MONTGOMERY COUNTY PLANNING DEPARTMENT
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

MCPB
Item No.: 7
Date: 04-05-18

Bullis School: Preliminary Plan Amendment 12008003C for Forest Conservation Purposes

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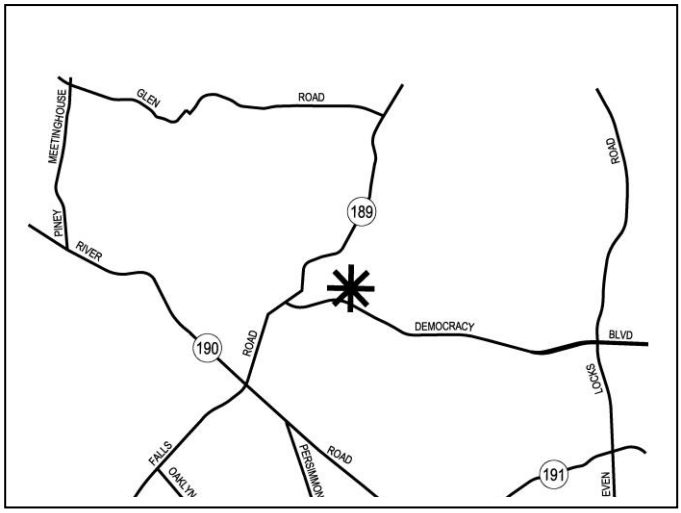
Staff Report Date: 03/23/18

Description

Bullis School: Preliminary Plan Amendment No. 12008003C for Forest Conservation purposes: Addition of two parking areas, two new access roads, updating a playfield, and 6,033 square feet of easement removal; located on the northeast quadrant of the intersection of Falls Road (MD 189) and Democracy Blvd at 10601 Falls Rd; 77.63 acres; RE-1 and RE-2 zones; 2002 Potomac Region Master Plan.



Staff recommendation: *Approval with conditions*

Applicant: Bullis School
Submittal Date: May 19, 2017
Review Basis: Chapter 22A

Summary

- Amend Final Forest Conservation Plan to add two parking lots, two access drives, update playfields, and Remove 6,033 square feet of Category I easement.
- Staff supports tree variance for the removal of one variance tree and impacts to five protected trees.
- Staff has not received any correspondence in regards to this Application.

RECOMMENDATIONS AND CONDITIONS

A. FINAL FOREST CONSERVATION PLAN AMENDMENT NO. 12008003C: Staff recommends approval, subject to the following conditions:

1. Prior to the start of any demolition, clearing, grading or construction on the Subject Property, the Applicant must record a deed of release to remove the 6,033 square feet of Category I Conservation Easement on the Subject Property as shown on the Revised FFCP. The deed of release must be in a form approved by the Maryland-National Capital Park & Planning Commission Office of the General Counsel.
2. Prior to the start of any demolition, clearing, grading or construction on the Subject Property, the Applicant must record in the Land Records of Montgomery County an M-NCPPC approved Certificate of Compliance for the purchase of 12,066 square feet (2:1) of forest credit for planted forest or 24,132 square feet (4:1) of forest credit for existing forest in an M-NCPPC approved off-site forest bank to satisfy the mitigation requirement of a 2:1 replacement rate for removing 6,033 square feet of Category I Conservation Easement on the Subject Property.
3. Within 60 days of the pre-construction meeting the Applicant must plant four native canopy trees with a minimum planting stock size of three caliper inches on the Subject Property. The planting locations of these trees and the determination of species are subject to the approval of the M-NCPPC forest conservation inspector.
4. The Applicant must comply with all tree protection and tree save measures shown on the approved Forest Conservation Plan. Tree save measures not specified on the approved Forest Conservation Plan may be required by the M-NCPPC forest conservation inspector.
5. The limits of disturbance on the Final Sediment and Erosion Control Plan must be consistent with the limits of disturbance on the approved Forest Conservation Plan.

SITE LOCATION AND DESCRIPTION

The Bullis School site, is located in the northeast quadrant of the intersection of Falls Road (MD 189) and Democracy Boulevard at 10601 Falls Rd, Potomac, in the Potomac Master Plan area ("Property"). The Property is currently shown as Parcel A Block E Blenheim on Record Plat #24460.

Figure 1 - Vicinity Map (2017 photograph)

The Property contains 77.04 acres of land and is zoned RE-2. Primary access to the school is from Falls Road and secondary access to the school is from Democracy Boulevard. The Property is partially forested and there are three streams on-site, mostly within the forested area of the property. The Property is within the Cabin John Creek, Watts Branch, and Rock Run watersheds; all are Use I-P watersheds. The Kentsdale Estates site is under common ownership and is shown for reference but is not part of this application.

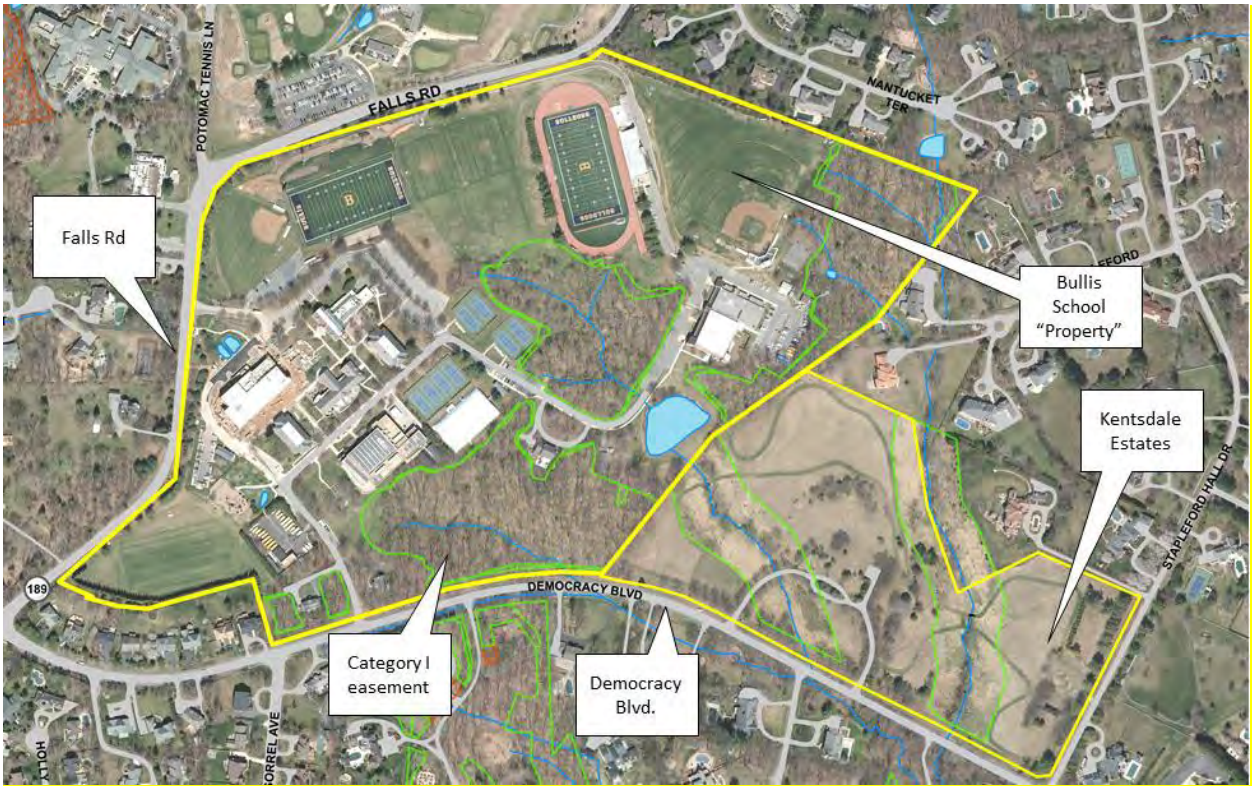


Figure 2 – Aerial Map (2017 photograph)

Proposal

The Bullis School ("Applicant") is updating the access and parking associated with their athletic facilities and adding a new access to the east where they have acquired the unbuilt portion of the Kentsdale Estates subdivision (Preliminary Plan #120060200). This new access road to the east would require some forest conservation easement removal. The application proposes an amendment to the Final Forest Conservation Plan #12008003C ("Application") for the purposes of adding the land disturbing activities associated with the addition of two parking areas, two new access roads, updating a playfield, and a small amount of easement removal (6,033 square feet). This proposal does not include any development on the Kentsdale Estates property, those improvements are shown only for reference and a separate amendment will be filed for that at a later date.

