING WETLANDS
	EXISTING WETLAND BUFFER
	EXISTING SPECIMEN TREES
	EXISTING WOOD FENCE
	EXISTING METAL FENCE
	EX. PUBLIC 100-YEAR FLOOD PLAIN
	PROP. PRIVATE USE-IN-COMMON ACCESS EASEMENT
	PROP. VARIABLE WIDTH PRIVATE SWM, DRAINAGE & UTILITY EASEMENT
	EX. 25' EASEMENT FOR INGRESS AND EGRESS TO LOT 17 AND LOT 1 GREEN PROP. (PRIVATE) (PLAT 7671)
	EXISTING 10' CONTOUR
	EXISTING 2' CONTOUR
	SOILS
	PROPOSED 10' CONTOUR
	PROPOSED 2' CONTOUR
	EXISTING STEEP SLOPES (20% SLOPES OR GREATER)
	EXISTING MODERATE SLOPES (15% TO 19.99% SLOPES)
	PROP. SEWAGE DISPOSAL AREA
	PROP. WELL AREA
	LOD
	SCE
	LIMIT OF DISTURBANCE
	STABILIZED CONSTRUCTION ENTRANCE
	SSP
	SF
	DF
	SUPER SILT FENCE
	SILT FENCE
	DIVERSION FENCE

NOTE: LOCATE STOCKPILE AS SHOWN HEREON OR AS DIRECTED BY THE SEDIMENT CONTROL INSPECTOR. STOCKPILES EXCEEDING 15 FEET IN HEIGHT SHALL BE BENCHED.

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MAINTAIN PROTECTIVE DEVICES THROUGHOUT DURATION OF CONSTRUCTION ACTIVITIES

PRELIMINARY SEDIMENT CONTROL PLAN
SCALE: 1"=50'

NO.	REVISION	DATE
PRELIMINARY EQUIVALENT SKETCH PLAN PRELIMINARY SEDIMENT CONTROL PLAN THE ESTATES AT RIVER HILL LOTS 1-15, BUILDABLE PRESERVATION PARCEL 'A', AND NON-BUILDABLE PRESERVATION PARCELS 'B' - 'H' A RE-SUBDIVISION OF THE "GREENE PROPERTY", LOT 1		
PARCEL: 388 TAX MAP: 34 GRID: 23 5TH ELECTION DISTRICT	ZONED: RR-DEO L: 4772 / F: 285 HOWARD COUNTY, MARYLAND	
ROBERT H. VOGEL ENGINEERING, INC. ENGINEERS • SURVEYORS • PLANNERS 8407 MAIN STREET, ELICOTT CITY, MD 21043 TEL: 410.461.7666 FAX: 410.461.8961		
DESIGN BY: RHW DRAWN BY: KG CHECKED BY: RHW DATE: NOVEMBER 2017 SCALE: AS SHOWN W.O. NO.: 15-39	I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2018	PROFESSIONAL CERTIFICATE ROBERT H. VOGEL, PE No. 16193
2 SHEET OF 3		3

OWNER
RENE L. GELBER
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(410) 460-0023

