



# County of Fairfax, Virginia

To protect and enrich the quality of life for the people, neighborhoods and diverse communities of Fairfax County

JUL 29 2019

Mr. Yeshi Edwin  
8747 Brook Road  
Fairfax, VA 22102

Subject: Woodside Estates, Section 3, Lot 16A; 8747 Brook Road; Dranesville District;  
Tax Map No: 020-3-03-0016A

Reference: Water Quality Impact Assessment # 3276-WQ-003-1

Dear Mr. Edwin:

Your request to construct parking spaces at the entrance to the driveway cannot be approved administratively. On October 3, 2012, an exception was approved for the subject lot by the Chesapeake Bay Preservation Ordinance (CBPO) Exception Review Committee (ERC): Resource Protection Area Exception # 3276-WRPA-002-1 and Water Quality Impact Assessment # 3276-WQ-002-1. To further your current request, please submit it under CBPO Section 118-6-9. Exceptions reviewed by the CBPO ERC require a public hearing.

If further assistance is desired, please contact Camylyn Lewis, Senior Engineer III, at 703-324-1720, or by email at [Camylyn.Lewis@fairfaxcounty.gov](mailto:Camylyn.Lewis@fairfaxcounty.gov).

Sincerely,

FOR Shahab Baig, P.E.  
Chief, North Branch  
Site Development and Inspections Division (SDID)  
Land Development Services (LDS)

cc: Shannon Curtis, Chief, Watershed Assessment Branch, Stormwater Planning Division (SWPD), Department of Public Works and Environmental Services (DPWES)  
Dipmani Kumar, Chief, Watershed Planning and Evaluation Branch, SWPD, DPWES  
Camylyn Lewis, P.E. CFM, Senior Engineer III, North Branch, SDID, LDS  
Kati Barczay, Engineer IV, North Branch, SDID, LDS  
Danielle Badra, Clerk to the CBPO ERC  
Waiver File

Department of Land Development Services  
12055 Government Center Parkway, Suite 659  
Fairfax, Virginia 22035-5503  
Phone 703-324-1780 • TTY 711 • FAX 703-653-6678  
[www.fairfaxcounty.gov](http://www.fairfaxcounty.gov)





3276-WQ-003-1

CHESAPEAKE BAY PRESERVATION ORDINANCE  
RESOURCE PROTECTION AREA (RPA) EXEMPTION/EXCEPTION REQUEST FORM  
(Does not require a Public Hearing)

Cylenis  
6/24/19

Associated Plan #: \_\_\_\_\_ Exception #: \_\_\_\_\_  
Project Name: 8747 Brook Road Magisterial District: DRANESVILLE DIST. #1A  
Project Address: 8747 Brook Road, Fairfax, VA 22102 Tax Map #: 0203030016A  
Applicant Name: Mr. Yeshi Edwin ☒ Owner ☐ Developer ☐ Agent ☐ Engineer  
Mailing Address: 8747 Brook Road City, State, ZIP: Fairfax, VA 22102  
Phone Number: (202) 431-1661 Email Address: yeshy@yahoo.com  
cc: jilliane@tntenvironmentalinc.com

