



ENVIRONMENTAL

WETLAND DELINEATION REPORT
CORRIDOR CENTER
CITY OF LAUREL, MARYLAND

TNT PROJECT NO.: 2807

FOR

PULTE GROUP

JULY 11, 2022



July 11, 2022

Mr. Bobby Varner
Pulte Group
Via Email: bobby.varner@pultegroup.com

TNT Project Number: 2807

Reference: Wetland Delineation Report, Corridor Center, City of Laurel, Maryland
Latitude: 39° 5' 56" N, Longitude: -76° 52' 51" W

Dear Mr. Varner:

TNT Environmental, Inc. (TNT) is pleased to present this wetland delineation report for the above-referenced project in general accordance with TNT Proposal Number 3743 dated December 21, 2021. The wetlands and Waters of the U.S. identified during this investigation for the above-referenced project site were delineated by TNT based on the *Corps of Engineers' Wetlands Delineation Manual* (1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic & Gulf Coast* and represent those areas that are most likely considered jurisdictional by the U.S. Army Corps of Engineers (USACE). The delineation entails the gathering of appropriate field data according to the applicable USACE Manuals, field flagging and mapping of approximate wetland and stream boundaries located onsite, preparation of this final report, and a request to the USACE for boundary confirmation and jurisdictional determination of Waters, including wetlands, identified onsite. Based on the field investigation conducted in April 2022, there are potentially jurisdictional Waters of the U.S., including wetlands, located within the study area.

PROJECT SITE DESCRIPTION

The project site is approximately 28.28 acres situated north of Contee Road in the City of Laurel, Maryland (*Appendix I: Figure 1- Project Location Map*). The project site is further identified by physical addresses 6820, 6900, 6902 and 6920 Contee Road and 15203 Pirate Lane. The project site consists of moderately sloping terrain and is within the Crow Branch drainage basin (*Appendix I: Figure 2- USGS Topographic Map*). An existing automobile repair shop and parking lot are located in the western portion of the site, and existing residential buildings are located within the southern portion. The remainder of the site is unimproved and wooded.

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's (USGS) National Geospatial Program, *The National Map Viewer* <https://apps.nationalmap.gov/viewer>
- U. S. Fish and Wildlife Service (USFWS), National Wetlands Inventory (NWI) Online Mapper, <https://www.fws.gov/wetlands/data/mapper.html>
- Natural Resources Conservation Service (NRCS), National Cooperative Soil Survey (NCSS) Web Soil Survey, <https://websoilsurvey.nrcs.usda.gov/>
- Available aerial photography and GIS data

The USGS Beltsville quadrangle map shows elevations of approximately 280 to 330 feet above mean sea level (MSL). As shown on the USGS Map, the project site drains generally southeast to Crow Branch, located within the Patuxent watershed and identified as Hydrologic Unit Code (HUC) 02060006. The NWI map does not depict wetland or riverine features within the project site boundaries.

The soil survey indicates that the site is underlain primarily by Aquasco silt loam (ApB), Beltsville silt loam (BaB), Chillum silt loam (CaD), Matapeake silt loam (MpB), and Zekiah and Issue (ZS) soils. Zekiah and Issue soils (ZS) is classified by the NRCS as predominantly hydric.

FIELD INVESTIGATION & METHODOLOGY

The analysis contained in this report uses the results of a field survey conducted by TNT in April 2022. Fluorescent pink demarcation flags were placed in the field and sequentially numbered to provide an onsite record of the location of wetlands and other Waters subject to the jurisdiction of state and federal agencies. The data sheets used in this investigation are enclosed (see *Appendix III*), along with a photographic log documenting site conditions (*Appendix IV*), and the delineation map showing approximate data point locations and boundaries of potentially jurisdictional wetlands and other Waters (*Appendix V*).

The delineation of wetlands was conducted using the *Corps of Engineers' Wetlands Delineation Manual* (1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic & Gulf Coast Region*. The USACE Manual and associated Regional Supplement follow three parameters for the identification of wetlands: dominance of hydrophytic vegetation, presence of hydric soils, and hydrologic indicators. All three parameters must be present under normal conditions for an area to be considered a jurisdictional wetland in accordance with Section 404 of the Clean Water Act. Streams were delineated based on the limits of the ordinary high-water mark (OHWM), which can be determined by several factors. Physical characteristics include, but are not limited to, clear, natural line impressed on the bank; shelving; changes in the character of soil; destruction of terrestrial vegetation/scouring; the presence of litter and debris, wrack lines; and other appropriate means such as gauge data, historical records, flood predictions, and statistical analysis.

For the purpose of this report and future permitting needs, wetlands and other Waters are then further classified according to the Cowardin System as described in *Classification of Wetlands and Deepwater Habitats of the United States* (1979).

FINDINGS

Based on our field reconnaissance, TNT has identified and located wetlands and other Waters onsite. Wetlands identified on the project site are classified as palustrine forested (PFO). The main sources of hydrology for these wetlands include precipitation and high groundwater table. The wetlands are underlain by Aquasco silt loam (ApB) soil. Other waters on site include ephemeral (R6) streams located in the northern and southwestern portions of the site.