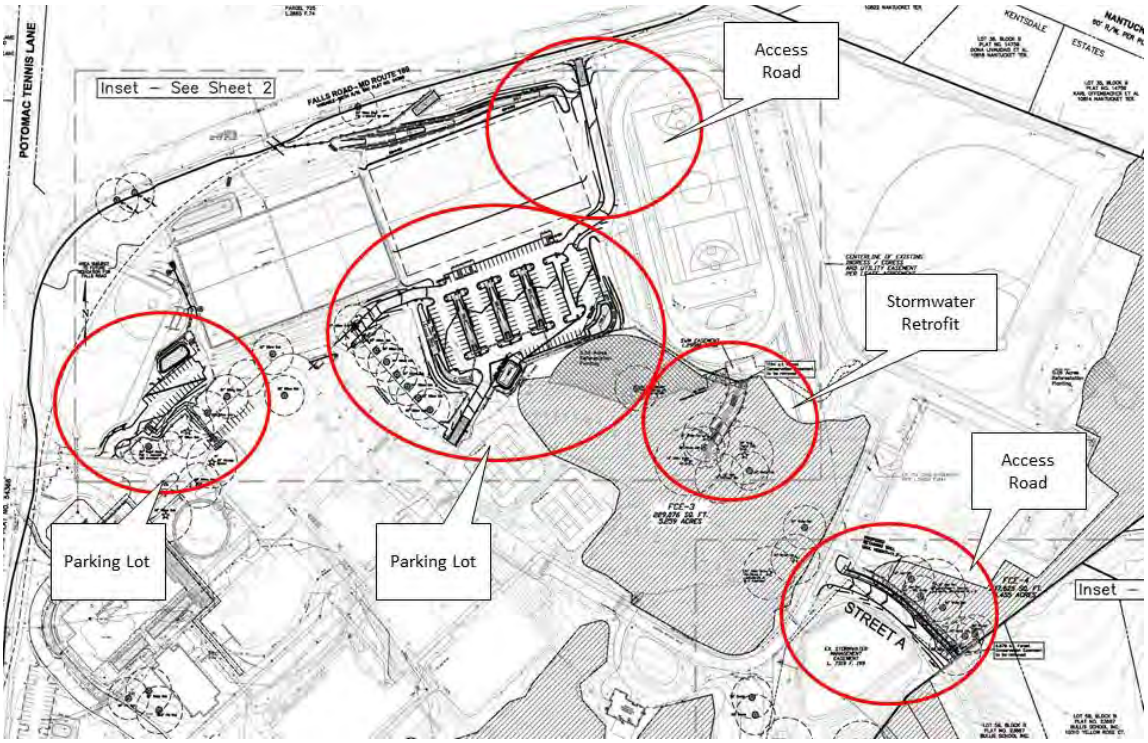


Figure 3 – Proposed Improvements

Final Forest Conservation Plan Amendment

A Final Forest Conservation Plan ("FFCP") Amendment 12008003C was submitted for review on May 19, 2017 (Attachment D). The application revises the approved plan to add all land disturbing activities and the limits-of-disturbance. The new construction will impact trees greater than 30 inches in diameter, so a tree variance request is required with this application.

ANALYSIS AND FINDINGS

1. *The Application satisfies all the applicable requirements of the Forest Conservation Law, Montgomery County Code Chapter 22A.*

Forest Conservation

Final Forest Conservation Plan

The Application meets the requirements of Chapter 22A of the Montgomery County Forest Conservation Law. As required by the County Forest Conservation Law (Chapter 22A of the County Code), a FFCP (Attachment D) was submitted as part of the review process. This FFCP is an amendment to previously approved FFCP #12008003B.

The proposed revisions are all typical of a private educational facility and are consistent with the approved use on the Property. Staff's main concern on this Application was providing adequate interconnectivity between the existing school property and the newly acquired Kentsdale Estates properties.

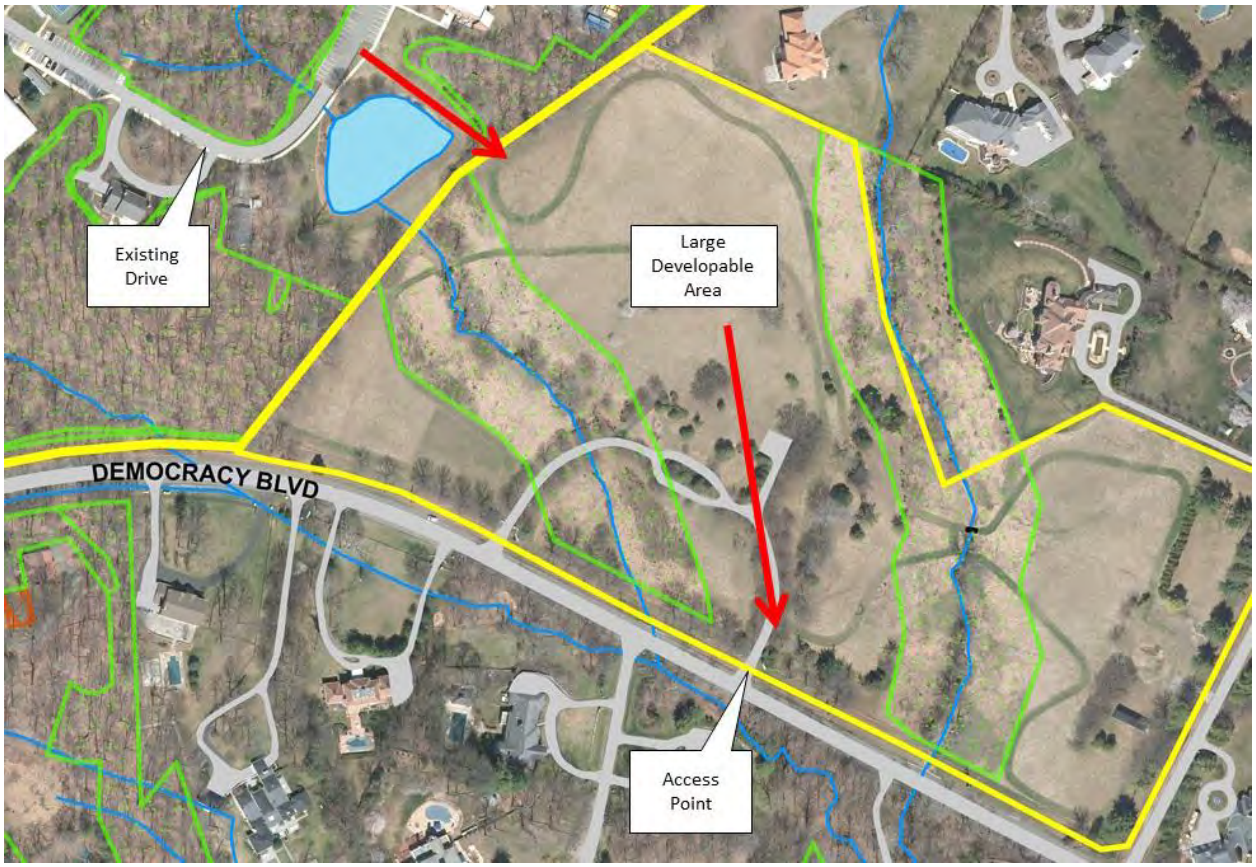


Figure 4 – Proposed Inter-Property Access

The common border between the properties, except for the area around the pond, is currently in Category I easement. The Kentsdale Estates property is split into three pieces by streams and recorded Category I easements, to access the largest of the three land bays from the Bullis School Property the access road need to be north of the pond. The Applicant has shown a proposed road alignment and grading but is only asking for approval on the portion of the roadway on the existing Property. The alignment has minimized impacts to forest and specimen/variance trees but does require the removal of 4,879 square feet of Category I easement. Additionally, in the forest stand east of the school and south of the main athletic field is a stormwater management facility (outfall and rip-rap). This facility needs renovation/maintenance and the applicant has requested to area around the facility (1,154 square feet) also be removed from the existing Category I conservation easement. Staff supports the removal of both easement portions with mitigation.

The Applicant has proposed mitigation that meets the Planning Board's easement removal policy of 2:1 planting requirement. A 2:1 replacement rate for removing 6,033 square feet of Category I conservation easement by purchasing 12,066 square feet (2:1) of forest credit for planted forest or 24,132 square feet (4:1) of forest credit for existing forest in an off-site forest bank. Staff supports the proposed mitigation.

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. The proposed disturbance on the Property requires impact to trees identified as high priority for retention and protection (protected trees), therefore, the Applicant has submitted a variance request for these impacts.

Variance Request

The Applicant submitted a variance request for the impacts and removal of protected trees (Attachment B). The Applicant proposes to remove one and impact five protected trees that are 30 inches or greater, DBH, and considered a high priority for retention under Section 22A-12(b)(3) of the County Forest Conservation Law.

The protected tree to be removed, noted as #1 on the FCP, is a 33" DBH White Oak (*Quercus alba*) in good condition. Tree #1 is located within a forest stand and an existing Category I conservation easement, adjacent to the proposed access to the recently acquired Kentsdale Estates properties. The Application proposes to construct a new access road on the south side of this tree. The proposed disturbance and impacts to the root system necessitates the removal of this tree. Details of the Protected Tree to be removed are listed in Table 1 and highlighted graphically in Figure 3, 4, and 5.