Please Check All Sections That Apply

CHECK	COUNTY CODE REFERENCE	EXEMPTION/EXCEPTION/SUBMISSION DESCRIPTION
X	§118-3-3(a)	<b>Water Quality Impact Assessment (WQIA)</b> – Required for any land disturbance, development or redevelopment within the RPA that is not exempt pursuant to Article 5. <b>\$432 Review Fee (for non-bonded lots); \$1,652.40 Review Fee (for bonded lots)</b>
	§118-3-3(d)	<b>Buffer Area</b> – (Request to remove vegetation) Applies to site lines, general woodlot management, habitat management or other authorized uses <b>\$0 Review Fee</b>
	§118-5-1	<b>Exemption</b> – Nonconforming uses and structures (WQIA not required) <b>\$0 Review Fee</b>
	§118-5-2	<b>Exemption</b> – Public utilities, railroads, public roads and facilities (WQIA not required) <b>\$0 Review Fee</b>
	§118-5-3	<b>Exemption</b> – Water wells, site amenities for passive recreation (e.g., access paths), historic preservation, and archeological activities. (WQIA not required) <b>\$0 Review Fee</b>
	§118-5-4(a)	<b>Exception - Loss of buildable area in RPA</b> for lots recorded prior to October 1, 1989 where encroachment (i.e., limits of clearing and grading) does not extend into the seaward 50' of the RPA buffer area. <b>\$204 Review fee per lot + \$432 Fee for WQIA.</b>
	§118-5-4(b)	<b>Exception - Loss of buildable area in RPA</b> for lots recorded between October 1, 1989 and November 17, 2003 where encroachment (i.e., limits of clearing and grading) does not extend into the seaward 50' of the RPA buffer area. <b>\$204 Review Fee per lot + \$432 Review Fee for WQIA.</b>
	§118-5-5(a)	<b>Exception – Minor additions in RPA</b> (does not include accessory structures/uses) to houses that were established (RUP issued) prior to July 1, 1993. <b>\$204 Review Fee per lot + \$432 Review Fee for WQIA.</b>
	§118-5-5(b)	<b>Exception - Minor additions in RPA</b> (does not include accessory structures/uses) to houses that were established (RUP issued) between July 1, 1993 and November 17, 2003 <b>\$204 Review Fee per lot + \$432 Review Fee for WQIA.</b>

☒ **LETTER OF JUSTIFICATION ATTACHED**

Address how approval of the proposed encroachment within the RPA (refer to § 118-5-4 or § 118-5-5(c)):

1. Is the minimum necessary to afford relief.
2. Will not confer upon the applicant any special privileges that are denied by the Chesapeake Bay Preservation Ordinance (CBPO) to other property owners who are subject to the CBPO provisions and who are similarly situated.
3. Is in harmony with the purpose and intent of the CBPO and is not of substantial detriment to water quality.
4. Is not based upon conditions or circumstances that are self-created or self-imposed.
5. Will implement reasonable and appropriate conditions that will prevent the activity from causing a degradation of water quality.

☒ **WATER QUALITY IMPACT ASSESSMENT (WQIA) ATTACHED**

Required for all any land disturbance, development or redevelopment within the RPA unless exempt pursuant to Article 5. Include WQIA in letter of justification or plan. Include all the following elements (per CBPO § 118-4-3):

1. Display the boundaries of the RPA.
2. Display and describe the location and nature of the proposed encroachment into and/or impacts to the RPA, including any clearing, grading, impervious surfaces, structures, utilities, and sewage disposal systems.
3. Provide justification for the proposed encroachment into and/or impacts to the RPA.
4. Describe the extent and nature of any proposed disturbance or disruption of wetlands.
5. Display and discuss the type and location of proposed best management practices to mitigate the proposed RPA encroachment and/or adverse impacts.
6. Demonstrate the extent to which the proposed activity will comply with all applicable performance criteria of the Chesapeake Bay Preservation Ordinance.

APPLICANT/AGENT SIGNATURE: \_\_\_\_\_ DATE: 5/24/2019

Submit two copies of this form, Letter of Justification, and plans for all above requests to:  
Customer and Technical Support Center, Site and Addressing Center  
12055 Government Center Parkway, Suite 230  
Fairfax, Virginia 22035

M Gary





## ENVIRONMENTAL

WATER QUALITY IMPACT ASSESSMENT 118-2-1(D)(3)  
8747 BROOK ROAD  
FAIRFAX COUNTY, VIRGINIA

TNT PROJECT NO.: 1561

FOR

MR. YESHI EDWIN

MAY 24, 2019

05/24/2019

3276-WQ-003-1





May 24, 2019

Mr. Yeshi Edwin  
8747 Brook Road  
McLean, VA 22102

TNT Project #: 1561

Reference: Water Quality Impact Assessment (WQIA) Request per 118-2-1(d)(3), and 118-4-3, 8747 Brook Road, Fairfax County, Virginia  
Latitude: 38°56'58.67"N, Longitude: 77°14'48.09"W

