

July 26, 2016

Mr. Marco Fuster

Environmental Planning Division
Maryland - National Capital Park and Planning Commission (M-NCPPC)
8787 Georgia Ave.
Silver Spring, MD 20910

Re: Washington Episcopal Day School
Plan No. **820150080**
AMT File No. 106-389.006

Dear Mr. Fuster:

On behalf of Sheridan Development and the Washington Episcopal School, and pursuant to Section 22A-21 *Variance provisions* of the Montgomery County Forest Conservation Ordinance and Md. Code Ann., Natural Resources, §5-1602 et seq., we are writing to request a variance to allow disturbance in the critical root zones of the following specimen trees for the above-named construction project:

| Tree # | Species | D.B.H (inches) | Tree Condition | % CRZ impact | Comments | Reason for disturbance |
|--------|--------------------------------|----------------|----------------|--------------|---|--|
| 17 | <i>Fraxinus pensylvanica</i> | 31 | Fair | 23.3 | Dieback in crown | Regenerative stormwater conveyance channel for stream valley buffer mitigation |
| 19 | <i>Liriodendron tulipifera</i> | 49 | Fair | 12.6 | Some broken limbs and dead branches | Curb/gutter/asphalt resurfacing for parking lot, microbioretention; regenerative stormwater conveyance channel for stream valley buffer mitigation |
| 20 | <i>Quercus alba</i> | 39 | Fair | 14.0 | Some dead branches | Curb/gutter/asphalt pavement for parking lot and access drive, grading, pipe inlet |
| 21 | <i>Quercus rubra</i> | 40 | Fair | 42.1 | Some broken limbs | Curb/gutter/asphalt pavement for access drive, grading, microbioretention |
| 22 | <i>Quercus rubra</i> | 38 | Fair | 42.7 | Poison ivy on trunk | Curb/gutter/asphalt pavement for access drive, grading, microbioretention, swale, storm drain |
| 24 | <i>Liriodendron tulipifera</i> | 37 | Fair | 26.4 | Some broken limbs, has a 15" twin | Curb/gutter/pavement for access drive, grading, swale |
| 25 | <i>Quercus rubra</i> | 33 | Fair | 16.1 | Poison ivy, some dead limbs | Curb/gutter/asphalt pavement for access drive, grading |
| 26 | <i>Quercus rubra</i> | 41.5 | Fair | 46.5 | Root zone impacted by installation of shed and new paving | Curb/gutter/asphalt pavement for access drive, grading, concrete sidewalk, microbioretention, storm drain |
| 28 | <i>Quercus rubra</i> | 38.5 | Good | 39.2 | - | Curb/gutter/asphalt pavement for access drive and parking lot, grading, concrete sidewalk, microbioretention, storm drain |

As well as removal of the following specimen trees for the above-named construction project:

| Tree # | Species | D.B.H (inches) | Tree Condition | % CRZ Impact | Comments | Reason for Removal |
|--------|--------------------------------|----------------|----------------|--------------|--|---|
| 41 | <i>Liriodendron tulipifera</i> | 49 | Fair | 32.7 | Poor form, pressed around overhead wires | Microbioretention, grading, storm drain, curb/gutter/asphalt resurfacing for parking aisle, concrete sidewalk |
| 42 | <i>Liriodendron tulipifera</i> | 36.5 | Fair/Poor | 86.4 | English ivy on trunk, thin canopy on west side | Building addition, concrete sidewalk, curb/gutter/asphalt pavement for access aisle |
| 47 | <i>Prunus 'Kwanzan'</i> | 30.5 | Fair/Poor | 78.4 | Heart rot, dieback, epicormic growth | Building construction, utilities, entrance drive |

Mitigation trees for this variance request are included on the planting plans (LP-101) and forest conservation plan (LF-101). The trees described above have been evaluated by a certified arborist who works for AMT¹.

This Washington Episcopal Day School (WES) project consists of the demolition of existing impervious areas to include new parking lots, vehicular drive aisles, pedestrian walkways, ESD stormwater management facilities, storm drain utilities, grading and associated site infrastructure. A new residential building is proposed, as well as an addition to the existing school building. The construction of the project is phased – Phase 1 includes the construction of the residential building on Lot 2 and improvements to Landy Lane. Phase 1 also includes the replacement of an existing concrete/rip-rap lined channel (paralleling Little Falls Parkway) with a regenerative stormwater conveyance channel that includes forebays, plunge pools, riffles and native vegetation (see plans L-101 and L-102). Currently, the Phase 1 area is used for car dealership storage parking, public ingress/egress and emergency vehicle turn-around. Phase 2 includes construction of improvements on Lot 1 including the school addition, parking and drive aisle improvements.