Variance Mitigation Detail Table						
Tree Num	Species	DBH	Impact / Remove	Total % Impacted	Condition	Mitigation
1	White Oak	33"	Remove	100%	Good	Mitigation Recommended
2	Red Oak	39"	Impact	7%	Fair/Poor	Stress Reduction Measures
3	Willow Oak	33"	Impact	32%	Good	Stress Reduction Measures
4	Norway Spruce	32	Impact	4%	Good	Stress Reduction Measures
5	Willow Oak	33"	Impact	24%	Good	Stress Reduction Measures
6	Willow Oak	33"	Impact	0.3%	Good	Stress Reduction Measures

Table 1 – Protected trees to be removed or affected but retained

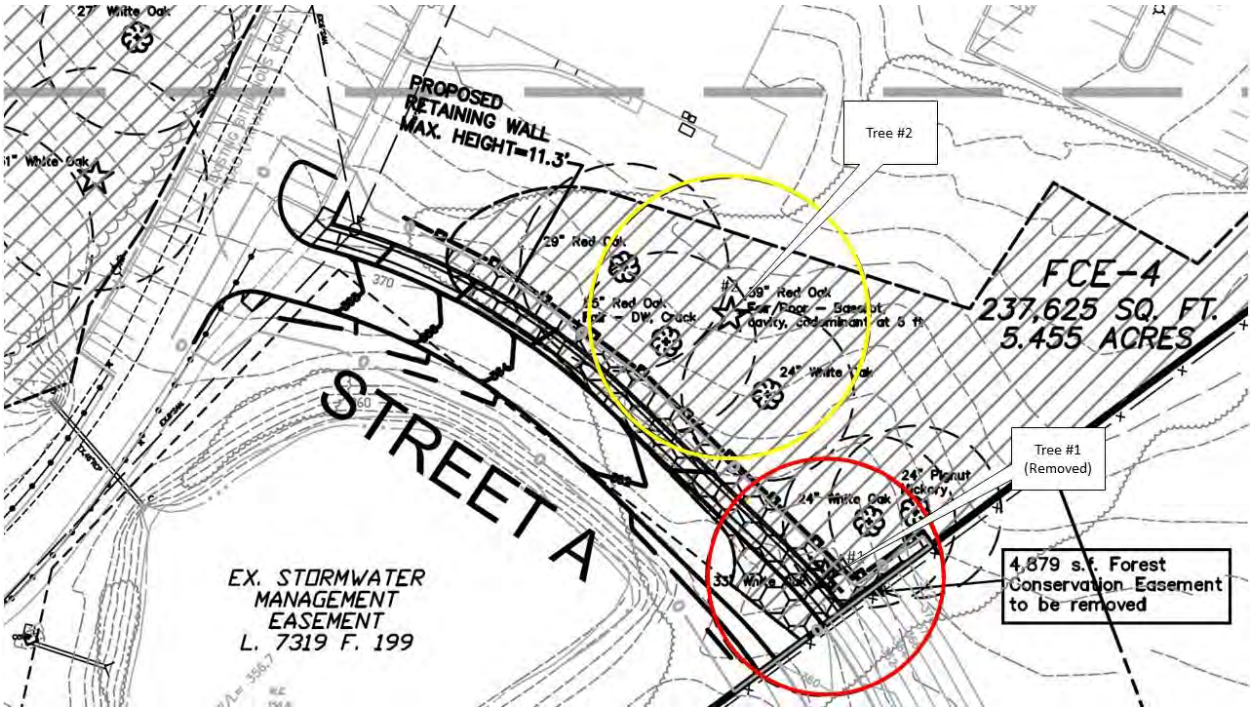


Figure 5 – Tree Variance #1 and #2

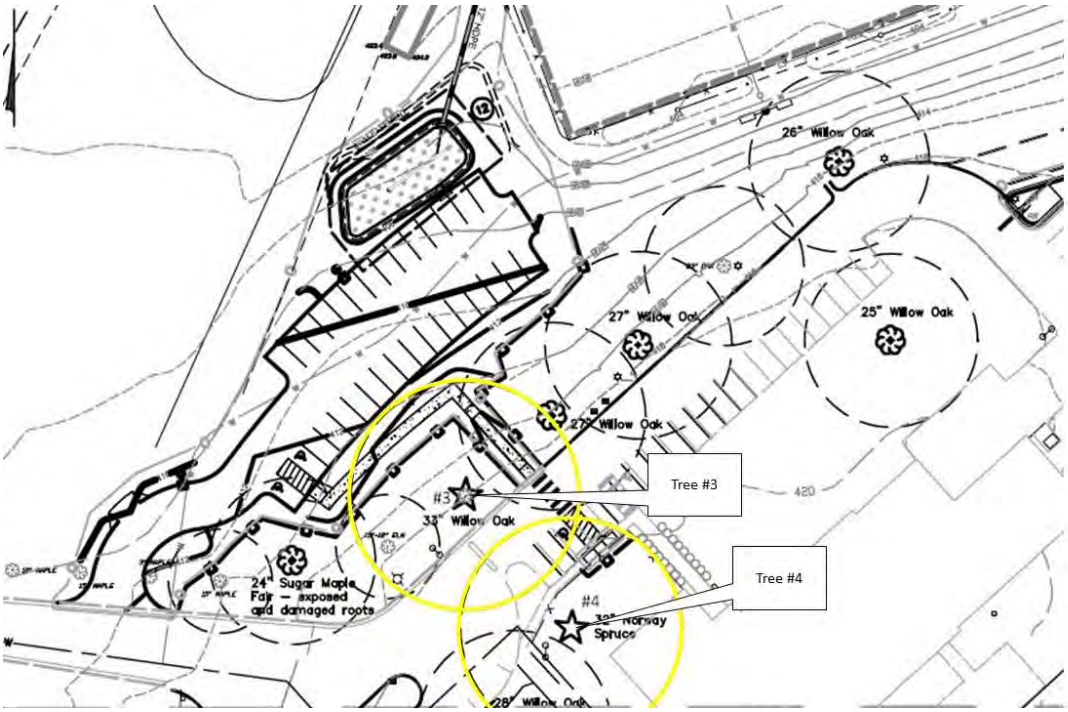


Figure 6 – Tree Variance #3 and #4

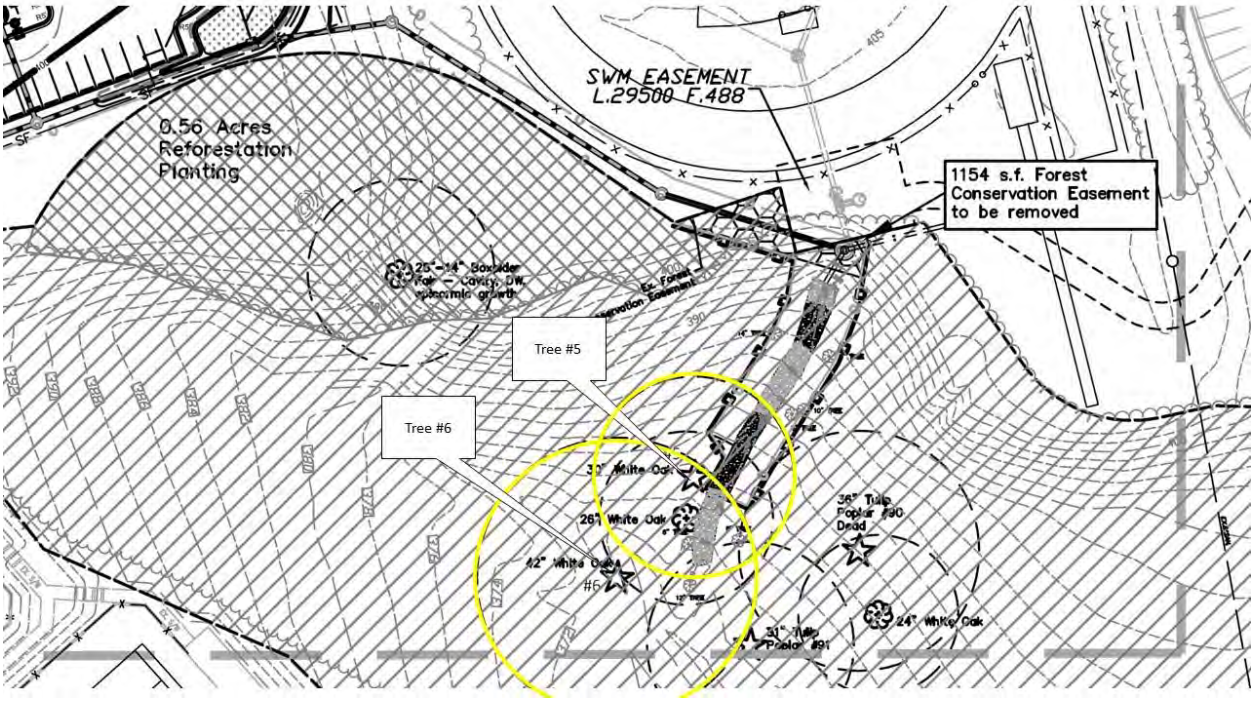


Figure 7– Tree Variance #5 and #6

Unwarranted Hardship Basis – Per Section 22A-21, a variance may only be considered if the Planning Board finds that leaving the Protected Tree in an undisturbed state would result in an unwarranted hardship, denying an applicant reasonable and significant use of the Property. The Applicant contends that an unwarranted hardship would be created if the Applicant could not provide connectivity between two pieces of commonly owned land, which would not allow the site to be developed as an integrated part of the campus.

The Application includes six trees subject to the variance provision, one of which will be removed and five will have some impact to their critical root zones by the proposed disturbance. The protected tree to be removed, a 33" DBH White Oak (*Quercus alba*) in good condition.

The five trees proposed to be impacted, but retained, include three 33" DBH Willow Oaks, a 39" DBH Red Oak, and 32" DBH Norway Spruce. These trees have minor to moderate impacts to their CRZs but all will have stress reduction measures implanted. Staff has reviewed the 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 Forest Conservation Plan.

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 reasonable modifications to the existing features on the Property to better serve the operation of the School. The proposed location of the access road from the existing school to the newly acquired adjacent land is the least impactful location and minimizes tree loss, tree impacts, and easement impacts. Granting a variance to allow land disturbance within the Property to better fulfill the operation of the school while minimizing impacts is not unique to this Applicant. Staff finds 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 upon existing conditions on the Property, including the location of the protected trees within the area of the Property and connectivity between commonly owned pieces of land.

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

   The need for a variance is a result of the existing conditions and the desire for the Applicant to reconfigure existing features to better serve the existing school and is not based on a condition relating to land or building use, either permitted or non-conforming, on a neighboring property.

