



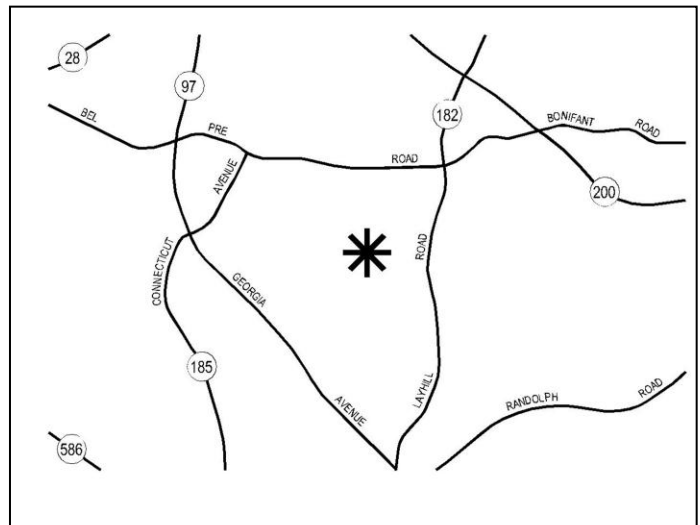
**Preliminary Forest Conservation Plan CBA1261D, Barrie School**

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Completed: 10/26/12

**Description**

- Preliminary Forest Conservation Plan (PFCP) for CBA1261D, The Barrie School
- 13500 Layhill Road, Silver Spring, MD
- 44.86 acres
- R-90 and R-200 Zones, 1989 *Master Plan for the Communities of Kensington-Wheaton*
- Applicant: Barrie School
- Filing date: October 12, 2011



**Summary**

Staff recommends **approval with conditions**.

The proposed Preliminary Forest Conservation Plan represents a balance between an existing development and current environmental regulations. Issues include:

- Existing and proposed encroachments into the environmental buffer.
- Flexibility with Category I Conservation Easements to allow existing uses, and future expansion and growth.

Pursuant to Chapter 22A of the County Code, the Board’s actions on Forest Conservation Plans are regulatory and binding.

## RECOMMENDATION AND CONDITIONS OF APPROVAL

Staff recommends **approval** of the Preliminary Forest Conservation Plan, with a variance to impact high priority trees measuring 30 inches or greater diameter at breast height (DBH), subject to the following conditions:

### Conditions

1. The Applicant must obtain approval of a Final Forest Conservation Plan from the Planning Department prior to issuance of a Sediment Control Permit from the Department of Permitting Services. The Final Forest Conservation Plan must be consistent with the approved Preliminary Forest Conservation Plan.
2. The Applicant must provide 1.54 acres of on-site forest planting in stream valley buffer to mitigate for new permanent encroachment of the stream valley buffer. Planting plans and details must be shown on the Final Forest Conservation Plan.
3. Applicant must plant 1.54 acres of forest on-site no later than the first planting season after issuance of the first Sediment Control Permit associated with this development.
4. The Applicant must provide mitigation for removal of all variance trees located outside the areas of forest clearing, as shown on the Final Forest Conservation Plan.
5. The Applicant must record a Category I Conservation Easement by deed over areas of stream valley buffers, forest retention, and forest planting, as shown on the Preliminary Forest Conservation Plan dated 10/24/2012, prior to any demolition, clearing, or grading occurring onsite.
  - a. The Applicant may record a modified Category I Conservation Easement for the purposes of accommodation of future institutional changes and growth. The modification will stipulate that the Planning Board will not seek a 2:1 penalty for easement removal for any areas of Category I Conservation Easement outside of the stream valley buffer proposed for removal in the future.
6. The Applicant may locate natural surface paths and features inside the Category I Conservation Easement as shown on the Final Forest Conservation Plan.
  - a. These features must not require the removal, or prevent the regeneration, of trees or understory, and must be in accordance with the requirements of the Category I Conservation Easement.
  - b. Features and paths to be field-located in coordination with Forest Conservation Inspection staff.
7. The Applicant must provide financial security for areas of forest planting prior to demolition, clearing, and grading.
8. The Applicant must enter into a Maintenance and Management Agreement approved by the Office of General Counsel to ensure compliance with conditions of the Final Forest Conservation Plan prior to demolition, clearing, and grading.
9. Copies of the Final Forest Conservation Plan, recorded Category I Conservation Easement, and Maintenance and Management Agreement must be kept at the Barrie School and given to the school maintenance staff to ensure compliance with conditions of the Forest Conservation Plan.

## OVERVIEW

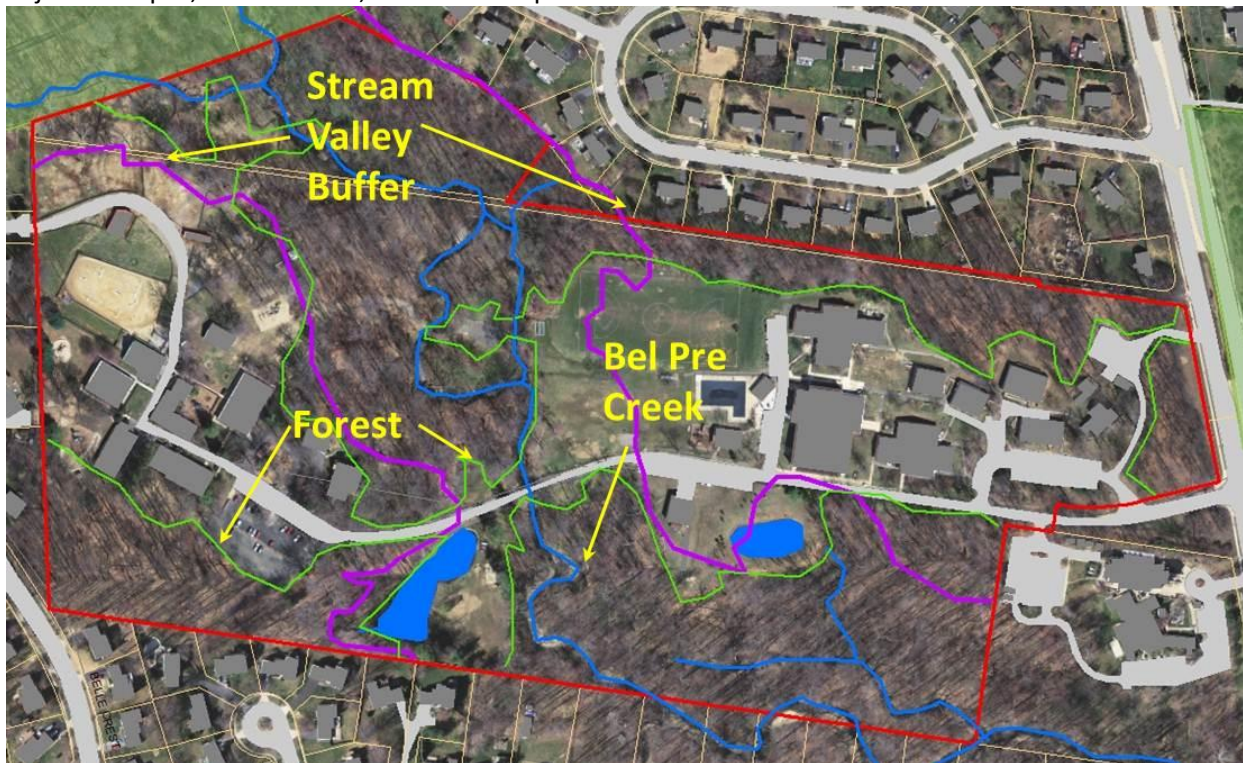
The Barrie School is proposing to modernize the existing facilities by demolishing and replacing the existing buildings on the western portion of the site and constructing an artificial turf field. The development will be gradual, with an initial focus on the replacement of the older buildings, constructed in the 1960s and 1970s. The 44.86-acre Subject Property is owned by Barrie School and located at 13500 Layhill Road, Silver Spring, within the 1989 *Master Plan for the Communities of Kensington-Wheaton*.

Staff notes that this is an existing Special Exception use that was developed prior to the adoption of environmental regulations. For this reason, staff took a flexible approach to the review that considers the detailed site conditions, the existing and proposed development, and the nature of institutional land uses. The Preliminary Forest Conservation Plan (PFCP) represents a balanced approach that protects the environment while allowing the Barrie School to continue to use the Subject Property as it historically has, and allows for the potential of future expansion. Additionally, the PFCP is designed to minimize the chances of future enforcement issues.

## ANALYSIS

### Environmental Guidelines

The Planning Board's Environmental Guidelines establish guidance for development in Montgomery County that protects and improves the natural environment. The protection of stream valleys and floodplains through the establishment and maintenance of stream valley buffers is fully articulated, with guidance given for the delineation and treatment of these stream valley buffers. The size of the stream valley buffers is dependent on a number of factors, which include the Use class of the stream, the adjacent slopes, the wetlands, and the floodplain associated with the stream.



Staff approved a Natural Resource Inventory/Forest Stand Delineation (NRI/FSD #420120300) for the Subject Property on 5/8/2012, which delineated the existing natural features. Bel Pre Creek, a tributary of the Northwest Branch (a Use IV watershed) bisects the 44.86-acre Subject Property, running from north to south. There are 4.69 acres of wetlands and 13.43 acres of floodplain associated with the stream. The 20.47-acre stream valley buffer includes the adjacent steep slopes, wetlands, and floodplain, for a total of 20.47 acres of stream valley buffer – nearly half the acreage of the Subject Property.

Approximately 63% of the Subject Property is encumbered with environmental resources – stream valley buffer or forest. There are 22.62 acres of high priority forest, with 14.90 acres of the forest located within stream valley buffer. The forest has an open nature, with little understory due to deer browsing. There are numerous stands of mature trees located around the school buildings on the western side of the stream.

#### Existing Stream Valley Buffer Encroachments

The Barrie School was developed on this site in 1956, well before the Planning Board's Environmental Guidelines were established. The development of this site has generally occurred in accordance with the Environmental Guidelines, with no permanent buildings in the stream valley buffers. However, there are some existing uses within the buffers, as the school uses the site intensively for both educational and recreational purposes. For example, there is a basketball court located in a clearing between two stream channels and the current natural surface playing fields are partially in the stream valley buffer. Additionally, there are numerous hard and soft surface paths, art installations, archery ranges, and other temporary uses that require no disturbance.



In cases of redevelopment, staff generally recommends removal of all encroachments and protection of the entire stream valley buffer. However, the Applicant is not proposing to redevelop the site but replace and upgrade the existing facilities in approximately the same locations. Therefore, staff is recommending that the existing stream valley buffer encroachments be allowed to remain, without any mitigation.

#### Proposed Stream Valley Buffer Encroachment

The Environmental Guidelines provide recommendations for the protection of stream valley buffers for the development process. Section V A. 1. (b) of the Environmental Guidelines states that “No buildings, structures, impervious surfaces, or activities requiring clearing or grading will be permitted in stream buffers, except for infrastructure uses, bikeways, and trails found to be necessary, unavoidable, and minimized ...” Planning Board staff have consistently applied this guidance by following a strategy of avoidance, minimization, and mitigation of stream valley buffer encroachment.

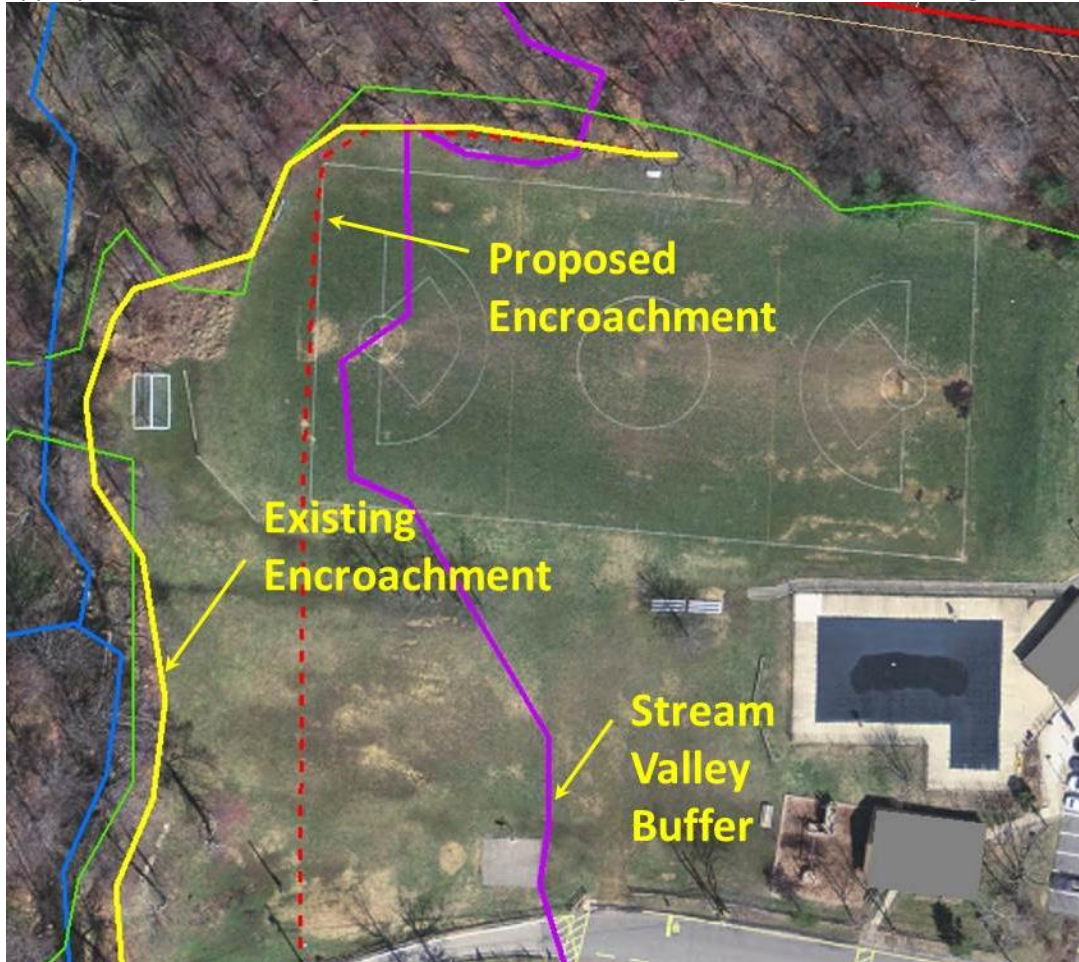
The Applicant is proposing the following new encroachments into the stream valley buffer:

1. An artificial turf field to replace the existing natural surface field; and
2. Small-scale temporary uses, requiring no clearing or grading.



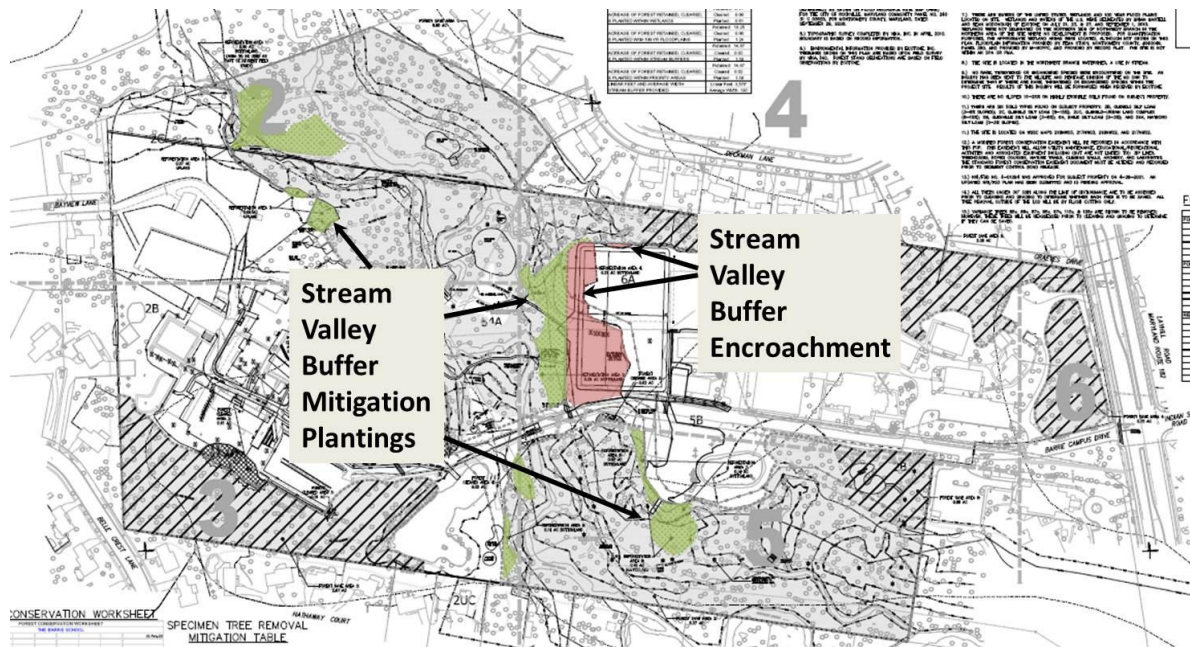
Staff evaluated these encroachments separately, as the impacts to the stream valley buffer are not the same.