E 13243300
N 558300

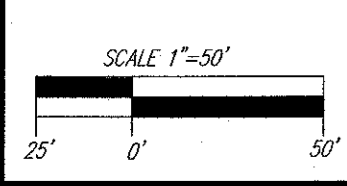
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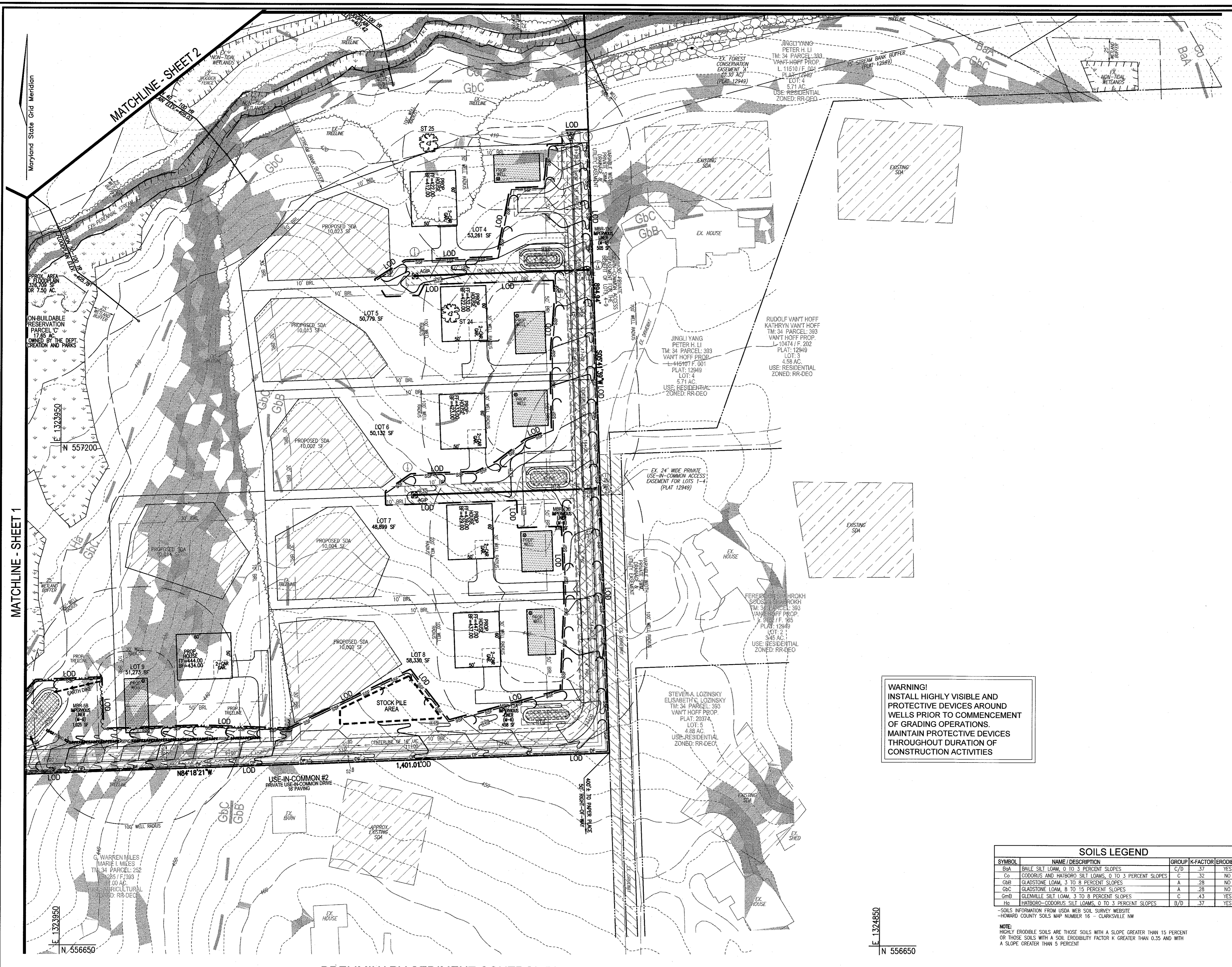
MATCHLINE - SHEET 1

MATCHLINE - SHEET 3

E 1324250
N 557800

MATCHLINE - SHEET 3





LEGEND:

- PROPERTY LINE
- RIGHT-OF-WAY LINE
- ADJACENT PROPERTY LINE
- EXISTING EDGE OF PAVING
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- PROP. PRIVATE USE-IN-COMMON ACCESS EASEMENT
- PROP. VARIABLE WIDTH PRIVATE SWM, DRAINAGE & UTILITY EASEMENT
- EX. 24' WIDE PRIVATE USE-IN-COMMON ACCESS EASEMENT FOR LOTS 1-4 (PLAT 12949)
- EX. FOREST CONSERVATION EASEMENT 'A' (PLAT 12949)
- EXISTING 10' CONTOUR
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- SCE - STABILIZED CONSTRUCTION ENTRANCE
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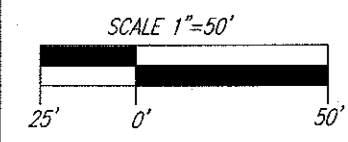
SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	GROUP	K-FACTOR	ERODIBLE
BaA	BAILE SILT LOAM, 0 TO 3 PERCENT SLOPES	C/D	.37	YES
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Gmb	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES	C	.43	YES
Hg	HATBORO-CODORUS SILT LOAMS, 0 TO 3 PERCENT SLOPES	B/D	.37	YES

SOILS INFORMATION FROM USDA WEB SOIL SURVEY WEBSITE
-HOWARD COUNTY SOILS MAP NUMBER 16 - CLARKSVILLE NW

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PRELIMINARY SEDIMENT CONTROL PLAN
SCALE: 1"=50'



PRELIMINARY EQUIVALENT SKETCH PLAN
PRELIMINARY SEDIMENT CONTROL PLAN

THE ESTATES AT RIVER HILL
LOTS 1-15, BUILDABLE PRESERVATION PARCEL 'A',
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A RE-SUBDIVISION OF THE 'GREENE PROPERTY', LOT 1

PARCEL: 399 ZONED: RR-DEO
TAX MAP: 34 GRID: 23 L 4772 / F. 285
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

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DESIGN BY: RHY
DRAWN BY: KG
CHECKED BY: RHY
DATE: NOVEMBER 2017
SCALE: AS SHOWN
W.O. NO.: 15-39

PROFESSIONAL CERTIFICATE
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 09-27-2018

3 SHEET OF 3

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