

Documentation of FHWA Review

Project Name: Bailey Bridge Connector

State Project Number: 0000-020-820

UPC: 111713

Based on preliminary environmental impact information compiled by VDOT, FHWA approved this project as a Categorical Exclusion on February 20, 2020. Based on my review of the Categorical Exclusion documentation submitted by VDOT, I find this information acceptable and sufficient as supporting documentation to support the original Categorical Exclusion determination.

John Simkins

August 25, 2020

Approving FHWA Official

Date

TO: FHWA
FROM: Palmer Stearns
DATE: 8/26/2020

CATEGORICAL EXCLUSION (CE)

Date CE level document approved by VA FHWA Division:

FHWA Contact: John Simkins

Route: N/A

Route Type: Secondary

Project Type: Construction

State Project Number: 0000-020-820

Federal Project Number: STP-5A27(616)

UPC: 111713

Project Name: Bailey Bridge Connector Project

From: Brad McNeer Parkway (Route 5655)

To: Bailey Bridge Road (Route 654)

County/City: Chesterfield County, Virginia

District / Residency: VDOT Richmond District

Project in STIP: Yes No
Project in Long Range Plan: Yes No N/A Project Outside of MPO Area
Next Phase of Funding Available: Yes No

Project Description: The proposed project includes the construction of the Bailey Bridge Connector from Bailey Bridge Road to Brad McNeer Parkway as a two-lane road with eight-foot shoulders. The project would construct two roundabouts, one at the intersection with Brad McNeer Parkway and the other at the intersection with Bailey Bridge Road. The improvements would include a ten-foot shared-use path and a bridge over Swift Creek. Stormwater management facilities would be provided as needed.

CE Category 23 CFR 771.117:

Description of CE Category: Additional actions that meet the criteria for a CE in the CEQ regulations (40 CFR 1508.4) and paragraph (a) of this section may be designated as CEs only after Administration approval unless otherwise authorized under an executed agreement pursuant to paragraph (g) of this section. The applicant must submit documentation that demonstrates that the specific conditions or criteria for these CEs are satisfied, and that significant environmental effects will not result.

USGS Map Attached Yes

Logical Termini and Independent Utility:
Yes N/A (For Non-highway construction only, explain in comments below)

Purpose and Need Statement: The primary purpose for the proposed project is to relieve congestion on the US 360 corridor which is currently over capacity and to provide an alternate route for areas along Bailey Bridge Road to Route 288 and amenities along Route 360 (Hull Street). Route 360 west of Route 288 is a congested corridor plagued by heavy delays and crashes during rush hours. Route 360 carries over 78,000

vehicles a day, significantly more than on Route 288 between Powhite Parkway and Route 360 (60,000 vehicles per day). As growth continues to the west, traffic on Route 360 is projected to exceed 120,000 vehicles per day by the year 2040. This is comparable to the amount of traffic currently on Interstate 95 near Route 10 in Chester. The Bailey Bridge Connector would reduce traffic volumes on Route 360, provide direct access to businesses and services along Route 360, and provide a safe travel alternative for pedestrians and cyclists.

Typical Section: The proposed project includes the construction of the new Bailey Bridge Connector from Bailey Bridge Road to Brad McNeer Parkway as a two-lane road with eight-foot shoulders. The project would construct two roundabouts, one at the intersection with Brad McNeer Parkway and the other at the intersection with Bailey Bridge Road. The improvements would include a shared-use path and a bridge over Swift Creek. The improvements include multiple roadway typical sections as follows:

1. The Bailey Bridge Connector and Bailey Bridge Road typical section includes two 11-foot lanes with 8-foot shoulders. A 10-foot shared use path would be provided on one side of the road behind the roadside ditch. The Bailey Bridge Connector typical section would transition from shoulder and ditch to curb and gutter as it approaches the bridge over Swift Creek to help slow speeds as vehicles near the roundabout at Brad McNeer Parkway.
2. The Brad McNeer Parkway typical section includes two 11-foot lanes with curb and gutter. A 10-foot shared use path would be provided in various areas for connectivity. The proposed typical section would widen out on each end to tie into the existing typical section which consists of two thru lanes and a center turn lane.
3. The roundabout typical sections at Bailey Bridge Road and Brad McNeer Parkway would vary. During detailed design, the roundabout and travelways would be sized to facilitate a design speed of 25 MPH. The center island truck aprons would be sized to accommodate overtracking truck movements.

Structures: The new bridge structure over Swift Creek would be approximately 49 feet wide and 375 feet long. The project would require a new drainage system at each end where the roundabouts are located including curb inlets, pipes, drop inlets, and culverts. Along the new alignment of the Bailey Bridge Connector, road culverts would be utilized to convey drainage under the road in low lying areas. The existing drainage structures would be utilized to the greatest extent feasible; this would include extending existing culverts and existing structure adjustments. Excavation would be required for any structures and foundation requirements, as well as roadside ditches and pipe bedding.

SOCIO-ECONOMIC	PRESENT		IMPACTS	
	YES	NO	YES	NO
Minority/Low Income Populations	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Disproportionate Impacts to Minority/Low Income Populations: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>				
Existing or Planned Public Recreational Facilities	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Source: U.S. Census Bureau, American Fact Finder, VDOT Project Manager, Public Hearing Plans, Moving Forward, The Comprehensive Plan for Chesterfield County, adopted May 2019 (Comprehensive Plan)				
Community Services	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Source: Google mapping, Chesterfield County GIS Data, Comprehensive Plan				
Consistent with Local Land Use: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
Source: Comprehensive Plan, Land Use Plan				

Existing or Planned Bicycle/Pedestrian Facilities:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Source: Comprehensive Plan, Bikeways & Trails Plan, Chesterfield County Parks and Recreation, Chesterfield County GIS Data				
Comments: Minority/low-income populations are not present within the general vicinity. This project would displace one family/individual, located at 13000 Bailey Bridge Road. During the Right of Way (ROW) phase, specialists would coordinate with the property owner to locate suitable housing using the VDOT ROW manual and following federal guidelines for ROW acquisition. There would be no disruptions of community services and no disruptions of emergency services. Based on scoping responses, Fire and EMS and Chesterfield County Police Department are both very favorable of the proposed project since it would decrease traffic on Hull Street, provide better access, and decrease response times for emergency vehicles. Based on the Chesterfield Bikeways & Trails Plan, there is a proposed trail along Swift Creek that would be bridged by this project. However, planning is in very early stages and the exact location of this trail is unknown at this time. The appropriate Chesterfield County departments are coordinating this effort to ensure a suitable location for the trail is available in conjunction with the proposed project.				

SECTION 4(f) and SECTION 6(f)	YES	NO
Use of 4(f) Property: Acres of use: N/A	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Name of Resource: N/A		
Type of Resource:		
Individually Eligible Historic Property:	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Contributing Element to Historic District	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Public Recreation Area:	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Public Park:	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Public Wildlife/Waterfowl Refuge:	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Planned Public Park, Recreation Area, Wildlife or Waterfowl Refuge:	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Source: Coordination with Local Officials as well as the Design Team and Chesterfield County GIS data.		
De Minimis:	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Type of Use:		
Permanent:	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Temporary:	<input type="checkbox"/>	<input checked="" type="checkbox"/>
*Constructive:	<input type="checkbox"/>	<input checked="" type="checkbox"/>
*Temporary Non 4(f) Use	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Section 4(f) Evaluation Attached:	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Conversion of 6(f) Property: Acres of Conversion: N/A	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Source: Comprehensive Plan, Bikeways & Trails Plan, Chesterfield County GIS, Land and Water Conservation Fund Data Layer using ESRI.		

Comments: A scoping response from Chesterfield County Parks and Recreation Department revealed a proposed trail along Swift Creek. Following additional coordination, it was determined that the Bailey Bridge Connector has been on the Chesterfield County Thoroughfare Plan since at least October 24, 2012, while the Bikeways and Trails Plan was adopted by the Board of Supervisors on November 18, 2015. The project proposes to completely bridge this area, which would not preclude the building of this trail in the future. The appropriate departments within Chesterfield County are in coordination regarding the trail location.

There are no eligible Section 4(f) or Section 6(f) properties present and no additional evaluation or coordination is necessary.

CULTURAL RESOURCES		COMPLETE	N/A
Source: Cultural Resources Survey for the Bailey Bridge Connector, dated March 2020, Virginia Department of Historic Resources (VDHR) concurrence dated June 24, 2020			
No historic properties present or affected in accordance with the 2016 Federal PA		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Phase I Architecture Conducted		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Phase II Architecture Conducted		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Phase I Archaeology Conducted		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Phase II Archaeology Conducted		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Section 106 Effect Determination: No Effect			
DHR Concurrence on Effect: Yes	<input checked="" type="checkbox"/>	Date: June 24, 2020	
MOA Attached: Yes	<input type="checkbox"/>	N/A	<input checked="" type="checkbox"/>
Execution Date: / /			
Name of Historic Property: There are no eligible architectural or archaeological resources within the APE for this project.			
Comments: As discussed in the attached Cultural Resources Survey for the Bailey Bridge Connector, dated March 2020, there are no architectural or archaeological resources eligible for the National Register of Historic Places (NRHP). Virginia Department of Historic Resources (VDHR) concurrence dated June 24, 2020, stating that this project will have no effect on historic properties, attached.			

NATURAL RESOURCES	PRESENT		IMPACTS	
	YES	NO	YES	NO
Surface Water (Name: Swift Creek)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Source: Chesterfield County GIS, Google Mapping				
Federal Threatened or Endangered Species: Terrestrial: Northern Long-eared Bat (<i>Myotis septentrionalis</i>); Aquatic: Yellow Lance (<i>Elliptio lanceolate</i>) Plants: N/A	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
Source: Virginia Department of Conservation and Recreation (DCR), Virginia Department of Game and Inland Fisheries (DGIF), and the US Fish and Wildlife Service (FWS)				
100 Year Floodplain: If "Yes" then identify the regulatory floodway zone:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Source: Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM), Numbers 51041C0117D, dated 12-17-2012 and 51041C0120D, dated 12-17-2012				
Tidal Waters/Wetlands: N/A	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Wetlands: See attached memo and mapping.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Source: Field Review; NWI Mapping; Corps of Engineers Wetlands Delineation Manual				
	Yes		No	
Permits Required	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Source: Field Review/Delineation took place on 02/17/2020 and 05/13/2020 (initial delineation and follow-up additional area delineation, respectively)				

Comments:

USFWS VaFWIS Self Certification: There was a finding of no critical habitat based on the study area and official species listing. However, according to IPAC, the Northern Long-eared Bat (*Myotis septentrionalis*) is listed as threatened. Currently there are no known hibernacula within a 1/4 mile and/or maternity roosts within 150 feet of the proposed project. Evidence of bats was not observed. However, since there is approximately 14.5 acres of tree removal proposed for this project, a verification letter was completed on June 2, 2020 for a may affect, not likely to adversely affect determination. No response was received from the USFWS. Based on the findings of the 1/5/2016 Programmatic Biological Opinion for Final 4(d) Rule on the Northern Long-eared Bat and Activities Exempted from Take Prohibitions, the project-specific Section 7 responsibilities have been fulfilled.

Yellow Lance: This species is listed as potentially present within the project area. The project would completely span Swift Creek and appropriate erosion and sediment controls would be utilized during the construction of the bridge, avoiding any direct instream aquatic impacts. Therefore, this project would not impact the Yellow Lance.

Streams and Wetlands: As required by Section 401 and Section 404 of the Clean Water Act, a US Army Corps of Engineers (USACOE) permit is required for the discharge of dredged or fill material into waters of the United States. Many waterbodies and wetlands in the nation are waters of the United States and are subject to the Corps' Section 404 regulatory authority. Field investigations were conducted to identify and delineate Waters of the United States within the study area of the Bailey Bridge Connector project for use in obtaining a Corps permit. The following is a summary of the delineated Waters of the United States within the Bailey Bridge Connector study area:

- Wetlands
 - PEM – 0.05 Acres
 - PFO – 0.22 Acres
- Streams
 - Ephemeral Stream (R6) – 220 Feet
 - Intermittent Stream (R4) – 400 Feet
 - Perennial Stream (R3) – 2,300 Feet

Based on the proposed improvements the project may qualify for a State Programmatic General Permit (SPGP). A permit would be acquired for any temporary or permanent impacts to wetlands/waters of the US/waters of the state prior to any work commencing in those areas.

AGRICULTURAL/OPEN SPACE	PRESENT		IMPACTS	
	YES	NO	YES	NO
Open Space Easements N/A	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Source: Scoping Response, Virginia. Outdoors Foundation (VOF)				
Agricultural/Forestal Districts N/A	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Source Chesterfield County GIS				
Comments: Coordination with the VOF verified open space easements are not present. Chesterfield County GIS data shows no Agricultural/Forestal Districts in the study area.				

FARMLAND	YES	NO
NRCS Form CPA-106 Attached: N/A Rating: N/A	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Alternatives Analysis Required: N/A	<input type="checkbox"/>	<input checked="" type="checkbox"/>

If Form CPA-106 is not attached check all that are applicable:		
Land already in Urban use: Yes	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Entire project in area <i>not</i> zoned agriculture:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
NRCS responded within 45 days: N/A	<input type="checkbox"/>	<input checked="" type="checkbox"/>
NRCS Determined no prime or unique farmland in the project area.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Source: Natural Resources Conservation Service Farmland Policy Protection Process; US Census Data Mapping for Census Designated Urban Areas		
Comments: The study area is in a US Census Designated Urban Area and therefore does not qualify as prime/unique/statewide or locally important farmlands. This project would be required to follow erosion and sediment control plans.		

INVASIVE SPECIES	PRESENT		
	YES	NO	UNKNOWN
Invasive Species in the project area:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Comments: There is potential for invasive species to become established along the limits of disturbance of the project during and following construction. Section 244.02(c) of VDOT's Road and Bridge Specifications (2016) includes provisions intended to control noxious weeds (which includes non-native and invasive species).</p> <p>While rights of ways are at risk from invasive species colonization from adjacent properties, implementing the above provisions would reduce or minimize potential for introduction, proliferation, and spread of invasive species. Additionally, the implementation of BMPs for erosion/sediment control and abatement of pollutant loading would minimize indirect impacts to adjoining communities and habitat by reducing excess nutrient loads that could encourage invasive species proliferation.</p>			

AIR QUALITY		
Carbon Monoxide (CO)	Yes	No
This project is located in a CO <input checked="" type="checkbox"/> Attainment Area <input type="checkbox"/> Maintenance Area		
CO Hotspot Analysis Required? (if "Yes", please attach analysis) <input type="checkbox"/> <input checked="" type="checkbox"/>		
If "No", indicate which exemption it falls under:		
<input type="checkbox"/> Exempt project under 40 CFR 93.126.		
<input checked="" type="checkbox"/> Exempt project based on traffic volumes below thresholds in the current VDOT Project Level Air Quality Studies Agreement with FHWA/EPA.		
Ozone		
This project is located in an Ozone <input checked="" type="checkbox"/> Attainment Area <input type="checkbox"/> Maintenance Area <input type="checkbox"/> Nonattainment Area <input type="checkbox"/> Early Action Compact Area		
Only projects located in ozone nonattainment or maintenance areas must complete this box		
<input type="checkbox"/> Exempt from regional emissions requirements under 40 CFR 93.126 or 40 CFR 93.127.		
<input type="checkbox"/> Properly programmed in the CLRP and FY - TIP.		
<input type="checkbox"/> The project is not regionally significant and/or is not of a type that would normally be included in the regional transportation model.		
<input type="checkbox"/> This project is regionally significant; however, the project was not modeled, or the scope of the project is not consistent with what was modeled in the currently conforming CLRP and TIP.		
Fine Particulate Matter (PM2.5)	Yes	No
This project is located in a PM _{2.5} <input type="checkbox"/> Nonattainment Area <input type="checkbox"/> Maintenance Area <input checked="" type="checkbox"/> Attainment Area (if checked, do not fill out box below)		
PM _{2.5} Hotspot Analysis Required? (If "Yes", Please Attach Analysis) <input type="checkbox"/> <input checked="" type="checkbox"/>		
Check all that apply;		
<input type="checkbox"/> A. Exempt project under 40 CFR 93.126, Table 2.		
<input type="checkbox"/> B. Not a project of air quality concern under 40 CFR 93.123(b)(1)(i) thru (v).		
<input type="checkbox"/> C. Properly programmed in the CLRP and FY - TIP.		
<input type="checkbox"/> D. This project is regionally significant; however, the project was not modeled, or its scope is not consistent with what was modeled, in the currently conforming CLRP and TIP.		
If "B" is checked above, please indicate the following for highway projects;		
Design Year _____, Peak AADT _____, Peak Diesel Truck % _____		
Mobile Source Air Toxics (MSAT)		
This project <input checked="" type="checkbox"/> is exempt with no meaningful potential MSAT effects		
<input type="checkbox"/> is one with low potential MSAT effects (attach qualitative MSAT analysis)		
<input type="checkbox"/> is one with high potential MSAT effects (attach quantitative MSAT analysis)		
Check all that apply;		
<input checked="" type="checkbox"/> Exempt project under 40 CFR 93.126, or qualifies as a CE under 23 CFR 771.117(c).		
<input type="checkbox"/> Project with no meaningful impact on traffic volumes or vehicle mix.		
If a qualitative MSAT analysis is required, please indicate the following for highway projects;		
Design Year: _____ Peak AADT: _____		
Source:		
Comments: The study area is located in the County of Chesterfield. At the time of preparation of this technical report, the United States Environmental Protection Agency's (EPA) Green Book shows the County of Chesterfield to be designated as an attainment area for all criteria pollutants. However, federal conformity		

requirements, including specifically 40 CFR 93.114 and 40 CFR 93.115, apply for the project as the area in which it is located is one affected by a recent court decision that reinstates conformity requirements nationwide associated with the 1997 ozone NAAQS that had previously been eliminated with the revocation by EPA of that NAAQS in 2015. Based on this federal conformity requirement, the appropriate documentation can be referenced in Section 4.7 of the Air Quality Technical Report.

The proposed improvements were assessed for potential air quality impacts and compliance with applicable air quality regulations and requirements. All models, methods/protocols and assumptions applied in modeling and analyses were made consistent with those provided or specified in the VDOT Resource Document. The assessment indicates that the project would meet all applicable air quality requirements of NEPA. As such, the project would not cause or contribute to a new violation, increase the frequency or severity of any violation, or delay timely attainment of the NAAQS established by the EPA.

NOISE	YES	NO
Type I Project:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Source:		
Noise Analysis Attached:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Barriers Under Consideration:	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Source:		
Comments: Under Design Year (2047) Build conditions, no noise-sensitive receptors are predicted to experience noise impacts within the Bailey Bridge Connector Project corridor. Therefore, noise mitigation is not considered warranted and was not evaluated for any sensitive land uses. Additional detailed analysis would be completed in the event of any significant, subsequent changes in design, traffic composition and speed, or planned land development that occur prior to the Final Design phase of the project.		

RIGHT OF WAY AND RELOCATIONS	YES		NO	
Residential Relocations: If "Yes", number: 1	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Source: Project Design Plans, GIS and Site Visits (need dates).				
Commercial Relocations: If "Yes", number: 0	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
Source: Project Design Plans, GIS and Site Visits (need dates).				
Non-profit Relocations: If "Yes", number: 0	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
Source: Project Design Plans, GIS and Site Visits (need dates).				
Right of Way required: If "Yes", acreage amount: Approximately 14.9 Acres	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Source: Chesterfield County GIS Data				
	PRESENT		IMPACTS	
	YES	NO	YES	NO
Septic Systems, Wells, or Public Water Supplies	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Source: Virginia Department of Health; Chesterfield County GIS Data				
Hazardous Materials:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Source: Environmental Data Resources, Inc., June 16, 2020; Field Inspection				

Comments:

ROW/Relocations:

This project is located on new alignment within the County of Chesterfield, Virginia. The total ROW proposed to be acquired for the project is estimated to be approximately 14.9 acres from 16 separate parcels. Additionally, two properties are proposed to be acquired/relocated for this project. An abandoned structure at 13000 Quailwood Road would be acquired, as well as a residence at 13000 Bailey Bridge Road. Chesterfield Department of Transportation's (CDOT) right-of-way (ROW) specialists would coordinate with property owners during the ROW phase of this project and assist in locating suitable housing, if needed.

Coordination with the Virginia Department of Health (VDH) did not reveal any public groundwater wells within a 1-mile radius of the project. However, VDH Best Management Practices should be employed during construction, including Erosion & Sedimentation Controls and Spill Prevention Controls & Countermeasures on the project site.

Two private water supply wells were identified within the proposed project limits which have the potential to be impacted by the project. One of the two private water supply wells is associated with the property located at 13000 Bailey Bridge Road. The second well is located at 12926 Bailey Bridge Road. CDOT ROW specialists would coordinate with the owners of 13000 Quailwood Road and 12926 Bailey Bridge Road, to ensure the properties have access to adequate water supply after the project is constructed. Septic system drainfields are present within the project limits. If it is determined that an active drainfield would be impacted, the drainfield would either be relocated, or the property would be connected to the municipal sanitary sewer.

Hazardous Materials:

The results of the database searches as well as field inspection revealed that hazardous materials at 12916 Bailey Bridge Road (site of potential concern) are unlikely to be encountered during construction activities. However, potential groundwater contamination issues are of particular concern for this project. If necessary, contract provisions would be developed to address the management of any contaminated materials during construction activities.

CUMULATIVE AND INDIRECT IMPACTS	PRESENT		
	YES	NO	N/A
Present or reasonably foreseeable future projects (highway and non-highway) in the area:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Impact same resources as the proposed highway project (i.e. cumulative impacts):	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Indirect (Secondary) impacts:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Source: Virginia Department of Transportation Environmental Division Indirect and Cumulative Effects Analysis Environmental Memorandum, dated 06/24/2020; Comprehensive Plan; Bailey Bridge Connector Complete CE Appendix

Comments:

Indirect and Cumulative:

Per EM-NEPA-715, the indirect and cumulative effects of the proposed action have been considered as part of this document. The impact causing activities proposed as part of the project are not great enough to result in significant indirect effects to the surrounding environment. There are past, present, and reasonably foreseeable future projects planned in the area, and this project would not significantly contribute to cumulative effects.

PUBLIC INVOLVEMENT	YES	NO
Substantial Controversy on Environmental Grounds:	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Source: Citizens Information Meeting, October 3, 2019		
Public Hearing: If "Yes", type of hearing: Location and Design (Fall 2020 and Early 2021, respectively)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other Public Involvement Activities: If "Yes", type of Involvement: October 3, 2019 Citizens Information Meeting.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Source: N/A		
Comments: A total of 161 attendees were recorded on the Citizen Information Meeting sign-in sheet. Comments were received following the meeting through October 31, 2019. A total of 126 written comments were received. Based on citizen feedback there is general support for the project, with 56% of respondents in support of the project.		

COORDINATION

The following agencies were contacted during development of this study:

Federal and State Agencies:

United States Department of the Interior, Fish and Wildlife Service
 Federal Highway Administration, Eastern Federal Lands Highway Division
 National Marine Fisheries Service, Habitat Conservation Division
 United States Department of Agriculture, Natural Resources Conservation Service - Virginia
 United States Department of the Interior, National Park Service
 US Army Corps of Engineers, Norfolk District
 United States Environmental Protection Agency, Region III
 United States Department of Housing and Urban Development - Virginia
 United States Department of Transportation, Federal Transit Administration
 Commonwealth Transportation Board
 Virginia Department of Health, Water Programs
 Virginia Department of Historic Resources
 Virginia Department of Agriculture and Consumer Services
 Virginia Department of Conservation and Recreation – DNH
 Virginia Department of Forestry
 Virginia Department of Mines, Minerals, and Energy
 Virginia Marine Resource Commission
 Virginia Outdoors Foundation
 Virginia Department of Environmental Quality – Water Division
 Virginia Department of Game and Inland Fisheries
 Virginia Department of Environmental Quality - Environmental Impact Review
 Virginia Department of Housing and Community Development
 Virginia Department of Rail and Public Transportation
 Virginia Department of Environmental Quality – Air Division

Local Agencies:

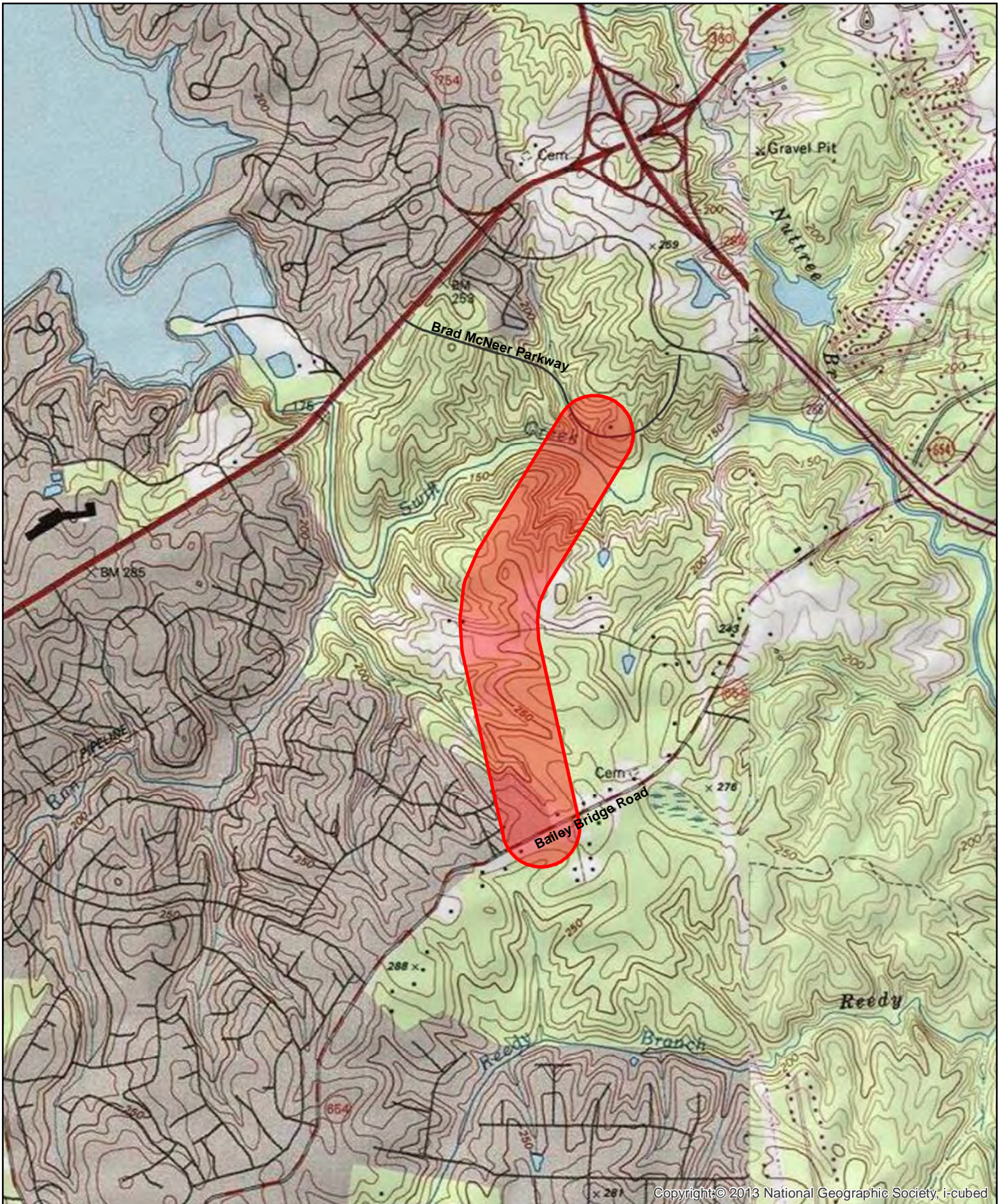
Chesterfield County Health Department
 Chesterfield County Office of Executive
 Chesterfield County Fire and EMS

Chesterfield County Police Department
Chesterfield County Parks and Recreation
Chesterfield County Planning Commission
Chesterfield County Economic Development
Chesterfield County Board of Supervisors
Chesterfield County Utilities
Chesterfield County: Department of Environmental Engineering
Chesterfield County Department of Transportation
Chesterfield County Public Schools
Crater Planning District Commission

This project meets the criteria for a Categorical Exclusion pursuant to 40 CFR 1508.4 and 23 CFR 771.117 and will not result in significant impacts to the human or natural environment.

Bailey Bridge Connector Project
Complete CE Appendix

Project Map



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 Project Study Area

Bailey Bridge Connector Project

VDOT Project Number: 0000-020-820; UPC No. 111713

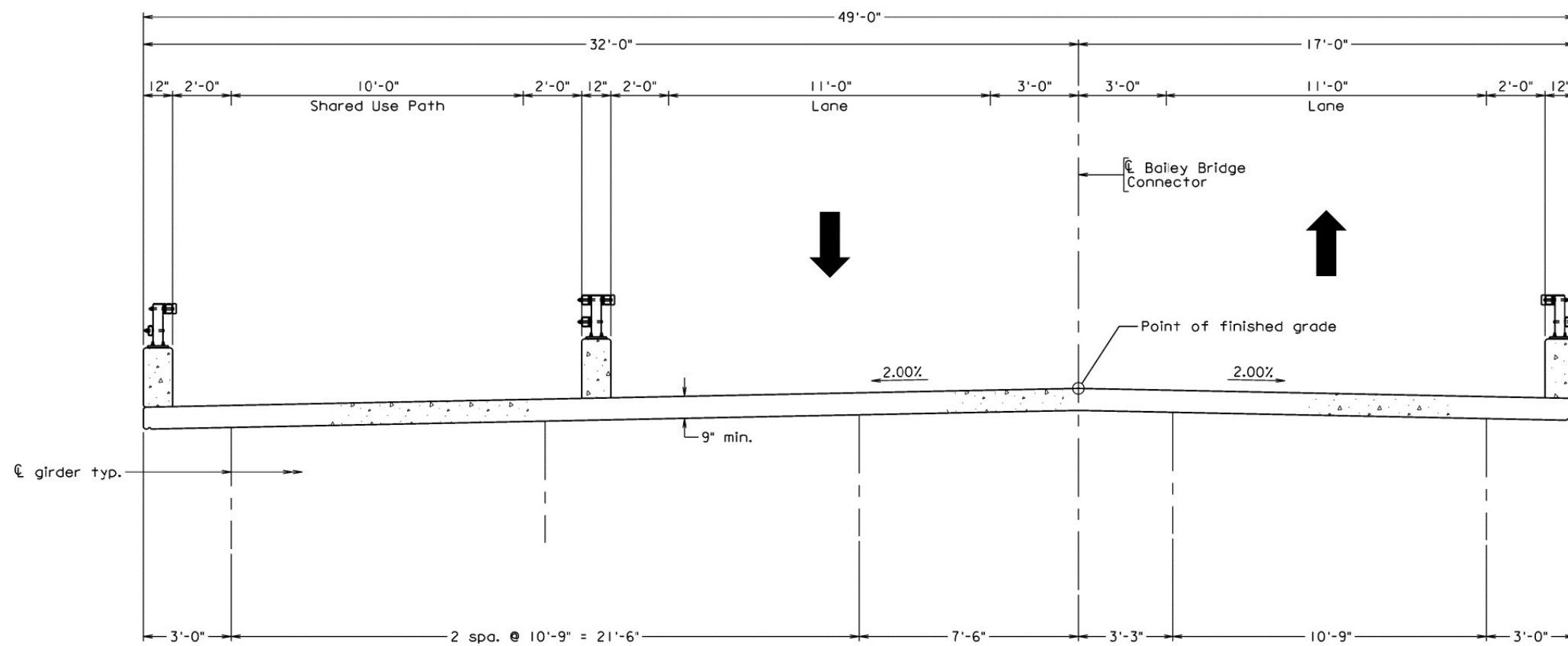
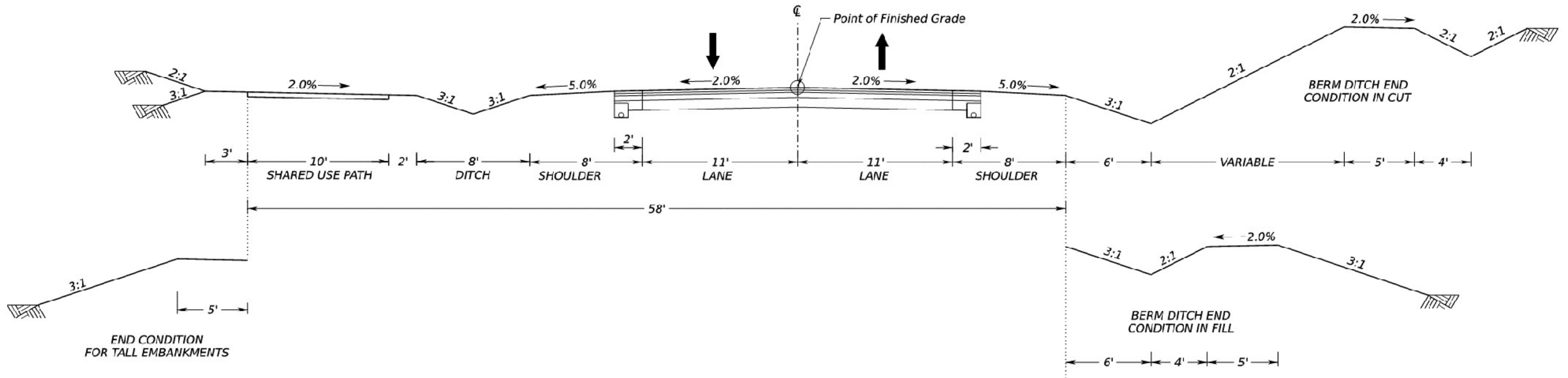
USGS Quad: Hallsboro, VA



0 2,000 4,000 Feet

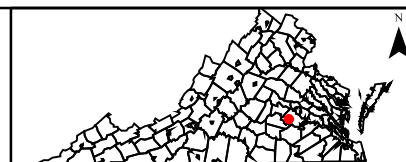
Typical Sections

BAILEY BRIDGE ROAD
 BAILEY BRIDGE CONNECTOR
 GS-7 URBAN COLLECTOR - 35 MPH DESIGN SPEED



BRIDGE TRANSVERSE SECTION

Bailey Bridge Connector Project
 Proposed Roadway and Bridge Cross Sections



Socio-Economic Memo

Memo

To: Bailey Bridge Connector Project File

Date: June 19, 2020

Re: Bailey Bridge Connector – Socio-Economic Memo

Project Description

The proposed project includes the construction of the Bailey Bridge Connector from Bailey Bridge Road to Brad McNeer Parkway as a two-lane road with eight-foot shoulders. The project will construct two roundabouts, one at the intersection with Brad McNeer Parkway and the other at the intersection with Bailey Bridge Road. The improvements will include a ten-foot shared-use path and a bridge over Swift Creek. Stormwater management facilities will be provided as needed. The Bailey Bridge Connector is identified in the Chesterfield County Thoroughfare Plan, in the STIP, and the CLRP.

Environmental Justice Considerations

The Virginia Department of Transportation, Richmond District Environmental Office, provided the attached US Census data and Environmental Justice (EJ) review for the Bailey Bridge Connector project, dated 2/4/2020.

Minority Populations

As shown on the attachment, the minority population of the VDOT designated EJ study area does not exceed 50 percent of the total population in any block group for the census tracts along this project. Also, the percentage of minority populations in all of the census block groups is also below the countywide average of 31%.

Poverty Levels

As shown on the attachment, the 2015 Health and Human Services guidelines state that a family of four is considered at poverty level if the median household income is \$24,250 or below. All US Census Tract and Block Group within the EJ study area exceed these 2015 Health and Human Services Guidelines.

Conclusions

There is no evidence of any EJ populations being present in the EJ study area. Also, there are no economically disadvantaged populations present within the EJ study area. In accordance with the provisions of E.O. 12898 and FHWA Order 6640.23, no further EJ analysis is required.

Minority Percentages by Census Block Groups Per 2010 Census Data

STATEFP	COUNTYFP	TRACTCE	BLKGRP CE	GEOID	NAMLSAD	MTFCC	FUNCSTAT	ALAND	AWATER	Total Population	White Population	Minority Population	Minority Percentage
51	041	101012	1	5.10411E+11	Block Group 1	G5030	S	2905632	18550	2,877	2,158	719	25%
51	041	101012	2	510411010122	Block Group 2	G5030	S	3263795	9956	2,339	1,824	515	22%
51	041	101013	1	510411010131	Block Group 1	G5030	S	11511088	120071	3,289	2,810	479	15%
Chesterfield County										324,337	224,705	99,632	31%

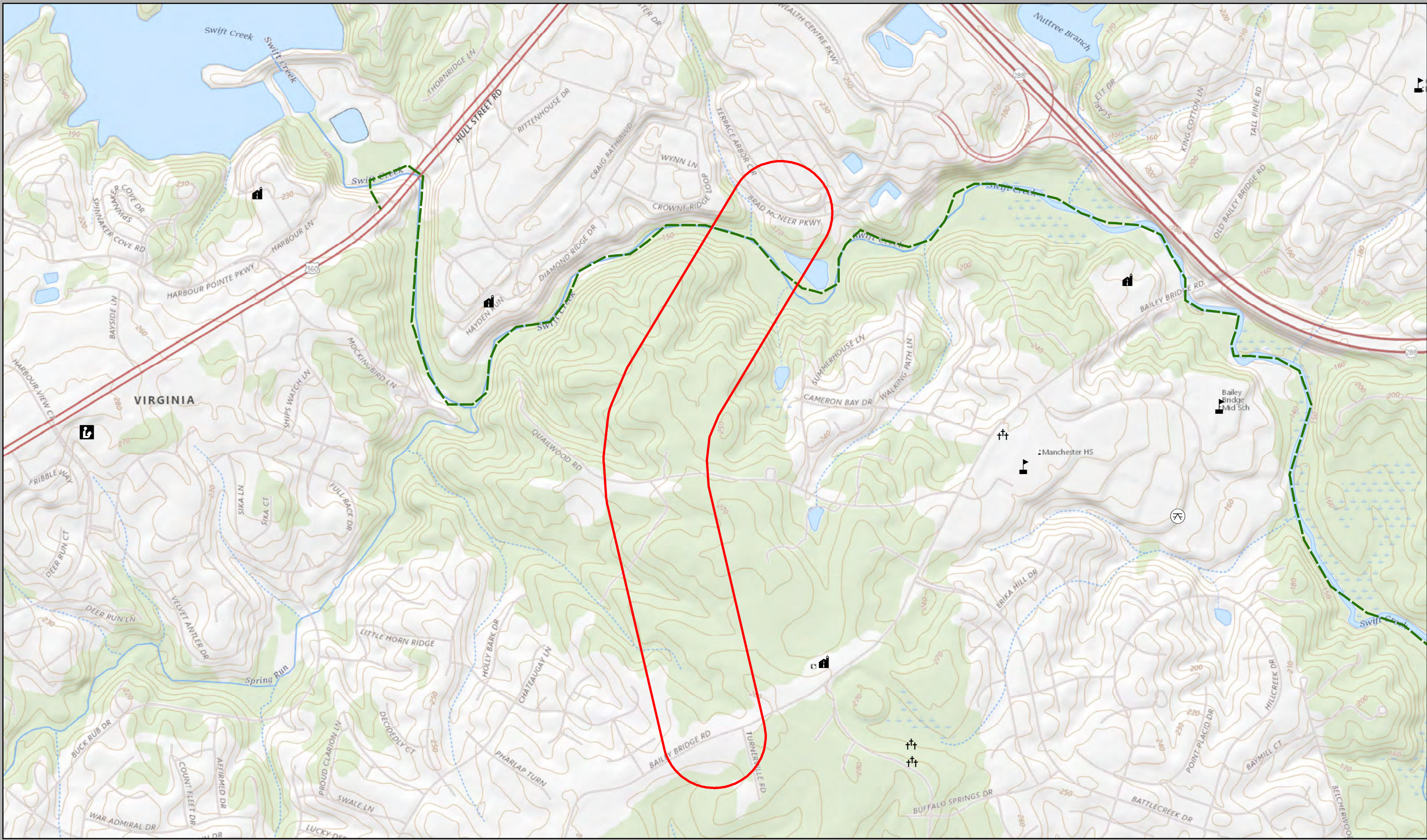
The minority population of the environmental justice (EJ) study area does not exceed 50 percent of the total population in any block group for the census tracts along this project. The percentage of minority populations in all of the census block groups is also below the countywide average of 31%. This shows that there is no evidence of an EJ population being present in the project area.

In accordance with the provisions of E.O. 12898 and FHWA Order 6640.23, no further EJ analysis is required.

2010 Census Tract Median Household Incomes		
United States		53,046
Virginia		63,636
Chesterfield		72,514
Census Tract 51041101012		79,113
Block Group 1		72,756
Block Group 2		82,006
Census Tract 51041101013		107,125
Block Group 1		107,125
US HHS poverty rate		24,250

2015 Health and Human Services guidelines state that a family of four is considered at poverty level if the median household income is \$24,250 or below. As listed above, each Census Tract and Block Group within the project area exceeds these 2015 Health and Human Services Guidelines. Therefore, no economically disadvantaged populations are considered to be present within the project area.

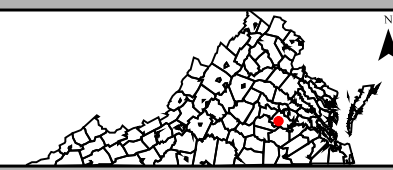
Report Date: 2/4/2020
 Report Run by: Becky Behringer



Project Study Area	Library	Cemetery
Proposed Trail	Fire Station	Place of Worship
School	Rescue Squad	
	Park	

0 850 1,700
Feet

Bailey Bridge Connector Project Community Facilities



Section 4(f) and Section 6(f) Memo

Memo

To: Bailey Bridge Connector Project File

Date: March 12, 2020

Re: Bailey Bridge Connector - Section 4(f) and Section 6(f) Memo

Project Description

The proposed project includes the construction of the Bailey Bridge Connector from Bailey Bridge Road to Brad McNeer Parkway as a two-lane road with eight-foot shoulders. The project will construct two roundabouts, one at the intersection with Brad McNeer Parkway and the other at the intersection with Bailey Bridge Road. The improvements will include a ten-foot shared-use path and a bridge over Swift Creek. Stormwater management facilities will be provided as needed. The Bailey Bridge Connector is identified in the Chesterfield County Thoroughfare Plan, in the STIP, and the CLRP.

Section 4(f) & Section 6(f) Evaluation

Section 4(f)

As required by Section 4(f) of the U.S. Department of Transportation Act of 1966, consideration Section 4(f) properties including publicly owned parks, recreation areas, and wildlife or waterfowl refuges, or any publicly or privately-owned historic site listed or eligible for listing on the National Register of Historic Places is required during development of a transportation project.

Publicly Owned Parks, Recreation Areas, and Wildlife or Waterfowl Refuges

Coordination with the Chesterfield County Parks and Recreation Department revealed a proposed trail along the Swift Creek corridor. Following additional coordination with Steve Adams of Chesterfield County (May 21, 2020), it was determined that the Bailey Bridge Connector has been on the Chesterfield County Thoroughfare Plan since at least October 24, 2012, while the Bikeways and Trails Plan was adopted by the Board of Supervisors on November 18, 2015. Therefore, because the Bailey Bridge Connector was proposed prior to the trail being planned, the trail is not considered 4(f) and does not require further evaluation. The appropriate departments within Chesterfield County are in coordination regarding the trail location.

Publicly or Privately-owned Historic Site Listed or Eligible for Listing on the National Register of Historic Places (NRHP)

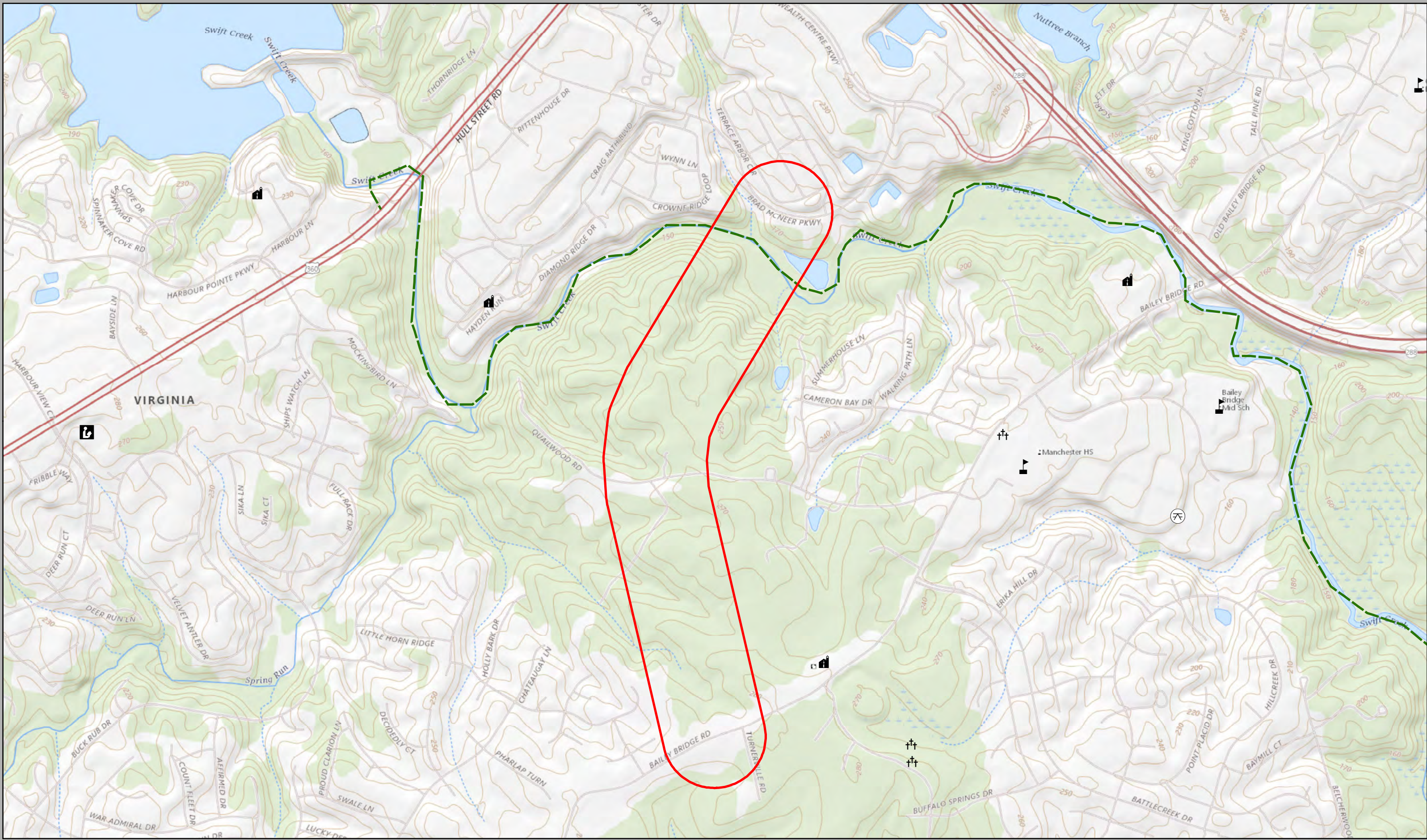
As discussed in the attached Cultural Resources Survey for the Bailey Bridge Connector, dated March 2020, there are no architectural or archaeological resources eligible for the NRHP. The attached DHR concurrence dated June 24, 2020, states that this project will have no effect on historic properties.

Section 6(f)

Additionally, state and local governments can obtain grants through the Land and Water Conservation Fund Act (LWCFA), Section 6(f), to acquire or make improvements to parks or recreation areas. There are no LWCFA grant properties located within or adjacent to the project limits (see attached ESRI mapping).

Conclusion

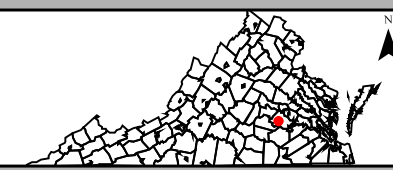
There are no eligible Section 4(f) or Section 6(f) properties present and no additional evaluation or coordination is necessary.



Project Study Area	Library	Cemetery
Proposed Trail	Fire Station	Place of Worship
School	Rescue Squad	
	Park	

0 850 1,700
Feet

Bailey Bridge Connector Project Community Facilities



Fwd: Federal Project: STP-5A27(616) - Bailey Bridge Connector Project - NEPA Scoping Request

From: Adams, Steven <AdamsSt@chesterfield.gov>
Sent: Thursday, May 21, 2020 1:57:12 PM
To: Craig Krupp <craig.krupp@timmons.com>; Faulkner, Chessa <FaulknerC@chesterfield.gov>
Cc: Epps, Brent <EppsB@chesterfield.gov>; Chris Kiefer <Chris.Kiefer@timmons.com>; Kelly Coleman <kcoleman@atcsplc.com>; Alex Nies <anies@atcsplc.com>
Subject: RE: Federal Project: STP-5A27(616) - Bailey Bridge Connector Project - NEPA Scoping Request

Craig and Chessa:

I do not know specifically when the Bailey Bridge Connector (from Bailey Bridge Rd to Brad McNeer Pky) was added to the county's Thoroughfare Plan, a component of the Comprehensive Plan; however, I do know that the Bailey Bridge Connector has been on the Thoroughfare Plan at least since October 24, 2012 (see attached). The original Bikeways and Trails Plan was adopted/approved by the Board of Supervisors on November 18, 2015.

Let me know if you need me to research further back to determine when the Bailey Bridge Connector was put on the Thoroughfare Plan. I think this answers the question.

Steve Adams
751-4461

From: Craig Krupp <Craig.Krupp@timmons.com>
Sent: Thursday, May 21, 2020 8:24 AM
To: Faulkner, Chessa <FaulknerC@chesterfield.gov>; Adams, Steven <AdamsSt@chesterfield.gov>
Cc: Epps, Brent <EppsB@chesterfield.gov>; Chris Kiefer <Chris.Kiefer@timmons.com>; Kelly Coleman <kcoleman@atcsplc.com>; Alex Nies <anies@atcsplc.com>
Subject: RE: Federal Project: STP-5A27(616) - Bailey Bridge Connector Project - NEPA Scoping Request

CAUTION: External Email

Chessa,

I was forwarded the email below from Parks and Rec in regard to the Bikeways and Trails Plan and the future facility along Swift Creek. The comment was submitted past the deadline for comments but we would still like to consider it.

From an environmental document standpoint we need to know when the Bailey Bridge Connector was added to the County Thoroughfare Plan. If it was added prior to the Bikeways and Trails Plan being approved, then we still need to consider providing enough space for a future trail, however, it will not involve additional agency coordination at this time for the environmental document. If the Bikeways and Trails Plan was adopted first, then we would have to reach out to get a de minimis finding and it'll add coordination time to the schedule of getting the NEPA document prepared. I believe the Bailey Bridge Connector was on the Thoroughfare Plan before the Bikeways and Trails Plan was approved but just wanted confirmation.

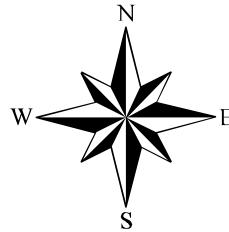
Steve – I am copying you because I know you have details on the different iterations of the Thoroughfare Plan and also coordinate with Parks and Rec on the Bikeways and Trails Plan.

Thanks - Craig

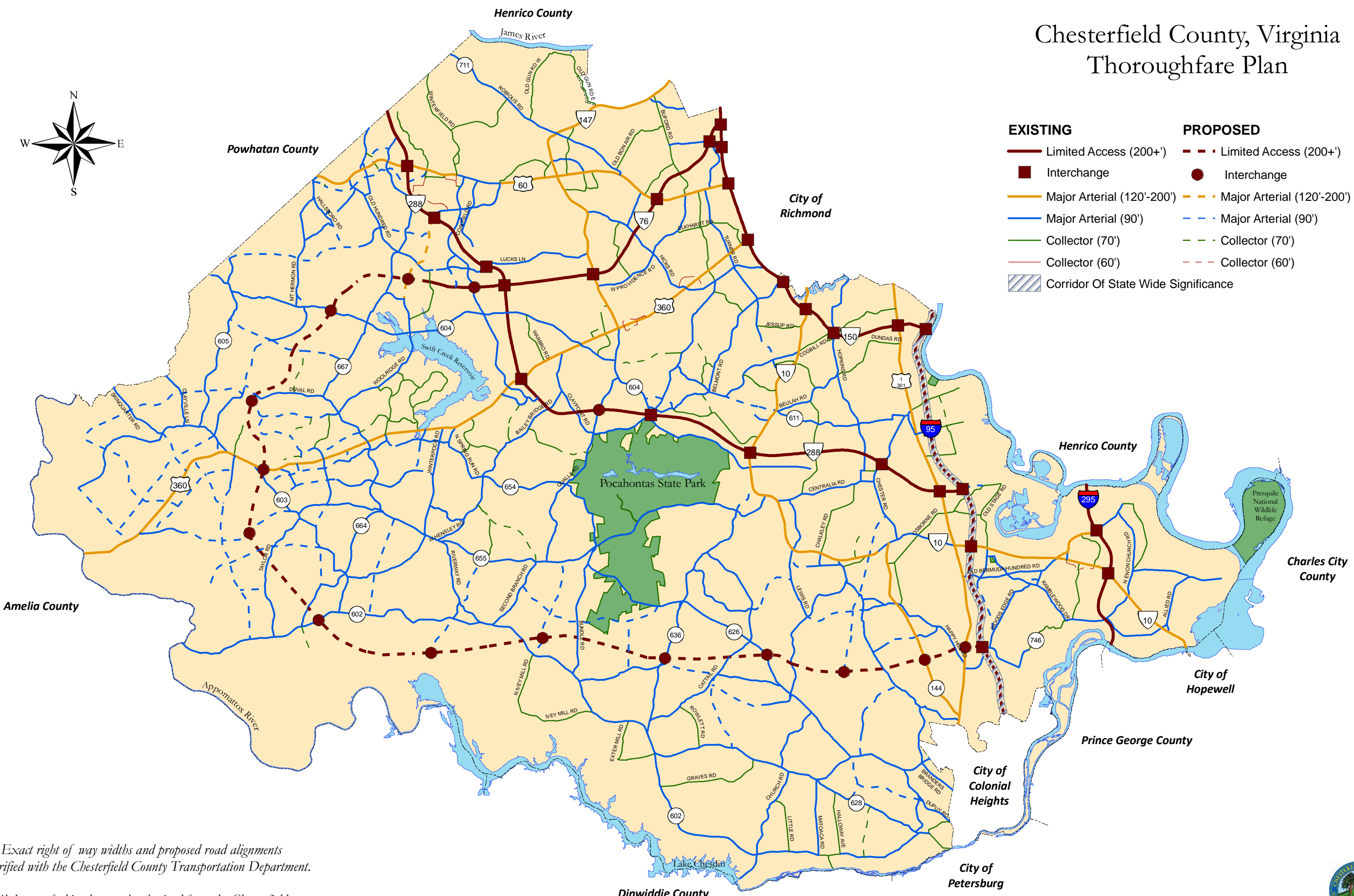
Craig Krupp, P.E., Assoc. DBIA
Senior Project Manager

TIMMONS GROUP | www.timmons.com
1001 Boulders Parkway, Suite 300 | Richmond, VA 23225
Office: 804.200.6378 | Fax: 804.560.1016
Mobile: 804.239.3416 | craig.krupp@timmons.com
Your Vision Achieved Through Ours

Chesterfield County, Virginia Thoroughfare Plan



EXISTING	PROPOSED
Limited Access (200+')	Limited Access (200+')
Interchange	Interchange
Major Arterial (120'-200')	Major Arterial (120'-200')
Major Arterial (90')	Major Arterial (90')
Collector (70')	Collector (70')
Collector (60')	Collector (60')
Corridor Of State Wide Significance	



Note: Exact right of way widths and proposed road alignments should be verified with the Chesterfield County Transportation Department.

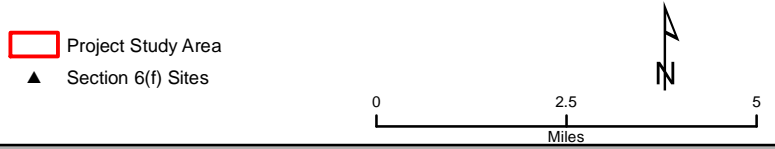
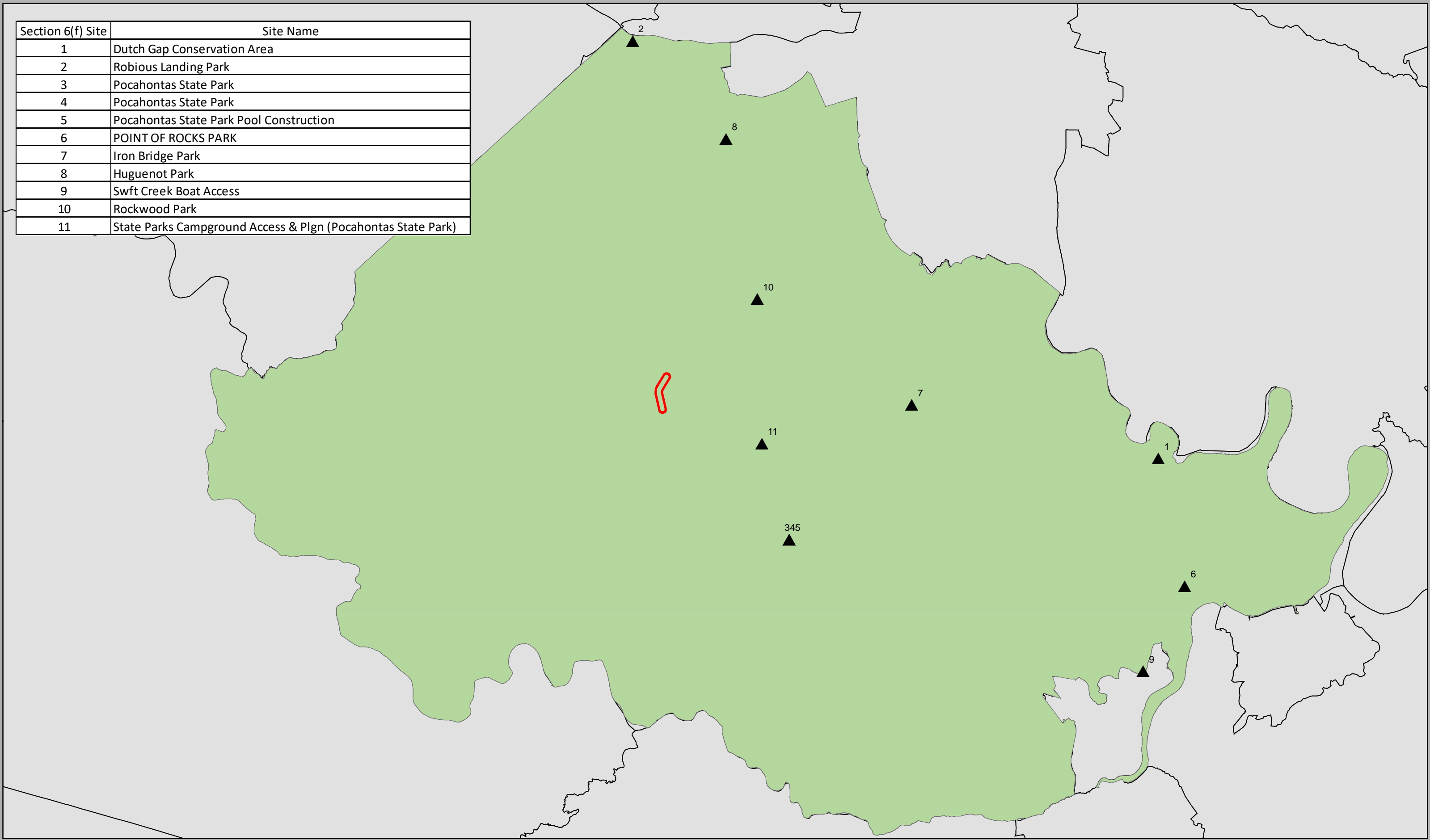
A detailed copy of this plan can be obtained from the Chesterfield County Transportation Department or the county website.

Providing a FIRST CHOICE community through excellence in public service.

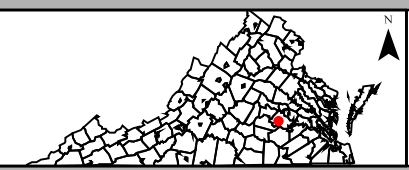
Approved October 24, 2012 by Board of Supervisors



Section 6(f) Site	Site Name
1	Dutch Gap Conservation Area
2	Robious Landing Park
3	Pocahontas State Park
4	Pocahontas State Park
5	Pocahontas State Park Pool Construction
6	POINT OF ROCKS PARK
7	Iron Bridge Park
8	Huguenot Park
9	Swft Creek Boat Access
10	Rockwood Park
11	State Parks Campground Access & Plgn (Pocahontas State Park)



**Bailey Bridge Connector Project
Section 6(f) Sites in Chesterfield County, Virginia**



Cultural Resources Memo

Memo

To: Bailey Bridge Connector Project File

Date: June 24, 2020

Re: Cultural Resources Memo

Project Description

The proposed project includes the construction of the Bailey Bridge Connector from Bailey Bridge Road to Brad McNeer Parkway as a two-lane road with eight-foot shoulders. The project will construct two roundabouts, one at the intersection with Brad McNeer Parkway and the other at the intersection with Bailey Bridge Road. The improvements will include a ten-foot shared-use path and a bridge over Swift Creek. Stormwater management facilities will be provided as needed. The Bailey Bridge Connector is identified in the Chesterfield County Thoroughfare Plan, in the STIP, and the CLRP.

Cultural Resources

As discussed in the attached Cultural Resources Survey for the Bailey Bridge Connector, dated March 2020, there are no architectural or archaeological resources eligible for the National Register of Historic Places (NRHP). Virginia Department of Historic Resources (VDHR) concurrence dated June 24, 2020, stating that this project will have no effect on historic properties, is attached. The State Historic Preservation Officer (SHPO) has not issued a VDHR file number for this project.

Signature Block for Concurrence

Route: Bailey Bridge Connector (Bailey Bridge Road to Brad McNeer Parkway)
State Project: 0000-020-820, UPC 111713
Federal Project: STP-5A27(616)
County: Chesterfield
Funding: Federal
VDHR File: TBD
Action Required: Eligibility and Effect Determination Concurrence

The Virginia Department of Historic Resources (VDHR) concurs with the following:

The following architectural resource is demolished and the project will have no effect on any related archaeological components:

- Clay-Brooks Farm (VDHR # 020-0346)

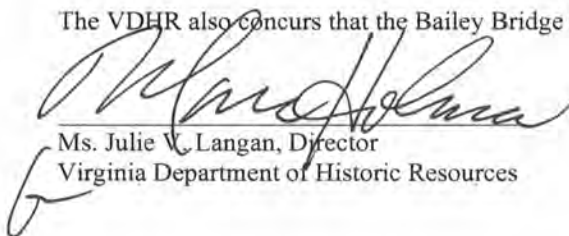
The following architectural resources are not eligible for the NRHP:


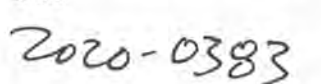
- 020-6099 Dwelling, 12900 Bailey Bridge Road
- 020-6100 Dwelling, 12901 Bailey Bridge Road
- 020-6101 Dwelling, 12908 Bailey Bridge Road
- 020-6102 Dwelling, 12916 Bailey Bridge Road
- 020-6103 Dwelling, 12921 Bailey Bridge Road
- 020-6104 Dwelling, 13001 Bailey Bridge Road
- 020-6105 Dwelling, 13017 Bailey Bridge Road
- 020-6106 Dwelling, 13101 Bailey Bridge Road

The following archaeological site is not eligible for the NRHP:

- 44CF0713

The VDHR also concurs that the Bailey Bridge Connector Project will have no effect on historic properties.


Ms. Julie V. Langan, Director
Virginia Department of Historic Resources


Date


**CULTURAL RESOURCES SURVEY
BAILEY BRIDGE CONNECTOR
BAILEY BRIDGE ROAD TO BRAD MCNEER PARKWAY
CHESTERFIELD COUNTY, VIRGINIA**

State Project No. 0000-020-820, Federal Project STP-5A27(616)

**PREPARED FOR:
TIMMONS GROUP
1001 BOULDER PARKWAY, SUITE 300
RICHMOND, VA 23225
(804) 200-6378**

**PREPARED BY:
Commonwealth Heritage Group, Inc.
P.O. BOX 1198
201 WEST WILSON STREET
TARBORO, NORTH CAROLINA 27886**

**Amy Krull, M.A., RPA
Megan Funk, M.S.
and
Susan E. Bamann, Ph.D., RPA
*Principal Investigator***

NCR-0817

MARCH 2020

ABSTRACT

In February 2020, Commonwealth Heritage Group, Inc. (Commonwealth), completed a cultural resources survey in support of planning for the Bailey Bridge Connector between Bailey Bridge Road and Brad McNeer Parkway in Chesterfield County, Virginia. The survey was conducted for Timmons Group (Timmons) and the Chesterfield County Transportation Department as part of compliance with Section 106 of the National Historic Preservation Act of 1966, as amended, and in accordance with the Advisory Council on Historic Preservation's regulations for compliance with Section 106, codified as 36 CFR Part 800. The survey effort and this report meet expectations set forth in *Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines* (National Park Service 2019) and the *Guidelines for Conducting Historic Resources Survey in Virginia* issued by the Virginia Department of Historic Resources (VDHR 2017).

The 48.2-acre (19.5-ha) field study limits for the survey (the project area) are based on mapping provided by Timmons on January 28, 2020. The project area represents the limits of potential ground disturbing activity. The Area of Potential Effects (APE) includes the project area, which was the area for consideration of archaeological sites and potential direct effects to historic architectural resources. The APE also includes areas with historic architectural resources that are visible from the project area or lie on parcels extending into the project area. The purpose of the survey was to determine if architectural resources or archaeological sites that are on, eligible for, or potentially eligible for listing in the National Register of Historic Places (NRHP; National Park Service 1995) are included in the APE. Survey for archaeological resources did not extend past the project area limits.

The survey involved full consideration of the APE. One previously recorded architectural resource, Clay-Brooks Farm (VDHR # 020-0346), was located on a parcel that extends into the project area and was therefore included in the APE. This resource was previously determined eligible for the NRHP but has since been demolished. The architectural survey documented eight previously unrecorded resources in the APE. These are all dwellings and have been evaluated as a part of this survey (VDHR #s 020-6099 through 020-6106). All of the newly recorded dwellings appear to lack significance and are recommended as not eligible for listing on the NRHP.

Of the 48.2-acre (19.5-ha) project area, 21.8 acres (8.80 ha) were previously addressed by a 2008 cultural resources survey and were not resurveyed for archaeological resources. The one archaeological site in the previously surveyed area, 44CF0713, was previously determined ineligible for the NRHP and merits no further consideration. For the remainder of the current project area, 16.7 acres (6.8 ha) were found to be disturbed, either through visual inspection or examination of profiles in judgmental shovel tests. Low and wet areas were found to make up 0.2 acres (0.1 ha), and steeply sloped areas 1.9 acres (0.7 ha). A total of 7.6 acres (3.1 ha) appeared less disturbed or were not sloped or wet. These acres were systematically shovel tested. In total, including judgmental tests, 197 shovel tests were excavated. All shovel tests were negative, and no sites or artifact locations were recorded during the survey. Based on these results, Commonwealth recommends no further consideration of cultural resources for the current project.

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1.0 INTRODUCTION

1.1 PROJECT OVERVIEW AND COMPLIANCE

In February 2020, Commonwealth Heritage Group, Inc. (Commonwealth), completed a cultural resources survey in support of planning for the Bailey Bridge Connector between Bailey Bridge Road and Brad McNeer Parkway in Chesterfield County, Virginia (Figure 1.1-1). The survey was conducted for Timmons Group (Timmons) and the Chesterfield County Transportation Department as part of compliance with Section 106 of the National Historic Preservation Act of 1966, as amended, and in accordance with the Advisory Council on Historic Preservation's regulations for compliance with Section 106, codified as 36 CFR Part 800. The survey effort and this report meet expectations set forth in *Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines* (National Park Service 2019) and the *Guidelines for Conducting Historic Resources Survey in Virginia* issued by the Virginia Department of Historic Resources (VDHR 2017).

The 48.2-acre (19.5-ha) field study limits for the survey (the project area) are based on mapping provided by Timmons on January 28, 2020. Figures 1.1-2 and 1.1-3 show the project area on current orthoimagery and topographic mapping. The project area represents the limits of potential ground disturbing activity. The Area of Potential Effects (APE) includes the project area, which was the area for consideration of archaeological sites and potential direct effects to historic architectural resources. The APE also includes areas with historic architectural resources that are visible from the project area or lie on parcels extending into the project area. The purpose of the survey was to determine if architectural resources or archaeological sites that are on, eligible for, or potentially eligible for listing in the National Register of Historic Places (NRHP; National Park Service 1995) are included in the APE. Survey for archaeological resources did not extend past the project area limits.

1.2 PROJECT TIMELINE AND STAFF

Fieldwork for the project was conducted between February 28 and March 13, 2020. Susan E. Bamann, Ph.D., RPA, was the project manager and principal investigator, Amy Krull, M.A., RPA, was the project archaeologist and field supervisor, and Megan Funk, M.S., was the architectural historian. Amy Krull and Megan Funk conducted background research, and Maggie Utecht, Ricky Hight, and Robert Kotlarek assisted during fieldwork. D. Allen Poyner was the GIS coordinator. Megan Funk prepared the Virginia Cultural Resources Information System (V-CRIS) documentation for the project.

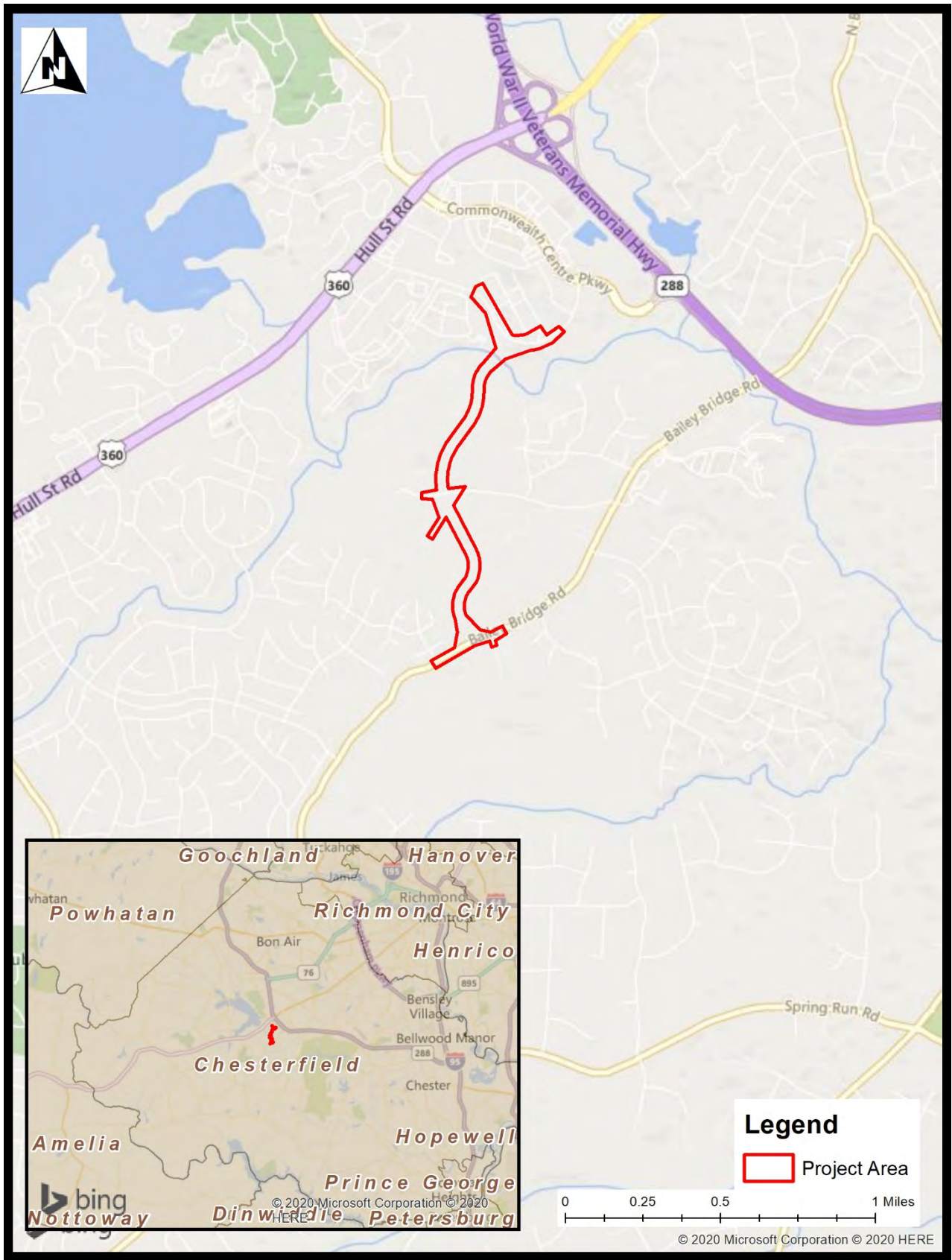


Figure 1.1-1: General Location of the Project Area.



Figure 1.1-2: Location of the Project Area on Current Orthoimagery. Base Mapping from ArcGIS Image Service (2020a).

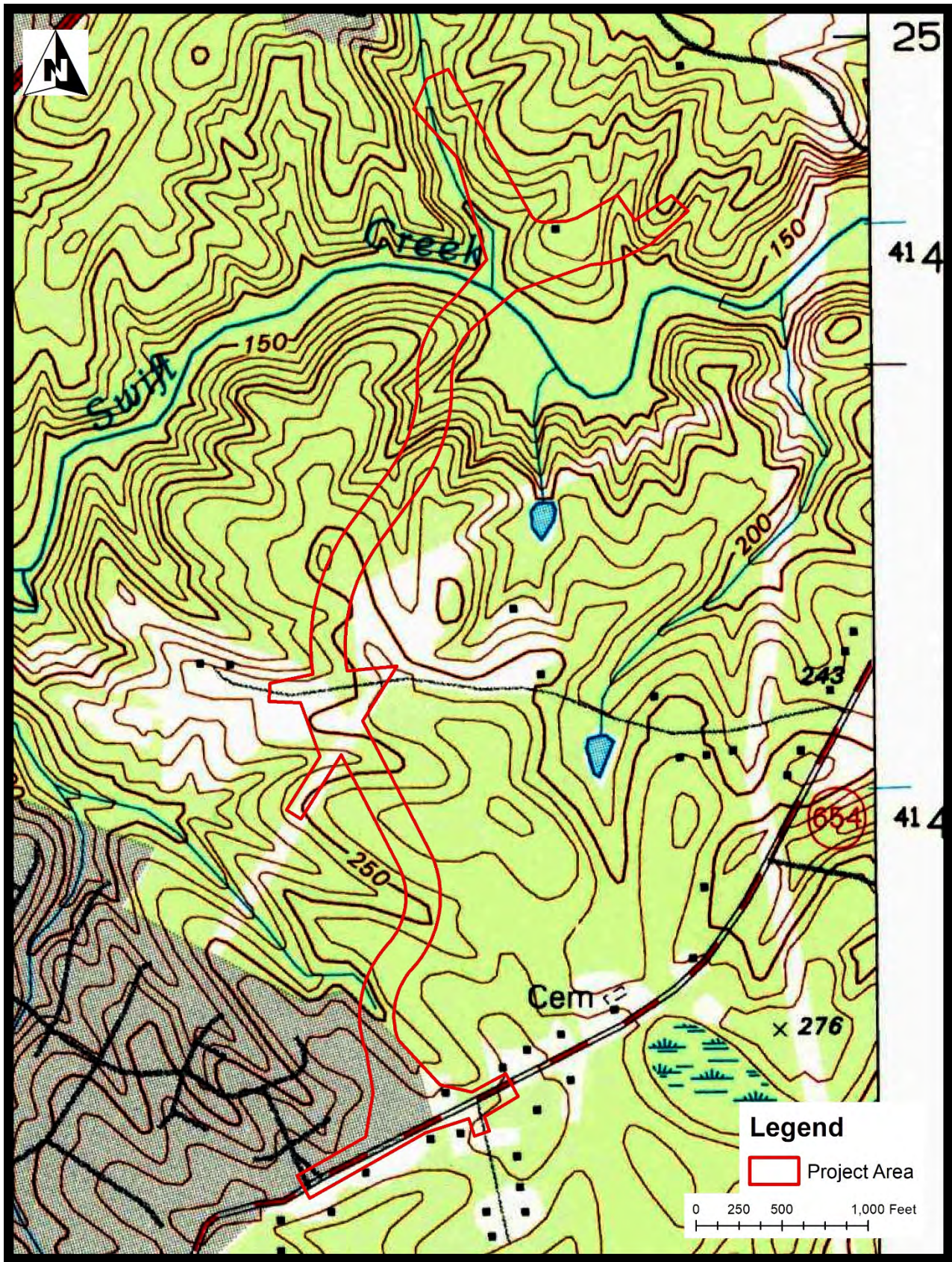


Figure 1.1-3: Location of the Project Area on the 1994 Hallsboro, Virginia, USGS 7.5-Minute Topographic Quadrangle. Base mapping from USGS (2020).

2.0 NATURAL SETTING

2.1 PHYSIOGRAPHY

The current project area is located at the transition between the Atlantic Coastal Plain physiographic province and the Piedmont province. This Coastal Plain is generally described as an area of low elevation consisting of relatively unconsolidated beds of terrestrially and marine-deposited sand, gravel, and clay sediments (Fenneman 1938; Thornbury 1965). The boundaries of the Coastal Plain are commonly defined as sea level to the east and the Fall Line to the west. The Fall Line, which roughly corresponds to the location of I-95, is the transition zone approximately 5 to 10 miles wide between the Piedmont and the Coastal Plain and characterized by the Coastal Plain sediments dipping below the Piedmont formations (Fenneman 1938). Within this transition zone, as rivers and streams pass over the crystalline rocks, they are sometimes marked by falls and rapids (Fenneman 1938; Thornbury 1965). In some cases, the Fall Line formed an obstruction to river travel between the Piedmont and the Coastal Plain. The transition zone between the two regions was an important area for the development of settlements, trade, and other forms of cultural interaction (Thornbury 1965). The Piedmont, considered a nonmountainous part of the Appalachian Highlands, is characterized by gently rolling topography and deeply weathered bedrock of igneous and metamorphic rock (Thornbury 1965; Fenneman 1938).

2.2 GEOLOGY AND SOILS

The current project area is underlain by Petersburg Granite, a rock characteristic of the Southeastern Piedmont geological region (Rader and Evans 1993). The dominant soils series mapped within the current project area are Appling sandy loams (58.5 percent) and Grover fine sandy loams (10.9 percent). With the exception of Fluvaquents and Colfax fine sandy loam, which make up 7.3 percent of the area, the soils within the project area are well drained.

The following specific soils are mapped in the project area (USDA/NRCS 2020):

- Appling loam, 6 to 12 percent slopes (well drained)
- Appling sandy loam, 2 to 6 percent slopes (well drained)
- Appling sandy loam, 6 to 12 percent slopes (well drained)
- Appling sandy loam, 12 to 20 percent slopes (well drained)
- Cecil fine sandy loam, 2 to 6 percent slopes (well drained)
- Cecil fine sandy loam, 6 to 12 percent slopes (well drained)
- Cecil fine sandy loam, 12 to 20 percent slopes (well drained)
- Colfax fine sandy loam, 2 to 6 percent slopes (somewhat poorly drained)
- Fluvaquents (poorly drained)
- Grover fine sandy loam, 6 to 12 percent slopes (well drained)
- Grover fine sandy loam, 12 to 20 percent slopes (well drained)
- Grover fine sandy loam, 20 to 35 percent slopes (well drained)
- Louisburg sandy loam, 20 to 45 percent slopes (well drained)

2.3 HYDROLOGY AND VEGETATION

The current project area is located within the James River drainage basin. It crosses Swift Creek, which drains to the north into the James River. The Coastal Plain generally supports coniferous, mixed coniferous/deciduous, deciduous hardwood, and mixed deciduous/broad-leafed evergreen forest communities (Braun 1950). A pollen-based reconstruction of forest types suggests that the Mid-Atlantic coastal region featured an Oak-Hickory-Southern Pine forest up to 5,000 years ago (Delcourt and Delcourt 1981). The Piedmont and the region around the Fall Line feature the Oak-Hickory-Pine forest described by Braun (1950). However, approximately 10,000 years ago the entire area was covered by a Mixed Conifer-Northern Hardwoods forest type (Delcourt and Delcourt 1981).

The central portion of the project area, south of Swift Creek, is wooded with mixed secondary growth. The northern and southern termini are residential with transportation corridors.

3.0 CULTURAL OVERVIEW

3.1 INTRODUCTION

The project area falls near the northeastern extent of the Southern Coastal Plain cultural/geographic region as defined by VDHR (2017). This region is part of the Tidewater region between the Atlantic Ocean and the fall line and the Potomac River and the boundary with North Carolina. The Southern Coastal Plain, particularly the region north of the Appomattox River including Chesterfield County and the Richmond area, is culturally similar to the Northern Coastal Plain cultural/geographic region (VDHR 2017:101-102). The adjacent Southern Piedmont region was not settled as early as the Tidewater area and was mainly settled by populations moving in from the northern part of the Piedmont (VDHR 2017:104)

Before Europeans arrived in the current project vicinity, Native Americans inhabited the region. Written documents suggest that the first Europeans to explore the project area were the English settlers that settled at Jamestown in 1607. The English soon migrated upriver including up the James River, and settlement began in the region around Richmond in 1611. Richmond's location of the James River contributed to it becoming a center for trade with Europeans and Native Americans by the eighteenth century (VDHR 2017:101).

3.2 PRECONTACT BACKGROUND

3.2.1 Paleoindian Period (11,500-8000 B.C.)

Native American occupation of eastern North America dates to at least 12.8 to 13.1 thousand years ago, the conventional temporal boundary associated with the Clovis tradition (Anderson et al. 2014; Waters et al. 2011). Evidence for occupations at this time include fluted projectile points (Griffin 1967; Justice 1987). These points are generally scarce and often occur as isolated finds in disturbed surface contexts. Geographic concentrations of fluted points, including the Clovis type and related types such as Cumberland, occur in the eastern half of the United States. Nearly 1,000 fluted projectile points have been reported from Virginia (Anderson and Faught 1998). Other Paleoindian projectile point types found in Virginia are Mid-Paleo, Dalton, Hardaway-Dalton, and a type with affinities to Folsom (Barber and Barfield 1989; McAvoy and McAvoy 1997; McCary 1988). In Virginia, the majority of these points were manufactured from cryptocrystalline lithic material. Tools associated with the Paleoindian period include scrapers, graters, wedges, unifacial tools, hammerstones, abraders, and a variety of "banging, smashing, chopping, and hacking tools" (Gardner 1989:18). These tools were used in the context of a mobile subsistence pattern based upon hunting and gathering in a boreal forest environment.

Evidence for much earlier New World lithic industries suggests that the makers of fluted points may represent relatively late migrations to the New World. Alternatively, the distinct fluted point technology may have developed within the New World in the context of Late Pleistocene populations established prior to the Clovis temporal boundary (Anderson and Faught 1998; Goebel et al. 2008; Meltzer 1989; Waters et al. 2011). The Cactus Hill site in southeastern Virginia has produced lithic artifacts (prismatic blades, polyhedral cores, and bifaces) from sandy deposits below intact Clovis horizons (McAvoy and McAvoy 1997:179-180). More

recently, researchers have estimated that the site may involve as many as five pre-Clovis occupations characterized by prismatic blades and blade cores (Boyd 2003). Radiocarbon dating suggests that the sub-Clovis material may date to as early as 17,000 radiocarbon years before present (RCYBP), which is significantly earlier than the Clovis temporal boundary (Goodyear 2006; McAvoy and McAvoy 1997:179-180). This stratified site is situated on a sand dune along the Nottoway River. Stratification was the result of relatively steady aeolian sand deposition throughout the occupation of the site (McAvoy and McAvoy 1997:8-10; Wagner and McAvoy 2004).

Stratified sites in Virginia containing Paleoindian occupations include the Williamson site and the Thunderbird and Fifty sites of the Flint Run Complex in the Shenandoah Valley (Barber and Barfield 1989; Carr 1975; Gardner 1974; Johnson 1996; McAvoy and McAvoy 2003). Evidence from these sites has been used to construct what has been referred to as the “Flint Run Lithic Deterministic Model” of Paleoindian settlement strategies (Anderson and Sassaman 1996:23). In this model, Paleoindian and Early Archaic settlement patterns were driven by the locations of the high-quality lithic material. Five functionally distinct site types have been identified in the Flint Run Complex: quarries, reduction sites, quarry-related base camps, maintenance camps, and non-quarry associated base camps (Gardner 1989). The small, highly mobile bands characteristic of Paleoindian times were also focused on food collection and the hunting of animals such as caribou, deer, elk, and moose (Boyd 1989; Turner 1989). Therefore, hunting and gathering, as well as lithic procurement played a significant role in settlement patterns. Sites such as base camps are often found on resource-rich floodplains and adjacent alluvial fans (Turner 1989). Additionally, at the Williamson site (44DW1), an association has been made between site activity areas and topography (McAvoy and McAvoy 2003).

A concentration of fluted points has been noted in the southern Piedmont and Coastal Plain of Virginia. This has been attributed, in part, to local outcrops of chert, jasper, and chalcedony (Turner 1989). In addition, the western and northern boundaries of this concentration coincide with the boundary between the oak-hickory forest and the northern boreal and northern hardwood forests. Thus, the highest concentration of Paleoindian points in Virginia exists in areas that would have been especially rich in floral, faunal, and lithic resources.

Unfluted trianguloid projectile points such as Dalton and Hardaway Side-Notched mark the end of the Paleoindian period and the transition to the Early Archaic period (ca. 8000 B.C.) (Justice 1987; Daniel 1998). These points have been recovered from stratified Paleoindian to Archaic contexts in eastern North America and appear to represent a technological link to the side- and corner-notched traditions of the Early Archaic period.

3.2.2 Archaic Period (8000-1200 B.C.)

The Archaic period is divided into three phases: Early, Middle, and Late. A shift from boreal forests to northern hardwoods occurred at the onset of the Early Archaic period (8000-6500 B.C.). The Early Archaic is typified by small corner-notched projectile points, such as Palmer Corner Notched and Kirk Corner Notched, and an increase in the use of hafted endscrapers (Coe 1964). The tool kits from the Early Archaic, however, are similar to those from the end of the Paleoindian tradition, as are the settlement and subsistence patterns (Claggett and Cable 1982).

The Middle Archaic period (6500-3000 B.C.) coincides with a shift in climatic conditions to the warmer and drier climates that are prevalent today. Settlement and subsistence patterns show a high degree of continuity with those of the Early Archaic period, but Middle Archaic bands may have expanded their territories to make use of new environmental settings created by the change in climatic conditions (Custer 1990). Projectile point types characteristic of this period include Stanly Stemmed, Morrow Mountain I and II Stemmed, Guilford Lanceolate, Halifax Side-Notched, St. Albans, LeCroy Bifurcated Stem, and Kanawha Stemmed (Custer 1990).

Relatively few Early and Middle Archaic sites have been recorded on Virginia's Coastal Plain. Because of the rise in sea level that occurred during the Holocene, many Early and Middle Archaic sites may have been inundated. However, the scarcity of recorded sites may instead be evidence of low population levels as Gardner (1989) maintains, or may be the result of poor survey coverage, as Custer (1990) suggests. Existing data suggests that Early and Middle Archaic settlement is associated with freshwater wetlands, swamps, and bogs (Custer 1990). Custer (1990) hypothesizes that coastal resources were not as rich during the Early and Middle Archaic periods as they were at later times because the rise in sea level may have been too rapid to allow for the formation of large shellfish beds.

The Late Archaic period (3000-1200 B.C.) is poorly understood in the Coastal Plain of Virginia. Although it is marked by distinctive projectile point types, adaptations of this time differ little from those of the Middle Archaic period. According to Mouer (1991:10), the primary attributes of Late Archaic culture are "small-group band organization, impermanent settlement systems, infrequent aggregation phases, and low levels of regional or areal integration and interaction." Coastal Plain sites of this period are divided fairly evenly between upland and riverine settings and may be indicative of a more generalized adaptation than that of inland peoples (Mouer 1991). Characteristic projectile points of the Late Archaic include the Halifax Side-Notched, Lamoka, Merom Expanding Stemmed, Lackawaxen, and Brewerton Side- and Corner-Notched types.

By 2500 B.C., the rise in sea level had dramatically altered the Atlantic coast, creating large estuaries and tidal wetlands that, in turn, vastly increased coastal resources such as fish and shellfish. Anadromous fish runs extended up the rivers to the foothills of the Blue Ridge. With this environmental change came a marked change in adaptation. Populations living in this Transitional period (2500-1200 B.C.) developed estuarine and riverine adaptations, and sites of this period are located primarily in river valleys, at the lower reaches of inner Coastal Plain tributaries of major rivers, and near swamps. It is assumed that fish began to play a significantly larger role in the subsistence system. Although population increased and sites tend to be larger than those of previous periods, there is no evidence of year-round sedentism (Mouer 1991). Broad-blade or "broadspear" types such as Savannah River Stemmed are frequently associated with soapstone vessels and other soapstone objects. Fire-cracked rock concentrations and platform hearths are also common on Transitional period sites (Mouer 1991; Dent 1995).

The intrusive Perkiomen Complex is found during the Transitional period in southeastern Virginia along the western margins of the Great Dismal Swamp (McLearen 1991). Perkiomen

Broad points are found at sites located around large swamps and are typically associated with soapstone bowls, net sinkers, slate bar gorgets, and cremation burials (Mouer 1991).

3.2.3 Woodland Period (1200 B.C.-A.D. 1600)

The Early Woodland period is marked by the emergence of sedentary lifeways and the use of ceramics. The population growth that began in the Middle Archaic period appears to have continued into the Early Woodland, as does the trend toward greater utilization of estuarine habitats of the outer Coastal Plain (Klein and Klatka 1991). Large, broad projectile points were replaced by smaller notched, stemmed, and lanceolate points; ceramics were introduced ca. 1200 B.C. (McLearen 1991).

While Marcey Creek ware is thought to be the earliest ceramic ware in the Coastal Plain north of the James River, the contemporaneous clay-tempered Croaker Landing ware was the earliest in the southern Coastal Plain (Egloff and Potter 1982). Stony Creek ware is found in the Coastal Plain south of the James River from ca. 800 B.C. and into the Middle Woodland period. Ceramics of this ware are sand- or small-particle-tempered with conoidal bases and contain fabric-impressed, cord-marked, or net impressed surfaces. Prince George ware, a pebble-tempered ware with fabric-impressed, cord-marked, or net-impressed surfaces, develops on the interior Coastal Plain during the Early Woodland and also extends into the Middle Woodland (Egloff 1985; Egloff and Potter 1982).

Throughout Virginia, the Middle Woodland (300 B.C.-A.D. 1000) is marked by a series of unifying characteristics such as “interregional interaction spheres, including the spread of religious and ritual behaviors which appear in locally transformed ways; localized stylistic developments that sprung up independently alongside interregional styles; increased sedentism; and evidence of ranked societies or incipient ranked societies” (McLearen 1992:55). It is during the Middle Woodland period, however, that the boundary between Piedmont and Coastal Plains groups becomes distinct. The largest sites appear to be located in the transition zones between fresh and salt water, where the greatest diversity of resources could be obtained. Smaller exploitive sites along streams in the interior and along the coast seem to have been occupied sporadically (Stewart 1992). In the area south of the James River, relationships appear to have been oriented to the south rather than towards the Chesapeake area (McLearen 1992).

Shell-tempered Mockley ware is commonly found in most of the Coastal Plain of Virginia during the Middle Woodland period, although is not often found south of the James River (Egloff and Potter 1982). In addition to the Stony Creek and Prince George wares, Middle Woodland ceramics found south of the James include Hercules ware. This ware, found mostly on the interior Coastal Plain, features crushed granite and gneiss temper along with cord-marked and fabric-impressed surfaces (Egloff 1985).

The Late Woodland period (A.D. 900-1600) of the Virginia Coastal Plain is characterized by an increased reliance on agriculture and by population growth, larger villages, and increased sociocultural complexity (Turner 1992). Ceramics of this period include Townsend ware, which is shell-tempered and features fabric-impressed, incised, and/or punctuated surfaces. This ware is recovered from sites all along the Virginia coast, much like the earlier Mockley ware. By the

latter part of the Late Woodland, however, there is increased evidence of territoriality, and ceramic types become more localized. Ceramics found south of the James River include the Gaston, Cashie, and Roanoke wares (Turner 1992). The Gaston and Cashie wares, which are granule-tempered and include simple-stamped surfaces, are found along the fall line transition and in the interior Coastal Plain, respectively (Egloff 1985). Roanoke ware is characterized by shell tempering and simple-stamped exteriors. The Townsend and Roanoke wares are comparable to the Colington series defined for the northern Coastal Plain of North Carolina (Egloff and Potter 1982; Green 1986).

At the time of European contact, the southern Coastal Plain of Virginia was occupied by Algonquian groups living in relatively dispersed, seasonal camps and semi-permanent villages located near sounds, estuaries, rivers, and streams (Phelps 1983). The Algonquians lived in societies featuring “rank-differentiated roles and functions, dress, and burial customs; polygyny; matrilineal descent of chieftains; tribute systems; and trade monopolies” (Potter 1989:152). Archaeologically, the southeastern coastal area of Virginia is more similar to the northern North Carolina Coastal Plain than to areas to the north of the James River. After the arrival of Englishmen at Jamestown in 1607, traditional traits of aboriginal pottery were gradually replaced by traits patterned after European and African ceramics (Egloff 1985).

During the first English settlement in Virginia, the Lower Tidewater region was politically dominated by the Powhatan chiefdom. By 1608, Powhatan controlled all the coastal groups with the exception of the Chickahominies. The Chesapeake, who occupied the region now known as the Tidewater of Virginia, were conquered between the late 1500s and 1608 (Potter 1992).

3.3 HISTORIC BACKGROUND

3.3.1 Settlement to Society (1607-1750)

The first recorded European exploration of the area that would become Chesterfield County occurred on May 8, 1607 when Captain Christopher Newport led twenty-one English adventurers into the area in search of a suitable place to establish a settlement. The English settlers chose Jamestown as the site of the first permanent English settlement in the New World. The settlers continued to explore the region, discovering and extracting iron ore from the Chesterfield County area in 1608. The discovery resulted in the construction of the New World’s first iron furnace on Falling Creek eleven years later (Cox 1907).

In 1611, Sir Thomas Dale, newly appointed Deputy Governor of Virginia, arrived at Jamestown and found the settlement to be inadequate. He established a new town further upriver at Farrar’s Island and named it Henrico. Dale then seized land from the Appomattox Indians further developing the area and in 1611, he seized the cleared farmlands between the Appomattox and James Rivers. He named the fertile area New Bermudas and divided it into several tracts, or hundreds. In 1616, one of these tracts, Bermuda Hundred was the largest settlement in Virginia with 119 persons (Weaver 1970).

The population of the colony grew rapidly after 1614, especially due to the success of tobacco exports to England. The first Africans arrived in Virginia in 1619 when a Dutch trader

exchanged “twenty and some odd Negros” for provisions (Deetz 1993:23). It is unclear whether their status was closer to indentured servitude or slavery in its later form. At least half of them ended up at Governor Sir George Yeardley’s Flowerdew Hundred Plantation, which is located in the same region in what is now Prince George County (Deetz 1993:23). Over the course of the second half of the seventeenth century enslaved Africans gradually replaced indentured servants as the source of unpaid labor on Tidewater plantations (Morgan 1975).

The region that became Chesterfield County continued to prosper until the Indian Uprising of 1622. On the morning of March 22, Chief Powhatan’s successor, Opechancanough, led a raid along the James River that resulted in the deaths of 350 colonists. The uprising proved most devastating on the outlying plantations, including Sheffield’s Plantation on the south side of Falling Creek, Kingsland Planation along Kingsland Creek, and Proctors Plantation on the north side of Proctors Creek. Gatesville, a newly established, undeveloped town at the mouth of Proctors Creek, and a settlement of twenty-four iron workers on Falling Creek, were also destroyed (O’Dell 1983). The colonists successfully retaliated the following summer, and settlers who had fled the area returned within a few months (Lutz 1954).

By 1634, the Virginia colony was populous enough to be divided into eight shires, or counties. Present-day Chesterfield County and other present-day counties located to the west of Chesterfield were part of the newly formed Henrico County. The area remained mostly agricultural, and in 1635, the first African slaves were brought to the region by the owners of large plantations. Chesterfield’s primary crop was tobacco, followed by corn and wheat. The area continued to grow throughout the seventeenth century despite another Indian uprising in 1644 (Lutz 1954). In 1649, Chesterfield County was created from the portion of Henrico County south of the James River (O’Dell 1983).

By the middle of the eighteenth century, coal became increasingly important to the region. The Midlothian coal field, located north of the current project area, was the first to be mined by Europeans in America. Coal was known in the area by the early 1700s, but the first commercial extraction was in 1748 when fifty tons was extracted. By the end of the century the output had increased to upwards of 22,000 tons annually (Dabney 1990:20).

As the eighteenth century progressed an increasing number of enslaved Africans were brought to Virginia. Between 1700 and 1750, approximately 45,000 slaves were transported to the colony and the estimated total population reached 230,000 (Isaac 1982:12). This period also saw a marked increase in American-born slaves. In 1728, three of five adults were African born; yet by 1740, less than half of all slaves were African born (Kulikoff 1986:71). This increased number of slaves necessitated separate quarters from those they server. Sites representing separate slave quarters are uncommon until the eighteenth century. As house size and room number increased over the seventeenth century, planters initially housed their labor, bonded, or enslaved, in their homes. Yet, as tension between planters and their servants and slaves increased, separate quarters soon became the norm (Upton 1984).

Early eighteenth-century quarter sites throughout the Coastal Plain are frequently defined by patterns of sub-floor pits, as often there is no other architectural evidence to suggest a structure (Kelso 1984:103, Deetz and May 1997). Sub-floor pits are also recorded for Anglo-American

and Native American sites but are different and less numerous than those recovered from African American slave quarter contexts (Samford 2007:125). Colonoware or Colono-Indian ware is a hand-formed, low-fired ceramic type found in large quantities on slave quarter sites from the late seventeenth century through the early nineteenth century. It is most frequently recovered from eighteenth-century sites. There is much debate about whether this ware was produced by enslaved African Americans or Native Americans (Deetz 1993, Ferguson 1992, Mouer et al. 1999); however, there is a proven association between this ceramic type and African American sites.

On the larger plantations one may expect to find slave quarters near the main house as part of the formal landscape, as well as remote quarters for convenience to the fields (Sanford 1994:122). As with the earlier quarters, the remote quarters are often defined by no more than patterns of sub-floor pits and hearths (Fesler 2000). Quarters closer to the main house were generally more substantial buildings, which also contained sub-floor pits (Kelso 1984:119; 1997:52).

3.3.2 Colony to Nation (1750-1789)

Slaves continued to be imported to Virginia throughout the second half of the eighteenth century. Between 1755 and 1782 the slave population in the Tidewater region remained relatively constant, with an estimated growth rate of one percent, while the Piedmont and Shenandoah saw growth increased rates of seven and 30 percent, respectively. The increases in slave populations was a combination of recent imports and slaves being moved from the Tidewater region into other areas. It is estimated that between 1775 and 1782, one in five slaves in the Tidewater were moved west, with this trend continuing through the end of the century (Morgan 1988:435-437).

The county seat of Chesterfield County was established near the sparsely-settled center of the county, and a courthouse was built there around 1750 (Cox 1907). By the start of the American Revolution, the beginnings of a village could be found around the courthouse (Fry 1755). In 1779, British and Hessian prisoners were sent to the courthouse for safekeeping. Barracks were constructed at the courthouse, and the area soon became a center for recruitment and training. By the end of 1780, the barracks were overflowing with Continental troops and additions were added to the structures to house new recruits. The courthouse was converted into a hospital, and the two nearby jails were used as magazines to store food and supplies (Lutz 1954).

In January of 1781, the war reached Chesterfield County. Benedict Arnold led the British in a land-water engagement fought from the Chesterfield side of the James River above Dutch Gap. British General Phillips led troops across the county on his way from Petersburg to Manchester in April. The Chesterfield courthouse, the jails, and the barracks were all burned. While Phillips caused destruction in the interior of the county, Benedict Arnold led troops north along the James River, destroying large stores of crops and supplies. On May 23rd, Sir Banastre Tarleton led cavalymen into Chesterfield County from Petersburg. They engaged with a party of militia about two miles from Cary's Mill near Falling Creek. In July of 1781, American Captain John Davies led Pennsylvania soldiers through Chesterfield County and reported positively about the area surrounding the Chesterfield Courthouse (Lutz 1954).

In 1782, Virginia passed the Emancipation Act which allowed for the freeing of slaves by an owner through a deed of manumission or through the owners will after death (Library of Virginia 2019).

3.3.3 Early National Period (1789-1830)

The first US Federal Census was taken in 1790 and provides details of Chesterfield County's demographic makeup during the period. The total population given for that year was 14,514 people (Lutz 1954:142). White males numbered 3,209, with 1,652 of these men being over the age of 16. The total number of white females was 3,149. The county listed 7,787 enslaved persons, over half of the total county population. Another 369 African Americans resided in the county as free individuals. The census also reveals that 45 people in Chesterfield County owned twenty-five or more slaves, while 119 owned one or two slaves, and 253 owned none. By 1800, the population of Chesterfield County was similar to what it was a decade before, with a total number of 14,489 people recorded by the census (Lutz 1954:149).

After the Revolution, Chesterfield County continued to develop but remained rural. The mills in the county rebounded. In addition to the gristmills, the mills on Chesterfield's rivers and major creeks were producing half the state's annual output of cotton, cloth, and paper in the early nineteenth century (O'Dell 1983). During the Revolution, coal had been in high demand, and after the war, growing cities such as Washington, Philadelphia, and New York began sending orders for coal. By 1830 the annual coal production had increased to 100,000 tons annually (Dabney 1990:20). Coal carts traveling along the main routes led to uneven and rutted roads and spurred the construction of a new toll road between Manchester and the Falling Creek Bridge in 1802. Overland travel in the county continued to improve, as the charter of the Manchester and Petersburg Turnpike was drafted in 1816 (Lutz 1954).

By the 1820s, Chesterfield County was on the verge of the railroad age. Agriculture still dominated the region with tobacco as the primary crop, but industrialism was beginning to flourish because of a need for better ways to transport these crops and other goods to market. In 1828, a charter for a railroad was granted, but the backers did not follow through. On February 25, 1829, a charter was granted for a railroad extending from Midlothian to Manchester, and this railroad, called the Chesterfield Railroad, became the first in Virginia (Lutz 1954).

3.3.4 Antebellum Period (1830-1860)

The exportation of slaves to the Deep South continued in large numbers during this period, with most slaves originating from Maryland and Virginia. In what Ira Berlin (2010) has labeled "the second middle passage" between 1800 and 1860, more than one million Africans and people of African descent were shipped to the Deep South, with a brief slowdown during the financial panic of 1837.

During this period slaveholders in the Old South were encouraged to reform the institution of slavery, based largely on reaction to the demands of abolitionists. The treatment of slaves may have improved in some places; yet, the prospect of emancipation became more remote (Genovese 1976:57). Part of the reforms were intended to keep family units intact, and there

were suggestions to address healthful design in slave housing (McKee 1988). These reforms had direct impact on the types of quarters one may expect to find on nineteenth-century sites. Typically, quarters would be elevated on brick piers, making it unusual to have sub floor pits, which had previously been observed. Until this point, a significant debate had been waging over ending slavery in Virginia (yet more for economic reasons rather than humanitarian) (Genovese 1976:593). After Nat Turner's rebellion in Southampton County in 1831, the discourse of emancipation ceased in the Virginia General assembly, and slave communities sadly found themselves under increased control and scrutiny (Library of Virginia 2019).

At the start of the Antebellum Period, many of the inhabitants of the region were farmers. An agricultural depression occurred in the 1820s and 1830s in this part of the state, with all of eastern Virginia experiencing a decrease in population during this time (Mansfield 1989; Parramore et al. 1994). This agricultural depression was exacerbated by cold weather which had destroyed many cotton crops and contributed to the drastic reduction in cotton farming in Virginia (Crofts 1992).

Coal mines continued to be lucrative to the county during this period. The improved roads and newly built railroads led to the success of additional industries in the county. The Richmond and Petersburg Railroad was chartered in 1836 and within two years it had begun operating between Manchester (along the James River), and Pocahontas (on the Appomattox River) (Lutz 1954). Transportation within the region continued to improve during the antebellum period with the development of the Richmond, Fredericksburg, and Potomac Railroad in 1834, the Virginia Central Railroad in 1851, and the Richmond and York River Railroad in 1853 (Library of Virginia 2000). The development of railroads eventually led to the demise of turnpike companies and subsequently returned responsibility for maintaining roadways to local governments (Virginia Department of Transportation 2006).

The 1850 U. S. Federal Census reflects the growth taking place in the county during the antebellum period. The census reports that the county had a population of 17,498 people, of whom 8,616 were slaves (Lutz 1954:211). Most of Chesterfield's population consisted of middle-class individuals working on small- or medium-sized farms, or in factories, mills, lumbering, and mines (Lutz 1954). Leading up to the Civil War, there were still few large slaveholders in Chesterfield County. Only 27 persons owned more than 50 slaves each, and around 76 percent of slaveholders in the county owned from one to five slaves. According to the 1860 U. S. Federal Census, there were 10,019 white persons, 8,354 slaves, and 643 free black persons living in Chesterfield County (Lutz 1954:225).

3.3.5 Civil War (1861-1865)

April 17, 1861, is the date Virginia voted to secede from the Union. Soon after, the Capital of the Confederacy was moved to Richmond from Montgomery, Alabama, partly because of the presence of cheap coal in Chesterfield County and ironworks in Richmond. This caused a great deal of military preparation to take place in the area of Chesterfield County closest to Richmond. Most notable was the construction of fortifications at Drewry's Bluff, designed to protect Richmond from enemy approach via the James River (Weaver 1970). Drewry's Bluff successfully defended the capital from a Union naval attack on May 15, 1862 (Lutz 1954).

Chesterfield County contributed to the war effort in more ways than just military defense. The Richmond and Petersburg Railroad and the Richmond Danville Railroad proved important during the war for shipping supplies to the capital. Farms throughout Chesterfield County supplied food for the Army, military animals, and civilians. Grist mills in the county produced large quantities of meal and flour for the Confederacy. As the war progressed and casualties began to increase, families throughout the county opened their homes to the wounded to relieve the crowded city hospital (Lutz 1954).

In May of 1864, the war came directly into Chesterfield County when Union General Benjamin F. Butler and his army landed at Bermuda Hundred in the eastern portion of the county. A series of battles, known as the Bermuda Hundred Campaign, ensued during May and June in the vicinity of Petersburg, southeast of the current project area (Lutz 1954).

The approximate location of the project area is shown on a Civil War-era map from 1862-1863 (Figure 3.3-1). This map shows a few homes or farmsteads in the project vicinity and provides evidence that the project area was undeveloped at the time. This map shows the J. T. Clay house within the approximate location of the project area. During a previous architectural survey of the area an association was established with John T. Clay, who took possession of the property from his father Phineas Clay in 1848 (DeChard and Brady 2008:7). Phineas Clay (1781-1855) was a Baptist minister and may have been a distant relative of Henry Clay (1777-1852), a statesman who served as Secretary of State to President John Quincy Adams (Ancestry.com 2020). Henry Clay was born in Hanover County, Virginia, but as a child moved with his mother to the Richmond area after the death of his father (NPS 2019). The presence of the Clay family in the area prior to the Civil War provides a good indication of historic site potential in the current project vicinity.

3.3.6 Reconstruction and Growth (1865-1917)

In 1865 the 13th Amendment outlawed slavery in all of the United States. Freedman's bureaus were established to aid the newly freed African Americans in the initial year after emancipation. The black population in the south changed little between the end of the Civil War and the turn of the twentieth century (Berlin 2010:134). The emancipation of slaves meant that the county's economic system had to change. Without slaves, many farmers, mill owners, and mine owners were forced to look for a new labor source, and cash to pay workers was scarce (Lutz 1954).

Richmond's recovery from the effects of the Civil War began with occupation by Federal troops. The troops endeavored to end lawlessness following the Confederate Army flight from their former capital. Railroads, devastated by Union soldiers during the war, were rapidly repaired (Dabney 1990). After the war, many mines were opened in southwest Virginia creating competition and lessening the demand for coal and other mineral resources from Chesterfield County. As mining decreased, the county found itself more dependent on its still operating mills, including those at Matoaca, Ettrick, and Swift Creek, and on agriculture (Weaver 1970). By the 1880's, economic conditions in the area began to improve (Dabney 1990).

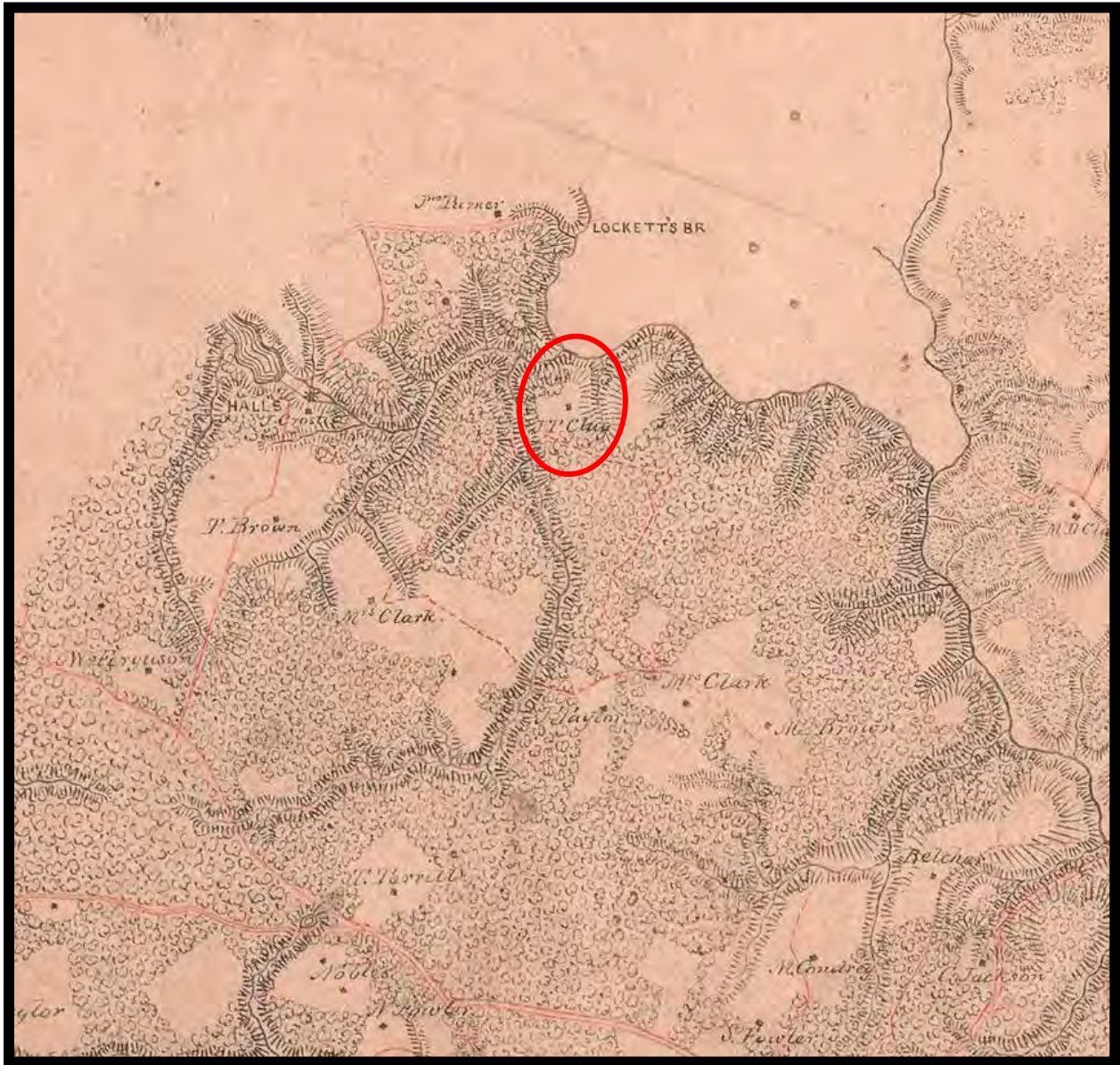


Figure 3.3-1: Detail of an 1862-63 Map of the Region, Showing the Approximate Location of the Project Area (Gilmer 1863).

Reconstruction brought new educational opportunities to the area with the creation of state-wide public schools. In 1882, the Virginia Normal and Collegiate Institute for African American students, now Virginia State University, was established in Petersburg about 25 miles south of the project area (Weaver 1970). Figures 3.3-2 and 3.3-3 showing the approximate location of the project area on 1888 and 1897 maps of the region and place the project area within the longstanding rural landscape southwest of Richmond. The Clay property referred to earlier is shown as the Brooks property at this time.

3.3.7 World War I to World War II (1917 to 1945)

Virginia became increasingly industrialized after 1917, but nearly two-thirds of the state's population was still farming. At this time a third of the residents of the state were black, most of whom were working as farmers (Bryan 2017). Once the United States engaged in World War I, Richmond residents contributed to the war in several ways. For example, churches in the city prepared comfort packets for soldiers that included tobacco and sock. Women of Richmond were also recruited for the Women's Munitions Reserve to produce gunpower at a large factory to the east of the city (Bryan 2017).

Despite the positive nature of citizens of Richmond banding together to do right by the war effort, the federal Committee on Public helped to pass the 1917 Espionage Act and the 1918 Sedition Act, which criminalized negative expressions regarding our county's involvement in the war. At the time, many residents of Virginia were of German ancestry, especially in the western part of the state. Some Virginians became paranoid that their German neighbors were actually saboteurs (Bryan 2017). The tension was felt by second-generation German American's living in Richmond, as Lutheran and German Catholic parishes in the city reported that their parishioners were experiencing tension locally (Bryan 2017).

Industrial expansion was accelerated in Chesterfield County after World War I. More of the county's residences and businesses received electrical and telephone service. Road improvements moved ahead as automobiles became more common, and farmers in remote parts of the county now found it easier to transport their goods to market. In 1928, E. I. du Pont de Nemours & Company was established along the James River. The plant built in 1928, and other plants that were added in later years, helped support the local economy during the very difficult Depression period. By the end of 1935, the local DuPont plants employed 2,750 people. The number of employed had grown to 4,100 people by the onset of World War II (Weaver 1970).

During World War II, Chesterfield County contributed its share of soldiers to the war effort, while those who remained at home did what they could to help. The site of Bellwood was used as a prisoner of war camp during the war, with many of the prisoners interred there being used as laborers on local farms (Weaver 1970). During the Summer and Fall of 1941, Chesterfield County's roads were often filled with soldiers traveling to and from maneuver areas. The 28th, 29th, and 44th Infantry Divisions passed through the county on their way to the Carolinas for maneuvers in the late summer of 1941 (Lutz 1954).

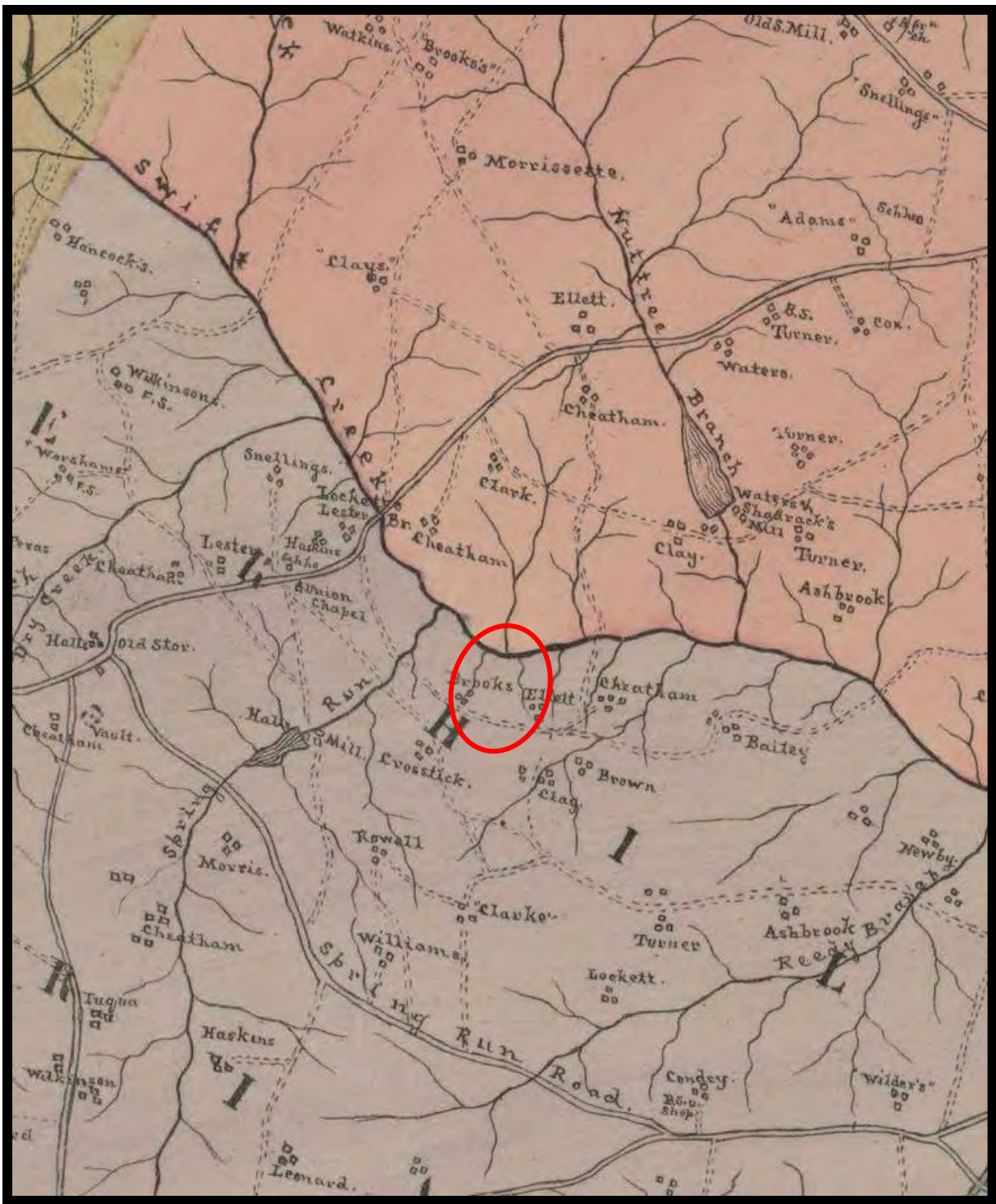


Figure 3.3-2: Detail of 1888 Map of the Region, Showing the Approximate Location of the Project Area (LaPrade 1888).

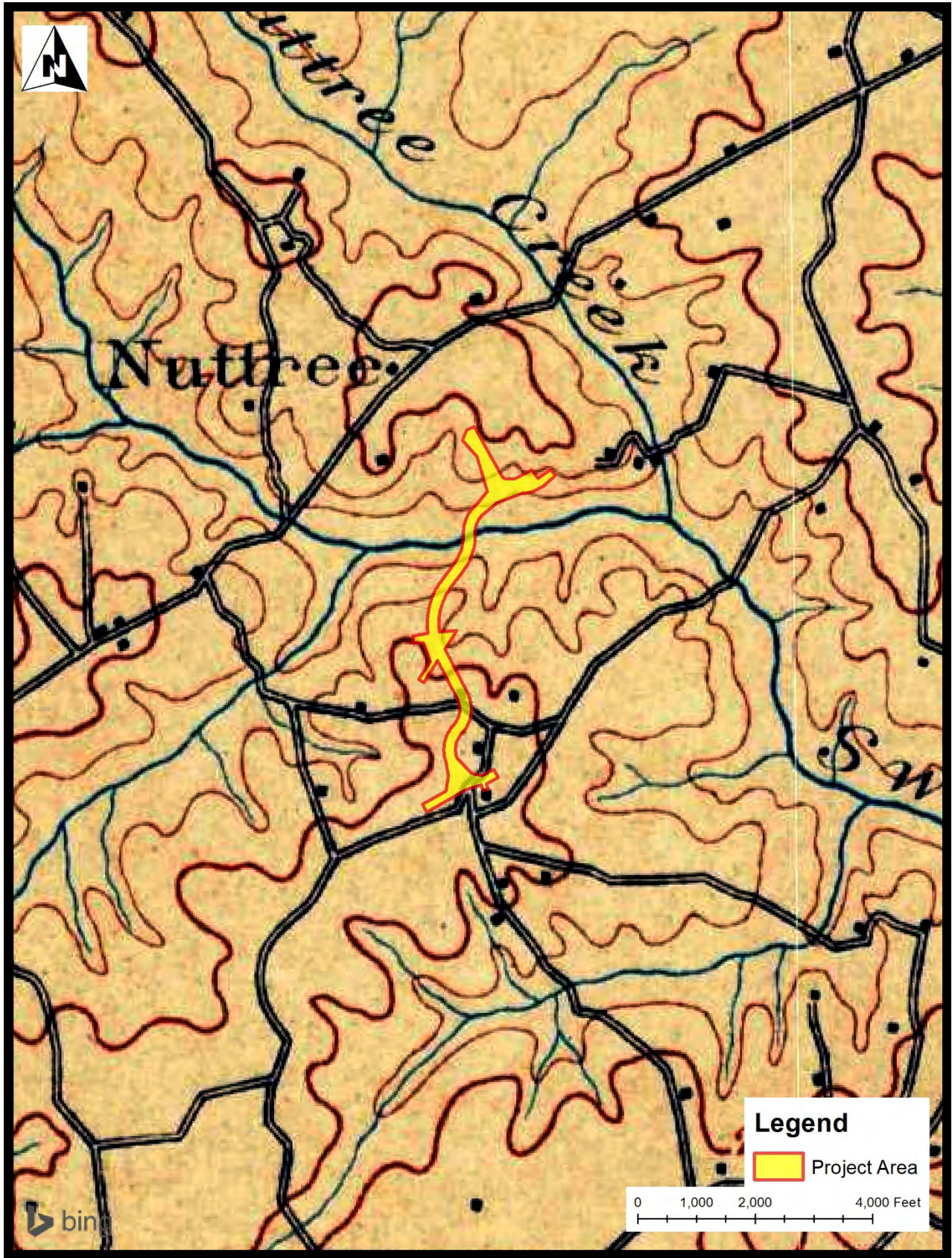


Figure 3.3-3: Approximate Location of Project Area on the 1897 Amelia, Virginia, Topographic Quadrangle (USGS 2020).

Despite the activity in the county fueled by the movement of troops heading overseas, a 1943 quadrangle map indicates that the greater area around the current project remained rural and sparsely developed (Figure 3.3-4).

3.3.8 The New Dominion (1945 to Present)

Suburban growth in Chesterfield County dates to the first few decades of the twentieth century with commuter rails and increased automobile ownership. Since World War II, this trend towards suburbanization has gathered momentum with many of the emerging suburbs being planned communities. Chesterfield County, located between Richmond and Petersburg, has experienced rapid residential growth from the expansion of those cities (O'Dell 1983). The construction of Richmond-Petersburg Turnpike (now I-95) during the second half of the twentieth century served to make Chesterfield County even more accessible to business.

The Allied Chemical Company constructed a nylon manufacture plant in the county in 1954 and along with the previously established DuPont nylon plant allowed Chesterfield County to style itself as the “Nylon Capital of the World.” The Allied Chemical Company also established a large research center along I-95 that brought scientists and technicians to the area. During the 1960s, the American Tobacco Company built a plant and research facility in the area as well (Weaver 1970).

Although, business investment was increasing in the county during the early post war period, the character of the project area still remained rural, as shown in a 1963 map of the area (Figure 3.3-5). The Swift Creek Reservoir was constructed in 1965, and today provides much of the fresh water to Chesterfield County. Swift Creek cross the project area near its northern terminus. In 1989, the southern portion of Route 288 was completed and served to connect I-95 near Chester and Route 76 near Midlothian forming somewhat of an outer loop around Richmond, Virginia and making Chesterfield County even more accessible to business.

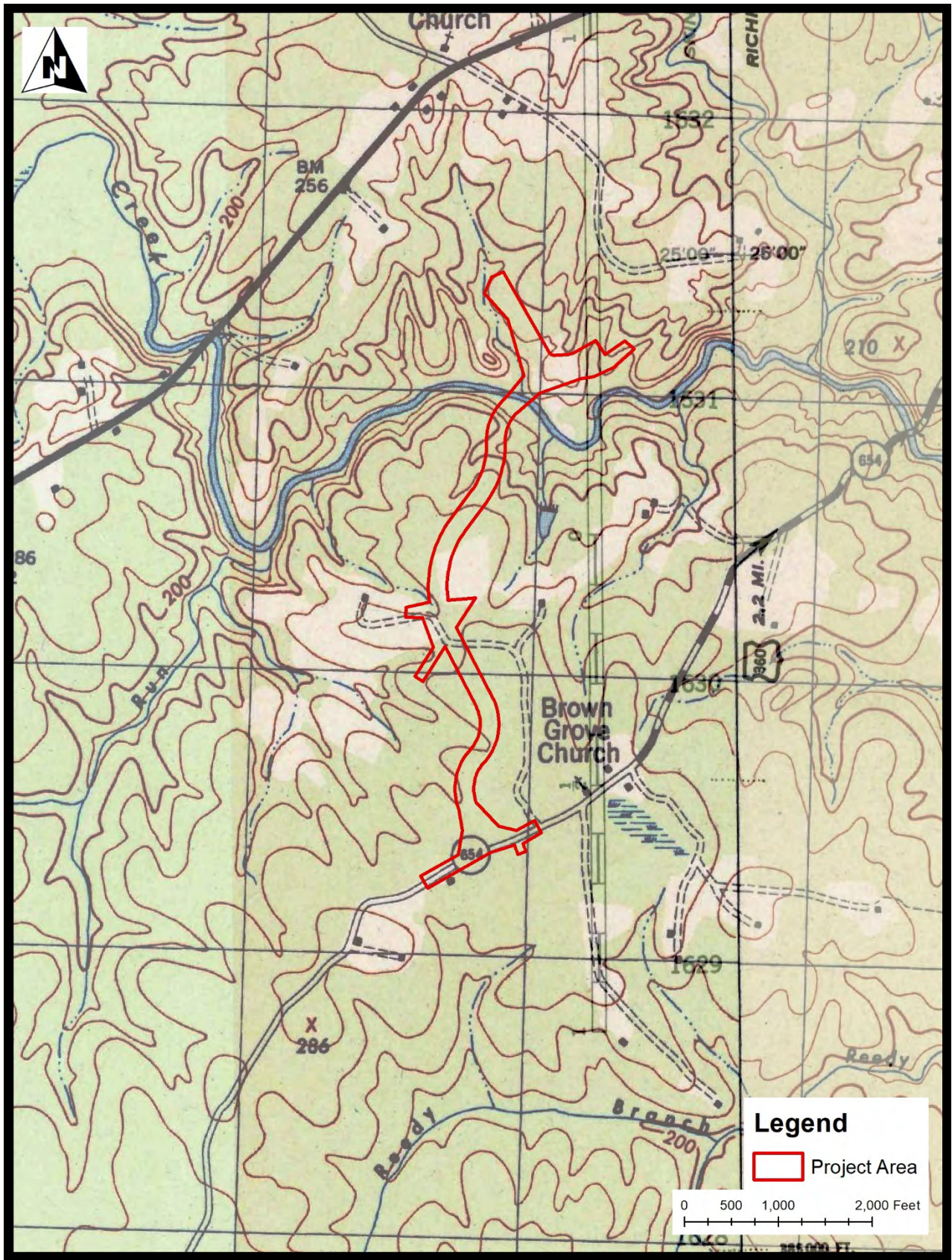


Figure 3.3-4: Detail of the 7.5-Minute USGS 1943 Hallsboro, Virginia, Topographic Quadrangle, Showing the Approximate Location of the Project Area (USGS 2020).



Figure 3.3-5: Detail of the 1963 USGS 7.5-Minute Hallsboro, Virginia, Topographic Quadrangle, Showing the Approximate Location of the Project Area (USGS 2020).

4.0 RESULTS OF THE ARCHITECTURAL SURVEY

4.1 METHODS

4.1.1 Background Research

Prior to conducting architectural fieldwork, additional background research for the current project was conducted using material from VDHR in Richmond to gather information on recent cultural resource surveys and previously recorded architectural resources located within or adjacent to the current project area. Preliminary research using online aerial and streetside imagery and the Chesterfield County Geographical Information System was used to identify unrecorded resources known, or appearing, to be more than 50 years old (1970 or earlier).

4.1.2 Architectural Field Methods and Evaluation

Fieldwork for the architectural investigation was conducted by vehicle and on foot. The purpose of the study was twofold: 1) to provide specific information concerning the location, nature, and significance of resources more than 50 years old in the APE; and 2) to identify resources that appear to be eligible or potentially eligible for the NRHP. Each resource that was determined to be more than 50 years old was recorded and photographed. If possible, property owners were interviewed. V-CRIS documentation was prepared for each newly recorded resource and updated as necessary for previously recorded resources.

Architectural resources are assessed against the NRHP criteria for integrity and significance to determine eligibility. The NRHP criteria require that the quality of significance in American history, architecture, culture, and archaeology should be present in buildings, structures, objects, sites, or districts that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and that the buildings, structures, objects, sites, or districts:

- A. are associated with events that have made a significant contribution to the broad patterns of our history;
- B. are associated with the lives of persons significant in our past;
- C. embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction;
- D. or have yielded, or may be likely to yield, information important in prehistory or history (National Park Service 1995).

4.2 PREVIOUSLY RECORDED RESOURCES

One previously recorded architectural resource, Clay-Brooks Farm (VDHR # 020-0346), was recorded on a parcel that extends into the project area (Table 4.2-2; Figure 4.2-1). This resource was previously evaluated by VDHR staff and determined eligible in 2009. The resource, however, including a dwelling and outbuildings has since been demolished. It is briefly discussed below.

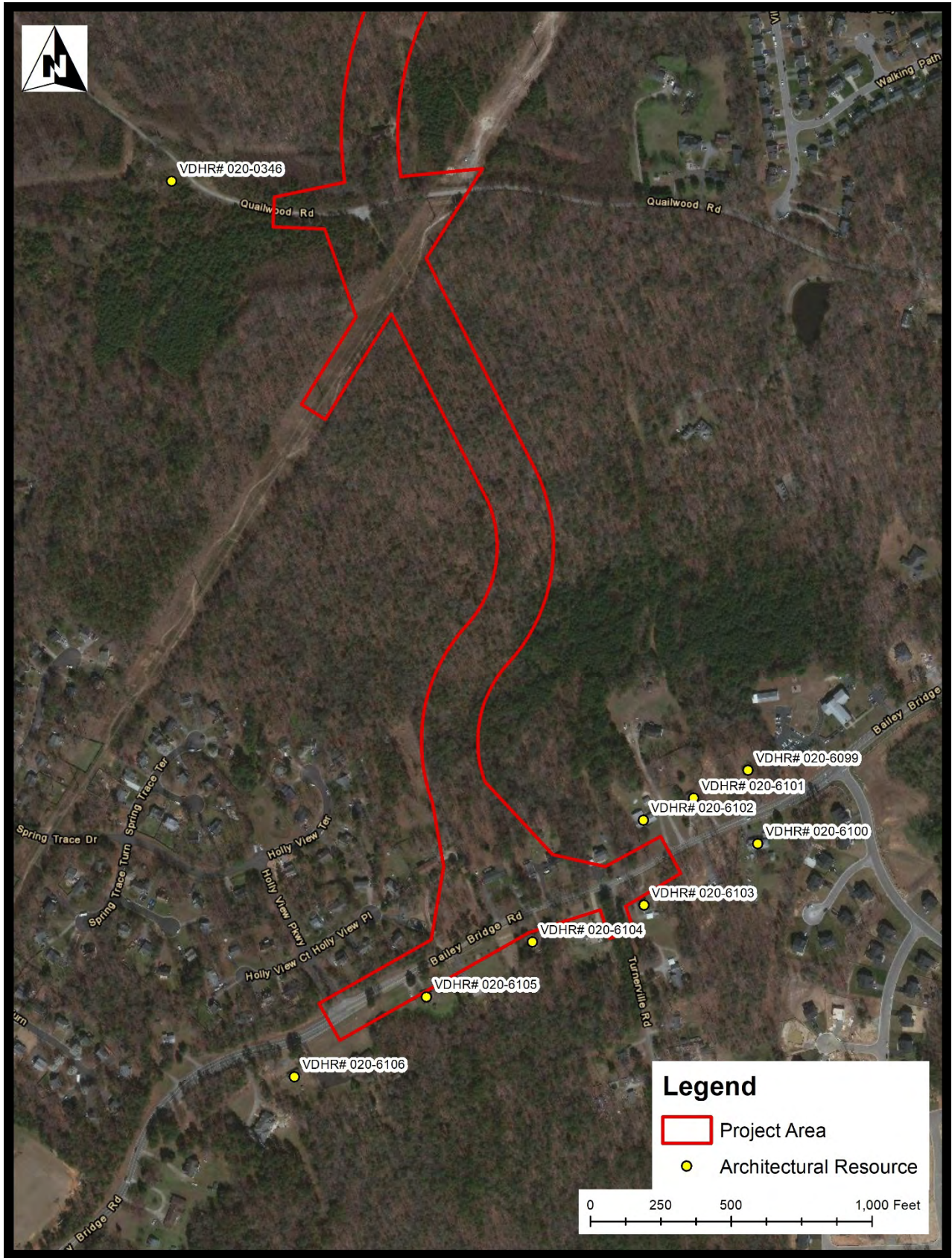


Figure 4.2-1: Location of Architectural Resources in the APE.

Appendix A contains the updated V-CRIS documentation with photographs of the resource location.

Table 4.2-2: Previously Recorded Architectural Resources in the APE.

VDHR #	Resource Name, Location	Date	Previous Determination of Eligibility or Status
020-0346	Clay-Brooks Farm, 13100 Quailwood Road	ca. 1825	Demolished

VDHR RESOURCE NUMBER: 020-0346 (Previously Recorded)

RESOURCE NAME/TYPE: Clay-Brooks Farm/Dwelling

DATE: Ca. 1825

DESCRIPTION: The farm was located on the north and south sides of Quailwood Road (Route 817) in an area that was once cleared but is now wooded. The dwelling was located on the south side of the road with two substantial outbuildings on the north side of the road. Other outbuildings were also located on the property as noted by earlier surveys. At the time of this survey, the property north and south of the road was completely wooded and overgrown and the only remnants of the structures that could be identified were three mounds of building materials and debris. A Memorandum of Agreement between a local developer, VDHR, and the Department of the Army Corps of Engineers documented the demolition of this structure ca. 2011 and resulted in a mitigation project that recorded and evaluated five similar mid-nineteenth-century resources in Chesterfield County (DeChard and Brady 2011).

RECOMMENDATIONS: Due to its demolished state, the architectural resource no longer retains the integrity required to satisfy Criteria A, B, and C. Archaeological components related to the property (44CF0717 and 44CF0719) have not been fully evaluated.

4.3 NEWLY RECORDED ARCHITECTURAL RESOURCES

Eight architectural resources were newly recorded as a result of the architectural survey of the APE. The newly recorded architectural resources are all dwellings and were constructed between 1948 and 1970 (VDHR #s 020-6099 through 020-6106) (see Figure 4.2-1). The dwellings are located at the southern terminus of the APE along Bailey Bridge Road. Four of these are located on parcels that extend into the APE, three on the south side of the road and one on the north side of the road. The remaining four are located to the east and west of the APE and are visible from the project area. Appendix A contains the V-CRIS forms for the newly recorded architectural resources, sketch maps illustrating the features of the resources, and representative photographs of each resource. These newly recorded architectural resources are described in detail below.

VDHR RESOURCE NUMBER: 020-6099

RESOURCE NAME/TYPE: Dwelling, 12900 Bailey Bridge Road

DATE: 1970

DESCRIPTION: The dwelling is located on the north side of Bailey Bridge Road and sits approximately 130 ft from the road. It is surrounded by a lawn that is scattered with large mature trees that provide a generous canopy over the parcel, and the rear of the parcel is densely wooded. There is some landscaping along the façade of the dwelling and in the front yard. A wide gravel driveway approaches the dwelling along its west elevation.

Built in 1970, according to Chesterfield County tax information, this one-story minimal Ranch-style dwelling rests on a concrete block foundation, is clad with wide wooden or aluminum siding, and is sheltered by a side-gabled asphalt shingle roof. The eave of the roof is moderately deep except for along the east side of the façade where it extends forward to shelter an entry door and paired one-over-one, aluminum sash windows with shutters. West of the entry door is an individual and a paired one-over-one, aluminum sash window, also with shutters. The east and west (side) elevations are symmetrical with small, one-over-one, aluminum sash windows and small louvered vents in the gables. A small rear-gabled wing with exposed rafter tails extends from the north (rear) elevation of the dwelling and an exhaust vent and concrete block chimney rise from the rear slope of the main roof. A wood and metal clad shed stands northeast of the dwelling along the parcel's property line.

RECOMMENDATIONS: Overall, the property retains a high level of integrity; however, the building represents a common architectural style for its period and place of construction and therefore lacks architectural significance. Furthermore, the building has no significant association or linkage to events or persons of demonstrable importance in the past and does not appear to have the ability to yield important and unique information for research based on physical evidence. This architectural resource is recommended as not eligible for the NRHP under Criteria A, B, C, or D.

VDHR RESOURCE NUMBER: 020-6100

RESOURCE NAME/TYPE: Dwelling, 12901 Bailey Bridge Road

DATE: 1962

DESCRIPTION: The dwelling is located on the south side of Bailey Bridge Road and sits approximately 70 ft from the road. It is surrounded by a lawn with scattered landscaping features. Mature trees line the parcel boundary, and the southern half of the parcel, which is particularly long, is wooded. A U-shaped, asphalt driveway loops in front of the dwelling and extends along its west elevation.

Built in 1962, according to Chesterfield County tax information, this dwelling exhibits a split-level form and is reminiscent of the Ranch style. The lower level of its two-story, eastern section is finished with painted concrete block, while the upper section and one-story, western section are clad with vinyl siding. The dwelling is sheltered by an asphalt shingle roof that is hipped on the eastern section and side-gabled on the western section. A wide, front-gabled porch that appears to be an addition spans the façade of the western section. It shelters an enclosed space at its east end that is accessible via its own entry door (below the porch) and lit by a small bay window on the façade. The open portion of the porch is supported by square posts with decorative brackets and a simple balustrade and shelters an entry door, a picture window with sidelights, and paired one-over-one windows. The one-over-one windows appear to have vinyl sashes and the picture window appears to have aluminum sashes.

The façade of the eastern section has two asymmetrically placed, two-over-two, horizontal-pane windows with vinyl screens on the second level. A one-story, front-gabled, one-car garage projects from the lower level. Its east (side) elevation is flush with the east elevation of the eastern section and is lit by three, small, single-pane, vinyl sash windows. Three similar windows light its west (side) elevation as well and a two-over-two, horizontal-pane window with a vinyl screen exists on the lower level of the eastern section west of the garage. The east (side)

elevation of the eastern section is also lit by two-over-two, horizontal-pane windows with vinyl screens and the west (side) elevation of the western section is pierced by an entry door sheltered by a small gabled porch and by paired, one-over-one, vinyl sash windows. A small, rear-gabled wing extends from the south (rear) elevation of the eastern section and a brick chimney rises from the forward slope of its roof. A second brick chimney rises from the west slope of the eastern section's hipped roof.

