

Potomac Elementary School, Preliminary/Final Forest Conservation Plan, MR2018017

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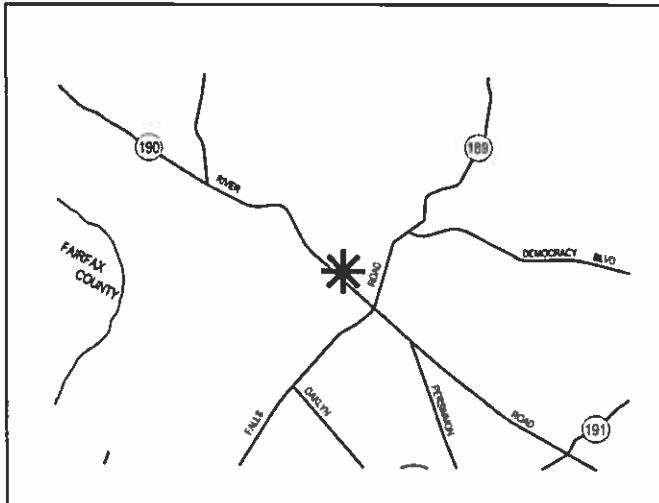
RAW Richard Weaver, Chief, Area 3 Richard.Weaver@montgomeryplanning.org

Completed: 08-31-18

Description

- 10311 River Road, Potomac
- 9.64 acres, RE-2 zone
- 2002 Potomac Subregion Master Plan
- Applicant: Montgomery County Public Schools
- Submitted: January 17, 2018
- Part A - Forest Conservation Plan: Modernization of Potomac Elementary School

Staff Recommendation: Approval with conditions



- The review of this Mandatory Referral is in two parts:
Part A – Preliminary/Final Forest Conservation Plan MR2018017, and
Part B - Mandatory Referral MR2018017, discussed in a separate staff report.
- Construction of a new 86,500 square foot energy efficient Elementary School.
- The project proposes daylighting of a natural stream channel and enhanced planting.
- The forest conservation requirement will be met through an offsite forest conservation mitigation bank.

Recommendation: **Approval with conditions** of the Preliminary/Final Forest Conservation Plan and variance request

1. Amend the submitted FFCP to show 71 caliper inches of mitigation and where trees will be planted.
2. Amend the submitted FFCP to show the revised limits of the modified Category II easement final delineation. The final delineation to be determined prior to approval of Certified FFCP.
3. The Applicant must record a modified Category II Conservation Easement over all areas specified on the approved Forest Conservation Plan. The Conservation Easement approved by the M-NCPPC Office of the General Counsel must be recorded in the Montgomery County Land Records by deed prior to the start of any demolition, clearing, or grading on the Subject Property, and the Liber Folio for the easement must be referenced on the record plat.
4. Mitigation for the removal of eight (8) trees subject to the variance provision must be provided in the form of planting native canopy trees totaling 71 caliper inches, with a minimum size of three (3) caliper inches. The trees must be planted in final locations to be shown on the Final Forest Conservation Plan, outside of any rights-of-way, or utility easements, including stormwater management easements. Adjustments to the planting locations of these trees is permitted with the approval of the M-NCPPC forest conservation inspector.
5. The Applicant must record an M-NCPPC approved Certificate of Compliance in an M-NCPPC approved forest bank for the total afforestation/reforestation requirement prior to any clearing, grading or demolition on the project site.
6. The Applicant must install permanent Conservation Easement signage along the perimeter of the conservation easements.
7. The Final Sediment Control Plan must depict the limits of disturbance (LOD) identical to the LOD on the approved Final Forest Conservation Plan.
8. The Applicant must comply with all tree protection and tree save measures shown on the approved Final Forest Conservation Plan. Tree save measures not specified on the approved Final Forest Conservation Plan may be required by the M-NCPPC forest conservation inspector.

SITE DESCRIPTION

The Potomac Elementary School Site consists of 9.64 acres, Parcel 937, on Tax Map FP343 at 10311 River Road, Potomac ("Site") and zoned RE-2. The Site is generally flat with the low flat spot (elevation) located in the middle of the Site. The Site contains some individual trees, a wooded area in the northeast corner, Stream Valley Buffer (SVB), and 100-year floodplain. The neighboring properties are mostly residential except for a religious institution to the southeast. The Site is bounded on the southwest by River Road. The Site is within the boundaries of the 2002 Potomac Subregion Master Plan and is part of the Potomac area of the Subregion.



Figure 1: Aerial Photograph of the Vicinity

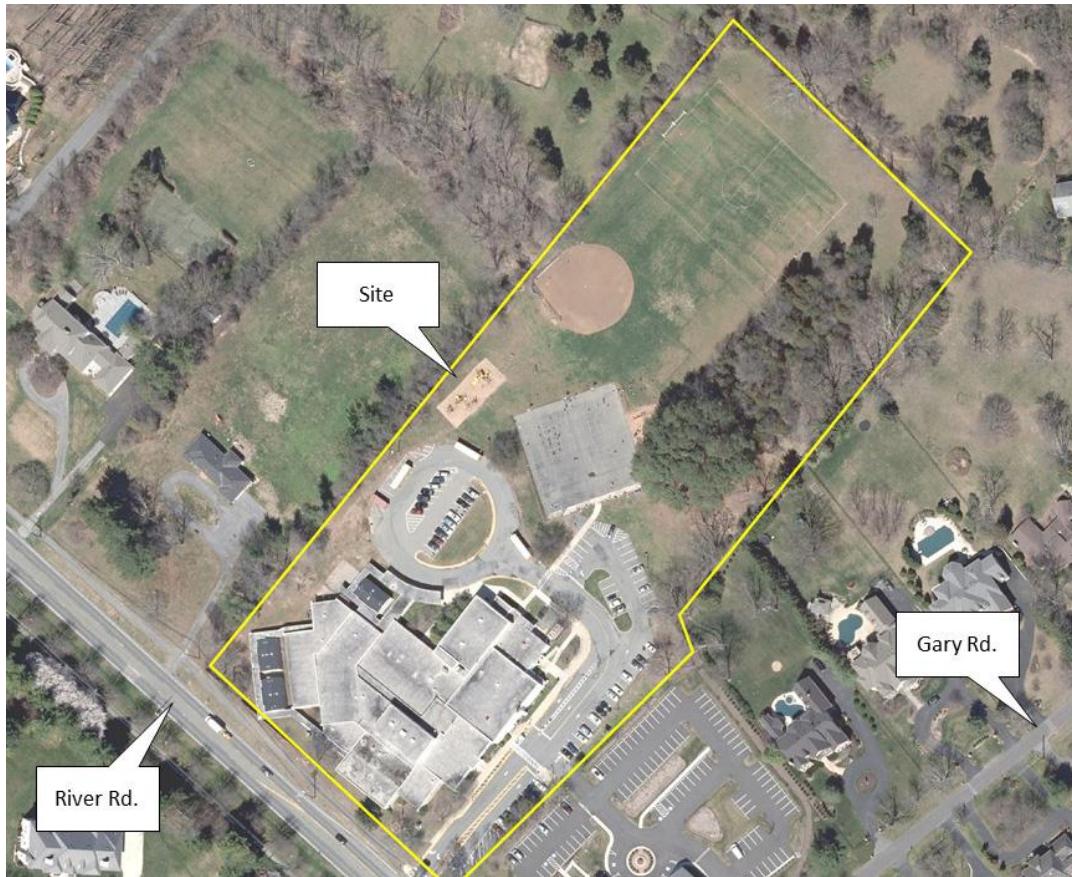


Figure 2: Aerial Photograph of the Site

PROJECT DESCRIPTION

Montgomery County Public Schools (MCPS or Applicant) is proposing to tear down and rebuild the Potomac Elementary School. When completed the new facility will have an increased capacity of 472 students, with core spaces designed for 740 students. The proposed work includes traffic circulation improvements along River Road, a new entrance to accommodate a separate bus loop, improved parent drop-off queuing, and improved pedestrian circulation. Site development will also include development of standard MCPS site amenities for elementary schools.

FOREST CONSERVATION PLAN ANALYSIS AND FINDINGS

The Forest Conservation Plan Application meets all applicable requirements of Chapter 22A of the Montgomery County Forest Conservation Law.

Review for Conformance to the Forest Conservation Law

The Application is subject to the Montgomery County Forest Conservation Law (Chapter 22A of the County Code) under Section 22A-4(d) as a project by *“a government entity subject to a mandatory referral on a tract of land 40,000 square feet or larger...”* The Site included in the Application is 9.64 acres in size, Parcel 937 on Tax Map FP343.

Environmental Guidelines

A Natural Resources Inventory and Forest Stand Delineation (NRI/FSD) #420160980 was approved by Staff on February 9, 2016 (Attachment A). The Site is within the Rock Run watershed, a Use I-P designation. The Countywide Stream Protection Strategy rates the water quality in this watershed as poor. The Site contains Stream Valley Buffer (SVB) and 100-year Floodplain. The 100-year Floodplain is not shown on the NRI/FSD because there are no mapped floodplains on the Site. At time of the submission of the stormwater management concept MCDPS required the Applicant to provide a more accurate floodplain delineation based on hydrologic/hydraulic computations and detailed topography or field survey.

Daylighting of the Stream

This project deftly balances two competing objectives. The combined goals of restoring/daylighting a natural channel and the gaining additional buildable area for the building envelope only works when both the environmental reviewers and the developer recognize the mutual benefits and work together toward those goals.

There is an adjoining unnamed paper street (ROW) located at the approximate center of the Site on the northwest side. The unnamed paper street contains a stream channel which enters an existing storm drain system once it reaches the MCPS Site. The channel flows are conveyed through the Site by the storm drain system. Analysis revealed that the drainage area generating the ephemeral flows to the channel was larger than 30 acres; therefore, by Montgomery County Code, a floodplain delineation study (FPDS) was required.

Development of the original Potomac Elementary School was completed prior to FPDS requirements, in the 1950's. That development included grading, installation of the storm drain (pipe) system, parking areas and playgrounds, and resulted in complete filling of the natural stream channel and floodplain that likely traversed the Site at that time. The floodplain delineation for the piped stream covers a considerably larger area than would be expected of a similar channel in natural conditions. The existing floodplain delineation also makes redevelopment of the Site very difficult without some level of flexibility and mitigation since the stream buffer must include the entire 100-year floodplain per the Environmental Guidelines.

The project will daylight a large portion of the existing storm drain and reestablish the channel and some buffer. With reestablishment of the existing channel and stream buffers, overland flood paths are also restored to a more natural and improved environmental state. Daylighting of the existing channel, providing riparian buffers and replanting with native species will provide environmental benefits both ecologically and from aesthetic perspective, some example listed below:

Ecological

- ✓ Daylight underground channeled stream
- ✓ Provide natural meandering channel and streambed
- ✓ Reduce untreated stormwater runoff

- ✓ Improve water quality by exposing water to air, sunlight, vegetation, & soil which helps bind and transform pollutants
- ✓ Recreate aquatic habitat
- ✓ Recreate valuable riparian habitat

Aesthetics

- ✓ Create green link
- ✓ Provide recreational amenities: seating, play, etc.
- ✓ Use as outdoor laboratory for school
- ✓ Serve as focal point
- ✓ Create new amenity
- ✓ Reconnect children to nature
- ✓ Opportunity to correct the wrongs of the past

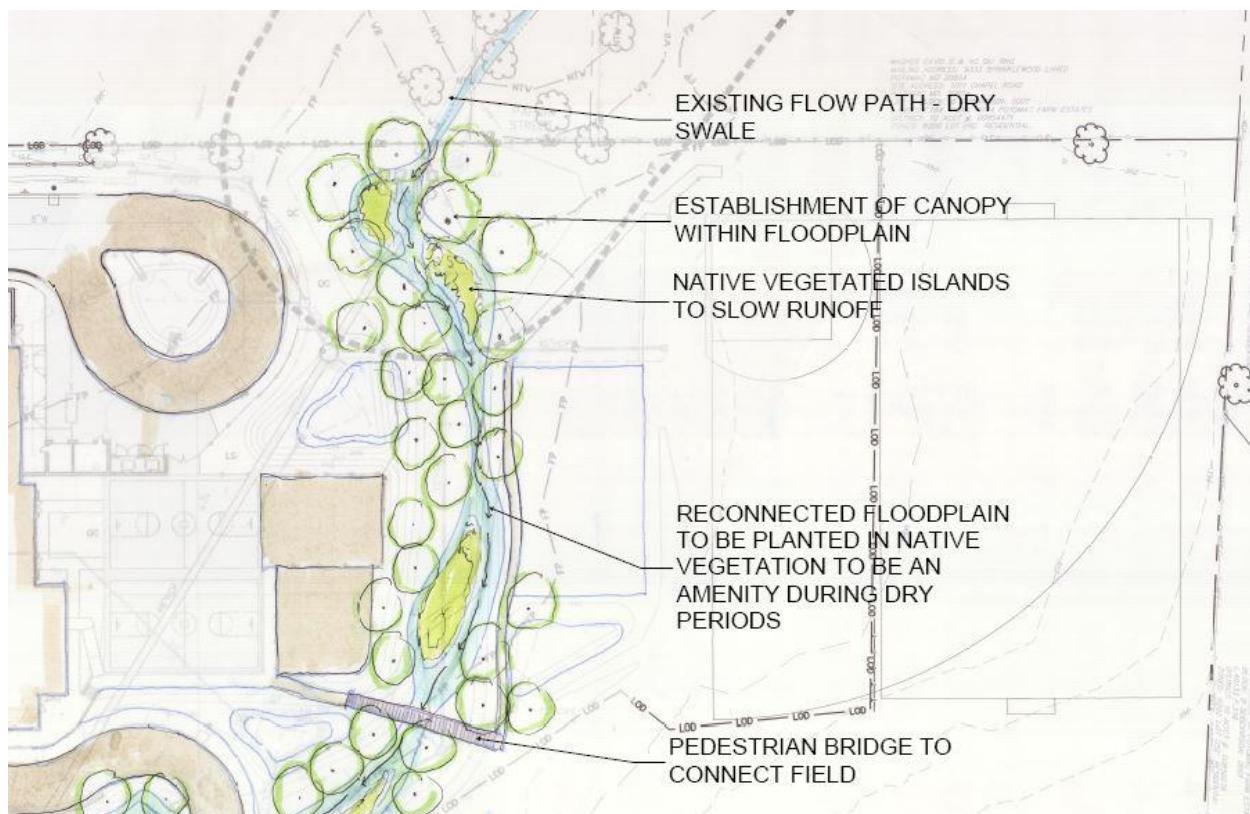


Figure 2: Initial Concept Sketch of Channel Daylighting

According to the Guidelines for Environmental Management of Development in Montgomery County, clearing and grading within the stream buffer may be recommended for approval on a case-by-case basis so long as the modification is consistent with a comprehensive approach to protecting areas that are critical to preserving or enhancing streams, wetlands, and their ecosystems. The Applicant must

provide a rationale for stream buffer modifications addressing at a minimum the factors below. The extent to which the proposal meets the following factors will form the basis for staff recommendations.