The construction will require removal of specimen trees 41, 42, and 47 due to the proposed construction described above. The attached “Exhibit 1A,” “Exhibit 1B,” “Exhibit 2,” “Exhibit 3” and “Exhibit 4” show the project site and its surroundings.

The demolition and construction of Phase 1 and Phase 2 will require disturbance in the critical root zones of specimen trees 17, 19-22, 24-26, and 28. Specialized tree protection measures will be performed throughout the site and vary from tree to tree. Protection measures include, but are not limited to tree protection fence/signage, mulch matting and trunk protection. Proposed demolition and construction within the critical root zones of impacted specimen trees shall occur as approved and directed by MNCPPC forest conservation reviewers and inspectors.

Note that no root pruning shall occur within the critical root zones of specimen trees 19-22, 24-26, and 28, where the curb and asphalt of the existing parking lot are to be removed. Rather, only trenchless sediment control and specialized measures shall be utilized to properly protect such trees. Pavement

¹Andrew Streagle, ISA #MA4826-A

demolition will occur per the standard M-NCPPC demolition procedures and per the instruction and approval of M-NCPPC forest conservation inspectors. Tree protection details and the M-NCPPC standard notes (“Removal of Existing Asphalt & Concrete within Critical Root Zones”) are included on LF-102. However, as previously stated, tree protection procedures shall occur as directed by M-NCPPC forest conservation inspectors.

The table below demonstrates how the proposed design reduces total impervious area within the critical root zones of the aforementioned impacted specimen trees. The mathematical % impact to these CRZs is quite high and the LOD is especially close to these specimen trees (LOD for this area is set exactly at the back of existing curb to be demolished). However, these impacted specimen trees will likely benefit from the proposed demolition/construction. Existing asphalt paving and asphalt curb are currently up to the forest edge and within the aforementioned CRZs. The proposed design removes this imperviousness and encourages root growth into new pervious areas. Furthermore, new/proposed construction around these trees will occur within the extents of previous impervious areas, where tree roots of 19-22, 24-26, and 28 are likely not abundant and consequently of little impact.

| A | B | C | D | E | F | G | H | I | J |
|--------|-------------------------------------|---------------------|--------------------------------------|---|---|---|-------------------------------------|--------------------------------------|--|
| Tree # | Existing impervious within CRZ (SF) | Total CRZ area (SF) | % CRZ with existing impervious [B÷C] | Total proposed CRZ impact [from page 1 table] | Existing impervious to be removed within CRZ (SF) | Remaining existing impervious in CRZ (SF) [B-F] | Proposed impervious within CRZ (SF) | Ultimate impervious within CRZ [G+H] | Net Δ impervious within CRZ (existing to proposed) 1-[I÷B] |
| 17 | 727 | 6,793 | 10.7% | 23.3% | 675 | 52 | 0 | 52 | -92.8 |
| 19 | 7,727 | 16,972 | 45.5% | 12.6% | 1,080 | 6,647 | 217 | 6,864 | -11.1% |
| 20 | 4,196 | 10,751 | 39.0% | 14.0% | 1,454 | 2,742 | 400 | 3,142 | -25.1% |
| 21 | 4,646 | 11,310 | 41.1% | 42.1% | 4,646 | 0 | 419 | 419 | -91.0% |
| 22 | 4,243 | 10,207 | 41.6% | 42.7% | 4,243 | 0 | 685 | 685 | -83.9% |
| 24 | 2,450 | 9,677 | 25.3% | 26.4% | 2,450 | 0 | 226 | 226 | -90.8% |
| 25 | 1,173 | 7698 | 15.2% | 16.1% | 1,173 | 0 | 125 | 125 | -89.3% |
| 26 | 5,332 | 12,174 | 43.8% | 46.5% | 5,332 | 0 | 2,649 | 2,649 | -50.3% |
| 28 | 3,594 | 10,477 | 34.3% | 39.2% | 3,594 | 0 | 2,615 | 2,615 | -27.2% |

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.