Multiple ancillary structures are located on the parcel. The first is a small, front-gabled structure at the northwest corner of the parcel, near the road and driveway. It is clad with wooden paneling and covered by an asphalt shingle roof. It has an entry door on its east (front) elevation and small windows on its side and rear elevations. A front-gabled shed stands southeast of the dwelling and faces west. It is clad with wooden paneling and covered by an asphalt shingle roof. An entry door that is sheltered by a small gabled awning with gallows brackets is located on the west (front) elevation and small, off-center, one-over-one windows light the side and rear elevations. Another shed is located to the south of the dwelling. It appears to be clad with wooden siding and is covered by an asphalt single, gambrel roof. The locations of its entry door and any windows are unknown. Lastly, a large front-gabled shed is located southwest of the dwelling. It is clad with metal siding and roofing and has shed-roofed side and rear wings. The most visible of these, the east wing, is enclosed and has garage door on its façade. A large sliding door provides access to the main section of the shed.

RECOMMENDATIONS: Overall, the property retains a low level of integrity. This is due primarily to the replacement of the structure's original exterior cladding with vinyl siding and the construction of the porch and garage on the dwelling's façade, both of which detract from its split-level form and any Ranch-style details that it may have exhibited resulting in a structure that lacks architectural significance. Furthermore, the building has no significant association or linkage to events or persons of demonstrable importance in the past and does not appear to have the ability to yield important and unique information for research based on physical evidence. This architectural resource is recommended as not eligible for the NRHP under Criteria A, B, C, or D.

VDHR RESOURCE NUMBER: 020-6101

RESOURCE NAME/TYPE: Dwelling, 12908 Bailey Bridge Road

DATE: 1946

DESCRIPTION: The dwelling is located on the north side of Bailey Bridge Road and sits approximately 110 ft back from the road. It is surrounded by a lawn that is scattered with large mature trees, and some landscaping exists along the façade of the dwelling. A U-shaped gravel driveway loops in front of the dwelling, and a gravel area that is used for parking connects with the western corner of the dwelling. A concrete sidewalk meanders from the gravel loop to the dwelling's porch as well. A wooden privacy fence follows the northern boundary of the parcel and separates it from a newer dwelling.

Built in 1946, according to Chesterfield County tax information, this one-story vernacular dwelling rests on a concrete block foundation, is clad with wooden weatherboard siding, and is covered by a side-gabled, asphalt shingle roof. A partial width, shed-roofed porch shelters the center of the façade including an off-center, wooden entry door and two one-over-one, vinyl sash windows. The porch is supported by simple square posts with horizontal railings and accessed

by wooden steps. A shed-roofed wing, that may have begun as a porch, extends from the west (side) elevation. Its southwest corner is wrapped by a ribbon of one-over-one windows. An entry door interrupts the ribbon on the west elevation, and a single window exists north of the ribbon of windows. The east (side) elevation of the dwelling is lit by two one-over-one, vinyl sash windows and has a louvered vent in the gable. A small gabled shed that appears to be clad with wooden board-and-batten siding and sheltered by a metal roof stands in the northwest corner of the parcel.

There is also a small front-gabled shed that stands in the northwest corner of the parcel and faces east. It has wooden board-and-batten siding and a standing seam metal roof.

RECOMMENDATIONS: Overall, the property retains a medium level of integrity and represents a common architectural style for its period and place of construction, therefore lacking architectural significance. Furthermore, the building has no significant association or linkage to events or persons of demonstrable importance in the past and does not appear to have the ability to yield important and unique information for research based on physical evidence. This architectural resource is recommended as not eligible for the NRHP under Criteria A, B, C, or D.

VDHR RESOURCE NUMBER: 020-6102

RESOURCE NAME/TYPE: Dwelling, 12916 Bailey Bridge Road

DATE: 1970

DESCRIPTION: The dwelling is located on the north side of Bailey Bridge Road and sits approximately 115 ft back from the road. It is surrounded by a cleared lawn (front and rear) and bordered on the west by a wooded area. The northern half of the parcel is densely wooded as well. A gravel driveway extends from Bailey Bridge Road past the east (side) elevation of the dwelling to a carport.

Built in 1970, according to Chesterfield County tax information, the one-story Ranch-style dwelling has a side-gabled, asphalt shingle roof and is clad with brick veneer on its western half and wide aluminum or vinyl siding on its eastern half. A portion of the eastern half appears to be an addition due to a difference in the brick foundation and a seam in the siding. The façade contains, from west to east, two two-over-two, likely wooden sash windows; an entry door with a brick stoop; a picture window with two-over-two sidelights; and two two-over-two windows. The last two windows are surrounded by siding and the very last window, which is significantly separated from the others, is centered on the addition. The east (side) elevation contains a garage door flanked on the north by a two-over-two window. The west (side) elevation contains two two-over-two windows. A large gabled addition that extends from the north (rear) elevation is flush with the west elevation. It is clad with thin siding, likely vinyl, and contains three additional windows that appear to be one-over-one, double-hung sashes but could have multiple panes.

The carport is located north of the dwelling. Its side-gabled asphalt shingle roof is supported by square posts with gallows brackets that are set in a masonry foundation. The foundation partially outlines the carport leaving space for vehicles to drive in and out on each side and though all of the side elevations are open, the gables are filled with wooden panels.

RECOMMENDATIONS: Overall, the property retains a medium to high level of integrity with additions that do not detract from the original architectural details. The dwelling, however,

represents a common architectural style for its period and place of construction and therefore lacks architectural significance. Furthermore, it has no significant association or linkage to events or persons of demonstrable importance in the past and does not appear to have the ability to yield important and unique information for research based on physical evidence. This architectural resource is recommended as not eligible for the NRHP under Criteria A, B, C, or D.

VDHR RESOURCE NUMBER: 020-6103

RESOURCE NAME/TYPE: Dwelling, 12921 Bailey Bridge Road

DATE: 1948

DESCRIPTION: The dwelling is located on the south side of Bailey Bridge Road and sits approximately 100 ft from the road. It is surrounded by a lawn with minimal landscaping around the house and is buffered on the east and west by wooded areas. A chain link fence encloses a portion of the yard along the east (side) elevation of the dwelling. A U-shaped gravel driveway loops in front of the dwelling, and a straight driveway extends from the west side of the loop, past the west (side) elevation of the dwelling. A small extension leads east to a carport while the main driveway continues to a dwelling on a separate parcel.

Built in 1948, according to Chesterfield County tax information, this one-and-one-half story Minimal Traditional-style dwelling rests on a concrete block foundation, is clad with vinyl siding, is sheltered by a side-gabled asphalt shingle roof, and has a large, gabled rear wing. The façade contains an off-center entry door flanked on the east by a picture window with one-over-one, double-hung sidelights and on the west by paired one-over-one, double-hung windows. All of the dwelling's windows appear to have vinyl sashes. A small, wooden stoop provides access to the entry door and two gabled dormers with one-over-one, double-hung sashes rest on the forward slope of the roof. The east (side) elevation, including the east gable and the east elevation of the rear wing, contains, from north to south, a one-over-one, double-hung window; paired one-over-one, double-hung windows; a slightly shorter one-over-one, double-hung window; and an entry door. There is also a one-over-one, double-hung window in the peak of the gable. The west (side) elevation, including the west gable and the west elevation of the rear wing, contains, three relatively equally spaced one-over-one, double-hung window—two on the gable and one on the wing. There is also a one-over-one, double-hung window in the peak of the gable. A brick chimney rises from the crest of the roof near the east gable end.

Multiple ancillary structures are located on the parcel. The largest is a metal carport with a front-gabled roof and open sides that stands behind the dwelling. The second is a gambrel-roofed shed with metal siding and roofing that faces west to the carport. The third structure is a front-gabled shed with metal siding and roofing, and a double leaf entrance on its west-facing façade. It stands to the east of the other structures. To its east, in a wooded area, is a shed-roofed shed that is clad with wooden paneling and sheltered by a metal roof.

RECOMMENDATIONS: Overall, the property retains a low level of integrity and represents a common architectural style for its period and place of construction and therefore lacks architectural significance. Furthermore, the building has no significant association or linkage to events or persons of demonstrable importance in the past and does not appear to have the ability to yield important and unique information for research based on physical evidence. This architectural resource is recommended as not eligible for the NRHP under Criteria A, B, C, or D.

VDHR RESOURCE NUMBER: 020-6104

RESOURCE NAME/TYPE: Dwelling, 13001 Bailey Bridge Road

DATE: 1948

DESCRIPTION: The dwelling is located on the south side of Bailey Bridge Road and sits approximately 75 ft from the road. It is surrounded by a lawn that is scattered with large mature trees that provide a generous canopy over the parcel. The southern half of the parcel is more densely wooded and there is a clearing at the northwest corner of the parcel. A gravel driveway leads to the east side of the dwelling where a gravel area provides space for parking and turning around. A concrete sidewalk leads from the driveway to a ramp at the front of the dwelling.

Built in 1948, according to Chesterfield County tax information, this one-story Minimal Traditional-style dwelling rests on a concrete block foundation and is clad with vinyl siding and sheltered by a side-gable asphalt shingle roof. An almost full-width, shed-roofed porch shelters the façade including an off-center, entry door flanked by two-over-two, wooden sash windows. The porch is supported by battered-box columns on brick pedestals that do not appear to be original. A simple wooden post balustrade, that also appears to be added, wraps the porch, and an L-shaped, wooden ramp leads from the porch to the sidewalk. Both the east and west (side) elevations of the dwelling are lit by two two-over-two, wooden sash windows and have a third two-over-two, wooden sash window in the gable. A shed-roofed wing and a porch span the north (rear) elevation of the dwelling and two brick chimneys rise from just behind the crest of the roof.

There are two sheds located on the property as well. The first is a small gambrel-roofed shed clad with wooden paneling and covered with an asphalt shingle roof. It faces north toward the road and is accessed by a double-leaf door with clipped corners and strap hinges. The second appears to be contemporaneous with the house. It is front gabled with wooden weatherboard siding and cornerboards, an asphalt shingle roof with exposed rafter tails, and a shed-roofed wing clad with wooden paneling.

RECOMMENDATIONS: Overall, the property retains a low to medium level of integrity due to its vinyl siding and altered porch. Additionally, the dwelling represents a common architectural style for its period and place of construction and thus lacks architectural significance. Furthermore, the building has no significant association or linkage to events or persons of demonstrable importance in the past and does not appear to have the ability to yield important and unique information for research based on physical evidence. This architectural resource is recommended as not eligible for the NRHP under Criteria A, B, C, or D.

VDHR RESOURCE NUMBER: 020-6105

RESOURCE NAME/TYPE: Dwelling, 13017 Bailey Bridge Road

DATE: 1948

DESCRIPTION: The dwelling is located on the south side of Bailey Bridge Road and sits approximately 70 ft from the road. It is surrounded by a lawn with a few small trees and some landscaping along its façade and west (side) elevation. The narrow parcel is extremely long with the domestic yard comprising roughly one tenth of the nine-acre parcel and the rest of the parcel being wooded. An h-shaped driveway loops in front of the dwelling with the straight portion of the “h” extending to a carport west of the dwelling. A concrete sidewalk leads from the center of the loop to the dwelling’s porch.

Built in 1948, according to Chesterfield County tax information, this one-story dwelling is clad with vinyl siding and sheltered by a side-gabled, asphalt shingle roof. It also has a large rear-gabled wing that is the width of the house and a side-gabled addition on its east end. The façade of the main block is symmetrical with a wooden entry door with a transom and vinyl screen door that is flanked by one-over-one, double-hung windows that are covered with vinyl-framed screens and flanked with shutters. This portion of the façade is sheltered by a hip-roofed porch supported by thin posts with a turned balustrade. The addition has a one-over-one, double-hung window with a vinyl-framed screen and shutters on its façade as well. This portion of the dwelling is slightly taller than the main block and its east (side) elevation contains three windows like those on the front façade—two on the main level and a smaller one in the gable. The west (side) elevation contains two similar windows as well—one on the side gable and one on the wing. A linear hip-roofed wing, that may have begun as a rear porch, partially spans the south (rear) elevation of the wing and addition. Two interior chimneys, one with a brick stack and one with a concrete stack, rise from the rear slope of the main block's roof, and a chimney with a concrete stack rises from the crest of the addition's roof.

There are four ancillary structures on the property. The first is a metal carport to the west of the dwelling. It has a forward-facing, gambrel-like roof that is supported by metal posts and has open sides. The second structure is a shed that stands to the southeast of the dwelling. It has a front-gabled, asphalt shingle roof; is clad with vinyl siding; and has a modern entry door centered on its façade. Two additional sheds are located south of the dwelling on the edge of the wooded area. They are front gabled with metal roofs and wooden cladding and face toward one another. The western shed has a lower pitched roof and is painted yellow. It also has a window on its west (rear) elevation.

RECOMMENDATIONS: Overall, the property retains a low level of integrity. It also represents a common architectural style for its period and place of construction and therefore lacks architectural significance. Furthermore, the building has no significant association or linkage to events or persons of demonstrable importance in the past and does not appear to have the ability to yield important and unique information for research based on physical evidence. This architectural resource is recommended as not eligible for the NRHP under Criteria A, B, C, or D.

VDHR RESOURCE NUMBER: 020-6106

RESOURCE NAME/TYPE: Dwelling, 13101 Bailey Bridge Road

DATE: 1969

DESCRIPTION: The dwelling is located on the south side of Bailey Bridge Road and sits approximately 90 ft from the road. It is surrounded by a lawn with a few small trees and some mature trees as well as some landscaping along its façade. Mature trees line the eastern and western edges of its wedge-shaped parcel, and its southern half is wooded. A U-shaped driveway with a small pull off area on the western side loops in front of the dwelling, and a concrete sidewalk leads from the center of the loop to the dwelling's porch. A segment of wooden fencing extends west from near the dwelling's northwest corner dividing the front and rear yard.

Built in 1969, according to Chesterfield County tax information, this one-story Ranch-style dwelling is clad with brick veneer and sheltered by a side-gabled, asphalt shingle roof with modest eaves. The façade is comprised of two sections. The eastern section contains two, likely wooden sash, two-over-two, horizontal-pane, double-hung windows with vinyl-framed screens and shutters. The western half contains a recessed porch supported by three square posts separated by shallow arches. The recess is clad with wooden paneling and contains an entry door with an iron screen that is flanked on the west by paired two-over-two, horizontal-pane, double-hung windows with vinyl-framed screens. Its east (side) elevation is lit by two two-over-two, horizontal-pane, double-hung windows with vinyl-framed screens that are slightly smaller than those on the façade. The west (side) elevation is lit by one two-over-two, horizontal-pane, double-hung window with a vinyl-framed screen. Both side gables have louvered vents that fit into the peak of the gable.

RECOMMENDATIONS: Overall, the property retains a high level of integrity; however, the building represents a common architectural style for its period and place of construction and therefore lacks architectural significance. Furthermore, the building has no significant association or linkage to events or persons of demonstrable importance in the past and does not appear to have the ability to yield important and unique information for research based on physical evidence. This architectural resource is recommended as not eligible for the NRHP under Criteria A, B, C, or D.

4.4 SUMMARY

Table 4.4-1 summarizes the historic architectural resources in the current APE. One previously recorded architectural resource, Clay-Brooks Farm (VDHR # 020-0346), was located on a parcel that extends into the project area. This resource was previously determined eligible by VDHR staff but has since been demolished. The architectural survey identified four previously unrecorded resources on parcels that extend into the project area and four previously unrecorded resources that are within the viewshed of the project area. The eight previously unrecorded resources are all dwellings and have been evaluated as a part of this survey (VDHR #s 020-6099 through 020-6106). All of the newly recorded dwellings appear to lack significance and are recommended as not eligible for listing on the NRHP.

Table 4.4-1: Summary of Architectural Resources in the APE.

VDHR #	Resource Name, Location	Date	Previous Determination of Eligibility or Status	Commonwealth Recommended Eligibility or Status
020-0346	Clay-Brooks Farm, 13100 Quailwood Road	ca. 1825	Eligible	Demolished
020-6099	Dwelling, 12900 Bailey Bridge Road	1970	Newly Recorded	Not Eligible
020-6100	Dwelling, 12901 Bailey Bridge Road	1962	Newly Recorded	Not Eligible
020-6101	Dwelling, 12908 Bailey Bridge Road	1946	Newly Recorded	Not Eligible
020-6102	Dwelling, 12916 Bailey Bridge Road	1970	Newly Recorded	Not Eligible
020-6103	Dwelling, 12921 Bailey Bridge Road	1948	Newly Recorded	Not Eligible

020-6104	Dwelling, 13001 Bailey Bridge Road	1948	Newly Recorded	Not Eligible
020-6105	Dwelling, 13017 Bailey Bridge Road	1948	Newly Recorded	Not Eligible
020-6106	Dwelling, 13101 Bailey Bridge Road	1969	Newly Recorded	Not Eligible

5.0 ARCHAEOLOGICAL SURVEY METHODS AND RESULTS

5.1 METHODS

5.1.1 General Methods and Background Research

Archaeological sites, when encountered, are assessed against the NRHP criteria for integrity and significance to determine eligibility for listing. They are typically assessed using Criterion D (see previous chapter) through assessment of a site's potential for important information on the past. In general, archaeological sites that lack sub-plow zone artifact-bearing deposits, have low-density artifact distributions, contain evidence of deep plowing, lack spatial integrity, lack artifact concentrations, or exhibit signs of earth-disturbing activities do not appear to be good candidates for listing in the NRHP. Sites that contain concentrations of artifacts, intact surface features, or intact subsurface remains may be recommended for additional evaluation to determine if they are eligible for listing in the NRHP.

Prior to and after conducting archaeological fieldwork, background research was conducted using information from the VDHR in Richmond, the library of Commonwealth in Tarboro including extensive sources from previous work in Richmond, and online sources including historic map collections and agency databases. The purpose of this background research was to identify any previously recorded archaeological sites or surveys in or adjacent to the project area, to obtain information on project-specific natural characteristics and cultural patterns, and to review the results of cultural resource investigations in the region.

5.1.2 Field Methods

With the exception of previously surveyed areas, the project area was given full consideration during the archaeological survey. Any areas that were wet or obviously disturbed were briefly examined but not intensively surveyed. Where intensive survey was conducted, shovel tests were placed at 50-ft (approximately 15-m) intervals or judgmentally. These tests generally measured approximately 38 cm in diameter and were excavated into sterile soil. Materials from the shovel tests were screened through 6.35-mm hardware cloth. Shovel test locations were noted on the project map, and records of shovel test results were compiled on standardized forms and included depth, soil color, and texture. Digital photographs were used to document the general conditions of the project area.

5.1.3 Mapping/GIS

For field navigation and assurance that the project area was fully addressed, Commonwealth employed a Trimble Geo7X GPS, which can provide sub-meter accuracy when corrected or post-processed using reference data. The GPS was loaded with the project limits and information on previously surveyed areas and soils. Georeferenced digital USGS topographic maps and aerial imagery maps were acquired through ESRI's ArcGIS online service and the United States Geological Survey (ArcGIS Image Service 2020; USGS 2020).

5.2 PREVIOUSLY RECORDED ARCHAEOLOGICAL SITES AND SURVEYS IN THE PROJECT VICINITY

A total of 21.8 acres (8.8 ha) of the current project area was previously surveyed in 2008 for a cultural resources survey of the 239-acre Holly View Tract (Leithoff et al. 2009). Figures 5.2-1 through 5.2-4 show where the previous survey overlaps the current project. A number of sites (n=10) were recorded during the Holly View Tract survey, one of which is located in the current project area based on mapping provided in the survey report. This site, 44CF0713, a low-density, unattributed Native American lithic scatter that was recommended not eligible for the NRHP. The site was found on a small ridge top, and Only five pieces of lithic debitage (quartz and quartzite) were recovered—and these from just two positive shovel tests. The current V-CRIS site form indicates that VDHR concurred that this site is not eligible.

Similar to 44CF0713, some of the other sites recorded during the Holly View Tract survey (44CF0712, 44CF0714, 44CF0715, 44CF0718, and 44CF020) can be characterized as low-density, unattributed Native American lithic scatters occurring on ridges and gentle side slopes. They also did not appear eligible for the NRHP (Leithoff et al. 2009). These sites were recorded to the west of the current project area. Sites 44CF0716, 44CF0717, 44CF0719, and 44CF0721 are historic recorded during the Holly View Tract survey. These sites are described as domestic sites or trash scatters dating to the late eighteenth to twentieth centuries, and they also occur on ridges or gentle side slopes. Of these, 44CF0716, 44CF0717, and 44CF0719 (which was later combined with 44CF0717) were investigated through a Phase II examination that included the excavation of test units, trenches, and additional shovel tests (Brady et al. 2009).

Site 44CF0716 is described as an early nineteenth-century historic site potentially related to the Clay-Brooks Farm (VDHR# 020-0346) (Brady et al. 2009). The site is represented by a high density of historic structural material, historic domestic artifacts associated with the eighteenth and nineteenth centuries, and a low density of Native American lithic debitage (Brady et al. 2009). The site investigators interpreted the high-density of structural material to suggest that the site is associated with a former outbuilding possibly related to the Clay-Brooks Farm (Leithoff et al. 2009; Brady et al. 2009). During the Phase II investigation several possible features were encountered, but the investigators found them to be disturbed and recommended the site not eligible for the NRHP.

Site 44CF0717 (as combined with 44CF0719) represents an archaeological component of the Clay-Brooks Farm (VDHR #020-0346), which dates to ca. 1825 (see Section 4). Structural and domestic artifacts dating from the early nineteenth century through the early twentieth century were recovered from the site during the previous survey (Leithoff et al. 2009). During the Phase II investigation of the site, significant deposits were not encountered, and extensive disturbance was noted (Brady et al. 2009). The site is approximately 150 ft (46 m) west of the current project area on a low, fairly broad ridge. Demolition of the associated Clay-Brooks Farm suggests that additional archaeological components within the former structural footprints could be present.

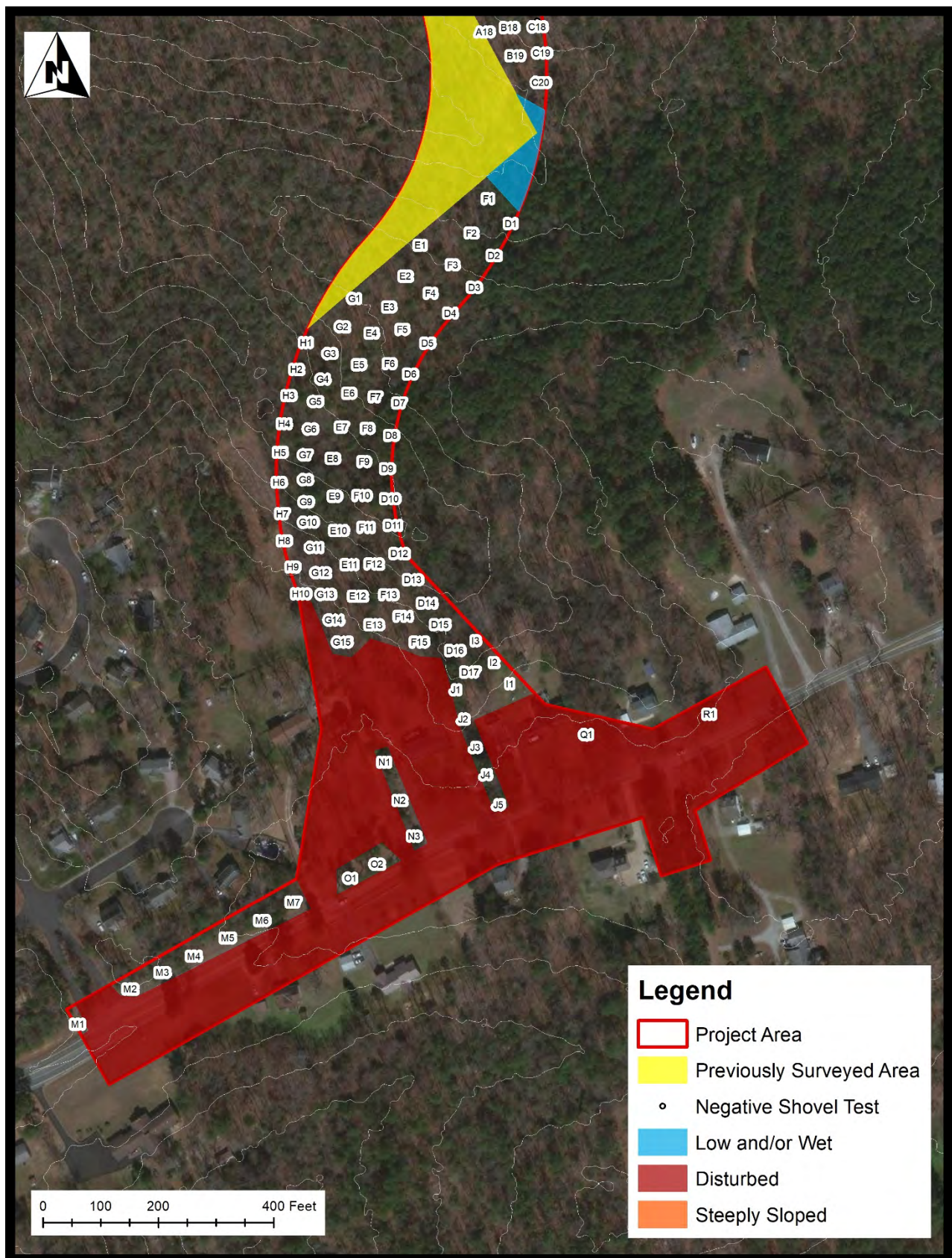


Figure 5.2-1: Project Area Conditions and Survey Coverage, Map 1 of 4. Base mapping from ArcGIS Image Service (2020). All shovel tests (D1, etc.) are negative. Note disturbed areas include most of the residential areas along Bailey Bridge Road.

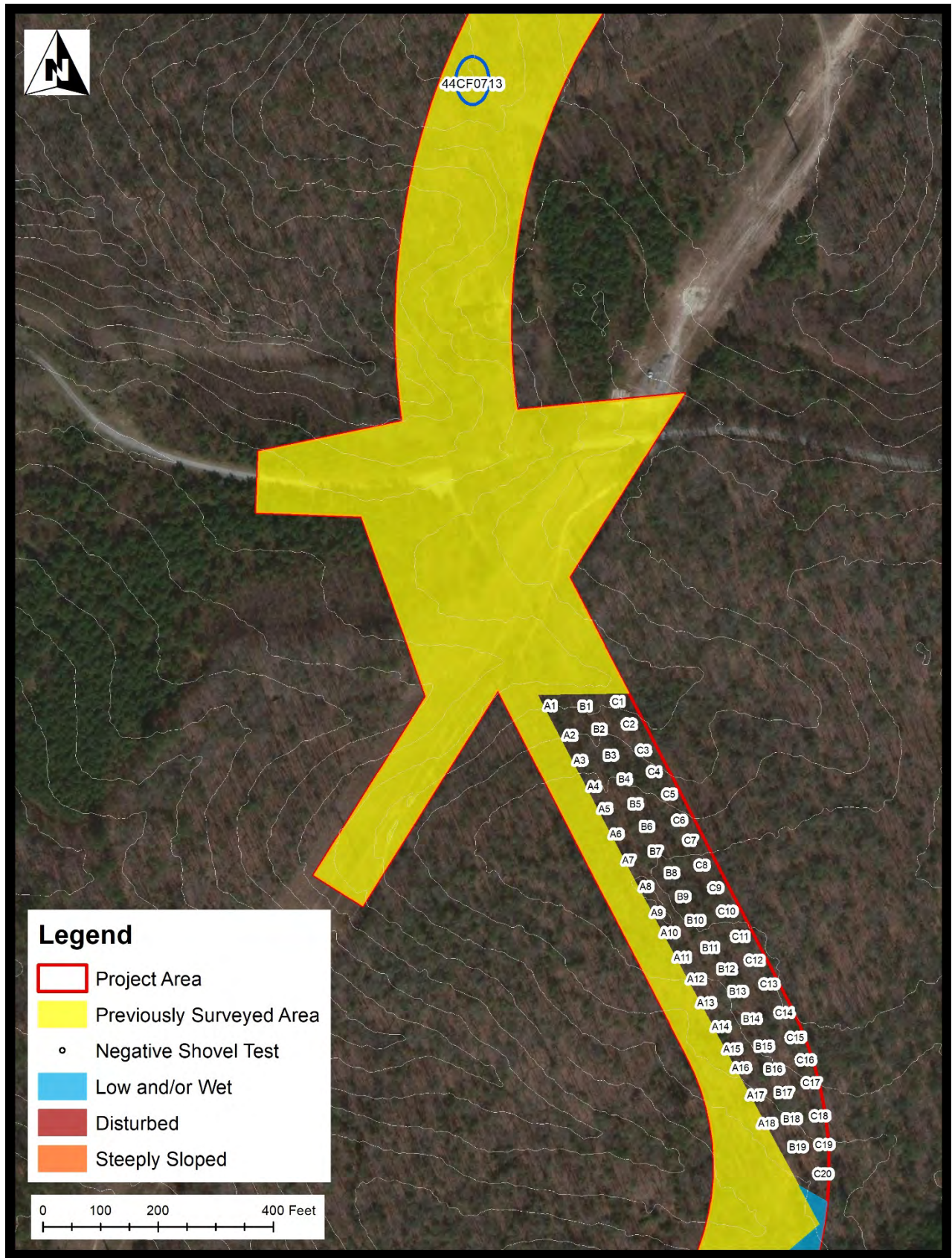


Figure 5.2-2: Project Area Conditions and Survey Coverage, Map 2 of 4. Base mapping from ArcGIS Image Service (2020). All shovel tests (A1, etc.) are negative. Previously recorded site 44CF0713 also shown.

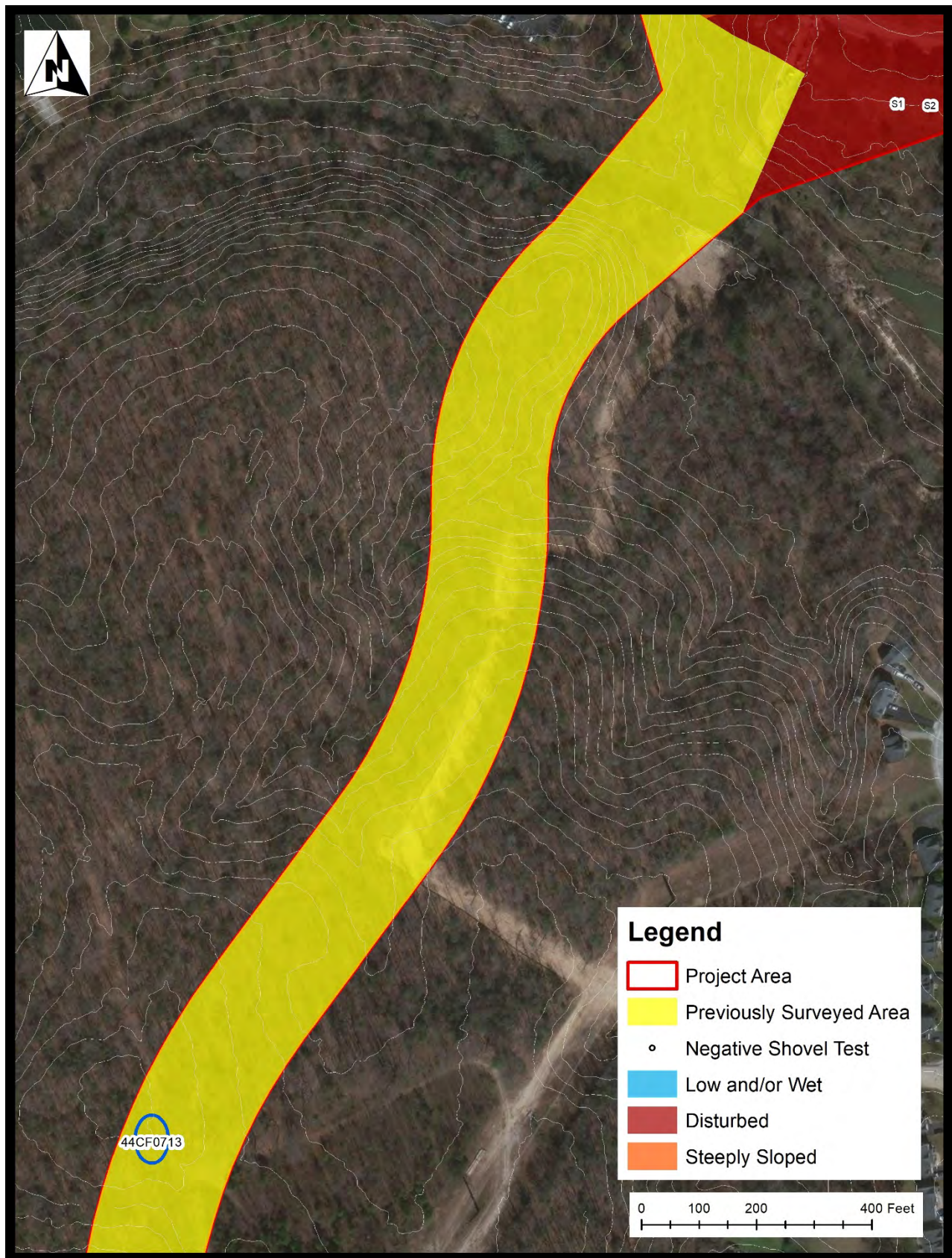


Figure 5.2-3: Project Area Conditions and Survey Coverage, Map 3 of 4. Base mapping from ArcGIS Image Service (2020). Judgmental shovel tests excavated to document disturbance are all negative. Previously recorded site 44CF0713 also shown.

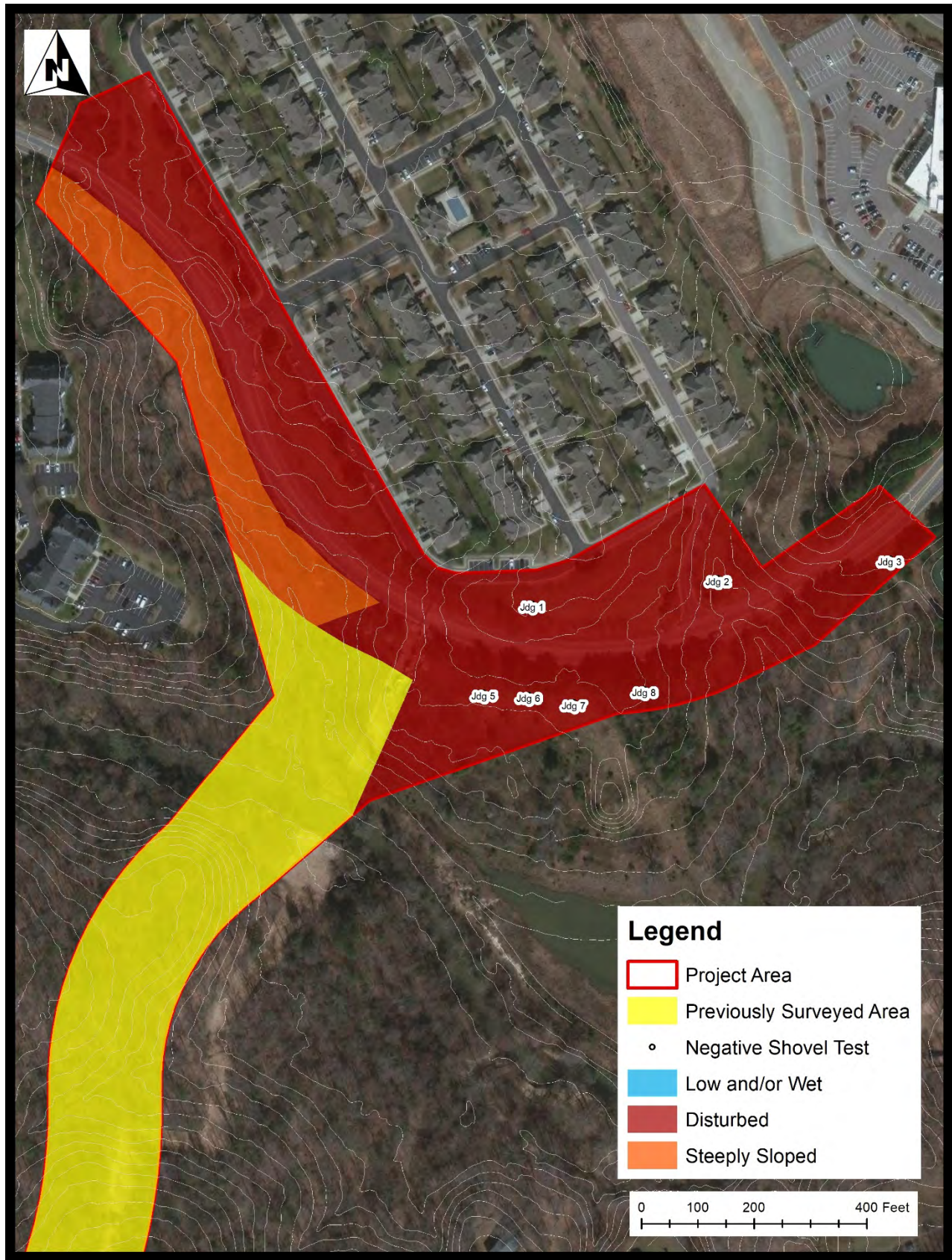


Figure 5.2-4: Project Area Conditions and Survey Coverage, Map 4 of 4. Base mapping from ArcGIS Image Service (2020). Judgmental shovel tests excavated to document disturbance are all negative.

In addition to the sites recorded during the previous survey that overlaps a portion of the current project area, other previously recorded sites are located nearby. These include 44CF0262, 44CF263, and 44CF0275 through 44CF0279. Sites 44CF0262 and 44CF263 (located to the north of the current project area) and 44CF0275 through 44CF0279 (located to the east) were recorded in 1985 during a Phase I survey for the Virginia Department of Transportation's proposed construction of Route 288, which was followed by an intensive evaluation of the sites later that same year (Cromwell et al. 1986; McIver 1985). Most of these sites represent historic occupations, some of which also contained Native American material (Cromwell et al. 1986; McIver 1985). Sites 44CF0277 and 44CF0279 are Native American lithic scatters (McIver 1985).

Of the sites recorded during the 1985 survey, perhaps the two most interesting are 44CF0262 and 44CF0263. These sites are nearly adjacent, and during evaluation in 1985 they were investigated through excavation of 40 two-foot square test pits (Cromwell et al. 1986:132). Site 44CF0262 was a prehistoric and historic artifact scatter. The Native American artifacts recovered include a notched point, lithic debitage, a few possible ground stone tools, broken rocks, and fragments of fired clay. The evaluation report describes the point as broadly side notched with a squared-off base, which the authors believe suggested a Middle or Late Archaic period affiliation (Cromwell et al. 1986:137). The historic artifacts recovered date to the nineteenth century and include nails, metal, brick, glass, ceramic, and plaster (Cromwell et al. 1986:139). Site 44CF0263 represents Nuttree Farm, which dates from the mid-nineteenth century to early twentieth century (Cromwell et al. 1986:132). The investigators explained that the farm had been occupied just prior to the 1985 survey. The original farm buildings were not extant during the 1985 surveys; rather, six twentieth-century structures stood at the site (a dwelling, a garage, and four outbuildings) (Cromwell et al. 1986:142). The investigators noted that both 44CF0262 and 44CF0263 were disturbed by plowing and landscaping, and that 44CF0263 had also been disturbed by the later buildings (Cromwell et al. 1986:144).

Taken together, the previously recorded sites near the current project area illustrate the high potential for nineteenth century historic domestic sites and Native American sites in the project vicinity. However, many sites in the area can be expected to be disturbed based on past land use such as agriculture and factors such as recurrent occupation.

5.3 ARCHAEOLOGICAL SURVEY RESULTS AND RECOMMENDATIONS

The current project area or APE for archeology is composed of portions of two paved roads (Brad McNeer Parkway in the northern terminus of the project area and Bailey Bridge Road at the southern terminus); a road construction staging area (immediately to the south of Brad McNeer Parkway); a wooded area (to the south of Brad McNeer Parkway and Swift Creek); a portion of a condominium complex (to the north of Brad McNeer Parkway); a residential area with houses along Bailey Bridge Road; and small portion of a gravel road (Turnerville Road) (see Figures 5.2-1 through 5.2-4). Figures 5.3-1 through 5.3-6 illustrate some of the conditions encountered during the current survey.



Figure 5.3-1: View of Northern Portion of Project Area, Showing Cut and Fill Area, Looking East.



Figure 5.3-2: View Along Brad McNeer Parkway in the Northern Portion of the Project Area, Looking Northeast.



Figure 5.3-3: View of Wooded Area in the Central Portion of Project Area, Looking Southeast.



Figure 5.3-4: View of Wooded Portion of the Project Area to the North of Residential Area Along Bailey Bridge Road, Looking Northeast.



Figure 5.3-5: View of Residential Area Along Bailey Bridge Road in the Southern Portion of the Project Area, Looking East.



Figure 5.3-6: View of Residential Area Along Bailey Bridge Road in the Southern Portion of Project Area, Looking West.

Of the 48.2-acre (19.5-ha) project area, 21.8 acres (8.80 ha) were previously surveyed in 2008 per above and were not resurveyed. The one archaeological site in the previously surveyed area, 44CF0713, was previously determined ineligible for the NRHP and merits no further consideration. For the remainder of the current project area, 16.7 acres (6.8 ha) were found to be disturbed, either through visual inspection or examination of profiles in judgmental shovel tests. Low and wet areas make up 0.2 acres (0.1 ha), and steeply sloped areas make up 1.9 acres (0.7 ha). A total of 7.6 acres (3.1 ha) appeared less disturbed or were not sloped or wet. These acres were systematically shovel tested. In total, including judgmental tests, 197 shovel tests were excavated. All shovel tests were negative, and no sites or artifact locations were recorded during the survey.

Several disturbances were encountered during the current survey in portions of the project area along Brad McNeer Parkway and Bailey Bridge Road (see Figures 5.3-1 through 5.3-6). These disturbances include a large area of cut and fill along both sides of Brad McNeer Parkway; concrete drainages along the parkway; a condominium complex north of the parkway; a broad, cleared powerline corridor; disturbed and eroded yards of residences along Bailey Bridge Road, many of which contain capped concrete wells near the roadside; a natural gas pipeline running along the south side of Bailey Bridge Road; and buried utilities along Bailey Bridge Road and Brad McNeer Parkway.

Only the central, wooded portion of the project revealed undisturbed or less-disturbed terrain with potential for intact sites. Within this area was a small section within a dissected former drainage area that had several downed trees revealing mottled, hydric-looking soils. Shovel tests near this area were also somewhat hydric-looking. Although most of the soil profiles in this wooded section of the project area were undisturbed, some areas contained modern trash on the surface (within the last 30 years), such as a trailer hitch, beer and soda cans, and various construction materials. The typical soil profiles in the wooded portion of the project area contained three zones, with Zone 1 consisting of a dark grayish brown (10YR 4/2) sandy loam approximately 24 cm in thickness, with 10 percent small rounded gravel; Zone 2 consisting of a yellowish brown (10YR 5/4) sandy loam approximately 10 cm in thickness, with 10 to 20 percent small rounded gravel that increased with depth; and Zone 3 consisting of brownish yellow (10YR 6/8) sandy clay loam subsoil with 20-30 percent small, rounded and angular gravel. The area to the north of Bailey Bridge, which was judgmentally tested in spaces between houses where buried utilities were not present, revealed soil profiles that were gravelly, with some obviously disturbed. Appendix B includes selected shovel test profiles illustrating the variation across judgmentally and intensively shovel tested areas.

6.0 SUMMARY

The survey involved full consideration of the APE. One previously recorded architectural resource, Clay-Brooks Farm (VDHR # 020-0346), was located on a parcel that extends into the project area and was therefore included in the APE. This resource was previously determined eligible for the NRHP but has since been demolished. The architectural survey documented eight previously unrecorded resources in the APE. These are all dwellings and have been evaluated as a part of this survey (VDHR #s 020-6099 through 020-6106). All of the newly recorded dwellings appear to lack significance and are recommended as not eligible for listing on the NRHP.

Table 6.0-1: Summary of Architectural Resources in the APE.

VDHR #	Resource Name, Location	Date	Previous Determination of Eligibility or Status	Commonwealth Recommended Eligibility or Status
020-0346	Clay-Brooks Farm, 13100 Quailwood Road	ca. 1825	Eligible	Demolished
020-6099	Dwelling, 12900 Bailey Bridge Road	1970	Newly Recorded	Not Eligible
020-6100	Dwelling, 12901 Bailey Bridge Road	1962	Newly Recorded	Not Eligible
020-6101	Dwelling, 12908 Bailey Bridge Road	1946	Newly Recorded	Not Eligible
020-6102	Dwelling, 12916 Bailey Bridge Road	1970	Newly Recorded	Not Eligible
020-6103	Dwelling, 12921 Bailey Bridge Road	1948	Newly Recorded	Not Eligible
020-6104	Dwelling, 13001 Bailey Bridge Road	1948	Newly Recorded	Not Eligible
020-6105	Dwelling, 13017 Bailey Bridge Road	1948	Newly Recorded	Not Eligible
020-6106	Dwelling, 13101 Bailey Bridge Road	1969	Newly Recorded	Not Eligible

Of the 48.2-acre (19.5-ha) project area, 21.8 acres (8.80 ha) were previously addressed by a 2008 cultural resources survey and were not resurveyed for archaeological resources. The one archaeological site in the previously surveyed area, 44CF0713, was previously determined ineligible for the NRHP and merits no further consideration. For the remainder of the current project area, 16.7 acres (6.8 ha) were found to be disturbed, either through visual inspection or examination of profiles in judgmental shovel tests. Low and wet areas were found to make up 0.2 acres (0.1 ha), and steeply sloped areas 1.9 acres (0.7 ha). A total of 7.6 acres (3.1 ha) appeared less disturbed or were not sloped or wet. These acres were systematically shovel tested. In total, including judgmental tests, 197 shovel tests were excavated. All shovel tests were negative, and no sites or artifact locations were recorded during the survey. Based on these results, Commonwealth recommends no further consideration of cultural resources for the current project.

7.0 REFERENCES CITED

Ancestry.com

- 2020 *Phineas Clay*. Electronic document, <https://www.ancestry.com/family-tree/person/tree/16694811/person/192170401205/facts>, accessed March 26, 2020.

Anderson, David G., David S. Brose, Dena F. Dincauze, Michael J. Shott, Robert S. Grumet, and Richard C. Waldbauer

- 2014 *The Earliest Americans Theme Study*. Archaeology Program, National Park Service, United States Department of the Interior, Washington, D.C. Electronic document, <http://www.nps.gov/archeology/pubs/nhleam/index.htm>, accessed October 12, 2014.

Anderson, D. G., and M. K. Faught

- 1998 The Distribution of Fluted Paleoindian Projectile Points: Update 1998. *Archaeology of Eastern North America* 26:163-187.

Anderson, David G., and Kenneth E. Sassaman

- 1996 *The Paleoindian and Early Archaic in the Southeast*. University of Alabama Press, Tuscaloosa.

ArcGIS Image Service

- 2020 Bing Maps aerial imagery. Electronic document, <http://services.arcgisonline.com/arcgis/services>, accessed March 2020.

Barber, Michael, and Eugene B. Barfield

- 1989 Paleoindian Chronology for Virginia. In *Paleoindian Research in Virginia: A Synthesis*, edited by J. M. Wittkofski and T. R. Reinhart, pp. 53-70. Special Publication No. 19 of the Archeological Society of Virginia. Dietz Press, Richmond.

Berlin, Ira

- 2010 *The Making of America: The Four Great Migrations*. Viking Press, New York.

Boyd, C. Clifford, Jr.

- 1989 Paleoindian Paleoecology and Subsistence in Virginia. In *Paleoindian Research in Virginia: A Synthesis*, Edited by J. M. Wittkofski and T. R. Reinhart, pp. 139-156. Special Publication No. 19 of the Archeological Society of Virginia. Dietz Press, Richmond.

- 2003 Paleoindian Research in Virginia and Beyond. *Quarterly Bulletin of the Archaeological Society of Virginia* 58(2):58-93.

Braun, E. Lucy

- 1950 *Deciduous Forests of Eastern North America*. Blakiston, Philadelphia.

- Bryan, Charles F., Jr.
 2017 A Century Ago: World War I put Virginia in Motion. In *Richmond Time-Dispatch*, April 16, 2017. Electronic document, https://www.richmond.com/discover-richmond/a-century-ago-world-war-i-put-virginia-in-motion/article_0ba9d1a6-8df2-5032-8829-3a5f036fc612.html, accessed October 2019.
- Carr, K. C.
 1975 *The Analysis of a Paleoindian Site in the Shenandoah Valley With an Emphasis on Chronology and Function*. Unpublished Master's Thesis, Department of Anthropology, Catholic University of America, Washington, D. C.
- Claggett, Stephen, and John S. Cable (assemblers)
 1982 *The Haw River Sites: Archaeological Investigations at Two Stratified Sites in the North Carolina Piedmont*. Ms. on file, Commonwealth Associates, Inc., Jackson, Mississippi.
- Coe, Joffrey L.
 1964 The Formative Cultures of the Carolina Piedmont. *Transactions of the American Philosophical Society* 54, No. 5. Philadelphia.
- Cox, T. Bransford
 1907 *Chesterfield County Virginia: Its History and Present Condition*. Williams Printing Company, Richmond. Electronic document, <http://babel.hathitrust.org/cgi/pt?id=uva.x001836610;view=1up;seq=3>, accessed March 2020.
- Crofts, D. W.
 1992 *Old Southampton, Politics and Society in a Virginia County, 1834-1869*. The University Press of Virginia, Charlottesville.
- Cromwell, James R., Jr., Clarence R. Gier, Steven Hensley, Martha McCartney, Robert D. McIver, Earl Proper, Jane Smith, and David Max White
 1986 *A Report of Phase II Significance Evaluations: Route 288 Project, Chesterfield County, Virginia*. James Madison University Archaeological Research Center. Submitted to the Virginia Department of Highways and Transportation. Copies available from the Virginia Department of Historic Resources, Richmond.
- Custer, John F.
 1990 Early and Middle Archaic Cultures of Virginia: Culture Change and Continuity. In *Early and Middle Archaic Research in Virginia: A Synthesis*, edited by T. R. Reinhart and M. E. Hodges, pp. 1-60. Special Publication No. 22 of the Archeological Society of Virginia. Dietz Press, Richmond.

- Dabney, Virginius
 1990 *Richmond, The Story of the City*. University Press of Virginia, Charlottesville.
- Daniel, I. Randolph, Jr.
 1998 *Hardaway Revisited: Early Archaic Settlement in the Southeast*. University of Alabama Press, Tuscaloosa.
- DeChard, Sandra, and Ellen Brady
 2011 *A Reconnaissance-Level Architectural Survey of Five Dwellings (1820-1850), Chesterfield County, Virginia*. Cultural Resources, Inc. Submitted to Williamsburg Environmental Group. Copies available from the Virginia Department of Historic Resources, Richmond.
- Deetz, James F.
 1993 *Flowerdew Hundred: The Archaeology of a Virginia Plantation*. University Press of Virginia, Charlottesville.
- Deetz, J. Eric, and Jamie May
 1997 Architectural Determinates in Root Cellar Placement. Paper Presented at the 30th Annual Meeting of the Society for Historical Archaeology, Corpus Christi, Texas
- Delcourt, H., and P. Delcourt
 1985 Quaternary Palynology and Vegetational History of the Southeastern United States. In *Pollen Records of Late-Quaternary North American Sediments*, edited by V. M. Bryant, Jr., and R. G. Holloway, pp. 1-37. American Association of Stratigraphic Palynologists Foundation.
- Delcourt, P., and H. Delcourt
 1981 Vegetation Maps for Eastern North America: 40,000 YR B.P. to the Present. In *Geobotany II*, edited by R. C. Roman, pp. 123-165. Plenum Press, New York.
- Dent, R. J.
 1995 *Chesapeake Prehistory: Old Traditions, New Directions*. Plenum Press, New York.
- Egloff, Keith
 1985 Spheres of Cultural Interaction Across the Coastal Plain of Virginia in the Woodland Period. In *Structure and Process in Southeastern Archaeology*, edited by R. S. Dickens, Jr., and H. T. Ward, pp. 229-242. University of Alabama Press, University, Alabama.
- Egloff, Keith, and Stephan Potter
 1982 Indian Ceramics from Coastal Plain Virginia. *Archaeology of Eastern North America* 10:95-117.

- Fenneman, Nevin
1938 *Physiography of Eastern United States*. McGraw-Hill, New York.
- Ferguson, Leland
1992 *Uncommon Ground: Archaeology and Early African America, 1650-1800*. Smithsonian Institution Press, Washington, D.C.
- Fesler, Garrett
2000 *Back to Utopia: A Report on Renewed Archaeological Excavations at the Utopia Quarter, Field Season 1993-1996*. Ms. on file at Commonwealth Heritage Group, Tarboro, North Carolina.
- Fry, Joshua
1755 *A map of the most inhabited part of Virginia containing the whole province of Maryland with part of Pensilvania, New Jersey and North Carolina. Drawn by Joshua Fry & Peter Jefferson in 1751*. The Library of Congress, American Memory, Map Collections. Electronic document, http://memory.loc.gov/cgi-bin/query/D?gmd:1:/temp/~ammem_S0Zf::@@@mdb=gmd,klpmap,ww2map, accessed October 22, 2014.
- Gardner, W. M.
1974 The Flint Run Paleo-Indian Complex: Pattern and Process During the Paleo-Indian to Early Archaic. In *The Flint Run Paleo-Indian Complex: A Preliminary Report, 1971-1973 Seasons*, edited by W. M. Gardner, pp. 5-47. Department of Anthropology, Archaeology Laboratory, Occasional Paper 1, Catholic University of America, Washington, D.C.

1989 An Examination of Cultural Change in the Late Pleistocene and Early Holocene (circa 9200 to 6800 B.C.). In *Paleoindian Research in Virginia: A Synthesis*, edited by J. M. Wittkofski and T. R. Reinhart, pp. 5-52. Special Publication No. 19 of the Archeological Society of Virginia. Dietz Press, Richmond.
- Genovese, Eugene D.
1976 *Roll, Jordan, Roll: The World the Slaves Made*. Vintage Books, New York
- Gilmer, J. F.
1863 *Survey of a part of Chesterfield County, Virginia*. The Library of Congress, American Memory, Map Collections. Electronic document, http://memory.loc.gov/cgi-bin/query/D?gmd:6:/temp/~ammem_l8Ys::@@@mdb, accessed March 20, 2020.
- Goebel, Ted, Michael E. Waters, and Dennis H. O'Rourke
2008 The Late Pleistocene Dispersal of Modern Humans in America. *Science* 319:1497-1502.

Goodyear, Albert C., III

- 2006 Evidence for Pre-Clovis Sites in the Eastern United States. In *Paleoamerican Origins: Beyond Clovis*, edited by Robson Bonnichsen, Bradley P. Lepper, Dennis Stanford, and Michael A. Waters, pp. 103-112. Texas A&M University Center for the Study of the First Americans and Texas A&M University Press, College Station.

Green, Paul R.

- 1986 *The Archaeology of "Choanoke."* America's Four Hundredth Anniversary Committee, North Carolina Division of Archives and History, Raleigh.

Griffin, James B.

- 1967 Eastern North American Archaeology: A Summary. *Science* 156:175-191.

Isaac, Rhys

- 1982 *The Transformation of Virginia 1740-1790*. W.W. Norton and Company, New York.

Johnson, Michael F.

- 1996 Paleoindians Near the Edge: A Virginia Perspective. In *The Paleoindian and Early Archaic Southeast*, edited by D. G. Anderson and K. E. Sassaman, pp.187-212. University of Alabama Press, Tuscaloosa.

Justice, Noel D.

- 1987 *Stone Age Spear and Arrow Points of the Midcontinental and Eastern United States*. Indiana University Press, Bloomington.

Kelso, William M.

- 1984 *Kingmill Plantations, 1619-1800: Archaeology of Colonial Life*. Academic Press, New York.
- 1997 *Archaeology at Monticello*. Thomas Jefferson Memorial Foundation, Charlottesville, Virginia.

Klein, Michal J., and Thomas Klatka

- 1991 Late Archaic and Early Woodland Demography and Settlement Patterns. In *Late Archaic and Early Woodland Research in Virginia: A Synthesis*, edited by T. R. Reinhart and M. E. N. Hodges, pp. 139-184. Special Publication No. 23 of the Archeological Society of Virginia. Dietz Press, Richmond.

Kulikoff, Allan

- 1986 *Tobacco and Slaves: The Development of Southern Cultures in the Chesapeake, 1680-1800*. University of North Carolina Press, Chapel Hill.

LaPrade, J.E.

- 1888 *Map of Chesterfield County, Va.* The Library of Congress, American Memory, Map Collections. Electronic document, [http://memory.loc.gov/cgi-bin/map_item.pl?data=/service/gmd/gmd388/g3883/g3883c/la001239.jp2&style=gmd&itemLink=r?ammem/gmd,klpmap,ww2map,:@field\(NUMBER+@band\(g3883c+la001239\)\)&title=Map%20of%20Chesterfield%20County,%20Va.%20%2f%20made%20by%20order%20of%20the%20Board%20of%20Supervisors,%20by%20J.E.%20LaPrade.](http://memory.loc.gov/cgi-bin/map_item.pl?data=/service/gmd/gmd388/g3883/g3883c/la001239.jp2&style=gmd&itemLink=r?ammem/gmd,klpmap,ww2map,:@field(NUMBER+@band(g3883c+la001239))&title=Map%20of%20Chesterfield%20County,%20Va.%20%2f%20made%20by%20order%20of%20the%20Board%20of%20Supervisors,%20by%20J.E.%20LaPrade.), accessed March 20, 2020.

Library of Virginia

- 2000 Inventory of the Richmond, Fredericksburg, and Potomac Railroad, Records, 1834-1997. Electronic document, <https://www.lva.virginia.gov/findaid/36460.htm>, accessed August 2019.
- 2019 Nat Turner Rebellion, “To Rebel and Make Insurrection”. Electronic document, <http://www.lva.virginia.gov/exhibits/DeathLiberty/natturner/index.htm>, accessed October 2019

Leithoff, Aimee J., Sandra DeChard, and Ellen Brady

- 2009 *A Phase I Cultural Resources Survey of the Approximately 239-Acre Proposed Holly View Tract, Chesterfield, Virginia.* Cultural Resources, Inc. Submitted to Williamsburg Environmental Group. Copies available from the Virginia Department of Historic Resources, Richmond.

Lutz, Frances E.

- 1954 *Chesterfield: An Old Virginia County.* William Byrd Press, Richmond.

Mansfield, Stephen S.

- 1989 *Princess Anne County and Virginia Beach: A Pictorial History* Donning Company, Virginia Beach, Virginia.

McAvoy, J. M. and L. D. McAvoy

- 1997 *Archaeological Investigations of Site 44SX202, Cactus Hill, Sussex County, Virginia.* Virginia Department of Historic Resources, Research Report Series No. 8, Richmond.
- 2003 *The Williamson Clovis Site, 44DW1, Dinwiddie County, Virginia: An Analysis of Research Potential in Threatened Areas.* Virginia Department of Historic Resources Research Report Series No. 13, Richmond.

McCary, B. C.

- 1988 Survey of Virginia Fluted Points, Nos. 801-824. *Quarterly Bulletin of the Archeological Society of Virginia* 43:97-107.

McIver, Robert D.

- 1985 *A Phase I Archeological Evaluation of the Proposed Construction Right-of-Way for Route 288, Chesterfield County, Virginia*. Submitted to the Virginia Department of Highways and Transportation. Copies available from the Virginia Department of Historic Resources, Richmond.

McKee, Lawrence William

- 1988 *Plantation Food Supply in Nineteenth-Century Tidewater Virginia*. Unpublished PhD Dissertation, Department of Anthropology, University of California, Berkeley.

McLearen, Douglas C.

- 1991 Late Archaic and Early Woodland Material Culture in Virginia. In *Late Archaic and Early Woodland Research in Virginia: A Synthesis*, edited by T. R. Reinhart and M. E. N. Hodges, pp. 89-138. Special Publication No. 23 of the Archeological Society of Virginia. Dietz Press, Richmond.
- 1992 Virginia's Middle Woodland Period: A Regional Perspective. In *Middle and Late Woodland Research in Virginia: A Synthesis*, edited by T. R. Reinhart and M. E. N. Hodges, pp. 39-64. Special Publication No. 29 of the Archeological Society of Virginia. Dietz Press, Richmond.

Meltzer, David J.

- 1989 Why Don't We Know When the First People Came to North America? *American Antiquity* 54(3):471-490.

Morgan, Edmund S.

- 1975 *American Slavery American Freedom: The Ordeal of Colonial Virginia*. W.W. Norton & Company, New York.

Morgan, Philip D.

- 1988 Slave Life in Piedmont Virginia. In *Colonial Chesapeake Society*, edited by Lois Green Carr, Philip D. Morgan, and Jean B. Russo, pp. 433-484 University of North Carolina Press, Chapel Hill.

Mouer, Daniel

- 1991 The Formative Transition in Virginia. In *Late Archaic and Early Woodland Research in Virginia: A Synthesis*, edited by T. R. Reinhart and M. E. Hodges, pp. 1-88. Special Publication No. 23 of the Archeological Society of Virginia. Dietz Press, Richmond.

Mouer, Daniel, Mary Ellen N. Hodges, Stephen R. Potter, Susan L. Henry Renaud, Ivor Noel Hume, Dennis J. Pogue, Martha W McCartney, and Thomas E Davidson

- 1999 Colonoware Pottery, Chesapeake Pipes, and "Uncritical Assumptions". In *"I Too, Am America"* edited by Theresa A. Singleton. Pp. 83-115. University Press of Virginia, Charlottesville.

National Park Service (NPS)

- 1995 *How to Apply the National Register Criteria for Evaluation*. National Register Bulletin 15, National Park Service, National Register Branch and History Division. Electronic document, https://www.nps.gov/subjects/nationalregister/upload/NRB-15_web508.pdf, accessed September 3, 2019.
- 2019 *Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines (As Amended and Annotated)*. National Park Service, Department of the Interior. Electronic document, https://www.nps.gov/history/local-law/arch_stnds_0.htm, accessed September 3, 2019.
- 2019 *Henry Clay*. National Park Service, Department of the Interior. Electronic document, <https://www.nps.gov/people/henry-clay.htm>, accessed March 26, 2020.

O'Dell, Jeffrey

- 1983 *Chesterfield County: Early Architecture and Historic Sites*. Chesterfield County, Virginia.

Phelps, David

- 1983 *Archaeology of the North Carolina Coast and Coastal Plain: Problems and Hypotheses*. In *The Prehistory of North Carolina*, edited by M. A. Mathis, and J. Crow, pp. 1-52. North Carolina Division of Archives and History, Department of Cultural Resources, Raleigh.

Potter, Stephen R.

- 1989 *Early English Effects on Virginia Algonquian Exchange and Tribute in the Tidewater Potomac*. In *Powhatan's Mantle: Indians in the Colonial Southeast*, edited by P. H. Wood, G. A. Waselkov, and M. T. Hatley, pp. 151-172. University of Nebraska Press, Lincoln.
- 1992 *Commoners, Tribute, and Chiefs: The Development of Algonquian Culture in the Potomac Valley*. University Press of Virginia, Charlottesville.

Rader, Eugene K., and Nick H. Evans

- 1993 *Geologic Map of Virginia - Expanded Explanation*. Virginia Division of Mineral Resources, Charlottesville.

Samford, Patricia M.

- 2007 *Subfloor Pits and the Archaeology of Slavery in Colonial Virginia*. University of Alabama Press, Tuscaloosa.

Sanford, Douglas W.

- 1993 *The Archaeology of Plantation Slavery in Piedmont Virginia: Context and Process*. In *Historical Archaeology of the Chesapeake*, edited by Paul A. Shakel and Barbara J. Little, pp. 115-130. Smithsonian Institution Press, Washington, D.C.

Stewart, R. Michael

- 1992 Observations on the Middle Woodland Period of Virginia: A Middle Atlantic Region Perspective. In *Middle and Late Woodland Research in Virginia: A Synthesis*, edited by T. R. Reinhart and M. E. Hodges, pp. 1-38. Special Publication No. 29 of the Archeological Society of Virginia. Dietz Press, Richmond.

Thornbury, William

- 1965 *Regional Geomorphology of the United States*. John Wiley, New York.

Turner, E. R., III

- 1989 Paleoindian Settlement Patterns and Population Distribution in Virginia. In *Paleoindian Research in Virginia: A Synthesis*, edited by J. M. Wittkofski and T. R. Reinhart, pp. 71-93. Special Publication No. 19 of the Archeological Society of Virginia. Dietz Press, Richmond.
- 1992 The Virginia Coastal Plain During the Late Woodland Period. In *Middle and Late Woodland Research in Virginia: A Synthesis*, edited by T. R. Reinhart and M. E. Hodges, pp. 97-136. Special Publication No. 29 of the Archeological Society of Virginia. Dietz Press, Richmond.

Upton, Dell

- 1984 The Origins of Chesapeake Architecture, in *Three Centuries of Maryland Architecture*. pp. 44-57. Maryland Historical Trust, Annapolis.

USDA/NRCS

- 2020 Web Soil Survey (United States Department of Agriculture [USDA] and Natural Resource Conservation Service [NRCS] Soil Mapping and Official Soil Series Descriptions). Electronic document, <http://websoilsurvey.nrcs.usda.gov/app/>, accessed March 2020.

United States Geological Survey (USGS)

- 2020 TopoView Digital Maps from the USGS Historical Topographic Map Collection, 1884-2006 (GeoTIFF Files). Electronic document, <https://ngmdb.usgs.gov/topoview/>, accessed March 2020.

Virginia Department of Historic Resources (VDHR)

- 2017 *Guidelines for Conducting Historic Resources Survey in Virginia*. Electronic document, https://www.dhr.virginia.gov/wp-content/uploads/2018/06/SurveyManual_2017.pdf accessed September 1, 2019.

Virginia Department of Transportation

- 2006 *A History of Roads in Virginia: "The Most Convenient Ways"*. Electronic document, <https://www.virginiadot.org/info/resources/historyofrds.pdf>, accessed August 2019.

Wagner, Daniel P., and Joseph M. McAvoy

2004 Pedoarchaeology of Cactus Hill, A Sandy Paleoindian Site in Southeastern Virginia, USA. *Geoarchaeology* 19(4):297-322.

Waters, Michael R., Steven L. Forman, Thomas A. Jennings, Lee C. Nordt, Steven G. Driese.

Joshua M. Feinberg, Joshua L. Keene, Jessi Halligan, Anna Lindquist, James Pierson, Charles T. Hallmark, Michael B. Collins, and James E. Wiederhold

2011 The Buttermilk Creek Complex and the Origins of Clovis at the Debra L. Friedkin Site, Texas. *Science* 331:1599-1603.

Weaver, Bettie W.

1970 *Chesterfield County, Virginia: A History*. Chesterfield County Board of Supervisors, Chesterfield, Virginia.

APPENDIX A

**VDHR V-CRIS FORMS FOR ARCHITECTURAL RESOURCES
RECORDED DURING THE CURRENT SURVEY**

Property Information

Property Names

Name Explanation	Name
Historic	Red Russia
Current	Quailwood
Historic/Location	Clay-Brooks Farm, 13100 Quailwood Road

Property Evaluation Status

DHR Staff: Potentially Eligible

Property Addresses

Current - 13100 Quailwood Road
Alternate - Route 817

County/Independent City(s): Chesterfield (County)

Incorporated Town(s): *No Data*

Zip Code(s): 23112

Magisterial District(s): *No Data*

Tax Parcel(s): 76-00-00-005

USGS Quad(s): HALLSBORO

Additional Property Information

Architecture Setting: Rural

Acreage: 120

Site Description:

1977: Grounds and general neighborhood are in good condition. A new subdivision being built along Quailwood Road.

No early outbuildings remaining. A few hundred yards SW stands a barn, presently in advance decay. [In the 1977 photos - but not noted on the survey form - a frame, vertical board outbuilding is located NW of the primary resource.]

August 2008: Grounds are overgrown and several trees are damaged. A new gravel road continues past the house on the north side to new construction approximately 1/4 mile down the road. A transmission line is also visible to the north.

The large barn surveyed in 1977 is not visible above ground. Two other one story structures are present on the north side of the road cut. The outbuilding that stood NW of the house is no longer extant.

December 2008: No changes have occurred to the landscape since the previous survey.

Remnants of structures where the barns were formerly located were visible since the leaves were off the trees and vines. Though the large barns are gone, a corn crib and shed addition to one of the barns are extant.

February 2020: The grounds of the domestic yard and outbuildings are entirely overgrown with brush and small trees.

The only remnants of the house and outbuildings are three large piles of building material and debris, two on the north side of the road and one on the south side.

Property Event Type:

The primary resource has been destroyed.

Surveyor Assessment:

1977: According to Mrs. C. S. (Ellen Clay) Leonard, great grand-daughter of John T. Clay, this place was owned in the mid-19C by: John T. Clay (born 1820 - 1883), who married in 1842 Susan Jane Cheatham (b. 1826-1884). It passed to his daughter: Fanny Clay (b.1843), who married in 1868 Cincinnatus H. Brooks (b.1839-1911) (later re-married Eliza T.). The farm then passed to their children (including daughter Ida Brooks,(1868-1924)). The last of the family to live there was Clinton Brooks, son of CHB by his second wife; he died in the 1960s, and sold the tract to Margaret Castle in 1957. Castle sold it to Waldrop in 1961, and Waldrop to the present owners (Chas. W. & L.G. Henry) in 1963. The house is now rented to Mr. Mayes, who raises quail here, hence the present name Quailwood.

August 2008: Fanny Clay does not appear in the Will of John T. Clay. Instead this property is the parcel John T. Clay owned, but that Cincinnatus H. Brooks resided. It appears that the lot was part of the property Phineas Clay deeded to John T. Clay in 1849. Phineas is John's father. The building is an example of rural farmhouse architecture from the early nineteenth century that although vacant, appears to potentially retain architectural significance and integrity. It is therefore recommended by CRI that this resource is potentially eligible for listing on the NRHP under Criterion C since the building does appear to exhibit many architectural characteristics for its time period and under Criterion D since many of the early outbuildings associated with the farm complex are not extant and archaeological remains may contribute significant information about the past occupation of the resource.

December 2008: While the house retains its agricultural setting as well as its Federal and subsequent Greek Revival elements, neither the workmanship nor the design is outstanding. The condition of the dwelling is fair overall as well. Originally thought to have a connection to Henry Clay, further research has determined that lineage ephemeral at best. The property was originally owned by the Clay family, however it appears to be another line. It is therefore recommended that the property is not individually eligible for listing on the NRHP under Criteria A, B or C. Criterion D was not considered in terms of the architectural component of the site.

February 2020: Due to its demolished state, the architectural resource no longer retains the integrity required to satisfy Criteria A, B, and C. Archaeological components related to the property (44CF0717 and 44CF0719) have not been fully evaluated.

Surveyor Recommendation: Recommended Not Eligible

Ownership

Ownership Category	Ownership Entity
Private	No Data

Associate

Property Associate Name	Property Associate Role
Clay, John T.	Owner

Primary Resource Information

Resource Category:	Domestic
Resource Type:	Single Dwelling
NR Resource Type:	Building
Date of Construction:	ca 1825
Date Source:	Site Visit
Historic Time Period:	Early National Period (1790 - 1829)
Historic Context(s):	Domestic, Subsistence/Agriculture
Other ID Number:	No Data
Architectural Style:	Federal/Adamesque
Form:	No Data
Number of Stories:	1.5
Condition:	Demolished
Interior Plan:	Center Hall
Threats to Resource:	No Data

Architectural Description:

1977: This 1 1/2 story frame house is a 3-bay, center-hall plan structure with exterior end chimneys of uncoursed granite ashlar topped with brick. Three dormers on front of house; one on rear. Gable roofed ell (ca. mid-19th C.) on rear. Shed on east gable end. Front porch w/shed roof appears to be early. Weatherboards are modern; brick foundation appears to be modern (perhaps originally set on piers). Front door is 4 horizontal panel variety seen elsewhere in Chesterfield in houses of this period. Interior trim is largely intact and includes: fairly elaborate Federal architrave trim at openings; double-beaded chair-rail; original Federal mantels; 5 horizon.PRP [Panel-Rail-Panel ?] Federal doors; and enclosed winder stair which is entered both from the center hall and from the E. room.

August 2008: Bricks in foundation are weathered and inconsistent in manufacture suggesting the foundation is original to the building. Roof now covered with asphalt shingle. Building has corner boards with quarter-round molding, although all the clapboards have been replaced in the mid-20th century and are held on by wire nails.

December 2008: The interior of the house exhibits a complex combination of original architectural features and later additions and alterations. Examination of the interior suggests the house may have originally been the east room with an ell and the east wing, though the door surround into the west room is contemporary with the east room surrounds. Original to the house are portions of the stairs leading to the finished attic space, the fireplace surround in the east room and several door surrounds. The present configuration of the staircase is an enclosed winding single run flight with narrow treads. Shadows on the south wall of the staircase wall suggest the bottom section of the stairs has been altered. The back of the boards used for the bottom section are visible in a small closet under the stairs and exhibit circular sawn marks. The stairs are presently accessible from two sides. The door on the east wall is consistent with those leading into the west room and the rear wall as is the surround. The wall, presently separating the entry and stair from the main room, is a later addition as evidenced by the wall being built over the existing chair rail, though the door surround molding visible upon entry is similar to that found in other areas of the house. A simple drop pendent with Federal Period molding along the bottom edge of the stair is visible after passing through the newer opening.

The fireplace surrounds on the first floor are Federal and Greek Revival in style. Though similar in configuration, the Federal style surround in the east room is slightly more ornate and diminutive than the west suggesting the east room is earlier and the more formal of the two. The mantel shelf in the east room has been replaced. The firebox has also been enclosed by a metal piece and a stove added to provide heat. Determining the depth of the firebox was not possible without removing the metal enclosure. The majority of the adornment of this fireplace surround is located on the pilasters and is constructed of complex molding profiles.

In the west room, the surround exhibits typical characteristics of Greek Revival period architecture including more elongated elliptically derived molding profiles and is more solid in its appearance. The firebox is shallow in depth, an indicator that it was used for heating purposes only. It does not appear that this fireplace was ever enclosed.

The sequence of the ells is complex. The molding profiles in the east wing (present kitchen), west room, added door in the foyer and west shed roof addition including the space presently used as a bath on the first floor all exhibit the same or similar molding profiles on the window surrounds, are Greek Revival in style and would suggest these areas of the house were constructed or updated at the same time. Definitive conclusions to the sequence of events cannot be made at the present level of survey. The window surrounds on the north wall of the ell and the door surround on its east wall; however are simple, suggesting a later alteration. The room the door leads to is presently a modern laundry area. The chimney stack visible on the exterior of this addition is visible within this space; however the section below the roof line is concrete block

instead of brick and has evidence of a hole for a stove pipe (now filled-in).

The narrow center staircase, as previously mentioned, leads to a finished attic space. The walls along the stair are plaster; however lines visible in the plaster suggest the original walls were horizontal boards. The plaster was intact in this area inhibiting a definitive determination of wall material without invasive measures. The texture of the walls where the plaster survives suggests it was put directly onto horizontal boards. Other areas, particularly the ceilings have had drywall added after the introduction of fiberglass insulation.

This attic space is divided into two rooms, one at each end, a center hallway and a mid-20th century bath retrofitted into the center dormer. The five panel wood door into the bath is early 20th century. The older door suggests the dormer room may have been utilized earlier and the present fixtures added later or the door was relocated or reused from elsewhere. Doors into the east and west room are both board and batten with molded surrounds mitered to fit the rear slope of the hallway. The surrounds are attached with cut nails similar to those found elsewhere in the house suggesting the rooms were sectioned off contemporary with the original block or the mid-19th century alterations/additions. Similar cast hinges as the front entry door are utilized to hang these doors as well. The ceilings in both rooms appear to be wall board with rough sawn boards underneath.

Access to the finished attic space over the rear ell is through the east room. Presently the space is not accessible due to a board door latched or otherwise blocked from the interior of the room and systematically nailed along the studs on the east room side. The nails used to prevent the door from opening are wire with a broad head, similar to roofing nails. All the nails are evenly spaced and paint is visible on the nail heads. The door used is constructed with vertical boards, exhibits numerous paint layers and cut nails and may be contemporary with the construction of the ell. The room, visible through the spacing between the boards, exhibits finished walls and ceiling and has a similar appearance to the present condition of the rest of the interior of the house.

Framing visible in the front crawl spaces in each room, holes and missing dry wall in the ceiling and the exposed section of the rear roof slope where the ell was added indicate the roof is constructed of common rafters resting on the front and rear plate. The joint between these framing members was not visible because of added insulation. The ends of the joists; however were visible and were attached to the plate using a lap joint. Approximately one inch thick boards were used for the roof sheathing and were attached using cut nails. Exposed areas of the framing including the post adjacent to the front entry door, indicate these elements were not hand-hewn, but sawn.

February 2020: The farm was located on the north and south sides of Quailwood Road (Route 817) in an area that was once cleared but is now wooded. The dwelling was located on the south side of the road with two substantial outbuildings on the north side of the road. Other outbuildings were also located on the property as noted by earlier surveys. At the time of this survey, the property north and south of the road was completely wooded and overgrown and the only remnants of the structures that could be identified were three mounds of building materials and debris. A Memorandum of Agreement between a local developer, VDHR, and the Department of the Army Corps of Engineers documented the demolition of this structure ca. 2011 and resulted in a mitigation project that recorded and evaluated five similar mid-nineteenth-century resources in Chesterfield County (DeChard and Brady 2011).

Exterior Components

Component	Component Type	Material	Material Treatment
Chimneys	Exterior End	Brick	Other
Windows	Sash, Double-Hung	Wood	6/6
Foundation	Solid/Continuous	Brick	Bond, Stretcher
Windows	Sash, Double-Hung	Wood	4/4
Windows	Sash, Double-Hung	Wood	3/1
Windows	Sash, Double-Hung	Wood	6/6, Paired
Porch	1-story, 2-bay	Wood	Post, Square
Chimneys	Exterior End	Stone	Uncoursed Ashlar
Structural System and Exterior Treatment	Mortise & Tenon	Wood	Weatherboard
Roof	Gable	Asphalt	Shingle

Secondary Resource Information

Secondary Resource #1

Resource Category:	Agriculture/Subsistence
Resource Type:	Barn
NR Resource Type:	Building
Date of Construction:	ca 1780
Date Source:	Site Visit
Historic Time Period:	Colony to Nation (1751 - 1789)
Historic Context(s):	Domestic, Subsistence/Agriculture
Other ID Number:	No Data
Architectural Style:	No Data
Form:	No Data
Number of Stories:	1.0
Condition:	Demolished
Threats to Resource:	No Data
Architectural Description:	

1977: The late 18th or early 19th c. frame barn is presently in advanced decay. The roof is collapsing. Set on rubblestone piers; measures 21 x 31 ft; 20C shed add'n on N. end; 20C two-story add'n on S. end. Many of the timbers seem to be re-used. Rafters are half-lapped & pegged; one set of collars. Wind braces are secured with wrought nails. (Note: Mr. Mayes has heard that the barn was assembled from timbers of demolished bridges.)

August 2008: Barns are no longer extant.

December 2008: The shed roof frame addition to one of the barns is constructed of round posts and lightweight roof framing. The addition is missing a majority of its exterior sheathing, which appears to have been narrow vertical boards. Several are still intact; however it was not possible to determine whether battens covered the space between the sheathing boards. The floor of the building is raised approximately five feet from the ground surface allowing housing for smaller livestock underneath. Although most of the interior has collapsed several extant floorboards provide a visual interpretation as to the original height of this livestock area.

Secondary Resource #2

Resource Category: Agriculture/Subsistence
Resource Type: Animal Shelter/Kennel
NR Resource Type: Building
Date of Construction: ca 1930
Date Source: Site Visit
Historic Time Period: World War I to World War II (1917 - 1945)
Historic Context(s): Domestic, Subsistence/Agriculture
Other ID Number: *No Data*
Architectural Style: No Discernable Style
Form: *No Data*
Number of Stories: 1.0
Condition: Demolished
Threats to Resource: *No Data*

Architectural Description:

August 2008: This building is frame construction with vertical planks as exterior sheathing attached with wire nails. The building sits on a concrete block foundation. The roof is sheathed in standing seam metal and is supported by two tree posts at its ridge line.

December 2008: It was noted during the present survey that a small stall was located in the western section of the building while the eastern section was used for storage including tack.

February 2020: The property is significantly overgrown with vegetation and trees and the only sign of structures included three mounds of building material and debris.

Secondary Resource #3

Resource Category: Agriculture/Subsistence
Resource Type: Barn
NR Resource Type: Building
Date of Construction: post 1960
Date Source: Site Visit
Historic Time Period: The New Dominion (1946 - 1991)
Historic Context(s): Domestic, Subsistence/Agriculture
Other ID Number: *No Data*
Architectural Style: No Discernable Style
Form: *No Data*
Number of Stories: 1.0
Condition: Demolished
Threats to Resource: *No Data*

Architectural Description:

August 2008: This building is constructed in two sections. One section is concrete block and the other plywood. The roof is frame and covered with asphalt shingles. Entry is through a door on the south side.

December 2008: No additional features were discovered during the survey.

February 2020: The property is significantly overgrown with vegetation and trees and the only sign of structures was three mounds of building material and debris.

Secondary Resource #4

Resource Category: Agriculture/Subsistence
Resource Type: Corncrib
NR Resource Type: Structure
Date of Construction: pre 1930
Date Source: Site Visit
Historic Time Period: World War I to World War II (1917 - 1945)
Historic Context(s): Domestic, Subsistence/Agriculture
Other ID Number: *No Data*
Architectural Style: Vernacular
Form: *No Data*
Number of Stories: *No Data*
Condition: Demolished
Threats to Resource: *No Data*

Architectural Description:

December 2008: The corn crib is frame construction with evenly spaced narrow horizontal slats and what appears to be a shed roof sheathed in seamed metal. The overgrowth and deteriorated state of the building made it difficult to determine its exact configuration.

February 2020: The property is significantly overgrown with vegetation and trees and the only sign of structures included three mounds of building material and debris.

Secondary Resource #5

Resource Category: Agriculture/Subsistence
Resource Type: Barn
NR Resource Type: Building
Date of Construction: *No Data*
Date Source: *No Data*
Historic Time Period: Early National Period (1790 - 1829)
Historic Context(s): Domestic, Subsistence/Agriculture
Other ID Number: *No Data*
Architectural Style: *No Data*
Form: *No Data*
Number of Stories: *No Data*
Condition: Demolished
Threats to Resource: *No Data*

Architectural Description:

December 2008: No information provided.

February 2020: The property is significantly overgrown with vegetation and trees and the only sign of structures included three mounds of building material and debris.

Historic District Information

Historic District Name: *No Data*
Local Historic District Name: *No Data*
Historic District Significance: *No Data*

CRM Events

Event Type: Survey:Phase I/Reconnaissance

Project Review File Number: *No Data*
Investigator: Megan Funk
Organization/Company: Commonwealth Heritage Group, Inc.

Photographic Media: Digital
Survey Date: 2/28/2020
Dhr Library Report Number: No Data

Project Staff/Notes:

The architectural survey was conducted for the proposed transportation project and included historic resources on parcels that extend into the project APE or are visible from within its boundary. Megan Funk conducted the fieldwork in February 2020 and prepared the resource descriptions and V-CRIS forms.

Project Bibliographic Information:

Amy Krull, Megan Funk, Susan E. Bamann Cultural Resources Survey Bailey Bridge Connector, Chesterfield County, Virginia, Commonwealth Heritage Group, Inc. -- March 2020

Event Type: DHR Staff: Eligible

DHR ID: 020-0346
Staff Name: DHR Evaluation Committee
Event Date: 4/16/2009
Staff Comment

Julie Langan presenting: Red Russia, Chesterfield County, DHR File Number 020-0346, Project Review file number 2008-0444

Current meeting: An intensive survey had been completed prior to the last meeting but was in processing at the time of the meeting. The survey brought forward information that its interior plaster was intact, and its historical association with the Clay family. The committee recommended eligible with 30 points, under Criterion C (Architecture) with a period of significance of c.1825-1930.

Event Type: DHR Staff: Eligible

DHR ID: 020-0346
Staff Name: Grayson, Ron
Event Date: 4/16/2009
Staff Comment

The DHR's Architectural Evaluation Team considered the NRHP eligibility of this resource at its regularly scheduled meeting on 10 April 2009. At that time, the Evaluation Team determined that the property is eligible for listing under Criterion C for its architectural merit. Properties of this vintage, circa 1825, are becoming increasingly rare in Chesterfield County, a locality that experienced significant growth in population and new construction over the last several years.

Event Type: DHR Staff: Potentially Eligible

DHR ID: 020-0346
Staff Name: DHR Evaluation Committee
Event Date: 4/2/2009
Staff Comment

Julie Langan presenting:
Red Russia, Chesterfield County, DHR File Number 020-0346, Project Review file number 2008-0444
Red Russia is a c. 1825 1.5 story, 3 bay center hall plan frame dwelling with a rear 1-story ell. The roof is side gabled with gable roofed dormers; windows are double-hung 3/1 sash; and there are 2 exterior brick chimneys. Five agricultural outbuildings exist on the property. The committee recommended potentially eligible and requested an intensive level survey.

Event Type: DHR Staff: Potentially Eligible

DHR ID: 020-0346
Staff Name: Grayson, Ron
Event Date: 12/10/2008
Staff Comment

DHR agrees that this resource has the potential to be eligible for the National Register under Criterion C "since the building does appear to exhibit many architectural characteristics for its time period" and under Criterion D "since many of the early outbuildings associated with the farm complex are not extant and archaeological remains may contribute significant information about the past occupation of the resource." However, in order to conclusively determine this DHR requests that a Phase II (intensive level) survey be done in order to further document the history of the property.

Event Type: Survey:Phase II/Intensive

Project Review File Number: 2008-0444
Investigator: CRI
Organization/Company: Unknown (DSS)
Photographic Media: No Data

Survey Date: 12/1/2008

Dhr Library Report Number: CF-218

Project Staff/Notes:

Evaluation of National Register eligibility.

Project Bibliographic Information:

Amy Krull, Megan Funk, Susan E. Bamann Cultural Resources Survey Bailey Bridge Connector, Chesterfield County, Virginia, Commonwealth Heritage Group, Inc. -- March 2020

Event Type: Survey:Phase I/Reconnaissance

Project Review File Number: 2008-0444

Investigator: DeChard, Sandra

Organization/Company: Unknown (DSS)

Photographic Media: *No Data*

Survey Date: 8/19/2008

Dhr Library Report Number: CF-218

Project Staff/Notes:

No Data

Project Bibliographic Information:

Amy Krull, Megan Funk, Susan E. Bamann Cultural Resources Survey Bailey Bridge Connector, Chesterfield County, Virginia, Commonwealth Heritage Group, Inc. -- March 2020

Event Type: Survey:Phase II/Intensive

Project Review File Number: *No Data*

Investigator: O'Dell, Jeffrey

Organization/Company: Unknown (DSS)

Photographic Media: *No Data*

Survey Date: 8/1/1977

Dhr Library Report Number: CF-218

Project Staff/Notes:

No Data

Project Bibliographic Information:

Amy Krull, Megan Funk, Susan E. Bamann Cultural Resources Survey Bailey Bridge Connector, Chesterfield County, Virginia, Commonwealth Heritage Group, Inc. -- March 2020

Event Type: Survey:Phase I/Reconnaissance

Project Review File Number: *No Data*

Investigator: O'Dell, Jeffrey

Organization/Company: Unknown (DSS)

Photographic Media: *No Data*

Survey Date: 2/1/1977

Dhr Library Report Number: CF-218

Project Staff/Notes:

No Data

Project Bibliographic Information:

Amy Krull, Megan Funk, Susan E. Bamann Cultural Resources Survey Bailey Bridge Connector, Chesterfield County, Virginia, Commonwealth Heritage Group, Inc. -- March 2020

Bibliographic Information

Bibliography:

No Data

Property Notes:

No Data



View of debris looking southwest



View of debris looking northeast



View of debris(overgrown) looking northeast

Property Information

Property Names

Name Explanation	Name
Function/Location	Dwelling, 12900 Bailey Bridge Road

Property Evaluation Status

Property Addresses

Current - 12900 Bailey Bridge Road

County/Independent City(s): Chesterfield (County)

Incorporated Town(s): *No Data*

Zip Code(s): 23112

Magisterial District(s): *No Data*

Tax Parcel(s): *No Data*

USGS Quad(s): HALLSBORO

Additional Property Information

Architecture Setting: Rural

Acreage: *No Data*

Site Description:

February 2020: The dwelling is located on the north side of Bailey Bridge Road and sits approximately 130 ft from the road. It is surrounded by a lawn that is scattered with large mature trees that provide a generous canopy over the parcel, and the rear of the parcel is densely wooded. There is some landscaping along the façade of the dwelling and in the front yard. A wide gravel driveway approaches the dwelling along its west elevation.

Surveyor Assessment:

February 2020: Overall, the property retains a high level of integrity; however, the building represents a common architectural style for its period and place of construction and therefore lacks architectural significance. Furthermore, the building has no significant association or linkage to events or persons of demonstrable importance in the past and does not appear to have the ability to yield important and unique information for research based on physical evidence. This architectural resource is recommended as not eligible for the NRHP under Criteria A, B, C, or D.

Surveyor Recommendation: Recommended Not Eligible

Ownership

Ownership Category	Ownership Entity
Private	<i>No Data</i>

Primary Resource Information

Resource Category: Domestic

Resource Type: Single Dwelling

NR Resource Type: Building

Date of Construction: 1970

Date Source: Local Records

Historic Time Period: The New Dominion (1946 - 1991)

Historic Context(s): Domestic

Other ID Number: *No Data*

Architectural Style: Ranch

Form: *No Data*

Number of Stories: 1.0

Condition: Good

Threats to Resource: None Known

Architectural Description:

February 2020: Built in 1970, according to Chesterfield County tax information, this one-story minimal Ranch-style dwelling rests on a concrete block foundation, is clad with wide wooden or aluminum siding, and is sheltered by a side-gabled asphalt shingle roof. The eave of the roof is moderately deep except for along the east side of the façade where it extends forward to shelter an entry door and paired one-over-one,

aluminum sash windows with shutters. West of the entry door is an individual and a paired one-over-one, aluminum sash window, also with shutters. The east and west (side) elevations are symmetrical with small, one-over-one, aluminum sash windows and small louvered vents in the gables. A small rear-gabled wing with exposed rafter tails extends from the north (rear) elevation of the dwelling and an exhaust vent and concrete block chimney rise from the rear slope of the main roof.

Exterior Components

Component	Component Type	Material	Material Treatment
Chimneys	Interior Slope	Concrete	Block
Foundation	Solid/Continuous	Concrete	Block
Roof	Side Gable	Asphalt	No Data
Structural System and Exterior Treatment	Wood Frame	Wood	Siding
Windows	Double-hung	Aluminum	No Data

Secondary Resource Information

Secondary Resource #1

Resource Category: Domestic
Resource Type: Shed
NR Resource Type: Building
Date of Construction: ca 1970
Date Source: Site Visit
Historic Time Period: The New Dominion (1946 - 1991)
Historic Context(s): Domestic
Other ID Number: No Data
Architectural Style: No discernible style
Form: No Data
Number of Stories: 1.0
Condition: Fair
Threats to Resource: Neglect

Architectural Description:

February 2020: Shed with wooden and metal paneling and likely a metal roof is located northeast of the dwelling along the parcel's property line.

Historic District Information

Historic District Name: No Data
Local Historic District Name: No Data
Historic District Significance: No Data

CRM Events

Event Type: Survey:Phase I/Reconnaissance

Project Review File Number: No Data
Investigator: Megan Funk
Organization/Company: Commonwealth Heritage Group, Inc.
Photographic Media: Digital
Survey Date: 2/28/2020
Dhr Library Report Number: No Data
Project Staff/Notes:

The architectural survey was conducted for the proposed transportation project and included historic resources on parcels that extend into the

project APE or are visible from within its boundary. Megan Funk conducted the fieldwork in February 2020 and prepared the resource descriptions and V-CRIS forms.

Project Bibliographic Information:

Amy Krull, Megan Funk, Susan E. Bamann Cultural Resources Survey Bailey Bridge Connector, Chesterfield County, Virginia, Commonwealth Heritage Group, Inc. -- March 2020

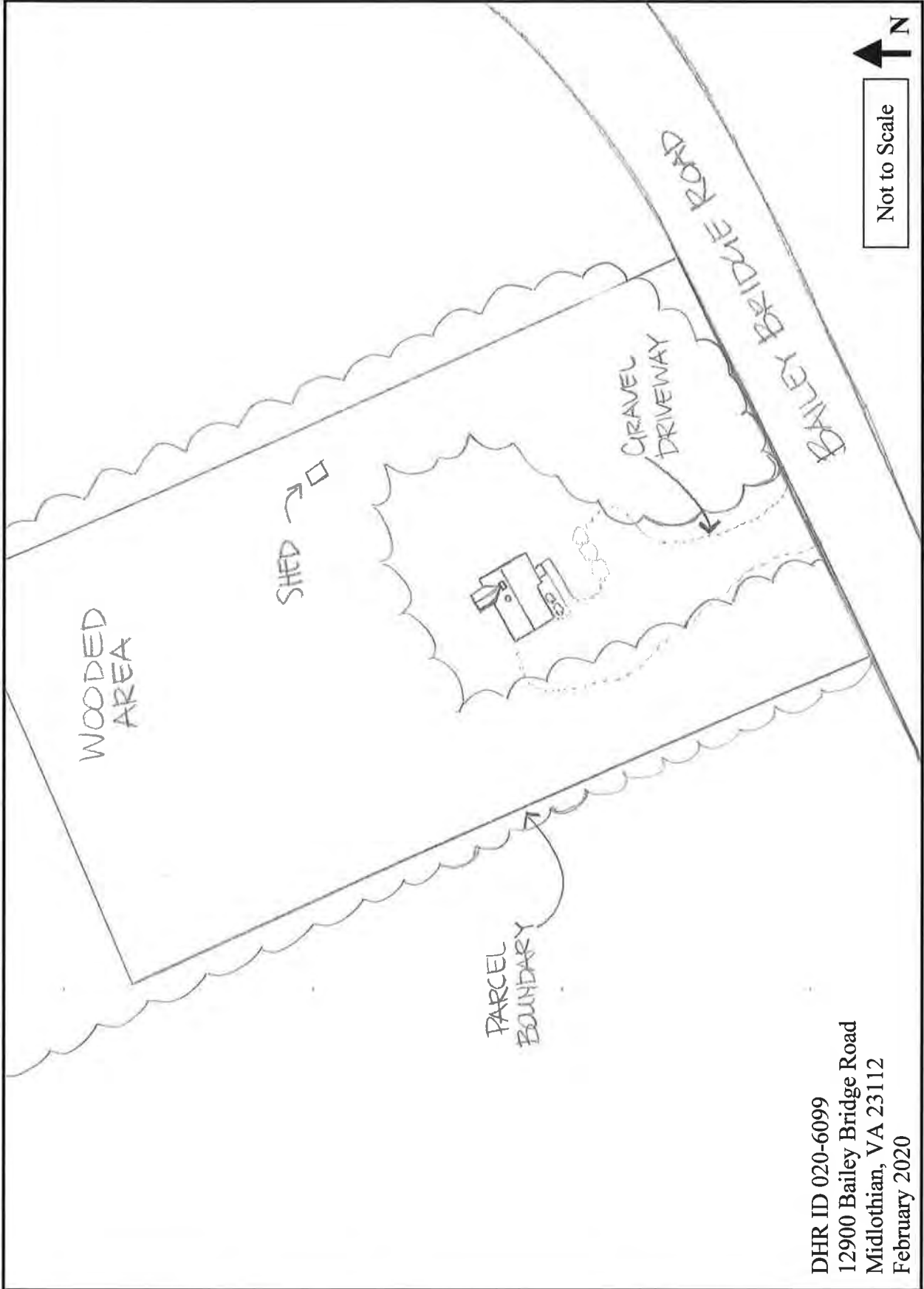
Bibliographic Information

Bibliography:

No Data

Property Notes:

No Data



DHR ID 020-6099
12900 Bailey Bridge Road
Midlothian, VA 23112
February 2020



View of house looking north



View of house looking northwest



View of house looking west-southwest



View of outbuilding looking northwest

Property Information

Property Names

Name Explanation	Name
Function/Location	Dwelling, 12901 Bailey Bridge Road

Property Evaluation Status

Property Addresses

Current - 12901 Bailey Bridge Road

County/Independent City(s): Chesterfield (County)

Incorporated Town(s): *No Data*

Zip Code(s): 23112

Magisterial District(s): *No Data*

Tax Parcel(s): *No Data*

USGS Quad(s): HALLSBORO

Additional Property Information

Architecture Setting: Rural

Acreage: *No Data*

Site Description:

February 2020: The dwelling is located on the south side of Bailey Bridge Road and sits approximately 70 ft from the road. It is surrounded by a lawn with scattered landscaping features. Mature trees line the parcel boundary, and the southern half of the parcel, which is particularly long, is wooded. A U-shaped, asphalt driveway loops in front of the dwelling and extends along its west elevation.

Surveyor Assessment:

February 2020: Overall, the property retains a low level of integrity. This is due primarily to the replacement of the structure's original exterior cladding with vinyl siding and the construction of the porch and garage on the dwelling's façade, both of which detract from its split-level form and any Ranch-style details that it may have exhibited resulting in a structure that lacks architectural significance. Furthermore, the building has no significant association or linkage to events or persons of demonstrable importance in the past and does not appear to have the ability to yield important and unique information for research based on physical evidence. This architectural resource is recommended as not eligible for the NRHP under Criteria A, B, C, or D.

Surveyor Recommendation: Recommended Not Eligible

Ownership

Ownership Category	Ownership Entity
Private	<i>No Data</i>

Primary Resource Information

Resource Category: Domestic

Resource Type: Single Dwelling

NR Resource Type: Building

Date of Construction: 1962

Date Source: Local Records

Historic Time Period: The New Dominion (1946 - 1991)

Historic Context(s): Domestic

Other ID Number: *No Data*

Architectural Style: Split-Level/Split Foyer

Form: *No Data*

Number of Stories: 2.0

Condition: Remodeled

Threats to Resource: None Known

Architectural Description:

February 2020: Built in 1962, according to Chesterfield County tax information, this dwelling exhibits a split-level form and is reminiscent of the Ranch style. The lower level of its two-story, eastern section is finished with painted concrete block, while the upper section and one-story,

western section are clad with vinyl siding. The dwelling is sheltered by an asphalt shingle roof that is hipped on the eastern section and side-gabled on the western section. A wide, front-gabled porch that appears to be an addition spans the façade of the western section. It shelters an enclosed space at its east end that is accessible via its own entry door (below the porch) and lit by a small bay window on the façade. The open portion of the porch is supported by square posts with decorative brackets and a simple balustrade and shelters an entry door, a picture window with sidelights, and paired one-over-one windows. The one-over-one windows appear to have vinyl sashes and the picture window appears to have aluminum sashes.

The façade of the eastern section has two asymmetrically placed, two-over-two, horizontal-pane windows with vinyl screens on the second level. A one-story, front-gabled, one-car garage projects from the lower level. Its east (side) elevation is flush with the east elevation of the eastern section and is lit by three, small, single-pane, vinyl sash windows. Three similar windows light its west (side) elevation as well and a two-over-two, horizontal-pane window with a vinyl screen exists on the lower level of the eastern section west of the garage. The east (side) elevation of the eastern section is also lit by two-over-two, horizontal-pane windows with vinyl screens and the west (side) elevation of the western section is pierced by an entry door sheltered by a small gabled porch and by paired, one-over-one, vinyl sash windows. A small, rear-gabled wing extends from the south (rear) elevation of the eastern section and a brick chimney rises from the forward slope of its roof. A second brick chimney rises from the west slope of the eastern section's hipped roof.

Exterior Components

Component	Component Type	Material	Material Treatment
Chimneys	Interior Slope	Brick	Coursed
Foundation	Solid/Continuous	Concrete	Block
Porch	Inset/Engaged	No Data	Square
Roof	Complex	Asphalt	No Data
Structural System and Exterior Treatment	Wood Frame	Vinyl	Siding
Windows	Double-hung	No Data	No Data

Secondary Resource Information

Secondary Resource #1

Resource Category:	Domestic
Resource Type:	Outbuilding,Domestic
NR Resource Type:	Building
Date of Construction:	ca 1962
Date Source:	Site Visit
Historic Time Period:	The New Dominion (1946 - 1991)
Historic Context(s):	Domestic
Other ID Number:	No Data
Architectural Style:	No discernible style
Form:	No Data
Number of Stories:	1.0
Condition:	Fair
Threats to Resource:	None Known

Architectural Description:

February 2020: Small, front-gabled structure clad with wooden paneling and covered by an asphalt shingle roof. It has an entry door on its east (front) elevation and small windows on its side and rear elevations.

Secondary Resource #2

Resource Category:	Domestic
Resource Type:	Shed
NR Resource Type:	Building
Date of Construction:	ca 1962
Date Source:	Site Visit
Historic Time Period:	The New Dominion (1946 - 1991)
Historic Context(s):	Domestic
Other ID Number:	No Data
Architectural Style:	No discernible style
Form:	No Data
Number of Stories:	1.0
Condition:	Good

Threats to Resource: None Known

Architectural Description:

February 2020: Front-gabled shed clad with wooden paneling and covered by an asphalt shingle roof. An entry door sheltered by a small gabled awning with gallows brackets is located on the west (front) elevation and small, off-center, one-over-one windows light the side and rear elevations.

Secondary Resource #3

Resource Category: Domestic
Resource Type: Shed
NR Resource Type: Building
Date of Construction: ca 1990
Date Source: Site Visit
Historic Time Period: The New Dominion (1946 - 1991)
Historic Context(s): Domestic
Other ID Number: *No Data*
Architectural Style: No discernible style
Form: *No Data*
Number of Stories: 1.0
Condition: Fair
Threats to Resource: None Known

Architectural Description:

February 2020: Another shed is located to the south of the dwelling. It appears to be clad with wooden siding and is covered by an asphalt single, gambrel roof. The locations of its entry door and any windows are unknown.

Secondary Resource #4

Resource Category: Agriculture/Subsistence
Resource Type: Shed - Equipment
NR Resource Type: Building
Date of Construction: pre 1990
Date Source: Map
Historic Time Period: The New Dominion (1946 - 1991)
Historic Context(s): Subsistence/Agriculture
Other ID Number: *No Data*
Architectural Style: No discernible style
Form: *No Data*
Number of Stories: 1.0
Condition: Good
Threats to Resource: None Known

Architectural Description:

February 2020: Large front-gabled shed clad with metal siding and roofing and shed-roofed side and rear wings. The most visible of these, the east wing, is enclosed and has garage door on its façade. A large sliding door provides access to the main section of the shed.

Historic District Information

Historic District Name: *No Data*
Local Historic District Name: *No Data*
Historic District Significance: *No Data*

CRM Events

Event Type: Survey:Phase I/Reconnaissance

Project Review File Number: *No Data*
Investigator: Megan Funk
Organization/Company: Commonwealth Heritage Group, Inc.
Photographic Media: Digital
Survey Date: 2/28/2020
Dhr Library Report Number: *No Data*

Project Staff/Notes:

The architectural survey was conducted for the proposed transportation project and included historic resources on parcels that extend into the project APE or are visible from within its boundary. Megan Funk conducted the fieldwork in February 2020 and prepared the resource descriptions and V-CRIS forms.

Project Bibliographic Information:

Amy Krull, Megan Funk, Susan E. Bamann Cultural Resources Survey Bailey Bridge Connector, Chesterfield County, Virginia, Commonwealth Heritage Group, Inc. -- March 2020

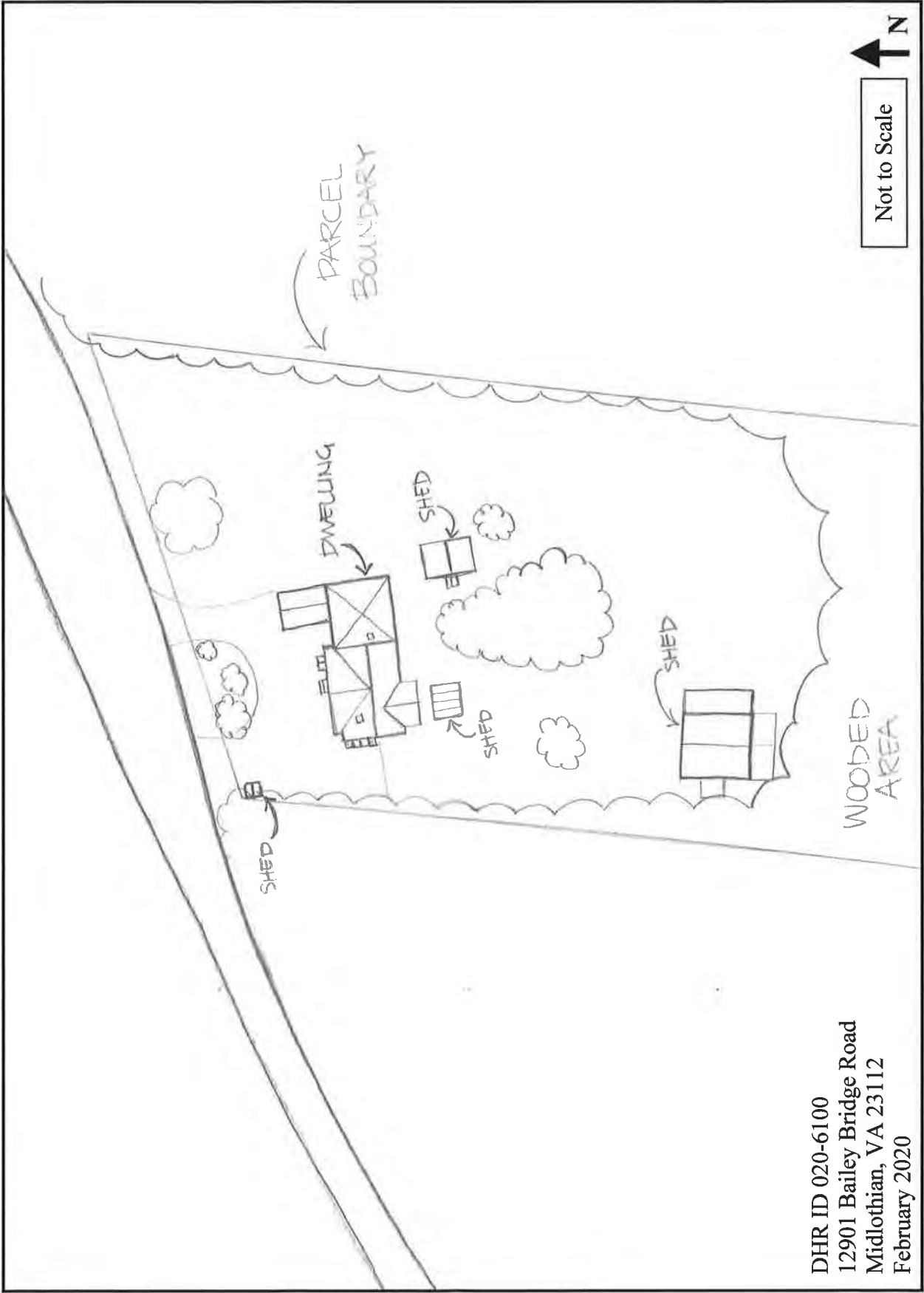
Bibliographic Information

Bibliography:

No Data

Property Notes:

No Data



DHR ID 020-6100
12901 Bailey Bridge Road
Midlothian, VA 23112
February 2020



View of house looking southwest



View of house looking southeast



View of outbuilding looking south



View of outbuildings looking south

Property Information

Property Names

Name Explanation	Name
Function/Location	Dwelling, 12908 Bailey Bridge Road

Property Evaluation Status

Property Addresses

Current - 12908 Bailey Bridge Road

County/Independent City(s): Chesterfield (County)

Incorporated Town(s): *No Data*

Zip Code(s): 23112

Magisterial District(s): *No Data*

Tax Parcel(s): *No Data*

USGS Quad(s): HALLSBORO

Additional Property Information

Architecture Setting: Rural

Acreage: *No Data*

Site Description:

February 2020: The dwelling is located on the north side of Bailey Bridge Road and sits approximately 110 ft back from the road. It is surrounded by a lawn that is scattered with large mature trees, and some landscaping exists along the façade of the dwelling. A U-shaped gravel driveway loops in front of the dwelling, and a gravel area that is used for parking connects with the western corner of the dwelling. A concrete sidewalk meanders from the gravel loop to the dwelling's porch as well. A wooden privacy fence follows the northern boundary of the parcel and separates it from a newer dwelling.

Surveyor Assessment:

February 2020: Overall, the property retains a medium level of integrity and represents a common architectural style for its period and place of construction, therefore lacking architectural significance. Furthermore, the building has no significant association or linkage to events or persons of demonstrable importance in the past and does not appear to have the ability to yield important and unique information for research based on physical evidence. This architectural resource is recommended as not eligible for the NRHP under Criteria A, B, C, or D.

Surveyor Recommendation: Recommended Not Eligible

Ownership

Ownership Category	Ownership Entity
Private	<i>No Data</i>

Primary Resource Information

Resource Category: Domestic

Resource Type: Single Dwelling

NR Resource Type: Building

Date of Construction: 1946

Date Source: Local Records

Historic Time Period: The New Dominion (1946 - 1991)

Historic Context(s): Domestic

Other ID Number: *No Data*

Architectural Style: Vernacular

Form: *No Data*

Number of Stories: 1.0

Condition: Excellent

Threats to Resource: None Known

Architectural Description:

February 2020: Built in 1946, according to Chesterfield County tax information, this one-story vernacular dwelling rests on a concrete block foundation, is clad with wooden weatherboard siding, and is covered by a side-gabled, asphalt shingle roof. A partial width, shed-roofed porch

shelters the center of the façade including an off-center, wooden entry door and two one-over-one, vinyl sash windows. The porch is supported by simple square posts with horizontal railings and accessed by wooden steps. A shed-roofed wing, that may have begun as a porch, extends from the west (side) elevation. Its southwest corner is wrapped by a ribbon of one-over-one windows. An entry door interrupts the ribbon on the west elevation, and a single window exists north of the ribbon of windows. The east (side) elevation of the dwelling is lit by two one-over-one, vinyl sash windows and has a louvered vent in the gable. A small gabled shed that appears to be clad with wooden board-and-batten siding and sheltered by a metal roof stands in the northwest corner of the parcel.

Exterior Components

Component	Component Type	Material	Material Treatment
Chimneys	Interior Central	Brick	Coursed
Foundation	Solid/Continuous	Concrete	Block
Porch	1-Story Partial Width	<i>No Data</i>	Posts
Roof	Side Gable	Asphalt	<i>No Data</i>
Structural System and Exterior Treatment	Wood Frame	Wood	Siding
Windows	Double-hung	<i>No Data</i>	<i>No Data</i>

Secondary Resource Information

Secondary Resource #1

Resource Category:	Domestic
Resource Type:	Shed
NR Resource Type:	Building
Date of Construction:	ca 2019
Date Source:	Map
Historic Time Period:	Post Cold War (1992 - Present)
Historic Context(s):	Domestic
Other ID Number:	<i>No Data</i>
Architectural Style:	No discernible style
Form:	<i>No Data</i>
Number of Stories:	1.0
Condition:	Good
Threats to Resource:	None Known

Architectural Description:

February 2020: There is also a small front-gabled shed that stands in the northwest corner of the parcel and faces east. It has wooden board-and-batten siding and a standing seam metal roof.

Historic District Information

Historic District Name:	<i>No Data</i>
Local Historic District Name:	<i>No Data</i>
Historic District Significance:	<i>No Data</i>

CRM Events

Event Type: Survey:Phase I/Reconnaissance

Project Review File Number:	<i>No Data</i>
Investigator:	Megan Funk
Organization/Company:	Commonwealth Heritage Group, Inc.
Photographic Media:	Digital
Survey Date:	2/28/2020
Dhr Library Report Number:	<i>No Data</i>

Project Staff/Notes:

The architectural survey was conducted for the proposed transportation project and included historic resources on parcels that extend into the project APE or are visible from within its boundary. Megan Funk conducted the fieldwork in February 2020 and prepared the resource descriptions and V-CRIS forms.

Project Bibliographic Information:

Amy Krull, Megan Funk, Susan E. Bamann Cultural Resources Survey Bailey Bridge Connector, Chesterfield County, Virginia, Commonwealth Heritage Group, Inc. -- March 2020

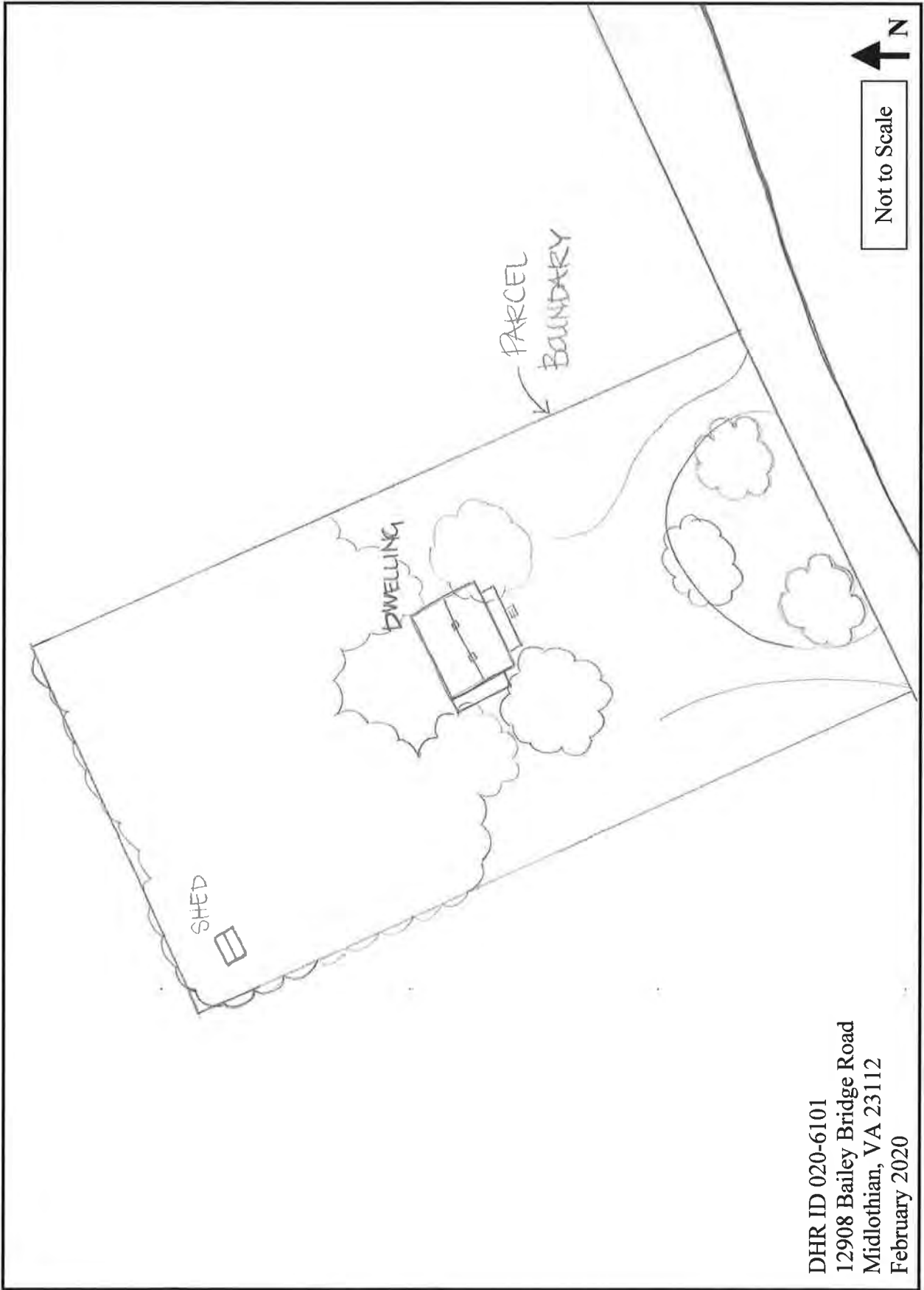
Bibliographic Information

Bibliography:

No Data

Property Notes:

No Data



DHR ID 020-6101
12908 Bailey Bridge Road
Midlothian, VA 23112
February 2020



View of house looking west-northwest



View of house looking north-northwest



View of house looking north

Property Information

Property Names

Name Explanation Function/Location	Name Dwelling, 12916 Bailey Bridge Road
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Property Evaluation Status

Property Addresses

Current - 12916 Bailey Bridge Road

County/Independent City(s): Chesterfield (County)

Incorporated Town(s): *No Data*

Zip Code(s): 23112

Magisterial District(s): *No Data*

Tax Parcel(s): *No Data*

USGS Quad(s): HALLSBORO

Additional Property Information

Architecture Setting: Rural

Acreage: *No Data*

Site Description:

February 2020: The dwelling is located on the north side of Bailey Bridge Road and sits approximately 115 ft back from the road. It is surrounded by a cleared lawn (front and rear) and bordered on the west by a wooded area. The northern half of the parcel is densely wooded as well. A gravel driveway extends from Bailey Bridge Road past the east (side) elevation of the dwelling to a carport.

Surveyor Assessment:

February 2020: Overall, the property retains a medium to high level of integrity with additions that do not detract from the original architectural details. The dwelling, however, represents a common architectural style for its period and place of construction and therefore lacks architectural significance. Furthermore, it has no significant association or linkage to events or persons of demonstrable importance in the past and does not appear to have the ability to yield important and unique information for research based on physical evidence. This architectural resource is recommended as not eligible for the NRHP under Criteria A, B, C, or D.

Surveyor Recommendation: Recommended Not Eligible

Ownership

Ownership Category Private	Ownership Entity <i>No Data</i>
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Primary Resource Information

Resource Category: Domestic

Resource Type: Single Dwelling

NR Resource Type: Building

Date of Construction: 1970

Date Source: Local Records

Historic Time Period: The New Dominion (1946 - 1991)

Historic Context(s): Domestic

Other ID Number: *No Data*

Architectural Style: Ranch

Form: *No Data*

Number of Stories: 1.0

Condition: Excellent

Threats to Resource: None Known

Architectural Description:

February 2020: Built in 1970, according to Chesterfield County tax information, the one-story Ranch-style dwelling has a side-gabled, asphalt shingle roof and is clad with brick veneer on its western half and wide aluminum or vinyl siding on its eastern half. A portion of the eastern half appears to be an addition due to a difference in the brick foundation and a seam in the siding. The façade contains, from west to east, two two-over-two, likely wooden sash windows; an entry door with a brick stoop; a picture window with two-over-two sidelights; and two two-over-two

windows. The last two windows are surrounded by siding and the very last window, which is significantly separated from the others, is centered on the addition. The east (side) elevation contains a garage door flanked on the north by a two-over-two window. The west (side) elevation contains two two-over-two windows. A large gabled addition that extends from the north (rear) elevation is flush with the west elevation. It is clad with thin siding, likely vinyl, and contains three additional windows that appear to be one-over-one, double-hung sashes but could have multiple panes.

Exterior Components

Component	Component Type	Material	Material Treatment
Chimneys	Interior Slope	Brick	Coursed
Roof	Side Gable	Asphalt	No Data
Structural System and Exterior Treatment	Wood Frame	Brick	Veneer
Windows	Double-hung	No Data	No Data

Secondary Resource Information

Secondary Resource #1

Resource Category:	Domestic
Resource Type:	Carport
NR Resource Type:	Structure
Date of Construction:	ca 2000
Date Source:	Map
Historic Time Period:	Post Cold War (1992 - Present)
Historic Context(s):	Domestic
Other ID Number:	No Data
Architectural Style:	No discernible style
Form:	No Data
Number of Stories:	No Data
Condition:	Good
Threats to Resource:	None Known

Architectural Description:

February 2020: The carport has a side-gabled asphalt shingle roof supported by square posts with gallows brackets that are set in a masonry foundation. The foundation partially outlines the carport leaving space for vehicles to drive in and out on each side and though all of the side elevations are open, the gables are filled with wooden panels.

Historic District Information

Historic District Name:	No Data
Local Historic District Name:	No Data
Historic District Significance:	No Data

CRM Events

Event Type: Survey:Phase I/Reconnaissance

Project Review File Number:	No Data
Investigator:	Megan Funk
Organization/Company:	Commonwealth Heritage Group, Inc.
Photographic Media:	Digital
Survey Date:	2/28/2020
Dhr Library Report Number:	No Data
Project Staff/Notes:	

The architectural survey was conducted for the proposed transportation project and included historic resources on parcels that extend into the project APE or are visible from within its boundary. Megan Funk conducted the fieldwork in February 2020 and prepared the resource descriptions and V-CRIS forms.

Project Bibliographic Information:

Amy Krull, Megan Funk, Susan E. Bamann Cultural Resources Survey Bailey Bridge Connector, Chesterfield County, Virginia, Commonwealth Heritage Group, Inc. -- March 2020

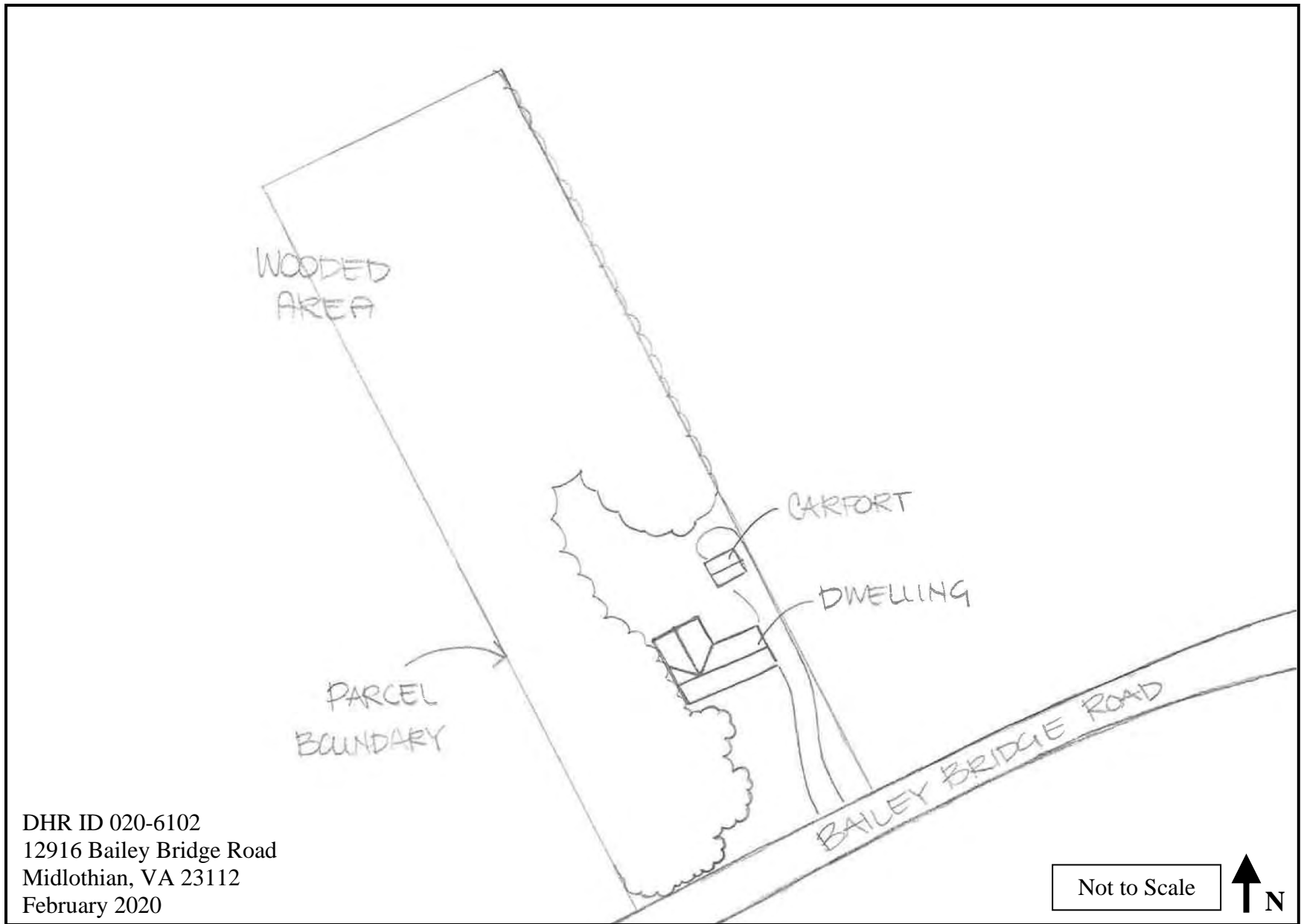
Bibliographic Information

Bibliography:

No Data

Property Notes:

No Data



DHR ID 020-6102
12916 Bailey Bridge Road
Midlothian, VA 23112
February 2020

Not to Scale





View of house looking west-northwest



View of house looking north-northwest



View of house looking north

Property Information

Property Names

Name Explanation	Name
Function/Location	Dwelling, 12921 Bailey Bridge Road

Property Evaluation Status

Property Addresses

Current - 12921 Bailey Bridge Road

County/Independent City(s): Chesterfield (County)

Incorporated Town(s): No Data

Zip Code(s): 23112

Magisterial District(s): No Data

Tax Parcel(s): No Data

USGS Quad(s): HALLSBORO

Additional Property Information

Architecture Setting: Rural

Acreage: No Data

Site Description:

February 2020: The dwelling is located on the south side of Bailey Bridge Road and sits approximately 100 ft from the road. It is surrounded by a lawn with minimal landscaping around the house and is buffered on the east and west by wooded areas. A chain link fence encloses a portion of the yard along the east (side) elevation of the dwelling. A U-shaped gravel driveway loops in front of the dwelling, and a straight driveway extends from the west side of the loop, past the west (side) elevation of the dwelling. A small extension leads east to a carport while the main driveway continues to a dwelling on a separate parcel.

Surveyor Assessment:

February 2020: Overall, the property retains a low level of integrity and represents a common architectural style for its period and place of construction and therefore lacks architectural significance. Furthermore, the building has no significant association or linkage to events or persons of demonstrable importance in the past and does not appear to have the ability to yield important and unique information for research based on physical evidence. This architectural resource is recommended as not eligible for the NRHP under Criteria A, B, C, or D.

Surveyor Recommendation: Recommended Not Eligible

Ownership

Ownership Category	Ownership Entity
Private	No Data

Primary Resource Information

Resource Category: Domestic

Resource Type: Single Dwelling

NR Resource Type: Building

Date of Construction: 1948

Date Source: Local Records

Historic Time Period: The New Dominion (1946 - 1991)

Historic Context(s): Domestic

Other ID Number: No Data

Architectural Style: Minimal Traditional

Form: No Data

Number of Stories: 1.5

Condition: Excellent

Threats to Resource: None Known

Architectural Description:

February 2020: Built in 1948, according to Chesterfield County tax information, this one-and-one-half story Minimal Traditional-style dwelling rests on a concrete block foundation, is clad with vinyl siding, is sheltered by a side-gabled asphalt shingle roof, and has a large, gabled rear

wing. The façade contains an off-center entry door flanked on the east by a picture window with one-over-one, double-hung sidelights and on the west by paired one-over-one, double-hung windows. All of the dwelling's windows appear to have vinyl sashes. A small, wooden stoop provides access to the entry door and two gabled dormers with one-over-one, double-hung sashes rest on the forward slope of the roof. The east (side) elevation, including the east gable and the east elevation of the rear wing, contains, from north to south, a one-over-one, double-hung window; paired one-over-one, double-hung windows; a slightly shorter one-over-one, double-hung window; and an entry door. There is also a one-over-one, double-hung window in the peak of the gable. The west (side) elevation, including the west gable and the west elevation of the rear wing, contains, three relatively equally spaced one-over-one, double-hung window—two on the gable and one on the wing. There is also a one-over-one, double-hung window in the peak of the gable. A brick chimney rises from the crest of the roof near the east gable end.

Exterior Components

Component	Component Type	Material	Material Treatment
Chimneys	Interior Slope	Brick	Coursed
Dormer	Gable	<i>No Data</i>	<i>No Data</i>
Foundation	Solid/Continuous	Concrete	Block
Roof	Side Gable	Asphalt	<i>No Data</i>
Structural System and Exterior Treatment	Wood Frame	Vinyl	Siding

Secondary Resource Information

Secondary Resource #1

Resource Category: Domestic
Resource Type: Carport
NR Resource Type: Structure
Date of Construction: ca 2012
Date Source: Map
Historic Time Period: Post Cold War (1992 - Present)
Historic Context(s): Domestic
Other ID Number: *No Data*
Architectural Style: No discernible style
Form: *No Data*
Number of Stories: *No Data*
Condition: Good
Threats to Resource: None Known
Architectural Description:

February 2020: The largest is a metal carport with a front-gabled roof and open sides that stands behind the dwelling.

Secondary Resource #2

Resource Category: Domestic
Resource Type: Shed
NR Resource Type: Building
Date of Construction: ca 2014
Date Source: Map
Historic Time Period: Post Cold War (1992 - Present)
Historic Context(s): Domestic
Other ID Number: *No Data*
Architectural Style: No discernible style
Form: *No Data*
Number of Stories: 1.0
Condition: Good
Threats to Resource: None Known
Architectural Description:

February 2020: Gambrel-roofed shed with metal siding and roofing that faces west toward the carport.

Secondary Resource #3

Resource Category: Domestic

Resource Type: Shed
NR Resource Type: Building
Date of Construction: ca 2015
Date Source: Map
Historic Time Period: Post Cold War (1992 - Present)
Historic Context(s): Domestic
Other ID Number: *No Data*
Architectural Style: No discernible style
Form: *No Data*
Number of Stories: 1.0
Condition: Good
Threats to Resource: None Known

Architectural Description:

February 2020: Front-gabled shed with metal siding and roofing, and a double leaf entrance on its west-facing façade. It stands to the east of the dwelling.

Secondary Resource #4

Resource Category: Domestic
Resource Type: Shed
NR Resource Type: Building
Date of Construction: pre 2010
Date Source: Map
Historic Time Period: Post Cold War (1992 - Present)
Historic Context(s): Domestic
Other ID Number: *No Data*
Architectural Style: No discernible style
Form: *No Data*
Number of Stories: 1.0
Condition: Good
Threats to Resource: None Known

Architectural Description:

February 2020: East of the other resources, in a wooded area, is a shed-roofed shed that is clad with wooden paneling and sheltered by a metal roof.

Historic District Information

Historic District Name: *No Data*
Local Historic District Name: *No Data*
Historic District Significance: *No Data*

CRM Events

Event Type: Survey:Phase I/Reconnaissance

Project Review File Number: *No Data*
Investigator: Megan Funk
Organization/Company: Commonwealth Heritage Group, Inc.
Photographic Media: Digital
Survey Date: 2/28/2020
Dhr Library Report Number: *No Data*
Project Staff/Notes:

The architectural survey was conducted for the proposed transportation project and included historic resources on parcels that extend into the

project APE or are visible from within its boundary. Megan Funk conducted the fieldwork in February 2020 and prepared the resource descriptions and V-CRIS forms.

Project Bibliographic Information:

Amy Krull, Megan Funk, Susan E. Bamann Cultural Resources Survey Bailey Bridge Connector, Chesterfield County, Virginia, Commonwealth Heritage Group, Inc. -- March 2020

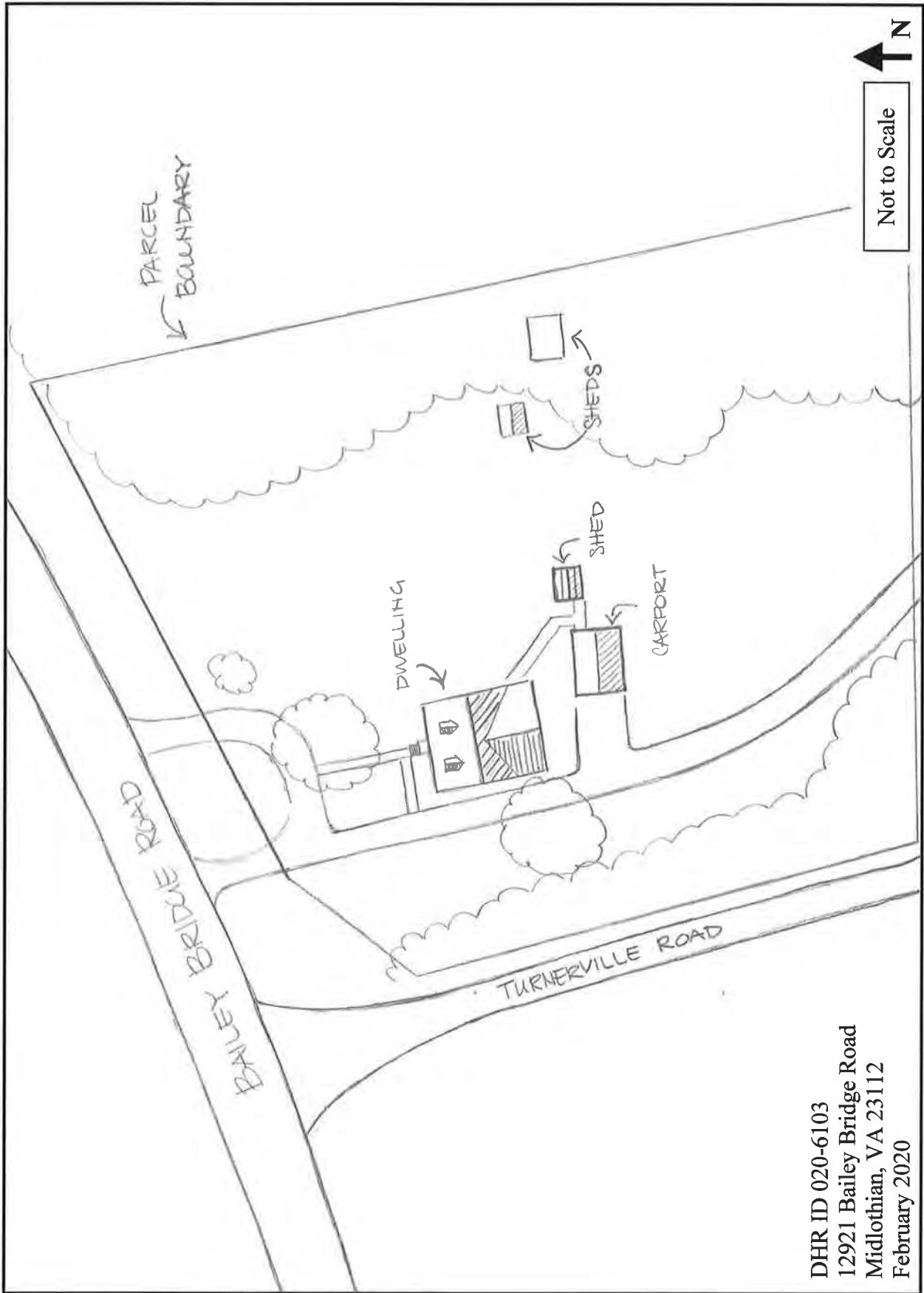
Bibliographic Information

Bibliography:

No Data

Property Notes:

No Data



Not to Scale

DHR ID 020-6103
12921 Bailey Bridge Road
Midlothian, VA 23112
February 2020



View of house looking southeast



View of house looking south-southeast



View of house looking south-southwest



View of outbuildings looking south



View of outbuildings looking southeast

Property Information

Property Names

Name Explanation	Name
Function/Location	Dwelling, 13001 Bailey Bridge Road

Property Evaluation Status

Property Addresses

Current - 13001 Bailey Bridge Road

County/Independent City(s): Chesterfield (County)

Incorporated Town(s): *No Data*

Zip Code(s): 23112

Magisterial District(s): *No Data*

Tax Parcel(s): *No Data*

USGS Quad(s): HALLSBORO

Additional Property Information

Architecture Setting: Rural

Acreage: *No Data*

Site Description:

February 2020: The dwelling is located on the south side of Bailey Bridge Road and sits approximately 75 ft from the road. It is surrounded by a lawn that is scattered with large mature trees that provide a generous canopy over the parcel. The southern half of the parcel is more densely wooded and there is a clearing at the northwest corner of the parcel. A gravel driveway leads to the east side of the dwelling where a gravel area provides space for parking and turning around. A concrete sidewalk leads from the driveway to a ramp at the front of the dwelling.

Surveyor Assessment:

February 2020: Overall, the property retains a low to medium level of integrity due to its vinyl siding and altered porch. Additionally, the dwelling represents a common architectural style for its period and place of construction and thus lacks architectural significance. Furthermore, the building has no significant association or linkage to events or persons of demonstrable importance in the past and does not appear to have the ability to yield important and unique information for research based on physical evidence. This architectural resource is recommended as not eligible for the NRHP under Criteria A, B, C, or D.

Surveyor Recommendation: Recommended Not Eligible

Ownership

Ownership Category	Ownership Entity
Private	<i>No Data</i>

Primary Resource Information

Resource Category: Domestic

Resource Type: Single Dwelling

NR Resource Type: Building

Date of Construction: 1948

Date Source: Local Records

Historic Time Period: The New Dominion (1946 - 1991)

Historic Context(s): Domestic

Other ID Number: *No Data*

Architectural Style: Minimal Traditional

Form: *No Data*

Number of Stories: 1.0

Condition: Remodeled

Threats to Resource: None Known

Architectural Description:

February 2020: Built in 1948, according to Chesterfield County tax information, this one-story Minimal Traditional-style dwelling rests on a concrete block foundation and is clad with vinyl siding and sheltered by a side-gable asphalt shingle roof. An almost full-width, shed-roofed

porch shelters the façade including an off-center, entry door flanked by two-over-two, wooden sash windows. The porch is supported by battered-box columns on brick pedestals that do not appear to be original. A simple wooden post balustrade, that also appears to be added, wraps the porch, and an L-shaped, wooden ramp leads from the porch to the sidewalk. Both the east and west (side) elevations of the dwelling are lit by two two-over-two, wooden sash windows and have a third two-over-two, wooden sash window in the gable. A shed-roofed wing and a porch span the north (rear) elevation of the dwelling and two brick chimneys rise from just behind the crest of the roof.

Exterior Components

Component	Component Type	Material	Material Treatment
Chimneys	Interior Slope	Brick	Coursed
Foundation	Solid/Continuous	Concrete	Block
Porch	1-Story Full-Width	<i>No Data</i>	Columns/Posts on Piers
Roof	Side Gable	Asphalt	<i>No Data</i>
Structural System and Exterior Treatment	Wood Frame	Vinyl	Siding
Windows	Double-hung	<i>No Data</i>	<i>No Data</i>

Secondary Resource Information

Secondary Resource #1

Resource Category:	Domestic
Resource Type:	Shed
NR Resource Type:	Building
Date of Construction:	pre 1994
Date Source:	Map
Historic Time Period:	Post Cold War (1992 - Present)
Historic Context(s):	Domestic
Other ID Number:	<i>No Data</i>
Architectural Style:	No discernible style
Form:	<i>No Data</i>
Number of Stories:	1.0
Condition:	Good
Threats to Resource:	None Known

Architectural Description:

February 2020: Small gambrel-roofed shed clad with wooden paneling and covered with an asphalt shingle roof. It faces north toward the road and is accessed by a double-leaf door with clipped corners and strap hinges.

Secondary Resource #2

Resource Category:	Domestic
Resource Type:	Shed
NR Resource Type:	Building
Date of Construction:	ca 1948
Date Source:	Site Visit
Historic Time Period:	The New Dominion (1946 - 1991)
Historic Context(s):	Domestic
Other ID Number:	<i>No Data</i>
Architectural Style:	Vernacular
Form:	<i>No Data</i>
Number of Stories:	1.0
Condition:	Good
Threats to Resource:	None Known

Architectural Description:

February 2020: Front gabled with wooden weatherboard siding and cornerboards, an asphalt shingle roof with exposed rafter tails, and a shed-roofed wing clad with wooden paneling.

Historic District Information

Historic District Name: *No Data*
Local Historic District Name: *No Data*
Historic District Significance: *No Data*

CRM Events

Event Type: Survey:Phase I/Reconnaissance

Project Review File Number: *No Data*
Investigator: Megan Funk
Organization/Company: Commonwealth Heritage Group, Inc.
Photographic Media: Digital
Survey Date: 2/28/2020
Dhr Library Report Number: *No Data*

Project Staff/Notes:

The architectural survey was conducted for the proposed transportation project and included historic resources on parcels that extend into the project APE or are visible from within its boundary. Megan Funk conducted the fieldwork in February 2020 and prepared the resource descriptions and V-CRIS forms.