1. *Reasonable alternatives for avoidance of the buffer are not available.*

The proposed impacts are the result of a stream restoration/daylighting and the work must be conducted in the SVB so there are no alternatives for avoidance.

2. *Encroachment into the buffer has been minimized.*

The amount of proposed encroachment into the standard SVB beyond what is necessary to daylight the stream has been minimized without precluding the public goals of a functioning elementary school.

3. *Existing sensitive areas have been avoided (forest, wetlands and their state designated buffers, floodplain, steep slopes, and habitat for rare, threatened, and endangered species and their associated protection buffers).*

The existing sensitive features, except for the calculated FPDS floodplain area have been avoided and the daylighting of the natural channel planted with native species adds a whole new set of environmental features.

4. *The proposed use is consistent with the preferred use of the buffer (e.g., pervious areas such as tie outs to existing grades, slope stabilizing BMPs, etc.).*

The primary use for buffer area to be impacted is a natural/restored stream channel providing additional stream and ecosystem enhancement that would not otherwise been achieved on this site.

5. *The plan design provides compensation for the loss of buffer function.*

The entire design was predicated around the daylighting and restoration of a naturally occurring stream channel and provides water quality benefits that greatly exceed the current piped configuration on Site. Additionally, the existing piped conditions created a barrier between the stream and the buffer so the buffer was not able to function as it should. The stream restoration will allow the buffer to interact with the stream and function. Although the proposed stream buffer is not as large as required per the Guidelines, the compromise results in a stream channel that is restored to a natural condition and a stream buffer that is allowed to function as a natural filter, meeting the intent of the Guidelines.

The proposed the daylighting and restoration of the naturally occurring stream channel is consistent with the Guidelines and can be approved as designed.

Modified Conservation Easement

The unique circumstance of this Application-- a Public School and the daylighting and restoration of a piped stream channel--prompted a discussion about environmental protection and the safety of the students who attend the school. The location of the historic channel bisects the Site and a full width

SVB as defined in the Environmental Guidelines would have made redevelopment of the Site to suit the needs of MCPS, very difficult. In that scenario, the stream would never have been restored.

In conjunction with MCPS and Staff, a compromise solution was discussed that would protect and incorporate this new environmental feature. MCPS needed to maintain the safety and aesthetic elements of a feature in the middle of a school campus and Staff wanted to ensure the new stream channel received protection to help ensure the environmental benefits associated with daylighting a stream. The existing development on the Site as well as the proposed redevelopment of the school prohibit the establishment of a stream buffer to the extent typically preferred in the Guidelines. A compromise of a variable width buffer, as shown on plans, in conjunction with a Modified Category II conservation easement would provide protection of the soils and plantings and would ensure that the most sensitive areas would not be redeveloped. The Category II easement also would provide MCPS some liberty in maintaining the vegetation on-site to help ensure student safety.

Forest Conservation Plan

A Forest Conservation Plan ("FCP") for the Site was submitted as part of the Mandatory Referral Application (Attachment B).

The FCP proposes no forest clearing and no forest retention. The net tract area for the Application, for purposes of Chapter 22A is 9.64 acres. The proposed development on the Site generates a 1.45-acre afforestation planting requirement. The afforestation planting requirement is generated because the Site contains no existing forest and, under the "Institutional Development Areas" land use category, the Site has a 15 percent afforestation threshold for the net tract area. The Applicant proposes to meet the planting requirement through Mitigation Credit in an offsite forest conservation bank.

Forest Conservation Variance

Section 22A-12(b)(3) of the Montgomery County Forest Conservation Law provides criteria that identify certain individual trees and other vegetation as high priority for retention and protection. The law requires that there be no impact to: trees that measure 30 inches or greater DBH; are part of an historic site or designated with an historic structure; are designated as national, State, or County champion trees; are at least 75 percent of the diameter of the current State champion tree of that species; or trees, shrubs, or plants that are designated as Federal or State rare, threatened, or endangered species. Any impact to high priority vegetation, including disturbance to the critical root zone (CRZ) requires a variance. 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. Staff determined that development of the Site requires impact to trees identified as high priority for retention and protection (Protected Trees). The Applicant has submitted a variance request for these impacts.

Variance Request – The Applicant submitted a variance request in a letter dated January 18, 2018, for the removal and impact of variance trees (Attachment C). The Applicant proposes to remove eight and impact seventeen protected trees that are 30 inches or greater, DBH, and are considered a high priority for

retention under Section 22A-12(b)(3) of the County Forest Conservation Law. Details of the protected trees to be removed and impacted are provided in Table 1 and shown graphically in Figure 2.

Variance Tree Summary									
Tree #	Species	Species	D.B.H	Critical Root	Critical Root Zone	Percent of CRZ	Tree	Comments	Status
	Scientific Name	Common Name	(inches)	Zone (Sq. Ft.)	Impacts	Impacted (SF)	Condition		
2	ACER RUBRUM	RED MAPLE	30	6362	6362	100%	GOOD	INC.BARK/GIRDDLED ROOTS	REMOVE
4	ULMUS RUBRA	RED ELM	30	6362	6362	100%	GOOD	SPLIT@9' /MULBERRY CLOSE TO BASE	REMOVE
7	ACER RUBRUM	RED MAPLE	34,14	8171	3734	46%	GOOD	INC.BARK/PRUNED/SOME DAMAGED BARK/SPLITS@5'/OFFSITE	SAVE
9	ACER RUBRUM	RED MAPLE	45	14314	5524	39%	GOOD	INC.BARK/SPLIT@5,6,9'/OFFSITE	SAVE
14	PRUNUS SEROTINA	BLACK CHERRY	40	11310	11310	100%	GOOD	INC.BARK/SPLIT@15'	REMOVE
15	PINUS STROBUS	WHITE PINE	32	7238	3055	42%	GOOD	VINES/DEAD/BROKEN BRANCHES/LIMBS/OFFSITE	SAVE
19	PRUNUS SEROTINA	BLACK CHERRY	36	9161	9161	100%	FAIR	VINES	REMOVE
22	PRUNUS SEROTINA	BLACK CHERRY	33	7698	7698	100%	FAIR	VINES/SPLIT@6.5' AND 10'	REMOVE
23	ACER SACCHARINUM	SILVER MAPLE	33	7698	1226	16%	GOOD	BROKEN LEADER/SPLIT@4'/VINES/OFFSITE	SAVE
28	ACER SACCHARINUM	SILVER MAPLE	53	19856	92	1%	GOOD	BROKEN LEADER, SPLITS@4'/OFFSITE	SAVE
31	ACER SACCHARINUM	SILVER MAPLE	30,22,24	6362	1733	27%	GOOD	OFFSITE	SAVE
32	ACER SACCHARINUM	SILVER MAPLE	30	6362	90	1%	FAIR	LEAN/MONITOR/OFFSITE	SAVE
33	ACER SACCHARINUM	SILVER MAPLE	36	9161	9161	100%	GOOD		REMOVE
67	LIRIODENDRON TULIPIFERA	YELLOW POPLAR	32	7238	7238	100%	POOR	SEVERE LEAN, POTENTIAL HAZARD TO PORTABLES	REMOVE
68	ACER SACCHARINUM	SILVER MAPLE	47	15615	15615	100%	GOOD		REMOVE
70	ACER SACCHARINUM	SILVER MAPLE	30	6362	2583	41%	GOOD	VINES/SPLIT@9'/OFFSITE	SAVE
71	ACER SACCHARINUM	SILVER MAPLE	52	19113	10540	55%	FAIR/POOR	INC.BARK/BARK WOUNDS/BROKEN/DEAD BRANCHES/DEAD LEADER/OFFSITE	SAVE

Table 1: Impacted Variance Tree Table

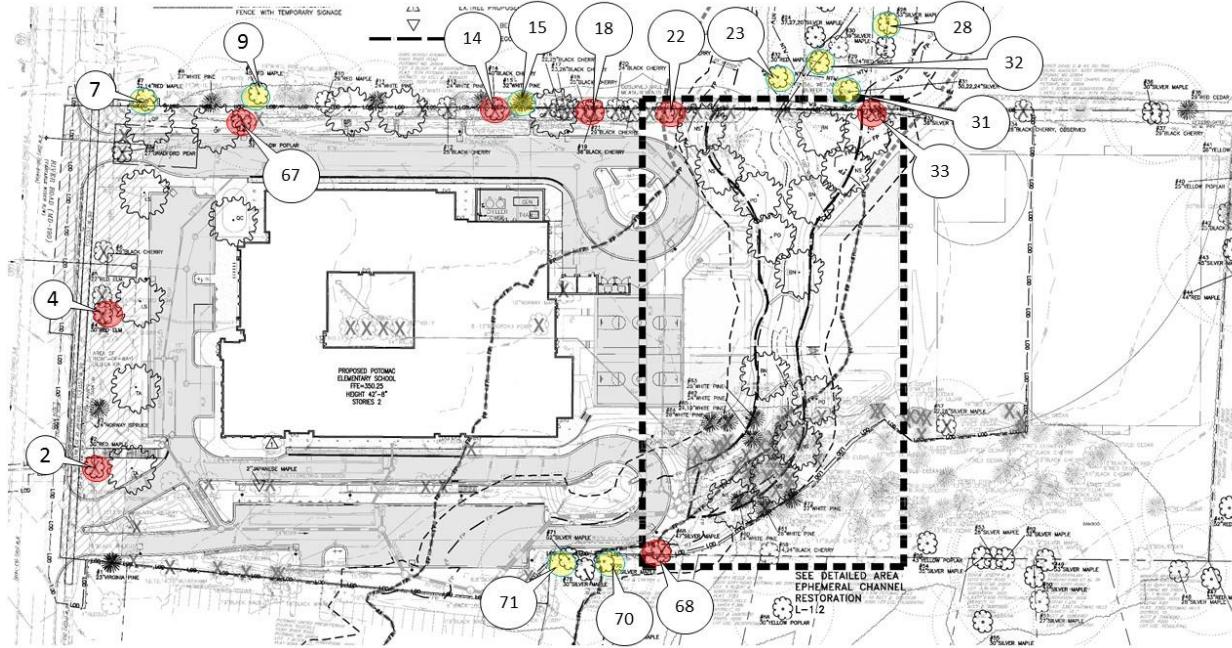


Figure 3: Variance Tree Distribution (Red = Removed; Yellow = Impacted)

Unwarranted Hardship Basis – Pursuant to Section 22A-21, a variance may only be considered if the Planning Board finds that leaving the Protected Trees in an undisturbed state would result in an unwarranted hardship, denying an applicant reasonable and significant use of the Site. The Applicant contends that an unwarranted hardship would be created due to existing conditions on the Site and the development requirements for the Site. The Site contains eleven trees subject to the variance provision, of which eight will be removed and nine impacted by this Application.

If a variance were not considered and MCPS was not allowed to disturb the trees the development proposal would not be possible; this is an existing elementary school in need of modernization. As such, this would cause an unwarranted hardship to the community that it serves. Staff has reviewed this Application and finds that there would be an unwarranted hardship if a variance were not considered.

Variance Findings – Section 22A-21 of the County Forest Conservation Law sets forth the findings that must be made by the Planning Board or Planning Director, as appropriate, for a variance to be granted. Staff has made the following determination based on the required findings in the review of the variance request and the PFCP:

Granting of the requested variance:

1. *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 the disturbance to the Protected Trees is due to the reasonable development of the Site and the unique slope conditions. The Protected Trees are in the developable area of the Site. Granting a variance to allow land disturbance within the developable portion of the Site is not unique to this Applicant. Staff believes that the granting of this variance is not a special privilege that would be denied to other applicants.

2. *Is not based on conditions or circumstances which are the result of the actions by the applicant.*

The need for the variance is not based on conditions or circumstances which are the result of actions by the Applicant. The requested variance is based on existing site conditions, including the location of the Protected Trees within the developable area of the Site.

3. *Is not based on a condition relating to land or building use, either permitted or non-conforming, on a neighboring property.*

The surrounding land uses do not have any inherent characteristics or conditions that have created or contributed to this need for a variance.