A summary of the attached data sheets prepared during the study is included below in Table 1. Dominant wetland and riparian vegetation is listed below in Table 2. The dominant upland vegetation is listed below in Table 3. The remaining site contains an automobile repair shop in the western portion and residential buildings in the southern portion.

Table 1 – Data Points Summary

Data Point	Hydrophytic Vegetation	Hydric Soils	Hydrology	Classification
DP-1	No	No	No	Non-Wetland
DP-2	Yes	Yes	Yes	PFO Wetland
DP-3	No	No	No	Non-Wetland
DP-4	No	No	No	Non-Wetland

*Refer to the enclosed data sheets for more information.

Table 2 – Dominant Riparian Buffer and Wetland Vegetation

Scientific Name	Common Name	Wetland Indicator*
Trees		
<i>Acer rubrum</i>	Red Maple	FAC
<i>Ilex opaca</i>	American Holly	FACU
Shrubs and Woody Vines		
<i>Smilax rotundifolia</i>	Roundleaf Greenbrier	FAC
Herbaceous		
<i>Lonicera japonica</i>	Japanese Honeysuckle	FACU

* The indicator status of a species indicates the probability that the species will occur in a wetland, as follows: Obligate Upland (UPL, <1%), Facultative Upland (FACU, 1-33%), Facultative (FAC, 34-66%), Facultative Wetland (FACW, 67-99%), and Obligate Wetland (OBL, >99%) in accordance with the National List of Plant Species that Occur in Wetlands: National Summary (2012). NI means no wetland indicator is available.

Table 3 – Dominant Upland Vegetation

Scientific Name	Common Name	Wetland Indicator*
Trees		
<i>Acer rubrum</i>	Red Maple	FAC
<i>Carya tomentosa</i>	Mockernut Hickory	FACU
<i>Fagus grandifolia</i>	American Beech	FACU
<i>Ilex opaca</i>	American Holly	FAC
<i>Liriodendron tulipifera</i>	Tulip Poplar	FACU
<i>Liquidambar styraciflua</i>	Sweetgum	FAC
<i>Prunus serotina</i>	Black Cherry	FACU
<i>Quercus alba</i>	White Oak	FACU
<i>Quercus rubra</i>	Northern Red Oak	FACU
Shrubs and Woody Vines		
<i>Smilax rotundifolia</i>	Roundleaf Greenbrier	FAC
Herbaceous		
<i>Geum canadense</i>	White Avens	FAC
<i>Lonicera japonica</i>	Japanese Honeysuckle	FACU

REGULATORY DISCUSSION

The Maryland Department of Environment (MDE) and the USACE regulate impacts to wetlands and Waters of the District by issuing a state certification under Section 401 of the Clean Water Act for activities requiring a USACE Section 404 Permit. The USACE - Baltimore District that regulates Waters of the District has implemented the State Programmatic General Permit (SPGP) program to streamline the permit process and avoid duplication of agency review. For those projects impacting less than 5,000 square feet of Waters of the United States, including jurisdictional wetlands, a Nationwide permit from the USACE can be obtained for most projects. For those projects that are not under USACE jurisdiction, a letter of authorization for activities in a wetland can be obtained from MDE. All SPGP permit applications are reviewed by the USACE but the permit authorization comes solely from MDE. Notification of potential impacts should be filed with the MDE by completing the Joint Permit Application (JPA) form which is submitted to MDE. Compensatory mitigation for unavoidable impacts to waters will generally be provided at a loss ratio 3:1 for all wetlands. Mitigation can include: the purchase or use of mitigation bank credits; wetland preservation; preservation of upland buffers; and in-lieu-fee contribution.

PROCEEDINGS

With your authorization, we will contact the USACE to schedule a field meeting to conduct a wetlands and Waters boundary confirmation and jurisdictional determination. This process takes an average of eight to ten weeks depending on the availability of USACE personnel. Once we have determined potential impacts we can assist you with permitting options and support to complete the process. In

Pulte Group
TNT Project #: 2807
July 11, 2022
Page 5

the interim, we recommend further review of state and federal agency records pertaining to Section 7 (Federal Endangered Species Act) and Section 106 (National Historic Preservation Act). These reviews will generally be required to verify compliance for either the Nationwide Permit (NWP) or General Permit conditions.

TNT would like to thank you for the opportunity to provide you with this wetland delineation. 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,

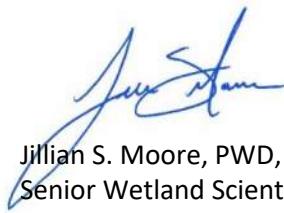
TNT ENVIRONMENTAL, INC.