Project Bibliographic Information:

Amy Krull, Megan Funk, Susan E. Bamann Cultural Resources Survey Bailey Bridge Connector, Chesterfield County, Virginia, Commonwealth Heritage Group, Inc. -- March 2020

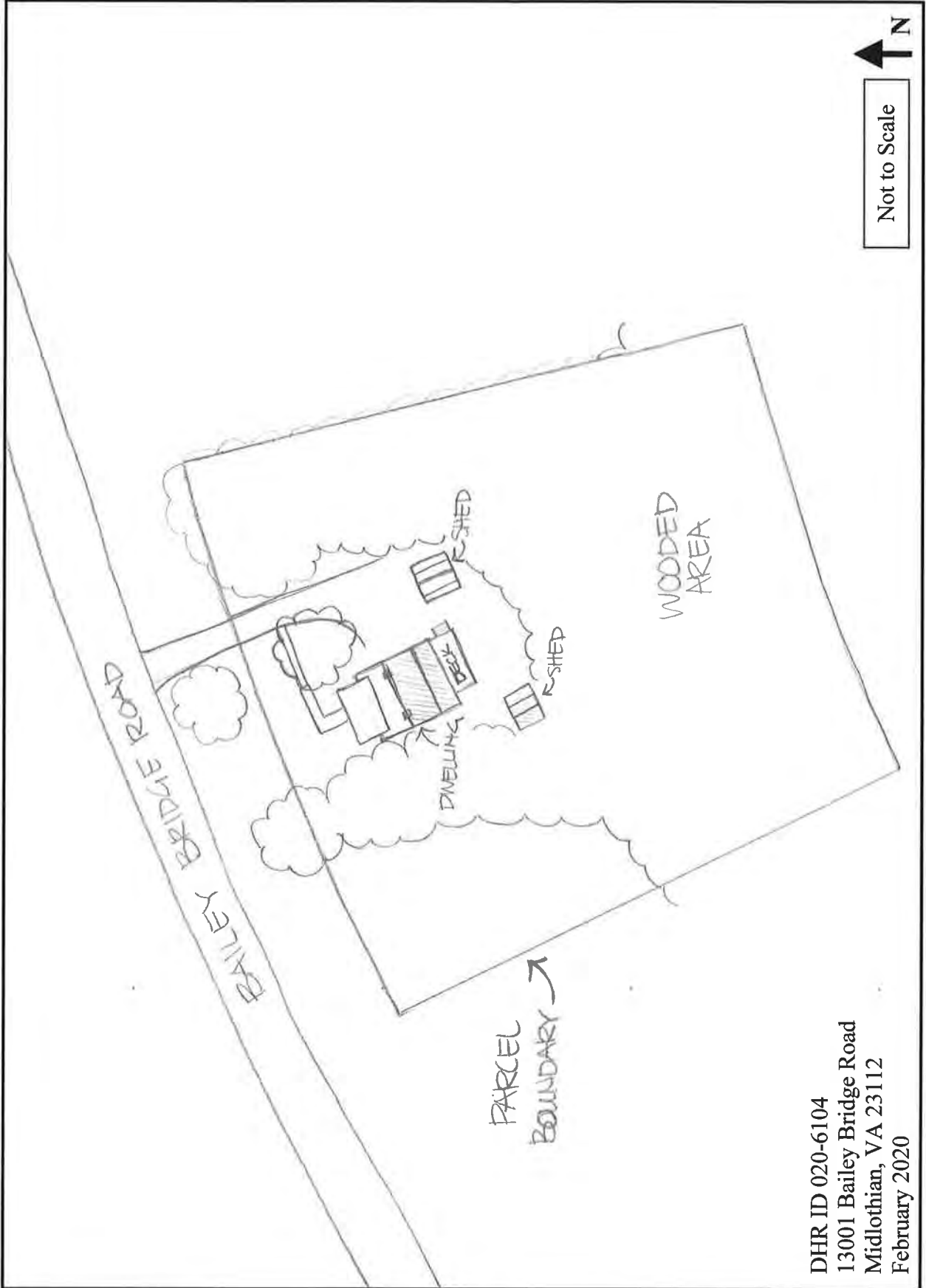
Bibliographic Information

Bibliography:

No Data

Property Notes:

No Data



DHR ID 020-6104
13001 Bailey Bridge Road
Midlothian, VA 23112
February 2020

Not to Scale





View of house looking southeast



View of house looking south-southeast



View of house looking southwest



View of outbuilding looking south



View of outbuilding looking south-southeast

Property Information

Property Names

Name Explanation	Name
Function/Location	Dwelling, 13017 Bailey Bridge Road

Property Evaluation Status

Property Addresses

Current - 13017 Bailey Bridge Road

County/Independent City(s): Chesterfield (County)

Incorporated Town(s): No Data

Zip Code(s): 23112

Magisterial District(s): No Data

Tax Parcel(s): No Data

USGS Quad(s): HALLSBORO

Additional Property Information

Architecture Setting: Rural

Acreage: No Data

Site Description:

February 2020: The dwelling is located on the south side of Bailey Bridge Road and sits approximately 70 ft from the road. It is surrounded by a lawn with a few small trees and some landscaping along its façade and west (side) elevation. The narrow parcel is extremely long with the domestic yard comprising roughly one tenth of the nine-acre parcel and the rest of the parcel being wooded. An h-shaped driveway loops in front of the dwelling with the straight portion of the "h" extending to a carport west of the dwelling. A concrete sidewalk leads from the center of the loop to the dwelling's porch.

Surveyor Assessment:

February 2020: Overall, the property retains a low level of integrity. It also represents a common architectural style for its period and place of construction and therefore lacks architectural significance. Furthermore, the building has no significant association or linkage to events or persons of demonstrable importance in the past and does not appear to have the ability to yield important and unique information for research based on physical evidence. This architectural resource is recommended as not eligible for the NRHP under Criteria A, B, C, or D.

Surveyor Recommendation: Recommended Not Eligible

Ownership

Ownership Category	Ownership Entity
Private	No Data

Primary Resource Information

Resource Category: Domestic

Resource Type: Single Dwelling

NR Resource Type: Building

Date of Construction: 1948

Date Source: Local Records

Historic Time Period: The New Dominion (1946 - 1991)

Historic Context(s): Domestic

Other ID Number: No Data

Architectural Style: Minimal Traditional

Form: No Data

Number of Stories: 1.0

Condition: Good

Threats to Resource: None Known

Architectural Description:

February 2020: Built in 1948, according to Chesterfield County tax information, this one-story dwelling is clad with vinyl siding and sheltered by a side-gabled, asphalt shingle roof. It also has a large rear-gabled wing that is the width of the house and a side-gabled addition on its east

end. The façade of the main block is symmetrical with a wooden entry door with a transom and vinyl screen door that is flanked by one-over-one, double-hung windows that are covered with vinyl-framed screens and flanked with shutters. This portion of the façade is sheltered by a hip-roofed porch supported by thin posts with a turned balustrade. The addition has a one-over-one, double-hung window with a vinyl-framed screen and shutters on its façade as well. This portion of the dwelling is slightly taller than the main block and its east (side) elevation contains three windows like those on the front façade—two on the main level and a smaller one in the gable. The west (side) elevation contains two similar windows as well—one on the side gable and one on the wing. A linear hip-roofed wing, that may have begun as a rear porch, partially spans the south (rear) elevation of the wing and addition. Two interior chimneys, one with a brick stack and one with a concrete stack, rise from the rear slope of the main block's roof, and a chimney with a concrete stack rises from the crest of the addition's roof.

Exterior Components

Component	Component Type	Material	Material Treatment
Chimneys	Interior Slope	Brick	Coursed
Chimneys	Interior Slope	Concrete	Flue
Porch	1-Story Partial Width	<i>No Data</i>	Posts
Roof	Side Gable	Asphalt	<i>No Data</i>
Structural System and Exterior Treatment	Wood Frame	Vinyl	Siding
Windows	Double-hung	<i>No Data</i>	<i>No Data</i>

Secondary Resource Information

Secondary Resource #1

Resource Category: Domestic
Resource Type: Carport
NR Resource Type: Structure
Date of Construction: ca 2012
Date Source: Map
Historic Time Period: Post Cold War (1992 - Present)
Historic Context(s): Domestic
Other ID Number: *No Data*
Architectural Style: No discernible style
Form: *No Data*
Number of Stories: *No Data*
Condition: Good
Threats to Resource: None Known

Architectural Description:

February 2020: Metal carport to the west of the dwelling. It has a forward-facing, gambrel-like roof that is supported by metal posts and has open sides.

Secondary Resource #2

Resource Category: Domestic
Resource Type: Shed
NR Resource Type: Building
Date of Construction: ca 1948
Date Source: Site Visit
Historic Time Period: The New Dominion (1946 - 1991)
Historic Context(s): Domestic
Other ID Number: *No Data*
Architectural Style: Vernacular
Form: *No Data*
Number of Stories: 1.0
Condition: Good
Threats to Resource: None Known

Architectural Description:

February 2020: The shed has a front-gabled, asphalt shingle roof; is clad with vinyl siding; and has a modern entry door centered on its façade. It stands southeast of the dwelling.

Secondary Resource #3

Resource Category: Domestic
Resource Type: Shed
NR Resource Type: Building
Date of Construction: ca 1990
Date Source: Site Visit
Historic Time Period: The New Dominion (1946 - 1991)
Historic Context(s): Domestic
Other ID Number: *No Data*
Architectural Style: No discernible style
Form: *No Data*
Number of Stories: 1.0
Condition: Good
Threats to Resource: None Known

Architectural Description:

February 2020: Front gabled shed with a standing seam metal roof, wooden paneling, and a paneled entry door on its west (front) elevation.

Secondary Resource #4

Resource Category: Domestic
Resource Type: Shed
NR Resource Type: Building
Date of Construction: ca 1990
Date Source: Site Visit
Historic Time Period: The New Dominion (1946 - 1991)
Historic Context(s): Domestic
Other ID Number: *No Data*
Architectural Style: No discernible style
Form: *No Data*
Number of Stories: 1.0
Condition: Good
Threats to Resource: None Known

Architectural Description:

February 2020: Front gabled shed with a low-pitch, metal roof and wooden paneling. It appears to face west toward another shed and has a window on its west (rear) elevation. It is painted yellow.

Historic District Information

Historic District Name: *No Data*
Local Historic District Name: *No Data*
Historic District Significance: *No Data*

CRM Events

Event Type: Survey:Phase I/Reconnaissance

Project Review File Number: *No Data*
Investigator: Megan Funk
Organization/Company: Commonwealth Heritage Group, Inc.
Photographic Media: Digital
Survey Date: 2/28/2020

Dhr Library Report Number: *No Data*

Project Staff/Notes:

The architectural survey was conducted for the proposed transportation project and included historic resources on parcels that extend into the project APE or are visible from within its boundary. Megan Funk conducted the fieldwork in February 2020 and prepared the resource descriptions and V-CRIS forms.

Project Bibliographic Information:

Amy Krull, Megan Funk, Susan E. Bamann Cultural Resources Survey Bailey Bridge Connector, Chesterfield County, Virginia, Commonwealth Heritage Group, Inc. -- March 2020

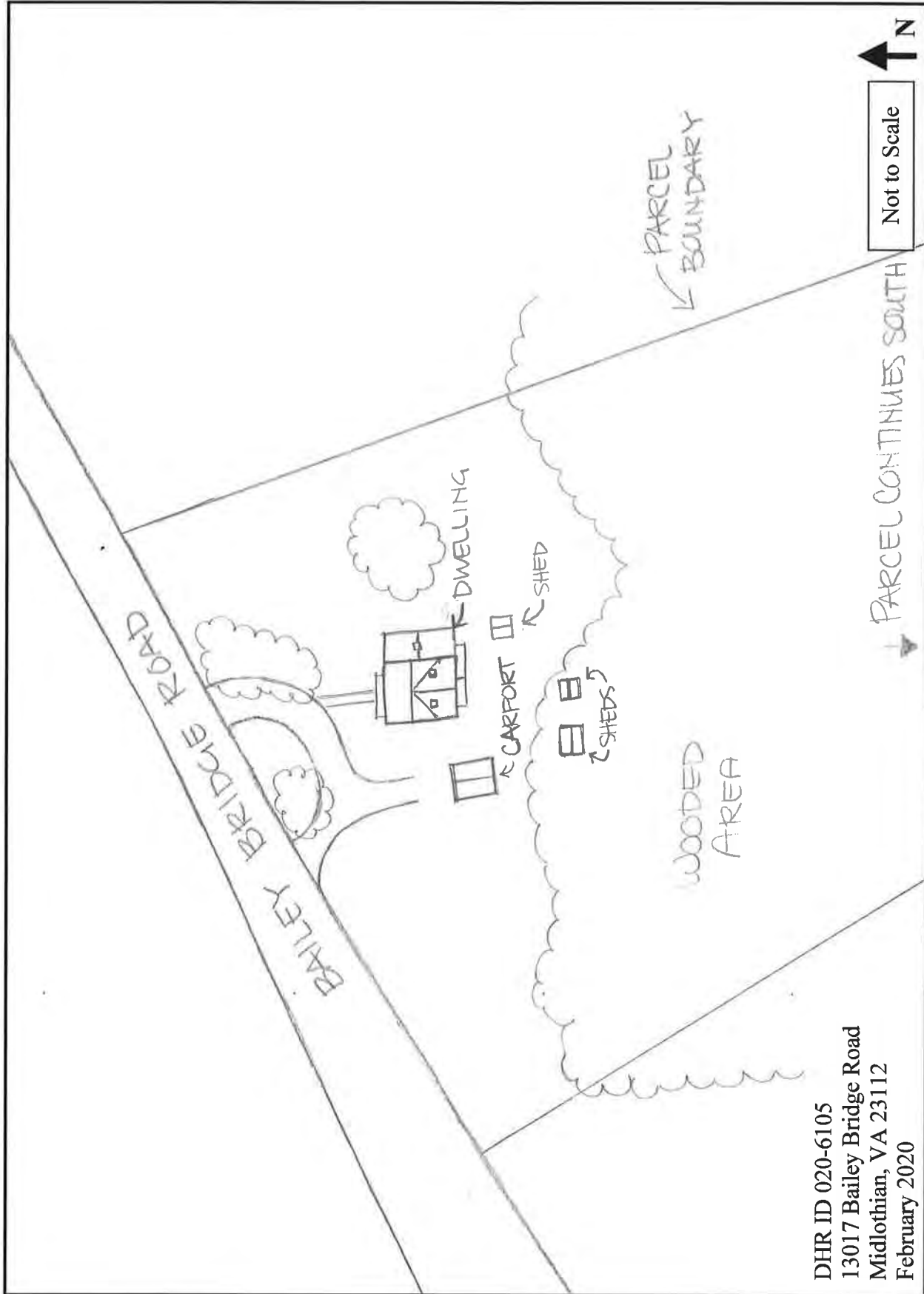
Bibliographic Information

Bibliography:

No Data

Property Notes:

No Data



DHR ID 020-6105
13017 Bailey Bridge Road
Midlothian, VA 23112
February 2020

Not to Scale



PARCEL CONTINUES SOUTH

PARCEL BOUNDARY

BAILEY BRIDGE ROAD

DWELLING

CARPORT

SHED

SHEDS

WOODED AREA



View of house looking southeast



View of house looking south-southeast



View of house looking southwest



View of outbuilding looking southwest



View of outbuildings looking southeast

Property Information

Property Names

Name Explanation	Name
Function/Location	Dwelling, 13101 Bailey Bridge Road

Property Evaluation Status

Property Addresses

Current - 13101 Bailey Bridge Road

County/Independent City(s): Chesterfield (County)

Incorporated Town(s): *No Data*

Zip Code(s): 23112

Magisterial District(s): *No Data*

Tax Parcel(s): *No Data*

USGS Quad(s): HALLSBORO

Additional Property Information

Architecture Setting: Rural

Acreage: *No Data*

Site Description:

February 2020: The dwelling is located on the south side of Bailey Bridge Road and sits approximately 90 ft from the road. It is surrounded by a lawn with a few small trees and some mature trees as well as some landscaping along its façade. Mature trees line the eastern and western edges of its wedge-shaped parcel, and its southern half is wooded. A U-shaped driveway with a small pull off area on the western side loops in front of the dwelling, and a concrete sidewalk leads from the center of the loop to the dwelling's porch. A segment of wooden fencing extends west from near the dwelling's northwest corner dividing the front and rear yard.

Surveyor Assessment:

February 2020: Overall, the property retains a high level of integrity; however, the building represents a common architectural style for its period and place of construction and therefore lacks architectural significance. Furthermore, the building has no significant association or linkage to events or persons of demonstrable importance in the past and does not appear to have the ability to yield important and unique information for research based on physical evidence. This architectural resource is recommended as not eligible for the NRHP under Criteria A, B, C, or D.

Surveyor Recommendation: Recommended Not Eligible

Ownership

Ownership Category	Ownership Entity
Private	<i>No Data</i>

Primary Resource Information

Resource Category: Domestic

Resource Type: Single Dwelling

NR Resource Type: Building

Date of Construction: 1969

Date Source: Local Records

Historic Time Period: The New Dominion (1946 - 1991)

Historic Context(s): Domestic

Other ID Number: *No Data*

Architectural Style: Ranch

Form: *No Data*

Number of Stories: 1.0

Condition: Excellent

Threats to Resource: None Known

Architectural Description:

February 2020: Built in 1969, according to Chesterfield County tax information, this one-story Ranch-style dwelling is clad with brick veneer and sheltered by a side-gabled, asphalt shingle roof with modest eaves. The façade is comprised of two sections. The eastern section contains

two, likely wooden sash, two-over-two, horizontal-pane, double-hung windows with vinyl-framed screens and shutters. The western half contains a recessed porch supported by three square posts separated by shallow arches. The recess is clad with wooden paneling and contains an entry door with an iron screen that is flanked on the west by paired two-over-two, horizontal-pane, double-hung windows with vinyl-framed screens. Its east (side) elevation is lit by two two-over-two, horizontal-pane, double-hung windows with vinyl-framed screens that are slightly smaller than those on the façade. The west (side) elevation is lit by one two-over-two, horizontal-pane, double-hung window with a vinyl-framed screen. Both side gables have louvered vents that fit into the peak of the gable.

Exterior Components

Component	Component Type	Material	Material Treatment
Porch	Inset/Engaged	No Data	Square
Roof	Side Gable	Asphalt	No Data
Structural System and Exterior Treatment	Wood Frame	Brick	Coursed
Windows	Double-hung	No Data	No Data

Secondary Resource Information

Historic District Information

Historic District Name: No Data
Local Historic District Name: No Data
Historic District Significance: No Data

CRM Events

Event Type: Survey:Phase I/Reconnaissance

Project Review File Number: No Data
Investigator: Megan Funk
Organization/Company: Commonwealth Heritage Group, Inc.
Photographic Media: Digital
Survey Date: 2/28/2020
Dhr Library Report Number: No Data
Project Staff/Notes:

The architectural survey was conducted for the proposed transportation project and included historic resources on parcels that extend into the project APE or are visible from within its boundary. Megan Funk conducted the fieldwork in February 2020 and prepared the resource descriptions and V-CRIS forms.

Project Bibliographic Information:

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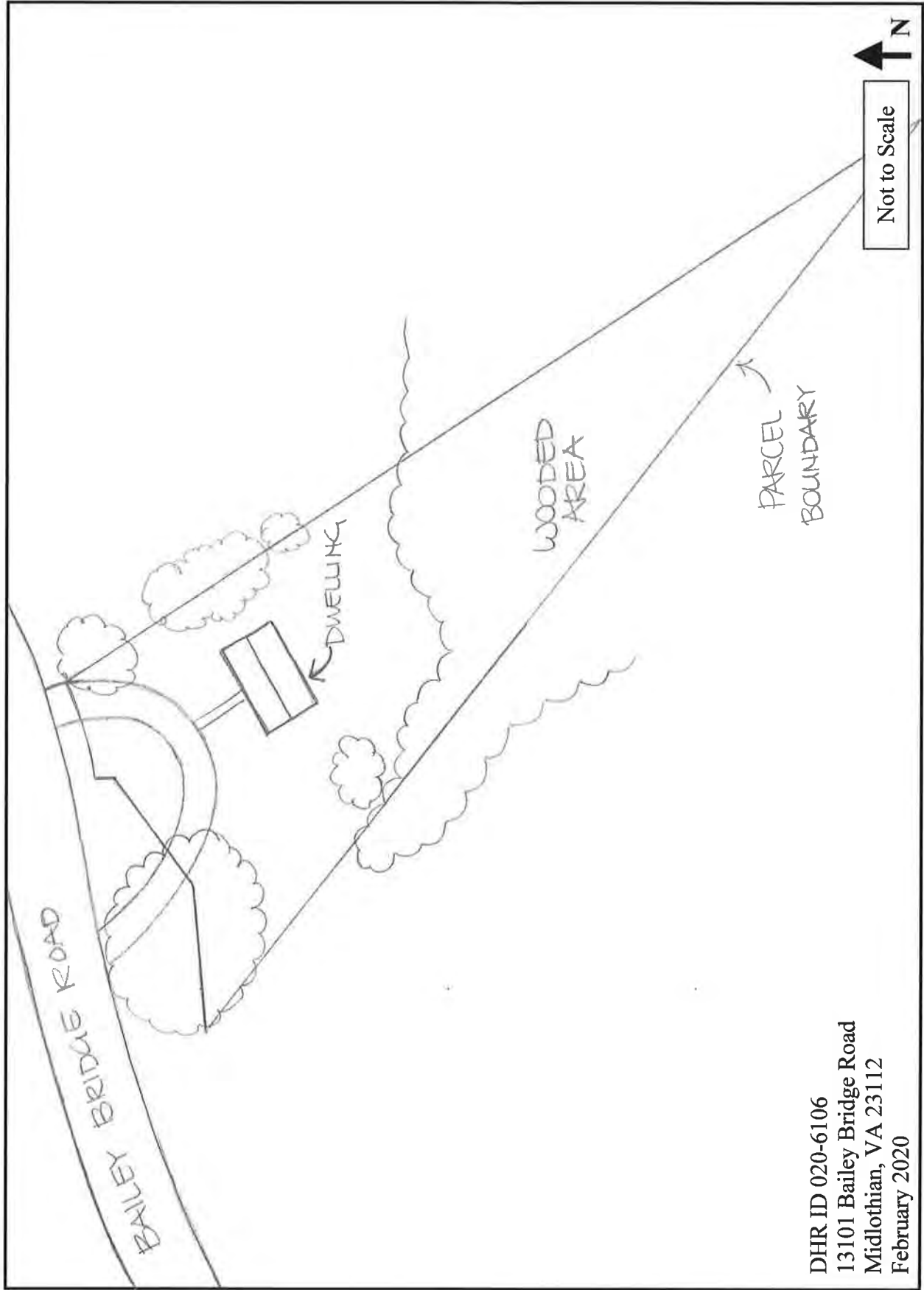
Bibliographic Information

Bibliography:

No Data

Property Notes:

No Data



DHR ID 020-6106
13101 Bailey Bridge Road
Midlothian, VA 23112
February 2020

VDHR # 020-6106

13101 Bailey Bridge Road

February 28, 2020



View of house looking southeast



View of house looking southwest

APPENDIX B

REPRESENTATIVE SHOVEL TEST PROFILES

APPENDIX B: REPRESENTATIVE SHOVEL TEST PROFILES

<u>Transect/ Judgmental</u>	<u>ST #</u>	<u>Zone 1 (Depth and Soil Color/Texture)</u>		<u>Zone 2 (Depth and Soil Color/Texture)</u>		<u>Zone 3 (Depth and Soil Color/Texture)</u>		<u>Positive or Negative for Cultural Materials</u>
Judgmental	1	0-30	Disturbed - Fill					Negative
	2	0-40	Disturbed - Multiple layers of Fill					Negative
	3	0-20	Diturbed (Road Construction Build upwith Fill and Redeposited Subsoi)l	20-35	Diturbed (Road Construction Build upwith Fill and Redeposited Subsoi)l			Negative
	4	0-20	Disturbed -Multiple Bands of Fill	20-35	Disturbed -Multiple Bands of Fill			Negative
	5	0-20	Diturbed (Road Construction Build upwith Fill and Redeposited Subsoi)l	20-35	Diturbed (Road Construction Build upwith Fill and Redeposited Subsoi)l			Negative
	6	0-20	Diturbed (Road Construction Build upwith Fill and Redeposited Subsoi)l	20-35	Diturbed (Road Construction Build upwith Fill and Redeposited Subsoi)l			Negative
	8	0-20	Diturbed (Road Construction Build upwith Fill and Redeposited Subsoi)l	20-35	Diturbed (Road Construction Build upwith Fill and Redeposited Subsoi)l			Negative
A	1	0-24	10YR 4/4 dark yellowish brown SL	24-34	10YR 6/6 brownish yellow SCL			Negative
	2	0-22	10YR 4/4 dark yellowish brown SL	22-32	10YR 6/6 brownish yellow SCL			Negative
	3	0-28	10YR 3/2 dark brown SL w/ 10 percent pebbles and gravel	28-39	10YR 5/4 yelowish brown SCL w/ 10 percent gravel			Negative
	4	0-30	10YR 4/3 brown SL w/10 percent small gravel and pebbles	30-39	10YR 5/6 yellowish brown SCL			Negative
	5	0-24	10YR 4/3 brown SL w/10 percent small gravel and pebbles	24-33	10YR 5/6 yellowish brown SCL			Negative
	6	0-20	10YR 4/3 brown SL	20-31	10YR 5/8 yellowish brown SCL			Negative
	8	0-22	10YR 4/4 dark yellowish brown SL	22-32	7.5 YR 5/6 strong brown CL			Negative
	9	0-24	10YR 4/4 dark yellowish brown SL	24-34	7.5 YR 5/6 strong brown CL			Negative
	10	0-28	10YR 4/4 dark yellowish brown SL	28-38	7.5 YR 5/6 strong brown CL			Negative

APPENDIX B: REPRESENTATIVE SHOVEL TEST PROFILES

B	2	0-18	10YR 4/4 dark yellowish brown SL	18-30	10YR 6/6 SCL brownish yellow			Negative
	4	0-12	10YR 4/4 dark yellowish brown SL	12-30	10YR 6/6 SCL brownish yellow			Negative
	8	0-20	10YR 4/4 dark yellowish brown SL	20-30	10YR 6/6 SCL brownish yellow	30-40	10YR 6/8 brownish yellow SC	Negative
C	3	0-19	10YR 4/4 dark yellowish brown SL	19-27	10YR 6/6 SCL brownish yellow			Negative
	4	0-14	10YR 4/4 dark yellowish brown SL	14-26	10YR 6/6 SCL brownish yellow			Negative
	6	0-22	10YR 4/4 dark yellowish brown SL	22-33	10YR 6/6 SCL brownish yellow	33-43	10YR 6/8 brownish yellow SC	Negative
	8	0-18	10YR 4/4 dark yellowish brown SL w/ 10 percent gravel	18-29	10YR 6/6 SCL brownish yellow w/ gravel	29-45	10YR 6/8 brownish yellow SC w/ gravel	Negative
	9	0-14	10YR 4/4 dark yellowish brown SL	14-23	10YR 6/6 SCL brownish yellow	23-40	10YR 6/8 brownish yellow SC w/ gravel	Negative
D	4	0-26	10YR 4/4 dark yellowish brown SL w/ gravel and pebbles	26-31	10YR 6/6 SCL brownish yellow w/ gravel and pebbles			Negative
	5	0-27	10YR 4/4 dark yellowish brown SL w/ gravel and pebbles	27-39	10YR 6/6 SCL brownish yellow w/ gravel and pebbles	39-47	10YR 6/8 brownish yellow SC w/ gravel	Negative
	6	0-19	10YR 4/4 dark yellowish brown SL w/ gravel and pebbles	19-26	10YR 6/6 SCL brownish yellow w/ gravel and pebbles	26-36	10YR 6/8 brownish yellow SC w/ gravel	Negative
	7	0-21	10YR 4/4 dark yellowish brown SL w/ gravel and pebbles	21-28	10YR 6/6 SCL brownish yellow w/ gravel and pebbles	28-38	10YR 6/8 brownish yellow SC w/ gravel	Negative
	8	0-23	10YR 4/4 dark yellowish brown SL w/ gravel and pebbles	23-35	10YR 6/6 SCL brownish yellow w/ gravel and pebbles	35-45	10YR 6/8 brownish yellow SC w/ gravel	Negative
E	4	0-21	10YR 4/4 dark yellowish brown SL w/ gravel and pebbles	21-28	10YR 6/6 SCL brownish yellow w/ gravel			Negative
	10	0-17	10YR 3/3 dark brown SCL	17-24	10YR 6/6 SCL brownish yellow w/ gravel	24-35	10YR 6/8 brownish yellow SC w/ gravel	Negative

APPENDIX B: REPRESENTATIVE SHOVEL TEST PROFILES

	11	0-25	10YR 3/3 dark brown SCL	25-32	10YR 6/6 SCL brownish yellow	32-42	10YR 6/8 brownish yellow SC w/ gravel	Negative
	12	0-21	10YR 3/3 dark brown SCL	22-42	10YR 6/6 SCL brownish yellow			Negative
F	6	0-21	10YR 4/4 dark yellowish brown SL w/ gravel and pebbles	21-28	10YR 6/6 SCL brownish yellow w/ gravel			Negative
	8	0-19	10YR 4/4 dark yellowish brown SL w/ gravel and pebbles	19-24	10YR 6/6 SCL brownish yellow w/ gravel			Negative
G	3	0-15	10YR 3/3 dark brown SCL	15-23	10YR 6/6 SCL brownish yellow	23-40	10YR 6/8 brownish yellow SC w/ gravel	Negative
	5	0-19	10YR 3/3 dark brown SCL	19-24	10YR 6/6 SCL brownish yellow	24-40	10YR 6/8 brownish yellow SC w/ gravel	Negative
	7	0-20	10YR 3/3 dark brown SCL	20-25	10YR 6/6 SCL brownish yellow	25-37	10YR 6/8 brownish yellow SC w/ gravel	Negative
H	19	0-19	10YR 3/3 dark brown SCL	15-26	10YR 6/6 SCL brownish yellow	23-43	10YR 6/8 brownish yellow SC w/ gravel	Negative
	1	0-7	10YR 5/3 brown SL	7-30	10YR 5/4 yellowish brown SC			Negative
	2	0-11	10YR 4/4 dark yellowish brown SL	11-35	10YR 6/6 SC			Negative
	4	0-10	10YR 5/3 brown SL w/ 10 percent small gravel and pebbles	10-30	10YR 6/6 SCL w/ 10- 20 percent small gravel and pebbles	30-35	10YR 6/8 brownish yello SC w/ 10- 20 percent small gravel and pebbles	Negative
	5	0-12	10YR 5/3 brown SL w/ 10 percent small gravel and pebbles	12-28	10YR 6/6 SCL w/ 10- 20 percent small gravel and pebbles	28-32	10YR 6/8 brownish yello SC w/ 10- 20 percent small gravel and pebbles	Negative
	10	0-10	10YR 4/4 dark yellowish brown SL	10-23	10YR 6/6 SC			Negative
	13	0-18	10YR 4/4 dark yellowish brown SL	18-30	10YR 6/6 SC			Negative

APPENDIX B: REPRESENTATIVE SHOVEL TEST PROFILES

I	4	0-35	7.5YR 2.5/2 very dark brown SL	35-41	10YR 5/3 brown SCL mottled w/ 10YR 6/3 pale brown SCL + gravel			Negative
	5	0-21	7.5YR 2.5/2 very dark brown SL	21-28	10YR 5/3 brown SCL mottled w/ 10YR 6/3 pale brown SC			Negative
J	1	0-17	10YR 3/2 dark brown SILO	17-27	10YR 6/4 light yellowish brown C			Negative
	2	0-21	10YR 5/3 brown SIC mottled with 10YR 4/6 yellowish brown C - disturbed	22-42	10YR 6/2 light brownish gray C w/ orange hydric staining -wet -disturbed			Negative
	3	0-21	10YR 5/3 brown SIC mottled with 10YR 4/6 yellowish brown C - disturbed	22-42	10YR 6/2 light brownish gray C w/ orange hydric staining -disturbed			Negative
M	1	0-20	10YR 4/2 dark grayish brown SL	20-35	10YR 5/6 yellowish brown SC			Negative
	3	0-14	10YR 4/2 dark grayish brown SL	14-30	10YR 5/6 yellowish brown SC			Negative
	5	0-28	10YR 4/2 dark grayish brown SL	28-36	10YR 5/6 yellowish brown SC			Negative
	7	0-21	10YR 5/3 brown SIC mottled with 10YR 4/6 yellowish brown C - disturbed	22-42	10YR 6/2 light brownish gray C w/ iron staining -disturbed			Negative

NASIS Soils: **COS**=Coarse Sand, **S**=Sand, **FS**=Fine Sand, **VFS**=Very Fine Sand, **LCOS**=Loamy Coarse Sand, **LS**=Loamy Sand, **LFS**=Loamy Fine Sand, **LVFS**=Loamy Very Fine Sand, **COSL**=Coarse Sandy Loam, **COSC**=Coarse Sandy Clay, **SL**=Sandy Loam, **FSL**=Fine Sandy Loam, **VFSL**=Very Fine Sandy Loam, **L**=Loam, **SIL**=Silt Loam, **SI**=Silt, **SCL**=Sandy Clay Loam, **CL**=Clay Loam, **SICL**=Silty Clay Loam, **SC**=Sandy Clay, **SIC**=Silty Clay, **C**=Clay

APPENDIX C

KEY STAFF RESUMES

Susan E. Bamann, Ph.D., RPA, Regional Director/Project Manager/Renewable Energy Lead

Experience Profile

Dr. Bamann is an archaeologist and the director of Commonwealth’s North Carolina office, which offers services in the Southeastern and Mid-Atlantic regions. She is responsible for staff management, market development, and project management and has overseen projects in numerous states. With prior experience in the Northeast, Midwest, Mid-Atlantic, and Southeast, Dr. Bamann brings over 30 years of professional experience including teaching, academic research, and cultural resources management. Since joining the North Carolina office she has provided field, laboratory/report, and/or project management for over 275 projects including archaeological and architectural surveys, site testing for evaluations and delineations, architectural evaluations, data recovery projects, and advanced agreement document preparation. Dr. Bamann has completed continuing education workshops including “Section 106 in the New Regulatory Environment” and “The Business of CRM: Contracting and Project Management” presented by ACRA and has substantial experience with the principal laws and regulations pertaining to cultural resources management. Her experience includes completion of projects related to many sectors including transportation, private industry, and energy including solar power.



Representative Commonwealth Projects

Spotsylvania Solar Energy Center, Spotsylvania County, Virginia, 2017-2018 – sPower Development Company, LLC

Project Manager. Architectural and archaeological surveys for proposed 4,600-acre solar energy facility in support of SCC permitting.

Complete 540 Triangle Expressway Southeast Extension, Wake and Johnston Counties, North Carolina, 2016-2017 – H.W. Lochner, Inc., and NCDOT

Project Manager. Archaeological survey and evaluation of 37-mile roadway location corridor.

Safety Area Improvements, Roanoke-Blacksburg Regional Airport, City of Roanoke, Virginia, 2017 – Delta Airport Consultants, Inc.

Project Manager. Architectural and archaeological surveys for proposed extension of runway safety areas totaling 166 acres.

2016 Compartments in Tusquitee Ranger District, Nantahala National Forest, Cherokee and Clay Counties, North Carolina, 2017 – USDA Forest Service

Project Manager. Archaeological survey of 353 acres in support of forest management.

Chestnut Solar Farm, Halifax County, North Carolina, 2016-2018 – BayWa r.e., Solar

Project Manager. Archaeological surveys and architectural evaluation for proposed 1,200-acre solar facility.

US 340 Improvement Study, Jefferson County, West Virginia, 2015-2017 – H.W. Lochner, Inc., and WVDOH

Project Manager. Architectural update survey, archaeological assessment, historic battlefield evaluation, and archaeological survey for five-mile roadway improvement corridor.

South Carolina Inland Port, Greer, Spartanburg County, South Carolina, 2016 – Kimley-Horn and Associates, Inc.

Project Manager. Architectural and archaeological surveys of proposed 191-acre expansion area for commercial use associated with the inland port rail facility.

Carpenter Fire Station Road Realignment and Grade Separation, Town of Cary, North Carolina, 2012-2017 – AECOM and Town of Cary

Project Manager. Architectural update survey and MOA to address adverse effects to National Register Historic District.

Route 460 Project Southeast Virginia, 2012-2015 – Parsons Transportation Group, Inc., Whitman, Requardt and Associates, LLP, and VDOT

Project Manager. Architectural survey, archaeological assessment and survey, and historic battlefield evaluation for reevaluation and FSEIS addressing 18-mile relocation corridor.

Education:

Ph.D., Anthropology,
University at Albany, State
University of New York
(SUNY), 1993

M.A., Anthropology,
University at Albany,
SUNY, 1987

B.A., SUNY at Oswego,
Anthropology, 1985

Professional Affiliations:

Register of Professional
Archaeologists (RPA),
(Registrant ID 12726)

Society for American
Archaeology

Southeastern
Archaeological Conference

Mid-Atlantic
Archaeological Conference

North Carolina
Archaeological Council

Archaeological Society of
Virginia

American Cultural
Resources Association
(Board Member 2015-
present)

Amy Krull, M.A., RPA, Project Archaeologist

Experience Profile

Amy Krull is an archaeologist at Commonwealth Heritage Group, Inc. (Commonwealth) with expertise in precontact and historic archeology of the Southeast and the Great Lakes. She has worked as a field technician, crew chief, field director, field logistics coordinator, project archaeologist, and senior report author for more than six years. Ms. Krull has experience leading projects in North Carolina and Virginia including large-scale renewable energy projects, state transportation projects, and local government initiatives. She also has extensive experience in Andean archaeology. Her master's thesis examined the intentional fragmentation of stone tools as acts of ritual and resistance at the Inca site of Caranqui in Ecuador (2014). While in graduate school, she participated in several archaeological surveys and excavations within the urban context of the city of Detroit. Ms. Krull has assisted with the analysis of artifacts from survey and data recovery projects, and has expertise in ground stone analysis.



Representative Commonwealth Projects

Augusta Solar Site, Augusta County, Virginia, 2018 – Augusta Solar, LLC

Senior Archaeological Report Author. 969-acre solar energy facility Phase I survey.

Chestnut Solar Farm, Halifax County, North Carolina, 2018 – BayWa r.e Solar

Project Archaeologist. Archaeological surveys for proposed 1,200-acre solar facility.

Spotsylvania Solar Energy Center, Spotsylvania County, Virginia, 2017-2018 – sPower Development Company, LLC

Project Archaeologist and Principal Field Logistics Coordinator. Archaeological surveys for proposed 4,600-acre solar energy facility in support of SCC permitting.

Newtown Road/Virginia Beach Boulevard Project, Norfolk, Virginia, 2017 – Kimley-Horn and Associates, Inc., and The City of Norfolk

Architectural Survey Assistant. Architectural survey for the proposed highway widening.

Branch Grove Relocation, Enfield, North Carolina, 2017 – Preservation NC

Field Investigator. Archaeological survey for the proposed relocation of a NRHP listed property.

Coliseum Drive Extension, Hampton, Virginia 2017 – Kimley-Horn and Associates, Inc., and The City of Hampton

Project Archaeologist. Cultural resources survey for proposed thoroughfare expansion.

Port Conway Solar Project, Fredericksburg, Virginia, 2017 – Port Conway Solar, LLC

Project Archaeologist. An archaeological survey of 362 acres for a proposed solar energy farm.

Complete 540 Triangle Expressway Southeast Extension, Wake and Johnston Counties, North Carolina, 2016-2017 – H.W. Lochner, Inc., and NCDOT

Field Director. Archaeological survey of 37-mile corridor for new roadway location.

2016 Compartments in Tusquitee Ranger District, Nantahala National Forest, Cherokee and Clay Counties, North Carolina, 2016 – USDA Forest Service

Crew Chief. Archaeological survey of 353 acres in support of forest management.

Phase II testing of Site 31GV335, Granville County, North Carolina, 2015 – NCDOT

Field Technician. Phase II archaeological investigation of precontact Native American site.

Route 460 Project Southeast Virginia, 2015 – Parsons Transportation Group, Inc., Whitman, Requardt and Associates, LLP, and VDOT

Field Technician. Metal detector reconnaissance of 36-acre historic battlefield area, and archaeological survey of an 18-mile expressway corridor.

Williamston Speight Solar Farm, Williamston, North Carolina, 2015 – Sun Energy 1

Field Technician. Archaeological survey of 390 acres for a proposed solar energy project.

Rochester Road Project, Phase III Data Recovery, Rochester, Michigan, 2012 – MDOT

Field Technician. Data recovery of precontact Native American burial site.

Education:

M.A., Anthropology,
Wayne State University,
2014

B.A., Anthropology,
Wayne State University,
2011

Advanced Metal Detecting
for the Archaeologist
Course (AMDA/RPA, 24
credits), Charleston, SC
(November 2018)

Professional Memberships:

Register of Professional
Archaeologists (RPA)
(Registrant ID 17327)

Archaeological Society
of Virginia

Michigan
Archaeological Society

North Carolina
Archaeological Society

Preservation Detroit

Society for Historical
Archaeology

Megan Funk, Architectural Historian

Experience Profile

Megan Funk is a staff architectural historian for Commonwealth's North Carolina office. Her responsibilities center on the completion of architectural surveys and evaluations for compliance with Section 106 of the National Historic Preservation Act. Prior to working for Commonwealth, Ms. Funk worked for various state and local preservation organizations including Georgetown Main Street, Discover Middlesboro, and the Kentucky Heritage Council. She earned a Master of Science in Historic Preservation degree from Clemson University and the College of Charleston, a joint program based in Charleston, South Carolina. Her graduate studies emphasized documentation of historic structures, material conservation, and development of historic contexts. While in graduate school, she contributed to existing conditions reports and mitigation plans for structures belonging to Clemson University, the Housing Authority of Charleston, and private owners. Ms. Funk also participated in the Clemson Architectural Program's Genoa Field School at the Charles E. Daniel Center for Building Research and Urban Studies in Genoa, Italy.

Representative Projects

Cultural Resources Survey

Spotsylvania Solar Energy Center – Spotsylvania County, Virginia

Architectural Historian. Addendum survey for architectural resources in expanded APE.

Historic Structures Survey Report

NCDOT – Johnston and Cumberland Counties, North Carolina

Architectural Historian. In-depth National Register evaluation of six historic structures in the project area of I-5986, a road-widening project.

Historic Structures Survey Report

NCDOT – Guilford County, North Carolina.

Architectural Historian. In-depth National Register evaluation of a historic farm for P-2053, a pipe replacement project.

Historic Structures Survey Report

NCDOT – Pitt County, North Carolina

Architectural Historian. Evaluated the National Register eligibility of a ca. 1905 and ca. 1930 dwelling in the project area of U-5917, a road-widening project.

Cultural Resources Survey

Fountain Creek Solar – Emporia, Virginia

Architectural Historian/Co-investigator. Surveyed resources in a 646-acre project area.

County-Wide Survey

NCHPO – Franklin County, North Carolina

Architectural Historian. Completed a multi-year survey of over 600 resources including preparing site survey forms and authoring a comprehensive architectural history of the county.

Craig-Peak House National Register Nomination

Mary Carroll Burnett – Georgetown, Kentucky

Architectural Historian. Researched and authored a National Register Nomination for the ca. 1820 – 1850 Craig-Peak House.

Historic District Design Audit

Georgetown Main Street – Georgetown, Kentucky

Main Street Director. Evaluated the H1 district for preservation issues, accessibility, safety, code compliance, parking, and wayfinding and presented recommendations to city government.

William Blacklock House

College of Charleston – Charleston, South Carolina

Architectural Historian. Drafted measured drawings of the building's interior and exterior, conducted paint analysis and identified faux finish campaigns of the interior woodwork.



Education:

M.S. Historic Preservation,
Clemson University/
College of Charleston,
2014

B.A., Business and
Marketing, University of
Kentucky, 2010

Professional

Affiliations:

American Cultural
Resources Association

Preservation North
Carolina

Society of Architectural
Historians

Vernacular Architecture
Forum

Threatened and Endangered Species Coordination Memos



United States Department of the Interior



FISH AND WILDLIFE SERVICE

Virginia Field Office
6669 Short Lane
Gloucester, VA 23061

Date:

Self-Certification Letter

Project Name:

Dear Applicant:

Thank you for using the U.S. Fish and Wildlife Service (Service) Virginia Ecological Services online project review process. By printing this letter in conjunction with your project review package, you are certifying that you have completed the online project review process for the project named above in accordance with all instructions provided, using the best available information to reach your conclusions. This letter, and the enclosed project review package, completes the review of your project in accordance with the Endangered Species Act of 1973 (16 U.S.C. . 1531-1544, 87 Stat. 884), as amended (ESA), and the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c, 54 Stat. 250), as amended (Eagle Act). This letter also provides information for your project review under the National Environmental Policy Act of 1969 (P.L. 91-190, 42 U.S.C. 4321-4347, 83 Stat. 852), as amended. A copy of this letter and the project review package must be submitted to this office for this certification to be valid. This letter and the project review package will be maintained in our records.

The species conclusions table in the enclosed project review package summarizes your ESA and Eagle Act conclusions. These conclusions resulted in:

- “no effect” determinations for proposed/listed species and/or proposed/designated critical habitat; and/or
- “may affect, not likely to adversely affect” determinations for proposed/listed species and/or proposed/designated critical habitat; and/or
- “may affect, likely to adversely affect” determination for the Northern long-eared bat (*Myotis septentrionalis*) and relying on the findings of the January 5, 2016 Programmatic Biological Opinion for the Final 4(d) Rule on the Northern long-eared bat; and/or
- “no Eagle Act permit required” determinations for eagles.

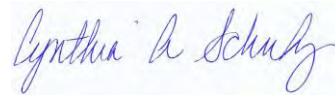
We certify that use of the online project review process in strict accordance with the instructions provided as documented in the enclosed project review package results in reaching the appropriate determinations. Therefore, we concur with the “no effect” or “not likely to adversely affect” determinations for proposed and listed species and proposed and designated critical habitat; the “may affect” determination for Northern long-eared bat; and/or the “no Eagle Act permit required” determinations for eagles. Additional coordination with this office is not needed.

Candidate species are not legally protected pursuant to the ESA. However, the Service encourages consideration of these species by avoiding adverse impacts to them. Please contact this office for additional coordination if your project action area contains candidate species.

Should project plans change or if additional information on the distribution of proposed or listed species, proposed or designated critical habitat, or bald eagles becomes available, this determination may be reconsidered. This certification letter is valid for 1 year.

Information about the online project review process including instructions and use, species information, and other information regarding project reviews within Virginia is available at our website http://www.fws.gov/northeast/virginiafield/endspecies/project_reviews.html. If you have any questions, please contact Troy Andersen of this office at (804) 824-2428.

Sincerely,

A handwritten signature in blue ink that reads "Cynthia A. Schulz". The signature is written in a cursive style and is positioned above the printed name and title.

Cindy Schulz
Field Supervisor
Virginia Ecological Services

Enclosures - project review package

Species Conclusions Table

Project Name: Bailey Bridge Connector Project

Date: June 2, 2020

Species / Resource Name	Conclusion	ESA Section 7 / Eagle Act Determination	Notes / Documentation
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Suitable habitat present, no current surveys conducted. However, the closest documented hibernacula is approximately 110.7 miles from the project location.	May affect / Not likely to adversely affect.	Relying upon the finding of the 1/5/2016 Programmatic Biological Opinion for Final 5(d) Rule on the Northern Long-Eared Bat and Activities Exempted from Take Prohibitions to fulfill our project-specific section 7 responsibilities – estimated tree clearing of 14.49 acres.
Bald Eagle	Unlikely to disturb nesting bald eagles, does not interact with an eagle concentration area.	No Eagle Act permit required	Not in the vicinity of an eagle nest or eagle concentration area. Eagle map attached.
Critical habitat	No critical habitat present	No effect	Official Species List attached with finding of no critical habitat.



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Virginia Ecological Services Field Office
6669 Short Lane
Gloucester, VA 23061-4410
Phone: (804) 693-6694 Fax: (804) 693-9032
<http://www.fws.gov/northeast/virginiafield/>

In Reply Refer To:

May 19, 2020

Consultation Code: 05E2VA00-2020-SLI-3854

Event Code: 05E2VA00-2020-E-10850

Project Name: Bailey Bridge Connector Project

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*). Any activity proposed on National Wildlife Refuge lands must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered

species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
 - USFWS National Wildlife Refuges and Fish Hatcheries
-

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Virginia Ecological Services Field Office

6669 Short Lane

Gloucester, VA 23061-4410

(804) 693-6694

Project Summary

Consultation Code: 05E2VA00-2020-SLI-3854

Event Code: 05E2VA00-2020-E-10850

Project Name: Bailey Bridge Connector Project

Project Type: TRANSPORTATION

Project Description: The proposed project includes the construction of the Bailey Bridge Connector from Bailey Bridge Road to Brad McNeer Parkway as a two-lane road with eight-foot shoulders. The project will construct two roundabouts, one at the intersection with Brad McNeer Parkway and the other at the intersection with Bailey Bridge Road. The improvements will include a ten-foot shared-use path and a bridge over Swift Creek. Stormwater management facilities will be provided as needed. The Bailey Bridge Connector is identified in the Chesterfield County Thoroughfare Plan, in the STIP, and the CLRP

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/37.40643457478271N77.63581418302807W>



Counties: Chesterfield, VA

Endangered Species Act Species

There is a total of 1 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

USFWS National Wildlife Refuge Lands And Fish Hatcheries

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

VaFWIS Initial Project Assessment Report Compiled on 5/19/2020,[Help](#)

10:46:55 AM

Known or likely to occur within a **2 mile radius around point 37.4071490 -77.6346815**
in **041 Chesterfield County, VA**

[View Map of
Site Location](#)

456 Known or Likely Species ordered by Status Concern for Conservation
(displaying first 20) (19 species with Status* or Tier I** or Tier II**)

BOVA Code	Status*	Tier**	Common Name	Scientific Name	Confirmed	Database(s)
010032	FESE	Ib	Sturgeon, Atlantic	Acipenser oxyrinchus		BOVA
050022	FTST	Ia	Bat, northern long-eared	Myotis septentrionalis		BOVA
060029	FTST	IIa	Lance, yellow	Elliptio lanceolata	Yes	BOVA,SppObs
050020	SE	Ia	Bat, little brown	Myotis lucifugus		BOVA
050027	SE	Ia	Bat, tri-colored	Perimyotis subflavus		BOVA
040096	ST	Ia	Falcon, peregrine	Falco peregrinus		BOVA
040293	ST	Ia	Shrike, loggerhead	Lanius ludovicianus		BOVA
020002	ST	IIa	Treefrog, barking	Hyla gratiosa		BOVA
040292	ST		Shrike, migrant loggerhead	Lanius ludovicianus migrans		BOVA
030063	CC	IIIa	Turtle, spotted	Clemmys guttata	Yes	BOVA,SppObs
030031	CC	IIIc	Kingsnake, scarlet	Lampropeltis elapsoides		BOVA
010077		Ia	Shiner, bridle	Notropis bifrenatus		BOVA
040213		Ic	Owl, northern saw-whet	Aegolius acadicus		BOVA
040052		IIa	Duck, American black	Anas rubripes		BOVA
040029		IIa	Heron, little blue	Egretta caerulea caerulea		BOVA
040036		IIa	Night-heron, yellow-crowned	Nyctanassa violacea violacea		BOVA
040320		IIa	Warbler, cerulean	Setophaga cerulea		BOVA
040140		IIa	Woodcock, American	Scolopax minor		BOVA
040105		IIb	Rail, king	Rallus elegans		BOVA
010131		IIIa	Eel, American	Anguilla rostrata	Yes	BOVA,SppObs

To view **All 456 species** [View 456](#)

*FE=Federal Endangered; FT=Federal Threatened; SE=State Endangered; ST=State Threatened; FP=Federal Proposed; FC=Federal Candidate; CC=Collection Concern

**I=VA Wildlife Action Plan - Tier I - Critical Conservation Need; II=VA Wildlife Action Plan - Tier II - Very High Conservation Need; III=VA Wildlife Action Plan - Tier III - High Conservation Need; IV=VA Wildlife Action Plan - Tier IV - Moderate Conservation Need
Virginia Wildlife Action Plan Conservation Opportunity Ranking:
a - On the ground management strategies/actions exist and can be feasibly implemented.;

b - On the ground actions or research needs have been identified but cannot feasibly be implemented at this time.;

c - No on the ground actions or research needs have been identified or all identified conservation opportunities have been exhausted.

Bat Colonies or Hibernacula: **Not Known**

Anadromous Fish Use Streams

N/A

Colonial Water Bird Survey

N/A

Threatened and Endangered Waters

N/A

Managed Trout Streams

N/A

Bald Eagle Concentration Areas and Roosts

N/A

Bald Eagle Nests

N/A

Habitat Predicted for Aquatic WAP Tier I & II Species

N/A

Habitat Predicted for Terrestrial WAP Tier I & II Species

N/A

Public Holdings: (1 names)

Name	Agency	Level
Pocahontas State Forest	VA Dept. of Conservation and Recreation	State

PixelSize=64; Anadromous=0.055021; BECAR=0.024393; Bats=0.023262; Buffer=0.09769; County=0.105418; Impediments=0.035633; Init=0.15604; PublicLands=0.097768; SppObs=0.375622; TEWaters=0.056781; TierReaches=0.063118; TierTerrestrial=0.120536; Total=1.321852; Tracking_BOVA=0.150407; Trout=0.037983

Natural Heritage Resources

Your Criteria

Taxonomic Group: Select All

Federal Legal Status: LE - Listed endangered,LT - Listed threatened

State Legal Status: LE - Listed endangered,LT - Listed threatened

County: Chesterfield

Search Run: 5/19/2020 10:26:00 AM

Result Summary

Total Species returned: 4

Total Communities returned: 0

Click scientific names below to go to NatureServe report.

Click column headings for an explanation of species and community ranks.

Common Name/Natura l Community	Scientific Name	Scientific Name Linked	Global Conservation Status Rank	State Conservation Status Rank	Federal Legal Status	State Legal Status	Statewide Occurrences	Virginia Coastal Zone
Chesterfield								
AMPHIBIANS								

Common Name/Natural Community	Scientific Name	Scientific Name Linked	Global Conservation Status Rank	State Conservation Status Rank	Federal Legal Status	State Legal Status	Statewide Occurrences	Virginia Coastal Zone
Barking Treefrog	Hyla gratiosa	Hyla gratiosa	G5	S2	None	LT	25	Y
BIVALVIA (MUSSELS)								
Green Floater	Lasmigona subviridis	Lasmigona subviridis	G3	S2	None	LT	65	Y
FISH								
Atlantic Sturgeon	Acipenser oxyrinchus	Acipenser oxyrinchus	G3	S2	LE	LE	2	Y
VASCULAR PLANTS								
Sensitive Joint-vetch	Aeschynome ne virginica	Aeschynome ne virginica	G2	S2	LT	LT	22	Y

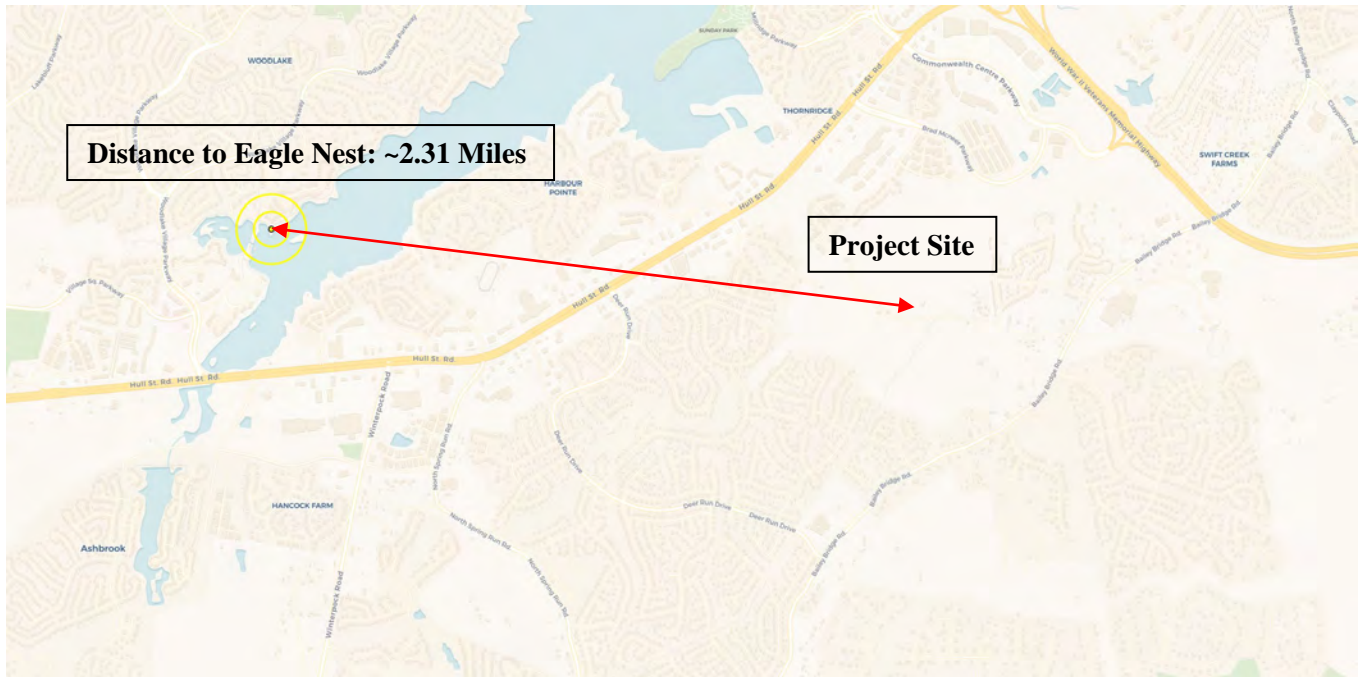
Note: On-line queries provide basic information from DCR's databases at the time of the request. They are NOT to be substituted for a project review or for on-site surveys required for environmental assessments of specific project areas.

For Additional Information on locations of Natural Heritage Resources please submit an [information request](#).

To Contribute information on locations of natural heritage resources, please fill out and submit a [rare species sighting form](#).



CCB Mapping Portal



Layers: VA Eagle Nest Locator, VA Eagle Nest Buffers

Map Center [longitude, latitude]: [-77.65179634094238, 37.407732743940855]

Map Link:

https://ccbbirds.org/maps/#layer=VA+Eagle+Nest+Locator&layer=VA+Eagle+Nest+Buffers&zoom=15&lat=37.407732743940855&lng=-77.65179634094238&legend=legend_tab_7c321b7e-e523-11e4-aaa0-0e0c41326911&base=Street+Map+%28OSM%2FCarto%29

Report Generated On: 05/19/2020

The Center for Conservation Biology (CCB) provides certain data online as a free service to the public and the regulatory sector. CCB encourages the use of its data sets in wildlife conservation and management applications. These data are protected by intellectual property laws. All users are reminded to view the [Data Use Agreement](#) to ensure compliance with our data use policies. For additional data access questions, view our [Data Distribution Policy](#), or contact our Data Manager, Marie Pitts, at mlpitts@wm.edu or 757-221-7503.

Report generated by [The Center for Conservation Biology Mapping Portal](#).

To learn more about CCB visit ccbbirds.org or contact us at info@ccbbirds.org



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Virginia Ecological Services Field Office
6669 Short Lane
Gloucester, VA 23061-4410
Phone: (804) 693-6694 Fax: (804) 693-9032
<http://www.fws.gov/northeast/virginiafield/>

In Reply Refer To:

June 02, 2020

Consultation Code: 05E2VA00-2020-TA-3854

Event Code: 05E2VA00-2020-E-11444

Project Name: Bailey Bridge Connector Project

Subject: Verification letter for the 'Bailey Bridge Connector Project' project under the January 5, 2016, Programmatic Biological Opinion on Final 4(d) Rule for the Northern Long-eared Bat and Activities Excepted from Take Prohibitions.

Dear Alex Nies:

The U.S. Fish and Wildlife Service (Service) received on June 02, 2020 your effects determination for the 'Bailey Bridge Connector Project' (the Action) using the northern long-eared bat (*Myotis septentrionalis*) key within the Information for Planning and Consultation (IPaC) system. This IPaC key assists users in determining whether a Federal action is consistent with the activities analyzed in the Service's January 5, 2016, Programmatic Biological Opinion (PBO). The PBO addresses activities excepted from "take"^[1] prohibitions applicable to the northern long-eared bat under the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based upon your IPaC submission, the Action is consistent with activities analyzed in the PBO. The Action may affect the northern long-eared bat; however, any take that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o). Unless the Service advises you within 30 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the PBO satisfies and concludes your responsibilities for this Action under ESA Section 7(a)(2) with respect to the northern long-eared bat.

Please report to our office any changes to the information about the Action that you submitted in IPaC, the results of any bat surveys conducted in the Action area, and any dead, injured, or sick northern long-eared bats that are found during Action implementation. If the Action is not completed within one year of the date of this letter, you must update and resubmit the information required in the IPaC key.

If the Action may affect other federally listed species besides the northern long-eared bat, a proposed species, and/or designated critical habitat, additional consultation between you and this Service office is required. If the Action may disturb bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act is recommended.

[1]Take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct [ESA Section 3(19)].

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

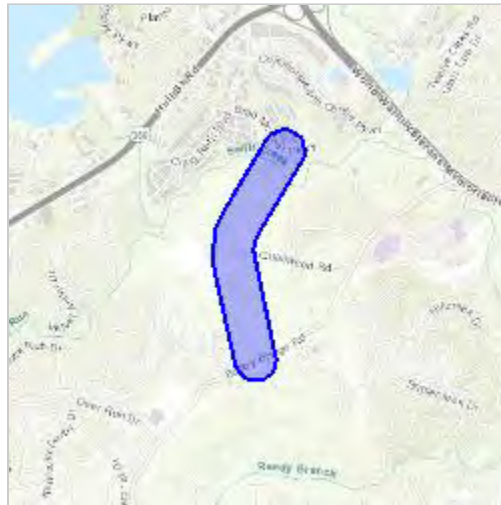
Bailey Bridge Connector Project

2. Description

The following description was provided for the project 'Bailey Bridge Connector Project':

The proposed project includes the construction of the Bailey Bridge Connector from Bailey Bridge Road to Brad McNeer Parkway as a two-lane road with eight-foot shoulders. The project will construct two roundabouts, one at the intersection with Brad McNeer Parkway and the other at the intersection with Bailey Bridge Road. The improvements will include a ten-foot shared-use path and a bridge over Swift Creek. Stormwater management facilities will be provided as needed. The Bailey Bridge Connector is identified in the Chesterfield County Thoroughfare Plan, in the STIP, and the CLRP

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/37.40643457478271N77.63581418302807W>



Determination Key Result

This Federal Action may affect the northern long-eared bat in a manner consistent with the description of activities addressed by the Service's PBO dated January 5, 2016. Any taking that may occur incidental to this Action is not prohibited under the final 4(d) rule at 50 CFR

§17.40(o). Therefore, the PBO satisfies your responsibilities for this Action under ESA Section 7(a)(2) relative to the northern long-eared bat.

Determination Key Description: Northern Long-eared Bat 4(d) Rule

This key was last updated in IPaC on May 15, 2017. Keys are subject to periodic revision.

This key is intended for actions that may affect the threatened northern long-eared bat.

The purpose of the key for Federal actions is to assist determinations as to whether proposed actions are consistent with those analyzed in the Service's PBO dated January 5, 2016.

Federal actions that may cause prohibited take of northern long-eared bats, affect ESA-listed species other than the northern long-eared bat, or affect any designated critical habitat, require ESA Section 7(a)(2) consultation in addition to the use of this key. Federal actions that may affect species proposed for listing or critical habitat proposed for designation may require a conference under ESA Section 7(a)(4).

Determination Key Result

This project may affect the threatened Northern long-eared bat; therefore, consultation with the Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.) is required. However, based on the information you provided, this project may rely on the Service's January 5, 2016, *Programmatic Biological Opinion on Final 4(d) Rule for the Northern Long-Eared Bat and Activities Excepted from Take Prohibitions* to fulfill its Section 7(a)(2) consultation obligation.

Qualification Interview

1. Is the action authorized, funded, or being carried out by a Federal agency?
Yes
2. Have you determined that the proposed action will have "no effect" on the northern long-eared bat? (If you are unsure select "No")
No
3. Will your activity purposefully **Take** northern long-eared bats?
No
4. [Semantic] Is the project action area located wholly outside the White-nose Syndrome Zone?
Automatically answered
No
5. Have you contacted the appropriate agency to determine if your project is near a known hibernaculum or maternity roost tree?

Location information for northern long-eared bat hibernacula is generally kept in state Natural Heritage Inventory databases – the availability of this data varies state-by-state. Many states provide online access to their data, either directly by providing maps or by providing the opportunity to make a data request. In some cases, to protect those resources, access to the information may be limited. A web page with links to state Natural Heritage Inventory databases and other sources of information on the locations of northern long-eared bat roost trees and hibernacula is available at www.fws.gov/midwest/angered/mammals/nleb/nhisites.html.

Yes

6. Will the action affect a cave or mine where northern long-eared bats are known to hibernate (i.e., hibernaculum) or could it alter the entrance or the environment (physical or other alteration) of a hibernaculum?

No

7. Will the action involve Tree Removal?

Yes

8. Will the action only remove hazardous trees for the protection of human life or property?

No

9. Will the action remove trees within 0.25 miles of a known northern long-eared bat hibernaculum at any time of year?

No

10. Will the action remove a known occupied northern long-eared bat maternity roost tree or any trees within 150 feet of a known occupied maternity roost tree from June 1 through July 31?

No

Project Questionnaire

If the project includes forest conversion, report the appropriate acreages below. Otherwise, type '0' in questions 1-3.

1. Estimated total acres of forest conversion:

14.49

2. If known, estimated acres of forest conversion from April 1 to October 31

0

3. If known, estimated acres of forest conversion from June 1 to July 31

0

If the project includes timber harvest, report the appropriate acreages below. Otherwise, type '0' in questions 4-6.

4. Estimated total acres of timber harvest

0

5. If known, estimated acres of timber harvest from April 1 to October 31

0

6. If known, estimated acres of timber harvest from June 1 to July 31

0

If the project includes prescribed fire, report the appropriate acreages below. Otherwise, type '0' in questions 7-9.

7. Estimated total acres of prescribed fire

0

8. If known, estimated acres of prescribed fire from April 1 to October 31

0

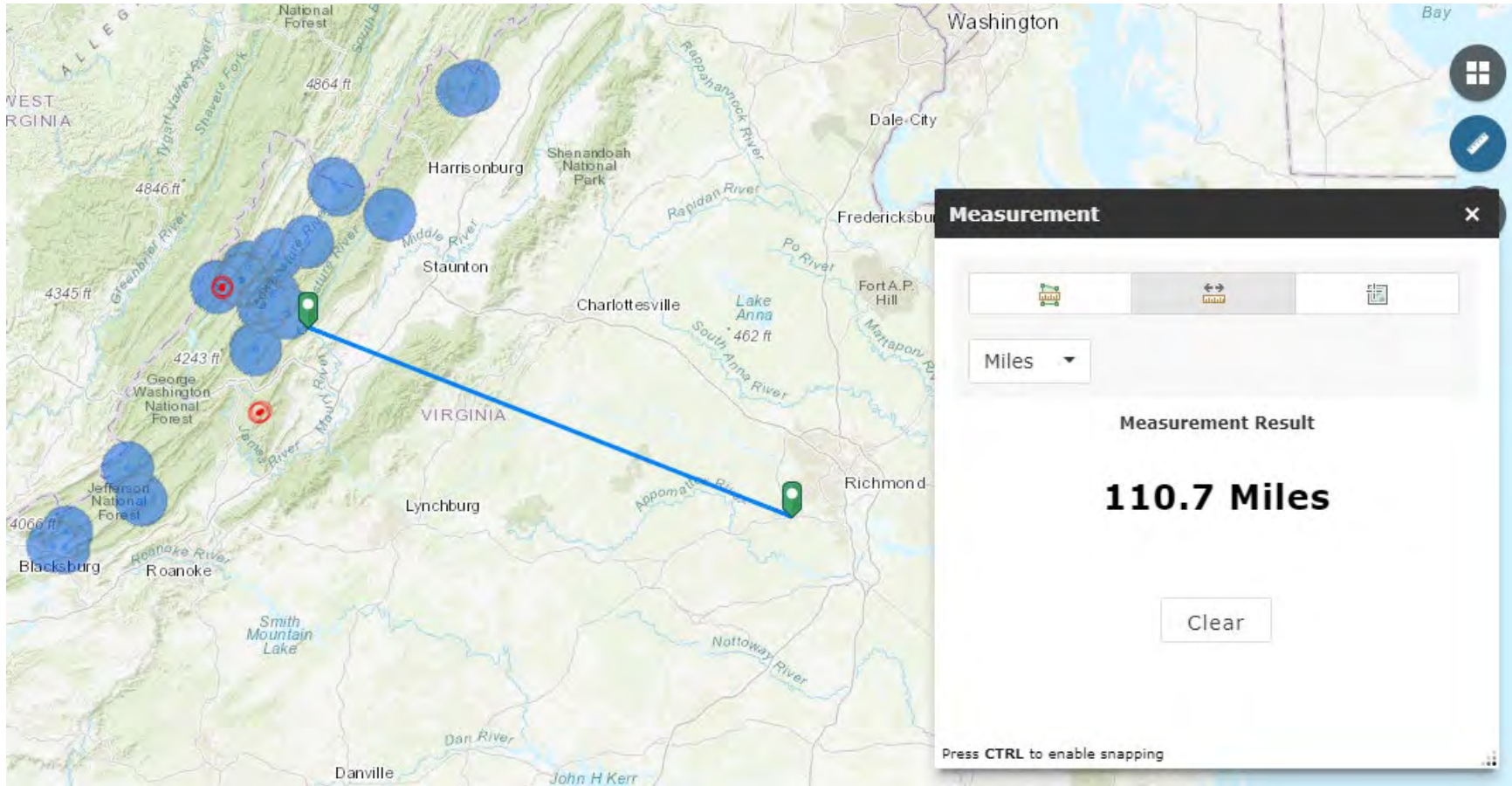
9. If known, estimated acres of prescribed fire from June 1 to July 31

0

If the project includes new wind turbines, report the megawatts of wind capacity below. Otherwise, type '0' in question 10.

10. What is the estimated wind capacity (in megawatts) of the new turbine(s)?
0

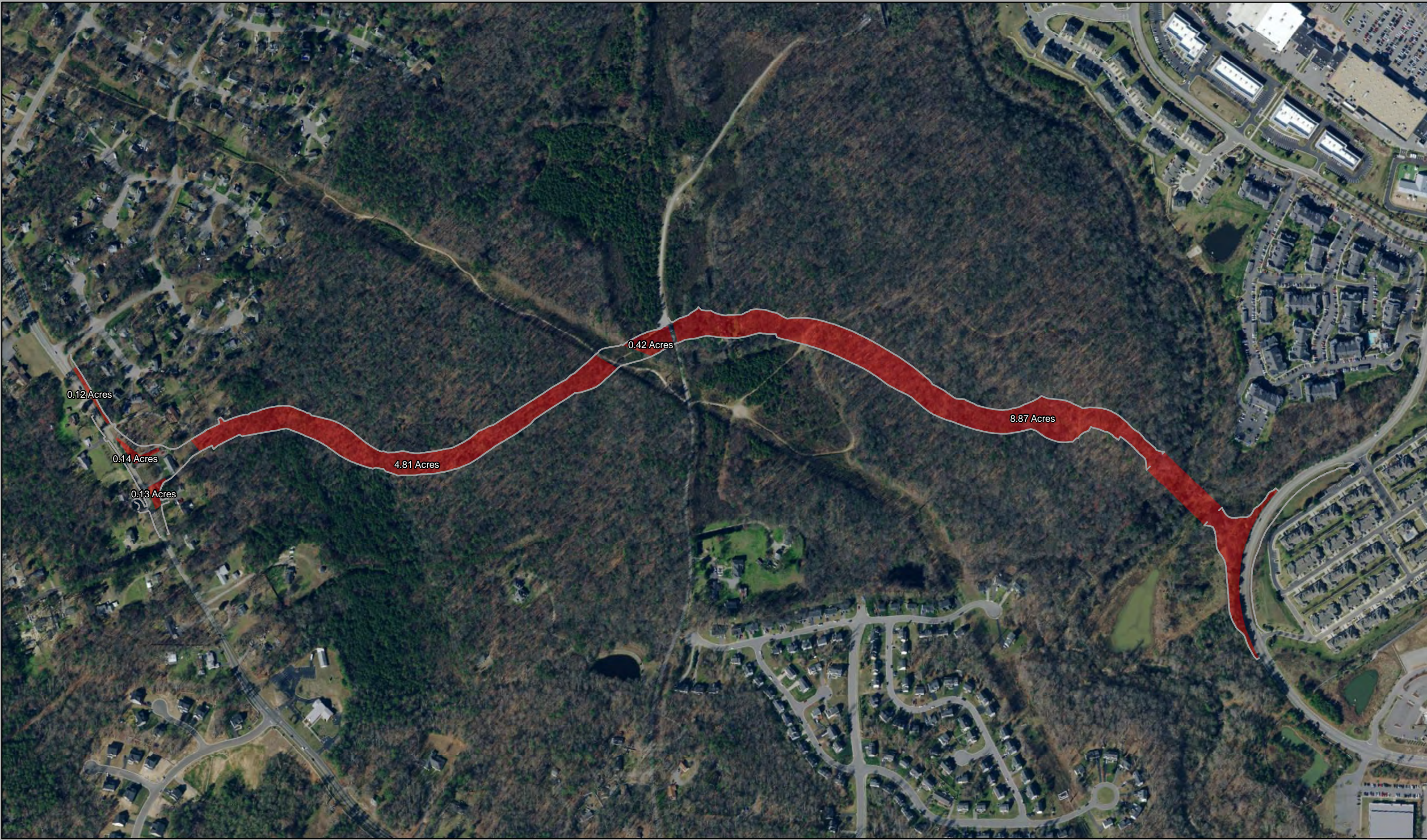
Bailey Bridge Connector Project, Chesterfield County, Virginia



Legend

- Project Location ●
- Distance Between Project and Closest Bat Sighting ↔

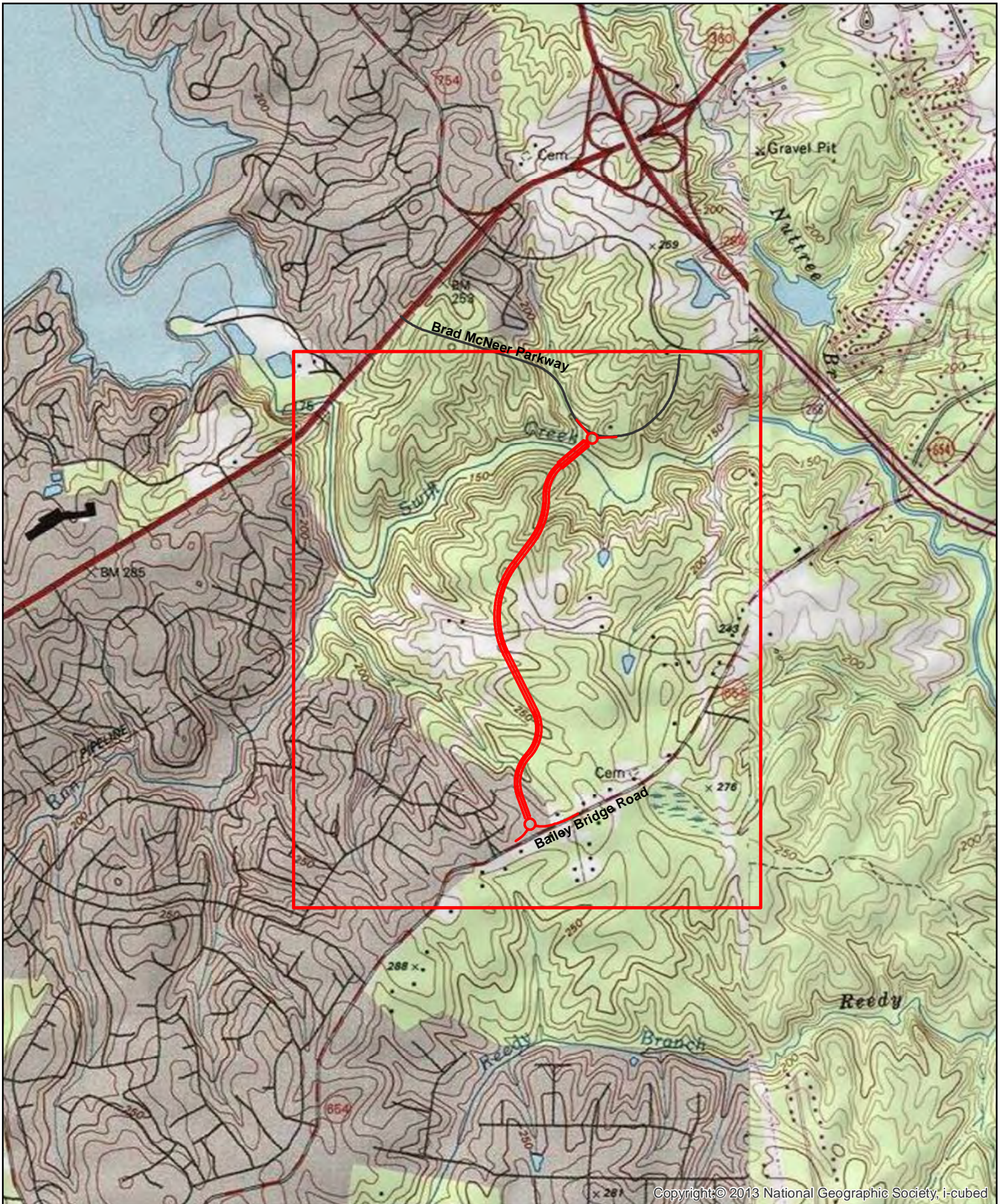




— Approximate Limits of Construction
■ Trees to be Timbered (Total Area: 14.49 Acres)

Bailey Bridge Connector Project Approximate Limits of Construction and Tree Timbering

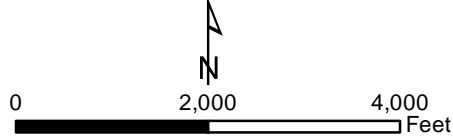




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- Approximate Project Vicinity
- Locally Preferred Alignment

Bailey Bridge Connector
USGS Quad: Hallsboro, VA



Alex Nies

From: ernie.aschenbach@dgif.virginia.gov on behalf of ProjectReview (DGIF), rr <projectreview@dgif.virginia.gov>
Sent: Monday, March 30, 2020 1:08 PM
To: Alex Nies; faulknerc@chesterfield.gov; Palmer Stearns; David Bova; rr ProjectReview (DGIF); Jonathan.Liss@vdot.virginia.gov; Daniel Redgate; Angel Deem
Subject: Fwd: FW: Federal Project: STP-5A27(616) - Bailey Bridge Connector Project - NEPA Scoping Request
Attachments: Bailey_Bridge_Scoping_Request20200324.pdf

ESSLog 40443; Consultant/locality administered VDOT Rte 0000-020-820 preliminary scoping request for Bailey Bridge Connector Project in Chesterfield County, VA

Thank you for submitting a preliminary scoping request for the above-referenced project. Your request was forwarded to my attention. We have reviewed this consultant/locality request for a preliminary scoping review. This is a proposed road on new location.

Our customary response to requests for preliminary scoping reviews is: Due to staffing limitations, we are typically unable to review and provide preliminary scoping comments on projects that are not currently involved in one of the regulatory review processes for which we are a formal consulting agency (see <https://www.dgif.virginia.gov/environmental-programs/environmental-services-section/>). If your project subsequently requires a permit or environmental review which involves our Department, we will provide comments through that process to the appropriate agencies. Thank you for soliciting our review of your project. It is customary for us to invite you to conduct your own review of your project through the Virginia Fish and Wildlife Information Service (VAFWIS) at: <https://www.dgif.virginia.gov/environmental-programs/fish-and-wildlife-information-section/> and <https://vafwis.dgif.virginia.gov/fwis/>.

According to our records, the federal Threatened state Threatened (FTST) yellow lance mussel was known from Swift Creek near the Rte 360 crossing. Based on the preliminary info, if instream work becomes necessary we recommend a habitat assessment. Depending on the results, we may recommend a mussel survey (both habitat assessment and survey should be performed) in accordance with <https://www.dgif.virginia.gov/wp-content/uploads/mussel-guidelines-11-2018.pdf>. If wetland or stream impacts become necessary, we anticipate a Joint Permit Application (JPA) will be distributed for agency review. We will review the JPA and provide comments as appropriate.

If tree removal or forest management is anticipated, project design and construction should adhere to our standard protocols for bat habitat assessment and protection at: <http://www.dgif.virginia.gov/wildlife/bats/little-brown-bat-tri-colored-bat-winter-habitat-roosts-application/> and; <http://www.dgif.virginia.gov/wildlife/bats/northern-long-eared-bat-application/>.

Incidental take and best management practices to protect bats: In addition, the project should incorporate the recommendations in the Department's Guidance Document on Best Management Practices for Conservation of Little Brown Bats and Tri-Colored Bats, at: https://www.dgif.virginia.gov/wp-content/uploads/LBBA_TCBA_Guidance.pdf.

If the project proponent elects not to adhere to these recommendations, they may opt to prepare a Conservation Plan to address incidental take of these state-endangered bats. For additional guidance we recommend the proponent refer to our Best Management Practices referenced above, and contact DGIF's Bat Biologist, Rick Reynolds, at (540) 248-9360.

Depending on the proposed scope of work, we may recommend proposed instream work adhere to a Time of Year Restriction (TOYR = no instream work) protective of resources under our purview. See our website for

more information explaining TOYRs: <https://www.dgif.virginia.gov/wp-content/uploads/media/Time-of-Year-Restrictions.pdf>.

We recommend strict adherence to E&S controls during all land-disturbing activities, and disposal of all debris at a suitable upland site.

I will be your central DGIF point of contact and will facilitate review of your proposed project with our regional biologists. Although our staff is currently telecommuting in response to the COVID19 pandemic, you are welcome to email me any questions and additional information. Please direct all correspondence to my attention at ProjectReview@dgif.virginia.gov.

Thanks.



Ernie Aschenbach

Environmental Services Biologist

P 804.367.2733

Email: Ernie.Aschenbach@dgif.virginia.gov

Virginia Department of Game & Inland Fisheries

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A 7870 Villa Park Drive, P.O. Box 90778, Henrico, VA 23228-0778

www.dgif.virginia.gov

On Tue, Mar 24, 2020 at 9:45 AM Ryan Brown <ryan.brown@dgif.virginia.gov> wrote:

fyi

From: Alex Nies <anies@atcspc.com>

Sent: Tuesday, March 24, 2020 9:44 AM

To: RYAN.BROWN@DGIF.VIRGINIA.GOV

Subject: Federal Project: STP-5A27(616) - Bailey Bridge Connector Project - NEPA Scoping Request

Good morning,

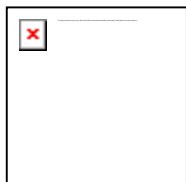
The Chesterfield Department of Transportation (CDOT), in cooperation with the Virginia Department of Transportation (VDOT) and the Federal Highway Administration (FHWA), is initiating a study to assess the potential environmental impacts associated with the proposed Bailey Bridge Connector Project (see attached map).

As part of that effort we are asking for your input on any issues or concerns regarding resources under your jurisdiction or interested within the project area. Please review the attached documents and provide comments as appropriate. The documents are also available at the following link:

<https://documentcloud.adobe.com/link/track?uri=urn%3Aaaid%3Aascds%3AUS%3A0970089a-68d5-46c1-bfaa-db12962463c5>

Please feel free to send responses directly to me at this email and contact me should you have any questions or concerns.

Thank you,



Alex Nies

Project Manager, Environmental & Noise Abatement Services

4470 Cox Road, Suite 105 | Glen Allen, VA 23060
O: 804-476-0378 | D: 804-351-5289 | C: 814-881-2873

atcsplc.com | [Facebook](#) | [LinkedIn](#) | [Twitter](#)

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NEPA Evaluation Questionnaire – Natural Resources

Bailey Bridge Connector Project, Chesterfield County, Virginia
VDOT Project Number: 0000-020-820; UPC No. 111713

Please respond to the following questions in your area of expertise or if you have knowledge or information pertinent to the project planning process:

1. What constraints, if any, would you recommend for establishing a study area boundary in which to analyze the indirect and cumulative impacts to potentially affected resources?
2. Does your agency possess any data regarding any of the following that you believe should be taken into account when considering indirect and cumulative effects:
 - Permitted or approved wetland or stream impacts and/or delineated wetlands
 - Critical habitat
 - Protected species/habitat
 - Protected lands
 - Other protected resources
3. Please provide input on positive and negative indirect effects that could occur if this project is completed (within the study area) for the following (include any pertinent reports or documents that support your conclusions):
 - Induced growth
 - Economic development and investment
 - Improved storm water management
4. Does your agency possess any historic aerial imagery or mapping (i.e. NWI historical mapping) that might be useful while conducting this environmental study?
5. Please provide any additional comments or feedback that you feel may be beneficial to the development of this study.

May 19, 2020

Mr. Ernie Aschenbach
Department of Game and Inland Fisheries
7870 Villa Park Drive, Suite 400
Henrico, VA 23228

Subject: BBC Ph 1 - Bailey Bridge Connector, Brad McNeer Connector, Chesterfield County,
Virginia

Dear Mr. Aschenbach,

The Chesterfield Department of Transportation (CDOT), in cooperation with the Virginia Department of Transportation (VDOT), and the Federal Highway Administration (FHWA) is coordinating this federally funded / SmartScale Project through the environmental review process, including obtaining clearances for any impacts to threatened or endangered species. We would appreciate your input on any species of concern within the vicinity of the project described below.

The proposed project includes the construction of the Bailey Bridge Connector from Bailey Bridge Road to Brad McNeer Parkway as a two-lane road with eight-foot shoulders. The project will construct two roundabouts, one at the intersection with Brad McNeer Parkway and the other at the intersection with Bailey Bridge Road. The improvements will include a ten-foot shared-use path and a bridge over Swift Creek. Stormwater management facilities will be provided as needed. The Bailey Bridge Connector is identified in the Chesterfield County Thoroughfare Plan, in the STIP, and the CLRP.

A project area map is enclosed for your information.

Please submit your response to my attention at anies@atcsplc.com. We look forward to your reply.

Sincerely,



Alexander J. Nies
Environmental Specialist

Attachments:

- DGIF Comments Received from Project Scoping Request
- Project Area Map
- Map of Search Location in VaFWIS Database
- VaFWIS Initial Project Assessment Report
- Map showing location of Bald Eagle nests according to CCB's VaEagles Nest Locator
- Aerial photo of the area with project limits delineated

Alex Nies

From: ernie.aschenbach@dgif.virginia.gov on behalf of ProjectReview (DGIF), rr <projectreview@dgif.virginia.gov>
Sent: Monday, March 30, 2020 1:08 PM
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Ernie Aschenbach

Environmental Services Biologist

P 804.367.2733

Email: Ernie.Aschenbach@dgif.virginia.gov

Virginia Department of Game & Inland Fisheries

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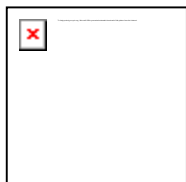
The Chesterfield Department of Transportation (CDOT), in cooperation with the Virginia Department of Transportation (VDOT) and the Federal Highway Administration (FHWA), is initiating a study to assess the potential environmental impacts associated with the proposed Bailey Bridge Connector Project (see attached map).

As part of that effort we are asking for your input on any issues or concerns regarding resources under your jurisdiction or interested within the project area. Please review the attached documents and provide comments as appropriate. The documents are also available at the following link:

<https://documentcloud.adobe.com/link/track?uri=urn%3Aaaid%3Aascds%3AUS%3A0970089a-68d5-46c1-bfaa-db12962463c5>

Please feel free to send responses directly to me at this email and contact me should you have any questions or concerns.

Thank you,



Alex Nies

Project Manager, Environmental & Noise Abatement Services

4470 Cox Road, Suite 105 | Glen Allen, VA 23060
O: 804-476-0378 | D: 804-351-5289 | C: 814-881-2873

atcsplc.com | [Facebook](#) | [LinkedIn](#) | [Twitter](#)

CLIENT ▪ EMPLOYEE ▪ COMPANY ▪ COMMUNITY

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[- Title VI Compliance -](#)

NEPA Evaluation Questionnaire – Natural Resources

Bailey Bridge Connector Project, Chesterfield County, Virginia
VDOT Project Number: 0000-020-820; UPC No. 111713

Please respond to the following questions in your area of expertise or if you have knowledge or information pertinent to the project planning process:

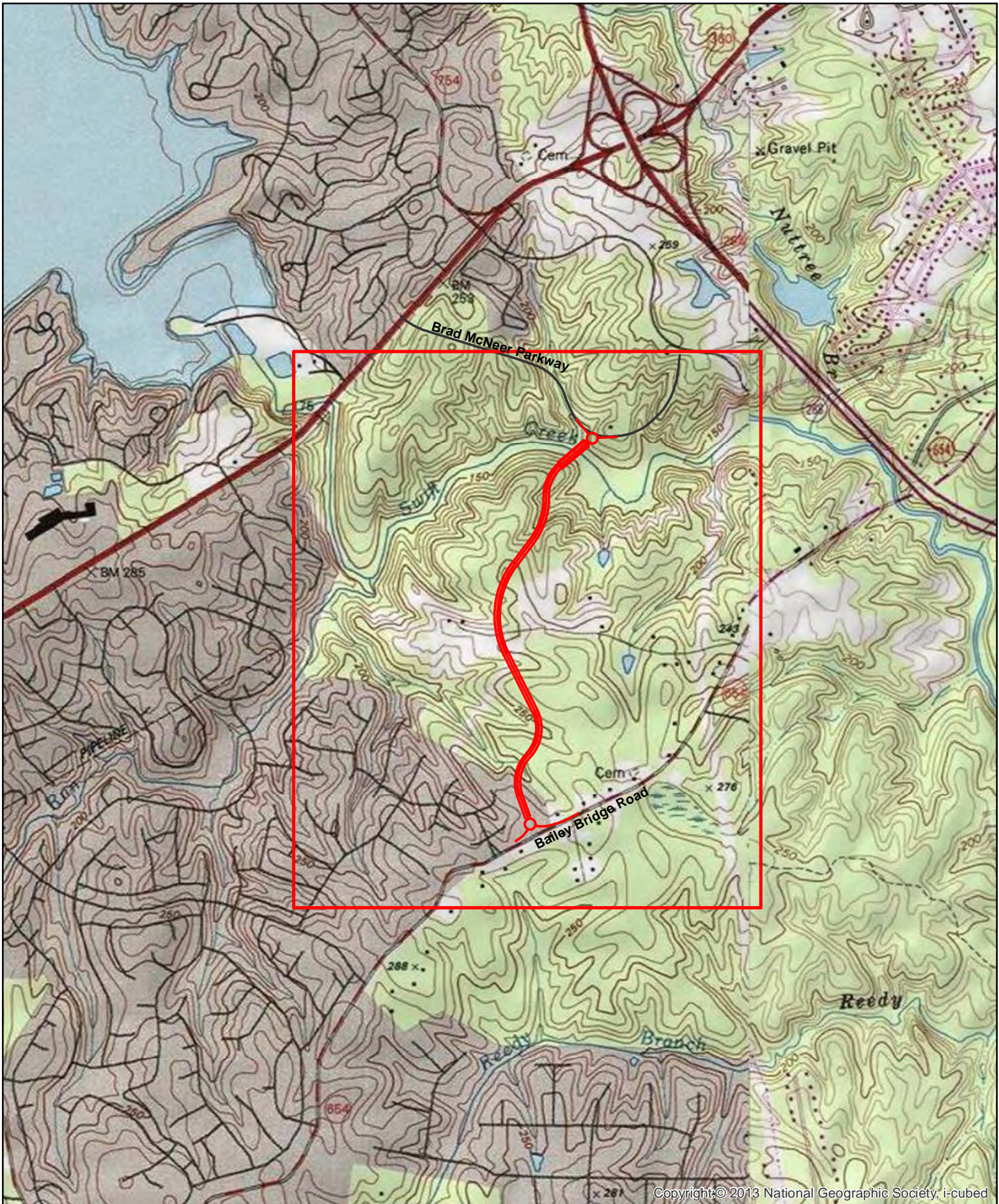
1. What constraints, if any, would you recommend for establishing a study area boundary in which to analyze the indirect and cumulative impacts to potentially affected resources?

2. Does your agency possess any data regarding any of the following that you believe should be taken into account when considering indirect and cumulative effects:
 - Permitted or approved wetland or stream impacts and/or delineated wetlands
 - Critical habitat
 - Protected species/habitat
 - Protected lands
 - Other protected resources

3. Please provide input on positive and negative indirect effects that could occur if this project is completed (within the study area) for the following (include any pertinent reports or documents that support your conclusions):
 - Induced growth
 - Economic development and investment
 - Improved storm water management

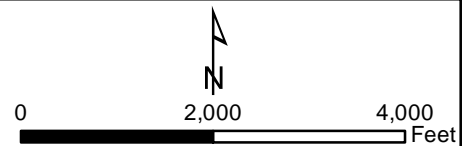
4. Does your agency possess any historic aerial imagery or mapping (i.e. NWI historical mapping) that might be useful while conducting this environmental study?

5. Please provide any additional comments or feedback that you feel may be beneficial to the development of this study.

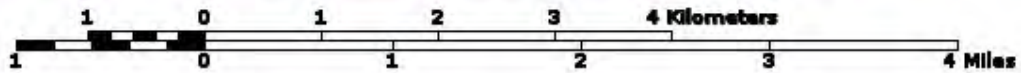


- Approximate Project Vicinity
- Locally Preferred Alignment

Bailey Bridge Connector
USGS Quad: Hallsboro, VA



Map of Search Area in VaFWIS Database



VaFWIS Initial Project Assessment Report Compiled on 5/19/2020,[Help](#)

10:46:55 AM

Known or likely to occur within a **2 mile radius around point 37.4071490 -77.6346815**
in **041 Chesterfield County, VA**

[View Map of
Site Location](#)

456 Known or Likely Species ordered by Status Concern for Conservation
(displaying first 20) (19 species with Status* or Tier I** or Tier II**)

BOVA Code	Status*	Tier**	Common Name	Scientific Name	Confirmed	Database(s)
010032	FESE	Ib	Sturgeon, Atlantic	Acipenser oxyrinchus		BOVA
050022	FTST	Ia	Bat, northern long-eared	Myotis septentrionalis		BOVA
060029	FTST	IIa	Lance, yellow	Elliptio lanceolata	Yes	BOVA,SppObs
050020	SE	Ia	Bat, little brown	Myotis lucifugus		BOVA
050027	SE	Ia	Bat, tri-colored	Perimyotis subflavus		BOVA
040096	ST	Ia	Falcon, peregrine	Falco peregrinus		BOVA
040293	ST	Ia	Shrike, loggerhead	Lanius ludovicianus		BOVA
020002	ST	IIa	Treefrog, barking	Hyla gratiosa		BOVA
040292	ST		Shrike, migrant loggerhead	Lanius ludovicianus migrans		BOVA
030063	CC	IIIa	Turtle, spotted	Clemmys guttata	Yes	BOVA,SppObs
030031	CC	IIIc	Kingsnake, scarlet	Lampropeltis elapsoides		BOVA
010077		Ia	Shiner, bridle	Notropis bifrenatus		BOVA
040213		Ic	Owl, northern saw-whet	Aegolius acadicus		BOVA
040052		IIa	Duck, American black	Anas rubripes		BOVA
040029		IIa	Heron, little blue	Egretta caerulea caerulea		BOVA
040036		IIa	Night-heron, yellow-crowned	Nyctanassa violacea violacea		BOVA
040320		IIa	Warbler, cerulean	Setophaga cerulea		BOVA
040140		IIa	Woodcock, American	Scolopax minor		BOVA
040105		IIb	Rail, king	Rallus elegans		BOVA
010131		IIIa	Eel, American	Anguilla rostrata	Yes	BOVA,SppObs

To view **All 456 species** [View 456](#)

*FE=Federal Endangered; FT=Federal Threatened; SE=State Endangered; ST=State Threatened; FP=Federal Proposed; FC=Federal Candidate; CC=Collection Concern

**I=VA Wildlife Action Plan - Tier I - Critical Conservation Need; II=VA Wildlife Action Plan - Tier II - Very High Conservation Need; III=VA Wildlife Action Plan - Tier III - High Conservation Need; IV=VA Wildlife Action Plan - Tier IV - Moderate Conservation Need
Virginia Wildlife Action Plan Conservation Opportunity Ranking:
a - On the ground management strategies/actions exist and can be feasibly implemented.;

b - On the ground actions or research needs have been identified but cannot feasibly be implemented at this time.;

c - No on the ground actions or research needs have been identified or all identified conservation opportunities have been exhausted.

Bat Colonies or Hibernacula: **Not Known**

Anadromous Fish Use Streams

N/A

Colonial Water Bird Survey

N/A

Threatened and Endangered Waters

N/A

Managed Trout Streams

N/A

Bald Eagle Concentration Areas and Roosts

N/A

Bald Eagle Nests

N/A

Habitat Predicted for Aquatic WAP Tier I & II Species

N/A

Habitat Predicted for Terrestrial WAP Tier I & II Species

N/A

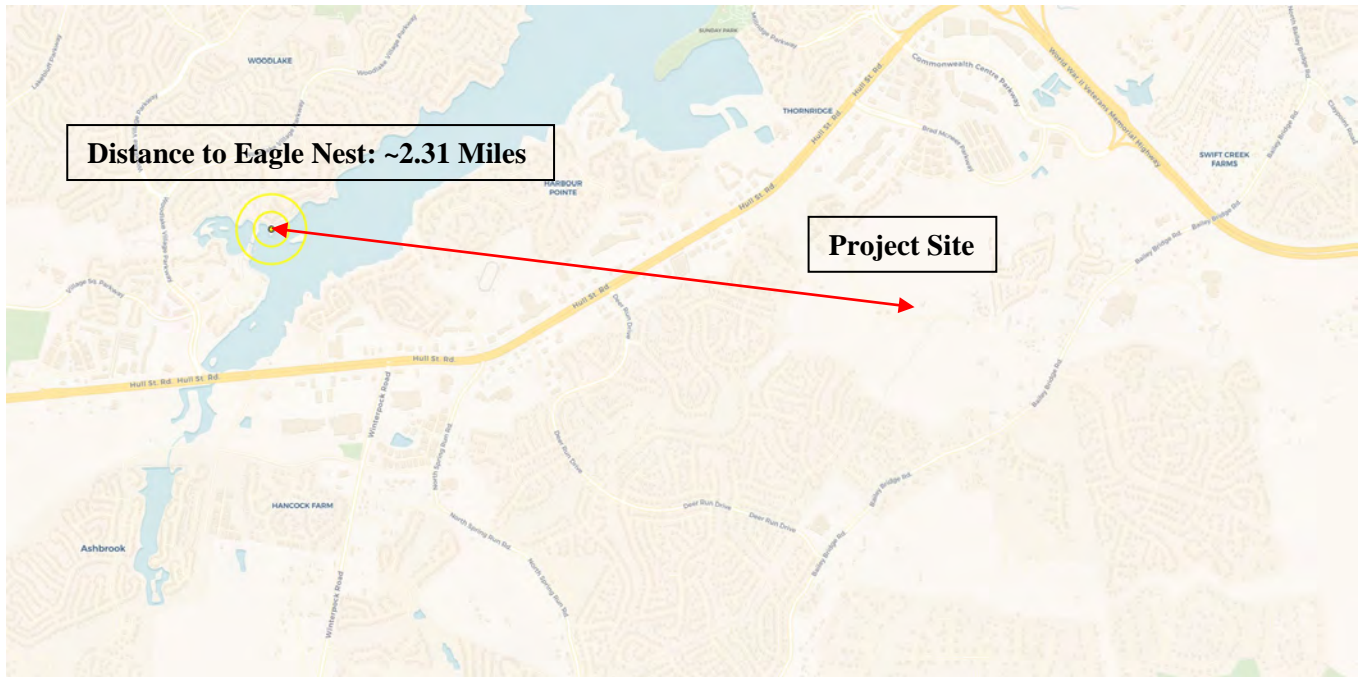
Public Holdings: (1 names)

Name	Agency	Level
Pocahontas State Forest	VA Dept. of Conservation and Recreation	State

PixelSize=64; Anadromous=0.055021; BECAR=0.024393; Bats=0.023262; Buffer=0.09769; County=0.105418; Impediments=0.035633; Init=0.15604; PublicLands=0.097768; SppObs=0.375622; TEWaters=0.056781; TierReaches=0.063118; TierTerrestrial=0.120536; Total=1.321852; Tracking_BOVA=0.150407; Trout=0.037983



CCB Mapping Portal



Layers: VA Eagle Nest Locator, VA Eagle Nest Buffers

Map Center [longitude, latitude]: [-77.65179634094238, 37.407732743940855]

Map Link:

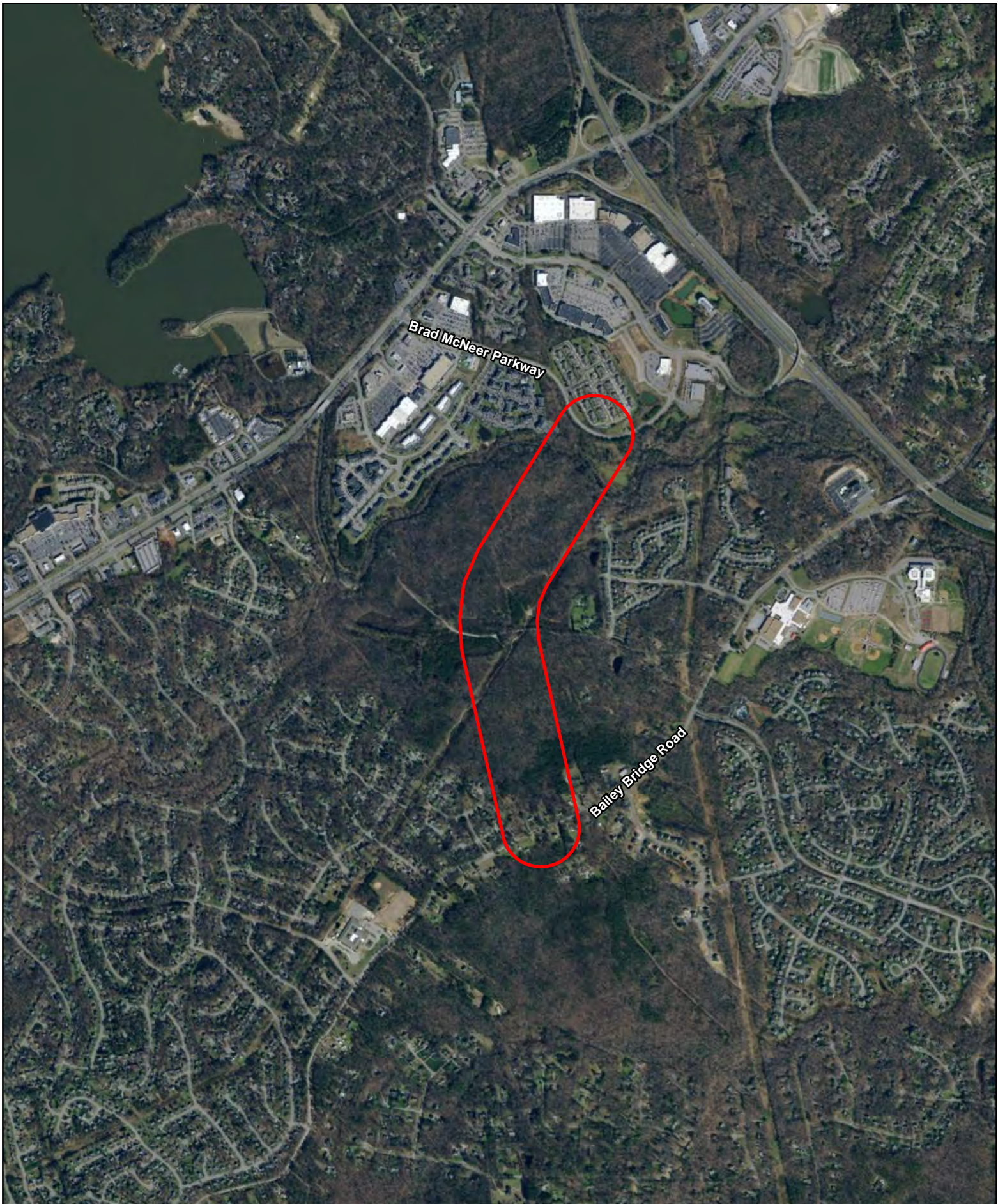
https://ccbbirds.org/maps/#layer=VA+Eagle+Nest+Locator&layer=VA+Eagle+Nest+Buffers&zoom=15&lat=37.407732743940855&lng=-77.65179634094238&legend=legend_tab_7c321b7e-e523-11e4-aaa0-0e0c41326911&base=Street+Map+%28OSM%2FCarto%29

Report Generated On: 05/19/2020

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Report generated by [The Center for Conservation Biology Mapping Portal](#).

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Brad McNeer Parkway

Bailey Bridge Road

 Project Study Area

Bailey Bridge Connector Project

VDOT Project Number: 0000-020-820; UPC No. 111713
USGS Quad: Hallsboro, VA



0 2,000 4,000 Feet

Matthew J. Strickler
Secretary of Natural Resources

Clyde E. Cristman
Director



Rochelle Altholz
*Deputy Director of
Administration and Finance*

Russell W. Baxter
*Deputy Director of
Dam Safety & Floodplain
Management and Soil & Water
Conservation*

Thomas L. Smith
Deputy Director of Operations

COMMONWEALTH of VIRGINIA
DEPARTMENT OF CONSERVATION AND RECREATION

April 23, 2020

Chessa Faulkner
Chesterfield County
9800 Government Center Parkway
Chesterfield, VA 23832

Re: VDOT 0000-020-820, UPC 111713, Bailey Bridge Connector Project Scoping

Dear Ms. Faulkner:

The Department of Conservation and Recreation's Division of Natural Heritage (DCR) has searched its Biotics Data System for occurrences of natural heritage resources from the area outlined on the submitted map. Natural heritage resources are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations.

According to the information currently in Biotics, natural heritage resources have not been documented within the submitted project boundary including a 100 foot buffer. The absence of data may indicate that the project area has not been surveyed, rather than confirm that the area lacks natural heritage resources. In addition, the project boundary does not intersect any of the predictive models identifying potential habitat for natural heritage resources.

In addition, the proposed project will fragment two C5 Ecological Cores as identified in the Virginia Natural Landscape Assessment (<https://www.dcr.virginia.gov/natural-heritage/vaconvisvnl>), one of a suite of tools in Virginia ConservationVision that identify and prioritize lands for conservation and protection.

Ecological Cores are areas of unfragmented natural cover with at least 100 acres of interior that provide habitat for a wide range of species, from interior-dependent forest species to habitat generalists, as well as species that utilize marsh, dune, and beach habitats. Cores also provide benefits in terms of open space, recreation, water quality (including drinking water protection and erosion prevention), and air quality (including carbon sequestration and oxygen production), along with the many associated economic benefits of these functions. The cores are ranked from C1 to C5 (C5 being the least ecologically relevant) using many prioritization criteria, such as the proportions of sensitive habitats of natural heritage resources they contain.

Fragmentation occurs when a large, contiguous block of natural cover is dissected by development, and other forms of permanent conversion, into one or more smaller patches. Habitat fragmentation results in biogeographic changes that disrupt species interactions and ecosystem processes, reducing biodiversity and habitat quality due to limited recolonization, increased predation and egg parasitism, and increased invasion by weedy species.

Therefore minimizing fragmentation is a key mitigation measure that will reduce deleterious effects and preserve the natural patterns and connectivity of habitats that are key components of biodiversity. DCR recommends

600 East Main Street, 24th Floor | Richmond, Virginia 23219 | 804-786-6124

*State Parks • Soil and Water Conservation • Outdoor Recreation Planning
Natural Heritage • Dam Safety and Floodplain Management • Land Conservation*

efforts to minimize edge in remaining fragments, retain natural corridors that allow movement between fragments and designing the intervening landscape to minimize its hostility to native wildlife (natural cover versus lawns). Mapped cores in the project area can be viewed via the Virginia Natural Heritage Data Explorer, available here: <http://vanhde.org/content/map>.

There are no State Natural Area Preserves under DCR's jurisdiction in the project vicinity.

Under a Memorandum of Agreement established between the Virginia Department of Agriculture and Consumer Services (VDACS) and the DCR, DCR represents VDACS in comments regarding potential impacts on state-listed threatened and endangered plant and insect species. The current activity will not affect any documented state-listed plants or insects.

New and updated information is continually added to Biotics. Please re-submit project information and map for an update on this natural heritage information if the scope of the project changes and/or six months has passed before it is utilized.

The Virginia Department of Game and Inland Fisheries (VDGIF) maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters that may contain information not documented in this letter. Their database may be accessed from <http://vafwis.org/fwis/> or contact Ernie Aschenbach at 804-367-2733 or Ernie.Aschenbach@dgif.virginia.gov.

Should you have any questions or concerns, please contact me at 804-225-2429. Thank you for the opportunity to comment on this project.

Sincerely,



Tyler Meader
Natural Heritage Locality Liaison

CC: DEQ-OEIR

May 19, 2020

Rene S. Hypes
Project Review Coordinator
DCR Division of Natural Heritage
600 E Main St, 24th Floor
Richmond, Virginia 23219

Subject: BBC Ph 1 - Bailey Bridge Connector, Brad McNeer Connector, Chesterfield County, Virginia

Dear Ms. Hypes,

The Chesterfield Department of Transportation (CDOT), in cooperation with the Virginia Department of Transportation (VDOT), and the Federal Highway Administration (FHWA) is coordinating this development through the environmental review process, including obtaining clearances for any impacts to threatened or endangered species. We would appreciate your input on any species of concern within the vicinity of the project described below.

The proposed project includes the construction of the Bailey Bridge Connector from Bailey Bridge Road to Brad McNeer Parkway as a two-lane road with eight-foot shoulders. The project will construct two roundabouts, one at the intersection with Brad McNeer Parkway and the other at the intersection with Bailey Bridge Road. The improvements will include a ten-foot shared-use path and a bridge over Swift Creek. Stormwater management facilities will be provided as needed. The Bailey Bridge Connector is identified in the Chesterfield County Thoroughfare Plan, in the STIP, and the CLRP.

A project area map is enclosed for your information.

Please submit your response to my attention at anies@atcsplc.com. We look forward to your reply.

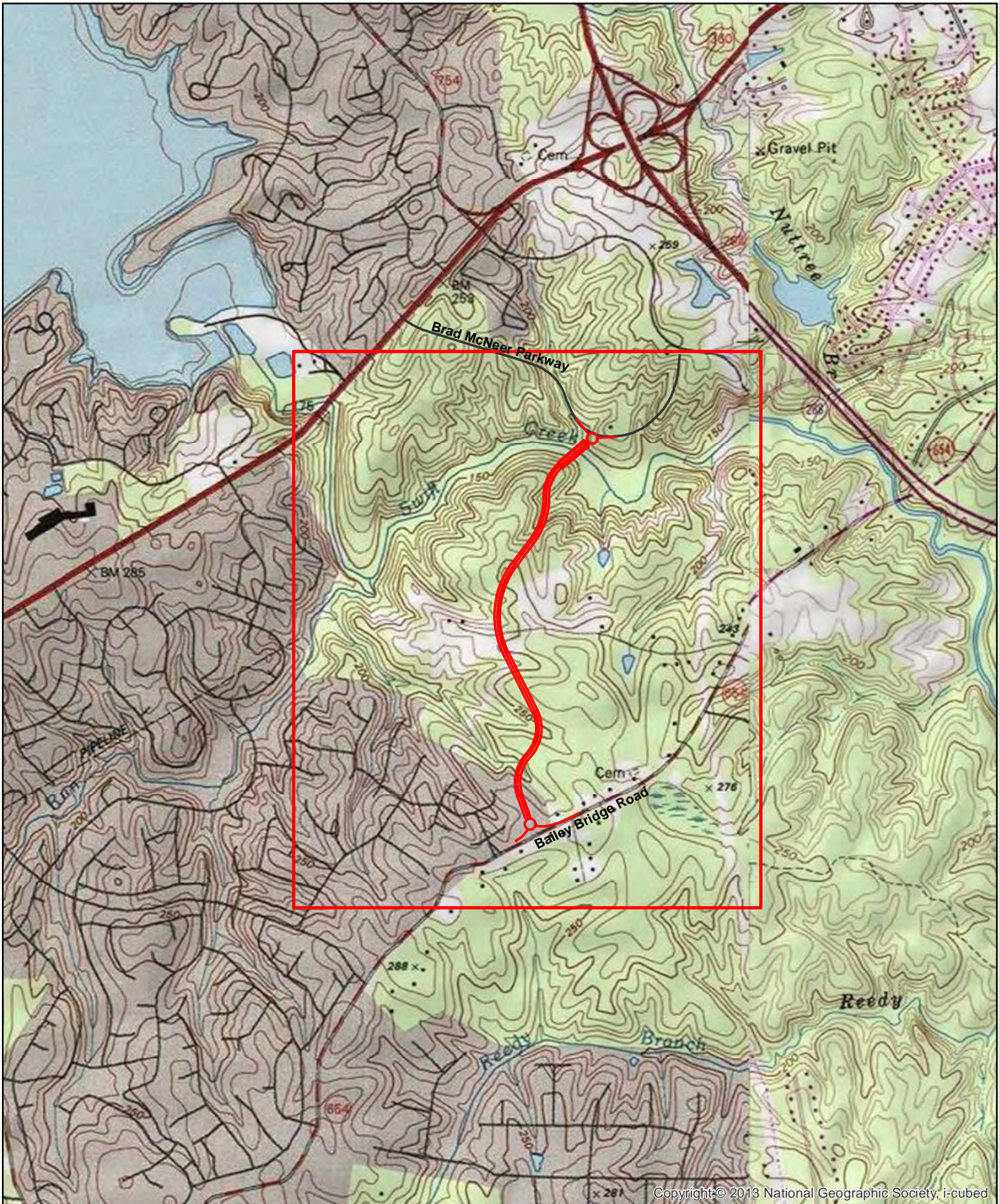
Sincerely,



Alexander J. Nies
Environmental Specialist

Attachments:

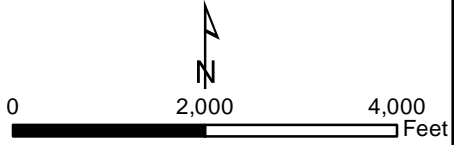
- Project Area Map
- Virginia Natural Heritage Resource Summary



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- Approximate Project Vicinity
- Locally Preferred Alignment

Bailey Bridge Connector
 USGS Quad: Hallsboro, VA



Natural Heritage Resources

Your Criteria

Taxonomic Group: Select All

Federal Legal Status: LE - Listed endangered,LT - Listed threatened

State Legal Status: LE - Listed endangered,LT - Listed threatened

County: Chesterfield

Search Run: 5/19/2020 10:26:00 AM

Result Summary

Total Species returned: 4

Total Communities returned: 0

Click scientific names below to go to NatureServe report.

Click column headings for an explanation of species and community ranks.

Common Name/Natura l Community	Scientific Name	Scientific Name Linked	Global Conservation Status Rank	State Conservation Status Rank	Federal Legal Status	State Legal Status	Statewide Occurrences	Virginia Coastal Zone
Chesterfield								
AMPHIBIANS								

Common Name/Natural Community	Scientific Name	Scientific Name Linked	Global Conservation Status Rank	State Conservation Status Rank	Federal Legal Status	State Legal Status	Statewide Occurrences	Virginia Coastal Zone
Barking Treefrog	Hyla gratiosa	Hyla gratiosa	G5	S2	None	LT	25	Y
BIVALVIA (MUSSELS)								
Green Floater	Lasmigona subviridis	Lasmigona subviridis	G3	S2	None	LT	65	Y
FISH								
Atlantic Sturgeon	Acipenser oxyrinchus	Acipenser oxyrinchus	G3	S2	LE	LE	2	Y
VASCULAR PLANTS								
Sensitive Joint-vetch	Aeschynome ne virginica	Aeschynome ne virginica	G2	S2	LT	LT	22	Y

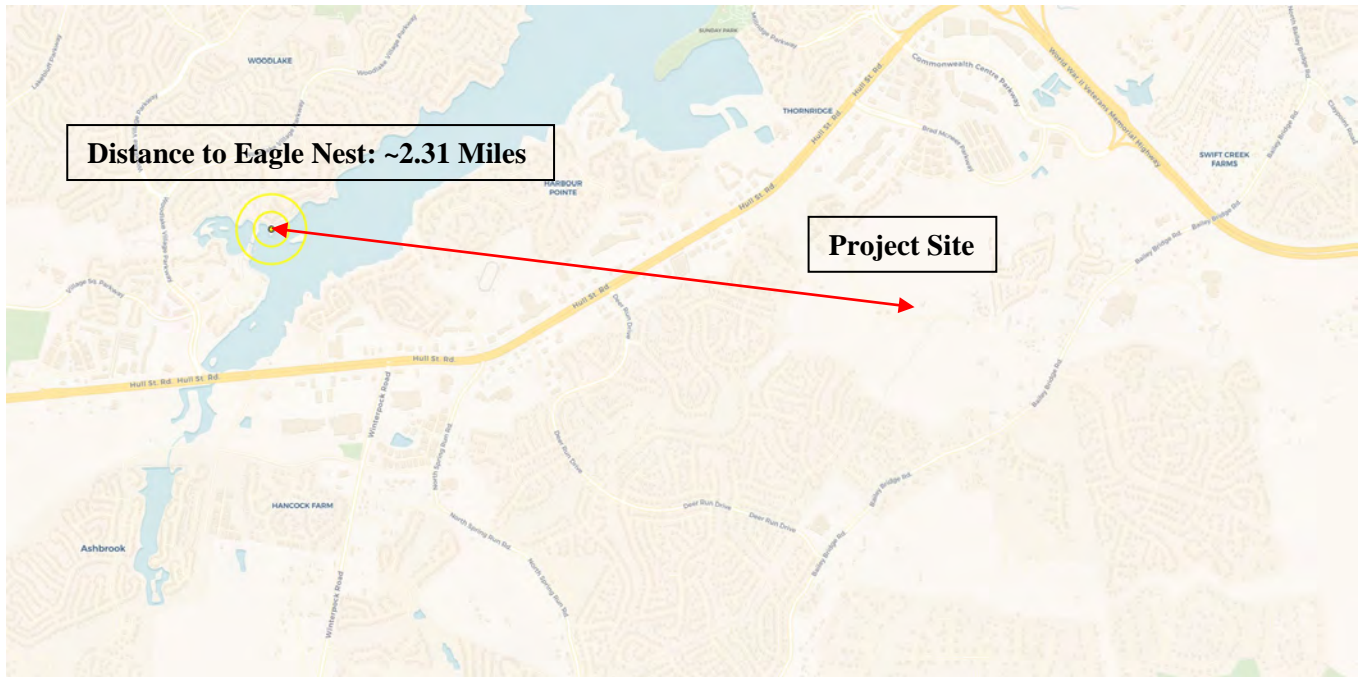
Note: On-line queries provide basic information from DCR's databases at the time of the request. They are NOT to be substituted for a project review or for on-site surveys required for environmental assessments of specific project areas.

For Additional Information on locations of Natural Heritage Resources please submit an [information request](#).

To Contribute information on locations of natural heritage resources, please fill out and submit a [rare species sighting form](#).



CCB Mapping Portal



Layers: VA Eagle Nest Locator, VA Eagle Nest Buffers

Map Center [longitude, latitude]: [-77.65179634094238, 37.407732743940855]

Map Link:

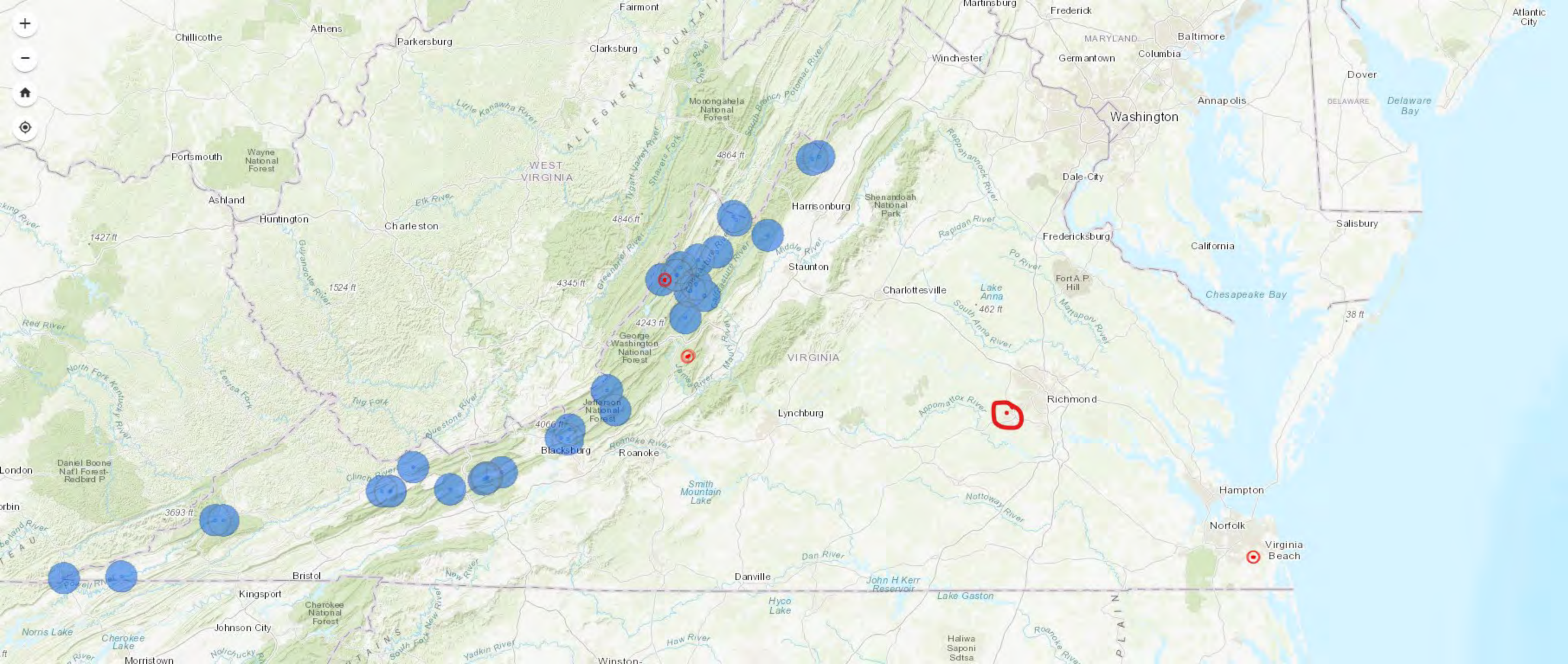
https://ccbbirds.org/maps/#layer=VA+Eagle+Nest+Locator&layer=VA+Eagle+Nest+Buffers&zoom=15&lat=37.407732743940855&lng=-77.65179634094238&legend=legend_tab_7c321b7e-e523-11e4-aaa0-0e0c41326911&base=Street+Map+%28OSM%2FCarto%29

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Report generated by [The Center for Conservation Biology Mapping Portal](#).

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1427 ft

1524 ft

3693 ft

4345 ft

4066 ft

4864 ft

4846 ft

4243 ft

462 ft

38 ft

100-Year Floodplain Memo

Memo

To: Bailey Bridge Connector Project File

Date: June 17, 2020

Re: Bailey Bridge Connector – 100-Year Floodplain Memo

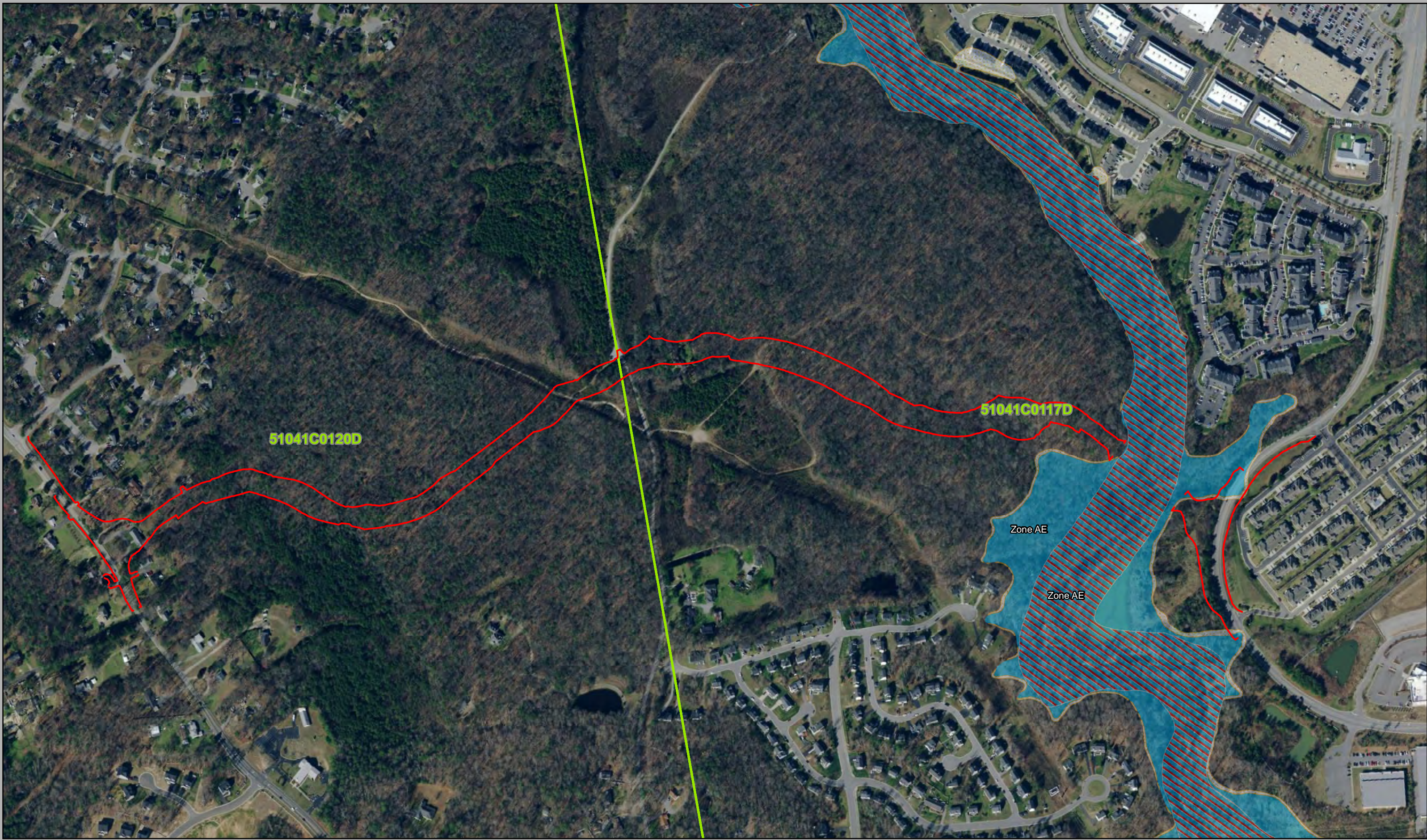
Project Description

The proposed project includes the construction of the Bailey Bridge Connector from Bailey Bridge Road to Brad McNeer Parkway as a two-lane road with eight-foot shoulders. The project will construct two roundabouts, one at the intersection with Brad McNeer Parkway and the other at the intersection with Bailey Bridge Road. The improvements will include a ten-foot shared-use path and a bridge over Swift Creek. Stormwater management facilities will be provided as needed. The Bailey Bridge Connector is identified in the Chesterfield County Thoroughfare Plan, in the STIP, and the CLRP.


Floodplains Evaluation

Floodplains are protected by Executive Order 11988: Floodplain Management. The purpose of this Executive Order is to prevent adverse impacts associated with the occupancy and modification of floodplains. The intent of these requirements is to ensure that work within the 100-year floodplain will not increase downstream flooding. Floodplains are regulated by the Federal Emergency Management Agency (FEMA) and administered by local floodplain management ordinances within individual localities.

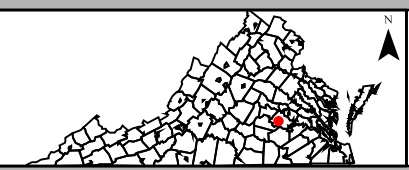
This project encompasses two Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM), Numbers 51041C0117D, dated 12-17-2012 and 51041C0120D, dated 12-17-2012. There are no impacted floodplains or floodways on FEMA FIRM Number 51041C0120D. The northern limits of the project area are located within a floodplain and floodway based on a review of the FEMA FIRM Number 51041C0117D. This is an AE Floodway associated with Swift Creek. Proper planning and design considerations will be taken to ensure that this project will not permanently increase downstream flooding and that any temporary impacts during construction of the bridge over Swift Creek will be handled in accordance with all necessary floodplain/floodway regulations.



— Construction Limits
FEMA Designated Flood Zones
 Without Base Flood Elevation (BFE) Zone A, V, A99 / With BFE or Depth
 Regulatory Floodway (Zone AE, AO, AH, VE, AR)
 0.2 Percent Annual Chance Flood Hazard Area


 0 400 800
 Feet

Bailey Bridge Connector Project
FEMA Designated Floodplains Overview



Wetland/Streams Memo

Memo

To: Bailey Bridge Connector Project File

Date: June 17, 2020

Re: Bailey Bridge Connector – Wetlands/Streams Memo

Project Description

The proposed project includes the construction of the Bailey Bridge Connector from Bailey Bridge Road to Brad McNeer Parkway as a two-lane road with eight-foot shoulders. The project will construct two roundabouts, one at the intersection with Brad McNeer Parkway and the other at the intersection with Bailey Bridge Road. The improvements will include a ten-foot shared-use path and a bridge over Swift Creek. Stormwater management facilities will be provided as needed. The Bailey Bridge Connector is identified in the Chesterfield County Thoroughfare Plan, in the STIP, and the CLRP.

Streams and Wetlands Evaluation

As required by the Clean Water Act (CWA) and Section 404 of the Clean Water Act, a Corps permit is required for the discharge of dredged or fill material into waters of the United States. Many waterbodies and wetlands in the nation are waters of the United States and are subject to the Corps' Section 404 regulatory authority. Field investigations were conducted to identify and delineate Waters of the United States within the study area of the Bailey Bridge Connector project for use in obtaining a Corps permit. The following is a summary of the delineated Waters of the United States within the Bailey Bridge Connector study area:

Wetland and Stream Totals	
Wetland Type	Area (Acres)
PEM	0.05
PFO	0.22
Stream Type	Length (feet)
Ephemeral Stream (R6)	220
Intermittent Stream (R4)	400
Perennial Stream (R3)	2,300

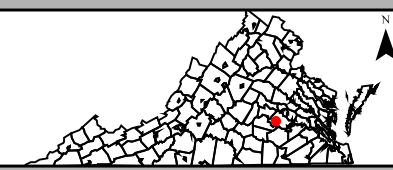
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Stream Type	Length (Feet)
Ephemeral Stream (R6)	220
Intermittent Stream (R4)	400
Perennial Stream (R3)	2,300

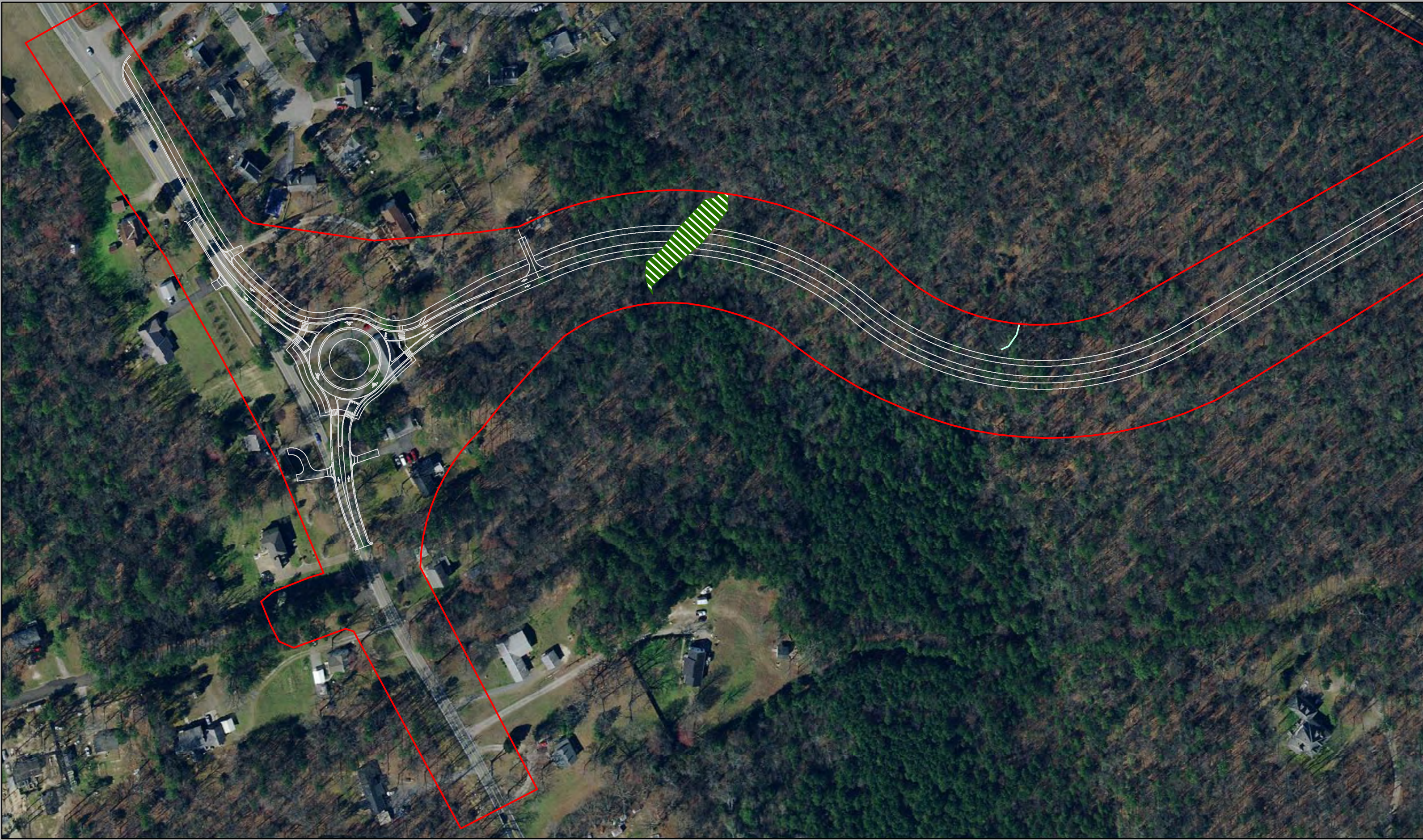


Stream Type	Wetland Type
Perennial Stream (R3)	PEM
Intermittent Stream (R4)	PFO
Ephemeral Stream (R6)	Locally Preferred Alternative
Culvert	

0 450 900 Feet

Bailey Bridge Connector Project Stream and Wetland Mapping Overview

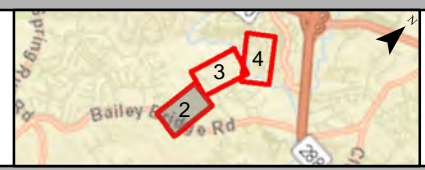




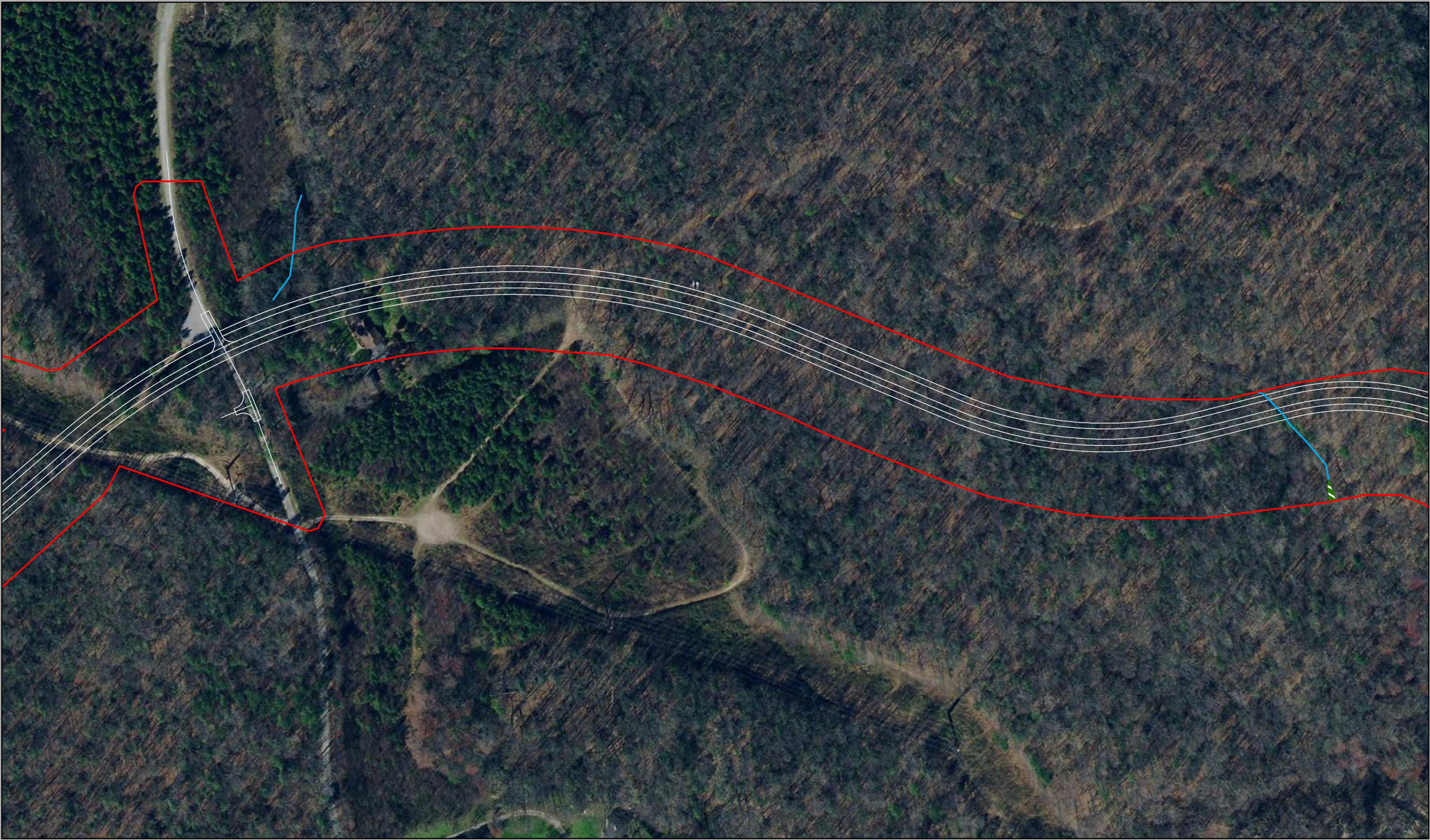
Stream Type	Wetland Type
Perennial Stream (R3)	PEM
Intermittent Stream (R4)	PFO
Ephemeral Stream (R6)	Locally Preferred Alternative
Culvert	Project Limits

Bailey Bridge Connector Project Stream and Wetland Mapping

Sheet 2 of 4

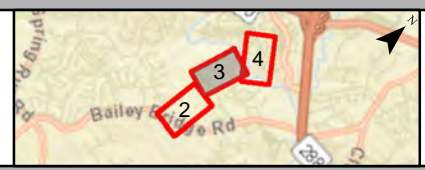


Date: 02/26/2020

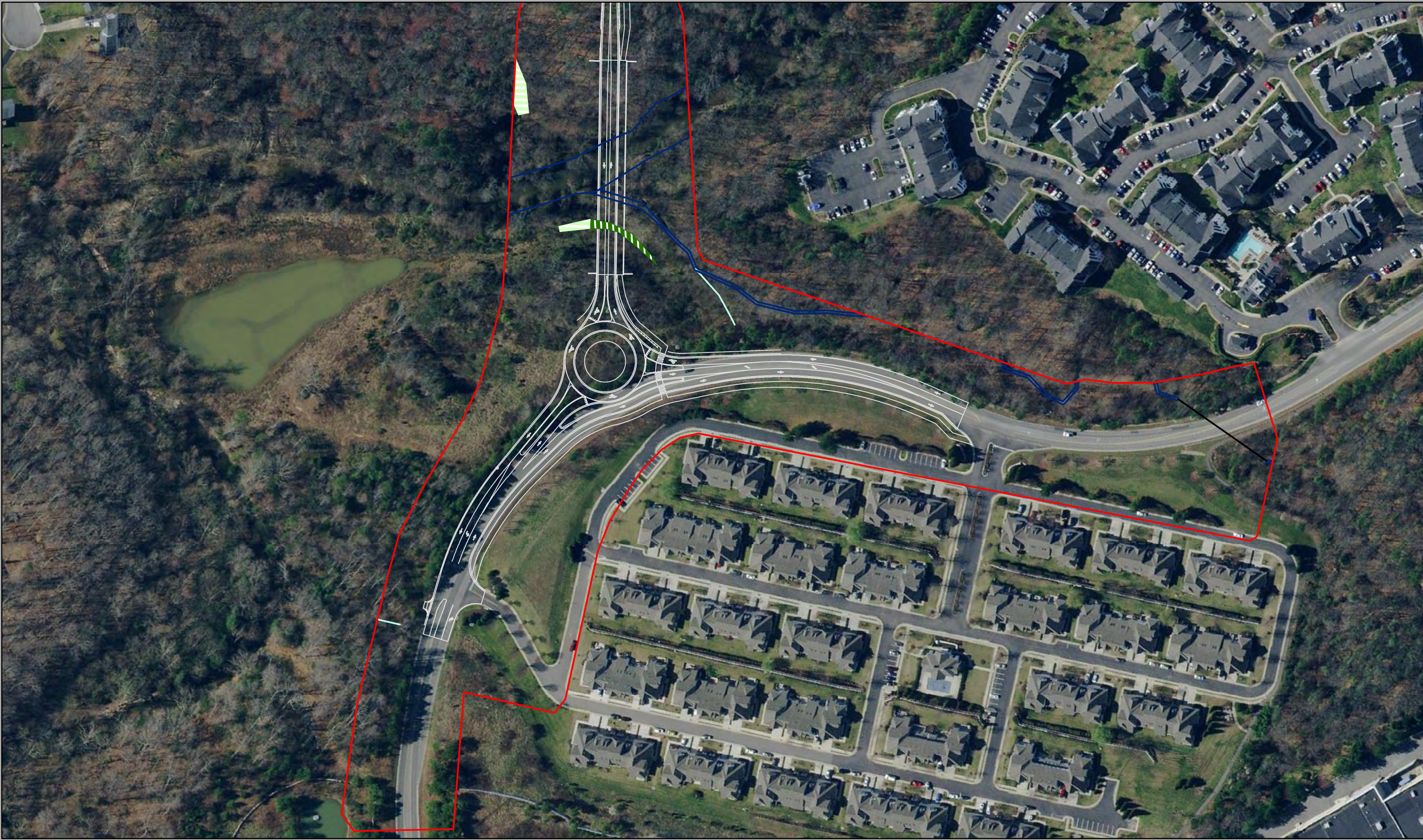


Stream Type	Wetland Type
Perennial Stream (R3)	PEM
Intermittent Stream (R4)	PFO
Ephemeral Stream (R6)	Locally Preferred Alternative
Culvert	Project Limits

Bailey Bridge Connector Project
Stream and Wetland Mapping
 Sheet 3 of 4



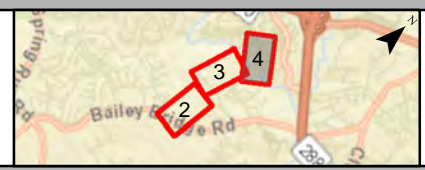
Date: 02/26/2020



Stream Type	Wetland Type
Perennial Stream (R3)	PEM
Intermittent Stream (R4)	PFO
Ephemeral Stream (R6)	Locally Preferred Alternative
Culvert	Project Limits

0 150 300
Feet

**Bailey Bridge Connector Project
Stream and Wetland Mapping**



Agricultural/Open Space Memo

Memo

To: Bailey Bridge Connector Project File

Date: March 12, 2020

Re: Bailey Bridge Connector – Agricultural / Open Space Memo

Project Description

The proposed project includes the construction of the Bailey Bridge Connector from Bailey Bridge Road to Brad McNeer Parkway as a two-lane road with eight-foot shoulders. The project will construct two roundabouts, one at the intersection with Brad McNeer Parkway and the other at the intersection with Bailey Bridge Road. The improvements will include a ten-foot shared-use path and a bridge over Swift Creek. Stormwater management facilities will be provided as needed. The Bailey Bridge Connector is identified in the Chesterfield County Thoroughfare Plan, in the STIP, and the CLRP.