4. *Will not violate State water quality standards or cause measurable degradation in water quality.*

The variance will not violate State water quality standards or cause measurable degradation in water quality. The Protected Trees removed will be mitigated for by planting new trees as well as the trees that are proposed next to the daylighted and restored stream will provide water quality benefits offsetting those trees removed.

In addition, the Montgomery County Department of Permitting Services (MCDPS) is reviewing a stormwater management concept for the proposed project. The stormwater management concept incorporates Environmental Site Design standards.

Mitigation for Protected Trees – All the Protected Trees subject to the variance provision and proposed to be removed are located outside of existing forest. Mitigation for the removal of these eight (8) trees is recommended at a rate that approximates the form and function of the trees removed. Therefore, Staff is recommending that replacement occur at a ratio of approximately 1-inch caliper for every 4 inches removed, using trees that are a minimum of 3 caliper inches in size. This Application proposed to remove 284 inches in DBH, resulting in a mitigation requirement of 71 caliper inches of planted, native, canopy trees with a minimum size of 3-inch caliper. While these trees will not be as large as the trees lost, they will provide some immediate benefit and ultimately replace the canopy lost by the removal of these trees.

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. The request was forwarded to the County Arborist on February 22, 2018, the County Arborist has not provided a recommendation as of the posting of this Staff Report.

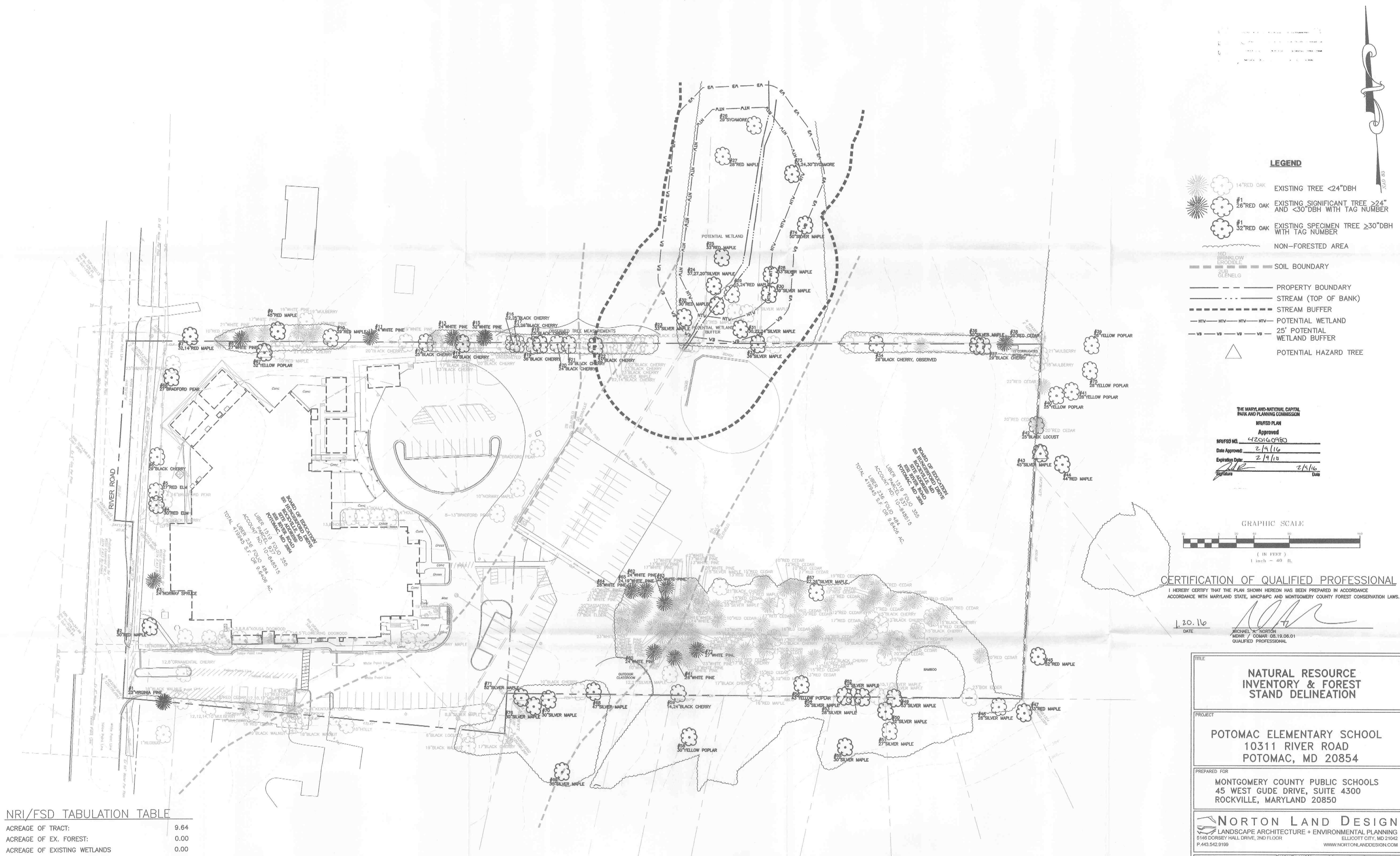
Variance Recommendation – Staff recommends that the variance be **Approved**.

CONCLUSION

Staff recommends the Planning Board **Approve with conditions** the Forest Conservation Plan and the variance request.

ATTACHMENTS

- A. Approved Natural Resource Inventory/Forest Stand Delineation
- B. Preliminary/Final forest Conservation Plan (FCP)
- C. Variance Request



NRI/FSD TABULATION TABLE

ACREAGE OF TRACT:	9.64
ACREAGE OF EX. FOREST:	0.00
ACREAGE OF EXISTING WETLANDS	0.00
ACREAGE OF FORESTED WETLANDS	0.00
ACREAGE OF WETLAND BUFFERS	0.00
ACREAGE OF STREAM BUFFERS	0.41
ACREAGE OF FORESTED STREAM BUFFER	0.00
ACREAGE OF 100 YEAR FLOODPLAIN	0.00
LINEAR EXTENT OF STREAMS	326'
AVERAGE WIDTH OF STREAM BUFFER	100'

SOIL TABLE

SOILS	ERODIBLE	HYDRIC	CONTAINS 15-25% SLOPES	CONTAINS > 25% SLOPES	CAPABILITY SUBCLASS SYMBOL	PRIME AGRICULTURAL SOIL
2B GLENELG SILT LOAM 3-8% SLOPES	NO	NO	N/A	N/A	Ile	YES
5A GLENVILLE SILT LOAM 0-3% SLOPES	NO	NO	N/A	N/A	IIw	NO
6A BAILE SILT LOAM 0-3% SLOPES	NO	YES	N/A	N/A	Vw	NO

TITLE: NATURAL RESOURCE INVENTORY & FOREST STAND DELINEATION	
PROJECT: POTOMAC ELEMENTARY SCHOOL 10311 RIVER ROAD POTOMAC, MD 20854	
PREPARED FOR: MONTGOMERY COUNTY PUBLIC SCHOOLS 45 WEST GUDIE DRIVE, SUITE 4300 ROCKVILLE, MARYLAND 20850	
NORTON LAND DESIGN LANDSCAPE ARCHITECTURE + ENVIRONMENTAL PLANNING 5140 DORSEY HALL DRIVE, 2ND FLOOR ELICOTT CITY, MD 21042 P.443.542.0199 WWW.NORTONLANDDESIGN.COM	
REV. 1.19.2016 PER M-NCPPC COMMENTS	
VICINITY MAP (1=2000')	
WATER CLASS: USE I-P WATERSHED: ROCK RUN FEMA FLOODPLAIN MAP PANEL #: 24031C 0340D	
TRIBUTARY: UNNAMED	
TAX MAP: FP343	WATER SHEET: 200
ADC MAP: PAGE 34	ADC MAP: GRID C-5
SCALE: AS SHOWN	DATE: JAN. 2016
PROJ. NO: 13-029	SHEET NO: L-0.1

SITE NARRATIVE AND FOREST SUMMARY

INTRODUCTION

Norton Land Design completed a Natural Resource Inventory & Forest Stand Delineation for the project known as the Potomac Elementary School, 10311 River Road, Potomac, MD in September, 2015. The delineation was conducted using the guidelines set forth in the MDNR State Forest Conservation Technical Manual and MNCPPC Trees, Approved Technical Manual.

GENERAL INFORMATION

This is a 0.64-acre site, Part of Parcel 037, owned by the Montgomery County Board of Education. The site is currently developed. The site is bordered by residents on the North, South, and East sides with a church bordering the West side of the property. The site has vehicular access from River Road. The site lies within the Rock Run Creek Watershed, Use I-P.

ENVIRONMENTAL FEATURES

100 YEAR FLOOD PLAIN

There is no 100-yr floodplain associated with the property according to the FEMA flood map Community Panel # 24031C 0340D.

SOILS

The Soil Survey of Montgomery County, Maryland describes the soil types that are present within the study area as follows. The general soil association for this part of the county is Brinklow and Glenville.

Soil type 2B - Glacial silt loam, 3 to 6 percent slopes. This soil is very deep and well drained. It is usually found on broad ridges in upland areas. The slopes are generally smooth, but some are dissected by drainages. This soil is well suited for dwellings and urban development. The only limitation is its moderate permeability which can limit the absorption from septic fields.

Soil type 5A - Glenville silt loam, 0 to 3 percent slopes. The soil is very deep and is moderately well drained or poorly drained. It is in areas of uplands and along drainages. The slopes are generally smooth. Moderate areas are for native crops, pasture or woodland. A few drained areas are used for urban development. This soil is suited for dwellings. The high water table and the slow permeability are the main limitations. The potential for trees on this soils is moderately high. This soil is not listed as erodible, hydric or prime farmland.

Soil type 6A - Ballis silt loam, 0 to 3 percent slopes. The high water table and slow permeability are the main limitations on sites for septic tank absorption fields. Most areas are used as woodland or pasture. The suitability for Wild herbaceous plants, hardwood trees, and coniferous plants is good. The potential as habitat for openland wildlife and woodland wildlife is good. These soils are classified as hydric soils.

NONTIDAL WETLANDS

There are wetlands or buffers observed within 100' of the study area. There are wetlands and associated buffers onsite as shown on maps.

STREAMS AND DRAINAGEWAYS

There are streams or buffers observed within 100' of the study area. There are streams and associated buffers onsite as shown on maps.

TOPOGRAPHY AND STEEP SLOPES

The site generally slopes up to the east and there are no steep slopes onsite.

CRITICAL HABITATS

The MDNR and Fish and Wildlife Service have been notified of the project area and description. There appears to be no critical wildlife habitats from the field inspection. Copies of their correspondence will be provided when received.

CULTURAL FEATURES

The site does not appear in close proximity to individual historic sites found in MNCPPC Historic Properties Interactive Map. It appears the development of the subject site will not impact any historic sites.

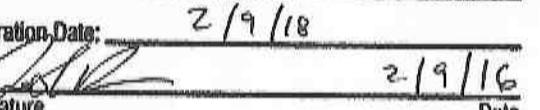
FOREST STAND INFORMATION

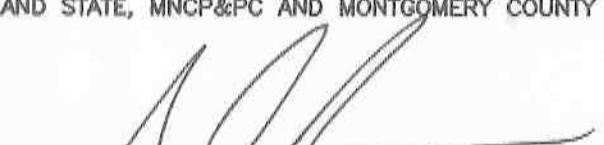
There is no forest onsite.

