HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
3430 Courthouse Drive ■ Ellicott City, Maryland 21043 ■ 410-313-2350

Marsha S. McLaughlin, Director

www.howardcountymd.gov
FAX 410-313-3467
TDD 410-313-2323

TECHNICAL STAFF REPORT

AUTUMN RIVER, PHASE IV

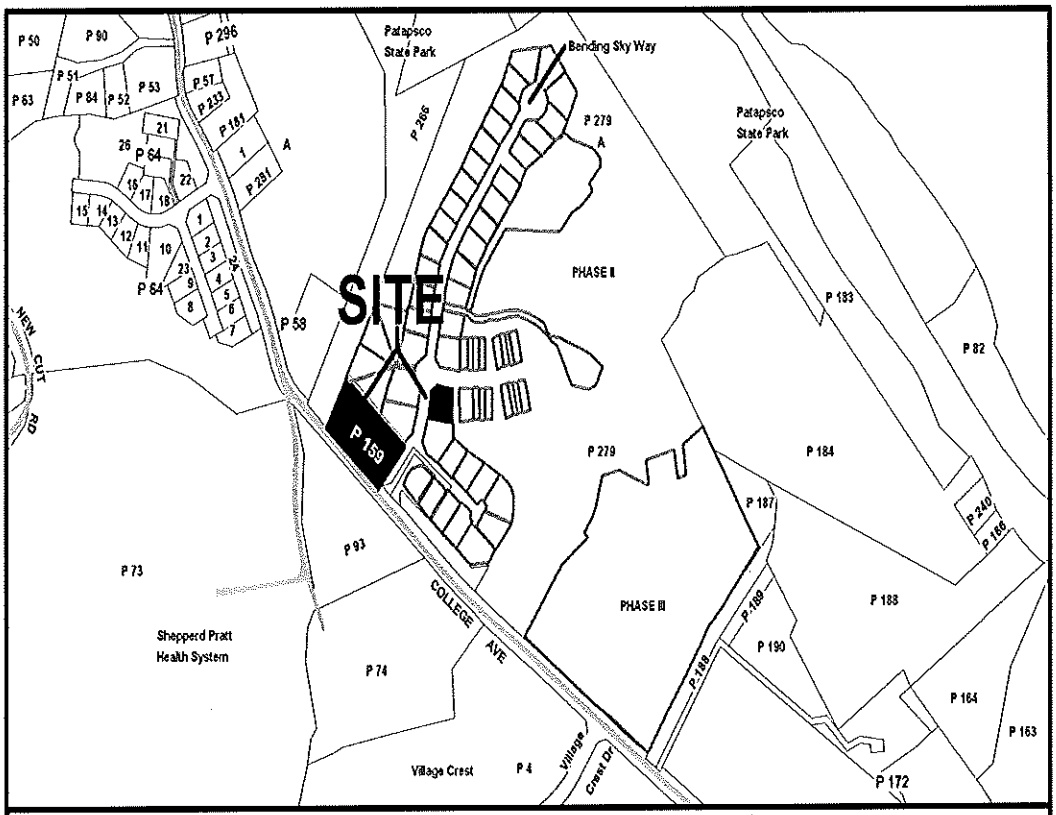
Planning Board Hearing of June 7, 2012 at 7:00 p.m.

Case No./Petitioner: **PB Case No. 393, Autumn River Corporation**

Project Name: Autumn River, Phase IV, Lots 111-117, 137 and 138, and Open Space Lot 118

Request: For Planning Board approval of a Preliminary Equivalent Sketch Plan, SP-12-001 for the resubdivision of Non-Buildable Bulk Parcels C and F of Autumn River, Phase II and a subdivision of Parcel 159 for 9 single-family attached (SFA) residential lots, and 1 open space lot on a property zoned "R-ED" (Residential-Environmental Development). In accordance with Section 107.E of the Howard County Zoning Regulations, the Planning Board must evaluate and approve this subdivision plan at a public hearing.

Recommendation: **The Department of Planning and Zoning recommends approval of this Preliminary Equivalent Sketch Plan, subject to compliance with comments issued from the Subdivision Review Committee.**



Vicinity Map: PB 393 Autumn River Ph IV NORTH NOT TO SCALE

Location: The area of the subject property is approximately 3.93 acres and is located on the north side of College Avenue, west of Village Crest Drive, on Tax Map No. 25, Grid Nos. 14 and 21, Parcel No. 159 and part of Parcel Nos. 172, and 279, in the Second Election District of Howard County, Maryland. The subject property is zoned "R-ED" (Residential-Environmental Development).

Vicinal Properties:

The project is surrounded by the following properties:

North - Located along the north side of this site is the Patapsco Valley State Park which is zoned R-ED (Residential Environmental Development).

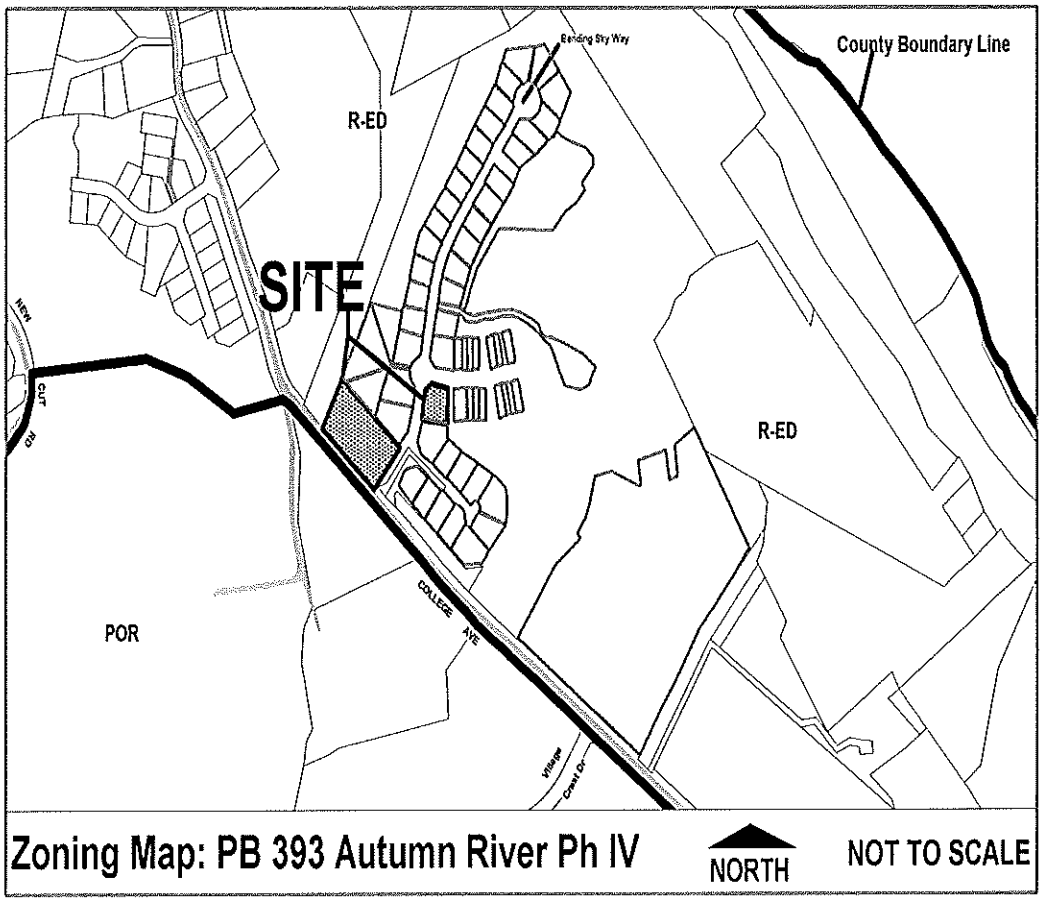
East - Located on the east side of this site is Phase II of the Autumn River Subdivision which is zoned R-ED. Abutting Phase II is the Patapsco Valley State Park.

South - Located along the south side of the site is College Avenue which is a scenic road.

West – Located along the west side is the Patapsco Valley State Park which is zoned R-ED.

I. General Comments:

A. **Legal Notices** – The subject property was properly posted with one (1) official Planning Board notice located at the site entrance onto College Avenue as verified by the Department of Planning and Zoning staff. Certifications that the legal advertisements appeared in the Baltimore Sun on May 5, 2012, and in the Howard County Times on May 3, 2012, were placed into the file for the record.



Zoning Map: PB 393 Autumn River Ph IV

B. A pre-submission community meeting for this project was held on September 22, 2010.

C. **Regulatory Compliance** – This project is subject to compliance with the Howard County Subdivision and Land Development Regulations, the Howard County Zoning Regulations, the Design Manual, the Adequate Public Facilities Ordinance, the Forest Conservation Manual and the Landscape Manual.

D. **General Plan** – The subject property is consistent with the 2000 Howard County General Plan with a residential land use designation.