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. One tree in is proposed to be removed and five trees will be impacted. The tree that will be removed will be mitigated for by planting trees on the site to replace the functions lost by the removal of this tree. The five trees that will be impacted, but not removed will continue to provide their existing functions. In addition, Montgomery County Department of Permitting Services will require a detailed sediment and erosion control plan for the land disturbance and a stormwater management plan to treat all runoff from impervious surfaces on the Property prior to discharging into the receiving waterway.

Mitigation for Protected Trees – Normally protected trees within existing forest would no be recommended for additional mitigation since mitigation is already provided via the forest conservation worksheet. However, this tree is within a Category I easement proposed for removal and not subject to a standard worksheet, but rather the Planning Board's easement removal policy. Staff Believes mitigation in this case should be recommended. Mitigation for the removal of one protected tree is recommended at a rate that approximates the form and function of the tree 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 proposes to remove 33 inches in DBH resulting in a mitigation requirement of 11 caliper inches of planted, native, canopy trees with a minimum size of 3-inch caliper. The FCP should include planting of four 3" DBH native, canopy trees as mitigation for the removal of one protected tree. Although these trees will not be as large as the tree lost, they will provide some immediate benefit and ultimately replace the canopy lost by the removal of this tree. Staff does not recommend mitigation for trees impacted, but not removed. The affected root systems will regenerate and the functions provided restored.

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 March 1, 2018.

Variance Recommendation – Staff recommends that the variance be granted with mitigation for the loss of one tree as described above.

CONCLUSION

The proposed Final Forest Conservation Plan Amendment meets all requirements established in the Montgomery County Code. Staff has not received any correspondence on the Application as of the date of this report. Therefore, the Application with the conditions specified herein is recommended for approval.

ATTACHMENTS

Attachment A - Final Forest Conservation Plan Amendment
Attachment B – Tree Variance Request

Attachment A

LEGEND

- Specimen Tree
- Significant Tree
- Significant/Specimen Tree to be Removed
- Tree Line
- Limit of Disturbance
- Property Boundary
- Existing Forest Conservation Easement
- Tree Protection Fence & Root Pruning as needed
- Critical Root Zone
- Forest Conservation Easement to be removed
- Forest Conservation Easement to be Planted Reforestation Area 0.93 acre

SITE VICINITY MAP
(NOT TO SCALE)

6,033 square feet of forest conservation easement is to be released and mitigated offsite. Offsite forest bank credit of 12,066 square feet is to be provided. One (1) square feet of credit at an offsite forest conservation bank is equal to one (1) square feet of forest planting or two (2) square feet of existing forest. To satisfy the offsite forest mitigation, the Applicant will acquire either 12,066 square feet of forest planting OR 24,132 square feet of existing forest retention at an M-NCPPC approved forest conservation bank.

Kentsdale Estates Final Forest Conservation Plan #120060200 to be amended prior to construction of street "A".

N
MCS DATUM

TAX MAP FP343 & FP563 — WSSC 213NW09 & 213NW10

GRAPHIC SCALE
(IN FEET)
1 inch = 100 ft.
100 0 50 100 200
(IN METERS)
30.48 0 15.24 30.48 60.96
1 inch = 30.48 m.

DEVELOPER'S CERTIFICATE

The Undersigned agrees to execute all the features of the Approved Final Forest Conservation Plan No. 12008003C , including financial bonding, forest planting, maintenance and all other applicable agreements.

Developer's Name: Bullis School (Company) Gerald Boarman (Contact Person)

Address: 10601 Falls Road Potomac, MD 20854

Phone: 301-983-5711

Email: natasha-nazareth-phelps@bullis.org

Signature: _____

QUALIFIED PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THE INFORMATION SHOWN HEREON IS CORRECT AND THAT THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF EXISTING STATE AND COUNTY FOREST CONSERVATION LEGISLATION.

DATE _____ FRANK C. JOHNSON

RECOGNIZED AS QUALIFIED PROFESSIONAL BY MD. DEPT. OF NATURAL RESOURCES COMAR 08.19.06.01

NO.	DATE	DESCRIPTION	BY
3	4/28/17	Parking, playing field, and roadway improvements	FCJ
2	8/10/16	Quad/Courtyard improvements proposed	FCJ
1	9/15/15	Changed location for construction entrance	FCJ

FINAL FOREST CONSERVATION PLAN AMENDMENT
PARCEL A, BLOCK E – BLENHEIM
THE BULLIS SCHOOL
PLAT NO. 24460 – 24464
10TH ELECTION DISTRICT – MONTGOMERY COUNTY – MARYLAND

MHG Macris, Hendricks & Glascock, P.A.
Engineers ▪ Planners
Landscape Architects ▪ Surveyors
9220 Wightman Road, Suite 120
Montgomery Village, Maryland
20886-1279
Phone 301.670.0840
Fax 301.948.0693
www.mhgpa.com

Proj. Mgr.	Designer
PGL	FCJ
Date	Scale
5/11/15	1"=100'
Project No.	Sheet
12.145.15	1 of 3

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Attachment A

INSPECTIONS

All field inspections must be requested by the applicant

Field Inspections must be conducted as follows:

Tree Save Plans and Forest Conservation Plans without Planting Requirements

1. After the limits of disturbance have been staked and flagged, but before any clearing or grading begins
2. After necessary stress reduction measures have been completed and protection measures have been installed, but before any clearing and grading begin.
3. 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

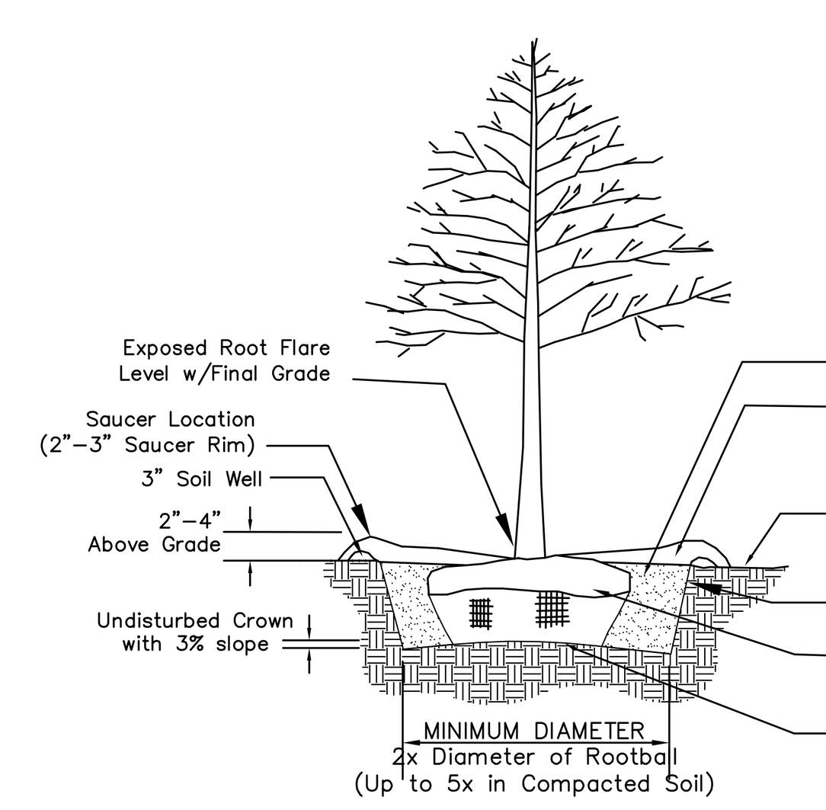
4. Before the start of any required reforestation and afforestation planting
5. After the required reforestation and afforestation planting has been completed to verify that the planting is acceptable and prior to the start the maintenance period.
6. At the end of the maintenance period to determine the level of compliance with the provisions of the planting plan, and if appropriate, release of the performance bond.

Notes:

Prune only dead, broken or crossing branches (No heading back).

Water @ planting when soil pit is 1/2 back filled.

If roots are encountered during installation, work should be performed by hand to shift locations of planting pits.

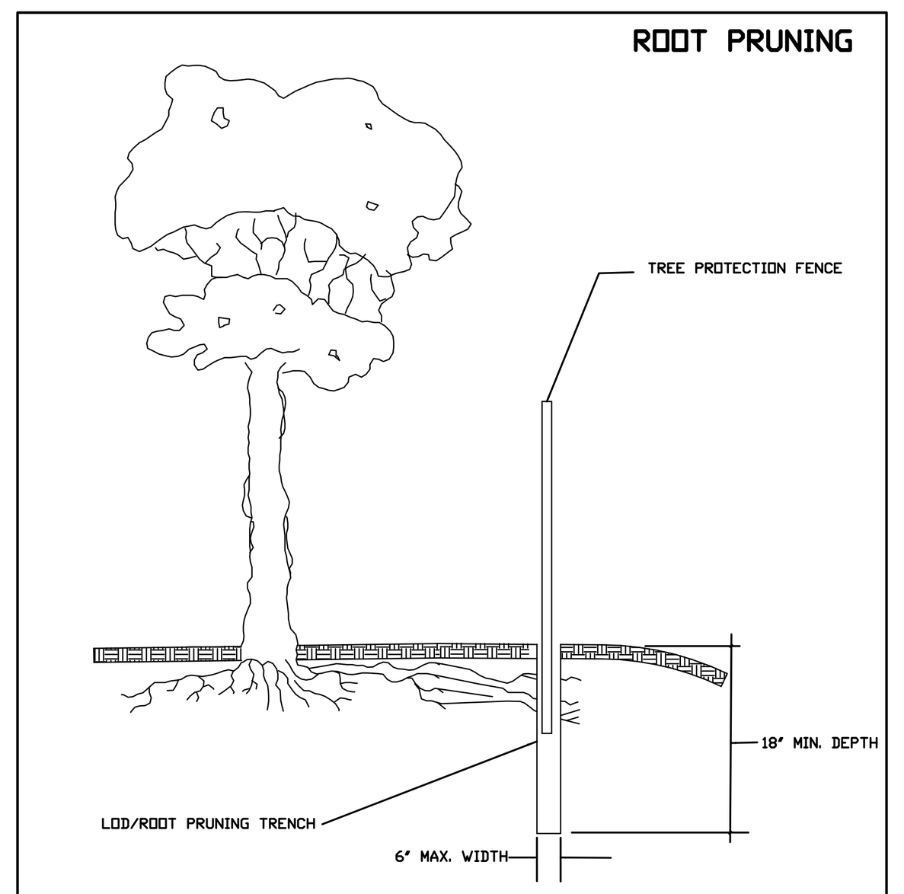


Tree Planting Detail

Not To Scale

* Minimize the size of planting pits when planting within CRZ of existing trees to be saved.