Dear Mr. Edwin:

TNT Environmental, Inc. (TNT) is pleased to present this Water Quality Impact Assessment (WQIA) report for the above-referenced project in general accordance with TNT Proposal Number 2253, dated April 16, 2019. The purpose of the WQIA is to ensure protection of the Resource Protection Areas consistent with the goals, objects, and requirements of Chapter 118, Article 4 of the Fairfax County Chesapeake Bay Preservation Ordinance through (1) the identification of the impacts of proposed development or redevelopment on water quality on lands within RPAs, (2) the assurance that, where development or redevelopment does take place within RPAs, that it will be located on those portions of a site in a manner that will be least disruptive to the natural functions of RPAs; and (3) the requirement of mitigation measures which will address water quality protection.

#### PROJECT SITE DESCRIPTION

The project site is approximately 1.07 acres of land located southeast of Brook Road in Fairfax County, Virginia (*Figure 1: Project Location Map*). The project site is further identified by physical address 8747 Brook Road and Fairfax County Map #: 0203-03-0016A. Based on a review of County GIS data, the project site is improved by an existing residential structure and is **zoned R-1**. A perennial stream and its associated Resource Protection Area (RPA) are located along the western portion of the property (*Figure 2: USGS Topographic Map*).

A prior WQIA was prepared, submitted and approved for the development of the lot in 2012.

#### SECONDARY INFORMATION REVIEW

Secondary Information entails the background research and review of recorded data and/or mapping associated with the project site. Resources reviewed include but are not limited to the following:

- U. S. Geological Survey (USGS) Topographic Map, Falls Church Quadrangle, 2016



- U. S. Fish and Wildlife Service (USFWS), National Wetlands Inventory (NWI) Online Mapper, [http://wetlands.fws.gov/mapper\\_tool.htm](http://wetlands.fws.gov/mapper_tool.htm)
- Natural Resources Conservation Service (NRCS), Electronic Field Office Technical Guide, Fairfax County Soils, [www.nrcs.usda.gov/technical/efotg/](http://www.nrcs.usda.gov/technical/efotg/)
- Available aerial photography and GIS data

The USGS Falls Church (2016) quadrangle map shows elevations of approximately 300 feet above mean sea level (MSL). The property is located within the Middle Potomac-Catoctin River watershed and identified as Hydrologic Unit Code (HUC) 02070008. The NWI does not depict any wetland features within the project site boundaries; however, a riverine system is shown crossing the western corner of the property.

The soil survey indicates that the site is underlain primarily by Codorus and Hatboro soils, 0 to 2 percent slopes, occasionally flooded (30A) and Glenelg silt loam, 15 to 25 percent slopes (39D).

#### **Allowed Uses, Development and Redevelopment per Section 118-2-1**

The proposed project meets the Allowed Uses, Development, and redevelopment in Resource Protection Areas per **Section 118-2-1 (d)(3)**. This section includes roads and driveways not exempt under Article 5, provided that the design and construction of the driveway satisfies all applicable criteria, including approval of a Water Quality Impact Assessment.

Disturbance within the RPA buffer has been limited to a work zone around the areas necessary to construct and provide for **parking additions which will be built using permeable pavers**. The existing driveway will remain intact. No additional new impervious area is proposed within the RPA buffer post-construction. Approximately 1,816 square feet of the RPA will be disturbed to provide for the temporary work zone necessary to complete the proposed project. No disruption, fill or clearing of any wetlands or Waters of the U.S. will occur as a result of the proposed project. Best management practices are not required for the proposed project.