GENERAL NR/FSD NOTES

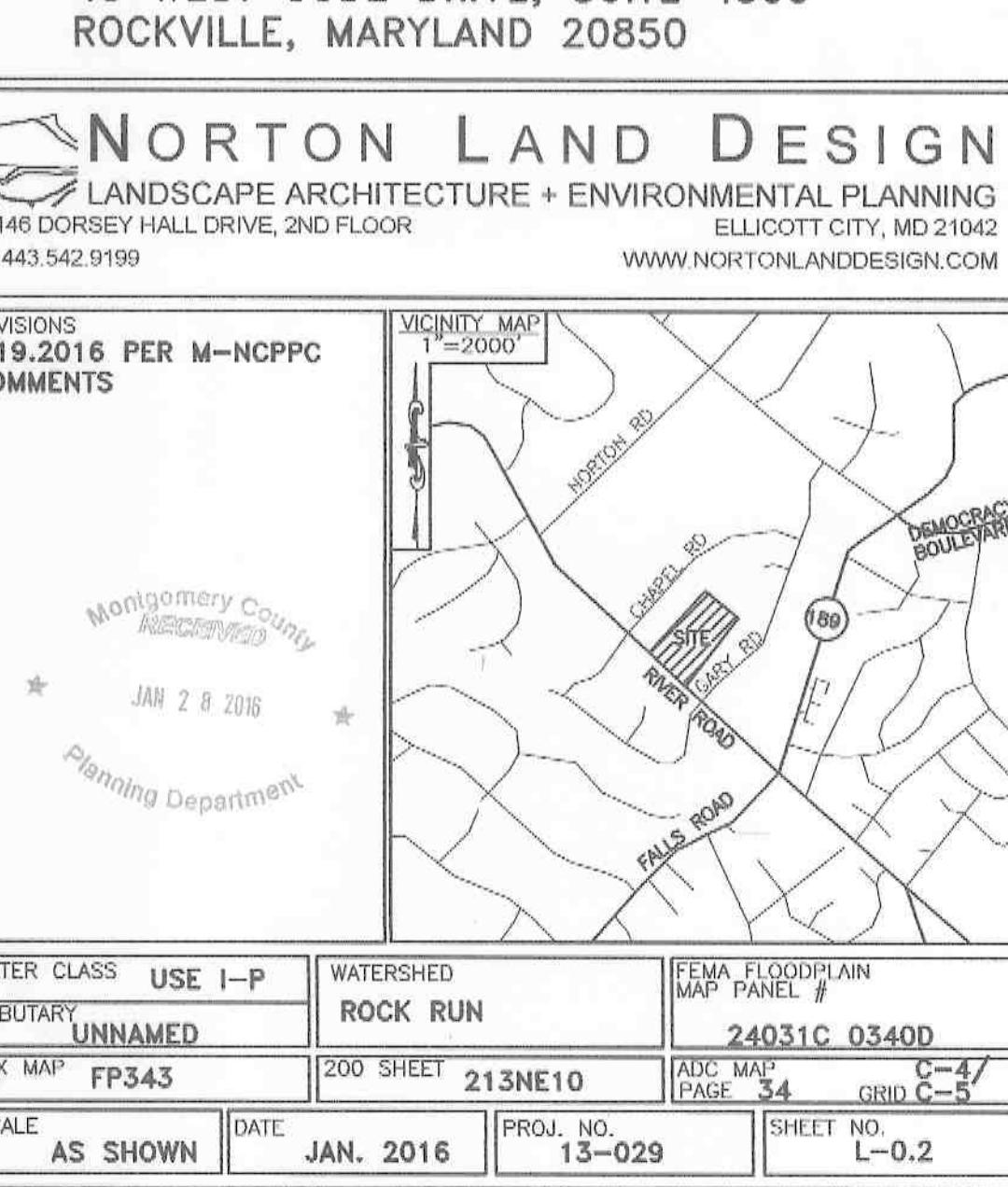
1. THIS PROPERTY IS ZONED RE2.
 2. THE TOTAL TRACT AREA IS 0.64 ACRES.
 3. SITE FIELD WORK WAS PERFORMED ON SEPTEMBER 2015 BY MICHAEL NORTON, NORTON LAND DESIGN LLC.
 4. THIS SITE IS WITHIN THE ROCK RUN CREEK, USE I-P.
 5. THIS PROPERTY IS NOT WITHIN AN SPA OR PMA.
 6. THERE ARE WETLANDS AND WETLAND BUFFERS ON OR WITHIN 100' OF THE LOD OBSERVED (SEE REPORT).
 7. THERE ARE STREAMS OR STREAM BUFFERS ON OR WITHIN 100' OF THE LOD OBSERVED (SEE REPORT).
 8. THERE IS NO FLOODPLAIN ASSOCIATED WITH THE PROPERTY ACCORDING TO THE FEMA ONLINE FIRMETTE MAP #24031C 0340D (SEE REPORT).
 9. 2' TOPOGRAPHY AND BOUNDARY SURVEY WAS PROVIDED BY MERIDIAN SURVEYS, INC IN AUGUST 2015. ADDITIONAL 2' TOPOGRAPHY DERIVED FROM MNCPPC, MONTGOMERY COUNTY TOPOGRAPHIC MAP SHEET 213NW10.
 10. THERE ARE NOT PRIME AGRICULTURAL SOILS ON THE PROPERTY.
 11. ALL TREES 24" AND GREATER WITHIN THE FIELD RUN SURVEY AREA ARE SURVEY LOCATED AND MEASURED WITH A FORESTERS DIAMETER TAPE MEASURE.
 12. ALL TREES 24" AND GREATER OUTSIDE OF THE FIELD RUN SURVEY AREA ARE LOCATED AND MEASURED BY OCULAR ESTIMATE ONLY. ALL MANMADE STRUCTURES OFFSITE ARE LOCATED BY AVAILABLE AERIAL PHOTOGRAPHS AND/OR OCULAR ESTIMATE.
 13. ALL TREES UNDER 24" ONSITE ARE MEASURED BY OCULAR ESTIMATE ONLY.
 14. NO RARE, THREATENED OR ENDANGERED SPECIES WERE OBSERVED ON OR OFFSITE AT THE TIME OF THE FIELD INVESTIGATION. CORRESPONDENCE FROM MARYLAND DNR AND US FISH AND WILDLIFE SERVICE WILL BE PROVIDED WHEN RECEIVED.
 15. NO TREES OCCUR WITHIN THE STUDY AREA WHICH ARE RECOGNIZED AS CURRENT STATE CHAMPION TREES. THERE IS ONE TREE OFFSITE THAT IS WITHIN 75% OF THE DBH OF AN EXISTING STATE CHAMPION.
 16. THE SUBJECT PROPERTY IS NOT LISTED AS INDIVIDUAL HISTORIC SITES AS FOUND IN THE MNCPPC HISTORIC PROPERTIES INTERACTIVE MAP.
- * BOLD TYPE DENOTES SPECIMEN TREES
- | Condition Scoring System | |
|--------------------------|-----------|
| No Apparent Problems | Excellent |
| Minor Problems | Good |
| Major Problems | Fair |
| Extreme Problems | Poor |

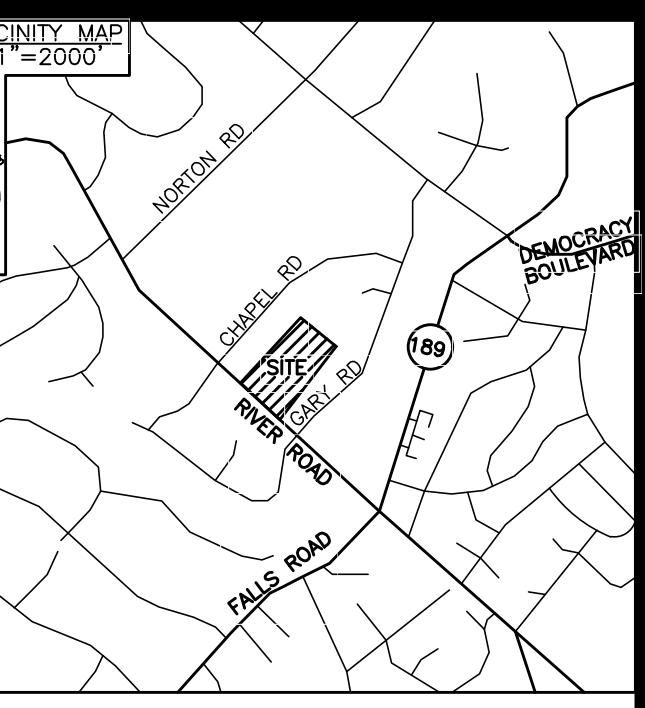
Significant/Specimen Tree Summary 24" +				
Tree Species	Species	D.B.H.	Tree Condition	Comments
1 PINUS VIRGINIANA	VIRGINIA PINE	23	FAIR	DEAD/BROKEN LIMBS/BRANCHES
2 ACER RUBRUM	RED MAPLE	30	GOOD	INC. BARK/GIRDLED ROOTS
3 PICEA ABIES	NORWAY SPRUCE	24	GOOD	INC. BARK
4 ULMUS RUBRA	RED ELM	30	GOOD	SPLIT@9'M ULBERRY CLOSE TO BASE
5 ULMUS RUBRA	RED ELM	27	GOOD	SPLIT@6'
6 PRUNUS SEROTINA	BLACK CHERRY	29	POOR	VINES/SPLIT@5'BARK DAM AGE/PRUNED
7 ACER RUBRUM	RED MAPLE	34,14	GOOD	INC. BARK/PRUNED/SOME DAMAGED BARK/SPLITS@5'/OFFSITE
8 PINUS STROBUS	WHITE PINE	27	FA IR/POOR	BROKEN LIMBS/BRANCHES/VINES/CANOPY DIEBACK/OFFSITE
9 ACER RUBRUM	RED MAPLE	45	GOOD	INC. BARK/SPLIT@5.6' OFFSITE
10 ACER RUBRUM	RED MAPLE	29	GOOD	INC. BARK/GIRDLED ROOTS/BURL@1'/SMALL CANOPY DIEBACK @BASE/OFFSITE
11 PRUNUS SEROTINA	WHITE PINE	24	POOR	VINES/OFFSITE
12 PRUNUS SEROTINA	BLACK CHERRY	25	GOOD	CO-OWNED
13 PINUS STROBUS	WHITE PINE	24	GOOD	OFFSITE
14 PRUNUS SEROTINA	BLACK CHERRY	40	GOOD	INC. BARK/SPLIT@15'
15 PINUS STROBUS	WHITE PINE	32	GOOD	VINES/DEAD/BROKEN BRANCHES/LIMBS/OFFSITE
16 PRUNUS SEROTINA	BLACK CHERRY	22,25	FA IR	VINES/SPLIT@2.5'
17 PRUNUS SEROTINA	BLACK CHERRY	23,28	FA IR	VINES/SPLIT@3' LEADER LEANING FAR
18 PRUNUS SEROTINA	BLACK CHERRY	25	FA IR	VINES
19 PRUNUS SEROTINA	BLACK CHERRY	36	FAIR	VINES
20 PRUNUS SEROTINA	BLACK CHERRY	24	FA IR	VINES
21 PRUNUS SEROTINA	BLACK CHERRY	29	FA IR	VINES
22 PRUNUS SEROTINA	BLACK CHERRY	33	FA IR	VINES/SPLIT@6' AND 10'
23 ACER SACCHARINUM	SILVER MAPLE	33	GOOD	BROKEN LEADER/SPLIT@4'/VINES/OFFSITE
24 ACER SACCHARINUM	SILVER MAPLE	37,27,20	FAIR	PRUNED/VINES/OFFSITE
25 ACER RUBRUM	RED MAPLE	33	POOR	VINES/TRUNK DAMAGE/OFFSITE
26 PLATANUS OCCIDENTALIS	SYCAMORE	29	POOR	TOPPED/OFFSITE
27 ACER RUBRUM	RED MAPLE	28	GOOD	OFFSITE
28 ACER SACCHARINUM	SILVER MAPLE	53	GOOD	BROKEN LEADER, SPLITS@4'/OFFSITE
29 ACER RUBRUM	RED MAPLE	15,24	GOOD	OFFSITE
30 ACER SACCHARINUM	SILVER MAPLE	39	GOOD	SPLITS@4'/OFFSITE
31 ACER SACCHARINUM	SILVER MAPLE	30,22,24	GOOD	OFFSITE
32 ACER SACCHARINUM	SILVER MAPLE	30	FAIR	LEANIN ON/TOR/OFFSITE
33 ACER SACCHARINUM	SILVER MAPLE	36	GOOD	OFFSITE
34 PRUNUS SEROTINA	BLACK CHERRY	26	POOR	VINES
35 VOID	VOID	VOID	VOID	VOID
36 ACER SACCHARINUM	SILVER MAPLE	30	GOOD	OFFSITE
37 PRUNUS SEROTINA	BLACK CHERRY	29	GOOD	OFFSITE
38 JUNIPERUS VIRGINIANA	EA STERN RED CEDAR	29	GOOD	OFFSITE
39 LIRIODENDRON TULIPIFERA	YELLOW POPLAR	26	GOOD	OFFSITE
40 LIRIODENDRON TULIPIFERA	YELLOW POPLAR	25	GOOD	OFFSITE
41 LIRIODENDRON TULIPIFERA	YELLOW POPLAR	28	GOOD	OFFSITE
42 ROBINA PSUDOCACIA	BLACK LOCUST	25	GOOD	OFFSITE
43 ACER SACCHARINUM	SILVER MAPLE	45	POOR	LEANING HOLLOW/SPLIT/OFFSITE
44 ACER RUBRUM	RED MAPLE	44	GOOD	OFFSITE
45 ACER RUBRUM	RED MAPLE	52	GOOD	OFFSITE
46 VOID	VOID	VOID	VOID	VOID
47 ACER RUBRUM	RED MAPLE	33	GOOD	OFFSITE
48 ACER SACCHA RINUM	SILVER MAPLE	28	GOOD	OFFSITE
49 ACER SACCHARINUM	SILVER MAPLE	53	GOOD	SPLIT@7'/OFFSITE
50 ACER SACCHARINUM	SILVER MAPLE	32	FAIR	SPLIT@9'/OFFSITE
51 ACER SACCHA RINUM	SILVER MAPLE	27	GOOD	LEANING/OFFSITE
52 ACER SACCHARINUM	SILVER MAPLE	32	GOOD	VINES/CO-OWNED
53 ACER SACCHA RINUM	SILVER MAPLE	28	GOOD	VINES/CO-OWNED
54 ACER SACCHARINUM	SILVER MAPLE	35	GOOD	SPLIT@4'/CO-OWNED
55 ACER SACCHARINUM	SILVER MAPLE	30	GOOD	SPLIT@5'
56 LIRIODENDRON TUL	YELLOW POPLAR	43	EXCELLENT	OFFSITE
57 ACER SACCHA RINUM	SILVER MAPLE	27,26	GOOD	SPLIT@4'
58 LIRIODENDRON TULIPIFERA	YELLOW POPLAR	30	GOOD	OFFSITE
59 PRUNUS SEROTINA	BLACK CHERRY	14,24	POOR	VINES
60 PINUS STROBUS	WHITE PINE	24	GOOD	OFFSITE
61 PINUS STROBUS	WHITE PINE	26	GOOD	OFFSITE
62 PINUS STROBUS	WHITE PINE	24	GOOD	OFFSITE
63 PINUS STROBUS	WHITE PINE	25	GOOD	OFFSITE
64 PINUS STROBUS	WHITE PINE	28	GOOD	OFFSITE
65 PINUS STROBUS	WHITE PINE	24,19	GOOD	OFFSITE
66 PYRUS CALLERYANA	BRADFORD PEAR	27	GOOD	OFFSITE
67 LIRIODENDRON TULIPIFERA	YELLOW POPLAR	32	POOR	SEVERE LEAN, POTENTIAL HAZARD TO PORTABLES
68 ACER SACCHARINUM	SILVER MAPLE	47	GOOD	OFFSITE
69 ACER SACCHARINUM	SILVER MAPLE	35	GOOD	OFFSITE
70 ACER SACCHARINUM	SILVER MAPLE	30	GOOD	VINES/SPLIT@9'/OFFSITE
71 ACER SACCHARINUM	SILVER MAPLE	52	FAIR/POOR	INC. BARK/BARK WOUNDS/BROKEN/DEAD BRANCHES/DEAD LEADER/OFFSITE
72 PINUS STROBUS	WHITE PINE	27	GOOD	OFFSITE
73 PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	24,24,30	GOOD	OFFSITE
74 ACER SACCHARINUM	SILVER MAPLE	50	GOOD	SPLIT @ 5' OFFSITE
75 LIRIODENDRON TULIPIFERA	YELLOW POPLAR	28	GOOD	OFFSITE
76 ACER SACCHARINUM	SILVER MAPLE	30	GOOD	OFFSITE

THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION
NR/FSD PLAN
Approved
NR/FSD No. 4Z0160980
Date Approved: 2/1/16
Expiration Date: 2/1/18
Signature:  Date: 2/1/16

CERTIFICATION OF QUALIFIED PROFESSIONAL
I HEREBY CERTIFY THAT THE PLAN SHOWN HEREON HAS BEEN PREPARED IN ACCORDANCE
ACCORDING TO MARYLAND STATE, MNCPPC AND MONTGOMERY COUNTY FOREST CONSERVATION LAWS.