The proposed plan replaces the two existing substandard-sized playing fields with one regulation-sized artificial turf field. While the existing fields are partially in the stream valley buffer, ideally the new field should be outside of the stream valley buffer. Unfortunately, there is no other location on-site to develop a regulation-sized playing field. Any other location on the Subject Property would replace one or more school buildings. There are no options for avoiding stream valley buffer encroachment and still allow the development of a playing field. Staff believes that a single regulation-size playing field is appropriate for an existing school use and therefore sought to minimize and mitigate the encroachment.



The proposed field is rotated 90° from the current layout, which avoids forest loss and minimizes disturbance in the stream valley buffer. The area of encroachment into the stream valley buffer is reduced from approximately 2.14 acres to 0.77 acres. However, as the proposed artificial turf field is impervious and will affect the buffer function, staff believes that mitigation at a 2:1 rate is consistent with Planning Board practice for stream valley buffer encroachment.

The Environmental Guidelines provide options for buffer compensation including buffer averaging, enhanced forestation, and bioengineering practices. As there is unforested stream valley buffer on the Subject Property, staff recommends the use of enhanced forestation to add to the functionality of the stream valley buffer. Accordingly, the proposed plan shows 0.77 acres of permanent stream valley buffer encroachment and 1.54 acres of on-site stream valley buffer forest planting, not required by Chapter 22A of the County Code – Forest Conservation Law.



The second kind of encroachment consists of small-scale uses, including ropes courses, a tree house, natural surface trails, and art installations, which can be installed without disturbing the tree canopy or forest floor and do not significantly add impervious surface. Staff believes that these uses can be incorporated within the stream valley buffer without affecting the buffer function or cause any negative water quality impacts and therefore require no mitigation.

Staff believes that the proposed plan protects the majority of the stream valley buffer, includes buffer restoration for proposed permanent encroachments and therefore complies with the *Environmental Guidelines*.

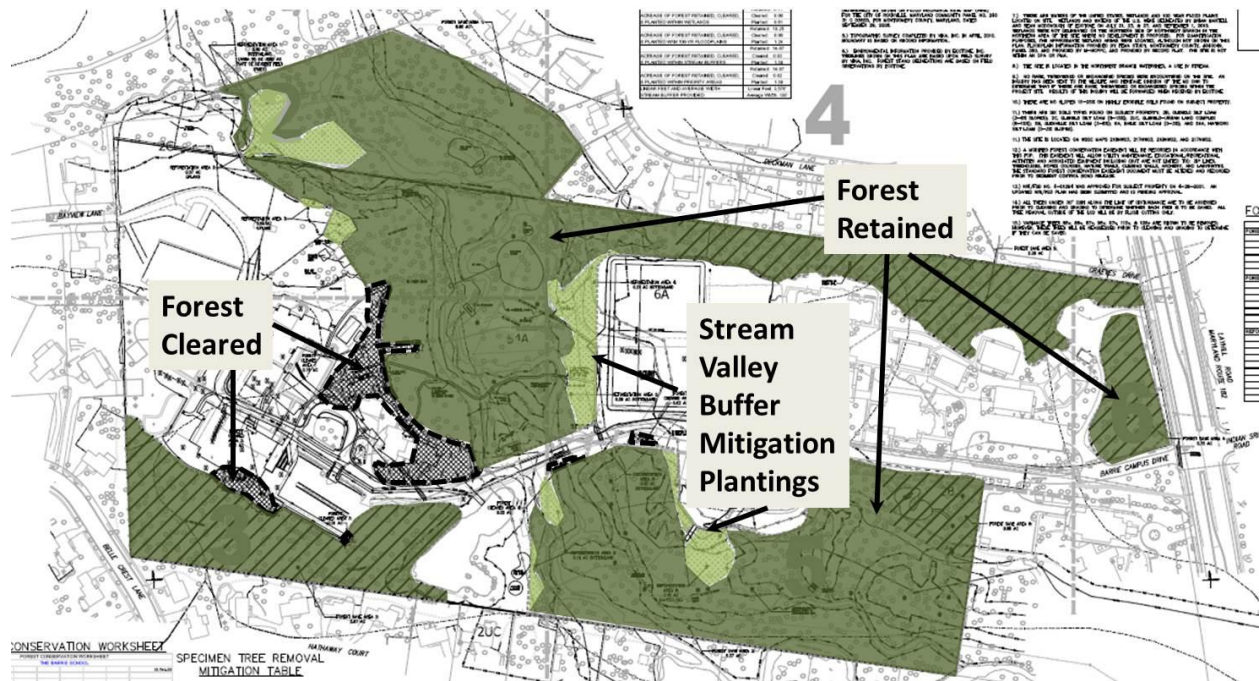
### Forest Conservation

This property is subject to the Montgomery County Forest Conservation Law (Chapter 22A of the County Code). Forest Conservation Law sets the standards and requirements for properties going through the development process to minimize forest and tree loss during and after the construction process. While the goal of Forest Conservation Law is to maximize the retention of forest, it establishes a “break-even point”, a level of forest retention that does not require the need for reforestation. The proposed PFCP removes 0.99 acres, while retaining 21.63 acres of existing forest (Attachment 1). The “break-even point” would require the retention of a minimum of 11.70 acres of forest; therefore the Applicant has no planting requirement per Chapter 22A.



Art Installation

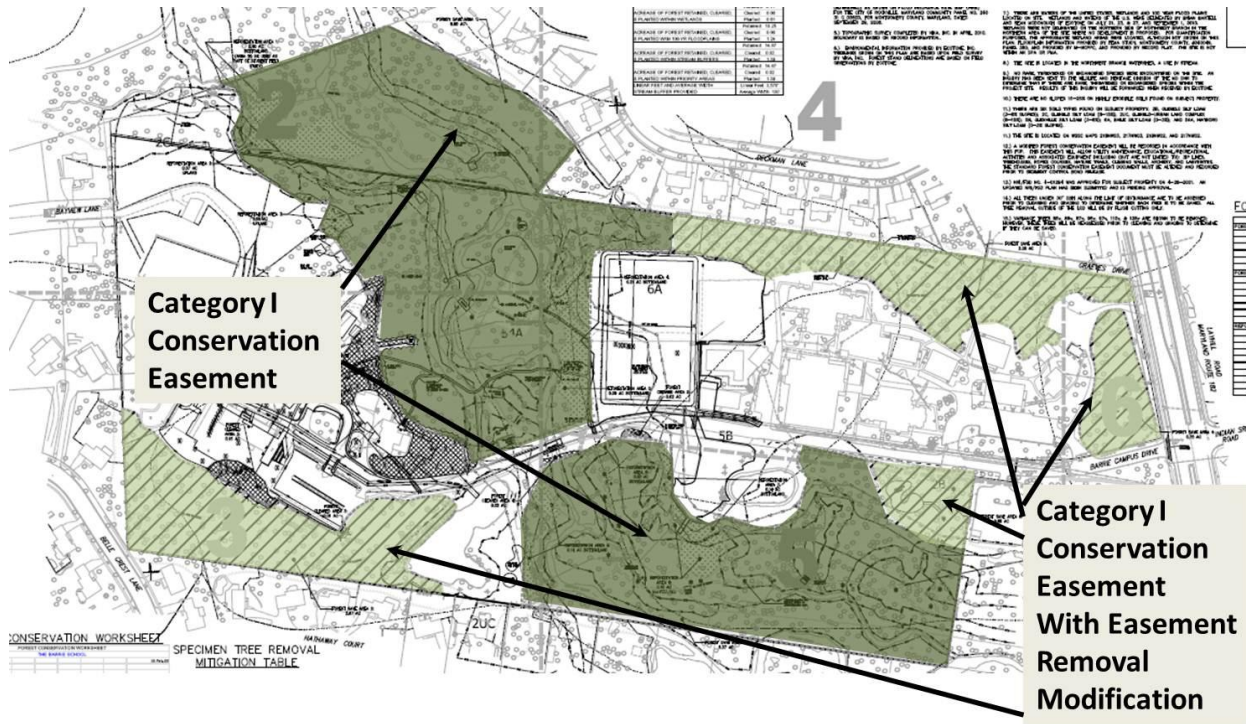




All retained and planted forest must be protected by long-term protective measures, per subsection 22A-12(h)(2) of Forest Conservation Law. The goal is to protect conservation areas and to limit the use of these areas to be consistent with conservation and management practices. The Planning Board uses Category I Conservation Easements as the long-term protective measure to protect existing and planted forest and stream valley buffers. The Applicant is proposing to place 23.57 acres of forest and stream valley buffer in Category I Conservation Easement, which meets the goal of this subsection of the Forest Conservation Law.

Easement Flexibility

The Applicant is requesting two areas of flexibility in the placement of Category I Conservation Easements. The first is to include educational and recreational uses within the areas covered by Category I Conservation Easement, both inside and outside of the stream valley buffer. These uses include rope courses, a tree house, natural surface trails and art installations. The Applicant has shown these uses on the PFCP and provided information about each type of encroachment. Staff agrees that these features are conceptually acceptable within a Category I Conservation Easement. No trees or understory may be removed to install these uses and they must be designed to allow natural regeneration of the forest. This means that a platform structure on the forest floor would not be acceptable, as it would prevent natural regeneration, but a rope bridge suspended in the tree canopy would be acceptable. All new uses located in the Category I Conservation Easement must be field located, in coordination with M-NCPPC Inspection staff.



The second area of requested flexibility pertains to a modification of the standard Category I Conservation Easement. This modification which will allow the Applicant to remove the Category I Conservation Easement, without incurring a 2:1 penalty for easement removal, only over the portions of forest outside of the stream valley buffer (approximately 7.72 acres). Any future changes to areas covered by Category I Conservation Easement will require the Planning Board’s approval, as an Amendment to the Forest Conservation Plan and the Applicant will be subject to any environmental regulations in effect at the time of amendment. Staff supports a modified Category I Conservation Easement over existing forest outside of the stream valley buffer because it protects the forest until removal is necessary and allows for future expansion and modification of an established institutional use without penalty for retaining the forest. The removal of this forest will not cause the amount of forest retained on-site in Category I Conservation Easement to drop below the “break-even point” mentioned above.

**Forest Conservation Variance**

Section 22A-12(b) (3) of the County Code provides criteria that identify certain individual trees as high priority for retention and protection. The law requires a variance for any impact, including removal or disturbance within the tree’s critical root zone (CRZ), to trees that are: 30 inches or greater diameter at breast height (DBH); part of a historic site or designated with a historic structure; designated as national, State, or County champion trees; at least 75 percent of the diameter of the current State champion tree of that species, or trees, shrubs; and plants that are designated as Federal or State rare, threatened, or endangered species. An applicant for a variance must provide certain written information in support of the required findings in accordance with Section 22A-21 of the County Forest Conservation Law.

The Applicant submitted a variance request on 5/1/2012, and a revised variance request on 9/20/2012, to remove 24 trees, and impact, but retain, 20 trees that are considered high priority for retention under Section 22A-12 (b) (3) of the County Forest Conservation Law (Attachment 2).



**Unwarranted Hardship** - Per Section 22A-21, a variance may only be granted if the Planning Board finds that leaving the requested trees in an undisturbed state would result in unwarranted hardship. In this case, the unwarranted hardship is caused by

- the limited buildable area on the property due to the amount of environmental features and associated buffers; and
- the location of mature trees in close proximity to the existing school buildings, which will be impacted with any modification.

The Applicant has responded to the challenges of fitting the required program on a constrained site by designing a school facility that preserves the forest and stream valley buffers and responds to the topography of the site. Additionally, the Applicant has minimized the limits of disturbance to save trees within areas of construction. If the Applicant was not allowed to impact the requested trees, it would not be possible to replace the existing school buildings with new construction. Staff agrees that leaving the requested trees in an undisturbed state would result in an unwarranted hardship.



**Variance Findings** - Based on the review of the variance request and the proposed Preliminary Forest Conservation Plan, staff makes the following findings:

1. *Granting the variance will not confer on the applicant a special privilege that would be denied to other applicants.*

Granting the variance will not confer a special privilege on the Applicant as disturbance of the specified trees is due to the modification of an existing school. Disturbance has been minimized and tree protection measures have been used to minimize damage. Therefore, staff believes that granting this variance request is not a special privilege that would be denied to other applicants.

2. *The need for the variance is not based on conditions or circumstances which are the result of the actions by the Applicant.*

The requested variance is not based on conditions or circumstances which are the result of actions by the Applicant. The requested variance is based on the locations of the trees and the constraints of the natural resources on the Subject Property.

3. *The need for the variance is not based on a condition relating to land or building use, either permitted or non-conforming, on a neighboring property.*

The requested variance is a result of the proposed school modification on the Subject Property and not a result of land or building use on a neighboring property.

4. *Granting the variance will not violate State water quality standards or cause measurable degradation in water quality.*

The proposed project should improve water quality by the addition of stormwater management and the planting of unforested stream valley buffers. Additionally, the Applicant will plant trees to mitigate for the loss of tree canopy, which will also contribute to the preservation of water quality by reducing runoff through rainfall interception and water uptake.

**Mitigation for Trees Subject to the Variance Provisions** - In order to replace the tree canopy removed as part of this plan, staff recommends that the Applicant provide mitigation for the removal of variance trees. Variance trees, located outside of cleared forest, should be mitigated for at a ratio of 1" DBH replaced for every 4" removed, with a minimum 3" caliper tree. The Applicant is currently proposing to remove a total of 507.5 inches DBH of variance trees, which will require 127 inches caliper of trees to be planted on-site. However, the Applicant is attempting to retain some of the trees shown for removal through tree protection measures. Therefore, the final mitigation planting quantities will be determined and shown on the Final Forest Conservation Plan. This planting ensures that there will be no loss of canopy on this site.

**County Arborist's Recommendation on the Variance** - In accordance with Montgomery County Code Section 22A-21(c), the Planning Department is required to refer a copy of the variance request to the County Arborist in the Montgomery County Department of Environmental Protection for a recommendation prior to acting on the request. Staff forwarded the request to the County Arborist on 5/8/22012. The County Arborist has reviewed the variance request and recommended approval (Attachment 3).

**Variance Recommendation** - Staff recommends that the variance be granted, with the recommended mitigation plantings.

## **CONCLUSION**

Staff recommends that the Planning Board approve the Preliminary Forest Conservation Plan with the conditions cited in this staff report. The variance approval is assumed into the Planning Board's approval of the Preliminary Forest Conservation Plan.