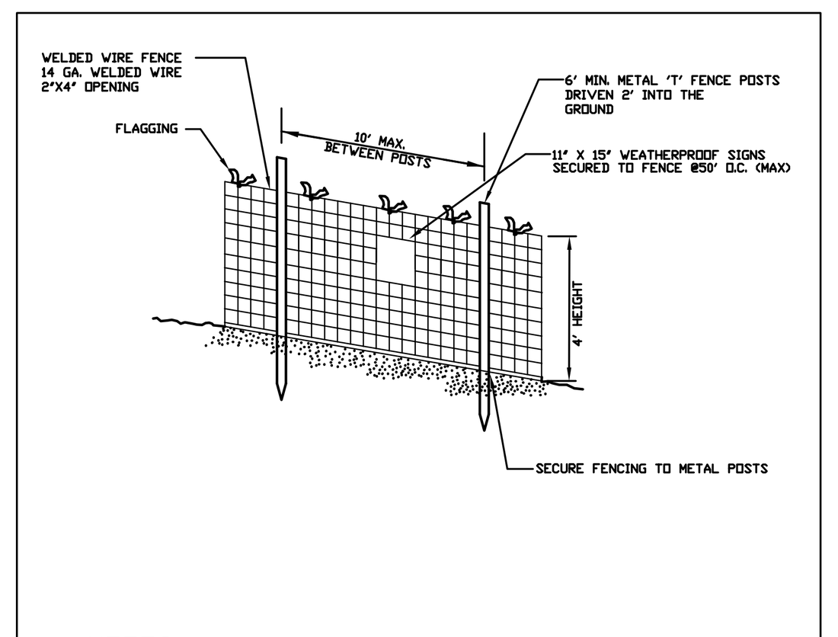
ROOT PRUNING



NOTES:

1. Retention Areas will be set as part of the review process.
2. Boundaries of Retention Areas should be staked and flagged prior to trenching.
3. Exact location of trench should be identified.
4. Trench should be immediately backfilled with soil removed or other high organic soil.
5. Roots should be cleanly cut using vibratory knife or other acceptable equipment.
6. Root prune to 18" depth or as determined at the preconstruction meeting.

* Root Prune at LOD unless otherwise noted



NOTES

1. PRACTICE MAY BE COMBINED WITH SEDIMENT CONTROL FENCING.
2. LOCATION AND LIMITS OF FENCING SHALL COORDINATED IN FIELD WITH ARBORIST.
3. BOUNDARIES OF PROTECTION AREA SHOULD BE STAKED PRIOR TO INSTALLING PROTECTIVE DEVICE.
4. ROOT DAMAGE SHOULD BE AVOIDED
5. PROTECTIVE SIGNAGE IS REQUIRED.
6. FENCING SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.

TREE PROTECTION FENCE DETAIL

NOT TO SCALE

NOTE: Tree Protection Fence shall be installed on top of the Limits of Disturbance. For purposes of legibility only, the Tree Protection Fence is graphically represented adjacent to the LOD.

Temporary Signage

MIN 11"

MIN. 15"

FOREST/TREE RETENTION AREA

MACHINERY DUMPING OR STORAGE OF ANY MATERIALS IS

PROHIBITED

VIOLATORS ARE SUBJECT TO FINES AS IMPOSED BY THE MARYLAND FOREST CONSERVATION ACT OF 1991

NOTE:

1. Attachment of signs to trees is prohibited.
2. Signs should be properly maintained.
3. Avoid injury to roots when placing posts for the signs.
4. Signs should be posted to be visible to all construction personnel from all directions.

TREE PRESERVATION AND STRESS REDUCTION MEASURES

TREE	RP	DRF	CA	SP	MB	DRW
#3 33" Willow Oak	X	X	X	X	X	X
#5 30" White Oak	X	X	X	X	X	X

STRESS REDUCTION MEASURES MAY BE CHANGED PER MNCPPC FOREST CONSERVATION INSPECTOR AND ARBORIST/MD LICENSED TREE EXPERT AT PRECONSTRUCTION MEETING.

TERMINOLOGY

(RP) ROOT PRUNING IS TO BE PERFORMED OUTSIDE THE TREE PROTECTION FENCE WITHIN THE CRITICAL ROOT ZONE. IT IS TO BE ACCOMPLISHED BY A VIBRATORY PLOW WITH A SERRATED CUTTING EDGE OR A ROOT CUTTER WITH A 36" WHEEL TO A DEPTH OF 8". CHAIN DRIVEN TRENCHERS ARE NOT ACCEPTABLE. (SEE DETAIL) ROOT PRUNE IN DORMANT SEASON IF POSSIBLE.

(DRF) DEEP ROOT FERTILIZE UTILIZING A HYDRALIC PUMP TO INJECT A LIQUID SOLUTION OF 30-10-7 ARBORICULTURAL GRADE FERTILIZER AND A BIOROOT STIMULATOR SUCH AS "ROOTS" OR "ESSENTIAL".

(CA) CORE AERATION IS TO BE DONE WITH A HAND-HELD MANUAL PUNCH CORE AERATOR AT 2 HOLES PER SQ.FT. THROUGHOUT ROOT ZONE. INCORPORATE AN ORGANIC PRODUCT (LEAFGROW) AND AN INORGANIC PRODUCT(SAND OR SOLITE) DURING THE AERATION PROCESS.

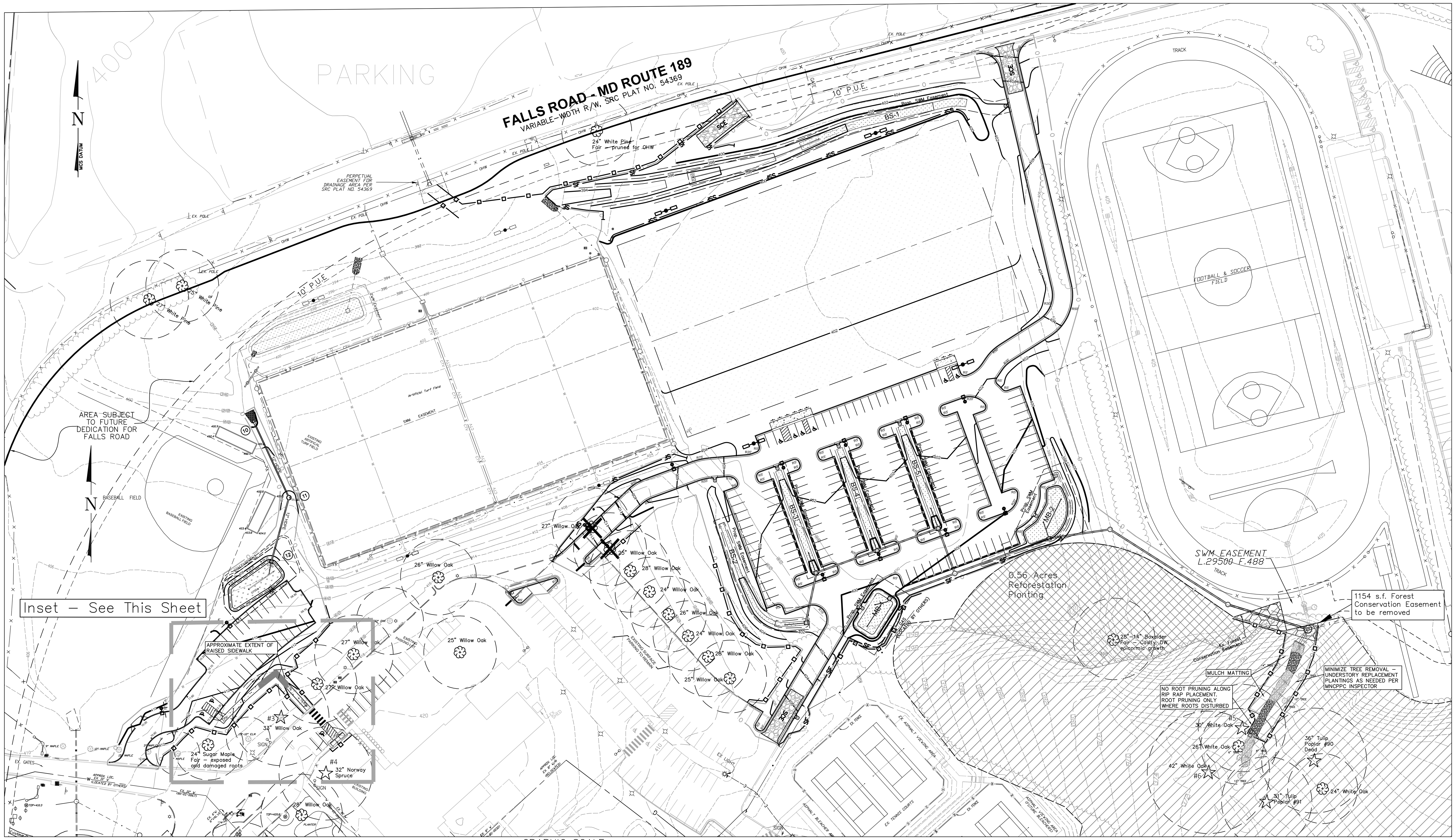
(SP) SANITATION PRUNE TO REMOVE ALL DEAD OR DYING LIMBS GREATER THAN ONE INCH ON A TREE TO IMPROVE ITS HEALTH AND APPEARANCE. THIN CROWN WHERE NECESSARY TO REDUCE CANOPY DENSITY BY MAXIMUM TWENTY-FIVE PERCENT TO COMPENSATE FOR ROOT LOSS AND CONSTRUCTION STRESS.

