



**Grosvenor BiPPA Improvements Mandatory Referral MR 2021010 and Forest Conservation Plan
A. Preliminary Forest Conservation Plan, SC2020015, for Mandatory Referral MR2021010**



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Description

Preliminary Forest Conservation Plan (PFCP) associated with construction of sidewalk improvements between Bellevue Drive and Beach Drive and sidepath improvements along the east side of MD 355 between Beach Drive and Tuckerman Lane.

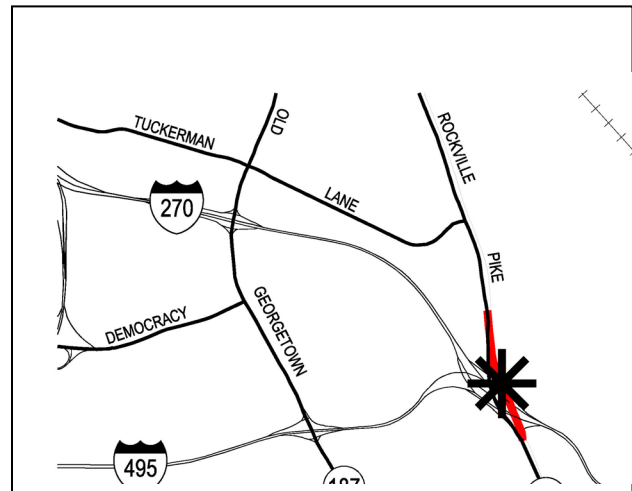
Location: Rockville Pike (MD 355) south of the Grosvenor Metro Station and north of Bellevue Drive
Master Plan: 2017 Grosvenor-Strathmore Metro Area Minor Master Plan, 1992 North Bethesda/Garrett Park Master Plan, 1990 Kensington-Wheaton Master Plan and 1990 Bethesda-Chevy Chase Master Plan areas.

Net Tract Area: 1.15 acres.

Application Accepted: April 8, 2020.

Applicant: Montgomery County Department of Transportation (MCDOT).

Completed: 2/8/21



Summary

- Staff recommends approval with conditions.
- The Applicant proposes to:
 - Clear a total of 0.34 acres of forest.
 - Remove one tree and impact but not remove one tree that requires a variance, per Section 22A 12(b)(3).
 - The one tree being impacted, but retained, is the Linden Oak, which is the County Champion White Oak tree.
- No correspondence has been received on this application.
- Pursuant to Chapter 22A, the Forest Conservation Law, the Planning Board's actions on Forest Conservation Plans are regulatory and binding.

RECOMMENDATION AND CONDITIONS

Staff recommends approval of the Preliminary Forest Conservation Plan No. SC2020015, subject to the following regulatory and binding conditions:

1. Prior to issuance of a Sediment Control Permit from the Department of Permitting Services, the Applicant must obtain approval of a Final Forest Conservation Plan from the Planning Department. The Final Forest Conservation Plan must be consistent with the approved Preliminary Forest Conservation Plan. The Final Forest Conservation Plan must be numbered with the Mandatory Referral number, MR2021010.
2. All trees credited towards variance mitigation must be at least five (5) feet away from any structures, stormwater management facilities, PIEs, PUEs, ROWs, utility lines, and/or their associated easements.
3. 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 Final Forest Conservation Plan may be required by the M-NCPPC Forest Conservation Inspector.
4. Prior to any demolition, clearing, grading or construction for this development Application, the Applicant must submit financial surety, in a form approved by Staff, to the M-NCPPC Planning Department for the 0.13 acres of new forest planting credited toward meeting the requirements of the FCP.
5. Prior to any demolition, clearing, grading or construction on the Property, the Applicant must record an M-NCPPC approved Certificate of Compliance in an M-NCPPC approved off-site forest bank, provide a fee-in lieu payment, or other means required to satisfy the remaining reforestation requirement for a total of 0.36 acres of mitigation credit, as determined at the time of Final Forest Conservation Plan approval.
6. The Limits of Disturbance on the Final Sediment Control Plan must be consistent with the final Limits of Disturbance as shown on the approved Final Forest Conservation Plan.
7. Prior to any land disturbing activities on Montgomery County Park Property, the Applicant must obtain an approved Park Construction Permit.
8. Prior to any land disturbing activities, the Applicant must hold a pre-construction meeting with the M-NCPPC Forest Conservation Inspector.
9. The Applicant must schedule the required site inspections by M-NCPPC staff per Section 22A.00.01.10 of the Forest Conservation Regulations.
10. Prior to certification of the plans, coordinate with M-NCPPC Staff on minor corrections and clarifications as necessary to reflect ongoing changes to the design of the project.

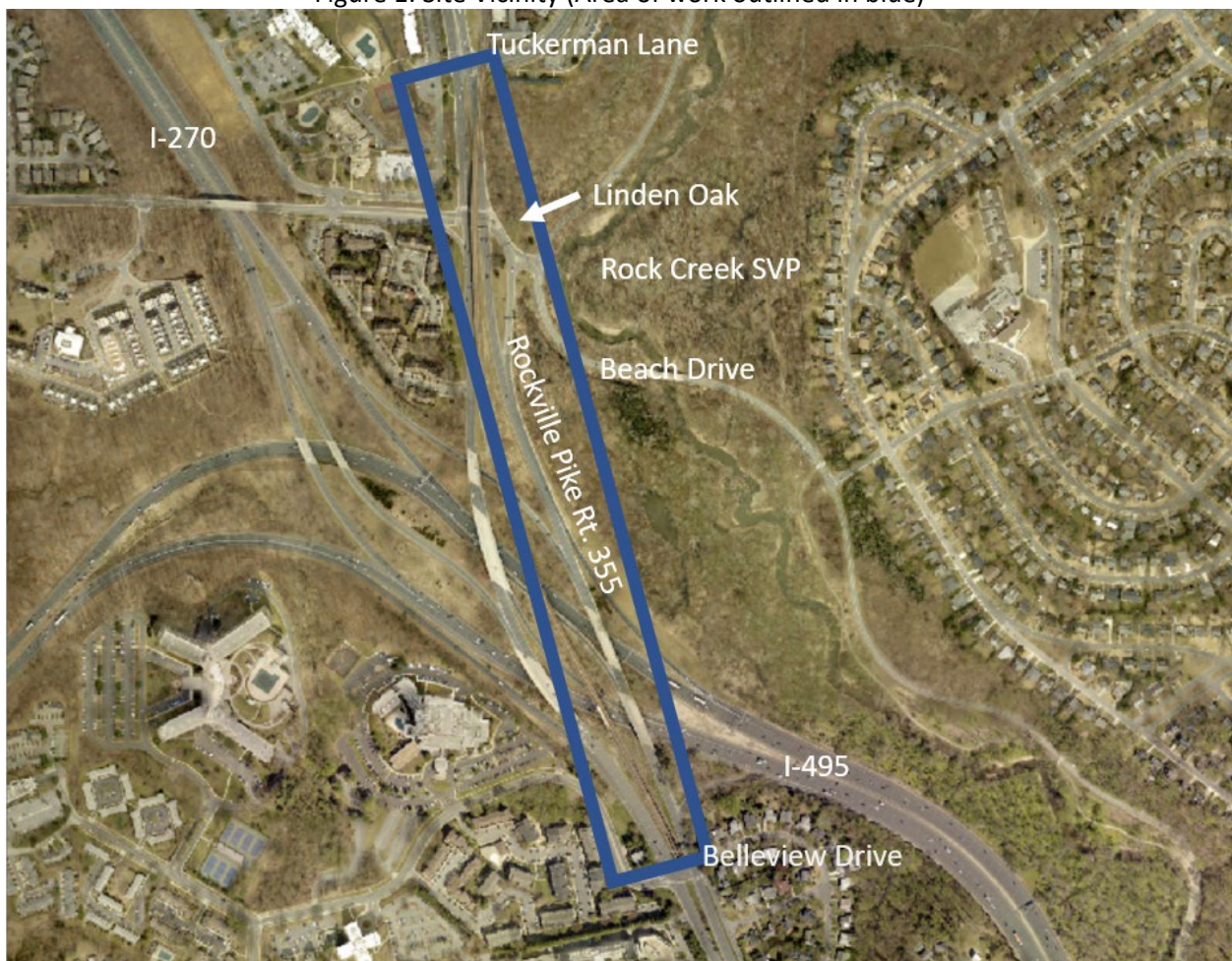
INTRODUCTION

This report consists of staff review of the Preliminary Forest Conservation Plan associated with the Mandatory Referral for the proposed sidewalk improvements along the eastern side of MD 355 between Belleview Drive and Beach Drive, and sidewalk and sidepath improvements between Beach Drive and Tuckerman Lane. While the Planning Board action on a Mandatory Referral is advisory, the Forest Conservation Plan is regulatory and binding.

Site Description and Proposed Project

The Preliminary Forest Conservation Plan is associated with disturbance necessary to construct sidewalk improvements along the east side of MD 355 between Belleview Drive and Beach Drive, and to construct sidewalk and sidepath improvements between Beach Drive and Tuckerman Lane. The approximate area where disturbance will occur is shown in Figure 1. Portions of the disturbance for this project lie within Rock Creek Stream Valley Park.

Figure 1: Site Vicinity (Area of work outlined in blue)



ANALYSIS

Environmental Guidelines

Staff approved a Natural Resource Inventory/Forest Stand Delineation (NRI/FSD #420200660) for the site on February 6, 2020. Portions of the project lie within stream buffers and the 100-year floodplain. No permanent structures will be constructed in the 100-year floodplain. The site also contains steep slopes.

The *Environmental Guidelines* state that “No buildings, structures, impervious surfaces, or activities requiring clearing or grading will be permitted in stream buffers, except for infrastructure uses, bikeways, and trails found to be necessary, unavoidable, and minimized by Park and Planning Department environmental staff working closely with the utility or lead agency.” (*Environmental Guidelines*, Section V.A.1.b)

The proposed project is being undertaken to provide safe pedestrian and bicycle movement along MD 355. The current sidewalk is narrow, contains obstacles such as utility poles, and has no buffer between the sidewalk and the roadway. MD 355 is heavily traveled in this area. Staff has worked with the applicant to minimize environmental impacts. Portions of the project lying within park land have also been reviewed by the Department of Parks. Based on our review, staff finds the project in conformance with the *Environmental Guidelines*.

Forest Conservation

The Property is subject to the Montgomery County Forest Conservation Law and the Applicant has submitted a Preliminary Forest Conservation Plan (PFCP), shown in Attachment 1. The PFCP was originally submitted as a Sediment Control PFCP before it was determined that the project required Mandatory Referral review. The PFCP and Final Forest Conservation Plan (FFCP), when approved, will provide required compliance with the Chapter 22A requirements of the Mandatory Referral for the Grosvenor Bicycle Pedestrian Priority Area (BiPPA) Improvements. When submitted, the FFCP must be renumbered with the associated Mandatory Referral, No. 2021010.

The net tract area within the Limits of Disturbance is 1.15 acres. The net tract area contains 0.34 acres of forest, which will be cleared for construction of the project. Based on the net tract area, land use designation, and forest clearing proposed, the required afforestation and reforestation mitigation is 0.49 acres.