Pursuant to “(1) Describe the special conditions peculiar to the property which would cause the unwarranted hardship, WES is located on the north side of River Road between Little Falls Parkway and the Capitol Crescent Trail in Bethesda, Maryland. The site is approximately 11.20 acres and includes easements for sanitary sewer and storm drain utilities. The current uses of the site are permitted in Zone PD-28. Founded in 1986, WES enrolls nursery, primary, elementary and middle school students with a total enrollment of 256 students. It is an established, integral element of the area, providing necessary and suitable benefits and educational services to students and their families. The Maryland Department of the Environment (MDE) has designated this portion of the Little Falls watershed as Class I-P waters. Willet Branch flows through the site within a concrete box culvert. The topography generally slopes from the southeast corner of the site (approximately elevation 270 feet) to the north and west corners of the site (approximately elevation 242 feet).

The site is comprised of an existing two-story school building, surface parking lots, drive aisles, playgrounds, an all-purpose court and a synthetic surface athletic field. The northern area of the site is occupied by a natural turf field. Both the proposed residential building and the proposed school addition are to be built primarily atop existing parking lots/impervious areas. The proposed structures are sited such that the building footprints provide adequate space for programming needs, the site design provides safe ingress/egress and pedestrian movement, and the overall design reduces natural resource impacts.

The site and programmatic constraints described above are **special conditions peculiar** to this site. Were the applicant to be denied the requested variance to disturb the critical root zone of specimen trees 17, 19-22, 24-26, and 28, and remove trees 41, 42 and 47, the applicant would be unable to achieve the facilities necessary to meet its programmatic requirements and unable to proceed with stormwater management facility improvements. As such, this would cause an **unwarranted hardship** to the WES, as well as the households that the school serves and proposed residential structure would serve.

Pursuant to “(2) Describe how enforcement of these rules will deprive the landowner of rights commonly enjoyed by others in similar areas”, enforcement of a prohibition on disturbing the critical root zone of the specimen trees 17, 19-22, 24-26, and 28, and removal of specimen trees 41, 42 and 47, the applicant would be unable to achieve the facilities necessary to meet its programmatic requirements and unable to proceed with stormwater management facility improvements, thus **depriving the WES of amenities commonly enjoyed by others** who are served by similar facilities that have many of the same features as the subject property.

Pursuant to “(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”, the specimen trees are not located near any water bodies. Tree planting and stormwater management facilities that are proposed throughout the site will provide additional water quality and quantity benefits. The existing forest on the western portion of the site surrounds the Capital Crescent Trail and buffers the Willett Branch. The forest on the west side of the property screens Little Falls Parkway and similarly buffers the Willett Branch. All existing forest areas will remain and will continue to provide water quality and quantity benefits.

The proposed stormwater management design has been refined several times to exceed the adequate levels of control as required by Montgomery County Code, Chapter 19, as enforced by Montgomery County Department of Permitting Services (DPS). A SWM concept (concept #261216) for the site was

originally approved by Montgomery County's Department of General Services (DGS) on August 28, 2014. This concept included Environmental Site Design practices such as microbioretention, green roof, rain gardens. However, because of notable changes to the site design, the SWM concept was again submitted to DGS for their approval on April 5, 2016 and again on July 25, 2016. The July 2016 submission expands on the previously approved concept to include several additional microbioretention facilities, storm filter vault facilities and updated phasing sequencing. In fact, stormwater management treatment provided in Phase 1 and Phase 2 exceed DPS' ESD requirement by 5,355cf. Furthermore, as many of these treatment facilities as feasible are proposed for Phase 1 in order to provide ESD treatment for not only the site's proposed improvements but also previously untreated existing site features. Additionally, the new concept includes two (2) regenerative conveyance channels that replace the existing concrete ditches at Little Falls Parkway. These naturalized channels and are intended to mitigate existing stream valley buffer encroachments. Approval of the resubmitted SWM concept is anticipated by summer 2016.

Extensive proposed tree plantings, two (2) forest conservation easements, and specimen tree removal replacement plantings are also proposed. Like the aforementioned stormwater management facilities and the regenerative conveyance channel, as much of these tree plantings as feasible are scheduled for Phase 1 and will provide additional water quality benefits.

For the above reasons, the disturbance of the critical root zone of specimen trees 17, 19-22, 24-26, and 28, and removal of specimen trees 41, 42 and 47 **would not violate the aforementioned standards, nor would it result in a measurable degradation in water quality.**

Pursuant to "(4) Provide any other information appropriate to support the request", the proposed facilities have been designed to meet minimum programmatic requirements and limit impervious surfaces, while minimizing disturbance to, and removal of, specimen trees on the site.