(MB) MULCH BEDS ARE TO BE 2-4" SHREDDED HARDWOOD MULCH, SHREDDED PINE BARK MULCH, OR COMPOSTED WOOD CHIPS. FRESHLY CUT WOODCHIPS ARE NOT ACCEPTABLE.

(DRW) DEEP ROOT WATERING TO OCCUR ON A WEEKLY BASIS DURING DROUGHT PERIODS.

LEGEND

Symbol	Description
☆	Specimen Tree
	Significant Tree
	Significant/Specimen Tree to be Removed
	Tree Line
	Limit of Disturbance
	Property Boundary
	Existing Forest Conservation Easement to remain
	Tree Protection Fence & Root Pruning as needed
	Critical Root Zone
	Forest Conservation Easement to be removed
	Forest Conservation Easement to be Planted Reforestation Area 0.93 acre
	Raised sidewalk (Approx.)
	Roots to save with Root Aeration Matting (Approx.)



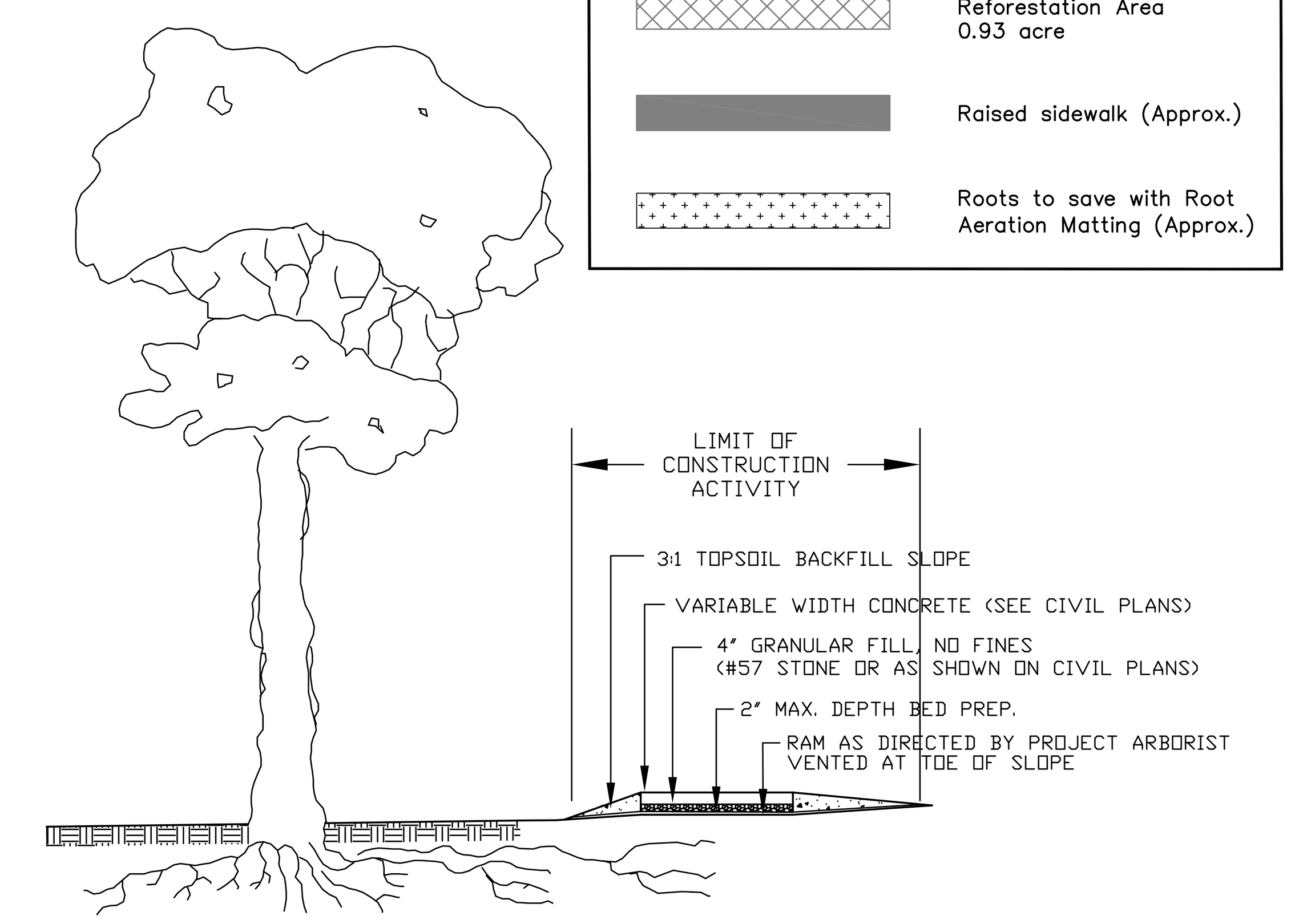
GRAPHIC SCALE

(IN FEET)

1 inch = 50 ft.

(IN METERS)

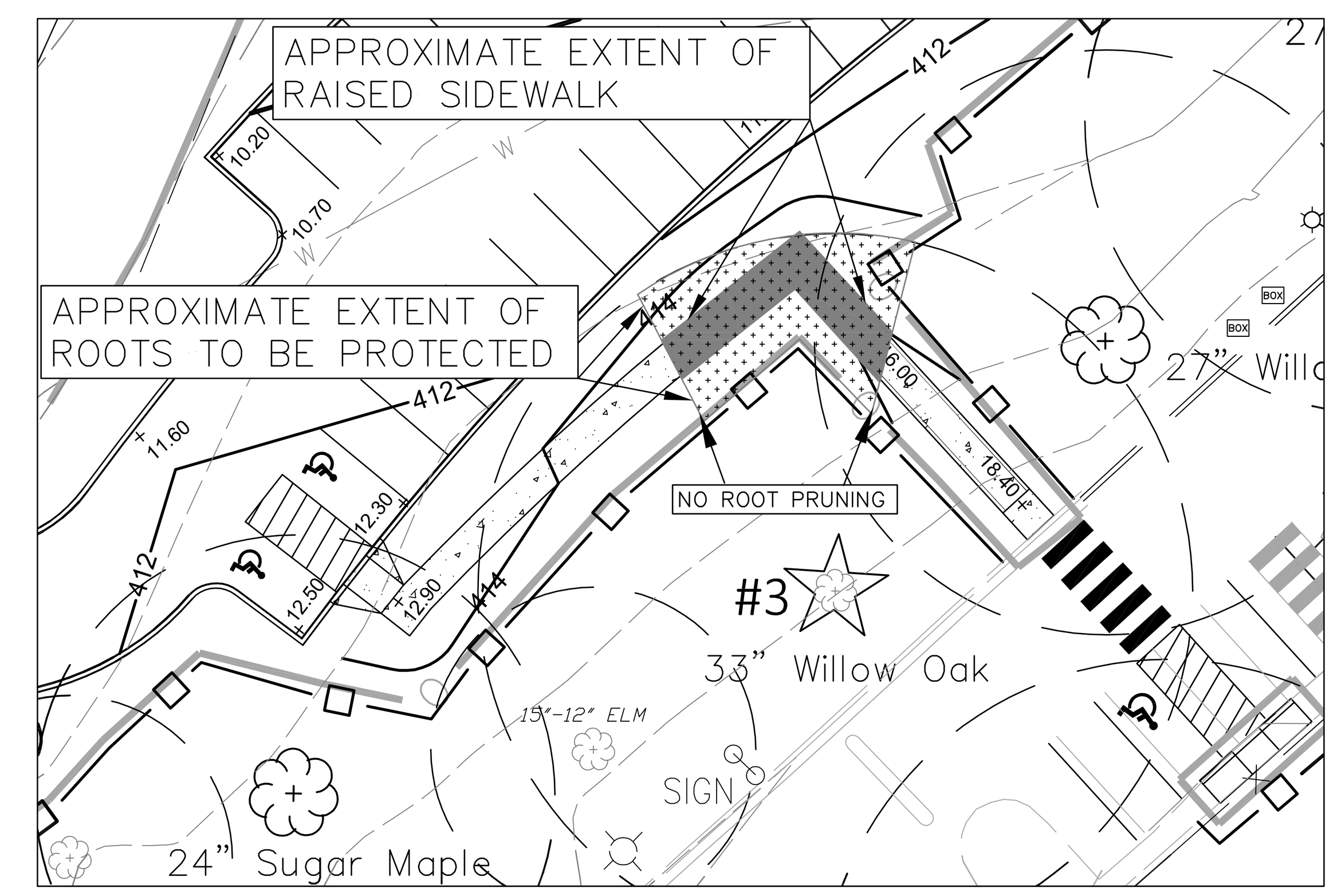
1 inch = 15.24 m.