1.20.16
MICHAEL A. NORTON
MNR / COMAR 08.19.08.01
QUALIFIED PROFESSIONAL

TITLE: NATURAL RESOURCE INVENTORY & FOREST STAND DELINEATION
PROJECT: POTOMAC ELEMENTARY SCHOOL
10311 RIVER ROAD
POTOMAC, MD 20854
PREPARED FOR: MONTGOMERY COUNTY PUBLIC SCHOOLS
45 WEST GUDGE DRIVE, SUITE 4300
ROCKVILLE, MARYLAND 20850
NORTON LAND DESIGN
LANDSCAPE ARCHITECTURE + ENVIRONMENTAL PLANNING
5148 DORSEY HALL DRIVE, 2ND FLOOR
ELLIOTT CITY, MD 21042
WWW.NORTONLANDDESIGN.COM
REVISIONS: 1.19.2016 PER M-NCP
COMMENTS: VICINITY MAP 1:2000
Montgomery County
Planning Department
JAN 28 2016
TAX MAP: FP343
WATER CLASS: USE I-P
TRIBUTARY: UNNAMED
WATERSHED: ROCK RUN
FEMA FLOODPLAIN MAP PANEL #: 24031C 0340D
TAX MAP PAGE: 34
200 SHEET: 213NE10
ADC MAP PAGE: 34
GIRD C-5
SCALE: AS SHOWN
DATE: JAN. 2016
PROJ. NO: 13-029
SHEET NO: L-0.2





Sequence of Events for Properties Required to Comply With Forest Conservation Plans - Exemptions from Submitting Forest Conservation Plans, and Tree Save Plans

The property owner is responsible for ensuring all tree protection measures are performed in accordance with the approved final forest conservation plan or tree save plan, and as modified in the field by a Planning Department Forest Conservation Inspector. The measures must meet or exceed the most recent standards published by the American National Standards Institute (ANSI A300).

Pre-Construction

- An on-site pre-construction meeting is required after the limits of disturbance have been staked and flagged and before any land disturbance.
- The property owner must arrange for the meeting and following people **should** must participate at the pre-construction meeting: the property owner or their representative, construction superintendent, International Society of Arboriculture (ISA) certified arborist, Maryland Licensed Tree Expert, Maryland Department of Natural Resources Forest Protection Division, Maryland Forest Conservation Inspector, and Montgomery County Department of Permitting Services (DPS) Sediment Control Inspector.
- This meeting is verify limits of disturbance and stress-reduction measures have been implemented and approved by the Planning Department's Forest Conservation Inspector.

- a. Typical tree protection devices included:
 - i. Chain link fence (four feet high)
 - ii. Super silt fence (one foot high) with high visibility flagging
 - iii. 18 gauge, 2 inch x 4 inch welded wire fencing supported by steel T-bars (minimum 4 feet high) with high visibility flagging.
- b. Typical tree protection devices may include, but are not limited to:
 - i. Root pruning with a root cutter or vibratory plow designed for that purpose. Trenchers are not allowed, unless approved by the Forest Conservation Inspector
 - ii. Crown Reduction or pruning
 - iii. Watering
 - iv. Fertilizing
 - v. Vertical mulching
 - vi. Root pruning areas

Measures not described on the Forest Conservation Plan may be required as determined by the Forest Conservation Inspector in coordination with the property owner's arborist.

- A Maryland Licensed Tree expert must perform, or directly supervise, the implementation of all stress reduction measures. Documentation of the process (including photographs) may be required by the Forest Conservation Inspector, and will be determined at the pre-construction meeting.

- Temporary tree protection devices must be installed per the approved Forest Conservation Plan, Exemption Plan, or Tree Save Plan and prior to any land disturbance. The Forest Conservation Inspector, in coordination with the DPS Sediment Control Inspector, may make field adjustments to increase the survivability of trees and forest areas shown as saved areas on the approved plan.

- Trees and shrubs must be installed and maintained by the property owner for the duration of construction project and must not be altered without prior approval from the Forest Conservation Inspector. All construction activity within protected tree and forest areas is prohibited. This includes the following activities:
 - a. Parking or driving of equipment, machinery or vehicles of any type.
 - b. Storage of construction materials, equipment, stockpiling, fill, debris, etc.
 - c. Removal of any chemicals (i.e., paint thinner), mortar or concrete remainder, trash, garbage, or debris of any kind.
 - d. Felling of trees into a protected area.
 - e. Trenching or grading for utilities, irrigation, drainage, etc.

- Forest and tree protection signs must be installed as required by the Forest Conservation Inspector. The signs must be waterproof and wording provided in both English and Spanish.

During Construction

- Periodic inspections will be made by the Forest Conservation Inspector. Corrections and repairs to tree protection devices must be completed within the timeframe given by the Inspector.
- The property owner must immediately notify the Forest Conservation Inspector of any damage to trees, forests, under-story, ground cover, and any other undisturbed areas shown on the approved plan. Remedial actions, and the relative timelines to restore these areas, will be determined by the Forest Conservation Inspector.

Post-Construction

- After construction is completed, but before tree protection devices have been removed, the property owner must request a final inspection with the Forest Conservation Inspector. At the final inspection, the Forest Conservation Inspector may require additional corrective measures, which may include:
 - a. Removal, and possible replacement, of dead, dying, or hazardous trees
 - b. Pruning of dead or declining limbs
 - c. Soil aeration
 - d. Fertilization
 - e. Watering
 - f. Wound repair
 - g. Clean up of retention areas, including trash removal
- After the final inspection and completion of all corrective measures the Forest Conservation Inspector will request all temporary tree and forest protection devices be removed from the site. Removal of protection devices that also operate for erosion and sediment control must be coordinated with both DPS and the Forest Conservation Inspector and cannot be removed without permission of the Forest Conservation Inspector. No additional grading, sodding, or burial may take place after the tree protection fencing is removed.
- Long-term protection measures, including permanent signage, must be installed per the approved plan. Installation will occur at the appropriate time during the construction project. Refer to the approved plan drawing for the long-term protection measures to be installed.

INSPECTIONS

All field inspections must be requested by the applicant.

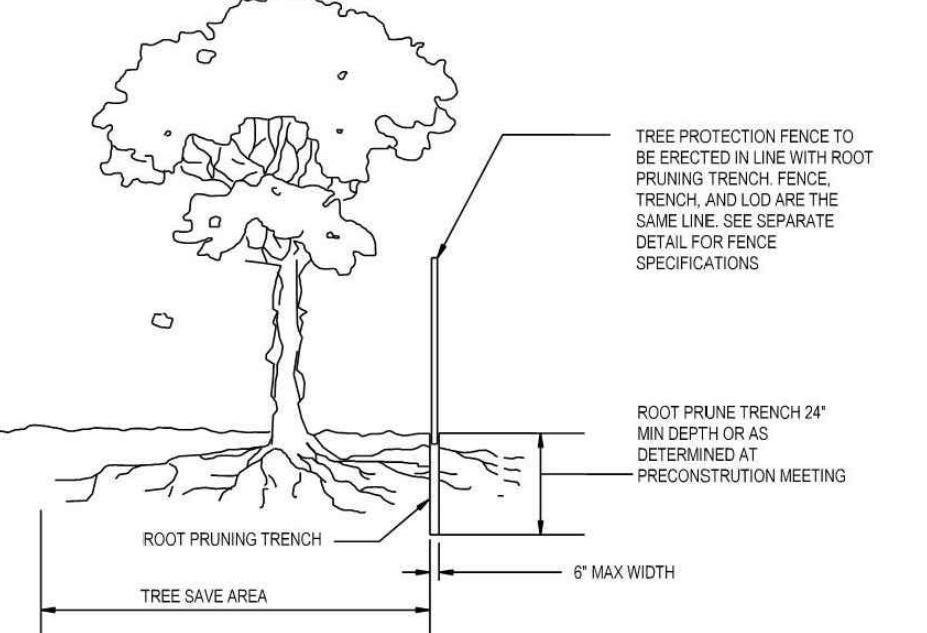
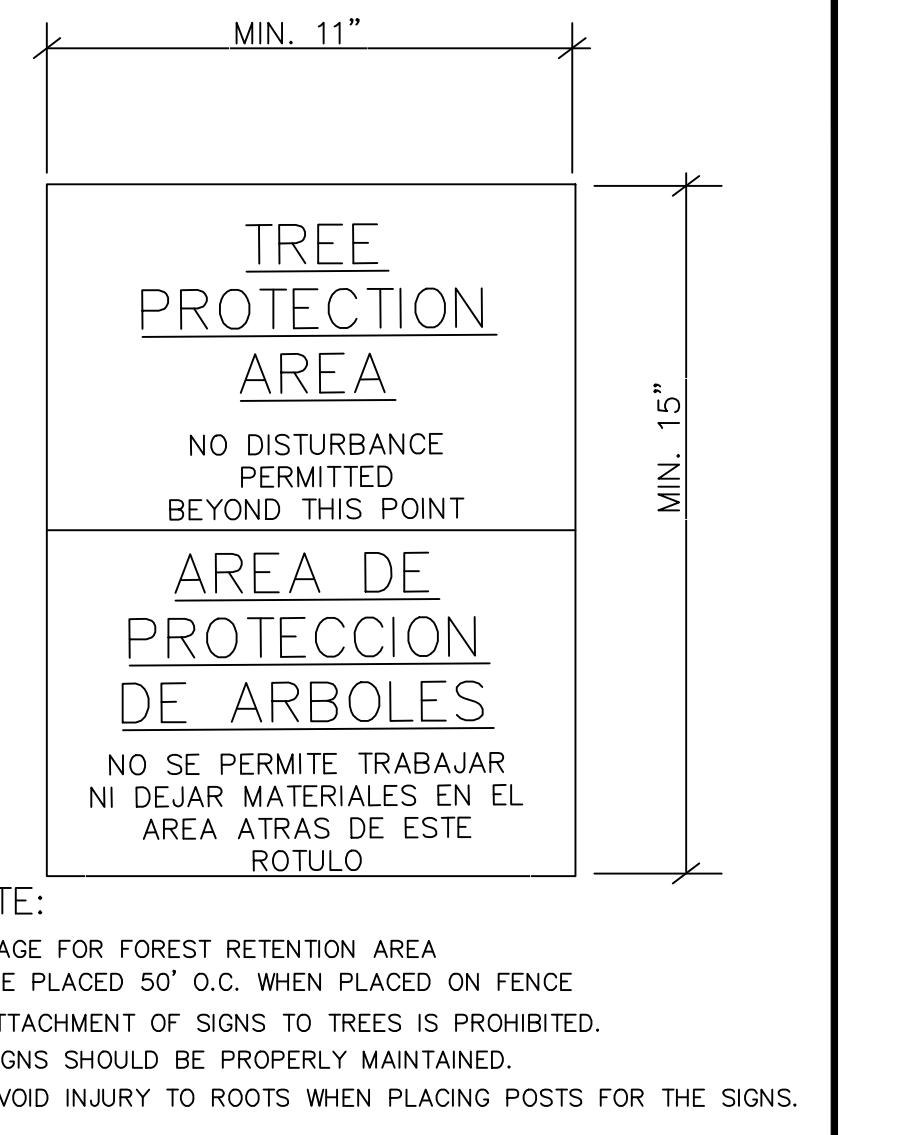
Field Inspections must be conducted as follows:

- Plans without Planting Requirements**
- After the limits of disturbance have been staked and flagged, but before any clearing or grading begins.
 - After necessary stress reduction measures have been completed and protection measures have been installed, but before any clearing and grading begin and before release of the building permit.
 - After completion of all construction activities, but before removal of tree protection fencing, to determine the level of compliance with the provision of the forest conservation.
- Additional Requirements for Plans with Planting Requirements**
- Before the start of any required reforestation and afforestation planting.
 - After the required reforestation and afforestation planting has been completed to verify that the planting is acceptable and prior to the start the maintenance period.
 - At the end of the maintenance period to determine the level of compliance with the provisions of the planting plan, and if appropriate, release of the performance bond.