The applicant is proposing to fulfill a portion of the mitigation with on-site reforestation. One proposed reforestation area of 0.13 acres is sufficiently large to qualify for on-site reforestation credit. Three other proposed reforestation areas of 0.01 acres, 0.02 acres, and 0.05 acres are too small to qualify for on-site reforestation credit. Reforestation areas must be at least 5,000 square feet in size (approximately 0.11 acres), and either 50 feet wide or adjacent to other forest to qualify for reforestation credit. Areas approved for mitigation credit usually must be placed in a Category I Forest Conservation Easement, but in this case, the 0.13 acres of reforestation is occurring on park property. Park areas are considered protected; therefore, no easement recordation is required.

Means of fulfillment of the remaining 0.36 acres of required reforestation will be determined at the time of Final Forest Conservation Plan approval.

Forest Conservation Variance

Section 22A-12(b)(3) of the Forest Conservation Law provides criteria that identify certain individual trees as high priority for retention and protection. The law requires a variance to impact trees that: measure 30 inches or greater diameter at breast height (DBH); are part of a historic site or designated with a 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 these trees, including removal or disturbance within the tree's 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 Applicant submitted a variance request dated January 27, 2021 for proposed impacts to specimen or champion trees (Attachment 2). As shown below in Table 1, the proposed layout will remove one tree and impact but not remove one tree that is considered high priority for retention under Section 22A-12 (b) (3) of the County Forest Conservation Law.

Table 1: Specimen Tree Summary and Variance Request

Variance Tree #	Species	D.B.H.	% of CRZ Impacted	Tree Condition	Status	Variance Request
T1	White Oak	79"	20%	Fair	Impact/Save	✓
T171	American Elm	32"	100%	Fair	Remove	✓

The Linden Oak

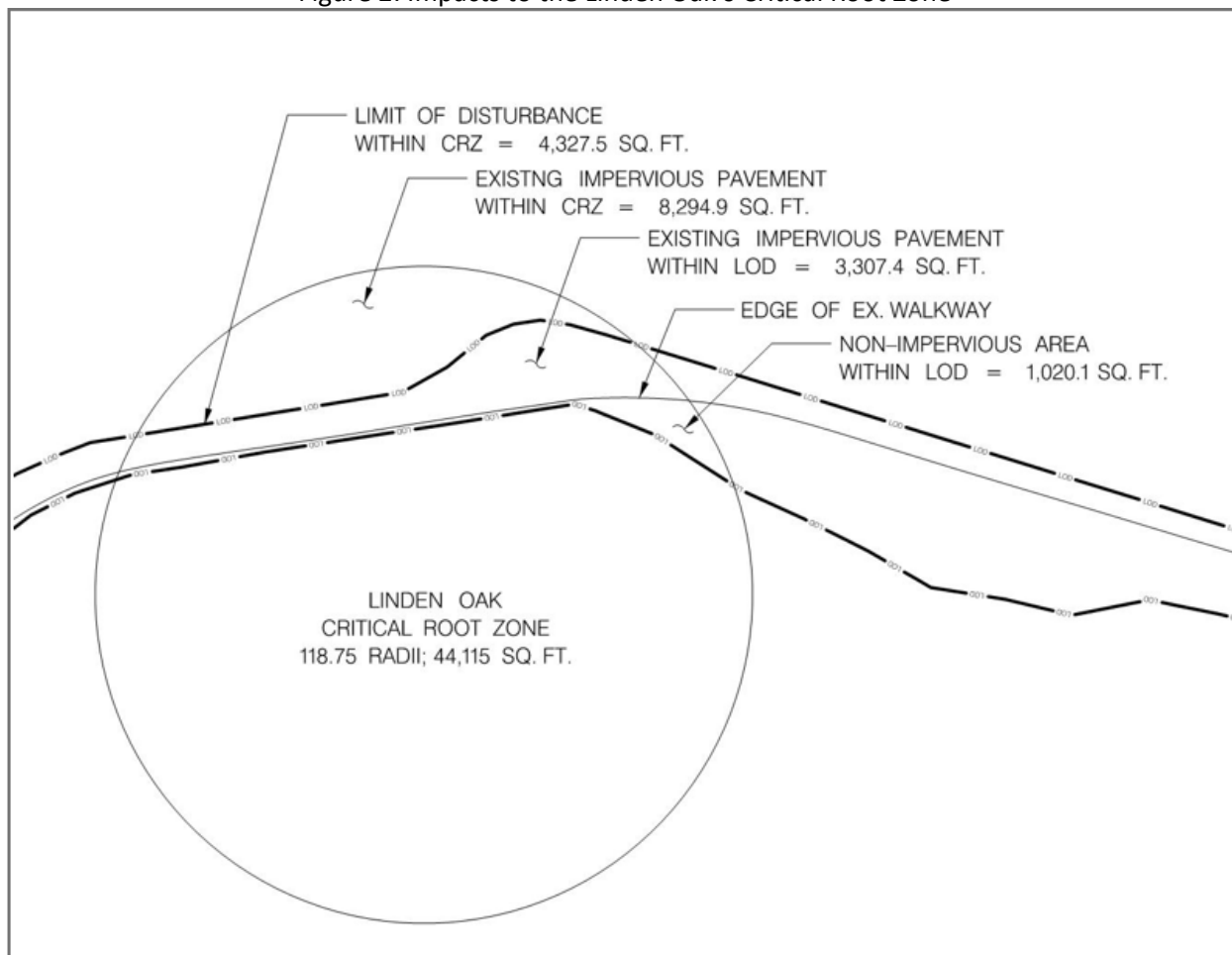
The Linden Oak is the County's Champion White Oak tree, with a diameter of 79 inches, as measured 4.5 feet above the ground. It is designated a Bicentennial Tree in recognition of the fact that it was 200 years old at the time of the nation's bicentennial in 1976. It is a historic landmark, and is marked with plaques indicating its significance, as well as honoring the late Maryland State Senator Idamae Garrott. Sen. Garrott was instrumental in preserving the tree at the time the Metrorail Red Line was being built, helping to win modifications to the Red Line's alignment to spare the tree. The tree is a noted landmark, standing on Montgomery County Park property at the intersection of Rockville Pike / MD 355, Beach Drive and Grosvenor Lane. Arborists from the Department of Parks have been caring for the tree for many years. The 2018 *Grosvenor-Strathmore Metro Area Minor Master Plan* included a recommendation to protect the critical root zone of this tree when planning any trail connections or roadway improvements. The Linden Oak has its own Wikipedia entry, available at https://en.wikipedia.org/wiki/Linden_Oak.

As described in the Applicant's variance request, the original plan proposal brought the Limits of Disturbance to within 32 feet of the trunk of the tree and included placement of up to four inches of fill over portions of the tree's root system. Staff felt that this imperiled the survival of the tree. On July 22, 2020, a meeting was convened, including staff from Montgomery Planning, Montgomery Parks, the County Arborist, staff from the Montgomery County Department of Transportation, and representatives of Stantec, a consulting firm working on the project design. Alternative designs were discussed, including the use of helical piers to create an elevated extension of the existing at-grade sidewalk to minimize damage to the tree's critical root zone. Ultimately, the Applicant redesigned the project to hold the existing sidewalk edge and repurpose existing road pavement to accommodate the sidewalk and sidepath improvements. While the circular Critical Root Zone (CRT) of the tree is still technically within a portion of the limits of disturbance, that portion of the CRZ has been paved over for many years

and is not likely to contain many significant tree roots. Staff of all agencies agreed that the new design minimizes potential harm to the tree's roots system. The new design has also been approved by MCDOT and SHA.

Figure 2 is a graphic representation of the impacts to the CRZ of the tree, taken from the Applicant's variance request.

Figure 2: Impacts to the Linden Oak's Critical Root Zone



Unwarranted Hardship for Variance Tree Impacts

Per Section 22A-21, a variance may only be granted if the Planning Board finds that leaving the requested trees in an undisturbed state will result in unwarranted hardship. The Applicant is seeking to fulfill a significant public need while minimizing disturbance to park land and important natural resources. In addition to the disturbance to the critical root zone of the Linden Oak, one additional specimen tree, a 32-inch diameter American elm tree, is within the Limits of Disturbance just north of the I-495 ramp from Rockville Pike / MD 355, and it must be removed to allow construction of the sidewalk improvements. Denial of the variance would prevent construction of these improvements to increase the safety of pedestrian and bicycle facilities along a busy roadway. Staff therefore finds that denial of the variance would constitute an unwarranted hardship to the Applicant.

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 determinations in the review of the variance request and the proposed Preliminary Forest Conservation Plan:

Variance Findings

The following findings are required for the Planning Board to approve the variance request:

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

Granting this variance will not confer a special privilege on the Applicant as removal of and disturbance to the specified trees is necessary to construct safety improvements to pedestrian and bicycle transportation facilities.

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

The requested variance is not based on conditions or circumstances that are the result of actions by the Applicant. The Applicant has minimized disturbance, including substantially redesigning part of the project to minimize harm to the County Champion white oak tree.

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

The requested variance is a result of the location of trees near existing roadways and sidewalks, and not a result of characteristics or conditions of land or building use on a neighboring property.

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

The variance will not violate State water quality standards or cause measurable degradation in water quality. One specimen tree is being retained and will continue to function to protect water quality as before. The tree being removed is part of a forest removal that requires mitigation by planting new forest to replace the forest lost. This new forest will provide water quality functions that will replace the lost functions of the tree removed. Therefore, Staff concurs that the project will not violate State water quality standards or cause measurable degradation in water quality.

Mitigation for Trees Subject to the Variance Provisions

The Applicant is requesting a variance to impact two specimen trees, one of which will be removed as part of a forest removal. Because the forest removal is being mitigated, the tree removal does not require separate mitigation. No mitigation is required for the tree being impacted but retained.

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 County Arborist has approved the redesign of the project to minimize damage to the Linden Oak.

Staff recommends that the variance be granted.

CONCLUSION

The proposed Preliminary Forest Conservation Plan meets the requirements of Chapter 22A Forest Conservation Law and is in conformance with the *Environmental Guidelines*. Therefore, Staff recommends that the Planning Board approve the Preliminary Forest Conservation Plan and associated variance, with the conditions listed in this Staff Report.