#### **Water Quality Impact Assessment Components per Section 118-4-3**

- a) Based on Fairfax County GIS an unnamed tributary to Rocky Run parallels the western property boundary. No contiguous wetlands were observed. A site-specific RPA delineation has been conducted by others and is shown on the attached Water Quality Impact Assessment Map and was approved for use during the 2012 review of the overall site development application.
- b) Approximately 73% of the existing site is situated within the site-specific RPA. Activities proposed within the RPA include general lot grading and creation of pervious surface in the form of parking spots on either side of an existing driveway. There is currently no available street parking in the neighborhood and the applicants desire to have on-lot parking for their family and guests.
- c) The project proposed to construct additional parking areas to support the needs of the residence. As discussed above, disturbance within the RPA buffer meets the Allowed Uses, Development, and Redevelopment in Resource Protection Areas per Section 118-2-1 (d)(3).



- d) No disruption, fill, or clearing of any wetlands is proposed.
- e) The additional parking areas will be constructed of porous pavers to maintain pervious cover within the RPA buffer.
- f) The proposed project complies with the applicable performance criteria of Chapter 118.
- g) The applicant is required to meet additional performance criteria for RPA buffer area establishment as discussed below.

**Water Quality Impact Assessment Components per Section 118-3-3(f)**

The proposed project complies with the applicable performance criteria of Section 118-3-3 (f) Buffer Area Establishment. As shown in Table 1, the 1,816 square feet (0.04 acres) of disturbed area associated with the proposed construction within the RPA will be revegetated at a density of 100 overstory trees per acre (2" DBH), 200 understory trees per acre (1" DBH), and 1,089 shrubs per acre (1 gallon). Per CBPO 118-3-3(f) for 1,816 square feet of disturbed area within the RPA buffer, planting requirements would be:

- i. 100 overstory trees/ac = 5 overstory trees
- ii. 200 understory trees/ac = 9 understory trees
- iii. 1,089 shrubs/ac = 46 shrubs

**Table 1 – Planting List**

Common Name	Scientific Name	Size (DBH)		Quantity
<b>Overstory Trees</b>				
Willow Oak	<i>Quercus phellos</i>	2"		2
Blackgum	<i>Nyssa sylvatica</i>	2"		1
River Birch	<i>Betula nigra</i>	2"		2
			<b>Subtotal</b>	<b>5</b>
<b>Understory Trees</b>				
American Hornbeam	<i>Carpinus caroliniana</i>	1"		2
Eastern Redbud	<i>Cercis canadensis</i>	1"		4
Downy Serviceberry	<i>Amelanchier arborea</i>	1"		3
			<b>Subtotal</b>	<b>9</b>
<b>Shrubs</b>				
Northern Spicebush	<i>Lindera benzoin</i>	1 Gallon		10
Hazel Alder	<i>Alnus serrulata</i>	1 Gallon		9
Maple-Leaved Viburnum	<i>Viburnum acerifolium</i>	1 Gallon		9
Southern Arrowwood	<i>Viburnum dentatum</i>	1 Gallon		9
Silky Dogwood	<i>Cornus amomum</i>	1 Gallon		9
			<b>Subtotal</b>	<b>46</b>
			<b>Total</b>	<b>60</b>

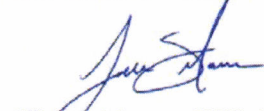


Mr. Yeshi Edwin  
TNT Project #: 1561  
May 24, 2019  
Page 4

TNT would like to thank you for the opportunity to provide you with this Water Quality Impact Assessment. We look forward to assisting you further with this project and other environmental concerns you may have. If you have any questions, please feel free to contact us at any time at (703) 466-5123.

Sincerely,

**TNT ENVIRONMENTAL, INC.**



Jillian S Moore, PWS, ISA-CA  
Senior Wetland Scientist  
[Jillian@TNTenvironmentalinc.com](mailto:Jillian@TNTenvironmentalinc.com)



Avi M. Sareen, PWD, PWS, ISA-CA  
Principal/President  
[Avi@TNTenvironmentalinc.com](mailto:Avi@TNTenvironmentalinc.com)



**APPENDIX I**

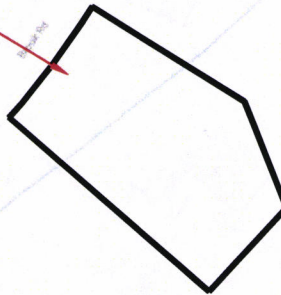
**VICINITY MAP &  
USGS TOPOGRAPHIC MAP**