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APPENDIX I

VICINITY MAP &
USGS TOPOGRAPHIC MAP



WETLAND DELINEATION
REPORT

CORRIDOR CENTER

CITY OF LAUREL, MD

JULY 2022



ENVIRONMENTAL
4455 BROOKFIELD
CORPORATE DRIVE,
SUITE 100
CHANTILLY, VIRGINIA 20151

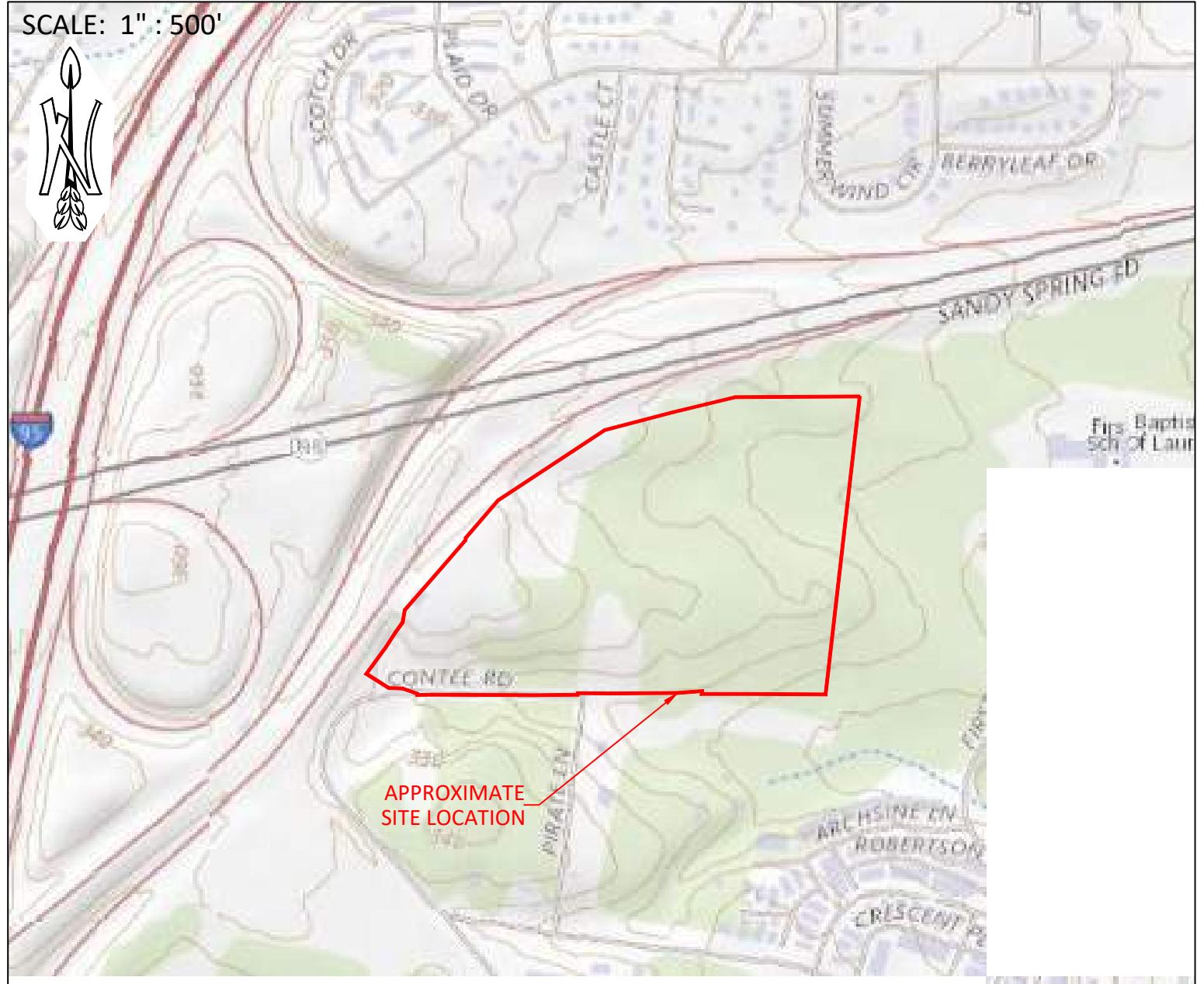
FIGURE 1

SITE LOCATION MAP

SOURCE: GOOGLE MAPS

TNT PROJECT NO: 2807

SCALE: 1" : 500'



WETLAND DELINEATION
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CORRIDOR CENTER

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ENVIRONMENTAL
4455 BROOKFIELD
CORPORATE DRIVE,
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CHANTILLY, VIRGINIA 20151

FIGURE 2

BELTSVILLE, MD USGS
TOPOGRAPHIC MAP

SOURCE: USGS THE
NATIONAL MAP (2020)

TNT PROJECT NO: 2807

APPENDIX II

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



U.S. Fish and Wildlife Service

National Wetlands Inventory

Corridor Center



March 25, 2022

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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.

Hydric Rating by Map Unit—Prince George's County, Maryland
(Corridor Center)



Map Scale: 1:2,800 if printed on A landscape (11" x 8.5") sheet.



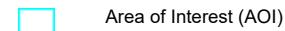
Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

3/25/2022
Page 1 of 5

MAP LEGEND

Area of Interest (AOI)



Area of Interest (AOI)

Soils

Soil Rating Polygons

Hydric (100%)

Hydric (66 to 99%)

Hydric (33 to 65%)

Hydric (1 to 32%)

Not Hydric (0%)

Not rated or not available

Soil Rating Lines

Hydric (100%)

Hydric (66 to 99%)

Hydric (33 to 65%)

Hydric (1 to 32%)

Not Hydric (0%)

Not rated or not available

Soil Rating Points

Hydric (100%)

Hydric (66 to 99%)

Hydric (33 to 65%)

Hydric (1 to 32%)

Not Hydric (0%)

Not rated or not available

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

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

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

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: Prince George's County, Maryland

Survey Area Data: Version 19, Aug 27, 2021

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.

Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
ApB	Aquasco silt loam, 2 to 5 percent slopes	0	13.9	50.1%
BaB	Beltsville silt loam, 2 to 5 percent slopes	5	3.4	12.2%
CaD	Chillum silt loam, 10 to 15 percent slopes	0	7.4	26.8%
MpB	Matapeake silt loam, 2 to 5 percent slopes	0	1.8	6.5%
ZS	Zekiah and Issue soils, frequently flooded	61	1.2	4.3%
Totals for Area of Interest			27.7	100.0%

Description

This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

The thematic map is color coded based on the composition of hydric components. The five color classes are separated as 100 percent hydric components, 66 to 99 percent hydric components, 33 to 65 percent hydric components, 1 to 32 percent hydric components, and less than one percent hydric components.

In Web Soil Survey, the Summary by Map Unit table that is displayed below the map pane contains a column named 'Rating'. In this column the percentage of each map unit that is classified as hydric is displayed.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Rating Options

Aggregation Method: Percent Present

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

APPENDIX III
WETLAND DATA SHEETS

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Corridor Center City/County: City of Laurel Sampling Date: 2022-04-15
 Applicant/Owner: Pulte Group State: Maryland Sampling Point: DP-1
 Investigator(s): TNT Environmental Inc- D. Dellapenna, E. Williams Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Upland Local relief (concave, convex, none): None Slope (%): 1
 Subregion (LRR or MLRA): S 149A Lat: 39.0997003 Long: -76.8805540 Datum: WGS 84
 Soil Map Unit Name: ApB - Aquasco silt loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: Upland data point taken outside flag A-8.	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Marl Deposits (B15) (LRR U) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Sphagnum moss (D8) (LRR T, U)
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Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	

Remarks: Wetland hydrology not observed.
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VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: DP-1

Tree Stratum (Plot size: <u>30 ft r</u>) 1. <u>Quercus alba</u> 40 ✓ FACU 2. <u>Fagus grandifolia</u> 30 ✓ FACU 3. <u>Quercus rubra</u> 20 ✓ FACU 4. <u>Ilex opaca</u> 10 ✓ FAC 5. _____ 6. _____				Absolute % Cover Dominant Species? Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>7</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>28.6</u> (A/B)	
				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>50</u> x 3 = <u>150</u> FACU species <u>125</u> x 4 = <u>500</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>175</u> (A) <u>650</u> (B)		
				Prevalence Index = B/A = <u>3.71</u>		
Sapling Stratum (Plot size: <u>30 ft r</u>) 1. <u>Ilex opaca</u> 30 ✓ FAC 2. <u>Quercus alba</u> 20 ✓ FACU 3. <u>Liriodendron tulipifera</u> 15 ✓ FACU 4. _____ 5. _____ 6. _____				50% of total cover: <u>50</u> 20% of total cover: <u>20</u>		
				65% = Total Cover		
				50% of total cover: <u>32.5</u> 20% of total cover: <u>13.0</u>		
Shrub Stratum (Plot size: <u>30 ft r</u>) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____				_____ = Total Cover		
				50% of total cover: _____ 20% of total cover: _____		
Herb Stratum (Plot size: <u>30 ft r</u>) 1. <u>Smilax rotundifolia</u> 10 ✓ FAC 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____				10% = Total Cover		
				50% of total cover: <u>5.0</u> 20% of total cover: <u>2.0</u>		
Woody Vine Stratum (Plot size: <u>30 ft r</u>) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____				_____ = Total Cover		
				50% of total cover: _____ 20% of total cover: _____	Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u> ✓	

Remarks: (If observed, list morphological adaptations below).

Hydrophytic vegetation does not dominate.

SOIL

Sampling Point: DP-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 3	10YR 3/3	100					Silt Loam	
3 - 16	10YR 5/3	100					Silt Loam	
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U)	<input type="checkbox"/> 1 cm Muck (A9) (LRR O)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)	<input type="checkbox"/> 2 cm Muck (A10) (LRR S)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)	<input type="checkbox"/> Reduced Vertic (F18) (outside MLRA 150A,B)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, S, T)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Anomalous Bright Loamy Soils (F20)
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> (MLRA 153B)
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Muck Presence (A8) (LRR U)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)	<input type="checkbox"/> Marl (F10) (LRR U)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)	
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)	<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)	
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)	<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)	
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)	
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)	
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)		

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

Hydric soil not observed.

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Corridor Center City/County: City of Laurel Sampling Date: 2022-04-15
 Applicant/Owner: Pulte Group State: Maryland Sampling Point: DP-2
 Investigator(s): TNT Environmental Inc- D. Dellapenna, E. Williams Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 7
 Subregion (LRR or MLRA): S 149A Lat: 39.0998708 Long: -76.8804252 Datum: WGS 84
 Soil Map Unit Name: ApB - Aquasco silt loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks: PFO data point taken inside flag A-15.	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Marl Deposits (B15) (LRR U) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input checked="" type="checkbox"/> Water-Stained Leaves (B9)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Sphagnum moss (D8) (LRR T, U)
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Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>2</u> Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u> Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology observed.