Attachments

1. Preliminary Forest Conservation Plan
2. Variance Tree request

MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION GROSVENOR IMPROVEMENTS

PRELIMINARY FOREST CONSERVATION PLAN MD 355 (ROCKVILLE PIKE) FROM POOKS HILL RD TO STRATHMORE AVE CIP PROJECT NO. 501532

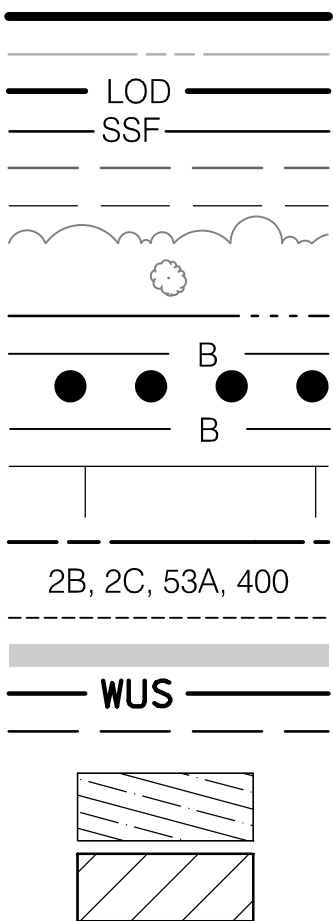
LEGEND

SHA RIGHT-OF-WAY
PROPERTY LINE
LIMIT OF DISTURBANCE
SUPER SILT FENCE
EXISTING MAJOR CONTOUR
EXISTING MINOR CONTOUR
EXISTING TREE LINE
EXISTING TREE
STREAM
STREAM BUFFER
WETLAND
WETLAND BUFFER
EXISTING 100 FT FLOODPLAIN

SOILS BOUNDARY
SOILS SYMBOL
CRITICAL ROOT ZONE
SLOPES > 25%
WATERS OF THE US
STUDY AREA

M-NCPPC UPLAND REFORESTATION

M-NCPPC FOREST TO BE REMOVED



FOREST CONSERVATION WORKSHEET

FOREST CONSERVATION WORKSHEET M-NCPPC PROPERTY

NET TRACT AREA:

A. Total tract area ...	1.15
B. Land dedication acres (parks, county facility, etc.) ...	0.00
C. Land dedication for roads or utilities (not being constructed by this plan) ...	0.00
D. Area to remain in commercial agricultural production/use ...	0.00
E. Other deductions (specify)	0.00
F. Net Tract Area	1.15

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 =	0.17
H. Conservation Threshold ...	20%	x F =	0.23

EXISTING FOREST COVER:

I. Existing forest cover	0.34
J. Area of forest above afforestation threshold	0.17
K. Area of forest above conservation threshold	0.11

BREAK EVEN POINT:

L. Forest retention above threshold with no mitigation	0.25
M. Clearing permitted without mitigation	0.09

PROPOSED FOREST CLEARING:

N. Total area of forest to be cleared	0.34
O. Total area of forest to be retained	0.00

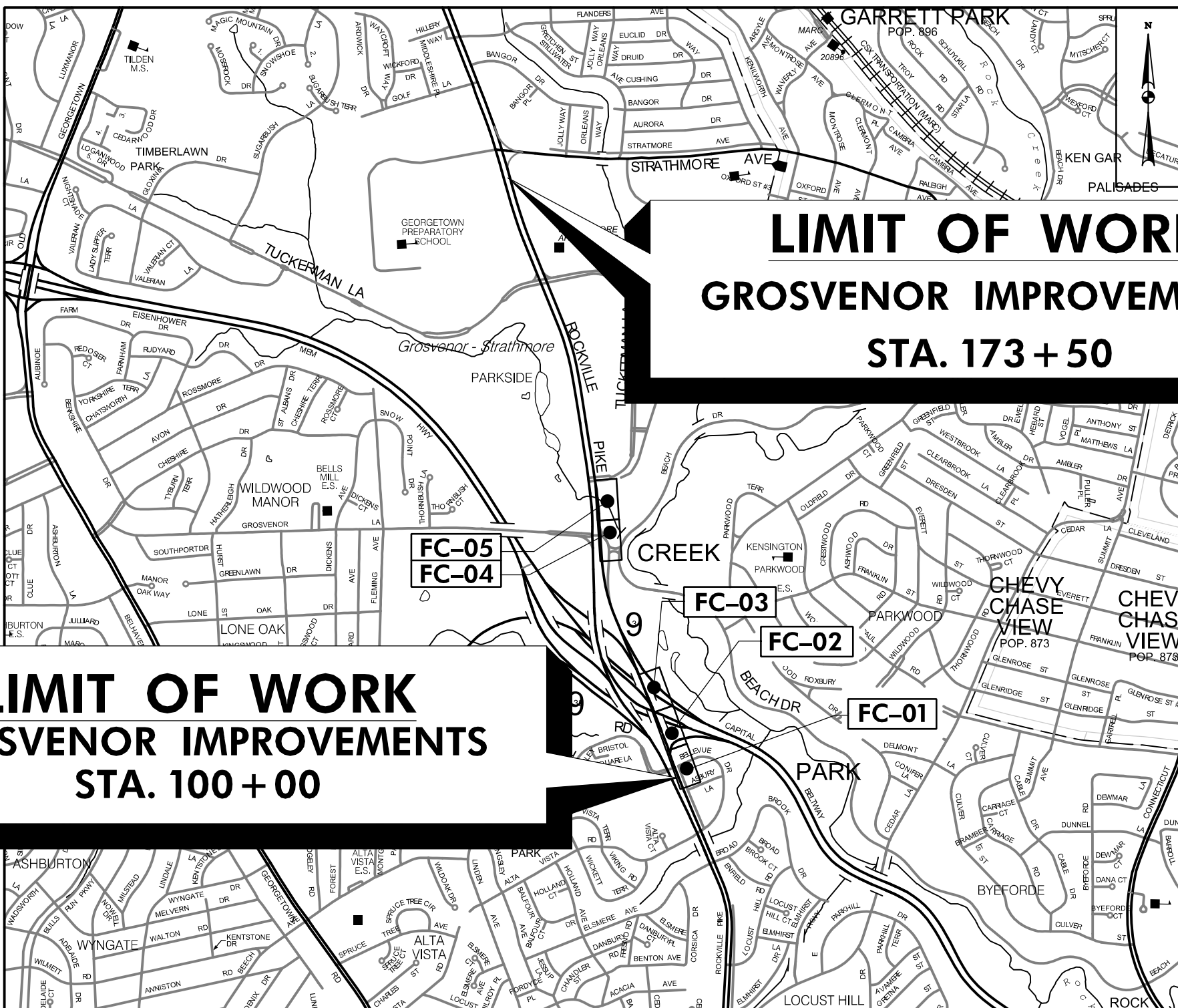
PLANTING REQUIREMENTS:

P. Reforestation for clearing above conservation threshold	0.03
Q. Reforestation for clearing below conservation threshold	0.46
R. Credit for retention above conservation threshold	0.00
S. Total reforestation required	0.49
T. Total afforestation required	0.00
U. Credit for landscaping (may not exceed 20% of "S")	0.00
V. Total reforestation and afforestation required	0.49

worksheet updated 8/5/2002

LIMIT OF WORK GROSVENOR IMPROVEMENTS STA. 100 + 00

LIMIT OF WORK GROSVENOR IMPROVEMENTS STA. 173 + 50



KEY AND VICINITY MAP SCALE: 1" = 1500'

LENGTH OF PROJECT:
MD 355 = 1.50 miles

SOILS MAP UNIT

MAP UNIT SYMBOL	MAP UNIT NAME	HYDRIC SOILS	ERODIBLE SOILS
2B	GLENELG SILT LOAM 3 TO 8% SLOPES	NO	NO
2C	GLENELG SILT LOAM 8 TO 15% SLOPES	NO	NO
53A	CODORUS SILT LOAM 0 TO 3% SLOPES OCCASIONALLY FLOODED	NO	NO
400	URBAN LAND	NO	NO

SHEET INDEX

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FC DETAIL SHEET.....	FC-07

FOREST CONSERVATION NOTES

1. THIS FOREST CONSERVATION PLAN HAS BEEN PREPARED AS A PART OF THE REQUIREMENTS OF THE STATE FOREST CONSERVATION ACT AND MONTGOMERY COUNTY FOREST CONSERVATION LAW, CHAPTER 22A, FOR MONTGOMERY COUNTY DIVISION OF TRANSPORTATION ENGINEERING DEPARTMENT OF TRANSPORTATION BICYCLE AND PEDESTRIAN PRIORITY AREAS (BIPPA) PROJECT FOR GROSVENOR IMPROVEMENTS.

2. PROJECT PROVIDES SIDEWALKS AND STORMWATER MANAGEMENT FOR ROCKVILLE PIKE (MD 355) FROM POOKS HILL ROAD TO STRATHMORE AVENUE.

3. THIS IS A LINEAR PROJECT LOCATED ON MD 355 ROW AND M-NCPPC AND MCDOT PROPERTIES, ZONED R-60. THE LIMIT OF DISTURBANCE (LOD) IS 1.15 ACRES. FOREST TO BE REMOVED IS 0.34 ACRES. THIS AREA IS CATEGORY USE IDA WITH A CONSERVATION THRESHOLD OF 20%. THE REFORESTATION REQUIREMENT IS 0.49 ACRES, THE REFORESTATION PROVIDED IS 0.21 ACRES.

4. A NATURAL RESOURCE INVENTORY /FOREST STAND DELINEATION PLAN SNRI-420200660 WAS APPROVED BY THE MONTGOMERY PLANNING DEPARTMENT ON 02/06/2020.

5. THIS PROJECT IS LOCATED WITHIN THE LUXMANOR BRANCH WATERSHED WHICH DRAINS INTO LOWER ROCK CREEK. THE WATERSHED USE CLASS IS USE-I.

6. THIS PROJECT IS NOT WITHIN SPECIAL PROTECTION AREA (SPA) OR THE PATUXENT RIVER WATERSHED PRIMARY MANAGEMENT AREA (PMA).

7. THERE ARE TWO PERENNIAL STREAMS ADJACENT TO THE PROJECT LIMITS. THE ROCK CREEK STREAM BUFFER IS ALSO SHOWN.

8. FLOODPLAIN IS SHOWN PER MONTGOMERY COUNTY FLOODPLAIN MAPPING AND FEMA MAP 24031C0365D.

9. THERE ARE SLOPES 25% OR GREATER AND NO ERODIBLE SOILS ON SITE.

10. A WETLAND INVESTIGATION WAS PERFORMED BY STANTEC, NICK VOLLENTINE, ENVIRONMENTAL SCIENTIST, ON AUGUST 22, 2019, BASED ON THE RESULTS OF THE INVESTIGATION, WETLANDS AND WETLAND BUFFERS ARE ABSENT FROM THE LIMIT OF DISTURBANCE.

11. AN OFFICIAL LIST OF RARE, THREATENED AND ENDANGERED SPECIES THAT MAY OCCUR WITHIN THE PROJECT LIMITS WAS RECEIVED FROM THE U.S. FISH AND WILDLIFE SERVICE (USFWS) ON JULY 31, 2019. THE LIST INCLUDED THE NORTHERN LONG-EARED BAT (MYOTIS SEPTENTRIONALIS). NO OTHER RTE SPECIES OR CRITICAL HABITATS WERE LISTED.

12. MARYLAND'S ENVIRONMENTAL RESOURCES AND LAND INFORMATION NETWORK (MERLIN) SHOWED NO CULTURAL FEATURES OR HISTORIC SITES WITHIN THE PROJECT AREA.