SCALE: 1" : 200'



APPROXIMATE  
SITE  
LOCATION



**WATER QUALITY IMPACT  
ASSESSMENT**

**8747 BROOK ROAD**

**FAIRFAX COUNTY, VA**

**MAY 2019**



**ENVIRONMENTAL**  
**13996 PARKEAST CIRCLE**  
**SUITE 101**  
**CHANTILLY, VIRGINIA**  
**20151**

**FIGURE 1**

**SITE LOCATION MAP**

**SOURCE: GOOGLE MAPS**

**TNT PROJECT NO: 1561**



SCALE: 1" : 200'

DALLAS

300

APPROXIMATE  
SITE  
LOCATION

Woodside  
Lake



WATER QUALITY IMPACT  
ASSESSMENT

8747 BROOK ROAD

FAIRFAX COUNTY, VA

MAY 2019



ENVIRONMENTAL

13996 PARKEAST CIRCLE  
SUITE 101  
CHANTILLY, VIRGINIA  
20151

FIGURE 2

TOPOGRAPHIC MAP

SOURCE: FALLS CHURCH,  
VA USGS QUAD MAP (2016)

TNT PROJECT NO: 1561



**APPENDIX II**

**NATIONAL WETLAND INVENTORY MAP &  
NRCS SOILS MAP**





U.S. Fish and Wildlife Service

## National Wetlands Inventory

8747 Brook Road



May 14, 2019

### Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond

- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.



Soil Map—Fairfax County, Virginia  
(Brook Road WQIA)



Map Scale: 1:6,000 if printed on A portrait (8.5" x 11") sheet.

0 50 100 200 300 Meters

0 250 500 1000 1500 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84












































Natural Resources  
Conservation Service

Web Soil Survey  
National Cooperative Soil Survey

5/24/2019  
Page 1 of 3



## MAP LEGEND

 Area of Interest (AOI)	 Spoil Area
 Soils	 Stony Spot
 Soil Map Unit Polygons	 Very Stony Spot
 Soil Map Unit Lines	 Wet Spot
 Soil Map Unit Points	 Other
 Special Point Features	 Special Line Features
 Blowout	 Water Features
 Borrow Pit	 Streams and Canals
 Clay Spot	 Transportation
 Closed Depression	 Rails
 Gravel Pit	 Interstate Highways
 Gravelly Spot	 US Routes
 Landfill	 Major Roads
 Lava Flow	 Local Roads
 Marsh or swamp	 Background
 Mine or Quarry	 Aerial Photography
 Miscellaneous Water	
 Perennial Water	
 Rock Outcrop	
 Saline Spot	
 Sandy Spot	
 Severely Eroded Spot	
 Sinkhole	
 Slide or Slip	
 Sodic Spot	

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Fairfax County, Virginia

Survey Area Data: Version 16, Aug 28, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 3, 2015—Feb 22, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.



## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
30A	Codorus and Hatboro soils, 0 to 2 percent slopes, occasionally flooded	0.5	49.6%
39D	Glenelg silt loam, 15 to 25 percent slopes	0.5	50.4%
Totals for Area of Interest		1.1	100.0%