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### **Attachments**

1. Preliminary Forest Conservation Plan
2. Variance application
3. Letter from County Arborist



**ATTACHMENT 1**

MAPPED SOILS LEGEND	HYDRIC	HIGHLY ERODIBLE	PRIME FARM LAND	K FACTOR
2B Glenelg silt loam 3 - 8% slopes			X	.32-.49
2C Glenelg silt loam 8 - 15% slopes				.32-.49
2UC Glenelg-Urban land complex 8 - 15% slopes				.32-.44
5B Glenville silt loam 3 - 8% slopes				.24-.32
6A Baile silt loam 0 - 3% slopes	X			.43
54A Hatboro silt loam 0 - 3% slopes	X			.20-.49

**ENVIRONMENTAL SUMMARY TABLE**

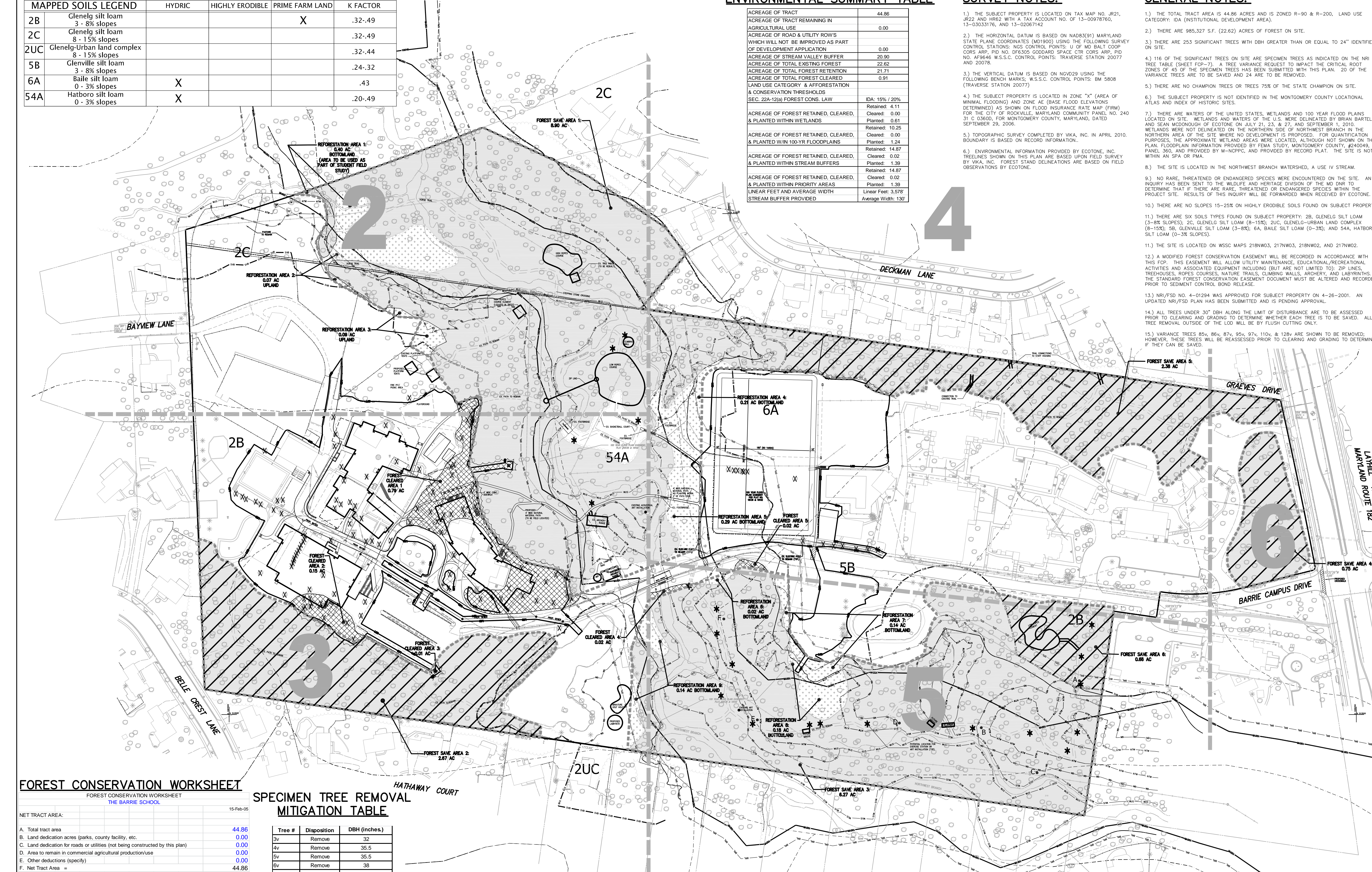
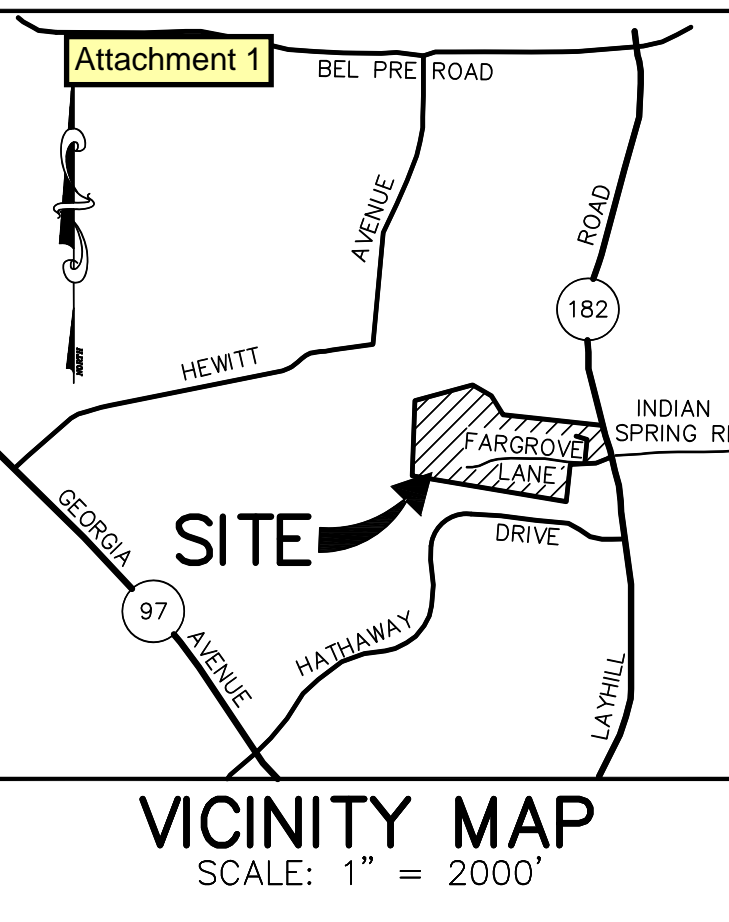
ACREAGE OF TRACT	44.86
ACREAGE OF TRACT REMAINING IN AGRICULTURAL USE	0.00
ACREAGE OF ROAD & UTILITY ROW'S WHICH WILL NOT BE IMPROVED AS PART OF DEVELOPMENT APPLICATION	0.00
ACREAGE OF STREAM VALLEY BUFFER	20.90
ACREAGE OF TOTAL EXISTING FOREST	22.62
ACREAGE OF TOTAL FOREST RETENTION	21.71
ACREAGE OF TOTAL FOREST CLEARED	0.91
LAND USE CATEGORY & AFFORESTATION & CONSERVATION THRESHOLDS SEC. 22A-22B FOREST CONS. LAW	
Retained: 4.11	IDA: 15% / 20%
Cleared: 0.00	Cleared: 0.00
Planted: 0.25	Planted: 0.25
ACREAGE OF FOREST RETAINED, CLEARED, & PLANTED WITHIN WETLANDS	10.25
Retained: 0.00	Cleared: 0.00
Planted: 1.24	Planted: 1.24
ACREAGE OF FOREST RETAINED, CLEARED, & PLANTED WITHIN 100-YR FLOODPLAINS	14.87
Retained: 0.02	Cleared: 0.02
Planted: 1.39	Planted: 1.39
ACREAGE OF FOREST RETAINED, CLEARED, & PLANTED WITHIN PRIORITY AREAS	1.39
Retained: 0.02	Cleared: 0.02
Planted: 1.39	Planted: 1.39
LINEAR FEET AND AVERAGE WIDTH STREAM BUFFER PROVIDED	Linear Feet: 3,578 Average Width: 130'

**SURVEY NOTES:**

- 1.) THE SUBJECT PROPERTY IS LOCATED ON TAX MAP NO. JR21, JR22 AND HR62 WITH A TAX ACCOUNT NO. OF 13-00978760, 13-03033776, AND 13-02067142.
- 2.) THE HORIZONTAL DATUM IS BASED ON NAD83(01) MARYLAND STATE PLANE COORDINATES (MD8300) USING THE FOLLOWING SURVEY CONTROL STATIONS: NGS CONTROL POINTS: U OF MD BALT COOP CORES ARP, PID NO. D78300 (ODD/DWARD SPACE CTR CORES ARP, PID NO. AF9648 W.S.S.C. CONTROL POINTS: TRAVERSE STATION 20077 AND 20078.
- 3.) THE VERTICAL DATUM IS BASED ON NAVD83 USING THE FOLLOWING BENCH MARKS: W.S.S.C. CONTROL POINTS: BM 5808 (TRAVERSE STATION 20077).
- 4.) THE SUBJECT PROPERTY IS LOCATED IN ZONE "X" (AREA OF MINIMAL FLOODING) AND ZONE AE (BASE FLOOD ELEVATIONS DETERMINED) AS SHOWN ON FLOOD INSURANCE RATE MAP (FIRM) FOR THE CITY OF ROCKVILLE, MARYLAND COMMUNITY PANEL NO. 240 31-C 03600, FOR MONTGOMERY COUNTY, MARYLAND, DATED SEPTEMBER 29, 2006.
- 5.) TOPOGRAPHIC SURVEY COMPLETED BY VIK A, INC. IN APRIL 2010. BOUNDARY IS BASED ON RECORD INFORMATION.
- 6.) ENVIRONMENTAL INFORMATION PROVIDED BY ECOTONE, INC. TREELINES SHOWN ON THIS PLAN ARE BASED UPON FIELD SURVEY BY VIK A, INC. FOREST STAND DELINEATIONS ARE BASED ON FIELD OBSERVATIONS BY ECOTONE.

**GENERAL NOTES:**

- 1.) THE TOTAL TRACT AREA IS 44.86 ACRES AND IS ZONED R-90 & R-200. LAND USE CATEGORY: IDA (INSTITUTIONAL DEVELOPMENT AREA).
- 2.) THERE ARE 985,327 S.F. (22.62) ACRES OF FOREST ON SITE.
- 3.) THERE ARE 253 SIGNIFICANT TREES WITH DBH GREATER THAN OR EQUAL TO 24" IDENTIFIED ON SITE.
- 4.) 116 OF THE SIGNIFICANT TREES ON SITE ARE SPECIMEN TREES AS INDICATED ON THE NRI TREE TABLE (SHEET FCP-7). A TREE VARIANCE REQUEST TO IMPACT THE CRITICAL ROOT ZONES OF 45 OF THE SPECIMEN TREES HAS BEEN SUBMITTED WITH THIS PLAN. 20 OF THE VARIANCE TREES ARE TO BE SAVED AND 24 ARE TO BE REMOVED.
- 5.) THERE ARE NO CHAMPION TREES OR TREES 75% OF THE STATE CHAMPION ON SITE.
- 6.) THE SUBJECT PROPERTY IS NOT IDENTIFIED IN THE MONTGOMERY COUNTY LOCALATIONAL ATLAS AND INDEX OF HISTORIC SITES.
- 7.) THERE ARE WATERS OF THE UNITED STATES, WETLANDS AND 100 YEAR FLOOD PLAINS LOCATED ON SITE. WETLANDS AND WATERS OF THE U.S. WERE DELINEATED BY BRIAN BARTLELL AND SEAN MCCONOUGH OF ECOTONE ON JULY 21, 23, & 27, AND SEPTEMBER 1, 2010. WETLANDS WERE NOT DELINEATED ON THE NORTHERN SIDE OF NORTHWEST BRANCH IN THE NORTHERN AREA OF THE SITE WHERE NO DEVELOPMENT IS PROPOSED. FOR QUANTIFICATION PURPOSES, THE APPROXIMATE WETLAND AREAS WERE LOCATED, ALTHOUGH NOT SHOWN ON THIS PLAN. FLOODPLAIN INFORMATION PROVIDED BY FEMA STUDY, MONTGOMERY COUNTY, #240049, PANEL 300, AND PROVIDED BY W-M-NPCPC, AND PROVIDED BY RECORD PLAT. THE SITE IS NOT WITHIN AN SPA OR PMA.
- 8.) THE SITE IS LOCATED IN THE NORTHWEST BRANCH WATERSHED, A USE IV STREAM.
- 9.) NO RARE, THREATENED OR ENDANGERED SPECIES WERE ENCOUNTERED ON THE SITE. AN INQUIRY HAS BEEN SENT TO THE WILDLIFE AND HERITAGE DIVISION OF THE MD DNR TO DETERMINE THAT IF THERE ARE RARE, THREATENED OR ENDANGERED SPECIES WITHIN THE PROJECT SITE. RESULTS OF THIS INQUIRY WILL BE FORWARDED WHEN RECEIVED BY ECOTONE.
- 10.) THERE ARE NO SLOPES 15-25% ON HIGHLY ERODIBLE SOILS FOUND ON SUBJECT PROPERTY.
- 11.) THERE ARE SIX SOILS TYPES FOUND ON SUBJECT PROPERTY: 2B, GLENELG SILT LOAM (3-8% SLOPES); 2C, GLENELG SILT LOAM (8-15%); 2UC, GLENELG-URBAN LAND COMPLEX (8-15%); 5B, GLENVILLE SILT LOAM (3-8%); 6A, BAILE SILT LOAM (0-3%); AND 54A, HATBORO SILT LOAM (0-3% SLOPES).
- 12.) A MODIFIED FOREST CONSERVATION EASEMENT WILL BE RECORDED IN ACCORDANCE WITH THIS FCP. THIS EASEMENT WILL ALLOW UTILITY MAINTENANCE, EDUCATIONAL/PRE-RECREATIONAL ACTIVITIES AND ASSOCIATED EQUIPMENT INCLUDING (BUT ARE NOT LIMITED TO): ZIP LINES, TREEHOUSES, ROPES COURSES, NATURE TRAILS, CLIMBING WALLS, ARCHERY, AND LABYRINTHS THE STANDARD FOREST CONSERVATION EASEMENT DOCUMENT MUST BE ALTERED AND RECORDED PRIOR TO SEDIMENT CONTROL BOND RELEASE.
- 13.) NRI/FSD NO. 4-01294 WAS APPROVED FOR SUBJECT PROPERTY ON 4-26-2001. AN UPDATED NRI/FSD PLAN HAS BEEN SUBMITTED AND IS PENDING APPROVAL.
- 14.) ALL TREES UNDER 30" DBH ALONG THE LIMIT OF DISTURBANCE ARE TO BE ASSESSED PRIOR TO CLEARING AND GRADING TO DETERMINE WHETHER EACH TREE IS TO BE SAVED. ALL TREE REMOVAL OUTSIDE OF THE LOD WILL BE BY FLUSH CUTTING ONLY.
- 15.) VARIANCE TREES 85v, 86v, 87v, 95v, 97v, 110v, & 128v ARE SHOWN TO BE REMOVED; HOWEVER, THESE TREES WILL BE REASSESSED PRIOR TO CLEARING AND GRADING TO DETERMINE IF THEY CAN BE SAVED.

**FOREST TABULATIONS**

FOREST CLEARED	ACRES
Cleared Area 1	0.79
Cleared Area 2	0.15
Cleared Area 3	0.01
Cleared Area 4	0.02
Cleared Area 5	0.02
<b>Total Cleared</b>	<b>0.99</b>
<b>FOREST SAVED</b>	<b>8.90</b>
Save Area 1	8.90
Save Area 2	2.67
Save Area 3	6.27
Save Area 4	0.75
Save Area 5	2.38
Save Area 6	0.66
<b>Total Saved</b>	<b>21.63</b>
<b>REFORESTATION</b>	<b>1.54</b>
Reforestation Area 1	0.40
Reforestation Area 2	0.07
Reforestation Area 3	0.09
Reforestation Area 4	0.21
Reforestation Area 5	0.29
Reforestation Area 6	0.02
Reforestation Area 7	0.14
Reforestation Area 8	0.18
Reforestation Area 9	0.14
<b>Total Reforestation</b>	<b>1.54</b>

**FOREST CONSERVATION WORKSHEET**

FOREST CONSERVATION WORKSHEET		THE BARRIE SCHOOL		15-Feb-06	
NET TRACT AREA:					
A. Total tract area	44.86				
B. Land dedication acres (parks, county facility, etc.)	0.00				
C. Land dedication for roads or utilities (not being constructed by this plan)	0.00				
D. Area to remain in commercial agricultural production/use	0.00				
E. Other deductions (specify)	0.00				
F. Net Tract Area =	44.86				
LAND USE CATEGORY: (from Trees Technical Manual)					
Input the number "1" under the appropriate land use, limit to only one					
ARA	MDR	IDA	HDR	MPD	CIA
0	0	1	0	0	0
G. Afforestation Threshold	15%	x F =	6.73		
H. Conservation Threshold	20%	x F =	8.97		
EXISTING FOREST COVER:					
I. Existing forest cover =	22.62				
J. Area of forest above afforestation threshold =	15.89				
K. Area of forest above conservation threshold =	13.65				
BREAK EVEN POINT:					
L. Forest retention above threshold with no mitigation =	11.70				
M. Clearing permitted without mitigation =	10.92				
PROPOSED FOREST CLEARING:					
N. Total area of forest to be cleared =	0.99				
O. Total area of forest to be retained =	21.63				
PLANTING REQUIREMENTS:					
P. Reforestation for clearing above conservation threshold =	0.25				
Q. Reforestation for clearing below conservation threshold =	0.00				
R. Credit for retention above conservation threshold =	12.66				
S. Total reforestation required =	0.00				
T. Total afforestation required =	0.00				
U. Credit for landscaping (may not exceed 20% of "S") =	0.00				
V. Total reforestation and afforestation required =	0.00				
W. Forest saved in excess of Break Even Point (M - N) =	9.93				
NOTE: MITIGATION FOR PERMANENT ENCROACHMENT IN SVB (2-1) = 0.77 AC DISTURBANCE = 1.54 AC ON-SITE REFORESTATION REQUIRED.					