E. **Site History:**

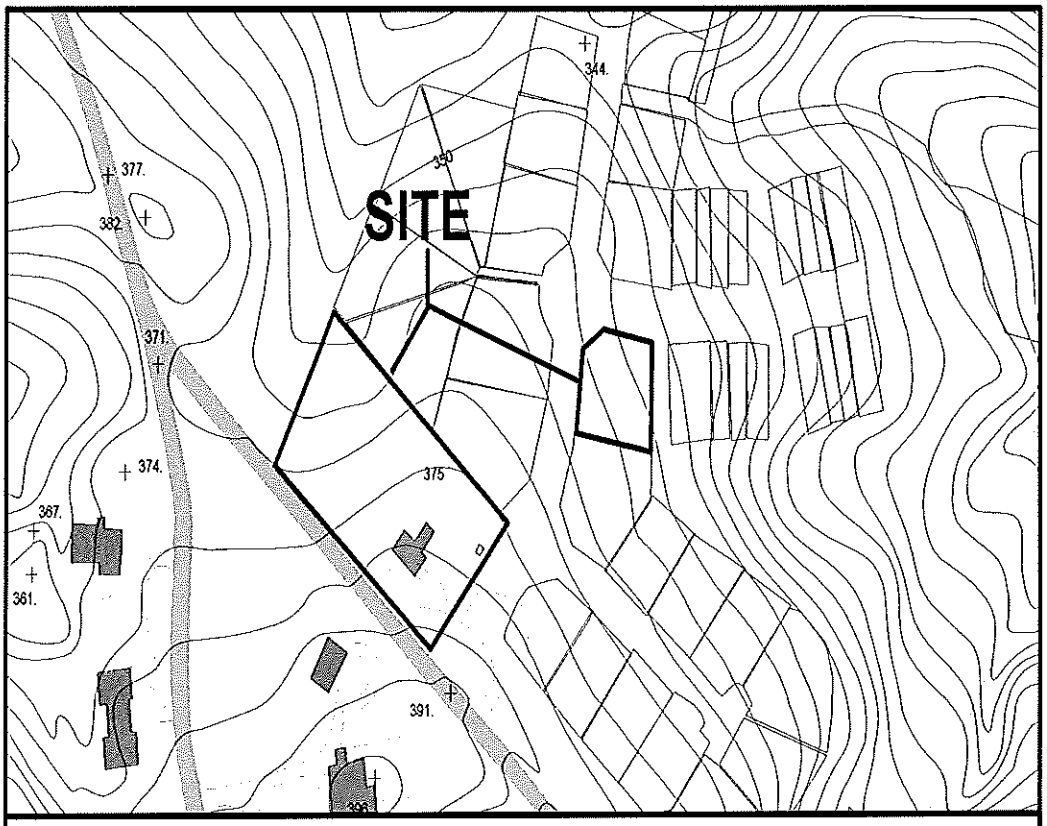
Subdivision Plans

- **S-98-016** – The Sketch Plan received signature approval by DPZ on May 15, 2001 and was approved by the Planning Board on April 18, 2001. This plan was approved for 17 single-family attached lots and 80 single-family detached lots.
- **F-00-131** - A final plat was recorded on November 3, 2000 to establish 2 residential lots, 1 open space lot and a bulk parcel on the subject property for Phase I.
- **P- 07-016** – The Preliminary Plan for Phase II received signature approval on March 4, 2008, for 45 single-family detached lots and 15 single-family attached lots, 6 open space lots and 2 non-buildable bulk parcels.
- **P-08-006** – The Preliminary Plan for Phase III received signature approval on September 4, 2009 for 33 single-family detached lot and 2 single-family attached lots and 6 open space lots.
- **F-09-021** – The final plan for Phase II was granted technically complete on March 9, 2011, by the Subdivision Review Committee. This plan consists of 45 single-family detached lots, 15 single-family attached lots, 4 open space lots and 3 non-buildable parcels. The road construction drawings received signature approval on July 19, 2010 and the developer's agreement was executed on December 16, 2010. Signature approval and recordation of the final plat is pending approval of this Planning Board case and the completion of the Autumn River Pump Station.
- **F-10-067** – The final plan for Phase III was granted technically complete on December 9, 2010 by the Subdivision Review Committee. This plan consists of 33 single-family detached lots, 2 single-family attached lots, and 6 open space lots. The road construction drawings received signature approval on March 29, 2011 and the deadline date for the completion of the developer's agreement is October 5, 2012.
- **SDP-10-014** – The site development plan for the Autumn River Wastewater Pump Station was granted technically complete on February 25, 2010 by the Subdivision Review Committee and the plan received signature approval on September 21, 2011.
- **SP-12-001** – The preliminary equivalent sketch plan for Phase IV is for 9 single-family attached lots and 1 open space lot. On February 13, 2012, the Subdivision Review Committee determined the plan to be technically complete.
- **WP-11-206** - A waiver petition was processed and approved by DPZ on July 25, 2011, for the removal of a 39" Silver Maple specimen tree and to extend the distance for a private road from 200' to 247'.

F. **Site and Density Information Chart**: Overall Density for Autumn River (4 Phases)

Total Gross Site Area	69.62 acres
Minus 100-Year Floodplain Area	1.62 acres
Minus 25% or Greater Steep Slope Area (Area outside of floodplain)	15.75 acres
Total Net Site Area	52.25 acres
Total Based Density Permitted (2 units per net acre)	104 lots
Total Density Proposed (9 units for Phase IV)	104 lots
Total Area of Proposed Residential Lots	14.35 acres
Approximate Limit of Disturbance (45% of total site)	31.67 acres
Total Open Space Required Phases I, II and III - 25% of gross site area; Phase IV - 50% of gross site area	18.25 acres
Total Credited Open Space Proposed (68.5% of gross area)	47.71 acres
Total Recreational Open Space Required	26,260 sq.ft.
Total Recreational Open Space Proposed	29,324 sq.ft.

Ninety-seven (97) lots were approved under Sketch Plan, S-98-016. With the merging of adjacent Parcel 159 into this project and the reconfiguration of two lots approved under the Sketch Plan, nine single-family attached lots are being proposed under this Planning Board case for Phase IV. The approval of this case will allow for the maximum lot yield of 104 units for the Autumn River project.



Topography Map: PB 393 Autumn River Ph IV NORTH NOT TO SCALE

G. **Access and Structures** – Public road access for this subdivision will be provided by a new public road, Bending Sky Way, from College Avenue. The new public road is a 40-foot wide right-of-way. Phase IV will be served by a private road for 7 single-family attached lots. The remaining 2 single-family attached lots will obtain their access via the new public road. The site (Parcel 159) is improved with one existing house which will be removed. There are no historic structures, cemeteries or grave sites located on this property.

Water and Sewer Service – The site is located within the Metropolitan District and will be served by public water and sewer facilities. This project is subject to the completion of the Autumn River Wastewater Pump Station.

Environmental Characteristics:

Forest Cover – The area of the proposed single-family attached lots for Phase IV does not contain a forest.

Topography – Phase IV (9 single-family attached units) is rectangular in shape and the overall site gently slopes to the northern property boundary. The area of the two resubdivided single-family attached lots has been graded as part of Phase II of the subdivision under F-09-021 and is fairly flat and slopes to the eastern property boundary.

Wetlands, Streams and 100-Year Floodplain – Phase IV (Parcel 159 and proposed Lots 137 and 138) does not contain any wetlands, streams or 100-year floodplain.

Noise Mitigation – Noise mitigation is not required for this project.

H. **Proposed Development Plan:**

Subdivision Plan – The development plan for Phase IV consists of 9 residential lots for single-family attached dwellings and 1 open space lot. The typical lot sizes range from 1,824 to 5,693 square feet in area. Seven (7) of the proposed single-family attached lots will directly abut open space areas and will have direct access onto a private road. A sidewalk will be provided along the front of the units and connect to the sidewalk along the internal public road. The two (2) additional single-family attached lots (Lots 137 and 138) will abut a single-family detached lot and have direct access onto a public road which will contain a sidewalk. Stormwater management will be provided on-site for this subdivision using micro bioretention facilities and rooftop disconnects.

Forest Conservation – The developer submitted the required Forest Conservation Plan for the entire project identifying areas of proposed forest retention easements. Phase IV complies with the forest conservation requirements of the Howard County Code with on-site retention easements in the amount of .21 acres. The Forest Conservation Easement is located within Phase II of the Autumn River subdivision. The overall forest conservation obligation for the project is 31.55 acres.

Landscaping – Phase IV will comply with the perimeter and street tree landscaping requirements of the Landscape Manual. Perimeter landscaping (1 shade tree per 40' and 1 evergreen tree per 20') requirements will be addressed with new landscape plants provided along College Avenue, a perimeter landscaping (1 shade tree per 40' and 1 evergreen per 20') of the property adjacent to the Patapsco Valley State Park, and a perimeter landscaping (1 shade tree per 50' and 1 evergreen per 40') along a portion of the new public road. The proposed landscaping meets the requirements of the Landscaping Manual.

Adequate Public Facilities:

Roads Test - This subdivision passed the test of the Adequate Public Facilities Ordinance (APFO) for vicinal major road intersection adequacy within 1.5 miles from the site access. The required key intersection analyzed for this project was the intersection of Maryland Route 144 (Main Street) and Old Columbia Pike. The traffic impact analysis prepared by The Traffic Group (developer's consultant) dated November 2, 2011, determined that the intersection will continue to operate at an acceptable level of service through the design year of 2014. The studied intersection is projected to maintain acceptable Levels of Service "B" or better during both the morning and evening peak hour which satisfies Howard County Adequate Road Facilities Test Evaluation requirements. The DPZ, Development Engineer Division approved the APFO roads test for this project on February 7, 2012.

Schools Test – This project is located in the Ellicott City Planning Area, the Northeast School Region, the Worthington Elementary School District and the Ellicott Mills Middle School District. Upon issuance of the Decision and Order for this hearing, the test for availability of housing unit allocations and school capacity will be taken. At the present time, housing unit allocations are available in the Ellicott City Planning Area and the elementary and middle schools are open.

II. Planning Board Criteria:

In accordance with Section 107.E.6 of the Howard County Zoning Regulations, the following 3 criteria must be considered by the Planning Board when evaluating the Preliminary Equivalent Sketch Plan which is being developed pursuant to the "R-ED" Zoning District Regulations.

1. **The proposed lay-out of lots and open space effectively protects environmental and historic resources.**

   The proposed development plan for Phase IV will establish 1 open space lot approximately 0.90 acres in size which will surround the single-family attached lots proposed along College Avenue. A landscaping buffer will be provided to screen the lots from College Avenue. This open space lot will be dedicated to the Homeowners Association.

   There are no historic structures or resources located on this property.