Open Space Easements and Agricultural and Forestal District Evaluation

Open Space Easements are legal agreements between landowners and a public body, such as the Virginia Outdoors Foundation in Virginia. These agreements limit development rights while still allowing landowners to live on and manage the land for farming, forestry, wildlife habitat, and other compatible uses. Agricultural and Forestal districts are rural conservation zones reserved for the production of agricultural products, timber, and the maintenance of open space land as an economic and environmental resource. Creation of districts is voluntary and required cooperation between landowners and the local government.

After evaluation of the proposed project it was determined that there are no Open Space Easements or Agricultural and Forestal Districts present within or adjacent to the project limits and no additional evaluation or coordination is necessary.

Farmland Memo

Memo

To: Bailey Bridge Connector Project File

Date: March 12, 2020

Re: Bailey Bridge Connector Project – Farmland Memo

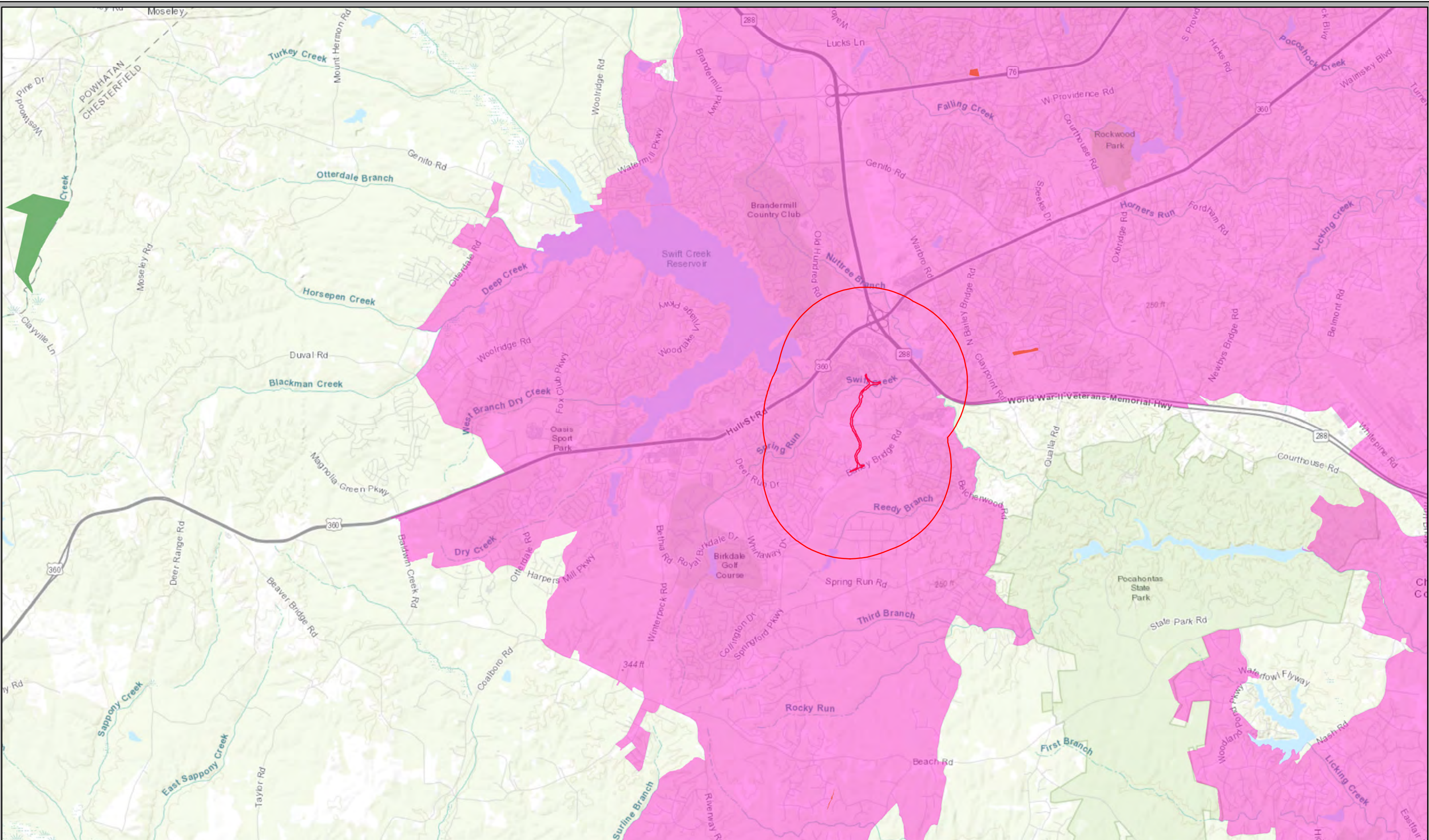
Project Description

The proposed project includes the construction of the Bailey Bridge Connector from Bailey Bridge Road to Brad McNeer Parkway as a two-lane road with eight-foot shoulders. The project will construct two roundabouts, one at the intersection with Brad McNeer Parkway and the other at the intersection with Bailey Bridge Road. The improvements will include a ten-foot shared-use path and a bridge over Swift Creek. Stormwater management facilities will be provided as needed. The Bailey Bridge Connector is identified in the Chesterfield County Thoroughfare Plan, in the STIP, and the CLRP.

Prime Farmlands and Farmlands of Statewide Importance

As part of the National Environmental Policy Act (NEPA) process and as required by the Farmland Protection Policy Act (FPPA), projects which utilize federal funds are required to evaluate impacts that may involve permanent conversion of prime and important farmlands to nonagricultural uses. In order to determine land uses throughout the project study area, land classification data from the Bureau of the Census was utilized. The Bureau of the Census classifies geographical areas into two fundamental categories, urban and rural. Urban areas include densely populated areas, residential, commercial, and non-residential land uses and are classified as either Urbanized Areas (UAs) consisting of 50,000 or more people, or Urban Clusters (UCs) consisting of at least 2,500 and less than 50,000 people. Rural areas include all lands not included within UAs or UCs.

After evaluation, it was determined that the entire project area is located in a U.S. Census designated Urbanized Area (UA) and therefore coordination regarding prime farmlands or farmlands of statewide importance is complete and NRCS Form CPA-106 is not required. See attached Census mapping and constraints mapping for additional details.



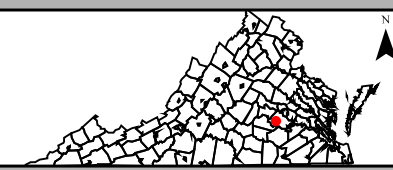
Construction Limits
 1 Mile Buffer
 Census Designated Urbanized Areas
 Open Space Easements
 Agricultural Forestal Districts

Note: No Open Space Easements or Agricultural Forestal Districts present within one mile of the Project.

0 1 2 Miles

Bailey Bridge Connector Project

Census Designated Urbanized Areas, Open Space Easement and Agricultural Forestal District Mapping



Invasive Species Memo

Memo

To: Bailey Bridge Connector Project File

Date: May 20, 2020

Re: Bailey Bridge Connector Project – Invasive Species Memo

Project Description

The proposed project includes the construction of the Bailey Bridge Connector from Bailey Bridge Road to Brad McNeer Parkway as a two-lane road with eight-foot shoulders. The project will construct two roundabouts, one at the intersection with Brad McNeer Parkway and the other at the intersection with Bailey Bridge Road. The improvements will include a ten-foot shared-use path and a bridge over Swift Creek. Stormwater management facilities will be provided as needed. The Bailey Bridge Connector is identified in the Chesterfield County Thoroughfare Plan, in the STIP, and the CLRP.

Invasive Species

The Federal Highway Administration (FHWA) states that, “Highway corridors provide opportunities for the movement of invasive species through the landscape.” In order to help prevent the spread of invasive species Executive Order 13112 (E.O.), was established and calls all Executive Branch agencies to work to prevent and control the introduction and spread of invasive species within the United States or elsewhere. As part of this E.O., Federal agencies cannot authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species in the United States or elsewhere unless all reasonable measures to minimize risk of harm have been analyzed and considered.

There is potential for invasive species to become established along the limits of disturbance of this project during and following construction. Section 244.02(c) of VDOT’s Road and Bridge Specifications (2016) includes provisions intended to control noxious weeds (which includes non-native and invasive species).

While rights of ways are at risk from invasive species colonization from adjacent properties, implementing the above provisions would reduce or minimize potential for introduction, proliferation, and spread of invasive species. Additionally, the implementation of best management practices (BMPs) for erosion/sediment control and abatement of pollutant loading would minimize indirect impacts to adjoining communities and habitat by reducing excess nutrient loads that could encourage invasive species proliferation.

As part of this invasive species analysis, a field view was performed on February 20, 2020 to note the presence of invasive species within the project corridor, during which no species of concern were observed. Therefore, coordination regarding invasive species is considered complete.

Air Quality Technical Report

ATCS[®]

AIR QUALITY ANALYSIS TECHNICAL REPORT

Bailey Bridge Connector Project

Chesterfield County, Virginia

UPC: 111713

Prepared For:



Chesterfield Transportation Department
9800 Government Center Parkway
Chesterfield, VA 23832

And:



Virginia Department of Transportation
Environmental Division
1401 East Broad Street
Richmond, Virginia 23219

June 2020

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List of Abbreviations

ADT	Average Daily Traffic
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CO	Carbon Monoxide
EA	Environmental Assessment
EPA	Environmental Protection Agency
FHWA	Federal Highway Administration
LOS	Level of Service
MOVES	Motor Vehicle Emissions Simulator
MSAT	Mobile Source Air Toxics
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NO ₂	Nitrogen Dioxide
PA	Programmatic Agreement
Pb	Lead
PM ₁₀	Coarse Particulate Matter
PM _{2.5}	Fine Particulate Matter
ppb	Parts Per Billion
ppm	Parts Per Million
SO ₂	Sulfur Dioxide
TSD	Technical Support Document
VDEQ	Virginia Department of Environmental Quality
VDOT	Virginia Department of Transportation
VMT	Vehicle Miles Traveled

Executive Summary

The Chesterfield County Department of Transportation (CDOT) and the Virginia Department of Transportation (VDOT), in cooperation with the Federal Highway Administration (FHWA), are studying the potential environmental consequences of the proposed Bailey Bridge Connector Project in Chesterfield County, Virginia. The primary purpose for the proposed project is to relieve congestion on the US 360 corridor which is currently over capacity and to provide an alternate route for areas along Bailey Bridge Road to Route 288 and amenities along Route 360 (Hull Street). Route 360 west of Route 288 is a congested corridor plagued by heavy delays and crashes during rush hours. Route 360 carries over 78,000 vehicles a day, significantly more than on Route 288 between Powhite Parkway and Route 360 (60,000 vehicles per day). As growth continues to the west, traffic on Route 360 is projected to exceed 120,000 vehicles per day by the year 2040. This is comparable to the amount of traffic currently on Interstate 95 near Route 10 in Chester. The Bailey Bridge Connector will reduce traffic volumes on Route 360, provide direct access to businesses and services along Route 360, and provide a safe travel alternative for pedestrians and cyclists.

In accordance with the National Environmental Policy Act (NEPA), the project identified multiple solution alternatives, analyzed the feasibility of the alternatives to meet the project purpose and need, and identified the projected traffic conditions, right of way needs, and potential business impacts. Based on this analysis, the proposed connector on new alignment with roundabout intersections is the best alternative that can meet the purpose and need of this project.

The proposed improvements were assessed for potential air quality impacts and conformity consistent with all applicable air quality regulations and requirements. All models, methods and assumptions applied in modeling and analyses were made consistent with those provided or specified in the VDOT Resource Document. The assessment indicates that the project would meet all applicable air quality requirements of NEPA and, as applicable, federal and state transportation conformity regulations. As such, the project will not cause or contribute to a new violation, increase the frequency or severity of any violation, or delay timely attainment of National Ambient Air Quality Standards (NAAQS) established by the US Environmental Protection Agency (EPA). Additional detail on the analyses conducted for this project is provided below.

Carbon Monoxide (CO): As the project is located in a region that is attainment of the NAAQS for CO, only NEPA applies; EPA project-level (“hot-spot”) transportation conformity requirements do not apply. For the purposes of NEPA, a qualitative analysis was prepared in accordance with Programmatic Agreement (PA) between VDOT and the Virginia Division of the Federal Highway Administration (FHWA Virginia Division). This agreement specifies terms for screening highway projects for potential CO impacts that are currently undergoing environmental studies to meet requirements of NEPA. In addition, the PA establishes the types of projects and project conditions that will not require project-specific modeling or a quantitative air quality analysis to document that they do not cause a violation of NAAQS for CO. As such, these project types and conditions will require only a general qualitative statement to meet project-level air quality requirements that references this agreement and the associated Technical Support Document (TSD), which presents worst-case modeling results for CO that would cover the specific project type and condition.

For purposes of NEPA, the potential for CO impacts from the project in terms of potential violations of the NAAQS was assessed and no potential impacts were identified. More specifically and using a worst-case approach, the roundabout intersections at the northern and southern project termini were considered for project-specific modeling. Since the 2016 PA does not include a roundabout intersection modeling scenario, using a worst-case approach, the roundabouts proposed as part of this project were considered signalized intersections for the purposes of comparing the project to the 2016 PA. Using this worst-case approach, all were determined to not require project-specific hot-spot modeling but could be instead screened out using the “worst-case” modeling parameters that forms the basis for the *VDOT-FHWA PA for Project-Level Air Quality Analyses for Carbon Monoxide*.

Overall, even when assuming worst-case traffic volumes and other modeling inputs, the results indicate that ambient levels of CO in the vicinity of the project are expected to decline significantly over time and to remain below both the one-hour and the eight-hour NAAQS. In general, emissions and ambient concentrations drop significantly over time (through the Existing (2019) and design years (2047)) due to continued fleet turnover to vehicles constructed to more stringent emission standards. The project therefore is not expected to cause or contribute to a violation of the CO standards.

Particulate Matter (PM): The final rule that establishes the transportation conformity criteria and procedures for determining which transportation projects must be analyzed for local air quality impacts in Fine Particulate Matter (PM_{2.5}) nonattainment and maintenance areas was published March 10, 2006. This project is located in a PM_{2.5} attainment area and therefore, conformity requirements pertaining to PM_{2.5} do not apply.

Mobile Source Air Toxics (MSATs): Federal Highway Administration (FHWA) guidance (2016) specifies MSATs to include *1,3-butadiene, acetaldehyde, acrolein, benzene, diesel particulate matter (diesel PM), ethylbenzene, formaldehyde, naphthalene, and polycyclic organic matter*. Following FHWA guidance, which specifies three possible tiers of analysis and associated criteria depending on project specific information, this project is best characterized as a Tier 1 project for which no meaningful MSAT effects would be expected.

This project involves a CE, and therefore under FHWA guidance is best categorized as a Tier 1 project for which no meaningful MSAT effects would be expected, neither a qualitative nor a quantitative analysis is needed. In addition, this project has been determined to generate minimal air quality impacts for Clean Air Act criteria pollutants and has not been linked with any special MSAT concerns. As such, this project will not result in changes in traffic volumes, vehicle mix, basic project location, or any other factor that would cause a meaningful increase in MSAT impacts of the project from that of the no-build alternative.

Moreover, EPA regulations for vehicle engines and fuels will cause overall MSAT emissions to decline significantly over the next several decades. As noted in the referenced FHWA MSAT guidance, based on regulations now in effect, an analysis of national trends with EPA’s MOVES2014 model forecasts a combined reduction of over 90 percent in the total annual emissions rate for the priority MSAT from 2010 to 2050 while vehicle-miles of travel are projected to increase by over 45 percent. This will both reduce the background level of MSAT as well as the possibility of even minor MSAT emissions from this project.

Indirect Effects and Cumulative Impacts (IECI): A qualitative assessment of the potential for indirect effects and cumulative impacts attributable to this project was conducted. It concluded that the potential effects or impacts are not expected to be significant given available information from pollutant-specific

analyses (CO and MSATs). More specifically, the quantitative assessments for CO (when considering the previously prepared PA) and the qualitative analyses for MSAT impacts can all be considered indirect effects analyses because they look at air quality impacts attributable to the project that occur in the future. They demonstrate that in the future: (1) impacts from CO emissions will not cause or contribute to violations of the CO NAAQS; and (2) the project is considered to have no meaningful MSAT effects and emissions will be significantly lower than they are today.

Regarding the potential for cumulative impacts, EPA's air quality designations for the region reflect, in part, the accumulated mobile source emissions from past and present actions. Since EPA has designated the region to be in attainment for all of the NAAQS, the potential for cumulative impacts associated with the project is not expected to be significant.

Mitigation: Emissions may be produced in the construction of this project from heavy equipment and vehicle travel to and from the site, as well as from fugitive sources. Construction emissions are short-term or temporary in nature. To mitigate these emissions, all construction activities are to be performed in accordance with VDOT *Road and Bridge Specifications*.

The Virginia Department of Environmental Quality (VDEQ) provides general comments for projects by jurisdiction. Their comments in part address mitigation. For the county of Chesterfield, VDEQ comments relating to mitigation are “...all reasonable precautions should be taken to limit the emissions of VOC and NOx. In addition, the following VDEQ air pollution regulations must be adhered to during the construction of this project: 9 VAC 5-130, Open Burning restrictions; 9 VAC 5-45, Article 7, Cutback Asphalt restrictions; and 9 VAC 5-50, Article 1, Fugitive Dust precautions.”

Regional Air Quality Status: The study area is located in the County of Chesterfield. At the time of preparation of this technical report, the United States Environmental Protection Agency's (EPA) Green Book shows the County of Chesterfield to be designated as an attainment area for all criteria pollutants. Notwithstanding that listing in the EPA Green Book, federal conformity requirements, including specifically 40 CFR 93.114 and 40 CFR 93.115, apply for the project as the area in which it is located is one affected by a recent court decision that reinstates conformity requirements nationwide associated with the 1997 ozone NAAQS that had previously been eliminated with the revocation by EPA of that NAAQS in 2015.

The project is currently included in the Richmond Regional Transportation Planning Organization (RRTPO) FY 2018 – 2021 Transportation Improvement Program (UPC # 111713) and the RRTPO 2040 Long-Range Transportation Plan, which received a joint FTA/FHWA conformity finding for the 1997 ozone standard, dated October 29, 2018.

1.0 Introduction

1.1 Project Description

Chesterfield County, in coordination with the Virginia Department of Transportation (VDOT) and the Federal Highway Administration (FHWA), is evaluating the Bailey Bridge Connector Project which proposed the connection of Brad McNeer Parkway with Bailey Bridge Road. The proposed project will reduce traffic volumes on Route 360, provide safe travel alternatives for pedestrians and cyclists and provide a foundation for future improvements in the area.

The project study area can be referenced in **Figure 1**. The project study area spans approximately 1.1 miles from the intersection of Brad McNeer Parkway and Bailey Bridge Road and includes the following proposed design elements:

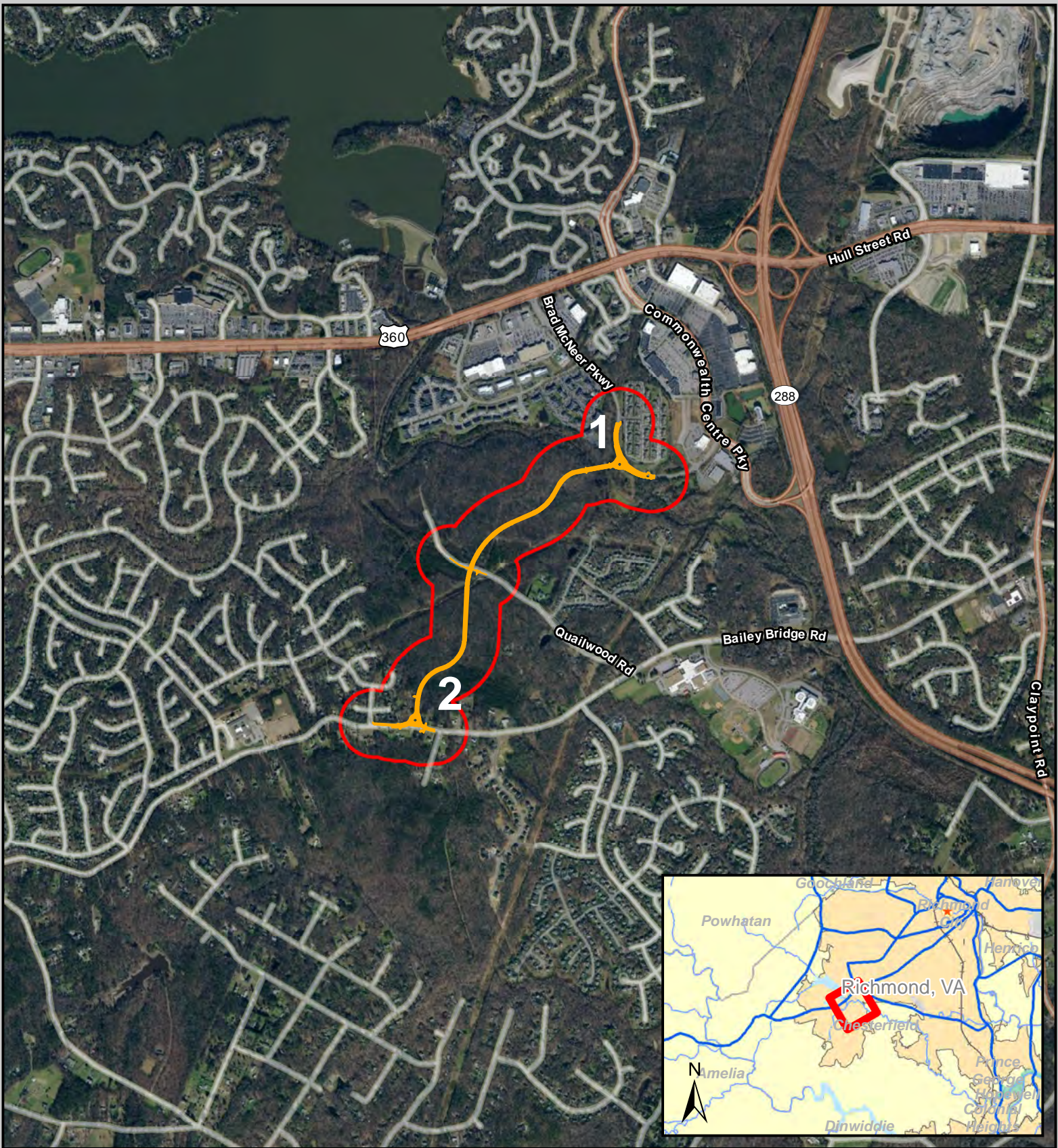
- Proposed roundabout intersection at Brad McNeer Parkway connecting to the proposed Bailey Bridge Connector Road.
- Proposed roundabout intersection at Bailey Bridge Road connecting to the proposed Bailey Bridge Connector Road.

The general concept is to construct a 1.1 mile long, two-lane connector road on new alignment between Bailey Bridge Road and Brad McNeer Parkway to provide direct access to businesses and services along Route 360. In addition, the proposed project will reduce traffic volumes on Route 360, offer safe travel alternatives for pedestrians and cyclists, and provide a foundation for future improvements in the area. Also proposed as part of the project design are roundabouts at both project termini as well as a shared-use path that runs the length of the project.

The Categorical Exclusion (CE) is being prepared in accordance with the National Environmental Policy Act (NEPA), FHWA regulations at 23 Code of Federal Regulations (CFR) § 771 and Technical Advisory T 6640.8, and Council on Environmental Quality (CEQ) guidance at 40 CFR §1500 - 1508.

1.2 Summary of Traffic Data and Forecasts

Table 1 presents a summary of base (2019), and design years (2047) average daily traffic (ADT) forecasts for the project area and includes the studied proposed intersection roundabout. As shown in **Table 1**, when referencing the proposed roundabouts in the project area, the highest peak ADT forecast for the design year is approximately 34,200. Additional traffic data displayed in **Table 1** include AM and PM peak hour data for each of the conditions, as well as skew angles and roadway grade information for each of the approaches for the roundabout intersections.




Bailey Bridge Connector Project

Chesterfield County, Virginia

VDOT UPC: 111713

 Proposed Design

 Study Area

ATCS



0 2,000 4,000 Feet

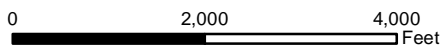


Figure 1
Regional Location Map

Table 1

AM & PM PEAK HOUR AND DAILY TRAFFIC VOLUMES													
Intersection ID	Roundabout / Intersection	Approach	Skew Angle (Degrees)	Grade	Existing (2019) Conditions			Design Year (2047) No-Build Conditions			Design Year (2047) Build Conditions		
					AM Peak Hour	PM Peak Hour	Average Daily Traffic*	AM Peak Hour	PM Peak Hour	Average Daily Traffic*	AM Peak Hour	PM Peak Hour	Average Daily Traffic*
1	Brad McNeer Pkwy at Bailey Bridge Connector	EB	90	0.7%	400	400	2,800	1,100	1,200	8,600	1,100	1,200	8,600
		WB	130	1.4%	600	600	4,500	1,800	1,900	14,100	1,800	1,900	14,100
		NB	140	-1.4%	--	--	--	--	--	--	1,200	1,300	9,300
		SB	--	--	--	--	--	--	--	--	--	--	--
											Sum	32,000	
2	Bailey Bridge Rd at Bailey Bridge Connector	EB	116	-1.4%	800	900	6,200	1,800	1,900	14,100	1,800	1,900	14,100
		WB	116	-3.2%	500	600	3,900	1,200	1,200	8,900	1,200	1,200	8,900
		NB	--	--	--	--	--	--	--	--	--	--	--
		SB	128	2.8%	--	--	--	--	--	--	1,400	1,500	11,200
											Sum	34,200	
Roundabouts proposed as part of this project only contain three legs each resulting in three approaches to each intersection.													
*	1-Way ADT includes entering traffic. It does not include traffic in the opposite direction exiting the intersection.												

2.0 Regulatory Requirements

This section provides an overview of regulations and guidance applicable to the project-level air quality analysis.

2.1 National Environmental Policy Act of 1969

Federal requirements for air quality analyses for transportation projects derive from NEPA and, where applicable, the federal transportation conformity rule (40 CFR Parts 51 and 93). NEPA guidance for air quality analyses for transportation projects may be found on or via the FHWA website for planning and the environment.

2.1.1 FHWA Guidance for Implementing NEPA for Air Quality

For NEPA purposes, general guidance for project-level air quality analyses is provided in the FHWA 1987 Technical Advisory 6640.8A, *“Guidance for Preparing and Processing Environmental and Section 4(f) Documents”*. That guidance focuses on carbon monoxide. FHWA provides separate guidance for mobile source air toxics (MSATs).

2.1.2 Programmatic Agreements

In order to streamline the preparation of project-level air quality analyses conducted for NEPA purposes, VDOT has implemented several programmatic agreements with FHWA. Copies of current agreements are available on the VDOT website and are also referenced below in the following sections.

2.1.2.1 Project Level Air Quality Analyses for Carbon Monoxide

In 2016, FHWA and VDOT executed the *“Programmatic Agreement for Project-Level Air Quality Analyses for Carbon Monoxide”* (2016 FHWA-VDOT PA, or 2016 PA), updating the prior (2009) PA. It specifies technical criteria for determining whether project-specific modeling for carbon monoxide will be needed and was developed based on templates originally created in the 2015 NCHRP study *“Programmatic Agreements for Project-Level Air Quality Analyses”*. As the NCHRP template did not include skewed intersections, the 2016 FHWA-VDOT PA incorporates by reference the thresholds that were established for skewed intersections in the 2009 FHWA-VDOT PA. It is noteworthy that the 2015 NCHRP study report specifically acknowledged that its national-level templates were modeled on the 2009 FHWA-VDOT PA (which includes both a main agreement as well as a Technical Support Document).

The 2009 FHWA-VDOT *“Project-Level Carbon Monoxide Air Quality Studies Agreement”* (2009 PA) was based on the results of extensive modeling of worst-case analyses, which are presented in a separate Technical Support Document. The 2009 PA incorporated new technical criteria and thresholds (based on the worst-case modeling results) and represented a major update to prior agreements executed in 2004 and 2000.

3.0 Ambient Air Quality

3.1 National Ambient Air Quality Standards

Exhibit 3.1.1 presents the National Ambient Air Quality Standards (NAAQS) established by the EPA for criteria air pollutants, namely: carbon monoxide (CO), sulfur dioxide (SO₂), ozone (O₃), particulate matter (PM), nitrogen dioxide (NO₂), and lead (Pb). There are two types of NAAQS —primary and secondary: “Primary standards provide public health protection, including protecting the health of “sensitive” populations such as asthmatics, children, and the elderly. Secondary standards provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.”

Areas that have never been designated by EPA as nonattainment for one or more of the NAAQS are classified as attainment areas, while areas that do not meet one or more of the NAAQS may be designated by EPA as nonattainment areas for that or those criteria pollutants. Areas that have failed to meet the NAAQS in the past but have since re-attained them may be re-designated as attainment (maintenance) areas, which are commonly referred to as maintenance areas.

3.2 Air Quality Attainment Status of Project Area

The study area is located in the County of Chesterfield. At the time of preparation of this technical report, the United States Environmental Protection Agency’s (EPA) Green Book shows the County of Chesterfield to be designated as an attainment area for all criteria pollutants. However, federal conformity requirements, including specifically 40 CFR 93.114 and 40 CFR 93.115, apply for the project as the area in which it is located is one affected by a recent court decision that reinstates conformity requirements nationwide associated with the 1997 ozone NAAQS that had previously been eliminated with the revocation by EPA of that NAAQS in 2015. Based on this federal conformity requirement, the appropriate documentation can be referenced in Section 4.7 of this technical report.

3.3 Air Quality Data and Trends

3.3.1 Carbon Monoxide (CO)

As shown in Exhibit 3.3.1, and due primarily to the implementation of more stringent vehicle emission and fuel quality standards, the national trend in ambient concentrations of CO is and has been downward for decades. The national trend is reflected in the relatively very low ambient CO concentrations observed in Virginia, as summarized in Exhibits 3.3.2 and 3.3.3. Currently, all values in Virginia are well under the one- and eight-hour NAAQS for CO.

3.3.2 Other Criteria Pollutants

VDEQ issues an annual report summarizing air quality monitoring data for the previous year and updating long-term trend data for certain of the criteria pollutants tabulated in Exhibit 3.1.1. Exhibits 3.3.3 through 3.3.6 are excerpts from that report showing ambient air quality trends by pollutant over the previous decade. The trend lines are generally flat or downward, reflecting the benefit of emission reduction measures or programs implemented for both mobile sources (e.g., more stringent emission and fuel

Exhibit 3.1.1: National Ambient Air Quality Standards (US EPA Tabulation)

Pollutant [links to historical tables of NAAQS reviews]	Primary/ Secondary	Averaging Time	Level	Form	
Carbon Monoxide (CO)	primary	8 hours	9 ppm	Not to be exceeded more than once per year	
		1 hour	35 ppm		
Lead (Pb)	primary and secondary	Rolling 3 month average	0.15 µg/m ³ ⁽¹⁾	Not to be exceeded	
Nitrogen Dioxide (NO₂)	primary	1 hour	100 ppb	98th percentile of 1-hour daily maximum concentrations, averaged over 3 years	
	primary and secondary	1 year	53 ppb ⁽²⁾	Annual Mean	
Ozone (O₃)	primary and secondary	8 hours	0.070 ppm ⁽³⁾	Annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years	
Particle Pollution (PM)	PM _{2.5}	primary	1 year	12.0 µg/m ³	annual mean, averaged over 3 years
		secondary	1 year	15.0 µg/m ³	annual mean, averaged over 3 years
		primary and secondary	24 hours	35 µg/m ³	98th percentile, averaged over 3 years
	PM ₁₀	primary and secondary	24 hours	150 µg/m ³	Not to be exceeded more than once per year on average over 3 years
Sulfur Dioxide (SO₂)	primary	1 hour	75 ppb ⁽⁴⁾	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years	
	secondary	3 hours	0.5 ppm	Not to be exceeded more than once per year	

(1) In areas designated nonattainment for the Pb standards prior to the promulgation of the current (2008) standards, and for which implementation plans to attain or maintain the current (2008) standards have not been submitted and approved, the previous standards (1.5 µg/m³ as a calendar quarter average) also remain in effect.

(2) The level of the annual NO₂ standard is 0.053 ppm. It is shown here in terms of ppb for the purposes of clearer comparison to the 1-hour standard level.

(3) Final rule signed October 1, 2015, and effective December 28, 2015. The previous (2008) O₃ standards additionally remain in effect in some areas. Revocation of the previous (2008) O₃ standards and transitioning to the current (2015) standards will be addressed in the implementation rule for the current standards.

(4) The previous SO₂ standards (0.14 ppm 24-hour and 0.03 ppm annual) will additionally remain in effect in certain areas: (1) any area for which it is not yet 1 year since the effective date of designation under the current (2010) standards, and (2) any area for which an implementation plan providing for attainment of the current (2010) standard has not been submitted and approved and which is designated nonattainment under the previous SO₂ standards or is not meeting the requirements of a SIP call under the previous SO₂ standards (40 CFR 50.4(3)). A SIP call is an EPA action requiring a state to resubmit all or part of its State Implementation Plan to demonstrate attainment of the required NAAQS.

Source: Excerpted from: <https://www.epa.gov/criteria-air-pollutants/naaqs-table>, accessed 4/16/2020.

quality standards) and stationary sources (industry etc.). For these figures, pollutants are measured in parts per million (ppm) or parts per billion (ppb).

Exhibit 3.3.1: Ambient Concentrations of Carbon Monoxide in Virginia

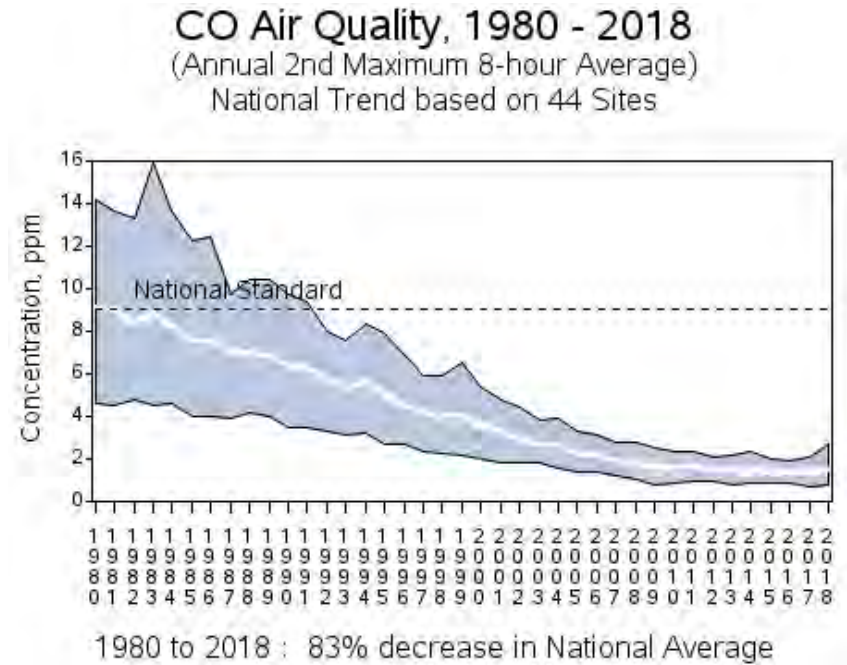
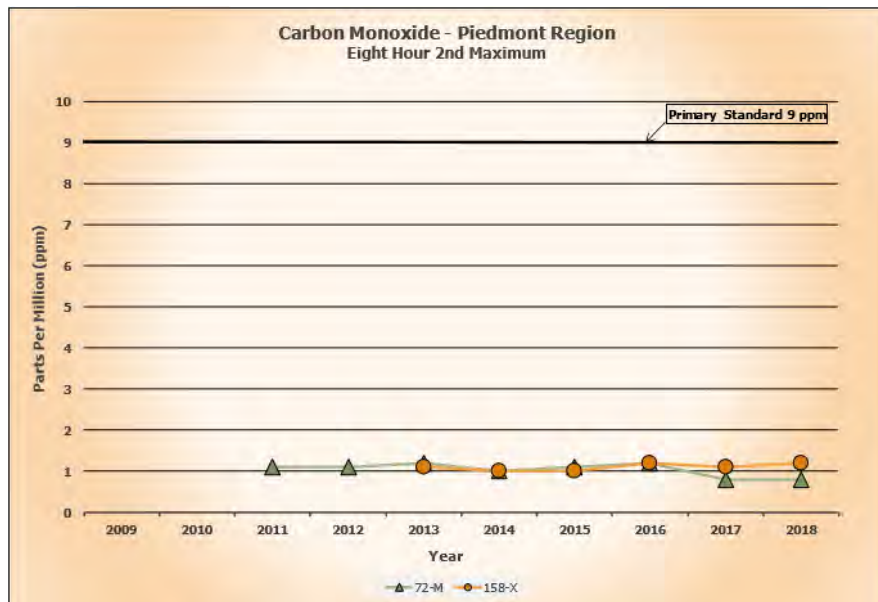


Exhibit 3.3.2: Ambient Concentrations of Carbon Monoxide in Virginia

Site	2018			
	1-Hour Avg. (ppm)		8-Hour Avg. (ppm)	
	1 st Max.	2 nd Max.	1 st Max.	2 nd Max.
(19-A6) Roanoke Co.	0.8	0.8	0.7	0.7
(72-M) Henrico Co.	1.1	1.1	0.8	0.8
(158-X) Richmond	1.4	1.3	1.3	1.2
(179-K) Hampton	0.8	0.7	0.6	0.6
(181-A1) Norfolk	1.8	1.4	1.0	1.0
(46-C2) Fairfax Co.	1.3	1.2	1.0	0.9
(47-T) Arlington Co.	1.6	1.6	1.2	1.2

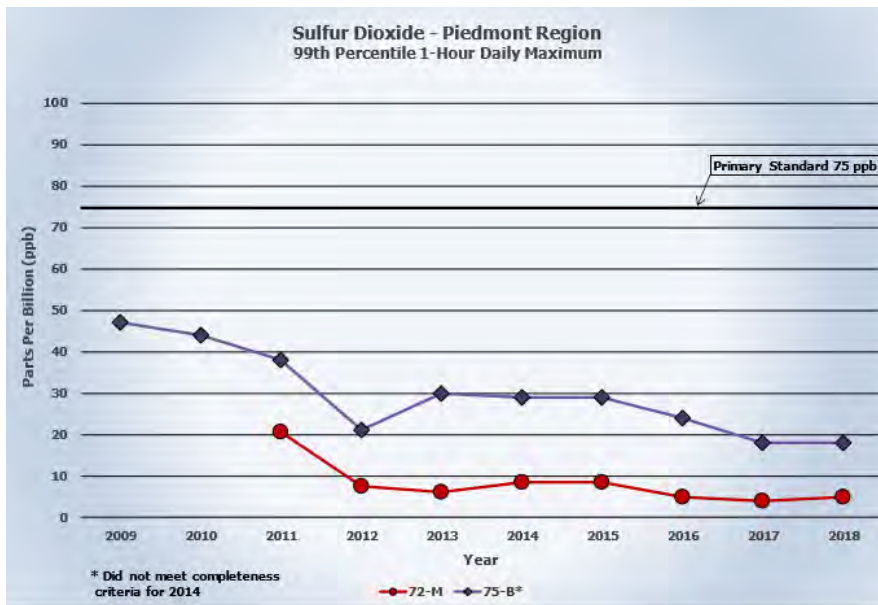
Source: Virginia Department of Environmental Quality, "Virginia Ambient Air Monitoring 2017 Data Report", November 2018. See: <http://www.deq.virginia.gov/Programs/Air/AirMonitoring/Publications.aspx>

Exhibit 3.3.3: Trend in Ambient CO Concentrations



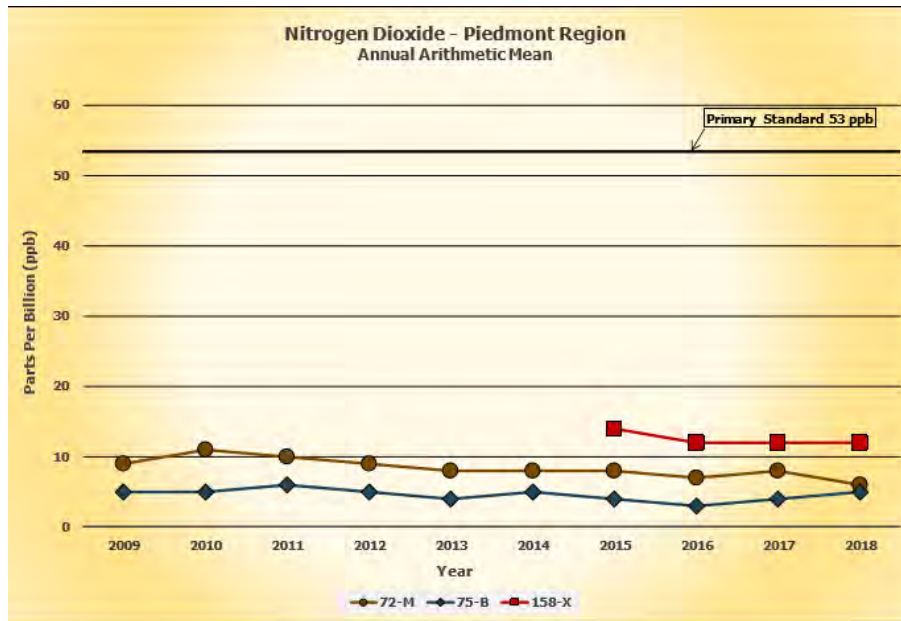
Source: Virginia Department of Environmental Quality, "Virginia Ambient Air Monitoring 2017 Data Report", November 2018. See: <http://www.deq.virginia.gov/Programs/Air/AirMonitoring/Publications.aspx>

Exhibit 3.3.4: Trend for 1-hour Sulfur Dioxide (PPM) – Piedmont Region



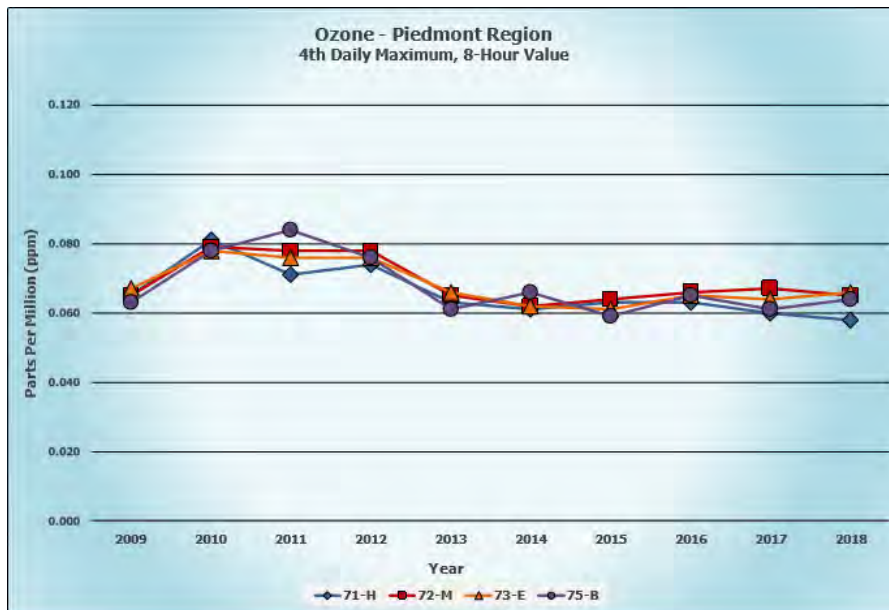
Source: Virginia Department of Environmental Quality, "Virginia Ambient Air Monitoring 2017 Data Report", November 2018. See: <http://www.deq.virginia.gov/Programs/Air/AirMonitoring/Publications.aspx>

Exhibit 3.3.5: Trend for Annual Nitrogen Dioxide (PPM) – Piedmont Region



Source: Virginia Department of Environmental Quality, "Virginia Ambient Air Monitoring 2017 Data Report", November 2018. See: <http://www.deq.virginia.gov/Programs/Air/AirMonitoring/Publications.aspx>

Exhibit 3.3.6: Trend for 8-hour Ozone (PPM) – Piedmont Region



Source: Virginia Department of Environmental Quality, "Virginia Ambient Air Monitoring 2017 Data Report", November 2018. See: <http://www.deq.virginia.gov/Programs/Air/AirMonitoring/Publications.aspx>

4.0 Project Assessment

4.1 Application of the VDOT Resource Document

In 2016, the Department created the “VDOT Resource Document” and associated online data repository to facilitate and streamline the preparation of project-level air quality analyses for purposes of NEPA and conformity. Inter-agency consultation was conducted with FHWA Division and Headquarters and other agencies (including EPA) before the Resource Document was finalized. The Resource Document was updated in 2018 to address changes in applicable regulation and guidance.

When referencing this project, the models, methods/protocols and assumptions as specified or referenced in the VDOT Resource Document were applied without change or without substantive change as defined in the document.

4.2 Carbon Monoxide Assessment

Carbon monoxide is a colorless, odorless gas that is produced by incomplete burning of carbon compounds in fossil fuels (gasoline, natural gas, coal, oil, etc.). Over half of the CO emissions in the country come from motor vehicle exhaust. Other sources include construction equipment, boats, lawnmowers, woodstoves, forest fires, and industrial manufacturing processes (VDEQ, 2015).

Carbon monoxide concentrations are higher near heavily traveled highways and drop rapidly the further the distance from the road. Ambient levels of CO tend to be higher in the colder months due to “thermal inversions” that trap pollutants close to the ground (VDEQ, 2015).

Carbon monoxide is harmful because it reacts in the bloodstream, reducing the amount of oxygen that is supplied to the heart and brain. CO can be harmful at lower levels to people who suffer from cardiovascular disease. At high levels, CO can impair brain function, cause vision problems, reduce manual dexterity, and reduce ability to perform complicated tasks. At very high levels, CO can be deadly (VDEQ, 2015).

4.2.1 Methodology

The CO analysis included a review of one roundabout intersection in the Study Area using the *VDOT-FHWA Programmatic Agreement for Project-Level Air Quality Analyses for Carbon Monoxide (2016)*. The 2016 PA establishes the type of projects and conditions that would not require project-specific modeling or a quantitative air quality analysis for compliance with the NAAQS.

For background, the 2016 PA was based on the recent NCHRP 25-25 Task 78 study templates. Virginia-specific background concentrations and persistence factor were applied as specified in the *VDOT Project-Level Air Quality Resource Document (2018)*. The ADT thresholds, project type, and project conditions detailed or incorporated by reference in the PA were developed and approved based on modeling using “worst-case” traffic and meteorological assumptions. Study corridor intersections that meet these criteria do not require project-specific modeling for CO.

In order to apply the 2016 Programmatic Agreement for CO, the build condition for the intersection must meet certain criteria, which are: roadways must intersect at right angles with 90 degree geometry, no more than six approach lanes from any direction; a grade of 2% or less through the intersection, and

forecast approach speeds not less than 15 mph. However, the 2016 PA does not include skewed intersections, it incorporates, by reference, the criteria specified in the previously existing 2009 PA for skewed intersections. Under the terms of the 2009 PA, project-level air quality (hot-spot) analyses are typically only conducted for CO projects that exceed specified ADT and Level of Service (LOS) thresholds or for any project for which an EIS is being prepared. The thresholds in the 2009 PA were originally established based on worst-case modeling for typical arterial intersections, with different thresholds applying for different intersection skew angles.

When evaluating this project, using a worst-case approach, the northern and southern roundabouts were assumed to be signalized intersections for comparison to the 2016 PA. Using this methodology, the southbound approach for the Bailey Bridge Road at Bailey Bridge Connector roundabout exceeds the grade threshold (2.8%) when compared to the 2016 PA. In addition, the roundabout intersections are also skewed and, in most cases, greater than 90 degrees. Therefore, the roundabout intersections were screened out using the 2016 PA and by reference, the 2009 PA was applied. In order to demonstrate compliance with the 2009 PA for CO, the proposed intersection must operate at Level of Service (LOS) E or better for the design year and the corresponding ADT must not exceed 59,000 if the minimum skew angle is 60 degrees or more. The results of the screening-methodology for both roundabout intersections are discussed further in the next section.

4.2.1.1 Intersections Studied

Two roundabout intersections were evaluated and are shown in **Figure 1** and identified in **Table 2** below.

Table 2: Bailey Bridge Connector Roundabout Intersections Studied

Intersection ID	Roundabout / Intersections
1	Brad McNeer Parkway at Bailey Bridge Connector
2	Bailey Bridge Road at Bailey Bridge Connector

Based on the data presented in **Table 1**, the 2009 agreement for skewed intersections was referenced and included in the evaluation for the roundabout intersection. A detailed summary of each roundabout / intersection is included below.

- **Brad McNeer Parkway at Bailey Bridge Connector** - As shown in **Table 1**, this intersection did meet the criteria for skewed intersections as the Design Year ADT (32,000) was less than the 59,000 ADT threshold for skewed intersections 60 degrees and greater.
- **Bailey Bridge Road at Bailey Bridge Connector** - As shown in **Table 1**, this intersection did meet the criteria for skewed intersections as the Design Year ADT (34,200) was less than the 59,000 ADT threshold for skewed intersections 60 degrees and greater.

While the LOS was unavailable for the build scenario, this intersection still meets the criteria based on a reasonable proxy of the Level of Service. Assuming a worst-case scenario, the design year volumes were

applied to the Opening Year condition for comparative purposes. As such, this intersection has a vphpl value of 950 which is well below the FHWA-default value of 1,037 vphpl that was applied in the 2009 PA for skewed intersections. In addition, the 2009 PA used emission factors in the worst-case modeling for an opening-year of 2009. Based on this project's Opening-Year of 2025, the emission factors would be much lower for CO given the continued fleet turnover to new vehicles which are designed to meet more stringent emission standards set by the USEPA. Furthermore, vehicles entering the roundabout will generally be moving and not queuing for extended periods of time. Given the weight of evidence, a hot-spot analysis is not warranted for this intersection.

4.2.2 CO Conclusions

The project is consistent with (and does not exceed) the project types and conditions listed in the agreement between the Federal Highway Administration and the Virginia Department of Transportation for streamlining the project-level air quality analysis process for carbon monoxide. Modeling using "worst-case" parameters has been conducted for these project types and conditions. It has been determined that projects such as this one would not significantly impact air quality and would not cause or contribute to a new violation, increase the frequency or severity of an existing violation, or delay timely attainment of the National Ambient Air Quality Standard for carbon monoxide.

4.3 Mobile Source Air Toxic (MSAT) Assessment

FHWA most recently updated its guidance for the assessment of MSATs in the NEPA process for highway projects in 2016. The updated guidance states that *"EPA identified nine compounds with significant contributions from mobile sources that are among the national and regional-scale cancer risk drivers or contributors and non-cancer hazard contributors from the 2011 National Air Toxics Assessment (NATA). These are 1,3-butadiene, acetaldehyde, acrolein, benzene, diesel particulate matter (diesel PM), ethylbenzene, formaldehyde, naphthalene, and polycyclic organic matter."* It also specifies three possible categories or tiers of analysis, namely, 1) projects with no meaningful potential MSAT effects or exempt projects (for which MSAT analyses are not required), 2) projects with low potential MSAT effects (requiring only qualitative analyses), and 3) projects with higher potential MSAT effects (requiring quantitative analyses).

4.3.1 Level of Analysis Determination

This project involves a CE, and therefore under FHWA guidance may be categorized as a Tier 1 project for which no meaningful MSAT effects would be expected, neither a qualitative nor a quantitative analysis is needed. In addition, this project has been determined to generate minimal air quality impacts for Clean Air Act criteria pollutants and has not been linked with any special MSAT concerns. As such, this project will not result in changes in traffic volumes, vehicle mix, basic project location, or any other factor that would cause a meaningful increase in MSAT impacts of the project from that of the no-build alternative.

Moreover, EPA regulations for vehicle engines and fuels will cause overall MSAT emissions to decline significantly over the next several decades. As noted in the referenced FHWA MSAT guidance, based on regulations now in effect, an analysis of national trends with EPA's MOVES2014 model forecasts a combined reduction of over 90 percent in the total annual emissions rate for the priority MSAT from 2010 to 2050 while vehicle-miles of travel are projected to increase by over 45 percent. This will both reduce the background level of MSAT as well as the possibility of even minor MSAT emissions from this project.

4.4 Indirect Effects and Cumulative Impacts

Effects of the project that would occur at a later date or are fairly distant from the project are referred to as indirect effects. Cumulative impacts are those effects that result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions. Cumulative impacts are inclusive of the indirect effects. As summarized below, the potential for indirect effects or cumulative impacts to air quality that may be attributable to this project is not expected to be significant.

The CO and MSAT assessments conducted for the project are considered indirect effects analyses because they take into account air quality impacts attributable to the project that occur at a later time in the future. These qualitative assessments indicate that the potential for indirect effects associated with the project are not expected to be significant. They demonstrate that in the future: (1) impacts from CO emissions will not cause or contribute to violations of the CO NAAQS; and (2) the project is considered to have no meaningful MSAT effects and emissions will be significantly lower than they are today.

Overall, the potential for indirect effects and cumulative impacts associated with the project is not expected to be significant.

4.5 Mitigation

Emissions may be produced in the construction of this project from heavy equipment and vehicle travel to and from the site, as well as from fugitive sources. Construction emissions are short-term or temporary in nature. To mitigate these emissions, all construction activities are to be performed in accordance with VDOT's *Road and Bridge Specifications*.

This project is not located within an Ozone, VOC, or NO_x nonattainment area. The Virginia Department of Environmental Quality (VDEQ) provides general comments for projects by jurisdiction. Their comments in part address mitigation. For Chesterfield County, VDEQ comments relating to mitigation are *"...all reasonable precautions should be taken to limit the emissions of VOC and NO_x. In addition, the following VDEQ air pollution regulations must be adhered to during the construction of this project: 9 VAC 5-130, Open Burning restrictions; 9 VAC 5-45, Article 7, Cutback Asphalt restrictions; and 9 VAC 5-50, Article 1, Fugitive Dust precautions."*

4.6 Regional Conformity Status of the Project

The study area is located in the County of Chesterfield. At the time of preparation of this technical report, the United States Environmental Protection Agency's (EPA) Green Book shows the County of Chesterfield to be designated as an attainment area for all criteria pollutants. Notwithstanding that listing in the EPA Green Book, federal conformity requirements, including specifically 40 CFR 93.114 and 40 CFR 93.115, apply for the project as the area in which it is located is one affected by a recent court decision that reinstates conformity requirements nationwide associated with the 1997 ozone NAAQS that had previously been eliminated with the revocation by EPA of that NAAQS in 2015.

The project is currently included in the Richmond Regional Transportation Planning Organization (RRTPO) FY 2018 – 2021 Transportation Improvement Program (UPC # 111713) and the RRTPO 2040 Long-Range Transportation Plan, which received a joint FTA/FHWA conformity finding for the 1997 ozone standard, dated October 29, 2018.

5.0 Conclusion

The proposed improvements were assessed for potential air quality impacts and compliance with applicable air quality regulations and requirements. All models, methods/protocols and assumptions applied in modeling and analyses were made consistent with those provided or specified in the VDOT Resource Document. The assessment indicates that the project would meet all applicable air quality requirements of the National Environmental Policy Act (NEPA). As such, the project will not cause or contribute to a new violation, increase the frequency or severity of any violation, or delay timely attainment of the NAAQS established by the EPA.

6.0 References

Federal Highway Administration and Virginia Department of Transportation. *No-Build analysis Agreement for Air and Noise Studies*. May 2009.

http://www.virginiadot.org/projects/resources/air/2009_FHWA-VDOT_No-Build_Analysis_Agreement_for_Air_and_Noise_Studies.pdf

Federal Highway Administration and Virginia Department of Transportation. *Programmatic Agreement for Project-Level Air Quality Analyses for Carbon Monoxide*. April 2016.

http://www.virginiadot.org/projects/environmental_air_section.asp

Federal Highway Administration and Virginia Department of Transportation. *Project-Level Carbon Monoxide Air Quality Studies Agreement*. February 2009.

http://www.virginiadot.org/projects/environmental_air_section.asp

Health Effects Institute (HEI). *Mobile-Source Air Toxics: A Critical Review of the Literature on Exposure and Health Effects*. November 2007. <https://www.healtheffects.org/publication/mobile-source-air-toxics-critical-review-literature-exposure-and-health-effects>

US Department of Transportation Federal Highway Administration. *A Methodology for Evaluating Mobile Source Air Toxic Emissions Among Transportation Project Alternatives*.

https://www.fhwa.dot.gov/ENVIRONMENT/air_quality/air_toxics/research_and_analysis/mobile_source_air_toxics/msatemissions.cfm

US Department of Transportation Federal Highway Administration. *Updated Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents*. October 2016.

https://www.fhwa.dot.gov/environment/air_quality/air_toxics/policy_and_guidance/msat/index.cfm

US Environmental Protection Agency. *Guideline for Modeling Carbon Monoxide from Roadway Intersections*. November 1992. <https://www3.epa.gov/scram001/guidance/guide/coguide.pdf>

US Environmental Protection Agency. *NAAQS Table*. December 2015. <https://www.epa.gov/criteria-air-pollutants/naaqs-table>

US Environmental Protection Agency. *Nonattainment Areas for Criteria Pollutants (Green Book)*. April 2020. <https://www.epa.gov/green-book>

Virginia Department of Environmental Quality. *Air*. <https://www.deq.virginia.gov/Programs/Air.aspx>

Virginia Department of Transportation. *Project-Level Air Quality Analysis Resource Document*. Version 2 – December 2018. http://www.virginiadot.org/projects/environmental_air_section.asp

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Noise Analysis Technical Report

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PRELIMINARY NOISE ANALYSIS TECHNICAL REPORT

Bailey Bridge Connector Project

Chesterfield County, Virginia

UPC: 111713

Prepared For:



Chesterfield Transportation Department
9800 Government Center Parkway
Chesterfield, VA 23832

And:



Virginia Department of Transportation
Environmental Division
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June 2020

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1.0 Executive Summary

The Chesterfield County Department of Transportation (CDOT) and the Virginia Department of Transportation (VDOT), in cooperation with the Federal Highway Administration (FHWA), are studying the potential environmental consequences of the proposed Bailey Bridge Connector Project in Chesterfield County, Virginia. The primary purpose for the proposed project is to relieve congestion on the US 360 corridor which is currently over capacity and to provide an alternate route for areas along Bailey Bridge Road to Route 288 and amenities along Route 360 (Hull Street). Route 360 west of Route 288 is a congested corridor plagued by heavy delays and crashes during rush hours. Route 360 carries over 78,000 vehicles a day, significantly more than on Route 288 between Powhite Parkway and Route 360 (60,000 vehicles per day). As growth continues to the west, traffic on Route 360 is projected to exceed 120,000 vehicles per day by the year 2040. This is comparable to the amount of traffic currently on Interstate 95 near Route 10 in Chester. The Bailey Bridge Connector will reduce traffic volumes on Route 360, provide direct access to businesses and services along Route 360, and provide a safe travel alternative for pedestrians and cyclists.

The Preliminary Noise Analysis in this document will focus solely on Common Noise Environments (CNEs). Noise sensitive receptors that are within approximately 500 feet of the proposed improvements were included for this evaluation. This report documents the predicted Existing (2019) and Design Year (2047) Build noise levels associated with the Bailey Bridge Connector Project. Per VDOT guidance, a No-Build scenario was not analyzed as part of this study because the project is being documented as a Categorical Exclusion (CE). Project field reconnaissance was performed remotely to thoroughly review the project area prior to the start of monitoring. Once completed, noise monitoring and project field view activities were conducted on February 20th, 2020. During this field view, major sources of acoustic shielding (e.g., terrain lines, building rows, etc.) adjacent to the project corridor were noted for inclusion in the noise modeling. Noise monitoring was performed at nine locations, while noise modeling was conducted for 142 additional receptor sites to gain a thorough understanding of the existing noise environment and to determine how the proposed improvements would change the noise levels throughout the project area. A total of one residence is proposed to be acquired as part of the project construction and subsequently, does not have a predicted Design Year (2047) Build noise level reported. Monitored sites were used solely for noise model validation and not for the purposes of predicting Existing (2019) or Design Year (2047) Build noise impacts.

Coordination with the Chesterfield County was completed in February 2020 to determine whether any undeveloped permitted land uses were present within the project corridor, including Category G land uses. Category G land uses represent undeveloped lands with no permits. It was determined that there were no active/approved building permit within 500 feet of the proposed alignment. This coordination will occur again in Final Design to ensure that no new permitted developments have been approved between the time of the approval of the preliminary design noise report and NEPA approval (Date of Public Knowledge).

Although noise monitoring took place in 2020, traffic data provided for the project was developed in 2019. Thus, noise modeling was completed for Existing (2019) and Design Year (2047) Build conditions with predicted noise levels captured at each modeled receptor. Under Design Year (2047) Build conditions, no residences are predicted to experience a noise impact (See **Table Executive Summary (E.S.) 1**).

<p>Table E.S. 1 <i>Bailey Bridge Connector Project</i> <i>Build Alternative Impact Summary</i></p>
<p>Zero Impacts</p>

No considerable, long-term construction-related noise impacts are anticipated. Any noise impacts that do occur as a result of roadway construction measures are anticipated to be temporary in nature and would cease upon completion of the project construction phase.

The findings in this document are based on conceptual information. Thus, any conclusions derived in this report should be considered preliminary in nature and subject to change.

2.0 Introduction and Background

Impacts associated with noise are often a primary concern when evaluating roadway improvement projects. Roadway construction on new location or improvements to the existing transportation network may cause impacts to the noise sensitive environment located adjacent to the project study area. For this reason, FHWA and VDOT have established a noise analysis methodology and associated noise level criteria to assess the potential noise impacts attributed to the construction and use of transportation related projects.

The Bailey Bridge Connector’s general concept is to construct a 1.1 mile long, two-lane connector road on new alignment between Bailey Bridge Road and Brad McNeer Parkway to provide direct access to businesses and services along Route 360. In addition, the proposed project will reduce traffic volumes on Route 360, offer safe travel alternatives for pedestrians and cyclists, and provide a foundation for future improvements in the area. Also proposed as part of the project design are roundabouts at both project termini as well as a shared-use path that runs the length of the project. For the purposes of this Preliminary Design Noise Analysis, one build alternative was analyzed.

This report details the steps involved in the Preliminary Noise Analysis for the Bailey Bridge Connector Project including noise monitoring, noise modeling methodologies, results, impact evaluation, and potential noise abatement. The regional location can be seen in **Figure 1** and the Detailed Study Area can be referenced on **Figures 2-1** through **2-3** in this document.

3.0 Noise Analysis Methodology, Terminology, and Criteria

The methodologies applied to the noise analysis for the Bailey Bridge Connector Project are in accordance with VDOT’s “State Noise Abatement Policy” effective July 13, 2011 and the “Highway Traffic Noise Impact Analysis Guidance Manual”, updated February 20, 2018. VDOT guidelines are based on Title 23 of the

Code of Federal Regulations, Part 772 and the Procedures for Abatement of Highway Traffic Noise and Construction Noise, (23 CFR 772).

To determine the degree of highway noise impact, Noise Abatement Criteria (NAC) have been established for several different land use categories that are considered to be sensitive to highway traffic noise. **Table 1**, located at the end of this report, documents the NAC for the associated activity land use category shown in the adjacent column. The project study area is comprised of residential development, classified as activity Category B land uses (NAC 67 dB(A)) and undeveloped land uses, classified as Category G.

The NAC are given in terms of an hourly, A-weighted, equivalent noise level. The A-weighted noise level is used for human use areas because it is comprised of the noise level frequencies that are most easily distinguished by the human ear, out of the entire noise level spectrum. Highway traffic noise is also categorized as a linear noise source, where varying noise levels occur at a fixed point during a single vehicle pass by. It is acceptable to characterize these fluctuating noise levels with a single number known as the equivalent noise level (L_{eq}). The L_{eq} is the value of a steady-state noise level that would represent the same acoustic energy as the actual time-varying sound evaluated over the same time period. For highway noise assessments, L_{eq} is typically evaluated over a one-hour period.

Noise abatement determination is based on VDOT's three-phased approach. The first phase (**Phase 1**) distinguishes if a sensitive receptor within a project study area warrants highway traffic noise abatement consideration. The following describes the **Phase 1** warranted criterion, as discussed in the VDOT policy. Receptors that satisfy either condition warrant consideration of highway traffic noise abatement.

- Predicted highway traffic noise levels (for the design year) approach or exceed the highway traffic noise abatement criteria in **Table 1**. "Approach" has been defined by VDOT as 1 dB(A) below the noise abatement criteria.
- ~or~
- A substantial noise increase has been defined by VDOT as a 10 dB(A) increase above existing noise levels for all noise sensitive exterior activity categories. A 10 dB(A) increase in noise reflects the generally accepted range of a perceived doubling of the loudness.

If a traffic noise impact is identified within the project study area, then consideration of noise abatement measures is necessary. The final decision on whether to provide noise abatement throughout a project study area will consider the feasibility of the design (Phase 2) and an overall weighting of cost to benefits (Phase 3).

4.0 Noise Monitoring Methodology

The identification of noise sensitive land uses with aerial imagery and local government parcel data guided the selection of noise monitoring locations throughout the project study area. In order to validate the noise models, noise monitoring was conducted at nine representative noise sensitive receptors. **Figures 2-1** through **2-3** show an overview of the project study area as well as the locations of the nine noise monitoring receptors.

Monitoring was performed at each of the selected noise sensitive receptors using Rion NL-42 noise level meters. Prior to monitoring, each noise level meter was calibrated using a Rion NC-74 Calibrator. The noise meters were placed at each receptor in a manner that would yield a typical absolute ambient noise

reading and allowed for minimal influence from atypical background noise sources. Readings were taken on the A-weighted scale and reported in decibels (dB(A)). The noise monitoring equipment meets all requirements of the American National Standard Specifications for Noise level Meters, ANSI S1.4-1983 (R1991), Type 2, and meets all requirements as defined by FHWA. Noise monitoring was conducted in accordance with the methodologies contained in FHWA-HEP-18-065, *Noise Measurement Handbook* (FHWA, June 2018).

Short-term noise monitoring was performed on February 20th, 2020 during hours of free flow traffic conditions. Data collected by the sound analyzers included time, average noise level (L_{av}), maximum noise level (L_{max}), and instantaneous peak noise level (L_{pk}) for each recorded interval. The output of the noise meters is L_{av} , which is the average noise level over the duration of the monitoring test. This data is then converted into an average hourly noise level (L_{eq}), for assessment purposes. Additional data collected at each monitoring location included atmospheric conditions, wind speed, background noise sources, and unusual/atypical noise events. Traffic data (vehicle volume, speed, and type), visible from the monitoring receptors and substantially contributing to the overall acoustic environment, were collected and documented. Traffic was grouped into one of three categories: cars, medium trucks, and heavy trucks, per VDOT procedures. Combined, this data is used during the noise model validation process.

Short-term noise monitoring is not a process used to determine Design Year noise impacts or potential noise barrier locations. Short-term noise monitoring provides a base level of consistency between what is present in real-world situations and how that is represented in the computer noise model. Short-term monitoring does not need to occur within every CNE to validate the computer noise model.

CNEs are groupings of receptors that, by location, form distinct communities within the project study area. Analysis locations were grouped into six CNEs (CNE A through CNE F). These CNEs were used to evaluate traffic noise impacts and potential noise abatement. Where residential communities or groupings of noise sensitive land use areas exist, both noise monitoring and noise modeling-*only receptors* were grouped into corresponding CNEs. A detailed discussion of each CNE and its respective monitored noise levels is contained in **Section 7.3** of this report.

5.0 Undeveloped Lands and Permitted Developments

Highway traffic noise analyses are performed for developed lands as well as undeveloped lands if they are considered “permitted.” Undeveloped lands are deemed to be permitted when there is a definite commitment to develop land with an approved specific design of land use activities as evidenced by the issuance of at least one building permit.

In accordance with the *VDOT Highway Traffic Noise Impact Analysis Guidance Manual*, an undeveloped lot is considered to be planned, designed, and programmed if a building permit has been issued by the local authorities prior to the Date of Public Knowledge for the relevant project. VDOT considers the Date of Public Knowledge as the date that the National Environmental Policy Act (NEPA) approval is made. VDOT has no obligation to provide noise mitigation for any undeveloped land that is permitted or constructed after this date. This noise analysis technical report is part of the on-going Bailey Bridge Connector Project NEPA study and therefore has not yet been approved and does not have a Date of Public Knowledge.

Coordination with Chesterfield County was completed in February 2020 to determine whether any undeveloped permitted land uses were present within the project corridor, including Category G land uses. Category G land uses represent undeveloped lands with no permits. It was determined that there were no active/approved building permits within 500 feet of the proposed connector. It should be noted that many of the current undeveloped land parcels along the proposed connector have been rezoned to allow future mixed-use development as part of Swift Creek Station. Coordination should occur again in Final Design to ensure that no new permitted developments have been approved between the time of Preliminary Design Noise Report approval and NEPA approval (Date of Public Knowledge).

6.0 Validation (2020) and Existing (2019) Conditions

Computer modeling is the accepted technique for predicting Existing (2019) and Design Year (2047) noise levels associated with traffic-induced noise. Currently, the FHWA Traffic Noise Model (TNM 2.5) is the approved highway noise prediction model. The Traffic Noise Model has been established as a reliable tool for representing noise generated by highway traffic. The information applied to the modeling effort includes the existing highway design files, traffic data, roadway profiles, survey, triangular irregular network (TIN) files, project surveyed contour data, and future design roadway profile files. Base mapping, aerial photography, and field views were used to identify noise sensitive land uses within the corridor and any terrain features that may shield roadway noise. The land uses identified and included in the noise analysis are residential. These land uses are categorized as Activity Category B.

The modeling process begins with model validation, as per VDOT requirements. This is accomplished by comparing the monitored noise levels with noise levels generated by the computer model, using the traffic volumes, speeds, and composition that were witnessed during the monitoring effort performed on February 20th, 2020. This comparison ensures that reported changes in noise levels between Existing (2019) and predicted Design Year (2047) conditions are due to changes in traffic conditions and not to discrepancies between monitoring and modeling techniques. A difference of three dB(A) or less between the monitored and modeled level is considered acceptable, since this is the limit of change detectable by the typical human ear. **Table 2**, located at the end of this report, provides a summary of the model validation for the existing monitored conditions. Column 4 represents the difference between the modeled levels produced by the noise model (Column 3) and the monitored level (Column 2). The validation results identified that seven of the nine analyzed receptors show a difference of three dB(A) or less between the monitored and modeled noise levels, therefore the model is considered an accurate representation of actual existing conditions throughout the project study area.

The remaining two receptors consisted of hour-long, ambient measurements. Ambient monitoring receptors are not used for model validation due to the inability to capture ambient, non-traffic, noise sources in TNM. With the project being in a rural environment, it was decided that ambient, non-roadway noise measurements should be collected to provide baseline noise levels in which to “cap” Existing (2019) and Design Year (2047) Build levels. This means that any predicted noise level that falls below the measured, ambient value of the nearest community, would be corrected to equal the ambient noise level. This methodology helps to capture a more accurate noise environment in communities in which ambient noise dominates.

The validated noise model served as the baseline for the remainder of the noise analysis. Modeling receptors were added to the validated model to thoroughly predict Existing (2019) noise levels throughout

the project study area. Additional noise modeling was then performed for existing conditions using 2019 traffic data supplied by ATCS traffic engineers (see **Appendix D**). This modeling step was performed to predict Existing (2019) noise levels associated with existing traffic volumes for the loudest hour and composition. Columns 3 and 4 of **Table 3** provide a summary of the Existing (2019) minimum and maximum noise levels for each CNE throughout the project study area. Additional discussion of each CNE and its respective modeled noise levels is contained in **Section 7.3** of this report.

7.0 Evaluation of Design Year (2047) Build Noise Levels and Noise Impact Assessment

Design Year (2047) No-Build conditions were not studied as part of this project. As stated in section 6.4.7 of the VDOT's *Highway Traffic Noise Impact Analysis Guidance Manual*:

“No-Build” noise levels are not required for a categorical exclusion (CE) or environmental assessment (EA) unless the project is related to the interstate system or a “constructive use” 4(f) determination has been made. “No-Build” noise levels are required for an environmental impact statement (EIS).”

Therefore, because this project is being evaluated as an CE and is not related to the interstate system, a No-Build analysis was not performed. Following the development of the existing conditions model and the prediction of Existing (2019) noise levels, the assessment continued with the prediction of Design Year (2047) Build noise levels. These levels were predicted by applying Design Year (2047) Build traffic volumes and composition to the validated computer model. Design Year (2047) Build noise levels were predicted with the conceptual improvements of the Build Alternative in place and in use. Future design TIN files for this project were provided by the design team and used in constructing the Design Year (2047) Build noise model.

The next step in the noise analysis is to determine if Design Year (2047) Build noise levels at the noise sensitive receptors would approach or exceed the FHWA/VDOT NAC. If the criteria are approached or exceeded at any receptor, under the Design Year (2047) Build condition, noise mitigation is considered warranted and would be designed and analyzed for feasibility and reasonableness. The minimum and maximum noise levels associated with the Design Year (2047) Build modeling analysis are summarized in Columns 6 and 7 of **Table 3**. Noise levels at each receptor for the Existing (2019) and predicted Design Year (2047) Build conditions are shown in **Appendix A**.

7.1 Traffic Data for the Noise Analysis

VDOT's Environmental Traffic Data (ENTRADA) tool was used to develop traffic data needed for the Bailey Bridge Connector Project noise analysis. Existing (2019) and Design Year (2047) Build traffic volumes, vehicle composition, and speeds were assigned to influential roadways determined to contribute to the overall noise environment.

Traffic data for traffic noise computations was developed by ATCS traffic engineers. This data was reported in hourly segments for 24 hours in ENTRADA analysis sheets. Hourly volumes and operating speeds for each roadway segment for the Existing (2019) and Build (2047) conditions were documented and analyzed for inclusion within the noise analysis. Traffic data were provided directionally for the

entirety of each influential roadway. Traffic data were provided for Brad McNeer Pkwy, Bailey Bridge Rd, and the proposed Bailey Bridge Connector on new alignment. The associated traffic data for these roadways can be found in **Appendix D**. Per FHWA and VDOT policy, the traffic data used in the noise analysis must produce noise levels that are representative of the worst (loudest) hour of the day. The year 2047 is the defined analysis year for the project-level noise analysis.

7.2 Selection of Worst Noise Hour

As required by FHWA and VDOT, the noise analysis was performed for the loudest (“worst noise”) hour of the day. As part of the Noise Analysis, noise levels were predicted for that hour of the day when the vehicle volume, operating speed, and number of trucks (vehicles with 3 or more axles) combine to produce the worst noise conditions. According to FHWA guidance, the “worst hourly traffic noise impact” occurs at a time when truck volumes and vehicle speeds are the greatest, typically when traffic is free flowing and at or near level of service (LOS) C conditions. In coordination with VDOT, the ENTRADA was linked into VDOT’s latest “Loudest Hour Spreadsheet”, version 2.2, for determination and identification of the loudest hour for noise modeling purposes. This predictive tool calculates reference L_{eq} ’s at 50 feet for each TNM vehicle type, utilizing interrupted operational speeds and hourly peak-hour volumes over flat ground. Upon reviewing the results of the methodology described above, it was determined that the combined 5:00 PM hour was the loudest hour for the Design Year (2047) Build scenario and therefore was used for the Existing (2019) case as well. The Loudest Hour Determination Memorandum and additional details supporting the selection of the worst noise hour are provided within **Appendix D**.

According to VDOT’s *Highway Traffic Noise Impact Analysis Guidance Manual*, either the posted speed or the operating speed (whichever is greater) may be used to predict highway traffic noise levels on Type I federally-funded projects. The interrupted speeds in ENTRADA are representative of the operating speeds. In the case of the Bailey Bridge Connector Project, posted speeds were identical to the operating speeds for all project roadway segments. The traffic volumes and speeds that were used for this study are located in **Appendix D**

Flow control devices such as stop signs and traffic lights were not used in the analysis because they were not determined to be a significant factor in noise level prediction for this project. This also ensured that a worst-case noise environment would be modeled.

7.3 Common Noise Environment (CNE) Impact Assessment

Federal regulations (23 CFR Part 772) state that if a noise level at any given receptor approaches or exceeds the appropriate impact criterion or if predicted traffic noise levels substantially exceed the Existing (2019) noise levels, abatement considerations are warranted. A substantial noise increase has been defined by VDOT as a 10 dB(A) increase above existing noise levels for all noise sensitive exterior activity categories. **Table 1** summarizes the Federal and State criteria for a variety of activity categories. The NAC for all land uses within the project study area is Activity Category B (67 dB(A)) for residential receptors. VDOT defines “approach” as being within 1 dB(A) of the NAC and therefore the criterion for residential receptors is 66 dB(A). Upon review of the initial TNM noise level output, no modeling receptors are expected to experience a significant increase of 10 dB(A) under the Design Year (2047) Build scenario, and no receptors are predicted to experience absolute noise impacts.

The following discussion describes the locations and predicted noise levels of each CNE within the Bailey Bridge Connector Project. The CNEs are shown in **Figures 2-1** through **2-3**.

CNE A

CNE A is located south of Bailey Bridge Rd, beginning just west of Holly View Parkway and ending approximately 390 feet west of Bailey Hill Rd. This CNE encompasses the noise sensitive land uses along Bailey Bridge Rd. CNE A contains eight modeling-*only* receptors (A-001 – A-008) which represents eight single-family residences. CNE A contains one monitoring receptor (M-04). The receptor location is shown on **Figure 2-1**. The modeled Existing (2019) noise levels within CNE A are predicted to range from 51-61 dB(A) as shown in Columns 3 and 4 of **Table 3** with no noise impacts anticipated. The modeled Design Year (2047) Build noise levels within CNE A are predicted to range from 51-63 dB(A) as shown in Columns 6 and 7 of **Table 3** with no noise impacts anticipated. The dominant noise source within CNE A is Bailey Bridge Rd as well as other ambient noise sources. Since noise levels do not exceed the NAC, noise mitigation is not warranted. The noise levels associated with each receptor can be found in **Appendix A**.

CNE B

CNE B is located north of Bailey Bridge Rd and just south of Holly View Parkway. This CNE encompasses the noise sensitive land uses along Bailey Bridge Rd and Holly View Parkway. CNE B contains 15 modeling-*only* receptors (B-001 – B-015) which represents 15 single-family residences. CNE B contains three monitoring receptors (M-01, M-02, and M-03). The receptor locations are shown on **Figure 2-1**. The modeled Existing (2019) noise levels within CNE B are predicted to range from 51-67 dB(A) as shown in Columns 3 and 4 of **Table 3** with no noise impacts anticipated. The modeled Design Year (2047) Build noise levels within CNE B are predicted to range from 51-60 dB(A) as shown in Columns 6 and 7 of **Table 3** with no noise impacts anticipated. The dominant noise source within CNE B is Bailey Bridge Rd and other ambient noise sources. Since noise levels do not exceed the NAC, noise mitigation is not warranted. The noise levels associated with each receptor can be found in **Appendix A**.

CNE C

CNE C is located north of Bailey Bridge Rd and just south CNE B. This CNE encompasses the noise sensitive land uses along Bailey Bridge Rd. CNE C contains five modeling-*only* receptors (C-001 – C-005) which represent five single-family residences. CNE C contains one monitoring receptor (M-05). The receptor location is shown on **Figure 2-1**. The modeled Existing (2019) noise levels within CNE C are predicted to range from 51-59 dB(A) as shown in Columns 3 and 4 of **Table 3** with no noise impacts anticipated. The modeled Design Year (2047) Build noise levels within CNE C are predicted to range from 51-63 dB(A) as shown in Columns 6 and 7 of **Table 3** with no noise impacts anticipated. The dominant noise source within CNE C is Bailey Bridge Rd and other ambient noise sources. Since noise levels do not exceed the NAC, noise mitigation is not warranted. The noise levels associated with each receptor can be found in **Appendix A**.

CNE D

CNE D is located north of Quailwood Rd and approximately 1,400 feet west of Village School Lane. This CNE encompasses one parcel that is a proposed acquisition as part of the project. Initial project reconnaissance identified this property as a sensitive land use. However, coordination with the project team, county officials, and Swift Creek Holdings, LLC (owners of the property), later revealed that there

was to be no future occupancy of the residence. Additionally, it was determined that although the parcel was previously a rental property, there is currently no active tenant and no plans of renting the property in the future. Based on this information, it was decided that the site is not noise sensitive and will not be modeled as part of the Preliminary Noise Analysis. Originally the home was to remain intact, however due to last minute design changes, the site is now proposed to be acquired as part of the project. This property should be reevaluated during the Final Design phase of the project to ensure this conclusion is still accurate. The CNE location is shown on **Figure 2-2**.

CNE E

CNE E is located south of Brad McNeer Parkway and east of Craig Rath Boulevard. This CNE encompasses the noise sensitive land use along Brad McNeer Parkway. CNE E contains 16 modeling-*only* receptors (E-001 – E-016) which represents 46 residences of the Swift Creek Commons Apartments. The apartments modeled in this CNE contain three stories with balconies and were captured in TNM with receptor heights modeled at 4.92 ft (first floor), 14.92 ft (second floor), and 24.92 ft (third floor). CNE E contains no monitoring receptors. The modeling receptor locations are shown on **Figure 2-2** and **2-3** with one label representing multiple floors. The modeled Existing (2019) noise levels within CNE E are predicted to range from 47-54 dB(A) as shown in Columns 3 and 4 of **Table 3** with no noise impacts anticipated. The modeled Design Year (2047) Build noise levels within CNE E are predicted to range from 47-59 dB(A) as shown in Columns 6 and 7 of **Table 3** with no noise impacts anticipated. The dominant noise source within CNE E is Brad McNeer Pkwy as well as the Connector on new alignment. Since noise levels do not exceed the NAC, noise mitigation is not warranted. See **Appendix A** for complete noise level summary for the apartment complex.

CNE F

CNE F is located north of Brad McNeer Parkway and just north of CNE E. This CNE encompasses the noise sensitive land uses along Brad McNeer Parkway. CNE F contains 67 modeling-*only* receptors (F-001 – F-067) which represent 67 single-family residences. CNE F contains four (4) monitoring receptors (M-06, M-07, M-08 and M-09). The receptor locations are shown on **Figure 2-3**. The modeled Existing (2019) noise levels within CNE F are predicted to range from 47-55 dB(A) as shown in Columns 3 and 4 of **Table 3** with no noise impacts anticipated. The modeled Design Year (2047) Build noise levels within CNE F are predicted to range from 47-60 dB(A) as shown in Columns 6 and 7 of **Table 3** with no noise impacts anticipated. The dominant noise source within CNE F is Brad McNeer Pkwy. Since noise levels do not exceed the NAC, noise mitigation is not warranted. The noise levels associated with each receptor can be found in **Appendix A**.

Noise Sensitive Land Use Not Included in a Common Noise Environment

Receptor site X-001, although being noise sensitive, was not grouped into a specific CNE. This site falls in the direct path of the proposed connector alignment and is proposed to be acquired to make way for project construction. An Existing (2019) noise level was captured at this location to document a baseline in case of any future design changes that would cause this property to remain intact. The Existing (2019) noise level was predicted to be 55 dB(A).

8.0 Construction Noise

VDOT is also concerned with noise generated during the construction phase of the proposed project. While the degree of construction noise impact will vary, it is directly related to the types and number of equipment used and the proximity to the noise sensitive land uses within the project study area. Land uses that are sensitive to traffic noise are also potentially sensitive to construction noise.

Any construction noise impacts that do occur as a result of roadway construction measures are anticipated to be temporary in nature and will cease upon completion of the project construction phase. One method of controlling construction noise is to establish the maximum level of noise that construction operations can generate.

In view of this, VDOT has developed and FHWA has approved a specification that establishes construction noise limits. This specification can be found in VDOT's 2020 *Road and Bridge Specifications, Section 107.16(b.3), "Noise"*. The contractor will be required to conform to this specification to reduce the impact of construction noise on the surrounding community. The specifications have been reproduced below:

The Contractor's operations shall be performed so that exterior noise levels measured during a noise sensitive activity shall not exceed 80 decibels. Such noise level measurements shall be taken at a point on the perimeter of the construction limit that is closest to the adjoining property on which a noise sensitive activity is occurring. A noise sensitive activity is any activity for which lowered noise levels are essential if the activity is to serve its intended purpose and not present an unreasonable public nuisance. Such activities include, but are not limited to, those associated with residences, hospitals, nursing homes, churches, schools, libraries, parks, and recreational areas.

- VDOT may monitor construction-related noise. If construction noise levels exceed 80 decibels during noise sensitive activities, the Contractor shall take corrective action before proceeding with operations. The Contractor shall be responsible for costs associated with the abatement of construction noise and the delay of operations attributable to noncompliance with these requirements.
- VDOT may prohibit or restrict to certain portions of the project any work that produces objectionable noise between 10 PM and 6 AM. If other hours are established by local ordinance, the local ordinance shall govern.
- Equipment shall in no way be altered so as to result in noise levels that are greater than those produced by the original equipment.
- When feasible, the Contractor shall establish haul routes that direct his vehicles away from developed areas and ensure that noise from hauling operations is kept to a minimum.
- These requirements shall not be applicable if the noise produced by sources other than the Contractor's operation at the point of reception is greater than the noise from the Contractor's operation at the same point.

9.0 Public Involvement / Local Officials Coordination

FHWA and VDOT policies require that VDOT provides certain information to local officials within whose jurisdiction the project is located to minimize future traffic noise impacts of Type I projects on currently undeveloped lands (Type I projects involve improvements with noise analysis). This information must include details on noise-compatible land-use planning and noise impact zones for undeveloped lands within the project study area. The details are provided below and shown on **Figures 2-1** through **2-3**. Additional information about VDOT's noise abatement program has also been included in this section.

Sections 12.1 and 12.2 of VDOT's 2018 *Highway Traffic Noise Impact Analysis Guidance Manual* outline VDOT's approach to communication with local officials and provide information and resources on highway noise and noise-compatible land-use planning. VDOT's intention is to assist local officials in planning the uses of undeveloped land adjacent to highways to minimize the potential impacts of highway traffic noise.

Entering the Quiet Zone is a brochure that provides general information and examples to elected officials, planners, developers, and the general public about the problem of traffic noise and effective responses to the noise. The following is a link to this brochure on FHWA's website:

(https://www.fhwa.dot.gov/environment/noise/noise_compatible_planning/federal_approach/land_use/qz00.cfm)

A wide variety of administrative strategies may be used to minimize or eliminate potential highway noise impacts, thereby preventing the need or desire for costly noise abatement structures such as noise barriers in future years. There are five broad categories of such strategies:

- Zoning
- Other legal restrictions (subdivision control, building codes, health codes);
- Municipal ownership or control of the land;
- Financial incentives for compatible development; and
- Educational and advisory services.

The Audible Landscape: A Manual for Highway and Land Use is a very well-written and comprehensive guide addressing these noise-compatible land use planning strategies, with detailed information. This document is available through FHWA's website, at:

http://www.fhwa.dot.gov/environment/noise/noise_compatible_planning/federal_approach/audible_landscape/al00.cfm.

Also required under the revised FHWA and VDOT noise policies is information on the noise impact zones adjacent to project roadways in undeveloped lands. To determine these zones, noise levels are computed at various distances from the edge of the project roadways in each of the undeveloped areas of the project study area. The distances from the edge of the roadway to the NAC noise levels are then determined through interpolation. Distances vary in the project study area due to changes in traffic volumes or terrain features. The distances for this project are summarized at the end of this report in **Table 4**. Any noise sensitive receptors within these zones should be considered noise impacted if no barrier is present to reduce noise levels.

Noise level contours are lines of equal noise exposure that typically parallel roadway alignments. Highway traffic noise is considered a linear noise source and noise levels can drop considerably over distance. The degree that noise levels decrease can vary based on a number of different factors including objects that shield the roadway noise, terrain features and ground cover type (e.g., pavement, grass or snow). The use of noise level contours have been implemented in planning programs for undeveloped areas with roadway noise influence. Through conscious planning efforts and noise contour generation, municipal officials can restrict future development inside the noise impact zone (i.e., the area within the 66 dB(A) noise contour). **Figures 2-1** through **2-3** show the approximate 66 dB(A) noise level contours when considering the improvements made to the Bailey Bridge Connector Project with the Design Year (2047) Build traffic volumes, speeds and composition. **Table 4** shows the approximate distance of the 66 dB(A) contour line from the centerline of the Design Year (2047) Build Alternative to each CNE throughout the Project Study Area.

10.0 Conclusion

Under Design Year (2047) Build conditions, no noise-sensitive receptors are predicted to experience noise impacts within the Bailey Bridge Connector Project corridor. Therefore, noise mitigation is not considered warranted and was not evaluated for any sensitive land uses. Additional detailed analysis should be completed in the event of any significant, subsequent changes in design, traffic composition and speed, or planned land development that occur prior to the Final Design phase of the project.

ouroffices

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TABLES

TABLE 1 <i>Bailey Bridge Connector</i> <i>FHWA/VDOT Noise Abatement Criteria</i> <i>Hourly-A-Weighted Sound Level in Decibels (dB(A))</i> ¹				
Activity Category	Activity L _{eq} (h) ⁴	Criteria ² L10 (h)	Evaluation Location	Description of Activity Category
A	57	60	Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B ³	67	70	Exterior	Residential.
C ³	67	70	Exterior	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or non-profit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	52	55	Interior	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or non-profit institutional structures, radio studios, recording studios, schools, and television studios.
E ³	72	75	Exterior	Hotels, motels, offices, restaurants/bars, and other developed lands, properties of activities not included in A-D or F.
F	--	--	Exterior	Agriculture, airports, bus yards, emergency services, industrial logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing.
G	--	--	--	Undeveloped lands that are not permitted.
1	Either Leq (h) or L10 (h) (but not both) may be used on a project.			
2	The Leq (h) and L10 (h) Activity Criteria values are for impact determination only, and are not design standards for noise abatement measure.			
3	Includes undeveloped lands permitted for this Activity Criteria.			
4	VDOT utilizes the Leq(h) designation.			

TABLE 2*Bailey Bridge Connector Project
Traffic Noise Model (TNM) Validation*

1	2	3	4	5
Receptor	Monitored Level (dB(A))	Modeled Level (dB(A))	Difference (dB(A))	Validated
M-01	56.1	57.3	1.2	Yes
M-02	49.0	49.5	0.5	Yes
M-03	51.3	N/A	N/A	N/A
M-04	62.6	62.0	-0.6	Yes
M-05	63.8	63.3	-0.5	Yes
M-06	46.7	N/A	N/A	N/A
M-07	49.1	48.7	-0.4	Yes
M-08	51.4	52.3	0.9	Yes
M-09	48.7	46.8	-1.9	Yes
	Ambient Measurement Location			

TABLE 3

*Bailey Bridge Connector Project
Noise Impact Summary by Common Noise Environment (CNE)*

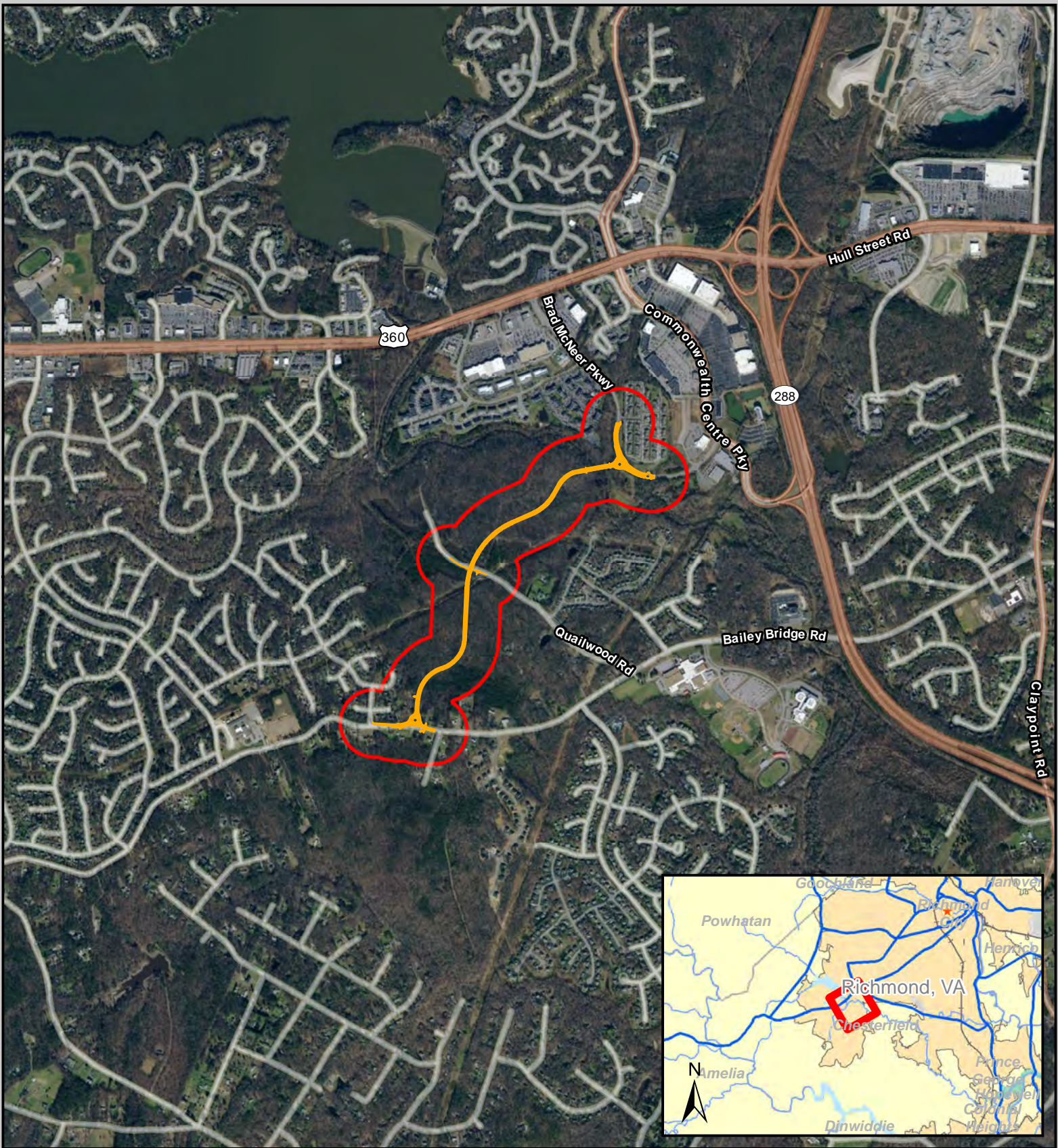
1	2	3	4	5	6	7	8
CNE	Site Representation	Existing (2019) Noise Level Range (dB(A))			Design Year (2047) Build Noise Level Range (dB(A))		
		Min	Max	# Impacts	Min	Max	# Impacts
A	8 Residences	51	61	0 Impacts	51	63	0 Impacts
B	15 Residences	51	57	0 Impacts	51	60	0 Impacts
C	5 Residences	51	59	0 Impacts	51	63	0 Impacts
D	Non-Noise Sensitive	See Section 6.0 of the report for discussion on CNE D.					
E	46 Residences	47	54	0 Impacts	47	59	0 Impacts
F	67 Residences	47	55	0 Impacts	47	60	0 Impacts
X*	1 Residence	55		0 Impacts	N/A		Acquired
Totals	143 Residences	47	61	0 Impacts	47	63	0 Impacts

TABLE 4

*Bailey Bridge Connector Project
Distance from Centerline of Proposed Design
Common Noise Environment (CNE) Specific Noise Contours*

Design Year (2047) 66 dB(A) Noise Level Contours	
CNE	Approximate Distance (feet)
A	50'
B	25'
C	30'
D	N/A
E	10'
F	40'

Figures




Bailey Bridge Connector Project

Chesterfield County, Virginia

VDOT UPC: 111713

 Proposed Design

 Study Area

ATCS

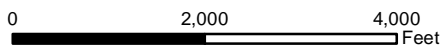
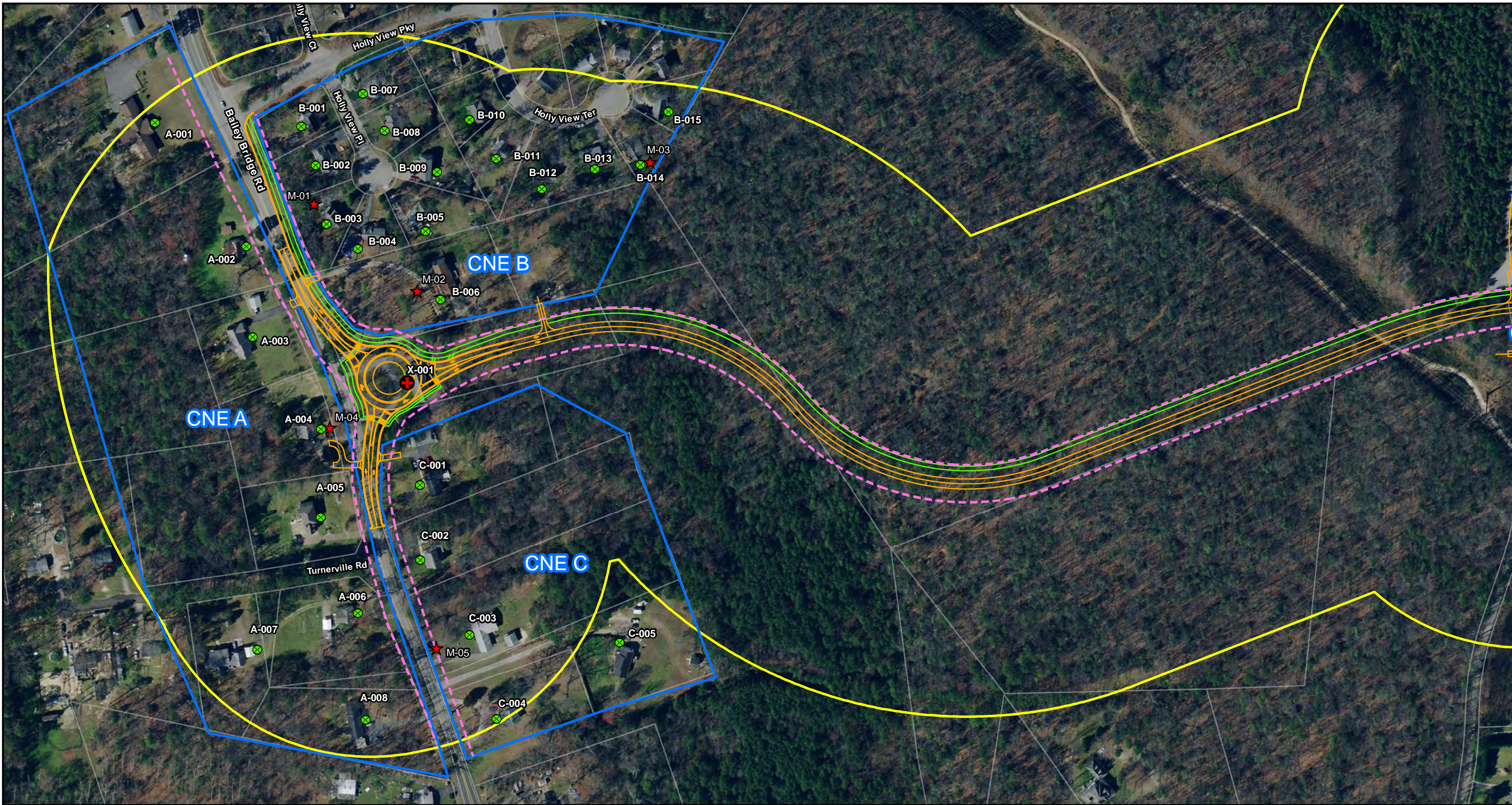


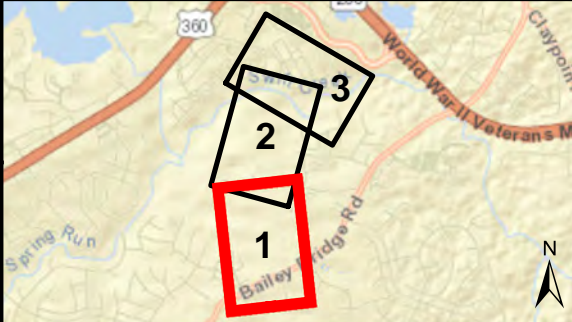
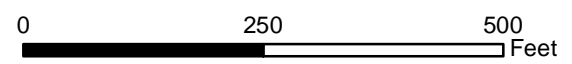
Figure 1
Regional Location Map



Modeled Receivers

- ★ Impacted
- ✕ Not Impacted
- ★ Monitoring Site
- ✚ Proposed Acquisition

- Parcel Boundary
- 500' Study Area
- Common Noise Environment (CNE) Boundary
- 66 dB(A) Contour
- Preliminary Design
- Shared Use Path



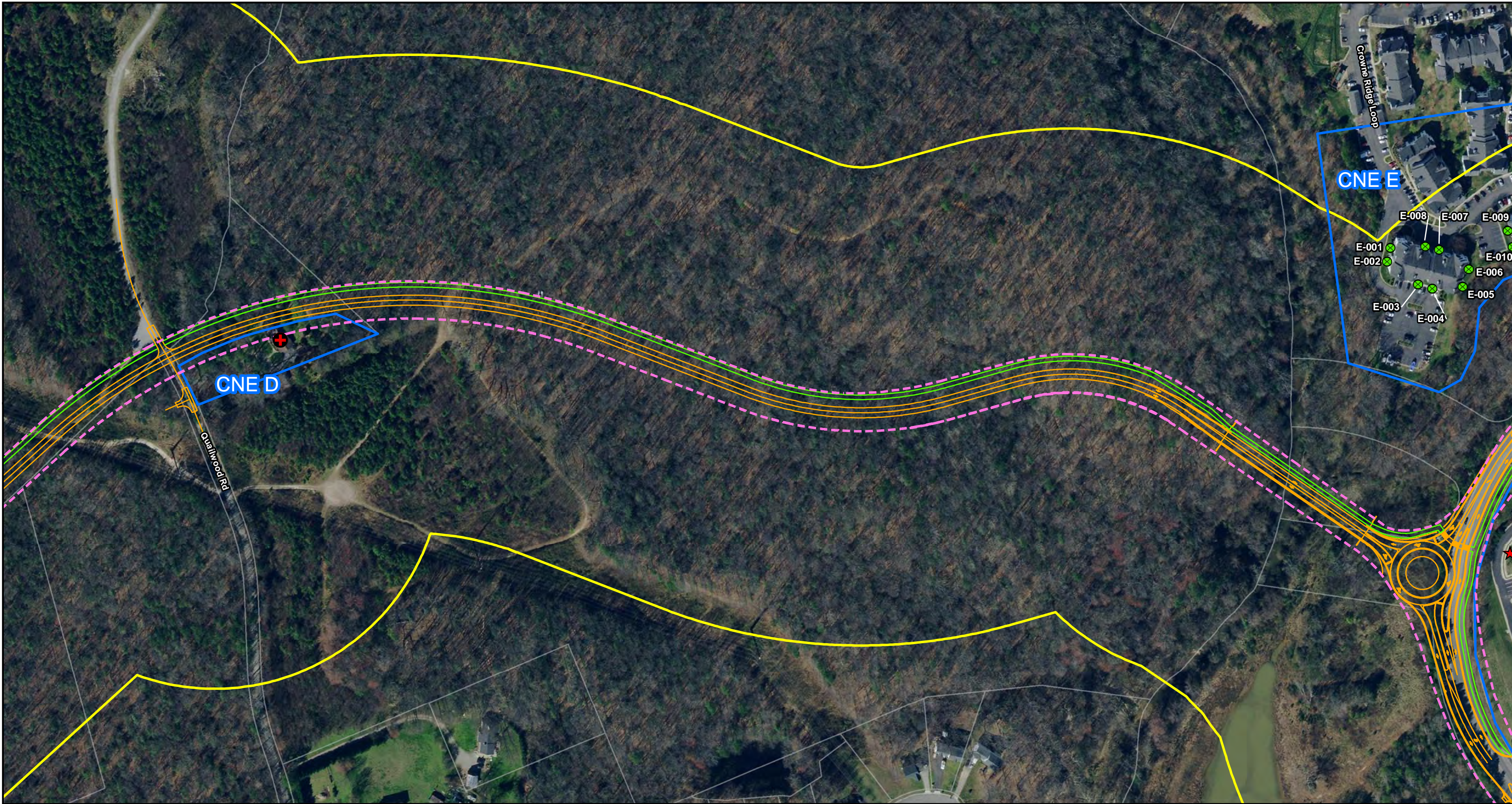
Bailey Bridge Connector Project

Chesterfield County, Virginia
VDOT UPC: 111713

Preliminary Noise Analysis

**Figure: 2 - 1
Detailed Study Area Map**

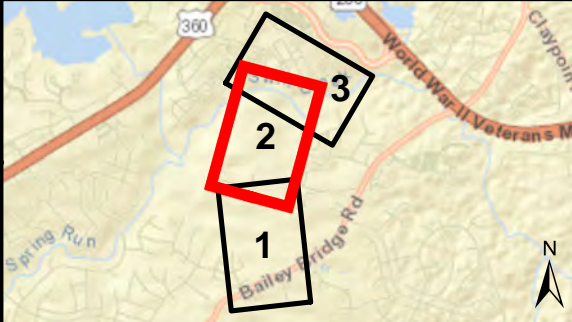
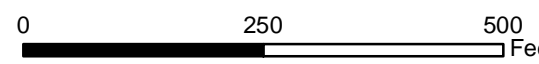




Modeled Receivers

- Impacted
- Not Impacted
- ★ Monitoring Site
- ⊕ Proposed Acquisition

- Parcel Boundary
- 500' Study Area
- Common Noise Environment (CNE) Boundary
- 66 dB(A) Contour
- Preliminary Design
- Shared Use Path



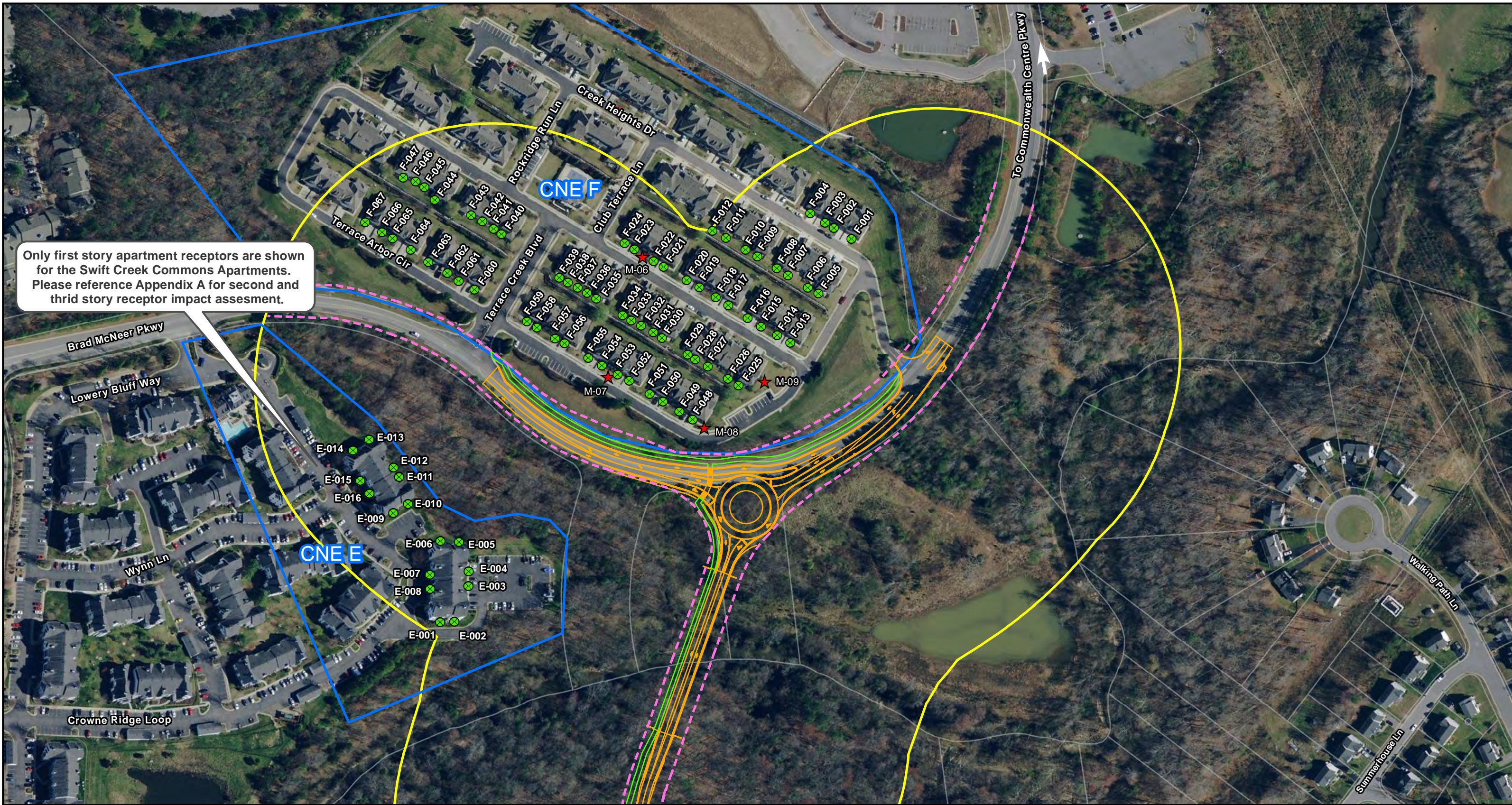
Bailey Bridge Connector Project

Chesterfield County, Virginia
VDOT UPC: 111713

Preliminary Noise Analysis

**Figure: 2 - 2
Detailed Study Area Map**





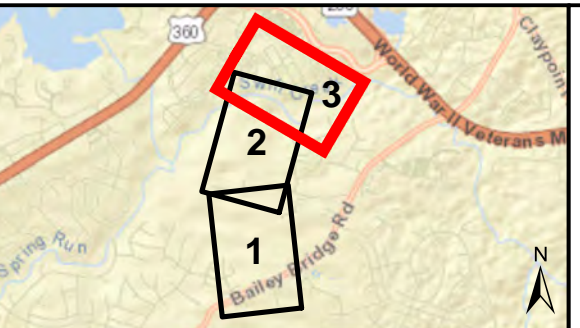
Only first story apartment receptors are shown for the Swift Creek Commons Apartments. Please reference Appendix A for second and third story receptor impact assessment.

Modeled Receivers

- Impacted
- Not Impacted
- ★ Monitoring Site
- ⊕ Proposed Acquisition

- Parcel Boundary
- 500' Study Area
- Common Noise Environment (CNE) Boundary
- 66 dB(A) Contour
- Preliminary Design
- Shared Use Path

0 250 500 Feet



Bailey Bridge Connector Project
 Chesterfield County, Virginia
 VDOT UPC: 111713

Preliminary Noise Analysis
Figure: 2 - 3
Detailed Study Area Map

Appendices

APPENDIX A
NOISE LEVEL TABLE

**Bailey Bridge Connector
Noise Level Table**

CNE

	1	2	3	4	5
	Receptor Site	Site Representation	Criteria* dB(A)	Existing (2019) dB(A)	Design Year (2047) Build dB(A)
A	A-001	1 Residence	65	56	59
	A-002	1 Residence	66	60	63
	A-003	1 Residence	65	55	57
	A-004	1 Residence	66	60	61
	A-005	1 Residence	66	57	60
	A-006	1 Residence	66	59	62
	A-007	1 Residence	61	51	51
	A-008	1 Residence	64	54	57
B	B-001	1 Residence	65	55	58
	B-002	1 Residence	65	55	58
	B-003	1 Residence	66	57	60
	B-004	1 Residence	64	54	58
	B-005	1 Residence	61	51	52
	B-006	1 Residence	61	51	60
	B-007	1 Residence	61	51	51
	B-008	1 Residence	61	51	51
	B-009	1 Residence	61	51	51
	B-010	1 Residence	61	51	51
	B-011	1 Residence	61	51	51
	B-012	1 Residence	61	51	51
	B-013	1 Residence	61	51	51
	B-014	1 Residence	61	51	51
	B-015	1 Residence	61	51	51
C	C-001	1 Residence	66	57	60
	C-002	1 Residence	66	60	63
	C-003	1 Residence	66	56	59
	C-004	1 Residence	66	57	60
	C-005	1 Residence	61	51	51
E	E-001.a	1 Residence	57	47	47
	E-001.b	1 Residence	57	47	50
	E-001.c	1 Residence	57	47	51
	E-002.a	1 Residence	57	47	47
	E-002.b	1 Residence	57	47	50
	E-002.c	1 Residence	57	47	52
	E-003.a	1 Residence	57	47	51
	E-003.b	1 Residence	57	47	54
	E-003.c	1 Residence	59	49	56
	E-004.a	1 Residence	57	47	52
	E-004.b	1 Residence	58	48	55
	E-004.c	1 Residence	60	50	56
	E-005.a	1 Residence	59	49	53
	E-005.b	1 Residence	60	50	56
	E-005.c	1 Residence	62	52	57
	E-006.a	1 Residence	58	48	52
	E-006.b	1 Residence	60	50	55
	E-006.c	1 Residence	61	51	56
	E-007.b	1 Residence	57	47	47
	E-007.c	1 Residence	57	47	49
E-008.b	1 Residence	57	47	47	
E-008.c	1 Residence	57	47	48	

**Bailey Bridge Connector
Noise Level Table**

CNE

E

F

	1	2	3	4	5
	Receptor Site	Site Representation	Criteria* dB(A)	Existing (2019) dB(A)	Design Year (2047) Build dB(A)
	E-009.a	1 Residence	57	47	48
	E-009.b	1 Residence	57	47	51
	E-009.c	1 Residence	57	47	52
	E-010.a	1 Residence	57	47	51
	E-010.b	1 Residence	58	48	53
	E-010.c	1 Residence	59	49	54
	E-011.a	1 Residence	58	48	53
	E-011.b	1 Residence	61	51	56
	E-011.c	1 Residence	63	53	58
	E-012.a	1 Residence	59	49	54
	E-012.b	1 Residence	62	52	57
	E-012.c	1 Residence	63	53	58
	E-013.a	1 Residence	60	50	55
	E-013.b	1 Residence	63	53	58
	E-013.c	1 Residence	64	54	59
	E-014.a	1 Residence	58	48	53
	E-014.b	1 Residence	61	51	56
	E-014.c	1 Residence	62	52	57
	E-015.a	1 Residence	57	47	47
	E-015.b	1 Residence	55	45	50
	E-015.c	1 Residence	57	47	52
	E-016.a	1 Residence	57	47	47
	E-016.b	1 Residence	57	47	49
	E-016.c	1 Residence	57	47	50
	F-001	1 Residence	57	47	51
	F-002	1 Residence	57	47	48
	F-003	1 Residence	57	47	47
	F-004	1 Residence	57	47	47
	F-005	1 Residence	57	47	48
	F-006	1 Residence	57	47	47
	F-007	1 Residence	57	47	47
	F-008	1 Residence	57	47	47
	F-009	1 Residence	57	47	47
	F-010	1 Residence	57	47	47
	F-011	1 Residence	57	47	47
	F-012	1 Residence	57	47	47
	F-013	1 Residence	57	47	52
	F-014	1 Residence	57	47	51
	F-015	1 Residence	57	47	47
	F-016	1 Residence	57	47	47
	F-017	1 Residence	57	47	47
	F-018	1 Residence	57	47	47
	F-019	1 Residence	57	47	47
	F-020	1 Residence	57	47	47
	F-021	1 Residence	57	47	47
	F-022	1 Residence	57	47	47
	F-023	1 Residence	57	47	47
	F-024	1 Residence	57	47	47
	F-025	1 Residence	59	49	55
	F-026	1 Residence	57	47	54
	F-027	1 Residence	57	47	47

**Bailey Bridge Connector
Noise Level Table**

CNE	1		2		3	4	5	
	Receptor Site		Site Representation		Criteria* dB(A)	Existing (2019) dB(A)	Design Year (2047) Build dB(A)	
F	F-028	1	Residence		57	47	47	
	F-029	1	Residence		57	47	47	
	F-030	1	Residence		57	47	47	
	F-031	1	Residence		57	47	47	
	F-032	1	Residence		57	47	47	
	F-033	1	Residence		57	47	47	
	F-034	1	Residence		57	47	47	
	F-035	1	Residence		57	47	47	
	F-036	1	Residence		57	47	47	
	F-037	1	Residence		57	47	47	
	F-038	1	Residence		57	47	47	
	F-039	1	Residence		57	47	47	
	F-040	1	Residence		57	47	49	
	F-041	1	Residence		57	47	47	
	F-042	1	Residence		57	47	47	
	F-043	1	Residence		57	47	47	
	F-044	1	Residence		57	47	47	
	F-045	1	Residence		57	47	47	
	F-046	1	Residence		57	47	47	
	F-047	1	Residence		57	47	47	
	F-048	1	Residence		65	55	60	
	F-049	1	Residence		64	54	59	
	F-050	1	Residence		63	53	59	
	F-051	1	Residence		62	52	58	
	F-052	1	Residence		62	52	58	
	F-053	1	Residence		62	52	58	
	F-054	1	Residence		62	52	58	
	F-055	1	Residence		62	52	58	
	F-056	1	Residence		62	52	58	
	F-057	1	Residence		63	53	58	
	F-058	1	Residence		63	53	58	
	F-059	1	Residence		64	54	59	
	F-060	1	Residence		63	53	58	
	F-061	1	Residence		63	53	58	
	F-062	1	Residence		65	55	60	
	F-063	1	Residence		63	53	58	
	F-064	1	Residence		62	52	57	
	F-065	1	Residence		62	52	57	
	F-066	1	Residence		62	52	57	
	F-067	1	Residence		61	51	56	
	X	X-001**	1	Residence		65	55	N/A



Noise Level approaches or exceeds FHWA/VDOT Noise Abatement Criteria.



Noise Level was predicted to be lower than ambient field measurement in this community. Noise level of ambient, adjacent monitoring receptor was applied.

*

Computed impact criteria is based on the absolute NAC impact level or the VDOT determined "substantial increase" level of 10 dB(A) greater than the predicted existing worst case noise level.

**

Receptor parcel to be acquired and thus not contained in a CNE.