**SPECIMEN TREE REMOVAL MITIGATION TABLE**

Tree #	Disposition	DBH (inches)
3v	Remove	32
4v	Remove	35.5
5v	Remove	35.5
6v	Remove	38
14v	Remove	34
45v	Remove	30.5
85v	Remove	38
99v	Remove	33
07v	Remove	30
07v	Remove	31
116v	Remove	33
117v	Remove	35
119v	Remove	37
120v	Remove	31
128v	Remove	34
<b>TOTAL DBH =</b>		<b>507.5</b>
<b>REQUIRED INCHES OF MITIGATION (TOTAL DBH / 4) =</b>		
<b>126.9</b>		

- NOTES:
1. TREES 85v, 86v, 87v, 95v, 97v, 110v, & 128v WILL BE REASSESSED PRIOR TO CLEARING & GRADING TO DETERMINE IF EACH TREE CAN BE SAVED. MITIGATION WILL BE PROVIDED ONLY FOR REMOVED TREES.
  2. SPECIFIC METHOD OF MITIGATION TO BE PROVIDED AT TIME OF FINAL FCP THROUGH LANDSCAPE PLANTINGS.

**LEGEND**

CABLE TELEVISION CONDUIT	SANITARY MANHOLE	EXISTING STREAM / RIVER	EXISTING TREE
ELECTRICAL CONDUIT	TRAFFIC CONTROL BOX	WATERS OF THE UNITED STATES	EXISTING CONIFER
EDGE OF PAVEMENT	TREE	WETLAND BUFFER	EXISTING TREE TO BE REMOVED
FENCE LINE	CABLE TELEVISION PEDESTAL	NONTIL WETLANDS	MAPPED SOILS
NATURAL GAS CONDUIT	UNKNOWN UTILITY MANHOLE	EX. FLOODPLAIN BUILDING RESTRICTION LINE PER EXISTING FLOODPLAIN EASEMENT	
OVERHEAD WIRES	WATER METER	STREAM VALLEY BUFFER	
TELEPHONE/COMMUNICATIONS CONDUIT	WATER MANHOLE	EXISTING TREELINE	
PROPERTY LINES	WATER VALVE	PROPOSED TREELINE	
PUBLIC UTILITIES EASEMENTS	BOLLARD	PROPOSED LIMITS OF DISTURBANCE	
SANITARY SEWER CONDUIT	SIGN POST	EXISTING 100 YR FLOODPLAIN ESMT	
STORM DRAIN CONDUIT	INLETS	FEMA 100 YR FLOODPLAIN	
WATER CONDUIT	CURB INLET	SOURCE: M-NCPPC 2/8/12	
SANITARY CLEANOUT	CONC. CURB AND GUTTER	PROP. MODIFIED FOREST CONSERVATION ESMT	
STORM DRAIN MANHOLE	BLDG. BUILDING	EXISTING TRAIL TO REMAIN	
ELECTRICAL JUNCTION BOX	STY. STORY	EXISTING ORIENTEERING MARKER (LETTERED A-F)	
ELECTRICAL MANHOLE	ASPH. ELECTRICAL TRANSFORMER		
FIRE DEPARTMENT CONNECTION	ESMT. EASEMENT		
FIRE HYDRANT	RCP. REINFORCED CONCRETE PIPE		
GUY POLE	CMP. CORRUGATED METAL PIPE		
GAS VALVE	BRL. BUILDING RESTRICTION LINE		
LIGHT POLE	R/W. RIGHT-OF-WAY		
PHONE PEDESTAL	FF. FINISH FLOOR ELEVATION		
PHONE MANHOLE			
UTILITY POLE			

**PROFESSIONAL CERTIFICATION:**

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED REGISTERED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.

SIGNATURE: MEREDITH L. BYER, RLA  
DATE: OCT. 3, 2013  
TITLE: ASSOCIATE  
EXPIRATION DATE: \_\_\_\_\_  
LICENSE NO. 3108

**THE BARRIE SCHOOL**  
LIBER 12728 FOLIO 585  
13TH ELECTION DISTRICT  
MONTGOMERY COUNTY, MARYLAND  
WSSC MAPS: 218W03, 217N03, 218W02, 217N02  
TAX MAPS: JR21, JR22, HR62

**PRELIMINARY FOREST CONSERVATION PLAN COMPOSITE SHEET**

VIKA REVISIONS

DATE:	JAN., 2012
DES.	MLB
	CDM

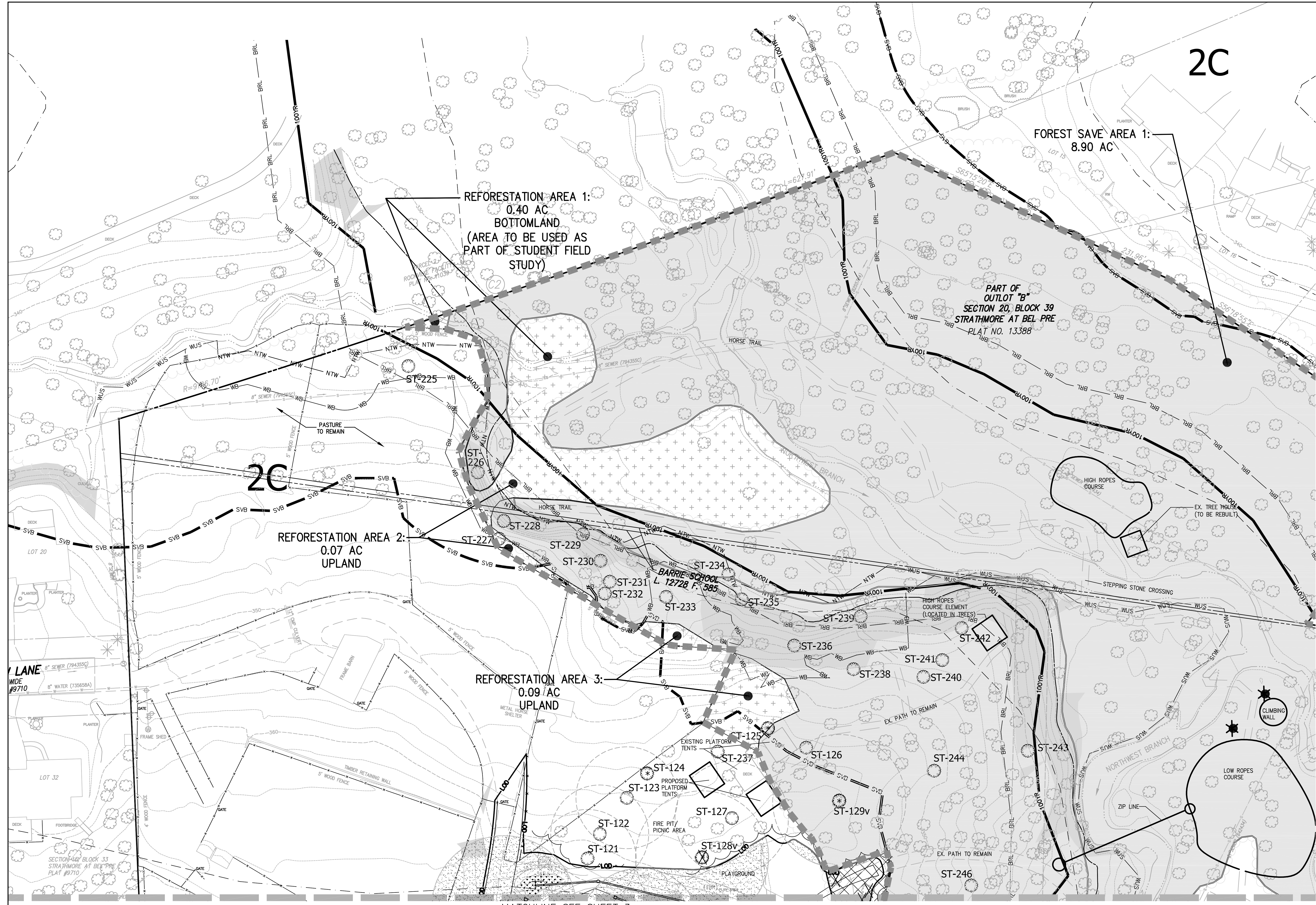
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PROJECT/FILE NO. M1603A

SHEET NO. FCP-1

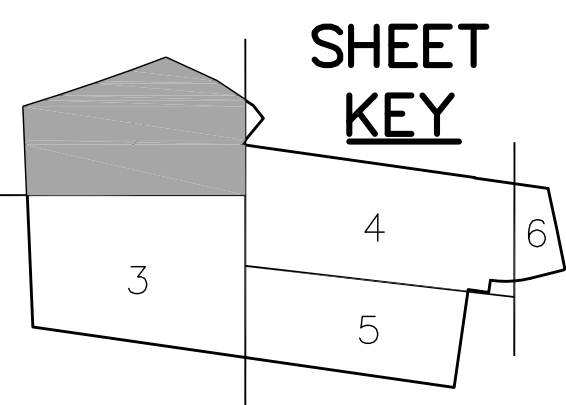
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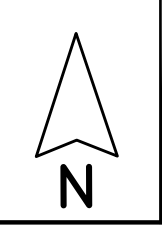
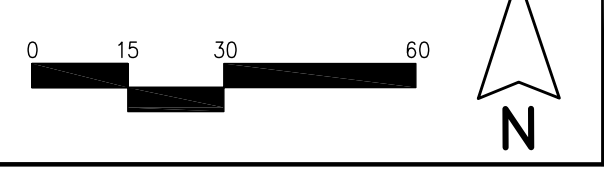


MATCHLINE SEE SHEET 4

MATCHLINE SEE SHEET 3



LEGEND	
	CABLE TELEVISION CONDUIT
	ELECTRICAL CONDUIT
	EDGE OF PAVEMENT
	FENCE LINE
	NATURAL GAS CONDUIT
	OVERHEAD WIRES
	TELEPHONE/COMMUNICATIONS CONDUIT
	PROPERTY LINES
	PUBLIC UTILITIES EASEMENTS
	SANITARY SEWER CONDUIT
	STORM DRAIN CONDUIT
	WATER CONDUIT
	SANITARY CLEANOUT
	STORM DRAIN MANHOLE
	ELECTRICAL JUNCTION BOX
	ELECTRICAL MANHOLE
	FIRE DEPARTMENT CONNECTION
	FIRE HYDRANT
	GUY POLE
	GAS VALVE
	LIGHT POLE
	PHONE PEDESTAL
	PHONE MANHOLE
	UTILITY POLE
	SANITARY MANHOLE
	TRAFFIC CONTROL BOX
	TRAFFIC SIGNAL POLE
	TREE
	CABLE TELEVISION PEDESTAL
	UNKNOWN UTILITY MANHOLE
	WATER METER
	WATER MANHOLE
	WATER VALVE
	BOLLARD
	SIGN POST
	INLETS
	CURB INLET
	CONC. CONCRETE
	C&G CURB AND GUTTER
	BLDG. BUILDING
	STY. STORY
	T ELECTRICAL TRANSFORMER
	ASPH. ASPHALT
	ESMT. EASEMENT
	RCP REINFORCED CONCRETE PIPE
	CMP CORRUGATED METAL PIPE
	BRL BUILDING RESTRICTION LINE
	R/W RIGHT-OF-WAY
	FF FINISH FLOOR ELEVATION
	EXISTING STREAM / RIVER
	WATERS OF THE UNITED STATES
	WETLAND BUFFER
	NONTIDAL WETLANDS
	EX. FLOODPLAIN BUILDING RESTRICTION LINE
	PER EXISTING FLOODPLAIN EASEMENT
	STREAM VALLEY BUFFER
	PROPOSED LIMITS OF DISTURBANCE
	EXISTING 100 YR FLOODPLAIN ESMT
	FEMA 100 YR FLOODPLAIN
	PROPOSED 100 YR FLOODPLAIN
	SOURCE: M-NPPC 2/8/12
	EXISTING TREELINE
	PROPOSED TREELINE
	EXISTING TRAIL TO REMAIN
	FUTURE ART INSTALLATION OR EXERCISE STATION ALONG TRAIL
	SCHEMATIC LOCATION OF SCHOOL/CAMP ACTIVITY WITHIN FOREST CONSERVATION EASEMENT.
	EXISTING TREE
	EXISTING CONIFER
	EXISTING TREE TO BE REMOVED SIGNIFICANT TREE (≥ 24" DBH)
	EXISTING TREE TO BE REMOVED SPECIMEN TREE (≥ 30" DBH)
	EXISTING TREE TO BE REMOVED CRITICAL ROOT ZONE (VARIANCE REQUESTED)
	EXISTING TREE TO BE REMOVED (VARIANCE REQUESTED)
	CRITICAL ROOT ZONE OF TREE WITH ≥ 24" DBH WITHIN 50' OF LOD
	CRITICAL ROOT ZONE IMPACT TO VARIANCE TREES
	MAPPED SOILS
	SILT FENCE
	SUPER SILT FENCE
	AT-GRADE INLET PROTECTION
	FOREST WITHIN STREAM VALLEY BUFFER TO BE SAVED AND PLACED IN A MODIFIED FOREST CONSERVATION EASEMENT
	FOREST OUTSIDE STREAM VALLEY BUFFER TO BE SAVED AND PLACED IN A MODIFIED FOREST CONSERVATION EASEMENT. EASEMENT CAN BE REMOVED WITHOUT PENALTY AT TIME OF FUTURE DEVELOPMENT.
	FOREST TO BE CLEARED
	PROPOSED DISTURBANCE WITHIN STREAM VALLEY BUFFER (MITIGATION OF 2:1 REFORESTATION REQUIRED)
	ON-SITE REFORESTATION AREA (TO BE PLACED IN A MODIFIED FOREST CONSERVATION EASEMENT)
	SLOPES 25% AND GREATER
	PROPOSED 2' CONTOUR
	PROPOSED 10' CONTOUR
	PROPOSED MODIFIED FOREST CONSERVATION ESMT