13. FIELD RESEARCH FOR THIS NRIFSD WAS PERFORMED BY NICK VOLLENTINE AND KATHLEEN DAHILL ON JULY 31, 2019.

14. TREES WITHIN THE PROJECT AREA WERE MEASURED USING A TREE DIAMETER MEASURING TAPE.

15. DIAMETER AT BREAST HEIGHT (DBH) - TREE DIAMETER (DBH) MEASURED IN INCHES AT 4.5 FEET ABOVE THE GROUND.

16. CRITICAL ROOT ZONE (CRZ) - A CIRCULAR REGION MEASURED OUTWARD FROM A TREE TRUNK REPRESENTING THE AREA OF THE ROOTS THAT MUST BE MAINTAINED OR PROTECTED FOR THE TREE'S SURVIVAL. IT IS CALCULATED ONE FOOT OF RADIAL DISTANCE FOR EVERY INCH OF TREE DIAMETER (DBH), WITH A MINIMUM RADIUS OF 8 FEET. FOR SPECIMEN TREES THE CRITICAL ROOT ZONE IS 1.5 FEET FOR EVERY INCH OF TREE DIAMETER.

Forest Conservation Data Table - Limit of Disturbance (LOD)

	Number of Acres
Tract	1.15
Remaining in Agricultural Use	-
Road & Utility ROWs ¹	-
Total Existing Forest	0.34
Forest Retention	-
Forest Cleared	0.34

Land Use & Thresholds²

Land Use Category	IDA	ARA, MDR, IDA, HDR, MPD, or CIA
Conservation Threshold	20%	percent
Afforestation Threshold	15%	percent

Total Channel Length Average Buffer Width

Stream(s)	(ft.)	(ft.) ³
-	-	125

Acres of Forest in	Retained	Cleared	Planted
Wetlands	-	-	-
100-Year Floodplain	-	-	-
Stream Buffers	-	0.34	0.21
Priority Areas	-	0.34	0.21

DEVELOPER'S CERTIFICATE

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

Developer's Name: _____
Contact Person or Owner: _____
Address: _____
Phone and Email: _____
Signature: _____

APPLICANT:

MR. ROBERT GONZALES
100 EDISON PARK DRIVE, GAITHERSBURG, MD 20878

I HEREBY CERTIFY THAT THIS FOREST CONSERVATION PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE MARYLAND FOREST CONSERVATION ACT OF 1991 AND THE MONTGOMERY COUNTY TREES TECHNICAL MANUAL, EFFECTIVE JULY 1, 1992.

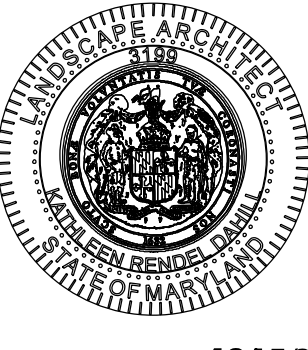
SIGNATURE: Kathleen R. Dahill
KATHLEEN DAHILL
REGISTERED LANDSCAPE ARCHITECT
#3190

DEPARTMENT OF TRANSPORTATION DIVISION OF TRANSPORTATION ENGINEERING MONTGOMERY COUNTY, MARYLAND

TITLE SHEET GROSVENOR IMPROVEMENTS

SCALE: N.T.S.

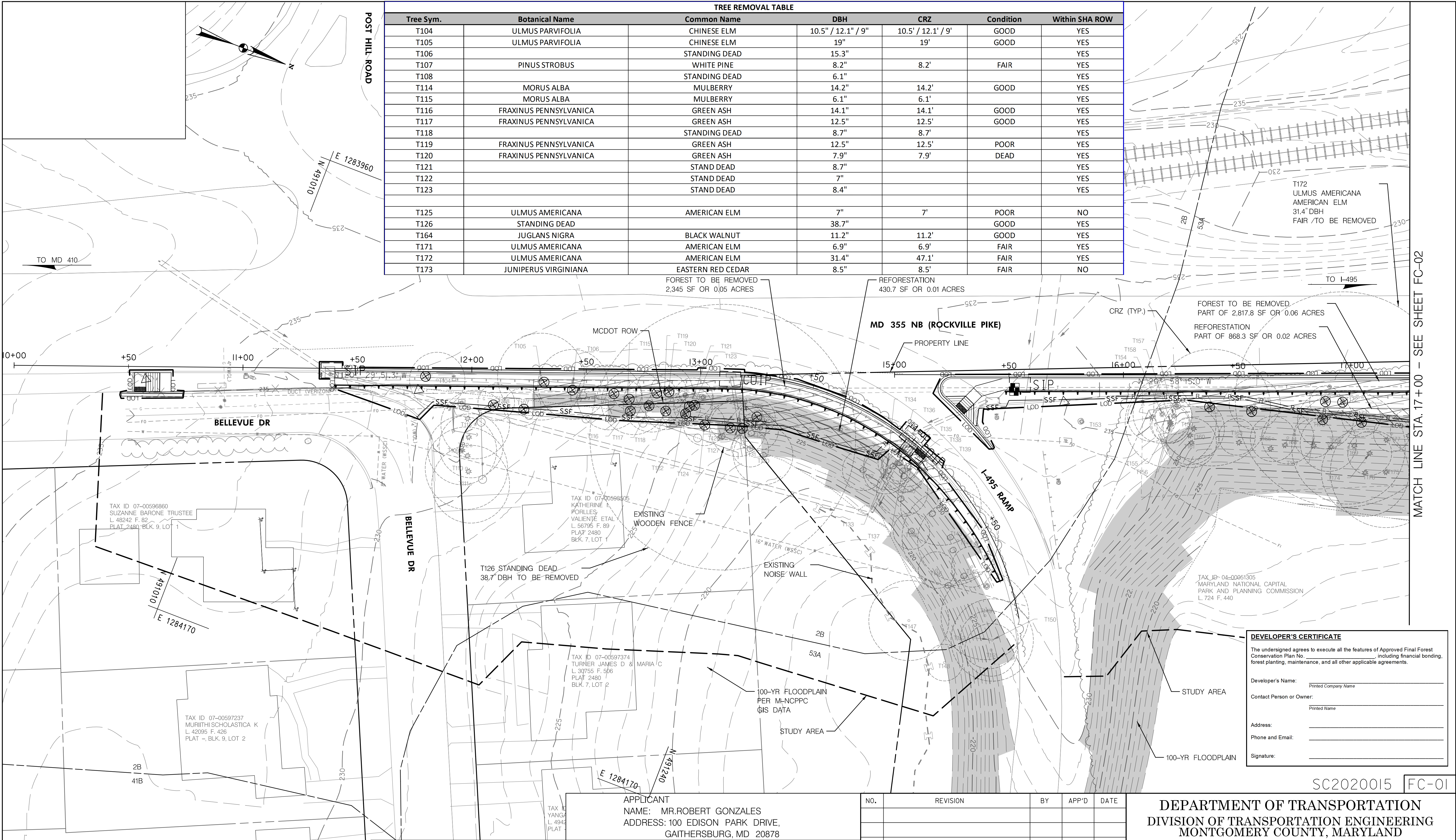
SHEET 1 of 7



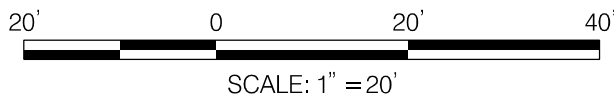
12/15/2020

NO.	REVISION	BY	APP'D	DATE

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NOTES:
1. LOCATION OF TEMPORARY ORANGE CONSTRUCTION FENCE AND ROOT PRUING ARE SHOWN ON THE PLAN AS AN OFFSET FROM THE LIMIT OF DISTURBANCE (LOD) FOR GRAPHIC PURPOSES ONLY, FENCE AND ROOT PRUING OPERATIONS SHALL BE LOCATED AT LOD LINE.



6110 Frost Pl
Laurel, MD 20707
www.stantec.com



9/02/2020

APPLICANT
NAME: MR. ROBERT GONZALES
ADDRESS: 100 EDISON PARK DRIVE,
GAITHERSBURG, MD 20878

NO.	REVISION	BY	APP'D	DATE

DEPARTMENT OF TRANSPORTATION
DIVISION OF TRANSPORTATION ENGINEERING
MONTGOMERY COUNTY, MARYLAND

FOREST CONSERVATION PLAN
GROSVENOR IMPROVEMENTS

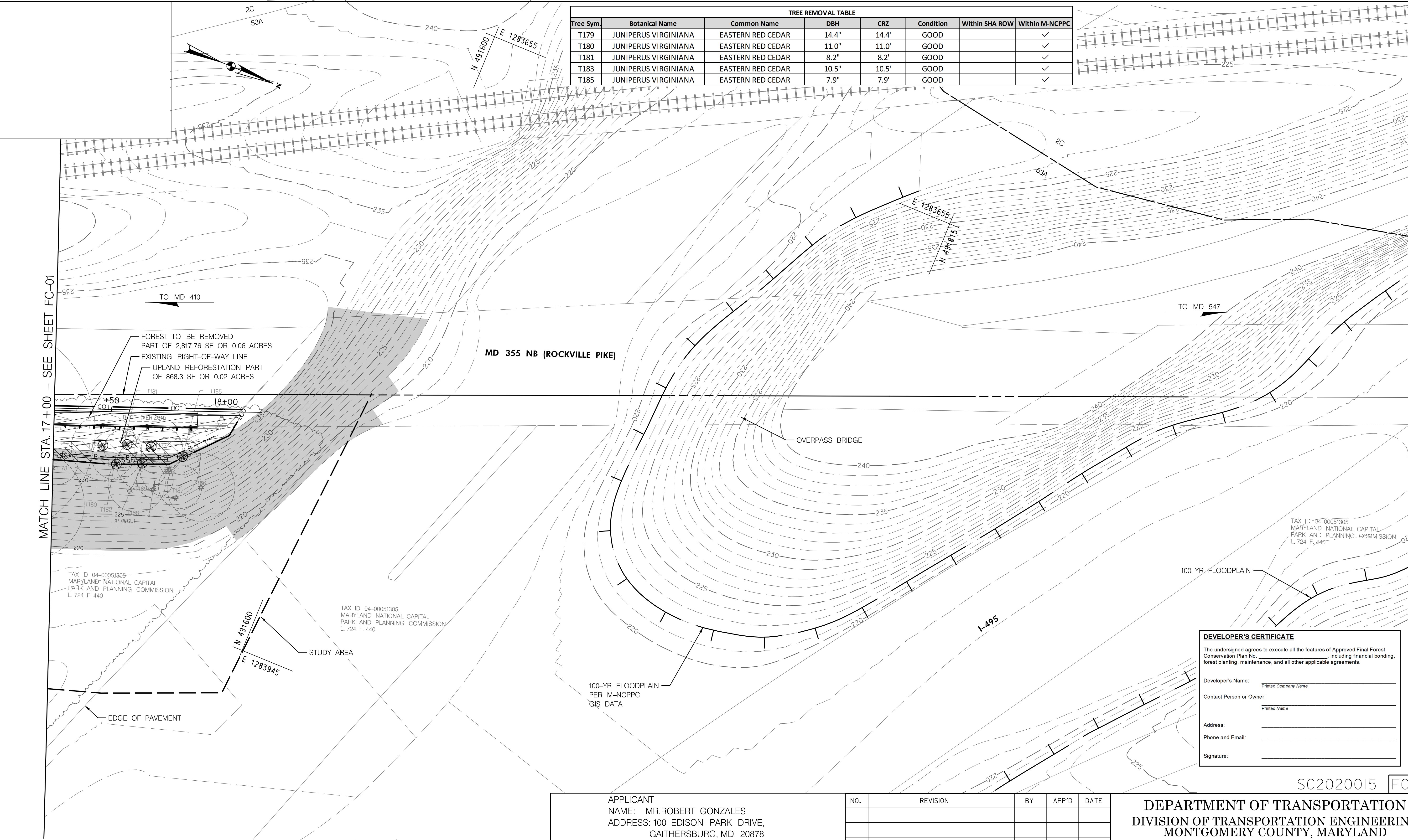
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SHEET 2 of 7