APPENDIX B
NOISE MONITORING DATA (2020)

PASTE
HERE

Address	Start Time	Measurement Time	Leq	LE	LMAX	LMIN	Ly	LN1	LN2	LN3	LN4	LN5	Over	Under	Inverse Log	Overall Leq
M-01																
27	2/20/2020	9:14:56	00d	00:10.0	49.4	59.4	53.3	45.7	--	52.1	50.9	48.2	46	45.8	----	87096.4
28	2/20/2020	9:15:06	00d	00:10.0	60.5	70.5	61.8	53.3	--	61.7	61.5	60.6	57.3	56	----	1122018.5
29	2/20/2020	9:15:16	00d	00:10.0	59.4	69.4	62.2	56.6	--	62.1	62	58.6	56.9	56.7	----	870963.6
30	2/20/2020	9:15:26	00d	00:10.0	56.8	66.8	58.3	54	--	58.2	58.2	57.1	54.6	54.2	----	478630.1
31	2/20/2020	9:15:36	00d	00:10.0	56.9	66.9	59.8	51.8	--	59.5	58.5	55.5	52	51.8	----	489778.8
32	2/20/2020	9:15:46	00d	00:10.0	58.9	68.9	61.9	53.9	--	61.8	61.6	59.8	54.6	54.2	----	776247.1
33	2/20/2020	9:15:56	00d	00:10.0	57.2	67.2	60.5	52	--	60.3	60.2	55.8	53.3	52.6	----	524807.5
34	2/20/2020	9:16:06	00d	00:10.0	55	65	59.5	49.9	--	58.8	57.4	52.4	50.3	50.1	----	316227.8
35	2/20/2020	9:16:16	00d	00:10.0	64.5	74.5	67.6	56.9	--	67.5	67.3	64	59.2	57.8	----	2818382.9
36	2/20/2020	9:16:26	00d	00:10.0	59.9	69.9	62.6	55.5	--	62.6	62.4	59.6	55.8	55.6	----	977237.2
37	2/20/2020	9:16:36	00d	00:10.0	56.1	66.1	59.2	49.1	--	59	58.9	57.7	50.3	49.7	----	407380.3
38	2/20/2020	9:16:46	00d	00:10.0	56	66	58.2	48.9	--	58	57.8	55.7	49.6	49	----	398107.2
39	2/20/2020	9:16:56	00d	00:10.0	60.2	70.2	63.1	53.1	--	62.9	62.8	60.2	54.7	53.9	----	1047128.5
40	2/20/2020	9:17:06	00d	00:10.0	49	59	53.1	47.7	--	52.4	51.6	49	47.8	47.7	----	79432.8
41	2/20/2020	9:17:16	00d	00:10.0	59.5	69.5	61.5	50.1	--	61	61	60.2	51.3	50.9	----	891250.9
42	2/20/2020	9:17:26	00d	00:10.0	61.4	71.4	64.3	54.3	--	64.2	64.1	62.3	54.7	54.4	----	1380384.3
43	2/20/2020	9:17:36	00d	00:10.0	58.4	68.4	61.5	51.1	--	61.4	61	58.3	53.2	52	----	691831.0
44	2/20/2020	9:17:46	00d	00:10.0	46.7	56.7	51.1	45.5	--	50.3	49.5	46.9	45.7	45.6	----	46773.5
45	2/20/2020	9:17:56	00d	00:10.0	50.2	60.2	56.1	44.7	--	54.1	51.7	45.9	45	44.9	----	104712.9
46	2/20/2020	9:18:06	00d	00:10.0	59.9	69.9	62.4	55.4	--	62.3	62.2	58.8	55.7	55.5	----	977237.2
47	2/20/2020	9:18:16	00d	00:10.0	58	68	61.6	53.3	--	61	60.5	57.7	53.6	53.4	----	630957.3
48	2/20/2020	9:18:26	00d	00:10.0	56.5	66.5	61.4	48.8	--	61.3	61.2	54.9	50.2	49.4	----	446683.6
49	2/20/2020	9:18:36	00d	00:10.0	49.7	59.7	52.6	46.7	--	52.2	52	49.4	46.9	46.9	----	93325.4
50	2/20/2020	9:18:46	00d	00:10.0	51.2	61.2	55.9	44.6	--	55	53.6	50	44.7	44.7	----	131825.7
51	2/20/2020	9:18:56	00d	00:10.0	56.2	66.2	58.9	52.7	--	58.8	58.6	56	53.1	52.8	----	416869.4
52	2/20/2020	9:19:06	00d	00:10.0	56.3	66.3	57.7	53.1	--	57.6	57.6	56	53.8	53.4	----	426579.5
53	2/20/2020	9:19:16	00d	00:10.0	49.1	59.1	57.2	47.3	--	56.2	54.9	48.5	47.4	47.4	----	81283.1
54	2/20/2020	9:19:26	00d	00:10.0	60.8	70.8	62.9	49.9	--	62.8	62.5	61	51.4	50.3	----	1202264.4
55	2/20/2020	9:19:36	00d	00:10.0	51.3	61.3	62.2	47.9	--	61.1	59.7	49.9	48.1	48	----	134896.3
56	2/20/2020	9:19:46	00d	00:10.0	53.1	63.1	56.2	48.3	--	55.9	55.6	52.2	48.8	48.5	----	204173.8
57	2/20/2020	9:19:56	00d	00:10.0	51.2	61.2	56	47.4	--	55	53.3	48.8	47.6	47.5	----	131825.7
58	2/20/2020	9:20:06	00d	00:10.0	58.2	68.2	59.4	56	--	59.2	59.1	58.1	56.3	56.1	----	660693.4
59	2/20/2020	9:20:16	00d	00:10.0	55.9	65.9	58.8	51.6	--	58.7	58.6	56	53.3	52.6	----	389045.1
60	2/20/2020	9:20:26	00d	00:10.0	47.5	57.5	51.6	45.3	--	50.5	49.9	47.8	46.2	45.6	----	56234.1
61	2/20/2020	9:20:36	00d	00:10.0	46.1	56.1	47.6	45.4	--	47.3	47.1	46.1	45.6	45.5	----	40738.0
62	2/20/2020	9:20:46	00d	00:10.0	52.3	62.3	56.7	46.1	--	56.3	55.4	48.6	47	46.8	----	169824.4
63	2/20/2020	9:20:56	00d	00:10.0	55.9	65.9	58.4	52	--	58.4	58.3	56.8	52.2	52.1	----	389045.1
64	2/20/2020	9:21:06	00d	00:10.0	53.6	63.6	57.7	48.4	--	57.5	57.2	52.5	48.8	48.6	----	229086.8
65	2/20/2020	9:21:16	00d	00:10.0	56	66	59.5	48.3	--	59.4	59.2	54.2	49.9	49.1	----	398107.2
66	2/20/2020	9:21:26	00d	00:10.0	46.9	56.9	52.7	44.8	--	51.8	50.9	47.3	45	44.9	----	48977.9
67	2/20/2020	9:21:36	00d	00:10.0	46.4	56.4	48.8	43.6	--	48.6	48.3	46	43.8	43.7	----	43651.6
68	2/20/2020	9:21:46	00d	00:10.0	50.1	60.1	54.1	46.4	--	53.5	52.2	47.4	46.7	46.6	----	102329.3
69	2/20/2020	9:21:56	00d	00:10.0	60.2	70.2	64.5	52.9	--	64.3	64	56.7	53.3	53.1	----	1047128.5
70	2/20/2020	9:22:06	00d	00:10.0	55.1	65.1	59.3	50.9	--	58.8	58.2	55.3	51.5	51.1	----	323593.7
71	2/20/2020	9:22:16	00d	00:10.0	55.7	65.7	59.2	49.6	--	59.1	59	55.2	49.8	49.7	----	371535.2
72	2/20/2020	9:22:26	00d	00:10.0	55.6	65.6	57.9	49.9	--	57.8	57.7	54.8	51.3	50.5	----	363078.1
73	2/20/2020	9:22:36	00d	00:10.0	61.7	71.7	63.1	55.8	--	63	62.9	62.2	58.2	57.4	----	1479108.4
74	2/20/2020	9:22:46	00d	00:10.0	60.4	70.4	62	56.3	--	61.9	61.9	60.7	56.7	56.5	----	1096478.2
75	2/20/2020	9:22:56	00d	00:10.0	59.3	69.3	61	57	--	60.9	60.8	59.1	57.4	57.2	----	851138.0
76	2/20/2020	9:23:06	00d	00:10.0	60.2	70.2	63.5	55.8	--	63.4	63.3	59.6	56.8	56.6	----	1047128.5
77	2/20/2020	9:23:16	00d	00:10.0	56.4	66.4	60	50.8	--	59.9	59.7	54	51	50.9	----	436515.8
78	2/20/2020	9:23:26	00d	00:10.0	51.6	61.6	57.9	48	--	56.7	55.6	51	48.2	48.1	----	144544.0
79	2/20/2020	9:23:36	00d	00:10.0	53.9	63.9	57.5	47	--	57.4	57.1	54.3	47.4	47.2	----	245470.9
80	2/20/2020	9:23:46	00d	00:10.0	54.9	64.9	58.6	46.7	--	58.6	58.5	50.1	46.9	46.8	----	309029.5
81	2/20/2020	9:23:56	00d	00:10.0	49.7	59.7	57.8	47.1	--	56.8	55.7	48.9	47.2	47.1	----	93325.4
82	2/20/2020	9:24:06	00d	00:10.0	58.4	68.4	60.4	49.7	--	60.3	60.3	58.3	51.6	50.4	----	691831.0
83	2/20/2020	9:24:16	00d	00:10.0	48.7	58.7	56	46.5	--	54.9	54.1	48.5	46.8	46.6	----	74131.0
84	2/20/2020	9:24:26	00d	00:10.0	52.6	62.6	56.8	46.6	--	56.5	55.9	48.6	46.9	46.8	----	181970.1
85	2/20/2020	9:24:36	00d	00:10.0	58	68	61.9	50.2	--	61.8	61.7	56.6	52.1	51.2	----	630957.3
86	2/20/2020	9:24:46	00d	00:10.0	46.8	56.8	50.2	44.6	--	49.5	49	47.7	45.2	45	----	47863.0
87	2/20/2020	9:24:56	00d	00:10.0	44.1	54.1	44.7	43.4	--	44.5	44.4	44.1	43.8	43.6	----	25704.0
88	2/20/2020	9:25:06	00d	00:10.0	48.1	58.1	51.7	43.9	--	50.8	50	46.4	44.5	44.2	----	64565.4
89	2/20/2020	9:25:16	00d	00:10.0	57.3	67.3	60.7	49.8	--	60.6	60.5	56.7	50.9	50.5	----	537031.8
90	2/20/2020	9:25:26	00d	00:10.0	53.3	63.3	56.2	48.7	--	56.1	56	50.1	48.8	48.8	----	213796.2
91	2/20/2020	9:25:36	00d	00:10.0	58.4	68.4	61.2	54.3	--	60.8	60	57.5	54.8	54.5	----	691831.0
92	2/20/2020	9:25:46	00d	00:10.0	54.6	64.6	61.5	50.4	--	61.3	61	52.3	50.6	50.5	----	288403.2
93	2/20/2020	9:25:56	00d	00:10.0	47.7	57.7	53.1	43.7	--	52.9	52.6	46.3	44	43.9	----	58884.4
94	2/20/2020	9:26:06	00d	00:10.0	47.4	5										

117	2/20/2020	9:29:56	00d	00:10.0	43.9	53.9	45.3	42.7	--	45.2	44.9	43.7	42.9	42.8	----	----	24547.1
118	2/20/2020	9:30:06	00d	00:10.0	57.8	67.8	61.6	44	--	61.5	61.1	51	44.9	44.5	----	----	602559.6
119	2/20/2020	9:30:16	00d	00:10.0	52.9	62.9	61.3	47.2	--	60.6	60	51	47.5	47.4	----	----	194984.5
120	2/20/2020	9:30:26	00d	00:10.0	48.9	58.9	51.5	46.7	--	50.7	49.8	48.2	46.8	46.8	----	----	77624.7
121	2/20/2020	9:30:36	00d	00:10.0	55.8	65.8	59.9	47.2	--	59.8	59.6	54.3	48.2	47.7	----	----	380189.4
122	2/20/2020	9:30:46	00d	00:10.0	57.2	67.2	61.6	46.7	--	61.4	61	51.7	46.8	46.7	----	----	524807.5
123	2/20/2020	9:30:56	00d	00:10.0	53.9	63.9	61.6	48.4	--	61.5	61.1	50.9	48.6	48.5	----	----	245470.9
124	2/20/2020	9:31:06	00d	00:10.0	58.5	68.5	61.3	49.6	--	61.1	61.1	57.7	50.8	50.1	----	----	707945.8
125	2/20/2020	9:31:16	00d	00:10.0	55.8	65.8	61.3	50.6	--	61.1	61	53.7	50.8	50.7	----	----	380189.4
126	2/20/2020	9:31:26	00d	00:10.0	55.5	65.5	59	51.1	--	58.9	58.6	54.4	51.2	51.2	----	----	354813.4
127	2/20/2020	9:31:36	00d	00:10.0	54.1	64.1	57.6	49.8	--	57.5	57.2	52.8	50.1	49.9	----	----	257039.6
128	2/20/2020	9:31:46	00d	00:10.0	57.4	67.4	61.4	50.5	--	61.2	61	56	50.7	50.6	----	----	549540.9
129	2/20/2020	9:31:56	00d	00:10.0	55	65	59	47.5	--	58.8	58.4	53.6	49.4	48.4	----	----	316227.8
130	2/20/2020	9:32:06	00d	00:10.0	43.8	53.8	47.5	42.9	--	46.8	46.2	43.5	43.1	43	----	----	23988.3
131	2/20/2020	9:32:16	00d	00:10.0	44.3	54.3	46.3	43.1	--	45.7	45.3	43.6	43.1	43.1	----	----	26915.3
132	2/20/2020	9:32:26	00d	00:10.0	53.9	63.9	57.3	46.3	--	57.2	56.8	52.9	47.7	47	----	----	245470.9
133	2/20/2020	9:32:36	00d	00:10.0	46.9	56.9	48.4	45.1	--	48.2	48.1	46.9	45.4	45.2	----	----	48977.9
134	2/20/2020	9:32:46	00d	00:10.0	59.9	69.9	63.6	48.2	--	63.4	63.2	55.4	48.7	48.5	----	----	977237.2
135	2/20/2020	9:32:56	00d	00:10.0	56.6	66.6	62	52.3	--	61.1	60.5	56.4	52.6	52.5	----	----	457088.2
136	2/20/2020	9:33:06	00d	00:10.0	59.9	69.9	62	53.9	--	61.8	61.6	59.5	56.6	55.4	----	----	977237.2
137	2/20/2020	9:33:16	00d	00:10.0	52.8	62.8	60.8	49.2	--	60.4	59.4	50.6	49.3	49.2	----	----	190546.1
138	2/20/2020	9:33:26	00d	00:10.0	56.3	66.3	58.3	49.5	--	58.2	58.2	56.7	49.7	49.6	----	----	426579.5
139	2/20/2020	9:33:36	00d	00:10.0	54.9	64.9	59.1	48.2	--	58.9	58.6	54.8	48.6	48.3	----	----	309029.5
140	2/20/2020	9:33:46	00d	00:10.0	56.4	66.4	60.3	48.3	--	60.2	60.1	53	48.5	48.5	----	----	436515.8
141	2/20/2020	9:33:56	00d	00:10.0	55.2	65.2	57.5	51.5	--	57.4	57.3	55.4	51.6	51.6	----	----	331131.1
142	2/20/2020	9:34:06	00d	00:10.0	49.9	59.9	54.9	46	--	54.2	53.9	49.3	46.5	46.2	----	----	97723.7
143	2/20/2020	9:34:16	00d	00:10.0	48.3	58.3	53.1	45.4	--	51.2	49.8	45.8	45.6	45.5	----	----	67608.3
144	2/20/2020	9:34:26	00d	00:10.0	52.2	62.2	56.5	44.1	--	56.4	56.3	50.4	44.7	44.4	----	----	165958.7
145	2/20/2020	9:34:36	00d	00:10.0	44.7	54.7	47.5	42.2	--	47.1	46.7	43.3	42.3	42.3	----	----	29512.1
146	2/20/2020	9:34:46	00d	00:10.0	55.1	65.1	58	47.5	--	58	57.7	54	48.9	48.2	----	----	323593.7
147	2/20/2020	9:34:56	00d	00:10.0	53.9	63.9	58.3	45.9	--	58.1	57.9	52.4	46.7	46.3	----	----	245470.9
148	2/20/2020	9:35:06	00d	00:10.0	43.4	53.4	45.9	42.8	--	45.6	45.2	43.4	42.9	42.9	----	----	21877.6
149	2/20/2020	9:35:16	00d	00:10.0	46.9	56.9	50.9	42.8	--	50.7	49.9	43.8	42.9	42.8	----	----	48977.9
150	2/20/2020	9:35:26	00d	00:10.0	53.7	63.7	57	48.8	--	56.8	56.6	50.9	49.1	49	----	----	234422.9
151	2/20/2020	9:35:36	00d	00:10.0	48.6	58.6	56.7	45.4	--	56.3	55.2	46.9	45.6	45.5	----	----	72443.6
152	2/20/2020	9:35:46	00d	00:10.0	45.8	55.8	47.3	44.4	--	46.8	46.3	45.7	44.5	44.4	----	----	38018.9

PASTE
HERE
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Address	Start Time	Measurement Time	Leq	LE	LMAX	LMIN	Ly	LN1	LN2	LN3	LN4	LN5	Over	Under	Inverse Log	Overall Leq
M-02																
34	2/20/2020	9:14:58	00d	00:10.0	50.7	60.7	52.9	48.1	--	52.8	52.8	51.1	48.7	48.2	----	117489.8
35	2/20/2020	9:15:08	00d	00:10.0	50.2	60.2	51.8	48.1	--	51.7	51.5	49.8	48.2	48.1	----	104712.9
36	2/20/2020	9:15:18	00d	00:10.0	51.4	61.4	52.9	50.3	--	52.7	52.3	50.8	50.4	50.4	----	138038.4
37	2/20/2020	9:15:28	00d	00:10.0	51.4	61.4	53.2	47.7	--	53.1	53.1	52.3	48.4	48	----	138038.4
38	2/20/2020	9:15:38	00d	00:10.0	46.7	56.7	48.3	45.3	--	48.1	48.1	46.1	45.6	45.4	----	46773.5
39	2/20/2020	9:15:48	00d	00:10.0	50.8	60.8	54.4	47.9	--	53.6	52.7	49.1	48.1	48	----	120226.4
40	2/20/2020	9:15:58	00d	00:10.0	55.5	65.5	56.8	54.4	--	56.6	56.3	55.3	54.9	54.7	----	354813.4
41	2/20/2020	9:16:08	00d	00:10.0	53.3	63.3	56.4	50.9	--	56.1	55.2	53.2	52	51.4	----	213796.2
42	2/20/2020	9:16:18	00d	00:10.0	50.9	60.9	51.7	50	--	51.5	51.4	51.1	50.1	50	----	123026.9
43	2/20/2020	9:16:28	00d	00:10.0	49.9	59.9	51.9	48.4	--	51.9	51.8	49.8	48.6	48.5	----	97723.7
44	2/20/2020	9:16:38	00d	00:10.0	48.5	58.5	49.3	46.9	--	49.2	49.2	48.9	47.4	47.2	----	70794.6
45	2/20/2020	9:16:48	00d	00:10.0	48.4	58.4	49.4	46.5	--	49.3	49.1	48.6	46.7	46.6	----	69183.1
46	2/20/2020	9:16:58	00d	00:10.0	51.9	61.9	53.2	49.2	--	53.1	53.1	51.6	49.3	49.3	----	154881.7
47	2/20/2020	9:17:08	00d	00:10.0	52	62	53.2	50.7	--	53.2	53.1	52.4	50.9	50.8	----	158489.3
48	2/20/2020	9:17:18	00d	00:10.0	49.5	59.5	50.7	47.3	--	50.6	50.6	50	48.2	47.9	----	89125.1
49	2/20/2020	9:17:28	00d	00:10.0	47.5	57.5	48.9	45.8	--	48.7	48.6	46.8	45.9	45.9	----	56234.1
50	2/20/2020	9:17:38	00d	00:10.0	46.3	56.3	48.8	44.8	--	48.4	48.2	46.4	44.9	44.8	----	42658.0
51	2/20/2020	9:17:48	00d	00:10.0	51	61	52.7	45.5	--	52.6	52.5	51	45.9	45.6	----	125892.5
52	2/20/2020	9:17:58	00d	00:10.0	50.8	60.8	52.6	50.1	--	52.5	52.5	50.4	50.2	50.2	----	120226.4
53	2/20/2020	9:18:08	00d	00:10.0	47.7	57.7	50.3	44.1	--	50.1	49.9	48.4	44.6	44.3	----	58884.4
54	2/20/2020	9:18:18	00d	00:10.0	42.9	52.9	44.1	42.1	--	43.9	43.8	42.7	42.2	42.2	----	19498.4
55	2/20/2020	9:18:28	00d	00:10.0	48.2	58.2	49.6	43.8	--	49.5	49.4	48.6	44.7	44.3	----	66069.3
56	2/20/2020	9:18:38	00d	00:10.0	47.7	57.7	48.9	46.6	--	48.9	48.7	48.1	46.8	46.7	----	58884.4
57	2/20/2020	9:18:48	00d	00:10.0	47.6	57.6	48.1	46.6	--	48	47.9	47.7	46.9	46.8	----	57544.0
58	2/20/2020	9:18:58	00d	00:10.0	46.3	56.3	48.2	44.7	--	47.7	47.3	46	44.8	44.7	----	42658.0
59	2/20/2020	9:19:08	00d	00:10.0	51.9	61.9	53.1	48.1	--	53	52.9	51.6	49.6	48.9	----	154881.7
60	2/20/2020	9:19:18	00d	00:10.0	47.2	57.2	52	45.7	--	51.4	50.9	46.5	45.8	45.8	----	52480.7
61	2/20/2020	9:19:28	00d	00:10.0	47.2	57.2	48.3	45.7	--	48.1	48.1	46.8	45.9	45.8	----	52480.7
62	2/20/2020	9:19:38	00d	00:10.0	49.9	59.9	50.7	48.2	--	50.6	50.5	50	48.6	48.6	----	97723.7
63	2/20/2020	9:19:48	00d	00:10.0	49.7	59.7	51	47.6	--	51	50.9	50.1	48.2	48	----	93325.4
64	2/20/2020	9:19:58	00d	00:10.0	44.7	54.7	47.6	42.6	--	47.3	46.9	44.9	42.9	42.9	----	29512.1
65	2/20/2020	9:20:08	00d	00:10.0	43.4	53.4	44.3	42.5	--	44	43.9	43.3	42.6	42.6	----	21877.6
66	2/20/2020	9:20:18	00d	00:10.0	46.5	56.5	49.6	42.7	--	49.1	48.9	44.3	42.9	42.8	----	44668.4
67	2/20/2020	9:20:28	00d	00:10.0	49.5	59.5	50.2	48.8	--	50.1	50.1	49.6	49	48.9	----	89125.1
68	2/20/2020	9:20:38	00d	00:10.0	47.5	57.5	49.4	45.3	--	49.3	49.1	47.7	45.5	45.4	----	56234.1
69	2/20/2020	9:20:48	00d	00:10.0	48.5	58.5	49.8	46.2	--	49.7	49.6	48.4	47	46.7	----	70794.6
70	2/20/2020	9:20:58	00d	00:10.0	43.1	53.1	46.2	41.5	--	45.7	45.4	43.6	41.6	41.6	----	20417.4
71	2/20/2020	9:21:08	00d	00:10.0	42.2	52.2	42.7	41.5	--	42.7	42.6	41.9	41.6	41.6	----	16595.9
72	2/20/2020	9:21:18	00d	00:10.0	47.4	57.4	50.5	42.7	--	50	49.5	45.3	43.4	43.1	----	54954.1
73	2/20/2020	9:21:28	00d	00:10.0	54.7	64.7	57.4	50.5	--	57.2	57	54.2	51.3	51	----	295120.9
74	2/20/2020	9:21:38	00d	00:10.0	44.6	54.6	50.6	42.9	--	49.9	49.1	44.2	43.2	43	----	28840.3
75	2/20/2020	9:21:48	00d	00:10.0	48	58	50.3	44.5	--	49.9	49.7	46.3	45.1	45	----	63095.7
76	2/20/2020	9:21:58	00d	00:10.0	49.3	59.3	50.6	47.5	--	50.5	50.4	49.8	47.9	47.7	----	85113.8
77	2/20/2020	9:22:08	00d	00:10.0	49.8	59.8	52	47.5	--	51.7	51.2	48.8	48	47.7	----	95499.3
78	2/20/2020	9:22:18	00d	00:10.0	52.7	62.7	53.7	51.5	--	53.5	53.5	52.9	51.6	51.5	----	186208.7
79	2/20/2020	9:22:28	00d	00:10.0	51.6	61.6	51.9	51.1	--	51.8	51.8	51.6	51.2	51.2	----	144544.0
80	2/20/2020	9:22:38	00d	00:10.0	50.9	60.9	51.6	50.3	--	51.5	51.4	50.9	50.5	50.4	----	123026.9
81	2/20/2020	9:22:48	00d	00:10.0	52.2	62.2	52.9	50.8	--	52.8	52.7	52.4	51.2	51.1	----	165958.7
82	2/20/2020	9:22:58	00d	00:10.0	48	58	51.2	47.2	--	50.5	50	48.2	47.5	47.4	----	63095.7
83	2/20/2020	9:23:08	00d	00:10.0	45.5	55.5	47.2	44.7	--	46.8	46.6	45.4	44.8	44.8	----	35481.3
84	2/20/2020	9:23:18	00d	00:10.0	45.3	55.3	46	44.1	--	45.8	45.7	45.5	44.7	44.4	----	33884.4
85	2/20/2020	9:23:28	00d	00:10.0	45.6	55.6	46.5	43.9	--	46.4	46.2	45.4	44	44	----	36307.8
86	2/20/2020	9:23:38	00d	00:10.0	47.2	57.2	48.4	46	--	47.7	47.6	46.9	46.1	46.1	----	52480.7
87	2/20/2020	9:23:48	00d	00:10.0	49.5	59.5	49.9	48.4	--	49.9	49.9	49.5	48.8	48.5	----	89125.1
88	2/20/2020	9:23:58	00d	00:10.0	45.1	55.1	48.4	43.2	--	48.1	47.8	44.7	43.3	43.3	----	32359.4
89	2/20/2020	9:24:08	00d	00:10.0	47	57	49.8	43.1	--	49.4	48.9	45.6	43.3	43.2	----	50118.7
90	2/20/2020	9:24:18	00d	00:10.0	48.7	58.7	50.3	44.4	--	50.3	50.2	49.9	45.6	45	----	74131.0
91	2/20/2020	9:24:28	00d	00:10.0	42.7	52.7	44.4	42.2	--	43.9	43.7	42.6	42.3	42.2	----	18620.9
92	2/20/2020	9:24:38	00d	00:10.0	43	53	44.1	42.1	--	43.9	43.6	42.9	42.3	42.2	----	19952.6
93	2/20/2020	9:24:48	00d	00:10.0	47	57	49.6	43.1	--	49	48.6	45.6	43.6	43.4	----	50118.7
94	2/20/2020	9:24:58	00d	00:10.0	48.8	58.8	50.3	46.3	--	50.2	50.1	49.2	47.1	46.7	----	75857.8
95	2/20/2020	9:25:08	00d	00:10.0	47	57	48.5	45.8	--	48.3	47.8	46.5	46	45.9	----	50118.7
96	2/20/2020	9:25:18	00d	00:10.0	50.8	60.8	51.6	48.5	--	51.5	51.5	50.9	48.7	48.6	----	120226.4
97	2/20/2020	9:25:28	00d	00:10.0	47.2	57.2	51.4	43.8	--	51.2	51	46.5	44	43.9	----	52480.7
98	2/20/2020	9:25:38	00d	00:10.0	46	56	48.1	43.6	--	48	47.9	44.7	43.7	43.7	----	39810.7
99	2/20/2020	9:25:48	00d	00:10.0	48.1	58.1	49.3	46.6	--	49.2	49.1	47.7	46.8	46.7	----	64565.4
100	2/20/2020	9:25:58	00d	00:10.0	51.3	61.3	51.7	49.3	--	51.7	51.6	51.3	50	49.4	----	134896.3
101	2/20/2020	9:26:08	00d	00:10.0	50.2	60.2	51.3	49.1	--	51.2	51.2	50.2	49.2	49.2	----	104712.9
102	2/20/2020	9:26:18	00d	00:10.0	51.5	61.5	52.2	50.9	--	52.1	52	51.3	51	51	----	141253.8
103	2/20/2020	9:26:28	00d	00:10.0	50	60	51.6	48.3	--	51.5	51.4	50.5	48.8	48.7	----	100000.0
104	2/20/2020	9:26:38	00d	00:10.0	46.4	56.4	48.6	45.3	--	48.3	47.8	46.1	45.5	45.4	----	43651.6
105	2/20/2020	9:26:48	00d	00:10.0	50.9	60.9	52.7	47.4	--	52.6	52.5	50.2	47.6	47.5	----	123026.9
106	2/20/2020	9:26:58	00d	00:10.0	49.1	59.1	52.6	46.3	--	52.4	52.2	49.1	46.5	46.4	----	81283.1
107	2/20/2020	9:27:08	00d	00:10.0	49.9	59.9	51.5	46.3	--	51.4	51.4	49.4	46.9	46.7	----	97723.7
108	2/20/2020	9:27:18	00d	00:10.0	49.8	59.8	51.1	48.7	--	50.9	50.7	49.8	48.8	48.8	----	95499.3
109	2/20/2020	9:27:28	00d	00:10.0	48.3	58.3	50.7	43.9	--	50.5	50.4	49	44.5	44.1	----	67608.3
110	2/20/2020	9:27:38	00d</													

124	2/20/2020	9:29:58	00d	00:10.0	48.8	58.8	51	46.7	--	50.9	50.8	48.4	46.9	46.8	----	----	75857.8
125	2/20/2020	9:30:08	00d	00:10.0	49.9	59.9	52.4	44.5	--	52.3	52.2	50.7	45.4	44.8	----	----	97723.7
126	2/20/2020	9:30:18	00d	00:10.0	43.1	53.1	44.6	42	--	44.4	44.1	43.2	42.3	42.1	----	----	20417.4
127	2/20/2020	9:30:28	00d	00:10.0	48.8	58.8	50.3	43.8	--	50.2	50.1	48.6	45	44.6	----	----	75857.8
128	2/20/2020	9:30:38	00d	00:10.0	50.7	60.7	52.5	48.4	--	52.3	52.2	50.3	48.6	48.4	----	----	117489.8
129	2/20/2020	9:30:48	00d	00:10.0	52.3	62.3	54.5	50.6	--	54.2	53.7	52.1	50.7	50.6	----	----	169824.4
130	2/20/2020	9:30:58	00d	00:10.0	48.3	58.3	53.7	44.7	--	53.3	52.7	48.2	45	44.8	----	----	67608.3
131	2/20/2020	9:31:08	00d	00:10.0	45.4	55.4	46.7	44	--	46.5	46.5	44.6	44.1	44.1	----	----	34673.7
132	2/20/2020	9:31:18	00d	00:10.0	49.9	59.9	51.9	46.7	--	51.6	51.3	49	47.5	47.3	----	----	97723.7
133	2/20/2020	9:31:28	00d	00:10.0	50	60	52.5	46.3	--	52.4	52.3	50.4	47.2	46.7	----	----	100000.0
134	2/20/2020	9:31:38	00d	00:10.0	43.7	53.7	46.3	42.1	--	46	45.9	43.7	42.3	42.3	----	----	23442.3
135	2/20/2020	9:31:48	00d	00:10.0	42.9	52.9	43.7	42.2	--	43.6	43.6	42.8	42.5	42.4	----	----	19498.4
136	2/20/2020	9:31:58	00d	00:10.0	44	54	45.8	42.2	--	45.5	45.1	43	42.4	42.3	----	----	25118.9
137	2/20/2020	9:32:08	00d	00:10.0	46.6	56.6	47.5	45.1	--	47.4	47.4	46.7	45.9	45.6	----	----	45708.8
138	2/20/2020	9:32:18	00d	00:10.0	47.8	57.8	50.4	44.5	--	50.3	50.1	46.2	44.6	44.6	----	----	60256.0
139	2/20/2020	9:32:28	00d	00:10.0	53.3	63.3	55.4	50.2	--	55.2	55	52.8	50.3	50.3	----	----	213796.2
140	2/20/2020	9:32:38	00d	00:10.0	51.3	61.3	55.3	49	--	55.2	54.9	50.5	49.1	49.1	----	----	134896.3
141	2/20/2020	9:32:48	00d	00:10.0	51.3	61.3	52	50.2	--	51.9	51.9	51.3	50.5	50.4	----	----	134896.3
142	2/20/2020	9:32:58	00d	00:10.0	48.9	58.9	50.2	48.1	--	50.1	49.9	49	48.3	48.1	----	----	77624.7
143	2/20/2020	9:33:08	00d	00:10.0	48.8	58.8	49.5	48	--	49.4	49.3	48.4	48.2	48.1	----	----	75857.8
144	2/20/2020	9:33:18	00d	00:10.0	47.4	57.4	49.3	45.6	--	49.3	49.2	47.4	45.8	45.7	----	----	54954.1
145	2/20/2020	9:33:28	00d	00:10.0	48.3	58.3	49	46.4	--	48.8	48.8	48.2	46.8	46.7	----	----	67608.3
146	2/20/2020	9:33:38	00d	00:10.0	48.6	58.6	49.3	47.7	--	49.2	49.2	48.7	48	47.9	----	----	72443.6
147	2/20/2020	9:33:48	00d	00:10.0	46.6	56.6	47.9	45.2	--	47.8	47.7	46.2	45.5	45.4	----	----	45708.8
148	2/20/2020	9:33:58	00d	00:10.0	44.8	54.8	47.4	42.6	--	47.2	46.8	45.5	42.8	42.8	----	----	30199.5
149	2/20/2020	9:34:08	00d	00:10.0	42.6	52.6	43	42	--	42.9	42.9	42.6	42.2	42.2	----	----	18197.0
150	2/20/2020	9:34:18	00d	00:10.0	46.9	56.9	49.7	42.8	--	49.5	49.2	45.1	43.1	42.9	----	----	48977.9
151	2/20/2020	9:34:28	00d	00:10.0	48.1	58.1	49.7	45.6	--	49.7	49.7	48.9	46	45.9	----	----	64565.4
152	2/20/2020	9:34:38	00d	00:10.0	42.9	52.9	45.6	42.3	--	45	44.5	43	42.5	42.4	----	----	19498.4
153	2/20/2020	9:34:48	00d	00:10.0	43.8	53.8	44.2	42.8	--	44	44	43.8	43.2	42.9	----	----	23988.3
154	2/20/2020	9:34:58	00d	00:10.0	43.6	53.6	44.2	43.1	--	44.1	44	43.5	43.3	43.2	----	----	22908.7

PASTE
HERE
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Address	Start Time	Measurement Time	Leq	LE	LMAX	LMIN	Ly	LN1	LN2	LN3	LN4	LN5	Over	Under	Inverse Log	Overall Leq
M-03																
1	2/20/2020	9:03:25	00d	00:10.0	61.2	71.2	67.3	53.3	--	66.2	65.4	60	55.3	54.6	----	1318256.7
2	2/20/2020	9:03:35	00d	00:10.0	45.3	55.3	58	42.5	--	56	54.6	46.2	42.9	42.7	----	33884.4
3	2/20/2020	9:03:45	00d	00:10.0	46.4	56.4	53.9	41.9	--	52.6	50.7	43.1	42.2	42	----	43651.6
4	2/20/2020	9:03:55	00d	00:10.0	66.5	76.5	70.8	41.9	--	70.4	70.3	65.7	42	42	----	4466835.9
5	2/20/2020	9:04:05	00d	00:10.0	60.1	70.1	67.2	53.1	--	65.5	64.7	60.5	55.4	55	----	1023293.0
6	2/20/2020	9:04:15	00d	00:10.0	58	68	66.2	44.7	--	65.1	63.2	55.6	46.4	45.4	----	630957.3
7	2/20/2020	9:04:25	00d	00:10.0	60.9	70.9	65.7	43.7	--	65.1	64.8	59.4	44.8	44	----	1230268.8
8	2/20/2020	9:04:35	00d	00:10.0	62.2	72.2	66.4	51.5	--	66	64.3	61.8	55.4	53.3	----	1659586.9
9	2/20/2020	9:04:45	00d	00:10.0	59.9	69.9	63.9	48.2	--	63.7	63.4	60.1	51.6	49.9	----	977237.2
10	2/20/2020	9:04:55	00d	00:10.0	61.3	71.3	63.6	57.1	--	63.3	63.1	61.1	58.7	58.3	----	1348962.9
11	2/20/2020	9:05:05	00d	00:10.0	61.8	71.8	64.4	55.9	--	63.9	63.6	62	58.7	57.8	----	1513561.2
12	2/20/2020	9:05:15	00d	00:10.0	61.6	71.6	64.5	53	--	63.7	63.2	61.5	56.9	55.1	----	1445439.8
13	2/20/2020	9:05:25	00d	00:10.0	59.7	69.7	64.1	53	--	62.7	61.9	59.8	55.3	54.6	----	933254.3
14	2/20/2020	9:05:35	00d	00:10.0	62.4	72.4	64.2	53.3	--	63.9	63.6	62	59.9	59.3	----	1737800.8
15	2/20/2020	9:05:45	00d	00:10.0	55	65	62.6	43.9	--	61.9	61.4	51.9	44.2	44.1	----	316227.8
16	2/20/2020	9:05:55	00d	00:10.0	57.9	67.9	64.2	43.2	--	63.8	63.4	44	43.7	43.5	----	616595.0
17	2/20/2020	9:06:05	00d	00:10.0	62	72	65.4	48	--	64.9	64.6	61.9	51.2	49.4	----	1584893.2
18	2/20/2020	9:06:15	00d	00:10.0	61.1	71.1	64.8	50.9	--	64.1	63.7	61.3	54.6	52.7	----	1288249.6
19	2/20/2020	9:06:25	00d	00:10.0	44.2	54.2	62.1	42.8	--	60.1	57.9	45.4	43	42.9	----	26302.7
20	2/20/2020	9:06:35	00d	00:10.0	59.1	69.1	65.2	43.1	--	64	62.9	57.5	45.9	44.9	----	812830.5
21	2/20/2020	9:06:45	00d	00:10.0	43	53	44.3	42.8	--	43.8	43.6	43.1	43	43	----	19952.6
22	2/20/2020	9:06:55	00d	00:10.0	42.9	52.9	43.4	42.5	--	43.3	43.3	42.8	42.6	42.5	----	19498.4
23	2/20/2020	9:07:05	00d	00:10.0	43	53	44.2	42.4	--	44.1	44	42.7	42.5	42.5	----	19952.6
24	2/20/2020	9:07:15	00d	00:10.0	42.7	52.7	44	42.2	--	43.7	43.4	42.7	42.3	42.2	----	18620.9
25	2/20/2020	9:07:25	00d	00:10.0	42.3	52.3	42.7	41.9	--	42.5	42.5	42.2	42	42	----	16982.4
26	2/20/2020	9:07:35	00d	00:10.0	42.3	52.3	42.7	41.9	--	42.7	42.6	42.3	42	41.9	----	16982.4
27	2/20/2020	9:07:45	00d	00:10.0	42.2	52.2	42.4	41.8	--	42.4	42.3	42.1	42	41.9	----	16595.9
28	2/20/2020	9:07:55	00d	00:10.0	42.5	52.5	43.2	41.9	--	43	42.8	42.5	42.1	42	----	17782.8
29	2/20/2020	9:08:05	00d	00:10.0	43.1	53.1	43.4	42.3	--	43.3	43.3	43.1	42.4	42.3	----	20417.4
30	2/20/2020	9:08:15	00d	00:10.0	42.6	52.6	43.3	42.1	--	43.2	43.1	42.6	42.3	42.2	----	18197.0
31	2/20/2020	9:08:25	00d	00:10.0	42.4	52.4	42.8	41.7	--	42.7	42.6	42.4	41.9	41.8	----	17378.0
32	2/20/2020	9:08:35	00d	00:10.0	42.3	52.3	42.9	41.8	--	42.8	42.8	42.2	41.9	41.8	----	16982.4
33	2/20/2020	9:08:45	00d	00:10.0	42.9	52.9	43.4	42.3	--	43.3	43.2	43	42.4	42.4	----	19498.4
34	2/20/2020	9:08:55	00d	00:10.0	43	53	43.3	42.4	--	43.2	43.2	43	42.6	42.6	----	19952.6
35	2/20/2020	9:09:05	00d	00:10.0	42.7	52.7	43	42.2	--	43	42.9	42.7	42.4	42.3	----	18620.9
36	2/20/2020	9:09:15	00d	00:10.0	43.1	53.1	44.2	42.2	--	44	43.9	42.9	42.3	42.2	----	20417.4
37	2/20/2020	9:09:25	00d	00:10.0	42.2	52.2	43.1	41.5	--	43.1	42.9	42.1	41.8	41.8	----	16595.9
38	2/20/2020	9:09:35	00d	00:10.0	42.3	52.3	42.5	41.6	--	42.5	42.4	42.2	41.9	41.7	----	16982.4
39	2/20/2020	9:09:45	00d	00:10.0	42.7	52.7	43	42.4	--	42.9	42.9	42.7	42.5	42.5	----	18620.9
40	2/20/2020	9:09:55	00d	00:10.0	42.7	52.7	43.4	42.1	--	43.2	43.1	42.7	42.3	42.2	----	18620.9
41	2/20/2020	9:10:05	00d	00:10.0	42.6	52.6	42.9	42.2	--	42.8	42.8	42.6	42.5	42.4	----	18197.0
42	2/20/2020	9:10:15	00d	00:10.0	43.1	53.1	43.7	42.4	--	43.6	43.5	43	42.7	42.5	----	20417.4
43	2/20/2020	9:10:25	00d	00:10.0	43.4	53.4	44.3	42.7	--	44.2	44	43.4	42.8	42.8	----	21877.6
44	2/20/2020	9:10:35	00d	00:10.0	42.4	52.4	42.8	42	--	42.7	42.7	42.4	42.1	42.1	----	17378.0
45	2/20/2020	9:10:45	00d	00:10.0	43	53	43.6	42.3	--	43.6	43.4	42.9	42.5	42.4	----	19952.6
46	2/20/2020	9:10:55	00d	00:10.0	43.3	53.3	43.7	43	--	43.6	43.6	43.3	43.1	43.1	----	21379.6
47	2/20/2020	9:11:05	00d	00:10.0	43.6	53.6	44.1	42.8	--	44.1	44	43.8	42.9	42.9	----	22908.7
48	2/20/2020	9:11:15	00d	00:10.0	42.8	52.8	43.3	42.2	--	43.3	43.2	42.7	42.4	42.3	----	19054.6
49	2/20/2020	9:11:25	00d	00:10.0	43	53	43.4	42.6	--	43.3	43.3	43	42.8	42.7	----	19952.6
50	2/20/2020	9:11:35	00d	00:10.0	42.7	52.7	43.1	42.3	--	43	43	42.7	42.4	42.4	----	18620.9
51	2/20/2020	9:11:45	00d	00:10.0	42.2	52.2	42.6	41.9	--	42.5	42.5	42.1	42	42	----	16595.9
52	2/20/2020	9:11:55	00d	00:10.0	41.8	51.8	42.7	41.2	--	42.5	42.5	41.8	41.5	41.4	----	15135.6
53	2/20/2020	9:12:05	00d	00:10.0	42.2	52.2	42.4	41.7	--	42.3	42.3	42.1	41.9	41.9	----	16595.9
54	2/20/2020	9:12:15	00d	00:10.0	41.3	51.3	42.1	40.9	--	41.8	41.7	41.3	41.1	41	----	13489.6
55	2/20/2020	9:12:25	00d	00:10.0	41.7	51.7	42.2	41.1	--	42.1	42	41.5	41.2	41.2	----	14791.1
56	2/20/2020	9:12:35	00d	00:10.0	41.6	51.6	42	41.3	--	41.9	41.9	41.7	41.5	41.4	----	14454.4
57	2/20/2020	9:12:45	00d	00:10.0	41.3	51.3	41.7	41	--	41.6	41.6	41.3	41.2	41.1	----	13489.6
58	2/20/2020	9:12:55	00d	00:10.0	41.4	51.4	41.8	41	--	41.7	41.5	41.4	41.1	41	----	13803.8
59	2/20/2020	9:13:05	00d	00:10.0	42.1	52.1	42.5	41.8	--	42.3	42.2	42	41.9	41.8	----	16218.1
60	2/20/2020	9:13:15	00d	00:10.0	41.8	51.8	42.1	41.5	--	42.1	42	41.8	41.7	41.6	----	15135.6
61	2/20/2020	9:13:25	00d	00:10.0	42.2	52.2	42.6	41.7	--	42.5	42.5	42.1	41.9	41.9	----	16595.9
62	2/20/2020	9:13:35	00d	00:10.0	42.7	52.7	43.9	41.6	--	43.8	43.4	42.4	41.8	41.7	----	18620.9
63	2/20/2020	9:13:45	00d	00:10.0	43.9	53.9	44.6	43.1	--	44.5	44.5	43.8	43.2	43.2	----	24547.1
64	2/20/2020	9:13:55	00d	00:10.0	45.4	55.4	46.3	44.2	--	46.1	46	45.3	44.5	44.4	----	34673.7
65	2/20/2020	9:14:05	00d	00:10.0	45.1	55.1	46.3	44.1	--	46.1	46	45.2	44.2	44.2	----	32359.4
66	2/20/2020	9:14:15	00d	00:10.0	44.7	54.7	45.1	44.1	--	45	45	44.8	44.3	44.2	----	29512.1
67	2/20/2020	9:14:25	00d	00:10.0	43.7	53.7	44.4	43.2	--	44.3	44.2	43.8	43.3	43.3	----	23442.3
68	2/20/2020	9:14:35	00d	00:10.0	43.6	53.6	44	43	--	43.9	43.8	43.6	43.2	43.2	----	22908.7
69	2/20/2020	9:14:45	00d	00:10.0	43.7	53.7	44.7	42.9	--	44.5	44.3	43.4	43	43	----	23442.3
70	2/20/2020	9:14:55	00d	00:10.0	44.3	54.3	45.1	43.8	--	45.1	45	44.3	44	43.9	----	26915.3
71	2/20/2020	9:15:05	00d	00:10.0	44.2	54.2	44.7	43.8	--	44.6	44.5	44.2	44	43.9	----	26302.7
72	2/20/2020	9:15:15	00d	00:10.0	44.4	54.4	45.2	43.7	--	45.1	45	44.4	43.9	43.8	----	27542.3
73	2/20/2020	9:15:25	00d	00:10.0	43.7	53.7	44.3	43.3	--	44.2	44	43.7	43.5	43.5	----	23442.3
74	2/20/2020	9:15:35	00d	00:10.0	43.8	53.8	44.1	43.5	--	44	44	43.8	43.6	43.6	----	23988.3
75	2/20/2020	9:15:45	00d	00:10.0	43.7	53.7	44	43.4	--	43.9	43.9	43.7	43.5	43.5	----	23442.3
76	2/20/2020	9:15:55	00d	00:10.0	43.9	53.9	44.2	43.7	--	44.1	44.1	43.8	43.7	43.7	----	24547.1
77	2/20/2020	9:16:05	00d	00:10.0	43.7	53.7	44.2	43.2	--	44.						

91	2/20/2020	9:18:25	00d	00:10:0	42.8	52.8	43.1	42.6	--	43	43	42.8	42.7	42.7	---	---	19054.6
92	2/20/2020	9:18:35	00d	00:10:0	42.4	52.4	42.7	42.2	--	42.6	42.6	42.4	42.3	42.3	---	---	17378.0
93	2/20/2020	9:18:45	00d	00:10:0	43.3	53.3	44	42.4	--	43.9	43.8	43.2	42.6	42.5	---	---	21379.6
94	2/20/2020	9:18:55	00d	00:10:0	43.3	53.3	44	43.1	--	43.9	43.6	43.4	43.1	43.1	---	---	21379.6
95	2/20/2020	9:19:05	00d	00:10:0	42.8	52.8	43.3	42.3	--	43.3	43.2	42.8	42.5	42.4	---	---	19054.6
96	2/20/2020	9:19:15	00d	00:10:0	43.1	53.1	43.4	42.6	--	43.4	43.3	43.1	42.7	42.7	---	---	20417.4
97	2/20/2020	9:19:25	00d	00:10:0	43.5	53.5	44	43.1	--	43.7	43.6	43.3	43.2	43.2	---	---	22387.2
98	2/20/2020	9:19:35	00d	00:10:0	43.5	53.5	44	43.1	--	43.9	43.8	43.5	43.2	43.2	---	---	22387.2
99	2/20/2020	9:19:45	00d	00:10:0	43.3	53.3	43.7	42.9	--	43.6	43.6	43.2	43.1	43.1	---	---	21379.6
100	2/20/2020	9:19:55	00d	00:10:0	43.1	53.1	43.5	42.6	--	43.4	43.4	43	42.7	42.7	---	---	20417.4
101	2/20/2020	9:20:05	00d	00:10:0	43.3	53.3	43.5	43	--	43.5	43.4	43.3	43.1	43.1	---	---	21379.6
102	2/20/2020	9:20:15	00d	00:10:0	43.3	53.3	43.6	43	--	43.5	43.5	43.3	43.1	43.1	---	---	21379.6
103	2/20/2020	9:20:25	00d	00:10:0	43.7	53.7	44	43.3	--	44	43.8	43.6	43.4	43.4	---	---	23442.3
104	2/20/2020	9:20:35	00d	00:10:0	43.5	53.5	44.2	43	--	44.2	44	43.5	43.1	43.1	---	---	22387.2
105	2/20/2020	9:20:45	00d	00:10:0	43.6	53.6	44.4	43.1	--	44.3	44.3	43.4	43.2	43.2	---	---	22908.7
106	2/20/2020	9:20:55	00d	00:10:0	42.9	52.9	43.6	42.4	--	43.6	43.5	43	42.5	42.4	---	---	19498.4
107	2/20/2020	9:21:05	00d	00:10:0	43.5	53.5	44	42.3	--	43.9	43.9	43.4	42.8	42.5	---	---	22387.2
108	2/20/2020	9:21:15	00d	00:10:0	43.7	53.7	44.4	42.9	--	44.3	44.3	43.7	43.2	43.1	---	---	23442.3
109	2/20/2020	9:21:25	00d	00:10:0	43.6	53.6	44.9	42.9	--	44.7	44.5	43.3	43.1	43.1	---	---	22908.7
110	2/20/2020	9:21:35	00d	00:10:0	43.1	53.1	44.1	42.4	--	44	43.9	42.8	42.5	42.5	---	---	20417.4
111	2/20/2020	9:21:45	00d	00:10:0	43.7	53.7	44.9	42.4	--	44.8	44.7	43.9	42.5	42.5	---	---	23442.3
112	2/20/2020	9:21:55	00d	00:10:0	42.1	52.1	42.8	41.5	--	42.7	42.6	42.2	41.6	41.6	---	---	16218.1
113	2/20/2020	9:22:05	00d	00:10:0	43.7	53.7	44.1	42.2	--	44	43.9	43.6	43	42.5	---	---	23442.3
114	2/20/2020	9:22:15	00d	00:10:0	44.3	54.3	46	43.6	--	45.4	44.6	43.9	43.7	43.7	---	---	26915.3
115	2/20/2020	9:22:25	00d	00:10:0	45.2	55.2	47.1	43.7	--	47	46.8	44.7	43.9	43.9	---	---	33113.1
116	2/20/2020	9:22:35	00d	00:10:0	44	54	44.5	43.6	--	44.4	44.3	44	43.7	43.7	---	---	25118.9
117	2/20/2020	9:22:45	00d	00:10:0	43.4	53.4	44.2	42.9	--	44	44	43.3	43.1	43.1	---	---	21877.6
118	2/20/2020	9:22:55	00d	00:10:0	43.1	53.1	43.6	42.9	--	43.5	43.4	43	42.9	42.9	---	---	20417.4
119	2/20/2020	9:23:05	00d	00:10:0	43.1	53.1	43.7	42.8	--	43.7	43.6	43	42.9	42.8	---	---	20417.4
120	2/20/2020	9:23:15	00d	00:10:0	42.4	52.4	43.4	41.8	--	43.3	43.3	42.5	42.1	41.9	---	---	17378.0
121	2/20/2020	9:23:25	00d	00:10:0	41.8	51.8	42.2	41.3	--	42.1	42.1	41.9	41.6	41.5	---	---	15135.6
122	2/20/2020	9:23:35	00d	00:10:0	43.2	53.2	45.7	41.3	--	45.4	45.1	42.3	41.5	41.4	---	---	20893.0
123	2/20/2020	9:23:45	00d	00:10:0	42.6	52.6	44.2	41.9	--	44	43.8	42.2	42	42	---	---	18197.0
124	2/20/2020	9:23:55	00d	00:10:0	41.9	51.9	42.3	41.4	--	42.2	42.2	42	41.7	41.6	---	---	15488.2
125	2/20/2020	9:24:05	00d	00:10:0	42.4	52.4	43	41.4	--	42.9	42.8	42.2	41.9	41.7	---	---	17378.0
126	2/20/2020	9:24:15	00d	00:10:0	41.6	51.6	42.4	41.2	--	42.2	42.1	41.6	41.4	41.3	---	---	14454.4
127	2/20/2020	9:24:25	00d	00:10:0	41.5	51.5	41.8	41.2	--	41.7	41.7	41.5	41.3	41.3	---	---	14125.4
128	2/20/2020	9:24:35	00d	00:10:0	42.2	52.2	42.7	41.7	--	42.6	42.5	42.1	41.8	41.7	---	---	16595.9
129	2/20/2020	9:24:45	00d	00:10:0	42.7	52.7	43.4	42.1	--	43.1	43	42.6	42.3	42.2	---	---	18620.9
130	2/20/2020	9:24:55	00d	00:10:0	43.9	53.9	44.7	42.7	--	44.6	44.5	43.6	42.9	42.9	---	---	24547.1
131	2/20/2020	9:25:05	00d	00:10:0	44.9	54.9	46	44.2	--	45.8	45.5	44.6	44.3	44.3	---	---	30903.0
132	2/20/2020	9:25:15	00d	00:10:0	44.4	54.4	45.4	43.5	--	45.2	45.1	44.6	43.7	43.6	---	---	27542.3
133	2/20/2020	9:25:25	00d	00:10:0	43.6	53.6	44	43.2	--	43.9	43.8	43.5	43.3	43.3	---	---	22908.7
134	2/20/2020	9:25:35	00d	00:10:0	45.5	55.5	48.2	43.7	--	47.9	46.1	44.6	44.1	43.8	---	---	35481.3
135	2/20/2020	9:25:45	00d	00:10:0	45.2	55.2	48	43.5	--	47.5	47.4	45.1	43.8	43.7	---	---	33113.1
136	2/20/2020	9:25:55	00d	00:10:0	44.2	54.2	45.1	43.5	--	45	44.9	44.2	43.6	43.6	---	---	26302.7
137	2/20/2020	9:26:05	00d	00:10:0	44.2	54.2	45.1	43.4	--	44.9	44.6	44.1	43.6	43.5	---	---	26302.7
138	2/20/2020	9:26:15	00d	00:10:0	45.2	55.2	46.4	44.3	--	46.3	46	45.2	44.4	44.4	---	---	33113.1
139	2/20/2020	9:26:25	00d	00:10:0	45.5	55.5	46.3	44.6	--	46.1	45.9	45.4	45	44.9	---	---	35481.3
140	2/20/2020	9:26:35	00d	00:10:0	45.2	55.2	45.8	44.7	--	45.6	45.4	45.2	44.8	44.7	---	---	33113.1
141	2/20/2020	9:26:45	00d	00:10:0	44.6	54.6	45.4	44	--	45.3	45	44.6	44.3	44.2	---	---	28840.3
142	2/20/2020	9:26:55	00d	00:10:0	44	54	44.9	43.3	--	44.6	44.5	44.1	43.6	43.4	---	---	25118.9
143	2/20/2020	9:27:05	00d	00:10:0	44.2	54.2	44.5	43.6	--	44.4	44.4	44.3	43.7	43.6	---	---	26302.7
144	2/20/2020	9:27:15	00d	00:10:0	43.4	53.4	44.3	42.6	--	44.1	43.9	43.5	43.2	42.8	---	---	21877.6
145	2/20/2020	9:27:25	00d	00:10:0	42.8	52.8	43.7	42.4	--	43.6	43.5	42.6	42.5	42.4	---	---	19054.6
146	2/20/2020	9:27:35	00d	00:10:0	42.8	52.8	43.2	42.4	--	43.1	43.1	42.8	42.5	42.5	---	---	19054.6
147	2/20/2020	9:27:45	00d	00:10:0	42.8	52.8	43.2	42.1	--	43.2	43.1	42.7	42.4	42.2	---	---	19054.6
148	2/20/2020	9:27:55	00d	00:10:0	42.8	52.8	44.1	42	--	43.8	43.5	42.7	42.2	42.1	---	---	19054.6
149	2/20/2020	9:28:05	00d	00:10:0	42.7	52.7	43.8	42.1	--	43.6	43.3	42.8	42.1	42.1	---	---	18620.9
150	2/20/2020	9:28:15	00d	00:10:0	42.8	52.8	44	41.9	--	43.6	43.2	42.5	42	42	---	---	19054.6
151	2/20/2020	9:28:25	00d	00:10:0	42.4	52.4	44.4	41.7	--	44.3	44	42.2	41.9	41.8	---	---	17378.0
152	2/20/2020	9:28:35	00d	00:10:0	43	53	43.4	42	--	43.4	43.4	42.9	42.1	42.1	---	---	19952.6
153	2/20/2020	9:28:45	00d	00:10:0	43	53	44.4	41.9	--	44.3	44.1	42.7	42	42	---	---	19952.6
154	2/20/2020	9:28:55	00d	00:10:0	42.4	52.4	43.2	41.5	--	43.1	43.1	42.4	41.6	41.6	---	---	17378.0
155	2/20/2020	9:29:05	00d	00:10:0	43	53	43.7	42.4	--	43.4	43.4	42.8	42.5	42.5	---	---	19952.6
156	2/20/2020	9:29:15	00d	00:10:0	44	54	44.4	43.4	--	44.3	44.3	43.9	43.6	43.5	---	---	25118.9
157	2/20/2020	9:29:25	00d	00:10:0	43.4	53.4	44.4	42.9	--	44.2	43.9	43.4	43.1	43	---	---	21877.6
158	2/20/2020	9:29:35	00d	00:10:0	43.7	53.7	44.7	42.6	--	44.5	44.4	43.6	42.9	42.7	---	---	23442.3
159	2/20/2020	9:29:45	00d	00:10:0	42.8	52.8	44	42.2	--	43.9	43.7	42.7	42.4	42.3	---	---	19054.6
160	2/20/2020	9:29:55	00d	00:10:0	42.1	52.1	42.7	41.7	--	42.6	42.5	42	41.8	41.8	---	---	16218.1
161	2/20/2020	9:30:05	00d	00:10:0	42.4	52.4	42.8	41.7	--	42.7	42.7	42.3	41.8	41.7	---	---	17378.0
162	2/20/2020	9:30:15	00d	00:10:0	42.2	52.2	42.8	41.6	--	42.8	42.7	42.2	41.8	41.7	---	---	16595.9
163	2/20/2020	9:30:25	00d	00:10:0	42.6	52.6	43.1	42	--	43	42.9	42.5	42.2	42.1	---	---	18197.0
164	2/20/2020	9:30:35	00d	00:10:0	42.4	52.4	42.8	42	--	42.8	42.7	42.4	42.1	42.1	---	---	17378.0
165	2/20/2020	9:30:45	00d	00:10:0	43.3	53.3	43.6	42.4	--	43.4	43.4	43.2	42.				

184	2/20/2020	9:33:55	00d	00:10:0	42.4	52.4	42.8	42	--	42.7	42.7	42.4	42.1	42.1	---	---	17378.0
185	2/20/2020	9:34:05	00d	00:10:0	42.6	52.6	43.1	42.1	--	43	42.9	42.6	42.2	42.2	---	---	18197.0
186	2/20/2020	9:34:15	00d	00:10:0	42.6	52.6	43.1	41.7	--	43.1	43	42.6	42.2	42	---	---	18197.0
187	2/20/2020	9:34:25	00d	00:10:0	41.8	51.8	42.1	41.4	--	42.1	42	41.7	41.5	41.5	---	---	15135.6
188	2/20/2020	9:34:35	00d	00:10:0	41.9	51.9	42.5	41.4	--	42.4	42.3	41.8	41.5	41.5	---	---	15488.2
189	2/20/2020	9:34:45	00d	00:10:0	42.5	52.5	43.3	41.8	--	43.1	43	42.2	42	41.9	---	---	17782.8
190	2/20/2020	9:34:55	00d	00:10:0	42.8	52.8	43.4	42.3	--	43.3	43.2	42.9	42.5	42.4	---	---	19054.6
191	2/20/2020	9:35:05	00d	00:10:0	43.2	53.2	44.4	42.6	--	43.6	43.2	43	42.8	42.8	---	---	20893.0
192	2/20/2020	9:35:15	00d	00:10:0	43.5	53.5	44.6	42.8	--	44.5	44.3	43.7	43	42.9	---	---	22387.2
193	2/20/2020	9:35:25	00d	00:10:0	43.3	53.3	43.8	42.7	--	43.7	43.5	43.3	42.9	42.8	---	---	21379.6
194	2/20/2020	9:35:35	00d	00:10:0	43.5	53.5	43.8	43.2	--	43.8	43.7	43.6	43.3	43.2	---	---	22387.2
195	2/20/2020	9:35:45	00d	00:10:0	43.3	53.3	44	42.7	--	43.9	43.8	43.3	42.8	42.7	---	---	21379.6
196	2/20/2020	9:35:55	00d	00:10:0	44	54	44.8	43.3	--	44.6	44.5	43.9	43.5	43.4	---	---	25118.9
197	2/20/2020	9:36:05	00d	00:10:0	43.4	53.4	43.9	43	--	43.8	43.6	43.4	43.2	43	---	---	21877.6
198	2/20/2020	9:36:15	00d	00:10:0	44	54	45.1	43.2	--	44.8	44.6	44	43.3	43.3	---	---	25118.9
199	2/20/2020	9:36:25	00d	00:10:0	43.2	53.2	43.9	42.7	--	43.8	43.6	43.2	42.8	42.8	---	---	20893.0
200	2/20/2020	9:36:35	00d	00:10:0	43.3	53.3	43.9	42.7	--	43.8	43.8	43.2	42.9	42.8	---	---	21379.6
201	2/20/2020	9:36:45	00d	00:10:0	42.8	52.8	43.7	42.2	--	43.6	43.5	42.7	42.4	42.3	---	---	19054.6
202	2/20/2020	9:36:55	00d	00:10:0	42.3	52.3	42.8	41.6	--	42.6	42.5	42.2	41.8	41.7	---	---	16982.4
203	2/20/2020	9:37:05	00d	00:10:0	44	54	45.4	42.8	--	45.3	45	43.9	42.9	42.9	---	---	25118.9
204	2/20/2020	9:37:15	00d	00:10:0	42.1	52.1	43.1	41.8	--	43	42.9	42	41.9	41.8	---	---	16218.1
205	2/20/2020	9:37:25	00d	00:10:0	42.4	52.4	43.1	41.8	--	43	42.9	42.3	41.9	41.8	---	---	17378.0
206	2/20/2020	9:37:35	00d	00:10:0	42.3	52.3	42.8	41.9	--	42.7	42.6	42.4	42	41.9	---	---	16982.4
207	2/20/2020	9:37:45	00d	00:10:0	42.2	52.2	42.6	41.9	--	42.5	42.5	42.1	42	42	---	---	16595.9
208	2/20/2020	9:37:55	00d	00:10:0	41.6	51.6	42.8	41	--	42.3	42.2	41.7	41.1	41.1	---	---	14454.4
209	2/20/2020	9:38:05	00d	00:10:0	53.7	63.7	59.9	41.6	--	59.6	58.8	47.8	41.7	41.7	---	---	234422.9
210	2/20/2020	9:38:15	00d	00:10:0	57.8	67.8	63.8	41.7	--	62.1	60.7	53.6	42.4	42	---	---	602559.6
211	2/20/2020	9:38:25	00d	00:10:0	60.2	70.2	67.5	48.8	--	66	63.8	59.9	52.2	50.7	---	---	1047128.5
212	2/20/2020	9:38:35	00d	00:10:0	61.1	71.1	64	48.2	--	63.7	63.2	60.6	51.7	49.8	---	---	1288249.6
213	2/20/2020	9:38:45	00d	00:10:0	62.2	72.2	65.1	52.9	--	64.4	64.1	62.3	57.1	55	---	---	1659586.9
214	2/20/2020	9:38:55	00d	00:10:0	62.6	72.6	64.5	60.6	--	64	63.8	62.6	61.4	61.2	---	---	1819700.9
215	2/20/2020	9:39:05	00d	00:10:0	61.6	71.6	64	57.9	--	63.5	63.2	61.7	59.6	59.1	---	---	1445439.8
216	2/20/2020	9:39:15	00d	00:10:0	58.4	68.4	62.7	44.5	--	62.4	62.2	58.3	47.4	45.8	---	---	691831.0
217	2/20/2020	9:39:25	00d	00:10:0	42.4	52.4	44.5	41.9	--	43.5	43	42.6	42	42	---	---	17378.0
218	2/20/2020	9:39:35	00d	00:10:0	42.2	52.2	42.8	41.6	--	42.6	42.5	42.3	41.9	41.7	---	---	16595.9
219	2/20/2020	9:39:45	00d	00:10:0	42.3	52.3	43.1	41.7	--	43	42.9	42.3	42	41.8	---	---	16982.4
220	2/20/2020	9:39:55	00d	00:10:0	42.1	52.1	42.5	41.7	--	42.3	42.2	42	41.8	41.8	---	---	16218.1
221	2/20/2020	9:40:05	00d	00:10:0	42.1	52.1	42.4	41.7	--	42.4	42.3	42	41.8	41.8	---	---	16218.1
222	2/20/2020	9:40:15	00d	00:10:0	43.2	53.2	44.3	42.4	--	44.2	43.9	43	42.6	42.5	---	---	20893.0
223	2/20/2020	9:40:25	00d	00:10:0	42.7	52.7	43	42.4	--	42.9	42.9	42.8	42.5	42.5	---	---	18620.9
224	2/20/2020	9:40:35	00d	00:10:0	42.6	52.6	43	42.3	--	42.9	42.9	42.6	42.4	42.3	---	---	18197.0
225	2/20/2020	9:40:45	00d	00:10:0	42.6	52.6	42.8	42.3	--	42.7	42.7	42.6	42.5	42.4	---	---	18197.0
226	2/20/2020	9:40:55	00d	00:10:0	41.5	51.5	42.5	41	--	42.5	42.3	41.5	41.1	41.1	---	---	14125.4
227	2/20/2020	9:41:05	00d	00:10:0	41.7	51.7	42.4	41	--	41.9	41.8	41.6	41.2	41.1	---	---	14791.1
228	2/20/2020	9:41:15	00d	00:10:0	41.2	51.2	42.6	40.6	--	42.3	42	41.2	40.7	40.7	---	---	13182.6
229	2/20/2020	9:41:25	00d	00:10:0	41.4	51.4	41.9	41	--	41.8	41.7	41.4	41.1	41.1	---	---	13803.8
230	2/20/2020	9:41:35	00d	00:10:0	41.3	51.3	42.7	40.3	--	42.6	42.3	41.5	40.4	40.4	---	---	13489.6
231	2/20/2020	9:41:45	00d	00:10:0	40.6	50.6	41.3	39.8	--	41	41	40.4	40	40	---	---	11481.5
232	2/20/2020	9:41:55	00d	00:10:0	49.6	59.6	57.9	41	--	56.8	55.2	41.6	41.1	41.1	---	---	91201.1
233	2/20/2020	9:42:05	00d	00:10:0	57.7	67.7	63.3	42.3	--	62.7	61.9	55.6	43.9	42.8	---	---	588843.7
234	2/20/2020	9:42:15	00d	00:10:0	56.4	66.4	63.3	43.6	--	62.5	61.1	50.6	45.7	44.5	---	---	436515.8
235	2/20/2020	9:42:25	00d	00:10:0	57.2	67.2	63.7	41.4	--	62.6	61	52.1	41.9	41.6	---	---	524807.5
236	2/20/2020	9:42:35	00d	00:10:0	57.1	67.1	63	48.9	--	62.6	62.2	56.8	51.5	50.5	---	---	512861.4
237	2/20/2020	9:42:45	00d	00:10:0	41.7	51.7	48.9	41.2	--	47.4	46.1	41.6	41.4	41.3	---	---	14791.1
238	2/20/2020	9:42:55	00d	00:10:0	45.5	55.5	51.6	41	--	50.8	49.3	41.5	41.1	41.1	---	---	31622.8
239	2/20/2020	9:43:05	00d	00:10:0	41.6	51.6	43.8	41.1	--	43	42.5	41.7	41.2	41.2	---	---	14454.4
240	2/20/2020	9:43:15	00d	00:10:0	41.2	51.2	42.1	40.9	--	42	41.9	41.2	41	41	---	---	13182.6
241	2/20/2020	9:43:25	00d	00:10:0	40.6	50.6	41.1	40.4	--	41.1	41	40.6	40.5	40.4	---	---	11481.5
242	2/20/2020	9:43:35	00d	00:10:0	40.8	50.8	41.3	40.2	--	41.2	41.2	40.7	40.3	40.3	---	---	12022.6
243	2/20/2020	9:43:45	00d	00:10:0	40.2	50.2	41.2	39.7	--	40.9	40.6	40.1	39.9	39.8	---	---	10471.3
244	2/20/2020	9:43:55	00d	00:10:0	40.4	50.4	41.2	39.9	--	41.1	41	40.3	40	40	---	---	10964.8
245	2/20/2020	9:44:05	00d	00:10:0	40.5	50.5	41.2	39.7	--	41.1	41	40.7	39.8	39.7	---	---	11220.2
246	2/20/2020	9:44:15	00d	00:10:0	40.8	50.8	41.8	40.1	--	41.6	41.4	40.8	40.3	40.2	---	---	12022.6
247	2/20/2020	9:44:25	00d	00:10:0	41	51	41.5	40.4	--	41.4	41.2	40.9	40.7	40.5	---	---	12589.3
248	2/20/2020	9:44:35	00d	00:10:0	41.5	51.5	42.8	40.8	--	42.5	42	41.3	40.9	40.9	---	---	14125.4
249	2/20/2020	9:44:45	00d	00:10:0	40.4	50.4	42.1	40.1	--	41.6	41.1	40.5	40.2	40.2	---	---	10964.8
250	2/20/2020	9:44:55	00d	00:10:0	41.2	51.2	41.7	40.1	--	41.6	41.6	41.2	40.6	40.3	---	---	13182.6
251	2/20/2020	9:45:05	00d	00:10:0	41.7	51.7	42.4	41	--	42.2	42.1	41.6	41.1	41.1	---	---	14791.1
252	2/20/2020	9:45:15	00d	00:10:0	41.8	51.8	42.3	41.4	--	42.1	42	41.7	41.5	41.5	---	---	15135.6
253	2/20/2020	9:45:25	00d	00:10:0	41.1	51.1	42.2	40.7	--	41.8	41.8	41.2	40.8	40.8	---	---	12882.5
254	2/20/2020	9:45:35	00d	00:10:0	40.7	50.7	41.4	40.2	--	41.3	41.2	40.8	40.4	40.3	---	---	11749.0
255	2/20/2020	9:45:45	00d	00:10:0	40.3	50.3	41.1	39.8	--	40.9	40.8	40.3	39.9	39.9	---	---	10715.2
256	2/20/2020	9:45:55	00d	00:10:0	40.3	50.3	42.2	39.5	--	40.7	40.6	39.8	39.6	39.6	---	---	10715.2
257	2/20/2020	9:46:05	00d	00:10:0	41.3	51.3	42.9	40.5	--	42.6	42.5	41.2	40.8	40.7	---	---	13489.6
258	2/20/2020	9:46:15	00d	00:10:0	41.3	51.3	43.2	40.3	--	43	42.7</						

277	2/20/2020	9:49:25	00d	00:10:0	42.6	52.6	43	42.2	--	42.9	42.8	42.5	42.3	42.3	---	----	18197.0
278	2/20/2020	9:49:35	00d	00:10:0	42.6	52.6	43.2	42	--	43	43	42.5	42.2	42.1	---	----	18197.0
279	2/20/2020	9:49:45	00d	00:10:0	55.2	65.2	62.5	42	--	61.2	59.3	42.7	42.1	42	---	----	331131.1
280	2/20/2020	9:49:55	00d	00:10:0	59.2	69.2	63.8	44.5	--	63.3	62.9	59.2	46.9	45.6	---	----	831763.8
281	2/20/2020	9:50:05	00d	00:10:0	42.2	52.2	44.5	41.8	--	43.7	43.1	42.3	41.9	41.8	---	----	16595.9
282	2/20/2020	9:50:15	00d	00:10:0	53.8	63.8	60	42.2	--	59	58.2	46.4	42.3	42.2	---	----	239883.3
283	2/20/2020	9:50:25	00d	00:10:0	60.6	70.6	65.1	44.6	--	64.4	64.2	58.4	47.3	45.9	---	----	1148153.6
284	2/20/2020	9:50:35	00d	00:10:0	60.8	70.8	64.6	53.6	--	63.6	63.1	60.9	57.5	55.4	---	----	1202264.4
285	2/20/2020	9:50:45	00d	00:10:0	61.7	71.7	65.5	54.5	--	64.9	64.5	61.7	57.8	56.5	---	----	1479108.4
286	2/20/2020	9:50:55	00d	00:10:0	43.5	53.5	54.5	42.6	--	52.5	50.6	44.4	42.9	42.8	---	----	22387.2
287	2/20/2020	9:51:05	00d	00:10:0	42.7	52.7	43.9	41.8	--	43.5	43.3	42.8	42	41.9	---	----	18620.9
288	2/20/2020	9:51:15	00d	00:10:0	43.7	53.7	44.4	42.6	--	44.3	44.2	43.7	42.7	42.6	---	----	23442.3
289	2/20/2020	9:51:25	00d	00:10:0	45	55	48.6	43.2	--	48.2	47.4	44	43.4	43.3	---	----	31622.8
290	2/20/2020	9:51:35	00d	00:10:0	44.2	54.2	46.6	43.4	--	45.7	45.2	44.4	43.6	43.5	---	----	26302.7
291	2/20/2020	9:51:45	00d	00:10:0	43.8	53.8	44.5	43.1	--	44.3	44.2	43.9	43.3	43.2	---	----	23988.3
292	2/20/2020	9:51:55	00d	00:10:0	42.3	52.3	43.6	41.8	--	43.3	43	42.4	42	41.9	---	----	16982.4
293	2/20/2020	9:52:05	00d	00:10:0	42.8	52.8	43.4	42	--	43.3	43.3	42.8	42.2	42	---	----	19054.6
294	2/20/2020	9:52:15	00d	00:10:0	42.1	52.1	42.7	41.5	--	42.5	42.5	42.2	41.8	41.6	---	----	16218.1
295	2/20/2020	9:52:25	00d	00:10:0	41.9	51.9	43	41.3	--	42.5	42	41.7	41.4	41.4	---	----	15488.2
296	2/20/2020	9:52:35	00d	00:10:0	42.4	52.4	43.4	41.5	--	43.3	43.2	42.4	41.8	41.6	---	----	17378.0
297	2/20/2020	9:52:45	00d	00:10:0	42.4	52.4	43.4	41.9	--	43.2	43	42.4	42	42	---	----	17378.0
298	2/20/2020	9:52:55	00d	00:10:0	41.6	51.6	42.1	41.3	--	42	42	41.6	41.5	41.4	---	----	14454.4
299	2/20/2020	9:53:05	00d	00:10:0	43.6	53.6	49	41	--	48.1	46.9	41.8	41.2	41.1	---	----	22908.7
300	2/20/2020	9:53:15	00d	00:10:0	42.2	52.2	44.1	41.4	--	43.7	43.4	41.9	41.5	41.5	---	----	16595.9
301	2/20/2020	9:53:25	00d	00:10:0	41	51	42.1	40.5	--	42	41.9	41	40.7	40.6	---	----	12589.3
302	2/20/2020	9:53:35	00d	00:10:0	40.9	50.9	41.5	40.4	--	41.3	41.3	40.8	40.4	40.4	---	----	12302.7
303	2/20/2020	9:53:45	00d	00:10:0	41.3	51.3	41.5	41	--	41.4	41.4	41.3	41.2	41.1	---	----	13489.6
304	2/20/2020	9:53:55	00d	00:10:0	41.7	51.7	42.1	41.3	--	42	42	41.7	41.4	41.4	---	----	14791.1
305	2/20/2020	9:54:05	00d	00:10:0	41.8	51.8	42	41.6	--	41.9	41.9	41.7	41.6	41.6	---	----	15135.6
306	2/20/2020	9:54:15	00d	00:10:0	42.5	52.5	42.8	41.8	--	42.7	42.7	42.5	41.9	41.9	---	----	17782.8
307	2/20/2020	9:54:25	00d	00:10:0	42.3	52.3	42.7	41.8	--	42.7	42.6	42.4	41.9	41.9	---	----	16982.4
308	2/20/2020	9:54:35	00d	00:10:0	41.7	51.7	41.9	41.3	--	41.9	41.8	41.7	41.5	41.4	---	----	14791.1
309	2/20/2020	9:54:45	00d	00:10:0	41.1	51.1	41.7	40.7	--	41.6	41.6	41.1	40.8	40.7	---	----	12882.5
310	2/20/2020	9:54:55	00d	00:10:0	41.1	51.1	41.7	40.5	--	41.6	41.6	40.9	40.6	40.6	---	----	12882.5
311	2/20/2020	9:55:05	00d	00:10:0	41.2	51.2	41.9	40.8	--	41.8	41.6	41.1	40.9	40.9	---	----	13182.6
312	2/20/2020	9:55:15	00d	00:10:0	40.8	50.8	41.4	40.3	--	41.4	41.3	40.7	40.4	40.4	---	----	12022.6
313	2/20/2020	9:55:25	00d	00:10:0	40.7	50.7	41	40.3	--	40.9	40.8	40.7	40.5	40.4	---	----	11749.0
314	2/20/2020	9:55:35	00d	00:10:0	40.5	50.5	40.9	40.1	--	40.9	40.8	40.5	40.2	40.2	---	----	11220.2
315	2/20/2020	9:55:45	00d	00:10:0	41.5	51.5	42.4	40.4	--	42.2	42.1	41.2	40.6	40.6	---	----	14125.4
316	2/20/2020	9:55:55	00d	00:10:0	41.7	51.7	42.9	41.1	--	42.6	42.3	41.8	41.2	41.2	---	----	14791.1
317	2/20/2020	9:56:05	00d	00:10:0	44.8	54.8	48.9	41.2	--	48.8	48.4	42.5	41.5	41.5	---	----	30199.5
318	2/20/2020	9:56:15	00d	00:10:0	41.8	51.8	42.9	41.2	--	42.7	42.4	41.7	41.4	41.4	---	----	15135.6
319	2/20/2020	9:56:25	00d	00:10:0	41.6	51.6	42.4	41.1	--	42.3	42.2	41.5	41.2	41.2	---	----	14454.4
320	2/20/2020	9:56:35	00d	00:10:0	40.9	50.9	41.2	40.6	--	41.1	41.1	40.9	40.7	40.7	---	----	12302.7
321	2/20/2020	9:56:45	00d	00:10:0	41.3	51.3	41.6	40.9	--	41.5	41.5	41.3	41	41	---	----	13489.6
322	2/20/2020	9:56:55	00d	00:10:0	41.3	51.3	41.9	40.6	--	41.8	41.8	41.4	40.8	40.7	---	----	13489.6
323	2/20/2020	9:57:05	00d	00:10:0	42.1	52.1	42.7	41.6	--	42.6	42.5	42.1	41.8	41.7	---	----	16218.1
324	2/20/2020	9:57:15	00d	00:10:0	43.1	53.1	44.1	41.9	--	43.9	43.8	42.7	42	42	---	----	20417.4
325	2/20/2020	9:57:25	00d	00:10:0	42.6	52.6	44	42.2	--	43.8	43.3	42.5	42.3	42.3	---	----	18197.0
326	2/20/2020	9:57:35	00d	00:10:0	41.8	51.8	43.1	41.3	--	42.7	42.4	41.9	41.5	41.4	---	----	15135.6
327	2/20/2020	9:57:45	00d	00:10:0	42.1	52.1	42.5	41.3	--	42.5	42.4	41.9	41.4	41.4	---	----	16218.1
328	2/20/2020	9:57:55	00d	00:10:0	41.4	51.4	42.4	41.1	--	42	41.7	41.4	41.2	41.2	---	----	13803.8
329	2/20/2020	9:58:05	00d	00:10:0	41.4	51.4	41.6	41.1	--	41.6	41.5	41.3	41.2	41.2	---	----	13803.8
330	2/20/2020	9:58:15	00d	00:10:0	49.6	59.6	57.6	41.3	--	56.6	54.5	43	41.8	41.6	---	----	91201.1
331	2/20/2020	9:58:25	00d	00:10:0	45	55	47.7	44.1	--	47.4	46.7	45.1	44.4	44.3	---	----	31622.8
332	2/20/2020	9:58:35	00d	00:10:0	58	68	64.1	44.2	--	63.1	62.5	50.9	44.8	44.5	---	----	630957.3
333	2/20/2020	9:58:45	00d	00:10:0	57.4	67.4	63.3	46	--	62.3	61.6	54.5	47.8	47.1	---	----	549540.9
334	2/20/2020	9:58:55	00d	00:10:0	61	71	65	47.4	--	64.6	64	60.4	50.7	48.9	---	----	1258925.4
335	2/20/2020	9:59:05	00d	00:10:0	57	67	62.6	48.9	--	61.9	61.2	56.9	52.1	50.7	---	----	501187.2
336	2/20/2020	9:59:15	00d	00:10:0	57.3	67.3	64.5	46	--	64.1	62.8	55	47.7	46.8	---	----	537031.8
337	2/20/2020	9:59:25	00d	00:10:0	40.9	50.9	46	40.4	--	44.6	43.5	41.1	40.6	40.4	---	----	12302.7
338	2/20/2020	9:59:35	00d	00:10:0	41.4	51.4	41.8	40.9	--	41.7	41.6	41.2	41	41	---	----	13803.8
339	2/20/2020	9:59:45	00d	00:10:0	41.5	51.5	41.9	41	--	41.8	41.8	41.4	41.2	41.1	---	----	14125.4
340	2/20/2020	9:59:55	00d	00:10:0	41.3	51.3	41.7	41	--	41.6	41.6	41.3	41.1	41.1	---	----	13489.6
341	2/20/2020	10:00:05	00d	00:10:0	49.8	59.8	56.3	41.2	--	55.8	54.9	45.4	41.5	41.3	---	----	95499.3
342	2/20/2020	10:00:15	00d	00:10:0	42.1	52.1	42.9	41.8	--	42.7	42.5	42.1	42	41.9	---	----	16218.1
343	2/20/2020	10:00:25	00d	00:10:0	42	52	44.7	41	--	44.3	43.6	41.8	41.1	41	---	----	15848.9
344	2/20/2020	10:00:35	00d	00:10:0	41.1	51.1	41.3	40.9	--	41.3	41.3	41.1	41	40.9	---	----	12882.5
345	2/20/2020	10:00:45	00d	00:10:0	41.3	51.3	41.9	40.6	--	41.7	41.7	41.4	40.8	40.7	---	----	13489.6
346	2/20/2020	10:00:55	00d	00:10:0	40.8	50.8	41.8	39.8	--	41.6	41.5	40.8	40.3	40	---	----	12022.6
347	2/20/2020	10:01:05	00d	00:10:0	40.3	50.3	40.8	39.8	--	40.8	40.7	40.2	40.1	40	---	----	10715.2
348	2/20/2020	10:01:15	00d	00:10:0	40.3	50.3	40.7	39.9	--	40.7	40.5	40.2	40	40	---	----	10715.2
349	2/20/2020	10:01:25	00d	00:10:0	40.6	50.6	41.2	40.1	--	41.1	40.9	40.5	40.3	40.2	---	----	11481.5
350	2/20/2020	10:01:35	00d	00:10:0	40.4	50.4	40.9	39.7	--	40.8	40.7	40.4	40	39.9	---	----	10964.8
351	2/20/2020	10:01:45	00d	00:10:0	40.4	50.4	40.7	40.1	--	40.6	40.6	40.4	40.3	40.2	---	----	10964.8
352	2/																

PASTE
HERE
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Address	Start Time	Measurement Time	Leq	LE	LMAX	LMIN	Ly	LN1	LN2	LN3	LN4	LN5	Over	Under	Inverse Log	Overall Leq	
M-04																	
59	2/20/2020	9:15:00	00d	00:10.0	65.9	75.9	69.7	58.8	--	69.5	69.3	63.5	59.8	59.2	----	3890451.4	62.6
60	2/20/2020	9:15:10	00d	00:10.0	64.4	74.4	69.7	61.6	--	69.4	68.7	64.8	62.3	61.8	----	2754228.7	
61	2/20/2020	9:15:20	00d	00:10.0	61.1	71.1	65.9	53.8	--	65.7	65.3	58.9	53.9	53.8	----	1288249.6	
62	2/20/2020	9:15:30	00d	00:10.0	57.1	67.1	65.6	52.3	--	65.4	64.6	53.8	52.4	52.4	----	512861.4	
63	2/20/2020	9:15:40	00d	00:10.0	70.2	80.2	74.9	54.3	--	74.8	74	66.9	56.7	55.2	----	10471285.5	
64	2/20/2020	9:15:50	00d	00:10.0	67.7	77.7	74.8	59.7	--	74.6	73.8	66.3	60.6	60	----	5888436.6	
65	2/20/2020	9:16:00	00d	00:10.0	67.6	77.6	70	66.3	--	69.9	69.6	67.3	66.6	66.4	----	5754399.4	
66	2/20/2020	9:16:10	00d	00:10.0	63.2	73.2	69.2	53.3	--	69.1	68.8	59.6	53.4	53.3	----	2089296.1	
67	2/20/2020	9:16:20	00d	00:10.0	61.9	71.9	64.4	53.7	--	64.3	64.2	59.8	56.6	54.8	----	1548816.6	
68	2/20/2020	9:16:30	00d	00:10.0	64.6	74.6	66.8	60.7	--	66.7	66.7	64.3	62.3	62	----	2884031.5	
69	2/20/2020	9:16:40	00d	00:10.0	60.2	70.2	66.4	51.8	--	65.9	63.7	55	51.9	51.8	----	1047128.5	
70	2/20/2020	9:16:50	00d	00:10.0	67.6	77.6	69.1	65.1	--	69	69	67.1	65.5	65.3	----	5754399.4	
71	2/20/2020	9:17:00	00d	00:10.0	63.2	73.2	66.5	57.5	--	66.2	66	63.9	58.2	57.8	----	2089296.1	
72	2/20/2020	9:17:10	00d	00:10.0	63	73	66.9	57	--	66.8	66.7	61.8	57.5	57.2	----	1995262.3	
73	2/20/2020	9:17:20	00d	00:10.0	52	62	63.2	47.8	--	61.8	60.3	51.6	48.5	48.1	----	158489.3	
74	2/20/2020	9:17:30	00d	00:10.0	55.3	65.3	61.6	47.3	--	59.8	57	49.1	47.5	47.5	----	338844.2	
75	2/20/2020	9:17:40	00d	00:10.0	67	77	70.3	57.4	--	70.1	70	66.9	59.4	58.3	----	5011872.3	
76	2/20/2020	9:17:50	00d	00:10.0	63.4	73.4	67	56.4	--	66.9	66.8	62.4	57	56.9	----	2187761.6	
77	2/20/2020	9:18:00	00d	00:10.0	52.3	62.3	56.4	51.2	--	55.2	54.3	52.4	51.3	51.2	----	169824.4	
78	2/20/2020	9:18:10	00d	00:10.0	62.7	72.7	67.7	53.2	--	67.4	67.1	60.2	53.6	53.4	----	1862087.1	
79	2/20/2020	9:18:20	00d	00:10.0	60.8	70.8	64.1	53.3	--	63.9	63.6	60.6	53.8	53.5	----	1202264.4	
80	2/20/2020	9:18:30	00d	00:10.0	58.4	68.4	62.1	52.2	--	62	61.6	56.3	52.5	52.4	----	691831.0	
81	2/20/2020	9:18:40	00d	00:10.0	58.7	68.7	63.3	50.9	--	63.1	63	59.1	51.2	51.1	----	741310.2	
82	2/20/2020	9:18:50	00d	00:10.0	62.3	72.3	67.8	50.1	--	67.7	67.4	51.8	50.2	50.1	----	1698243.7	
83	2/20/2020	9:19:00	00d	00:10.0	63.7	73.7	68.4	54	--	68.2	67.9	63.4	54.5	54.1	----	2344228.8	
84	2/20/2020	9:19:10	00d	00:10.0	61	71	66	53.4	--	65.9	65	55.2	53.9	53.6	----	1258925.4	
85	2/20/2020	9:19:20	00d	00:10.0	64.2	74.2	67.6	58.4	--	67.4	67.1	64.5	58.9	58.6	----	2630268.0	
86	2/20/2020	9:19:30	00d	00:10.0	64.4	74.4	67.1	55.3	--	67	66.9	64.7	57.9	56.5	----	2754228.7	
87	2/20/2020	9:19:40	00d	00:10.0	56.9	66.9	60.4	51.8	--	60.3	60.1	55.6	52.8	52.7	----	489778.8	
88	2/20/2020	9:19:50	00d	00:10.0	48.3	58.3	51.8	47.7	--	50.9	50	48.4	48	47.9	----	67608.3	
89	2/20/2020	9:20:00	00d	00:10.0	61.9	71.9	67.5	48.4	--	67.3	66.4	52.3	48.7	48.5	----	1548816.6	
90	2/20/2020	9:20:10	00d	00:10.0	62.6	72.6	67.3	56.7	--	67.2	66.4	63	57	56.8	----	1819700.9	
91	2/20/2020	9:20:20	00d	00:10.0	58.6	68.6	63	55.9	--	61.7	61.3	58.6	56.6	56.2	----	724436.0	
92	2/20/2020	9:20:30	00d	00:10.0	63.8	73.8	68.3	50.3	--	68.1	68	62.4	52	51.1	----	2398832.9	
93	2/20/2020	9:20:40	00d	00:10.0	46.7	56.7	50.4	45.1	--	49.9	49.5	46.3	45.8	45.4	----	46773.5	
94	2/20/2020	9:20:50	00d	00:10.0	46	56	47.6	44.9	--	47.2	47.1	45.4	45	44.9	----	39810.7	
95	2/20/2020	9:21:00	00d	00:10.0	61.3	71.3	65.2	47.6	--	65.1	65	55.3	48.6	48.2	----	1348962.9	
96	2/20/2020	9:21:10	00d	00:10.0	69.7	79.7	74.6	56.1	--	74.4	74.1	67.3	58.4	57.2	----	9332543.0	
97	2/20/2020	9:21:20	00d	00:10.0	50	60	56.2	47.2	--	55.2	54.4	49.8	47.4	47.3	----	100000.0	
98	2/20/2020	9:21:30	00d	00:10.0	62.1	72.1	66.8	49.4	--	66.6	66.5	54.7	50.2	50.1	----	1621810.1	
99	2/20/2020	9:21:40	00d	00:10.0	63.4	73.4	66.5	58.3	--	66.2	66.1	63.6	58.9	58.5	----	2187761.6	
100	2/20/2020	9:21:50	00d	00:10.0	61.6	71.6	65.8	54.5	--	65.5	65	60.4	54.9	54.7	----	1445439.8	
101	2/20/2020	9:22:00	00d	00:10.0	66.8	76.8	69.6	61.6	--	69.3	68.7	66.3	64.2	63.7	----	4786300.9	
102	2/20/2020	9:22:10	00d	00:10.0	66.7	76.7	69	63.6	--	68.7	68.5	66.8	63.9	63.8	----	4677351.4	
103	2/20/2020	9:22:20	00d	00:10.0	63.5	73.5	65.2	61.7	--	65	64.8	63.7	61.9	61.8	----	2238721.1	
104	2/20/2020	9:22:30	00d	00:10.0	67.6	77.6	69.4	62.5	--	69.1	68.9	67	65.1	64.5	----	5754399.4	
105	2/20/2020	9:22:40	00d	00:10.0	62.8	72.8	67.8	59.4	--	66.9	65.9	63.1	60.1	59.7	----	1905460.7	
106	2/20/2020	9:22:50	00d	00:10.0	48.5	58.5	60.8	45.6	--	59.2	57.5	48.4	45.9	45.8	----	70794.6	
107	2/20/2020	9:23:00	00d	00:10.0	57.8	67.8	62.1	45.6	--	61.9	61.8	53	45.9	45.7	----	602559.6	
108	2/20/2020	9:23:10	00d	00:10.0	49.5	59.5	58.1	47.7	--	56.7	55.4	49.4	47.9	47.8	----	89125.1	
109	2/20/2020	9:23:20	00d	00:10.0	60.7	70.7	64.9	50.3	--	64.8	64.6	58.4	51.7	51.2	----	1174897.6	
110	2/20/2020	9:23:30	00d	00:10.0	61.5	71.5	66.4	50.4	--	66.1	65.7	55.6	50.5	50.5	----	1412537.5	
111	2/20/2020	9:23:40	00d	00:10.0	60.6	70.6	65.3	49.7	--	65.1	64.6	60.4	50.9	50.2	----	1148153.6	
112	2/20/2020	9:23:50	00d	00:10.0	48.1	58.1	49.8	47.4	--	49.4	49.2	47.7	47.6	47.5	----	64565.4	
113	2/20/2020	9:24:00	00d	00:10.0	62.9	72.9	66.5	49.7	--	66.4	66.2	62	53.9	51.4	----	1949844.6	
114	2/20/2020	9:24:10	00d	00:10.0	48.5	58.5	59.2	47.4	--	57.5	55.8	48.1	47.5	47.5	----	70794.6	
115	2/20/2020	9:24:20	00d	00:10.0	45.9	55.9	47.5	45.3	--	47.4	47.2	46	45.5	45.4	----	38904.5	
116	2/20/2020	9:24:30	00d	00:10.0	47.4	57.4	49	46	--	48.6	48	46.9	46.3	46.2	----	54954.1	
117	2/20/2020	9:24:40	00d	00:10.0	62.7	72.7	66	49	--	65.9	65.8	62.2	49.8	49.3	----	1862087.1	
118	2/20/2020	9:24:50	00d	00:10.0	53	63	62.2	51.2	--	60.9	59.6	52.1	51.3	51.3	----	199526.2	
119	2/20/2020	9:25:00	00d	00:10.0	63.8	73.8	66.5	52.7	--	66.3	66.1	62.7	56.3	54.8	----	2398832.9	
120	2/20/2020	9:25:10	00d	00:10.0	62.9	72.9	68.1	49.8	--	67.8	67.7	61.2	51	50.4	----	1949844.6	
121	2/20/2020	9:25:20	00d	00:10.0	60.2	70.2	65.8	48.9	--	65.4	65	51	49	49	----	1047128.5	
122	2/20/2020	9:25:30	00d	00:10.0	61.5	71.5	65.8	55.4	--	65.1	64.5	62	56.2	55.6	----	1412537.5	
123	2/20/2020	9:25:40	00d	00:10.0	63.7	73.7	67.9	57.2	--	67.7	67.5	61.3	58.1	57.6	----	2344228.8	
124	2/20/2020	9:25:50	00d	00:10.0	66	76	68.5	60.3	--	68.4	68.1	65.4	60.9	60.6	----	3981071.7	
125	2/20/2020	9:26:00	00d	00:10.0	66.4	76.4	68.6	63	--	68.4	68.3	66.4	63.4	63.2	----	4365158.3	
126	2/20/2020	9:26:10	00d	00:10.0	61.4	71.4	67.5	53.1	--	67.4	67.1	59.4	53.6	53.3	----	1380384.3	
127	2/20/2020	9:26:20	00d	00:10.0	56.7	66.7	63.6	48.6	--	63.3	63	53.5	48.8	48.7	----	467735.1	
128	2/20/2020	9:26:30	00d	00:10.0	64.6	74.6	69	48.8	--	68.7	68.5	58.6	49.5	49.2	----	2884031.5	
129	2/20/2020	9:26:40	00d	00:10.0	62.9	72.9	67.6	53.5	--	67.5	67.4	64.1	54.4	53.9	----	1949844.6	
130	2/20/2020	9:26:50	00d	00:10.0	62.7	72.7	66.4	52.3	--	66.3	66.1	58.6	52.4	52.4	----	1862087.1	
131	2/20/2020	9:27:00	00d	00:10.0	62.6	72.6	65.7	53.8	--	65.5	65.4	63.6	55.2	54.4	----	1819700.9	
132	2/20/2020	9:27:10	00d	00:10.0	63.1	73.1	67.9	53.7	--	67.7	67.5	60.5	53.9	53.8	----	2041737.9	
133	2/20/2020	9:27:20	00d	00:10.0	48.4	58.4	54.3	47.4	--	53	51.6	48.4	47.6	47.6	----	69183.1	
134	2/20/2020	9:27:30	00d	00:10.0	62.3	72.3	66.										

149	2/20/2020	9:30:00	00d	00:10.0	45.2	55.2	47.9	44	--	47.2	46.8	45.2	44.2	44	----	----	33113.1
150	2/20/2020	9:30:10	00d	00:10.0	52.5	62.5	58.4	45.8	--	56.3	53.6	48.9	46	46	----	----	177827.9
151	2/20/2020	9:30:20	00d	00:10.0	67	77	69.6	58.3	--	69.4	69	66.5	63.9	61.2	----	----	5011872.3
152	2/20/2020	9:30:30	00d	00:10.0	63.9	73.9	68	55.3	--	67.9	67.8	61.5	55.8	55.5	----	----	2454708.9
153	2/20/2020	9:30:40	00d	00:10.0	63.4	73.4	68.1	51.6	--	67.9	67.6	63.9	53	52.5	----	----	2187761.6
154	2/20/2020	9:30:50	00d	00:10.0	49	59	51.8	47.4	--	51.4	50.9	49.1	47.8	47.6	----	----	79432.8
155	2/20/2020	9:31:00	00d	00:10.0	62	72	66.3	49.2	--	65.1	64	61.3	50.5	49.8	----	----	1584893.2
156	2/20/2020	9:31:10	00d	00:10.0	64.7	74.7	68.5	56.3	--	68.4	68.1	64.9	58.8	57.5	----	----	2951209.2
157	2/20/2020	9:31:20	00d	00:10.0	48.8	58.8	56.3	44.7	--	55	54	49.1	45.5	45.1	----	----	75857.8
158	2/20/2020	9:31:30	00d	00:10.0	45.2	55.2	46.2	43.7	--	46	46	45.2	44	43.9	----	----	33113.1
159	2/20/2020	9:31:40	00d	00:10.0	44.7	54.7	45.7	44	--	45.4	45.3	44.8	44.1	44.1	----	----	29512.1
160	2/20/2020	9:31:50	00d	00:10.0	60	70	64.6	45.4	--	64.4	64.3	51.6	45.8	45.6	----	----	1000000.0
161	2/20/2020	9:32:00	00d	00:10.0	62.8	72.8	66	54.3	--	65.9	65.7	60.3	54.8	54.5	----	----	1905460.7
162	2/20/2020	9:32:10	00d	00:10.0	60.1	70.1	66	53.2	--	65	64.4	56.8	53.4	53.3	----	----	1023293.0
163	2/20/2020	9:32:20	00d	00:10.0	69.4	79.4	73.9	56.3	--	73.9	73.5	68.2	58.7	57.4	----	----	8709635.9
164	2/20/2020	9:32:30	00d	00:10.0	64.4	74.4	68.5	54.4	--	68.4	68	60.4	54.8	54.6	----	----	2754228.7
165	2/20/2020	9:32:40	00d	00:10.0	64.4	74.4	67.3	56.9	--	67.2	66.7	64.8	59.1	57.9	----	----	2754228.7
166	2/20/2020	9:32:50	00d	00:10.0	58.9	68.9	64.2	51.1	--	63.9	63.5	54	51.3	51.2	----	----	776247.1
167	2/20/2020	9:33:00	00d	00:10.0	60.6	70.6	64.2	54.1	--	63.9	63.7	61.1	56.4	55.2	----	----	1148153.6
168	2/20/2020	9:33:10	00d	00:10.0	58.4	68.4	65.1	50.4	--	63.3	60.8	52.5	50.6	50.5	----	----	691831.0
169	2/20/2020	9:33:20	00d	00:10.0	62.2	72.2	65.5	55	--	65.4	65.3	61.1	55.4	55.2	----	----	1659586.9
170	2/20/2020	9:33:30	00d	00:10.0	62.4	72.4	66.1	56.6	--	65.7	65.5	62.1	57.5	56.8	----	----	1737800.8
171	2/20/2020	9:33:40	00d	00:10.0	50.2	60.2	62.9	44.6	--	61.5	60	49.3	45.4	44.9	----	----	104712.9
172	2/20/2020	9:33:50	00d	00:10.0	45.5	55.5	47.7	43.8	--	47.4	47.1	44.8	44	44	----	----	35481.3
173	2/20/2020	9:34:00	00d	00:10.0	62.4	72.4	67.4	47.7	--	67.2	67	53	48.6	48.2	----	----	1737800.8
174	2/20/2020	9:34:10	00d	00:10.0	59.1	69.1	65.3	52.9	--	63.9	63.1	58.2	53.1	53	----	----	812830.5
175	2/20/2020	9:34:20	00d	00:10.0	52	62	61.6	47.1	--	61	59.7	50.1	47.3	47.2	----	----	158489.3
176	2/20/2020	9:34:30	00d	00:10.0	56.5	66.5	60	47.8	--	59.9	59.8	55.6	49.6	48.5	----	----	446683.6
177	2/20/2020	9:34:40	00d	00:10.0	45.4	55.4	47.8	44.2	--	47.4	47.2	45.1	44.3	44.2	----	----	34673.7
178	2/20/2020	9:34:50	00d	00:10.0	51	61	57.3	44.2	--	55	52	46.9	44.3	44.3	----	----	125892.5
179	2/20/2020	9:35:00	00d	00:10.0	59.2	69.2	64.1	47.6	--	64	63.8	57.7	48.4	47.9	----	----	831763.8

PASTE
HERE

Address	Start Time	Measurement Time	Leq	LE	LMAX	LMIN	Ly	LN1	LN2	LN3	LN4	LN5	Over	Under	Inverse Log	Overall Leq	
M-05																	
84	2/20/2020	9:14:55	00d	00:10.0	63.7	73.7	66.1	59.3	--	65.9	65.6	63.7	60.7	60.3	----	2344228.8	63.8
85	2/20/2020	9:15:05	00d	00:10.0	64.6	74.6	68.1	55.3	--	67.9	67.7	62.4	55.6	55.5	----	2884031.5	
86	2/20/2020	9:15:15	00d	00:10.0	53.1	63.1	64.6	50.2	--	62.9	61.3	53	50.4	50.3	----	204173.8	
87	2/20/2020	9:15:25	00d	00:10.0	68.1	78.1	70.8	54.6	--	70.6	70.4	67.8	59.5	58.1	----	6456542.3	
88	2/20/2020	9:15:35	00d	00:10.0	67.6	77.6	70.8	63	--	70.6	70.1	66.1	63.8	63.2	----	5754399.4	
89	2/20/2020	9:15:45	00d	00:10.0	63.3	73.3	70.6	57.4	--	69.6	68.1	61.6	57.7	57.5	----	2137962.1	
90	2/20/2020	9:15:55	00d	00:10.0	66.1	76.1	68	61.4	--	67.9	67.9	66.8	62	61.6	----	4073802.8	
91	2/20/2020	9:16:05	00d	00:10.0	65.3	75.3	68.1	57	--	67.9	67.8	66.2	59.8	58.3	----	338841.6	
92	2/20/2020	9:16:15	00d	00:10.0	66.3	76.3	68.5	55.2	--	68.3	68.2	65.8	55.8	55.3	----	4265795.2	
93	2/20/2020	9:16:25	00d	00:10.0	63.3	73.3	68.3	54.8	--	68	67.5	61.6	55.4	55	----	2137962.1	
94	2/20/2020	9:16:35	00d	00:10.0	70.8	80.8	74.7	64.2	--	74.5	74.2	68.4	64.8	64.4	----	12022644.3	
95	2/20/2020	9:16:45	00d	00:10.0	69	79	73.4	63.8	--	72.3	71.9	70.2	64.2	63.9	----	7943282.3	
96	2/20/2020	9:16:55	00d	00:10.0	57.2	67.2	70.1	52.1	--	68.6	66.9	56.1	52.4	52.1	----	524807.5	
97	2/20/2020	9:17:05	00d	00:10.0	65.3	75.3	67.9	58.3	--	67.8	67.6	65.5	60.2	60.1	----	3388441.6	
98	2/20/2020	9:17:15	00d	00:10.0	65.6	75.6	67.4	60.1	--	67.3	67.2	65.8	61	60.4	----	3630780.5	
99	2/20/2020	9:17:25	00d	00:10.0	50.1	60.1	62.3	46.8	--	60.8	59.2	49.1	46.9	46.8	----	102329.3	
100	2/20/2020	9:17:35	00d	00:10.0	64.3	74.3	69.1	47	--	69	68.9	55.3	47.7	47.3	----	2691534.8	
101	2/20/2020	9:17:45	00d	00:10.0	69.4	79.4	72.1	65.9	--	71.9	71.8	69	67.4	67.3	----	8709635.9	
102	2/20/2020	9:17:55	00d	00:10.0	65.5	75.5	68.6	57.4	--	68.5	68.4	65.2	60	58.6	----	3548133.9	
103	2/20/2020	9:18:05	00d	00:10.0	48.5	58.5	57.4	45.2	--	56.1	54.8	48.1	45.4	45.3	----	70794.6	
104	2/20/2020	9:18:15	00d	00:10.0	44.7	54.7	45.3	44.2	--	45.2	45.1	44.6	44.3	44.3	----	29512.1	
105	2/20/2020	9:18:25	00d	00:10.0	66.3	76.3	71.8	45.2	--	71.7	71	55.6	46.2	45.8	----	4265795.2	
106	2/20/2020	9:18:35	00d	00:10.0	65.6	75.6	71.7	57.8	--	71	70.2	65.6	58.2	57.9	----	3630780.5	
107	2/20/2020	9:18:45	00d	00:10.0	67.5	77.5	70.6	60.3	--	70.1	69.1	69.1	62	61.1	----	5623413.3	
108	2/20/2020	9:18:55	00d	00:10.0	49.1	59.1	61	45.1	--	59.4	57.8	49	45.8	45.4	----	81283.1	
109	2/20/2020	9:19:05	00d	00:10.0	49.2	59.2	54.1	44.6	--	52.5	51.4	45.8	44.8	44.7	----	83176.4	
110	2/20/2020	9:19:15	00d	00:10.0	63.8	73.8	66.9	54.1	--	66.8	66.8	63	57.1	56.6	----	2398832.9	
111	2/20/2020	9:19:25	00d	00:10.0	63.6	73.6	66	55.4	--	65.8	65.4	63.5	55.9	55.6	----	2290867.7	
112	2/20/2020	9:19:35	00d	00:10.0	56.2	66.2	65.6	48.6	--	65.3	64.2	53.4	49.1	48.8	----	416869.4	
113	2/20/2020	9:19:45	00d	00:10.0	65.9	75.9	70.4	48.7	--	70.3	70.2	57.6	49.2	49	----	3890451.4	
114	2/20/2020	9:19:55	00d	00:10.0	66.7	76.7	70.6	58.5	--	70.5	70.3	67.2	59.5	58.9	----	4677351.4	
115	2/20/2020	9:20:05	00d	00:10.0	63.5	73.5	67	58.9	--	66.9	66.5	62.7	60.2	59.8	----	2238721.1	
116	2/20/2020	9:20:15	00d	00:10.0	54.8	64.8	61.1	50	--	59.7	58.8	54.1	50.1	50.1	----	301995.2	
117	2/20/2020	9:20:25	00d	00:10.0	62.8	72.8	67.4	52.2	--	67.4	67.3	60.6	52.8	52.3	----	1905460.7	
118	2/20/2020	9:20:35	00d	00:10.0	64.3	74.3	68.9	52.2	--	68.8	68	61.6	53.7	52.6	----	2691534.8	
119	2/20/2020	9:20:45	00d	00:10.0	62.6	72.6	68.7	56.8	--	67.5	66.9	62.7	57.3	57	----	1819700.9	
120	2/20/2020	9:20:55	00d	00:10.0	51.5	61.5	60.4	48.4	--	58.8	57.1	50.3	48.6	48.5	----	141253.8	
121	2/20/2020	9:21:05	00d	00:10.0	64.3	74.3	69.7	50.5	--	69.6	69.3	61.2	52.1	51.2	----	2691534.8	
122	2/20/2020	9:21:15	00d	00:10.0	46.9	56.9	50.5	45.9	--	49.6	48.9	46.6	46.1	46	----	48977.9	
123	2/20/2020	9:21:25	00d	00:10.0	47.8	57.8	49.4	46.5	--	49	48.6	47.1	46.7	46.7	----	60256.0	
124	2/20/2020	9:21:35	00d	00:10.0	62.2	72.2	66.2	49.4	--	66	65.7	54.2	49.8	49.6	----	1659586.9	
125	2/20/2020	9:21:45	00d	00:10.0	70.4	80.4	75.9	54.5	--	75.6	75.3	67.6	56.6	55.4	----	10964782.0	
126	2/20/2020	9:21:55	00d	00:10.0	49.6	59.6	54.5	48	--	53.6	52.8	49.2	48.2	48.2	----	91201.1	
127	2/20/2020	9:22:05	00d	00:10.0	63.2	73.2	67.6	49	--	67.5	67.3	61.3	49.2	49.1	----	2089296.1	
128	2/20/2020	9:22:15	00d	00:10.0	55.9	65.9	61.7	49.3	--	60.4	59	52.8	49.7	49.5	----	389045.1	
129	2/20/2020	9:22:25	00d	00:10.0	60.5	70.5	65.7	52.4	--	65.6	65.5	57	52.6	52.4	----	1122018.5	
130	2/20/2020	9:22:35	00d	00:10.0	67.2	77.2	71.1	56.7	--	70.9	70.4	67.1	59	58.1	----	5248074.6	
131	2/20/2020	9:22:45	00d	00:10.0	61.6	71.6	66.9	51.6	--	66.8	66.3	56.1	51.8	51.7	----	1445439.8	
132	2/20/2020	9:22:55	00d	00:10.0	67.8	77.8	70	60	--	69.7	69.5	67	60.8	60.3	----	6025595.9	
133	2/20/2020	9:23:05	00d	00:10.0	67.9	77.9	70.9	65.3	--	70.9	70.4	67.9	65.7	65.5	----	6165950.0	
134	2/20/2020	9:23:15	00d	00:10.0	67.4	77.4	68.1	65.4	--	67.9	67.8	67.4	66.2	66.1	----	5495408.7	
135	2/20/2020	9:23:25	00d	00:10.0	66.9	76.9	71.1	58.2	--	70.9	70.4	66.7	61.2	59.7	----	4897788.2	
136	2/20/2020	9:23:35	00d	00:10.0	49.4	59.4	58.2	45.4	--	57	55.7	48.8	45.7	45.5	----	87096.4	
137	2/20/2020	9:23:45	00d	00:10.0	45.6	55.6	47.5	44.6	--	46.5	46.2	45.2	44.7	44.7	----	36307.8	
138	2/20/2020	9:23:55	00d	00:10.0	60.4	70.4	64.3	47.5	--	64.2	64.1	58.2	50.7	49.8	----	1096478.2	
139	2/20/2020	9:24:05	00d	00:10.0	52.7	62.7	57.4	47.6	--	56.8	55.9	51.4	47.8	47.7	----	186208.7	
140	2/20/2020	9:24:15	00d	00:10.0	63.3	73.3	68.1	51.4	--	68	67.9	60.6	51.8	51.5	----	2137962.1	
141	2/20/2020	9:24:25	00d	00:10.0	65	75	68.5	52.1	--	68.3	68.1	63.8	53.3	52.5	----	3162277.7	
142	2/20/2020	9:24:35	00d	00:10.0	60.1	70.1	66.8	47.6	--	66.7	66.6	57.5	48.7	48.1	----	1023293.0	
143	2/20/2020	9:24:45	00d	00:10.0	51.1	61.1	56.1	46.5	--	55.4	53.7	47.2	46.7	46.6	----	128825.0	
144	2/20/2020	9:24:55	00d	00:10.0	63.1	73.1	66.5	55.5	--	66.2	66.1	62.8	56.3	56	----	2041737.9	
145	2/20/2020	9:25:05	00d	00:10.0	48.2	58.2	55.5	46.4	--	54.2	53	48.4	47.7	47	----	66069.3	
146	2/20/2020	9:25:15	00d	00:10.0	46.6	56.6	49.2	44.5	--	48.7	48.2	45.8	44.8	44.6	----	45708.8	
147	2/20/2020	9:25:25	00d	00:10.0	49.3	59.3	53.7	46.1	--	52.4	51.2	47.3	46.2	46.2	----	85113.8	
148	2/20/2020	9:25:35	00d	00:10.0	66.3	76.3	70.2	53.7	--	70	69.8	65.5	57.9	56.3	----	4265795.2	
149	2/20/2020	9:25:45	00d	00:10.0	54.6	64.6	59.5	50.8	--	57.4	56.5	53.1	51.3	51.1	----	288403.2	
150	2/20/2020	9:25:55	00d	00:10.0	66.5	76.5	69.3	59.5	--	69.2							

174	2/20/2020	9:29:55	00d	00:10.0	60.1	70.1	66.1	45.4	--	65.9	64.8	51.5	45.6	45.5	----	----	1023293.0
175	2/20/2020	9:30:05	00d	00:10.0	56.8	66.8	65.9	47	--	65.7	65	52.9	47.3	47.1	----	----	478630.1
176	2/20/2020	9:30:15	00d	00:10.0	56.6	66.6	63.9	46.8	--	61.7	57.6	48	46.9	46.8	----	----	457088.2
177	2/20/2020	9:30:25	00d	00:10.0	68.2	78.2	71.1	63.8	--	70.9	70.5	68	64.6	64.2	----	----	6606934.5
178	2/20/2020	9:30:35	00d	00:10.0	53.6	63.6	66.8	46.3	--	65.3	63.8	52.2	47	46.4	----	----	229086.8
179	2/20/2020	9:30:45	00d	00:10.0	46.7	56.7	49.7	44.4	--	49.3	48.8	45.5	44.6	44.5	----	----	46773.5
180	2/20/2020	9:30:55	00d	00:10.0	63.9	73.9	69.4	49.7	--	69.2	68.9	56.3	49.8	49.7	----	----	2454708.9
181	2/20/2020	9:31:05	00d	00:10.0	66.2	76.2	71.3	55.1	--	71.1	70.6	60.1	56.1	55.4	----	----	4168693.8
182	2/20/2020	9:31:15	00d	00:10.0	63	73	71.5	50	--	71.4	71.1	58.3	50.2	50.1	----	----	1995262.3
183	2/20/2020	9:31:25	00d	00:10.0	63.2	73.2	67.1	50.3	--	65.3	65.2	62.7	53.8	52	----	----	2089296.1
184	2/20/2020	9:31:35	00d	00:10.0	64.3	74.3	70.5	53.2	--	70.1	69.5	61.8	54	53.4	----	----	2691534.8
185	2/20/2020	9:31:45	00d	00:10.0	62.6	72.6	68.6	52.5	--	68.6	68.1	58.5	52.6	52.6	----	----	1819700.9
186	2/20/2020	9:31:55	00d	00:10.0	62.1	72.1	65	53.5	--	65	64.9	60.8	56.9	55.1	----	----	1621810.1
187	2/20/2020	9:32:05	00d	00:10.0	64.7	74.7	69.9	50.1	--	69.8	69.6	62.2	51.5	50.7	----	----	2951209.2
188	2/20/2020	9:32:15	00d	00:10.0	46.8	56.8	50.1	45	--	49.8	49.1	47.4	45.3	45.2	----	----	47863.0
189	2/20/2020	9:32:25	00d	00:10.0	45.7	55.7	47.5	44.7	--	46.9	46.4	45.2	44.9	44.8	----	----	37153.5
190	2/20/2020	9:32:35	00d	00:10.0	63.4	73.4	67.3	47.5	--	67.3	66.9	61.7	48.7	48	----	----	2187761.6
191	2/20/2020	9:32:45	00d	00:10.0	62.5	72.5	66.8	53.9	--	66.6	66.4	60.5	57.3	55.6	----	----	1778279.4
192	2/20/2020	9:32:55	00d	00:10.0	47.6	57.6	53.9	46.2	--	52.4	51.1	47.6	46.4	46.4	----	----	57544.0
193	2/20/2020	9:33:05	00d	00:10.0	63.8	73.8	70.4	49.3	--	68.9	66.5	56.1	50.1	49.6	----	----	2398832.9
194	2/20/2020	9:33:15	00d	00:10.0	66.5	76.5	71.9	56.6	--	71.9	71.5	64.4	56.7	56.7	----	----	4466835.9
195	2/20/2020	9:33:25	00d	00:10.0	67.8	77.8	70.5	56.7	--	70.3	70.1	68.3	57	57	----	----	6025595.9
196	2/20/2020	9:33:35	00d	00:10.0	56	66	68.5	47.8	--	67.5	65.9	53.5	48	47.9	----	----	398107.2
197	2/20/2020	9:33:45	00d	00:10.0	62.7	72.7	67.2	47.9	--	67.1	66.8	59	48.2	48	----	----	1862087.1
198	2/20/2020	9:33:55	00d	00:10.0	61.3	71.3	66.3	48.8	--	66.2	66	60.2	49.7	49.1	----	----	1348962.9
199	2/20/2020	9:34:05	00d	00:10.0	65.3	75.3	69.8	48.7	--	69.5	69.4	62.4	49.5	49	----	----	3388441.6
200	2/20/2020	9:34:15	00d	00:10.0	63.2	73.2	68.1	57.8	--	67.9	67.5	61.5	58.2	58.1	----	----	2089296.1
201	2/20/2020	9:34:25	00d	00:10.0	47.1	57.1	60.1	44.4	--	58.3	56.5	47.4	44.6	44.5	----	----	51286.1
202	2/20/2020	9:34:35	00d	00:10.0	63.9	73.9	69.6	44.7	--	69.3	68.9	49.5	45.3	44.9	----	----	2454708.9
203	2/20/2020	9:34:45	00d	00:10.0	51.8	61.8	66.7	44.5	--	64.9	63.3	51.3	45	44.8	----	----	151356.1
204	2/20/2020	9:34:55	00d	00:10.0	55.2	65.2	61.7	44.1	--	61	57.9	45.3	44.3	44.2	----	----	331131.1
205	2/20/2020	9:35:05	00d	00:10.0	62.2	72.2	65.5	57.6	--	65.5	65.2	61.7	58.4	57.9	----	----	1659586.9

PASTE
HERE
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Address	Start Time	Measurement Time	Leq	LE	LMAX	LMIN	Ly	LN1	LN2	LN3	LN4	LN5	Over	Under	Inverse Log	Overall Leq	
M-06																	
1	2/20/2020	10:25:48	00d	00:10.0	40.6	50.6	44.4	38.5	--	43.6	42.5	39.8	38.7	38.6	----	11481.5	46.7
2	2/20/2020	10:25:58	00d	00:10.0	43.8	53.8	50.1	38.9	--	48.9	43.4	41.5	39.1	39.1	----	23988.3	
3	2/20/2020	10:26:08	00d	00:10.0	54.4	64.4	61.5	39.4	--	60.6	59.7	47.4	40.6	39.8	----	275422.9	
4	2/20/2020	10:26:18	00d	00:10.0	56.1	66.1	59.3	51.2	--	59.1	58.9	55.5	52.1	51.7	----	407380.3	
5	2/20/2020	10:26:28	00d	00:10.0	43.8	53.8	51.2	41.3	--	50.4	49.6	43.1	41.5	41.4	----	23988.3	
6	2/20/2020	10:26:38	00d	00:10.0	40.4	50.4	42.4	39.2	--	42	41.5	40.4	39.4	39.3	----	10964.8	
7	2/20/2020	10:26:48	00d	00:10.0	40.2	50.2	41.7	39.5	--	41.5	40.9	40	39.6	39.6	----	10471.3	
8	2/20/2020	10:26:58	00d	00:10.0	40.3	50.3	41.2	39.1	--	41	40.7	40.3	39.4	39.3	----	10715.2	
9	2/20/2020	10:27:08	00d	00:10.0	41.1	51.1	43.5	39.1	--	43.2	42.7	40.4	39.3	39.2	----	12882.5	
10	2/20/2020	10:27:18	00d	00:10.0	40.6	50.6	41.9	39	--	41.7	41.7	40.2	39.2	39.1	----	11481.5	
11	2/20/2020	10:27:28	00d	00:10.0	39.9	49.9	41.2	38.6	--	40.8	40.7	39.9	38.9	38.7	----	9772.4	
12	2/20/2020	10:27:38	00d	00:10.0	41.4	51.4	44.8	39.5	--	44.2	43.3	41	39.9	39.7	----	13803.8	
13	2/20/2020	10:27:48	00d	00:10.0	41.5	51.5	43.6	39.6	--	42.7	42.5	41.3	40.3	40.2	----	14125.4	
14	2/20/2020	10:27:58	00d	00:10.0	40.7	50.7	41.8	39.3	--	41.5	41.3	40.5	39.8	39.4	----	11749.0	
15	2/20/2020	10:28:08	00d	00:10.0	60.4	70.4	64.1	41.8	--	63.9	63.6	57.5	44.7	44	----	1096478.2	
16	2/20/2020	10:28:18	00d	00:10.0	52.6	62.6	62.4	42	--	61.6	60.4	51.4	44.1	42.9	----	181970.1	
17	2/20/2020	10:28:28	00d	00:10.0	41	51	42.6	40.2	--	42.1	41.8	41	40.5	40.4	----	12589.3	
18	2/20/2020	10:28:38	00d	00:10.0	40.8	50.8	41.5	40.3	--	41.2	41.2	40.8	40.4	40.4	----	12022.6	
19	2/20/2020	10:28:48	00d	00:10.0	41.2	51.2	41.9	40.5	--	41.7	41.6	41.1	40.7	40.6	----	13182.6	
20	2/20/2020	10:28:58	00d	00:10.0	42.4	52.4	45.9	39.6	--	45.1	44	40.8	39.7	39.6	----	17378.0	
21	2/20/2020	10:29:08	00d	00:10.0	45.8	55.8	48.6	41.7	--	48.6	48.4	45.9	42.5	42.1	----	38018.9	
22	2/20/2020	10:29:18	00d	00:10.0	41.1	51.1	42.5	39.8	--	42.3	42.1	41.4	40	39.9	----	12882.5	
23	2/20/2020	10:29:28	00d	00:10.0	40.5	50.5	41.5	39.5	--	41.2	41	40.4	39.8	39.7	----	11220.2	
24	2/20/2020	10:29:38	00d	00:10.0	41.5	51.5	46.5	38.8	--	45.7	45	40.2	39	38.9	----	14125.4	
25	2/20/2020	10:29:48	00d	00:10.0	42.4	52.4	45.9	38.9	--	45.8	45.6	40.3	39.1	39	----	17378.0	
26	2/20/2020	10:29:58	00d	00:10.0	41.7	51.7	47	38.8	--	46	45	40	39.3	39	----	14791.1	
27	2/20/2020	10:30:08	00d	00:10.0	38.8	48.8	41.2	36.9	--	40.6	40	38.8	37.2	37.1	----	7585.8	
28	2/20/2020	10:30:18	00d	00:10.0	40.1	50.1	44.5	37	--	43.6	42.8	39.4	37.2	37.1	----	10232.9	
29	2/20/2020	10:30:28	00d	00:10.0	39.7	49.7	44.3	36.4	--	43.3	42.7	38.3	36.5	36.4	----	9332.5	
30	2/20/2020	10:30:38	00d	00:10.0	39.9	49.9	43.1	38.2	--	42.7	40.8	38.8	38.4	38.4	----	9772.4	
31	2/20/2020	10:30:48	00d	00:10.0	39.8	49.8	42.8	38.8	--	42.6	42	39.8	38.9	38.9	----	9549.9	
32	2/20/2020	10:30:58	00d	00:10.0	40.1	50.1	41.4	38.9	--	41.1	40.9	39.8	39.1	39.1	----	10232.9	
33	2/20/2020	10:31:08	00d	00:10.0	40	50	41.7	39	--	41.2	41	39.8	39.1	39.1	----	10000.0	
34	2/20/2020	10:31:18	00d	00:10.0	41.1	51.1	42.3	40.2	--	41.8	41.6	40.8	40.4	40.3	----	12882.5	
35	2/20/2020	10:31:28	00d	00:10.0	38.9	48.9	41.6	38.1	--	41.1	40.7	38.8	38.5	38.4	----	7762.5	
36	2/20/2020	10:31:38	00d	00:10.0	38.4	48.4	39.4	37.6	--	39.1	39	37.9	37.7	37.7	----	6918.3	
37	2/20/2020	10:31:48	00d	00:10.0	39.9	49.9	40.6	39.1	--	40.5	40.4	39.9	39.2	39.2	----	9772.4	
38	2/20/2020	10:31:58	00d	00:10.0	40	50	41.3	39.1	--	41.1	40.7	39.9	39.6	39.4	----	10000.0	
39	2/20/2020	10:32:08	00d	00:10.0	39.1	49.1	39.6	38.7	--	39.5	39.4	39	38.8	38.8	----	8128.3	
40	2/20/2020	10:32:18	00d	00:10.0	39.2	49.2	39.9	38.5	--	39.7	39.7	39.1	38.6	38.6	----	8317.6	
41	2/20/2020	10:32:28	00d	00:10.0	39.9	49.9	41	38.7	--	40.7	40.5	39.8	38.8	38.7	----	9772.4	
42	2/20/2020	10:32:38	00d	00:10.0	40	50	40.4	39.3	--	40.3	40.3	40	39.6	39.4	----	10000.0	
43	2/20/2020	10:32:48	00d	00:10.0	40.6	50.6	41.4	39.7	--	41.3	41	40.6	39.9	39.8	----	11481.5	
44	2/20/2020	10:32:58	00d	00:10.0	40.6	50.6	41.5	39.7	--	41.3	41	40.6	39.9	39.9	----	11481.5	
45	2/20/2020	10:33:08	00d	00:10.0	41.3	51.3	42	40.3	--	41.9	41.7	41.2	40.6	40.5	----	13489.6	
46	2/20/2020	10:33:18	00d	00:10.0	41.8	51.8	43.3	40.7	--	42.9	42.7	41.5	40.9	40.8	----	15135.6	
47	2/20/2020	10:33:28	00d	00:10.0	40.9	50.9	42.3	40.1	--	42.1	42	40.9	40.4	40.3	----	12302.7	
48	2/20/2020	10:33:38	00d	00:10.0	40	50	40.3	39.5	--	40.2	40.1	40	39.7	39.6	----	10000.0	
49	2/20/2020	10:33:48	00d	00:10.0	40	50	42.5	38.8	--	41.6	40.8	39.7	38.9	38.9	----	10000.0	
50	2/20/2020	10:33:58	00d	00:10.0	39.5	49.5	41.2	38.5	--	41	40.8	39.3	38.7	38.6	----	8912.5	
51	2/20/2020	10:34:08	00d	00:10.0	41.2	51.2	43.4	38.9	--	43.2	43.1	40	39.1	39	----	13182.6	
52	2/20/2020	10:34:18	00d	00:10.0	41.3	51.3	42.8	39.6	--	42.7	42.5	41.5	40.1	39.8	----	13489.6	
53	2/20/2020	10:34:28	00d	00:10.0	39.1	49.1	40.6	37.9	--	40.3	40.1	39.3	38.3	38.2	----	8128.3	
54	2/20/2020	10:34:38	00d	00:10.0	39.4	49.4	40.6	38.4	--	40.3	40.1	39	38.5	38.5	----	8709.6	
55	2/20/2020	10:34:48	00d	00:10.0	39.6	49.6	41.7	37.7	--	41.3	41.2	39.3	37.9	37.9	----	9120.1	
56	2/20/2020	10:34:58	00d	00:10.0	38.2	48.2	39.6	36.8	--	39.2	39.1	38.4	37.2	37.1	----	6606.9	
57	2/20/2020	10:35:08	00d	00:10.0	38.7	48.7	41.4	36.6	--	41.1	41	37	36.7	36.7	----	7413.1	
58	2/20/2020	10:35:18	00d	00:10.0	44	54	48.9	38.3	--	48	47.3	42.5	39.3	38.8	----	25118.9	
59	2/20/2020	10:35:28	00d	00:10.0	38.9	48.9	40.5	37.5	--	40.3	40.3	38.7	37.7	37.6	----	7762.5	
60	2/20/2020	10:35:38	00d	00:10.0	43.2	53.2	47.2	38.6	--	46.9	46.4	42.2	39.2	38.9	----	20893.0	
61	2/20/2020	10:35:48	00d	00:10.0	39.5	49.5	40.1	38.8	--	40	39.9	39.5	38.9	38.9	----	8912.5	
62	2/20/2020	10:35:58	00d	00:10.0	43.4	53.4	46.6	39.1	--	46.2	45.9	42.5	40	39.7	----	21877.6	
63	2/20/2020	10:36:08	00d	00:10.0	47.4	57.4	50.8	41.3	--	50.7	50.4	45.7	43.4	42.3	----	54954.1	
64	2/20/2020	10:36:18	00d	00:10.0	49.6	59.6	55	44.2	--	54.5	49	47.6	44.6	44.3	----	91201.1	
65	2/20/2020	10:36:28	00d	00:10.0	48.2	58.2	54.3	44.6	--	53.2	52.6	48.3	45.4	44.8	----	66069.3	
66	2/20/2020	10:36:38	00d	00:10.0	51.8	61.8	53.9	47	--	53.8	53.6	51.8	48	47.5	----	151356.1	
67	2/20/2020	10:36:48	00d	00:10.0	53.4	63.4	56.1	48.4	--	56	56	52.9	48.8	48.7	----	218776.2	
68	2/20/2020	10:36:58	00d	00:10.0	49.9	59.9	51.7	47.7	--	51.5	51.3	49.7	48.4	47.8	----	97723.7	
69	2/20/2020	10:37:08	00d	00:10.0	47.8	57.8	50.1	46.7	--	49.7	49	47.6	47	47	----	60256.0	
70	2/20/2020	10:37:18	00d	00:10.0	49.3	59.3	52.3	45.8	--	52.1	51.7	48.6	46	45.9	----	85113.8	
71	2/20/2020	10:37:28	00d	00:10.0	46.9	56.9	49.8	41.9	--	49.3	48.9	45.9	43.2	42.4	----	48977.9	
72	2/20/2020	10:37:38	00d	00:10.0	46.6	56.6	49.8	44.9	--	48.9	48.6	47.1	45.2	45	----	45708.8	
73	2/20/2020	10:37:48	00d	00:10.0	49.4	59.4	51	44.2	--	50.8	50.5	49	44.6	44.4	----	87096.4	
74	2/20/2020	10:37:58	00d	00:10.0	58.4	68.4	60.7	50.9	--	60.5	60.2	57.7	54.7	53	----	691831.0	
75	2/20/2020	10:38:08	00d	00:10.0													

94	2/20/2020	10:41:18	00d	00:10.0	40	50	45.7	38.2	--	44.5	43.9	39.6	38.6	38.4	---	---	10000.0
95	2/20/2020	10:41:28	00d	00:10.0	41.9	51.9	45.5	37.9	--	45	44.5	41.4	38	38	---	---	15488.2
96	2/20/2020	10:41:38	00d	00:10.0	41.5	51.5	46.6	38.6	--	45.7	44.6	40.3	38.8	38.7	---	---	14125.4
97	2/20/2020	10:41:48	00d	00:10.0	42.6	52.6	46.7	39.9	--	46.1	45.3	41.3	40.1	40	---	---	18197.0
98	2/20/2020	10:41:58	00d	00:10.0	42.8	52.8	47	40.1	--	46.2	45.8	41.9	40.2	40.2	---	---	19054.6
99	2/20/2020	10:42:08	00d	00:10.0	42.9	52.9	47	39.8	--	46.6	46	41.9	40.9	40.2	---	---	19498.4
100	2/20/2020	10:42:18	00d	00:10.0	42.8	52.8	46.2	39.5	--	46	45.3	41.5	40.3	40.2	---	---	19054.6
101	2/20/2020	10:42:28	00d	00:10.0	51.9	61.9	59.9	41.7	--	58.5	57.6	43.9	42	41.9	---	---	154881.7
102	2/20/2020	10:42:38	00d	00:10.0	48.3	58.3	53.9	44.5	--	53	51.4	48.2	45.2	45	---	---	67608.3
103	2/20/2020	10:42:48	00d	00:10.0	45	55	49.6	41	--	49.2	48.9	44.9	42.2	41.5	---	---	31622.8
104	2/20/2020	10:42:58	00d	00:10.0	42.3	52.3	45.2	40.5	--	44.7	44.4	41.7	41	40.7	---	---	16982.4
105	2/20/2020	10:43:08	00d	00:10.0	42.2	52.2	45.7	39.7	--	45.2	44.8	41	40.2	39.9	---	---	16595.9
106	2/20/2020	10:43:18	00d	00:10.0	41.5	51.5	44.8	40.4	--	44.3	43.7	41.1	40.6	40.5	---	---	14125.4
107	2/20/2020	10:43:28	00d	00:10.0	41.4	51.4	44	39.7	--	43.5	43.1	41.2	40	39.9	---	---	13803.8
108	2/20/2020	10:43:38	00d	00:10.0	43.1	53.1	47.4	40.5	--	46.5	45.8	42	40.8	40.6	---	---	20417.4
109	2/20/2020	10:43:48	00d	00:10.0	44.7	54.7	47.8	41.9	--	46.9	46.4	43.4	42.2	42.1	---	---	29512.1
110	2/20/2020	10:43:58	00d	00:10.0	44.4	54.4	47.7	42.7	--	47.2	46.4	44	43.2	42.9	---	---	27542.3
111	2/20/2020	10:44:08	00d	00:10.0	45.1	55.1	47.6	42.9	--	47.4	47.2	44.3	43.3	43.2	---	---	32359.4
112	2/20/2020	10:44:18	00d	00:10.0	41.9	51.9	45.6	39.7	--	44.8	44.3	41.7	40.3	40.2	---	---	15488.2
113	2/20/2020	10:44:28	00d	00:10.0	41.7	51.7	45.7	38.6	--	45	44.5	40.2	39.1	38.9	---	---	14791.1
114	2/20/2020	10:44:38	00d	00:10.0	41.4	51.4	44.8	39.2	--	44.3	44.1	40.3	39.3	39.3	---	---	13803.8
115	2/20/2020	10:44:48	00d	00:10.0	42.1	52.1	45.8	39.7	--	45.5	45.4	41.1	39.8	39.7	---	---	16218.1
116	2/20/2020	10:44:58	00d	00:10.0	41	51	44.5	38.3	--	44.4	44.3	40	38.6	38.4	---	---	12589.3
117	2/20/2020	10:45:08	00d	00:10.0	41.2	51.2	44.3	38.5	--	43.9	43.5	40.2	39.3	38.9	---	---	13182.6
118	2/20/2020	10:45:18	00d	00:10.0	40.8	50.8	44	38.8	--	43.7	43.5	39.7	39	38.9	---	---	12022.6
119	2/20/2020	10:45:28	00d	00:10.0	41.7	51.7	45.6	38.3	--	43.8	43.6	39.6	38.5	38.5	---	---	14791.1
120	2/20/2020	10:45:38	00d	00:10.0	39.9	49.9	45.1	38.1	--	44.8	44.6	39.3	38.2	38.2	---	---	9772.4
121	2/20/2020	10:45:48	00d	00:10.0	40	50	43.2	37.4	--	43	42.9	39	37.8	37.5	---	---	10000.0
122	2/20/2020	10:45:58	00d	00:10.0	42.5	52.5	46.7	38.9	--	46.3	43.9	40	39.2	39.1	---	---	17782.8
123	2/20/2020	10:46:08	00d	00:10.0	40.9	50.9	46.1	37.7	--	45.7	44.5	40.3	38.1	38	---	---	12302.7
124	2/20/2020	10:46:18	00d	00:10.0	41.4	51.4	44.5	38.7	--	44.1	43.7	40.6	39.1	38.8	---	---	13803.8
125	2/20/2020	10:46:28	00d	00:10.0	41.1	51.1	44.6	38.8	--	44.4	44.3	40	38.9	38.9	---	---	12882.5
126	2/20/2020	10:46:38	00d	00:10.0	40.7	50.7	44.1	38.4	--	43.9	43.9	39.7	38.6	38.5	---	---	11749.0
127	2/20/2020	10:46:48	00d	00:10.0	41.9	51.9	46.2	38.9	--	46.1	45.9	40	39	38.9	---	---	15488.2
128	2/20/2020	10:46:58	00d	00:10.0	42.2	52.2	45	39.1	--	44.9	44.6	41.5	39.3	39.2	---	---	16595.9
129	2/20/2020	10:47:08	00d	00:10.0	41.1	51.1	42.2	39.9	--	42	41.9	41.2	40.5	40.1	---	---	12882.5
130	2/20/2020	10:47:18	00d	00:10.0	39.6	49.6	41.8	38.8	--	41.6	41	39.3	38.8	38.8	---	---	9120.1
131	2/20/2020	10:47:28	00d	00:10.0	38.7	48.7	39.3	38.2	--	39.3	39.3	38.7	38.3	38.2	---	---	7413.1
132	2/20/2020	10:47:38	00d	00:10.0	38.3	48.3	38.7	37.7	--	38.6	38.6	38.3	37.8	37.8	---	---	6760.8
133	2/20/2020	10:47:48	00d	00:10.0	37.9	47.9	38.8	37.1	--	38.7	38.5	38.1	37.3	37.2	---	---	6166.0
134	2/20/2020	10:47:58	00d	00:10.0	37.6	47.6	37.9	37.2	--	37.8	37.8	37.5	37.3	37.3	---	---	5754.4
135	2/20/2020	10:48:08	00d	00:10.0	38	48	38.2	37.7	--	38.2	38.1	38	37.8	37.8	---	---	6309.6
136	2/20/2020	10:48:18	00d	00:10.0	39.5	49.5	40.1	37.9	--	40.1	40	39.1	38.6	38.2	---	---	8912.5
137	2/20/2020	10:48:28	00d	00:10.0	39.8	49.8	40.3	39.5	--	40.2	40.1	39.8	39.6	39.6	---	---	9549.9
138	2/20/2020	10:48:38	00d	00:10.0	38.8	48.8	40.9	37.8	--	40.7	40.4	38.3	37.8	37.8	---	---	7585.8
139	2/20/2020	10:48:48	00d	00:10.0	39.9	49.9	40.8	39.1	--	40.6	40.5	39.8	39.4	39.3	---	---	9772.4
140	2/20/2020	10:48:58	00d	00:10.0	40	50	40.5	39.4	--	40.4	40.3	39.9	39.6	39.5	---	---	10000.0
141	2/20/2020	10:49:08	00d	00:10.0	39.7	49.7	40.8	39.2	--	40.6	40.3	39.8	39.5	39.4	---	---	9332.5
142	2/20/2020	10:49:18	00d	00:10.0	39.4	49.4	40.3	38.9	--	40.1	39.9	39.2	39	38.9	---	---	8709.6
143	2/20/2020	10:49:28	00d	00:10.0	40.4	50.4	41.5	39.5	--	41.3	41	40.1	39.6	39.6	---	---	10964.8
144	2/20/2020	10:49:38	00d	00:10.0	42.3	52.3	43.5	41.2	--	43.2	43.1	42.1	41.5	41.4	---	---	16982.4
145	2/20/2020	10:49:48	00d	00:10.0	41.3	51.3	42.4	40.4	--	42.3	42.2	41.4	40.8	40.7	---	---	13489.6
146	2/20/2020	10:49:58	00d	00:10.0	40.3	50.3	41.3	39.4	--	41.2	41.1	40.5	39.6	39.5	---	---	10715.2
147	2/20/2020	10:50:08	00d	00:10.0	40.5	50.5	41.6	39.4	--	41.3	41.2	40.5	39.8	39.6	---	---	11220.2
148	2/20/2020	10:50:18	00d	00:10.0	39.7	49.7	40.3	39.2	--	40.1	40.1	39.6	39.3	39.3	---	---	9332.5
149	2/20/2020	10:50:28	00d	00:10.0	39.6	49.6	40.2	39	--	40.1	40	39.6	39.2	39.1	---	---	9120.1
150	2/20/2020	10:50:38	00d	00:10.0	40	50	41.3	38.9	--	41.1	40.8	39.6	39.1	39	---	---	10000.0
151	2/20/2020	10:50:48	00d	00:10.0	55.8	65.8	61.2	41.3	--	61	59.8	50.4	42	41.8	---	---	380189.4
152	2/20/2020	10:50:58	00d	00:10.0	53.8	63.8	61.4	43.2	--	61.3	60.5	50.9	43.3	43.2	---	---	239883.3
153	2/20/2020	10:51:08	00d	00:10.0	42.3	52.3	44.5	38.9	--	44.4	44.3	43.1	39.3	39.2	---	---	16982.4
154	2/20/2020	10:51:18	00d	00:10.0	39.2	49.2	39.7	38.3	--	39.7	39.7	39.3	38.5	38.4	---	---	8317.6
155	2/20/2020	10:51:28	00d	00:10.0	37.9	47.9	39.3	37.5	--	39	38.9	37.8	37.6	37.6	---	---	6166.0
156	2/20/2020	10:51:38	00d	00:10.0	39	49	40.1	37.8	--	40	39.7	38.9	38	37.9	---	---	7943.3
157	2/20/2020	10:51:48	00d	00:10.0	39.5	49.5	39.8	38.8	--	39.8	39.7	39.5	39.1	38.9	---	---	8912.5
158	2/20/2020	10:51:58	00d	00:10.0	38.7	48.7	39.2	38.2	--	39.1	39.1	38.9	38.3	38.3	---	---	7413.1
159	2/20/2020	10:52:08	00d	00:10.0	39.6	49.6	40.4	38.4	--	40.2	40.1	39.3	39	38.9	---	---	9120.1
160	2/20/2020	10:52:18	00d	00:10.0	38.4	48.4	39.8	38.2	--	39.4	39.2	38.4	38.3	38.3	---	---	6918.3
161	2/20/2020	10:52:28	00d	00:10.0	39.3	49.3	39.9	38.4	--	39.9	39.8	39.3	38.6	38.5	---	---	8511.4
162	2/20/2020	10:52:38	00d	00:10.0	39.3	49.3	39.7	38.9	--	39.6	39.5	39.4	39	39	---	---	8511.4
163	2/20/2020	10:52:48	00d	00:10.0	39.7	49.7	40.3	39.3	--	40.3	40.2	39.7	39.4	39.4	---	---	9332.5
164	2/20/2020	10:52:58	00d	00:10.0	39.2	49.2	39.8	38.6	--	39.7	39.6	39.3	38.8	38.8	---	---	8317.6
165	2/20/2020	10:53:08	00d	00:10.0	38.9	48.9	39.7	37.9	--	39.6	39.6	38.9	38	37.9	---	---	7762.5
166	2/20/2020	10:53:18	00d	00:10.0	40.4	50.4	41.1	39.2	--	40.8	40.7	40.4	39.3	39.3	---	---	10964.8
167	2/20/2020	10:53:28	00d	00:10.0	42.4	52.4	44	40.3	--	43.8	43.6	42.2	40.4	40.4	---	---	17378.0
168	2/20/2020	10:53:38	00d	00:10.0	41.4	51.4</											

190	2/20/2020	10:57:18	00d	00:10.0	41.8	51.8	42.8	40.8	--	42.7	42.7	41.8	40.9	40.9	---	---	15135.6
191	2/20/2020	10:57:28	00d	00:10.0	42.6	52.6	44	40.4	--	43.7	43.3	42.6	40.6	40.5	---	---	18197.0
192	2/20/2020	10:57:38	00d	00:10.0	43.8	53.8	45.9	42.5	--	45.7	45.3	43.3	42.7	42.6	---	---	23988.3
193	2/20/2020	10:57:48	00d	00:10.0	44.6	54.6	46.8	42.6	--	46.6	46.4	43.7	42.8	42.7	---	---	28840.3
194	2/20/2020	10:57:58	00d	00:10.0	47.9	57.9	49.3	45.2	--	49.2	48.9	47.8	45.8	45.4	---	---	61659.5
195	2/20/2020	10:58:08	00d	00:10.0	51.8	61.8	53.9	48.1	--	53.8	53.7	50.9	49.5	49.4	---	---	151356.1
196	2/20/2020	10:58:18	00d	00:10.0	54.6	64.6	56.8	52.7	--	56.6	55.8	54.1	53.1	53	---	---	288403.2
197	2/20/2020	10:58:28	00d	00:10.0	54.8	64.8	56	53.8	--	55.8	55.7	54.9	54.2	54	---	---	301995.2
198	2/20/2020	10:58:38	00d	00:10.0	51.7	61.7	53.9	50.1	--	53.4	53.3	52	50.4	50.3	---	---	147910.8
199	2/20/2020	10:58:48	00d	00:10.0	47	57	50.3	45.3	--	49.5	49.1	47.3	46.2	45.7	---	---	50118.7
200	2/20/2020	10:58:58	00d	00:10.0	43.8	53.8	46.3	42.9	--	45.7	44.7	44.2	43.1	43	---	---	23988.3
201	2/20/2020	10:59:08	00d	00:10.0	41.6	51.6	43.2	40.3	--	42.7	42.4	41.7	40.5	40.4	---	---	14454.4
202	2/20/2020	10:59:18	00d	00:10.0	58.8	68.8	62.9	42.3	--	62.9	62.7	50.6	42.5	42.5	---	---	758577.6
203	2/20/2020	10:59:28	00d	00:10.0	54.9	64.9	62.7	46.9	--	62.3	61.3	53.7	48.7	47.9	---	---	309029.5
204	2/20/2020	10:59:38	00d	00:10.0	39.7	49.7	46.9	37.9	--	45.7	44.8	39.4	38	38	---	---	9332.5
205	2/20/2020	10:59:48	00d	00:10.0	38.2	48.2	38.4	37.9	--	38.3	38.3	38.2	38	38	---	---	6606.9
206	2/20/2020	10:59:58	00d	00:10.0	38.3	48.3	39.1	37.6	--	39	38.7	38.3	37.7	37.7	---	---	6760.8
207	2/20/2020	11:00:08	00d	00:10.0	39.5	49.5	40.1	38.6	--	40	39.9	39.4	38.8	38.7	---	---	8912.5
208	2/20/2020	11:00:18	00d	00:10.0	39.8	49.8	40.2	39.2	--	40.2	40.1	39.8	39.3	39.3	---	---	9549.9
209	2/20/2020	11:00:28	00d	00:10.0	39.6	49.6	40.3	39.3	--	40.2	40.1	39.6	39.4	39.4	---	---	9120.1
210	2/20/2020	11:00:38	00d	00:10.0	39.5	49.5	39.7	39.3	--	39.7	39.7	39.6	39.4	39.4	---	---	8912.5
211	2/20/2020	11:00:48	00d	00:10.0	40	50	40.4	39.3	--	40.3	40.3	40.1	39.5	39.4	---	---	10000.0
212	2/20/2020	11:00:58	00d	00:10.0	40.1	50.1	40.6	39.6	--	40.5	40.5	40	39.7	39.6	---	---	10232.9
213	2/20/2020	11:01:08	00d	00:10.0	41.8	51.8	43.6	39.3	--	43.4	43.4	41.5	39.7	39.4	---	---	15135.6
214	2/20/2020	11:01:18	00d	00:10.0	40.5	50.5	42.6	39.3	--	42.4	41.9	40.1	39.4	39.4	---	---	11220.2
215	2/20/2020	11:01:28	00d	00:10.0	39.7	49.7	40.1	39.3	--	40	39.9	39.7	39.6	39.5	---	---	9332.5
216	2/20/2020	11:01:38	00d	00:10.0	39.8	49.8	40.3	39.3	--	40.2	40.1	39.7	39.3	39.3	---	---	9549.9
217	2/20/2020	11:01:48	00d	00:10.0	39.6	49.6	40.4	38.9	--	40.4	40.3	39.6	39.1	39	---	---	9120.1
218	2/20/2020	11:01:58	00d	00:10.0	39.4	49.4	40.5	38.7	--	40.4	40.2	39	38.8	38.8	---	---	8709.6
219	2/20/2020	11:02:08	00d	00:10.0	40	50	41	39	--	41	40.8	40.3	39.3	39.1	---	---	10000.0
220	2/20/2020	11:02:18	00d	00:10.0	40.1	50.1	40.8	39.4	--	40.6	40.4	40	39.6	39.5	---	---	10232.9
221	2/20/2020	11:02:28	00d	00:10.0	40.1	50.1	41.7	38.6	--	41.5	41.1	40.4	38.8	38.7	---	---	10232.9
222	2/20/2020	11:02:38	00d	00:10.0	38.5	48.5	38.9	38.1	--	38.8	38.8	38.5	38.3	38.2	---	---	7079.5
223	2/20/2020	11:02:48	00d	00:10.0	38.5	48.5	39.1	37.9	--	39.1	39	38.5	38.1	38	---	---	7079.5
224	2/20/2020	11:02:58	00d	00:10.0	40.4	50.4	42.2	38.4	--	42.2	42.1	39.9	38.6	38.5	---	---	10964.8
225	2/20/2020	11:03:08	00d	00:10.0	40.2	50.2	41.4	39.5	--	40.8	40.7	40.3	39.6	39.6	---	---	10471.3
226	2/20/2020	11:03:18	00d	00:10.0	46.2	56.2	50.8	40.4	--	49.4	48	43.2	41.3	41.1	---	---	41686.9
227	2/20/2020	11:03:28	00d	00:10.0	57.9	67.9	60.7	50.8	--	60.6	60.5	57.6	52.6	52	---	---	616595.0
228	2/20/2020	11:03:38	00d	00:10.0	43.4	53.4	51.5	39.4	--	50.3	49.4	43.4	39.9	39.6	---	---	21877.6
229	2/20/2020	11:03:48	00d	00:10.0	40.6	50.6	42.4	39.4	--	42.3	42.1	39.8	39.5	39.5	---	---	11481.5
230	2/20/2020	11:03:58	00d	00:10.0	40	50	40.9	39.3	--	40.6	40.5	40.1	39.5	39.4	---	---	10000.0
231	2/20/2020	11:04:08	00d	00:10.0	39.7	49.7	40.1	39.1	--	40	39.9	39.6	39.2	39.2	---	---	9332.5
232	2/20/2020	11:04:18	00d	00:10.0	39.4	49.4	40	39.1	--	39.9	39.9	39.4	39.2	39.2	---	---	8709.6
233	2/20/2020	11:04:28	00d	00:10.0	38.8	48.8	40.1	38.1	--	39.7	39.6	38.5	38.1	38.1	---	---	7585.8
234	2/20/2020	11:04:38	00d	00:10.0	39.7	49.7	40.1	39.1	--	40.1	40.1	39.6	39.2	39.2	---	---	9332.5
235	2/20/2020	11:04:48	00d	00:10.0	39.9	49.9	40.9	39	--	40.7	40.6	39.8	39.1	39.1	---	---	9772.4
236	2/20/2020	11:04:58	00d	00:10.0	40.2	50.2	40.4	39.9	--	40.3	40.3	40.1	40	39.9	---	---	10471.3
237	2/20/2020	11:05:08	00d	00:10.0	40.4	50.4	41	39.9	--	40.9	40.7	40.2	40	39.9	---	---	10964.8
238	2/20/2020	11:05:18	00d	00:10.0	41	51	42.2	40.1	--	42	41.6	40.6	40.3	40.2	---	---	12589.3
239	2/20/2020	11:05:28	00d	00:10.0	41	51	42.6	40.3	--	42.5	42.2	40.8	40.6	40.5	---	---	12589.3
240	2/20/2020	11:05:38	00d	00:10.0	40.8	50.8	42.4	39.9	--	42.3	42.2	40.5	40.1	40	---	---	12022.6
241	2/20/2020	11:05:48	00d	00:10.0	40.1	50.1	40.6	39.5	--	40.5	40.5	40.2	39.7	39.7	---	---	10232.9
242	2/20/2020	11:05:58	00d	00:10.0	39.4	49.4	39.6	39.2	--	39.6	39.5	39.4	39.3	39.2	---	---	8709.6
243	2/20/2020	11:06:08	00d	00:10.0	40.5	50.5	42	39.3	--	41.8	41.3	40.3	39.4	39.4	---	---	11220.2
244	2/20/2020	11:06:18	00d	00:10.0	43.6	53.6	47	41.8	--	46.8	46.4	42.5	42	41.9	---	---	22908.7
245	2/20/2020	11:06:28	00d	00:10.0	42.3	52.3	42.8	41.8	--	42.7	42.7	42.3	42	42	---	---	16982.4
246	2/20/2020	11:06:38	00d	00:10.0	42.8	52.8	44.1	41.8	--	43.8	43.3	42.7	42	41.9	---	---	19054.6
247	2/20/2020	11:06:48	00d	00:10.0	41.1	51.1	43	40.4	--	42.2	42	41.1	40.8	40.6	---	---	12882.5
248	2/20/2020	11:06:58	00d	00:10.0	40.3	50.3	41.4	39.1	--	41.3	41.2	40.4	39.8	39.5	---	---	10715.2
249	2/20/2020	11:07:08	00d	00:10.0	39.4	49.4	40.2	38.4	--	40	39.4	38.8	38.7	38.7	---	---	8709.6
250	2/20/2020	11:07:18	00d	00:10.0	38.8	48.8	39.2	38.4	--	39	38.9	38.8	38.7	38.5	---	---	7585.8
251	2/20/2020	11:07:28	00d	00:10.0	39.3	49.3	40.4	38.7	--	40.2	39.9	39.2	38.8	38.8	---	---	8511.4
252	2/20/2020	11:07:38	00d	00:10.0	39.5	49.5	40.2	38.8	--	40	39.9	39.4	38.9	38.9	---	---	8912.5
253	2/20/2020	11:07:48	00d	00:10.0	40.4	50.4	41	39.6	--	41	41	40.3	39.8	39.7	---	---	10964.8
254	2/20/2020	11:07:58	00d	00:10.0	40.7	50.7	41.6	39.5	--	41.3	41.2	40.8	40	39.7	---	---	11749.0
255	2/20/2020	11:08:08	00d	00:10.0	40.1	50.1	41.5	39.1	--	41.1	40.8	39.8	39.4	39.3	---	---	10232.9
256	2/20/2020	11:08:18	00d	00:10.0	38.7	48.7	39.6	38.3	--	39.4	39.2	38.7	38.5	38.4	---	---	7413.1
257	2/20/2020	11:08:28	00d	00:10.0	38.5	48.5	39.4	38	--	39.1	38.9	38.4	38.2	38.1	---	---	7079.5
258	2/20/2020	11:08:38	00d	00:10.0	39.1	49.1	40.1	38.1	--	39.9	39.8	39	38.7	38.6	---	---	8128.3
259	2/20/2020	11:08:48	00d	00:10.0	38.8	48.8	39.1	38.2	--	39	39	38.9	38.2	38.2	---	---	7585.8
260	2/20/2020	11:08:58	00d	00:10.0	38.6	48.6	39.2	38.1	--	39.1	39.1	38.5	38.2	38.2	---	---	7244.4
261	2/20/2020	11:09:08	00d	00:10.0	38	48	38.9	37.6	--	38.5	38.3	38.1	37.7	37.7	---	---	6309.6
262	2/20/2020	11:09:18	00d	00:10.0	37.4	47.4	38.3	36.7	--	38.1	38	37.5	36.9	36.8	---	---	5495.4
263	2/20/2020	11:09:28	00d	00:10.0	38.3	48.3	39.5	36.6	--	39.2	39.1	38	36.9	36.7	---	---	6760.8
264	2/20/2020	11:09:38	00d	00:10.0	38.3	48.											