GENERAL NRI/FSD NOTES

- THIS PROPERTY IS ZONED RE2.
- THE TOTAL TRACT AREA IS 9.64 ACRES.
- SITE FIELD WORK WAS PERFORMED ON SEPTEMBER 2015 BY MICHAEL NORTON, NORTON LAND DESIGN LLC
4. THIS SITE IS WITHIN THE ROCK RUN CREEK, USE I-P.
5. THIS PROPERTY IS OWNED BY AN SPA OR PMA.
6. THERE ARE WETLANDS AND WETLAND BUFFERS ON OR WITHIN 100' OF THE LOT OWNED (SEE REPORT).
7. THERE ARE STREAMS OR STREAM BUFFERS ON OR WITHIN 100' OF THE LOT OWNED (SEE REPORT).
8. THERE IS NO FLOODPLAIN ASSOCIATED WITH THE PROPERTY ACCORDING TO THE FEMA ONLINE FIRMETTE MAP #24031C 0340D (SEE REPORT).
9. 2' TOPOGRAPHY AND BOUNDARY SURVEY WAS PROVIDED BY MERIDIAN SURVEYS, INC. IN AUGUST 2015. ADDITIONAL 2' TOPOGRAPHY DERIVED FROM MNCPPC, MONTGOMERY COUNTY TOPOGRAPHIC MAP SHEET 213NW10.
10. THERE ARE NO PRIME AGRICULTURAL SOILS ON THE PROPERTY.
11. ALL SURVEYS LOCATED AND MEASURED WITH A FORESTERS DIAMETER TAPE MEASURE.
12. ALL TREES 24" AND GREATER OUTSIDE OF THE FIELD RUN SURVEY AREA ARE LOCATED AND MEASURED BY OCULAR ESTIMATE ONLY. ALL MANMADE STRUCTURES OFFSITE ARE LOCATED BY AVAILABLE AERIAL PHOTOGRAPHS AND/OR OCULAR ESTIMATE.
13. ALL TREES UNDER 24" ON SITE ARE MEASURED BY OCULAR ESTIMATE ONLY.
14. NO RARE, THREATENED OR ENDANGERED SPECIES WERE OBSERVED ON OR OFFSITE AT THE TIME OF THE FIELD INVESTIGATION. CORRESPONDENCE FROM MARYLAND DNR AND US FISH AND WILDLIFE SERVICE WILL BE PROVIDED AS APPROPRIATE.
15. NO TREES OCCUR WITHIN THE STUDY AREA WHICH ARE RECOGNIZED AS CURRENT STATE CHAMPION TREES. THERE IS ONE TREE OFFSITE THAT IS WITHIN 75% OF THE DBH OF AN EXISTING STATE CHAMPION.
16. THE SUBJECT PROPERTY IS NOT LISTED AS INDIVIDUAL HISTORIC SITES AS FOUND IN THE MNCPPC HISTORIC PROPERTIES INTERACTIVE MAP.

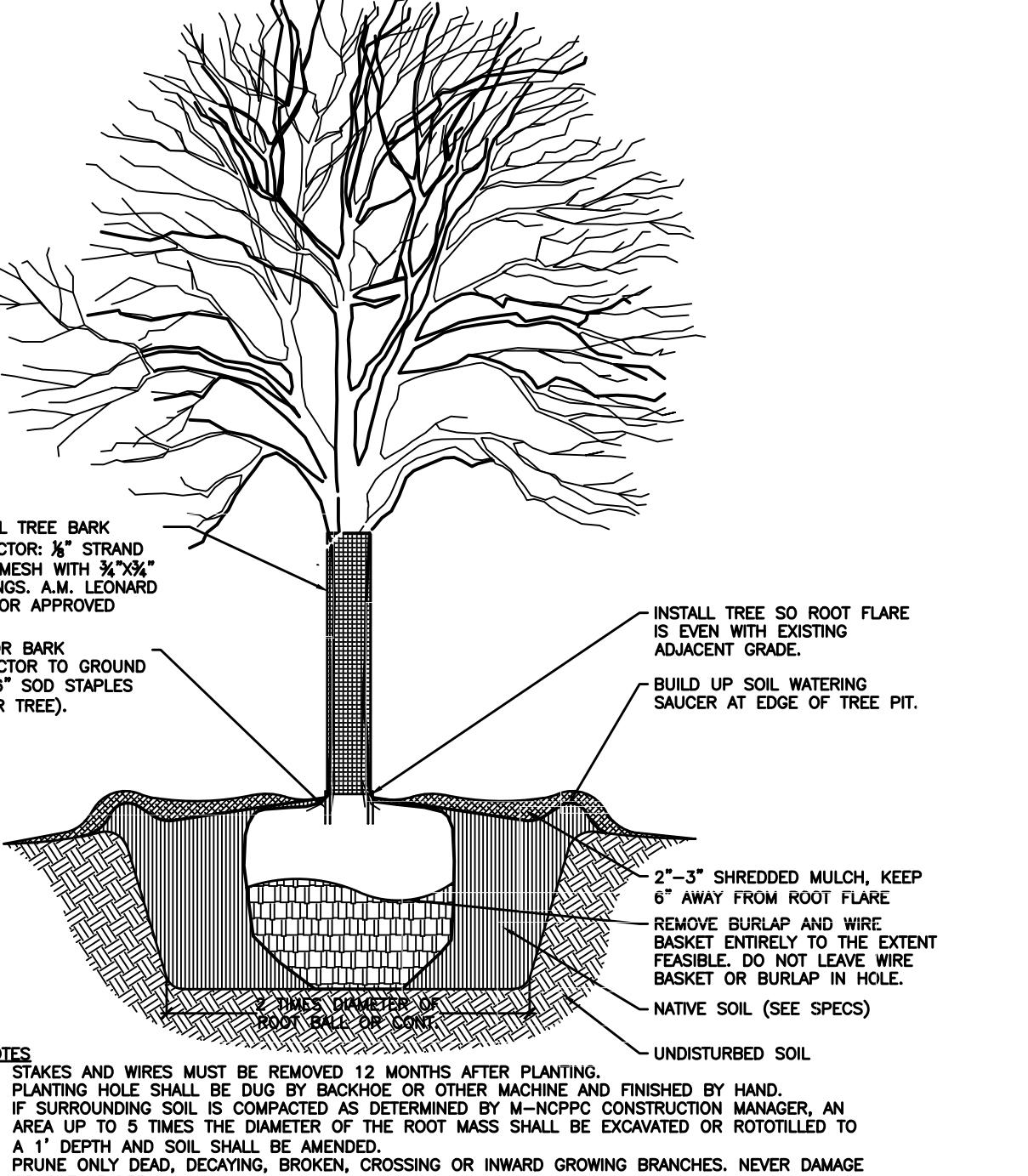
FOREST RETENTION AREA SIGNAGE



NOTES:
1. RETENTION AREAS WILL BE SET AS PART OF THE REVIEW PROCESS AND PRECONSTRUCTION MEETING.
2. BOUNDARIES OF RETENTION AREAS MUST BE STAKED AT THE PRECONSTRUCTION MEETING AND FLAGGED PRIOR TO TRENCHING.
3. EXACT LOCATION OF TRENCH SHALL BE DETERMINED IN THE FIELD IN COORDINATION WITH THE FOREST CONSERVATION (FC) INSPECTOR.
4. TRENCH SHOULD BE IMMEDIATELY BACKFILLED WITH EXCAVATED SOIL OR OTHER ORGANIC SOIL AS SPECIFIED PER PLAN OR BY THE FC INSPECTOR.
5. ROOTS SHALL BE CLEANLY CUT USING VIBRATORY KNIFE OR OTHER ACCEPTABLE EQUIPMENT.
6. ALL PRUNING MUST BE EXECUTED WITH LOD SHOWN ON PLANS OR AS AUTHORIZED IN WRITING BY THE FC INSPECTOR.

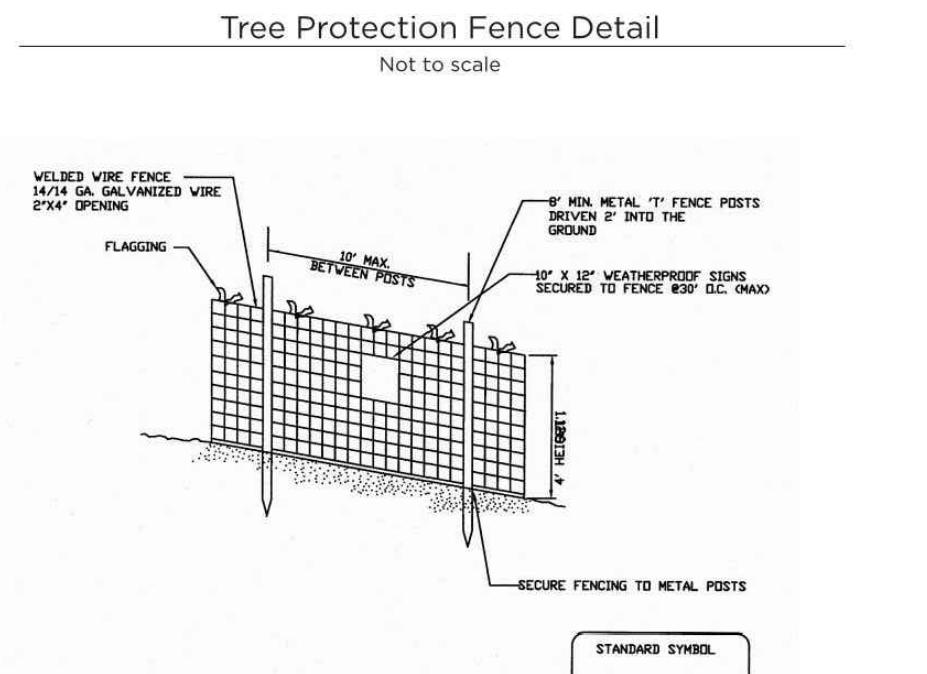
ROOT PRUNING DETAIL

NTS



Montgomery County Planning Department • M-NCPCC
MontgomeryPlanning.org

NOTES:
1. Practice may be combined with sediment control.
2. Location and limits of fencing should be coordinated in field with arborist.
3. Boundaries of protection area should be staked prior to installing protective device.
4. Fencing should be placed in a single row.
5. Protection signage is required.
6. Fencing shall be maintained throughout construction.



CERTIFICATION OF QUALIFIED PROFESSIONAL

I HEREBY CERTIFY THAT THE PLAN SHOWN HEREON HAS BEEN PREPARED IN ACCORDANCE WITH MARYLAND STATE, MNCPPC AND MONTGOMERY COUNTY FOREST CONSERVATION LAWS.

8.3.2018 DATE
MICHAEL A. NORTON
MDNR / COMAR 08.19.06.01
QUALIFIED PROFESSIONAL

NORTON LAND DESIGN
LANDSCAPE ARCHITECTURE + ENVIRONMENTAL PLANNING
5146 DORSEY HALL DRIVE, 2ND FLOOR
ELICOTT CITY, MD 21042
P.443.542.9199
WWW.NORTONLANDDESIGN.COM

POTOMAC ELEMENTARY SCHOOL MODERNIZATION MONTGOMERY COUNTY PUBLIC SCHOOLS

10311 RIVER RD, POTOMAC, MD 20854

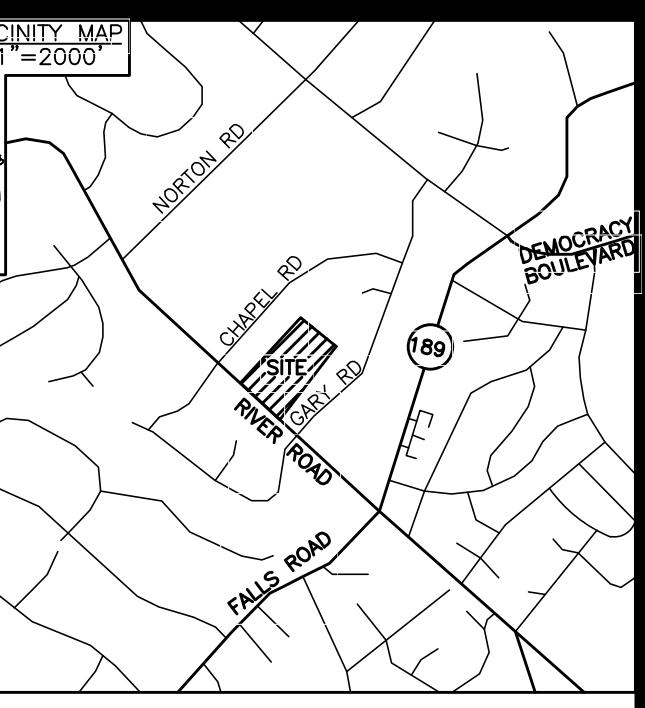
TAX MAP: FP42; PARCEL: 937; LIBER: 159; FOLIO: 355