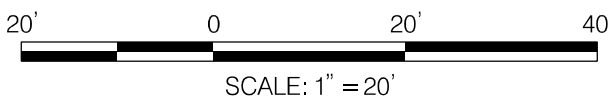
MATCH LINE STA. 17+00 - SEE SHEET FC-02

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TREE REMOVAL TABLE							
Tree Sym.	Botanical Name	Common Name	DBH	CRZ	Condition	Within SHA ROW	Within M-NCPPC
T179	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	14.4"	14.4'	GOOD		✓
T180	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	11.0"	11.0'	GOOD		✓
T181	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	8.2"	8.2'	GOOD		✓
T183	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	10.5"	10.5'	GOOD		✓
T185	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	7.9"	7.9'	GOOD		✓



NOTES:
1. LOCATION OF TEMPORARY ORANGE CONSTRUCTION FENCE AND ROOT PRUING ARE SHOWN ON THE PLAN AS AN OFFSET FROM THE LIMIT OF DISTURBANCE (LOD) FOR GRAPHIC PURPOSES ONLY, FENCE AND ROOT PRUING OPERATIONS SHALL BE LOCATED AT LOD LINE.





Stantec
6110 Frost Pl
Laurel, MD 20707
www.stantec.com





9/02/2020

NO.	REVISION	BY	APP'D	DATE

DEPARTMENT OF TRANSPORTATION
DIVISION OF TRANSPORTATION ENGINEERING
MONTGOMERY COUNTY, MARYLAND

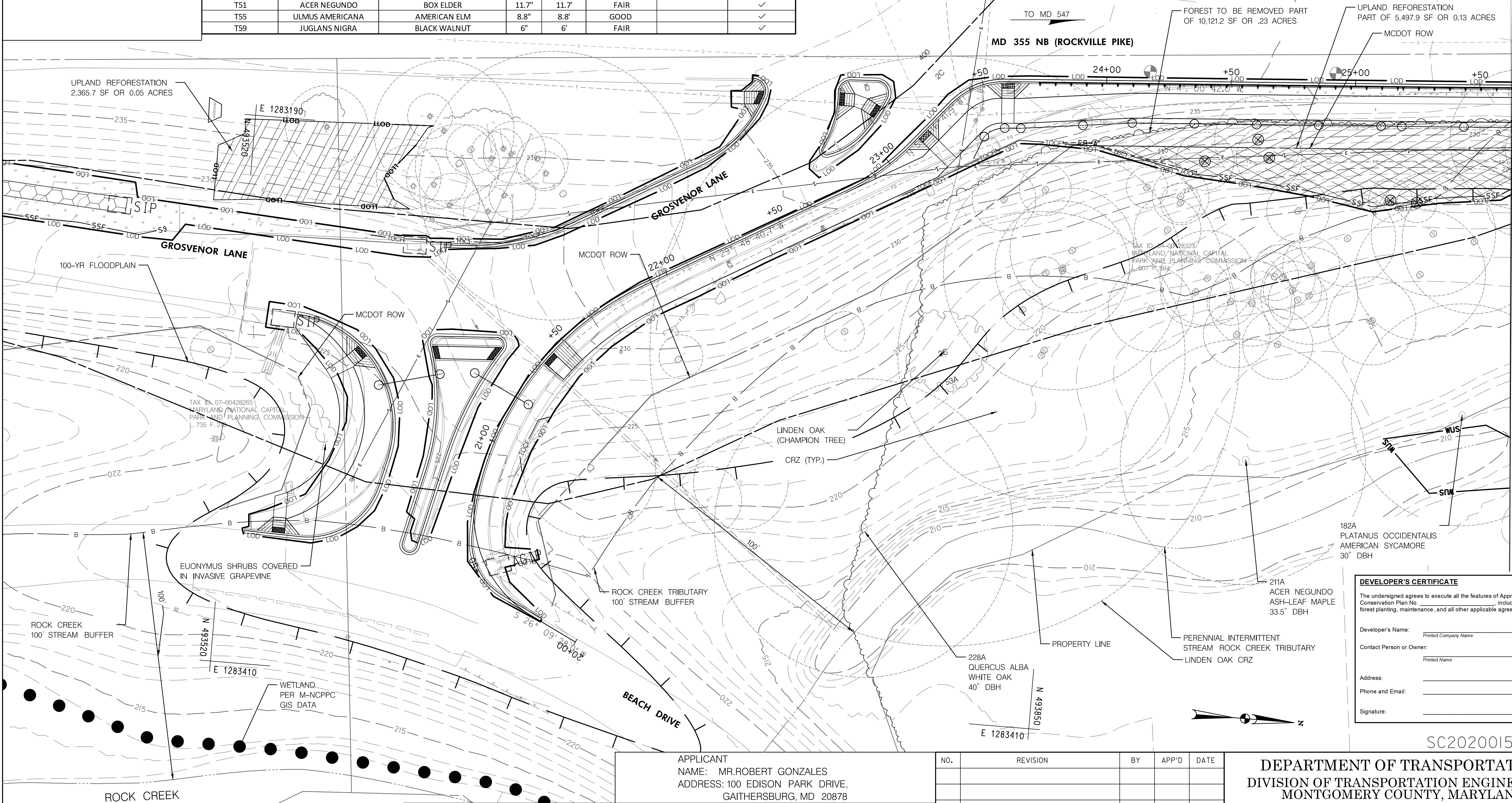
FOREST CONSERVATION PLAN
GROSVENOR IMPROVEMENTS

SCALE: 1"=20'

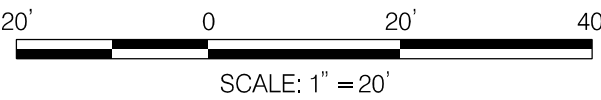
SHEET 3 of 7

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CHAMPION TREE TABLE							
Tree Sym.	Botanical Name	Common Name	DBH	CRZ	Condition	Within SHA ROW	Within M-NCPPC
T1	WHITE OAK	QUERCUS ALBA	79"	118.5'	FAIR		✓
TREE REMOVAL TABLE							
Tree Sym.	Botanical Name	Common Name	DBH	CRZ	Condition	Within SHA ROW	Within M-NCPPC
T31	ACER NEGUNDO	BOX ELDER	12.8"	12.8'	GOOD		✓
T32	ACER NEGUNDO	BOX ELDER	10.4"	10.4'	GOOD		✓
T49		STANDING DEAD	13.2"	13.2'			✓
T50	ACER NEGUNDO	BOX ELDER	17.5'	17.5'	GOOD	✓	
T51	ACER NEGUNDO	BOX ELDER	11.7"	11.7'	FAIR		✓
T55	ULMUS AMERICANA	AMERICAN ELM	8.8"	8.8'	GOOD		✓
T59	JUGLANS NIGRA	BLACK WALNUT	6"	6'	FAIR		✓



NOTES:
1. LOCATION OF TEMPORARY ORANGE CONSTRUCTION FENCE AND ROOT PRUING ARE SHOWN ON THE PLAN AS AN OFFSET FROM THE LIMIT OF DISTURBANCE (LOD) FOR GRAPHIC PURPOSES ONLY, FENCE AND ROOT PRUING OPERATIONS SHALL BE LOCATED AT LOD LINE.





Stantec
6110 Frost Pl
Laurel, MD 20707
www.stantec.com





12/15/2020

NO.	REVISION	BY	APP'D	DATE

DEPARTMENT OF TRANSPORTATION
DIVISION OF TRANSPORTATION ENGINEERING
MONTGOMERY COUNTY, MARYLAND

FOREST CONSERVATION PLAN
GROSVENOR IMPROVEMENTS

SCALE: 1"=20'

SHEET 4 of 7

DEVELOPER'S CERTIFICATE

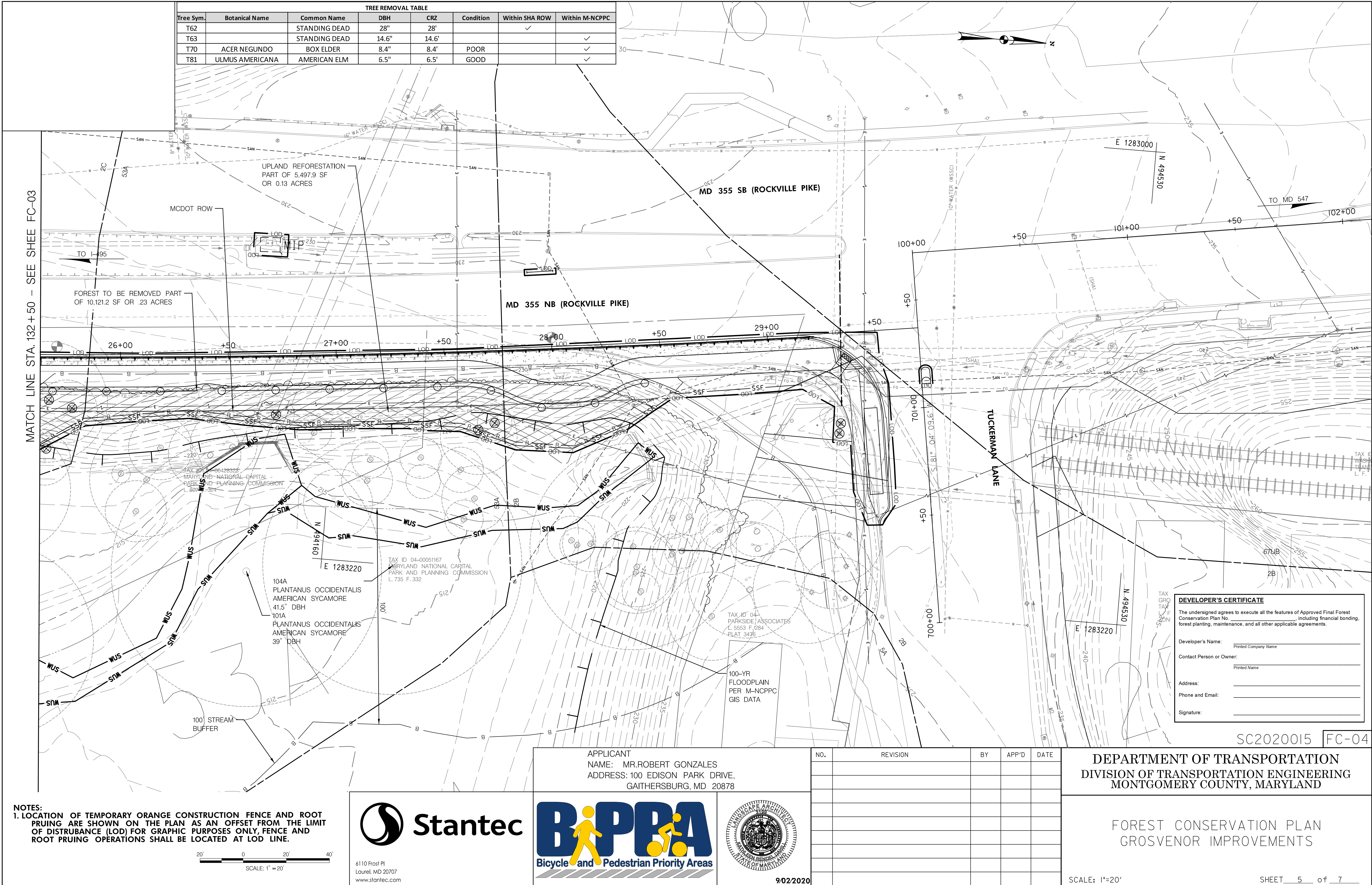
The undersigned agrees to execute all the features of Approved Final Forest Conservation Plan No. _____ including financial bonding, forest planting, maintenance, and all other applicable agreements.