286	2/20/2020	11:13:18	00d	00:10.0	40.5	50.5	42.3	39	--	42.1	41.8	40.6	39.3	39.2	---	---	11220.2
287	2/20/2020	11:13:28	00d	00:10.0	41.2	51.2	42.7	39.6	--	42.6	42.5	40.4	39.9	39.8	---	---	13182.6
288	2/20/2020	11:13:38	00d	00:10.0	42.4	52.4	43.9	40.1	--	43.8	43.7	42.5	40.3	40.1	---	---	17378.0
289	2/20/2020	11:13:48	00d	00:10.0	39.6	49.6	43	38.4	--	42.2	41.6	39.7	38.9	38.5	---	---	9120.1
290	2/20/2020	11:13:58	00d	00:10.0	38.4	48.4	39.1	37.7	--	39	38.9	38.3	37.8	37.8	---	---	6918.3
291	2/20/2020	11:14:08	00d	00:10.0	37.9	47.9	39	37	--	38.9	38.8	38	37.2	37.1	---	---	6166.0
292	2/20/2020	11:14:18	00d	00:10.0	39.2	49.2	39.8	37.9	--	39.8	39.7	38.9	38.4	38.3	---	---	8317.6
293	2/20/2020	11:14:28	00d	00:10.0	39.6	49.6	40.2	39	--	40.1	40.1	39.5	39.1	39	---	---	9120.1
294	2/20/2020	11:14:38	00d	00:10.0	41.5	51.5	42.6	39.8	--	42.5	42.3	41	40.3	40.1	---	---	14125.4
295	2/20/2020	11:14:48	00d	00:10.0	43.3	53.3	46.1	41	--	45.7	45.4	43.1	41.6	41.3	---	---	21379.6
296	2/20/2020	11:14:58	00d	00:10.0	40.1	50.1	41.4	39.1	--	41.3	41.1	40.3	39.2	39.2	---	---	10232.9
297	2/20/2020	11:15:08	00d	00:10.0	40.3	50.3	41.1	39.4	--	41	41	40.2	39.6	39.6	---	---	10715.2
298	2/20/2020	11:15:18	00d	00:10.0	40.4	50.4	42.1	38.8	--	42	41.8	40.1	39.3	39.1	---	---	10964.8
299	2/20/2020	11:15:28	00d	00:10.0	40.6	50.6	41	39.6	--	40.9	40.8	40.6	39.9	39.7	---	---	11481.5
300	2/20/2020	11:15:38	00d	00:10.0	40.6	50.6	41.9	39	--	41.7	41.6	40.8	39.3	39.1	---	---	11481.5
301	2/20/2020	11:15:48	00d	00:10.0	39.2	49.2	40.1	38.6	--	40	39.9	39	38.8	38.7	---	---	8317.6
302	2/20/2020	11:15:58	00d	00:10.0	40	50	40.5	38.9	--	40.3	40.2	39.9	39.2	39.1	---	---	10000.0
303	2/20/2020	11:16:08	00d	00:10.0	40.5	50.5	41.4	39.5	--	41.3	41.3	40.6	39.5	39.5	---	---	11220.2
304	2/20/2020	11:16:18	00d	00:10.0	42.5	52.5	44.6	39.4	--	44.3	44.1	41.2	39.6	39.5	---	---	17782.8
305	2/20/2020	11:16:28	00d	00:10.0	43.8	53.8	46.1	42.3	--	45.8	45.8	43.5	42.5	42.4	---	---	23988.3
306	2/20/2020	11:16:38	00d	00:10.0	39.8	49.8	42.4	38.9	--	41.8	41.4	39.7	39	39	---	---	9549.9
307	2/20/2020	11:16:48	00d	00:10.0	38.9	48.9	40.1	38.3	--	39.9	39.8	39	38.4	38.4	---	---	7762.5
308	2/20/2020	11:16:58	00d	00:10.0	38.4	48.4	39.2	37.6	--	39.1	38.9	38.5	37.9	37.7	---	---	6918.3
309	2/20/2020	11:17:08	00d	00:10.0	38.2	48.2	39.1	37.3	--	38.9	38.9	38.1	37.5	37.4	---	---	6606.9
310	2/20/2020	11:17:18	00d	00:10.0	39.1	49.1	39.7	38.6	--	39.6	39.4	39.1	38.8	38.7	---	---	8128.3
311	2/20/2020	11:17:28	00d	00:10.0	39.6	49.6	40	38.6	--	40	40	39.8	38.8	38.8	---	---	9120.1
312	2/20/2020	11:17:38	00d	00:10.0	40.3	50.3	40.9	39.6	--	40.8	40.7	40.1	39.7	39.7	---	---	10715.2
313	2/20/2020	11:17:48	00d	00:10.0	40.2	50.2	41.3	39.1	--	41.2	41.1	40.3	39.5	39.3	---	---	10471.3
314	2/20/2020	11:17:58	00d	00:10.0	38.8	48.8	39.1	38.5	--	39.1	39	38.8	38.6	38.6	---	---	7585.8
315	2/20/2020	11:18:08	00d	00:10.0	41.1	51.1	43.7	38.8	--	43.5	43.2	40.3	39.1	38.9	---	---	12882.5
316	2/20/2020	11:18:18	00d	00:10.0	38.8	48.8	39.8	37.9	--	39.6	39.4	38.7	38	37.9	---	---	7585.8
317	2/20/2020	11:18:28	00d	00:10.0	39.7	49.7	40.4	39.1	--	40.3	40.1	39.6	39.3	39.3	---	---	9332.5
318	2/20/2020	11:18:38	00d	00:10.0	41.6	51.6	45.8	39.8	--	44.9	43.7	40.5	40	40	---	---	14454.4
319	2/20/2020	11:18:48	00d	00:10.0	40.1	50.1	41.1	39	--	40.8	40.6	40.2	39.3	39.2	---	---	10232.9
320	2/20/2020	11:18:58	00d	00:10.0	43.1	53.1	48.7	38.1	--	47.8	46.9	39	38.3	38.3	---	---	20417.4
321	2/20/2020	11:19:08	00d	00:10.0	44.4	54.4	48.5	41.2	--	45.8	44.9	43.4	41.6	41.3	---	---	27542.3
322	2/20/2020	11:19:18	00d	00:10.0	46.4	56.4	50.1	44	--	49.3	49	45.8	44.6	44.2	---	---	43651.6
323	2/20/2020	11:19:28	00d	00:10.0	46.4	56.4	50.4	43.4	--	49.5	49.3	45.7	43.7	43.6	---	---	43651.6
324	2/20/2020	11:19:38	00d	00:10.0	45.4	55.4	47.1	43.1	--	46.7	46.6	45.5	43.8	43.5	---	---	34673.7
325	2/20/2020	11:19:48	00d	00:10.0	45.4	55.4	47.4	43.2	--	47.1	46.9	44.8	44	43.5	---	---	34673.7
326	2/20/2020	11:19:58	00d	00:10.0	46.1	56.1	47.1	44.7	--	46.9	46.8	46.1	45.5	45.1	---	---	40738.0
327	2/20/2020	11:20:08	00d	00:10.0	46.8	56.8	47.8	45.1	--	47.7	47.5	46.7	45.7	45.4	---	---	47863.0
328	2/20/2020	11:20:18	00d	00:10.0	45.8	55.8	47.3	43.9	--	47.1	46.9	45.6	44.1	44	---	---	38018.9
329	2/20/2020	11:20:28	00d	00:10.0	45.1	55.1	46.1	44.5	--	45.9	45.7	45	44.6	44.6	---	---	32359.4
330	2/20/2020	11:20:38	00d	00:10.0	46.1	56.1	47.8	44.9	--	47.6	47.5	45.7	45	45	---	---	40738.0
331	2/20/2020	11:20:48	00d	00:10.0	46.8	56.8	48	45.3	--	48	47.9	46.4	45.4	45.3	---	---	47863.0
332	2/20/2020	11:20:58	00d	00:10.0	46.1	56.1	46.8	45.4	--	46.5	46.4	46.1	45.7	45.6	---	---	40738.0
333	2/20/2020	11:21:08	00d	00:10.0	46	56	46.6	45.5	--	46.3	46.2	46	45.7	45.6	---	---	39810.7
334	2/20/2020	11:21:18	00d	00:10.0	45.8	55.8	46.9	44.6	--	46.8	46.7	46.1	44.8	44.7	---	---	38018.9
335	2/20/2020	11:21:28	00d	00:10.0	49	59	52.4	44.6	--	52	51.3	46.8	44.7	44.6	---	---	79432.8
336	2/20/2020	11:21:38	00d	00:10.0	53.4	63.4	54.5	52.2	--	54.4	54.3	53.3	52.5	52.3	---	---	218776.2
337	2/20/2020	11:21:48	00d	00:10.0	52.7	62.7	54.3	51.5	--	54.2	53.8	52.7	51.7	51.7	---	---	186208.7
338	2/20/2020	11:21:58	00d	00:10.0	52.6	62.6	53.9	51.6	--	53.4	53.2	52.5	51.8	51.7	---	---	181970.1
339	2/20/2020	11:22:08	00d	00:10.0	51.6	61.6	52.5	51.2	--	52.3	52.3	51.6	51.3	51.3	---	---	144544.0
340	2/20/2020	11:22:18	00d	00:10.0	45.3	55.3	51.3	41.9	--	50.7	50	44	42.1	42	---	---	33884.4
341	2/20/2020	11:22:28	00d	00:10.0	43.5	53.5	47	40	--	46.4	45.4	43.4	41.1	40.4	---	---	22387.2
342	2/20/2020	11:22:38	00d	00:10.0	41.7	51.7	43.4	40.2	--	42.9	42.6	41.4	40.4	40.4	---	---	14791.1
343	2/20/2020	11:22:48	00d	00:10.0	42.8	52.8	43.9	41.6	--	43.8	43.6	42.8	41.9	41.8	---	---	19054.6
344	2/20/2020	11:22:58	00d	00:10.0	40	50	42.7	39.2	--	42.1	41.8	40.1	39.3	39.2	---	---	10000.0
345	2/20/2020	11:23:08	00d	00:10.0	43	53	46.9	39	--	46.6	46.1	41.6	39.4	39.1	---	---	19952.6
346	2/20/2020	11:23:18	00d	00:10.0	39.9	49.9	41.3	38.9	--	41	40.9	40.1	39.2	39	---	---	9772.4
347	2/20/2020	11:23:28	00d	00:10.0	40.4	50.4	42.2	38.3	--	41.8	41.6	40.6	38.8	38.5	---	---	10964.8
348	2/20/2020	11:23:38	00d	00:10.0	39.9	49.9	41.9	38.2	--	41.5	41.2	39.4	38.7	38.4	---	---	9772.4
349	2/20/2020	11:23:48	00d	00:10.0	50.3	60.3	51.6	40.1	--	51.3	51.2	50.7	43.3	41.8	---	---	107151.9
350	2/20/2020	11:23:58	00d	00:10.0	47.5	57.5	50.3	46.3	--	49.7	49.4	47.6	46.4	46.4	---	---	56234.1
351	2/20/2020	11:24:08	00d	00:10.0	45.8	55.8	47.5	44.9	--	46.9	46.7	45.9	45.2	45.1	---	---	38018.9
352	2/20/2020	11:24:18	00d	00:10.0	53.6	63.6	59.9	42.5	--	58.7	56.5	46.5	43.6	43	---	---	229086.8
353	2/20/2020	11:24:28	00d	00:10.0	59.8	69.8	62.7	50	--	62.6	62.3	60.9	52.8	51.5	---	---	954992.6
354	2/20/2020	11:24:38	00d	00:10.0	41.2	51.2	50	36.7	--	48.6	47.4	41.4	36.9	36.8	---	---	13182.6
355	2/20/2020	11:24:48	00d	00:10.0	38.5	48.5	41.5	36.4	--	40.9	40.7	37.7	36.5	36.5	---	---	7079.5
356	2/20/2020	11:24:58	00d	00:10.0	38	48	41.2	35.7	--	40.7	40.3	36.5	35.9	35.7	---	---	6309.6
357	2/20/2020	11:25:08	00d	00:10.0	38.2	48.2	40.4	37.1	--	39.9	39.6	38.2	37.4	37.2	---	---	6606.9
358	2/20/2020	11:25:18	00d	00:10.0	38.4	48.4	39.3	37.3	--	39.1	39	38.2	37.7	37.5	---	---	6918.3
359	2/20/2020	11:25:28	00d	00:10.0	42.1	52.1	46.3	38	--	45.2	44.6	40.8	38.2	38.1	---	---	16218.1
360	2/20/2020	11:25:38	00d	00:10.0													

PASTE
HERE
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Address	Start Time	Measurement Time	Leq	LE	LMAX	LMIN	Ly	LN1	LN2	LN3	LN4	LN5	Over	Under	Inverse Log	Overall Leq	
M-07																	
85	2/20/2020	10:25:01	00d	00:10:0	50.6	60.6	53.4	44.2	--	53	52.9	50	45.6	45.2	----	114815.4	49.1
86	2/20/2020	10:25:11	00d	00:10:0	48.6	58.6	52.4	47	--	52.2	51.7	48.3	47.2	47.1	----	72443.6	
87	2/20/2020	10:25:21	00d	00:10:0	46.4	56.4	48.4	45	--	48.2	47.9	46.6	45.3	45.1	----	43651.6	
88	2/20/2020	10:25:31	00d	00:10:0	49.4	59.4	50.6	45.6	--	50.4	50.3	49.1	45.9	45.7	----	87096.4	
89	2/20/2020	10:25:41	00d	00:10:0	51	61	52.6	46.4	--	52.6	52.5	51.5	48	47.1	----	125892.5	
90	2/20/2020	10:25:51	00d	00:10:0	40.7	50.7	46.4	38.5	--	45.5	44.6	40.7	39.3	38.9	----	11749.0	
91	2/20/2020	10:26:01	00d	00:10:0	41.5	51.5	43.3	38.1	--	43.2	43.1	41.2	38.3	38.2	----	14125.4	
92	2/20/2020	10:26:11	00d	00:10:0	49.2	59.2	52.9	43	--	52.6	51.9	46.3	44	43.4	----	83176.4	
93	2/20/2020	10:26:21	00d	00:10:0	53.7	63.7	55.5	49.7	--	55.4	55.3	54.3	50.6	50.3	----	234422.9	
94	2/20/2020	10:26:31	00d	00:10:0	51.9	61.9	53.8	48.9	--	53.6	53.4	52.4	49.6	49.3	----	154881.7	
95	2/20/2020	10:26:41	00d	00:10:0	55.2	65.2	57.9	49.5	--	57.9	57.8	54.8	49.9	49.6	----	331131.1	
96	2/20/2020	10:26:51	00d	00:10:0	53.1	63.1	58	47.6	--	57.5	55.7	49.9	47.8	47.7	----	204173.8	
97	2/20/2020	10:27:01	00d	00:10:0	56.8	66.8	59	53	--	58.8	58.4	57.5	54.5	54	----	478630.1	
98	2/20/2020	10:27:11	00d	00:10:0	53.9	63.9	57.6	49.6	--	57.2	56.5	53.6	51.4	50.7	----	245470.9	
99	2/20/2020	10:27:21	00d	00:10:0	53.9	63.9	60.1	45.2	--	59.2	58.5	51.3	46.7	45.8	----	245470.9	
100	2/20/2020	10:27:31	00d	00:10:0	43.5	53.5	45.6	41.9	--	45	44.4	43.5	42.1	42	----	22387.2	
101	2/20/2020	10:27:41	00d	00:10:0	40.9	50.9	45.5	39.4	--	45.2	44.6	40.7	39.5	39.5	----	12302.7	
102	2/20/2020	10:27:51	00d	00:10:0	43.6	53.6	45.6	40.2	--	45.2	45.1	42.4	40.3	40.3	----	22908.7	
103	2/20/2020	10:28:01	00d	00:10:0	51	61	53.2	45.5	--	53.1	52.9	50.4	45.7	45.7	----	125892.5	
104	2/20/2020	10:28:11	00d	00:10:0	47.2	57.2	52.7	44.1	--	52.3	52.1	46.3	44.5	44.3	----	52480.7	
105	2/20/2020	10:28:21	00d	00:10:0	51.2	61.2	52.6	46.5	--	52.5	52.5	51.7	47	46.9	----	131825.7	
106	2/20/2020	10:28:31	00d	00:10:0	50.8	60.8	52	49.1	--	51.8	51.6	51.2	49.4	49.3	----	120226.4	
107	2/20/2020	10:28:41	00d	00:10:0	54.1	64.1	56.2	48.9	--	56.1	56	52.8	49.3	49.1	----	257039.6	
108	2/20/2020	10:28:51	00d	00:10:0	51	61	55.9	42.6	--	55.6	55.2	51.9	44.1	43.4	----	125892.5	
109	2/20/2020	10:29:01	00d	00:10:0	43.6	53.6	45.8	41	--	45.1	44.9	43.2	41.4	41.2	----	22908.7	
110	2/20/2020	10:29:11	00d	00:10:0	51.6	61.6	53.8	44.9	--	53.7	53.7	50.6	45.3	45.1	----	144544.0	
111	2/20/2020	10:29:21	00d	00:10:0	51.7	61.7	53.6	50.7	--	53.3	53.2	51.7	51	50.8	----	147910.8	
112	2/20/2020	10:29:31	00d	00:10:0	49.9	59.9	51.2	49.3	--	50.9	50.6	49.9	49.4	49.4	----	97723.7	
113	2/20/2020	10:29:41	00d	00:10:0	46.4	56.4	50.2	42.8	--	50.1	49.9	46.3	43.4	43.1	----	43651.6	
114	2/20/2020	10:29:51	00d	00:10:0	39.6	49.6	43.9	37	--	43.3	43	39.6	37.3	37.1	----	9120.1	
115	2/20/2020	10:30:01	00d	00:10:0	37	47	37.5	36.8	--	37.4	37.3	37	36.8	36.8	----	5011.9	
116	2/20/2020	10:30:11	00d	00:10:0	38.2	48.2	40.8	36.3	--	40.1	39.5	37.1	36.5	36.4	----	6606.9	
117	2/20/2020	10:30:21	00d	00:10:0	46.1	56.1	47.1	40.8	--	47	46.9	46.5	42.6	41.9	----	40738.0	
118	2/20/2020	10:30:31	00d	00:10:0	41.2	51.2	46.5	37.9	--	46.4	46.1	41	38.1	38	----	13182.6	
119	2/20/2020	10:30:41	00d	00:10:0	38	48	38.5	37.5	--	38.5	38.4	37.9	37.7	37.6	----	6309.6	
120	2/20/2020	10:30:51	00d	00:10:0	37.8	47.8	38.4	37.4	--	38.2	38.1	37.8	37.5	37.5	----	6025.6	
121	2/20/2020	10:31:01	00d	00:10:0	38.4	48.4	38.7	37.9	--	38.6	38.6	38.4	38	38	----	6918.3	
122	2/20/2020	10:31:11	00d	00:10:0	37.9	47.9	38.9	37.2	--	38.8	38.7	37.9	37.4	37.3	----	6166.0	
123	2/20/2020	10:31:21	00d	00:10:0	42	52	45.2	37.7	--	44.8	44.2	40	38	37.9	----	15848.9	
124	2/20/2020	10:31:31	00d	00:10:0	52.2	62.2	54.6	45.2	--	54.4	54.2	51.9	47	46.7	----	165958.7	
125	2/20/2020	10:31:41	00d	00:10:0	45.8	55.8	53.2	42.8	--	53	52.6	43.9	42.9	42.9	----	38018.9	
126	2/20/2020	10:31:51	00d	00:10:0	46.9	56.9	49	42.7	--	48.9	48.9	45.5	42.9	42.8	----	48977.9	
127	2/20/2020	10:32:01	00d	00:10:0	49.2	59.2	50.8	46.9	--	50.5	50.3	49.1	47.1	47	----	83176.4	
128	2/20/2020	10:32:11	00d	00:10:0	49.8	59.8	51.8	45.7	--	51.7	51.6	50.4	47.2	46.6	----	95499.3	
129	2/20/2020	10:32:21	00d	00:10:0	43.8	53.8	45.7	43.3	--	44.9	44.6	43.8	43.4	43.4	----	23988.3	
130	2/20/2020	10:32:31	00d	00:10:0	48.2	58.2	49.4	44.1	--	49.3	49.3	47.8	46.1	45.6	----	66069.3	
131	2/20/2020	10:32:41	00d	00:10:0	52.7	62.7	54.3	47.6	--	54.3	54	52.3	48.3	47.9	----	186208.7	
132	2/20/2020	10:32:51	00d	00:10:0	52.4	62.4	54.7	47.2	--	54.7	54.5	53.3	48.6	47.9	----	173780.1	
133	2/20/2020	10:33:01	00d	00:10:0	45.1	55.1	47.2	44.1	--	46.5	46.2	45	44.3	44.2	----	32359.4	
134	2/20/2020	10:33:11	00d	00:10:0	49.5	59.5	50.7	46.3	--	50.6	50.6	49.4	46.8	46.5	----	89125.1	
135	2/20/2020	10:33:21	00d	00:10:0	47	57	50.7	42.9	--	50.6	50.6	46.9	43.3	43.1	----	50118.7	
136	2/20/2020	10:33:31	00d	00:10:0	52.2	62.2	55.3	43	--	54.9	54.5	51.2	44	43.5	----	165958.7	
137	2/20/2020	10:33:41	00d	00:10:0	57.6	67.6	60.9	49.4	--	60.9	60.7	57.7	51	50.1	----	575439.9	
138	2/20/2020	10:33:51	00d	00:10:0	49.8	59.8	50.7	47.8	--	50.6	50.6	50.2	48.1	48	----	95499.3	
139	2/20/2020	10:34:01	00d	00:10:0	48.9	58.9	51.7	46.9	--	51	50.5	48.2	47.1	47	----	77624.7	
140	2/20/2020	10:34:11	00d	00:10:0	51.4	61.4	52.9	48.7	--	52.8	52.7	52.1	49	48.9	----	138038.4	
141	2/20/2020	10:34:21	00d	00:10:0	45.3	55.3	48.9	41.6	--	48.7	48.6	45.1	42.3	41.8	----	33884.4	
142	2/20/2020	10:34:31	00d	00:10:0	40	50	41.7	38.7	--	41.6	41.3	40.6	38.9	38.8	----	10000.0	
143	2/20/2020	10:34:41	00d	00:10:0	41.6	51.6	45.5	38.7	--	44.9	43.4	39.1	38.8	38.7	----	14454.4	
144	2/20/2020	10:34:51	00d	00:10:0	49.5	59.5	51	45.5	--	51	50.9	49.4	47.2	45.7	----	89125.1	
145	2/20/2020	10:35:01	00d	00:10:0	52.6	62.6	59.5	46.5	--	54.5	53.2	47.6	46.6	46.5	----	181970.1	
146	2/20/2020	10:35:11	00d	00:10:0	54.6	64.6	62.5	46.2	--	61.8	60.9	51.5	47.5	47.3	----	288403.2	
147	2/20/2020	10:35:21	00d	00:10:0	40.8	50.8	46.2	38.4	--	45.3	44.8	40.4	38.7	38.7	----	12022.6	
148	2/20/2020	10:35:31	00d	00:10:0	39.2	49.2	41.1	38.2	--	40.1	39.4	38.7	38.3	38.3	----	8317.6	
149	2/20/2020	10:35:41	00d	00:10:0	40.6	50.6	41.9	38.9	--	41.8	41.7	40.3	39.1	39	----	11481.5	
150	2/20/2020	10:35:51	00d	00:10:0	46.6	56.6	49.1	41.6	--	49	48.6	46.3	44.2	44	----	45708.8	
151	2/20/2020	10:36:01	00d	00:10:0	49.3	59.3	51.9	44.4	--	51.5	51.2	48.6	45.7	45.4	----	85113.8	
152	2/20/2020	10:36:11	00d	00:10:0	49.7	59.7	51.3	47.8	--	51.1	50.9	49.7	48.1	47.9	----	93325.4	
153	2/20/2020	10:36:21	00d	00:10:0	52.3	62.3	53.6	49.7	--	53.5	53.4	51.8	50.2	49.8	----	169824.4	
154	2/20/2020	10:36:31	00d	00:10:0	53.3	63.3	55.6	47.9	--	55.4	55.3	53.3	49.9	48.8	----	213796.2	
155	2/20/2020	10:36:41	00d	00:10:0	47.2	57.2	49.2	45.7	--	49	48.6	47	46	45.8	----	52480.7	
156	2/20/2020	10:36:51	00d	00:10:0	49.5	59.5	50.1	47.5	--	49.9	49.7	49.3	48.6	48.2	----	89125.1	
157	2/20/2020	10:37:01	00d	00:10:0	50.8	60.8	51.6	49.5	--	51.4	51.4	51	50.1	49.6	----	120226.4	
158	2/20/2020	10:37:11	00d	00:10:0	48.9	58.9	52	46.9	--	51.8	50.6	47.9	47.1	47	----	77624.7	
159	2/20/2020	10:37:21	00d	00:10:0	54	64	55.8	52	--	55.6	54.7	53.3	52.3	52.2	----	251188.6	
160	2/20/2020	10:37:31	00d	00:10:0	57.2	67.2	58.4	55									

175	2/20/2020	10:40:01	00d	00:10.0	43	53	46	39.7	--	45.9	45.8	40.8	40	39.8	---	----	19952.6
176	2/20/2020	10:40:11	00d	00:10.0	49.9	59.9	51.4	46	--	51.3	51.3	50.1	47.1	46.7	---	----	97723.7
177	2/20/2020	10:40:21	00d	00:10.0	42.9	52.9	46.5	40.2	--	46.5	46.1	42.8	41.2	40.7	---	----	19498.4
178	2/20/2020	10:40:31	00d	00:10.0	38.6	48.6	40.2	38.1	--	39.6	39.2	38.8	38.2	38.2	---	----	7244.4
179	2/20/2020	10:40:41	00d	00:10.0	38.2	48.2	38.8	37.9	--	38.7	38.6	38.3	38.1	38	---	----	6606.9
180	2/20/2020	10:40:51	00d	00:10.0	38.6	48.6	38.8	37.9	--	38.8	38.6	38.5	38.3	38	---	----	7244.4
181	2/20/2020	10:41:01	00d	00:10.0	46.5	56.5	49.8	38.8	--	49.7	49.5	44	41.2	39	---	----	44668.4
182	2/20/2020	10:41:11	00d	00:10.0	47.6	57.6	50.1	46.3	--	49.9	49.9	47.2	46.4	46.3	---	----	57544.0
183	2/20/2020	10:41:21	00d	00:10.0	49.1	59.1	49.9	47.4	--	49.8	49.8	49.1	47.8	47.6	---	----	81283.1
184	2/20/2020	10:41:31	00d	00:10.0	48.7	58.7	49.6	47.5	--	49.5	49.3	48.7	47.7	47.6	---	----	74131.0
185	2/20/2020	10:41:41	00d	00:10.0	47.9	57.9	51	44.8	--	50.3	49.9	46.8	45.1	44.9	---	----	61659.5
186	2/20/2020	10:41:51	00d	00:10.0	49.4	59.4	52.5	45	--	52.3	52.2	49.1	46.7	45.7	---	----	87096.4
187	2/20/2020	10:42:01	00d	00:10.0	42.5	52.5	45.1	41.6	--	44.7	44.7	42.3	41.7	41.6	---	----	17782.8
188	2/20/2020	10:42:11	00d	00:10.0	46.1	56.1	49.9	41.7	--	49.1	48.4	43.9	42	41.8	---	----	40738.0
189	2/20/2020	10:42:21	00d	00:10.0	52.5	62.5	53.5	49.7	--	53.4	53.4	53	50.5	50.2	---	----	177827.9
190	2/20/2020	10:42:31	00d	00:10.0	47	57	49.7	45.9	--	49.1	48.7	46.9	46.1	46	---	----	50118.7
191	2/20/2020	10:42:41	00d	00:10.0	50.1	60.1	51.1	47.2	--	51	51	50.4	47.7	47.4	---	----	102329.3
192	2/20/2020	10:42:51	00d	00:10.0	46.6	56.6	49.6	44.8	--	48.4	47.9	47	45.1	44.8	---	----	45708.8
193	2/20/2020	10:43:01	00d	00:10.0	50.7	60.7	52.1	48.1	--	52	52	50.4	48.3	48.2	---	----	117489.8
194	2/20/2020	10:43:11	00d	00:10.0	42.6	52.6	49.2	40.4	--	48.4	47.4	42	40.6	40.5	---	----	18197.0
195	2/20/2020	10:43:21	00d	00:10.0	44.7	54.7	46.9	41.6	--	46.4	46.2	43.7	42.4	42.3	---	----	29512.1
196	2/20/2020	10:43:31	00d	00:10.0	51.8	61.8	54.5	46.2	--	54.4	54.3	49.5	47.7	46.4	---	----	151356.1
197	2/20/2020	10:43:41	00d	00:10.0	48.2	58.2	54.1	43.1	--	53.8	53.5	47.1	43.4	43.2	---	----	66069.3
198	2/20/2020	10:43:51	00d	00:10.0	44.1	54.1	45.6	42.6	--	45	44.8	43.7	42.9	42.8	---	----	25704.0
199	2/20/2020	10:44:01	00d	00:10.0	42.2	52.2	45.5	40.5	--	45	44.2	42.3	41	40.8	---	----	16595.9
200	2/20/2020	10:44:11	00d	00:10.0	39.1	49.1	41.5	38.2	--	41.1	40.6	39	38.3	38.3	---	----	8128.3
201	2/20/2020	10:44:21	00d	00:10.0	39.4	49.4	41.1	37.8	--	40.8	40.5	39.1	38.1	38.1	---	----	8709.6
202	2/20/2020	10:44:31	00d	00:10.0	40.8	50.8	43.5	38.8	--	42.5	42	40.6	39.3	39.2	---	----	12022.6
203	2/20/2020	10:44:41	00d	00:10.0	39.5	49.5	41.7	38.5	--	41	40.7	39.4	38.8	38.6	---	----	8912.5
204	2/20/2020	10:44:51	00d	00:10.0	39.2	49.2	40.4	38.3	--	39.8	39.6	39.1	38.4	38.4	---	----	8317.6
205	2/20/2020	10:45:01	00d	00:10.0	39	49	40.4	38.1	--	40.2	40	39	38.3	38.2	---	----	7943.3

PASTE
HERE
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Address	Start Time	Measurement Time	Leq	LE	LMAX	LMIN	Ly	LN1	LN2	LN3	LN4	LN5	Over	Under	Inverse Log	Overall Leq
M-08																
64	2/20/2020	10:25:01	00d	00:10.0	42	52	42.6	41.3	--	42.5	42.5	41.8	41.5	41.4	----	15848.9
65	2/20/2020	10:25:11	00d	00:10.0	42.7	52.7	43.1	42.1	--	43	42.9	42.6	42.3	42.2	----	18620.9
66	2/20/2020	10:25:21	00d	00:10.0	45.5	55.5	49.6	42.8	--	49	48.1	44	43.1	43	----	35481.3
67	2/20/2020	10:25:31	00d	00:10.0	54.6	64.6	56.5	47.2	--	56.4	56.4	54.6	49.2	47.8	----	288403.2
68	2/20/2020	10:25:41	00d	00:10.0	48	58	54	45.1	--	53.3	52.7	47.6	45.4	45.3	----	63095.7
69	2/20/2020	10:25:51	00d	00:10.0	45	55	47.3	43.4	--	46.5	45.6	44.4	43.6	43.6	----	31622.8
70	2/20/2020	10:26:01	00d	00:10.0	53.7	63.7	56.3	47.3	--	55.7	54.6	53.3	49.7	48.7	----	234422.9
71	2/20/2020	10:26:11	00d	00:10.0	52.6	62.6	57.3	45.5	--	57.2	57.1	52.2	46.3	45.8	----	181970.1
72	2/20/2020	10:26:21	00d	00:10.0	43.9	53.9	45.5	42.8	--	45.4	45.2	43.9	43	42.9	----	24547.1
73	2/20/2020	10:26:31	00d	00:10.0	44.4	54.4	45.5	43	--	45.3	45.1	44.3	43.3	43.2	----	27542.3
74	2/20/2020	10:26:41	00d	00:10.0	56.3	66.3	60.5	44.8	--	60.5	60	51.9	45.4	45.1	----	426579.5
75	2/20/2020	10:26:51	00d	00:10.0	56.1	66.1	60.4	50.9	--	60.1	59.9	56.3	52.6	51.7	----	407380.3
76	2/20/2020	10:27:01	00d	00:10.0	45.9	55.9	50.9	44.3	--	50.2	49.5	45.6	44.5	44.4	----	38904.5
77	2/20/2020	10:27:11	00d	00:10.0	53.9	63.9	58.3	45	--	58	57.8	47.2	45.1	45.1	----	245470.9
78	2/20/2020	10:27:21	00d	00:10.0	58.6	68.6	63.7	49	--	63.5	63	57.1	51.1	49.9	----	724436.0
79	2/20/2020	10:27:31	00d	00:10.0	53	63	62	44.8	--	60.1	58.4	48.2	45.9	45.6	----	199526.2
80	2/20/2020	10:27:41	00d	00:10.0	44.5	54.5	48.4	42.6	--	48.3	47.3	44.3	43	42.8	----	28183.8
81	2/20/2020	10:27:51	00d	00:10.0	44.7	54.7	47.5	41.9	--	46.9	46.4	44.2	42.3	42.1	----	29512.1
82	2/20/2020	10:28:01	00d	00:10.0	43.4	53.4	45.5	42.6	--	44.6	44.2	43.6	43	42.9	----	21877.6
83	2/20/2020	10:28:11	00d	00:10.0	43.3	53.3	44.2	42.7	--	43.8	43.6	43.1	42.9	42.8	----	21379.6
84	2/20/2020	10:28:21	00d	00:10.0	56.3	66.3	63.7	44.1	--	63.1	61.9	44.6	44.2	44.2	----	426579.5
85	2/20/2020	10:28:31	00d	00:10.0	61.9	71.9	66.2	53.9	--	65.7	64.6	60.4	56	54.9	----	1548816.6
86	2/20/2020	10:28:41	00d	00:10.0	62.3	72.3	66	57.4	--	65.6	65.3	62.4	58.3	57.9	----	1698243.7
87	2/20/2020	10:28:51	00d	00:10.0	61.1	71.1	65.7	52.2	--	65.1	64.5	60.1	55.4	53.7	----	1288249.6
88	2/20/2020	10:29:01	00d	00:10.0	62.1	72.1	65.6	51.2	--	65.1	64.8	60.5	54.6	53.4	----	1621810.1
89	2/20/2020	10:29:11	00d	00:10.0	61.7	71.7	65.3	57.4	--	64.9	64.2	60.5	58.3	57.6	----	1479108.4
90	2/20/2020	10:29:21	00d	00:10.0	60.5	70.5	65.1	52.2	--	64.5	64	59.8	53.8	53	----	1122018.5
91	2/20/2020	10:29:31	00d	00:10.0	59.9	69.9	64.5	52.1	--	64	63.6	60	53.8	53.1	----	977237.2
92	2/20/2020	10:29:41	00d	00:10.0	60.8	70.8	64.9	53.5	--	64.5	64.1	60.3	54.5	54	----	1202264.4
93	2/20/2020	10:29:51	00d	00:10.0	60.8	70.8	64.9	54.7	--	64.5	64	59.9	55.4	55	----	1202264.4
94	2/20/2020	10:30:01	00d	00:10.0	58.9	68.9	63.6	52.3	--	62.9	62.3	57.8	53.4	52.7	----	776247.1
95	2/20/2020	10:30:11	00d	00:10.0	59.6	69.6	64.9	47.9	--	64.1	63.3	58.1	50.7	49.3	----	912010.8
96	2/20/2020	10:30:21	00d	00:10.0	40.8	50.8	53.6	40.7	--	51.5	49.6	41.2	40.8	40.8	----	12022.6
97	2/20/2020	10:30:31	00d	00:10.0	41.7	51.7	42.8	41.1	--	42.7	42.5	41.5	41.2	41.2	----	14791.1
98	2/20/2020	10:30:41	00d	00:10.0	44.2	54.2	47.3	41.6	--	46.8	46	42.4	41.8	41.8	----	26302.7
99	2/20/2020	10:30:51	00d	00:10.0	50.4	60.4	52.4	47.3	--	52.2	52.2	50.2	48	47.7	----	109647.8
100	2/20/2020	10:31:01	00d	00:10.0	44.5	54.5	47.8	43.6	--	47.2	46.5	44.6	43.9	43.7	----	28183.8
101	2/20/2020	10:31:11	00d	00:10.0	43.6	53.6	45.5	42.1	--	45.4	45.3	43.1	42.3	42.2	----	22908.7
102	2/20/2020	10:31:21	00d	00:10.0	45.3	55.3	47.2	43	--	47.1	46.8	44.5	43.2	43.1	----	33884.4
103	2/20/2020	10:31:31	00d	00:10.0	44	54	45.8	43.2	--	45.6	45.5	43.7	43.4	43.3	----	25118.9
104	2/20/2020	10:31:41	00d	00:10.0	43.1	53.1	44.1	42.3	--	43.9	43.7	43	42.5	42.4	----	20417.4
105	2/20/2020	10:31:51	00d	00:10.0	47.2	57.2	50.5	43.4	--	49.5	48.6	45.8	44.2	44.1	----	52480.7
106	2/20/2020	10:32:01	00d	00:10.0	55	65	58.2	50.5	--	58.1	57.9	54.6	51.7	51.1	----	316227.8
107	2/20/2020	10:32:11	00d	00:10.0	45.9	55.9	50.6	44.5	--	50	49.3	45.8	44.6	44.6	----	38904.5
108	2/20/2020	10:32:21	00d	00:10.0	52.5	62.5	54.7	45	--	54.6	54.4	51.9	45.5	45.3	----	177827.9
109	2/20/2020	10:32:31	00d	00:10.0	52.6	62.6	55	50.1	--	54.9	54.7	52.4	50.3	50.2	----	181970.1
110	2/20/2020	10:32:41	00d	00:10.0	51.1	61.1	52.9	49.3	--	52.8	52.7	51.2	49.5	49.4	----	128825.0
111	2/20/2020	10:32:51	00d	00:10.0	51	61	52.5	48.3	--	52.2	52.1	51.3	49.4	49	----	125892.5
112	2/20/2020	10:33:01	00d	00:10.0	50.4	60.4	52.9	48.1	--	52.5	52.5	48.8	48.3	48.2	----	109647.8
113	2/20/2020	10:33:11	00d	00:10.0	56.4	66.4	57.2	52.9	--	57.1	57.1	56.2	54.5	54	----	436515.8
114	2/20/2020	10:33:21	00d	00:10.0	52.2	62.2	57.3	46.6	--	57.1	56.8	52.2	48.1	47.4	----	165958.7
115	2/20/2020	10:33:31	00d	00:10.0	47.4	57.4	48.6	45.9	--	48.5	48.3	47.1	46.3	46.2	----	54954.1
116	2/20/2020	10:33:41	00d	00:10.0	54.5	64.5	56.5	48.3	--	56.4	56.3	54.4	49.5	48.9	----	281838.3
117	2/20/2020	10:33:51	00d	00:10.0	52.2	62.2	54.3	50.9	--	54	53.7	52.4	51.2	51.1	----	165958.7
118	2/20/2020	10:34:01	00d	00:10.0	47	57	51.7	45	--	51.3	50.7	47	45.2	45.1	----	50118.7
119	2/20/2020	10:34:11	00d	00:10.0	58.1	68.1	62	46.4	--	61.8	61.5	56.1	47.7	46.9	----	645654.2
120	2/20/2020	10:34:21	00d	00:10.0	53.9	63.9	57.7	48.9	--	56.6	56.5	55.1	50.5	49.6	----	245470.9
121	2/20/2020	10:34:31	00d	00:10.0	54.3	64.3	57.9	47.3	--	57.8	57.7	51.2	47.6	47.4	----	269153.5
122	2/20/2020	10:34:41	00d	00:10.0	51	61	57.2	44.7	--	56.4	55.9	50.5	45.8	45.2	----	125892.5
123	2/20/2020	10:34:51	00d	00:10.0	44.1	54.1	45.6	42.5	--	45.5	45.4	44.1	43	42.8	----	25704.0
124	2/20/2020	10:35:01	00d	00:10.0	44.9	54.9	45.7	42.6	--	45.5	45.4	44.9	43.3	43.2	----	30903.0
125	2/20/2020	10:35:11	00d	00:10.0	51.2	61.2	53.8	45.5	--	53.7	53.4	50.9	47.1	46.2	----	131825.7
126	2/20/2020	10:35:21	00d	00:10.0	44.8	54.8	47.3	43.8	--	46.9	46.2	45	44.1	44	----	30199.5
127	2/20/2020	10:35:31	00d	00:10.0	54.9	64.9	57.2	44.1	--	56.7	56.6	55.3	45.4	44.7	----	309029.5
128	2/20/2020	10:35:41	00d	00:10.0	56.3	66.3	59.3	52.4	--	59.3	59.2	56	52.6	52.5	----	426579.5
129	2/20/2020	10:35:51	00d	00:10.0	49.9	59.9	53.3	46.5	--	53.2	53.1	49.5	46.8	46.7	----	97723.7
130	2/20/2020	10:36:01	00d	00:10.0	43.3	53.3	46.7	42.4	--	46.2	45.4	43.2	42.9	42.7	----	21379.6
131	2/20/2020	10:36:11	00d	00:10.0	44.2	54.2	46	42.6	--	45.8	45.7	43.3	42.8	42.7	----	26302.7
132	2/20/2020	10:36:21	00d	00:10.0	47.3	57.3	49.7	43.2	--	49.3	48.9	47.2	43.7	43.3	----	53703.2
133	2/20/2020	10:36:31	00d	00:10.0	49.9	59.9	53	45.7	--	52.8	52.4	49.1	46.4	45.8	----	97723.7
134	2/20/2020	10:36:41	00d	00:10.0	50.5	60.5	52.7	47.3	--	52.6	52.2	49.9	47.5	47.4	----	112201.8
135	2/20/2020	10:36:51	00d	00:10.0	54.5	64.5	56.7	50.8	--	56.6	56.4	53.9	51.3	51.1	----	281838.3
136	2/20/2020	10:37:01	00d	00:10.0	49.4	59.4	52.9	47.5	--	51.8	51.3	49.2	47.8	47.7	----	87096.4
137	2/20/2020	10:37:11	00d	00:10.0	48.8	58.8	51.7	45.1	--	51.5	51.4	48.9	45.6	45.2	----	75857.8
138	2/20/2020	10:37:21	00d	00:10.0	52.7	62.7	56.4	44.8	--	56.3	56.1	49.3	44.9	44.8	----	186208.7
139	2/20/2020															

154	2/20/2020	10:40:01	00d	00:10.0	53.5	63.5	58	48	--	57.1	56	50.1	48.4	48.2	---	----	223872.1
155	2/20/2020	10:40:11	00d	00:10.0	53.6	63.6	58.6	47.6	--	58.5	58.4	52.6	47.9	47.8	---	----	229086.8
156	2/20/2020	10:40:21	00d	00:10.0	46.8	56.8	48.2	45.6	--	47.9	47.5	46.8	45.9	45.7	---	----	47863.0
157	2/20/2020	10:40:31	00d	00:10.0	52.5	62.5	54.4	48.2	--	54.3	54.1	52.7	49.4	49	---	----	177827.9
158	2/20/2020	10:40:41	00d	00:10.0	45.6	55.6	49	44	--	48.4	47.9	45.9	44.2	44.2	---	----	36307.8
159	2/20/2020	10:40:51	00d	00:10.0	46.1	56.1	48	44.1	--	47.6	47.3	45.3	44.2	44.2	---	----	40738.0
160	2/20/2020	10:41:01	00d	00:10.0	48.1	58.1	49.2	46.3	--	49.1	49.1	48.1	46.5	46.5	---	----	64565.4
161	2/20/2020	10:41:11	00d	00:10.0	48.6	58.6	50.1	46.9	--	49.9	49.6	48.7	47.2	47	---	----	72443.6
162	2/20/2020	10:41:21	00d	00:10.0	49.8	59.8	52.3	46.8	--	52.1	52	48.5	47.1	46.9	---	----	95499.3
163	2/20/2020	10:41:31	00d	00:10.0	48.4	58.4	52.4	44.7	--	52.4	52.2	48.3	45	44.9	---	----	69183.1
164	2/20/2020	10:41:41	00d	00:10.0	49	59	53	44.5	--	52.3	51.5	45.8	44.8	44.7	---	----	79432.8
165	2/20/2020	10:41:51	00d	00:10.0	51.3	61.3	54.2	48.8	--	54.1	53.9	51.4	49.2	49	---	----	134896.3
166	2/20/2020	10:42:01	00d	00:10.0	53.8	63.8	55.4	49.4	--	55.3	55.2	53.7	51	50.1	---	----	239883.3
167	2/20/2020	10:42:11	00d	00:10.0	52.3	62.3	54.8	48.2	--	54.8	54.6	52.8	49.1	48.6	---	----	169824.4
168	2/20/2020	10:42:21	00d	00:10.0	45.7	55.7	48.6	43.8	--	48.3	48.1	45.4	44.1	44	---	----	37153.5
169	2/20/2020	10:42:31	00d	00:10.0	46.4	56.4	47.6	44	--	47.4	47.2	46.1	44.5	44.2	---	----	43651.6
170	2/20/2020	10:42:41	00d	00:10.0	55.1	65.1	57	47.6	--	56.9	56.5	54.7	48.6	48.1	---	----	323593.7
171	2/20/2020	10:42:51	00d	00:10.0	54.8	64.8	58	49.2	--	57.4	57	56.1	49.9	49.6	---	----	301995.2
172	2/20/2020	10:43:01	00d	00:10.0	49.8	59.8	51.5	47.7	--	51.1	51	49.2	48.1	47.9	---	----	95499.3
173	2/20/2020	10:43:11	00d	00:10.0	53.6	63.6	56.5	49.1	--	56.4	56.2	53.6	49.6	49.3	---	----	229086.8
174	2/20/2020	10:43:21	00d	00:10.0	49	59	52.5	46.8	--	51	49.5	48	47.1	46.9	---	----	79432.8
175	2/20/2020	10:43:31	00d	00:10.0	53.9	63.9	57.3	46.6	--	57.3	57.1	53.9	48.1	47.3	---	----	245470.9
176	2/20/2020	10:43:41	00d	00:10.0	45.5	55.5	46.7	44.1	--	46.5	46.4	45.7	44.4	44.3	---	----	35481.3
177	2/20/2020	10:43:51	00d	00:10.0	46.5	56.5	47.4	44.5	--	47	46.8	46.3	45.2	45.1	---	----	44668.4
178	2/20/2020	10:44:01	00d	00:10.0	54.9	64.9	57.7	46.8	--	57.6	57.5	54.5	48.2	47.6	---	----	309029.5
179	2/20/2020	10:44:11	00d	00:10.0	47.6	57.6	54.2	45	--	53.3	52.4	48	45.5	45.4	---	----	57544.0
180	2/20/2020	10:44:21	00d	00:10.0	45.1	55.1	46.3	43.2	--	46.2	46.1	45.3	43.8	43.6	---	----	32359.4
181	2/20/2020	10:44:31	00d	00:10.0	44.2	54.2	45	42.8	--	44.7	44.6	44.2	43.3	42.9	---	----	26302.7
182	2/20/2020	10:44:41	00d	00:10.0	44.3	54.3	45.2	43.2	--	45.1	44.9	44.3	43.5	43.4	---	----	26915.3
183	2/20/2020	10:44:51	00d	00:10.0	46.7	56.7	48.1	44.6	--	47.7	47.4	46.6	45.4	45.1	---	----	46773.5
184	2/20/2020	10:45:01	00d	00:10.0	46.3	56.3	47.9	44.9	--	47.7	47.3	46.5	45	45	---	----	42658.0

PASTE
HERE
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Address	Start Time	Measurement Time	Leq	LE	LMAX	LMIN	Ly	LN1	LN2	LN3	LN4	LN5	Over	Under	Inverse Log	Overall Leq	
M-09																	
54	2/20/2020	10:25:02	00d	00:10.0	46.2	56.2	48.8	45	--	48.4	48.1	46.3	45.5	45.3	----	41686.9	48.7
55	2/20/2020	10:25:12	00d	00:10.0	44.6	54.6	46	43.2	--	45.8	45.5	44.5	43.4	43.3	----	28840.3	
56	2/20/2020	10:25:22	00d	00:10.0	48.5	58.5	50.6	45	--	50.4	50	47.7	45.3	45.1	----	70794.6	
57	2/20/2020	10:25:32	00d	00:10.0	48.9	58.9	50.7	46.1	--	50.6	50.6	49.6	46.5	46.3	----	77624.7	
58	2/20/2020	10:25:42	00d	00:10.0	44.9	54.9	46.5	43.9	--	46.3	46.2	44.9	44	44	----	30903.0	
59	2/20/2020	10:25:52	00d	00:10.0	45.6	55.6	47	44.1	--	46.9	46.5	45.3	44.6	44.5	----	36307.8	
60	2/20/2020	10:26:02	00d	00:10.0	50.7	60.7	54.4	45.3	--	53.8	53.4	47.8	45.8	45.7	----	117489.8	
61	2/20/2020	10:26:12	00d	00:10.0	51.3	61.3	54.5	47.5	--	54.4	54.4	51.5	47.9	47.7	----	134896.3	
62	2/20/2020	10:26:22	00d	00:10.0	45.9	55.9	47.5	44.6	--	47.5	47.4	45.7	44.9	44.9	----	38904.5	
63	2/20/2020	10:26:32	00d	00:10.0	53.9	63.9	58.2	46.8	--	57.9	57.3	52.9	47.1	47	----	245470.9	
64	2/20/2020	10:26:42	00d	00:10.0	50.7	60.7	56.2	43.3	--	56	55.8	48.2	43.8	43.6	----	117489.8	
65	2/20/2020	10:26:52	00d	00:10.0	43.8	53.8	44.6	42.8	--	44.4	44.3	43.9	43.2	43	----	23988.3	
66	2/20/2020	10:27:02	00d	00:10.0	43	53	44.6	42	--	44.3	44.2	42.8	42.2	42.1	----	19952.6	
67	2/20/2020	10:27:12	00d	00:10.0	47.6	57.6	52.9	41.1	--	51.5	50.5	46	41.6	41.5	----	57544.0	
68	2/20/2020	10:27:22	00d	00:10.0	44.1	54.1	48.4	42.9	--	47.6	46.2	43.9	43.1	43.1	----	25704.0	
69	2/20/2020	10:27:32	00d	00:10.0	44.4	54.4	45.4	43	--	45.3	45.3	43.9	43.1	43	----	27542.3	
70	2/20/2020	10:27:42	00d	00:10.0	47.4	57.4	50.9	45.1	--	49.4	48.4	45.6	45.3	45.2	----	54954.1	
71	2/20/2020	10:27:52	00d	00:10.0	51.8	61.8	52.6	50.3	--	52.4	52.3	51.7	50.7	50.6	----	151356.1	
72	2/20/2020	10:28:02	00d	00:10.0	50.7	60.7	52.4	49	--	52.2	52.2	50.7	49.2	49.1	----	117489.8	
73	2/20/2020	10:28:12	00d	00:10.0	48.3	58.3	50.6	45.4	--	50.4	50.1	48.6	45.7	45.6	----	67608.3	
74	2/20/2020	10:28:22	00d	00:10.0	46.3	56.3	48.6	44.1	--	48.3	48.1	46.2	44.5	44.3	----	42658.0	
75	2/20/2020	10:28:32	00d	00:10.0	51.4	61.4	53	47.2	--	52.9	52.7	50.7	47.5	47.3	----	138038.4	
76	2/20/2020	10:28:42	00d	00:10.0	49.1	59.1	52	46.9	--	51.6	51.3	49.1	48.1	47.8	----	81283.1	
77	2/20/2020	10:28:52	00d	00:10.0	45.2	55.2	47.1	43.9	--	47	46.7	45.5	44.1	44	----	33113.1	
78	2/20/2020	10:29:02	00d	00:10.0	49.3	59.3	50.3	44.1	--	50.3	50.2	48.9	45.6	44.2	----	85113.8	
79	2/20/2020	10:29:12	00d	00:10.0	49.6	59.6	50.6	48.4	--	50.6	50.5	49.9	48.6	48.5	----	91201.1	
80	2/20/2020	10:29:22	00d	00:10.0	47.6	57.6	48.9	46.5	--	48.8	48.5	47.7	47	46.9	----	57544.0	
81	2/20/2020	10:29:32	00d	00:10.0	45.2	55.2	47.9	42.3	--	47.4	47.2	45.3	42.7	42.4	----	33113.1	
82	2/20/2020	10:29:42	00d	00:10.0	42.3	52.3	43.6	41.5	--	43.3	43.1	42.1	41.8	41.6	----	16982.4	
83	2/20/2020	10:29:52	00d	00:10.0	43.2	53.2	44.7	41.7	--	44.4	44.3	42.9	41.9	41.8	----	20893.0	
84	2/20/2020	10:30:02	00d	00:10.0	44.4	54.4	45.3	43.5	--	45.1	44.9	44.2	43.6	43.6	----	27542.3	
85	2/20/2020	10:30:12	00d	00:10.0	46.6	56.6	47.6	45.2	--	47.6	47.5	46.5	45.5	45.5	----	45708.8	
86	2/20/2020	10:30:22	00d	00:10.0	45.3	55.3	46.1	44.4	--	46	45.9	45.4	44.6	44.5	----	33884.4	
87	2/20/2020	10:30:32	00d	00:10.0	45.1	55.1	47.1	43.9	--	46.6	45.9	45.1	44.2	44	----	32359.4	
88	2/20/2020	10:30:42	00d	00:10.0	47.4	57.4	49.6	44.9	--	49.1	48.8	46.9	45.5	45.3	----	54954.1	
89	2/20/2020	10:30:52	00d	00:10.0	44.6	54.6	47.4	43.9	--	47.1	46.8	44.7	44.1	44	----	28840.3	
90	2/20/2020	10:31:02	00d	00:10.0	43.4	53.4	44.4	42.6	--	44.3	44.2	43.2	42.7	42.7	----	21877.6	
91	2/20/2020	10:31:12	00d	00:10.0	46.3	56.3	47.1	44	--	46.9	46.9	46	45.1	44.9	----	42658.0	
92	2/20/2020	10:31:22	00d	00:10.0	49.9	59.9	50.9	46.9	--	50.9	50.8	50	47.4	47	----	97723.7	
93	2/20/2020	10:31:32	00d	00:10.0	46	56	49	44.8	--	48.4	47.9	46	44.9	44.9	----	39810.7	
94	2/20/2020	10:31:42	00d	00:10.0	48.6	58.6	49.8	45.6	--	49.7	49.6	48.3	46	45.9	----	72443.6	
95	2/20/2020	10:31:52	00d	00:10.0	47.6	57.6	49.7	46.6	--	49.6	49.4	47.3	46.8	46.7	----	57544.0	
96	2/20/2020	10:32:02	00d	00:10.0	49.3	59.3	50.1	47.2	--	50	49.8	49	48.3	48.1	----	85113.8	
97	2/20/2020	10:32:12	00d	00:10.0	49	59	50.5	48	--	50.2	49.9	48.9	48.2	48.1	----	79432.8	
98	2/20/2020	10:32:22	00d	00:10.0	49.9	59.9	52.2	48	--	51.6	50.9	49.5	48.8	48.6	----	97723.7	
99	2/20/2020	10:32:32	00d	00:10.0	51.3	61.3	53.6	48.6	--	53.4	53.1	50.6	49.6	49.2	----	134896.3	
100	2/20/2020	10:32:42	00d	00:10.0	51.8	61.8	54	47.7	--	53.6	53.4	52.1	49.3	48.3	----	151356.1	
101	2/20/2020	10:32:52	00d	00:10.0	48.4	58.4	52.2	46.6	--	51.4	50.9	48.1	46.9	46.8	----	69183.1	
102	2/20/2020	10:33:02	00d	00:10.0	51.2	61.2	53.3	46.9	--	52.8	52.5	50.6	48.9	47.3	----	131825.7	
103	2/20/2020	10:33:12	00d	00:10.0	50.5	60.5	53.1	48	--	52.5	52.3	51	48.6	48.4	----	112201.8	
104	2/20/2020	10:33:22	00d	00:10.0	46.5	56.5	51.9	43.9	--	50.6	49.4	45.8	44.3	44.1	----	44668.4	
105	2/20/2020	10:33:32	00d	00:10.0	50.5	60.5	53.8	43.2	--	52.6	52	49.9	44	43.7	----	112201.8	
106	2/20/2020	10:33:42	00d	00:10.0	54.2	64.2	57.1	50.2	--	56.9	56.7	54.2	51.2	50.8	----	263026.8	
107	2/20/2020	10:33:52	00d	00:10.0	50.5	60.5	52.8	48.5	--	52.2	51.9	50.1	48.6	48.6	----	112201.8	
108	2/20/2020	10:34:02	00d	00:10.0	49	59	52.2	44.9	--	51.7	51.3	49.7	45.2	45.1	----	79432.8	
109	2/20/2020	10:34:12	00d	00:10.0	47.7	57.7	51.5	44	--	50.8	50.4	46.9	44.6	44.3	----	58884.4	
110	2/20/2020	10:34:22	00d	00:10.0	48.1	58.1	50.8	44.5	--	49.9	49.4	47.6	45.6	44.8	----	64565.4	
111	2/20/2020	10:34:32	00d	00:10.0	46.6	56.6	49.8	42.6	--	49.7	49.5	46.7	43.3	42.8	----	45708.8	
112	2/20/2020	10:34:42	00d	00:10.0	43.9	53.9	45.2	42.6	--	44.8	44.6	43.7	43.2	43	----	24547.1	
113	2/20/2020	10:34:52	00d	00:10.0	48.7	58.7	51	43.4	--	50.8	50.3	47.1	44.1	44	----	74131.0	
114	2/20/2020	10:35:02	00d	00:10.0	57.6	67.6	60	50.9	--	59.8	59.7	57	53.5	51.1	----	575439.9	
115	2/20/2020	10:35:12	00d	00:10.0	50.3	60.3	56.4	46.8	--	56	55.1	49.7	47.7	47.3	----	107151.9	
116	2/20/2020	10:35:22	00d	00:10.0	44.1	54.1	46.8	42.7	--	45.9	45.5	44.2	43.4	43	----	25704.0	
117	2/20/2020	10:35:32	00d	00:10.0	42.4	52.4	43.8	41.4	--	43.7	43.6	42.5	42	41.7	----	17378.0	
118	2/20/2020	10:35:42	00d	00:10.0	42.7	52.7	43.6	41.3	--	43.5	43.4	42.7	41.8	41.5	----	18620.9	
119	2/20/2020	10:35:52	00d	00:10.0	45.8	55.8	48.1	42.9	--	47.8	47.2	45	43.9	43.6	----	38018.9	
120	2/20/2020	10:36:02	00d	00:10.0	48.6	58.6	52.3	45.8	--	52.2	51.5	46.7	46	45.9	----	72443.6	
121	2/20/2020	10:36:12	00d	00:10.0	51.8	61.8	53.7	49.5	--	53.4	53.2	52	49.7	49.7	----	151356.1	
122	2/20/2020	10:36:22	00d	00:10.0	47.6	57.6	50.5	46.3	--	50.1	50	47.3	46.5	46.4	----	57544.0	
123	2/20/2020	10:36:32	00d	00:10.0	43.5	53.5	46.5	41.7	--	46.2	46.1	42.9	42.1	41.9	----	22387.2	
124	2/20/2020	10:36:42	00d	00:10.0	46.6	56.6	49.4	42.1	--	49.3	49.1	43.9	42.4	42.2	----	45708.8	
125	2/20/2020	10:36:52	00d	00:10.0	48.4	58.4	50.4	46.2	--	50.3	50.1	48.9	46.3	46.3	----	69183.1	
126	2/20/2020	10:37:02	00d	00:10.0	48	58	48.4	46.4	--	48.4	48.3	47.9	47.5	47.1	----	63095.7	
127	2/20/2020	10:37:12	00d	00:10.0	51.9	61.9	53.7	48.4	--	53.6	53.5	50.6	49.7	49.1	----	154881.7	
128	2/20/2020	10:37:22	00d	00:10.0	55.7	65.7	56.6	53.4	--	56.5	56.5	55					

144	2/20/2020	10:40:02	00d	00:10.0	45.1	55.1	45.6	44.5	--	45.5	45.5	45.2	44.7	44.6	----	----	32359.4
145	2/20/2020	10:40:12	00d	00:10.0	46	56	47.5	44.5	--	47.3	46.7	45.9	44.8	44.6	----	----	39810.7
146	2/20/2020	10:40:22	00d	00:10.0	48.1	58.1	49.3	47.2	--	49.2	49	47.9	47.4	47.3	----	----	64565.4
147	2/20/2020	10:40:32	00d	00:10.0	47.9	57.9	49.4	46.2	--	49.2	48.7	47.7	46.4	46.3	----	----	61659.5
148	2/20/2020	10:40:42	00d	00:10.0	47.9	57.9	49.7	46.1	--	49.4	49	48.5	46.9	46.5	----	----	61659.5
149	2/20/2020	10:40:52	00d	00:10.0	44.1	54.1	46.1	43.2	--	45.5	45.3	44.4	43.3	43.2	----	----	25704.0
150	2/20/2020	10:41:02	00d	00:10.0	46.1	56.1	48.1	43.2	--	48	48	44.9	43.4	43.3	----	----	40738.0
151	2/20/2020	10:41:12	00d	00:10.0	48.5	58.5	49.5	47.6	--	49.3	49.2	48.4	47.9	47.8	----	----	70794.6
152	2/20/2020	10:41:22	00d	00:10.0	50.5	60.5	51.7	47.9	--	51.7	51.6	50.1	48.2	48	----	----	112201.8
153	2/20/2020	10:41:32	00d	00:10.0	49.3	59.3	52	47.3	--	51.7	51.4	49.3	47.6	47.4	----	----	85113.8
154	2/20/2020	10:41:42	00d	00:10.0	45.5	55.5	48.2	44.6	--	47.8	47.5	45.7	44.9	44.8	----	----	35481.3
155	2/20/2020	10:41:52	00d	00:10.0	47.6	57.6	49.2	45.1	--	48.9	48.6	47.5	45.5	45.3	----	----	57544.0
156	2/20/2020	10:42:02	00d	00:10.0	53.7	63.7	57.5	49.2	--	56.8	54.7	52.4	49.8	49.7	----	----	234422.9
157	2/20/2020	10:42:12	00d	00:10.0	57	67	61.6	51	--	60.9	60.5	56.3	51.9	51.7	----	----	501187.2
158	2/20/2020	10:42:22	00d	00:10.0	48.9	58.9	53	47.9	--	52.6	52.1	48.5	48.2	48	----	----	77624.7
159	2/20/2020	10:42:32	00d	00:10.0	49.6	59.6	50.3	48.4	--	50.1	50.1	49.6	49	48.6	----	----	91201.1
160	2/20/2020	10:42:42	00d	00:10.0	46.7	56.7	49	45.9	--	48.4	48.1	46.6	46	46	----	----	46773.5
161	2/20/2020	10:42:52	00d	00:10.0	49.1	59.1	50.5	46.4	--	50.4	50.4	49.2	46.9	46.6	----	----	81283.1
162	2/20/2020	10:43:02	00d	00:10.0	45.5	55.5	46.5	44.6	--	46.4	46.2	45.5	44.7	44.6	----	----	35481.3
163	2/20/2020	10:43:12	00d	00:10.0	45	55	46.1	43.9	--	45.9	45.8	45.3	44.2	44.1	----	----	31622.8
164	2/20/2020	10:43:22	00d	00:10.0	48.8	58.8	49.9	45	--	49.8	49.7	48.8	46.2	45.5	----	----	75857.8
165	2/20/2020	10:43:32	00d	00:10.0	47.2	57.2	49.6	45.7	--	49.5	49.5	46.8	46	45.9	----	----	52480.7
166	2/20/2020	10:43:42	00d	00:10.0	44.7	54.7	46.8	43.1	--	46.7	46.1	45.2	43.4	43.3	----	----	29512.1
167	2/20/2020	10:43:52	00d	00:10.0	43.1	53.1	44.4	42.4	--	44.1	43.8	43.2	42.8	42.7	----	----	20417.4
168	2/20/2020	10:44:02	00d	00:10.0	44.4	54.4	45.3	42.3	--	45.2	45.1	44.1	42.5	42.4	----	----	27542.3
169	2/20/2020	10:44:12	00d	00:10.0	47.5	57.5	48.7	45.2	--	48.5	48.4	47.4	45.8	45.6	----	----	56234.1
170	2/20/2020	10:44:22	00d	00:10.0	47.4	57.4	49.6	46.2	--	49.5	49	47.3	46.4	46.3	----	----	54954.1
171	2/20/2020	10:44:32	00d	00:10.0	46.5	56.5	48	45.6	--	47.8	47.4	46.2	45.8	45.7	----	----	44668.4
172	2/20/2020	10:44:42	00d	00:10.0	46.2	56.2	47.5	45.4	--	47.3	47.3	46.3	45.5	45.5	----	----	41686.9
173	2/20/2020	10:44:52	00d	00:10.0	46.5	56.5	48.6	44.5	--	48.2	47.8	46.8	44.9	44.7	----	----	44668.4
174	2/20/2020	10:45:02	00d	00:10.0	46.8	56.8	49.9	45.2	--	49.3	48.3	46.4	45.4	45.4	----	----	47863.0

APPENDIX C
NOISE MONITORING DATA FORMS

Bailey Bridge Connector Project

Site # M-01
 Done By: AJN
 Meter: →

Description :
 #1 SN: 0101

13007 Holly View Pl

Monitoring Data:

Date	<u> 2/20/20 </u>	<u> Off-Peak </u>	<u> PM Peak </u>
Start Time	<u> 9:15 AM </u>		
End Time	<u> 9:35 AM </u>		
Duration	<u> 20 MIN </u>	<u> MIN </u>	<u> MIN </u>

Leq.

56.1		
-------------	--	--

Atmospheric Data

Wind Speed (mph)	<u> 6 </u>
Temp. (°F)	<u> 39 </u>
Humidity (%)	<u> 50 </u>

Traffic Data

Roadway	<u> Bailey Bridge </u>	
Direction	<u> EB </u>	<u> WB </u>
Traffic Total:	<u> 82 </u>	<u> 57 </u>
Cars	<u> 78 </u>	<u> 56 </u>
MT	<u> 2 </u>	<u> 0 </u>
HT	<u> 2 </u>	<u> 1 </u>

Weather Conditions

Site Data: Site Surface (alpha): Shielding Factor : Pavement Type :



Plan View



NORTH



Monitoring Notes

AM Peak: Heat pump running out house. Meter was moved to position that eliminated heat pump noise.

Off-Peak:

PM Peak

Profile View:



Bailey Bridge Connector Project

Site # M-02
 Done By: DLH
 Meter: →

Description :

13010 Bailey Bridge Rd

Monitoring Data:

	#2	SN: 0102
AM Peak	Off-Peak	PM Peak
Date	2/20/20	
Start Time	9:15 AM	
End Time	9:35 AM	
Duration	20 MIN	MIN
Leq.	49.0	MIN
Roadway	Bailey Bridge	
Direction	EB	WB
Traffic Total:	82	57
Cars	78	56
MT	2	0
HT	2	1

Atmospheric Data

Wind Speed (mph)	6
Temp. (°F)	39
Humidity (%)	50

Traffic Data

Weather Conditions

Site Data: Site Surface (alpha): Shielding Factor: Pavement Type:



Plan View



NORTH



Monitoring Notes

AM Peak: Car left driveway 9:17

Off-Peak: _____

PM Peak _____

Profile View:



Bailey Bridge Connector Project

Site # M-03
 Done By: AJN
 Meter: →

Description :

13009 Holly View Te

Monitoring Data:

#3	SN: 0103	
AM Peak	Off-Peak	PM Peak
2/20/20		
Start Time		
9:03 AM		
End Time		
10:03 AM		
Duration	MIN	MIN
60 MIN		
Leq.		
51.3		

Atmospheric Data

Wind Speed (mph)
 6
 Temp. (°F)
 39
 Humidity (%)
 50

Traffic Data

Roadway			
Direction			
Traffic Total:			
Cars			
MT			
HT			

Weather Conditions

Site Data: Site Surface (alpha): Shielding Factor : Pavement Type :



Plan View



Monitoring Notes

AM Peak: Ambient 1 hour
 Off and on dog barking.

Off-Peak: _____

PM Peak _____

Profile View:

N/A

Bailey Bridge Connector Project

Site # M-04
 Done By: DLH
 Meter: →

Description :
 #4 SN: 0104

12901 Bailey Bridge Rd

Monitoring Data:

AM Peak	Off-Peak	PM Peak
Date 2/20/20		
Start Time 9:15 AM		
End Time 9:35 AM		
Duration 20 MIN	MIN	MIN
Leq. 62.6		

Atmospheric Data

Wind Speed (mph)	6
Temp. (°F)	39
Humidity (%)	50

Traffic Data

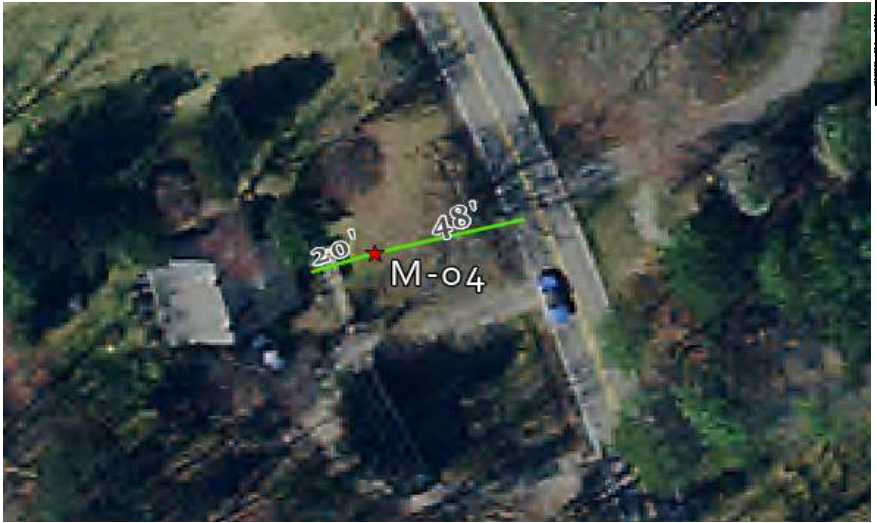
Roadway	Bailey Bridge	
Direction	EB	WB
Traffic Total:	82	57
Cars	78	56
MT	2	0
HT	2	1

Weather Conditions

Site Data: Site Surface (alpha): Shielding Factor : Pavement Type :



Plan View



Monitoring Notes

AM Peak: _____

Off-Peak: _____

PM Peak _____

Profile View:



Bailey Bridge Connector Project

Site # M-05
 Done By: DLH
 Meter: →

Description :
 #5 SN: 0105

12916 Bailey Bridge Rd

Monitoring Data:	<input type="checkbox"/> AM Peak	<input type="checkbox"/> Off-Peak	<input type="checkbox"/> PM Peak
Date	<u>2/20/20</u>		
Start Time	<u>9:15 AM</u>		
End Time	<u>9:35 AM</u>		
Duration	<u>20 MIN</u>	<u> MIN </u>	<u> MIN </u>
Leq.	<u>63.8</u>		
Traffic Data	Bailey Bridge		
Roadway			
Direction	EB	WB	
Traffic Total:	<u>82</u>	<u>57</u>	
Cars	<u>78</u>	<u>56</u>	
MT	<u>2</u>	<u>0</u>	
HT	<u>2</u>	<u>1</u>	

Atmospheric Data
Wind Speed (mph)
<u>6</u>
Temp. (°F)
<u>39</u>
Humidity (%)
<u>50</u>



Site Data: Site Surface (alpha): Shielding Factor : Pavement Type :

Plan View



Monitoring Notes

AM Peak: _____

Off-Peak: _____

PM Peak _____

Profile View:



Bailey Bridge Connector Project

Site # M-06
 Done By: AJN
 Meter: →

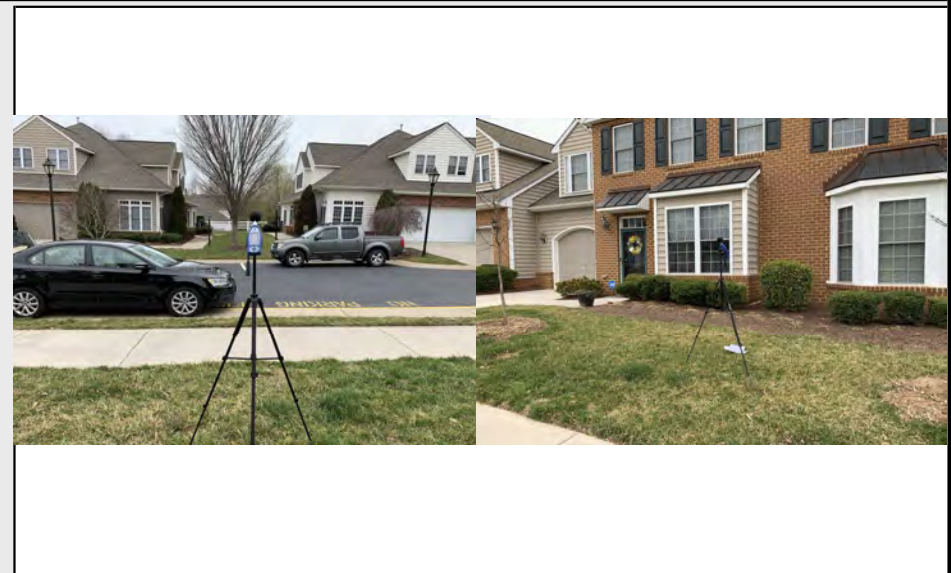
Description :
 #3 SN: 0107

The Terraces at Swift Creek Condos

Monitoring Data:	AM Peak	Off-Peak	PM Peak
Date	2/20/20		
Start Time	10:25 AM		
End Time	11:25 AM		
Duration	60 MIN	MIN	MIN
Leq.	46.7		

Traffic Data			
Roadway			
Direction			
Traffic Total:			
Cars			
MT			
HT			

Atmospheric Data
Wind Speed (mph)
6
Temp. (°F)
39
Humidity (%)
50



Site Data: Site Surface (alpha): Shielding Factor : Pavement Type :

Plan View



Monitoring Notes

AM Peak: Ambient 1 hour
 10:34 Car
 10:37 Plane
 10:38 Plane

Off-Peak: _____

PM Peak _____

Profile View:

N/A

Bailey Bridge Connector Project

Site # M-07
 Done By: DLH
 Meter: →

Description :

5316 The Terraces at Swift Creek Condos

Monitoring Data:

	#2	SN: 0108	
AM Peak	Off-Peak	PM Peak	
Date			
Start Time			
End Time			
Duration	20 MIN	MIN	MIN
Leq.	49.1		

Atmospheric Data

Wind Speed (mph)
6
 Temp. (°F)
39
 Humidity (%)
50

Traffic Data

Roadway	Brad McNeer			
Direction	EB	WB		
Traffic Total:	40	17		
Cars	39	17		
MT	1	0		
HT	0	0		

Weather Conditions

Site Data: Site Surface (alpha): Shielding Factor: Pavement Type :



Plan View



NORTH



Monitoring Notes

AM Peak:
 10:33-34 Car
 10:37 Plane
 10:38 Plane

Off-Peak: _____

PM Peak _____

Profile View:



Bailey Bridge Connector Project

Site # M-08
 Done By: DLH
 Meter: →

Description :
 #1 SN: 0109

The Terraces at Swift Creek Condos

Monitoring Data:	AM Peak	Off-Peak	PM Peak
	Date	<u> 2/20/20 </u>	<u> </u>
	Start Time	<u> 10:25 AM </u>	<u> </u>
	End Time	<u> 10:45 AM </u>	<u> </u>
Duration	<u> 20 MIN </u>	<u> MIN </u>	<u> MIN </u>
Leq.	<u> 51.4 </u>	<u> </u>	<u> </u>
Traffic Data	Roadway <u> Brad McNeer </u>		
	Direction	<u> EB </u>	<u> WB </u>
	Traffic Total:	<u> 40 </u>	<u> 17 </u>
	Cars	<u> 39 </u>	<u> 17 </u>
	MT	<u> 1 </u>	<u> 0 </u>
	HT	<u> 0 </u>	<u> 0 </u>

Atmospheric Data
Wind Speed (mph)
<u> 6 </u>
Temp. (°F)
<u> 39 </u>
Humidity (%)
<u> 50 </u>

Weather Conditions

Site Data: Site Surface (alpha): Shielding Factor : Pavement Type :



Plan View



Monitoring Notes

AM Peak:
<u> 10:28 Car passby </u>
<u> 10:33-34 Car </u>
<u> 10:37 Plane </u>
<u> 10:38 Plane </u>
<u> </u>
<u> </u>
Off-Peak:
<u> </u>
<u> </u>
<u> </u>
<u> </u>
PM Peak
<u> </u>
<u> </u>
<u> </u>
<u> </u>

Profile View:



Bailey Bridge Connector Project

Site # M-09
 Done By: DLH
 Meter: →

Description :
 #4 SN: 0110

4902 The Terraces at Swift Creek Condos

Monitoring Data:

Date	<u> 2/20/20 </u>	<u> Off-Peak </u>	<u> PM Peak </u>
Start Time	<u> 10:25 AM </u>	<u> </u>	<u> </u>
End Time	<u> 10:45 AM </u>	<u> </u>	<u> </u>
Duration	<u> 20 MIN </u>	<u> MIN </u>	<u> MIN </u>
Leq.	<u> 48.7 </u>	<u> </u>	<u> </u>

Atmospheric Data

Wind Speed (mph)	<u> 6 </u>
Temp. (°F)	<u> 39 </u>
Humidity (%)	<u> 50 </u>

Traffic Data

Roadway	<u> Brad McNeer </u>		<u> </u>	<u> </u>
Direction	<u> EB </u>	<u> WB </u>	<u> </u>	<u> </u>
Traffic Total:	<u> 40 </u>	<u> 17 </u>	<u> </u>	<u> </u>
Cars	<u> 39 </u>	<u> 17 </u>	<u> </u>	<u> </u>
MT	<u> 1 </u>	<u> 0 </u>	<u> </u>	<u> </u>
HT	<u> 0 </u>	<u> 0 </u>	<u> </u>	<u> </u>

Weather Conditions

Site Data: Site Surface (alpha): Shielding Factor : Pavement Type :



Plan View



NORTH



Monitoring Notes

AM Peak:	<u> 10:33-34 Car </u>
	<u> 10:37 Plane </u>
	<u> 10:38 Plane </u>
	<u> </u>
	<u> </u>
Off-Peak:	<u> </u>
	<u> </u>
	<u> </u>
	<u> </u>
PM Peak	<u> </u>
	<u> </u>
	<u> </u>
	<u> </u>

Profile View:



APPENDIX D
TRAFFIC DATA SUMMARY

Roadway	Hours	FINAL ADJUSTED FREE FLOW SPEEDS						FINAL ADJUSTED TRAFFIC VOLUMES									
		EXISTING (2019)		NO-BUILD (2047)		BUILD (2047)		EXISTING (2019)			NO-BUILD (2047)			BUILD (2047)			
		EB or NB Hourly Interrupted Speed (mph)	WB or SB Hourly Interrupted Speed (mph)	EB or NB Hourly Interrupted Speed (mph)	WB or SB Hourly Interrupted Speed (mph)	EB or NB Hourly Interrupted Speed (mph)	WB or SB Hourly Interrupted Speed (mph)	EB or NB Hourly Volume (mph)	WB or SB Hourly Volume (mph)	Two Way Hourly Volume (mph)	EB or NB Hourly Volume (mph)	WB or SB Hourly Volume (mph)	Two Way Hourly Volume (mph)	EB or NB Hourly Volume (mph)	WB or SB Hourly Volume (mph)	Two Way Hourly Volume (mph)	
Zone 1	0:00	35.0	35.0	35.0	35.0	35.0	35.0	7	9	15	1	1	1	13	17	30	
	1:00	35.0	35.0	35.0	35.0	35.0	35.0	2	2	4	1	1	1	3	4	7	
	2:00	35.0	35.0	35.0	35.0	35.0	35.0	5	1	5	1	1	1	9	1	10	
Bailey Bridge Road From Bailey Hill Road To Alberta Smith Elementary School	3:00	35.0	35.0	35.0	35.0	35.0	35.0	5	4	9	1	1	1	10	7	17	
	4:00	35.0	35.0	35.0	35.0	35.0	35.0	11	2	13	1	1	1	21	4	25	
	5:00	35.0	35.0	35.0	35.0	35.0	35.0	56	5	61	1	1	1	109	10	119	
	6:00	35.0	35.0	35.0	35.0	35.0	35.0	208	21	229	1	1	1	407	40	447	
	7:00	35.0	35.0	35.0	35.0	35.0	35.0	723	51	775	1	1	1	1411	100	1512	
	8:00	35.0	35.0	35.0	35.0	35.0	35.0	361	66	427	1	1	1	705	129	834	
	9:00	35.0	35.0	35.0	35.0	35.0	35.0	154	60	214	1	1	1	300	118	418	
	10:00	35.0	35.0	35.0	35.0	35.0	35.0	131	78	209	1	1	1	256	151	407	
	11:00	35.0	35.0	35.0	35.0	35.0	35.0	148	86	234	1	1	1	289	168	456	
	12:00	35.0	35.0	35.0	35.0	35.0	35.0	194	136	330	1	1	1	379	265	644	
	13:00	35.0	35.0	35.0	35.0	35.0	35.0	175	139	314	1	1	1	341	271	612	
	14:00	35.0	35.0	35.0	35.0	35.0	35.0	183	133	317	1	1	1	358	260	618	
	15:00	35.0	35.0	35.0	35.0	35.0	35.0	182	208	390	1	1	1	355	406	760	
	16:00	35.0	35.0	35.0	35.0	35.0	35.0	243	365	608	1	1	1	474	713	1187	
	17:00	35.0	35.0	35.0	35.0	35.0	35.0	321	487	807	1	1	1	626	950	1576	
	18:00	35.0	35.0	35.0	35.0	35.0	35.0	265	270	535	1	1	1	517	527	1044	
	19:00	35.0	35.0	35.0	35.0	35.0	35.0	170	109	279	1	1	1	332	213	545	
	20:00	35.0	35.0	35.0	35.0	35.0	35.0	129	107	235	1	1	1	251	208	459	
	21:00	35.0	35.0	35.0	35.0	35.0	35.0	58	59	117	1	1	1	113	115	228	
	22:00	35.0	35.0	35.0	35.0	35.0	35.0	21	34	55	1	1	1	41	67	108	
	23:00	35.0	35.0	35.0	35.0	35.0	35.0	6	12	19	1	1	1	12	24	37	
	Zone 2	0:00	35.0	35.0	35.0	35.0	35.0	35.0	5	6	11	1	1	1	15	19	35
		1:00	35.0	35.0	35.0	35.0	35.0	35.0	1	2	3	1	1	1	3	5	8
2:00		35.0	35.0	35.0	35.0	35.0	35.0	3	0	4	1	1	1	10	1	12	
Brad McNeer Pkwy From Commonwealth Centre Pkwy To US Route 360 (Hull Street)	3:00	35.0	35.0	35.0	35.0	35.0	35.0	4	3	6	1	1	1	12	8	20	
	4:00	35.0	35.0	35.0	35.0	35.0	35.0	8	2	9	1	1	1	25	5	30	
	5:00	35.0	35.0	35.0	35.0	35.0	35.0	40	4	44	1	1	1	127	12	139	
	6:00	35.0	35.0	35.0	35.0	35.0	35.0	151	15	166	1	1	1	474	47	521	
	7:00	35.0	35.0	35.0	35.0	35.0	35.0	525	37	562	1	1	1	1645	117	1762	
	8:00	35.0	35.0	35.0	35.0	35.0	35.0	262	48	310	1	1	1	822	150	972	
	9:00	35.0	35.0	35.0	35.0	35.0	35.0	112	44	155	1	1	1	350	137	487	
	10:00	35.0	35.0	35.0	35.0	35.0	35.0	95	56	151	1	1	1	298	176	474	
	11:00	35.0	35.0	35.0	35.0	35.0	35.0	107	62	170	1	1	1	336	196	532	
	12:00	35.0	35.0	35.0	35.0	35.0	35.0	141	98	239	1	1	1	442	308	750	
	13:00	35.0	35.0	35.0	35.0	35.0	35.0	127	101	228	1	1	1	397	316	713	
	14:00	35.0	35.0	35.0	35.0	35.0	35.0	133	97	230	1	1	1	417	303	720	
	15:00	35.0	35.0	35.0	35.0	35.0	35.0	132	151	283	1	1	1	413	473	886	
	16:00	35.0	35.0	35.0	35.0	35.0	35.0	176	265	441	1	1	1	552	831	1383	
	17:00	35.0	35.0	35.0	35.0	35.0	35.0	233	353	586	1	1	1	730	1107	1836	
	18:00	35.0	35.0	35.0	35.0	35.0	35.0	192	196	388	1	1	1	603	614	1216	
	19:00	35.0	35.0	35.0	35.0	35.0	35.0	123	79	203	1	1	1	387	248	635	
	20:00	35.0	35.0	35.0	35.0	35.0	35.0	93	77	171	1	1	1	292	243	535	
	21:00	35.0	35.0	35.0	35.0	35.0	35.0	42	43	85	1	1	1	132	134	265	
	22:00	35.0	35.0	35.0	35.0	35.0	35.0	15	25	40	1	1	1	48	78	126	
	23:00	35.0	35.0	35.0	35.0	35.0	35.0	5	9	14	1	1	1	15	28	43	

Zone 3	0:00	35.0	35.0	35.0	35.0	36.3	36.3	1	1	1	1	1	1	12	15	28
	1:00	35.0	35.0	35.0	35.0	36.3	36.3	1	1	1	1	1	1	3	4	7
	2:00	35.0	35.0	35.0	35.0	36.3	36.3	1	1	1	1	1	1	8	1	9
Bailey Bridge Connector From Bailey Bridge Road To Brad McNeer Parkway	3:00	35.0	35.0	35.0	35.0	36.3	36.3	1	1	1	1	1	1	9	7	16
	4:00	35.0	35.0	35.0	35.0	36.3	36.3	1	1	1	1	1	1	20	4	24
	5:00	35.0	35.0	35.0	35.0	36.3	36.3	1	1	1	1	1	1	101	9	110
	6:00	35.0	35.0	35.0	35.0	36.1	36.3	1	1	1	1	1	1	377	37	414
	7:00	35.0	35.0	35.0	35.0	35.0	36.3	1	1	1	1	1	1	1306	93	1399
	8:00	35.0	35.0	35.0	35.0	35.0	36.3	1	1	1	1	1	1	653	119	772
	9:00	35.0	35.0	35.0	35.0	36.3	36.3	1	1	1	1	1	1	278	109	387
	10:00	35.0	35.0	35.0	35.0	36.3	36.3	1	1	1	1	1	1	237	140	377
	11:00	35.0	35.0	35.0	35.0	36.3	36.3	1	1	1	1	1	1	267	155	423
	12:00	35.0	35.0	35.0	35.0	36.2	36.3	1	1	1	1	1	1	351	245	596
	13:00	35.0	35.0	35.0	35.0	36.2	36.3	1	1	1	1	1	1	316	251	567
	14:00	35.0	35.0	35.0	35.0	36.2	36.3	1	1	1	1	1	1	331	241	572
	15:00	35.0	35.0	35.0	35.0	36.2	36.2	1	1	1	1	1	1	328	376	704
	16:00	35.0	35.0	35.0	35.0	35.9	35.0	1	1	1	1	1	1	439	660	1099
	17:00	35.0	35.0	35.0	35.0	35.2	35.0	1	1	1	1	1	1	580	879	1459
	18:00	35.0	35.0	35.0	35.0	35.8	35.8	1	1	1	1	1	1	479	487	966
	19:00	35.0	35.0	35.0	35.0	36.2	36.3	1	1	1	1	1	1	307	197	504
20:00	35.0	35.0	35.0	35.0	36.3	36.3	1	1	1	1	1	1	232	193	425	
21:00	35.0	35.0	35.0	35.0	36.3	36.3	1	1	1	1	1	1	105	106	211	
22:00	35.0	35.0	35.0	35.0	36.3	36.3	1	1	1	1	1	1	38	62	100	
23:00	35.0	35.0	35.0	35.0	36.3	36.3	1	1	1	1	1	1	12	22	34	



MEMORANDUM

DATE: March 2, 2020
TO: LJ Muchenje, P.E., PMP, Virginia Department of Transportation
FROM: Dylan Houseal, Noise Analyst II, ATCS, PLC
SUBJECT: UPC 111713 - Loudest Hour Determination

Loudest Hour Determination

The purpose of this memo is to discuss the methodology for determining the loudest hour for Existing (2019), No-Build (2047), and Build (2047) noise modeling conditions, for the Bailey Bridge Connector Project. This memo is being submitted for Virginia Department of Transportation (VDOT) concurrence, prior to the calculation of sound levels for the Existing (2019), No-Build (2047), and Build (2047) scenarios as part of the preliminary design noise study.

1.0 Loudest Hour Determination Methodology

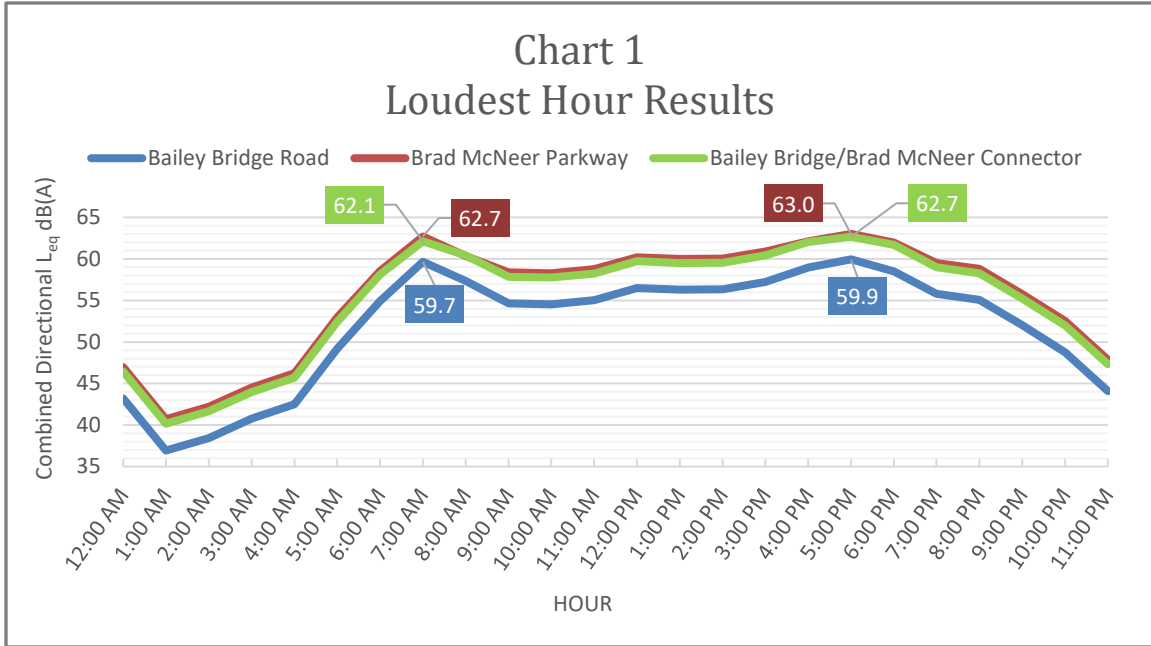
The Environmental Traffic Data (ENTRADA) was processed within VDOT's "Loudest Hour Spreadsheet", version 2.2 for determination and identification of the loudest hour to be used for noise modeling purposes. This predictive tool calculates a reference L_{eq} at 50 feet for each TNM vehicle type, utilizing the free flow speed, volume and a simple TNM roadway object over flat ground. Output sound levels are then analyzed to define a single loudest hour for the project area. For this study, determination focused solely on Bailey Bridge Road, Brad McNeer Parkway, and the proposed connector on new alignment.

2.0 Determination of the Build Condition Loudest Hour

In preparation to calculate the loudest hour, the project corridor was divided into three zones, (Zones 1, 2, and 3). Zone 1 represented Bailey Bridge Road, Zone 2 represented Brad McNeer Parkway, and Zone 3 represented the proposed Bailey Bridge Connector. Using VDOT's Loudest Hour spreadsheet tool, a loudest hour was identified for each zone using the Build (2047) projected traffic volumes provided by the project team. The loudest hour for each zone can be found on **Chart 1** following Section 3. The analysis showed that the 5:00 PM hour was consistently the loudest hour for each zone with a steady rise and fall in sound levels before and after the peak. It should be noted that the 7:00 AM hour also presented a similar combined directional L_{eq} , however these values were slightly lower (avg. 0.4 dB(A)) than the 5:00 PM hour.

3.0 Summary

In conclusion of the loudest hour evaluation, ATCS recommends the 5:00 PM hour be used as the loudest hour for prediction of Build (2047) noise levels for the entire project corridor. Use of the 5:00 PM hour will provide consistent and balanced traffic volumes across the project corridor. For consistency purposes, it is recommended that the 5:00 PM hour also be used for the Existing (2019) and No-Build (2047) scenarios. Upon concurrence with this memo, ATCS will continue refinement of the noise models and will begin noise level prediction for the Existing (2019), No-Build (2047), and Build (2047) conditions.



APPENDIX E
PROJECT ASSUMPTIONS

Project Assumptions

Below is a list of assumptions made in support of the Bailey Bridge Connector Technical Noise Analysis. These assumptions were compiled as a result of incomplete/insufficient data and/or to document the rational and methodologies that were developed to resolve noise study specific issues. Decisions were made based on professional judgement and noise expertise. These assumptions range from specific technical conclusions to project-wide conjecture.

Category:

Assumption:

Traffic

Speeds used for TNM modelling are to be either posted or operating speed, whichever is greater. For this specific noise analysis, these values were the same for all roadways and modelling scenarios (35 mph).

Traffic

Traffic data was provided directionally for project roadways using VDOT's ENTRADA spreadsheets. However, traffic data was not directionally differentiated for roadway segments approaching and exiting the roundabouts at either project termini. Therefore, a single set of volumes were applied to each direction for the length of the roadway segment.

Sensitive Receptors

As of the date of this noise study, the residence located at 1300 Quailwood Rd (CNE D) was determined to be abandoned. Project coordination and conversation with Swift Creek Holdings, LLC revealed that there are no future plans to rent out the residence. For the purposes of this technical noise study, it was determined that the property is NOT considered noise sensitive and therefore, NOT included in the noise analysis. After late project design changes, it was also identified that this property will be acquired as part of the project. The proposed connector alignment now runs directly through the residence. CNE D was included in the noise report to provide a location to discuss the situation with this property.

Noise Environment

Due to the rural nature of the corridor and since the proposed improvement is on new alignment, ambient noise dominates many project communities. As a result, TNM predicted noise levels are well below measured ambient readings. Therefore, where practical, ambient noise levels were used to determine if the design year predicted noise levels experienced a substantial noise level increase of 10 dBA or more over existing (ambient) conditions. Regardless, design year build noise impacts are not predicted for the absolute or substantial increase criterion.

APPENDIX F
PLANNED LANDS DOCUMENTATION

From: Craig Krupp <Craig.Krupp@timmons.com>
Sent: Friday, January 31, 2020 1:17 PM
To: Adams, Steven <AdamsSt@chesterfield.gov>
Cc: Kelly Coleman <kcoleman@atcsplc.com>; Alex Nies <anies@atcsplc.com>; Faulkner, Chessa <FaulknerC@chesterfield.gov>
Subject: RE: Bailey Bridge Connector: CDOT Response

CAUTION: External Email

Steve,

Now that we are about to roll in to some of the detailed design and environmental studies I wanted to ask the question again... are you aware of any approved development plans along our project corridor.

Thanks - Craig

Craig Krupp, P.E., Assoc. DBIA

Senior Project Manager

TIMMONS GROUP | www.timmons.com
1001 Boulders Parkway, Suite 300 | Richmond, VA 23225
Office: 804.200.6378 | Fax: 804.560.1016
Mobile: 804.239.3416 | craig.krupp@timmons.com
Your Vision Achieved Through Ours

Bailey Bridge Connector Planned Development Documentation

From: Craig Krupp <Craig.Krupp@timmons.com>
Sent: Friday, January 31, 2020 2:31 PM
To: Adams, Steven <AdamsSt@chesterfield.gov>; Gillespie, Josh <GillespieJo@chesterfield.gov>
Cc: Kelly Coleman <kcoleman@atcsplc.com>; Alex Nies <anies@atcsplc.com>; Faulkner, Chessa <FaulknerC@chesterfield.gov>
Subject: RE: Bailey Bridge Connector: CDOT Response

CAUTION: External Email

Steve - I appreciate it. If there is not an approved site plan for Swift Creek Station then we should be good to go.

Josh – Please share with me what you have for Swift Creek Station. We are designing a public road through that property so I want to be sure I am on the same page.

Thanks - Craig

Craig Krupp, P.E., Assoc. DBIA
Senior Project Manager

TIMMONS GROUP | www.timmons.com
1001 Boulders Parkway, Suite 300 | Richmond, VA 23225
Office: 804.200.6378 | Fax: 804.560.1016
Mobile: 804.239.3416 | craig.krupp@timmons.com
Your Vision Achieved Through Ours

From: Adams, Steven <AdamsSt@chesterfield.gov>
Sent: Friday, January 31, 2020 2:12 PM
To: Craig Krupp <Craig.Krupp@timmons.com>
Cc: Kelly Coleman <kcoleman@atcsplc.com>; Alex Nies <anies@atcsplc.com>; Faulkner, Chessa <FaulknerC@chesterfield.gov>; Gillespie, Josh <GillespieJo@chesterfield.gov>
Subject: RE: Bailey Bridge Connector: CDOT Response

Craig –
Zoning Case19SN0629 (Swift Creek Station) was approved by the BOS in October 2019. I have attached the traffic study from that case if needed. No tentative subdivision or site plans have been submitted on the property. Let Josh Gillespie, planning case manager, know and he can provide (copied on this email). The report may be a large file so he may need to send you a ftp link.

No other plans have been submitted on other properties that would impact the BBC.

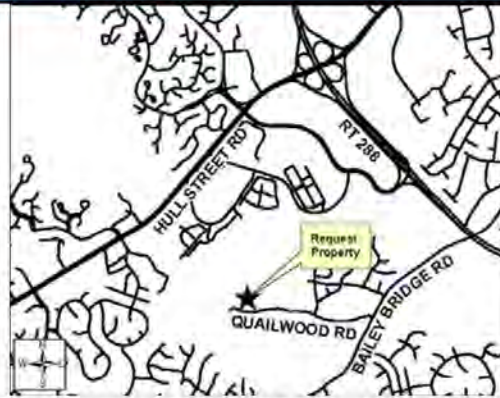
Steve Adams
751-4461

CASE NUMBER: 19SN0629
APPLICANT: Swift Creek Holdings, LLC



CHESTERFIELD COUNTY, VIRGINIA
MATOACA DISTRICT

ADDENDUM



228.7 Acres – 12900, 12901, 13000, 13110,
 and 13100 Quailwood Rd.
 SWIFT CREEK STATION

Board of Supervisors (BOS) Hearing:
 OCTOBER 23, 2019
BOS Time Remaining: 365 DAYS

Applicant's Contacts:
 WILLIAM SHEWMAKE (804-343-5035)
Planning Department Case Manager:
 JOSH GILLESPIE (804-796-7122)

REQUESTS

Request I: Rezoning from Residential (R-12) to Residential Multi-Family (R-MF) of 53.1 acres, Residential Townhouse (R-TH) of 93 acres, and Residential (R-12) of 82.6 acres with conditional use planned development on 228.7 acres to permit commercial uses and ordinance exceptions.
Request II: Waiver to street subdivision connectivity requirements to Quailwood Road.

Notes:

- A. Conditions may be imposed or the property owners may proffer conditions.
- B. Proffered Condition 13 is located in Attachment 1.
- C. AFTER PUBLIC ADVERTISEMENT OF THIS CASE, THE APPLICANT SUBMITTED AN ADDITIONAL PROFFERED CONDITION. THE BOARD OF SUPERVISORS MUST UNANIMOUSLY AGREE TO SUSPEND THEIR RULES TO CONSIDER THIS REVISED PROFFERED CONDITION.

SUMMARY

A master planned development (Swift Creek Station), including a mix of residential (single-family, cluster, townhouses, and multi-family), office, and commercial uses is planned. A maximum of 799 dwelling units are proposed on 212.7 acres, yielding a density of 3.8 dwelling units per acre. Commercial and office uses, located on the proposed Bailey Bridge Connector, would occupy 16 acres with accommodations for outdoor entertainment and civic gatherings. A minimum of 75 acres of open space is planned throughout the development. Access is proposed from Cameron Bay and Holly Bark Drives, Hollyview Parkway, and Bailey Bridge Road and Brad McNeer Parkway via the planned Bailey Bridge Connector. A waiver to street connectivity requirements to Quailwood Road is requested which requires a separate motion. Exceptions to ordinance standards are requested to accommodate the development.

The traffic impact of this development could be valued between \$3,758,927 and \$4,802,830, depending on the residential unit types. The applicant has proffered to provide an off-site sidewalk improvement along Bailey Bridge Road, estimated at \$476,000 in value, and to make the appropriate road case proffer payment based on the corresponding residential unit type minus the estimated sidewalk improvement value on a per unit basis. Construction of the Off-Site Bailey Bridge Connector, from Brad McNeer Parkway to Swift Creek has been estimated to be valued at approximately \$11,460,000. Should the applicant construct this off-site improvement, road cash

proffer payments would no longer be required. No certificate of occupancy will be issued on the property until the Off-Site Bailey Bridge Connector is completed.

The applicant has proffered design and architectural standards (summarized on pages 9-10) to ensure a well-designed, quality development that would complement the surrounding community.

ADDENDUM

The purpose of this Addendum is to provide the Board of Supervisors with an additional Proffered Condition 13 submitted by the Applicant on October 23, 2019 relative to minimum dwelling size for single-family dwellings on noncluster lots. Specifically, each dwelling shall contain a minimum gross floor area of 2000 square feet.

Staff continues to recommend approval as outlined below.

RECOMMENDATIONS

PLANNING COMMISSION (9/17/19)	REQUEST I: REZONING APPROVAL REQUEST II: WAIVER TO STREET CONNECTIVITY APPROVAL
STAFF	REQUEST I: REZONING PLANNING – APPROVAL <ul style="list-style-type: none"> • Proposed residential uses comply with the recommendations of the Comprehensive Plan relative to density, provision of housing diversity, and guidelines for development on smaller lots. • Integration of commercial and office uses within a larger, master-planned residential community ensures compatibility with, and appropriate transition to surrounding residential development, and provides convenience for area residents. • Accommodations for pedestrian and bikeway connections throughout development and connecting to overall bike and trails network. • Quality design and architecture provide for a convenient, attractive and harmonious community that would be comparable in quality to the surrounding communities. TRANSPORTATION – APPROVAL The development’s traffic impact will be addressed by providing cash payments and/or road improvements. REQUEST II: WAIVER TO STREET CONNECTIVITY – APPROVAL <ul style="list-style-type: none"> • Adequate access to the development is achieved by other road connections • The road connection is not required, per VDOT, to ensure state acceptance of development roads

CASE HISTORY

Applicant Submittals

5/31/2019	Application submitted
7/17/2019	Application amended
7/17, 7/18, 7/23, 8/19, 9/9, 9/12 & 10/23/2019	Proffered conditions, Textual Statement and exhibits submitted.
The Board of Supervisors on Wednesday, October 23, 2019, beginning at 6:00 p.m., will consider this request.	

PROFFERED CONDITION 13

October 23, 2019

13. Minimum Dwelling Size – Single Family (non-cluster). Single family dwellings on non-cluster lots shall contain a minimum gross floor area of 2000 square feet. (P)

CASE NUMBER: 19SN0629
APPLICANT: Swift Creek Holdings, LLC



CHESTERFIELD COUNTY, VIRGINIA
MATOACA DISTRICT
STAFF'S ANALYSIS
AND RECOMMENDATION



228.7 Acres – 12900, 12901, 13000, 13110,
 and 13100 Quailwood Rd.
 SWIFT CREEK STATION

Board of Supervisors (BOS) Hearing:

OCTOBER 23, 2019

BOS Time Remaining: 365 DAYS

Applicant's Contacts:

WILLIAM SHEWMAKE (804-343-5035)

Planning Department Case Manager:

JOSH GILLESPIE (804-796-7122)

REQUESTS

Request I: Rezoning from Residential (R-12) to Residential Multi-Family (R-MF) of 53.1 acres, Residential Townhouse (R-TH) of 93 acres, and Residential (R-12) of 82.6 acres with conditional use planned development on 228.7 acres to permit commercial uses and ordinance exceptions.

Request II: Waiver to street subdivision connectivity requirements to Quailwood Road.

Notes:

- A. Conditions may be imposed or the property owners may proffer conditions.
- B. Proffered conditions, textual statement and exhibits are located in Attachments 1 - 3

SUMMARY

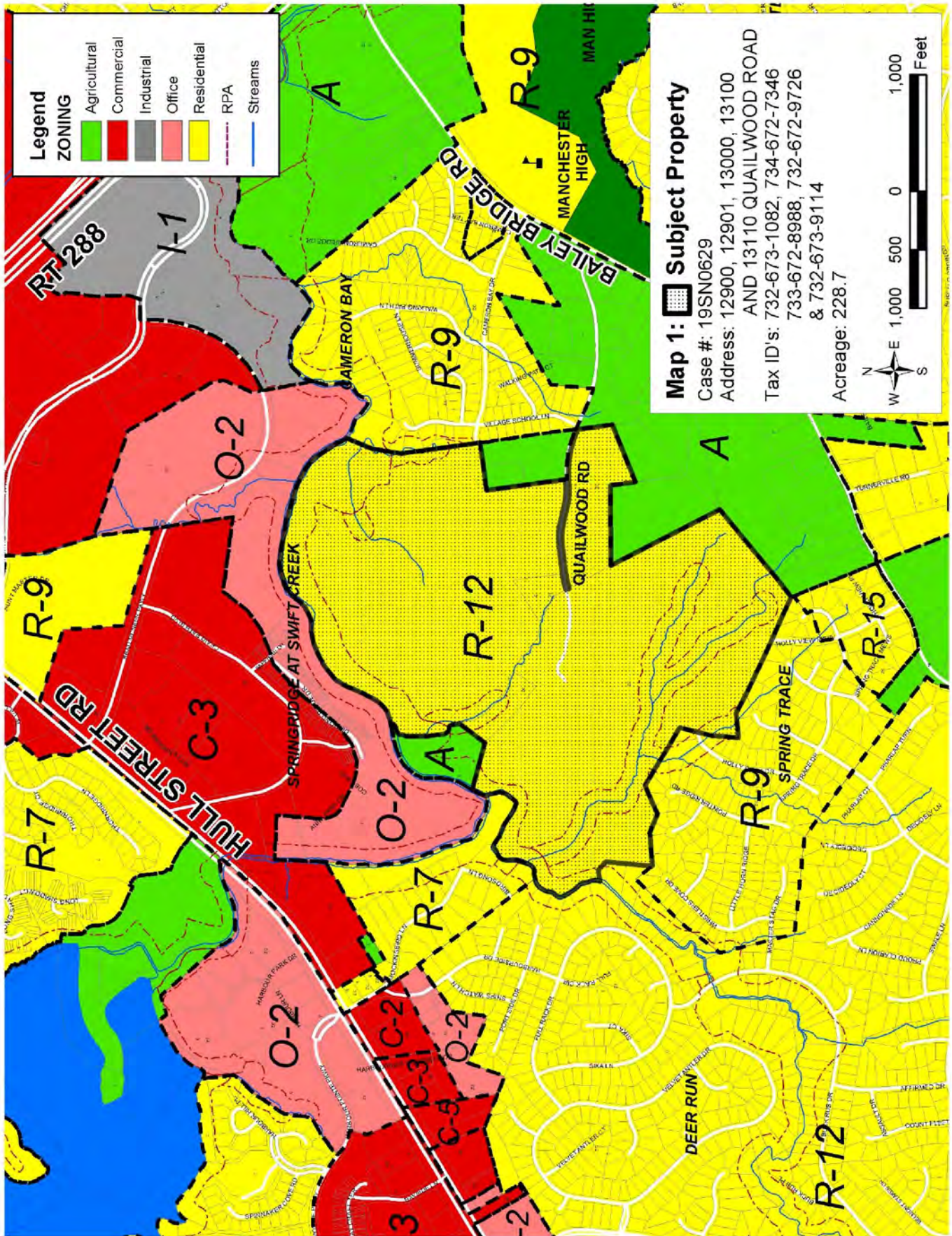
A master planned development (Swift Creek Station), including a mix of residential (single-family, cluster, townhouses, and multi-family), office, and commercial uses is planned. A maximum of 799 dwelling units are proposed on 212.7 acres, yielding a density of 3.8 dwelling units per acre. Commercial and office uses, located on the proposed Bailey Bridge Connector, would occupy 16 acres with accommodations for outdoor entertainment and civic gatherings. A minimum of 75 acres of open space is planned throughout the development. Access is proposed from Cameron Bay and Holly Bark Drives, Hollyview Parkway, and Bailey Bridge Road and Brad McNeer Parkway via the planned Bailey Bridge Connector. A waiver to street connectivity requirements to Quailwood Road is requested which requires a separate motion. Exceptions to ordinance standards are requested to accommodate the development.

The traffic impact of this development could be valued between \$3,758,927 and \$4,802,830, depending on the residential unit types. The applicant has proffered to provide an off-site sidewalk improvement along Bailey Bridge Road, estimated at \$476,000 in value, and to make the appropriate road case proffer payment based on the corresponding residential unit type minus the estimated sidewalk improvement value on a per unit basis. Construction of the Off-Site Bailey Bridge Connector, from Brad McNeer Parkway to Swift Creek has been estimated to be valued at approximately \$11,460,000. Should the applicant construct this off-site improvement, road cash proffer payments would no longer be required. No certificate of occupancy will be issued on the property until the Off-Site Bailey Bridge Connector is completed.

The applicant has proffered design and architectural standards (summarized on pages 9-10) to ensure a well-designed, quality development that would complement the surrounding community.

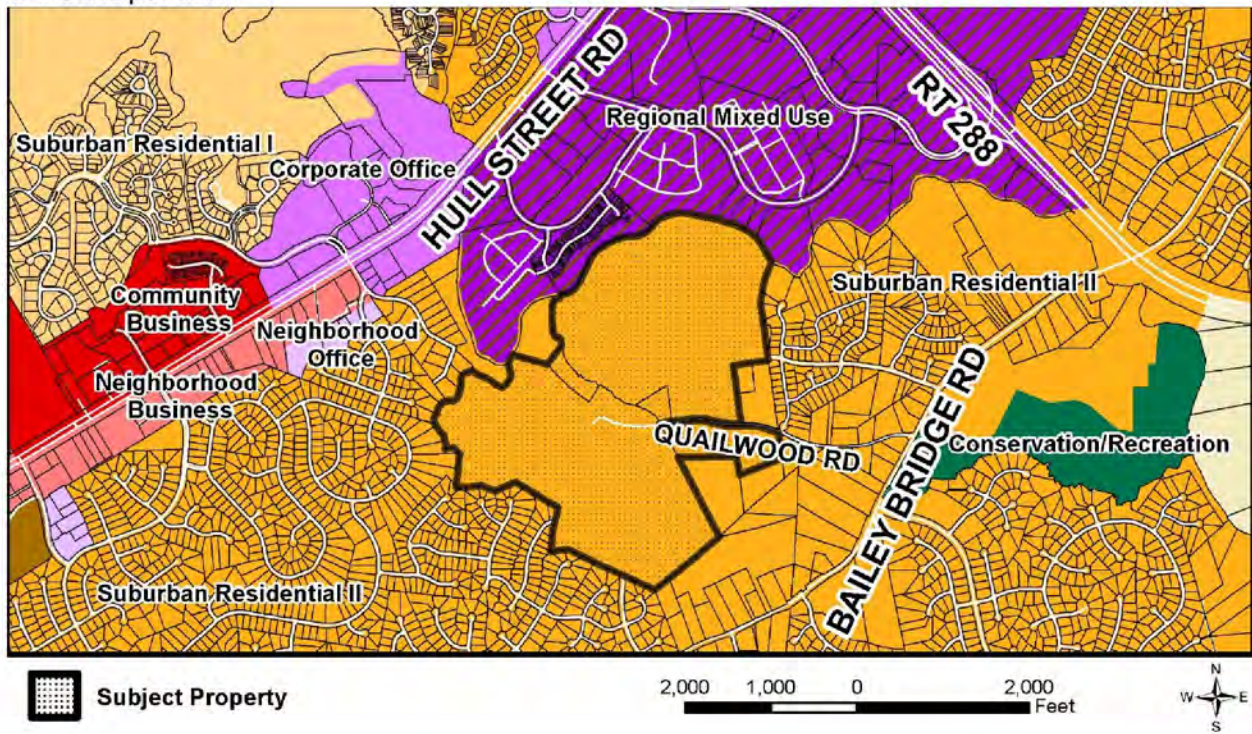
RECOMMENDATIONS	
PLANNING COMMISSION (9/17/19)	REQUEST I: REZONING APPROVAL REQUEST II: WAIVER TO STREET CONNECTIVITY APPROVAL
STAFF	REQUEST I: REZONING PLANNING – APPROVAL <ul style="list-style-type: none"> • Proposed residential uses comply with the recommendations of the Comprehensive Plan relative to density, provision of housing diversity, and guidelines for development on smaller lots. • Integration of commercial and office uses within a larger, master-planned residential community ensures compatibility with, and appropriate transition to surrounding residential development, and provides convenience for area residents. • Accommodations for pedestrian and bikeway connections throughout development and connecting to overall bike and trails network. • Quality design and architecture provide for a convenient, attractive and harmonious community that would be comparable in quality to the surrounding communities. TRANSPORTATION – APPROVAL The development’s traffic impact will be addressed by providing cash payments and/or road improvements. REQUEST II: WAIVER TO STREET CONNECTIVITY – APPROVAL <ul style="list-style-type: none"> • Adequate access to the development is achieved by other road connections • The road connection is not required, per VDOT, to ensure state acceptance of development roads

SUMMARY OF IDENTIFIED ISSUES	
Department	Issue
SCHOOLS	Post 2020, the <i>Public Facilities Plan</i> recommends a new high school in the vicinity of Branders Bridge, Bradley Bridge and Iron Bridge Roads north of Swift Creek. However, at this time, a budget has not been developed for the acquisition of land or construction of this school facility as recommended in the <i>Plan</i> .
LIBRARIES	The <i>Plan</i> recommends a new library in the vicinity of Otterdale Road and Hull Street Road to address service gap and demand issues related to increases in population anticipated in this area of the county. Land for expansion or replacement of this facility or new facility has not been acquired.



Comprehensive Plan
Classification: SUBURBAN RESIDENTIAL II

The designation suggests the property is appropriate for residential development at a maximum density of 2-4 units per acre.



Surrounding Land Uses and Development



PLANNING

Staff Contact: Josh Gillespie (804-796-7122) gillespiejo@chesterfield.gov

Zoning History

Case Number	Request
06SN0234* Approved (06/2007)	<ul style="list-style-type: none">• Rezoning of 220.2 acres, including a portion of the request property, to Residential (R-12) with Conditional Use Planned Development to permit exceptions to Ordinance requirements.• Mixture of residential uses (single family, condominium and cluster) with community recreation.• Density limited to 2.2 dwelling units per acre, yielding approximately 484 dwelling units.• Transportation contribution of \$8,915 per dwelling unit used to construct a two lane road for the collector (the "Bridge") from the southern RPA line of Swift Creek to Brad McNeer Parkway.• Cash proffer of \$6,685 per dwelling unit to address impacts on parks, libraries, schools and fire stations.• Waiver to street connectivity requirements to Quailwood Road.
08SN0212* and 08SN0213* Approved (7/2008)	<ul style="list-style-type: none">• Rezoning of 3 acres (08SN0212) and 2.1 acres (08SN0213) to Residential (R-12) with Conditional Use Planned Development to permit exceptions to Ordinance requirements.• Residential multifamily condominiums and single family uses developed in conjunction with adjacent property zoned with Case 06SN0234.• Density limited to 2.2 dwelling units per acre, yielding approximately 10 dwelling unit.• Cash proffer of \$18,080 per dwelling unit to address impacts on roads, parks, libraries, schools and fire stations.• Waiver to street connectivity requirements to Quailwood Road.

*The staff reports for these cases analyzed the impact of the proposed development on public facilities and the applicant's offers to mitigate that impact.

Proposal

A 228.7-acre master-planned community containing multiple residential neighborhoods with a commercial/office center is proposed. Residential types include single family detached and attached, townhouse and multifamily dwellings. Open spaces, located throughout the development, would be connected by a network of pedestrian and bike paths, including along Swift Creek. The development would be divided into 16 development areas ("Tracts") as included on the project Land Use Plan (on page 8 and in the Design Master Plan, Attachment 3). The permitted uses included in each Tract are as follows:

- Tracts 1-4 - 16 acres. Corporate Office (O-2) and Neighborhood Business (C-2) uses and public and community gathering places. Planned commercial uses also include a craft brewery with public address system and fast food restaurant (without drive-in window).
- Tract 5 - 37.1 acres. Maximum of 350 multi-family dwelling units with a clubhouse.
- Tracts 6-9 - 63.9 acres. Maximum 300 townhouses and condominiums.
- Tracts 10 - 28.4 acres. Maximum 150 age-restricted quads, duplexes and townhouses
- Tracts 11-16 - 83.3 acres. Single-family residential dwellings to include cluster lots.

Adjustments to Tract boundaries would be permitted at the time of plan review provided the Tracts maintain their general relationship to one another. The Tract boundaries may also be altered and relocated to accommodate and incorporate the location of the Baily Bridge Connector approved by the Transportation Department. Prior to submittal of any site or preliminary subdivision plan, an updated project Land Use Plan will be provided to the Planning Department. The updated land use plan will track the status of exceptions that are limited to 30% of zoning districts. (Textual Statement, VIII.A.)

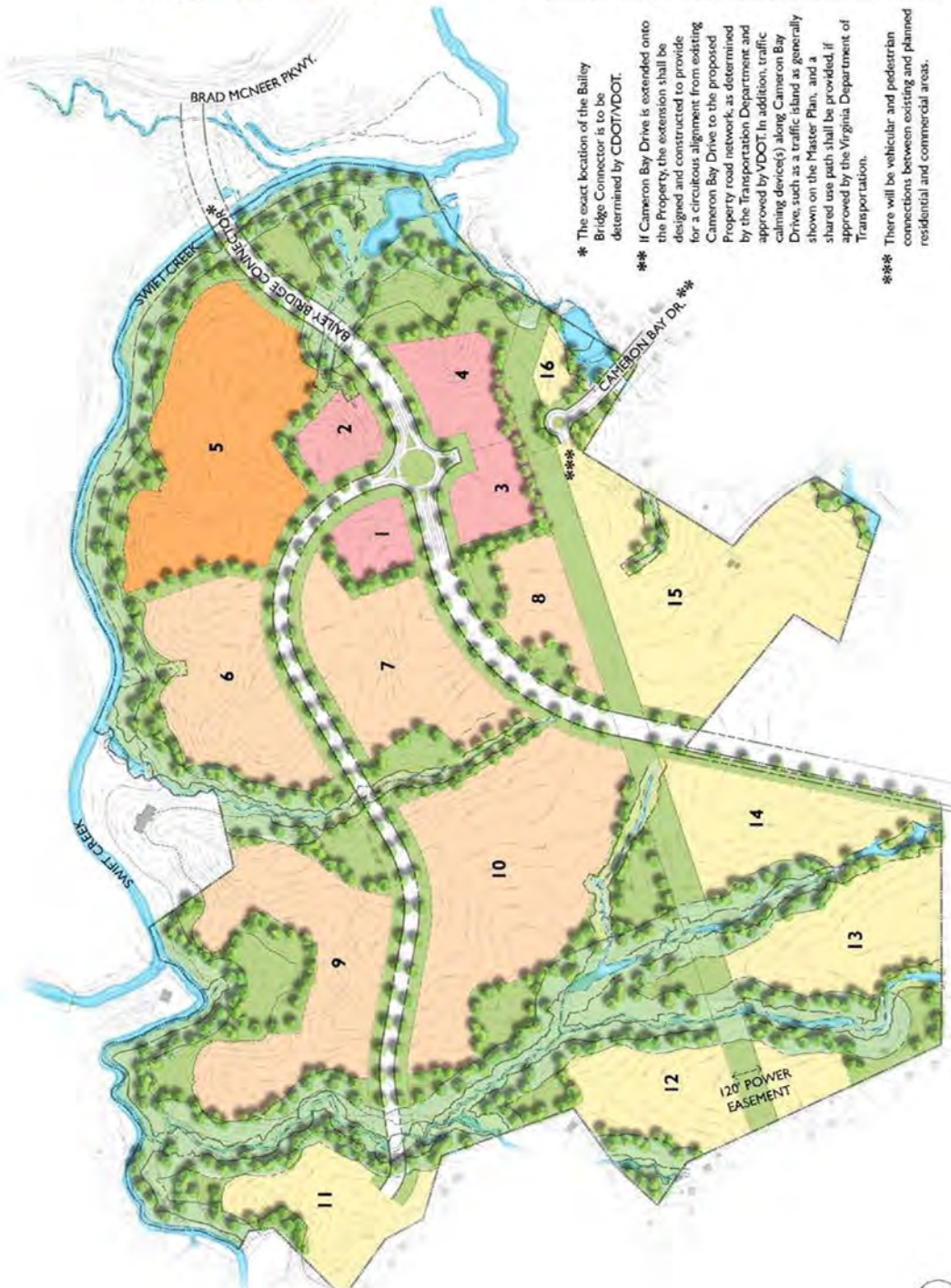
LAND USE

LEGEND

- OFFICE/COMMERCIAL AREA - 16.0 +/- GROSS ACRES
- MULTI-FAMILY RESIDENTIAL - 37.1 +/- GROSS ACRES
- SINGLE FAMILY ATTACHED - 93.1 +/- GROSS ACRES
- SINGLE FAMILY DETACHED - 83.3 +/- GROSS ACRES
- OPEN SPACE
- OPEN SPACE - UNDISTURBED

APPROXIMATE GROSS ACREAGE BY TRACT

TRACT:	APPROXIMATE ACREAGE
1	3.8
2	4.2
3	3.9
4	4.1
5	37.1
6	16.2
7	14.5
8	6.3
9	26.9
10	28.4
11	12.4
12	13.7
13	18.0
14	12.7
15	21.5
16	5.00



* The exact location of the Bailey Bridge Connector is to be determined by CDDT/VDOT.

** If Cameron Bay Drive is extended onto the Property, the extension shall be designed and constructed to provide for a circuitous alignment from existing Cameron Bay Drive to the proposed Property road network, as determined by the Transportation Department and approved by VDOT. In addition, traffic calming device(s) along Cameron Bay Drive, such as a traffic island as generally shown on the Master Plan, and a shared use path shall be provided, if approved by the Virginia Department of Transportation.

*** There will be vehicular and pedestrian connections between existing and planned residential and commercial areas.

MASTER PLAN OVERVIEW

SWIFT CREEK STATION

APPENDIX G
REFERENCES

References

- Procedures for Abatement of Highway Traffic Noise and Construction Noise 23 CFR 772. 2011.
- U.S. Department of Transportation, Federal Highway Administration, *Highway Traffic Noise: Analysis and Abatement Guidance*, FHWA Report No. FHWA-HEP-10-025, December 2011.
- U.S. Department of Transportation, Federal Highway Administration, *Noise Measurement Handbook FHWA* Report No. FHWA-HEP-18-065, June 2018.
- Virginia State Noise Abatement Policy
- Code of Virginia Noise Abatement Practices and Technologies, Section 33.1-223.2:21. 2013, (HB 2577).
- Virginia Department of Transportation, *Highway Traffic Noise Impact Analysis Guidance Manual*, approved March 15, 2011, effective July 13, 2011, updated February 20th, 2018.
- Virginia Department of Transportation, *2020 Road and Bridge Specifications*, Section 107.16(b.3) “Noise.”
- Bailey Bridge Connector
<https://www.streamlinechesterfield.com/project-details/bailey-bridge-connector/>

APPENDIX H
PREPARERS AND REVIEWERS

Preparers/ Reviewers

ATCS, P.L.C.

Dylan L. Houseal

Noise Analyst II

Education: B.A., Geospatial Applications

Professional Experience: 2.5 Years

Role: Project Coordination, Data Collection, Noise Modeling/Validation, Report Preparation

Jack Cramer

Senior Program Manager, Noise Abatement Services

Education: B.S., Geo-Environmental Studies

Professional Experience: 19.5 Years

Role: QA/QC

Alexander J. Nies

Project Manager, Environmental & Noise Abatement Services

Education: B.S., Environmental Science

Professional Experience: 9 Years

Role: Data Collection, QA/QC, Project Coordination

Josh J. Wilson

Director, Noise Abatement Services

Education: B.S., Geo-Environmental Studies

M.S., Geo-Environmental Studies

Professional Experience: 19 Years

Role: QA/QC

Jeffery C. Lasko

Senior Noise Project Manager

Education: B.A., Environmental Planning

Professional Experience: 13.5 Years

Role: QA/QC

Jaret Demcher

Senior Noise Project Manager, Noise Abatement Services

Education: B.A., Geography, Environmental Planning

Professional Experience: 8 Years

Role: QA/QC

APPENDIX I
NOISE METER AND ACOUSTICAL CALIBRATOR
CALIBRATION CERTIFICATES



CALIBRATION CERTIFICATE

Product : SOUND CALIBRATOR
 Type : NC-75
 Serial number : 34191249
 Manufacturer : RION CO., LTD.
 Calibration quantities : Sound pressure level (with reference standard microphone)
 Calibration method : Measured by specified secondary standard microphone
 according to JCSS calibration procedure specified by RION.
 Ambient conditions : Temperature 23.0 °C, Relative humidity 49 %,
 Static pressure 101.1 kPa
 Calibration date : 09/01/2019 (DD/MM/YYYY)
 Calibration location : 3-20-41 Higashimotomachi, Kokubunji, Tokyo 185-8533, Japan

We hereby certify that the results of this calibration were as follows.

Issue date : 17/01/2019 (DD/MM/YYYY)

Koji Takagi
 Manager
 Quality Assurance Section,
 Environmental Instrument Division,
 RION CO., LTD.
 3-20-41 Higashimotomachi, Kokubunji,
 Tokyo 185-8533, Japan



This certificate is based on article 144 of the Measurement Law and indicates the result of calibration in accordance with measurement standards traceable to Primary Measurement Standards (National Standards) which realizes the physical units of measurement according to the International System of Units (SI).

The accreditation symbol is attestation of which the result of calibration is traceable to Primary Measurement Standards (National Standards).

The certificate shall not be reproduced except in full, without the written approval of the issuing laboratory.

The calibration laboratory who issued this calibration certificate conforms to ISO/IEC 17025:2005.

This calibration certificate was issued by the calibration laboratory accredited by IA Japan who is a signatory to the Mutual Recognition Arrangement (MRA) of International Laboratory Accreditation Cooperation (ILAC) and Asia Pacific Laboratory Accreditation Cooperation (APLAC). This (These) calibration result(s) may be accepted internationally through ILAC/APLAC MRA.

1



RION CO., LTD.

3-20-41 Higashimotomachi Kokubunji Tokyo 185-8533
Phone:042(359)7888, Facsimile:042(359)7442

Certificate of Calibration

Name : **Sound Level Meter, Class 2**
Model : **NL-42** **S/No.** : **00296552**
Date of Calibration : **February, 18, 2019**

We hereby certify that the above product was tested and calibrated according to the prescribed Rion procedures, and that it fulfills specification requirements.
The measuring equipment and reference devices used for testing and calibrating this unit are managed under the Rion traceability system and are traceable according to official Japanese standards and official standards of countries belonging to the International Committee of Weights and Measures.

RION CO., LTD.

A handwritten signature in black ink, appearing to read 'K. Ikeda', is written over the printed name.

Manager, Quality Control Department

2



RION CO., LTD.

3-20-41 Higashimotomachi Kokubunji Tokyo 185-8533
Phone:042(359)7888, Facsimile:042(359)7442

Certificate of Calibration

Name : **Sound Level Meter, Class 2**
Model : **NL-42** **S/No.** : **00296557**
Date of Calibration : **February, 18, 2019**

We hereby certify that the above product was tested and calibrated according to the prescribed Rion procedures, and that it fulfills specification requirements.

The measuring equipment and reference devices used for testing and calibrating this unit are managed under the Rion traceability system and are traceable according to official Japanese standards and official standards of countries belonging to the International Committee of Weights and Measures.

RION CO., LTD.

A handwritten signature in black ink, appearing to read 'K. Iweda', written in a cursive style.

Manager, Quality Control Department

3



RION CO., LTD.

3-20-41 Higashimotomachi Kokubunji Tokyo 185-8533
Phone:042(359)7888, Facsimile:042(359)7442

Certificate of Calibration

Name : **Sound Level Meter, Class 2**
Model : **NL-42** **S/No.** : **00296554**
Date of Calibration : **February, 18, 2019**

We hereby certify that the above product was tested and calibrated according to the prescribed Rion procedures, and that it fulfills specification requirements.

The measuring equipment and reference devices used for testing and calibrating this unit are managed under the Rion traceability system and are traceable according to official Japanese standards and official standards of countries belonging to the International Committee of Weights and Measures.

RION CO., LTD.

Manager, Quality Control Department

4



RION CO., LTD.

3-20-41 Higashimotomachi Kokubunji Tokyo 185-8533
Phone:042(359)7888, Facsimile:042(359)7442

Certificate of Calibration

Name : **Sound Level Meter, Class 2**
Model : **NL-42** **S/No.** : **00296556**
Date of Calibration : **February, 18, 2019**

We hereby certify that the above product was tested and calibrated according to the prescribed Rion procedures, and that it fulfills specification requirements.

The measuring equipment and reference devices used for testing and calibrating this unit are managed under the Rion traceability system and are traceable according to official Japanese standards and official standards of countries belonging to the International Committee of Weights and Measures.

RION CO., LTD.

A handwritten signature in black ink, appearing to read 'K. Ikeda', written in a cursive style.

Manager, Quality Control Department

5



RION CO., LTD.

3-20-41 Higashimotomachi Kokubunji Tokyo 185-8533
Phone:042(359)7888, Facsimile:042(359)7442

Certificate of Calibration

Name : **Sound Level Meter, Class 2**
Model : **NL-42** **S/No.** : **00296558**
Date of Calibration : **February, 18, 2019**

We hereby certify that the above product was tested and calibrated according to the prescribed Rion procedures, and that it fulfills specification requirements.
The measuring equipment and reference devices used for testing and calibrating this unit are managed under the Rion traceability system and are traceable according to official Japanese standards and official standards of countries belonging to the International Committee of Weights and Measures.

RION CO., LTD.

Manager, Quality Control Department

Right of Way and Relocation/Septic Systems, Wells, or
Public Water Supplies Memo

Memo

To: Bailey Bridge Connector Project File

Date: June 11, 2020

Re: Bailey Bridge Connector – Right-of-Way and Relocations / Septic Systems, Wells, or Public Water Supplies Memo

Project Description

The proposed project includes the construction of the Bailey Bridge Connector from Bailey Bridge Road to Brad McNeer Parkway as a two-lane road with eight-foot shoulders. The project will construct two roundabouts, one at the intersection with Brad McNeer Parkway and the other at the intersection with Bailey Bridge Road. The improvements will include a ten-foot shared-use path and a bridge over Swift Creek. Stormwater management facilities will be provided as needed. The Bailey Bridge Connector is identified in the Chesterfield County Thoroughfare Plan, in the STIP, and the CLRP.

Right-of-Way and Relocations / Septic Systems, Wells, or Public Water Supplies Evaluation

As part of the National Environmental Policy Act (NEPA) process, impacts to right-of-way, relocations, and locations of septic systems, and water supplies were evaluated for the Bailey Bridge Connector Project.

The Bailey Bridge Connector Project (the Project) is located on new alignment within the County of Chesterfield, Virginia. The total right-of-way proposed to be acquired for the Project is estimated to be approximately 14.9 acres from 16 separate parcels and shown in **Table 1** below. Additionally, two properties are proposed to be acquired / relocated for the Project and are shown in **Table 2** below. An abandoned structure at 13000 Quailwood Road will be acquired, as well as a residence at 13000 Bailey Bridge Road. Chesterfield Department of Transportation's (CDOT) right-of-way (ROW) specialists will coordinate with property owners during the ROW phase of this project and assist in located suitable housing, if needed.

Coordination with the Virginia Department of Health (VDH) did not reveal any public groundwater wells within a 1-mile radius of the project. However, VDH Best Management Practices should be employed during construction, including Erosion & Sedimentation Controls and Spill Prevention Controls & Countermeasures on the project site.




Two private water supply wells were identified within the proposed project limits which have the potential to be impacted by the project. One of the two private water supply wells is associated with the property located at 13000 Bailey Bridge Road and will no longer be in use after the Project is constructed. The second well is located at 12926 Bailey Bridge road. During detailed design, the design team will evaluate if there is an alternate location for a new well or if the property will need to be connected to a municipal water source. CDOT ROW specialists will coordinate with the owners of 13000 Quailwood Road, if a water supply well is still needed, to ensure the property has access to and an adequate supply of fresh water after the Project is constructed. Septic system drainfields are present within the project limits. However, exact locations have not yet been identified by the survey team. Once exactly locations are

identified, drainfields will be added to the plans. If it is determined that an active drainfield will be impacted, the drainfield will either be relocated or the property will be connected to the municipal sanitary sewer.

Table 1		
GPIN	Address	Acres
7326729726	13100 QUAILWOOD RD	3.44
7336698093	13019 HOLLY VIEW PL	0.01
7336699196	13013 HOLLY VIEW PL	0.00
7336728988	13000 QUAILWOOD RD	0.92
7346684980	13017 BAILEY BRIDGE RD	0.02
7346694898	13001 BAILEY BRIDGE RD	0.03
7346701522	13010 BAILEY BRIDGE RD	0.22
7346702835	13000 BAILEY BRIDGE RD	1.43
7346704735	12926 BAILEY BRIDGE RD	0.19
7346715888	12902 BAILEY BRIDGE RD	0.15
7346717809	12904 BAILEY BRIDGE RD	1.19
7346727346	12901 QUAILWOOD RD	0.30
7346731082	12900 QUAILWOOD RD	6.02
7346750754	13101 LOWERY BLUFF WY	0.62
7356744089	5801 BRAD MCNEER PY	0.27
7356751490	5201 CREEK HEIGHTS DR	0.04
Total		14.87

Table 2	
GPIN	Address
7336728988	13000 QUAILWOOD RD
7346702835	13000 BAILEY BRIDGE RD

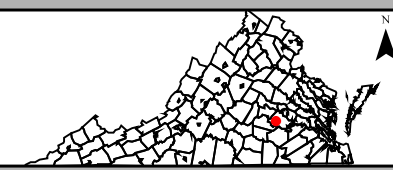


-  Construction Limits
-  Parcels to be Acquired
-  Parcels



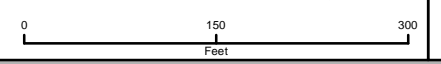
Bailey Bridge Connector Project Right-of-Way Mapping Overview

Sheet 1 of 4



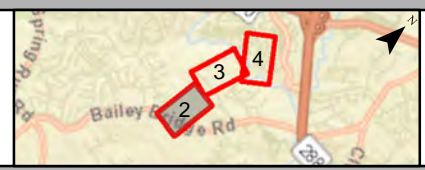


- Construction Limits
- Parcels to be Acquired
- Parcels



Bailey Bridge Connector Project Right-of-Way Mapping


Sheet 2 of 4



DATE: 08/11/2020



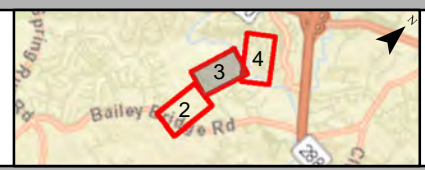
Construction Limits
Parcels to be Acquired
Parcels



0 150 300
Feet

Bailey Bridge Connector Project Right-of-Way Mapping

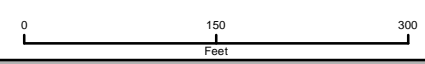
Sheet 3 of 4



DATE: 08/18/2020

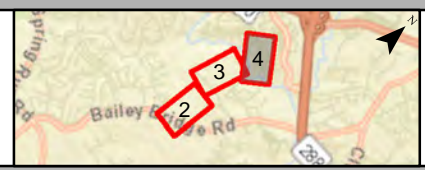


- Construction Limits
- Parcels to be Acquired
- Parcels



**Bailey Bridge Connector Project
Right-of-Way Mapping**

Sheet 4 of 4



Date: 08/11/2020

Hazardous Materials Memo

Memo

To: Bailey Bridge Connector Project File
Date: June 17, 2020
Re: Bailey Bridge Connector – Hazardous Materials Memo

Project Description

The proposed project includes the construction of the Bailey Bridge Connector from Bailey Bridge Road to Brad McNeer Parkway as a two-lane road with eight-foot shoulders. The project will construct two roundabouts, one at the intersection with Brad McNeer Parkway and the other at the intersection with Bailey Bridge Road. The improvements will include a ten-foot shared-use path and a bridge over Swift Creek. Stormwater management facilities will be provided as needed. The Bailey Bridge Connector is identified in the Chesterfield County Thoroughfare Plan, in the STIP, and the CLRP.

Hazardous Materials Review

The Virginia Department of Environmental Quality recommends searching multiple databases to obtain information on potentially contaminated areas, including areas with hazardous materials. A third party, Environmental Data Resources, Inc. (EDR) conducted a review of federal, state, and local environmental databases on June 16, 2020, producing a 28-page report.

Based on the EDR report, below is the listing of sites of potential concern identified on adjacent parcels that fall within 200 feet of the construction limits. The sites are sorted by distance from the project area limits. Sites that are closed, types of chemicals, dates of inspections, elevations, and owner contact information can be found in the full EDR report.

Map ID	Page Number	Location/Distance	Database	Description
A1	8	12916 Bailey Bridge – approximately 200 feet from construction limits	SEMS-Archive, RCRA NonGen/NLR, FINDS, ECHO	Lewis Dump Site Not on the NPL. Site does not qualify for NPL based on information; Archived Site as of 9/29/1992; non-generator, no

Map ID	Page Number	Location/Distance	Database	Description
				hazardous waste; No violations found post closure – compliance inspection on 3/5/1996.
A2	12	12916 Bailey Bridge – approximately 200 feet from construction limits	VPC	Lewis Dump Site Site status – completed; no further action required as of 10/14/1995, drum removal and site remediation complete. No further action required.

The results of the database searches as well as field inspection revealed that impacts from 12916 Bailey Bridge Road (site of potential concern) are unlikely to be encountered during construction activities. However, potential groundwater contamination issues are of particular concern for this project. If necessary, contract provisions will be developed to address the management of any contaminated materials during construction activities.