Notes:

1. Bed preparation should not exceed 2 inches. Root spade may need to be used to protect roots.
2. Granular fill should contain no fines
3. Extreme care of existing trees and roots must be used during construction.
4. Root Aeration Matting (RAM) Geocomposite materials to be determined by Project Arborist

RAISED SIDEWALK



Where elevation depth permits between existing elevation and proposed elevation, raised sidewalk to be utilized while maintaining proposed slope in order to maintain ADA sidewalk requirements. Utilize temporary mulch matting and/or additional fencing to protect surrounding roots to be saved. Root spade to be used to aerate roots and maximize roots to be saved.

GRAPHIC SCALE

(IN FEET)

1 inch = 10 ft.

(IN METERS)

1 inch = 3.048 m.

TAX MAP FP343 & FP563

WSSC 213NW09 & 213NW10

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. The excavator is responsible for compliance with requirements of Chapter 36A of the Montgomery County Code.

Variance Mitigation Detail Table

Tree Num	Species	DBH	Impact / Remove	Total % Impacted	Condition	Mitigation
1	White Oak	33"	Remove	100%	Good	FC worksheet
2	Red Oak	39"	Impact	7%	Fair/Poor	Stress Reduction Measures
3	Willow Oak	33"	Impact	32%	Good	Stress Reduction Measures
4	Norway Spruce	32"	Impact	4%	Good	Stress Reduction Measures
5	White Oak	30"	Impact	24%	Good	Stress Reduction Measures
6	White Oak	42"	Impact	0.3%	Good	Stress Reduction Measures

DEVELOPER'S CERTIFICATE

The Undersigned agrees to execute all the features of the Approved Final Forest Conservation Plan No. 12008003C , including financial bonding, forest planting, maintenance and all other applicable agreements.

Developer's Name: Bullis School (Company) Gerald Boarman (Contact Person)

Address: 10601 Falls Road Potomac, MD 20854

Phone: 301-983-5711

Email: natasha_nazareth-phelps@bullis.org

Signature: ____________________

QUALIFIED PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THE INFORMATION SHOWN HEREON IS CORRECT AND THAT THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF EXISTING STATE AND COUNTY FOREST CONSERVATION LEGISLATION.

DATE

FRANK C. JOHNSON

RECOGNIZED AS QUALIFIED PROFESSIONAL BY MD. DEPT. OF NATURAL RESOURCES COMAR 08.19.06.01

NO.	DATE	DESCRIPTION	BY
3	4/28/17	Parking, playing field, and roadway improvements	FCJ
2	8/10/16	Quad/Courtyard improvements proposed	FCJ
1	9/15/15	Changed location for construction entrance	FCJ

FINAL FOREST CONSERVATION PLAN AMENDMENT

PARCEL A, BLOCK E – BLENHEIM

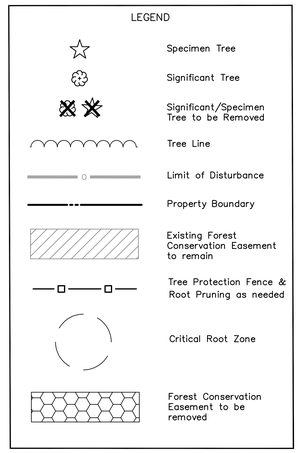
THE BULLIS SCHOOL

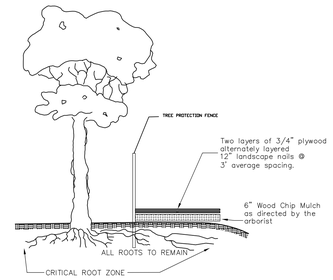
PLAT NO. 24460 – 24464

10TH ELECTION DISTRICT – MONTGOMERY COUNTY – MARYLAND

MHG Macris, Hendricks & Glascock, P.A.
Engineers ▪ Planners
Landscape Architects ▪ Surveyors
9220 Wightman Road, Suite 120
Montgomery Village, Maryland 20886-1279
Phone 301.670.0840
Fax 301.948.0693
www.mhgpa.com

Proj. Mgr.	Designer
PGL	FCJ
Date 5/11/15	Scale AS SHOWN
Project No. 12.145.15	Sheet 2 of 3





ROOT PROTECTION MATTING DETAIL

NOT TO SCALE

Sequence of Events for Properties Required To Comply With Forest Conservation Plans and/or Tree Save Plans

Pre-Construction

1. An on-site pre-construction meeting shall be required after the limits of disturbance have been staked and flagged, but before any clearing or grading begins. The owner shall contact the Montgomery County Planning Department inspection staff prior to commencing construction to verify the limits of disturbance and discuss tree protection and tree care measures. The attendants at this meeting should include: developer's representative, construction superintendent, ISA certified arborist or MD license tree expert that will implement the tree protection measures, Forest Conservation Inspector, and DPS sediment control inspector.

2. No clearing or grading shall begin before stress-reduction measures have been implemented. Appropriate measures may include, but are not limited to:
   a. Root pruning
   b. Crown Reduction or pruning
   c. Watering
   d. Fertilizing
   e. Vertical mulching
   f. Root aeration matting

   Measures not specified on the forest conservation plan may be required as determined by the Forest Conservation Inspector in coordination with the arborist.

3. A State of Maryland licensed tree expert, or an International Society of Arboriculture certified arborist must perform all stress reduction measures. Documentation of stress reduction measures must be either observed by the Forest Conservation Inspector or sent to the Forest Conservation Inspector at 8787 Georgia Avenue, Silver Spring, MD 20910. The Forest Conservation Inspector will determine the exact method to convey the stress reductions measures during the pre-construction meeting.

4. Temporary tree protection devices shall be installed per the Forest Conservation Plan/Tree Save Plan and prior to any construction activities. Tree protection fencing locations should be staked prior to the pre-construction meeting. The Forest Conservation Inspector, in coordination with the DPS sediment control inspector, may make field adjustments to increase the survivability of trees and forest shown as saved on the approved plan. Temporary tree protect devices may include:
   a. Chain link fence (four feet high)
   b. Super silt fence with wire strung between the support poles (minimum 4 feet high) with high visibility flagging.
   c. 14 gauge 2 inch x 4 inch welded wire fencing supported by steel T-bar posts (minimum 4 feet high) with high visibility flagging.

5. Temporary protection devices shall be maintained and installed by the contractor for the duration of construction project and must not be altered without prior approval from the Forest Conservation Inspector. No equipment, trucks, materials, or debris may be stored within the tree protection fence areas during the entire construction project. No vehicle or equipment access to the fenced area will be permitted. Tree protection shall not be removed without prior approval of Forest Conservation Inspector.

6. Forest retention area signs shall be installed as required by the Forest Conservation Inspector, or as shown approved plan.

7. Long-term protection devices will be installed per the Forest Conservation Plan/Tree Save Plan and attached details. Installation will occur at the appropriate time during the construction project. Refer to the plan drawing for long-term protection measures to be installed.

During Construction

8. Periodic inspections by Forest Conservation Inspector will occur during the construction project. Corrections and repairs to all tree protection devices, as determined by the Forest Conservation Inspector, must be made within the timeframe established by the Forest Conservation Inspector.

Post-Construction

9. After construction is completed, an inspection shall be requested. Corrective measures which may be required include:
   a. Removal and replacement of dead and dying trees
   b. Pruning of dead or declining limbs
   c. Soil aeration
   d. Fertilization
   e. Watering
   f. Wound repair
   g. Clean up of retention areas

10. After inspection and completion of corrective measures have been undertaken, all temporary protection devices shall be removed from the site. Removal of tree protection devices that also operate for erosion and sediment control must be coordinated with both the Department of Permitting Services and the Forest Conservation Inspector. No additional grading, sodding, or burial may take place after the tree protection fencing is removed.

DEVELOPER'S CERTIFICATE

The Undersigned agrees to execute all the features of the Approved Final Forest Conservation Plan No. 12008003C , including financial bonding, forest planting, maintenance and all other applicable agreements.

Developer's Name: Bullis School (Company) Gerald Boarman (Contact Person)

Address: 10601 Falls Road Potomac, MD 20854

Phone: 301-983-5711

Email: natasha_nazareth-phelps@bullis.org

Signature: _____

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DATE _____

FRANK C. JOHNSON

RECOGNIZED AS QUALIFIED PROFESSIONAL BY MD. DEPT. OF NATURAL RESOURCES COMAR 08.19.06.01

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. The excavator is responsible for compliance with requirements of Chapter 36A of the Montgomery County Code.

GRAPHIC SCALE
(IN FEET)
1 inch = 50 ft.
50 0 25 50 100
15.24 0 7.62 15.24 30.48
(IN METERS)
1 inch = 15.24 m.

Kentsdale Estates Final Forest Conservation Plan #120060200 to be amended prior to construction of street "A" and street "B".