**APPENDIX III**

**PHOTOGRAPHS**





**Photograph 1:** View to the east showing location of proposed parking spots and driveway improvements within RPA.



**Photograph 2:** View to the east showing location of existing driveway and proposed planting area within RPA.

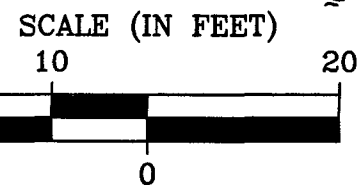
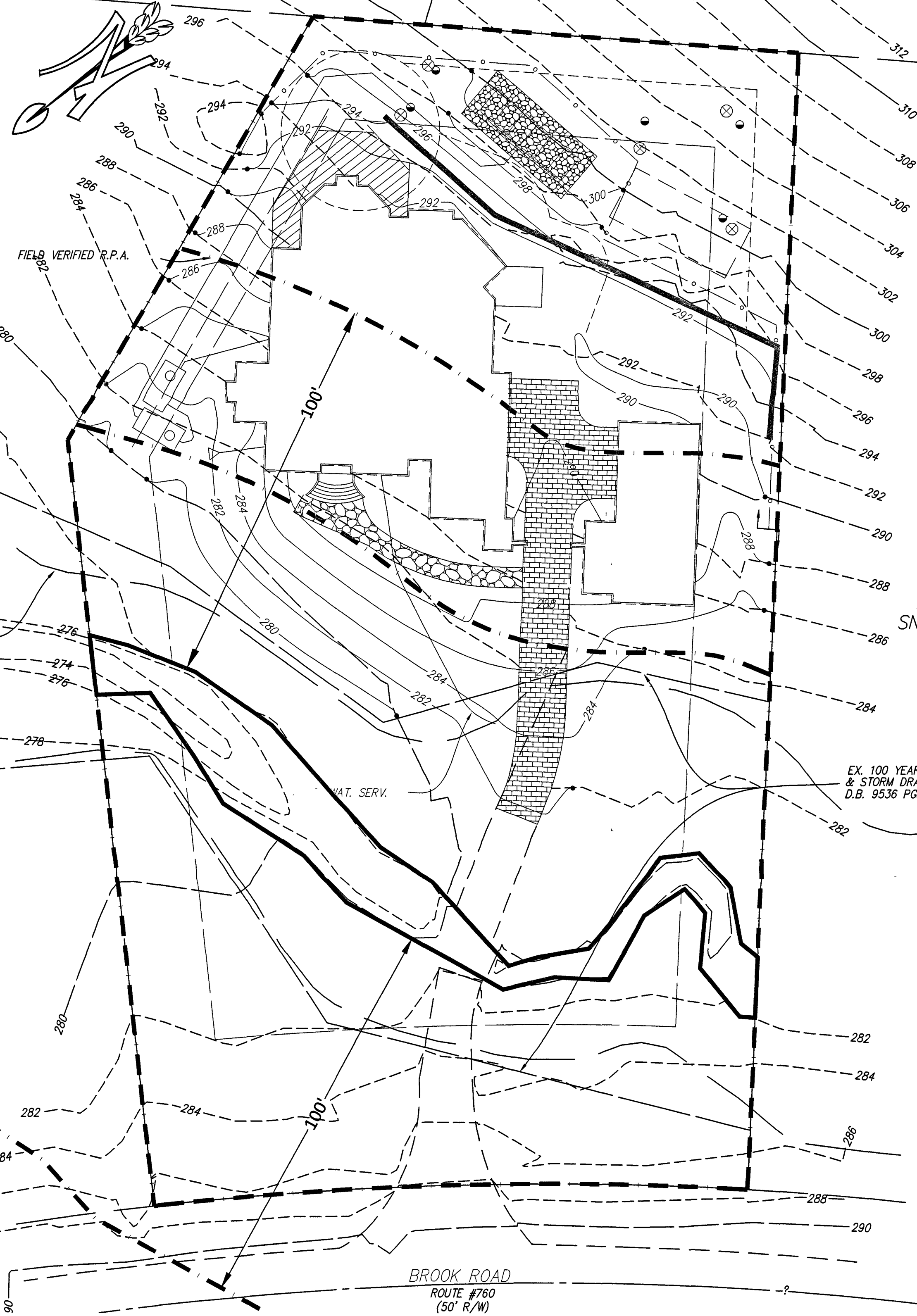