Bailey Bridge Connector

Brad McNeer Parkway and Bailey Bridge Road
Midlothian, VA 23112

Inquiry Number: 6092311.2s

June 16, 2020

The EDR Radius Map™ Report



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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GEOCHECK ADDENDUM

GeoCheck - Not Requested

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

BRAD MCNEER PARKWAY AND BAILEY BRIDGE ROAD
MIDLOTHIAN, VA 23112

COORDINATES

Latitude (North): 37.4063860 - 37° 24' 22.98"
Longitude (West): 77.6352650 - 77° 38' 6.95"
Universal Tranverse Mercator: Zone 18
UTM X (Meters): 266750.8
UTM Y (Meters): 4143011.2
Elevation: 268 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 5951073 HALLSBORO, VA
Version Date: 2013

Northeast Map: 5951049 CHESTERFIELD, VA
Version Date: 2013

Southeast Map: 5951035 BEACH, VA
Version Date: 2013

Southwest Map: 5951113 WINTERPOCK, VA
Version Date: 2013

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from: 20140814
Source: USDA

MAPPED SITES SUMMARY

Target Property Address:
BRAD MCNEER PARKWAY AND BAILEY BRIDGE ROAD
MIDLOTHIAN, VA 23112

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	LEWIS DUMP SITE	12916 BAILEY BRIDGE	SEMS-ARCHIVE, RCRA NonGen / NLR, FINDS, ECHO	Higher	274, 0.052, SSE
A2	LEWIS DUMP SITE	12916 BAILEY BRIDGE	VCP	Higher	274, 0.052, SSE
3		13101 LOWERY BLUFF W	SPILLS	Lower	778, 0.147, North
4	COMMONWEALTH	6140 BRAD MCNEER PAR	TIER 2	Lower	1112, 0.211, NE
B5	CASHION QUARRY		MINES MRDS	Higher	1392, 0.264, South
B6	CASHION QUARRY		MINES MRDS	Higher	1407, 0.266, South
B7	VULCAN MATERIALS COM		US MINES	Higher	1468, 0.278, South
8	BAYHILL POINTE PHASE		NPDES	Higher	1637, 0.310, SSE
9	RENNIES	5334 HUNT MASTER DR	EDR Hist Auto	Lower	1999, 0.379, North
C10		13109 RITTENHOUSE DR	SPILLS	Lower	2211, 0.419, NNW
C11	SWIFT CREEK CLEANERS	13145 RITTENHOUSE DR	EDR Hist Cleaner	Lower	2260, 0.428, NNW
D12	TARGET STORE T1225	4601 COMMONWEALTH CE	RCRA-LQG	Lower	2276, 0.431, North
D13	TARGET STORE T1225	4601 COMMONWEALTH CE	FINDS, ECHO	Lower	2276, 0.431, North
C14	KROGER R 512	13201 RITTENHOUSE DR	UST, SPILLS, Financial Assurance	Lower	2300, 0.436, NNW
E15	CHESTERFIELD COUNTY	13200 BAILEY BRIDGE	ICIS, FINDS, ECHO	Higher	2382, 0.451, SSW
E16	ALBERTA SMITH ELEMEN	13200 BAILEY BRIDGE	RCRA-VSQG	Higher	2382, 0.451, SSW
C17		13236 RITTENHOUSE DR	SPILLS	Lower	2457, 0.465, NNW
18	ADDISON EVANS WATER	13400 HULL STREET RD	NPDES	Lower	2589, 0.490, NW
19	CHESTERFIELD COUNTY	12601 BAILEY BRIDGE	RCRA-VSQG, ICIS, FINDS, ECHO	Lower	2718, 0.515, East
F20	BRANDERMILL SHELL #6	13101 HULL STREET RD	UST, Financial Assurance	Lower	2760, 0.523, North
F21	SHELL SERVICE STATIO	13101 HULL STREET RD	LUST, LTANKS, SPILLS	Lower	2760, 0.523, North
22	BAILEY BRIDGE MIDDLE	12501 BAILEY BRIDGE	RCRA-VSQG, ICIS, FINDS, ECHO	Lower	2816, 0.533, East
23	SHOEMAKER BARBARA RE	6208 MOCKINGBIRD LN	LUST, LTANKS	Lower	2982, 0.565, WNW
G24	CHESTERFIELD COUNTY	13400 HULL STREET RO	RCRA-VSQG	Lower	2997, 0.568, NW
G25	CHESTERFIELD COUNTY-	13400 HULL STREET RO	RCRA NonGen / NLR	Lower	2997, 0.568, NW
H26	BAILEY BRIDGE PUMP S	12435 BAILEY BRIDGE	AST	Lower	3083, 0.584, ENE
H27	BAILEY BRIDGE PUMP S	12435 BAILEY BRIDGE	UST	Lower	3083, 0.584, ENE
I28	BETHIA ELECTRONIC SW	13511 HULL STREET RD	UST, AST	Lower	3500, 0.663, WNW
I29	CHESAPEAKE & POTOMAC	13511 HULL ST RD	RCRA NonGen / NLR, FINDS, ECHO	Lower	3500, 0.663, WNW
30	CLOVER HILL ASSEMBLY	12310 BAILEY BRIDGE	LUST, LTANKS	Lower	3623, 0.686, ENE
J31	WARD EDDIE RESIDENCE	12218 OLD BAILEY BRI	LUST, LTANKS	Lower	3952, 0.748, ENE
32	HORNBERGER PERRY W R	9511 MORLEY RD	LUST, LTANKS	Lower	4152, 0.786, South
J33	KING CHARLES E RESID	12201 OLD BAILEY BRI	LUST, LTANKS	Lower	4374, 0.828, ENE
34	HARBOUR POINTE SHOPP	13602-13728 HULL STR	INST CONTROL, VCP	Higher	4894, 0.927, WNW

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL..... National Priority List
Proposed NPL..... Proposed National Priority List Sites
NPL LIENS..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY..... Federal Facility Site Information listing
SEMS..... Superfund Enterprise Management System

Federal RCRA CORRACTS facilities list

CORRACTS..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-SQG..... RCRA - Small Quantity Generators

Federal institutional controls / engineering controls registries

LUCIS..... Land Use Control Information System
US ENG CONTROLS..... Engineering Controls Sites List
US INST CONTROLS..... Institutional Controls Sites List

Federal ERNS list

ERNS..... Emergency Response Notification System

State- and tribal - equivalent CERCLIS

SHWS..... This state does not maintain a SHWS list. See the Federal CERCLIS list and Federal NPL list.

EXECUTIVE SUMMARY

State and tribal landfill and/or solid waste disposal site lists

SWF/LF..... Solid Waste Management Facilities

State and tribal leaking storage tank lists

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

FEMA UST..... Underground Storage Tank Listing

INDIAN UST..... Underground Storage Tanks on Indian Land

State and tribal institutional control / engineering control registries

ENG CONTROLS..... Engineering Controls Sites Listing

State and tribal voluntary cleanup sites

INDIAN VCP..... Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS..... Brownfields Site Specific Assessments

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands

ODI..... Open Dump Inventory

DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations

IHS OPEN DUMPS..... Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL..... Delisted National Clandestine Laboratory Register

US CDL..... National Clandestine Laboratory Register

Local Land Records

LIENS 2..... CERCLA Lien Information

Records of Emergency Release Reports

HMIRS..... Hazardous Materials Information Reporting System

SPILLS 90..... SPILLS 90 data from FirstSearch

Other Ascertainable Records

FUDS..... Formerly Used Defense Sites

EXECUTIVE SUMMARY

DOD.....	Department of Defense Sites
SCRD DRYCLEANERS.....	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR.....	Financial Assurance Information
EPA WATCH LIST.....	EPA WATCH LIST
2020 COR ACTION.....	2020 Corrective Action Program List
TSCA.....	Toxic Substances Control Act
TRIS.....	Toxic Chemical Release Inventory System
SSTS.....	Section 7 Tracking Systems
ROD.....	Records Of Decision
RMP.....	Risk Management Plans
RAATS.....	RCRA Administrative Action Tracking System
PRP.....	Potentially Responsible Parties
PADS.....	PCB Activity Database System
FTTS.....	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS.....	Material Licensing Tracking System
COAL ASH DOE.....	Steam-Electric Plant Operation Data
COAL ASH EPA.....	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER.....	PCB Transformer Registration Database
RADINFO.....	Radiation Information Database
HIST FTTS.....	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS.....	Incident and Accident Data
CONSENT.....	Superfund (CERCLA) Consent Decrees
INDIAN RESERV.....	Indian Reservations
FUSRAP.....	Formerly Utilized Sites Remedial Action Program
UMTRA.....	Uranium Mill Tailings Sites
LEAD SMELTERS.....	Lead Smelter Sites
US AIRS.....	Aerometric Information Retrieval System Facility Subsystem
ABANDONED MINES.....	Abandoned Mines
UXO.....	Unexploded Ordnance Sites
DOCKET HWC.....	Hazardous Waste Compliance Docket Listing
FUELS PROGRAM.....	EPA Fuels Program Registered Listing
AIRS.....	Permitted Airs Facility List
COAL ASH.....	Coal Ash Disposal Sites
DRYCLEANERS.....	Drycleaner List
ENF.....	Enforcement Actions Data
UIC.....	Underground Injection Control Wells

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP..... EDR Proprietary Manufactured Gas Plants

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF..... Recovered Government Archive Solid Waste Facilities List
RGA LUST..... Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

EXECUTIVE SUMMARY

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be potential NPL site.

A review of the SEMS-ARCHIVE list, as provided by EDR, and dated 04/27/2020 has revealed that there is 1 SEMS-ARCHIVE site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>LEWIS DUMP SITE</i> Site ID: 0303421 EPA Id: VAD988166070	<i>12916 BAILEY BRIDGE</i>	<i>SSE 0 - 1/8 (0.052 mi.)</i>	<i>A1</i>	<i>8</i>

Federal RCRA generators list

RCRA-LQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

A review of the RCRA-LQG list, as provided by EDR, and dated 03/23/2020 has revealed that there is 1 RCRA-LQG site within approximately 0.75 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
TARGET STORE T1225 EPA ID:: VAR000511451	4601 COMMONWEALTH CE	N 1/4 - 1/2 (0.431 mi.)	D12	21

EXECUTIVE SUMMARY

RCRA-VSQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

A review of the RCRA-VSQG list, as provided by EDR, and dated 03/23/2020 has revealed that there are 4 RCRA-VSQG sites within approximately 0.75 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
ALBERTA SMITH ELEMEN EPA ID:: VAR000511980	13200 BAILEY BRIDGE	SSW 1/4 - 1/2 (0.451 mi.)	E16	33
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CHESTERFIELD COUNTY EPA ID:: VAD988218822	12601 BAILEY BRIDGE	E 1/2 - 1 (0.515 mi.)	19	37
BAILEY BRIDGE MIDDLE EPA ID:: VAD988211488	12501 BAILEY BRIDGE	E 1/2 - 1 (0.533 mi.)	22	46
CHESTERFIELD COUNTY EPA ID:: VAR000525170	13400 HULL STREET RO	NW 1/2 - 1 (0.568 mi.)	G24	50

State and tribal leaking storage tank lists

LUST: The Leaking Underground Storage Tank Database.

A review of the LUST list, as provided by EDR, has revealed that there are 6 LUST sites within approximately 1 mile of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
SHELL SERVICE STATIO Database: LUST REG PD, Date of Government Version: 12/02/2014 Facility Status: Closed Pollution Complaint #: 20054154	13101 HULL STREET RD	N 1/2 - 1 (0.523 mi.)	F21	45
SHOEMAKER BARBARA RE Database: LUST REG PD, Date of Government Version: 12/02/2014 Facility Status: Closed Pollution Complaint #: 20044379	6208 MOCKINGBIRD LN	WNW 1/2 - 1 (0.565 mi.)	23	49
CLOVER HILL ASSEMBLY Database: LUST REG PD, Date of Government Version: 12/02/2014 Facility Status: Closed Pollution Complaint #: 20124567	12310 BAILEY BRIDGE	ENE 1/2 - 1 (0.686 mi.)	30	63
WARD EDDIE RESIDENCE Database: LUST REG PD, Date of Government Version: 12/02/2014 Facility Status: Closed Pollution Complaint #: 20124161	12218 OLD BAILEY BRI	ENE 1/2 - 1 (0.748 mi.)	J31	64
HORNBERGER PERRY W R Database: LUST REG PD, Date of Government Version: 12/02/2014 Facility Status: Closed	9511 MORLEY RD	S 1/2 - 1 (0.786 mi.)	32	64

EXECUTIVE SUMMARY

Tank Status: CURR IN USE
 Facility Id: 4038909
 CEDS Facility ID: 200000210992

BRANDERMILL SHELL #6 Tank Status: CURR IN USE Facility Id: 4026272 CEDS Facility ID: 200000163564	13101 HULL STREET RD	N 1/2 - 1 (0.523 mi.)	F20	40
BAILEY BRIDGE PUMP S Tank Status: CLS IN GRD Facility Id: 4023156 CEDS Facility ID: 200000180675	12435 BAILEY BRIDGE	ENE 1/2 - 1 (0.584 mi.)	H27	55
BETHIA ELECTRONIC SW Tank Status: REM FROM GRD Facility Id: 4005503 CEDS Facility ID: 200000158552	13511 HULL STREET RD	WNW 1/2 - 1 (0.663 mi.)	I28	57

AST: The Aboveground Storage Tank database contains registered ASTs. The data come from the Department of Environmental Quality's Aboveground Storage Tank Data Notification Information.

A review of the AST list, as provided by EDR, and dated 02/04/2020 has revealed that there are 2 AST sites within approximately 0.75 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
BAILEY BRIDGE PUMP S Facility ID: 4023156 CEDS Facility ID: 200000180675	12435 BAILEY BRIDGE	ENE 1/2 - 1 (0.584 mi.)	H26	53
BETHIA ELECTRONIC SW Facility ID: 4005503 CEDS Facility ID: 200000158552	13511 HULL STREET RD	WNW 1/2 - 1 (0.663 mi.)	I28	57

State and tribal institutional control / engineering control registries

Sites included in the Voluntary Remediation Program that have Deed Restrictions.

A review of the INST CONTROL list, as provided by EDR, and dated 01/07/2020 has revealed that there is 1 INST CONTROL site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
HARBOUR POINTE SHOPP Facility ID: VRP00473	13602-13728 HULL STR	WNW 1/2 - 1 (0.927 mi.)	34	66

State and tribal voluntary cleanup sites

VCP: The Voluntary Remediation Program encourages owners of selected contaminated sites to take the initiative to conduct voluntary cleanups that meet state environmental standards. These sites are

EXECUTIVE SUMMARY

generally either open dumps or unpermitted solid waste disposal facilities. VRP sites can not be listed on the NPL, nor can they involve disposed RCRA hazardous wastes. The source of this data is the Department of Environmental Quality.

A review of the VCP list, as provided by EDR, and dated 01/07/2020 has revealed that there are 2 VCP sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
LEWIS DUMP SITE Facility ID: VRP00085	12916 BAILEY BRIDGE	SSE 0 - 1/8 (0.052 mi.)	A2	12
HARBOUR POINTE SHOPP Facility ID: VRP00473	13602-13728 HULL STR	WNW 1/2 - 1 (0.927 mi.)	34	66

ADDITIONAL ENVIRONMENTAL RECORDS

Records of Emergency Release Reports

SPILLS: The Department of Environmental Quality's POLLUTION RESPONSE PROGRAM, known as PREP, provides for responses to air, water, and waste pollution incidents in order to protect human health and the environment. PREP staff often work to assist local emergency responders, other state agencies, federal agencies, and responsible parties, as may be needed, to manage pollution incidents. Oil spills, fish kills, and hazardous materials spills are examples of incidents that may involve the DEQ's PREP Program.

A review of the SPILLS list, as provided by EDR, has revealed that there are 4 SPILLS sites within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
Not reported Database: SPILLS, Date of Government Version: 02/25/2020 Facility Status: Closed IR Number: 2017-P-0500	13101 LOWERY BLUFF W	N 1/8 - 1/4 (0.147 mi.)	3	14
Not reported Database: SPILLS, Date of Government Version: 02/25/2020 Facility Status: Closed IR Number: 2015-P-2558	13109 RITTENHOUSE DR	NNW 1/4 - 1/2 (0.419 mi.)	C10	19
KROGER R 512 Database: SPILLS, Date of Government Version: 02/25/2020 Facility Status: Closed IR Number: 2018-P-0093	13201 RITTENHOUSE DR	NNW 1/4 - 1/2 (0.436 mi.)	C14	27
Not reported Database: SPILLS, Date of Government Version: 02/25/2020 Facility Status: Closed IR Number: 2015-P-2556	13236 RITTENHOUSE DR	NNW 1/4 - 1/2 (0.465 mi.)	C17	35

EXECUTIVE SUMMARY

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 03/23/2020 has revealed that there are 3 RCRA NonGen / NLR sites within approximately 0.75 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
LEWIS DUMP SITE EPA ID:: VAD988193702	12916 BAILEY BRIDGE	SSE 0 - 1/8 (0.052 mi.)	A1	8
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CHESTERFIELD COUNTY- EPA ID:: VAP000016649	13400 HULL STREET RO	NW 1/2 - 1 (0.568 mi.)	G25	51
CHESAPEAKE & POTOMAC EPA ID:: VAD980720148	13511 HULL ST RD	WNW 1/2 - 1 (0.663 mi.)	I29	61

ICIS: The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

A review of the ICIS list, as provided by EDR, and dated 11/18/2016 has revealed that there is 1 ICIS site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CHESTERFIELD COUNTY FRS ID:: 110021525241	13200 BAILEY BRIDGE	SSW 1/4 - 1/2 (0.451 mi.)	E15	31

US MINES: Mines Master Index File. The source of this database is the Dept. of Labor, Mine Safety and Health Administration.

A review of the US MINES list, as provided by EDR, has revealed that there is 1 US MINES site within approximately 0.75 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
VULCAN MATERIALS COM Database: US MINES, Date of Government Version: 02/11/2020 Mine ID:: 4403712		S 1/4 - 1/2 (0.278 mi.)	B7	18

EXECUTIVE SUMMARY

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 02/03/2020 has revealed that there are 3 FINDS sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
LEWIS DUMP SITE Registry ID:: 110005241835	12916 BAILEY BRIDGE	SSE 0 - 1/8 (0.052 mi.)	A1	8
CHESTERFIELD COUNTY Registry ID:: 110021525241	13200 BAILEY BRIDGE	SSW 1/4 - 1/2 (0.451 mi.)	E15	31
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
TARGET STORE T1225 Registry ID:: 110045993216	4601 COMMONWEALTH CE	N 1/4 - 1/2 (0.431 mi.)	D13	26

ECHO: ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

A review of the ECHO list, as provided by EDR, and dated 01/05/2020 has revealed that there are 3 ECHO sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
LEWIS DUMP SITE Registry ID: 110005241835	12916 BAILEY BRIDGE	SSE 0 - 1/8 (0.052 mi.)	A1	8
CHESTERFIELD COUNTY Registry ID: 110021525241	13200 BAILEY BRIDGE	SSW 1/4 - 1/2 (0.451 mi.)	E15	31
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
TARGET STORE T1225 Registry ID: 110045993216	4601 COMMONWEALTH CE	N 1/4 - 1/2 (0.431 mi.)	D13	26

NPDES: Virginia Water Protection Permits, Virginia Pollution Discharge System (point discharge) permits and Virginia Pollution Abatement (no point discharge) permits.

A review of the NPDES list, as provided by EDR, and dated 03/04/2020 has revealed that there are 2 NPDES sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
BAYHILL POINTE PHASE Facility ID: WP4-16-1977		SSE 1/4 - 1/2 (0.310 mi.)	8	19
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
ADDISON EVANS WATER	13400 HULL STREET RD	NW 1/4 - 1/2 (0.490 mi.)	18	37

EXECUTIVE SUMMARY

Facility ID: VA0006254

Financial Assurance: A listing of financial assurance information for underground storage tank facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

A review of the Financial Assurance list, as provided by EDR, has revealed that there is 1 Financial Assurance site within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
KROGER R 512	13201 RITTENHOUSE DR	NNW 1/4 - 1/2 (0.436 mi.)	C14	27
Database: Financial Assurance 1, Date of Government Version: 01/27/2020				
Facility ID: 4038909				
ROF Own Id: 38738				

TIER 2: A listing of facilities which store or manufacture hazardous materials and submit a chemical inventory report.

A review of the TIER 2 list, as provided by EDR, and dated 12/31/2014 has revealed that there is 1 TIER 2 site within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
COMMONWEALTH	6140 BRAD MCNEER PAR	NE 1/8 - 1/4 (0.211 mi.)	4	16

MINES MRDS: Mineral Resources Data System

A review of the MINES MRDS list, as provided by EDR, and dated 04/06/2018 has revealed that there are 2 MINES MRDS sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CASHION QUARRY		S 1/4 - 1/2 (0.264 mi.)	B5	16
CASHION QUARRY		S 1/4 - 1/2 (0.266 mi.)	B6	17

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR Hist Auto: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past

EXECUTIVE SUMMARY

sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there is 1 EDR Hist Auto site within approximately 0.625 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
RENNIES	5334 HUNT MASTER DR	N 1/4 - 1/2 (0.379 mi.)	9	19

EDR Hist Cleaner: EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

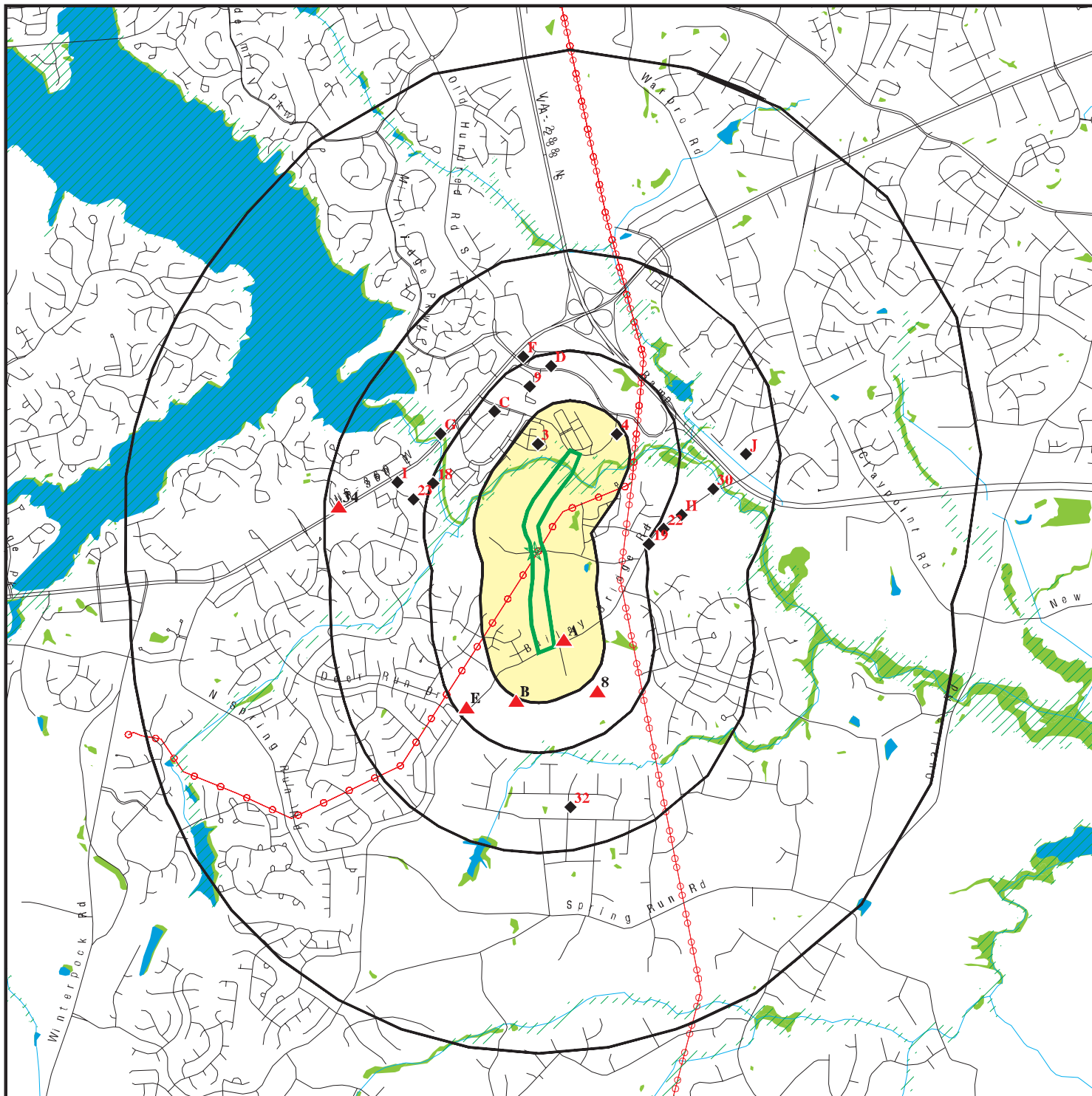
A review of the EDR Hist Cleaner list, as provided by EDR, has revealed that there is 1 EDR Hist Cleaner site within approximately 0.625 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
SWIFT CREEK CLEANERS	13145 RITTENHOUSE DR	NNW 1/4 - 1/2 (0.428 mi.)	C11	21

EXECUTIVE SUMMARY

There were no unmapped sites in this report.

OVERVIEW MAP - 6092311.2S



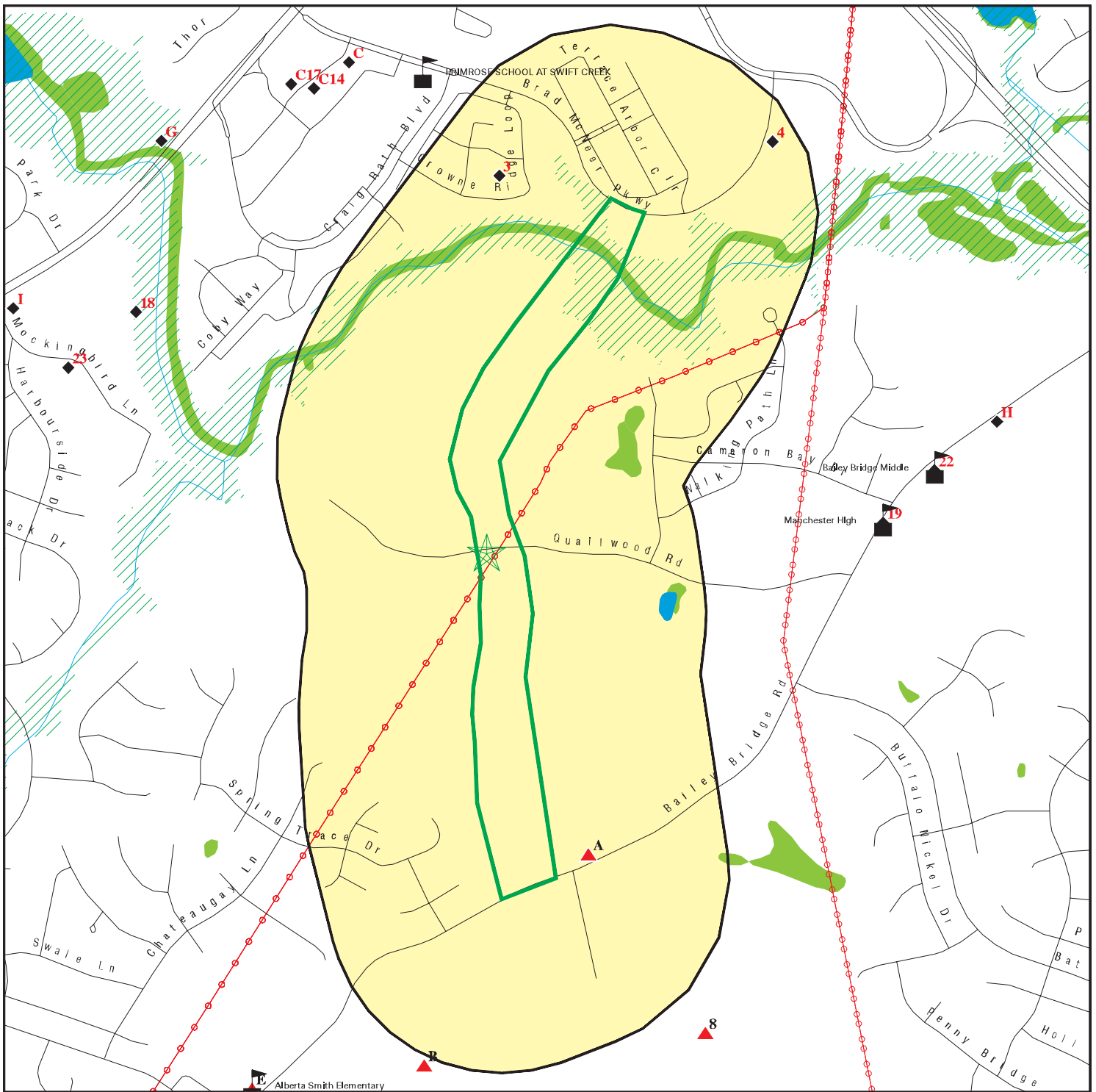
-  Target Property
-  Sites at elevations higher than or equal to the target property
-  Sites at elevations lower than the target property
-  Manufactured Gas Plants
-  National Priority List Sites
-  Dept. Defense Sites
-  Indian Reservations BIA
-  Power transmission lines
-  Special Flood Hazard Area (1%)
-  0.2% Annual Chance Flood Hazard
-  National Wetland Inventory

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Bailey Bridge Connector
 ADDRESS: Brad McNeer Parkway and Bailey Bridge Road
 Midlothian VA 23112
 LAT/LONG: 37.406386 / 77.635265

CLIENT: ATCS Consulting
 CONTACT: Kelly Coleman
 INQUIRY #: 6092311.2S
 DATE: June 16, 2020 10:44 am

DETAIL MAP - 6092311.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

Power transmission lines

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

National Wetland Inventory



This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Bailey Bridge Connector
 ADDRESS: Brad McNeer Parkway and Bailey Bridge Road
 Midlothian VA 23112
 LAT/LONG: 37.406386 / 77.635265

CLIENT: ATCS Consulting
 CONTACT: Kelly Coleman
 INQUIRY #: 6092311.2s
 DATE: June 16, 2020 10:45 am

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
<i>Federal NPL site list</i>								
NPL	1.500		0	0	0	0	0	0
Proposed NPL	1.500		0	0	0	0	0	0
NPL LIENS	1.500		0	0	0	0	0	0
<i>Federal Delisted NPL site list</i>								
Delisted NPL	1.500		0	0	0	0	0	0
<i>Federal CERCLIS list</i>								
FEDERAL FACILITY	1.000		0	0	0	0	NR	0
SEMS	1.000		0	0	0	0	NR	0
<i>Federal CERCLIS NFRAP site list</i>								
SEMS-ARCHIVE	1.000		1	0	0	0	NR	1
<i>Federal RCRA CORRACTS facilities list</i>								
CORRACTS	1.500		0	0	0	0	0	0
<i>Federal RCRA non-CORRACTS TSD facilities list</i>								
RCRA-TSDF	1.000		0	0	0	0	NR	0
<i>Federal RCRA generators list</i>								
RCRA-LQG	0.750		0	0	1	0	NR	1
RCRA-SQG	0.750		0	0	0	0	NR	0
RCRA-VSQG	0.750		0	0	1	3	NR	4
<i>Federal institutional controls / engineering controls registries</i>								
LUCIS	1.000		0	0	0	0	NR	0
US ENG CONTROLS	1.000		0	0	0	0	NR	0
US INST CONTROLS	1.000		0	0	0	0	NR	0
<i>Federal ERNS list</i>								
ERNS	0.500		0	0	0	NR	NR	0
<i>State- and tribal - equivalent CERCLIS</i>								
SHWS	N/A		N/A	N/A	N/A	N/A	N/A	N/A
<i>State and tribal landfill and/or solid waste disposal site lists</i>								
SWF/LF	1.000		0	0	0	0	NR	0
<i>State and tribal leaking storage tank lists</i>								
LUST	1.000		0	0	0	6	NR	6
INDIAN LUST	1.000		0	0	0	0	NR	0
LTANKS	1.000		0	0	0	6	NR	6
<i>State and tribal registered storage tank lists</i>								
FEMA UST	0.750		0	0	0	0	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
UST	0.750		0	0	1	3	NR	4
AST	0.750		0	0	0	2	NR	2
INDIAN UST	0.750		0	0	0	0	NR	0
State and tribal institutional control / engineering control registries								
ENG CONTROLS	1.000		0	0	0	0	NR	0
INST CONTROL	1.000		0	0	0	1	NR	1
State and tribal voluntary cleanup sites								
INDIAN VCP	1.000		0	0	0	0	NR	0
VCP	1.000		1	0	0	1	NR	2
State and tribal Brownfields sites								
BROWNFIELDS	1.000		0	0	0	0	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	1.000		0	0	0	0	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
INDIAN ODI	1.000		0	0	0	0	NR	0
ODI	1.000		0	0	0	0	NR	0
DEBRIS REGION 9	1.000		0	0	0	0	NR	0
IHS OPEN DUMPS	1.000		0	0	0	0	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.500		0	0	0	NR	NR	0
US CDL	0.500		0	0	0	NR	NR	0
Local Land Records								
LIENS 2	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.500		0	0	0	NR	NR	0
SPILLS	0.500		0	1	3	NR	NR	4
SPILLS 90	0.500		0	0	0	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.750		1	0	0	2	NR	3
FUDS	1.500		0	0	0	0	0	0
DOD	1.500		0	0	0	0	0	0
SCRD DRYCLEANERS	1.000		0	0	0	0	NR	0
US FIN ASSUR	0.500		0	0	0	NR	NR	0
EPA WATCH LIST	0.500		0	0	0	NR	NR	0
2020 COR ACTION	0.750		0	0	0	0	NR	0
TSCA	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
TRIS	0.500		0	0	0	NR	NR	0
SSTS	0.500		0	0	0	NR	NR	0
ROD	1.500		0	0	0	0	0	0
RMP	0.500		0	0	0	NR	NR	0
RAATS	0.500		0	0	0	NR	NR	0
PRP	0.500		0	0	0	NR	NR	0
PADS	0.500		0	0	0	NR	NR	0
ICIS	0.500		0	0	1	NR	NR	1
FTTS	0.500		0	0	0	NR	NR	0
MLTS	0.500		0	0	0	NR	NR	0
COAL ASH DOE	0.500		0	0	0	NR	NR	0
COAL ASH EPA	1.000		0	0	0	0	NR	0
PCB TRANSFORMER	0.500		0	0	0	NR	NR	0
RADINFO	0.500		0	0	0	NR	NR	0
HIST FTTS	0.500		0	0	0	NR	NR	0
DOT OPS	0.500		0	0	0	NR	NR	0
CONSENT	1.500		0	0	0	0	0	0
INDIAN RESERV	1.500		0	0	0	0	0	0
FUSRAP	1.500		0	0	0	0	0	0
UMTRA	1.000		0	0	0	0	NR	0
LEAD SMELTERS	0.500		0	0	0	NR	NR	0
US AIRS	0.500		0	0	0	NR	NR	0
US MINES	0.750		0	0	1	0	NR	1
ABANDONED MINES	0.750		0	0	0	0	NR	0
FINDS	0.500		1	0	2	NR	NR	3
UXO	1.500		0	0	0	0	0	0
DOCKET HWC	0.500		0	0	0	NR	NR	0
ECHO	0.500		1	0	2	NR	NR	3
FUELS PROGRAM	0.750		0	0	0	0	NR	0
AIRS	0.500		0	0	0	NR	NR	0
NPDES	0.500		0	0	2	NR	NR	2
COAL ASH	1.000		0	0	0	0	NR	0
DRYCLEANERS	0.750		0	0	0	0	NR	0
ENF	0.500		0	0	0	NR	NR	0
Financial Assurance	0.500		0	0	1	NR	NR	1
TIER 2	0.500		0	1	0	NR	NR	1
UIC	0.500		0	0	0	NR	NR	0
MINES MRDS	0.500		0	0	2	NR	NR	2

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	1.500		0	0	0	0	0	0
EDR Hist Auto	0.625		0	0	1	0	NR	1
EDR Hist Cleaner	0.625		0	0	1	0	NR	1

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF	0.500		0	0	0	NR	NR	0
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MAP FINDINGS SUMMARY

<u>Database</u>	<u>Search Distance (Miles)</u>	<u>Target Property</u>	<u>< 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>> 1</u>	<u>Total Plotted</u>
RGA LUST	0.500		0	0	0	NR	NR	0
- Totals --		0	5	2	19	24	0	50

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

N/A = This State does not maintain a SHWS list. See the Federal CERCLIS list.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

A1
SSE
< 1/8
0.052 mi.
274 ft.

LEWIS DUMP SITE
12916 BAILEY BRIDGE RD
MIDLOTHIAN, VA 23113

Site 1 of 2 in cluster A

SEMS-ARCHIVE 1000696442
RCRA NonGen / NLR VAD988193702
FINDS
ECHO

Relative:
Higher
Actual:
293 ft.

SEMS Archive:
Site ID: 0303421
EPA ID: VAD988166070
Name: LEWIS DUMP SITE
Address: 12916 BAILEY BRIDGE RD
Address 2: Not reported
City,State,Zip: MIDLOTHIAN, VA 23113
Cong District: 03
FIPS Code: 51041
FF: N
NPL: Not on the NPL
Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

SEMS Archive Detail:

Region: 03
Site ID: 0303421
EPA ID: VAD988166070
Site Name: LEWIS DUMP SITE
NPL: N
FF: N
OU: 00
Action Code: VS
Action Name: ARCH SITE
SEQ: 1
Start Date: Not reported
Finish Date: 1992-09-29 04:00:00
Qual: Not reported
Current Action Lead: EPA Perf In-Hse

Region: 03
Site ID: 0303421
EPA ID: VAD988166070
Site Name: LEWIS DUMP SITE
NPL: N
FF: N
OU: 00
Action Code: PA
Action Name: PA
SEQ: 1
Start Date: Not reported
Finish Date: 1988-08-01 04:00:00
Qual: L
Current Action Lead: EPA Perf

Region: 03
Site ID: 0303421
EPA ID: VAD988166070
Site Name: LEWIS DUMP SITE
NPL: N
FF: N
OU: 00
Action Code: DS
Action Name: DISCVRY
SEQ: 1

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LEWIS DUMP SITE (Continued)

1000696442

Start Date: 1988-07-15 04:00:00
Finish Date: 1988-07-15 04:00:00
Qual: Not reported
Current Action Lead: EPA Perf

Region: 03
Site ID: 0303421
EPA ID: VAD988166070
Site Name: LEWIS DUMP SITE
NPL: N
FF: N
OU: 00
Action Code: SI
Action Name: SI
SEQ: 1
Start Date: Not reported
Finish Date: 1992-09-29 04:00:00
Qual: N
Current Action Lead: St Perf

RCRA NonGen / NLR:

Date form received by agency: 1996-03-05 00:00:00.0
Facility name: LEWIS SITE
Facility address: 12916 BAILEY BRIDGE RD
MIDLOTHIAN, VA 23112
EPA ID: VAD988193702
Mailing address: 6601 WEST BROAD ST
RICHMOND, VA 23230
Contact: Not reported
Contact address: Not reported
Not reported
Contact country: US
Contact telephone: Not reported
Contact email: Not reported
EPA Region: 03
Land type: Facility is not located on Indian land. Additional information is not known.
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: OPERNAME
Owner/operator address: OPERSTREET
OPERCITY, AK 99999
Owner/operator country: Not reported
Owner/operator telephone: 215-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported
Owner/operator name: PEARL TURNER
Owner/operator address: 12908 BAILEY BRIDGE RD

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LEWIS DUMP SITE (Continued)

1000696442

MIDLOTHIAN, VA 23112

Owner/operator country: Not reported
Owner/operator telephone: 804-739-2397
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 1991-03-06 00:00:00.0
Site name: LEWIS SITE
Classification: Large Quantity Generator

Hazardous Waste Summary:

. Waste code: D000
. Waste name: Not Defined

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LEWIS DUMP SITE (Continued)

1000696442

- . Waste code: F002
- . Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: F003
- . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: F004
- . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: CRESOLS, CRESYLIC ACID, AND NITROBENZENE; AND THE STILL BOTTOMS FROM THE RECOVERY OF THESE SOLVENTS; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: F005
- . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: NONE
- . Waste name: None

- Violation Status: No violations found

Evaluation Action Summary:

- Evaluation date: 1996-03-05 00:00:00.0
- Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
- Area of violation: Not reported
- Date achieved compliance: Not reported
- Evaluation lead agency: State

FINDS:

- Registry ID: 110005241835
- Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110005241835

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

LEWIS DUMP SITE (Continued)

1000696442

Environmental Interest/Information System:

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1000696442
Registry ID:	110005241835
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110005241835
Name:	LEWIS SITE
Address:	12916 BAILEY BRIDGE RD
City,State,Zip:	MIDLOTHIAN, VA 23112

A2
SSE
 < 1/8
 0.052 mi.
 274 ft.

LEWIS DUMP SITE
12916 BAILEY BRIDGE RD
MIDLOTHIAN, VA 23112

VCP 1000262100
N/A

Site 2 of 2 in cluster A

Relative:
Higher
Actual:
293 ft.

VRP:

Name:	LEWIS DUMP SITE
Address:	12916 BAILEY BRIDGE RD
City,State,Zip:	MIDLOTHIAN, VA 23112
Facility ID:	VRP00085
Site Status:	Pre-VRP
Site Status 2:	Completed
DEQ Region:	Piedmont
Sizs in Acres:	Not reported
Site Type:	Land Disposal
Participation Notes:	Not reported
Site has associated enforcement action:	True
List of Organic Contaminants of Potential Concern:	Not reported
List of Inorganinc Contaminants of Potential Concern:	Not reported
Solvents and Degreasers Contamination per Application:	False
Petroleum Contamination per Application:	False
Acid/Bases Contamination per Application:	False
Paints/Paint Washes Contamination per Application:	False
Pesticide Contamination per Application:	False
Inorganic Contamination per Application:	False
Metals Contamination per Application:	False
Other Contamination per Application:	False
DEQ Staff Case Managers Initials:	KLG
VRP Tier I Cleanup Standards:	False
VRP Tier II Cleanup Standards:	False
VRP Tier III Cleanup Standards:	False
No Further VRP Action Date:	10/14/1995
Date Participant Notified of NFA:	10/14/1995
Site specific or other Cleanup Standards:	False
Description of Remediation:	Drum removal and site remediation of some type.
Date Site Characterization Accepted by DEQ:	Not reported
Terms of NFA Determination:	Satisfied Pre-VRP Consent Agreement (no VRP Agreement)
Date Remediation Action Plan Accepted by DEQ:	Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

LEWIS DUMP SITE (Continued)

1000262100

Date VRP Eligibility Declared by Participant:	Not reported
Date Risk Assessment Accepted by DEQ:	Not reported
Date Demonstration of Completion Accepted by DEQ:	Not reported
Date VRP Eligibility Determined by DEQ Region:	Not reported
Dt Office Of Waste Permitting Verified Site Eligbly:	Not reported
Date Public Notice Accepted by DEQ:	Not reported
Date VRP Eligibility Determined by VRP:	Not reported
Date Application Review Completed by Central Office:	Not reported
Latest Action Relative To Site:	NFA determination - Satisfied Pre-VRP Consent Agreement (no VRP Agreement)
Latest Action Relative To Site Date:	10/14/1995
Next VRP Step Needed Relating To Site:	NFA
Pending Since:	Not reported
Date Next Step Should Be Completed:	Not reported
Brownfield Tax Incentive:	False
Ground Water Use Restriction:	False
Res. User Restriction:	False
Excavattion Restruction:	False
Unrestricted:	False
Other Condition of Issuance:	False
Notes:	SCP 11/91 Notes: Voluntary removal action via consent agreement between VDWM and Reynolds Metals Co. Removal began 10/91. Active Site. VRP Note: 300 to 500 drums found at time of discovery. Since SCP the site has been handled by HW Enforcement, now referred again to VRP. Drums have been removed, site remediated. Sediment and surface water sample results sent to VRP on 7/11/95. VRP has reviewed report and additional monitoring data to make NFA determination.
Latitude:	37.40031
Longitude:	-77.63261

Detail as of January 2019:

Facility ID:	VRP00085
Owner Name:	Not reported
Owner Contact:	Not reported
Owner Address:	Not reported
Owner Phone:	Not reported
Operator Name:	Not reported
Operator Owner:	Not reported
Operator Phone:	Not reported
Participant Name:	Tomas Loredo
Relationship to Site:	Not reported
Participant Contact:	Not reported
Participant Phone:	804-743-6636
Participant Title:	Division Environmental Engineer
Participant Affiliation:	Reynolds Metal Company
Participant Address:	2101 Reymet Rd.
Participant City,St,Zip:	Richmond, VA 23237
Additional Parts:	Not reported
Participant Rep/Contractor:	Not reported
Participant Rep/Contractor Phone:	Not reported
Participant Rep/Contractor Title:	Not reported
Participant Rep/Contractor Affiliation:	O.H. Materials
Participant Rep/Contractor Address:	Not reported
Participant Rep/Contractor City,St,Zip:	Not reported
Metal Contaminants Present in Soil:	Not reported
Organic Contaminants Present in Soil:	Not reported
Metal Contaminants Present in GW:	Not reported
Organic Contaminants Present GW:	Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

LEWIS DUMP SITE (Continued)

1000262100

Cleanup Standards: Not reported
 Certification Date: Not reported
 Deed Received Date: Not reported
 Date Signed Agreement Submitted By Participant: Not reported
 Date Agreement Executed by DEQ: 12/13/1990
 Registration Fee Amount Submitted by Participant: Not reported
 Date Registration Fee Submitted by Participant: Not reported
 Submittal Date for Document Number 1: Not reported
 Title of Submitted Document Number 1: Not reported
 Submittal Date for Document Number 2: Not reported
 Title of Submitted Document Number 2: Not reported
 Submittal Date for Document Number 3: Not reported
 Title of Submitted Document Number 3: Not reported
 Submittal Date for Document Number 4: Not reported
 Title of Submitted Document Number 4: Not reported
 Submittal Date for Document Number 5: Not reported
 Title of Submitted Document Number 5: Not reported
 Submittal Date for Document Number 6: Not reported
 Title of Submitted Document Number 6: Not reported
 Submittal Date for Document Number 7: Not reported
 Title of Submitted Document Number 7: Not reported
 Submittal Date for Document Number 8: Not reported
 Title of Submitted Document Number 8: Not reported
 Site Characterization Document Number: Not reported
 DEQ Concurrence with Site Characterization Date: Not reported
 Remedial Action Work Plan Document Number: Not reported
 DEQ Concurs with Remedial Action Work Plan Date: Not reported
 Completion Report Document Number: Not reported
 DEQ Concurs with Completion Report Date: Not reported
 Corrective Action Desc: Drum removal and site remediation of some type.
 DEQ Response Incident ID Number: Not reported
 EPA CERCLIS ID: Not reported
 EPA RCRA ID NUMBER: Not reported
 DEQ Pollution Complaint Number: Not reported
 GEO Latitude: Not reported
 Geo Longitude: Not reported
 Inspection Date: Not reported
 GPS Lat: Not reported
 GPS Long: Not reported
 GPS Desc: Not reported

3
North
1/8-1/4
0.147 mi.
778 ft.

13101 LOWERY BLUFF WAY
MIDLOTHIAN, VA 23112

SPILLS S118972742
N/A

Relative:
Lower
Actual:
196 ft.

SPILLS:
 Name: Not reported
 Address: 13101 LOWERY BLUFF WAY
 City,State,Zip: MIDLOTHIAN, VA 23112
 City,State,Zip: MIDLOTHIAN, VA 23112
 Fips City/County: 041/Chesterfield County
 Status: Closed
 Reference Id: 70938
 IR Number: 2017-P-0500
 Associated IR: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S118972742

Incident Date: 08/12/2016
Call Received Date: 08/15/2016
Closure Comments: I reached out to Steve Barten, Environmental Protection Manager with Waste Management (757-707-7587) the same day. Mr. Barten stated that he would ensure that the proper resources would be placed on the situation. I received a call from Clean Harbors a few minutes later asking what DEQ wanted to see as far as a cleanup. I advised that the drop inlet would need to have any contaminated debris removed and hydraulic oil soaked up and walls/floor pressure washed and recaptured. Clean Harbors agreed and stated that they were on their way to the scene shortly. Spoke with Mr. Barten on 8/15/16, who said that he would send a letter to DEQ detailing the cleanup that was conducted.

Threat To: Not reported
Terrorism (Y/N): N
Characterize Incident: Unknown
Incident Type: Petroleum(Petroleum), Surface Spill(Petroleum)
Incident Subtype: Petroleum * Surface Spill
Materials: Hydraulic oil
Effect To Receptor: Not reported
Water Body: Not reported
Low Quantity To Water: Not reported
High Quantity To Water: Not reported
Quantity Units: Not reported
Other Receptors: Not reported
RP Company: Not reported
RP Name: Not reported
Property Owner: Not reported
Property Company: Not reported
Duration Of Event (Hrs): 0
Impacts: Not reported
Other Impacts: Not reported
Steps Taken: Not reported
Steps Taken Description: Not reported
System Components: Not reported
Other System Components: Not reported
Cause Of Event: Not reported
Corrective Action Taken: Not reported
Weather Status: No
Precipitation (Wet): 0
Discharge Type: Not reported
Discharge Volume: 0
Unknown Discharge (Y/N): N
Site Name: HYDRAULIC OIL SPILL FROM TRASH TRUCK LINE RUPTURE
Closure Date: 08/15/2016
Orig. Call Incident Description: 30 gallons of hydraulic oil spilled as a results of line rupture on a trash truck. Hydraulic oil flowed across asphalt and into two storm water drop inlets. Oil confined to drop inlets. Waste Management sent a contractor for cleanup, but the contractor was not equipped to remove materials from drop inlets.

Original Call Material Description: Hydraulic oil
Original Call Location Description: 13101 Lowery Bluff Way, Midlothian VA 23112
Incident Ongoing at time of Call: No
Agencies Notified (Y/N): Y
Other Agencies: Not reported
Permitted (Y/N): No
Call Reported By Company Name: Chesterfield County Environmental Engineering

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

(Continued)

S118972742

Call Property Owner Company Name: Not reported
 Call Property Owner Name: Not reported
 Site Summary: 30 gallons of hydraulic oil spilled as a results of line rupture on a trash truck. Hydraulic oil flowed across asphalt and into two storm water drop inlets. Oil confined to drop inlets. Waste Management sent a contractor for cleanup, but the contractor was not equipped to remove materials from drop inlets.

**4
 NE
 1/8-1/4
 0.211 mi.
 1112 ft.**

**COMMONWEALTH
 6140 BRAD MCNEER PARKWAY
 MIDLOTHIAN, VA 23112**

**TIER 2 S110608393
 N/A**

**Relative:
 Lower
 Actual:
 220 ft.**

TIER 2:
 Facility ID: Not reported
 CAS Number: 7664-93-9
 SIC Code: 517212
 NAICS: Not reported
 Entered Chemical Name: Sulfuric acid
 Average Amt Code: 2
 Owner Name: Richard A. Craig
 Owner Phone: 800-488-7900
 Contact Type: Not reported

Facility ID: Not reported
 CAS Number: 7664-93-9
 SIC Code: 517212
 NAICS: Not reported
 Entered Chemical Name: Sulfuric acid
 Average Amt Code: 2
 Owner Name: Richard A. Craig
 Owner Phone: 908-559-7260
 Contact Type: Not reported

**B5
 South
 1/4-1/2
 0.264 mi.
 1392 ft.**

**CASHION QUARRY
 MIDLOTHIAN, VA 23112
 Site 1 of 3 in cluster B**

**MINES MRDS 1025615846
 N/A**

**Relative:
 Higher
 Actual:
 272 ft.**

MINES MRDS:
 Name: CASHION QUARRY
 Address: Not reported
 Deposit identification Number: 10131150
 City,State,Zip: MIDLOTHIAN, VIRGINIA 23112
 URL: https://mrdata.usgs.gov/mrds/show-mrds.php?dep_id=10131150
 MRDS Identification Number: W023161
 MAS/MILS Identification Number: 0510410002
 Region: NA
 Country: United States
 Primary Commodities: Stone, Crushed/Broken
 Secondary Commodities: Not reported
 Tertiary Commodities: Not reported
 Operation Type: Surface
 Deposit Type: Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

CASHION QUARRY (Continued)

1025615846

Production Size: Not reported
 Development Status: Past Producer
 Ore Minerals or Materials: Not reported
 Gangue Minerals or Materials: Not reported
 Other Minerals or Materials: Not reported
 Ore Body Form: Not reported
 Workings Type: Not reported
 Mineral Deposit Model: Not reported
 Alteration Processes: Not reported
 Concentration Processes: Not reported
 Previous Names: Vulcan Materials Company
 Ore Controls: Not reported
 Reporter: Eastern Field Operations Center (EFOC)
 Host Rock Unit Name: Not reported
 Host Rock Type: Not reported
 Associated Rock Unit Name: Not reported
 Associated Rock Type Code: Not reported
 Structural Characteristics: Not reported
 Tectonic Setting: Not reported
 References: Not reported
 First Production Year: Not reported
 Began Before/After FPY: Not reported
 Last Production Year: Not reported
 Ended Before/After LPY: Not reported
 Year Discovered: Not reported
 Found Before/After YD: Not reported
 Production History: Not reported
 Discovery Information: Not reported
 Latitude: 37.39566
 Longitude: -77.6369

B6
South
1/4-1/2
0.266 mi.
1407 ft.

CASHION QUARRY
MIDLOTHIAN, VA 23112
Site 2 of 3 in cluster B

MINES MRDS 1025569069
N/A

Relative:
Higher
Actual:
272 ft.

MINES MRDS:
 Name: CASHION QUARRY
 Address: Not reported
 Deposit identification Number: 10076216
 City,State,Zip: MIDLOTHIAN, VIRGINIA 23112
 URL: https://mrdata.usgs.gov/mrds/show-mrds.php?dep_id=10076216
 MRDS Identification Number: W023161
 MAS/MILS Identification Number: Not reported
 Region: NA
 Country: United States
 Primary Commodities: Limestone, General
 Secondary Commodities: Not reported
 Tertiary Commodities: Not reported
 Operation Type: Unknown
 Deposit Type: Sedimentary
 Production Size: Y - Yes, production has occurred
 Development Status: Past Producer
 Ore Minerals or Materials: Not reported
 Gangue Minerals or Materials: Not reported
 Other Minerals or Materials: Not reported
 Ore Body Form: Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

CASHION QUARRY (Continued)

1025569069

Workings Type:	Not reported
Mineral Deposit Model:	Not reported
Alteration Processes:	Not reported
Concentration Processes:	Not reported
Previous Names:	Not reported
Ore Controls:	Not reported
Reporter:	Unknown
Host Rock Unit Name:	Not reported
Host Rock Type:	Not reported
Associated Rock Unit Name:	Not reported
Associated Rock Type Code:	Not reported
Structural Characteristics:	Not reported
Tectonic Setting:	Not reported
References:	Not reported
First Production Year:	Not reported
Began Before/After FPY:	Not reported
Last Production Year:	Not reported
Ended Before/After LPY:	Not reported
Year Discovered:	Not reported
Found Before/After YD:	Not reported
Production History:	Not reported
Discovery Information:	Not reported
Latitude:	37.39562
Longitude:	-77.63692

B7
South
1/4-1/2
0.278 mi.
1468 ft.

VULCAN MATERIALS COMPANY
CHESTERFIELD (County), VA
Site 3 of 3 in cluster B

US MINES **1016511280**
N/A

Relative:
Higher
Actual:
275 ft.

US MINES:	
Sic Code(s):	142200
Sic Code(s):	000000
Sic Code(s):	000000
Sic Code(s):	000000
Sic Code(s):	000000
Sic Code(s):	000000
Mine ID:	4403712
Entity Name:	CASHION QUARRY AND MILL
Company:	VULCAN MATERIALS COMPANY
Status:	4
Status Date:	19781226
Operation Class:	2
Number of Shops:	0
Number of Plants:	0
Latitude Degree:	00
Longitude Degree:	000
Latitude Minute:	00
Latitude Seconds:	00
Longitude Minutes:	00
Longitude Seconds:	00
Number of Pits:	000

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

8
SSE
1/4-1/2
0.310 mi.
1637 ft.

BAYHILL POINTE PHASE VII SECTION 20
MIDLOTHIAN, VA 23112

NPDES S125295020
N/A

Relative:
Higher
Actual:
270 ft.

CEDS:
Name: BAYHILL POINTE PHASE VII SECTION 20
Address: Not reported
City,State,Zip: MIDLOTHIAN, VA 23112
Facility ID: WP4-16-1977
Class: Active
Minor/Major: Not reported
Industrial: Not reported
Permit Date: 08/01/2026
Outfall Num: Not reported
Latitude: 37.396334000000
Longitude: -77.629543999999
Permit Type: WP4
Date Effective: 2017-04-27 00:00:00
Owner Address 1: Not reported
Owner Address 2: Not reported
Owner City: Not reported
Owner State: Not reported
Owner Zip: Not reported
APRD Rec. 1st Time: 2016-12-15 00:00:00
APRD Rec. After 1st Time: Not reported
Event Desc: Not reported
Project Status: The project consists of the construction of a single family residential development known as Bayhill Pointe, Phase VII, which will include required utility and road improvements.

9
North
1/4-1/2
0.379 mi.
1999 ft.

RENNIES
5334 HUNT MASTER DR APT J
MIDLOTHIAN, VA 23112

EDR Hist Auto 1020862248
N/A

Relative:
Lower
Actual:
226 ft.

EDR Hist Auto
Year: Name: Type:
2011 RENNIES Gasoline Service Stations
2012 RENNIES Gasoline Service Stations

C10
NNW
1/4-1/2
0.419 mi.
2211 ft.

13109 RITTENHOUSE DRIVE
MIDLOTHIAN, VA 23112

SPILLS S117881843
N/A

Site 1 of 4 in cluster C

Relative:
Lower
Actual:
256 ft.

SPILLS:
Name: Not reported
Address: 13109 RITTENHOUSE DRIVE
City,State,Zip: MIDLOTHIAN, VA 23112
City,State,Zip: MIDLOTHIAN, VA 23112
Fips City/County: 760/Richmond City
Status: Closed
Reference Id: 34820

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S117881843

IR Number: 2015-P-2558
Associated IR: Not reported
Incident Date: 09/19/2014
Call Received Date: 04/30/2015
Closure Comments: Kroger discontinued use of wash-out. Safety Kleen and Stemmler were hired to clean up the area.
Threat To: Not reported
Terrorism (Y/N): N
Characterize Incident: Unknown
Incident Type: SW Construction(Water), Water(Water)
Incident Subtype: SW Construction * Water
Materials: Concrete Wash-out
Effect To Receptor: Not reported
Water Body: Not reported
Low Quantity To Water: Not reported
High Quantity To Water: Not reported
Quantity Units: Not reported
Other Receptors: Not reported
RP Company: Not reported
RP Name: Not reported
Property Owner: DeanSprouse
Property Company: Kroger
Duration Of Event (Hrs): 0
Impacts: Not reported
Other Impacts: Not reported
Steps Taken: Not reported
Steps Taken Description: Not reported
System Components: Not reported
Other System Components: Not reported
Cause Of Event: Not reported
Corrective Action Taken: Not reported
Weather Status: No
Precipitation (Wet): 0
Discharge Type: Not reported
Discharge Volume: 0
Unknown Discharge (Y/N): N
Site Name: KROGER
Closure Date: 01/28/2016
Orig. Call Incident Description: Concrete wash out running to storm drain
Original Call Material Description: concrete
Original Call Location Description: 13109 Rottenhouse Drive - Kroger
Incident Ongoing at time of Call: No
Agencies Notified (Y/N): N
Other Agencies: Not reported
Permitted (Y/N): No
Call Reported By Company Name: Chesterfield County Water Quality
Call Property Owner Company Name: Kroger
Call Property Owner Name: Dean Sprouse
Site Summary: Concrete wash out running to storm drain

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

C11
NNW
1/4-1/2
0.428 mi.
2260 ft.

SWIFT CREEK CLEANERS & TAYLORS
13145 RITTENHOUSE DR
MIDLOTHIAN, VA 23112

EDR Hist Cleaner **1020100844**
N/A

Relative:
Lower

EDR Hist Cleaner

Actual:
253 ft.

Year:	Name:	Type:
2009	SWIFT CREEK CLEANERS & TAYLORS	Drycleaning Plants, Except Rugs
2010	SWIFT CREEK CLEANERS & TAYLORS	Drycleaning Plants, Except Rugs
2011	SWIFT CREEK CLEANERS & TAYLORS	Drycleaning Plants, Except Rugs
2012	SWIFT CREEK CLEANERS & TAYLORS	Drycleaning Plants, Except Rugs
2013	SWIFT CREEK CLEANERS & TAYLORS	Drycleaning Plants, Except Rugs
2014	SWIFT CREEK CLEANERS & TAYLORS	Drycleaning Plants, Except Rugs

D12
North
1/4-1/2
0.431 mi.
2276 ft.

TARGET STORE T1225
4601 COMMONWEALTH CENTRE PKWY
MIDLOTHIAN, VA 23112

RCRA-LQG **1009312511**
VAR000511451

Site 1 of 2 in cluster D

Relative:
Lower

RCRA-LQG:

Actual:
234 ft.

Date form received by agency: 2016-02-11 00:00:00.0
Facility name: TARGET STORE T1225
Facility address: 4601 COMMONWEALTH CENTRE PKWY
MIDLOTHIAN, VA 23112
EPA ID: VAR000511451
Mailing address: PO BOX 111
MINNEAPOLIS, MN 55440
Contact: STEVE MUSSER
Contact address: PO BOX 111
MINNEAPOLIS, MN 55440
Contact country: US
Contact telephone: 800-587-2228
Contact email: POC@TARGET.COM
EPA Region: 03
Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name: TARGET CORPORATION
Owner/operator address: PO BOX 111
MINNEAPOLIS, MN 55440
Owner/operator country: US
Owner/operator telephone: 800-587-2228
Owner/operator email: Not reported
Owner/operator fax: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TARGET STORE T1225 (Continued)

1009312511

Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 1999-10-06 00:00:00.
Owner/Op end date: Not reported

Owner/operator name: TARGET CORPORATION
Owner/operator address: Not reported
Not reported

Owner/operator country: Not reported
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 1999-10-06 00:00:00.
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 2014-02-14 00:00:00.0
Site name: TARGET STORE T1225
Classification: Small Quantity Generator

Date form received by agency: 2013-10-22 00:00:00.0
Site name: TARGET STORE #T1225
Classification: Large Quantity Generator

Date form received by agency: 2012-02-15 00:00:00.0
Site name: TARGET STORE #T1225
Classification: Small Quantity Generator

Date form received by agency: 2006-01-09 00:00:00.0
Site name: TARGET STORE #1225
Classification: Conditionally Exempt Small Quantity Generator

Hazardous Waste Summary:

. Waste code: D001

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TARGET STORE T1225 (Continued)

1009312511

. Waste name:	IGNITABLE WASTE
. Waste code:	D002
. Waste name:	CORROSIVE WASTE
. Waste code:	D003
. Waste name:	REACTIVE WASTE
. Waste code:	D004
. Waste name:	ARSENIC
. Waste code:	D005
. Waste name:	BARIUM
. Waste code:	D006
. Waste name:	CADMIUM
. Waste code:	D007
. Waste name:	CHROMIUM
. Waste code:	D008
. Waste name:	LEAD
. Waste code:	D009
. Waste name:	MERCURY
. Waste code:	D010
. Waste name:	SELENIUM
. Waste code:	D011
. Waste name:	SILVER
. Waste code:	D016
. Waste name:	2,4-D (2,4-DICHLOROPHENOXYACETIC ACID)
. Waste code:	D018
. Waste name:	BENZENE
. Waste code:	D022
. Waste name:	CHLOROFORM
. Waste code:	D024
. Waste name:	M-CRESOL
. Waste code:	D026
. Waste name:	CRESOL
. Waste code:	D028
. Waste name:	1,2-DICHLOROETHANE
. Waste code:	D035
. Waste name:	METHYL ETHYL KETONE
. Waste code:	P001
. Waste name:	2H-1-BENZOPYRAN-2-ONE, 4-HYDROXY-3-(3-OXO-1-PHENYLBUTYL)-, & SALTS, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 0.3% (OR) WARFARIN, & SALTS, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 0.3%

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TARGET STORE T1225 (Continued)

1009312511

. Waste code: P012
. Waste name: ARSENIC OXIDE AS2O3 (OR) ARSENIC TRIOXIDE

. Waste code: P022
. Waste name: CARBON DISULFIDE

. Waste code: P042
. Waste name: 1,2-BENZENEDIOL, 4-[1-HYDROXY-2-(METHYLAMINO)ETHYL]-, (R)- (OR) EPINEPHRINE

. Waste code: P046
. Waste name: ALPHA,ALPHA-DIMETHYLPHENETHYLAMINE (OR) BENZENEETHANAMINE, ALPHA, ALPHA-DIMETHYL-

. Waste code: P075
. Waste name: NICOTINE, & SALTS (OR) PYRIDINE, 3-(1-METHYL-2-PYRROLIDINYL)-,(S)-, & SALTS

. Waste code: P081
. Waste name: 1,2,3-PROPANETRIOL, TRINITRATE (R) (OR) NITROGLYCERINE (R)

. Waste code: P108
. Waste name: STRYCHNIDIN-10-ONE, & SALTS (OR) STRYCHNINE, & SALTS

. Waste code: P188
. Waste name: BENZOIC ACID, 2-HYDROXY-, COMPD. WITH (3AS-CIS)-1,2,3,3A,8,8A-HEXAHYDRO-1,3A,8-TRIMETHYLPYRROLO[2,3-B]INDOL-5-YL METHYLCARBAMATE ESTER (1:1) (OR) PHYSOSTIGMINE SALICYLATE

. Waste code: P204
. Waste name: PHYSOSTIGMINE (OR) PYRROLO[2,3-B]INDOL-5-OL, 1,2,3,3A,8,8A-HEXAHYDRO-1,3A,8-TRIMETHYL-METHYLCARBAMATE (ESTER), (3AS-CIS)-

. Waste code: U002
. Waste name: 2-PROPANONE (I) (OR) ACETONE (I)

. Waste code: U034
. Waste name: ACETALDEHYDE, TRICHLORO- (OR) CHLORAL

. Waste code: U035
. Waste name: BENZENE BUTANOIC ACID, 4-[BIS(2-CHLOROETHYL)AMINO]- (OR) CHLORAMBUCIL

. Waste code: U044
. Waste name: CHLOROFORM (OR) METHANE, TRICHLORO-

. Waste code: U058
. Waste name: 2H-1,3,2-OXAZAPHOSPHORIN-2-AMINE, N,N-BIS(2-CHLOROETHYL)TETRAHYDRO-, 2-OXIDE (OR) CYCLOPHOSPHAMIDE

. Waste code: U072
. Waste name: BENZENE, 1,4-DICHLORO- (OR) P-DICHLOROBENZENE

. Waste code: U122
. Waste name: FORMALDEHYDE

. Waste code: U129

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TARGET STORE T1225 (Continued)

1009312511

- . Waste name: CYCLOHEXANE, 1,2,3,4,5,6-HEXACHLORO-, (1ALPHA, 2ALPHA, 3BETA, 4ALPHA, 5ALPHA, 6BETA)- (OR) LINDANE
- . Waste code: U150
- . Waste name: L-PHENYLALANINE, 4-[BIS(2-CHLOROETHYL)AMINO]- (OR) MELPHALAN
- . Waste code: U154
- . Waste name: METHANOL (I) (OR) METHYL ALCOHOL (I)
- . Waste code: U188
- . Waste name: PHENOL
- . Waste code: U200
- . Waste name: RESERPINE (OR) YOHIMBAN-16-CARBOXYLIC ACID, 11,17-DIMETHOXY-18-[(3,4,5-TRIMETHOXYBENZOYL)OXY]-, METHYL ESTER, (3BETA, 16BETA, 17ALPHA, 18BETA, 20ALPHA)-
- . Waste code: U201
- . Waste name: 1,3-BENZENEDIOL (OR) RESORCINOL
- . Waste code: U279
- . Waste name: CARBARYL (OR) 1-NAPHTHALENOL, METHYLCARBAMATE

Biennial Reports:

Last Biennial Reporting Year: 2017

Annual Waste Handled:

- Waste code: D001
- Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKEY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.
- Amount (Lbs): 417
- Waste code: D002
- Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.
- Amount (Lbs): 174
- Waste code: D004
- Waste name: ARSENIC
- Amount (Lbs): 1
- Waste code: D005
- Waste name: BARIUM
- Amount (Lbs): 136
- Waste code: D007
- Waste name: CHROMIUM

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

TARGET STORE T1225 (Continued)

1009312511

Amount (Lbs):	136
Waste code:	D008
Waste name:	LEAD
Amount (Lbs):	52
Waste code:	D009
Waste name:	MERCURY
Amount (Lbs):	57
Waste code:	D010
Waste name:	SELENIUM
Amount (Lbs):	1
Waste code:	D011
Waste name:	SILVER
Amount (Lbs):	135
Waste code:	D018
Waste name:	BENZENE
Amount (Lbs):	135
Waste code:	D035
Waste name:	METHYL ETHYL KETONE
Amount (Lbs):	392
Waste code:	P001
Waste name:	2H-1-BENZOPYRAN-2-ONE, 4-HYDROXY-3-(3-OXO-1-PHENYLBUTYL)-, & SALTS, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 0.3%
Amount (Lbs):	16
Waste code:	P075
Waste name:	NICOTINE, & SALTS
Amount (Lbs):	16
Waste code:	U002
Waste name:	ACETONE (I)
Amount (Lbs):	135
Waste code:	U154
Waste name:	METHANOL (I)
Amount (Lbs):	135

Violation Status: No violations found

D13
North
1/4-1/2
0.431 mi.
2276 ft.

TARGET STORE T1225
4601 COMMONWEALTH CENTER PKWY
MIDLOTHIAN, VA 23112
Site 2 of 2 in cluster D

FINDS 1016018325
ECHO N/A

Relative:
Lower
Actual:
234 ft.

FINDS:
 Registry ID: 110045993216
 Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110045993216

Environmental Interest/Information System:
 RCRAInfo is a national information system that supports the Resource

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

TARGET STORE T1225 (Continued)

1016018325

Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.
 HAZARDOUS WASTE BIENNIAL REPORTER

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1016018325
 Registry ID: 110045993216
 DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110045993216>
 Name: TARGET STORE T1225
 Address: 4601 COMMONWEALTH CENTER PKWY
 City,State,Zip: MIDLOTHIAN, VA 23112

**C14
 NNW
 1/4-1/2
 0.436 mi.
 2300 ft.**

**KROGER R 512
 13201 RITTENHOUSE DR
 MIDLOTHIAN, VA 23112**

Site 3 of 4 in cluster C

**UST
 SPILLS
 Financial Assurance** **U003917805
 N/A**

**Relative:
 Lower**

Facility:

Name: KROGER R 512
 Address: 13201 RITTENHOUSE DR
 City,State,Zip: MIDLOTHIAN, VA 23112
 Facility Id: 4038909
 Facility Type: GAS STATION
 CEDS Facility ID: 200000210992

**Actual:
 249 ft.**

Owner:

Owner Id: 38738
 Owner Name: Kroger Limited Partnership I
 Owner Address: PO Box 14002
 Owner Address2: 3631 Peters Creek Road, Roanoke, VA 24019
 Owner City, State, Zip: Roanoke, VA 24019
 Owner Type: COMMERCIAL
 Number of Active AST: 0
 Number of Active UST: 2
 Number of Inactive AST: 0
 Number of Inactive UST: 0

UST:

Facility ID: 4038909
 Federally Regulated: Yes

Tank Number: 1C
 Tank Capacity: 20000
 Tank Contents: GASOLINE
Tank Status: CURR IN USE
 Tank Type: UST

Tank Material:

Install Date: 3/21/2003
 Tank Materials: Bare Steel No
 Tank Materials: Cath Protect Steel No
 Tank Materials: Epoxy Steel No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KROGER R 512 (Continued)

U003917805

Tank Materials: Fiberglass	Yes
Tank Materials: Concrete	No
Tank Materials: Composite	No
Tank Materials: Double Walled	Yes
Tank Materials: Lined Interior	No
Tank Materials: Excav Liner	No
Tank Materials: Insulated Tank Jacket	No
Tank Materials: Repaired	No
Tank Materials: Unknown	No
Tank Materials: Other	No
Tank Materials: Other Note	Not reported

Release Detection:

Tank Release Detection: Leak Deferred	No
Tank Release Detection: Manual Gauge	No
Tank Release Detection: Auto Gauge	Yes
Tank Release Detection: Tank Tightness	Yes
Tank Release Detection: Vapor Monitor	No
Tank Release Detection: Inventory	Yes
Tank Release Detection: Stat Invent Recon	No
Tank Release Detection: Spill Install	Yes
Tank Release Detection: Overfill Install	Not reported
Tank Release Detection: Groundwater	No
Tank Release Detection: Int Sec Containment	No
Tank Release Detection: Int Double Walled	Yes
Tank Release Detection: Other Method	No
Tank Release Detection: Other Note	Not reported
Pipe Release Detection: Leak Deferred	No
Pipe Release Detection: Autoleak	Not reported
Pipe Release Detection: Line Tightness	Yes
Pipe Release Detection: Stat Invent Recon	No
Pipe Release Detection: Groundwater	No
Pipe Release Detection: Int Sec Containment	No
Pipe Release Det: Interior Double Walled	Yes
Pipe Release Detection: Other Method	No
Pipe Release Detection: Other Note	Not reported

Pipe Type:

Pipe Type:	PRESSURE
Pipe Materials: Bare Steel	No
Pipe Materials: Galvanized Steel	No
Pipe Materials: Copper	No
Pipe Materials: Fiberglass	No
Pipe Materials: Cath Protect	No
Pipe Materials: Double Walled	Yes
Pipe Materials: Sec Containment	No
Pipe Materials: Repaired	No
Pipe Materials: Unknown	No
Pipe Materials: Other	Yes
Pipe Materials: Other Note	Polyflexible piping

Facility ID:	4038909
Federally Regulated:	Yes

Tank Number:	2C
Tank Capacity:	8000
Tank Contents:	GASOLINE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KROGER R 512 (Continued)

U003917805

Tank Status:	CURR IN USE
Tank Type:	UST
Tank Material:	
Install Date:	3/21/2003
Tank Materials: Bare Steel	No
Tank Materials: Cath Protect Steel	No
Tank Materials: Epoxy Steel	No
Tank Materials: Fiberglass	Yes
Tank Materials: Concrete	No
Tank Materials: Composite	No
Tank Materials: Double Walled	Yes
Tank Materials: Lined Interior	No
Tank Materials: Excav Liner	No
Tank Materials: Insulated Tank Jacket	No
Tank Materials: Repaired	No
Tank Materials: Unknown	No
Tank Materials: Other	No
Tank Materials: Other Note	Not reported
Release Detection:	
Tank Release Detection: Leak Deferred	No
Tank Release Detection: Manual Gauge	No
Tank Release Detection: Auto Gauge	Yes
Tank Release Detection: Tank Tightness	Yes
Tank Release Detection: Vapor Monitor	No
Tank Release Detection: Inventory	Yes
Tank Release Detection: Stat Invent Recon	No
Tank Release Detection: Spill Install	Yes
Tank Release Detection: Overfill Install	Not reported
Tank Release Detection: Groundwater	No
Tank Release Detection: Int Sec Containment	No
Tank Release Detection: Int Double Walled	Yes
Tank Release Detection: Other Method	No
Tank Release Detection: Other Note	Not reported
Pipe Release Detection: Leak Deferred	No
Pipe Release Detection: Autoleak	Not reported
Pipe Release Detection: Line Tightness	Yes
Pipe Release Detection: Stat Invent Recon	No
Pipe Release Detection: Groundwater	No
Pipe Release Detection: Int Sec Containment	No
Pipe Release Det: Interior Double Walled	Yes
Pipe Release Detection: Other Method	No
Pipe Release Detection: Other Note	Not reported
Pipe Type:	PRESSURE
Pipe Materials: Bare Steel	No
Pipe Materials: Galvanized Steel	No
Pipe Materials: Copper	No
Pipe Materials: Fiberglass	No
Pipe Materials: Cath Protect	No
Pipe Materials: Double Walled	Yes
Pipe Materials: Sec Containment	No
Pipe Materials: Repaired	No
Pipe Materials: Unknown	No
Pipe Materials: Other	Yes
Pipe Materials: Other Note	Polyflexible piping

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KROGER R 512 (Continued)

U003917805

SPILLS:

Name: Not reported
Address: 13201 RITTENHOUSE DR
City,State,Zip: MIDLOTHIAN, VA
City,State,Zip: MIDLOTHIAN, VA
Fips City/County: 041/Chesterfield County
Status: Closed
Reference Id: 104067
IR Number: 2018-P-0093
Associated IR: Not reported
Incident Date: 07/10/2017
Call Received Date: 07/12/2017
Closure Comments: This was referred to VDACS Weights and Measures.
Threat To: Not reported
Terrorism (Y/N): N
Characterize Incident: Unknown
Incident Type: Not reported
Incident Subtype: Not reported
Materials: Not reported
Effect To Receptor: Not reported
Water Body: Not reported
Low Quantity To Water: Not reported
High Quantity To Water: Not reported
Quantity Units: Not reported
Other Receptors: Not reported
RP Company: Not reported
RP Name: Not reported
Property Owner: Not reported
Property Company: Not reported
Duration Of Event (Hrs): 0
Impacts: Not reported
Other Impacts: Not reported
Steps Taken: Not reported
Steps Taken Description: Not reported
System Components: Not reported
Other System Components: Not reported
Cause Of Event: Not reported
Corrective Action Taken: Not reported
Weather Status: No
Precipitation (Wet): 0
Discharge Type: Not reported
Discharge Volume: 0
Unknown Discharge (Y/N): N
Site Name: KROEGER GAS STATION
Closure Date: 07/12/2017
Orig. Call Incident Description: Gas pump does not shut down automatically causing gas to flow out of vehicle gas tanks.
Original Call Material Description: Gasoline
Original Call Location Description: Kroeger Gas station 13201 Rittenhouse Dr. Midlothian, VA
Incident Ongoing at time of Call: No
Agencies Notified (Y/N): Not reported
Other Agencies: Not reported
Permitted (Y/N): No
Call Reported By Company Name: Not reported
Call Property Owner Company Name: Not reported
Call Property Owner Name: Not reported
Site Summary: Gas pump does not shut down automatically causing gas to flow out of

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KROGER R 512 (Continued)

U003917805

vehicle gas tanks.

VA Financial Assurance 1:

Name: KROGER R 512
Address: 13201 RITTENHOUSE DR
Address 2: Not reported
City,State,Zip: MIDLOTHIAN, VA 23112
Facility ID: 4038909
Owner Name: Kroger Limited Partnership I
ROF Own Id: 38738
Tank Type: UST
Mechanism: Insurance
Gallonage: Not reported
Per Occurrence: 1000000
Third Party: 1000000
Annual Aggregate: 2000000
In Compliance: Not reported
Total Capacity: 20000
CEDS Facility Name: Kroger Food and Drug 512
Tank Status: CURR IN USE
Active Federally Regualted UST: Y

Name: KROGER R 512
Address: 13201 RITTENHOUSE DR
Address 2: Not reported
City,State,Zip: MIDLOTHIAN, VA 23112
Facility ID: 4038909
Owner Name: Kroger Limited Partnership I
ROF Own Id: 38738
Tank Type: UST
Mechanism: Insurance
Gallonage: Not reported
Per Occurrence: 1000000
Third Party: 1000000
Annual Aggregate: 2000000
In Compliance: Not reported
Total Capacity: 8000
CEDS Facility Name: Kroger Food and Drug 512
Tank Status: CURR IN USE
Active Federally Regualted UST: Y

E15
SSW
1/4-1/2
0.451 mi.
2382 ft.

CHESTERFIELD COUNTY SCHOOL DISTRICT (ALBERTA SMITH
13200 BAILEY BRIDGE RD
MIDLOTHIAN, VA 23112
Site 1 of 2 in cluster E

ICIS 1008260554
FINDS N/A
ECHO

Relative:
Higher
Actual:
297 ft.

ICIS:
Enforcement Action ID: 03-2006-0233
FRS ID: 110021525241
Action Name: CHESTERFIELD COUNTY SCHOOL DISTRICT
Facility Name: CHESTERFIELD COUNTY SCHOOL DISTRICT (ALBERTA SMITH ELEM SCHOOL)
Facility Address: 13200 BAILEY BRIDGE RD
MIDLOTHIAN, VA 23112-1708
Enforcement Action Type: TSCA 16 Action For Penalty
Facility County: CHESTERFIELD
Program System Acronym: ICIS

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHESTERFIELD COUNTY SCHOOL DISTRICT (ALBERTA SMITH ELEM SCHO (Continued)

1008260554

Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: 16
Facility SIC Code: Not reported
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 37.396286
Longitude in Decimal Degrees: -77.639599
Permit Type Desc: Not reported
Program System Acronym: 600008151
Facility NAICS Code: Not reported
Tribal Land Code: Not reported

Facility Name: CHESTERFIELD COUNTY SCHOOL DISTRICT (ALBERTA SMITH ELEM SCHOOL)
Address: 13200 BAILEY BRIDGE RD
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: CHESTERFIELD COUNTY SCHOOL DISTRICT (ALBERTA SMITH ELEM SCHOOL)
Address: 13200 BAILEY BRIDGE RD
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

FINDS:

Registry ID: 110021525241
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110021525241

Environmental Interest/Information System:

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and it Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include; Incident Tracking, Compliance Assistance, and Compliance Monitoring.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1008260554

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHESTERFIELD COUNTY SCHOOL DISTRICT (ALBERTA SMITH ELEM SCHO (Continued)

1008260554

Registry ID: 110021525241
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110021525241>
Name: CHESTERFIELD COUNTY SCHOOL DISTRICT (ALBERTA SMITH ELEM SCHOOL)
Address: 13200 BAILEY BRIDGE RD
City,State,Zip: MIDLOTHIAN, VA 23112

**E16
SSW
1/4-1/2
0.451 mi.
2382 ft.**

**ALBERTA SMITH ELEMENTARY SCHOOL
13200 BAILEY BRIDGE ROAD
MIDLOTHIAN, VA 23112**

**RCRA-VSQG 1009312562
VAR000511980**

Site 2 of 2 in cluster E

**Relative:
Higher**

RCRA-VSQG:

Date form received by agency: 2006-02-02 00:00:00.0

**Actual:
297 ft.**

Facility name: ALBERTA SMITH ELEMENTARY SCHOOL
Facility address: 13200 BAILEY BRIDGE ROAD
MIDLOTHIAN, VA 23112-1708

EPA ID: VAR000511980
Mailing address: BAILEY BRIDGE ROAD
MIDLOTHIAN, VA 23112-1708

Contact: MICHAEL J MCEVOY
Contact address: Not reported

Contact country: US
Contact telephone: 804-318-8048

Contact email: Not reported

EPA Region: 03

Classification: Conditionally Exempt Small Quantity Generator

Description: Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:

Owner/operator name: CHESTERFIELD COUNTY PUBLIC SCHOOLS

Owner/operator address: Not reported
Not reported

Owner/operator country: US

Owner/operator telephone: Not reported

Owner/operator email: Not reported

Owner/operator fax: Not reported

Owner/operator extension: Not reported

Legal status: County

Owner/Operator Type: Operator

Owner/Op start date: 1993-08-01 00:00:00.

Owner/Op end date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ALBERTA SMITH ELEMENTARY SCHOOL (Continued)

1009312562

Owner/operator name: CHESTERFIELD COUNTY PUBLIC SCHOOLS
Owner/operator address: P.O. BOX 10
CHESTERFIELD, VA 23832
Owner/operator country: US
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: County
Owner/Operator Type: Owner
Owner/Op start date: 1993-08-01 00:00:00.
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Hazardous Waste Summary:

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D008
. Waste name: LEAD

. Waste code: D009
. Waste name: MERCURY

. Waste code: D010
. Waste name: SELENIUM

. Waste code: D011
. Waste name: SILVER

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE,
METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE,

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ALBERTA SMITH ELEMENTARY SCHOOL (Continued)

1009312562

CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: F003
 - . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

 - . Waste code: F004
 - . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: CRESOLS, CRESYLIC ACID, AND NITROBENZENE; AND THE STILL BOTTOMS FROM THE RECOVERY OF THESE SOLVENTS; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

 - . Waste code: F005
 - . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

 - . Waste code: P089
 - . Waste name: PARATHION (OR) PHOSPHOROTHIOIC ACID, O,O-DIETHYL-O-(4-NITROPHENYL) ESTER
- Violation Status: No violations found

C17
NNW 13236 RITTENHOUSE DRIVE
1/4-1/2 MIDLOTHIAN, VA 23112
0.465 mi.
2457 ft. Site 4 of 4 in cluster C

SPILLS S117881842
N/A

Relative: SPILLS:
Lower Name: Not reported
Actual: Address: 13236 RITTENHOUSE DRIVE
243 ft. City,State,Zip: MIDLOTHIAN, VA 23112
City,State,Zip: MIDLOTHIAN, VA 23112
Fips City/County: 760/Richmond City
Status: Closed
Reference Id: 34819
IR Number: 2015-P-2556

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S117881842

Associated IR: Not reported
Incident Date: 09/18/2014
Call Received Date: 04/30/2015
Closure Comments: See file for full details
Threat To: Not reported
Terrorism (Y/N): N
Characterize Incident: Unknown
Incident Type: Overflow(Water), Waste(Waste), Water(Water)
Incident Subtype: Overflow * Waste * Water
Materials: Cooking Oil & Grease
Effect To Receptor: Not reported
Water Body: Not reported
Low Quantity To Water: Not reported
High Quantity To Water: Not reported
Quantity Units: Not reported
Other Receptors: Not reported
RP Company: Red Lobster
RP Name: Not reported
Property Owner: Laura LeighWalters
Property Company: Red Lobster
Duration Of Event (Hrs): 0
Impacts: Not reported
Other Impacts: Not reported
Steps Taken: Not reported
Steps Taken Description: Not reported
System Components: Not reported
Other System Components: Not reported
Cause Of Event: Not reported
Corrective Action Taken: Not reported
Weather Status: No
Precipitation (Wet): 0
Discharge Type: Not reported
Discharge Volume: 0
Unknown Discharge (Y/N): N
Site Name: RED LOBSTER
Closure Date: 01/28/2016
Orig. Call Incident Description: Restaurant sewer blockage.
Original Call Material Description: sewer blockage
Original Call Location Description: 13236 Rittenhouse Drive, Midlothian, VA 23112 - Red Lobster
Incident Ongoing at time of Call: No
Agencies Notified (Y/N): N
Other Agencies: Not reported
Permitted (Y/N): No
Call Reported By Company Name: EE WQ
Call Property Owner Company Name: Red Lobster
Call Property Owner Name: Laura Leigh Walters
Site Summary: Restaurant sewer blockage.

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

18
NW
1/4-1/2
0.490 mi.
2589 ft.

ADDISON EVANS WATER PRODUCTION AND LABORATORY
13400 HULL STREET RD
CHESTERFIELD, VA 23832

NPDES 1004608953
N/A

Relative:
Lower

CEDS:

Actual:
193 ft.

Name: ADDISON EVANS WATER PRODUCTION AND LABORATORY
 Address: 13400 HULL STREET RD
 City,State,Zip: CHESTERFIELD, VA 23832
 Facility ID: VA0006254
 Class: Active
 Minor/Major: Minor
 Industrial: Industrial
 Permit Date: 04/30/2021
 Outfall Num: 001
 Latitude: 37.41138889
 Longitude: -77.64444444
 Permit Type: Not reported
 Date Effective: Not reported
 Owner Address 1: Not reported
 Owner Address 2: Not reported
 Owner City: Not reported
 Owner State: Not reported
 Owner Zip: Not reported
 APRD Rec. 1st Time: Not reported
 APRD Rec. After 1st Time: Not reported
 Event Desc: Not reported
 Project Status: Not reported

19
East
1/2-1
0.515 mi.
2718 ft.

CHESTERFIELD COUNTY SCHOOL DISTRICT (MANCHESTER HI
12601 BAILEY BRIDGE RD
MIDLOTHIAN, VA 23112

RCRA-VSQQ 1004790690
ICIS VAD988218822
FINDS
ECHO

Relative:
Lower

RCRA-VSQQ:

Actual:
238 ft.

Date form received by agency: 1992-07-09 00:00:00.0
 Facility name: MANCHESTER HIGH SCHOOL
 Facility address: 12601 BAILEY BRIDGE ROAD
 MIDLOTHIAN, VA 23113
 EPA ID: VAD988218822
 Mailing address: PO BOX 10
 CHESTERFIELD, VA 23832
 Contact: MICHAEL MCEVOY
 Contact address: 9800 KRAUSE ROAD
 CHESTERFIELD, VA 23832
 Contact country: US
 Contact telephone: 804-748-1330
 Contact email: Not reported
 EPA Region: 03
 Classification: Conditionally Exempt Small Quantity Generator
 Description: Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHESTERFIELD COUNTY SCHOOL DISTRICT (MANCHESTER HIGH SCHOOL) (Continued)

1004790690

from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:

Owner/operator name: CHESTERFIELD COUNTY PUBLIC SCHOOL
Owner/operator address: 9800 KRAUSE ROAD
CHESTERFIELD, VA 23832
Owner/operator country: Not reported
Owner/operator telephone: 804-748-1330
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: County
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Hazardous Waste Summary:

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

Violation Status: No violations found

ICIS:

Enforcement Action ID: 03-2006-0233
FRS ID: 110005252635
Action Name: CHESTERFIELD COUNTY SCHOOL DISTRICT
Facility Name: CHESTERFIELD COUNTY SCHOOL DISTRICT (MANCHESTER HIGH SCHOOL)

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHESTERFIELD COUNTY SCHOOL DISTRICT (MANCHESTER HIGH SCHOOL) (Continued)

1004790690

Facility Address: 12601 BAILEY BRIDGE RD
MIDLOTHIAN, VA 23112-1805
Enforcement Action Type: TSCA 16 Action For Penalty
Facility County: CHESTERFIELD
Program System Acronym: ICIS
Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: 16
Facility SIC Code: Not reported
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 37.407657
Longitude in Decimal Degrees: -77.624373
Permit Type Desc: Not reported
Program System Acronym: 600008161
Facility NAICS Code: Not reported
Tribal Land Code: Not reported

Facility Name: CHESTERFIELD COUNTY SCHOOL DISTRICT (MANCHESTER HIGH SCHOOL)
Address: 12601 BAILEY BRIDGE ROAD
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: CHESTERFIELD COUNTY SCHOOL DISTRICT (MANCHESTER HIGH SCHOOL)
Address: 12601 BAILEY BRIDGE ROAD
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

FINDS:

Registry ID: 110005252635
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail_disp_program_facility?p_registry_id=110005252635

Environmental Interest/Information System:

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and it Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include; Incident Tracking, Compliance Assistance, and Compliance Monitoring.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHESTERFIELD COUNTY SCHOOL DISTRICT (MANCHESTER HIGH SCHOOL) (Continued)

1004790690

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1004790690
Registry ID: 110005252635
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110005252635>
Name: CHESTERFIELD COUNTY SCHOOL DISTRICT (MANCHESTER HIGH SCHOOL)
Address: 12601 BAILEY BRIDGE ROAD
City,State,Zip: MIDLOTHIAN, VA 23112

F20
North
1/2-1
0.523 mi.
2760 ft.

BRANDERMILL SHELL #604
13101 HULL STREET RD
MIDLOTHIAN, VA 23112
Site 1 of 2 in cluster F

UST **U003688303**
Financial Assurance **N/A**

Relative:
Lower
Actual:
242 ft.

Facility:
Name: BRANDERMILL SHELL #604
Address: 13101 HULL STREET RD
City,State,Zip: MIDLOTHIAN, VA 23112
Facility Id: 4026272
Facility Type: GAS STATION
CEDs Facility ID: 200000163564
Owner:
Owner Id: 41857
Owner Name: SMO Inc - Southern Maryland Oil Inc
Owner Address: PO Box 2810
Owner Address2: 6355 Crain Hwy
Owner City, State, Zip: LaPlata, MD 20646
Owner Type: COMMERCIAL
Number of Active AST: 0
Number of Active UST: 3
Number of Inactive AST: 0
Number of Inactive UST: 0

UST:
Facility ID: 4026272
Federally Regulated: Yes

Tank Number: 1
Tank Capacity: 12000
Tank Contents: GASOLINE
Tank Status: CURR IN USE
Tank Type: UST

Tank Material:
Install Date: 6/1/1992
Tank Materials: Bare Steel No
Tank Materials: Cath Protect Steel No
Tank Materials: Epoxy Steel No
Tank Materials: Fiberglass Yes
Tank Materials: Concrete No
Tank Materials: Composite No
Tank Materials: Double Walled Yes
Tank Materials: Lined Interior No
Tank Materials: Excav Liner No

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

BRANDERMILL SHELL #604 (Continued)

U003688303

Tank Materials: Insulated Tank Jacket	No
Tank Materials: Repaired	No
Tank Materials: Unknown	No
Tank Materials: Other	No
Tank Materials: Other Note	Not reported
Release Detection:	
Tank Release Detection: Leak Deferred	No
Tank Release Detection: Manual Gauge	No
Tank Release Detection: Auto Gauge	Yes
Tank Release Detection: Tank Tightness	No
Tank Release Detection: Vapor Monitor	No
Tank Release Detection: Inventory	Yes
Tank Release Detection: Stat Invent Recon	Yes
Tank Release Detection: Spill Install	Yes
Tank Release Detection: Overfill Install	Yes
Tank Release Detection: Groundwater	No
Tank Release Detection: Int Sec Containment	No
Tank Release Detection: Int Double Walled	Yes
Tank Release Detection: Other Method	No
Tank Release Detection: Other Note	Not reported
Pipe Release Detection: Leak Deferred	Not reported
Pipe Release Detection: Autoleak	Not reported
Pipe Release Detection: Line Tightness	Yes
Pipe Release Detection: Stat Invent Recon	No
Pipe Release Detection: Groundwater	No
Pipe Release Detection: Int Sec Containment	No
Pipe Release Det: Interior Double Walled	Yes
Pipe Release Detection: Other Method	No
Pipe Release Detection: Other Note	Not reported
Pipe Type:	PRESSURE
Pipe Materials: Bare Steel	No
Pipe Materials: Galvanized Steel	No
Pipe Materials: Copper	No
Pipe Materials: Fiberglass	Yes
Pipe Materials: Cath Protect	No
Pipe Materials: Double Walled	Yes
Pipe Materials: Sec Containment	No
Pipe Materials: Repaired	No
Pipe Materials: Unknown	No
Pipe Materials: Other	No
Pipe Materials: Other Note	Not reported
Facility ID:	4026272
Federally Regulated:	Yes
Tank Number:	2
Tank Capacity:	10000
Tank Contents:	GASOLINE
Tank Status:	CURR IN USE
Tank Type:	UST
Tank Material:	
Install Date:	6/1/1992
Tank Materials: Bare Steel	No

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

BRANDERMILL SHELL #604 (Continued)

U003688303

Tank Materials: Cath Protect Steel	No
Tank Materials: Epoxy Steel	No
Tank Materials: Fiberglass	Yes
Tank Materials: Concrete	No
Tank Materials: Composite	No
Tank Materials: Double Walled	Yes
Tank Materials: Lined Interior	No
Tank Materials: Excav Liner	No
Tank Materials: Insulated Tank Jacket	No
Tank Materials: Repaired	No
Tank Materials: Unknown	No
Tank Materials: Other	No
Tank Materials: Other Note	Not reported

Release Detection:

Tank Release Detection: Leak Deferred	No
Tank Release Detection: Manual Gauge	No
Tank Release Detection: Auto Gauge	Yes
Tank Release Detection: Tank Tightness	No
Tank Release Detection: Vapor Monitor	No
Tank Release Detection: Inventory	No
Tank Release Detection: Stat Invent Recon	No
Tank Release Detection: Spill Install	Yes
Tank Release Detection: Overfill Install	Yes
Tank Release Detection: Groundwater	No
Tank Release Detection: Int Sec Containment	No
Tank Release Detection: Int Double Walled	No
Tank Release Detection: Other Method	No
Tank Release Detection: Other Note	Not reported
Pipe Release Detection: Leak Deferred	Not reported
Pipe Release Detection: Autoleak	Not reported
Pipe Release Detection: Line Tightness	Yes
Pipe Release Detection: Stat Invent Recon	No
Pipe Release Detection: Groundwater	No
Pipe Release Detection: Int Sec Containment	No
Pipe Release Det: Interior Double Walled	Yes
Pipe Release Detection: Other Method	No
Pipe Release Detection: Other Note	Not reported

Pipe Type:

Pipe Materials: Bare Steel	No
Pipe Materials: Galvanized Steel	No
Pipe Materials: Copper	No
Pipe Materials: Fiberglass	Yes
Pipe Materials: Cath Protect	No
Pipe Materials: Double Walled	Yes
Pipe Materials: Sec Containment	No
Pipe Materials: Repaired	No
Pipe Materials: Unknown	No
Pipe Materials: Other	No
Pipe Materials: Other Note	Not reported

Facility ID: 4026272
 Federally Regulated: Yes

Tank Number: 3

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BRANDERMILL SHELL #604 (Continued)

U003688303

Tank Capacity:	10000
Tank Contents:	GASOLINE
Tank Status:	CURR IN USE
Tank Type:	UST
Tank Material:	
Install Date:	6/1/1992
Tank Materials: Bare Steel	No
Tank Materials: Cath Protect Steel	No
Tank Materials: Epoxy Steel	No
Tank Materials: Fiberglass	Yes
Tank Materials: Concrete	No
Tank Materials: Composite	No
Tank Materials: Double Walled	Yes
Tank Materials: Lined Interior	No
Tank Materials: Excav Liner	No
Tank Materials: Insulated Tank Jacket	No
Tank Materials: Repaired	No
Tank Materials: Unknown	No
Tank Materials: Other	No
Tank Materials: Other Note	Not reported
Release Detection:	
Tank Release Detection: Leak Deferred	No
Tank Release Detection: Manual Gauge	No
Tank Release Detection: Auto Gauge	Yes
Tank Release Detection: Tank Tightness	No
Tank Release Detection: Vapor Monitor	No
Tank Release Detection: Inventory	No
Tank Release Detection: Stat Invent Recon	No
Tank Release Detection: Spill Install	Yes
Tank Release Detection: Overfill Install	Yes
Tank Release Detection: Groundwater	No
Tank Release Detection: Int Sec Containment	No
Tank Release Detection: Int Double Walled	No
Tank Release Detection: Other Method	No
Tank Release Detection: Other Note	Not reported
Pipe Release Detection: Leak Deferred	Not reported
Pipe Release Detection: Autoleak	Not reported
Pipe Release Detection: Line Tightness	Yes
Pipe Release Detection: Stat Invent Recon	No
Pipe Release Detection: Groundwater	No
Pipe Release Detection: Int Sec Containment	No
Pipe Release Det: Interior Double Walled	Yes
Pipe Release Detection: Other Method	No
Pipe Release Detection: Other Note	Not reported
Pipe Type:	PRESSURE
Pipe Materials: Bare Steel	No
Pipe Materials: Galvanized Steel	No
Pipe Materials: Copper	No
Pipe Materials: Fiberglass	Yes
Pipe Materials: Cath Protect	No
Pipe Materials: Double Walled	Yes
Pipe Materials: Sec Containment	No
Pipe Materials: Repaired	No
Pipe Materials: Unknown	No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BRANDERMILL SHELL #604 (Continued)

U003688303

Pipe Materials: Other No
Pipe Materials: Other Note Not reported

VA Financial Assurance 1:

Name: BRANDERMILL SHELL #604
Address: 13101 HULL STREET RD
Address 2: Not reported
City,State,Zip: MIDLOTHIAN, VA 23112
Facility ID: 4026272
Owner Name: SMO Inc - Southern Maryland Oil Inc
ROF Own Id: 41857
Tank Type: UST
Mechanism: Insurance
Gallonage: Not reported
Per Occurrence: 1000000
Third Party: 1000000
Annual Aggregate: 2000000
In Compliance: Not reported
Total Capacity: 12000
CEDS Facility Name: Shell Facility 604
Tank Status: CURR IN USE
Active Federally Regualted UST: Y

Name: BRANDERMILL SHELL #604
Address: 13101 HULL STREET RD
Address 2: Not reported
City,State,Zip: MIDLOTHIAN, VA 23112
Facility ID: 4026272
Owner Name: SMO Inc - Southern Maryland Oil Inc
ROF Own Id: 41857
Tank Type: UST
Mechanism: Insurance
Gallonage: Not reported
Per Occurrence: 1000000
Third Party: 1000000
Annual Aggregate: 2000000
In Compliance: Not reported
Total Capacity: 10000
CEDS Facility Name: Shell Facility 604
Tank Status: CURR IN USE
Active Federally Regualted UST: Y

Name: BRANDERMILL SHELL #604
Address: 13101 HULL STREET RD
Address 2: Not reported
City,State,Zip: MIDLOTHIAN, VA 23112
Facility ID: 4026272
Owner Name: SMO Inc - Southern Maryland Oil Inc
ROF Own Id: 41857
Tank Type: UST
Mechanism: Insurance
Gallonage: Not reported
Per Occurrence: 1000000
Third Party: 1000000
Annual Aggregate: 2000000
In Compliance: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BRANDERMILL SHELL #604 (Continued)

U003688303

Total Capacity: 10000
CEDs Facility Name: Shell Facility 604
Tank Status: CURR IN USE
Active Federally Regulated UST: Y

F21
North
1/2-1
0.523 mi.
2760 ft.

SHELL SERVICE STATION 100625
13101 HULL STREET RD
MIDLOTHIAN, VA 23112

LUST **S106707299**
LTANKS **N/A**
SPILLS

Site 2 of 2 in cluster F

Relative:
Lower
Actual:
242 ft.

LUST REG PD:
Region: PD
Status: Closed
Pollution Complaint #: 20054154
Reg Code: PRO

LTANKS:

Name: SHELL SERVICE STATION 100625
Address: 13101 HULL STREET RD
City,State,Zip: MIDLOTHIAN, VA 23112
City,State,Zip: MIDLOTHIAN, VA 23112
Region: PRO
CEDs Facility Id: 200000163564
Case Status: Closed
Pollution Complaint #: 20054154
Reported: 07/28/2004
Case Closed Date: 12/29/2004
Program: RP Lead
Federally Regulated UST (Y/N): Y
Regulated Petroleum UST (1): Y
Excluded UST (1): N
Deferred UST (1): N
Partially Deferred UST (1): N
Exempt 1 UST (2): N
Exempt 2 Heating Oil UST (2): N
Small Heating Oil AST (2): N
Regulated AST (3): N
Unregulated AST (3): N
Other Y/N: N
Unknown Y/N: N
Other Description: Not reported
Heating Oil Category: Not reported

SPILLS:

Name: Not reported
Address: 13101 HULL STREET ROAD
City,State,Zip: MIDLOTHIAN, VA 23112
City,State,Zip: MIDLOTHIAN, VA 23112
Fips City/County: 041/Chesterfield County
Status: Closed
Reference Id: 55248
IR Number: 2016-P-2816
Associated IR: Not reported
Incident Date: 02/04/2016
Call Received Date: 03/22/2016
Closure Comments: Chesterfield responded and applied absorbent and swept it up. Pump was

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

SHELL SERVICE STATION 100625 (Continued)

S106707299

repaired. No further state action needed.

Threat To: Not reported
 Terrorism (Y/N): N
 Characterize Incident: Unknown
 Incident Type: Petroleum(Petroleum), Surface Spill(Petroleum)
 Incident Subtype: Petroleum * Surface Spill
 Materials: Gasoline
 Effect To Receptor: Not reported
 Water Body: Not reported
 Low Quantity To Water: Not reported
 High Quantity To Water: Not reported
 Quantity Units: Not reported
 Other Receptors: Not reported
 RP Company: Not reported
 RP Name: Not reported
 Property Owner: Not reported
 Property Company: Not reported
 Duration Of Event (Hrs): 0
 Impacts: Not reported
 Other Impacts: Not reported
 Steps Taken: Not reported
 Steps Taken Description: Not reported
 System Components: Not reported
 Other System Components: Not reported
 Cause Of Event: Not reported
 Corrective Action Taken: Not reported
 Weather Status: No
 Precipitation (Wet): 0
 Discharge Type: Not reported
 Discharge Volume: 0
 Unknown Discharge (Y/N): N
 Site Name: GAS STATION
 Closure Date: 03/23/2016
 Orig. Call Incident Description: Customer drove off with the pump still in the vehicle which resulted in discharge of gasoline
 Original Call Material Description: gasoline
 Original Call Location Description: Gas Station 13101 Hull Street Road, Midlothian VA 23112
 Incident Ongoing at time of Call: No
 Agencies Notified (Y/N): Y
 Other Agencies: Not reported
 Permitted (Y/N): No
 Call Reported By Company Name: Not reported
 Call Property Owner Company Name: Not reported
 Call Property Owner Name: Not reported
 Site Summary: Customer drove off with the pump still in the vehicle which resulted in discharge of gasoline

22
East
1/2-1
0.533 mi.
2816 ft.

BAILEY BRIDGE MIDDLE
12501 BAILEY BRIDGE RD
MIDLOTHIAN, VA 23113

RCRA-VSQQ 1004790507
ICIS VAD988211488
FINDS
ECHO

Relative:
Lower
Actual:
215 ft.

RCRA-VSQQ:
 Date form received by agency: 1992-01-29 00:00:00.0
 Facility name: BAILEY BRIDGE MIDDLE
 Facility address: 12501 BAILEY BRIDGE RD
 MIDLOTHIAN, VA 23113

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BAILEY BRIDGE MIDDLE (Continued)

1004790507

EPA ID: VAD988211488
Mailing address: PO BOX 10
CHESTEFIELD, VA 23832
Contact: MICHAEL MCEVOY
Contact address: 9800 KRAUSE RD
CHESTERFIELD, VA 23832
Contact country: US
Contact telephone: 804-748-1330
Contact email: Not reported
EPA Region: 03
Classification: Conditionally Exempt Small Quantity Generator
Description: Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:

Owner/operator name: CHESTERFIELD COUNTY PUBLIC SCHOOL
Owner/operator address: 9800 KRAUSE RD
CHESTERFIELD, VA 23832
Owner/operator country: Not reported
Owner/operator telephone: 804-748-1330
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: County
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BAILEY BRIDGE MIDDLE (Continued)

1004790507

Hazardous Waste Summary:

- . Waste code: D001
- . Waste name: IGNITABLE WASTE

- . Waste code: D002
- . Waste name: CORROSIVE WASTE

- . Waste code: D003
- . Waste name: REACTIVE WASTE

Violation Status: No violations found

ICIS:

Enforcement Action ID: 03-2006-0233
FRS ID: 110005250067
Action Name: CHESTERFIELD COUNTY SCHOOL DISTRICT
Facility Name: CHESTERFIELD COUNTY SCHOOL DISTRICT (BAILEY BRIDGE MIDDLE SCHOOL)
Facility Address: 12501 BAILEY BRIDGE RD
12501 BAILEY BRIDGE RD, VA 23112-1803
Enforcement Action Type: TSCA 16 Action For Penalty
Facility County: CHESTERFIELD
Program System Acronym: ICIS
Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: 16
Facility SIC Code: Not reported
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 37.409064
Longitude in Decimal Degrees: -77.62218
Permit Type Desc: Not reported
Program System Acronym: 600008158
Facility NAICS Code: Not reported
Tribal Land Code: Not reported

Facility Name: BAILEY BRIDGE MIDDLE
Address: 12501 BAILEY BRIDGE RD
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: BAILEY BRIDGE MIDDLE
Address: 12501 BAILEY BRIDGE RD
Tribal Indicator: N
Fed Facility: No
NAIC Code: Not reported
SIC Code: Not reported

FINDS:

Registry ID: 110005250067
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110005250067

Environmental Interest/Information System:

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of

Map ID
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BAILEY BRIDGE MIDDLE (Continued)

1004790507

events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and its Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include; Incident Tracking, Compliance Assistance, and Compliance Monitoring.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1004790507
Registry ID: 110005250067
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110005250067>
Name: CHESTERFIELD COUNTY SCHOOL DISTRICT (BAILEY BRIDGE MIDDLE SCHOOL)
Address: 12501 BAILEY BRIDGE RD
City,State,Zip: MIDLOTHIAN, VA 23112

23
WNW
1/2-1
0.565 mi.
2982 ft.

SHOEMAKER BARBARA RESIDENCE
6208 MOCKINGBIRD LN
MIDLOTHIAN, VA 23112

LUST S106167757
LTANKS N/A

Relative:
Lower
Actual:
231 ft.

LUST REG PD:
Region: PD
Status: Closed
Pollution Complaint #: 20044379
Reg Code: PRO

LTANKS:

Name: SHOEMAKER BARBARA RESIDENCE
Address: 6208 MOCKINGBIRD LN
City,State,Zip: MIDLOTHIAN, VA 23112
City,State,Zip: MIDLOTHIAN, VA 23112
Region: PRO
CEDS Facility Id: 200000214012
Case Status: Closed
Pollution Complaint #: 20044379
Reported: 01/20/2004
Case Closed Date: 04/19/2004
Program: RP Lead
Federally Regulated UST (Y/N): N
Regulated Petroleum UST (1): N
Excluded UST (1): N
Deferred UST (1): N

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHOEMAKER BARBARA RESIDENCE (Continued)

S106167757

Partially Deferred UST (1): N
Exempt 1 UST (2): N
Exempt 2 Heating Oil UST (2): Y
Small Heating Oil AST (2): N
Regulated AST (3): N
Unregulated AST (3): N
Other Y/N: N
Unknown Y/N: N
Other Description: Not reported
Heating Oil Category: Category 2

**G24
NW
1/2-1
0.568 mi.
2997 ft.**

**CHESTERFIELD COUNTY - ADDISON EVANS WATER TREATMEN
13400 HULL STREET ROAD
MIDLOTHIAN, VA 23112**

**RCRA-VSQQ 1016145207
VAR000525170**

Site 1 of 2 in cluster G

**Relative:
Lower
Actual:
178 ft.**

RCRA-VSQQ:
Date form received by agency: 2014-10-09 00:00:00.0
Facility name: CHESTERFIELD COUNTY - ADDISON EVANS WATER TREATMENT PLANT
Facility address: 13400 HULL STREET ROAD
MIDLOTHIAN, VA 23112
EPA ID: VAR000525170
Contact: DAVID J SIROIS
Contact address: 13400 HULL STREET ROAD
MIDLOTHIAN, VA 23112
Contact country: US
Contact telephone: 804-318-8140
Contact email: SIROISD@CHESTERFIELD.GOV
EPA Region: 03
Classification: Conditionally Exempt Small Quantity Generator
Description: Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:
Owner/operator name: CHESTERFIELD COUNTY - UTILITIES
Owner/operator address: Not reported
Not reported
Owner/operator country: US
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: County
Owner/Operator Type: Operator

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHESTERFIELD COUNTY - ADDISON EVANS WATER TREATMENT PLANT (Continued)

1016145207

Owner/Op start date: 1967-01-15 00:00:00.
Owner/Op end date: Not reported

Owner/operator name: CHESTERFIELD COUNTY
Owner/operator address: 9901 LORI RD, PO BOX 40
CHESTERFIELD, VA 23832

Owner/operator country: US
Owner/operator telephone: 804-748-1211
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: County
Owner/Operator Type: Owner
Owner/Op start date: 1967-01-15 00:00:00.
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 2013-02-21 00:00:00.0
Site name: CHESTERFIELD COUNTY - ADDISON EVANS WATER TREATMENT PLANT
Classification: Small Quantity Generator

Hazardous Waste Summary:

. Waste code: D001
. Waste name: IGNITABLE WASTE

Violation Status: No violations found

G25
NW
1/2-1
0.568 mi.
2997 ft.

CHESTERFIELD COUNTY-ADDISON EVANS-WTP
13400 HULL STREET ROAD
MIDLOTHIAN, VA 23112

RCRA NonGen / NLR 1014401938
VAP000016649

Site 2 of 2 in cluster G

Relative:
Lower
Actual:
178 ft.

RCRA NonGen / NLR:
Date form received by agency: 2012-02-02 00:00:00.0
Facility name: CHESTERFIELD COUNTY-ADDISON EVANS-WTP
Facility address: 13400 HULL STREET ROAD
MIDLOTHIAN, VA 23112
EPA ID: VAP000016649

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHESTERFIELD COUNTY-ADDISON EVANS-WTP (Continued)

1014401938

Mailing address: 6751 MIMMS LOOP
CHESTERFIELD, VA 23832
Contact: JEFF T HOWARD
Contact address: 6751 MIMMS LOOP
CHESTERFIELD, VA 23832
Contact country: US
Contact telephone: 804-717-6531
Contact email: HOWARDJT@CHESTERFIELD.GOV
EPA Region: 03
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: CHESTERFIELD COUNTY
Owner/operator address: PO BOX 40
CHESTERFIELD, VA 23832
Owner/operator country: US
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: County
Owner/Operator Type: Owner
Owner/Op start date: 1980-06-01 00:00:00.
Owner/Op end date: Not reported

Owner/operator name: CHESTERFIELD COUNTY
Owner/operator address: Not reported
Not reported
Owner/operator country: US
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: County
Owner/Operator Type: Operator
Owner/Op start date: 1980-06-01 00:00:00.
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHESTERFIELD COUNTY-ADDISON EVANS-WTP (Continued)

1014401938

Universal Waste Summary:

Waste type: Thermostats
Accumulated waste on-site: Yes
Generated waste on-site: Not reported

Waste type: Lamps
Accumulated waste on-site: Yes
Generated waste on-site: Not reported

Waste type: Pesticides
Accumulated waste on-site: Yes
Generated waste on-site: Not reported

Waste type: Batteries
Accumulated waste on-site: Yes
Generated waste on-site: Not reported

Historical Generators:

Date form received by agency: 2010-03-19 00:00:00.0
Site name: CHESTERFIELD COUNTY - ADDISON EVANS - WTP
Classification: Large Quantity Generator

Date form received by agency: 2010-02-26 00:00:00.0
Site name: CHESTERFIELD COUNTY-ADDISON EVANS-WTP
Classification: Large Quantity Generator

Hazardous Waste Summary:

. Waste code: D002
. Waste name: CORROSIVE WASTE

Violation Status: No violations found

H26 BAILEY BRIDGE PUMP STATION
ENE 12435 BAILEY BRIDGE RD
1/2-1 MIDLOTHIAN, VA 23112

AST A100361928
N/A

0.584 mi.
3083 ft. Site 1 of 2 in cluster H

Relative: AST:
Lower Facility ID: 4023156
Facility Type: LOCAL
Actual: CEDS Facility ID: 200000180675
216 ft.

Tank Info:

Owner:
Owner Id: 35740
Owner Name: Chesterfield County Utilities Department
Owner Address: 9840 Government Center Pkwy
Owner Address2: Not reported
Owner City/State/Zip: Chesterfield, VA 23832
Owner Type: LOCAL
Number of Active AST: 1
Number of Active UST: 0
Number of Inactive AST: 0
Number of Inactive UST: 1

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BAILEY BRIDGE PUMP STATION (Continued)

A100361928

Fed Regulated:	No
Tank Number:	CC139A
Tank Type:	AST
Tank Capacity:	4000
Tank Contents:	DIESEL
Tank Status:	CURR IN USE
Tank Containment:	
Install Date:	1/3/2007
Containment: Curbing	No
Containment: Weirs	No
Containment: Sorbent	No
Containment: Culvert	No
Containment: Diversion	No
Containment: Retention	No
Containment: Dike	No
Containment: Unknown	No
Containment: Other	No
Containment: Other Note	Not reported
Release Detection:	
Release Detection: Ground Water	No
Release Detection: Visual	No
Release Detection: Vapor	No
Release Detection: Interstitial	No
Release Detection: None	No
Release Detection: Other	No
Release Detection: Other Note	Not reported
Release Prevention: Double Bottom	No
Release Prevention: Double Walled	No
Release Prevention: Lined Interior	Not reported
Release Prevention: Poly Jacket	No
Release Prevention: Exc Liner	No
Release Prevention: None	No
Release Prevention: Unknown	No
Release Prevention: Other	No
Release Prevention: Other Note	Not reported
Tank Foundation:	
Tank Foundation: Steel	No
Tank Foundation: Earthen	No
Tank Foundation: Concrete Imp	Yes
Tank Foundation: Unknown	No
Tank Foundation: Other	No
Tank Foundation: Other Note	Not reported
Tank Roof:	
Tank Roof: Float	No
Tank Roof: Cone	No
Tank Roof: Breather	Not reported
Tank Roof: Dbldck	Not reported
Tank Roof: Pontoon	Not reported
Tank Roof: Balloon	Not reported
Tank Roof: Lifter	Not reported
Tank Roof: Pan	Not reported
Tank Roof: Other	No
Tank Roof: Other Note	Not reported
Tank Material:	
Tank Materials: Bare Steel	No

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

BAILEY BRIDGE PUMP STATION (Continued)

A100361928

Tank Materials: Concrete	No
Tank Materials: Insulated Tank Jacket	No
Tank Materials: Unknown	No
Tank Materials: Other	Yes
Tank Materials: Other Note	Still with concrete/Convault
Tank Type Cathodic/CP:	N
Tank Type Single Wall:	N
Tank Type Double Wall:	N
Tank Type Lined Interior:	N
Tank Type Double Bottom:	N
Tank Type Potable/Skid:	N
Tank Type Shop Fabricated/Built:	N
Tank Type Vaulted Below Grade:	N
Tank Type Vertical:	N
Tank Type Horizontal:	N
Tank Type Unknown:	N
Tank Type Other:	N
Tank Type Other Specify:	N

H27
ENE
1/2-1
0.584 mi.
3083 ft.

BAILEY BRIDGE PUMP STATION
12435 BAILEY BRIDGE RD
MIDLOTHIAN, VA 23112
Site 2 of 2 in cluster H

UST U003687723
N/A

Relative:
Lower
Actual:
216 ft.

Facility:	
Name:	BAILEY BRIDGE PUMP STATION
Address:	12435 BAILEY BRIDGE RD
City,State,Zip:	MIDLOTHIAN, VA 23112
Facility Id:	4023156
Facility Type:	LOCAL
CEDS Facility ID:	200000180675
Owner:	
Owner Id:	35740
Owner Name:	Chesterfield County Utilities Department
Owner Address:	9840 Government Center Pkwy
Owner Address2:	Not reported
Owner City, State, Zip:	Chesterfield, VA 23832
Owner Type:	LOCAL
Number of Active AST:	1
Number of Active UST:	0
Number of Inactive AST:	0
Number of Inactive UST:	1

UST:	
Facility ID:	4023156
Federally Regulated:	Yes

Tank Number:	G1
Tank Capacity:	1000
Tank Contents:	DIESEL
Tank Status:	CLS IN GRD
Tank Type:	UST

Tank Material:

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BAILEY BRIDGE PUMP STATION (Continued)

U003687723

Install Date:	1/1/1977
Tank Materials: Bare Steel	Yes
Tank Materials: Cath Protect Steel	No
Tank Materials: Epoxy Steel	No
Tank Materials: Fiberglass	No
Tank Materials: Concrete	No
Tank Materials: Composite	No
Tank Materials: Double Walled	No
Tank Materials: Lined Interior	No
Tank Materials: Excav Liner	No
Tank Materials: Insulated Tank Jacket	No
Tank Materials: Repaired	No
Tank Materials: Unknown	No
Tank Materials: Other	No
Tank Materials: Other Note	Not reported

Release Detection:	
Tank Release Detection: Leak Deferred	No
Tank Release Detection: Manual Gauge	No
Tank Release Detection: Auto Gauge	No
Tank Release Detection: Tank Tightness	No
Tank Release Detection: Vapor Monitor	No
Tank Release Detection: Inventory	No
Tank Release Detection: Stat Invent Recon	No
Tank Release Detection: Spill Install	No
Tank Release Detection: Overfill Install	No
Tank Release Detection: Groundwater	No
Tank Release Detection: Int Sec Containment	No
Tank Release Detection: Int Double Walled	No
Tank Release Detection: Other Method	No
Tank Release Detection: Other Note	Not reported
Pipe Release Detection: Leak Deferred	Not reported
Pipe Release Detection: Autoleak	Not reported
Pipe Release Detection: Line Tightness	No
Pipe Release Detection: Stat Invent Recon	No
Pipe Release Detection: Groundwater	No
Pipe Release Detection: Int Sec Containment	No
Pipe Release Det: Interior Double Walled	No
Pipe Release Detection: Other Method	No
Pipe Release Detection: Other Note	Not reported

Pipe Type:	NO VALVE SUCTION
Pipe Materials: Bare Steel	Yes
Pipe Materials: Galvanized Steel	No
Pipe Materials: Copper	No
Pipe Materials: Fiberglass	No
Pipe Materials: Cath Protect	No
Pipe Materials: Double Walled	No
Pipe Materials: Sec Containment	No
Pipe Materials: Repaired	No
Pipe Materials: Unknown	No
Pipe Materials: Other	No
Pipe Materials: Other Note	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

I28
WNW
1/2-1
0.663 mi.
3500 ft.

BETHIA ELECTRONIC SWITCHING STATION
13511 HULL STREET RD
MIDLOTHIAN, VA 23112

UST U003683781
AST N/A

Site 1 of 2 in cluster I

Relative:
Lower
Actual:
234 ft.

Facility:
Name: BETHIA ELECTRONIC SWITCHING STATION
Address: 13511 HULL STREET RD
City,State,Zip: MIDLOTHIAN, VA 23112
Facility Id: 4005503
Facility Type: UTILITY
CEDs Facility ID: 200000158552

Owner:
Owner Id: 31843
Owner Name: Verizon Virginia LLC
Owner Address: 400 International Parkway
Owner Address2: Not reported
Owner City, State, Zip: Richardson, TX 75081
Owner Type: COMMERCIAL
Number of Active AST: 1
Number of Active UST: 0
Number of Inactive AST: 0
Number of Inactive UST: 2

UST:
Facility ID: 4005503
Federally Regulated: Yes

Tank Number: R1
Tank Capacity: 1000
Tank Contents: DIESEL
Tank Status: REM FROM GRD
Tank Type: UST

Tank Material:
Install Date: 6/1/1980
Tank Materials: Bare Steel Yes
Tank Materials: Cath Protect Steel No
Tank Materials: Epoxy Steel No
Tank Materials: Fiberglass No
Tank Materials: Concrete No
Tank Materials: Composite No
Tank Materials: Double Walled No
Tank Materials: Lined Interior No
Tank Materials: Excav Liner No
Tank Materials: Insulated Tank Jacket No
Tank Materials: Repaired No
Tank Materials: Unknown No
Tank Materials: Other No
Tank Materials: Other Note Not reported

Release Detection:
Tank Release Detection: Leak Deferred No
Tank Release Detection: Manual Gauge No
Tank Release Detection: Auto Gauge No
Tank Release Detection: Tank Tightness No
Tank Release Detection: Vapor Monitor No

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

BETHIA ELECTRONIC SWITCHING STATION (Continued)

U003683781

Tank Release Detection: Inventory	No
Tank Release Detection: Stat Invent Recon	No
Tank Release Detection: Spill Install	No
Tank Release Detection: Overfill Install	No
Tank Release Detection: Groundwater	No
Tank Release Detection: Int Sec Containment	No
Tank Release Detection: Int Double Walled	No
Tank Release Detection: Other Method	No
Tank Release Detection: Other Note	Not reported
Pipe Release Detection: Leak Deferred	Not reported
Pipe Release Detection: Autoleak	Not reported
Pipe Release Detection: Line Tightness	No
Pipe Release Detection: Stat Invent Recon	No
Pipe Release Detection: Groundwater	No
Pipe Release Detection: Int Sec Containment	No
Pipe Release Det: Interior Double Walled	No
Pipe Release Detection: Other Method	No
Pipe Release Detection: Other Note	Not reported
Pipe Type:	VALVE SUCTION
Pipe Materials: Bare Steel	No
Pipe Materials: Galvanized Steel	No
Pipe Materials: Copper	Yes
Pipe Materials: Fiberglass	No
Pipe Materials: Cath Protect	No
Pipe Materials: Double Walled	No
Pipe Materials: Sec Containment	No
Pipe Materials: Repaired	No
Pipe Materials: Unknown	No
Pipe Materials: Other	No
Pipe Materials: Other Note	Not reported
Facility ID:	4005503
Federally Regulated:	Yes
Tank Number:	R2
Tank Capacity:	1000
Tank Contents:	DIESEL
Tank Status:	REM FROM GRD
Tank Type:	UST
Tank Material:	
Install Date:	12/1/1990
Tank Materials: Bare Steel	No
Tank Materials: Cath Protect Steel	No
Tank Materials: Epoxy Steel	No
Tank Materials: Fiberglass	Yes
Tank Materials: Concrete	No
Tank Materials: Composite	No
Tank Materials: Double Walled	Yes
Tank Materials: Lined Interior	No
Tank Materials: Excav Liner	No
Tank Materials: Insulated Tank Jacket	No
Tank Materials: Repaired	No
Tank Materials: Unknown	No
Tank Materials: Other	No
Tank Materials: Other Note	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BETHIA ELECTRONIC SWITCHING STATION (Continued)

U003683781

Release Detection:

Tank Release Detection: Leak Deferred	No
Tank Release Detection: Manual Gauge	No
Tank Release Detection: Auto Gauge	Yes
Tank Release Detection: Tank Tightness	No
Tank Release Detection: Vapor Monitor	No
Tank Release Detection: Inventory	No
Tank Release Detection: Stat Invent Recon	No
Tank Release Detection: Spill Install	Yes
Tank Release Detection: Overfill Install	Yes
Tank Release Detection: Groundwater	No
Tank Release Detection: Int Sec Containment	No
Tank Release Detection: Int Double Walled	Yes
Tank Release Detection: Other Method	No
Tank Release Detection: Other Note	Not reported
Pipe Release Detection: Leak Deferred	Not reported
Pipe Release Detection: Autoleak	Not reported
Pipe Release Detection: Line Tightness	No
Pipe Release Detection: Stat Invent Recon	No
Pipe Release Detection: Groundwater	No
Pipe Release Detection: Int Sec Containment	No
Pipe Release Det: Interior Double Walled	Yes
Pipe Release Detection: Other Method	No
Pipe Release Detection: Other Note	Not reported

Pipe Type:

VALVE SUCTION

Pipe Materials: Bare Steel	No
Pipe Materials: Galvanized Steel	No
Pipe Materials: Copper	Yes
Pipe Materials: Fiberglass	Yes
Pipe Materials: Cath Protect	No
Pipe Materials: Double Walled	No
Pipe Materials: Sec Containment	Yes
Pipe Materials: Repaired	No
Pipe Materials: Unknown	No
Pipe Materials: Other	No
Pipe Materials: Other Note	Not reported

AST:

Facility ID:	4005503
Facility Type:	UTILITY
CEDS Facility ID:	200000158552

Tank Info:

Owner:

Owner Id:	31843
Owner Name:	Verizon Virginia LLC
Owner Address:	400 International Parkway
Owner Address2:	Not reported
Owner City/State/Zip:	Richardson, TX 75081
Owner Type:	COMMERCIAL
Number of Active AST:	1
Number of Active UST:	0
Number of Inactive AST:	0
Number of Inactive UST:	2

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BETHIA ELECTRONIC SWITCHING STATION (Continued)

U003683781

Fed Regulated:	No
Tank Number:	A-1
Tank Type:	AST
Tank Capacity:	1500
Tank Contents:	DIESEL
Tank Status:	CURR IN USE
Tank Containment:	
Install Date:	12/1/2002
Containment: Curbing	No
Containment: Weirs	No
Containment: Sorbent	No
Containment: Culvert	No
Containment: Diversion	No
Containment: Retention	No
Containment: Dike	No
Containment: Unknown	No
Containment: Other	No
Containment: Other Note	Not reported
Release Detection:	
Release Detection: Ground Water	No
Release Detection: Visual	No
Release Detection: Vapor	No
Release Detection: Interstitial	No
Release Detection: None	No
Release Detection: Other	No
Release Detection: Other Note	Not reported
Release Prevention: Double Bottom	No
Release Prevention: Double Walled	No
Release Prevention: Lined Interior	Not reported
Release Prevention: Poly Jacket	No
Release Prevention: Exc Liner	No
Release Prevention: None	No
Release Prevention: Unknown	No
Release Prevention: Other	No
Release Prevention: Other Note	Not reported
Tank Foundation:	
Tank Foundation: Steel	No
Tank Foundation: Earthen	No
Tank Foundation: Concrete Imp	No
Tank Foundation: Unknown	No
Tank Foundation: Other	No
Tank Foundation: Other Note	Not reported
Tank Roof:	
Tank Roof: Float	No
Tank Roof: Cone	No
Tank Roof: Breather	Not reported
Tank Roof: Dbldck	Not reported
Tank Roof: Pontoon	Not reported
Tank Roof: Balloon	Not reported
Tank Roof: Lifter	Not reported
Tank Roof: Pan	Not reported
Tank Roof: Other	No
Tank Roof: Other Note	Not reported
Tank Material:	
Tank Materials: Bare Steel	No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BETHIA ELECTRONIC SWITCHING STATION (Continued)

U003683781

Tank Materials: Concrete No
Tank Materials: Insulated Tank Jacket No
Tank Materials: Unknown No
Tank Materials: Other No
Tank Materials: Other Note Convault
Tank Type Cathodic/CP: N
Tank Type Single Wall: N
Tank Type Double Wall: N
Tank Type Lined Interior: N
Tank Type Double Bottom: N
Tank Type Potable/Skid: N
Tank Type Shop Fabricated/Built: N
Tank Type Vaulted Below Grade: N
Tank Type Vertical: N
Tank Type Horizontal: N
Tank Type Unknown: N
Tank Type Other: N
Tank Type Other Specify: N

I29
WNW
1/2-1
0.663 mi.
3500 ft.

CHESAPEAKE & POTOMAC TELEPHONE CO

13511 HULL ST RD
MIDLOTHIAN, VA 23112

RCRA NonGen / NLR
FINDS
ECHO

1000377300
VAD980720148

Site 2 of 2 in cluster I

Relative:
Lower

RCRA NonGen / NLR:

Actual:
234 ft.

Date form received by agency: 2013-10-07 00:00:00.0
Facility name: CHESAPEAKE & POTOMAC TELEPHONE CO
Facility address: 13511 HULL ST RD
MIDLOTHIAN, VA 23112
EPA ID: VAD980720148
Mailing address: 1730 PENNSYLVANIA AVE NW RM700
WASHINGTON, DC 20006
Contact: ELIZABETH B COFFEY
Contact address: 13511 HULL ST RD
MIDLOTHIAN, VA 23113
Contact country: US
Contact telephone: 202-392-5406
Contact email: Not reported
EPA Region: 03
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: OPERNAME
Owner/operator address: OPERSTREET
OPERCITY, AK 99999
Owner/operator country: US
Owner/operator telephone: 215-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHESAPEAKE & POTOMAC TELEPHONE CO (Continued)

1000377300

Owner/Op end date: Not reported

Owner/operator name: CHESAPEAKE & POTOMAC TELEPHONE CO
Owner/operator address: OWNERSTREET
OWNERCITY, AK 99999

Owner/operator country: US
Owner/operator telephone: 215-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 1981-04-01 00:00:00.0
Site name: CHESAPEAKE & POTOMAC TELEPHONE CO
Classification: Not a generator, verified

Hazardous Waste Summary:

. Waste code: NONE
. Waste name: None

Violation Status: No violations found

FINDS:

Registry ID: 110005229216
Facility URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110005229216

Environmental Interest/Information System:

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

CHESAPEAKE & POTOMAC TELEPHONE CO (Continued)

1000377300

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1000377300
Registry ID:	110005229216
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110005229216
Name:	CHESAPEAKE & POTOMAC TELEPHONE CO
Address:	13511 HULL ST RD
City,State,Zip:	MIDLOTHIAN, VA 23112

30
ENE
1/2-1
0.686 mi.
3623 ft.

CLOVER HILL ASSEMBLY OF GOD
12310 BAILEY BRIDGE RD
MIDLOTHIAN, VA 23112

LUST S111866300
LTANKS N/A

Relative:
Lower
Actual:
161 ft.

LUST REG PD:
 Region: PD
Status: Closed
 Pollution Complaint #: 20124567
 Reg Code: PRO

LTANKS:

Name:	CLOVER HILL ASSEMBLY OF GOD
Address:	12310 BAILEY BRIDGE RD
City,State,Zip:	MIDLOTHIAN, VA 23112
City,State,Zip:	MIDLOTHIAN, VA 23112
Region:	PRO
CEDS Facility Id:	200000857199
Case Status:	Closed
Pollution Complaint #:	20124567
Reported:	04/10/2012
Case Closed Date:	04/16/2012
Program:	RP Lead
Federally Regulated UST (Y/N):	N
Regulated Petroleum UST (1):	N
Excluded UST (1):	N
Deferred UST (1):	N
Partially Deferred UST (1):	N
Exempt 1 UST (2):	N
Exempt 2 Heating Oil UST (2):	N
Small Heating Oil AST (2):	N
Regulated AST (3):	N
Unregulated AST (3):	N
Other Y/N:	N
Unknown Y/N:	N
Other Description:	Not reported
Heating Oil Category:	NFA

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

J31
ENE
1/2-1
0.748 mi.
3952 ft.

WARD EDDIE RESIDENCE
12218 OLD BAILEY BRIDGE RD
MIDLOTHIAN, VA 23112

LUST **S111286167**
LTANKS **N/A**

Site 1 of 2 in cluster J

Relative:
Lower
Actual:
185 ft.

LUST REG PD:
Region: PD
Status: Closed
Pollution Complaint #: 20124161
Reg Code: PRO

LTANKS:

Name: WARD EDDIE RESIDENCE
Address: 12218 OLD BAILEY BRIDGE RD
City,State,Zip: MIDLOTHIAN, VA 23112
City,State,Zip: MIDLOTHIAN, VA 23112
Region: PRO
CEDS Facility Id: 200000856083
Case Status: Closed
Pollution Complaint #: 20124161
Reported: 09/30/2011
Case Closed Date: 01/11/2012
Program: RP Lead
Federally Regulated UST (Y/N): N
Regulated Petroleum UST (1): N
Excluded UST (1): N
Deferred UST (1): N
Partially Deferred UST (1): N
Exempt 1 UST (2): N
Exempt 2 Heating Oil UST (2): Y
Small Heating Oil AST (2): N
Regulated AST (3): N
Unregulated AST (3): N
Other Y/N: N
Unknown Y/N: N
Other Description: Not reported
Heating Oil Category: Category 2

32
South
1/2-1
0.786 mi.
4152 ft.

HORNBARGER PERRY W RESIDENCE
9511 MORLEY RD
MIDLOTHIAN, VA 23112

LUST **S110608177**
LTANKS **N/A**

Relative:
Lower
Actual:
267 ft.

LUST REG PD:
Region: PD
Status: Closed
Pollution Complaint #: 20114087
Reg Code: PRO

LTANKS:

Name: HORNBARGER PERRY W RESIDENCE
Address: 9511 MORLEY RD
City,State,Zip: MIDLOTHIAN, VA 23112
City,State,Zip: MIDLOTHIAN, VA 23112
Region: PRO
CEDS Facility Id: 200000854125
Case Status: Closed

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

HORNBARGER PERRY W RESIDENCE (Continued)

S110608177

Pollution Complaint #: 20114087
 Reported: 09/02/2010
 Case Closed Date: 12/22/2010
 Program: RP Lead
 Federally Regulated UST (Y/N): N
 Regulated Petroleum UST (1): N
 Excluded UST (1): N
 Deferred UST (1): N
 Partially Deferred UST (1): N
 Exempt 1 UST (2): N
 Exempt 2 Heating Oil UST (2): Y
 Small Heating Oil AST (2): N
 Regulated AST (3): N
 Unregulated AST (3): N
 Other Y/N: N
 Unknown Y/N: N
 Other Description: Not reported
 Heating Oil Category: Category 2

**J33
 ENE
 1/2-1
 0.828 mi.
 4374 ft.**

**KING CHARLES E RESIDENCE
 12201 OLD BAILEY BRIDGE RD
 MIDOTHIAN, VA 23112**

**LUST S109237006
 LTANKS N/A**

Site 2 of 2 in cluster J

Relative: LUST REG PD:
Lower Region: PD
Actual: Status: **Closed**
191 ft. Pollution Complaint #: 20094037
 Reg Code: PRO

LTANKS:

Name: KING CHARLES E RESIDENCE
 Address: 12201 OLD BAILEY BRIDGE RD
 City,State,Zip: MIDOTHIAN, VA 23112
 City,State,Zip: MIDOTHIAN, VA 23112
 Region: PRO
 CEDS Facility Id: 200000849643
Case Status: Closed
 Pollution Complaint #: 20094037
 Reported: 07/24/2008
 Case Closed Date: 09/11/2008
 Program: RP Lead
 Federally Regulated UST (Y/N): N
 Regulated Petroleum UST (1): N
 Excluded UST (1): N
 Deferred UST (1): N
 Partially Deferred UST (1): N
 Exempt 1 UST (2): N
 Exempt 2 Heating Oil UST (2): Y
 Small Heating Oil AST (2): N
 Regulated AST (3): N
 Unregulated AST (3): N
 Other Y/N: N
 Unknown Y/N: N
 Other Description: Not reported
 Heating Oil Category: Category 2

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

34
WNW
1/2-1
0.927 mi.
4894 ft.

HARBOUR POINTE SHOPPING CENTER
13602-13728 HULL STREET ROAD
CHESTERFIELD, VA 23112

INST CONTROL **S108426807**
VCP **N/A**

Relative:
Higher
Actual:
288 ft.