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: DP-2

<u>Tree Stratum</u> (Plot size: <u>30 ft r</u>) Absolute % Cover Dominant Species? Indicator Status				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80</u> (A/B)	
1. <u>Acer rubrum</u> <u>70</u> <input checked="" type="checkbox"/> <u>FAC</u> 2. _____ 3. _____ 4. _____ 5. _____ 6. _____				<u>70%</u> = Total Cover 50% of total cover: <u>35.0</u> 20% of total cover: <u>14.0</u>	
<u>Sapling Stratum</u> (Plot size: <u>30 ft r</u>) Absolute % Cover Dominant Species? Indicator Status				Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>150</u> x 3 = <u>450</u> FACU species <u>5</u> x 4 = <u>20</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>155</u> (A) <u>470</u> (B)	
1. <u>Acer rubrum</u> <u>30</u> <input checked="" type="checkbox"/> <u>FAC</u> 2. <u>Ilex opaca</u> <u>30</u> <input checked="" type="checkbox"/> <u>FAC</u> 3. _____ 4. _____ 5. _____ 6. _____				<u>60%</u> = Total Cover 50% of total cover: <u>30.0</u> 20% of total cover: <u>12.0</u>	
<u>Shrub Stratum</u> (Plot size: <u>30 ft r</u>) Absolute % Cover Dominant Species? Indicator Status				Hydrophytic Vegetation Indicators: _____ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% _____ 3 - Prevalence Index is $\leq 3.0^1$ _____ Problematic Hydrophytic Vegetation ¹ (Explain)	
1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____				<u> </u> = Total Cover 50% of total cover: _____ 20% of total cover: _____	
<u>Herb Stratum</u> (Plot size: <u>30 ft r</u>) Absolute % Cover Dominant Species? Indicator Status				Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).	
1. <u>Smilax rotundifolia</u> <u>20</u> <input checked="" type="checkbox"/> <u>FAC</u> 2. <u>Lonicera japonica</u> <u>5</u> <input checked="" type="checkbox"/> <u>FACU</u> 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____				Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.	
<u>Woody Vine Stratum</u> (Plot size: <u>30 ft r</u>) Absolute % Cover Dominant Species? Indicator Status				Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.	
1. _____ 2. _____ 3. _____ 4. _____ 5. _____				Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, <u>and</u> woody plants, except woody vines, less than approximately 3 ft (1 m) in height.	
<u> </u> = Total Cover 50% of total cover: <u>12.5</u> 20% of total cover: <u>5.0</u>				Woody vine – All woody vines, regardless of height.	
<u> </u> = Total Cover 50% of total cover: _____ 20% of total cover: _____				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks: (If observed, list morphological adaptations below).

Hydrophytic vegetation dominates.

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 9	10YR 4/1	90	10YR 3/6	10	C	M	Sandy Loam	
9 - 16	10YR 5/1	85	10YR 5/8	15	C	M	Sandy Loam	
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Organic Bodies (A6) (LRR P, T, U)
- 5 cm Mucky Mineral (A7) (LRR P, T, U)
- Muck Presence (A8) (LRR U)
- 1 cm Muck (A9) (LRR P, T)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Coast Prairie Redox (A16) (MLRA 150A)
- Sandy Mucky Mineral (S1) (LRR O, S)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR P, S, T, U)
- Polyvalue Below Surface (S8) (LRR S, T, U)
- Thin Dark Surface (S9) (LRR S, T, U)
- Loamy Mucky Mineral (F1) (LRR O)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Marl (F10) (LRR U)
- Depleted Ochric (F11) (MLRA 151)
- Iron-Manganese Masses (F12) (LRR O, P, T)
- Umbric Surface (F13) (LRR P, T, U)
- Delta Ochric (F17) (MLRA 151)
- Reduced Vertic (F18) (MLRA 150A, 150B)
- Piedmont Floodplain Soils (F19) (MLRA 149A)
- Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes No _____

Remarks:

Hydric soil observed.

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Corridor Center City/County: City of Laurel Sampling Date: 2022-04-15
 Applicant/Owner: Pulte Group State: Maryland Sampling Point: DP-3
 Investigator(s): TNT Environmental Inc- D. Dellapenna, E. Williams Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Upland Local relief (concave, convex, none): Linear Slope (%): 3
 Subregion (LRR or MLRA): S 149A Lat: 39.0998574 Long: -76.8820295 Datum: WGS 84
 Soil Map Unit Name: ApB - Aquasco silt loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: Upland data point taken outside flag A-32.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Marl Deposits (B15) (LRR U) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Sphagnum moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____	

Wetland Hydrology Present? Yes _____ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

One secondary wetland hydrology indicator observed.