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;
- (2) Is based on conditions or circumstances which are the result of the actions by the applicant;
- (3) Arises from a condition relating to land or building use, either permitted or nonconforming, on a neighboring property; or
- (4) Will violate State water quality standards or cause measurable degradation in water quality

Pursuant to "(1) Will confer on the applicant a special privilege that would be denied to other applicants, the use of this site as a school is an established use, permitted in the PD-28 zone, and operated in a manner consistent with that of the other school properties in the area. The current structures and proposed facilities meet zoning requirements for building height and setbacks. The proposed residential building is permitted in the PD-28 zone. As such, by granting this variance request no **special privilege** will be conferred on the applicant that would be denied to other applicants.

Pursuant to “(2) Is based on conditions or circumstances which are the result of the actions by the applicant, the applicant has taken no **actions leading to the conditions or circumstances** that are the subject of this variance request.

Pursuant to “(3) Arises from a condition relating to land or building use, either permitted or nonconforming, on a neighboring property, the **surrounding land uses** (residential, commercial, industrial) do not have any **inherent characteristics that have created** this particular need for a variance.

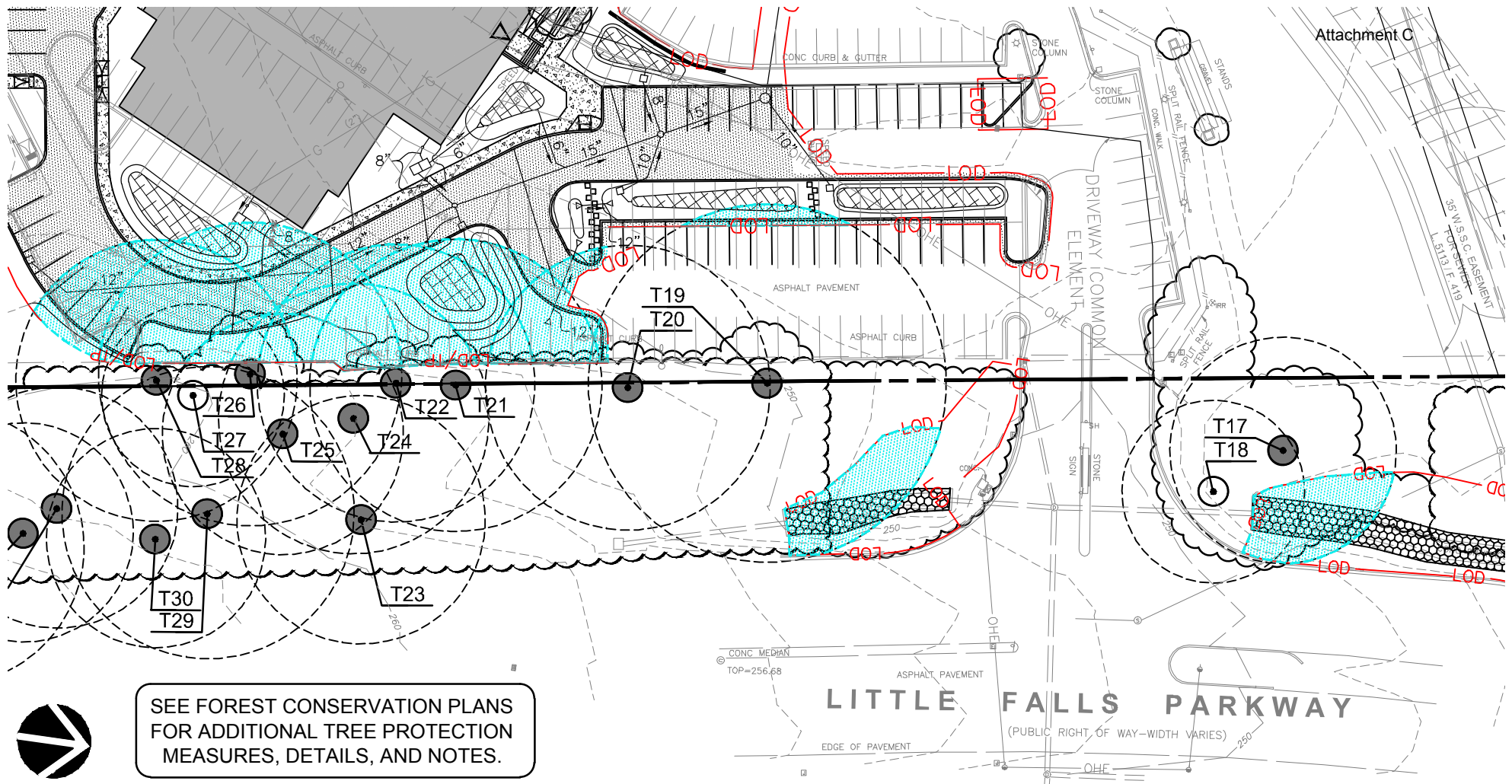
Finally, pursuant to “(4) Will violate State water quality standards or cause measurable degradation in water quality, the applicant cites the reasoning previously provided in response to requirement 22A-21(b)(3), and restates its belief that granting this variance request **will not violate State water quality standards or cause measurable degradation in water quality.**