**APPENDIX IV**

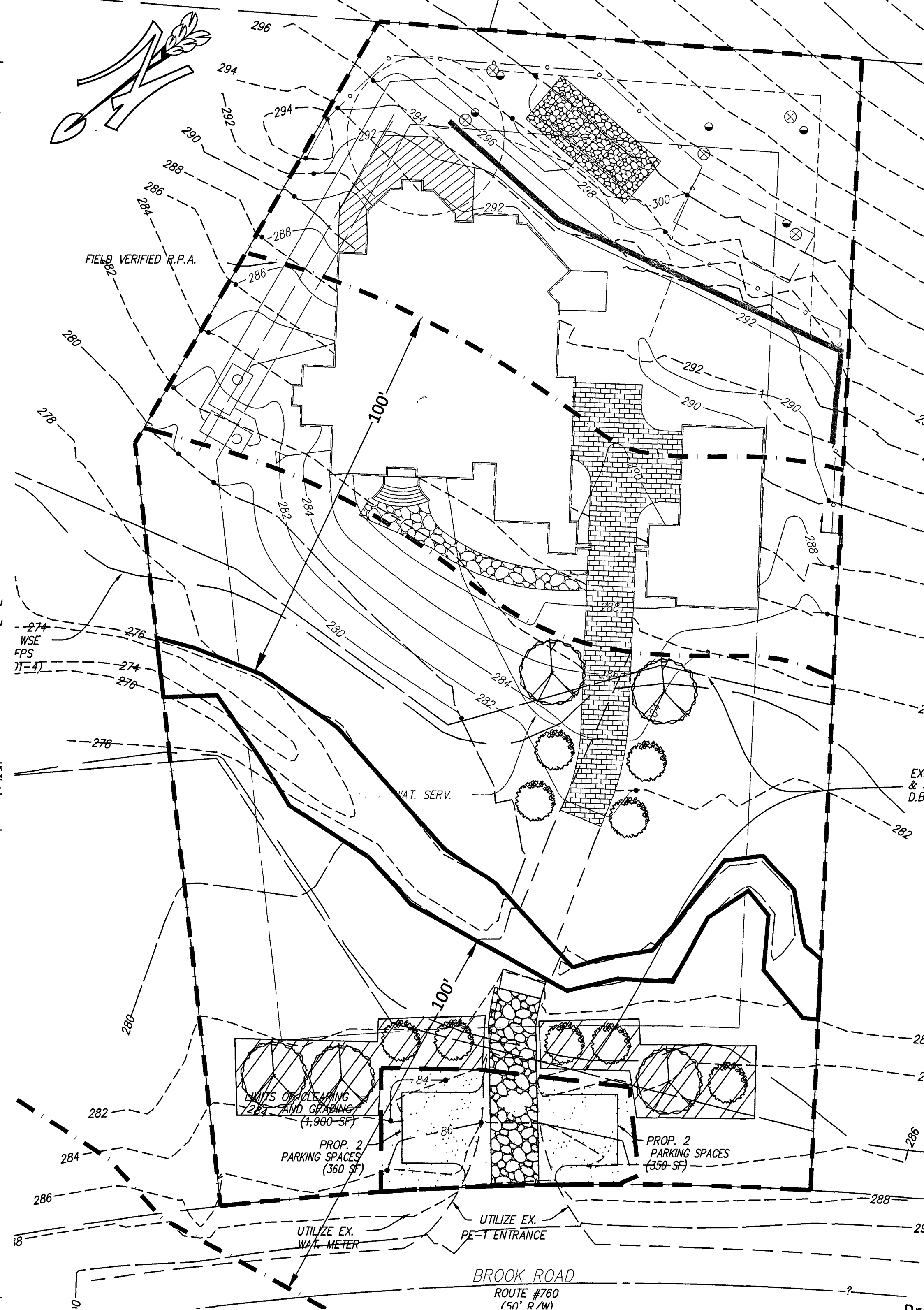
**WATER QUALITY IMPACT ASSESSMENT MAP**



EXISTING CONDITIONS



PROPOSED CONDITIONS



LEGEND

- PERENNIAL WATERS OF THE U.S. (R3)
- STUDY AREA
- SITE-SPECIFIC RESOURCE PROTECTION AREA (RPA)
- 50-FOOT SEAWARD BUFFER
- DISTURBED AREA WITHIN RPA (1,816 SF)
- PROPOSED SHRUB PLANTING AREA
- PROPOSED OVERSTORY TREE
- PROPOSED UNDERSTORY TREE