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: DP-3

<u>Tree Stratum</u> (Plot size: 30 ft r) 1. <u>Liriodendron tulipifera</u> 40 ✓ FACU 2. <u>Acer rubrum</u> 20 ✓ FAC 3. <u>Carya tomentosa</u> 20 ✓ UPL 4. <u>Fagus grandifolia</u> 20 ✓ FACU 5. _____ 6. _____				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A) Total Number of Dominant Species Across All Strata: 7 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 28.6 (A/B)		
100% = Total Cover 50% of total cover: 50.0 20% of total cover: 20.0				Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 50 x 3 = 150 FACU species 70 x 4 = 280 UPL species 40 x 5 = 200 Column Totals: 160 (A) 630 (B)		
<u>Sapling Stratum</u> (Plot size: 30 ft r) 1. <u>Ilex opaca</u> 30 ✓ FAC 2. <u>Carya tomentosa</u> 20 ✓ UPL 3. _____ 4. _____ 5. _____ 6. _____				50% = Total Cover 50% of total cover: 25.0 20% of total cover: 10.0		
<u>Shrub Stratum</u> (Plot size: 30 ft r) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____				_____ = Total Cover 50% of total cover: _____ 20% of total cover: _____		
<u>Herb Stratum</u> (Plot size: 30 ft r) 1. <u>Lonicera japonica</u> 10 ✓ FACU 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is $\leq 3.0^1$ Problematic Hydrophytic Vegetation ¹ (Explain)		
<u>Woody Vine Stratum</u> (Plot size: 30 ft r) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
_____ = Total Cover 50% of total cover: 5.0 20% of total cover: 2.0				Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.		
_____ = Total Cover 50% of total cover: _____ 20% of total cover: _____				Hydrophytic Vegetation Present? Yes _____ No _____		

Remarks: (If observed, list morphological adaptations below).

Hydrophytic vegetation does not dominate.

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 3	10YR 3/3	100					Silt Loam	
3 - 6	10YR 4/2	100					Loam	
6 - 16	10YR 5/4	100					Loam	
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U)	<input type="checkbox"/> 1 cm Muck (A9) (LRR O)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)	<input type="checkbox"/> 2 cm Muck (A10) (LRR S)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)	<input type="checkbox"/> Reduced Vertic (F18) (outside MLRA 150A,B)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, S, T)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Anomalous Bright Loamy Soils (F20)
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> (MLRA 153B)
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Muck Presence (A8) (LRR U)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)	<input type="checkbox"/> Marl (F10) (LRR U)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)	
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)	<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)	
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)	<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)	
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)	
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)	
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)		

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

Hydric soil not observed.

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Corridor Center City/County: City of Laurel Sampling Date: 2022-04-15
 Applicant/Owner: Pulte Group State: Maryland Sampling Point: DP-4
 Investigator(s): TNT Environmental Inc- D. Dellapenna, E. Williams Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): Linear Slope (%): 2
 Subregion (LRR or MLRA): S 149A Lat: 39.0983117 Long: -76.8854414 Datum: WGS 84
 Soil Map Unit Name: CaD - Chillum silt loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: Upland data point taken outside flag G-4.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Marl Deposits (B15) (LRR U) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Sphagnum moss (D8) (LRR T, U)
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Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	

Remarks: One secondary wetland hydrology indicator observed.
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VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: DP-4

Tree Stratum (Plot size: <u>30 ft r</u>) 1. <u>Quercus alba</u> 45 ✓ FACU 2. <u>Acer rubrum</u> 25 ✓ FAC 3. <u>Prunus serotina</u> 15 FACU 4. _____ 5. _____ 6. _____				Absolute % Cover Dominant Species? Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>7</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>42.9</u> (A/B)
				85% = Total Cover 50% of total cover: <u>42.5</u> 20% of total cover: <u>17.0</u>	
Sapling Stratum (Plot size: <u>30 ft r</u>) 1. <u>Acer rubrum</u> 20 ✓ FAC 2. <u>Carya tomentosa</u> 15 ✓ UPL 3. _____ 4. _____ 5. _____ 6. _____				Total % Cover of: Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>60</u> x 3 = <u>180</u> FACU species <u>90</u> x 4 = <u>360</u> UPL species <u>15</u> x 5 = <u>75</u> Column Totals: <u>165</u> (A) <u>615</u> (B)	
				35% = Total Cover 50% of total cover: <u>17.5</u> 20% of total cover: <u>7.0</u>	Prevalence Index = B/A = 3.73
Shrub Stratum (Plot size: <u>30 ft r</u>) 1. <u>Lonicera tatarica</u> 10 ✓ FACU 2. _____ 3. _____ 4. _____ 5. _____ 6. _____				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is $\leq 3.0^1$ Problematic Hydrophytic Vegetation ¹ (Explain)	
				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Herb Stratum (Plot size: <u>30 ft r</u>) 1. <u>Lonicera japonica</u> 20 ✓ FACU 2. <u>Geum canadense</u> 15 ✓ FAC 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____				Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.	
Woody Vine Stratum (Plot size: <u>30 ft r</u>) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____				Hydrophytic Vegetation Present? Yes <u> </u> No <u> ✓ </u>	
_____ = Total Cover 50% of total cover: _____ 20% of total cover: _____					

Remarks: (If observed, list morphological adaptations below).

Hydrophytic vegetation does not dominate.