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 Md. Code Ann., Natural Resources, §5-1602 et seq., and thereby, GRANTS permission to disturb the critical root zones of specimen trees 17, 19-22, 24-26, and 28, and remove specimen trees 41, 42 and 47 in order to allow construction of this project.

Sincerely,
A. MORTON THOMAS and Associates, Inc.



Andrew E. Streagle, RLA, ISA
Project Manager

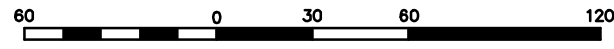


SEE FOREST CONSERVATION PLANS FOR ADDITIONAL TREE PROTECTION MEASURES, DETAILS, AND NOTES.

LEGEND

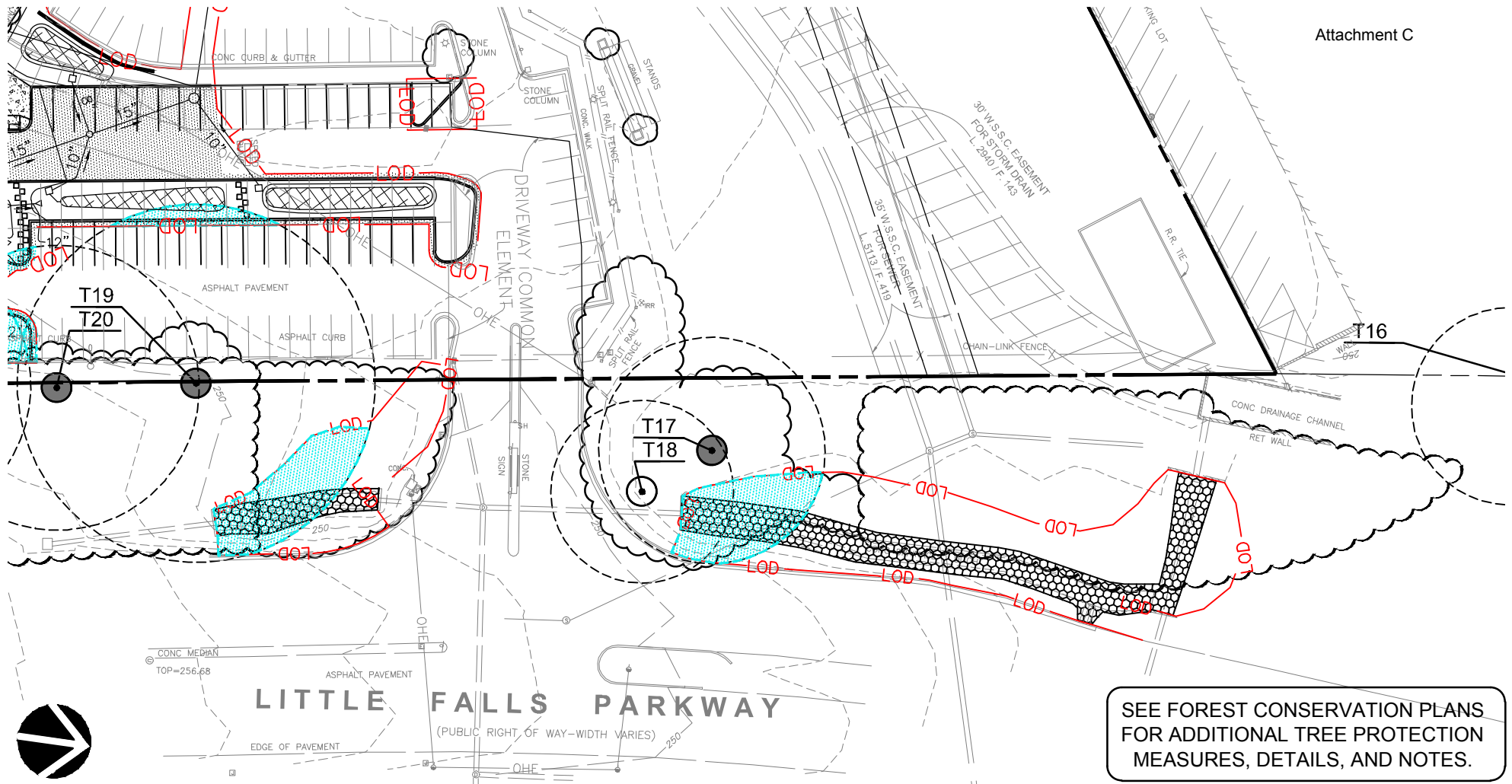
- SIGNIFICANT TREE (<30" DBH) WITH CRITICAL ROOT ZONE
- SIGNIFICANT TREE TO BE REMOVED
- CRZ IMPACT - SIGNIFICANT TREE TO REMAIN
- SPECIMEN TREE (≤30" DBH) WITH CRITICAL ROOT ZONE
- SPECIMEN TREE TO BE REMOVED
- CRZ IMPACT - SIGNIFICANT TREE TO BE REMOVED
- EDGE OF CANOPY LINE
- EDGE OF FOREST/TREE STAND
- LIMITS OF DISTURBANCE
- TREE PROTECTION FENCE SET AT BACK OF CURB TO BE REMOVED