   This development plan accomplishes protection of the environmental resources on the site by employing the following design techniques:

   - Phase IV is using clustered residential single-family attached units to minimize disturbance.
   - The proposed houses, driveways, utilities and public roads will be located on land that does not contain environmental features.
   - The limit of disturbance for Phase IV is only 1.09. The total limit of disturbance for the project is 31.67 acres or 45% of the total site area.
   - By maximizing the amount of environmental open space with the establishment of more the 68.5% open space areas on-site for the entire project which exceeds the minimum open space requirement. The 68.5% open space areas include the open space being provided in Phases II, III and IV. The open space lot proposed as part of Phase IV of the development does not contain environmental features.

Therefore, the proposed subdivision plan was designed to effectively protect, preserve and minimize the limits of disturbance of the environmental and historic resources.

2. **Buildings, parking areas, roads, storm water management facilities and other site features are located to take advantage of existing topography and to limit the extent of clearing and grading as follows:**

   - The proposed residential lots, the public and private roads and bioretention facilities are located on gently sloped areas and will be clustered to minimize site disturbance.

   - The limit of disturbed area for Phase IV including the new private road, public utilities, pad sites for building lots and storm water management facilities will involve approximately 1.09 acres or 27% of Phase IV.

   The proposed subdivision plan design has been determined adequate in taking advantage of the uniqueness of the site's topography by minimizing the limits of clearing and grading necessary to construct houses, the private road, SWM facilities and public utilities.

3. **Setbacks, landscaped buffers and other methods are proposed to buffer the development from existing neighborhoods or roads, especially from designated scenic roads or historic districts.**

   - A 75-foot setback is required and provided for all proposed residential dwellings from the project boundary for Phase IV adjoining College Avenue.

   - The proposed single-family attached units for Phase IV will face towards College Avenue to avoid backing onto the Scenic Road.

   - An enhanced heavy Type "C" landscaped buffer (1 shade tree per 40' and 1 evergreen per 20') will be provided along the project's boundary perimeter adjacent to the Patapsco Valley State Park property and will be provided along College Avenue (scenic road) for Phase IV.

   Compliance with the required 75' setback and enhanced landscape planting along the project's perimeter for Phase IV will adequately buffer the proposed development from the scenic road and adjacent properties.

SRC Action:

The Subdivision Review Committee (SRC), by letter dated February 13, 2012, determined this subdivision plan, SP-12-001, to be approvable, subject to compliance with their comment as follows:

1. All plan comments were addressed or only minor comments remain with the following agencies: Division of Land Development, Development Engineering Division, Department of Recreation and Parks, Soil Conservation District, Department of Fire and Rescue Services, Health Department, Department of Inspections, Licenses and Permits and the Public School System.

Recommendation:

In conclusion, this subdivision plan proposal meets or exceeds the objectives of the Planning Board Criteria in accordance with the "R-ED" Zoning Regulations and the Subdivision and Land Development Regulations. Therefore, based upon all of the above findings, the Department of Planning and Zoning recommends approval of this Preliminary Equivalent Sketch Plan, SP-12-001, subject to compliance with the SRC agency comments.

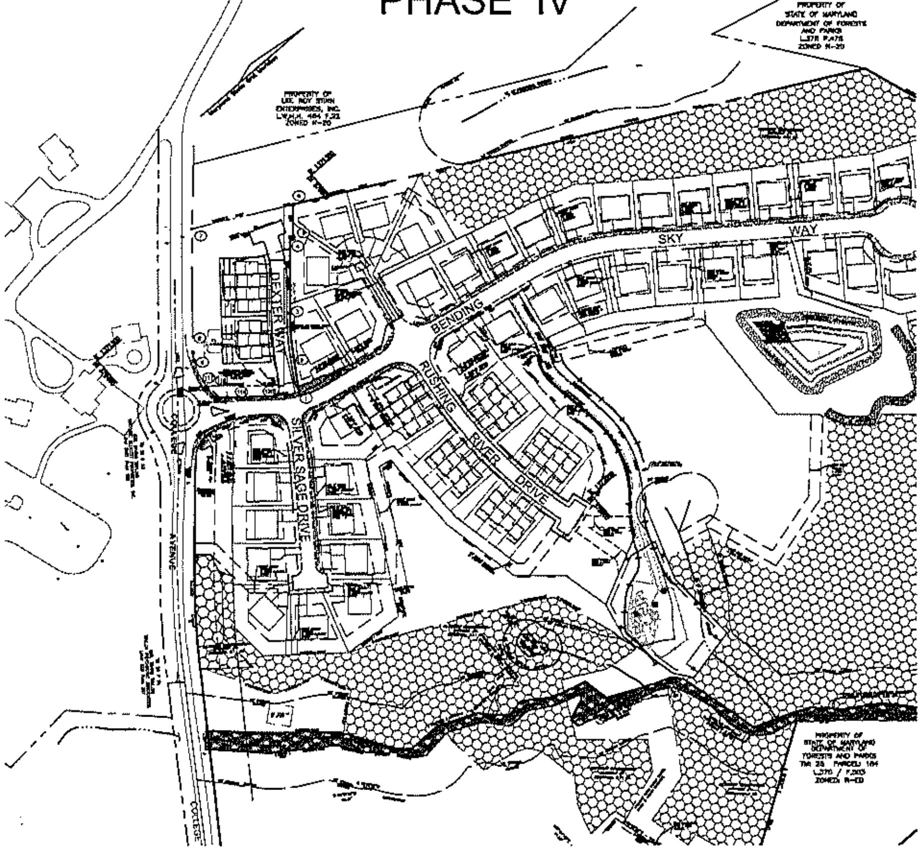
Marsha S. McLaughlin, Director
Department of Planning and Zoning