SOIL

Sampling Point: DP-4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 10	10YR 3/3	100					Silt Loam	
10 - 16	10YR 4/3	100					Silt Loam	
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Organic Bodies (A6) (LRR P, T, U)
- 5 cm Mucky Mineral (A7) (LRR P, T, U)
- Muck Presence (A8) (LRR U)
- 1 cm Muck (A9) (LRR P, T)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Coast Prairie Redox (A16) (MLRA 150A)
- Sandy Mucky Mineral (S1) (LRR O, S)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR P, S, T, U)

Indicators for Problematic Hydric Soils³:

- Polyvalue Below Surface (S8) (LRR S, T, U)
- Thin Dark Surface (S9) (LRR S, T, U)
- Loamy Mucky Mineral (F1) (LRR O)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Marl (F10) (LRR U)
- Depleted Ochric (F11) (MLRA 151)
- Iron-Manganese Masses (F12) (LRR O, P, T)
- Umbric Surface (F13) (LRR P, T, U)
- Delta Ochric (F17) (MLRA 151)
- Reduced Vertic (F18) (MLRA 150A, 150B)
- Piedmont Floodplain Soils (F19) (MLRA 149A)
- Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Gravel
Depth (inches): 14

Hydric Soil Present? Yes No

Remarks:

Hydric soil not observed.

APPENDIX IV

PHOTOGRAPHS



Photograph 1: View to the northeast showing the forested uplands at DP-1, taken outside flag A-8 within the northeastern portion of the project site.



Photograph 2: View to the east showing the PFO wetland at DP-2, taken inside flag A-15 within the northeastern portion of the project site.



Photograph 3: View to the north showing the forested uplands at DP-3, taken outside flag A-32 within the northern portion of the project site.



Photograph 4: View to the east showing the forested uplands at DP-4, taken outside flag G-4 within the southwestern portion of the project site.



Photograph 5: View to the east showing the PFO wetland at flag A-23, taken within the northeastern portion of the project site.



Photograph 6: View upstream to the north showing the ephemeral stream at flag E-7, taken within the northern portion of the project site.



Photograph 7: View downstream to the south showing the ephemeral stream at flag A-39, taken within the northwestern portion of the project site.



Photograph 8: View upstream to the north showing the existing culvert at flag A-54, taken within the northern portion of the site.



Photograph 9: View to the northwest showing the existing culvert at flag F-1, taken within the southwestern portion of the project site.



Photograph 10: View downstream to the southeast showing the ephemeral stream at flag F-1, taken within the southwestern portion of the project site.



Photograph 11: View to the north showing the forested uplands and existing residence, taken within the southern portion of the project site.



Photograph 12: View to the north showing the powerlines, existing driveway and parking lot for the automobile repair shop in the western portion of the project site.



Photograph 13: View to the southwest showing the automobile repair shop, parking lot, and forested uplands, taken in the western portion of the project site.



Photograph 14: View to the north showing the uplands and household debris within the northwestern portion of the site.



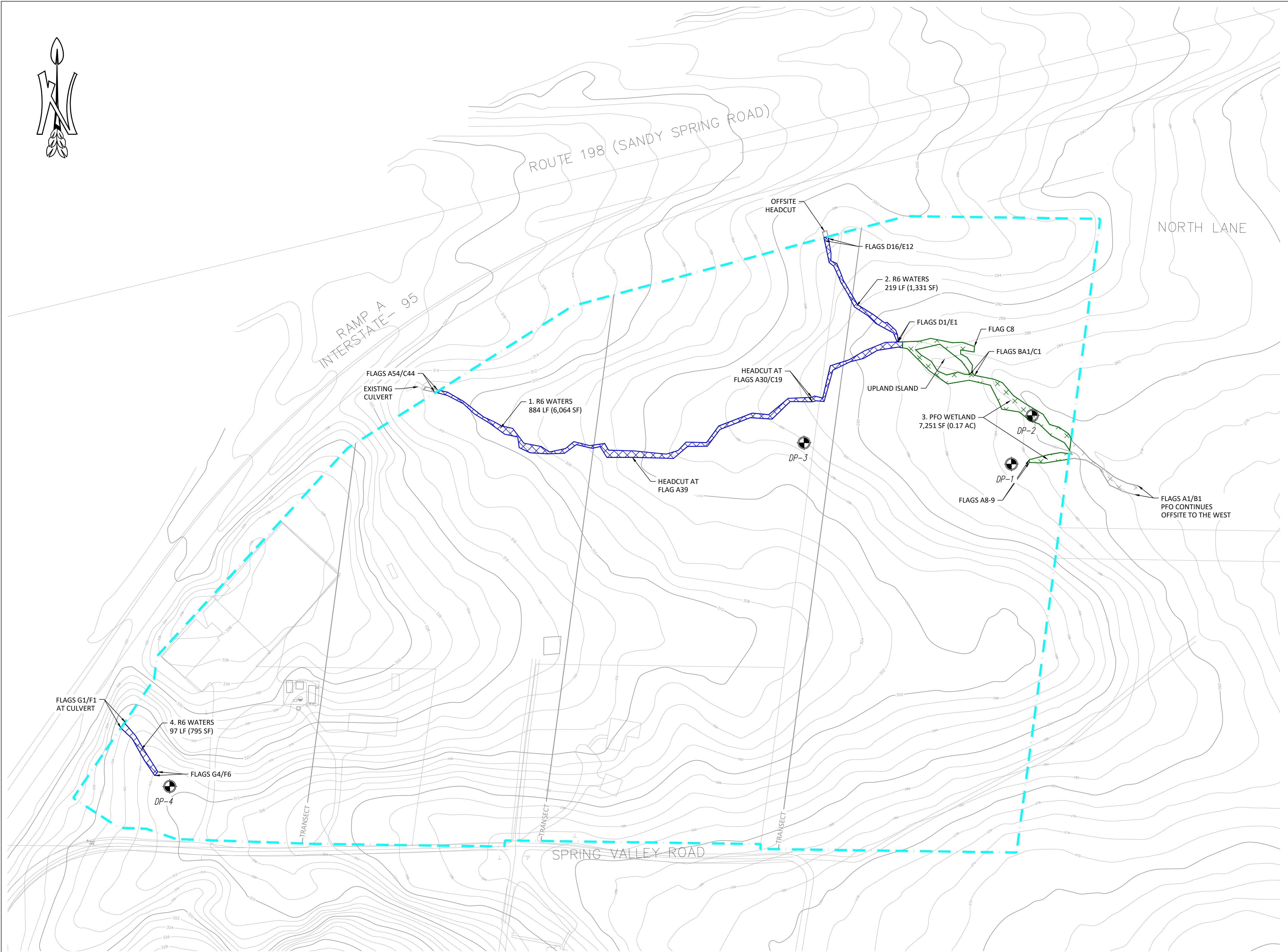
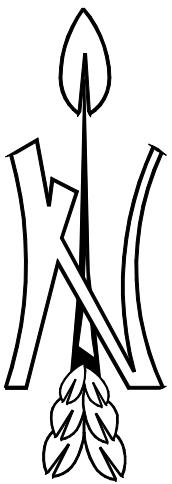
Photograph 15: View to the west showing the forested uplands within the southern portion of the project site.