NO.	DATE	DESCRIPTION	BY
3	4/28/17	Parking, playing field, and roadway improvements	FCJ
2	8/10/16	Quad/Courtyard improvements proposed	FCJ
1	9/15/15	Changed location for construction entrance	FCJ

TAX MAP FP343 & FP563 WSSC 213NW09 & 213NW10

FINAL FOREST CONSERVATION PLAN AMENDMENT
PARCEL A, BLOCK E - BLENHEIM
THE BULLIS SCHOOL
PLAT NO. 24460 - 24464
10TH ELECTION DISTRICT - MONTGOMERY COUNTY - MARYLAND

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9220 Wightman Road, Suite 120
Montgomery Village, Maryland
20886-1279
Phone 301.670.0840
Fax 301.948.0693
www.mhgpa.com

Proj. Mgr.	Designer
PGL	FCJ
Date	Scale
5/11/15	1"=50'
Project No.	Sheet
12.145.15	3 of 3

Attachment B

Macris, Hendricks & Glascock, P.A.
Engineers ▪ Planners ▪ Surveyors ▪ Landscape Architects

9220 Wightman Road, Suite 120
Montgomery Village, Maryland
20886-1279

Phone 301.670.0840
Fax 301.948.0693

MHG

October 20, 2017

Maryland National Capital Park & Planning Commission
8787 Georgia Avenue
Silver Spring, MD 20910

Re: Bullis School
FFCP Amendment
MNCPPC No. 12008003C
MHG Project No. 12.145.17

To Whom It May Concern:

On behalf of Bullis School, the applicant of the above referenced Forest Conservation Plan, we hereby request a variance for the impact of five specimen trees and removal of one specimen tree, as required by the Maryland Natural Resources Article, Title 5, Subtitle 16, Forest Conservation, Section 5-1611, and in accordance with Chapter 22A-21(b) of the Montgomery County Code. In accordance with Chapter 22A-21(b) of the Montgomery County Code, the proposed impact/removal of six trees over thirty inches in diameter would satisfy the variance requirements.

1. *Describe the special conditions peculiar to the property which would cause the unwarranted hardship;*

   The subject property is approximately seventy seven acres. A portion of the property is developed with a school and associated amenities. There is an approved forest conservation plan for the site that protects approximately seventeen and a half acres of forest including priority buffer areas within a forest conservation easement. Being a large school campus, the site contains a number of significant and specimen trees in the developed areas. There are five parts to the proposed improvements. Three of these areas are proposing impacts to specimen trees: a small visitor parking lot, an access road that will connect the campus to an adjacent property owned by the School which will also provide connections to Democracy Blvd, and improvements to a stormwater outfall.

   The small visitor parking lot is proposed near the main entrance and the administrative building. The campus has virtually no visitor parking near the administrative building and there is limited space for additional parking in the vicinity of the entrance. The only location available for additional parking is an inverted triangular shaped open field that is situated in between a softball field, a multi-sports field, the entrance drive, and the drive aisle that is lined with the trees that are proposed to be impacted. The parking lot cannot move more to the west due to the softball field and cannot move to the north due to the multi-sport field and more significant trees. In addition, a stormwater management treatment facility is required to be to the northwest due to the existing topography in

order to treat the rain water from the parking lot. To the south the open field goes into a point between the third base line of the softball field and the trees to the east resulting in a pinch point allowing just enough room for an entrance drive to the proposed parking lot. The impacted trees, including a specimen tree (#3), are located between the open field and the entrance to the administration building. This results in a limited area that is available between all these existing constraints. The parking lot has been redesigned to be outside of the critical root zone of tree #3, however, it is impacted by the sidewalk that leads to the administration building. The parking lot requires ADA accessibility from the parking lot to the administration building, maintaining a safe grade change for pedestrians. The sidewalk requires a cut in grade in order to meet ADA slope requirements although a small area is available with enough fill to allow for a raised sidewalk. This would allow an increase in root protection and reduce the overall percentage of impact to the tree below the 32% impact that is based on the LOD. The crosswalk to the administration building has been shifted in order to save a 27" Willow Oak and maximize the number of trees saved, although this results in an increase in impacts to tree #3 and creates minor impacts to specimen tree #4. The total area of root disturbance and the distance of the disturbance to tree has been minimized to reduce impacts to this tree. Despite the impacts to the trees, necessary stress reduction measures will be provided to promote survivability.

Two trees (#5 and #6) are being impacted by improvements to an existing stormwater outfall. The current outfall is partially armored with rock, however, the areas in between the armoring are eroding. As part of the stormwater management requirements and improvements, it is necessary to stabilize this area with additional armoring. Rip-rap is proposed to provide the needed stabilization. Minimal soil disturbance is required for this improvement however, access by work vehicles will be necessary as well as some soil preparation that may disturb roots. Tree #6 has minimal root disturbance but tree #5 has a greater amount of impact. Root pruning may not be necessary and should be minimized if needed. A temporary root protection matting will be used for vehicular traffic to reduce compaction on roots and reduce the need for root pruning. These measures and other stress reduction measures will reduce the overall percentage impact to the trees.

The remaining two trees are being impacted by the proposed road connection. Bullis purchased 11 of the 12 lots in Kentsdale Estates subdivision in 2011. In order to utilize the property, it is critical to connect it with the main campus, so that traffic is not forced back out onto the public roadways to ensure the safety and security of its students, staff and the school community. There are two forest conservation easements and a stormwater management facility on the school property that are adjacent to a forest easement that is on the Kentsdale Estates property. The road connection connects the school campus to the north side of the forest easement of the Kentsdale property which is the larger of the two developable areas off-site. Because of the narrow space between the stormwater facility and the forest easement, the impact to the specimen trees cannot be avoided. One of the trees will be impacted but saved, the other is required to be removed. The impacts to tree #2 are minor impacts and will receive stress reduction measures in order to minimize the impacts to the tree. The other tree (#1) is to be removed. The grades are such that a retaining wall is required in order to minimize the forest removal. Despite having the retaining wall, the space available does not allow enough room for tree #1 to be saved. The trees are in an existing forest conservation easement and this forest area proposed to be removed will be mitigated. The connection is the minimum

width needed to meet fire access requirements. The roadway connection will also help with pickup and drop-off operations. The current school pickup and drop-off operations rely on one way traffic circulation with all vehicles entering at the Falls Road entrance and exiting to Democracy Blvd. Since a significant portion of these vehicles come from Democracy Blvd (westbound), this puts heavy stress on the Falls/Democracy intersection, in addition to the Falls Road Entrance. The queue often spills out from the campus into Falls Road. Creating a second connection from Democracy would allow the school to maintain the existing "exit only" drive, while creating a new way to bring cars into the campus coming westbound on Democracy which will improve the condition at the traffic signal at Falls and Democracy, while also reducing the queue on Falls Road and provide a significant increase in on-site queuing capacity. It would also create a path for those accessing the stadium and/or indoor athletic facilities, while avoiding the main entrance on Falls Road during the afternoon pickup operation.

Given the needs of the school and the circumstances of the impacts as described above and the lack of reasonable alternatives, not allowing the impacts would be a hardship that is not warranted in light of the special conditions particular to the school.

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

   The affected trees are located within the developable area on the property. The trees within the forest conservation easements will be mitigated through stress reduction measures for impacts and through additional forest conservation in the form of purchasing credit within a forest bank. The inability to impact/remove the subject trees would limit the development of the property. This creates a significant disadvantage for the applicant and deprives the applicant of the rights enjoyed by the neighboring and/or similar properties not subject to this approval process.

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;*

   Stormwater Management Concepts have been approved for both parking lots and the athletic field. A separate Concept will be submitted for the road connection at the time of permitting. The approvals of these plans will confirm that the goals and objectives of the current state water quality standards are being met.

4. *Provide any other information appropriate to support the request.*

   Pursuant to Section 22A 21(d) Minimum Criteria for Approval.
   (1) <u>The Applicant will receive no special privileges or benefits by the granting of the requested variance that would not be available by any other applicants</u>.
   The variance will not confer a special privilege because the impact is due to the development of the site. The site constraints are explained above. The constraints constrict the development area of the property and do not leave a reasonable alternative for the school to meet its needs.
   (2) <u>The variance request is not based on conditions or circumstances which result from the actions of the applicant.</u>

The property is developed and is constrained by site conditions and development constraints that already exist as detailed above. The requested variance is not based on conditions or circumstances which are the result of the applicant.

(3) The variance is not based on a condition relating to the land or building use, either permitted or nonconforming on a neighboring property.

The requested variance is a result of the proposed site design and layout on the school property and not a result of land or building on a neighboring property. The location of the existing forest easements dictate the necessary locations for the road connections. The locations of the easements are due to the need to protect natural features including forest and stream buffers and dictate the best location for the road connections and result in the need for the variance.

(4) Will not violate State water standards or cause measurable degradation in water quality. Full ESD stormwater management will be provided as part of the proposed development.

The variance will not violate State water quality standards or cause measurable degradation in water quality. The specimen trees being impacted are not within a special protection area. The Montgomery County Department of Permitting Services has approved the Stormwater concepts for the parking lots and the field and the approval of the storm water management concept for the proposed road connections will confirm that the goals and objectives of the current state water quality standards are being met.

A copy of the Forest Conservation Plan, road profile, circulation exhibit, and a variance tree spreadsheet have been provided as part of this variance request. Please let us know if any other information is necessary to support this request.

Please contact me via email, at fjohnson@mhgpa.com, or by phone, at (301) 670-0840 should you have any additional comments or concerns.

Thank you,

Frank Johnson

Frank Johnson

Variance Mitigation Detail Table						
Tree Num	**Species**	**DBH**	**Impact / Remove**	**Total % Impacted**	**Condition**	**Mitigation**
1	White Oak	33"	Remove	100%	Good	FC worksheet
2	Red Oak	39"	Impact	7%	Fair/Poor	Stress Reduction Measures
3	Willow Oak	33"	Impact	32%	Good	Stress Reduction Measures
4	Norway Spruce	32	Impact	4%	Good	Stress Reduction Measures
5	Willow Oak	33"	Impact	24%	Good	Stress Reduction Measures
6	Willow Oak	33"	Impact	0.3%	Good	Stress Reduction Measures