Developer's Name: _____
Contact Person or Owner: _____
Address: _____
Phone and Email: _____
Signature: _____

SC2020015 FC-03

MATCH LINE STA. 132+50 - SEE SHEET FC-04

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9/02/2020

DEPARTMENT OF TRANSPORTATION
DIVISION OF TRANSPORTATION ENGINEERING
MONTGOMERY COUNTY, MARYLAND

FOREST CONSERVATION PLAN
GROSVENOR IMPROVEMENTS

SCALE: 1"=20'

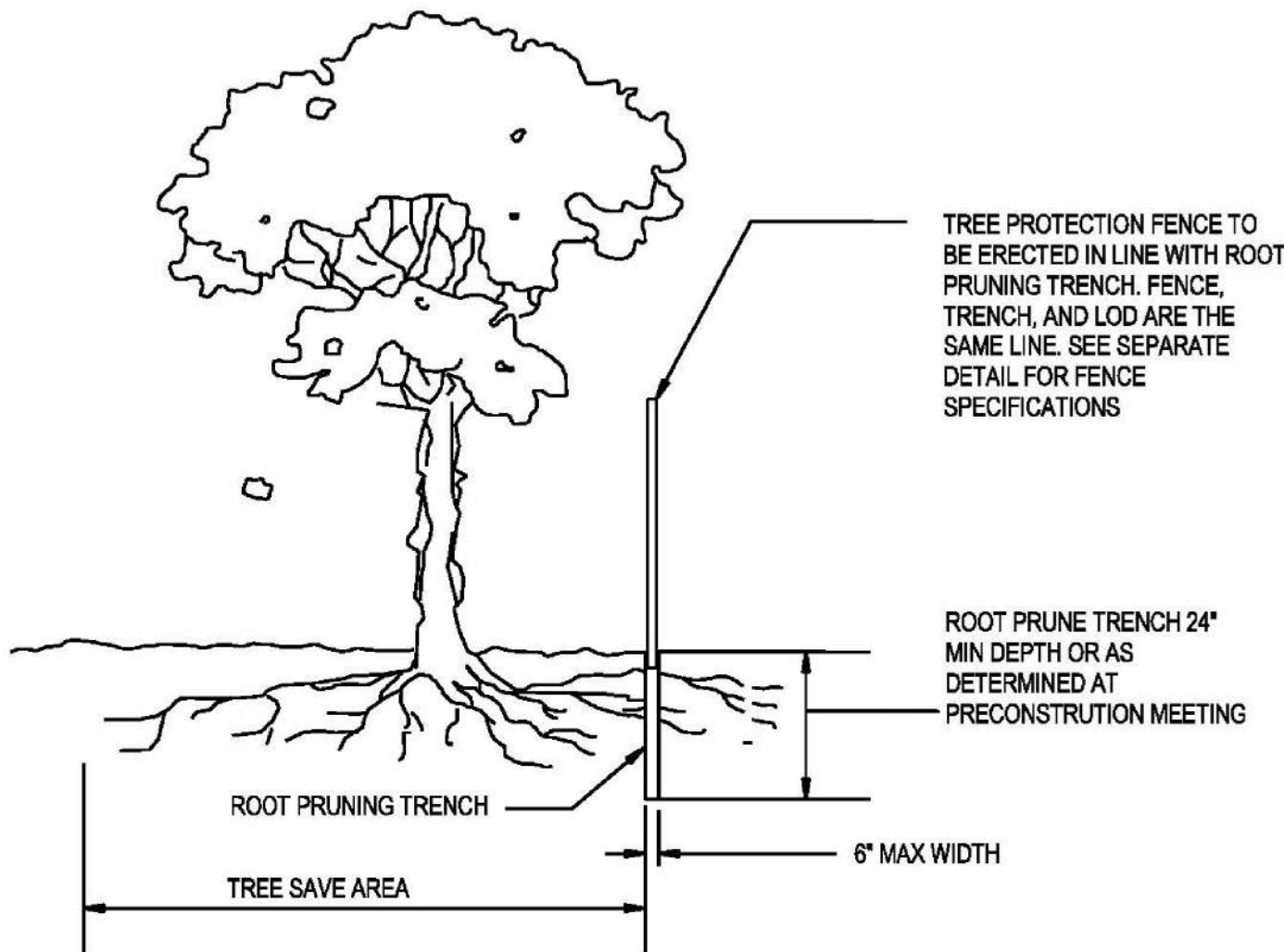
SHEET 5 of 7

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UPLAND REFORESTATION PLANT SCHEDULE							OVERALL QTY. TREES / SHRUBS PER ACRE: 250 / 200				
UPLAND REFORESTATION PLANTINGS (UR)							TOTAL TREES / SHRUBS PER ZONE: 53 / 42				
							TOTAL ZONE SIZE (ACRES): 0.21				
QUANTITY	FC-01 QTY	FC-02 QTY	FC-03 QTY	FC-04 QTY	DESCRIPTION		ROOT TYPE	MINIMUM CONTAINER SIZE ¹	SIZE OR HEIGHT	MAXIMUM SPACING	NOTES
53	10	3	15	14	BOTANICAL NAME	COMMON NAME ³					
60%					OVERSTORY TREES 1.25"						
8	2	0	2	4	<i>Quercus alba</i>	White Oak	CONT.	#5	5 FT. HT.	30 FT. ON CENTER	Central Leader
9	2	1	2	4	<i>Quercus velutina</i>	Black Oak	CONT.	#5	5 FT. HT.	30 FT. ON CENTER	Central Leader
9	2	1	2	4	<i>Liriodendron tulipifera</i>	Tuliptree	CONT.	#5	5 FT. HT.	30 FT. ON CENTER	Central Leader
8	2	1	2	3	<i>Nyssa sylvatica</i>	Blackgum	CONT.	#5	5 FT. HT.	30 FT. ON CENTER	Central Leader
30%					UNDERSTORY TREES - 1.25"						
8	1	0	3	4	<i>Cercis canadensis</i>	Eastern Redbud	CONT.	#5	5 FT. HT.	12 FT. ON CENTER	Multi-stem
6	1	0	2	3	<i>Amelanchier arborea</i>	Downy Serviceberry	CONT.	#5	5 FT. HT.	12 FT. ON CENTER	Tree form or multi-stem
10%					EVERGREEN TREES 1.25"						
4	0	0	2	2	<i>Pinus virginiana</i>	Virginia Pine	CONT.	#5	5 FT. HT.	20 FT. ON CENTER	Central Leader
1	0	0	0	1	<i>Pinus strobus</i>	White Pine	CONT.	#5	6 FT. HT.	20 FT. ON CENTER	Central Leader
100%					SHRUBS 24" HT						
14	2	1	4	7	<i>Hammamelis virginiana</i>	Witchhazel	CONT.	#3	24 IN. HT.	5 FT. ON CENTER	
10	2	0	4	4	<i>Vaccinium corymbosum</i>	Highbush Blueberry	CONT.	#3	24 IN. HT.	5 FT. ON CENTER	
13	3	1	5	4	<i>Viburnum acerfolium</i>	Mapleleaf Viburnum	CONT.	#3	24 IN. HT.	5 FT. ON CENTER	
3	0	0	0	3	<i>Rhus glabra</i>	Smooth Sumac	CONT.	#3	24 IN. HT.	5 FT. ON CENTER	Edge Planting
3	0	0	0	3	<i>Viburnum acerfolium</i>	Mapleleaf Viburnum	CONT.	#3	24 IN. HT.	5 FT. ON CENTER	

INDEX OF EXISTING 24" OR GREATER DBH TREES

Tree ID	Common Name	Scientific Name	DBH	Condition	Location
T1	WHITE OAK	QUERCUS ALBA	79"	FAIR	M-NCPPC
T5	WHITE OAK	QUERCUS ALBA	26.5"	GOOD	M-NCPPC
T10	PIN OAK	QUERCUS PALUSTRIS	28.2"	GOOD	SHA ROW
T21	WHITE OAK	QUERCUS ALBA	36"	GOOD	SHA ROW
T24	TULIP TREE	LIRIODENDRON TULIPIFERA	13.4"/38.5"	GOOD	M-NCPPC
T25	TULIP TREE	LIRIODENDRON TULIPIFERA	28.3"	GOOD	M-NCPPC
T26	TULIP TREE	LIRIODENDRON TULIPIFERA	27"	GOOD	M-NCPPC
T28	TULIP TREE	LIRIODENDRON TULIPIFERA	32"	GOOD	M-NCPPC
T29	TULIP TREE	LIRIODENDRON TULIPIFERA	25"	GOOD	M-NCPPC
T57	BLACK WALNUT	JUGLANS NIGRA	26.3"	GOOD	M-NCPPC
T58	BLACK WALNUT	JUGLANS NIGRA	25"	GOOD	M-NCPPC
T60	BOX ELDER	ACER NEGUNDO	29.1"	POOR	M-NCPPC
T62	STANDING DEAD		28"		SHA ROW
T65	TULIP TREE	LIRIODENDRON TULIPIFERA	26.4"	GOOD	M-NCPPC
T85	TULIP TREE	LIRIODENDRON TULIPIFERA	31.9"	GOOD	M-NCPPC
T96	RED MAPLE	ACER RUBRUM	27.1"	GOOD	M-NCPPC
T98	WHITE PINE	PINUS STROBUS	24.9"	GOOD	M-NCPPC
T126	STANDING DEAD		38.7"		M-NCPPC
T162	AMERICAN ELM	ULMUS AMERICANA	25.5"	POOR	M-NCPPC
T169	VIRGINIA PINE	PINUS VIRGINIANA	24.8"	GOOD	M-NCPPC
T172	AMERICAN ELM	ULMUS AMERICANA	31.4"	FAIR	M-NCPPC
T175	VIRGINIA PINE	PINUS VIRGINIANA	24.3"	GOOD	M-NCPPC