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

PRELIMINARY EQUIVALENT SKETCH PLAN
AUTUMN RIVER PHASE IV

GENERAL NOTES

1. ALL ASPECTS OF THE PROJECT ARE IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
2. THE PROJECT BOUNDARY SHOWN HEREON IS BASED ON A BOUNDARY SURVEY PREPARED BY FISHER, COLLINS & CARTER, INC. DATED FEBRUARY 14, 2000, WHICH WAS VERIFIED AS CORRECT BY ROBERT H. VOGEL ENGINEERING, INC. IN MARCH 2010.
3. THE TOPOGRAPHY SHOWN HEREON IS BASED ON AN AERIAL TOPOGRAPHIC SURVEY PREPARED BY WINGS AERIAL MAPPING COMPANY, INC. PHOTOGRAPHED MARCH 1985.
4. FOREST STAND DELINEATION PLAN PREPARED BY ROBERT H. VOGEL ENGINEERING, INC. DATED FEBRUARY 2011.
5. THE FOREST CONSERVATION OBLIGATION FOR THE REQUIRED 0.21 ACRES OF AFFORESTATION WILL BE MET BY A FOREST BANK: COLLEGE AVENUE PUMP STATION, AUTUMN RIVER BULK PARCEL 'B', SDP-10-081.
6. TO THE BEST OF THE OWNERS KNOWLEDGE, THERE ARE NO CEMETERIES OR GRAVE SITES LOCATED ON THE SUBJECT PROPERTY.
7. THERE ARE NO FLOODPLAIN, WETLANDS, STREAMS OR STEEP SLOPES WITHIN PARCEL 159.
8. THIS PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. DEVELOPMENT OR CONSTRUCTION OF THESE LOTS MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, WAIVER PETITION, OR BUILDING AND GRADING PERMITS.
9. THE SUBJECT PROPERTY IS ZONED "R-ED" IN ACCORDANCE WITH THE 2/2/04 COMPREHENSIVE ZONING PLAN AND THE COMP. LITE ZONING REGULATIONS EFFECTIVE ON 7/28/06.
10. A TRAFFIC STUDY WAS PREPARED BY THE TRAFFIC GROUP, INC., DATED JULY 2010.
11. ALL DRIVEWAY ENTRANCES SHALL UTILIZE HOWARD COUNTY STANDARD DETAIL NO. R-6.03 MODIFIED FOR SIDEWALK ADJACENT TO CURB.
12. WETLANDS SHOWN ON-SITE ARE BASED ON A FIELD INVESTIGATION PREPARED BY ECO-SCIENCE PROFESSIONALS, INC., DATED JUNE 02, 2010. THERE ARE NO PROPOSED DISTURBANCES TO THE WETLANDS OR ASSOCIATED BUFFERS.
13. ALL CURB AND GUTTER TO BE HOWARD COUNTY MODIFIED DETAIL R-3.01 UNLESS OTHERWISE NOTED.
14. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL. A FINANCIAL SURETY IN THE AMOUNT OF $20,550.00 FOR THE REQUIRED 49 SHADE TREES AND 39 EVERGREEN TREES SHALL BE POSTED WITH THE DEVELOPERS AGREEMENT FOR THIS PLAN.
15. PUBLIC STREET TREES ARE PROVIDED FOR THIS PROJECT IN ACCORDANCE WITH SECTION 16.124(a)(1) OF THE SUBDIVISION REGULATIONS AND THE LANDSCAPE MANUAL. FINANCIAL SURETY IN THE AMOUNT OF $8,400.00 SHALL BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT FOR THE REQUIRED 28 STREET TREES.
16. EXISTING UTILITIES ARE BASED ON HOWARD COUNTY RECORDS AND FIELD SURVEY.
17. STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURE AND POLE SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME III, AND AS MODIFIED BY GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS. A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREETLIGHT AND ANY TREE.
18. ALL SIGN POST USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE - 3' LONG). A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON THE TOP OF EACH POST.
19. NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE WETLANDS, WETLANDS BUFFER, STREAM BANK BUFFER, OR FOREST CONSERVATION EASEMENTS.
20. WATER AND SEWER FOR THIS PROJECT WILL BE PUBLIC THROUGH CONTRACT 14-4463-D.
21. STORM WATER MANAGEMENT TO BE PROVIDED FOR THIS DEVELOPMENT BY ENVIRONMENTAL SITE DESIGN UTILIZING 2 MICRO BIO-RETENTION FACILITIES AND ROOFTOP DISCONNECTS FOR THE PARCEL 159 DEVELOPMENT. STORMWATER MANAGEMENT FOR THE ADDITIONAL UNITS LOCATED ON PHASE II IS PROVIDED UNDER F-09-021.
22. SEDIMENT AND EROSION CONTROL WILL BE PROVIDED FOR THIS SITE.
23. A NOISE STUDY IS NOT REQUIRED FOR THIS SUBDIVISION.
24. THE EXISTING STRUCTURES LOCATED ON PARCEL 159 AND SHALL BE REMOVED PRIOR TO RECORDATION OF THE PLAT.
25. COLLEGE AVENUE IS A SCENIC ROAD.
26. DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
    A) WIDTH – 14 FEET (16 FEET IF 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% 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 CLEARANCE – MINIMUM 17 FEET
    G) MAINTENANCE – SUFFICIENT TO INSURE ALL WEATHER USE
27. 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. 30440058 AND 30440048 WERE USED FOR THIS PROJECT.
28. THIS PLAN IS SUBJECT TO WP-11-208 TO SECTION 16.120(c)(4) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATION TO EXTEND THE DISTANCE ALONG A PRIVATE ROAD FROM 200' TO 247' AND TO SECTION 16.120(b)(7) FOR THE REMOVAL OF THE EXISTING 33" SILVER MAPLE SPECIMEN TREE. APPROVAL IS SUBJECT TO THE FOLLOWING CONDITIONS:
    A) ON THE PRELIMINARY EQUIVALENT SKETCH PLAN AND ALL FUTURE SUBDIVISION PLANS AND SITE DEVELOPMENT PLANS, PROVIDE A BRIEF DESCRIPTION OF WAIVER PETITION, WP-11-208, AS A GENERAL NOTE TO INCLUDE REQUEST, SECTIONS OF THE REGULATIONS, ACTION AND DATE.
    B) THE PRIVATE ROAD MUST BE CONSTRUCTED TO PUBLIC ROAD STANDARDS IN ACCORDANCE WITH THE COMMENTS FROM THE DEVELOPMENT ENGINEERING DIVISION DATED JULY 8, 2011.
    C) PROVIDE A TYPE 'C' BUFFER ALONG THE COLLEGE AVENUE (SCENIC ROAD) PROPERTY BOUNDARY. THESE TREES MUST BE A MINIMUM 2-1/2" TO 3" CALIPER SHADE TREES AND 6'-8' IN HEIGHT EVERGREENS. OF THE REGULATIONS, ACTION AND DATE.
    D) WAIVER APPROVAL IS LIMITED TO THE REMOVAL OF THE ONE 33" SILVER MAPLE TREE AS SHOWN ON THE WAIVER EXHIBIT.
    E) THE DEVELOPER SHALL DESIGN THIS SUBDIVISION PROPOSAL TO BE IN ACCORDANCE WITH THE SCENIC ROAD PROTECTION REQUIREMENTS OF SECTION 16.125 OF THE SUBDIVISION REGULATIONS.
29. STORMWATER MANAGEMENT TEST PITS #1 & #2 WITHIN THE PROPOSED MICRO BIORETENTION AREAS TO DETERMINE THE DEPTH OF ROCK AND WATER WAS DONE JULY 2011. AS A RESULT NO ROCK OR WATER ARE WITHIN 4' OF THE BOTTOM OF THE FACILITIES.
30. PLANNING BOARD CASE NO. ______ APPROVED BY PLANNING BOARD ON ______
31. IN ACCORDANCE WITH SECTION 107.0.1.a OF THE HOWARD COUNTY ZONING REGULATIONS, LOT COVERAGE FOR ALL SINGLE FAMILY ATTACHED UNITS WITHIN THE ENTIRE AUTUMN RIVER SUBDIVISION WILL NOT EXCEED 40% OF THE GROSS ACREAGE OF EACH SINGLE FAMILY ATTACHED LOT.
32. A PRIVATE ROAD STREET NAME SIGN ASSEMBLY 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.
33. BOAC APPROVAL WILL BE PROVIDED AT THE FINAL PLAN PHASE FOR PHASE IV.



LOCATION MAP
SCALE: 1"=100'

COORDINATE TABLE

NO.	NORTHING	EASTING
[illegible]	[illegible]	[illegible]

CURVE TABLE

CURVE	LENGTH	RADIUS	DELTA	TANGENT	CHORD	CHORD LENGTH
[illegible]	[illegible]	[illegible]	[illegible]	36.17	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

PARKING TABULATION:

TOTAL NUMBER OF UNITS PROPOSED : 27
PARKING SPACES REQUIRED: 2 SPACES PER UNIT = 54 SPACES
0.3 SPACES PER UNIT FOR GUEST/OVERFLOW PARKING= 8 SPACES
TOTAL PARKING SPACES REQUIRED = 62 SPACES
PARKING SPACES PROVIDED: 2 GARAGE/1 DRIVEWAY=3 SPACES
2 SPACES IN GARAGE= 54 SPACES (FOR 27 UNITS)
1 SPACE ON DRIVEWAY=27 SPACES(FOR 27 UNITS)

TOTAL PARKING SPACES PROVIDED: =84 SPACES

MILESTONES CHART

THE PROJECT IS LOCATED IN THE NORTHFIELD ELEMENTARY SCHOOL DISTRICT, THE NORTH EAST SCHOOL REGION AND THE ELLICOTT MILLS MIDDLE SCHOOL DISTRICT AND HAS PASSED THE OPEN/CLOSED SCHOOLS TEST GIVEN ALL AREAS ARE OPEN. THE NEW ALLOCATION YEARS AND MILESTONE DATES FOR SUBMISSION OF THE PRELIMINARY PLANS BASED ON THE PHASING. IF THE MILESTONE DATES ARE NOT MET S-98-018 WILL BE VOIDED.

PHASE	NO. TENTATIVE ALLOCATIONS	ALLOCATION YEAR	PRELIMINARY PLAN SUBMISSION MILESTONES
PHASE II	58	2009	BETWEEN JULY 1, 2006 AND JAN. 1, 2007
PHASE III	37	2010	BETWEEN JULY 1, 2007 AND NOV. 1, 2007

NOTE: REFERENCE S-98-018 LETTER DATED OCTOBER 12, 2005.

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR ______ DATE ______

PREVIOUS AUTUMN RIVER DENSITY TABULATION

PHASE	TOTAL SUBDIVISION AREA (GROSS AREA)	PREVIOUSLY RECORDED PLATS	FLOODPLAIN	STEEP SLOPES	NET AREA	UNITS PERMITTED BY NET AREA	UNITS PROPOSED	TOTAL UNITS REMAINING
I (F-00-131)	48.229 AC.	(# 14513)	–	–	–	–	63	102
II (F-09-021)	37.344 AC.	(# 14513)	0.86	5.786 AC.	30.70 AC.	61.40	60*	44
III (F-10-087)	10.885 AC. 20.297 AC.	(# 14513) (# 15794)	0.76	8.664 AC.	20.46 AC.	40.92	35**	9
IV (SP-12-001)	1.09 AC.(PARCEL 159) INCLUDES 2.84 AC FROM PHASE II		–	–	1.09 AC.	2.18	27***	0
TOTAL	69.62 AC.		1.62	15.76 AC.	52.25 AC.	104.50	104	0

SKETCH PLAN S-98-018 APPROVED 95 UNITS PLUS 2 EXISTING UNITS TOTALING 97 UNITS (LETTER DATED OCTOBER 15, 2005)
* PHASE II PLAN PROPOSED 58 UNITS PLUS 2 EXISTING UNITS FOR A TOTAL OF 60 UNITS
** THIS PLAN PROPOSES 33 UNITS PLUS 2 UNITS FROM THE RESUBDIVISION OF PHASE II NON BUILDABLE BULK PARCEL D INTO 2 LOTS FOR A TOTAL OF 35 UNITS
*** THERE ARE 16 UNITS RESUBDIVIDED (17 TOWNHOUSE AND 1 SINGLE FAMILY) FROM PHASE II TO BE RECONFIGURED. THERE ARE 27 UNITS PROPOSED UNDER PHASE IV NETTING THE 8 ADDITIONAL UNITS ALLOWED.

PUROPSE STATEMENT

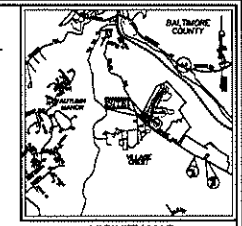
THE PURPOSE OF THIS PRELIMINARY EQUIVALENT SKETCH PLAN IS TO ANNEX PARCEL 159 INTO THE AUTUMN RIVER COMMUNITY, ADD 7 TOWNHOUSE UNITS TO PARCEL 159, REMOVE ONE SINGLE FAMILY UNIT FROM AUTUMN RIVER II AND RECONFIGURE THE TOWNHOUSE UNITS ALONG RUSHING RIVER DRIVE BY ADDING 3 ADDITIONAL TOWNHOUSE UNITS.