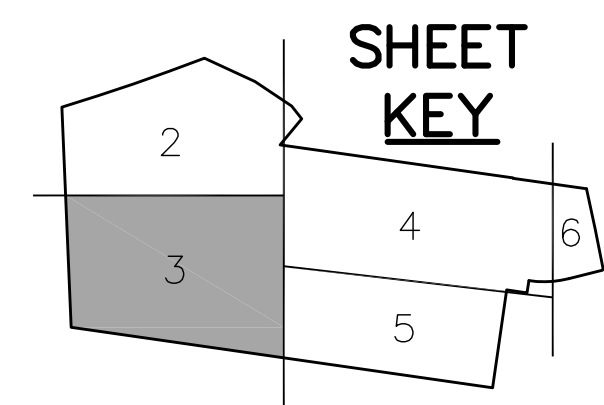
MATCHLINE SEE SHEET 2

2B

54A

MATCHLINE SEE SHEET 4

MATCHLINE SEE SHEET 5



LEGEND

<ul style="list-style-type: none"> <li>CABLE TELEVISION CONDUIT</li> <li>ELECTRICAL CONDUIT</li> <li>EDGE OF PAVEMENT</li> <li>FENCE LINE</li> <li>NATURAL GAS CONDUIT</li> <li>OVERHEAD WIRES</li> <li>TELEPHONE/COMMUNICATIONS CONDUIT</li> <li>PROPERTY LINES</li> <li>PUBLIC UTILITIES EASEMENTS</li> <li>SANITARY SEWER CONDUIT</li> <li>STORM DRAIN CONDUIT</li> <li>WATER CONDUIT</li> <li>SANITARY CLEANOUT</li> <li>STORM DRAIN MANHOLE</li> <li>ELECTRICAL JUNCTION BOX</li> <li>ELECTRICAL MANHOLE</li> <li>FIRE DEPARTMENT CONNECTION</li> <li>FIRE HYDRANT</li> <li>GUY POLE</li> <li>GAS VALVE</li> <li>LIGHT POLE</li> <li>PHONE PEDESTAL</li> <li>PHONE MANHOLE</li> <li>UTILITY POLE</li> </ul>	<ul style="list-style-type: none"> <li>SANITARY MANHOLE</li> <li>TRAFFIC CONTROL BOX</li> <li>TRAFFIC SIGNAL POLE</li> <li>TREE</li> <li>CABLE TELEVISION PEDESTAL</li> <li>UNKNOWN UTILITY MANHOLE</li> <li>WATER METER</li> <li>WATER MANHOLE</li> <li>WATER VALVE</li> <li>BOLLARD</li> <li>SIGN POST</li> <li>INLETS</li> <li>CURB INLET</li> <li>CONC. CONCRETE</li> <li>C&amp;G CURB AND GUTTER</li> <li>BLDG. BUILDING</li> <li>STY. STORY</li> <li>T. ELECTRICAL TRANSFORMER</li> <li>ASPH. ASPHALT</li> <li>ESMT. EASEMENT</li> <li>RCP REINFORCED CONCRETE PIPE</li> <li>CMP CORRUGATED METAL PIPE</li> <li>BRL BUILDING RESTRICTION LINE</li> <li>R/W RIGHT-OF-WAY</li> <li>FF FINISH FLOOR ELEVATION</li> </ul>	<ul style="list-style-type: none"> <li>EXISTING STREAM / RIVER</li> <li>WATERS OF THE UNITED STATES</li> <li>WETLAND BUFFER</li> <li>NONTIDAL WETLANDS</li> <li>EX. FLOODPLAIN BUILDING RESTRICTION LINE PER EXISTING FLOODPLAIN EASEMENT</li> <li>STREAM VALLEY BUFFER</li> <li>PROPOSED LIMITS OF DISTURBANCE</li> <li>EXISTING 100 YR FLOODPLAIN ESMT</li> <li>FEMA 100 YR FLOODPLAIN</li> <li>PROPOSED 100 YR FLOODPLAIN SOURCE: M-NCPPC 2/8/12</li> <li>EXISTING TREELINE</li> <li>PROPOSED TREELINE</li> <li>EXISTING TRAIL TO REMAIN</li> <li>FUTURE ART INSTALLATION OR EXERCISE STATION ALONG TRAIL</li> <li>SCHEMATIC LOCATION OF SCHOOL/CAMP ACTIVITY WITHIN FOREST CONSERVATION EASEMENT.</li> </ul>	<ul style="list-style-type: none"> <li>EXISTING TREE</li> <li>EXISTING CONIFER</li> <li>EXISTING TREE TO BE REMOVED</li> <li>SIGNIFICANT TREE (≥24" DBH)</li> <li>SPECIMEN TREE (≥30" DBH)</li> <li>EXISTING SPECIMEN TREE TO REMAIN WITH DISTURBANCE TO CRITICAL ROOT ZONE. (VARIANCE REQUESTED)</li> <li>EXISTING SPECIMEN TREE TO BE REMOVED. (VARIANCE REQUESTED)</li> <li>CRITICAL ROOT ZONE OF TREE WITH ≥24" DBH WITHIN 50' OF LOD</li> <li>EXISTING TRAIL TO REMAIN</li> <li>CRITICAL ROOT ZONE IMPACT TO VARIANCE TREES</li> <li>MAPPED SOILS</li> </ul>	<ul style="list-style-type: none"> <li>SILT FENCE</li> <li>SUPER SILT FENCE</li> <li>AT-GRADE INLET PROTECTION</li> <li>FOREST WITHIN STREAM VALLEY BUFFER TO BE SAVED AND PLACED IN A MODIFIED FOREST CONSERVATION EASEMENT</li> <li>FOREST OUTSIDE STREAM VALLEY BUFFER TO BE SAVED AND PLACED IN A MODIFIED FOREST CONSERVATION EASEMENT. EASEMENT CAN BE REMOVED WITHOUT PENALTY AT TIME OF FUTURE DEVELOPMENT.</li> <li>FOREST TO BE CLEARED</li> <li>PROPOSED DISTURBANCE WITHIN STREAM VALLEY BUFFER (MITIGATION OF 2:1 REFORESTATION REQUIRED)</li> <li>ON-SITE REFORESTATION AREA (TO BE PLACED IN A MODIFIED FOREST CONSERVATION EASEMENT)</li> <li>SLOPES 25% AND GREATER</li> <li>PROPOSED 2' CONTOUR</li> <li>PROPOSED 10' CONTOUR</li> <li>PROPOSED MODIFIED FOREST CONSERVATION ESMT</li> </ul>
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SIGNATURE: MEREDITH L. BYER, RLA  
 DATE: OCT. 3, 2013  
 PRINTED NAME: MEREDITH L. BYER  
 TITLE: ASSOCIATE  
 LICENSE NO. 3108

DATE:	JAN., 2012
DES.	DWN.
MBG	CDM
SCALE:	1"=30'
PROJECT/FILE NO.	M1603A
SHEET NO.	FCP-3

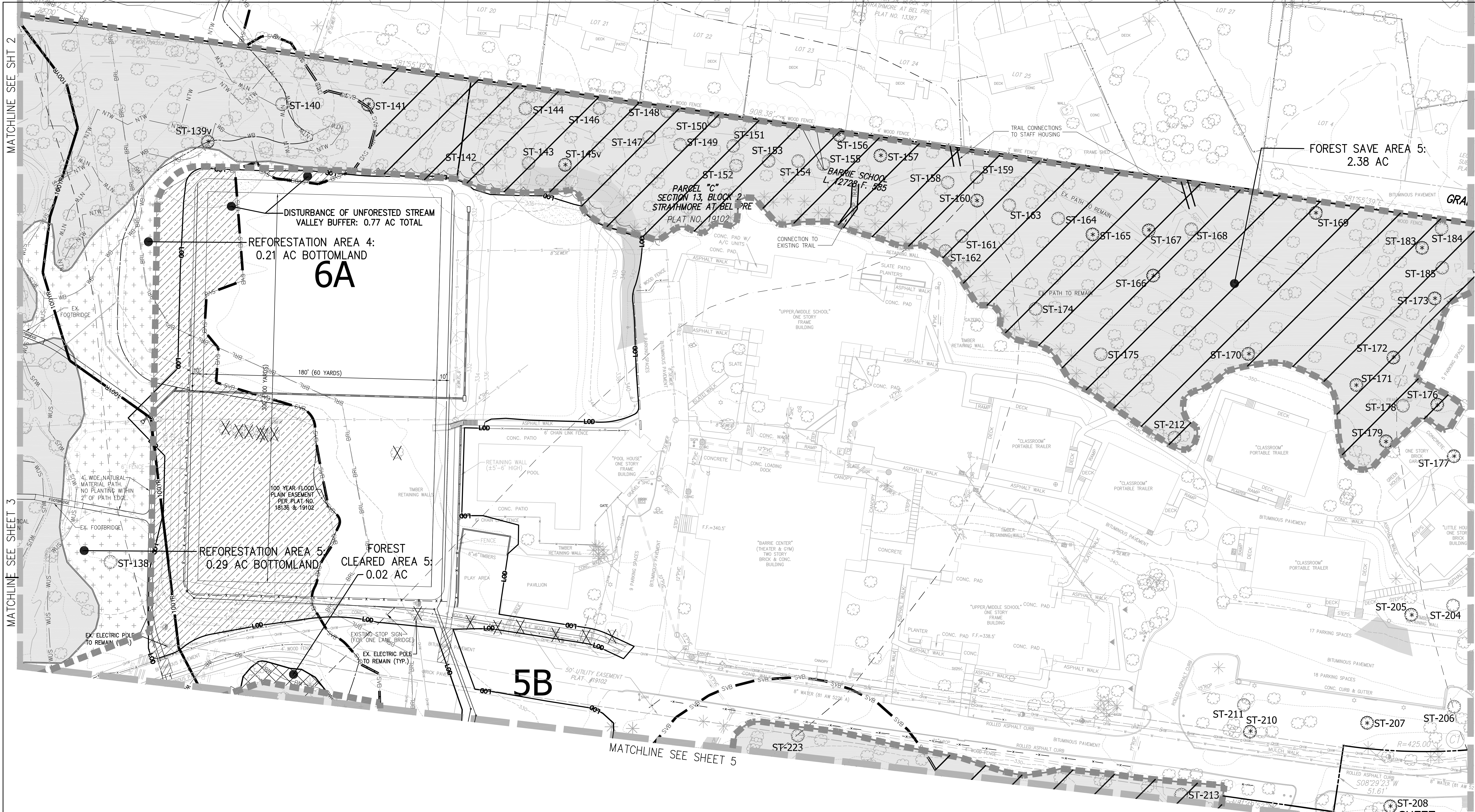
PRELIMINARY  
FOREST CONSERVATION PLAN

THE BARRIE SCHOOL  
 LIBER 12728 FOLIO 585  
 13TH ELECTION DISTRICT  
 MONTGOMERY COUNTY, MARYLAND  
 WSSC MAPS: 21BNW03, 217NW03, 21BNW02, 217NW02  
 TAX ASSESSMENT MAPS: JR21, JR22, JR62

VIKA REVISIONS

ENGINEERS ■ PLANNERS ■ LANDSCAPE ARCHITECTS ■ SURVEYORS ■ SUSTAINABLE DESIGN  
 VIKA MARYLAND LLC  
 20251 CENTURY BOULEVARD, SUITE 400 ■ GERMANTOWN, MARYLAND 20874  
 (301) 916-4100 ■ FAX (301) 916-2262  
 WWW.VIKAKA.COM



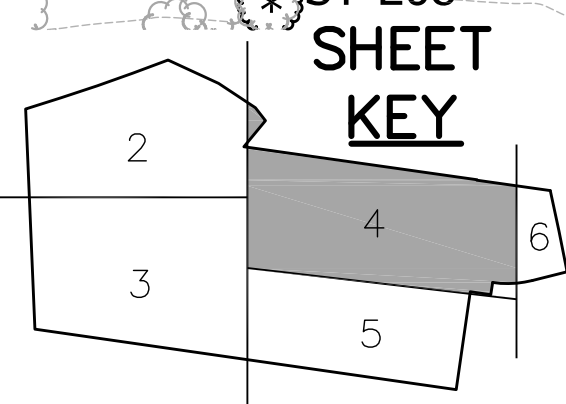


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MATCHLINE SEE SHEET 3

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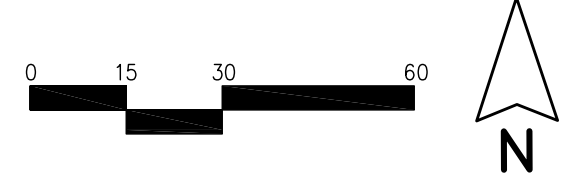
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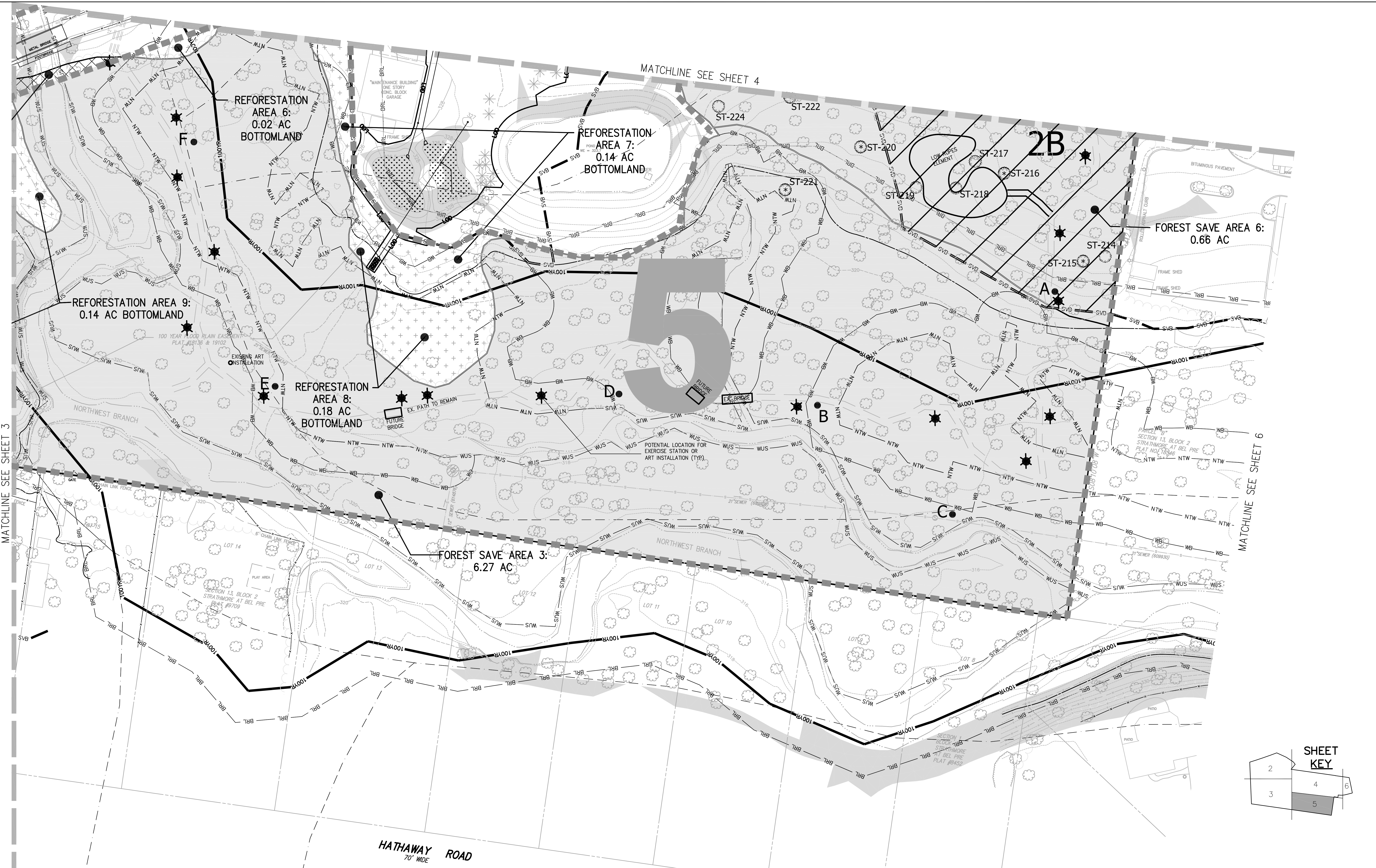
**LEGEND**