PROJECT NO: 121901
DATE: 11/14/17
REVISIONS

DATE DESCRIPTION

PRELIMINARY/FINAL FOREST CONSERVATION PLAN

L-1.4



POTOMAC ELEMENTARY SCHOOL MODERNIZATION

MONTGOMERY COUNTY PUBLIC SCHOOLS
10311 RIVER RD, POTOMAC, MD 20854
TAX MAP: FP44; PARCEL: 937; LIBER 159 FOLIO 355

PROJECT NO: 121901 DATE: 11-14-17

REVISIONS

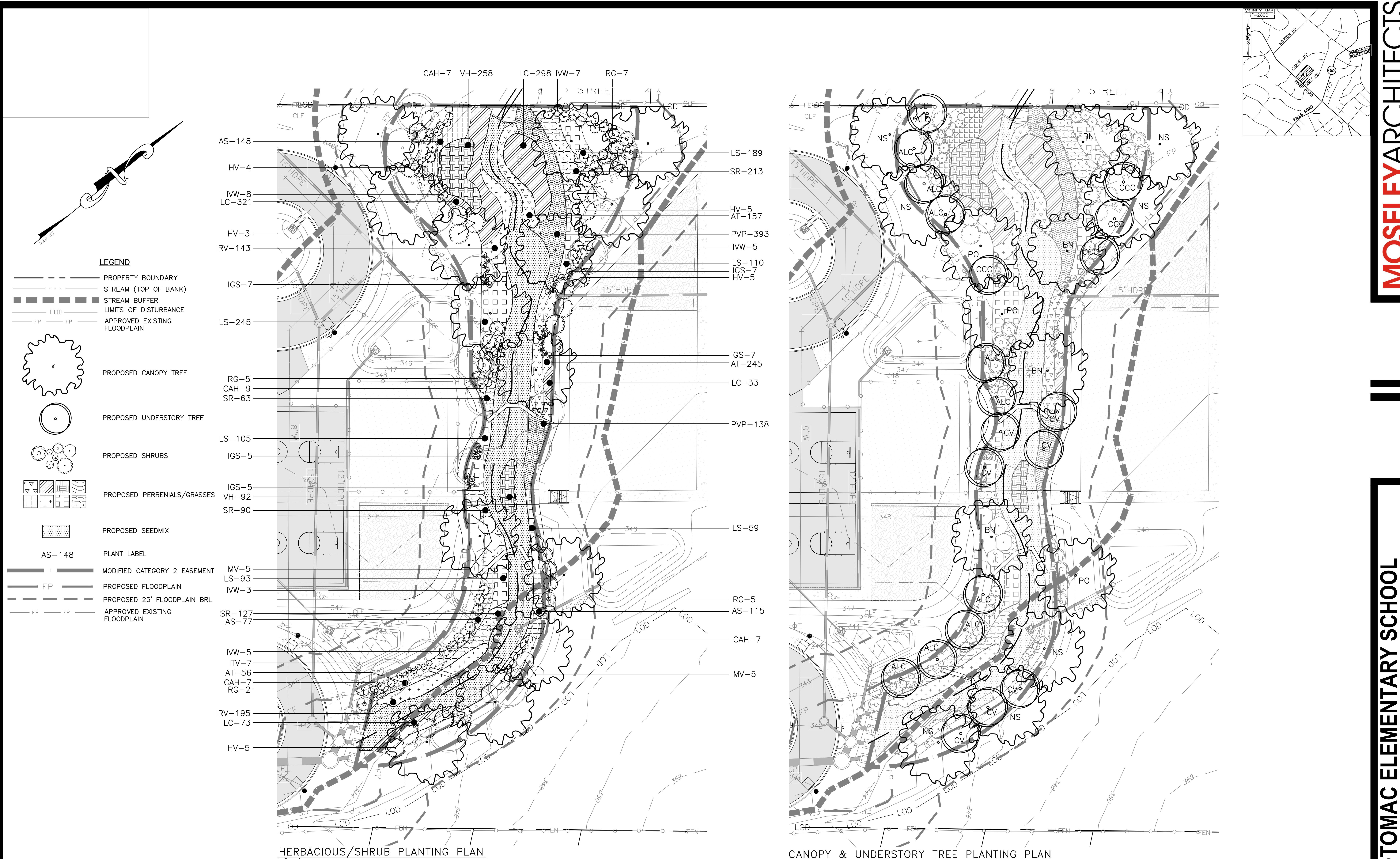
DATE DESCRIPTION

FOREST CONSERVATION WORKSHEET POTOMAC ELEMENTARY SCHOOL						
						5-Aug-02
NET TRACT AREA:						
A. Total tract area ...	10.33 *					
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) ...	Conservation Easement 0.00					
F. Net Tract Area	= 10.33					
LAND USE CATEGORY: (from Trees Technical Manual)						
Input the number "1" under the appropriate land use, limit to only one entry.						
ARA	MDR	IDA	HDR	MPD	CIA	
0	0	1	0	0	0	
G. Afforestation Threshold ...	15% x F = 1.55					
H. Conservation Threshold ...	20% x F = 2.07					
EXISTING FOREST COVER:						
I. Existing forest cover=	0.00					
J. Area of forest above afforestation threshold=	0.00					
K. Area of forest above conservation threshold=	0.00					
BREAK EVEN POINT:						
L. Forest retention above threshold with no mitigation ...=	0.00					
M. Clearing permitted without mitigation=	0.00					
PROPOSED FOREST CLEARING:						
N. Total area of forest to be cleared=	0.00					
O. Total area of forest to be retained=	0.00					
PLANTING REQUIREMENTS:						
P. Reforestation for clearing above conservation threshold=	0.00					
Q. Reforestation for clearing below conservation threshold=	0.00					
R. Credit for retention above conservation threshold=	0.00					
S. Total reforestation required=	0.00					
T. Total afforestation required=	1.55					
U. Credit for landscaping (may not exceed 20% of "S")=	0.00					
V. Total reforestation and afforestation required=	1.55 ***					
* PROPERTY (9.64 AC) + OFFSITE LIMIT OF DISTURBANCE (0.69 AC) = 10.33 AC **1.55 ACRES PROPOSED AS OFFSITE FOREST BANK						

SITE TABULATIONS:

ACREAGE OF TRACT:	10.33
ACREAGE OF TRACT REMAINING IN AGRICULTURE:	0
ACREAGE OF ROAD AND UTILITY R/W WHICH WILL NOT BE IMPROVED AS PART OF DEV. APPLICATION:	0
ACREAGE OF EX. FOREST:	0
ACREAGE OF TOTAL FOREST RETENTION:	0
ACREAGE OF TOTAL FOREST CLEARED:	0
LAND USE CATEGORY:	IDA
AFFORESTATION THRESHOLD	1.55
CONSERVATION THRESHOLD	2.07
ACREAGE OF FOREST RETAINED, CLEARED, AND PLANTED WITHIN WETLANDS	0.00/0.00/0.00
ACREAGE OF FOREST RETAINED, CLEARED, AND PLANTED WITHIN 100-YEAR FLOODPLAIN	0.00/0.00/0.00
ACREAGE OF FOREST RETAINED, CLEARED, AND PLANTED WITHIN STREAM BUFFERS	0.00/0.00/0.00
ACREAGE OF FOREST RETAINED, CLEARED, AND PLANTED WITH PRIORITY AREAS	0.00/0.00/0.00
LINEAR EXTENT & AVERAGE WIDTH OF STREAM BUFFER	0/0
TOTAL DBH INCHES OF SPECIMEN TREES REMOVED	284
X 0.25 = REQUIRED CALIPER INCHES MITIGATION	71
TOTAL AMOUNT OF 3" CAL TREES FOR SPECIMEN TREE MITIGATION	24

Significant/Specimen Tree Summary 24" +									
Tree #	Species	Species	D.B.H.	Critical Root	Critical Root Zone	Percent of CRZ Impacts	Tree Impacted (SF)	Comments Condition	Status Variance
1	PINUS VIRGINIANA	VIRGINIA PINE	23	3739	3739	100% FAIR		DEAD/BROKEN LIMBS/BRANCHES	REMOVE
2	ACER RUBRUM	RED MAPLE	30	6362	6362	100% GOOD		INC.BARK/GIRDLED ROOTS	REMOVE YES
3	PIGEON BEECH	NORWAY SPRUCE	24	4072	4072	100% GOOD		INC.BARK	REMOVE
4	ULMUS RUBRA	RED ELM	30	6362	6362	100% GOOD		SPLIT@1' MULBERRY CLOSE TO BASE	REMOVE YES
5	ULMUS RUBRA	RED ELM	27	5153	5153	100% GOOD			REMOVE
6	PRUNUS SEROTINA	BLACK CHERRY	29	5945	5945	100% POOR		VINES/SPLIT@5'BARK DAMAGE PRUNED	REMOVE
7	ACER RUBRUM	RED MAPLE	34,14	8171	3734	46% GOOD		INC.BRK/PRUNED/SOME DAMAGED BARK/SPLITS@5' OFFSITE	SAVE YES
8	PINUS STROBUS	WHITE PINE	27	5153	2327	45% FAIR/POOR		BROKEN LIMBS/BRANCHES/NO CANOPY DEBACK OFFSITE	SAVE
9	ACER RUBRUM	RED MAPLE	45	14314	5524	39% GOOD		INC.BRK/SPLIT@5.6' OFFSITE	SAVE YES
10	ACER RUBRUM	RED MAPLE	29	5945	2621	44% GOOD		INC.BARK/GIRDLED ROOTS/BURL@1'SMALL CANOPY DEBACK @BASE OFFSITE	SAVE
11	PINUS STROBUS	WHITE PINE	24	4072	1658	41% GOOD		VINES/OFFSITE	REMOVE
12	PRUNUS SEROTINA	BLACK CHERRY	25	4418	4418	100% GOOD		CO-OWNED	SAVE
13	PINUS STROBUS	WHITE PINE	24	4072	1658	41% GOOD		OFFSITE	REMOVE
14	PRUNUS SEROTINA	BLACK CHERRY	40	11310	11310	100% GOOD		INC.BRK/SPLIT@15'	SAVE YES
15	PRUNUS SEROTINA	WHITE PINE	32	7238	3055	42% GOOD		VINES/SEALED BROKEN BRANCHES/LIMBS/OFFSITE	REMOVE
16	PRUNUS SEROTINA	BLACK CHERRY	22,25	4418	2018	100% FAIR		VINES/SPLIT@2.5'	SAVE YES
17	PRUNUS SEROTINA	BLACK CHERRY	23,26	4778	2778	100% FAIR		VINES/SPLIT@3' LEADER LEANING FAIR	REMOVE
18	PRUNUS SEROTINA	BLACK CHERRY	25	4418	4416	100% FAIR		VINES	REMOVE
19	PRUNUS SEROTINA	BLACK CHERRY	36	9161	9161	100% FAIR		VINES	YES
20	PRUNUS SEROTINA	BLACK CHERRY	24	4072	4072	100% FAIR		VINES	REMOVE
21	PRUNUS SEROTINA	BLACK CHERRY	29	5945	5945	100% FAIR		VINES	REMOVE
22	PRUNUS SEROTINA	BLACK CHERRY	33	7698	7698	100% FAIR		VINES/SPLIT@6.5' AND 10'	REMOVE
23	ACER SACCHARINUM	SILVER MAPLE	33	7698	1226	16% GOOD		BROKEN LEADER/SPLIT@4'/VINES/OFFSITE	SAVE YES
24	ACER SACCHARINUM	SILVER MAPLE	97,27,20	9677	0	0% FAIR		PRUNED/VINES/OFFSITE	SAVE NO
25	ACER RUBRUM	RED MAPLE	33	7698	0	0% POOR		VINES/TRUNK DAMAGE/OFFSITE	SAVE NO
26	PLATANUS OCCIDENTALIS	SYCAMORE	29	5945	0	0% POOR		TORNED/OFFSITE	SAVE
27	ACER RUBRUM	RED MAPLE	53	5542	0	0% GOOD		OFFSITE	SAVE
28	ACER SACCHARINUM	SILVER MAPLE	53	19856	92	1% GOOD		BROKEN LEADER, SPLITS@4' OFFSITE	SAVE YES
29	ACER RUBRUM	RED MAPLE	15,24	4072	0	0% GOOD		OFFSITE	SAVE
30	ACER SACCHARINUM	SILVER MAPLE	39	10751	92	1% GOOD		SPLITS@4' OFFSITE	SAVE
31	ACER SACCHARINUM	SILVER MAPLE	30,22,24	6362	1733	27% GOOD		OFFSITE	SAVE YES
32	ACER SACCHARINUM	SILVER MAPLE	30	6362	90	1% FAIR		LEANING MONITOR/OFFSITE	REMOVE YES
33	ACER SACCHARINUM	SILVER MAPLE	36	9161	9161	100% GOOD		VINES	REMOVE
34	PRUNUS SEROTINA	BLACK CHERRY	28	4778	527	11% POOR		VINES	SAVE
35	ACER SACCHARINUM	SILVER MAPLE	30	6362	0	0% GOOD		VINES	NO
36	ACER SACCHARINUM	SILVER MAPLE	30	6362	0	0% GOOD		VINES	SAVE
37	PRUNUS SEROTINA	BLACK CHERRY	29	5945	0	0% GOOD		VINES	SAVE
38	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	29	5153	0	0% GOOD		VINES	SAVE
39	LIRIODENDRON TULIPIFERA	YELLOW POPLAR	26	4778	0	0% GOOD		OFFSITE	SAVE
40	LIRIODENDRON TULIPIFERA	YELLOW POPLAR	25	4418	0	0% GOOD		OFFSITE	SAVE
41	LIRIODENDRON TULIPIFERA	YELLOW POPLAR	28	5542	0	0% GOOD		OFFSITE	SAVE
42	ROBINA PSUDOCACAJA	BLACK LOCUST	25	4418	0	0% GOOD		VINES	SAVE
43	ACER SACCHARINUM	SILVER MAPLE	45	14314	0	0% POOR		LEANING HOLLOW/SPLIT/OFFSITE	SAVE NO
44	ACER RUBRUM	RED MAPLE	44	13685	0	0% GOOD		OFFSITE	SAVE NO
45	ACER RUBRUM	RED MAPLE	52	19113	0	0% GOOD		OFFSITE	SAVE NO
46	ACER RUBRUM	RED MAPLE	33	4418	0	0% GOOD		OFFSITE	SAVE NO
47	ACER RUBRUM	RED MAPLE	28	5153	0	0% GOOD		OFFSITE	SAVE NO
48	ACER SACCHARINUM	SILVER MAPLE	51	19856	0	0% GOOD		SPLIT@7' OFFSITE	SAVE NO
49	ACER SACCHARINUM	SILVER MAPLE	32	7238	0	0% FAIR		SPLIT@9' OFFSITE	SAVE NO
50	ACER SACCHARINUM	SILVER MAPLE	27	5153	0	0% GOOD		LEANING/OFFSITE	SAVE NO
51	ACER SACCHARINUM	SILVER MAPLE	32	7238	0	0% GOOD		VINES/CO-OWNED	SAVE NO
52	ACER SACCHARINUM	SILVER MAPLE	28	5542	0	0% GOOD		VINES/CO-OWNED	SAVE NO
53	ACER SACCHARINUM	SILVER MAPLE	35	8659	0	0% GOOD		SPLIT@4' CO-OWNED	SAVE NO
54	ACER SACCHARINUM	SILVER MAPLE	30	6362	0	0% GOOD		SPLIT@9'	SAVE NO
55	ACER SACCHARINUM	SILVER MAPLE	45	13670	0	0% EXCELLENT			SAVE NO