SCALE: 1" = 60'












**EXHIBIT 1A
FOREST CONSERVATION VARIANCE REQUEST**



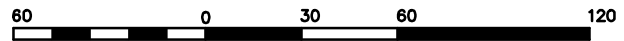


SEE FOREST CONSERVATION PLANS FOR ADDITIONAL TREE PROTECTION MEASURES, DETAILS, AND NOTES.

LEGEND

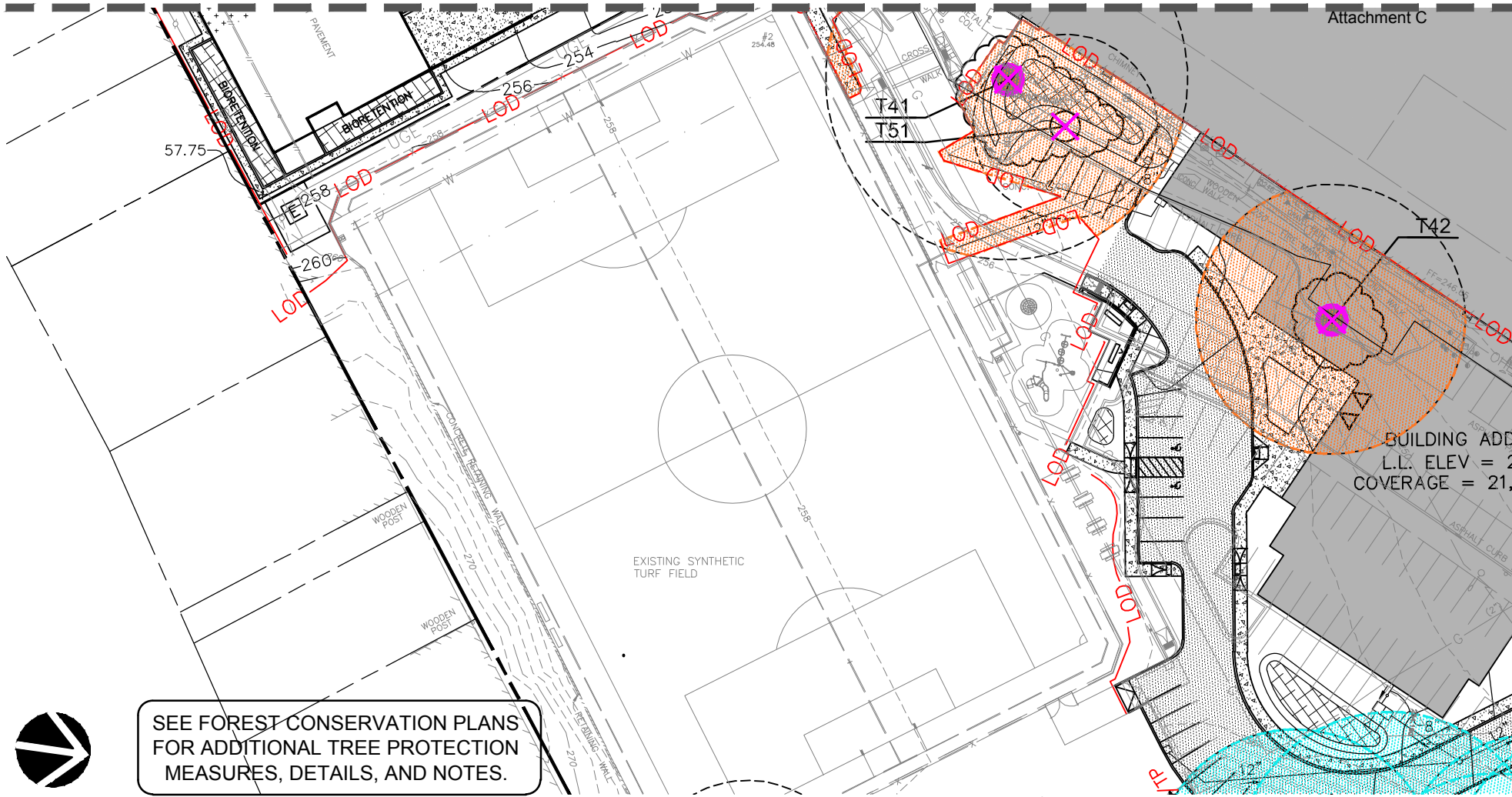
-  SIGNIFICANT TREE (<30" DBH) WITH CRITICAL ROOT ZONE
-  SIGNIFICANT TREE TO BE REMOVED
-  LIMITS OF DISTURBANCE
-  EDGE OF CANOPY LINE
-  EDGE OF FOREST/TREE STAND
-  SPECIMEN TREE (<=30" DBH) WITH CRITICAL ROOT ZONE
-  SPECIMEN TREE TO BE REMOVED
-  CRZ IMPACT - SIGNIFICANT TREE TO BE REMOVED
-  CRZ IMPACT - SIGNIFICANT TREE TO REMAIN