<p>CABLE TELEVISION CONDUIT                  ELECTRICAL CONDUIT                  EDGE OF PAVEMENT                  FENCE LINE                  NATURAL GAS CONDUIT                  OVERHEAD WIRES                  TELEPHONE/COMMUNICATIONS CONDUIT                  PROPERTY LINES                  PUBLIC UTILITIES EASEMENTS                  SANITARY SEWER CONDUIT                  STORM DRAIN CONDUIT                  WATER CONDUIT                  SANITARY CLEANOUT                  STORM DRAIN MANHOLE                  ELECTRICAL JUNCTION BOX                  ELECTRICAL MANHOLE                  FIRE DEPARTMENT CONNECTION                  FIRE HYDRANT                  GUY POLE                  GAS VALVE                  LIGHT POLE                  PHONE PEDESTAL                  PHONE MANHOLE                  UTILITY POLE</p>	<p>SANITARY MANHOLE                  TRAFFIC CONTROL BOX                  TRAFFIC SIGNAL POLE                  TREE                  CABLE TELEVISION PEDESTAL                  UNKNOWN UTILITY MANHOLE                  WATER METER                  WATER MANHOLE                  WATER VALVE                  BOLLARD                  SIGN POST                  INLETS                  CURB INLET                  CONC. .... CONCRETE                  C&amp;G ..... CURB AND GUTTER                  BLDG. .... BUILDING                  STY. .... STORY                  T ..... ELECTRICAL TRANSFORMER                  ASPH. .... ASPHALT                  ESMT. .... EASEMENT                  RCP ..... REINFORCED CONCRETE PIPE                  CMP ..... CORRUGATED METAL PIPE                  BRL ..... BUILDING RESTRICTION LINE                  R/W ..... RIGHT-OF-WAY                  FF ..... FINISH FLOOR ELEVATION</p>	<p>EXISTING STREAM / RIVER                  WATERS OF THE UNITED STATES                  WETLAND BUFFER                  NONTIDAL WETLANDS                  EX. FLOODPLAIN BUILDING RESTRICTION LINE                  PER EXISTING FLOODPLAIN EASEMENT                  STREAM VALLEY BUFFER                  PROPOSED LIMITS OF DISTURBANCE                  EXISTING 100 YR FLOODPLAIN ESMT                  FEMA 100 YR FLOODPLAIN                  PROPOSED 100 YR FLOODPLAIN                  SOURCE: M-NCPPC 2/8/12                  EXISTING TREELINE                  PROPOSED TREELINE                  EXISTING TRAIL TO REMAIN                  FUTURE ART INSTALLATION OR EXERCISE                  STATION ALONG TRAIL                  SCHEMATIC LOCATION OF SCHOOL/CAMP ACTIVITY                  WITHIN FOREST CONSERVATION EASEMENT.</p>	<p>EXISTING TREE                  EXISTING CONIFER                  EXISTING TREE TO BE REMOVED                  SIGNIFICANT TREE (≥24" DBH)                  SPECIMEN TREE (≥30" DBH)                  EXISTING SPECIMEN TREE TO REMAIN WITH DISTURBANCE TO CRITICAL ROOT ZONE. (VARIANCE REQUESTED)                  EXISTING SPECIMEN TREE TO BE REMOVED. (VARIANCE REQUESTED)                  CRITICAL ROOT ZONE OF TREE WITH ≥ 24" DBH WITHIN 50' OF LOD                  CRITICAL ROOT ZONE IMPACT TO VARIANCE TREES                  MAPPED SOILS</p>	<p>SILT FENCE                  SUPER SILT FENCE                  AT-GRADE INLET PROTECTION                  FOREST WITHIN STREAM VALLEY BUFFER TO BE SAVED AND PLACED IN A MODIFIED FOREST CONSERVATION EASEMENT                  FOREST OUTSIDE STREAM VALLEY BUFFER TO BE SAVED AND PLACED IN A MODIFIED FOREST CONSERVATION EASEMENT. EASEMENT CAN BE REMOVED WITHOUT PENALTY AT TIME OF FUTURE DEVELOPMENT.                  FOREST TO BE CLEARED                  PROPOSED DISTURBANCE WITHIN STREAM VALLEY BUFFER (MITIGATION OF 2:1 REFORESTATION REQUIRED)                  ON-SITE REFORESTATION AREA (TO BE PLACED IN A MODIFIED FOREST CONSERVATION EASEMENT)                  SLOPES 25% AND GREATER                  PROPOSED 2' CONTOUR                  PROPOSED 10' CONTOUR                  PROPOSED MODIFIED FOREST CONSERVATION ESMT</p>
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**LEGEND**

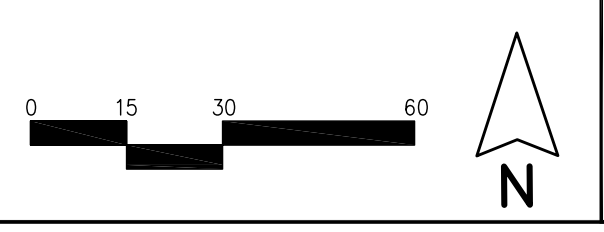
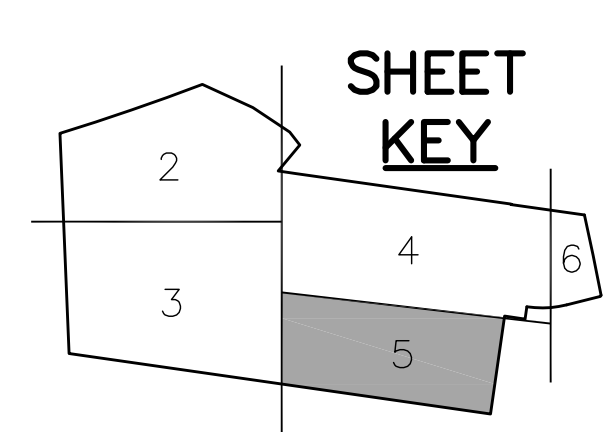
<ul style="list-style-type: none"> <li>— CABLE TELEVISION CONDUIT</li> <li>— ELECTRICAL CONDUIT</li> <li>— EDGE OF PAVEMENT</li> <li>— FENCE LINE</li> <li>— NATURAL GAS CONDUIT</li> <li>— OVERHEAD WIRES</li> <li>— TELEPHONE/COMMUNICATIONS CONDUIT</li> <li>— PROPERTY LINES</li> <li>— PUBLIC UTILITIES EASEMENTS</li> <li>— SANITARY SEWER CONDUIT</li> <li>— STORM DRAIN CONDUIT</li> <li>— WATER CONDUIT</li> <li>— SANITARY CLEANOUT</li> <li>— STORM DRAIN MANHOLE</li> <li>— ELECTRICAL JUNCTION BOX</li> <li>— ELECTRICAL MANHOLE</li> <li>— FIRE DEPARTMENT CONNECTION</li> <li>— FIRE HYDRANT</li> <li>— GUY POLE</li> <li>— GAS VALVE</li> <li>— LIGHT POLE</li> <li>— PHONE PEDESTAL</li> <li>— PHONE MANHOLE</li> <li>— UTILITY POLE</li> </ul>	<ul style="list-style-type: none"> <li>○ SANITARY MANHOLE</li> <li>□ TRAFFIC CONTROL BOX</li> <li>□ TRAFFIC SIGNAL POLE</li> <li>○ TREE</li> <li>○ CABLE TELEVISION PEDESTAL</li> <li>○ UNKNOWN UTILITY MANHOLE</li> <li>○ WATER METER</li> <li>○ WATER MANHOLE</li> <li>○ WATER VALVE</li> <li>○ BOLLARD</li> <li>○ SIGN POST</li> <li>○ INLETS</li> <li>○ CURB INLET</li> <li>— CONC. CONCRETE</li> <li>— C&amp;G CURB AND GUTTER</li> <li>— BLDG. BUILDING</li> <li>— STY. STORY</li> <li>— T. ELECTRICAL TRANSFORMER</li> <li>— ASPH. ASPHALT</li> <li>— ESM. EASEMENT</li> <li>— RCP REINFORCED CONCRETE PIPE</li> <li>— CMP CORRUGATED METAL PIPE</li> <li>— BRL BUILDING RESTRICTION LINE</li> <li>— R/W RIGHT-OF-WAY</li> <li>— FF FINISH FLOOR ELEVATION</li> </ul>	<ul style="list-style-type: none"> <li>— WUS WATERS OF THE UNITED STATES</li> <li>— WB WETLAND BUFFER</li> <li>— NTW NONTIDAL WETLANDS</li> <li>— BRL EX. FLOODPLAIN BUILDING RESTRICTION LINE PER EXISTING FLOODPLAIN EASEMENT</li> <li>— SVB STREAM VALLEY BUFFER</li> <li>— 100YR PROPOSED LIMITS OF DISTURBANCE</li> <li>— 100YR EXISTING 100 YR FLOODPLAIN ESMT</li> <li>— 100YR FEMA 100 YR FLOODPLAIN</li> <li>— 100YR PROPOSED 100 YR FLOODPLAIN SOURCE: M-NOPPC 2/8/12</li> <li>— EXISTING TREELINE</li> <li>— PROPOSED TREELINE</li> <li>— EXISTING TRAIL TO REMAIN</li> <li>— FUTURE ART INSTALLATION OR EXERCISE STATION ALONG TRAIL</li> <li>— SCHEMATIC LOCATION OF SCHOOL/CAMP ACTIVITY WITHIN FOREST CONSERVATION EASEMENT.</li> </ul>	<ul style="list-style-type: none"> <li>○ EXISTING TREE</li> <li>○ EXISTING CONIFER</li> <li>○ EXISTING TREE TO BE REMOVED SIGNIFICANT TREE (≥24" DBH)</li> <li>○ SPECIMEN TREE (≥30" DBH)</li> <li>○ EXISTING SPECIMEN TREE TO REMAIN WITH DISTURBANCE TO CRITICAL ROOT ZONE. (VARIANCE REQUESTED)</li> <li>○ EXISTING SPECIMEN TREE TO BE REMOVED. (VARIANCE REQUESTED)</li> <li>○ CRITICAL ROOT ZONE OF TREE WITH ≥ 24" DBH WITHIN 50' OF LOD</li> <li>○ EXISTING TREELINE</li> <li>○ CRITICAL ROOT ZONE IMPACT TO VARIANCE TREES</li> <li>○ MAPPED SOILS</li> </ul>	<ul style="list-style-type: none"> <li>— SF SILT FENCE</li> <li>— SSF SUPER SILT FENCE</li> <li>— AWP AT-GRADE INLET PROTECTION</li> <li>— AWP FOREST WITHIN STREAM VALLEY BUFFER TO BE SAVED AND PLACED IN A MODIFIED FOREST CONSERVATION EASEMENT</li> <li>— AWP FOREST OUTSIDE STREAM VALLEY BUFFER TO BE SAVED AND PLACED IN A MODIFIED FOREST CONSERVATION EASEMENT. EASEMENT CAN BE REMOVED WITHOUT PENALTY AT TIME OF FUTURE DEVELOPMENT.</li> <li>— AWP FOREST TO BE CLEARED</li> <li>— AWP PROPOSED DISTURBANCE WITHIN STREAM VALLEY BUFFER (MITIGATION OF 2:1 REFORESTATION REQUIRED)</li> <li>— AWP ON-SITE REFORESTATION AREA (TO BE PLACED IN A MODIFIED FOREST CONSERVATION EASEMENT)</li> <li>— AWP SLOPES 25% AND GREATER</li> <li>— AWP PROPOSED 2' CONTOUR</li> <li>— AWP PROPOSED 10' CONTOUR</li> <li>— AWP PROPOSED MODIFIED FOREST CONSERVATION ESMT</li> </ul>
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**PROFESSIONAL CERTIFICATION:**  
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED REGISTERED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.

SIGNATURE: MEREDITH L. BYER, RLA  
 PRINTED NAME: MEREDITH L. BYER  
 TITLE: ASSOCIATE

DATE: OCT. 3, 2013  
 EXPIRATION DATE:

LICENSE No. 3108



5B  
 2B

MATCHLINE SEE SHEET 3

MATCHLINE SEE SHEET 4

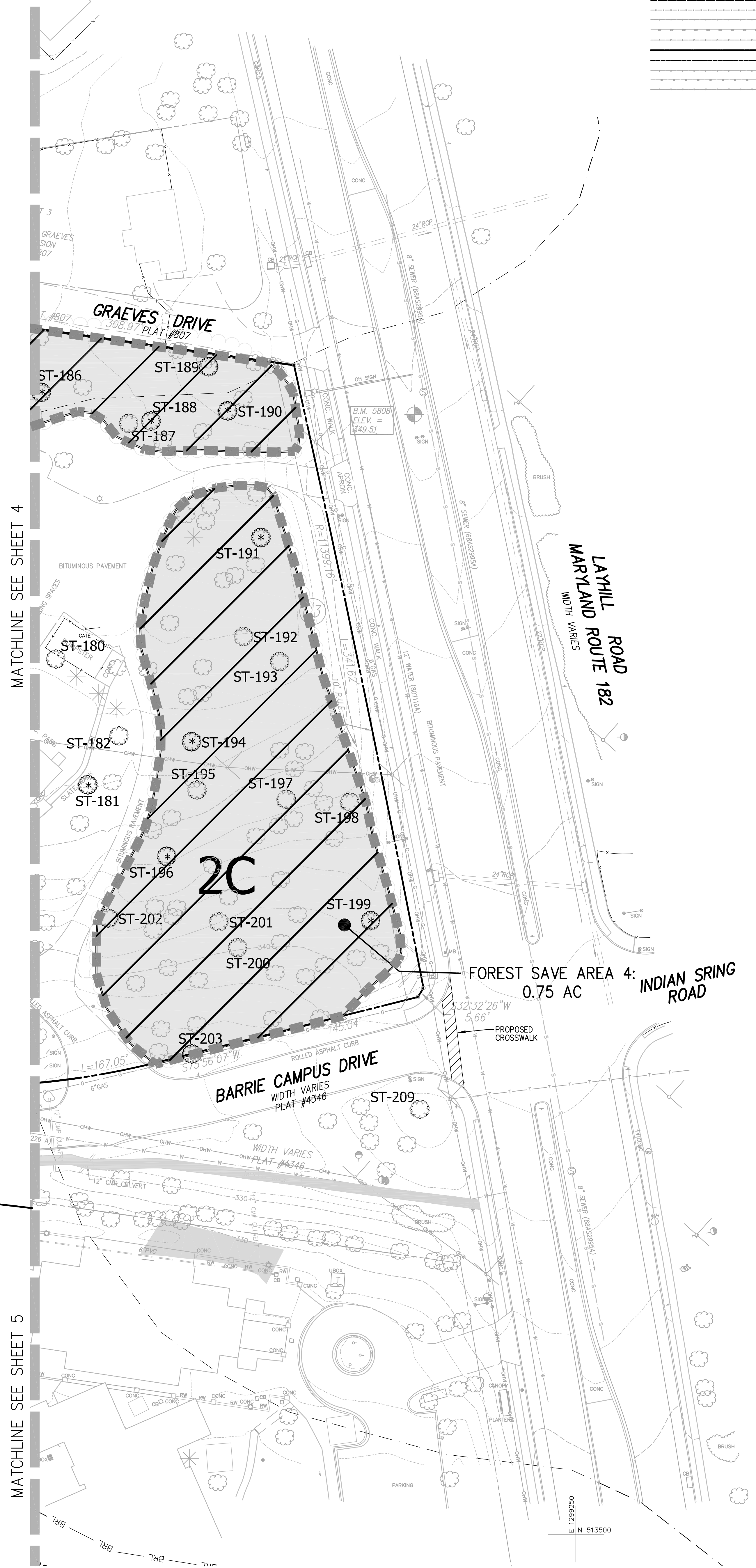
MATCHLINE SEE SHEET 6

HATHAWAY ROAD  
 70' WIDE

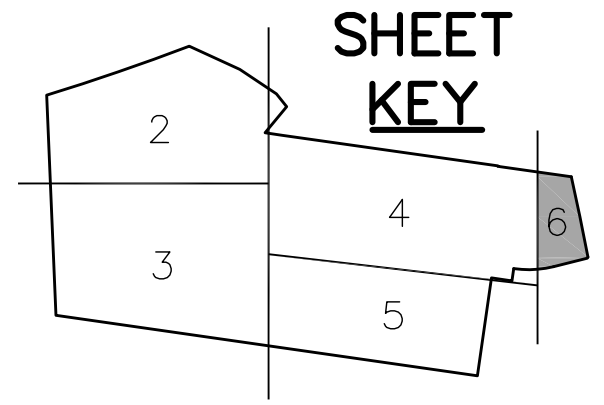


**LEGEND**

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|--|--|---|---|---|
| <ul style="list-style-type: none"> <li>--- CABLE TELEVISION CONDUIT</li> <li>--- ELECTRICAL CONDUIT</li> <li>--- EDGE OF PAVEMENT</li> <li>--- FENCE LINE</li> <li>--- NATURAL GAS CONDUIT</li> <li>--- OVERHEAD WIRES</li> <li>--- TELEPHONE/COMMUNICATIONS CONDUIT</li> <li>--- PROPERTY LINES</li> <li>--- PUBLIC UTILITIES EASEMENTS</li> <li>--- SANITARY SEWER CONDUIT</li> <li>--- STORM DRAIN CONDUIT</li> <li>--- WATER CONDUIT</li> <li>--- SANITARY CLEANOUT</li> <li>--- STORM DRAIN MANHOLE</li> <li>--- ELECTRICAL JUNCTION BOX</li> <li>--- ELECTRICAL MANHOLE</li> <li>--- FIRE DEPARTMENT CONNECTION</li> <li>--- FIRE HYDRANT</li> <li>--- GUY POLE</li> <li>--- GAS VALVE</li> <li>--- LIGHT POLE</li> <li>--- PHONE PEDESTAL</li> <li>--- PHONE MANHOLE</li> <li>--- UTILITY POLE</li> </ul> | <ul style="list-style-type: none"> <li>○ SANITARY MANHOLE</li> <li>□ TRAFFIC CONTROL BOX</li> <li>□ TRAFFIC SIGNAL POLE</li> <li>○ TREE</li> <li>○ CABLE TELEVISION PEDESTAL</li> <li>○ UNKNOWN UTILITY MANHOLE</li> <li>○ WATER METER</li> <li>○ WATER MANHOLE</li> <li>○ WATER VALVE</li> <li>○ BOLLARD</li> <li>○ SIGN POST</li> <li>○ INLETS</li> <li>○ CURB INLET</li> <li>..... CONC. CONCRETE</li> <li>..... C&amp;G CURB AND GUTTER</li> <li>..... BLDG. BUILDING</li> <li>..... STY. STORY</li> <li>..... T ELECTRICAL TRANSFORMER</li> <li>..... ASPH. ASPHALT</li> <li>..... ESMT. EASEMENT</li> <li>..... RCP REINFORCED CONCRETE PIPE</li> <li>..... CMP CORRUGATED METAL PIPE</li> <li>..... BRL BUILDING RESTRICTION LINE</li> <li>..... R/W RIGHT-OF-WAY</li> <li>..... FF FINISH FLOOR ELEVATION</li> </ul> | <ul style="list-style-type: none"> <li>--- EXISTING STREAM / RIVER</li> <li>--- WUS WATERS OF THE UNITED STATES</li> <li>--- WB WETLAND BUFFER</li> <li>--- NTW NONTIDAL WETLANDS</li> <li>--- BRL EX. FLOODPLAIN BUILDING RESTRICTION LINE PER EXISTING FLOODPLAIN EASEMENT</li> <li>--- SVB STREAM VALLEY BUFFER</li> <li>--- LDD PROPOSED LIMITS OF DISTURBANCE</li> <li>--- EXISTING 100 YR FLOODPLAIN ESMT</li> <li>--- FEMA 100 YR FLOODPLAIN</li> <li>--- PROPOSED 100 YR FLOODPLAIN SOURCE: M-NCPPC 2/9/12</li> <li>--- EXISTING TREELINE</li> <li>--- PROPOSED TREELINE</li> <li>--- EXISTING TRAIL TO REMAIN</li> <li>--- FUTURE ART INSTALLATION OR EXERCISE STATION ALONG TRAIL</li> <li>--- SCHEMATIC LOCATION OF SCHOOL/CAMP ACTIVITY WITHIN FOREST CONSERVATION EASEMENT.</li> </ul> | <ul style="list-style-type: none"> <li>○ EXISTING TREE</li> <li>★ EXISTING CONIFER</li> <li>✕✕ EXISTING TREE TO BE REMOVED SIGNIFICANT TREE (≥ 24" DBH)</li> <li>○ EXISTING SPECIMEN TREE TO REMAIN WITH DISTURBANCE TO CRITICAL ROOT ZONE. (VARIANCE REQUESTED)</li> <li>○ EXISTING SPECIMEN TREE TO BE REMOVED. (VARIANCE REQUESTED)</li> <li>○ CRITICAL ROOT ZONE OF TREE WITH ≥ 24" DBH WITHIN 50' OF LOD</li> <li>○ CRITICAL ROOT ZONE IMPACT TO VARIANCE TREES</li> <li>○ MAPPED SOILS</li> </ul> | <ul style="list-style-type: none"> <li>--- SF SILT FENCE</li> <li>--- SSF SUPER SILT FENCE</li> <li>--- AT-GRADE INLET PROTECTION</li> <li>--- FOREST WITHIN STREAM VALLEY BUFFER TO BE SAVED AND PLACED IN A MODIFIED FOREST CONSERVATION EASEMENT</li> <li>--- FOREST OUTSIDE STREAM VALLEY BUFFER TO BE SAVED AND PLACED IN A MODIFIED FOREST CONSERVATION EASEMENT. EASEMENT CAN BE REMOVED WITHOUT PENALTY AT TIME OF FUTURE DEVELOPMENT.</li> <li>--- FOREST TO BE CLEARED</li> <li>--- PROPOSED DISTURBANCE WITHIN STREAM VALLEY BUFFER (MITIGATION OF 2:1 REFORESTATION REQUIRED)</li> <li>--- ON-SITE REFORESTATION AREA (TO BE PLACED IN A MODIFIED FOREST CONSERVATION EASEMENT)</li> <li>--- SLOPES 25% AND GREATER</li> <li>--- PROPOSED 2' CONTOUR</li> <li>--- PROPOSED 10' CONTOUR</li> <li>--- PROPOSED MODIFIED FOREST CONSERVATION ESMT</li> </ul> |
|--|--|---|---|---|



FOREST SAVE AREA 4:  
0.75 AC  
INDIAN SPRING ROAD



**PROFESSIONAL CERTIFICATION:**  
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED REGISTERED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_  
MEREDITH L. BYER, RLA OCT. 9, 2013  
TITLE: ASSOCIATE EXPIRATION DATE: \_\_\_\_\_  
LICENSE No. 3108

PRELIMINARY  
FOREST CONSERVATION PLAN

**THE BARRIE SCHOOL**  
LIBER 12728 FOLIO 585  
13TH ELECTION DISTRICT  
MONTGOMERY COUNTY, MARYLAND  
WSSC MAPS: 218NW03, 217NW03, 218NW02, 217NW02  
TAX ASSESSMENT MAPS: JIR21, JR22, HR62

VIKA REVISIONS  
DATE: JAN., 2012  
DES. DWG. MBG CDM  
SCALE: 1"=30'  
PROJECT/FILE NO. M1603A  
SHEET NO. FCP-6

VIKA REVISIONS  
DATE: \_\_\_\_\_  
DES. DWG. MBG CDM  
SCALE: 1"=30'  
PROJECT/FILE NO. M1603A  
SHEET NO. FCP-6

ENGINEERS ■ PLANNERS ■ LANDSCAPE ARCHITECTS ■ SURVEYORS ■ SUSTAINABLE DESIGN  
VIKA LANDLAND LLC  
20251 CENTURY BOULEVARD, SUITE 400 ■ GERMANTOWN, MARYLAND 20874  
(301) 916-4100 ■ FAX (301) 916-2262  
WWW.VIKALAND.COM



# ATTACHMENT 2



ENGINEERS ✦ PLANNERS ✦ LANDSCAPE ARCHITECTS ✦ SURVEYORS ✦ SUSTAINABLE DESIGN

Updated September 19, 2012

Ms. Amy Lindsey  
Senior Planner  
Area 2 Planning Division  
M-NCPPC  
8787 Georgia Avenue  
Silver Spring, MD 20910

**Re: Forest Conservation Variance Request  
Barrie School  
NRI # 420120300  
VIKA # VM1603B**

Dear Ms. Lindsey:

On behalf of our client, The Barrie School, we are submitting this request for a Variance from the requirements of the Forest Conservation Law for the State of Maryland. The request is made under the variance provisions of Montgomery County Forest Conservation Ordinance to comply with the newly enacted Natural Resources, Title 5, Section 5-1607 of the Maryland Code which requires the Applicant to file for a variance to remove trees that are 30" DBH or greater, or trees that are 75% the diameter of the county champion for that species if a project did not receive Preliminary Forest Conservation Plan Approval prior to October 1, 2009.

The Barrie School project is classified in the R-90 and R-200 zones. Following initial staff review comments, an NRI #420120300 was resubmitted to staff on February 20, 2012 and is awaiting final review and approval. This request for a Forest Conservation Variance is submitted with the Final Forest Conservation Plan as part of the pending Special Exception Modification for the school. A total of forty-four (44) specimen trees with 30" DBH or greater will be impacted by the development, twenty (20) of which are designated to be saved, while the remaining twenty-four (24) are proposed for removal.

Table 1 below lists the trees as they are identified on the Final Forest Conservation Plan and provides their respective measurements.

**VIKA Maryland, LLC**

20251 Century Boulevard, Suite 400 ✦ Germantown, Maryland 20874 ✦ 301.916.4100 Fax 301.916.2262  
McLean, VA ✦ Germantown, MD ✦ Washington, DC

[www.vika.com](http://www.vika.com)



Tree #	Species	Diameter (inches)	Condition	Disposition	CRZ Area (sf)	CRZ Impacts (sf)	CRZ Impacts (%)
2v	Fagus grandifolia	33.5"	Fair	Remove	7,933	7,933	100.0%
3v	Fagus grandifolia	32"	Fair	Remove	7,238	7,238	100.0%
4v	Fagus grandifolia	35.5"	Good	Remove	8,908	8,908	100.0%
5v	Quercus alba	35.5"	Good	Remove	8,908	8,908	100.0%
6v	Quercus alba	38"	Good	Remove	10,207	10,207	100.0%
11v	Quercus rubra	48"	Good	Remove	16,286	4,028	24.7%
14v	Quercus alba	31.5"	Good	Save	7,014	57	0.8%
43v	Liriodendron tulipifera	38"	Good	Save	10,207	1,648	16.1%
44v	Fagus grandifolia	34"	Good	Remove	8,171	8,171	100.0%
45v	Quercus alba	30.5"	Good	Remove	6,576	6,576	100.0%
46v	Liriodendron tulipifera	31.5"	Good	Remove	7,014	7,014	100.0%
49v	Liriodendron tulipifera	31.5"	Good	Remove	7,014	7,014	100.0%
50v	Liriodendron tulipifera	33.5"	Good	Save	7,933	1,637	20.6%
54v	Liriodendron tulipifera	30"	Good	Save	6,362	537	8.4%
65v	Fagus grandifolia	36"	Good	Save	9,161	580	6.3%
66v	Liriodendron tulipifera	32"	Good	Save	7,238	1,154	15.9%
67v	Liriodendron tulipifera	34"	Fair	Save	8,171	392	4.8%
77v	Fagus grandifolia	32"	Good	Save	7,238	80	1.1%
78v	Fagus grandifolia	32"	Good	Save	7,238	181	2.5%
84v	Acer rubrum	35"	Good	Save	8,659	483	5.6%
85v	Fagus grandifolia	38"	Good	Remove *	10,207	4,376	42.9%
86v	Fagus grandifolia	33"	Good	Remove *	7,698	2,953	38.4%
87v	Quercus rubra	30"	Good	Remove *	6,362	1,722	27.1%
92v	Fagus grandifolia	34"	Good	Remove	8,171	8,171	100.0%
93v	Fagus grandifolia	38"	Good	Remove	10,207	10,207	100.0%
95v	Fagus grandifolia	35"	Good	Remove *	8,659	6,885	79.5%
97v	Acer rubrum	31"	Fair	Remove *	6,793	6,173	90.9%
99v	Fagus grandifolia	34"	Good	Remove	8,171	8,171	100.0%
101v	Fagus grandifolia	33"	Good	Remove	7,698	7,698	100.0%
110v	Quercus rubra	30"	Good	Remove *	6,362	6,362	100.0%
111v	Fagus grandifolia	34"	Good	Save	8,171	4,034	49.4%
114v	Fagus grandifolia	34"	Fair	Save	8,171	3,821	46.8%
115v	Quercus alba	30"	Good	Save	6,362	1,711	26.9%
116v	Fagus grandifolia	33"	Fair/Good	Remove	7,698	7,698	100.0%
117v	Fagus grandifolia	35"	Good	Remove	8,659	7,850	90.7%
119v	Quercus rubra	37"	Good	Remove	9,677	9,677	100.0%
120v	Fagus grandifolia	31"	Good	Remove	6,793	6,793	100.0%
128v	Quercus velutina	34"	Good	Remove *	8,171	3,745	45.8%
129v	Fagus grandifolia	34"	Good	Save	8,171	224	2.7%
139v	Acer rubrum	34"	Fair	Save	8,171	1,440	17.6%
145v	Fagus grandifolia	31"	Good	Save	6,793	858	12.6%
247v	Fagus grandifolia	37"	Good	Save	9,677	2,818	29.1%
248v	Fagus grandifolia	34"	Good	Save	4,072	937	23.0%
252v	Liriodendron tulipifera	37.5"	Good	Save	9,940	1,068	10.7%

\* Tree to be reassessed prior to clearing & grading to determine if it can be saved.





**Tree # 2v**

**33.5" American Beech (*Fagus grandifolia*):** This tree is located near the southwestern corner of the subject property, adjacent to the existing parking lot. Condition-Fair (-) Trunk broken at 40". Proposed CRZ Impact: severe 100%. **Disposition: Tree is to be removed.**

**Tree # 3v**

**32" American Beech (*Fagus grandifolia*):** This tree is located near the southwestern corner of the subject property, abutting the existing parking lot. Condition-Fair (-) some dead limbs, gravel over roots. Proposed CRZ Impact: severe at 100% **Disposition: Tree is to be removed.**

**Tree # 4v**

**35.5" American Beech (*Fagus grandifolia*):** This tree is located near the southwestern corner of the subject property, west of the existing gravel parking lot, and south of the existing buildings. Condition-Good. Proposed CRZ Impact: severe at 100%, **Disposition: Tree is to be removed.**

**Tree # 5v**

**35.5" White Oak (*Quercus alba*):** This tree is located near the southwestern corner of the subject property, just south of the existing buildings. Condition-Good. Proposed CRZ Impact: severe at 100%. **Disposition: Tree is to be removed.**

**Tree # 6v**

**38" White Oak (*Quercus alba*):** This tree is located near the southwestern corner of the subject property, just south of the existing buildings. Condition-Good. Proposed CRZ Impact: severe at 100%. **Disposition: Tree is to be removed.**

**Tree # 11v**

**48" Red Oak (*Quercus rubra*):** This tree is located near the western edge of the subject property, approximately 50 feet from the property line, west of the existing buildings. Condition-Good (-) some limbs recently removed. Proposed CRZ Impact: moderate at 24.7%. Limit of disturbance has been revised to save this tree. **Disposition: Tree is to be saved.**

**Tree # 14v**

**31.5" White Oak (*Quercus alba*):** This tree is located near the southwestern corner of the subject property, approximately 50 feet from the property line, southwest of the existing buildings. Condition-Good. Proposed CRZ Impact: very limited at 0.8%. **Disposition: Tree is to be saved.**



**Tree # 43v**

**38" Tulip Poplar (*Liriodendron tulipifera*):** This tree is located near the southwestern corner of the subject property, south of the existing buildings. Condition-Good. Proposed CRZ Impact: limited at 16.1%. **Disposition: Tree is to be saved.**

**Tree # 44v**

**34" American Beech (*Fagus grandifolia*):** This tree is located near the southwestern corner of the subject property, south of the existing buildings. Condition-Good. Proposed CRZ Impact: severe at 100%. **Disposition: Tree is to be removed.**

**Tree # 45v**

**30.5" White Oak (*Quercus alba*):** This tree is located near the southwestern corner of the subject property, south of the existing buildings. Condition-Good. Proposed CRZ Impact: Severe at 100%. **Disposition: Tree is to be removed.**

**Tree # 46v**

**31.5" Tulip Poplar (*Liriodendron tulipifera*):** This tree is located near the southwestern corner of the subject property, south of the existing buildings. Condition-Good. Proposed CRZ Impact: severe at 100%. **Disposition: Tree is to be removed.**

**Tree # 49v**

**31.5" Tulip Poplar (*Liriodendron tulipifera*):** This tree is located near the southwestern corner of the subject property, south of the existing buildings. Condition-Good. Proposed CRZ Impact: severe at 100%. **Disposition: Tree is to be removed.**

**Tree # 50v**

**33.5" Tulip Poplar (*Liriodendron tulipifera*):** This tree is located near the southwestern corner of the subject property, south of the existing buildings. Condition-Good (-) Poison ivy on trunk. Proposed CRZ Impact: limited to moderate at 20.6%. **Disposition: Tree is to be saved.**

**Tree # 54v**

**30" Tulip Poplar (*Liriodendron tulipifera*):** This tree is located near the southwestern corner of the subject property, southwest of the existing gravel parking lot. Condition-Good (-) leaning. Proposed CRZ Impact: limited at 8.4%. **Disposition: Tree is to be saved.**

**Tree # 65v**

**36" American Beech (*Fagus grandifolia*):** This tree is located near the southwestern corner of the subject property, south of the existing gravel parking lot. Condition-Good. Proposed CRZ Impact: limited at 6.3%. **Disposition: Tree is to be saved.**



**Tree # 66v**

**32" Tulip Poplar (*Liriodendron tulipifera*):** This tree is located near the southwestern corner of the subject property, south of the existing gravel parking lot. Condition-Good. Proposed CRZ Impact: limited at 16.0%. **Disposition: Tree is to be saved.**

**Tree # 67v**

**34" Tulip Poplar (*Liriodendron tulipifera*):** This tree is located near the southwestern corner of the subject property, south of the existing gravel parking lot. Condition-Fair. Proposed CRZ Impact: limited at 4.8%. **Disposition: Tree is to be saved.**

**Tree # 77v**

**32" American Beech (*Fagus grandifolia*):** This tree is located near the southwestern corner of the subject property, south of the existing gravel parking lot. Condition-Good. Proposed CRZ Impact: limited at 1.1%. **Disposition: Tree is to be saved.**