SHEET INDEX

DESCRIPTION	SHEET NO.
COVER SHEET	1 OF 6
AUTUMN RIVER OVERALL PHASE EXHIBIT	2 OF 6
SITE LAYOUT	3 OF 6
GRADING, EROSION SEDIMENT CONTROL, AND SOILS MAP	4 OF 6
ROAD PROFILES AND PLAN DETAILS	5 OF 6
LANDSCAPE AND FOREST CONSERVATION PLAN	6 OF 6

LEGEND

PROPERTY LINE
RIGHT-OF-WAY LINE
ADJACENT PROPERTY LINE
EXISTING CURB AND GUTTER
EXISTING UTILITY POLE
EXISTING LIGHT POLE
EXISTING SIGN
EX. USE-IN-COMMON ACCESS EASEMENT
PROPOSED SIDEWALK
PROPOSED CURB
PROPOSED STREET LIGHT
EX. FOREST CONSERVATION (RETENTION)
PR. 20' PRIVATE DRAINAGE AND UTILITY EASEMENT
EX. 10' PUBLIC DRAINAGE, TREE MAINTENANCE & UTILITY EASEMENT



VICINITY MAP
SCALE: 1"=2000'
ADC MAP COORDINATE: PG. 4815 G3

BENCHMARKS

BENCHMARK NO. 1 COUNTY CONTROL #30440058
3/4" REBAR 0.8' BELOW SURFACE
N. 576233.93 E. 1473142.33
ELEV. = 374.306

BENCHMARK NO. 2 COUNTY CONTROL #30440048
3/4" REBAR 0.6' BELOW SURFACE
N. 576128.03 E. 1473440.71
ELEV. =342.878

GENERAL SITE DATA(PARCEL 159)

PRESENT ZONING: R-ED
LOCATION EAST SIDE OF COLLEGE AVENUE, APPROX. 1.5 MILES SOUTH OF HISTORIC ELLICOTT CITY
ELECTION DISTRICT: 2ND
TAX MAP: 25, PARCEL 159
DEED REFERENCE:
LIBER 5846 AT FOLIO 30
APPLICABLE DPZ FILE REFERENCES: S-98-18, P-99-18, F-00-131 F-01-09, P.B. 320, P.B. 148, PLAT# 15784, & 15785 PLAT# 14513 TO 14515, P-07-018, P-09-008, WP-09-063, F-09-021, F-10-081, ECP-11-034, WP-11-208
PROPOSED WATER SYSTEM: PUBLIC
PROPOSED SEWER SYSTEM: PUBLIC

GROSS AREA: 1.09 AC
AREA OF 100 YEAR FLOODPLAIN: N/A
AREA OF STEEP SLOPES: N/A
NET AREA: 1.09 AC
BASE DENSITY:
2 LOTS PER NET ACRE (2 X 1.09)= 2 LOTS
LIMIT OF DISTURBANCE: 1.09 AC

AUTUMN RIVER PHASE IV

TOTAL AREA OF SUBMISSION: 3.98 AC.
TOTAL NUMBER OF ATTACHED LOTS: 27
TOTAL AREA OF ATTACHED LOTS: 1.65 AC.
TOTAL NUMBER OF OPEN SPACE LOTS: 2
TOTAL AREA OF OPEN SPACE LOTS: 2.34 AC.

OPEN SPACE TABULATION:

*AUTUMN RIVER PHASE I, II, III REQUIRED OPEN SPACE (25%) = 17.70 AC.
*AUTUMN RIVER PHASE IV(PARCEL 159) REQUIRED OPEN SPACE (50%) = 0.55 AC. (1.09 AC x 50%)
GROSS OPEN SPACE THIS SUBMISSION = 2.34 AC.
NON-CREDIT OPEN SPACE THIS SUBMISSION = 0.17 AC.
NET OPEN SPACE THIS SUBMISSION = 2.17 AC.
AUTUMN RIVER PHASE I, II, III AND IV REQUIRED OPEN SPACE = 18.25 AC.
TOTAL CREDITED OPEN SPACE FOR AUTUMN RIVER PHASE I, II, III AND IV = 47.71 AC.
TOTAL RECREATION OPEN SPACE REQUIRED FOR AUTUMN RIVER = 26,260 SF
TOWNHOUSE (PARCEL 159) 400SF/UNIT 7 UNITS = 2,800 SF
TOWNHOUSE (PHASE II ADDITIONAL UNITS) 400SF/UNIT 3 UNITS = 1,200 SF
PHASE II & III SINGLE FAMILY DETACHED UNITS = 77 x 250 SF/UNITS = 19,250 SF
PHASE II TOWNHOUSE UNITS = 17 x 200 SF/UNITS = 3,400 SF
TOTAL RECREATION OPEN SPACE PROVIDED FOR AUTUMN RIVER = 28,324 SF.

* EXISTING FINALS (F-09-021 & F-10-081) ARE SUBJECT TO THE AMENDED FOURTH EDITION OF THE SUBDIVISION REGULATIONS. UNDER THESE REGULATIONS 25% OF THE GROSS ACREAGE WAS REQUIRED FOR OPEN SPACE. THE CURRENT REGULATIONS REQUIRE 50% OF THE GROSS ACREAGE FOR OPEN SPACE.

OWNERS
HISTORIC ELLICOTT PROPERTIES, INC.
4100 COLLEGE AVE.
ELLICOTT CITY MD 21042-7819
21043 – 5506
(410) 465-3500

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

NO.	REVISION	DATE

PRELIMINARY EQUIVALENT SKETCH PLAN
AUTUMN RIVER - PHASE IV
LOTS 111-117, AND 119-138 AND OPEN SPACE LOTS 118 AND 139
A SUBDIVISION OF PARCEL 159 AND
A RESUBDIVISION AUTUMN RIVER, PHASE II,
LOTS 40-44, 69 & 70

COVER SHEET

TAX MAP 25 GRID 14 & 21
2ND ELECTION DISTRICT

ZONING: R-ED
PARCELS 159, 172 & 279
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

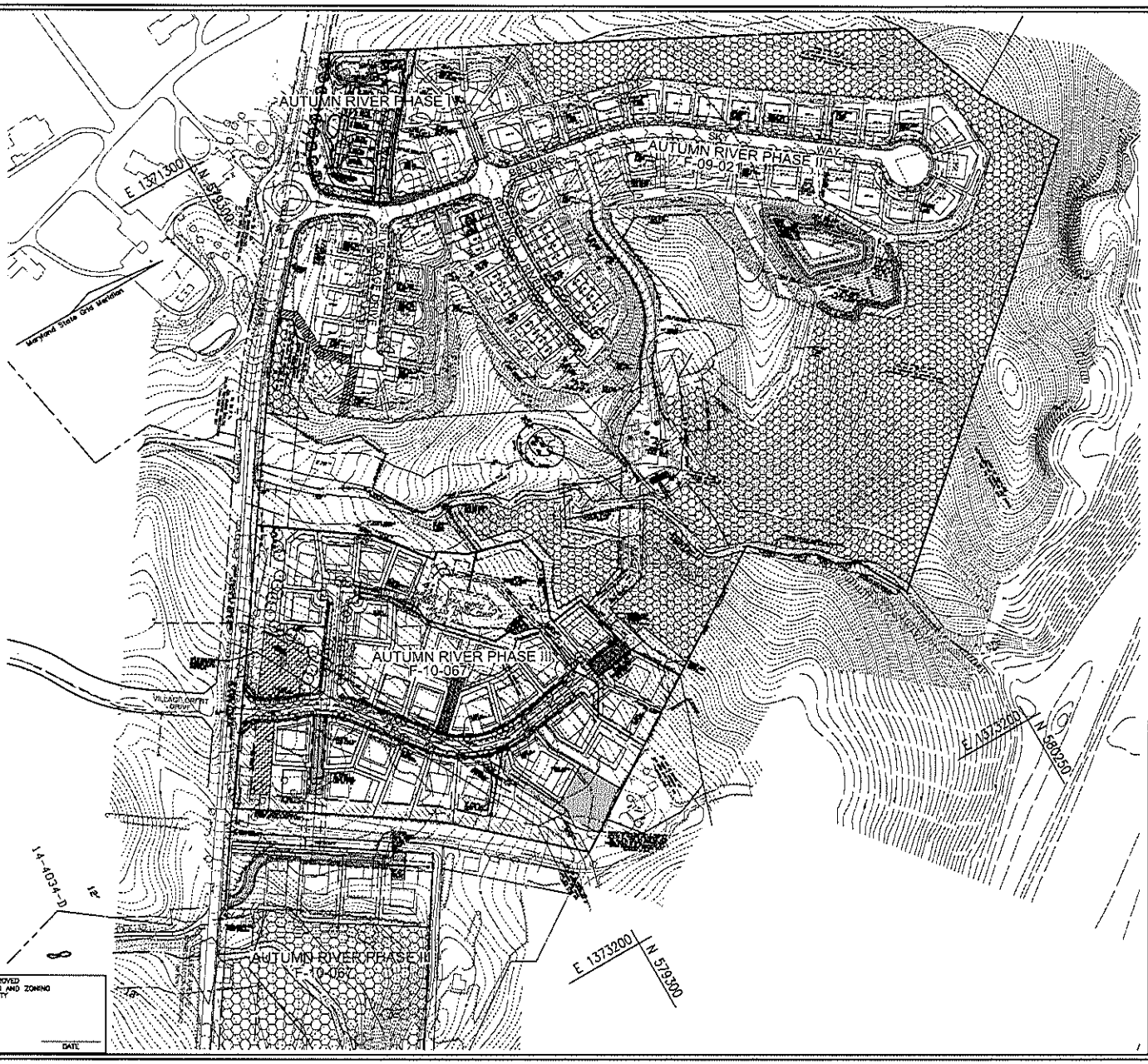
ROBERT H. VOGEL, PE No.16193

DESIGN BY: RHV
DRAWN BY: XG
CHECKED BY: RHV
DATE: JANUARY 2012
SCALE: AS SHOWN
W.O. NO.: 04-145

PROFESSIONAL CERTIFICATE

SHEET 1 OF 6

SP-12-001



LEGEND:

EXISTING CONTOUR
PROPOSED CONTOUR
PROPOSED SPOT ELEVATION
EXISTING SPOT ELEVATION
EXISTING CURB AND GUTTER
PROPOSED CURB AND GUTTER
EXISTING UTILITY POLE
EXISTING LIGHT POLE
EXISTING MAILBOX
EXISTING SIGN
EXISTING SANITARY MANHOLE
EXISTING SANITARY LINE
EXISTING CLEANOUT
EXISTING FIRE HYDRANT
EXISTING WATER LINE
PROPOSED STORM DRAIN
PROPOSED STORM DRAIN INLET
EXISTING TREELINE (FIELD LOCATED)
EXISTING STREET TREES (F-09-021)
EXISTING FENCE
PROPERTY LINE
RIGHT-OF-WAY LINE
SOLE SUBDIVISION
PROPOSED SIDEWALK
PROPOSED STREET LIGHT
EX. FOREST CONSERVATION (RETENTION)
EX. 30' PRIVATE DRAINAGE AND UTILITY EASEMENT
EX. 10' PUBLIC DRAINAGE, TREE MAINTENANCE AND UTILITY EASEMENT

OWNERS
HISTORIC ELLICOTT PROPERTIES, INC.
4100 COLLEGE AVE.
ELLICOTT CITY MD 21042-7619
21043 - 5508
(410) 465-3500

DEVELOPER
AUTUMN DEVELOPMENT CORPORATION
C/O LAND DESIGN & DEVELOPMENT, INC.
5300 DORSEY HALL DR STE 102
ELLICOTT CITY MD 21042-7619
ATTN: MR. DONALD R. REJMER
(443) 367-0422

NO.	REVISION	DATE

PRELIMINARY EQUIVALENT SKETCH PLAN
AUTUMN RIVER - PHASE IV
LOTS 111-137, AND 119-139 AND OPEN SPACES LOTS 118 AND 139
A SUBDIVISION OF PARCEL 150 AND
A RESUBDIVISION AUTUMN RIVER, PHASE II,
(SP-10-4032) 69 & 70

AUTUMN RIVER OVERALL PHASE EXHIBIT

TAX MAP 25 GRID 14 & 21
2ND ELECTION DISTRICT

ZONING: R-CD
PARCELS 150, 172 & 279
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: TDV
DRAWN BY: VG
CHECKED BY: TDV
DATE: JANUARY 2012
SCALE: AS SHOWN
W.O. NO.: 04-140

ROBERT H. VOGEL, INC. RC-1519

PROFESSIONAL CERTIFICATE

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 12742 EXPIRATION DATE: 06-27-2012

2 SHEET OF 6

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR DATE

SP-12-001

LAYOUT PLAN
SCALE: 1"=50'

LEGEND:

- PROPERTY LINE
- RIGHT-OF-WAY LINE
- ADJACENT PROPERTY LINE
- EXISTING CURB AND GUTTER
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING MANHOLE
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- EXISTING USE-IN-COMMON ACCESS EASEMENT (PLAT #)
- EXISTING TREELINE (FIELD LOCATED)
- EXISTING STREET TREES (1-DIA-CFT)
- EXISTING FENCE
- CENTERLINE OF EXISTING STREAM
- PROPOSED STORMDRAIN
- PROPOSED STORMDRAIN INLET
- PROPOSED SIDEWALK
- PROPOSED TREELINE
- PROPOSED CURB
- PROPOSED STREET LIGHT
- F.C. FLOATING CONSERVATION DISTRIBUTION
- EX. 10' PUBLIC DRAINAGE AND UTILITY EASEMENT
- EX. 20' PRIVATE DRAINAGE AND UTILITY EASEMENT
- PROPOSED GUARD RAIL

OWNERS
HISTORIC ELLICOTT PROPERTIES, INC.
4100 COLLEGE AVE.
ELLICOTT CITY MD 21042-7519
21043 - 3308
(410) 465-3500

DEVELOPER
AUTUMN DEVELOPMENT CORPORATION
C/O LAND DESIGN & DEVELOPMENT, INC.
3300 DORSEY HALL DR STE 102
ELLICOTT CITY MD 21042-7519
ATTN: MR. DONALD R. REUWER
(443) 357-0472

NO	REVISION	DATE

PRELIMINARY EQUIVALENT SKETCH PLAN
AUTUMN RIVER - PHASE IV

LOTS 111-117, AND 119-138 AND OPEN SPACES LOTS 118 AND 139
A SUBDIVISION OF PARCEL 159 AND
A RESUBDIVISION AUTUMN RIVER, PHASE II,
LOTS 40-46, 68 & 70

SITE LAYOUT

TAX MAP#25 GRID 14 & 21
2ND ELECTION DISTRICT

ZONING: R-ED
PARCELS 159, 172 & 279
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

STATE OF MARYLAND
ROBERT H. VOGEL, JR. No. 10783

DESIGN BY:	RHV.
DRAWN BY:	KG.
CHECKED BY:	RHV.
DATE:	JANUARY, 2012
SCALE:	AS SHOWN
W.O. NO.:	06-145

PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 10783 EXPIRATION DATE 06-27-2012

SHEET 3 OF 6

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR _____ DATE _____

CURVE TABLE

CURVE	LENGTH	RADIUS	DELTA	TANGENT	CHORD	CHORD LENGTH
C1	34.14	400.00	4°49'47"	17.07	N07°07'29"W	76.44
C2	7.24	20.00	20°43'42"	3.66	N09°09'09"W	7.13

SP-12-001

GRADING PLAN
SCALE: 1"=50'

SOILS LEGEND		
SYMBOL	NAME / DESCRIPTION	GROUP
BrB2	BRANDYWINE LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	C
LeB2	LEGORE SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	C
WaC2	WATCHUNG SILT LOAM, 3 TO 8 PERCENT SLOPES	B
WaB	WATCHUNG SILT LOAM, 3 TO 8 PERCENT SLOPES	D

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR ______ DATE ______

Appendix B.4. Construction Specifications for Environmental Site Design Practices

Table B.4.1 Materials Specifications for Micro-Bioretention, Rain Gardens & Landscape Infiltration

Material	Specification	Size	Notes
[illegible]	[illegible]	[illegible]	[illegible]

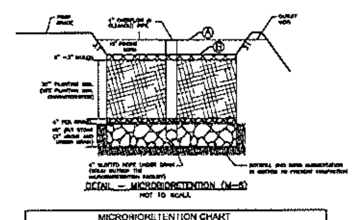
OPERATION AND MAINTENANCE SCHEDULE FOR MICROBIORETENTION AREAS

1. ANNUAL MAINTENANCE OF PLANT MATERIAL, MULCH LAYER AND SOIL LAYER IS REQUIRED. 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 INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL VOLUME II, TABLE A.4.1 AND 2.
2. SCHEDULE OF PLANT INSPECTION WILL BE TWICE A YEAR IN SPRING AND FALL. THIS INSPECTION WILL INCLUDE REMOVAL OF DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, TREATMENT OF ALL DISEASED TREES AND SHRUBS AND REPLACEMENT OF ALL DEFICIENT STAKES AND WIRES.
3. MULCH SHALL BE INSPECTED EACH SPRING. REMOVE PREVIOUS MULCH LAYER BEFORE APPLYING NEW LAYER ONCE EVERY 2 TO 3 YEARS.
4. SOIL EROSION TO BE ADDRESSED ON AN AS NEEDED BASIS WITH A MINIMUM OF ONCE PER MONTH AND AFTER HEAVY STORM EVENTS.

[OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DISCONNECTION OF ROOFTOP RUNOFF (N-1), DISCONNECTION OF NON-ROOFTOP RUNOFF (N-2)]

a. Maintenance of areas receiving disconnected runoff is generally no different than that required for other lawn or landscaped areas. The Owner shall ensure the areas receiving runoff are protected from future compaction or development of impervious area. In commercial areas, foot traffic should be discouraged as well.

MICROBIORETENTION PLANTING SCHEDULE				
KEY	QTY	BOTANICAL NAME/COMMON NAME	SIZE	REMARKS
AR	2	ACER RUBRUM 'OCTOBER GLORY' OCTOBER GLORY RED MAPLE	2 1/2"-3" CAL	B & B
IG	3	ILEX GLABRA INKBERRY	2 1/2'-3' HT	CONT
PV	90	SWITCH GRASS PANICUM VIRGATUM	1 GALLON	24" O.C.
MD	80	BEE BALM MONARDA DIDYMA	1 GALLON	24" O.C.
EP	90	JOE PYE WEED EUPATORIUM PURPUREUM	1 GALLON	48" O.C.



DETAIL – MICROBIORETENTION (M-6)
NOT TO SCALE

MICROBIORETENTION CHART					
FACILITY	(A)TOP ELEVATION	(B)BOTTOM ELEVATION	DEPTH OF STONE BELOW(Rev)	VOL. REQ. CF	VOL. PROV. CF
MBR#1	378.00	378.00	0	807	880
MBR#2	383.60	382.80	4"	843	1256(ABOVE) 491(IN STONE)

APPENDIX B.4.C SPECIFICATIONS FOR MICRO-BIORETENTION, RAIN GARDEN, LANDSCAPE INFILTRATION & INFILTRATION BERMS

1. MATERIAL SPECIFICATIONS
[illegible]
2. FILTERING MEDIA OR PLANTING SOIL
[illegible]
3. COMPACTION
[illegible]
4. PLANT MATERIAL
[illegible]
5. PLANT INSTALLATION
[illegible]
6. UNDERDRAINS
[illegible]
7. MISCELLANEOUS
THESE PRACTICES MAY NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.