SCALE: 1" = 60'



**EXHIBIT 1B
FOREST CONSERVATION VARIANCE REQUEST**





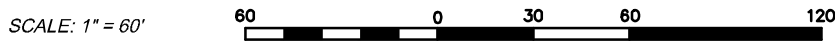
SEE FOREST CONSERVATION PLANS FOR ADDITIONAL TREE PROTECTION MEASURES, DETAILS, AND NOTES.

LEGEND

- SIGNIFICANT TREE (<30" DBH) WITH CRITICAL ROOT ZONE
- SIGNIFICANT TREE TO BE REMOVED

- EDGE OF CANOPY LINE
- EDGE OF FOREST/TREE STAND
- LIMITS OF DISTURBANCE

- SPECIMEN TREE (<=30" DBH) WITH CRITICAL ROOT ZONE
- SPECIMEN TREE TO BE REMOVED
- CRZ IMPACT - SIGNIFICANT TREE TO BE REMOVED
- CRZ IMPACT - SIGNIFICANT TREE TO REMAIN



**EXHIBIT 2
FOREST CONSERVATION VARIANCE REQUEST**



SEE FOREST CONSERVATION PLANS FOR ADDITIONAL TREE PROTECTION MEASURES, DETAILS, AND NOTES.



MATCHLINE EXHIBIT 2

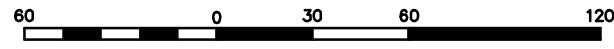
LEGEND

- SIGNIFICANT TREE (<30" DBH) WITH CRITICAL ROOT ZONE
- SIGNIFICANT TREE TO BE REMOVED

- EDGE OF CANOPY LINE
- EDGE OF FOREST/TREE STAND
- LIMITS OF DISTURBANCE

- SPECIMEN TREE (≤30" DBH) WITH CRITICAL ROOT ZONE
- SPECIMEN TREE TO BE REMOVED
- CRZ IMPACT - SIGNIFICANT TREE TO BE REMOVED
- CRZ IMPACT - SIGNIFICANT TREE TO REMAIN