NOTES:

- THE RESOURCE PROTECTION AREA IS COUNTY MAPPED.
- THE PLANTINGS PROPOSED HEREON WILL BE INSTALLED BY HAND WHEREVER PRACTICABLE. SUB-CANOPY AND SHRUB LAYERS WILL BE RE-ESTABLISHED WHERE POSSIBLE BY THE PROPOSED PLANTING OPERATIONS.

Common Name	Scientific Name	Size (DBH)	Quantity	Lot 534
Overstory Trees				
Willow Oak	<i>Quercus phellos</i>	2"	2	
Blackgum	<i>Nyssa sylvatica</i>	2"	1	
River Birch	<i>Betula nigra</i>	2"	2	
			Subtotal	5
Understory Trees				
American Hornbeam	<i>Carpinus caroliniana</i>	1"	2	
Eastern Redbud	<i>Cercis canadensis</i>	1"	4	
Downy Serviceberry	<i>Amelanchier arborea</i>	1"	3	
			Subtotal	9
Shrubs				
Northern Spicebush	<i>Lindera benzoin</i>	1 Gallon	10	
Hazel Alder	<i>Alnus serrulata</i>	1 Gallon	9	
Maple-Leaved Viburnum	<i>Viburnum acerifolium</i>	1 Gallon	9	
Southern Arrowwood	<i>Viburnum dentatum</i>	1 Gallon	9	
Silky Dogwood	<i>Cornus amomum</i>	1 Gallon	9	
			Subtotal	46
			Total	60

Project Data Sheet

Total Lot Area (SF)	46,770
Lot Area within the RPA (SF)	34,331
% Lot Area within the RPA	73%
Date when the lot was created	1995
Date when the RPA was designated	2003
Total Proposed Lot Disturbance (SF)	1,816
Total Disturbed Areas within RPA (SF)	1,816

Summary: Impervious Area Analysis Tabulation					
Description	Existing Conditions Prior to 2012	Existing Conditions Post July 5, 2012	Proposed Conditions	Proposed Change in Impact since 2012*	Cumulative Change in Impact*
Total Lot Impervious Area (S.F.)	6,407	8,558	8,558	0	2,151
Total Impervious Area in RPA (SF)	3,293	5,966	5,966	0	2,673
Impervious Area within Seaward 50 ft RPA (SF)	1,743	0	0	0	-1,743
Detailed Breakdown: Impervious Area Analysis Tabulation					
Primary Structure Footprint on the overall site (SF)	1,519	5,246	5,246	0	3,727
Primary Structure Footprint in the RPA (SF)	0	3,390	3,390	0	3,390
Total Walkway and Ret. Wall on the overall site (SF)	39	418	418	0	379
Total Walkway and Ret. Wall in the RPA (SF)	17	15	15	0	-2
Total Driveway and Parking Spots on the overall site (SF)	4,849	2,894	2,894	0	-1,955
Total Driveway and Parking Spots in the RPA (SF)	3,276	2,561	2,561	0	-715

\*Note: Negative numbers in the change column indicate a decrease in impervious area in the proposed site conditions  
This table and its formatting were provided by Fairfax County staff. Minor changes have been made by TNT for clarification of the project

ENVIRONMENTAL  
13996 Parkeast Circle, Suite 101  
Chantilly, VA 20151  
PH: 703-466-5123 WWW.TNTENVIRONMENTALINC.COM



8747 BROOK  
ROAD

FAIRFAX COUNTY

WATER QUALITY IMPACT  
ASSESSMENT

REVISIONS

DATE COMMENTS

SHEET 1 OF 1

SCALE: 1" = 20'

PROJECT DATE:  
5/24/19

DRAFT: JSM CHECK: AMS

FILE NUMBER:  
1561

3216-WQ-003-1