Photograph 16: View to the east showing the forested uplands within the northeastern portion of the project site.

APPENDIX V

WETLANDS AND WATERS OF THE U.S.
DELINEATION MAP

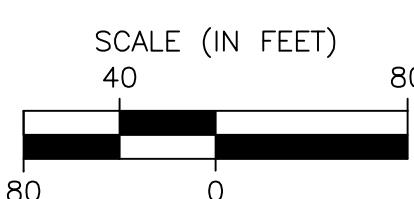


SUMMARY OF FEDERALLY JURISDICTIONAL WATERS (INCLUDING WETLANDS)				
AR ID	PFO (SF)	PFO (AC)	R6 (LF)	R6 (AC)
1	-	-	884	0.14
2	-	-	219	0.03
3	7,251	0.17	-	-
4	-	-	97	0.02
Total	7,251	0.17	1,200	0.19

AR- Aquatic Resource; PFO - Palustrine Forested; R6 - Ephemeral Stream

AR- Aquatic Resource; PFO - Palustrine Forested; R6 - Ephemeral Stream

Total Waters of the U.S. (Linear Feet):	1,200	LF
Total Wetlands (Acreage):	0.17	Acres



LEGEND

 Ephemeral Waters (R6)

 PALUSTRINE FORESTED (PFO) WETLAND

OFFSITE EPHEMERAL WATERS (R6)

OFFSITE PALUSTRINE FORESTED (PF)

STUDY AREA

NOTES:
1. THE WETLAND DELINEATION WAS CONDUCTED BY TNT ENVIRONMENTAL, INC. (TNT) IN APRIL 2022. EXISTING CONDITION, TOPOGRAPHY AND WETLAND FLAGS WERE SURVEYED BY SOLTESZ, LLC, 2022.

2. THE WETLAND AND OTHER WATERS BOUNDARIES DEPICTED HEREON ARE PRELIMINARY UNTIL CONFIRMED DURING A JURISDICTIONAL DETERMINATION WITH THE US ARMY CORPS OF ENGINEERS (USACE).

3. THE STREAM ASSESSMENTS CONDUCTED ARE BASED ON THE FAIRFAX COUNTY "PERENNIAL STREAM FIELD IDENTIFICATION PROTOCOL", DATED MAY 2003.

4. THIS DELINEATION WAS PERFORMED PER THE CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL, TECHNICAL REPORT Y-87-1 (1987 MANUAL) AND SUBSEQUENT GUIDANCE AND MODIFICATION BY THE REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: ATLANTIC & GULF COASTAL PLAIN REGION (VERSION 2) DATED NOVEMBER 2010. THE STUDY AREA IS APPROXIMATELY 28-ACRES; AS SUCH THE ROUTINE ON-SITE WETLAND DETERMINATION METHOD FOR SITES GREATER THAN 5 ACRES WAS USED, WITH MULTIPLE TRANSECTS PERFORMED AS DEPICTED HEREON.

COBBIDOD CENTER

SURVEYED WETLANDS &
WATERS MAP

OF 1

1/11/22	
AFT: EM	CHECK AMS
FILE NUMBER: 2807	

The logo for TNT Environmental features a stylized tree with several branches and small, oval-shaped leaves. To the right of the tree, the word "ENVIRONMENTAL" is written in large, bold, black, sans-serif capital letters. Above the tree, the text "TNT" is written vertically in a smaller, bold, black font. Below the tree, the company name "TNT ENVIRONMENTAL" is repeated in a smaller, bold, black font.

RRIDOR CECITY OF LAUREL, MARYLAND