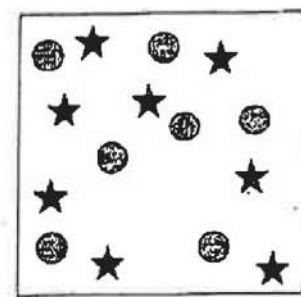
NOTES:

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

ROOT PRUNING DETAIL

NTS

Typical Forest Tree Distribution Patterns



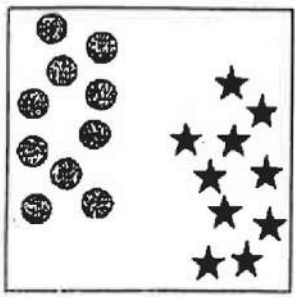
Random



Nonrandom
Positive Association



Nonrandom
Negative Association



Clumped

★ SPECIES 1

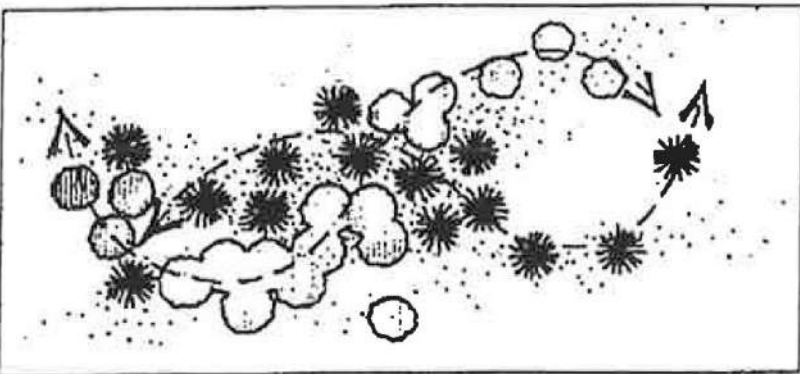
● SPECIES 2

Notes:

Naturally occurring populations of trees tend to be found in informal groupings. A cluster of trees is really a mosaic of different species groups. The objective of an afforestation/reforestation plan is to select the appropriate species and distribution pattern for a chose site that mimic natural patterns.

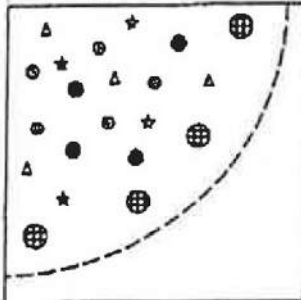
Source: Prince Georges County Woodland Conservation Manual.

Aggregate Distribution Drift



Source: EQR, Inc.

Mixing Transplant Stock



⊕ Locate larger trees (B&B or container grown) or transplant stock at the perimeter of reforestation/afforestation plantings of whips, seedling grown stock.

--- Protective Fencing

★ Smaller Stock

Source: Adapted from Forest Conservation Manual, 1991

Planting Distribution Patterns

Figure
A:19

DEVELOPER'S CERTIFICATE

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

Developer's Name: _____
Printed Company Name

Contact Person or Owner: _____
Printed Name

Address: _____

Phone and Email: _____

Signature: _____

SC2020015 FC-05

DEPARTMENT OF TRANSPORTATION
DIVISION OF TRANSPORTATION ENGINEERING
MONTGOMERY COUNTY, MARYLAND

FOREST CONSERVATION PLAN
GROSVENOR IMPROVEMENTS

SHEET 6 of 7

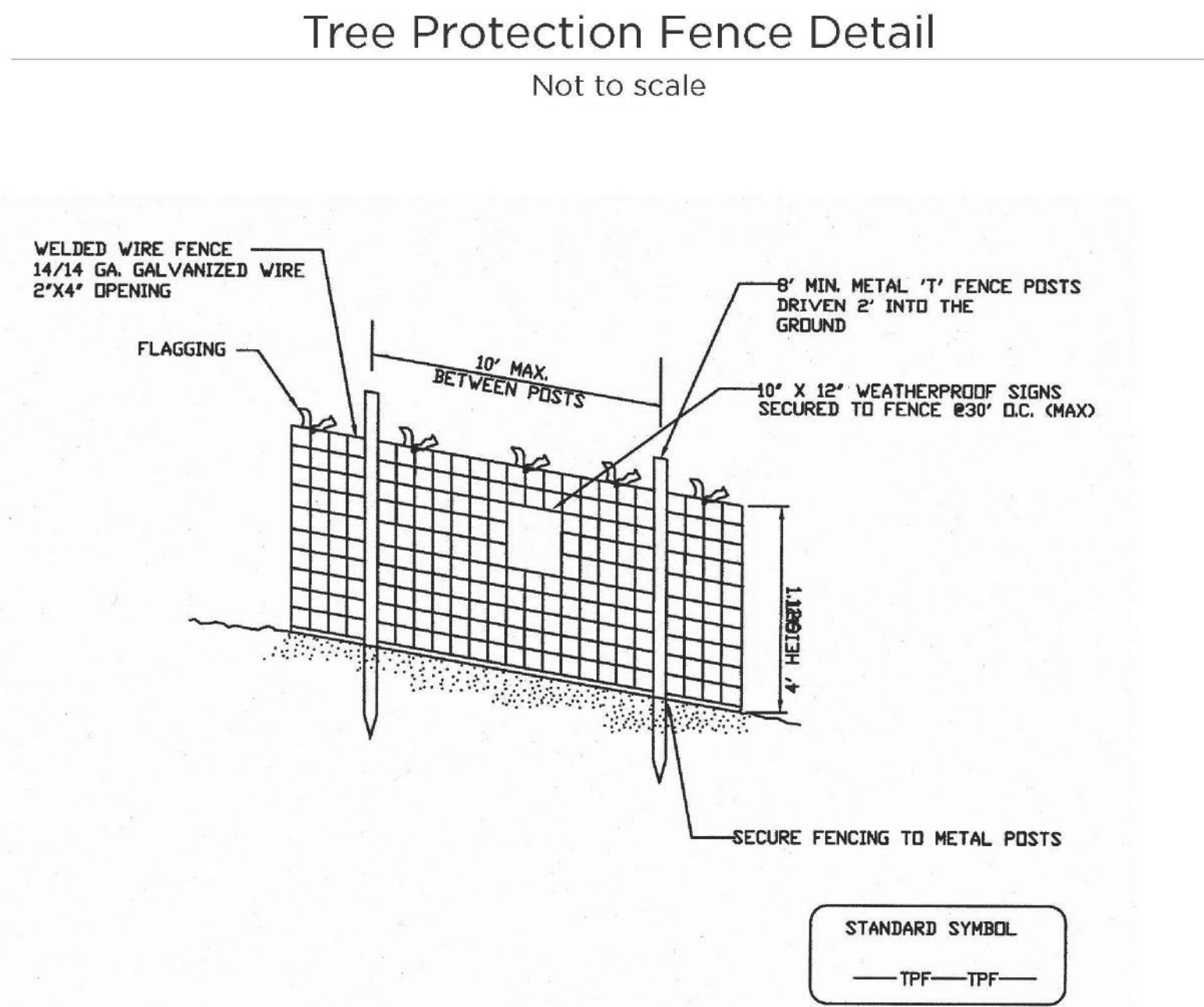


6110 Frost Pl
Laurel, MD 20707
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Wednesday, January 27, 2021 AT 03:00 PM
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NOTES

- Practice may be combined with sediment control fencing.
- Location and limits of fencing should be coordinated in field with arborist.
- Boundaries of protection area should be staked prior to installing protective device.
- Root damage should be avoided.
- Protection signage is required.
- Fencing shall be maintained throughout construction.

Montgomery County Planning Department ▪ M-NCPPC
MontgomeryPlanning.org

SEQUENCE OF EVENTS FOR PROPERTIES REQUIRE 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 MEASURE 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 OF 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 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 (REPRESENTING OWNER) THAT WILL IMPLEMENT THE TREE PROTECTION MEASURES, THE PLANNING DEPARTMENT FOREST CONSERVATION INSPECTOR, AND MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES (DPS) SEDIMENT CONTROL INSPECTOR. THE PURPOSE OF THIS MEETING IS VERIFY THE LIMITS OF DISTURBANCE AND DISCUSS SPECIFIC TREE PROTECTION AND TREE CARE MEASURES SHOWN ON THE APPROVED PLAN. NO LAND DISTURBANCE SHALL BEGIN BEFORE TREE PROTECTION AND STRESS-REDUCTION MEASURES HAVE BEEN IMPLEMENTED AND APPROVED BY THE PLANNING DEPARTMENT'S FOREST CONSERVATION INSPECTOR.

A. TYPICAL TREE PROTECTION DEVICES INCLUDE:

- CHAIN LINK FENCE (FOUR FEET HIGH)
- SUPER SILT FENCE WITH WIRE STRUNG BETWEEN THE SUPPORT POLES (MINIMUM 4 FEET HIGH) WITH HIGH VISIBILITY FLAGGING.
- 14 GAUGE, 2 INCH X 4 INCH WELDED WIRE FENCING SUPPORTED BY STEEL T-BAR POSTS (MINIMUM 4 FEET HIGH) WITH HIGH VISIBILITY FLAGGING.

B. TYPICAL STRESS REDUCTION MEASURES MAY INCLUDE, BUT ARE NOT LIMITED TO:

- ROOT PRUNING WITH A ROOT CUTTER OR VIBRATORY PLOW DESIGNED FOR THAT PURPOSE. TRENCHERS ARE NOT ALLOWED, UNLESS APPROVED BY THE FOREST CONSERVATION INSPECTOR.
- CROWN REDUCTION OR PRUNING
- WATERING
- FERTILIZING
- VERTICAL MULCHING
- ROOT AERATION SYSTEMS

3. MEASURES NOT SPECIFIED 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.

4. 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 SHOWN AS SAVED ON THE APPROVED PLAN.

5. TREE PROTECTION FENCING 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:

- PARKING OR DRIVING OF EQUIPMENT, MACHINERY OR VEHICLES OF ANY TYPE.
- STORAGE OF ANY CONSTRUCTION MATERIALS, EQUIPMENT, STOCKPILING, FILL, DEBRIS, ETC.
- DUMPING OF ANY CHEMICALS (I.E., PAINT THINNER), MORTAR OR CONCRETE REMAINDER, TRASH, GARBAGE, OR DEBRIS OF ANY KIND.
- FELLING OF TREES INTO A PROTECTED AREA.
- TRENCHING OR GRADING FOR UTILITIES, IRRIGATION, DRAINAGE, ETC.

6. TREE PROTECTION SIGNS MUST BE INSTALLED AS REQUIRED BY THE FOREST CONSERVATION INSPECTOR. THE SIGNS MUST BE WATERPROOF AND WORKING PROVIDED IN BOTH ENGLISH AND SPANISH.

7. 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 SHOWN AS SAVED ON THE APPROVED PLAN.

8. TREE PROTECTION FENCING 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 AREA IS PROHIBITED. THIS INCLUDES THE FOLLOWING ACTIVITIES:

- PARKING OR DRIVING OF EQUIPMENT, MACHINERY OR VEHICLES OF ANY TYPE.
- STORAGE OF ANY CONSTRUCTION MATERIALS, EQUIPMENT, STOCKPILING, FILL, DEBRIS, ETC.
- DUMPING OF ANY CHEMICALS (I.E., PAINT THINNER), MORTAR OR CONCRETE REMAINDER, TRASH, GARBAGE, OR DEBRIS OF ANY KIND.
- FELLING OF TREES INTO A PROTECTED AREA.
- TRENCHING OR GRADING FOR UTILITIES, IRRIGATION, DRAINAGE, ETC.