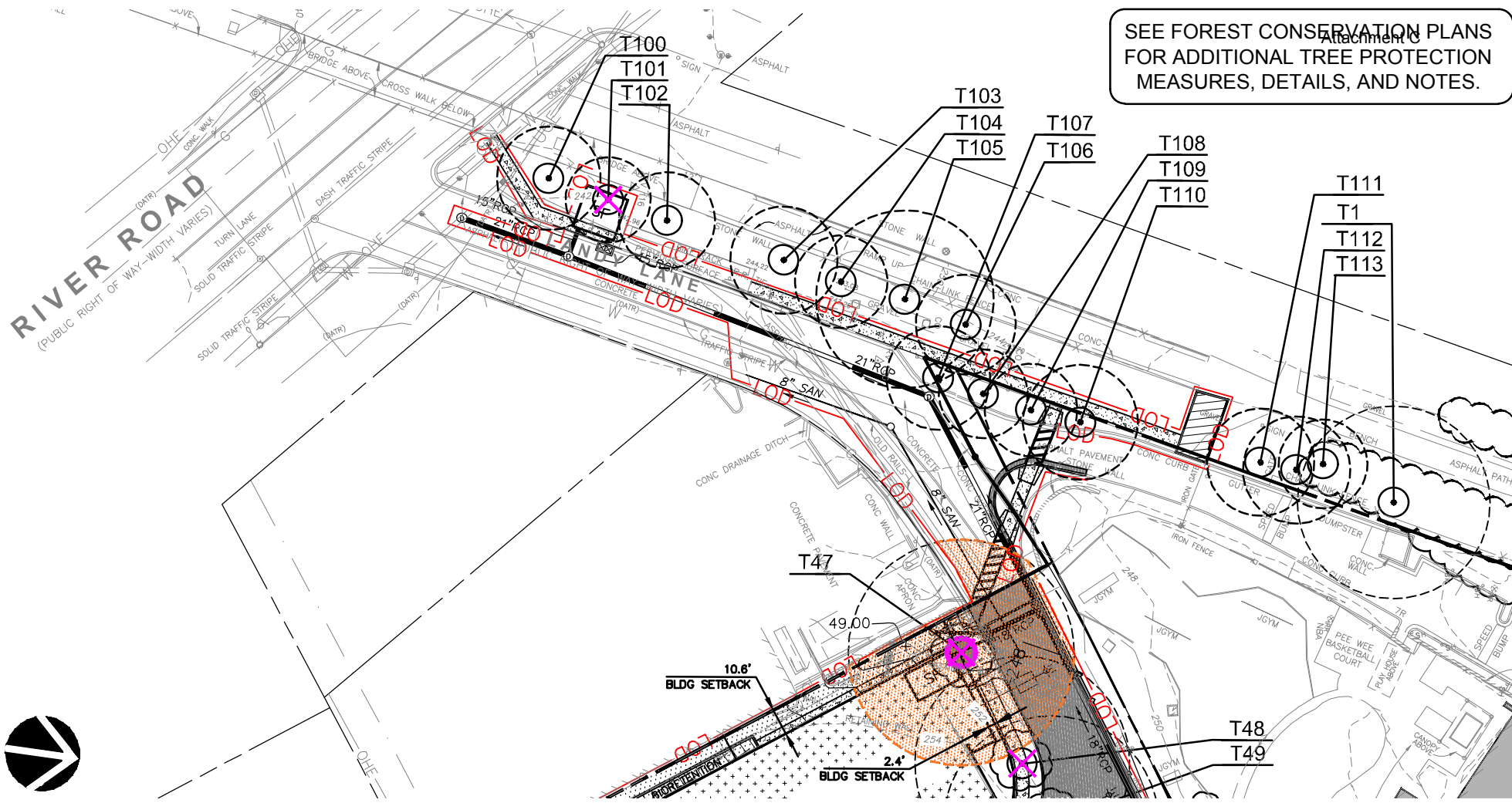
SCALE: 1" = 60'



**EXHIBIT 3
FOREST CONSERVATION VARIANCE REQUEST**



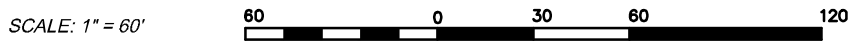
SEE FOREST CONSERVATION PLANS FOR ADDITIONAL TREE PROTECTION MEASURES, DETAILS, AND NOTES.



- SIGNIFICANT TREE (<30" DBH) WITH CRITICAL ROOT ZONE
- SIGNIFICANT TREE TO BE REMOVED

- EDGE OF CANOPY LINE
- EDGE OF FOREST/TREE STAND
- LIMITS OF DISTURBANCE

- SPECIMEN TREE ($\leq 30''$ DBH) WITH CRITICAL ROOT ZONE
- SPECIMEN TREE TO BE REMOVED
- CRZ IMPACT - SIGNIFICANT TREE TO BE REMOVED
- CRZ IMPACT - SIGNIFICANT TREE TO REMAIN



**EXHIBIT 4
FOREST CONSERVATION VARIANCE REQUEST**