LEGEND:

- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- EXISTING SPOT ELEVATION
- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING MAILBOX
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- PROPOSED STORM DRAIN
- PROPOSED STORM DRAIN INLET
- EXISTING TREELINE
- PROPOSED TREELINE
- EXISTING STREET TREES
- EXISTING FENCE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- SOILS BOUNDARY
- PROPOSED SIDEWALK
- MODERATE SLOPES (15% - 24.99%)
- STEEP SLOPE (>25%)
- SILT FENCE
- SUPER SILT FENCE
- LIMIT OF DISTURBANCE
- EROSION CONTROL MATTING
- STABILIZED CONSTRUCTION ENTRANCE
- EXISTING USE-IN-COMMON ACCESS EASEMENT
- PROPOSED STREET LIGHT
- EX. FOREST CONSERVATION (RETENTION)
- EX. 15' PUBLIC SEWER, WATER & UTILITY EASEMENT
- EX. 20' PRIVATE DRAINAGE AND UTILITY EASEMENT
- CURB INLET PROTECTION (SUPER SILT FENCE)

OWNERS
HISTORIC ELLICOTT PROPERTIES, INC.
4100 COLLEGE AVE.
ELLICOTT CITY MD 21042-7819
21043 - 5508
(410) 465-3500

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

NO.	REVISION	DATE

PRELIMINARY EQUIVALENT SKETCH PLAN
AUTUMN RIVER - PHASE IV
LOTS 111-117, AND 119-138 AND OPEN SPACES LOTS 118 AND 139
A SUBDIVISION OF PARCEL 159 AND
A RESUBDIVISION AUTUMN RIVER, PHASE II,
LOTS 40-66, 69 & 70

GRADING, EROSION SEDIMENT CONTROL, AND SOILS MAP

TAX MAP #25 GRID 14 & 21
2ND ELECTION DISTRICT
ZONING: R-ED
PARCELS 159, 172 & 279
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

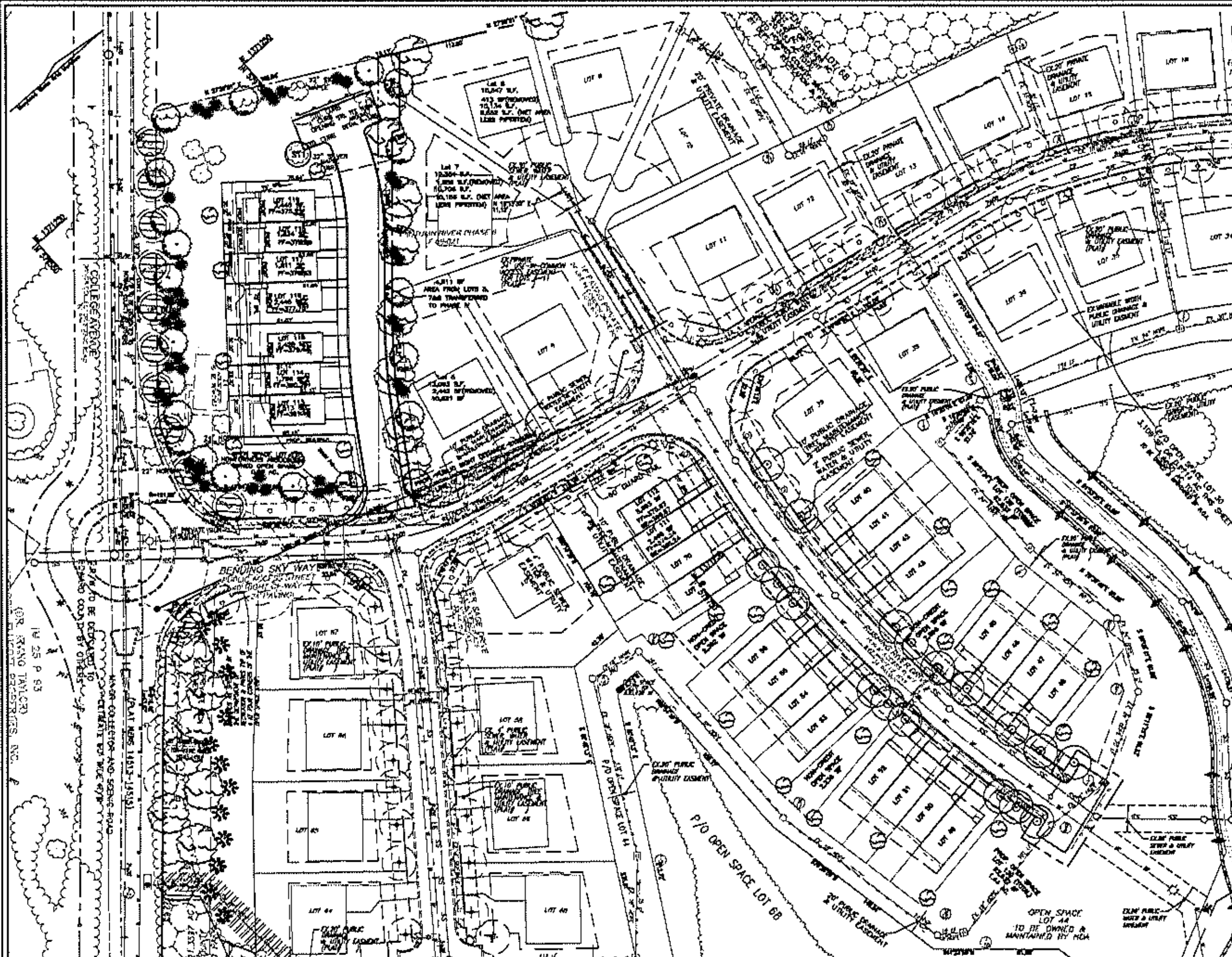
ROBERT H. VOGEL, PE No.16193

DESIGN BY: RHV
DRAWN BY: KG
CHECKED BY: RHV
DATE: JANUARY, 2012
SCALE: AS SHOWN
W.O. NO.: 04-145

PROFESSIONAL CERTIFICATE
[illegible]

4 SHEET OF 6

SP-12-001



LAYOUT PLAN
SCALE: 1"=40'

PARCEL 159 WORKSHEET

Forest Conservation Worksheet 2.2

Net Tract Area

A.	Total Tract Area	A =	1.00
B.	Deductions	B =	0.00
C.	Net Tract Area	C =	1.00

Land Use Category

Input the number "1" under the appropriate land use zoning, and limit to only one entry

ARA	MDR	IDA	HDR	MPD	CIA
0	0	0	1	0	0

D.	Afforestation Threshold (Net Tract Area x 15%)	D =	0.15
E.	Conservation Threshold (Net Tract Area x 20%)	E =	0.22
Existing Forest Cover			
F.	Existing Forest Cover within the Net Tract Area	F =	0.05
G.	Area of Forest Above Conservation Threshold	G =	0.00
Break Even Point			
H.	Break Even Point	H =	0.05
I.	Forest Clearing Permitted Without Mitigation	I =	0.00
Proposed Forest Clearing			
J.	Total Area of Forest to be Cleared	J =	0.05
K.	Total Area of Forest to be Retained	K =	[illegible]
Planting Requirements			
L.	Reforestation for Clearing Above the Conservation Threshold	L =	0.00
M.	Reforestation for Clearing Below the Conservation Threshold	M =	0.10
N.	Credit for Retention above the Conservation Threshold	N =	0.00
P.	Total Reforestation Required	P =	0.10
Q.	Total Afforestation Required	Q =	0.11
R.	Total Planting Requirement	R =	0.21

THE FOREST CONSERVATION OBLIGATION FOR THE REQUIRED 0.21 ACRES OF AFFORESTATION WILL BE MET BY A FOREST BANK; COLLEGE AVENUE PUMP STATION, AUTUMN RIVER BULK PARCEL "B", SDP-10-081.

LEGEND:

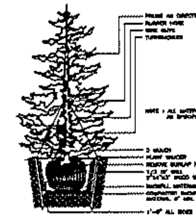
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- ADJACENT PROPERTY LINE
- EXISTING CURB AND GUTTER
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING MAILBOX
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- EXISTING USE-IN-COMMON ACCESS EASEMENT PLAT # / /
- EXISTING TREELINE (FIELD LOCATED)
- EXISTING STREET TREES (F-08-081)
- EXISTING FENCE
- CENTERLINE OF EXISTING STREAM
- PROPOSED STORMDRAIN
- PROPOSED STORMDRAIN INLET
- PROPOSED SIDEWALK
- PROPOSED TREELINE
- PROPOSED CURB
- PROPOSED STREET LIGHT
- FOREST CONSERVATION (RETENTION)
- EX. 10' PUBLIC DRAINAGE, TREE MAINTENANCE & UTILITY EASEMENT
- EX. 20' PRIVATE DRAINAGE AND UTILITY EASEMENT

LANDSCAPE SCHEDULE NOTE:

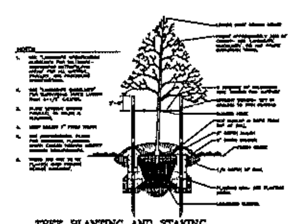
1. ALL PLANT MATERIALS SHALL BE FULL AND HEAVY, BE WELL FORMED AND SYMMETRICAL, CONFORM TO THE MOST CURRENT AAN SPECIFICATIONS AND BE INSTALLED IN ACCORDANCE WITH HRD PLANTING SPECIFICATIONS.
2. CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING.
3. FINAL LOCATION OF PLANT 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.

B.G.&E. NOTES:

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



TYPICAL EVERGREEN TREE PLANTING DETAIL
NOT TO SCALE



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

OWNERS

HISTORIC ELLICOTT PROPERTIES, INC.
4100 COLLEGE AVE.
ELLICOTT CITY MD 21042-7819
21043 – 5506
(410) 465-3500

DEVELOPER

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

STREET TREE CALCULATIONS

STREET NAME	LINEAR FEET	NO. REQUIRED	NO. PROVIDED
COLLEGE AVENUE	246/40	6	6
RUSHING RIVER DRIVE	888/40	22	22

PUBLIC STREET TREES ARE PROVIDED FOR THIS PROJECT IN ACCORDANCE WITH SECTION 16.124(a)(1) OF THE SUBDIVISION REGULATIONS AND THE LANDSCAPE MANUAL. FINANCIAL SURETY IN THE AMOUNT OF $8,400.00 SHALL BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT FOR THE REQUIRED 28 STREET TREES.