9. 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

7. 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.

8. THE PROPERTY OWNER MUST IMMEDIATELY NOTIFY THE FOREST CONSERVATION INSPECTOR OF ANY DAMAGE TO TREES, FORESTS, UNDERSTORY, GROUND COVER, AND ANY OTHER UNDISTURBED AREAS SHOWN ON THE APPROVED PLAN. REMEDIAL ACTIONS, AND THE RELATIVE TIMEFRAMES TO RESTORE THESE AREAS, WILL BE DETERMINED BY THE FOREST CONSERVATION INSPECTOR.

POST-CONSTRUCTION

9. 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 AMY REQUIRE ADDITIONAL CORRECTIVE MEASURES, WHICH MAY INCLUDE:

- REMOVAL, AND POSSIBLE REPLACEMENT, OF DEAD, DYING, OR HAZARDOUS TREES
- PRUNING OF DEAD OR DECLINING LIMBS
- SOIL AERATION
- FERTILIZATION
- WATERING
- WOUND REPAIR
- CLEANUP OF RETENTION ARES, INCLUDING TRASH REMOVAL

10. AFTER THE FINAL INSPECTION AND COMPLETION OF ALL CORRECTIVE MEASURES THE FOREST CONSERVATION INSPECTOR WILL REQUEST AL TEMPORARY TREE AND FOREST PROTECTION DEVICES BE REMOVED FORM THE SITE. REMOVAL OF TREE 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.

11. 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.

DEVELOPER'S CERTIFICATE

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

Developer's Name: _____
Printed Company Name

Contact Person or Owner: _____
Printed Name

Address: _____

Phone and Email: _____

Signature: _____

SC2020015 FC-06

DEPARTMENT OF TRANSPORTATION
DIVISION OF TRANSPORTATION ENGINEERING
MONTGOMERY COUNTY, MARYLAND

FOREST CONSERVATION PLAN
GROSVENOR IMPROVEMENTS

SHEET 7 of 7



6110 Frost Pl
Laurel, MD 20707
www.stantec.com



9/02/2020

ATTACHMENT 2



Stantec consulting Services Inc.
6110 Frost Place, Laurel MD 20707-2927

January 27, 2021
File: 2026011401-27

Attention: Mr. Stephen H. Findley, Planner Coordinator, Area 2 Planning Division
M-NCPPC, Montgomery County Planning Department
2425 Reddie Drive
Silver Spring, Maryland 20902

Dear Mr. Findley,

Reference: Montgomery County Depart. of Transportation Grosvenor Improvements Narrative for Tree Variance for Preliminary Forest Conservation Plan # SC2020015.

In support of Bicycle and Pedestrian Priority Areas (BiPPA), new sidewalk and ADA ramps will be constructed for Grosvenor Improvement Project, located at MD 355, Rockville Pike, from Pooks Hill Road to Strathmore Ave, Bethesda, Maryland.

Project Description:

This is a linear project that encompasses 1.15 acres of disturbance. The limit of disturbance within SHA ROW is 0.87 acres and 0.28 acres on M-NCPPC property. The Grosvenor Improvements project is a County Highway Project and is part of a Capital Improvements Program. The construction is designed to minimize forest cutting or clearing of trees to the greatest extent possible, and the forest clearing is below 20,000 square feet. A clearing of 0.34 acres of existing forest within the Limit of Disturbance is proposed, no champion trees will be removed. There is minimal root disturbance to Champion Tree, Linden Oak, which is located adjacent to the project limits. Removal of one specimen tree within MCDOT ROW is requested.

Preliminary Forest Conservation Plan:

A Preliminary Forest Conservation Plan has been prepared, submitted on eplan, and is attached here for your convenience. The revised construction concept reduces the impacts to M-NCPPC property and negates nearly all potential impacts to the Linden Oak. Redesign of the original project construction and limits of disturbance were spurred by an on-site meeting between Montgomery County Parks, Environmental Planning, Montgomery County Department of Transportation and Stantec on July 22, 2020.

Linden Oak Impacts:

The county champion white oak (*Quercus alba*) is historically designated Linden Oak is also a proclaimed Bicentennial Tree and honors the late Idamae Garrott. This tree has long been a community and park amenity with significant citizen advocacy for its protection. Today the tree has a 79" DBH (diameter at breast height) and a critical root zone of 118.75 radii from tree trunk. It is in good/fair condition due to a loss of major limbs.

January 27, 2021

Mr. Stephen H. Findley, Planner Coordinator, Area 2 Planning Division

Page 2 of 4

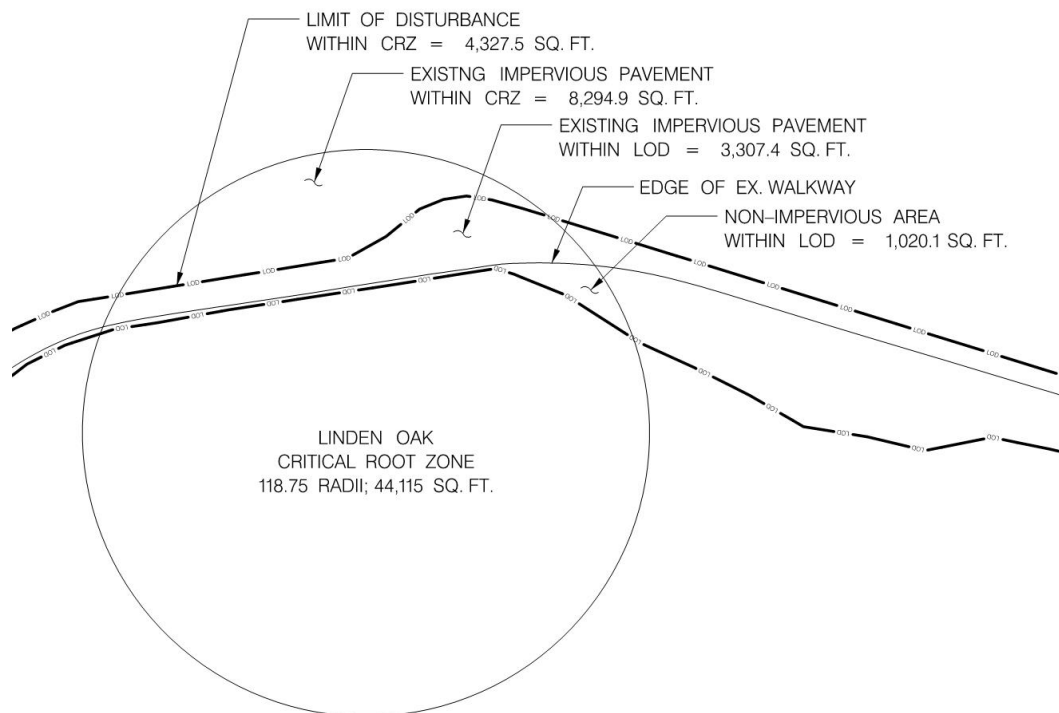
Reference: Montgomery County Dept. of Transportation Grosvenor Improvements Narrative for Tree Variance for Preliminary Forest Conservation Plan # SC2020015.

The original project construction proposed 0.32 acres of M-NCPPC land disturbance with removal of 0.28 acres of existing forest. The limit of disturbance was 32 feet from the oak's trunk and had a fill over 4 inches. Due to the LOD proximity, this option was found to be unacceptable.

A possible alternative was considered was the helical pier elevated extension of the existing at grade sidewalk, for an approximate length of 200 linear feet proximate to the Linden Oak. This concept could create visual improvements to the surroundings by having an attractive elevated walkway looking down into the Rock Creek Stream Valley Park system and upon the Linden Oak. Due to the maintenance on SHA property, more traditional construction method was pursued.

The new and current concept that negates nearly all potential impacts to the Linden oak. The existing edge of walkway was held as the limit of disturbance in the vicinity of the oak, and the edge of walkway elevation has been held constant, so that no cut or fill is necessary in that area. This method is found to be acceptable to MCDOT and Maryland SHA.

Please note, due to the large graphic critical root zone (CRZ), the impact take-off seems large. The majority of this is under existing Roadway bed and walkway, where actual roots may not exist. Therefore, calculations of CRZ impacts under existing impervious area and non-impervious area are graphically shown below.



Reference: Montgomery County Depart. of Transportation Grosvenor Improvements Narrative for Tree Variance for Preliminary Forest Conservation Plan # SC2020015.

Root disturbance measure taken to protect the Linden Oak are minimize any root disturbance, construction work to be done within the existing roadway and impervious area, avoid use of super silt fencing and relocating LOD as close to exiting pavement as possible.

Specimen Tree Removal:

The impacts within the MCDOT right-of-way will require the removal of one specimen tree, located approximately Sta. 17+00 right. It is an *Ulmus Americana* (American Elm), with a 31.4" DBH in fair condition.

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:*

It is the intent of the applicant to provide safe walkway and ADA access to pedestrian and bicycle along Grosvenor Road. This is in line with the Montgomery County Parks vision to provide enjoyable, accessible and safe amenities and promote community through shared spaces. If the variance is not granted for impacts to the Linden Oak root zone and the removal of one American Elm, the community and parks will not enjoy the possible improvement this project can provide.

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

If the tree variance requests were not granted, the proposed improvements for the benefit of the applicant's transportation improvement would not be implemented thereby denying commuter rights shared by neighboring communities.

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:*

This project 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 natural resources to the maximum extent practical. This includes limiting the impervious areas and providing on-site stormwater management systems. A Stormwater

January 27, 2021

Mr. Stephen H. Findley, Planner Coordinator, Area 2 Planning Division

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Reference: Montgomery County Depart. of Transportation Grosvenor Improvements Narrative for Tree Variance for Preliminary Forest Conservation Plan # SC2020015.

Management Concept has been approved by the Montgomery County Department of Permitting Services on June 22, 2020. Therefore, the proposed activity will not degrade the water quality in the downstream areas and will not result in measurable degradation in water quality.

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

The initial impacts for root disturbance to specimen trees adjacent to this project limit of disturbance have been eliminated, except for a minimal impact to the Linden Oak. It is anticipated that this will be relatively minor given that most of the feeder roots are located outside the limit of disturbance.

The American Elm is in fair condition and growing on a steep slope and is suffering from stress. Its proximity to the proposed walkway and existing roadway could become a health and safety concern.

Variance Request:

We are respectfully asking for granting this variance request for root disturbance of the Linden Oak and one specimen tree removal as described above. The linear disturbance will be the placement of tree protection fencing, tree root pruning, and minor fill condition as shown on the FCP plan.

Enclosed you will find the following supporting materials: Forest Conservation Plan #SC2020015.

Regards,

Kathleen Dahill

Phone: 240-542-3122

email: Kathleen.dahill@stantec.com

Attachment: FCP

c. Kathy Walsh, Robert Gonzales

dk document2