PUBLIC ELEMENTARY SCHOOL MODERNIZATION

**MONTGOMERY COUNTY PUBLIC SCHOOLS
10311 RIVER RD, POTOMAC, MD 20854
TAX MAP: FP343; PARCEL: 937; LIBER 1519 FOLIO 355**

THE JOURNAL OF CLIMATE

Phone: 301-662-4408 Fax: 301-662-7484, www.adtekengineers.com

PRELIMINARY/FINAL FOREST CONSERVATION PLAN – EPHEMERAL CHANNEL RESTORATION

| – 1 2

CERTIFICATION OF QUALIFIED PROFESSIONAL

I HEREBY CERTIFY THAT THE PLAN SHOWN HEREON HAS BEEN PREPARED IN ACCORDANCE
ACCORDANCE WITH MARYLAND STATE, MNCP&PC AND MONTGOMERY COUNTY FOREST CONSERVATION LAWS.

8.3.2018


MICHAEL A. NORTON
WVU # 4 COMM 501 10-22-21

MDNR / COMAR 08.19.06.01
QUALIFIED PROFESSIONAL

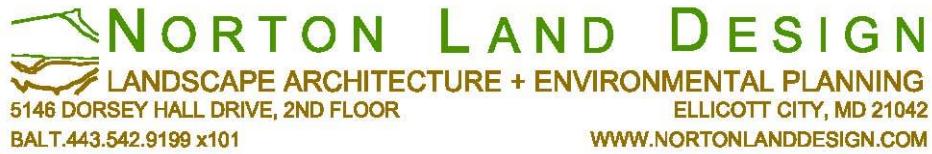
GRAPHIC SCALE

A graphic scale consisting of a horizontal line with numerical markings at 20, 0, 10, 20, 40, and 80. Below the line, there are two rows of alternating black and white squares. The first row starts at the 20 mark and ends at the 80 mark. The second row starts at the 0 mark and ends at the 40 mark.

MISS UTILI

CALL "MISS UTILITY AT 1-800-257-7777, 48 HOURS PRIOR TO THE START OF WORK. THE EXCAVATOR MUST NOTIFY ALL PUBLIC UTILITY COMPANIES WITH UNDERGROUND FACILITIES IN THE AREA OF PROPOSED EXCAVATION AND HAVE THOSE FACILITIES LOCATED BY THE UTILITY COMPANIES PRIOR TO COMMENCING EXCAVATION. BEFORE EXCAVATION THE CONTRACTOR IS RESPONSIBLE FOR CALLING TICKET CHECK AT 1-866-821-4226 TO VERIFY THAT ALL UTILITIES HAVE BEEN MARKED, 48 HOURS AFTER CALLING MISS UTILITY. THE EXCAVATOR IS RESPONSIBLE FOR COMPLIANCE WITH REQUIREMENTS OF CHAPTER 36A OF THE MONTGOMERY COUNTY CODE.

<u>DEVELOPER'S CERTIFICATE</u>	
The Undersigned agrees to execute all the features of the Approved Final Forest Conservation Plan No. _____ including, financial bonding, forest planting, maintenance, and all other applicable agreements.	
Developer's Name:	MONTGOMERY COUNTY PUBLIC SCHOOLS <i>Printed Company Name</i>
Contact Person or Owner:	MR. SETH ADAMS DIRECTOR, DIVISION OF CONSTRUCTION, MCPS <i>Printed Name</i>
Address:	45 WEST GUDE DRIVE, SUITE 4300 ROCKVILLE MD 20850
Phone and Email:	240-314-1000 Seth_P_Adams@mcpsmd.org
Signature:	_____



January 18, 2018

Maryland National Capital Park and Planning Commission (M-NCPPC)
8787 Georgia Avenue
Silver Spring, Maryland 20910

Re: Potomac Elementary School
Request for Specimen Tree Variance
NORTON #13-029

Dear Josh Penn,

On behalf of the Montgomery County Public Schools and pursuant to Section 22A-21 *Variance provisions* of the Montgomery County Forest Conservation Ordinance and recent revisions to the State Forest Conservation Law enacted by S.B. 666, we are writing to request a variance(s) to allow impacts to or the removal of the following trees identified on the approved Natural Resource Inventory/Forest Stand Delineation for the above-named County construction project:

Project Description:

The existing Potomac Elementary School is located at 10311 River Road in Potomac, Montgomery County, Maryland. This is a 9.64-acre site that consists of one parcel owned by the Montgomery County Board of Education. The site currently hosts the existing school, associated parking, athletic fields and play areas. The site is bordered by public road to the west along with single family residential to the north, east and a portion to the south. A portion of the south property is bordered by a Church parking lot.

Proposed construction consists of a new school, improved circulation and parking, athletic areas and updates for ADA accessibility.

Requirements for Justification of Variance:

Section 22A-21(b) *Application requirements* states that the applicant must:

- (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.

Justification of Variance:

- (1) Describe the special conditions peculiar to the property which would cause the unwarranted hardship;

Response: As part of the program, the task is to provide the community with an updated school facility that can accommodate a growing number of students as well as a modernized, safe and healthy environment for young students to learn.

The property is narrow east to west with a stormdrain pipe that runs almost perpendicular north-south through the middle of the site. Because the pipe has a drainage area greater than 30 acres, a floodplain delineation was required. This floodplain superimposed on the site takes almost 1/3 of the property. There are also two points of access that are provided onsite to have proper separation of buses and parent dropoff.

This work will require disturbance of the root zones of a total of seventeen (17) specimen trees. Eight (8) of the impacted trees will be required to be removed. The removal of specimen trees are due to the proposed building and drive aisles in relationship to the narrow property. Also, included in the design, is ultimate dedication of River Road to State Highway along with sidewalk and utility upgrades as required. The impacted trees are for those areas around the edge of forest that are associated with grading.

If MCPS is not allowed to impact the trees, the school will not be able to be updated due to the close proximity of specimen trees to the school parking, amenities and stormwater facilities. As such, this would cause an *unwarranted hardship* to the community that it serves.

- (2) Describe how enforcement of these rules will deprive the landowner of rights commonly enjoyed by others in similar areas;

Response: If the County were required to keep all improvements outside the root zones of the specimen trees, the building, safe access drive aisles and parking would fail to be rebuilt due to the close proximity of specimen trees.

- (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;

Response: Tree removals have been minimized by compact design of the layout ensuring the preservation of as many specimen trees as possible. In addition, this property will be developed in accordance with the latest Maryland Department of the Environment criteria for stormwater management. This includes Environmental Site Design to provide for protecting the natural resources to the Maximum Extent Practicable. This includes limiting the impervious areas and providing on-site stormwater management systems. A Stormwater Management Concept is currently under review by the Montgomery County

Department of Permitting Services to ensure that this criterion is enforced. Specimen trees within the open space (outside of forest) will be mitigated onsite at the time of the Final Forest Conservation Plan. Therefore, the proposed activity will not degrade the water quality of the downstream areas and will not result in *measurable degradation in water quality*.

- (4) Provide any other information appropriate to support the request.

Response: Presently there is no forest onsite, however landscape planting is proposed throughout the site. Additional canopy planting will serve to create greater ecological quality while establishing further buffering of adjacent land uses (residential).

As further basis for its variance request, the applicant can demonstrate that it meets the Section 22A-21(d) *Minimum criteria*, which 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;

Response: The school modernization is in conformance with the County's General plan. As such, this is not a *special privilege* to be conferred on the applicant.

- (2) Is based on conditions or circumstances which are the result of the actions by the applicant;

Response: Montgomery County Public Schools has taken no *actions leading to the conditions or circumstances* that are the subject of this variance request.

- (3) Arises from a condition relating to land or building use, either permitted or nonconforming, on a neighboring property; or

Response: The surrounding land uses (residences) do not have any inherent characteristics or conditions that have created or contributed to this particular need for a variance.

- (4) Will violate State water quality standards or cause measurable degradation in water quality.

Response: Granting this variance request will not violate State water quality standards or cause measurable degradation in water quality.

Variance Tree Summary									
Tree #	Species Scientific Name	Species Common Name	D.B.H. (inches)	Critical Root Zone (Sq. Ft.)	Critical Root Zone Impacts	Percent of CRZ Impacted (SF)	Tree Condition	Comments	Status
2	ACER RUBRUM	RED MAPLE	30	6362		6362	100% GOOD	INC BARK/GIRDLED ROOTS	REMOVE
4	ULMUS RUBRA	RED ELM	30	6362		6362	100% GOOD	SPLIT@9/MULBERRY CLOSE TO BASE	REMOVE
7	ACER RUBRUM	RED MAPLE	34,14	8171		3734	46% GOOD	INC BARK/PRUNED/SOME DAMAGED BARK/SPLITS@5/OFFSITE	SAVE
9	ACER RUBRUM	RED MAPLE	45	14314		5524	39% GOOD	INC BARK/SPLIT@6,8,9/OFFSITE	SAVE
14	PRUNUS SEROTINA	BLACK CHERRY	40	11310		11310	100% GOOD	INC BARK/SPLIT@15'	REMOVE
15	PINUS STROBUS	WHITE PINE	32	7238		3055	42% GOOD	VINES/DEAD/BROKEN BRANCHES/LIMBS/OFFSITE	SAVE
19	PRUNUS SEROTINA	BLACK CHERRY	36	9161		9161	100% FAIR	VINES	REMOVE
22	PRUNUS SEROTINA	BLACK CHERRY	33	7698		7698	100% FAIR	VINES/SPLIT@6.5' AND 10'	REMOVE
23	ACER SACCHARINUM	SILVER MAPLE	33	7698		1226	16% GOOD	BROKEN LEADER/SPLIT@4/VINES/OFFSITE	SAVE
26	ACER SACCHARINUM	SILVER MAPLE	53	19856		92	1% GOOD	BROKEN LEADER, SPLITS@4/OFFSITE	SAVE
31	ACER SACCHARINUM	SILVER MAPLE	30,22,24	6362		1733	27% GOOD	OFFSITE	SAVE
32	ACER SACCHARINUM	SILVER MAPLE	30	6362		90	1% FAIR	LEAN/MONITOR/OFFSITE	SAVE
33	ACER SACCHARINUM	SILVER MAPLE	36	9161		9161	100% GOOD		REMOVE
67	LIRIODENDRON TULIPIFERA	YELLOW POPLAR	32	7238		7238	100% POOR	SEVERE LEAN, POTENTIAL HAZARD TO PORTABLES	REMOVE
68	ACER SACCHARINUM	SILVER MAPLE	47	15615		15615	100% GOOD		REMOVE
70	ACER SACCHARINUM	SILVER MAPLE	30	6362		2583	41% GOOD	VINES/SPLIT@9/OFFSITE	SAVE
71	ACER SACCHARINUM	SILVER MAPLE	52	19113		10540	55% FAIR/POOR	INC BARK/BARK WOUNDS/BROKEN/DEAD BRANCHES/DEAD LEADER/OFFSITE	SAVE

Conclusion:

For the above reasons, the applicant respectfully requests that the Planning Board APPROVE its request for a variance from the provisions of Section 22A of the Montgomery County Forest Conservation Ordinance, and thereby, GRANTS permission to impact/remove the specimen trees in order to allow the construction of this vital project.

The recommendations in this report are based on tree conditions noted at the time the NRI/FSD field work was conducted. Tree condition can be influenced by many environmental factors, such as wind, ice and heavy snow, drought conditions, heavy rainfall, rapid or prolonged freezing temperatures, and insect/disease infestation. Therefore, tree conditions are subject to change without notice.

The site plans and plotting of tree locations were furnished for the purpose of creating a detailed Tree Protection Plan. All information is true and accurate to the best of my knowledge and experience. All conclusions are based on professional opinion and were not influenced by any other party.

Sincerely,

Michael Norton