**Tree # 78v**

**32" American Beech (*Fagus grandifolia*):** This tree is located near the southwestern corner of the subject property, east of the existing gravel parking lot. Condition-Good. Proposed CRZ Impact: very limited at 2.5%. **Disposition: Tree is to be saved.**

**Tree # 84v**

**35" Red Maple (*Acer rubrum*):** This tree is located in the western half of the subject property, just south of the existing entrance road and bituminous path. Condition-Good. Proposed CRZ Impact: limited at 5.6%. **Disposition: Tree is to be saved.**

**Tree # 85v**

**38" American Beech (*Fagus grandifolia*):** This tree is located in the western half of the subject property, just south of the existing entrance road and bituminous path. Condition-Good. Proposed CRZ Impact: severe at 42.9%. **Disposition: Tree is proposed to be removed; however it will be reassessed prior to clearing and grading to determine if it can be saved.**

**Tree # 86v**

**33" American Beech (*Fagus grandifolia*):** This tree is located in the western half of the subject property, just north of the existing entrance road. Condition-Good. Proposed CRZ Impact: severe at 38.4%. Tree is located within ten feet of the limit of disturbance. The disturbance in this area is to provide a stormwater management bio-retention pond. It needs to be located at the low end of the development, which is in this location. Grades are tied out into existing grades at 3:1 slopes (maximum allowed) to minimize disturbance and to avoid any disturbance within the stream valley buffer. **Disposition: Tree is proposed to be removed; however it will be reassessed prior to clearing and grading to determine if it can be saved.**





**Tree # 87v**

**30" Red Maple (*Quercus rubra*):** This tree is located in the western half of the subject property, east of the existing buildings. Condition-Good. Proposed CRZ Impact: moderate to severe at 27.1%. Tree is located within ten feet of the limit of disturbance. The disturbance in this area is to provide a stormwater management bio-retention pond. It needs to be located at the low end of the development, which is in this location. Grades are tied out into existing grades at 3:1 slopes (maximum allowed) to minimize disturbance and to avoid any disturbance within the stream valley buffer. **Disposition: Tree is proposed to be removed; however it will be reassessed prior to clearing and grading to determine if it can be saved.**

**Tree # 92v**

**34" American Beech (*Fagus grandifolia*):** This tree is located in the western half of the subject property, east of the existing buildings. Condition-Good. Proposed CRZ Impact: severe at 100%. **Disposition: Tree is to be removed.**

**Tree # 93v**

**38" American Beech (*Fagus grandifolia*):** This tree is located in the western half of the subject property, southeast of the existing buildings. Condition-Good. Proposed CRZ Impact: severe at 100%. **Disposition: Tree is to be removed.**

**Tree # 95v**

**35" American Beech (*Fagus grandifolia*):** This tree is located in the western half of the subject property, southeast of the existing buildings. Condition-Good. Proposed CRZ Impact: severe at 79%. **Disposition: Tree is proposed to be removed; however it will be reassessed prior to clearing and grading to determine if it can be saved.**

**Tree # 97v**

**31" Red Maple (*Acer rubrum*):** This tree is located in the western half of the subject property, within the existing development, adjacent to the entrance drive. Condition-Fair. Proposed CRZ Impact: severe at 90.9%. **Disposition: Tree is proposed to be removed; however it will be reassessed prior to clearing and grading to determine if it can be saved.**

**Tree # 99v**

**34" American Beech (*Fagus grandifolia*):** This tree is located in the western half of the subject property, within the northeastern portion of the existing development. Condition-Good. Proposed CRZ Impact: severe at 100%. **Disposition: Tree is to be removed.**

**Tree # 101v**

**33" American Beech (*Fagus grandifolia*):** This tree is located in the western half of the subject property, within the northeastern portion of the existing development. Condition-Good. Proposed CRZ Impact: severe at 100%. **Disposition: Tree is to be removed.**



**Tree # 110v**

**30" Red Maple (*Quercus rubra*):** This tree is located in the western half of the subject property, within the northeastern portion of the existing development. Condition-Good. Proposed CRZ Impact: severe at 100%. **Disposition: Review comments suggest preservation of this tree. Tree is proposed to be removed; however it will be reassessed prior to clearing and grading to determine if it can be saved.**

**Tree # 111v**

**34" American Beech (*Fagus grandifolia*):** This tree is located in the western half of the subject property, north of the existing gravel parking lot and road. Condition-Good. Proposed CRZ Impact: severe at 49.4%. **Disposition: Tree is to be saved.**

**Tree # 114v**

**34" American Beech (*Fagus grandifolia*):** This tree is located in the western half of the subject property, within the existing gravel parking lot. Condition-Fair (-) trunk rot. Proposed CRZ Impact: severe at 46.8%. **Disposition: Tree is to be saved.**

**Tree # 115v**

**30" White Oak (*Quercus alba*):** This tree is located in the western half of the subject property, in the northeast corner of the existing gravel parking lot. Condition-Good. Proposed CRZ Impact: minimal at 26.9%. **Disposition: Tree is to be saved.**

**Tree # 116v**

**33" American Beech (*Fagus grandifolia*):** This tree is located in the western half of the subject property, within the northern portion of the existing development. Condition-Fair/Good. Proposed CRZ Impact: severe at 100%. **Disposition: Tree is to be removed.**

**Tree # 117v**

**35" American Beech (*Fagus grandifolia*):** This tree is located in the western half of the subject property, within the northern portion of the existing development. Condition-Good. Proposed CRZ Impact: severe at 100%. **Disposition: Tree is to be removed.**

**Tree # 119v**

**37" Red Oak (*Quercus rubra*):** This tree is located in the western half of the subject property, just north of the existing development. Condition-Good. Proposed CRZ Impact: severe at 100%. **Disposition: Tree is to be removed.**

**Tree # 120v**

**31" American Beech (*Fagus grandifolia*):** This tree is located in the western half of the subject property, just north of the existing development. Condition-Good. Proposed CRZ Impact: severe at 100%. **Disposition: Tree is to be removed.**



**Tree # 128v**

**34" Black Oak (*Quercus velutina*):** This tree is located in the western half of the subject property, north of the existing development. Condition-Good. Proposed CRZ Impact: severe at 45.8%. **Disposition: Tree is proposed to be removed; however it will be reassessed prior to clearing and grading to determine if it can be saved.**

**Tree # 129v**

**34" American Beech (*Fagus grandifolia*):** This tree is located in the western half of the subject property, northeast of the existing development. Condition-Good. Proposed CRZ Impact: very limited at 2.7%. **Disposition: Tree is to be saved.**

**Tree # 139v**

**34" Red Maple (*Acer rubrum*):** This tree is located in the in the northern central portion of the subject property, north of the proposed recreational fields. Condition-Fair (some trunk rot). Proposed CRZ Impact: limited at 17.6%. **Disposition: Tree is to be saved.**

**Tree # 145v**

**31" American Beech (*Fagus grandifolia*):** This tree is located in the in the northern central portion of the subject property, north of the proposed recreational fields. Condition-Good. Proposed CRZ Impact: limited at 12.6%. **Disposition: Tree is to be saved.**

**Tree # 247v**

**37" American Beech (*Fagus grandifolia*):** This tree is located in the western half of the subject property, within the existing forest stand. Condition-Good. Proposed CRZ Impact: limited at 29.1%. Disturbance is due to storm drain outfall. Outfall has been located equidistant between trees 247v and 248v so that both trees may survive. The outfall elevation has been provided mid-way on the swale to balance safe conveyance with stream valley buffer retention. Location of outfall is dictated by natural swale location. **Disposition: Tree is to be saved.**

**Tree # 248v**

**34" American Beech (*Fagus grandifolia*):** This tree is located in the western half of the subject property, within the existing forest stand. Condition-Good (-) slight lean. Proposed CRZ Impact: limited at 23%. Disturbance is due to storm drain outfall. Outfall has been located equidistant between trees 247v and 248v so that both trees may survive. The outfall elevation has been provided mid-way on the swale to balance safe conveyance with stream valley buffer retention. Location of outfall is dictated by natural swale location. **Disposition: Tree is to be saved.**





**Tree # 252v**

**37.5" Tulip Poplar (*Liriodendron tulipifera*):** This tree is located in the western half of the subject property, within the existing forest stand. Condition-Good. Proposed CRZ Impact: limited at 10.7%. **Disposition: Tree is to be saved.**

The variance request must include narrative discussion on the following:

1. Describe the special conditions peculiar to the property which would cause the unwarranted hardship;
2. Describe how enforcement of these rules will deprive the landowner of rights commonly enjoyed by others in similar areas;
3. Verify that State water quality standards will not be violated or that a measurable degradation in water quality will not occur as a result of the granting of the variance; and
4. Provide any other information appropriate to support the request.

We submit the following rationale in support of the request for a Forest Conservation variance:

1. The requested variance is necessary for the implementation of the proposed modification of the Barrie School Special Exception.

The Barrie School proposes to make physical improvements to its site that will replace its aging buildings, while adding new facilities that will be more attractive and energy-efficient, and will allow for more flexibility in the future. It also proposes to reorient its outdoor soccer field and practice field and to replace the natural turf of the soccer field with an artificial surface that will minimize maintenance.

This development will be implemented gradually with the initial focus on the replacement of the older buildings located on the Upper Campus. These include Building 'A' (the Business Office and Main Administrative Office) which will be replaced by a 35,000 square foot two-story structure containing classrooms, administrative offices, a media center and conference areas; Building 'B' which will be replaced by a 18,000 square foot one-story building providing classrooms, art room, and workrooms; and Building 'C' which will be replaced with an 18,000 square foot structure containing a gymnasium, auditorium and instructional space.

As noted above, the development will require the removal of twenty-four (24) specimen trees as well as impacts to the critical root zones of twenty (20) additional trees. As shown on the NRI, the subject property has a considerable amount of floodplain, wetland, and buffers, rendering a considerable area of the



site unbuildable. The site, which consists of approximately 45 acres is 50% forested. Six additional acres outside the forest are within the Stream Valley Buffer. Of the 22.6 acres of existing forest, the proposed development has been located to disturb less than 1 acre of forest. The balance of the property that is developable has a significant number of mature trees making the avoidance of those trees difficult at best. The school is very sensitive to the potential impact of the trees and has invested considerable time and resources in designing the proposed improvements to avoid impact wherever possible. Since the primary purpose of the Special Exception modification is to replace outdated facilities with new facilities, much of the development is taking place in areas where there has already been land disturbance. As such, we believe the conditions related to the variance request are neither unique nor special to the project and instead are unavoidable consequences of the development process.

2. The requested variance is based on plans being developed through the County planning process, and adheres to requirements based on the zone, general conditions that apply to all Special Exceptions and the specific criteria related to the private educational institution use. As the Forest Conservation Plan shows, there are 22.62 acres of existing forest on this site. Proposed forest clearing totals only 0.91 AC. This yields no required mitigation due to forest impact; however, a proposed disturbance of 0.70 AC to the unforested stream valley buffer will require mitigation at a 2:1 ratio. The 1.40 AC of required re/afforestation will be met by on-site forest planting within the unforested stream valley buffer.

The Barrie School has existed on the subject property for many years as a special exception in the R-90/R-200 zones. The proposed modification will allow the replacement of aging facilities and greater flexibility of school programs in the future. Should the variance request be denied, we believe that the landowner's rights to build would be unfairly restricted.

3. The concept stormwater management plan for the Barrie School project has been submitted to Montgomery County Department of Permitting Services for approval. It has been designed in accordance with the latest revisions to the Maryland Stormwater Management Design Manual Chapter 5 (latest revision dated March 2009) and the consequential addendum, the Environmental Site Design (ESD) Process & Computations Addendum issued July 2010. Per Section 5.2 of Chapter 5, ESD, "shall be used to address...  $WQ_v$  requirements [as a minimum] and Channel Protection obligations are met when ESD practices are design according to the Reduced Runoff Curve Number Method"<sup>1</sup>.  $WQ_v$  and Channel Protection are the state required Water Quality and Quantity standards. The submitted concept satisfies the ESD requirements through the use of eight (8) micro-biofilters.

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<sup>1</sup> MDE Stormwater Design Manual, Chapter 5. Section 5.2. Page 5.17.



Ms. Amy Lindsey  
September 12, 2012

Therefore, we believe the proposed concept does not violate state water quality standards or cause measurable degradation in water quality.

Thank you for your consideration of this variance request. We believe that the supporting information provided with this letter justifies the variance to remove twenty-four (24) specimen trees and reasonably impact the critical root zones of twenty (20) additional trees. If you have any questions or need more information, please do not hesitate to contact us so that we may discuss this matter further.

Sincerely,  
**VIKA Maryland, LLC**

Meredith Byer, RLA  
Associate

MB/kc

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**ATTACHMENT 3**

## DEPARTMENT OF ENVIRONMENTAL PROTECTION

Isiah Leggett  
County Executive

Robert G. Hoyt  
Director

May 23, 2012

Françoise Carrier, Chair  
Montgomery County Planning Board  
Maryland National Capital Park & Planning Commission  
8787 Georgia Avenue  
Silver Spring, Maryland 20910

RE: Barrie School, CBA-1261-D, NRI/FSD application accepted on 8/25/2011

Dear Ms. Carrier:

The County Attorney's Office has advised that Montgomery County Code Section 22A-12(b)(3) applies to any application required under Chapter 22A submitted after October 1, 2009. Accordingly, given that the application for the above referenced request was submitted after that date and must comply with Chapter 22A, and the Montgomery County Planning Department ("Planning Department") has completed all review required under applicable law, I am providing the following recommendation pertaining to this request for a variance.

Section 22A-21(d) of the Forest Conservation Law states that a variance must not be granted if granting the request:

1. Will confer on the applicant a special privilege that would be denied to other applicants;
2. Is based on conditions or circumstances which are the result of the actions by the applicant;
3. Arises from a condition relating to land or building use, either permitted or nonconforming, on a neighboring property; or
4. Will violate State water quality standards or cause measurable degradation in water quality.

Applying the above conditions to the plan submitted by the applicant, I make the following findings as the result of my review:

1. The granting of a variance in this case would not confer a special privilege on this applicant that would be denied other applicants as long as the same criteria are applied in each case. Therefore, the variance can be granted under this condition.
2. Based on a discussion on March 19, 2010 between representatives of the County, the Planning Department, and the Maryland Department of Natural Resources Forest Service, the disturbance of trees, or other vegetation, is not interpreted as a condition or circumstance that is the result of the actions by the applicant. Therefore, the variance can be granted under this condition, as long as appropriate mitigation is provided for the resources disturbed.



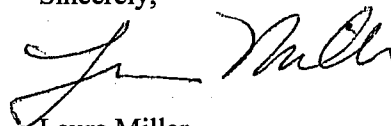
3. The disturbance of trees, or other vegetation, by the applicant does not arise from a condition relating to land or building use, either permitted or nonconforming, on a neighboring property. Therefore, the variance can be granted under this condition.
4. The disturbance of trees, or other vegetation, by the applicant will not result in a violation of State water quality standards or cause measurable degradation in water quality. Therefore, the variance can be granted under this condition.

Therefore, I recommend a finding by the Planning Board that this applicant qualifies for a variance conditioned upon the applicant mitigating for the loss of resources due to removal or disturbance to trees, and other vegetation, subject to the law based on the limits of disturbance (LOD) recommended during the review by the Planning Department. In the case of removal, the entire area of the critical root zone (CRZ) should be included in mitigation calculations regardless of the location of the CRZ (i.e., even that portion of the CRZ located on an adjacent property). When trees are disturbed, any area within the CRZ where the roots are severed, compacted, etc., such that the roots are not functioning as they were before the disturbance must be mitigated. Exceptions should not be allowed for trees in poor or hazardous condition because the loss of CRZ eliminates the future potential of the area to support a tree or provide stormwater management. Tree protection techniques implemented according to industry standards, such as trimming branches or installing temporary mulch mats to limit soil compaction during construction without permanently reducing the critical root zone, are acceptable mitigation to limit disturbance. Techniques such as root pruning should be used to improve survival rates of impacted trees but they should not be considered mitigation for the permanent loss of critical root zone. I recommend requiring mitigation based on the number of square feet of the critical root zone lost or disturbed. The mitigation can be met using any currently acceptable method under Chapter 22A of the Montgomery County Code.

In the event that revisions to the LOD are approved by the Planning Department, the mitigation requirements outlined above should apply to the removal or disturbance to the CRZ of all trees subject to the law as a result of the revised LOD.

If you have any questions, please do not hesitate to contact me directly.

Sincerely,



Laura Miller  
County Arborist

cc: Robert Hoyt, Director  
Walter Wilson, Associate County Attorney  
Mark Pfefferle, Chief