J. CHAIR DOLE
DNR QUALIFIED PROFESSIONAL

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

PLANNING DIRECTOR — DATE

SCHEDULE A: PERIMETER LANDSCAPE EDGE

CATEGORY	ADJACENT TO PERIMETER PROPERTIES/ROADWAYS				TOTAL
PERIMETER/FRONTAGE DESIGNATION LANDSCAPE TYPE	1 B	2 C	3 C	4 C	
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	330'	147'	346'	193'	
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) DESCRIBE BELOW IF NEEDED)	NO	YES 1 EX. 22" MAPLE	NO	NO	
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET DESCRIBE BELOW IF NEEDED)	NO	NO	NO	NO	
NUMBER OF PLANTS REQUIRED(IF REQUIRING) SHADE TREES / EVERGREEN TREES / SHRUBS	1:50 7 / 1:40 8 / –	1:40 3 / 1:20 8 / –	1:40 7 / 1:20 13 / –	1:40 5 / 1:20 10 / –	22 / 39 / –
NUMBER OF PLANTS PROVIDED SHADE TREES / EVERGREEN TREES / OTHER TREES (2:1 SUBSTITUTION) / SHRUBS (10:1 SUBSTITUTION) / DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)	7 / 8 / – / –	3 / 8 / – / –	7 / 13 / – / –	5 / 10 / – / –	22 / 39 / – / –

THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL. A FINANCIAL SURETY IN THE AMOUNT OF $20,550.00 FOR THE REQUIRED 49 SHADE TREES AND 39 EVERGREEN TREES SHALL BE POSTED WITH THE DEVELOPER'S AGREEMENT FOR THIS PLAN.

SCHEDULE C
RESIDENTIAL DEVELOPMENT INTERNAL LANDSCAPING

NUMBER OF DWELLING UNITS (SFA)	27
NUMBER OF TREES REQUIRED (1:1 DU SFA)	27
NUMBER OF TREES PROVIDED SHADE TREES OTHER TREES (2:1 SUBSTITUTION)	 27 –

LANDSCAPE SCHEDULE

KEY	QUAN.	BOTANICAL NAME	SIZE	REMARKS
(symbol)	22	ACER RUBRUM / OCTOBER GLORY RED MAPLE	2 1/2"-3" CAL.	B & B
(symbol)	27	CERCIS CANADENSIS / EASTERN REDBUD	2 1/2"-3" CAL.	B & B
(symbol)	39	PINUS STROBUS / EASTERN WHITE PINE	6'-8' HT.	B & B
(symbol)	6	ACER GINNALA / AMUR MAPLE(STREET TREE)	2 1/2"-3" CAL.	B & B
(symbol)	22	ACER SACCHARUM 'GREEN MOUNTAIN' / GREEN MOUNTAIN SUGAR MAPLE (STREET TREE)	2 1/2"-3" CAL.	B & B

NO.	REVISION	DATE

PRELIMINARY EQUIVALENT SKETCH PLAN
AUTUMN RIVER - PHASE IV
LOTS 111-117, AND 119-138 AND OPEN SPACES LOTS 118 AND 139
A SUBDIVISION OF PARCEL 159 AND
A RESUBDIVISION AUTUMN RIVER, PHASE II,
LOTS 40-46, 68 & 70

LANDSCAPE AND FOREST CONSERVATION NOTES

TAX MAP 25 GRID 14 & 21
2ND ELECTION DISTRICT
ZONING: R-ED
PARCELS 159, 172 & 279
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

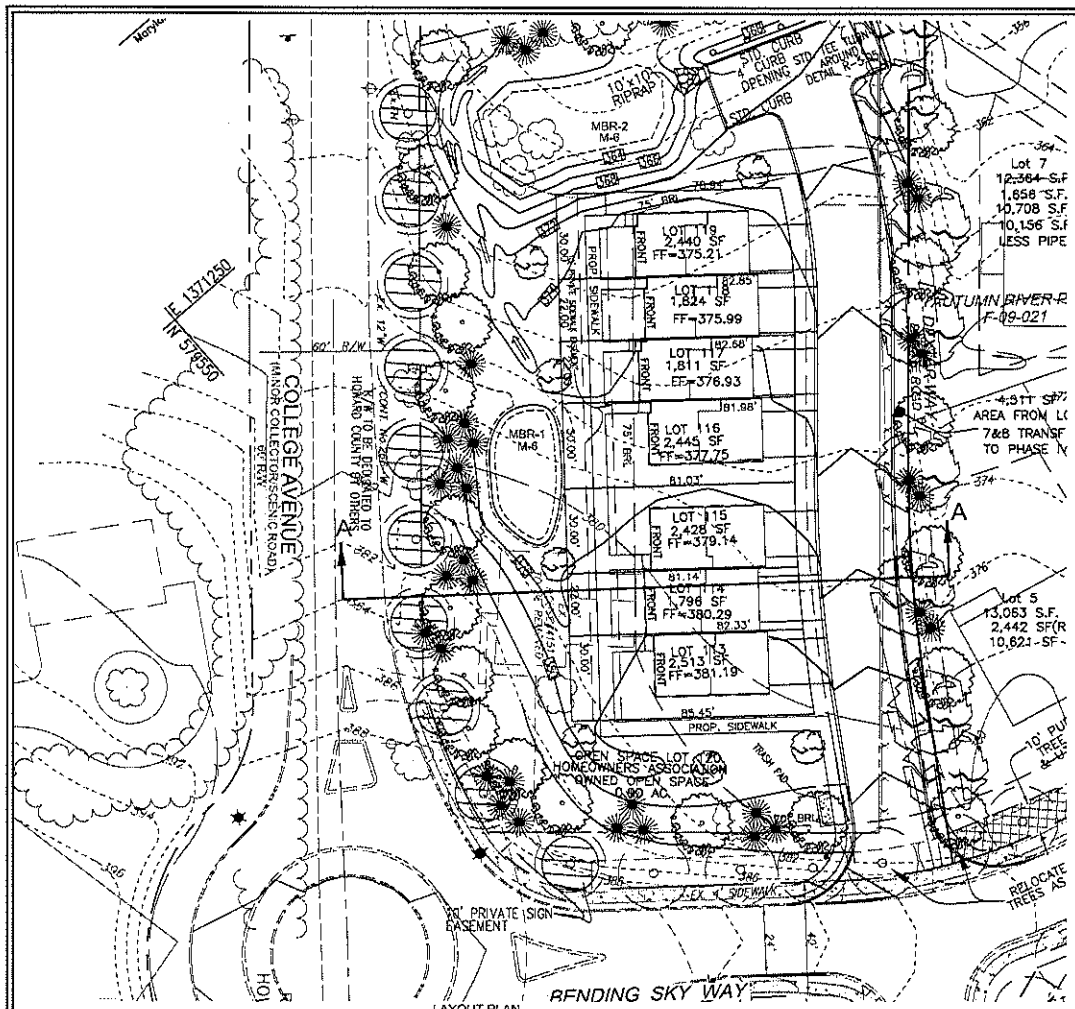
ROBERT H. VOGEL, PE No.16193

DESIGN BY: RHV
DRAWN BY: KG
CHECKED BY: RHV
DATE: JANUARY, 2012
SCALE: AS SHOWN
W.O. NO.: 04-145

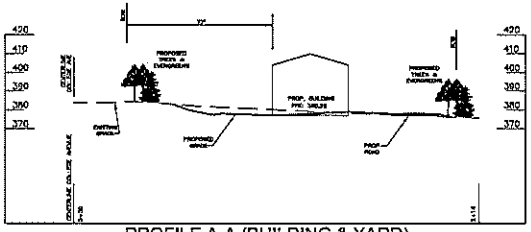
PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE 05-27-2013

SHEET 6 OF 6

SP-12-001



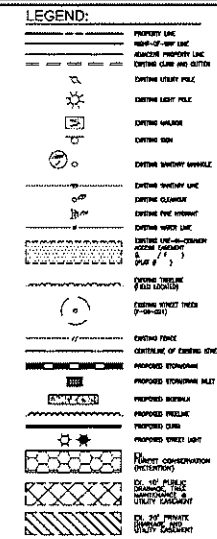
LAYOUT PLAN
SCALE: 1"=20'

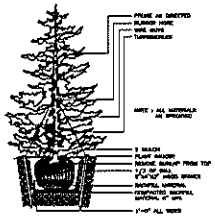


PROFILE A-A (BUILDING & YARD)

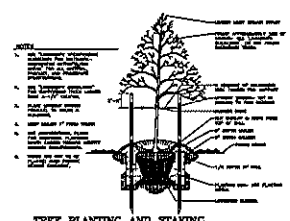
COLLEGE AVENUE
SCENIC ROAD EXHIBIT
SCALE : HORIZONTAL – 1"=30'
VERTICAL – 1"=30'

LEGEND:





TYPICAL EVERGREEN TREE PLANTING DETAIL
NOT TO SCALE



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

OWNERS
HISTORIC ELLICOTT PROPERTIES, INC.
4100 COLLEGE AVE.
ELLICOTT CITY MD 21042-7619
21043 – 3506
(410) 465-3500

DEVELOPER
AUTUMN DEVELOPMENT CORPORATION
C/O LAND DESIGN & DEVELOPMENT, INC.
5300 DORSEY HALL DR STE 102
ELLICOTT CITY MD 21042-7619
ATTN: MR. DONALD R. REUWER
(443) 367-0422

NO.	REVISION	DATE

PRELIMINARY EQUIVALENT SKETCH PLAN
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SCENIC ROAD EXHIBIT

TAX MAP#25 GRID 14 & 21
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STATE OF MARYLAND
ROBERT H. VOGEL, PE, No.16193

DESIGN BY: RHV
DRAWN BY: KB
CHECKED BY: RHV
DATE: NOVEMBER 2011
SCALE: AS SHOWN
W.O. NO.: 04-145

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1 SHEET OF 1

SP-12-001