INST CONTROL:

Name: HARBOUR POINTE SHOPPING CENTER
Address: 13602-13728 HULL STREET ROAD
City,State,Zip: CHESTERFIELD, VA 23112
Facility ID: VRP00473
Ground Water Use Restriction: True
Res. Use Restriction: True
Excavation Restriction: False
Other Condition of Issuance: False
Notes: 1/22/09 - Received copy of recorded Certificate. It was recorded on 11/19/09 1/22/10 - Email sent to participant's attorney inquiring whether Certificate has been signed and recorded. 11/17/09 - Fee information regarding Total Cost of Remediation received. Amount due to participant 11/4/09 - **Certificate RE-Issued. Participant had to amend several items in the initial Certificate based upon requirements of Chesterfield County. 10/22/09 - (initial) Certificate issued 9/30/09 - Draft Certificate submitted by participant 9/16/09 - RA comments issued (via email) re: July 09 report. Continued operation of vapor system not required 8/17/09 - July 2009 Summary Monitoring Report received. 7/17/09 - Conference call with consultant. Discussed summary report #4, vapor system, indoor air sampling, public notice, site plat. 7/09/09 - Meeting with Participant's attorney to discuss site status, progress, and future actions. 7/1/09 - Summary Report #4 submitted to DEQ 4/15/09 - Risk Assessment review comments issued 3/13/09 - Response to Risk Assessment comments received 12/22/08 - Risk Assessment Comments issued 10/31/08 - VRP correspondence issued re: Summary Reports 10/15/08 - 'Vapor Migration Control Implementation Summary Report #3' received 9/9/08 - 'Vapor Migration Control Implementation Summary Report #2' received 9/9/08 - 'Vapor Migration Control Implementation Summary Report #1' received 5/2/08 - Correspondence issued. RA review letter. 2/5/08 - Received email from John Tabella. SCS is working on a response to 12/7/07 comments. 12/7/07 - Comment letter issued regarding Vapor Migration Control Plan and SCR. 11/9/07 - Received email from SCS saying that a vapor system work plan has been mailed to DEQ. 7/12/07 - Site meeting with John Tabella (SCS). Performed site walkover. 6/8/07 - VRP called Jeff Marshall (SCS) to set up site meeting. Jeff will call back with proposed date. 5/25/07 - Fee Paid (\$1,600.00) 5/2/07 - Eligibility Letter signed & sent 4/21/07 - VRP received PRO Eligibility Determination memo. 2/26/07 - VRP received OWP Eligibility Determination memo. 2/12/07 - Eligibility Memos sent to RO and OWP 2/5/07 - Project Officer assigned 1/20/2007 - Application received

VRP:

Name: HARBOUR POINTE SHOPPING CENTER
Address: 13602-13728 HULL STREET ROAD
City,State,Zip: CHESTERFIELD, VA 23112
Facility ID: VRP00473
Site Status: Certificate Issued
Site Status 2: Recordation on File
DEQ Region: Piedmont
Sizs in Acres: 13.581

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

HARBOUR POINTE SHOPPING CENTER (Continued)

S108426807

<p>Site Type: Participation Notes: Site has associated enforcement action: List of Organic Contaminants of Potential Concern: List of Inorganic Contaminants of Potential Concern: Solvents and Degreasers Contamination per Application: Petroleum Contamination per Application: Acid/Bases Contamination per Application: Paints/Paint Washes Contamination per Application: Pesticide Contamination per Application: Inorganic Contamination per Application: Metals Contamination per Application: Other Contamination per Application: DEQ Staff Case Managers Initials: VRP Tier I Cleanup Standards: VRP Tier II Cleanup Standards: VRP Tier III Cleanup Standards: No Further VRP Action Date: Date Participant Notified of NFA: Site specific or other Cleanup Standards: Description of Remediation: Date Site Characterization Accepted by DEQ: Terms of NFA Determination: Date Remediation Action Plan Accepted by DEQ: Date VRP Eligibility Declared by Participant: Date Risk Assessment Accepted by DEQ: Date Demonstration of Completion Accepted by DEQ: Date VRP Eligibility Determined by DEQ Region: Date Office Of Waste Permitting Verified Site Eligibility: Date Public Notice Accepted by DEQ: Date VRP Eligibility Determined by VRP: Date Application Review Completed by Central Office: Latest Action Relative To Site: Latest Action Relative To Site Date: Next VRP Step Needed Relating To Site: Pending Since: Date Next Step Should Be Completed: Brownfield Tax Incentive: Ground Water Use Restriction: Res. User Restriction: Excavation Restriction: Unrestricted: Other Condition of Issuance: Notes:</p>	<p>Dry Cleaner RE: FEE - Based on Final Cost of remediation (provided by participant) a refund of \$838.47 was issued at completion. False Chlorinated solvents, PCE, TCE Not reported True False False False False False False False False WEL False False False Not reported Not reported False Removal of PCE-based drycleaning system. Sub-slab vapor mitigation system was operated until vapors subsided. Not reported Not reported Not reported 01/30/2007 Not reported Not reported 04/21/2007 02/26/2007 Not reported 05/02/2007 Not reported Certificate Recorded 11/19/2009 N/A Not reported Not reported False True True False False False 1/22/09 - Received copy of recorded Certificate. It was recorded on 11/19/09 1/22/10 - Email sent to participant's attorney inquiring whether Certificate has been signed and recorded. 11/17/09 - Fee information regarding Total Cost of Remediation received. Amount due to participant 11/4/09 - **Certificate RE-Issued. Participant had to amend several items in the initial Certificate based upon requirements of Chesterfield County. 10/22/09 - (initial) Certificate issued 9/30/09 - Draft Certificate submitted by participant 9/16/09 - RA comments issued (via email) re: July 09 report. Continued operation of vapor system not required 8/17/09 - July 2009 Summary Monitoring Report received. 7/17/09 - Conference call with consultant. Discussed summary report #4, vapor system, indoor air sampling, public notice,</p>
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Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HARBOUR POINTE SHOPPING CENTER (Continued)

S108426807

site plat. 7/09/09 - Meeting with Participant's attorney to discuss site status, progress, and future actions. 7/1/09 - Summary Report #4 submitted to DEQ 4/15/09 - Risk Assessment review comments issued 3/13/09 - Response to Risk Assessment comments received 12/22/08 - Risk Assessment Comments issued 10/31/08 - VRP correspondence issued re: Summary Reports 10/15/08 - 'Vapor Migration Control Implementation Summary Report #3' received 9/9/08 - 'Vapor Migration Control Implementation Summary Report #2' received 9/9/08 - 'Vapor Migration Control Implementation Summary Report #1' received 5/2/08 - Correspondence issued. RA review letter. 2/5/08 - Received email from John Tabella. SCS is working on a response to 12/7/07 comments. 12/7/07 - Comment letter issued regarding Vapor Migration Control Plan and SCR. 11/9/07 - Received email from SCS saying that a vapor system work plan has been mailed to DEQ. 7/12/07 - Site meeting with John Tabella (SCS). Performed site walkover. 6/8/07 - VRP called Jeff Marshall (SCS) to set up site meeting. Jeff will call back with proposed date. 5/25/07 - Fee Paid (\$1,600.00) 5/2/07 - Eligibility Letter signed & sent 4/21/07 - VRP received PRO Eligibility Determination memo. 2/26/07 - VRP

Latitude:
Longitude:

37.41063
-77.65073

Detail as of January 2019:

Facility ID: VRP00473
Owner Name: Harbour Pointe Acquisition Company
Owner Contact: Drew Dewitt (JP Morgan Investment Management, Inc.)
Owner Address: 245 Park Avenue, 2nd Floor; New York, NY 10167
Owner Phone: 212.648.2199
Operator Name: Not reported
Operator Owner: Not reported
Operator Phone: Not reported
Participant Name: Harbour Pointe Acquisition Company c/o (JP Morgan see below)
Relationship to Site: Not reported
Participant Contact: Drew Dewitt
Participant Phone: 212.648.2199
Participant Title: Vice President
Participant Affiliation: JP Morgan Investment Management, Inc.
Participant Address: 245 Park Avenue, 2nd Floor
Participant City,St,Zip: New York, NY 10167
Additional Parts: Not reported
Participant Rep/Contractor: Jeffrey D. Marshall, PE (or John Tabella, PG)
Participant Rep/Contractor Phone: 703.471.6150
Participant Rep/Contractor Title: Vice President
Participant Rep/Contractor Affiliation: SCS Engineers (jmarshall@scsengineers.com)
Participant Rep/Contractor Address: 11260 Roger Bacon Drive
Participant Rep/Contractor City,St,Zip: Reston, VA 20190
Metal Contaminants Present in Soil: Not reported
Organic Contaminants Present in Soil: Chlorinated solvents, PCE, TCE
Metal Contaminants Present in GW: Not reported
Organic Contaminants Present GW: Not reported
Cleanup Standards: Not reported
Certification Date: 11/04/2009
Deed Received Date: 11/19/2009
Date Signed Agreement Submitted By Participant: Not reported
Date Agreement Executed by DEQ: Not reported
Registration Fee Amount Submitted by Participant: 1,600.00
Date Registration Fee Submitted by Participant: 05/25/2007
Submittal Date for Document Number 1: 01/30/2007

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HARBOUR POINTE SHOPPING CENTER (Continued)

S108426807

Title of Submitted Document Number 1: Phase I ESA dated 6/26/06 (sent w/application)
Submittal Date for Document Number 2: 01/30/2007
Title of Submitted Document Number 2: Limited Phase II Subsurface Investigation Report dated 2/28/06
(w/application)
Submittal Date for Document Number 3: 01/30/2007
Title of Submitted Document Number 3: Limited Phase II Subsurface Investigation dated 6/26/06
(w/application)
Submittal Date for Document Number 4: 01/30/2007
Title of Submitted Document Number 4: Supplemental Phase II Environmental Investigation dated 6/7/06 (w/app)
Submittal Date for Document Number 5: Not reported
Title of Submitted Document Number 5: Not reported
Submittal Date for Document Number 6: Not reported
Title of Submitted Document Number 6: Not reported
Submittal Date for Document Number 7: Not reported
Title of Submitted Document Number 7: Not reported
Submittal Date for Document Number 8: Not reported
Title of Submitted Document Number 8: Not reported
Site Characterization Document Number: Not reported
DEQ Concurrence with Site Characterization Date: Not reported
Remedial Action Work Plan Document Number: Not reported
DEQ Concurs with Remedial Action Work Plan Date: Not reported
Completion Report Document Number: Not reported
DEQ Concurs with Completion Report Date: Not reported
Corrective Action Desc: Removal of PCE-based drycleaning system. Sub-slab vapor mitigation system was operated until vapors subsided.
DEQ Response Incident ID Number: Not reported
EPA CERCLIS ID: Not reported
EPA RCRA ID NUMBER: Not reported
DEQ Pollution Complaint Number: Not reported
GEO Latitude: Not reported
Geo Longitude: Not reported
Inspection Date: Not reported
GPS Lat: Not reported
GPS Long: Not reported
GPS Desc: Not reported

Count: 0 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
NO SITES FOUND					

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/27/2020	Source: EPA
Date Data Arrived at EDR: 05/06/2020	Telephone: N/A
Date Made Active in Reports: 05/28/2020	Last EDR Contact: 06/03/2020
Number of Days to Update: 22	Next Scheduled EDR Contact: 07/13/2020
	Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 04/27/2020	Source: EPA
Date Data Arrived at EDR: 05/06/2020	Telephone: N/A
Date Made Active in Reports: 05/28/2020	Last EDR Contact: 06/03/2020
Number of Days to Update: 22	Next Scheduled EDR Contact: 07/13/2020
	Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 05/28/2020
Number of Days to Update: 22

Source: EPA
Telephone: N/A
Last EDR Contact: 06/03/2020
Next Scheduled EDR Contact: 07/13/2020
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 04/03/2019
Date Data Arrived at EDR: 04/05/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 04/03/2020
Next Scheduled EDR Contact: 07/13/2020
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly known as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 05/28/2020
Number of Days to Update: 22

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 06/03/2020
Next Scheduled EDR Contact: 07/27/2020
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 04/27/2020	Source: EPA
Date Data Arrived at EDR: 05/06/2020	Telephone: 800-424-9346
Date Made Active in Reports: 05/28/2020	Last EDR Contact: 06/03/2020
Number of Days to Update: 22	Next Scheduled EDR Contact: 07/27/2020
	Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/23/2020	Source: EPA
Date Data Arrived at EDR: 03/25/2020	Telephone: 800-424-9346
Date Made Active in Reports: 05/21/2020	Last EDR Contact: 03/25/2020
Number of Days to Update: 57	Next Scheduled EDR Contact: 07/06/2020
	Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/23/2020	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/25/2020	Telephone: 800-438-2474
Date Made Active in Reports: 05/21/2020	Last EDR Contact: 03/25/2020
Number of Days to Update: 57	Next Scheduled EDR Contact: 07/06/2020
	Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/23/2020	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/25/2020	Telephone: 800-438-2474
Date Made Active in Reports: 05/21/2020	Last EDR Contact: 03/25/2020
Number of Days to Update: 57	Next Scheduled EDR Contact: 07/06/2020
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/23/2020	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/25/2020	Telephone: 800-438-2474
Date Made Active in Reports: 05/21/2020	Last EDR Contact: 03/25/2020
Number of Days to Update: 57	Next Scheduled EDR Contact: 07/06/2020
	Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/23/2020	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/25/2020	Telephone: 800-438-2474
Date Made Active in Reports: 05/21/2020	Last EDR Contact: 03/25/2020
Number of Days to Update: 57	Next Scheduled EDR Contact: 07/06/2020
	Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 11/04/2019	Source: Department of the Navy
Date Data Arrived at EDR: 11/13/2019	Telephone: 843-820-7326
Date Made Active in Reports: 01/28/2020	Last EDR Contact: 05/14/2020
Number of Days to Update: 76	Next Scheduled EDR Contact: 08/24/2020
	Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 02/13/2020	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/20/2020	Telephone: 703-603-0695
Date Made Active in Reports: 05/15/2020	Last EDR Contact: 05/15/2020
Number of Days to Update: 85	Next Scheduled EDR Contact: 09/07/2020
	Data Release Frequency: Varies

US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 02/13/2020	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/20/2020	Telephone: 703-603-0695
Date Made Active in Reports: 05/15/2020	Last EDR Contact: 05/15/2020
Number of Days to Update: 85	Next Scheduled EDR Contact: 09/07/2020
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/16/2019

Date Data Arrived at EDR: 12/19/2019

Date Made Active in Reports: 03/06/2020

Number of Days to Update: 78

Source: National Response Center, United States Coast Guard

Telephone: 202-267-2180

Last EDR Contact: 03/24/2020

Next Scheduled EDR Contact: 07/06/2020

Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

SHWS: This state does not maintain a SHWS list. See the Federal CERCLIS list and Federal NPL list.

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: N/A

Date Data Arrived at EDR: N/A

Date Made Active in Reports: N/A

Number of Days to Update: N/A

Source: Department of Environmental Quality

Telephone: 804-698-4236

Last EDR Contact: 06/11/2020

Next Scheduled EDR Contact: 09/28/2020

Data Release Frequency: N/A

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: Solid Waste Management Facilities

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 03/05/2020

Date Data Arrived at EDR: 03/05/2020

Date Made Active in Reports: 05/18/2020

Number of Days to Update: 74

Source: Department of Environmental Quality

Telephone: 804-698-4238

Last EDR Contact: 05/28/2020

Next Scheduled EDR Contact: 09/14/2020

Data Release Frequency: Semi-Annually

State and tribal leaking storage tank lists

LUST REG SC: Leaking Underground Storage Tanks

Leaking underground storage tank site locations. Includes: counties of Amherst, Appomattox, Buckingham, Campbell, Charlotte, Cumberland, Halifax, Lunenburg, Mecklenburg, Nottoway, Pittsylvania, Prince Deward; cities of Danville, Lynchburg.

Date of Government Version: 09/06/2013

Date Data Arrived at EDR: 09/06/2013

Date Made Active in Reports: 09/17/2013

Number of Days to Update: 11

Source: Department of Environmental Quality, South Central Region

Telephone: 434-582-5120

Last EDR Contact: 08/29/2016

Next Scheduled EDR Contact: 12/12/2016

Data Release Frequency: Semi-Annually

LUST REG PD: Leaking Underground Storage Tank Sites

Leaking underground storage tank site locations. Includes: counties of Amelia, Brunswick, Charles City, Chesterfield, Dinwiddie, Essex, Gloucester, Goochland, Greenville, Hanover, Henrico, King and Queen, King William, Lancaster, Mathews, Middlesex, New Kent, Northumberland, Powhatan, Prince George, Richmond, Surry, Sussex, Westmoreland; cities of Colonial Heights, Emporia, Hopewell, Petersburg.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/02/2014
Date Data Arrived at EDR: 12/04/2014
Date Made Active in Reports: 01/16/2015
Number of Days to Update: 43

Source: Department of Environmental Quality Piedmont Regional Office
Telephone: 804-527-5020
Last EDR Contact: 08/29/2016
Next Scheduled EDR Contact: 12/12/2016
Data Release Frequency: Quarterly

LUST REG TD: Leaking Underground Storage Tank Sites

Leaking underground storage tank site locations. Includes: counties of Accomack, Isle of Wight, James City, Northampton, Southampton, York; cities of Chesapeake, Franklin, Hampton, Newport News, Norfolk, Poquoson, Portsmouth, Suffolk, Virginia Beach, Williamsburg.

Date of Government Version: 06/30/2013
Date Data Arrived at EDR: 07/05/2013
Date Made Active in Reports: 09/16/2013
Number of Days to Update: 73

Source: Department of Environmental Quality Tidewater Regional Office
Telephone: trofoia@deq.vir
Last EDR Contact: 09/26/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Quarterly

LUST REG NO: Leaking Underground Storage Tank Tracking Database

Leaking underground storage tank site locations. Includes: counties of Arlington, Caroline, Culpeper, Fairfax, Fauquier, King George, Loudoun, Louisa, Madison, Orange, Prince William, Rappahannock, Spotsylvania, Stafford; cities of Alexandria, Fairfax, Falls Church, Fredericksburg, Manassas, Manassas Park.

Date of Government Version: 05/18/2004
Date Data Arrived at EDR: 05/22/2004
Date Made Active in Reports: 07/09/2004
Number of Days to Update: 48

Source: Department of Environmental Quality Northern Regional Office
Telephone: 703-583-3800
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG WC: Leaking Underground Storage Tank List

Leaking underground storage tank site locations. Includes: counties of Alleghany, Bedford, Botetourt, Craig, Floyd, Franklin, Giles, Henry, Montgomery, Patrick, Pulaski, Roanoke; cities of Bedford, Clifton Forge, Covington, Martinsville, Radford, Roanoke, Salem.

Date of Government Version: 06/04/2015
Date Data Arrived at EDR: 06/05/2015
Date Made Active in Reports: 07/07/2015
Number of Days to Update: 32

Source: Department of Environmental Quality West Central Regional Office
Telephone: 540-562-6700
Last EDR Contact: 08/29/2016
Next Scheduled EDR Contact: 12/12/2016
Data Release Frequency: No Update Planned

LUST REG SW: Leaking Underground Storage Tank Database

Leaking underground storage tank site locations. Includes: counties of Bland, Buchanan, Carroll, Dickenson, Grayson, Lee, Russell, Scott, Smyth, Tazewell, Washington, Wise, Wythe; cities of Bristol, Galax, Norton.

Date of Government Version: 07/15/2013
Date Data Arrived at EDR: 07/18/2013
Date Made Active in Reports: 09/16/2013
Number of Days to Update: 60

Source: Department of Environmental Quality Southwest Regional Office
Telephone: 276-676-4800
Last EDR Contact: 10/11/2016
Next Scheduled EDR Contact: 01/23/2017
Data Release Frequency: No Update Planned

LUST REG VA: Leaking Underground Storage Tank List

Leaking underground storage tank site locations. Includes: counties of Albemarle, Augusta, Bath, Clarke, Fluvanna, Frederick, Greene, Highland, Nelson, Page, Rockbridge, Rockingham, Shenandoah, Warren; cities of Buena Vista, Charlottesville, Harrisonburg, Lexington, Staunton, Waynesboro, Winchester.

Date of Government Version: 12/06/2011
Date Data Arrived at EDR: 12/08/2011
Date Made Active in Reports: 01/16/2012
Number of Days to Update: 39

Source: Department of Environmental Quality Valley Regional Office
Telephone: 540-574-7800
Last EDR Contact: 08/29/2016
Next Scheduled EDR Contact: 12/12/2016
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/01/2019	Source: EPA Region 1
Date Data Arrived at EDR: 12/04/2019	Telephone: 617-918-1313
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 05/20/2020
Number of Days to Update: 68	Next Scheduled EDR Contact: 08/03/2020
	Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 10/02/2019	Source: EPA Region 6
Date Data Arrived at EDR: 12/04/2019	Telephone: 214-665-6597
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 05/20/2020
Number of Days to Update: 68	Next Scheduled EDR Contact: 08/03/2020
	Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 10/01/2019	Source: EPA, Region 5
Date Data Arrived at EDR: 12/04/2019	Telephone: 312-886-7439
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 05/20/2020
Number of Days to Update: 68	Next Scheduled EDR Contact: 08/03/2020
	Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 10/15/2019	Source: EPA Region 7
Date Data Arrived at EDR: 12/17/2019	Telephone: 913-551-7003
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 05/20/2020
Number of Days to Update: 55	Next Scheduled EDR Contact: 08/03/2020
	Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 10/04/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/04/2019	Telephone: 415-972-3372
Date Made Active in Reports: 02/27/2020	Last EDR Contact: 05/20/2020
Number of Days to Update: 85	Next Scheduled EDR Contact: 08/03/2020
	Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/03/2019	Source: EPA Region 8
Date Data Arrived at EDR: 12/04/2019	Telephone: 303-312-6271
Date Made Active in Reports: 02/14/2020	Last EDR Contact: 05/20/2020
Number of Days to Update: 72	Next Scheduled EDR Contact: 08/03/2020
	Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 10/11/2019	Source: EPA Region 10
Date Data Arrived at EDR: 12/04/2019	Telephone: 206-553-2857
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 05/20/2020
Number of Days to Update: 68	Next Scheduled EDR Contact: 08/03/2020
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 10/10/2019	Source: EPA Region 4
Date Data Arrived at EDR: 12/05/2019	Telephone: 404-562-8677
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 05/20/2020
Number of Days to Update: 67	Next Scheduled EDR Contact: 08/03/2020
	Data Release Frequency: Varies

LTANKS: Leaking Petroleum Storage Tanks
Includes releases of petroleum from underground storage tanks and aboveground storage tanks.

Date of Government Version: 02/05/2020	Source: Department of Environmental Quality
Date Data Arrived at EDR: 02/26/2020	Telephone: 804-698-4010
Date Made Active in Reports: 05/05/2020	Last EDR Contact: 05/22/2020
Number of Days to Update: 69	Next Scheduled EDR Contact: 09/07/2020
	Data Release Frequency: Quarterly

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 02/01/2020	Source: FEMA
Date Data Arrived at EDR: 03/19/2020	Telephone: 202-646-5797
Date Made Active in Reports: 06/09/2020	Last EDR Contact: 03/19/2020
Number of Days to Update: 82	Next Scheduled EDR Contact: 07/20/2020
	Data Release Frequency: Varies

UST: Registered Petroleum Storage Tanks
Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 02/04/2020	Source: Department of Environmental Quality
Date Data Arrived at EDR: 02/26/2020	Telephone: 804-698-4010
Date Made Active in Reports: 05/05/2020	Last EDR Contact: 05/22/2020
Number of Days to Update: 69	Next Scheduled EDR Contact: 09/07/2020
	Data Release Frequency: Quarterly

AST: Registered Petroleum Storage Tanks
Registered Aboveground Storage Tanks.

Date of Government Version: 02/04/2020	Source: Department of Environmental Quality
Date Data Arrived at EDR: 02/26/2020	Telephone: 804-698-4010
Date Made Active in Reports: 05/05/2020	Last EDR Contact: 05/22/2020
Number of Days to Update: 69	Next Scheduled EDR Contact: 09/07/2020
	Data Release Frequency: Quarterly

INDIAN UST R4: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 10/10/2019	Source: EPA Region 4
Date Data Arrived at EDR: 12/05/2019	Telephone: 404-562-9424
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 05/20/2020
Number of Days to Update: 67	Next Scheduled EDR Contact: 08/03/2020
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 10/02/2019	Source: EPA Region 6
Date Data Arrived at EDR: 12/04/2019	Telephone: 214-665-7591
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 05/20/2020
Number of Days to Update: 68	Next Scheduled EDR Contact: 08/03/2020
	Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/01/2019	Source: EPA, Region 1
Date Data Arrived at EDR: 12/04/2019	Telephone: 617-918-1313
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 05/20/2020
Number of Days to Update: 68	Next Scheduled EDR Contact: 08/03/2020
	Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 10/03/2019	Source: EPA Region 8
Date Data Arrived at EDR: 12/04/2019	Telephone: 303-312-6137
Date Made Active in Reports: 02/14/2020	Last EDR Contact: 05/20/2020
Number of Days to Update: 72	Next Scheduled EDR Contact: 08/03/2020
	Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 10/11/2019	Source: EPA Region 7
Date Data Arrived at EDR: 12/04/2019	Telephone: 913-551-7003
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 05/20/2020
Number of Days to Update: 68	Next Scheduled EDR Contact: 08/03/2020
	Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 10/01/2019	Source: EPA Region 5
Date Data Arrived at EDR: 12/04/2019	Telephone: 312-886-6136
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 05/20/2020
Number of Days to Update: 68	Next Scheduled EDR Contact: 08/03/2020
	Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 10/11/2019	Source: EPA Region 10
Date Data Arrived at EDR: 12/04/2019	Telephone: 206-553-2857
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 05/20/2020
Number of Days to Update: 68	Next Scheduled EDR Contact: 08/03/2020
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 10/04/2019	Source: EPA Region 9
Date Data Arrived at EDR: 12/04/2019	Telephone: 415-972-3368
Date Made Active in Reports: 02/27/2020	Last EDR Contact: 05/20/2020
Number of Days to Update: 85	Next Scheduled EDR Contact: 08/03/2020
	Data Release Frequency: Varies

State and tribal institutional control / engineering control registries

ENG CONTROLS: Engineering Controls Sites Listing

A listing of sites with Engineering Controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 01/07/2020	Source: Department of Environmental Quality
Date Data Arrived at EDR: 01/08/2020	Telephone: 804-698-4228
Date Made Active in Reports: 03/13/2020	Last EDR Contact: 03/26/2020
Number of Days to Update: 65	Next Scheduled EDR Contact: 07/20/2020
	Data Release Frequency: Quarterly

INST CONTROL: Voluntary Remediation Program Database

Sites included in the Voluntary Remediation Program database that have deed restrictions.

Date of Government Version: 01/07/2020	Source: Department of Environmental Quality
Date Data Arrived at EDR: 01/08/2020	Telephone: 804-698-4228
Date Made Active in Reports: 03/13/2020	Last EDR Contact: 03/26/2020
Number of Days to Update: 65	Next Scheduled EDR Contact: 07/20/2020
	Data Release Frequency: Quarterly

State and tribal voluntary cleanup sites

VRP: Voluntary Remediation Program

The Voluntary Cleanup Program encourages owners of elected contaminated sites to take the initiative and conduct voluntary cleanups that meet state environmental standards.

Date of Government Version: 01/07/2020	Source: Department of Environmental Quality
Date Data Arrived at EDR: 01/08/2020	Telephone: 804-698-4228
Date Made Active in Reports: 03/13/2020	Last EDR Contact: 03/26/2020
Number of Days to Update: 65	Next Scheduled EDR Contact: 07/20/2020
	Data Release Frequency: Quarterly

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015	Source: EPA, Region 1
Date Data Arrived at EDR: 09/29/2015	Telephone: 617-918-1102
Date Made Active in Reports: 02/18/2016	Last EDR Contact: 03/18/2020
Number of Days to Update: 142	Next Scheduled EDR Contact: 07/06/2020
	Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008	Source: EPA, Region 7
Date Data Arrived at EDR: 04/22/2008	Telephone: 913-551-7365
Date Made Active in Reports: 05/19/2008	Last EDR Contact: 04/20/2009
Number of Days to Update: 27	Next Scheduled EDR Contact: 07/20/2009
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

State and tribal Brownfields sites

BROWNFIELDS: Brownfields Site Specific Assessments

To qualify for Brownfields Assessment, the site must meet the Federal definition of a Brownfields and should have contaminant issues that need to be addressed and a redevelopment plan supported by the local government and community. Virginia's Department of Environmental Quality performs brownfields assessments under a cooperative agreement with the U.S. Environmental Protection Agency at no cost to communities, property owners or, prospective purchasers. The assessment is an evaluation of environmental impacts caused by previous site uses similar to a Phase II Environmental Assessment.

Date of Government Version: 01/20/2020
Date Data Arrived at EDR: 01/23/2020
Date Made Active in Reports: 03/31/2020
Number of Days to Update: 68

Source: Department of Environmental Quality
Telephone: 804-698-4207
Last EDR Contact: 04/22/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/01/2020
Date Data Arrived at EDR: 06/02/2020
Date Made Active in Reports: 06/09/2020
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 06/02/2020
Next Scheduled EDR Contact: 09/28/2020
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 04/16/2020
Next Scheduled EDR Contact: 08/10/2020
Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 04/09/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Services, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 05/01/2020
Next Scheduled EDR Contact: 08/10/2020
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 03/18/2020
Date Data Arrived at EDR: 03/19/2020
Date Made Active in Reports: 06/09/2020
Number of Days to Update: 82

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/18/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 03/18/2020
Date Data Arrived at EDR: 03/19/2020
Date Made Active in Reports: 06/09/2020
Number of Days to Update: 82

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/18/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Quarterly

PFAS: Per- and Polyfluoroalkyl Substances

PFOS and PFOA stand for perfluorooctane sulfonate and perfluorooctanoic acid, respectively. Both are fluorinated organic chemicals, part of a larger family of compounds referred to as perfluoroalkyl substances (PFASs).

Date of Government Version: 01/21/2020
Date Data Arrived at EDR: 01/23/2020
Date Made Active in Reports: 03/31/2020
Number of Days to Update: 68

Source: Department of Environmental Quality
Telephone: 804-698-4336
Last EDR Contact: 03/26/2020
Next Scheduled EDR Contact: 07/20/2020
Data Release Frequency: Varies

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 05/28/2020
Number of Days to Update: 22

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 06/03/2020
Next Scheduled EDR Contact: 07/13/2020
Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/05/2019	Source: U.S. Department of Transportation
Date Data Arrived at EDR: 12/06/2019	Telephone: 202-366-4555
Date Made Active in Reports: 02/14/2020	Last EDR Contact: 03/24/2020
Number of Days to Update: 70	Next Scheduled EDR Contact: 07/06/2020
	Data Release Frequency: Quarterly

SPILLS BRL: Prep/Spills Database Listing

A listing of spills locations located in the Blue Ridge Regional area, Lynchburg.

Date of Government Version: 09/18/2009	Source: DEQ, Blue Ridge Regional Office
Date Data Arrived at EDR: 09/18/2009	Telephone: 434-582-6218
Date Made Active in Reports: 10/06/2009	Last EDR Contact: 11/28/2011
Number of Days to Update: 18	Next Scheduled EDR Contact: 03/12/2012
	Data Release Frequency: Varies

SPILLS: Prep/Spills Database Listing

The Department of Environmental Quality's POLLUTION RESPONSE PROGRAM, known as PREP, provides for responses to air, water, and waste pollution incidents in order to protect human health and the environment. PREP staff often work to assist local emergency responders, other state agencies, federal agencies, and responsible parties, as may be needed, to manage pollution incidents. Oil spills, fish kills, and hazardous materials spills are examples of incidents that may involve the DEQ's PREP Program.

Date of Government Version: 02/25/2020	Source: Department of Environmental Quality
Date Data Arrived at EDR: 02/26/2020	Telephone: 804-698-4287
Date Made Active in Reports: 05/05/2020	Last EDR Contact: 05/22/2020
Number of Days to Update: 69	Next Scheduled EDR Contact: 09/07/2020
	Data Release Frequency: Quarterly

SPILLS WC: Prep Database

The Department of Environmental Quality's POLLUTION RESPONSE PROGRAM, known as PREP, provides for responses to air, water, and waste pollution incidents in order to protect human health and the environment.

Date of Government Version: 09/21/2009	Source: Department of Environmental Quality, West Central Region
Date Data Arrived at EDR: 09/29/2009	Telephone: 540-562-6700
Date Made Active in Reports: 10/30/2009	Last EDR Contact: 09/06/2011
Number of Days to Update: 31	Next Scheduled EDR Contact: 12/19/2011
	Data Release Frequency: No Update Planned

SPILLS VA: PREP Database

The Department of Environmental Quality's POLLUTION RESPONSE PROGRAM, known as PREP, provides for responses to air, water, and waste pollution incidents in order to protect human health and the environment.

Date of Government Version: 08/08/2012	Source: Department of Environmental Quality, Valley Regional Office
Date Data Arrived at EDR: 08/09/2012	Telephone: 540-574-7800
Date Made Active in Reports: 10/05/2012	Last EDR Contact: 05/06/2013
Number of Days to Update: 57	Next Scheduled EDR Contact: 08/19/2013
	Data Release Frequency: Quarterly

SPILLS TD: PREP Database

The Department of Environmental Quality's POLLUTION RESPONSE PROGRAM, known as PREP, provides for responses to air, water, and waste pollution incidents in order to protect human health and the environment.

Date of Government Version: 09/17/2009	Source: Department of Environmental Quality, Tidewater Region
Date Data Arrived at EDR: 09/23/2009	Telephone: trofoia@deq.vir
Date Made Active in Reports: 10/06/2009	Last EDR Contact: 09/06/2011
Number of Days to Update: 13	Next Scheduled EDR Contact: 12/19/2011
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SPILLS SW: Reportable Spills

The Department of Environmental Quality's POLLUTION RESPONSE PROGRAM, known as PREP, provides for responses to air, water, and waste pollution incidents in order to protect human health and the environment.

Date of Government Version: 01/21/2010	Source: Department of Environmental Quality, Southwest Region
Date Data Arrived at EDR: 01/22/2010	Telephone: 276-676-4839
Date Made Active in Reports: 02/16/2010	Last EDR Contact: 07/13/2012
Number of Days to Update: 25	Next Scheduled EDR Contact: 10/29/2012
	Data Release Frequency: No Update Planned

SPILLS PC: Pollution Complaint Database

Pollution Complaints Database. The pollution reports contained in the PC database include the initial release reporting of Leaking Underground Storage Tanks and all other releases of petroleum to the environment as well as releases to state waters. The database is current through 12/1/93. Since that time, all spill and pollution reporting information has been collected and tracked through the DEQ regional offices.

Date of Government Version: 06/01/1996	Source: Department of Environmental Quality
Date Data Arrived at EDR: 10/22/1996	Telephone: 804-698-4287
Date Made Active in Reports: 11/21/1996	Last EDR Contact: 03/08/2010
Number of Days to Update: 30	Next Scheduled EDR Contact: 06/21/2010
	Data Release Frequency: No Update Planned

SPILLS NO: PREP Database

The Department of Environmental Quality's POLLUTION RESPONSE PROGRAM, known as PREP, provides for responses to air, water, and waste pollution incidents in order to protect human health and the environment.

Date of Government Version: 09/23/2009	Source: Department of Environmental Quality, Northern Region
Date Data Arrived at EDR: 09/29/2009	Telephone: 703-583-3864
Date Made Active in Reports: 10/30/2009	Last EDR Contact: 09/06/2011
Number of Days to Update: 31	Next Scheduled EDR Contact: 12/19/2011
	Data Release Frequency: No Update Planned

SPILLS PD: PREP Database

The Department of Environmental Quality's POLLUTION RESPONSE PROGRAM, known as PREP, provides for responses to air, water, and waste pollution incidents in order to protect human health and the environment.

Date of Government Version: 10/20/2009	Source: Department of Environmental Quality, Piedmont Region
Date Data Arrived at EDR: 10/29/2009	Telephone: 804-527-5020
Date Made Active in Reports: 12/03/2009	Last EDR Contact: 02/06/2012
Number of Days to Update: 35	Next Scheduled EDR Contact: 05/21/2012
	Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 09/01/2012	Source: FirstSearch
Date Data Arrived at EDR: 01/03/2013	Telephone: N/A
Date Made Active in Reports: 02/15/2013	Last EDR Contact: 01/03/2013
Number of Days to Update: 43	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/23/2020
Date Data Arrived at EDR: 03/25/2020
Date Made Active in Reports: 05/21/2020
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: 800-438-2474
Last EDR Contact: 03/25/2020
Next Scheduled EDR Contact: 07/06/2020
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/28/2020
Date Data Arrived at EDR: 02/19/2020
Date Made Active in Reports: 05/14/2020
Number of Days to Update: 85

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 05/18/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 04/10/2020
Next Scheduled EDR Contact: 07/20/2020
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/11/2018
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 574

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 04/06/2020
Next Scheduled EDR Contact: 07/20/2020
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 05/15/2020
Next Scheduled EDR Contact: 08/24/2020
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 12/16/2019
Date Data Arrived at EDR: 12/19/2019
Date Made Active in Reports: 02/27/2020
Number of Days to Update: 70

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 03/24/2020
Next Scheduled EDR Contact: 07/06/2020
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/21/2014	Telephone: 617-520-3000
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 05/04/2020
Number of Days to Update: 88	Next Scheduled EDR Contact: 08/17/2020
	Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/08/2018	Telephone: 703-308-4044
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 05/08/2020
Number of Days to Update: 73	Next Scheduled EDR Contact: 08/17/2020
	Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016	Source: EPA
Date Data Arrived at EDR: 06/21/2017	Telephone: 202-260-5521
Date Made Active in Reports: 01/05/2018	Last EDR Contact: 03/20/2020
Number of Days to Update: 198	Next Scheduled EDR Contact: 06/29/2020
	Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2018	Source: EPA
Date Data Arrived at EDR: 02/05/2020	Telephone: 202-566-0250
Date Made Active in Reports: 04/24/2020	Last EDR Contact: 05/21/2020
Number of Days to Update: 79	Next Scheduled EDR Contact: 08/31/2020
	Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 05/01/2019	Source: EPA
Date Data Arrived at EDR: 10/23/2019	Telephone: 202-564-4203
Date Made Active in Reports: 01/15/2020	Last EDR Contact: 04/21/2020
Number of Days to Update: 84	Next Scheduled EDR Contact: 08/03/2020
	Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 04/27/2020	Source: EPA
Date Data Arrived at EDR: 05/06/2020	Telephone: 703-416-0223
Date Made Active in Reports: 05/28/2020	Last EDR Contact: 06/03/2020
Number of Days to Update: 22	Next Scheduled EDR Contact: 09/14/2020
	Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 11/05/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/20/2019	Telephone: 202-564-8600
Date Made Active in Reports: 04/17/2020	Last EDR Contact: 04/15/2020
Number of Days to Update: 149	Next Scheduled EDR Contact: 08/03/2020
	Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995	Source: EPA
Date Data Arrived at EDR: 07/03/1995	Telephone: 202-564-4104
Date Made Active in Reports: 08/07/1995	Last EDR Contact: 06/02/2008
Number of Days to Update: 35	Next Scheduled EDR Contact: 09/01/2008
	Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 04/27/2020	Source: EPA
Date Data Arrived at EDR: 05/06/2020	Telephone: 202-564-6023
Date Made Active in Reports: 06/09/2020	Last EDR Contact: 06/03/2020
Number of Days to Update: 34	Next Scheduled EDR Contact: 08/17/2020
	Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 10/09/2019	Source: EPA
Date Data Arrived at EDR: 10/11/2019	Telephone: 202-566-0500
Date Made Active in Reports: 12/20/2019	Last EDR Contact: 04/10/2020
Number of Days to Update: 70	Next Scheduled EDR Contact: 07/20/2020
	Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/23/2016	Telephone: 202-564-2501
Date Made Active in Reports: 02/10/2017	Last EDR Contact: 03/26/2020
Number of Days to Update: 79	Next Scheduled EDR Contact: 07/20/2020
	Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009	Source: EPA
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 10/25/2019	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 10/25/2019	Telephone: 301-415-7169
Date Made Active in Reports: 01/15/2020	Last EDR Contact: 04/10/2020
Number of Days to Update: 82	Next Scheduled EDR Contact: 08/03/2020
	Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2018	Source: Department of Energy
Date Data Arrived at EDR: 12/04/2019	Telephone: 202-586-8719
Date Made Active in Reports: 01/15/2020	Last EDR Contact: 06/05/2020
Number of Days to Update: 42	Next Scheduled EDR Contact: 09/14/2020
	Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/05/2019	Telephone: N/A
Date Made Active in Reports: 11/11/2019	Last EDR Contact: 06/01/2020
Number of Days to Update: 251	Next Scheduled EDR Contact: 09/14/2020
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/06/2019	Telephone: 202-566-0517
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 05/08/2020
Number of Days to Update: 96	Next Scheduled EDR Contact: 08/17/2020
	Data Release Frequency: Varies

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/01/2019	Telephone: 202-343-9775
Date Made Active in Reports: 09/23/2019	Last EDR Contact: 07/01/2019
Number of Days to Update: 84	Next Scheduled EDR Contact: 07/13/2020
	Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2007
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2008
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/02/2020	Source: Department of Transportation, Office of Pipeline Safety
Date Data Arrived at EDR: 01/28/2020	Telephone: 202-366-4595
Date Made Active in Reports: 04/17/2020	Last EDR Contact: 04/28/2020
Number of Days to Update: 80	Next Scheduled EDR Contact: 08/10/2020
	Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 01/17/2020
Date Made Active in Reports: 03/06/2020
Number of Days to Update: 49

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 03/26/2020
Next Scheduled EDR Contact: 07/20/2020
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 03/25/2020
Next Scheduled EDR Contact: 07/06/2020
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 04/10/2020
Next Scheduled EDR Contact: 07/20/2020
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 04/29/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 08/30/2019
Date Data Arrived at EDR: 11/15/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 74

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 05/18/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 05/28/2020
Number of Days to Update: 22

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 06/03/2020
Next Scheduled EDR Contact: 07/13/2020
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 02/11/2020
Date Data Arrived at EDR: 02/25/2020
Date Made Active in Reports: 05/21/2020
Number of Days to Update: 86

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 05/21/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Semi-Annually

MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 03/31/2020
Date Data Arrived at EDR: 04/01/2020
Date Made Active in Reports: 05/21/2020
Number of Days to Update: 50

Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 05/27/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Quarterly

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 01/16/2018
Date Data Arrived at EDR: 02/28/2020
Date Made Active in Reports: 05/22/2020
Number of Days to Update: 84

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 05/27/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011	Source: USGS
Date Data Arrived at EDR: 06/08/2011	Telephone: 703-648-7709
Date Made Active in Reports: 09/13/2011	Last EDR Contact: 05/21/2020
Number of Days to Update: 97	Next Scheduled EDR Contact: 09/07/2020
	Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 03/05/2020	Source: Department of Interior
Date Data Arrived at EDR: 03/06/2020	Telephone: 202-208-2609
Date Made Active in Reports: 05/29/2020	Last EDR Contact: 06/03/2020
Number of Days to Update: 84	Next Scheduled EDR Contact: 09/21/2020
	Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 02/03/2020	Source: EPA
Date Data Arrived at EDR: 03/03/2020	Telephone: (215) 814-5000
Date Made Active in Reports: 05/28/2020	Last EDR Contact: 06/02/2020
Number of Days to Update: 86	Next Scheduled EDR Contact: 09/14/2020
	Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/31/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/26/2018	Telephone: 202-564-0527
Date Made Active in Reports: 10/05/2018	Last EDR Contact: 05/18/2020
Number of Days to Update: 71	Next Scheduled EDR Contact: 09/07/2020
	Data Release Frequency: Varies

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2017	Source: Department of Defense
Date Data Arrived at EDR: 01/17/2019	Telephone: 703-704-1564
Date Made Active in Reports: 04/01/2019	Last EDR Contact: 04/03/2020
Number of Days to Update: 74	Next Scheduled EDR Contact: 07/27/2020
	Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 01/05/2020
Date Data Arrived at EDR: 01/07/2020
Date Made Active in Reports: 03/06/2020
Number of Days to Update: 59

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 04/07/2020
Next Scheduled EDR Contact: 07/20/2020
Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 02/18/2020
Date Data Arrived at EDR: 02/19/2020
Date Made Active in Reports: 05/14/2020
Number of Days to Update: 85

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 05/19/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: Quarterly

AIRS: Permitted Airs Facility List

A listing of permitted Airs facilities.

Date of Government Version: 03/17/2020
Date Data Arrived at EDR: 03/18/2020
Date Made Active in Reports: 06/02/2020
Number of Days to Update: 76

Source: Department of Environmental Quality
Telephone: 804-698-4000
Last EDR Contact: 06/11/2020
Next Scheduled EDR Contact: 09/28/2020
Data Release Frequency: Annually

CEDS: Comprehensive Environmental Data System

Virginia Water Protection Permits, Virginia Pollution Discharge System (point discharge) permits and Virginia Pollution Abatement (no point discharge) permits.

Date of Government Version: 03/04/2020
Date Data Arrived at EDR: 03/05/2020
Date Made Active in Reports: 05/18/2020
Number of Days to Update: 74

Source: Department of Environmental Quality
Telephone: 804-698-4077
Last EDR Contact: 05/28/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Quarterly

COAL ASH: Coal Ash Disposal Sites

A listing of facilities with coal ash impoundments.

Date of Government Version: 12/19/2019
Date Data Arrived at EDR: 12/23/2019
Date Made Active in Reports: 03/03/2020
Number of Days to Update: 71

Source: Department of Environmental Protection
Telephone: 804-698-4285
Last EDR Contact: 05/28/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Varies

DRYCLEANERS: Drycleaner List

A listing of registered drycleaners.

Date of Government Version: 10/21/2019
Date Data Arrived at EDR: 10/23/2019
Date Made Active in Reports: 01/03/2020
Number of Days to Update: 72

Source: Department of Environmental Quality
Telephone: 804-698-4407
Last EDR Contact: 03/26/2020
Next Scheduled EDR Contact: 07/20/2020
Data Release Frequency: Varies

ENFORCEMENT: Enforcement Actions Data

A listing of enforcement actions.

Date of Government Version: 11/21/2019
Date Data Arrived at EDR: 11/21/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 68

Source: Department of Environmental Quality
Telephone: 804-698-4031
Last EDR Contact: 03/23/2020
Next Scheduled EDR Contact: 07/13/2020
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Financial Assurance 1: Financial Assurance Information Listing

A listing of financial assurance information for underground storage tank facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 01/27/2020	Source: Department of Environmental Quality
Date Data Arrived at EDR: 01/28/2020	Telephone: 804-698-4205
Date Made Active in Reports: 03/31/2020	Last EDR Contact: 04/17/2020
Number of Days to Update: 63	Next Scheduled EDR Contact: 08/10/2020
	Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information listing

Solid waste financial assurance information.

Date of Government Version: 01/28/2020	Source: Department of Environmental Quality
Date Data Arrived at EDR: 01/30/2020	Telephone: 804-698-4123
Date Made Active in Reports: 03/31/2020	Last EDR Contact: 04/17/2020
Number of Days to Update: 61	Next Scheduled EDR Contact: 08/10/2020
	Data Release Frequency: Varies

TIER 2: Tier 2 Information Listing

A listing of facilities which store or manufacture hazardous materials and submit a chemical inventory report.

Date of Government Version: 12/31/2014	Source: Department of Environmental Quality
Date Data Arrived at EDR: 01/20/2017	Telephone: 804-698-4159
Date Made Active in Reports: 02/14/2017	Last EDR Contact: 06/11/2020
Number of Days to Update: 25	Next Scheduled EDR Contact: 09/28/2020
	Data Release Frequency: Annually

UIC: Underground Injection Control Wells

A listing of underground injection controls wells.

Date of Government Version: 03/31/2020	Source: Department of Mines, Minerals and Energy
Date Data Arrived at EDR: 03/31/2020	Telephone: 276-415-9700
Date Made Active in Reports: 05/01/2020	Last EDR Contact: 04/29/2020
Number of Days to Update: 31	Next Scheduled EDR Contact: 08/10/2020
	Data Release Frequency: Quarterly

PCS ENF: Enforcement data

No description is available for this data

Date of Government Version: 12/31/2014	Source: EPA
Date Data Arrived at EDR: 02/05/2015	Telephone: 202-564-2497
Date Made Active in Reports: 03/06/2015	Last EDR Contact: 03/26/2020
Number of Days to Update: 29	Next Scheduled EDR Contact: 07/20/2020
	Data Release Frequency: Varies

PCS INACTIVE: Listing of Inactive PCS Permits

An inactive permit is a facility that has shut down or is no longer discharging.

Date of Government Version: 11/05/2014	Source: EPA
Date Data Arrived at EDR: 01/06/2015	Telephone: 202-564-2496
Date Made Active in Reports: 05/06/2015	Last EDR Contact: 03/26/2020
Number of Days to Update: 120	Next Scheduled EDR Contact: 07/20/2020
	Data Release Frequency: Semi-Annually

PCS: Permit Compliance System

PCS is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/14/2011
Date Data Arrived at EDR: 08/05/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 55

Source: EPA, Office of Water
Telephone: 202-564-2496
Last EDR Contact: 06/08/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Semi-Annually

MINES MRDS: Mineral Resources Data System
Mineral Resources Data System

Date of Government Version: 04/06/2018
Date Data Arrived at EDR: 10/21/2019
Date Made Active in Reports: 10/24/2019
Number of Days to Update: 3

Source: USGS
Telephone: 703-648-6533
Last EDR Contact: 05/21/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Virginia.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/20/2014
Number of Days to Update: 203

Source: Department of Environmental Quality
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Virginia and at the Regional VA Levels.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/15/2014
Number of Days to Update: 198

Source: Department of Environmental Quality
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 01/30/2020
Date Made Active in Reports: 03/09/2020
Number of Days to Update: 39

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 05/12/2020
Next Scheduled EDR Contact: 08/24/2020
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/16/2019
Number of Days to Update: 36

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 04/10/2020
Next Scheduled EDR Contact: 07/20/2020
Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 05/01/2019
Date Made Active in Reports: 06/21/2019
Number of Days to Update: 51

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 04/29/2020
Next Scheduled EDR Contact: 08/10/2020
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/19/2019
Date Made Active in Reports: 09/10/2019
Number of Days to Update: 53

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 04/02/2020
Next Scheduled EDR Contact: 07/27/2020
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 10/02/2019
Date Made Active in Reports: 12/10/2019
Number of Days to Update: 69

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 05/14/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 06/04/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Annually

Oil/Gas Pipelines

Source: Endeavor Business Media

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data

Source: Endeavor Business Media

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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.
Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities

Source: Department of Social Services

Telephone: 804-692-1900

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

Current USGS 7.5 Minute Topographic Map

Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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Cumulative and Indirect Impacts Memo

Memo

To: Bailey Bridge Connector Project File

Date: July 2, 2020

Re: Bailey Bridge Connector Project – Indirect and Cumulative Impacts

Project Description

The proposed project includes the construction of the Bailey Bridge Connector from Bailey Bridge Road to Brad McNeer Parkway as a two-lane road with eight-foot shoulders. The project will construct two roundabouts, one at the intersection with Brad McNeer Parkway and the other at the intersection with Bailey Bridge Road. The improvements will include a ten-foot shared-use path and a bridge over Swift Creek. Stormwater management facilities will be provided as needed. The Bailey Bridge Connector is identified in the Chesterfield County Thoroughfare Plan, in the STIP, and the CLRP.

Indirect and Cumulative Impacts

When discussing ICE for a Categorical Exclusion (CE), the goal is to clearly document that the indirect and cumulative effects that may occur from the proposed project would not rise above the CE level of impact. Applying the Virginia Department of Transportation (VDOT) Environmental Division *Indirect and Cumulative Effects (ICE) Analysis* Environmental Memorandum (EM) dated 06/24/2020¹, indirect and cumulative impacts were assessed for this project at a scale suitable for a CE level document.

Indirect Effects

The Chesterfield Department of Transportation (CDOT) mailed customized scoping letters to appropriate local, state and federal agencies to obtain pertinent information and to identify key issues regarding potential environmental impacts for this proposed project. A Citizens Information Meeting (CIM) was also held on October 3, 2019 at Manchester High School. Responses to the scoping letters and the CIM Summary can be found in the Bailey Bridge Connector Public and Agency Coordination Memo. There were no out of the ordinary comments or concerns, and no comments that addressed indirect and cumulative effects.

Socioeconomic (using VDOT determined US Census Block Groups) and Natural Resources (using the Hydrologic Unit Code (HUC) that encompasses the project construction limits) ICE Study areas were reviewed for this project. Based on the Cultural Resources Survey dated March 2020, it was determined that there are no historic resources of concern in the project area or a wider area of potential effect. The following direct resource impacts are discussed in their respective memos:

- Water Resources
- Floodplains
- Threatened and Endangered Species
- Historic Resources
- Environmental Justice

¹ Virginia Department of Transportation Environmental Division Indirect and Cumulative Effects (ICE) Analysis Environmental Memorandum, dated 06/24/2020

Based on the project specific direct impacts analyses, it is expected that this project will result in minimal to no direct and indirect effects. It is not expected to cause a change in the type, density or location of land uses within the study area (currently zoned as mixed-use development), nor would it likely affect property values. The project would be constructed using stormwater and other local BMPs, resulting in minimal impacts on water quality. Air quality and noise impacts are expected to be minimal. Transportation improvements would reduce time and cost of travel, as well as provide new access to properties, enhancing the attractiveness of surrounding land to developers and consumers (NCDOT, 2001²). Development of vacant land, or conversion of the built environment to more intensive uses, is often a consequence of highway projects. Based on the study area, the scope of work and purpose of this project, it is expected that infill development will occur in the project area, however, suburban sprawl is not anticipated.

Cumulative Effects

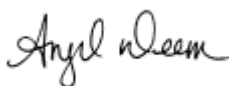
Since direct and indirect effects are expected to be minimal, cumulative impacts would also be minimal. The intensity of the incremental impacts of the project are considered small, when viewed in the context of impacts from other past, present, and reasonably foreseeable future actions and would not rise to a level that would cause significant cumulative impacts. There are currently no active development permits within 500' of the proposed alignment. Reasonably foreseeable projects and current/recent past projects in the general area that may have cumulative impacts include:

- General Residential and Mixed-Use Development (Past and Ongoing)
- Southbound 288 to Westbound US 360 Off-Ramp Widening and Park and Ride Lot (Construction anticipated complete by 2023)
- US 360 at Spring Run, Intersection Improvements (Construction anticipated Spring 2020)
- Deer Run Road Sidewalks (2022)
- Old Clover Hill High School repurposed for a Career and Technical Education Center and Administrative Space (Post 2020)
- Updates to Clover Hill Fire and EMS. (Post 2020)
- Expansion of the Clover Hill Library (Post 2020)
- Proposed Separate Shared Use Bikeway/Trail (Post 2020)
- Brad McNeer Parkway - Access Management and Roundabout Improvements (Unfunded)
- Bailey Bridge Road - High School to Sunday Silence – Reconstruction (Unfunded)
- Various Proposed Trails (Unfunded)

Per EM-NEPA-715, the indirect and cumulative effects of the proposed action have been considered as part of this document. The impact causing activities proposed as part of the project are not great enough to result in measurable indirect effects to the surrounding environment. While there are past, present, and reasonably foreseeable future projects planned in the area, the proposed project would not contribute to the cumulative effects of these projects.

² NCDOT, 2001. Guidance for Assessing Indirect and Cumulative Impacts of Transportation Projects in North Carolina. Available at: <https://connect.ncdot.gov/resources/Environmental/Compliance%20Guides%20and%20Procedures/Volume%2002%20Assessment%20Guidance%20Practitioners%20Handbook.pdf>

**Virginia Department of Transportation
Environmental Division
Indirect and Cumulative Effects (ICE) Analysis
Environmental Memorandum**

Directed to (<i>intended audience</i>): CO NEPA Programs staff District Environmental Managers District Assistant Environmental Managers District NEPA Practitioners	EM Number: EM-NEPA-715
Authority (e.g. regulation, law): NEPA Section 106 of the National Historic Preservation Act 40 CFR §1508 40 CFR §1502.16	
Effective Date: 06/24/2020	Supersedes: N/A
Approved by:  Date: 06/24/2020	Agency Governance Document? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

PURPOSE

This document adopts several published guidance documents as VDOT's official means of conducting ICE analyses. This document also provides direction for VDOT Document Writers responsible for drafting, reviewing, or approving NEPA documents on the level of detail required for indirect and cumulative effect (ICE analysis).

DEFINITIONS

TERM	MEANING
Categorical Exclusion (CE)	Category of actions which do not individually or cumulatively have a significant effect on the human environment..and...for which, therefore, neither an environmental assessment nor an environmental impact statement is required. 40 CFR §1508.4
Cumulative Effects	Impacts on the environment that are the collective result of the incremental direct and indirect effects of a project or plan, the effects of past and present actions, and effects of reasonably foreseeable future actions by others on resources of concern. 40 CFR §1508.7

Direct Effects	Impacts caused by the action and occur at the same time and place. 40 CFR §1508.8
Indirect Effects	Impacts caused by the project or plan, are later in time or removed in distance, and are reasonably foreseeable to occur. 40 CFR §1508.8
Environmental Assessment (EA)	<p>Concise public document for which a Federal agency is responsible that serves to:</p> <ol style="list-style-type: none"> 1. Briefly provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact. 2. Aid an agency's compliance with the Act when no environmental impact statement is necessary. 3. Facilitate preparation of a statement when one is necessary. <p>Shall include brief discussions of the need for the proposal, of alternatives as required by section 102(2)(E), of the environmental impacts of the proposed action and alternatives, and a listing of agencies and persons consulted. 40 CFR § 1508.9</p>
Environmental Impact Statement (EIS)	NEPA requires Federal agencies to prepare environmental impact statements (EISs) for major Federal actions that significantly affect the quality of the human environment. An EIS is a full disclosure document that details the process through which a transportation project was developed, includes consideration of a range of reasonable alternatives, analyzes the potential impacts resulting from the alternatives, and demonstrates compliance with other applicable environmental laws and executive orders. 40 CFR §1508.11

BACKGROUND

This EM adopts the methods outlined in the following published documents as VDOT's basis for conducting ICE analyses:

- Transportation Research Board's (TRB) National Cooperative Highway Research Program (NCHRP) Report 466, *Desk Reference for Estimating the Indirect Effects of Proposed Transportation Projects* (TRB, 2002): This document provides the basis for the Department's indirect effect analyses.
- North Carolina Department of Transportation's (NCDOT) *Guidance for Assessing Indirect and Cumulative Impacts of Transportation Projects in North Carolina, Vol. II: Practitioners Handbook* (NCDOT, 2001): This document guides VDOT's assessment of induced growth within the indirect effect analyses.
- FHWA's *Guidance: Questions and Answers Regarding the Consideration of Indirect and Cumulative Impacts in the NEPA Process* (FHWA, 2019). The pathway outlined in the five-part evaluation process found in *Fritiofson v. Alexander*, 772 F.2d 1225 (5th

Cir. 1985), outlines the means by which the Department will consider and document cumulative effects analyses.

These published methods must be cited, when appropriate, in NEPA documents and the specific titles and terminology included in these documents must be used. The table of contents in the Skiffes Creek Connector Indirect and Cumulative Effects Technical Report (TR), or more recent example provided by the Central Office (CO) NEPA Programs Manager or designee, should be referenced as an example of how procedural methods should be referred to and presented. The methodology section in the example TR provides a summary of how the three adopted methods are implemented into the ICE analysis. Document Writers should review the ICE section of the Skiffes Creek Connector document before advancing with an ICE similar analysis.

SCOPE

This EM is applicable to VDOT staff completing or approving a documented Categorical Exclusion (CE), a build/no-build Environmental Assessment (EA), a multi-alternative EA, or an Environmental Impact Statement (EIS). While VDOT is not directing LAPs to comply with this EM, VDOT District staff should share this EM with LAP contacts who are initiating a study so that they may consider how to incorporate the adopted methodologies into their document(s). Following these prescribed methods will provide the LAP with the same level of legal certainty that VDOT enjoys by following these published methods.

REQUIREMENTS

- 1. CE:** When discussing ICE in the CE document, the goal is to clearly document that the indirect and cumulative effects that may occur from the proposed project would not rise above the CE level of impact. It is also important to document that this EM has been followed so that the considerations and analyses are defensible. When discussing cumulative effects in the CE, the Document Writer should cite this EM as guiding the considerations made in the development of the Cumulative and Indirect Impacts Section of the document. In some situations, the CE Document Writer may want to coordinate with the CO NEPA Programs Manager or designee to determine if additional language should be documented in a Note to File. This would occur when the public or other agency has raised concerns regarding ICE analyses. The Note to File would document the steps the Document Writer took to work through the methods that are adopted through this EM and to arrive at the conclusion included in the CE form. This effort provides VDOT and FHWA with a more defensible document that could stand up to public, agency, or legal scrutiny.
- 2. Build/No-build EA:** When discussing ICE in a Build/No-Build EA, the goal of the ICE analysis is to examine indirect and cumulative effects to the same level of detail as other analyzed resources. While ICE analyses for Build/No-Build EAs shall require some analysis, this class of EA requires a more limited analysis than a multi-alternative EA or EIS, as there is not as much to compare or discuss. When a Build/No-build EA is supported by technical reports, the ICE technical report should follow the outline, headings, and content of the Skiffes Creek example or the most recent ICE document provided by CO NEPA Programs Manager or designee. When a Build/No-build EA is not supported by technical reports, the ICE discussion in the

document should cite this EM as the basis for the analysis. The Document Writer should develop a note to file that documents how they progressed through the different steps outlined in the methods being adopted by this EM and illustrated in the Skiffes Creek example or more recent example provided by CO NEPA Programs Manager or designee. This note to file and EA language can be more abbreviated than these robust examples, but must cite this EM and generally follow the same steps this guidance adopts. The Document Writer should consult with the CO NEPA Programs Manager or designee to ensure that the ICE analysis accurately follows and documents the required process.

- 3. Multi-alternative EAs or EISs:** The methods adopted in this EM and discussed in the background section above must be fully documented and followed. The Skiffes Creek document offers an example of the outline, content, and depth of discussion required. The Document Writer also should consult with the CO NEPA Programs Manager or designee for latest trends or examples that are more recent.

REPORTING

The review of any NEPA document by VDOT staff for quality assurance/quality control will serve as documentation that this EM is met. Additional coordination with CO NEPA Programs Manager or designee may be appropriate when scoping and/or drafting the ICE analysis.

COORDINATION

The VDOT District Environmental Manager, Assistant District Environmental Manager, and/or Document Writer shall confer and coordinate with CO NEPA Programs Manager or designee to ensure the ICE analysis conforms to the format illustrated in the [Skiffes Creek EA](#) or the most recent ICE document provided by CO NEPA Programs Manager or designee. When using consultants, prior to initiating scoping, consultants shall confer with the Document Writer or CO NEPA Programs Manager or designee to ensure there are no program level updates to the ICE technical report outline.

OTHER INFORMATION

AASHTO, 2016. Assessing Indirect Effects and Cumulative Impacts under NEPA Forecasting Indirect Land Use Effects of Transportation Projects. Available at: <https://environment.transportation.org/pdf/programs/ph12-2.pdf>.

NCHRP, 2002. NCHRP Report 466, *Desk Reference for Estimating the Indirect Effects of Proposed Transportation Projects*. Available at: https://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_466.pdf.

TRB, 2007. NCHRP 25-25/Task 22, *Land use Forecasting for Indirect Impacts Analysis*. Available at: <http://apps.trb.org/cmsfeed/TRBNetProjectDisplay.asp?ProjectID=1294>.

NCDOT, 2001. Guidance for Assessing Indirect and Cumulative Impacts of Transportation Projects in North Carolina. Available at: <https://connect.ncdot.gov/resources/Environmental/Compliance%20Guides%20and%20Procedures/Volume%2002%20Assessment%20Guidance%20Practitioners%20Handbook.pdf>.

FHWA, 2019. Questions and Answers Regarding the Consideration of Indirect and Cumulative Impacts in the NEPA Process. Available at: <https://www.environment.fhwa.dot.gov/nepa/QAimpact.aspx>.

VDOT, 2016. Indirect and Cumulative Effects Analysis. Available at: https://www.virginiadot.org/projects/resources/NEPA/VDOT_IndirectandCumulativeEffect_ConsultantGuidance_201611.pdf.

VDOT, 2018. Skiffes Creek Indirect & Cumulative Effects Technical Report. Available at: http://www.virginiadot.org/projects/resources/hampton_roads/TEST/Indirect_Cumulative_Tech_Report.pdf.

Public Involvement and Agency Coordination Memo

Memo

To: Bailey Bridge Connector Project File

Date: June 11, 2020

Re: Bailey Bridge Connector – Public Involvement and Agency Coordination Memo

Project Description

The proposed project includes the construction of the Bailey Bridge Connector from Bailey Bridge Road to Brad McNeer Parkway as a two-lane road with eight-foot shoulders. The project will construct two roundabouts, one at the intersection with Brad McNeer Parkway and the other at the intersection with Bailey Bridge Road. The improvements will include a ten-foot shared-use path and a bridge over Swift Creek. Stormwater management facilities will be provided as needed. The Bailey Bridge Connector is identified in the Chesterfield County Thoroughfare Plan, in the STIP, and the CLRP.

Public and Agency Coordination

As required by the National Environmental Policy Act (NEPA), public and agency coordination was performed for the Bailey Bridge Connector Project.

Attachments included:

- Scoping letter package (including agency specific questionnaires and project map)
- List of agencies that received the scoping letter package
- Responses to the scoping letter package
- Citizen Information Meeting Summary



Memorandum

Chesterfield County, Virginia

TO: File

FROM: Chessa Faulkner, Senior Engineer, Department of Transportation
Brent Epps, Assistant Director, Department of Transportation

DATE: December 18, 2019

SUBJECT: **Bailey Bridge Connector (Brad McNeer Parkway to Bailey Bridge Road), UPC 111713
Locally Preferred Alternative**

Citizen Information Meeting

Chesterfield County has secured funding to develop construction plans for a connector road from Brad McNeer Parkway to Bailey Bridge Road, referred to as the Bailey Bridge Connector. A Citizen Information Meeting for the Bailey Bridge Connector project was held on October 3, 2019 at Manchester High School. The purpose of this meeting was to provide an overview of the project, present the three alignment alternatives under consideration, and solicit input from the public. All materials from the meeting were posted on the project website (www.streamlinechesterfield.com).

Summary of Public Input

A total of 161 attendees were recorded on the meeting sign-in sheet. Comments were received following the meeting through October 31, 2019. A total of 126 written comments were received. A summary of responses to each comment sheet question is provided below. Based on citizen feedback there is general support for the project, with 56% of respondents in support of the project. Also attached is a summary of the predominate questions received and responses.

Comment Sheet Question #1	Yes	No	Not Sure/ No Response	Total # of Responses
Do you support the project?	71	38	17	126

Comment Sheet Question #2	Alt. 1 [Yellow]	Alt. 2 [Blue]	Alt. 3 [Red]	Not Sure/ No Response	Total # of Responses
Which alternative do you prefer?	13	88	14	11	126

Comment Sheet Question #3	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Not Sure/ No Response	Total # of Responses
County representatives were helpful and able to answer my questions:	44	40	12	3	6	21	126

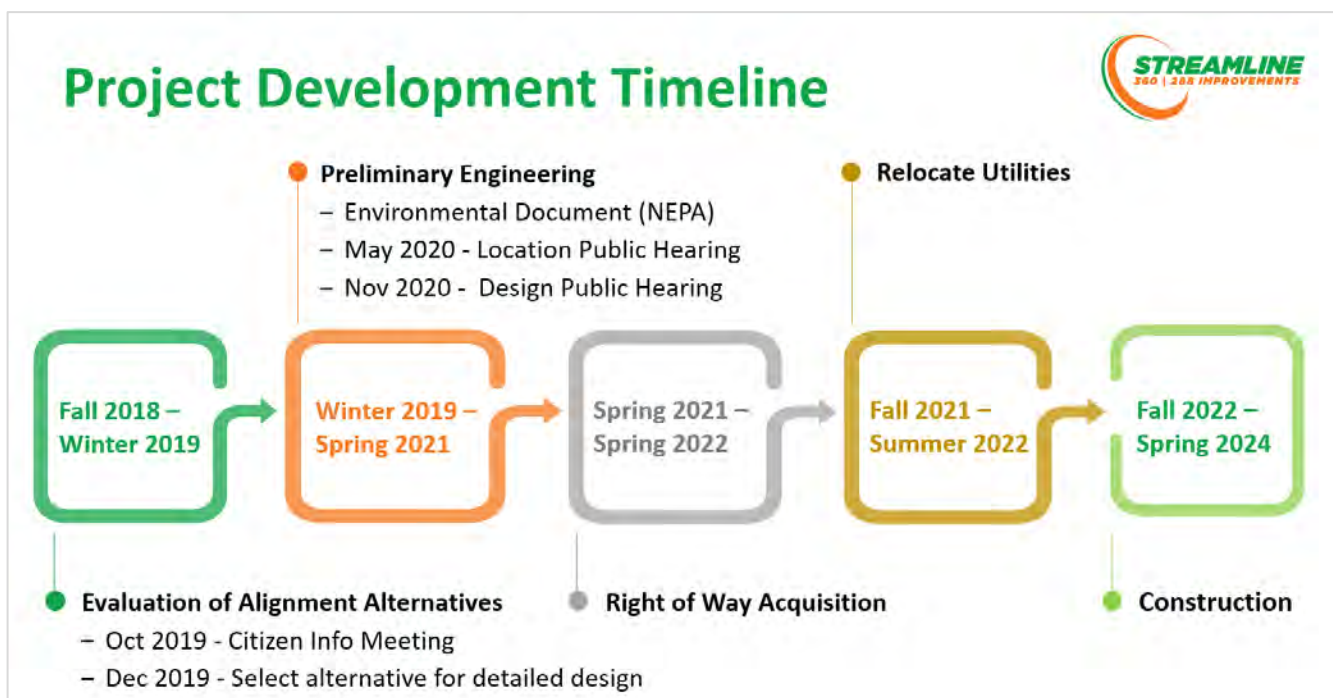
Locally Preferred Alternative

Based on the comparison of estimated impacts, as summarized in the attached evaluation matrix, Alternative 2 has been selected as the locally preferred alternative. Highlights of the evaluation matrix are noted below.

- 70% of respondents selected Alternative 2.
- Alternate 2 impacts the fewest number of parcels.
- Alternate 2 has the lowest estimated construction cost.

Next Steps

The county will begin preliminary engineering of the locally preferred alternative. The project development timeline is provided below. The public will have multiple opportunities to review the project plans and provide comment. Updates will be provided on the Streamline Chesterfield website.



Attachments:

- Locally Preferred Alternative Graphic - dated December 17, 2019
- Evaluation of Alternatives Matrix - dated December 17, 2019
- Summary of Frequently Asked Questions - dated December 18, 2019



Chesterfield County, Virginia Transportation Department

9800 Government Center Parkway – P.O. Box 40 – Chesterfield, VA 23832
Phone: (804) 748-1037 – Fax: (804) 748-8516 – Internet: chesterfield.gov

Brent Epps, P.E.
Director

March 24, 2020

«Contact_Name»
«Position_Title»
«Agency»
«Address_1»
«Address_2»
«City», «State» «Zip_Code»

Project: Bailey Bridge Connector Project
Chesterfield County, Virginia
VDOT Project Number: 0000-020-820; UPC No. 111713

«Last_Name»,

The Chesterfield Department of Transportation (CDOT), in cooperation with the Virginia Department of Transportation (VDOT) and the Federal Highway Administration (FHWA), is initiating a study to assess the potential environmental impacts associated with the proposed Bailey Bridge Connector Project (see enclosed map). The project proposes a two-lane roadway on new alignment from Bailey Bridge Road to Brad McNeer Parkway in Chesterfield County, Virginia. In accordance with the requirements of the National Environmental Policy Act (NEPA) and other federal and state laws and regulations, CDOT is assessing potential impacts to be documented in a Categorical Exclusion (CE) for this project.

The enclosed map shows the area to be evaluated in the study. The project proposes a two-lane roadway with eight-foot shoulders on new alignment. The project will include two roundabouts, one at the intersection with Brad McNeer Parkway and the other at the intersection with Bailey Bridge Road. The improvements will also include a ten-foot shared-use path and a bridge over Swift Creek.

At this early stage of the study, our efforts are focused on environmental resources and other relevant factors to be included in the environmental document. To that end, please review the enclosed map and questionnaire(s) (if attached) and provide comments on any issues or concerns regarding resources under your jurisdiction or interest within the project area indicated.

Your response is requested by April 22nd, 2020. If no response is received by April 22nd 2020, it will be understood that «Agency» has no comments. Please submit comments and/or information via email to our consultant at anies@atcsplc.com. Please reference “Bailey Bridge Connector Project” in the subject heading of your correspondence.

If you are unable to respond via email, you can also send your response to:

Alexander Nies
ATCS, PLC.
4470 Cox Road, Suite 105
Glen Allen, Virginia 23060

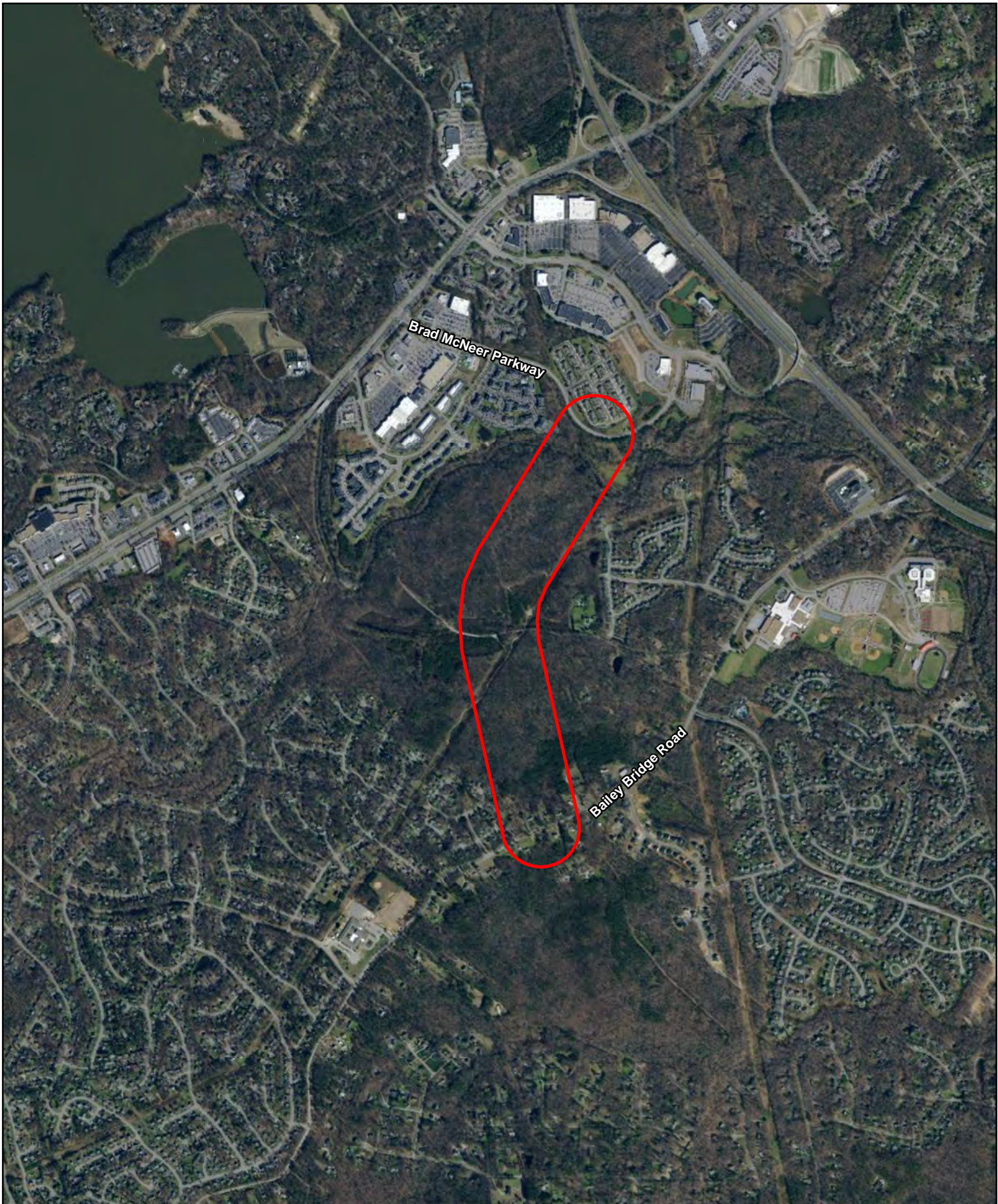
In addition, throughout the study process, we may contact you and your organization for specific data needs and information. We would greatly appreciate your cooperation and participation in providing this information.

If you have questions or need additional information, please contact Alexander Nies by email or phone at (804) 476-0378.

Sincerely,

A handwritten signature in black ink that reads "Chessa D. Faulkner". The signature is written in a cursive, flowing style.

Chessa Faulkner, P.E.
Senior Engineer



Brad McNeer Parkway

Bailey Bridge Road

 Project Study Area

Bailey Bridge Connector Project

VDOT Project Number: 0000-020-820; UPC No. 111713
USGS Quad: Hallsboro, VA



0 2,000 4,000 Feet

NEPA Evaluation Questionnaire – Health

Bailey Bridge Connector Project, Chesterfield County, Virginia
VDOT Project Number: 0000-020-820; UPC No. 111713

Please respond to the following questions in your area of expertise or if you have knowledge or information pertinent to the project planning process:

1. Are there private wells or onsite sewage disposal systems immediately adjacent to this project?
2. Please provide any additional comments or feedback that you feel may be beneficial to the development of this study.

NEPA Evaluation Questionnaire – Natural Resources

Bailey Bridge Connector Project, Chesterfield County, Virginia
VDOT Project Number: 0000-020-820; UPC No. 111713

Please respond to the following questions in your area of expertise or if you have knowledge or information pertinent to the project planning process:

1. What constraints, if any, would you recommend for establishing a study area boundary in which to analyze the indirect and cumulative impacts to potentially affected resources?

2. Does your agency possess any data regarding any of the following that you believe should be taken into account when considering indirect and cumulative effects:
 - Permitted or approved wetland or stream impacts and/or delineated wetlands
 - Critical habitat
 - Protected species/habitat
 - Protected lands
 - Other protected resources

3. Please provide input on positive and negative indirect effects that could occur if this project is completed (within the study area) for the following (include any pertinent reports or documents that support your conclusions):
 - Induced growth
 - Economic development and investment
 - Improved storm water management

4. Does your agency possess any historic aerial imagery or mapping (i.e. NWI historical mapping) that might be useful while conducting this environmental study?

5. Please provide any additional comments or feedback that you feel may be beneficial to the development of this study.

NEPA Evaluation Questionnaire - Planning

Bailey Bridge Connector Project, Chesterfield County, Virginia
VDOT Project Number: 0000-020-820; UPC No. 111713

Please respond to the following questions in your area of expertise or if you have knowledge or information pertinent to the project planning process:

1. Does your agency possess any reports, data sources, or expert input that you recommend be used in the planning of this project?
2. Please identify locations in the study area where environmental justice populations may exist, or groups that interact with these environmental justice populations.
3. Are there any existing or planned community facilities within the study area?
4. What are current planned projects within your jurisdiction/study area? Are there any public documents/permits that estimate impacts of these projects?
5. Please provide any additional comments or feedback that you feel may be beneficial to the development of this study.

NEPA Evaluation Questionnaire – Public Works

Bailey Bridge Connector Project, Chesterfield County, Virginia
VDOT Project Number: 0000-020-820; UPC No. 111713

Please respond to the following questions in your area of expertise or if you have knowledge or information pertinent to the project planning process:

1. Please identify all environmental or engineering studies/reports which have been recently completed by your agency within the study area?
2. What are the current planned projects being completed by your agency within the study area? Are there any public documents/permits that estimate environmental impact of these projects?
3. Please provide appropriate contact information for ongoing studies being completed by your agency within the study area.
4. Please provide any additional comments or feedback that you feel may be beneficial to the development of this study.

Date Initial Letter Sent	Date Second Letter Sent	Contact Name	First Name	Last Name	Position Title	Agency	Email	Response Date	Response Link	Comments
3/24/2020	4/27/2020	Mr. Alexander Samuel	Mr. Alexander	Mr. Samuel	Acting District Health Director, MD, MPH	Chesterfield County Health Department	capri.smart@vdh.virginia.gov			
3/24/2020	N/A	Mr. Dwayne Roadcap	Mr. Dwayne	Mr. Roadcap	Office Director	Virginia Department of Health, Water Programs	Dwayne.Roadcap@vdh.virginia.gov	3/25/2020	01-RESPONSES\Dwayne.Roadcap_VDH_Water.msg	-There are no public groundwater wells within a 1-mile radius of the project site -The following surface water intakes are located within a 5 mile radius of the project site: -Chesterfield CO central water system The project is within the watershed of the following public surface water sources -Virginia-American Water CO -Comments from Richmond Field Office, Randell Morrisette, PE, District Engineer were "We have no concerns with the proposed roadway because it will cross Swift Creek downstream of the Swift Creek Reservoir, see attachment." -Best Management Practices should be employed, including Erosion & Sedimentation Controls and Spill Prevention Controls & Countermeasures on the project site. -Materials should be managed while on-site and during transport to prevent impacts to nearby surface water.
3/24/2020	4/27/2020	Dr. Joseph P. Casey	Dr. Joseph P.	Dr. Casey	County Administrator	Chesterfield County Office of Executive	countyadministrator@chesterfield.gov	4/27/2020		No comments
3/24/2020	4/27/2020	Mr. Edward L. Senter Jr.	Mr. Edward L.	Mr. Senter	Fire Chief	Chesterfield County Fire and EMS	fire@chesterfield.gov	4/29/2020	01-RESPONSES\James_Fitch_CC_Fire&EMS.msg	The project is viewed favorably as the project access will provide an additional response routing opportunity should Bailey Bridge Road become blocked for some reason.
3/24/2020	4/27/2020	Colonel Jeffery S. Katz	Col. Jeffery S.	Colonel Katz	Chief of Police	Chesterfield County Police Department	ccpd@chesterfield.gov	5/7/2020	01-RESPONSES\Brad_Badgerow_CC_PD.msg	Extension would decrease traffic on a portion of Hull Street Better access (as a cut through) from Hull to Bailey Bridge and vice versa in lieu of going all the way down to the current light at Hull and Bailey Bridge Decrease response time for emergency vehicles due to cut through Increase traffic on Commonwealth Centre Parkway from 288 and Hull St. Sharpness of curve between Brad McNeer and 288 and increased traffic. Risk of increased rear end collisions due to additional traffic slowing for the intersections/roundabouts
3/24/2020	4/27/2020	Ms. Julie Langan	Ms. Julie	Ms. Langan	DHR Director & State Historic Preservation Officer	Virginia Department of Historic Resources	JULIE.LANGAN@DHR.VIRGINIA.GOV			
3/24/2020	4/27/2020	Mr. Troy Andersen	Mr. Troy	Mr. Andersen	Supervisory Fish & Wildlife Biologist	United States Department of the Interior, Fish and Wildlife Service	troy_andersen@fws.gov	4/27/2020		We do not provide individual responses to requests for environmental reviews/scoping requests. Instead, we utilize and online project review process. The attached letter provides an overview of the process as well as a link to the process website.
3/24/2020	4/27/2020	Mr. James D. Worsley	Mr. James D.	Mr. Worsley	Director	Chesterfield County Parks and Recreation	parksrec@chesterfield.gov	4/27/2020	01-RESPONSES\James_Worsley_ChesterfieldParksandRec.msg	Chesterfield County Parks and Rec has no parkland within the Study Corridor. We have no comment on the potential environmental impacts associated with the proposed Bailey Bridge Connector Project. We do have an interest in the part of the corridor that crosses Swift Creek, as the Bikeways and Trails Plan shows a route along the creek. Our consultant is just starting a study of the creek corridor from Hull Street to your project area to develop several trail alignments. We would like to coordinate our work with yours. My planning manager and our consultant are copied on this email.
3/24/2020	4/27/2020	Ms. Monique Evans	Ms. Monique	Ms. Evans	Division Director	Federal Highway Administration, Eastern Federal Lands Highway Division	efl.fhwa@dot.gov	4/27/2020		Easter Federal Lands does not have any comments or concerns related to the subject project.
3/24/2020	4/27/2020	Mr. Michael Pentony	Mr. Michael	Mr. Pentony	Regional Administrator	National Marine Fisheries Service, Habitat Conservation Division	michael.pentony@noaa.gov	4/28/2020		We have determined that we do not have any affected resources, and will not be providing comments.
3/24/2020	4/27/2020	Mr. John A. Bricker	Mr. John A.	Mr. Bricker	State Conservationist	United States Department of Agriculture, Natural Resources Conservation Service - Virginia	jack.bricker@va.usda.gov	4/27/2020	01-RESPONSES\John_Bricker_VAUSDA.msg	Follow all State and Federal Laws and ordinances concerned erosion and sediment control, and wetlands. This is an urban area.
3/24/2020		Mr. David Vela	Mr. David	Mr. Vela	Deputy Director	United States Department of the Interior, National Park Service				
3/24/2020	4/27/2020	Ms. Jewel Bronaugh	Ms. Jewel	Ms. Bronaugh	Commissioner	Virginia Department of Agriculture and Consumer Services	jewel.bronaugh@vdacs.virginia.gov			
3/24/2020	4/27/2020	Mr. Jason Bulluck	Mr. Jason	Mr. Bulluck	Natural Heritage Director	Virginia Department of Conservation and Recreation - DNH	Jason.Bulluck@dcr.virginia.gov			
3/24/2020	4/27/2020	Mr. John Colligan	Mr. John	Mr. Colligan	Chief of Administration	Virginia Department of Forestry	john.colligan@dof.virginia.gov			
3/24/2020	4/27/2020	Mr. John Warren	Mr. John	Mr. Warren	Director	Virginia Department of Mines, Minerals, and Energy	JOHN.WARREN@DMME.VIRGINIA.GOV			
3/24/2020	4/27/2020	Mr. Steven G. Bowman	Mr. Steven G.	Mr. Bowman	Commissioner	Virginia Marine Resource Commission	STEVE.BOWMAN@MRC.VIRGINIA.GOV	4/27/2020	01-RESPONSES\Steven_Bowman_VMRC.msg	This will respond to the request for comments regarding the Bailey Bridge Connector Project. Specifically, the applicants have proposed to construct a two-lane roadway on new alignment from Bailey Bridge Road to Brad McNeer Parkway in Chesterfield County. Based on a desktop review of the information provided, it appears that this new roadway will cross over portions of Swift Creek. As such, this project WILL require a permit from this agency. Please be advised that the Virginia Marine Resources Commission (VMRC) pursuant to Chapter 12, 13, & 14 of Title 28.2 of the Code of Virginia administers permits required for submerged lands, tidal wetlands, and beaches and dunes. The VMRC administers the enforceable policies of fisheries management, subaqueous lands, tidal wetlands, and coastal primary sand dunes and beaches which comprise some of Virginia's Coastal Zone Management Program. VMRC staff has reviewed the submittal and offers the following comments: Fisheries and Shellfish: Potential to impact aquatic species through construction activities. State-owned Submerged Lands: The project crosses over State-owned submerged lands. Tidal Wetlands: There are no impacts to tidal wetlands associated with this project. Beaches and Coastal Primary Sand Dunes: None in close proximity to the project area This project has foreseeable impacts on the VMRC's enforceable policies. Upon receipt of a complete Joint Permit Application and project drawings, our staff will review the application and proceed with a full public interest review. Any permit issued by the VMRC will specify necessary special conditions for the project. If you have any questions please contact me at (757) 247-8028 or by email at mark.eversole@mrc.virginia.gov. Thank you for the opportunity to comment
3/24/2020	4/27/2020	Ms. Brett Christina Glymph	Ms. Brett C.	Ms. Glymph	Executive Director	Virginia Outdoors Foundation	bglymph@vof.org	4/30/2020	01-RESPONSES\Brett_Glymph_VOF.msg	As of 30 April 2020, there are not any existing nor proposed VOF open-space easements in the immediate vicinity of the project.
3/24/2020	4/27/2020	Ms. Melanie D. Davenport	Ms. Melanie D.	Ms. Davenport	Water Permitting Division Director	Virginia Department of Environmental Quality - Water Division	MELANIE.DAVENPORT@DEQ.VIRGINIA.GOV			

Date Initial Letter Sent	Date Second Letter Sent	Contact Name	First Name	Last Name	Position Title	Agency	Email	Response Date	Response Link	Comments
3/24/2020	N/A	Mr. Ryan Brown	Mr. Ryan	Mr. Brown	Executive Director	Virginia Department of Game and Inland Fisheries	RYAN.BROWN@DGIF.VIRGINIA.GOV	3/30/2020	01-RESPONSES\Ernie_Aschenbach_DGIF.msg	<p>According to our records, the federal Threatened state Threatened (FTST) yellow lance mussel was known from Swift Creek near the Rte 360 crossing. Based on the preliminary info, if instream work becomes necessary we recommend a habitat assessment. Depending on the results, we may recommend a mussel survey (both habitat assessment and survey should be performed) in accordance with https://www.dgif.virginia.gov/wp-content/uploads/mussel-guidelines-11-2018.pdf. If wetland or stream impacts become necessary, we anticipate a Joint Permit Application (JPA) will be distributed for agency review. We will review the JPA and provide comments as appropriate.</p> <p>If tree removal or forest management is anticipated, project design and construction should adhere to our standard protocols for bat habitat assessment and protection at: http://www.dgif.virginia.gov/wildlife/bats/little-brown-bat-tri-colored-bat-winter-habitat-roosts-application/ and; http://www.dgif.virginia.gov/wildlife/bats/northern-long-eared-bat-application/.</p> <p>Incidental take and best management practices to protect bats: In addition, the project should incorporate the recommendations in the Department's Guidance Document on Best Management Practices for Conservation of Little Brown Bats and Tri-Colored Bats, at: https://www.dgif.virginia.gov/wp-content/uploads/LBBA_TCBA_Guidance.pdf.</p> <p>If the project proponent elects not to adhere to these recommendations, they may opt to prepare a Conservation Plan to address incidental take of these state-endangered bats. For additional guidance we recommend the proponent refer to our Best Management Practices referenced above, and contact DGIF's Bat Biologist, Rick Reynolds, at (540) 248-9360.</p> <p>Depending on the proposed scope of work, we may recommend proposed instream work adhere to a Time of Year Restriction (TOYR = no instream work) protective of resources under our purview. See our website for more information explaining TOYRs: https://www.dgif.virginia.gov/wp-content/uploads/media/Time-of-Year-Restrictions.pdf.</p>
3/24/2020	N/A	Colonel Patrick V. Kinsman	Col. Patrick V.	Colonel Kinsman	Norfolk District Commander	US Army Corps of Engineers, Norfolk District	dll-cenao-pa@usace.army.mil	4/28/2020	01-RESPONSES\Patrick_Kinsman_USACE.msg	
3/24/2020	4/27/2020	Mr. Cosmo Servidio	Mr. Cosmo	Mr. Servidio	Regional Administrator	United States Environmental Protection Agency, Region III	R3_RA@epa.gov	5/8/2020	01-RESPONSES\ Ralph_Spagnolo_EPA.msg	EJ Screen identified no areas of potential concern for in environmental justice communities. No additional review for potential EJ concerns is required for areas within the project boundary.
3/24/2020	N/A	Ms. Valerie Fulcher	Ms. Valerie	Ms. Fulcher	Environmental Program Specialist	Virginia Department of Environmental Quality - Environmental Impact Review	Valerie.Fulcher@deq.virginia.gov	4/13/2020	01-RESPONSES\Valerie_Fulcher_DEQ_EnvImpactReview2.msg	<p>Must be prepared pursuant to the Coastal Zone Management Act as well as the Virginia Coastal Zone Management Program.</p> <p>Raw water intake for the Virginia America-Hopewell water treatment plant on the Appomattox River is approximately 33 miles downstream of the proposed crossing of Swift Creek for the Project.</p> <p>Attachments in email</p>
3/24/2020	4/27/2020	Mr. Andrew Gillies	Mr. Andrew	Mr. Gillies	Director	Chesterfield County Planning Commission	GilliesA@chesterfield.gov			
3/24/2020	4/27/2020	Mr. Garrett Hart	Mr. Garrett	Mr. Hart	Director of Economic Development	Chesterfield County Economic Development	HartGA@chesterfield.gov			
3/24/2020	4/27/2020	Ms. Sara Hall	Ms. Sara	Ms. Hall	Clerk to the Board of Supervisors	Chesterfield County Board of Supervisors	hallsj@chesterfield.gov			
3/24/2020	N/A	Ms. Carrie S. Schmidt	Ms. Carrie S.	Ms. Schmidt	Field Office Director	United States Department of Housing and Urban Development - Virginia	VA_Webmanager@hud.gov	3/31/2020	01-RESPONSES\Carrie_S_Schmidt_RichmondHUD.msg	<p>Minimal housing existing in and around the target corridor. HUD believes that the corridor is not one of the better locations for either single family or multifamily housing development, due to the soil types present in the corridor.</p> <p>- HUD has two Eos to avoid impacts to wetlands, floodways, floodplains.</p> <p>the corridor would provide few good locations for shallow home water wells and septic systems / Lack of public water and sewer limits the location as a housing development.</p> <p>HUD Richmond does see the proposed corridor as a good location for a road connector that takes some of the through-traffic away from Manchester High and Bailey Bridge Middle Schools.</p> <p>-Additional comments saved to project scoping folder</p>
3/24/2020	N/A	Mr. Erik Johnston	Mr. Erik	Mr. Johnston	Director	Virginia Department of Housing and Community Development	director@dhcd.virginia.gov	4/21/2020	01-RESPONSES\Erik_Johnston_DHCD.msg	<p>Response received from Kyle Flanders.</p> <p>-Does your agency possess any reports, data sources, or expert input that you recommend be used in the planning of this project? We are not aware of any at this time.</p> <p>-Are there any existing or planned community facilities within the study area? None as related to DHCD projects.</p> <p>-What are current planned projects within your jurisdiction/study area? Are there any public documents/permits that estimate impacts of these projects? None at this time.</p> <p>-Please provide any additional comments or feedback that you feel may be beneficial to the development of this study. None at this time.</p>
3/24/2020	4/27/2020	Ms. Jennifer Mitchell	Ms. Jennifer	Ms. Mitchell	Director	Virginia Department of Rail and Public Transportation	JENNIFER.MITCHELL@DRPT.VIRGINIA.GOV			
3/24/2020	N/A	Mr. Michael Dowd	Mr. Michael	Mr. Dowd	Director of Air Division	Virginia Department of Environmental Quality – Air Division	MICHAEL.DOWD@DEQ.VIRGINIA.GOV	3/25/2020	01-RESPONSES\Michael_Dowd_DEQAir.msg	<p>In this connection, it is requested that during execution of the project, following Virginia Air regulations may be kept in view for compliance:</p> <ol style="list-style-type: none"> 9 VAC 5-40-5600 et seq. – Open Burning 9 VAC 5-50-60 et seq. Fugitive Dust Emissions
3/24/2020	4/27/2020	Mr. Carlos M. Brown	Mr. Carlos M.	Mr. Brown	Board Member	Commonwealth Transportation Board	Carlos.Brown@CTB.Virginia.Gov			
3/24/2020	N/A	Mr. George B. Hayes	Mr. George B.	Mr. Hayes	Director of Utilities	Chesterfield County Utilities	utilities@chesterfield.gov	4/3/2020	01-RESPONSES\George_B_Hayes_Chesterfield_Utillities.msg	Chesterfield County Utilities has completed a waterline extension within a portion of the project scope. Included the project manual (bid docs), a copy of the Army Corp NW #12 permit, and the construction plans. There was a VMRC Permit completed, but could not find the paperwork.
3/24/2020	4/27/2020	Mr. Scott Smedley	Mr. Scott	Mr. Smedley	Director	Chesterfield County: Department of Environmental Engineering	smedleys@chesterfield.gov			
3/24/2020	4/27/2020	Mr. Brent Epps	Mr. Brent	Mr. Epps	Transportation Director	Chesterfield County Department of Transportation	EppsB@chesterfield.gov			
3/24/2020	4/27/2020	Mr. Thomas L. Nelson, Jr., P.E.	Mr. Thomas L.	Mr. Nelson	Division Administrator	Federal Highway Administration, Virginia	thomas.nelson@dot.gov	4/27/2020		FHWA is the lead agency and therefore there is no need for them to respond.
3/24/2020		Ms. Theresa Garcia Crews	Ms. Theresa G	Ms. Crews	Regional Administrator for Region 3	United States Department of Transportation, Federal Transit Administration				
3/24/2020	N/A	Dr. Mervin B. Daugherty	Dr. Mervin B.	Dr. Daugherty	Superintendent of Schools	Chesterfield County Public Schools	Merv_Daugherty@ccpsnet.net	4/14/2020	01-RESPONSES\Mervin_B_Daugherty_ChesterfieldPublicSchools.msg	<p>The construction of the Bailey Bridge Connector Road extending from the existing Bailey Bfidge Road to Brad McNeer Parkway, which will also connect to nearby subdivisions, would provide distribution and diversion of traffic in this area. The proposed road improvements will likely mitigate some existing traffic congestion issues along Bailey Bridge Road and improve travel by providing traffic calming measures and additional route options for school bus operations, both important considerations as Bailey Bridge Road is a main thoroughfare for access to several CCPS facilities.</p> <p>The school facilities that are in the immediate vicinity of the Bailey Bridge Road Connector project area and that directly access Bailey Bridge Road include Crenshaw Elementary, Alberta Smith Elementary, Spring Run Elementary (at the southern end of Bailey Bridge Road), Bailey Bridge Middle, and Manchester High.</p> <p>The continuous growth and development in this area will likely increase population and subsequent student enrollment in the schools serving this geographic area. Any potential increase in student enrollment will also lead to the potential increase in demand for additional school buses and school bus routes that serve students in the area that utilize the Bailey Bridge Road Connector.</p>

Other Comments Received

Date Initial Letter Sent	Date Second Letter Sent	Contact Name	First Name	Last Name	Position Title	Agency	Email	Response Date	Response Link	Comments
		Mr. Dennis Morris			Executive Director	Crater Planning District Commission	dmorris@craterpdc.org	3/25/2020	01-RESPONSES\Dennis_Morris_CraterPDC.msg	The Crater Planning District Commission has determined that the proposed project is in full compliance with regional environmental policies and plans.

Alex Nies

From: Badgerow, Brad <BadgerowB@chesterfield.gov>
Sent: Thursday, May 7, 2020 10:50 AM
To: Alex Nies
Subject: FW: Federal Project: STP-5A27(616) - Bailey Bridge Connector Project - NEPA Scoping Request
Attachments: Bailey_Bridge_Scoping_Request.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Mr. Nies –

It was nice speaking to you last week. Here is the response provided by our Traffic Safety Team regarding the proposed project. Please drop me a note or give me a call if you need any other input from PD along the way. Thank you.

- Brad

- Extension would decrease traffic on a portion of Hull Street
- Better access (as a cut through) from Hull to Bailey Bridge and vice versa in lieu of going all the way down to the current light at Hull and Bailey Bridge
- Decrease response time for emergency vehicles due to cut through
- Increase traffic on Commonwealth Centre Parkway from 288 and Hull St.
- Sharpness of curve between Brad McNeer and 288 and increased traffic.
- Risk of increased rear end collisions due to additional traffic slowing for the intersections/roundabouts

Brad Badgerow

Major - Chesterfield County Police Department
Operational Support Bureau
badgerowb@chesterfield.gov
(C) [804-347-7304](tel:804-347-7304)

www.chesterfield.gov/police
www.facebook.com/ccpdva
www.twitter.com/CCPDVa

From: Starke, A.J. <StarkeJ@chesterfield.gov>
Sent: Thursday, May 07, 2020 10:40 AM
To: Badgerow, Brad <BadgerowB@chesterfield.gov>
Cc: Shand, David <ShandD@chesterfield.gov>
Subject: FW: Bailey_Bridge_Scoping_Request.pdf

Brad,

Please let me know if the below response will be of assistance or if you need additional information.

Respectfully,

AJ

Captain A.J. Starke
Special Operations Division Commander
Chesterfield County Police Department
Office: (804) 751-4457
Starkej@chesterfield.gov

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From: Rouze, Stephan <RouzeS@chesterfield.gov>
Sent: Tuesday, May 05, 2020 12:45 PM
To: Starke, A.J. <StarkeJ@chesterfield.gov>
Cc: McGregor, Gary <McGregorG@chesterfield.gov>
Subject: FW: Bailey_Bridge_Scoping_Request.pdf

Gentry and Skala worked on this (their email is bellow), I've bullet pointed their suggestions per your request:

- Extension would decrease traffic on a portion of Hull Street
- Better access (as a cut through) from Hull to Bailey Bridge and vice versa in lieu of going all the way down to the current light at Hull and Bailey Bridge
- Increase response time for emergency vehicles due to cut through
- Increase traffic on Commonwealth Centre Parkway from 288 and Hull St.
- Sharpness of curve between Bran McNeer and 288 and increased traffic.
- Risk of increased rear end collisions due to additional traffic slowing for the intersections/roundabouts

-Rouze

From: Gentry, Taylor <GentryT@chesterfield.gov>
Sent: Tuesday, May 05, 2020 10:22 AM
To: Rouze, Stephan <RouzeS@chesterfield.gov>
Subject: RE: Bailey_Bridge_Scoping_Request.pdf

After reviewing the operational plan for the connection roadway between Brad McNeer Parkway and Bailey Bridge Rd, it is the option of your traffic officers TL Gentry and B Skala that the building of such roadway would diminish the traffic use of East bound traffic on 360, for persons who would be traveling to the area of Bailey bridge from 288 south. This would also allow for better access for emergency vehicle to accesses the bailey bridge area west of 288, allowing for better response time, due to the allowance of travel through the area.

A concern for the public safety in regards to the project would be the increased amount of traffic coming off of 288 S onto Commonwealth Center Parkway. The ramp leading off of 288 South turns into Commonwealth Center Parkway and allows vehicles to turns left onto Brad McNeer Parkway. In this area the roadway needs to be reviewed, to see if the roadway could accommodate this increase of traffic flow due to the shorter cut through between the two points of Brad McNeer and Bailey Bridge Road. The ramp coming off of 288 is a very sharp, and the left turn onto Brad McNeer follows right after the sharp curve. Ensuring that there is not substantial backup of traffic in this area would allow for the lowered risk of rear-end collisions in connection to the increased traffic flow.

If there is anything else I can do to offer assistance in this matter feel free to contact me.

Senior Officer Gentry T.L. Unit 606
Chesterfield County Police Dept.
Special Operations Division
Traffic Safety & Crash Investigation Team
Work Cell# 804-381-3275
Voice Mail# 804-717-6329

From: Rouze, Stephan <RouzeS@chesterfield.gov>
Sent: Monday, May 04, 2020 10:21 AM
To: Skala, William <SkalaW@chesterfield.gov>; Gentry, Taylor <GentryT@chesterfield.gov>
Subject: FW: Bailey_Bridge_Scoping_Request.pdf

Please work on this Tuesday. Let me know what you all think... I'm not sure how many concerns we would have. This would be a short roadway – fairly straight and short – with roundabouts to control traffic flow...

Let me know your thoughts...

From: Starke, A.J. <StarkeJ@chesterfield.gov>
Sent: Thursday, April 30, 2020 2:33 PM
To: Rouze, Stephan <RouzeS@chesterfield.gov>
Cc: McGregor, Gary <McGregorG@chesterfield.gov>
Subject: Bailey_Bridge_Scoping_Request.pdf

Stephan,

Please take a look at the attached. I'd like to ask you to have your traffic folks weigh in on this request. I'm interested in what general thoughts/comments they might have regarding the proposal from a traffic safety standpoint. The replies don't have to be anything formal – a bulleted list will suffice.

Please provide a response to me no later than close of business on May 6th.

Thank you,

Captain A.J. Starke
Special Operations Division Commander
Chesterfield County Police Department
Office: (804) 751-4457
Starkej@chesterfield.gov

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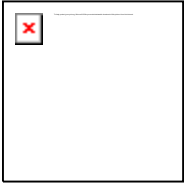
Good morning,

I am writing to follow up on my email below from March 24th asking for your input on any issues or concerns regarding resources under your jurisdiction or interest within the Bailey Bridge Connector Project study area.

Please review the attached documents and provide comments as appropriate. The documents are also available at the following link: <https://documentcloud.adobe.com/link/track?uri=urn%3Aaid%3Ausc%3AUS%3Aa37c6cb-b69a-44e7-9a14-6202f2684b34>

Please feel free to send responses directly to me at this email and contact me should you have any questions or concerns.

Thank you,



Alex Nies

Project Manager, Environmental & Noise Abatement Services

4470 Cox Road, Suite 105 | Glen Allen, VA 23060

O: 804-476-0378 | D: 804-351-5289 | C: 814-881-2873

atcsplc.com | [Facebook](#) | [LinkedIn](#) | [Twitter](#)

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From: Alex Nies <anies@atcsplc.com>

Sent: Tuesday, March 24, 2020 7:50 AM

To: ccpd@chesterfield.gov

Subject: Federal Project: STP-5A27(616) - Bailey Bridge Connector Project - NEPA Scoping Request

Good morning,

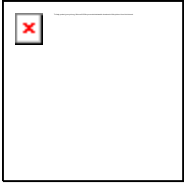
The Chesterfield Department of Transportation (CDOT), in cooperation with the Virginia Department of Transportation (VDOT) and the Federal Highway Administration (FHWA), is initiating a study to assess the potential environmental impacts associated with the proposed Bailey Bridge Connector Project (see attached map).

As part of that effort we are asking for your input on any issues or concerns regarding resources under your jurisdiction or interested within the project area. Please review the attached documents and provide comments as appropriate. The documents are also available at the following link:

<https://documentcloud.adobe.com/link/track?uri=urn%3Aaid%3Ausc%3AUS%3Aa37c6cb-b69a-44e7-9a14-6202f2684b34>

Please feel free to send responses directly to me at this email and contact me should you have any questions or concerns.

Thank you,



Alex Nies

Project Manager, Environmental & Noise Abatement Services

4470 Cox Road, Suite 105 | Glen Allen, VA 23060

O: 804-476-0378 | D: 804-351-5289 | C: 814-881-2873

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Alex Nies

From: ImpactReview <impactreview@vof.org>
Sent: Thursday, April 30, 2020 9:14 AM
To: Alex Nies
Cc: Martha Little; Brad Baskette
Subject: FW: Federal Project: STP-5A27(616) - Bailey Bridge Connector Project - NEPA Scoping Request
Attachments: Bailey_Bridge_Scoping_Request.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Mr. Nies,

The Virginia Outdoors Foundation has reviewed the project described below and in the attached document. As of 30 April 2020, there are not any existing nor proposed VOF open-space easements in the immediate vicinity of the project.

Please contact VOF again for further review if the project area changes or if this project does not begin within 24 months. Thank you for considering conservation easements.

In the future, please direct all requests for review to: ImpactReview@VOF.org

Thanks,
Mike

Mike Hallock-Solomon, AICP
Virginia Outdoors Foundation

From: Alex Nies <anies@atcsplc.com>
Sent: Monday, April 27, 2020 10:51:15 AM
To: Brett Glymph <brett@vof.org>
Subject: Federal Project: STP-5A27(616) - Bailey Bridge Connector Project - NEPA Scoping Request

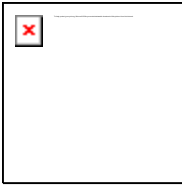
Alert: This email originated from outside VOF
Good morning,

I am writing to follow up on my email below from March 24th asking for your input on any issues or concerns regarding resources under your jurisdiction or interest within the Bailey Bridge Connector Project study area.

Please review the attached documents and provide comments as appropriate. The documents are also available at the following link: <https://documentcloud.adobe.com/link/track?uri=urn%3Aaaid%3Ausc%3A8279e5bb-e8ad-4fb1-a3e1-ff8490cbb3c0>

Please feel free to send responses directly to me at this email and contact me should you have any questions or concerns.

Thank you,



Alex Nies

Project Manager, Environmental & Noise Abatement Services

4470 Cox Road, Suite 105 | Glen Allen, VA 23060

O: 804-476-0378 | D: 804-351-5289 | C: 814-881-2873

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From: Alex Nies <anies@atcsplc.com>

Sent: Tuesday, March 24, 2020 9:37 AM

To: bglymph@vof.org

Subject: Federal Project: STP-5A27(616) - Bailey Bridge Connector Project - NEPA Scoping Request

Good morning,

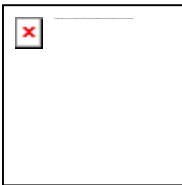
The Chesterfield Department of Transportation (CDOT), in cooperation with the Virginia Department of Transportation (VDOT) and the Federal Highway Administration (FHWA), is initiating a study to assess the potential environmental impacts associated with the proposed Bailey Bridge Connector Project (see attached map).

As part of that effort we are asking for your input on any issues or concerns regarding resources under your jurisdiction or interested within the project area. Please review the attached documents and provide comments as appropriate. The documents are also available at the following link:

<https://documentcloud.adobe.com/link/track?uri=urn%3Aaaid%3Aascds%3AUS%3A8279e5bb-e8ad-4fb1-a3e1-ff8490cbb3c0>

Please feel free to send responses directly to me at this email and contact me should you have any questions or concerns.

Thank you,



Alex Nies

Project Manager, Environmental & Noise Abatement Services

4470 Cox Road, Suite 105 | Glen Allen, VA 23060

O: 804-476-0378 | D: 804-351-5289 | C: 814-881-2873

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Alex Nies

From: Payne, Megan C <Megan.C.Payne@hud.gov>
Sent: Tuesday, March 31, 2020 1:02 PM
To: Alex Nies
Subject: Bailey Bridge Connector Project
Attachments: 2020-3FMA-FLD-00455 Faulkner- Bailey_Bridge_Scoping_Request- Response.pdf; 2020-3FMA-FLD-00455 Faulkner- Bailey_Bridge_Scoping_Request- Repsonse (2).pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Please see the attached response letter in regards to the Bailey Bridge Connector Project from the HUD Richmond Field Office. Thank you!!

Megan Payne, Program Analyst
US Department of Housing & Urban Development
Richmond Field Office
600 E. Broad Street, Richmond, Va, 23219
Megan.c.payne@hud.gov
804-822-4948



Alex Nies

From: Dennis Morris <dmorris@craterpdc.org>
Sent: Wednesday, March 25, 2020 3:32 PM
To: Alex Nies
Cc: eir@deq.virginia.gov
Subject: NEW SCOPING Bailey Bridge Connector Project, VDOT #0000-020-820, UPC 111713

Follow Up Flag: Follow up
Flag Status: Flagged

Alex,

The Crater Planning District Commission has reviewed the information regarding the Bailey Bridge Connector Project located in Chesterfield County (UPC 111713).

The Crater Planning District Commission has determined that the proposed project is in full compliance with regional environmental policies and plans.

Thank you for allowing the Crater Commission to comment on this proposed Application.

Denny Morris
Executive Director
Crater Planning District Commission
(804) 861-1666

Alex Nies

From: Warren, Arlene <arlene.warren@vdh.virginia.gov>
Sent: Thursday, April 2, 2020 8:22 AM
To: Alex Nies
Cc: rr Environmental Impact Review; Dwayne Roadcap; Singh, Tony
Subject: Re: NEW SCOPING Bailey Bridge Connector Project, VDOT #0000-020-820, UPC 111713
Attachments: Attachment from the FO.pdf

Follow Up Flag: Follow up
Flag Status: Completed

Project Name: Bailey Bridge Connector Project
Project #: VDOT #0000-020-820
UPC #: 111713
Location: Chesterfield County

VDH – Office of Drinking Water has reviewed the above project. Below are our comments as they relate to proximity to **public drinking water sources** (groundwater wells, springs and surface water intakes). Potential impacts on public water distribution systems or sanitary sewage collection systems **must be verified by the local utility.**

There are no public groundwater wells within a 1-mile radius of the project site.

The following surface water intakes are located within a 5 mile radius of the project site:

PWS ID Number	System Name	Facility Name
4041845	CHESTERFIELD CO CENTRAL WATER SYSTEM	SWIFT CREEK RESERVOIR INTAKE

The project is within the watershed of the following public surface water sources:

PWS ID Number	System Name	Facility Name
3670800	VIRGINIA-AMERICAN WATER CO	APPOMATTOX RIVER

- Comments from **Richmond Field Office, Randell Morrissette, PE, District Engineer** were “We have no concerns with the proposed roadway because it will cross Swift Creek downstream of the Swift Creek Reservoir, **see attachment.**”

Best Management Practices should be employed, including Erosion & Sedimentation Controls and Spill Prevention Controls & Countermeasures on the project site.

Materials should be managed while on-site and during transport to prevent impacts to nearby surface water.

Virginia Department of Health – Office of Drinking Water appreciates the opportunity to provide comments. If you have any questions, please let me know.

Best Regards,

Arlene Fields Warren

GIS Program Support Technician

Office of Drinking Water

Virginia Department of Health

109 Governor Street

Richmond, VA 23219

(804) 864-7781

On Wed, Mar 25, 2020 at 11:26 AM Fulcher, Valerie <valerie.fulcher@deq.virginia.gov> wrote:

Good morning—attached is a request for scoping comments on the following:

**Bailey Bridge Connector Project Chesterfield County, Virginia
VDOT Project Number: 0000-020-820; UPC No. 111713**

If you choose to make comments, please send them directly to the project sponsor (anies@atcsplc.com) and copy the DEQ Office of Environmental Impact Review: eir@deq.virginia.gov. We will coordinate a review when the environmental document is completed.

DEQ-OEIR's scoping response is also attached.

If you have any questions regarding this request, please email our office at eir@deq.virginia.gov.

Valerie

--

Valerie A. Fulcher, CAP, OM, Environmental Program Specialist

Department of Environmental Quality

Environmental Enhancement - Office of Environmental Impact Review

1111 East Main Street

Richmond, VA 23219

[804/698-4330](tel:8046984330)

[804/698-4319](tel:8046984319) (Fax)

email: Valerie.Fulcher@deq.virginia.gov

<http://www.deq.virginia.gov/Programs/EnvironmentalImpactReview.aspx>

For program updates and public notices please subscribe to Constant Contact: <https://lp.constantcontact.com/su/MVcCump/EIR>

Alex Nies

From: Flanders, Kyle <kyle.flanders@dhcd.virginia.gov>
Sent: Tuesday, April 21, 2020 8:45 AM
To: Alex Nies
Subject: Re: Federal Project: STP-5A27(616) - Bailey Bridge Connector Project - NEPA Scoping Request

Follow Up Flag: Follow up
Flag Status: Flagged

Alex -

Please see below responses. Please note, these responses are in regards to DHCD projects only.

1. Does your agency possess any reports, data sources, or expert input that you recommend be used in the planning of this project? **We are not aware of any at this time.**
2. Please identify locations in the study area where environmental justice populations may exist, or groups that interact with these environmental justice populations.
3. Are there any existing or planned community facilities within the study area? **None as related to DHCD projects.**
4. What are current planned projects within your jurisdiction/study area? Are there any public documents/permits that estimate impacts of these projects? **None at this time.**
5. Please provide any additional comments or feedback that you feel may be beneficial to the development of this study. **None at this time.**

Thanks,

Kyle T. Flanders
Senior Policy Analyst
Virginia Department of Housing and Community Development
Policy Office
600 E. Main St. Suite 300
Richmond, VA 23219
phone: (804) 786-6761
fax: (804) 371-3090
kyle.flanders@dhcd.virginia.gov

----- Forwarded message -----

From: Alex Nies <anies@atcsplc.com>
Date: Tue, Mar 24, 2020 at 10:18 AM
Subject: Federal Project: STP-5A27(616) - Bailey Bridge Connector Project - NEPA Scoping Request
To: director@dhcd.virginia.gov <director@dhcd.virginia.gov>

Good morning,

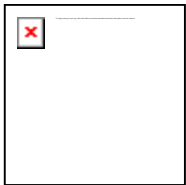
The Chesterfield Department of Transportation (CDOT), in cooperation with the Virginia Department of Transportation (VDOT) and the Federal Highway Administration (FHWA), is initiating a study to assess the potential environmental impacts associated with the proposed Bailey Bridge Connector Project (see attached map).

As part of that effort we are asking for your input on any issues or concerns regarding resources under your jurisdiction or interested within the project area. Please review the attached documents and provide comments as appropriate. The documents are also available at the following link:

<https://documentcloud.adobe.com/link/track?uri=urn%3Aaaid%3Ascds%3AUS%3A6bd16ef8-6243-4b93-973b-f220e6fdf2e7>

Please feel free to send responses directly to me at this email and contact me should you have any questions or concerns.

Thank you,



Alex Nies

Project Manager, Environmental & Noise Abatement Services

4470 Cox Road, Suite 105 | Glen Allen, VA 23060

O: 804-476-0378 | D: 804-351-5289 | C: 814-881-2873

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--

Erik Johnston

Director

Virginia Department of Housing and Community Development (DHCD)

804.371.7077

erik.johnston@dhcd.virginia.gov

Alex Nies

From: ernie.aschenbach@dgif.virginia.gov on behalf of ProjectReview (DGIF), rr <projectreview@dgif.virginia.gov>
Sent: Monday, March 30, 2020 1:08 PM
To: Alex Nies; faulknerc@chesterfield.gov; Palmer Stearns; David Bova; rr ProjectReview (DGIF); Jonathan.Liss@vdot.virginia.gov; Daniel Redgate; Angel Deem
Subject: Fwd: FW: Federal Project: STP-5A27(616) - Bailey Bridge Connector Project - NEPA Scoping Request
Attachments: Bailey_Bridge_Scoping_Request20200324.pdf

ESSLog 40443; Consultant/locality administered VDOT Rte 0000-020-820 preliminary scoping request for Bailey Bridge Connector Project in Chesterfield County, VA

Thank you for submitting a preliminary scoping request for the above-referenced project. Your request was forwarded to my attention. We have reviewed this consultant/locality request for a preliminary scoping review. This is a proposed road on new location.

Our customary response to requests for preliminary scoping reviews is: Due to staffing limitations, we are typically unable to review and provide preliminary scoping comments on projects that are not currently involved in one of the regulatory review processes for which we are a formal consulting agency (see <https://www.dgif.virginia.gov/environmental-programs/environmental-services-section/>). If your project subsequently requires a permit or environmental review which involves our Department, we will provide comments through that process to the appropriate agencies. Thank you for soliciting our review of your project. It is customary for us to invite you to conduct your own review of your project through the Virginia Fish and Wildlife Information Service (VAFWIS) at: <https://www.dgif.virginia.gov/environmental-programs/fish-and-wildlife-information-section/> and <https://vafwis.dgif.virginia.gov/fwis/>.

According to our records, the federal Threatened state Threatened (FTST) yellow lance mussel was known from Swift Creek near the Rte 360 crossing. Based on the preliminary info, if instream work becomes necessary we recommend a habitat assessment. Depending on the results, we may recommend a mussel survey (both habitat assessment and survey should be performed) in accordance with <https://www.dgif.virginia.gov/wp-content/uploads/mussel-guidelines-11-2018.pdf>. If wetland or stream impacts become necessary, we anticipate a Joint Permit Application (JPA) will be distributed for agency review. We will review the JPA and provide comments as appropriate.

If tree removal or forest management is anticipated, project design and construction should adhere to our standard protocols for bat habitat assessment and protection at: <http://www.dgif.virginia.gov/wildlife/bats/little-brown-bat-tri-colored-bat-winter-habitat-roosts-application/> and; <http://www.dgif.virginia.gov/wildlife/bats/northern-long-eared-bat-application/>.

Incidental take and best management practices to protect bats: In addition, the project should incorporate the recommendations in the Department's Guidance Document on Best Management Practices for Conservation of Little Brown Bats and Tri-Colored Bats, at: https://www.dgif.virginia.gov/wp-content/uploads/LBBA_TCBA_Guidance.pdf.

If the project proponent elects not to adhere to these recommendations, they may opt to prepare a Conservation Plan to address incidental take of these state-endangered bats. For additional guidance we recommend the proponent refer to our Best Management Practices referenced above, and contact DGIF's Bat Biologist, Rick Reynolds, at (540) 248-9360.

Depending on the proposed scope of work, we may recommend proposed instream work adhere to a Time of Year Restriction (TOYR = no instream work) protective of resources under our purview. See our website for

more information explaining TOYRs: <https://www.dgif.virginia.gov/wp-content/uploads/media/Time-of-Year-Restrictions.pdf>.

We recommend strict adherence to E&S controls during all land-disturbing activities, and disposal of all debris at a suitable upland site.

I will be your central DGIF point of contact and will facilitate review of your proposed project with our regional biologists. Although our staff is currently telecommuting in response to the COVID19 pandemic, you are welcome to email me any questions and additional information. Please direct all correspondence to my attention at ProjectReview@dgif.virginia.gov.

Thanks.



Ernie Aschenbach

Environmental Services Biologist

P 804.367.2733

Email: Ernie.Aschenbach@dgif.virginia.gov

Virginia Department of Game & Inland Fisheries

CONSERVE. CONNECT. PROTECT.

A 7870 Villa Park Drive, P.O. Box 90778, Henrico, VA 23228-0778

www.dgif.virginia.gov

On Tue, Mar 24, 2020 at 9:45 AM Ryan Brown <ryan.brown@dgif.virginia.gov> wrote:

fyi

From: Alex Nies <anies@atcspc.com>

Sent: Tuesday, March 24, 2020 9:44 AM

To: RYAN.BROWN@DGIF.VIRGINIA.GOV

Subject: Federal Project: STP-5A27(616) - Bailey Bridge Connector Project - NEPA Scoping Request

Good morning,

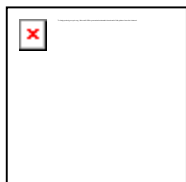
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Please feel free to send responses directly to me at this email and contact me should you have any questions or concerns.

Thank you,



Alex Nies

Project Manager, Environmental & Noise Abatement Services

4470 Cox Road, Suite 105 | Glen Allen, VA 23060
O: 804-476-0378 | D: 804-351-5289 | C: 814-881-2873

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Alex Nies

From: Allen, Wesley <AllenW@chesterfield.gov>
Sent: Friday, April 3, 2020 9:33 AM
To: Alex Nies
Cc: Easter, Tim
Subject: Bailey Bridge Connector Rd Project
Attachments: CC Utilities Bailey Bridge Connector Rd Project.zip

Follow Up Flag: Follow up
Flag Status: Flagged

Alexander,

Chesterfield County Utilities has completed a waterline extension within a portion of the project scope. I have included the project manual (bid docs), a copy of the Army Corp NW #12 permit, and the construction plans. There was a VMRC Permit completed, but I was not able to find the paperwork.

Thank you,
Wesley Allen, P.E.
Senior Utility Engineer
804-748-1576
9840 Government Center Pkwy
Chesterfield, VA 23832

Please note that Chesterfield County is currently open with reduced operations and I may be teleworking. I will respond to your message as soon as possible. Thank you for your patience during this time period.

Alex Nies

From: Fitch, James E. <FitchJ@chesterfield.gov>
Sent: Wednesday, April 29, 2020 4:02 PM
To: Alex Nies
Cc: Faulkner, Chessa; Senter, Loy
Subject: FW: Federal Project: STP-5A27(616) - Bailey Bridge Connector Project - NEPA Scoping Request
Attachments: Bailey_Bridge_Scoping_Request.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Good Afternoon Alex,

The Chesterfield Fire and EMS department does not have any issues or concerns with the proposed Bailey Bridge Connector project. The project is viewed favorably as the project access will provide an additional response routing opportunity should Bailey Bridge Road become blocked for some reason. Thank you for the opportunity to provide input on this project.

Regards,

Jim

James E. Fitch, II

Assistant Fire Chief
Chesterfield County Fire and EMS
(804) 768-7962 – Office
(804) 356-6160 – Cellular
fitchj@chesterfield.gov

From: Alex Nies <anies@atcsplc.com>
Sent: Monday, April 27, 2020 10:09 AM
To: Fire Front Desk <FireFrontDesk@chesterfield.gov>
Subject: Federal Project: STP-5A27(616) - Bailey Bridge Connector Project - NEPA Scoping Request

CAUTION: External Email

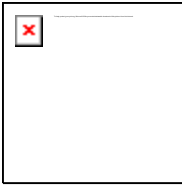
Good morning,

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Please review the attached documents and provide comments as appropriate. The documents are also available at the following link: <https://documentcloud.adobe.com/link/track?uri=urn%3Aaaid%3Aascds%3AUS%3A35e6b003-152c-48e4-8552-a94421a00ddc>

Please feel free to send responses directly to me at this email and contact me should you have any questions or concerns.

Thank you,



Alex Nies

Project Manager, Environmental & Noise Abatement Services

4470 Cox Road, Suite 105 | Glen Allen, VA 23060

O: 804-476-0378 | D: 804-351-5289 | C: 814-881-2873

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From: Alex Nies <anies@atcsplc.com>

Sent: Tuesday, March 24, 2020 7:46 AM

To: fire@chesterfield.gov

Subject: Federal Project: STP-5A27(616) - Bailey Bridge Connector Project - NEPA Scoping Request

Good morning,

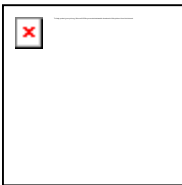
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Alex Nies

From: Connock, Stuart <ConnockS@chesterfield.gov>
Sent: Monday, April 27, 2020 12:06 PM
To: Alex Nies
Cc: Llewellyn, Janit; Keith Stanley - sekivsolutions; Faulkner, Chessa
Subject: RE: Federal Project: STP-5A27(616) - Bailey Bridge Connector Project - NEPA Scoping Request

Good Morning-

Chesterfield County Parks and Recreation has no parkland within the study corridor.

We have no comment on the potential environmental impacts associated with the proposed Bailey Bridge Connector Project.

We do have an interest in the part of the corridor that crosses Swift Creek, as the Bikeways and Trails Plan shows a route along the creek. Our consultant is just starting a study of the creek corridor from Hull Street to your project area to develop several trail alignments. We would like to coordinate our work with yours. My Planning Manager and our consultant are copied on this email.

Stuart W. Connock, jr.
Chesterfield County Parks and Recreation
Chief of Parks: Planning and Construction Services
P.O.Box 40 [mail]
9201 Public Works Road [delivery]
Chesterfield, Virginia 23832
804-314-7815 [mobile, preferred]
804 - 751-4484 [office]

From: Alex Nies <anies@atcspc.com>
Sent: Monday, April 27, 2020 10:21 AM
To: Parks and Rec Support <parksrec@chesterfield.gov>
Subject: Federal Project: STP-5A27(616) - Bailey Bridge Connector Project - NEPA Scoping Request

CAUTION: External Email

CAUTION: External Email

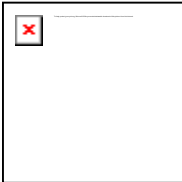
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Please feel free to send responses directly to me at this email and contact me should you have any questions or concerns.

Thank you,



Alex Nies

Project Manager, Environmental & Noise Abatement Services

4470 Cox Road, Suite 105 | Glen Allen, VA 23060

O: 804-476-0378 | D: 804-351-5289 | C: 814-881-2873

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From: Alex Nies <anies@atcsplc.com>

Sent: Tuesday, March 24, 2020 7:59 AM

To: parksrec@chesterfield.gov

Subject: Federal Project: STP-5A27(616) - Bailey Bridge Connector Project - NEPA Scoping Request

Good morning,

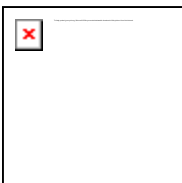
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Please feel free to send responses directly to me at this email and contact me should you have any questions or concerns.

Thank you,



Alex Nies

Project Manager, Environmental & Noise Abatement Services

4470 Cox Road, Suite 105 | Glen Allen, VA 23060

O: 804-476-0378 | D: 804-351-5289 | C: 814-881-2873

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Alex Nies

From: Harper, John - NRCS, Richmond, VA <john.harper@usda.gov>
Sent: Monday, April 27, 2020 10:50 AM
To: Alex Nies
Subject: Federal Project: STP-5A27(616) - Bailey Bridge Connector Project - NEPA Scoping Request
Attachments: Bailey_Bridge_Scoping_Request.pdf

Follow all State and Federal Laws and ordinances with concerned erosion and sediment control, and wetlands.

This is an Urban area.
Have a nice day.

J. David Harper

State Soil Scientist
State Resource Inventory Coordinator
1606 Santa Rosa Road, Suite 209
Richmond, Virginia 23229
804-287-1647

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Alex Nies

From: Faulkner, Chessa <FaulknerC@chesterfield.gov>
Sent: Monday, April 27, 2020 11:14 AM
To: Alex Nies
Cc: Epps, Brent; Craig Krupp
Subject: FW: Federal Project: STP-5A27(616) - Bailey Bridge Connector Project - NEPA Scoping Request
Attachments: Bailey_Bridge_Scoping_Request.pdf

Alex,

County admin reached out and has no comments on this request.

In the future, please be sure to include/cc Brent and myself on these kind of communications.

Thanks,
Chessa

Chessa D. Faulkner, P.E. | Senior Engineer
Chesterfield County | Department of Transportation
9800 Government Center Parkway | P.O. Box 40 | Chesterfield, VA 23832
Phone: (804) 748-1037

From: Jesse Smith <SmithJW@chesterfield.gov>
Date: Monday, April 27, 2020 at 11:07 AM
To: Brent Epps <EppsB@chesterfield.gov>, Chessa Faulkner <FaulknerC@chesterfield.gov>
Subject: FW: Federal Project: STP-5A27(616) - Bailey Bridge Connector Project - NEPA Scoping Request

Unless you think we need to do something, can you tell Alex to check us off the list?

From: Galusha, Joy <GalushaJ@chesterfield.gov>
Sent: Monday, April 27, 2020 11:03 AM
To: Epps, Brent <EppsB@chesterfield.gov>; Smith, Jesse W <SmithJW@chesterfield.gov>
Subject: FW: Federal Project: STP-5A27(616) - Bailey Bridge Connector Project - NEPA Scoping Request

From: Alex Nies <anies@atcsplc.com>
Sent: Monday, April 27, 2020 10:07 AM
To: County Administrator, <CountyAdministrator@chesterfield.gov>
Subject: Federal Project: STP-5A27(616) - Bailey Bridge Connector Project - NEPA Scoping Request

CAUTION: External Email

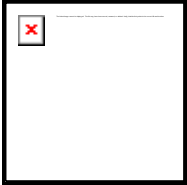
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Please feel free to send responses directly to me at this email and contact me should you have any questions or concerns.

Thank you,



Alex Nies
Project Manager, Environmental & Noise Abatement Services
4470 Cox Road, Suite 105 | Glen Allen, VA 23060
O: 804-476-0378 | D: 804-351-5289 | C: 814-881-2873
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From: Alex Nies <anies@atcsplc.com>
Sent: Tuesday, March 24, 2020 7:44 AM
To: countyadministrator@chesterfield.gov
Subject: Federal Project: STP-5A27(616) - Bailey Bridge Connector Project - NEPA Scoping Request

Good morning,

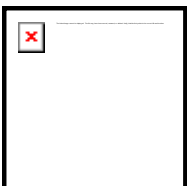
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Please feel free to send responses directly to me at this email and contact me should you have any questions or concerns.

Thank you,



Alex Nies
Project Manager, Environmental & Noise Abatement Services
4470 Cox Road, Suite 105 | Glen Allen, VA 23060
O: 804-476-0378 | D: 804-351-5289 | C: 814-881-2873
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Alex Nies

From: Atonja Allen <atonja_allen@ccpsnet.net>
Sent: Tuesday, April 14, 2020 3:56 PM
To: Alex Nies
Cc: Josh Davis; Diane Faye Gapas
Subject: Bailey Bridge Connector Project
Attachments: Bailey_Bridge_Scoping_Request - CCPS_Response_04142020.pdf

Hi Alex,

Attached here is a copy of the NEPA Evaluation Questionnaire for the Bailey Bridge Connector Project with Chesterfield County Public Schools responses provided in blue text.

Please let us know if there are questions about the CCPS responses or if any additional information is needed.

Thank you,
Atonja Allen

--

Atonja S. Allen
Senior Planning Administrator
Chesterfield County Public Schools
Planning Department
(804)318-8740
atonja_allen@ccpsnet.net

Alex Nies

From: Kotur Narasimhan <kotur.narasimhan@deq.virginia.gov>
Sent: Tuesday, March 24, 2020 3:40 PM
To: Alex Nies
Subject: BAILEY BRIDGE CONNECTOR PROJECT

Follow Up Flag: Follow up
Flag Status: Completed

This has reference to the letter from Chessa Faulkner, Senior Engineer, Transport Department, Chesterfield County, Virginia, dated March 23, 2020 addressed to Mr. Michael Dowd, Director of Air Division, Virginia Department of Environmental Quality, seeking our comments on the Bailey Bridge Connector Project, Chesterfield County.

In this connection, it is requested that during execution of the project, following Virginia Air regulations may be kept in view for compliance:

- 1. 9 VAC 5-40-5600 et seq. – Open Burning**
- 2. 9 VAC 5-50-60 et seq. Fugitive Dust Emissions**

In addition, all precautions are to be taken to contain emissions of volatile organic compounds (VOC) and oxides of nitrogen (NOX) during project execution.

Kotur S. Narasimhan
Point Source Inventory Specialist
Office of Data Analysis
Department of Environmental Quality
1111 East Main Street #22nd Floor
Richmond VA 23219
Phone: (804) 698 4415 (O)

Alex Nies

From: Timothy Cardiasmenos - NOAA Federal <timothy.cardiasmenos@noaa.gov>
Sent: Tuesday, April 28, 2020 5:10 PM
To: Alex Nies
Subject: Federal Project: STP-5A27(616) - Bailey Bridge Connector Project - NEPA Scoping Request

Follow Up Flag: Follow up
Flag Status: Completed

Dear Mr. Nies,
Thank you for the opportunity to review and offer concerns regarding the subject project. Our habitat division has reviewed the materials that you provided. We have determined that we do not have any affected resources, and will not be providing comments.
Thank you,

--
--
--

Timothy A. Cardiasmenos
NEPA Coordinator, Greater Atlantic Regional Fisheries Office

NOAA Fisheries Service
Greater Atlantic Regional Fisheries Office
NEPA Division
55 Great Republic Drive
Gloucester, MA 01930-2276
Ph: (978) 281-9204
Fx: (978) 281-9207



Find us online

www.fisheries.noaa.gov



Alex Nies

From: Bell, Holly (FHWA) <Holly.Bell@dot.gov>
Sent: Monday, April 27, 2020 12:47 PM
To: Alex Nies
Subject: RE: Federal Project: STP-5A27(616) - Bailey Bridge Connector Project - NEPA Scoping Request

Hello Mr. Nies,

Eastern Federal Lands does not have any comments or concerns related to the subject project.

Thanks,

Holly E Bell | Planning and Programs Branch Chief | 703-404-6293(O) | 571-205-5453 (C) |
FHWA-Eastern Federal Lands | 21400 Ridgetop Circle | Sterling, VA 20166

From: FHWA, EFL (FHWA)
Sent: Monday, April 27, 2020 10:39 AM
To: Arnold, Steve (FHWA) <Steve.Arnold@dot.gov>; Carruthers, Marc A. (FHWA) <Marc.Carruthers@dot.gov>
Subject: FW: Federal Project: STP-5A27(616) - Bailey Bridge Connector Project - NEPA Scoping Request

From: Alex Nies [<mailto:anies@atcsplc.com>]
Sent: Monday, April 27, 2020 10:26 AM
To: FHWA, EFL (FHWA) <EFL.FHWA@dot.gov>
Subject: Federal Project: STP-5A27(616) - Bailey Bridge Connector Project - NEPA Scoping Request

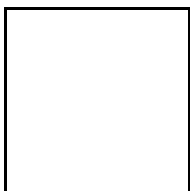
Good morning,

I am writing to follow up on my email below from March 24th asking for your input on any issues or concerns regarding resources under your jurisdiction or interest within the Bailey Bridge Connector Project study area.

Please review the attached documents and provide comments as appropriate. The documents are also available at the following link: <https://documentcloud.adobe.com/link/track?uri=urn%3Aaaid%3Aascds%3AUS%3Ac3214be7-5285-48f9-a1ec-c25c87323132>

Please feel free to send responses directly to me at this email and contact me should you have any questions or concerns.

Thank you,



Alex Nies
Project Manager, Environmental & Noise Abatement Services
4470 Cox Road, Suite 105 | Glen Allen, VA 23060
O: 804-476-0378 | D: 804-351-5289 | C: 814-881-2873
atcsplc.com | [Facebook](#) | [LinkedIn](#) | [Twitter](#)

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From: Alex Nies <anies@atcsplc.com>

Sent: Tuesday, March 24, 2020 8:04 AM

To: efl.fhwa@dot.gov

Subject: Federal Project: STP-5A27(616) - Bailey Bridge Connector Project - NEPA Scoping Request

Good morning,

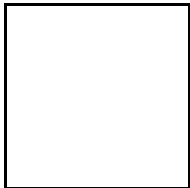
The Chesterfield Department of Transportation (CDOT), in cooperation with the Virginia Department of Transportation (VDOT) and the Federal Highway Administration (FHWA), is initiating a study to assess the potential environmental impacts associated with the proposed Bailey Bridge Connector Project (see attached map).

As part of that effort we are asking for your input on any issues or concerns regarding resources under your jurisdiction or interested within the project area. Please review the attached documents and provide comments as appropriate. The documents are also available at the following link:

<https://documentcloud.adobe.com/link/track?uri=urn%3Aaaid%3Ausc%3AUS%3Ac3214be7-5285-48f9-a1ec-c25c87323132>

Please feel free to send responses directly to me at this email and contact me should you have any questions or concerns.

Thank you,



Alex Nies

Project Manager, Environmental & Noise Abatement Services

4470 Cox Road, Suite 105 | Glen Allen, VA 23060

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[- Title VI Compliance -](#)

Alex Nies

From: Knepper, David A CIV USARMY CENAO (USA) <David.A.Knepper@usace.army.mil>
Sent: Tuesday, April 28, 2020 7:07 PM
To: Alex Nies; mack.frost@dot.gov
Cc: Okorn, Barbara; Dave Obrien; Dan Redgate; Hannah Schul - VDEQ (Hannah.schul@deq.virginia.gov); Mackenzie Scott; troy_andersen@fws.gov; marc.holma@dhr.virginia.gov
Subject: RE: Bailey Bridge Connector Project (VDOT Project Number: 0000-020-820; UPC No. 111713)
Attachments: Bailey_Bridge_Scoping_Request.pdf; NAO-2020-00563 - Bailey Bridge Connector Project - USACE scoping respons....pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Mr. Nies,

Attached are our responses to the CDOT's request for feedback re: the proposed the Bailey Bridge Connector Project in Chesterfield County, VA.

Thanks,
Dave

Environmental Scientist
U.S. Army Corps of Engineers
Special Projects Section
Regulatory Branch
803 Front Street
Norfolk, VA 23510-1011
Office (757) 201-7488
Work cell (757) 777-5426
david.a.knepper@usace.army.mil
<http://www.nao.usace.army.mil/Missions/Regulatory.aspx>

-----Original Message-----

From: Knepper, David A CIV USARMY CENAO (USA)
Sent: Thursday, April 23, 2020 2:39 PM
To: anies@atcspc.com
Subject: Bailey Bridge Connector Project (VDOT Project Number: 0000-020-820; UPC No. 111713)

Hi Mr. Nies,

We received the letter from Chessa Faulkner, P.E., Senior Engineer with the Chesterfield County Department of Transportation dated 23 March 2020 that requested feedback from our agency re: the potential environmental impacts associated with the proposed the Bailey Bridge Connector Project. Comments were requested by 22 April 2020. I just wanted to notify you that we have prepared responses to the questionnaire that accompanied the letter, but it is still being reviewed for signature. I'll forward on to you via e-mail once it has been finalized.

Feel free to contact me if you have any questions.

Respectfully,

David Knepper

Environmental Scientist

U.S. Army Corps of Engineers

Special Projects Section

Regulatory Branch

803 Front Street

Norfolk, VA 23510-1011

Office (757) 201-7488

Work cell (757) 777-5426

david.a.knepper@usace.army.mil

<http://www.nao.usace.army.mil/Missions/Regulatory.aspx>

Alex Nies

From: Spagnolo, Ralph <Spagnolo.Ralph@epa.gov>
Sent: Friday, May 8, 2020 1:19 PM
To: Alex Nies; mack.frost@dot.gov
Subject: FW: Bailey Bridge Connector Project (VDOT Project Number: 0000-020-820; UPC No. 111713)

Follow Up Flag: Follow up
Flag Status: Flagged

Sorry your emails bounced.

-----Original Message-----

From: Spagnolo, Ralph
Sent: Friday, May 08, 2020 1:03 PM
To: acanies@atcsplc.com
Cc: mk.frost@dot.gov; Okorn, Barbara <Okorn.Barbara@epa.gov>; Dave Obrien <david.l.obrien@noaa.gov>; Dan Redgate <daniel.redgate@vdot.virginia.gov>; Hannah.schul@deq.virginia.gov; mackenzie.scott@deq.virginia.gov; troy_andersen@fws.gov; marc.holma@dhr.virginia.gov; Rudnick, Barbara <Rudnick.Barbara@epa.gov>; Beers, Samantha <beers.samantha@epa.gov>
Subject: FW: Bailey Bridge Connector Project (VDOT Project Number: 0000-020-820; UPC No. 111713)

Dear Mr. Nies,

Thank you for the opportunity to provide comments on the Baily Bridge Connector Project. Unfortunately due to USEPA offices being closed, we are working from alternative locations and just received your letter. EPA is interested in reviewing this proposed project and support the U. S. Army Corps of Engineers comments mentioned below.

EPA has developed a GIS-based tool (EJ Screen) to assist in identification of environmental justice (EJ) communities: <https://www.epa.gov/ejscreen>; this tool is very useful in scoping of projects in environmental review and NEPA. We applied the tool using the field area of this proposed project. The tool considers demographic data on the individual block-group level within the project area, as well as using a one-mile radius around the approximate boundary of the project area. EJ Screen identified no areas of potential concern for in environmental justice communities. No additional review for potential EJ concerns is required for areas within the project boundary.

We appreciate your offer to us to participate in project assessment and are looking forward to working with you as this project moves forward. Please forward any project related documents or meetings notices to me at spagnolo.ralph@epa.gov or feel free to call me at (215) 814-2718.

Thank you and hope all is well,

Ralph

-----Original Message-----

From: Knepper, David A CIV USARMY CENAO (USA) <David.A.Knepper@usace.army.mil>
Sent: Tuesday, April 28, 2020 7:07 PM
To: acanies@atcsplc.com; mk.frost@dot.gov
Cc: Okorn, Barbara <Okorn.Barbara@epa.gov>; Dave Obrien <david.l.obrien@noaa.gov>; Dan Redgate <daniel.redgate@vdot.virginia.gov>; Hannah Schul - VDEQ (Hannah.schul@deq.virginia.gov) <Hannah.schul@deq.virginia.gov>; Mackenzie Scott <mackenzie.scott@deq.virginia.gov>; troy_andersen@fws.gov; marc.holma@dhr.virginia.gov

Subject: RE: Bailey Bridge Connector Project (VDOT Project Number: 0000-020-820; UPC No. 111713)

Mr. Nies,

Attached are our responses to the CDOT's request for feedback re: the proposed the Bailey Bridge Connector Project in Chesterfield County, VA.

Thanks,
Dave

Environmental Scientist
U.S. Army Corps of Engineers
Special Projects Section
Regulatory Branch
803 Front Street
Norfolk, VA 23510-1011
Office (757) 201-7488
Work cell (757) 777-5426
david.a.knepper@usace.army.mil

<https://gcc01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.nao.usace.army.mil%2FMissions%2FRegulatory.aspx&data=02%7C01%7CSpagnolo.Ralph%40epa.gov%7C984328124cd64559512b08d7f1a837af%7C88b378b367484867acf976aacbeca6a7%7C0%7C0%7C637243577112833566&sdata=P%2B0iQE%2B6s0VSBvnMpoH38WV2yLNyHZdXTmACoFjphdY%3D&reserved=0>

-----Original Message-----

From: Knepper, David A CIV USARMY CENAO (USA)
Sent: Thursday, April 23, 2020 2:39 PM
To: anies@atcsplc.com
Subject: Bailey Bridge Connector Project (VDOT Project Number: 0000-020-820; UPC No. 111713)

Hi Mr. Nies,

We received the letter from Chessa Faulkner, P.E., Senior Engineer with the Chesterfield County Department of Transportation dated 23 March 2020 that requested feedback from our agency re: the potential environmental impacts associated with the proposed the Bailey Bridge Connector Project. Comments were requested by 22 April 2020. I just wanted to notify you that we have prepared responses to the questionnaire that accompanied the letter, but it is still being reviewed for signature. I'll forward on to you via e-mail once it has been finalized.

Feel free to contact me if you have any questions.

Respectfully,

David Knepper

Environmental Scientist
U.S. Army Corps of Engineers
Special Projects Section
Regulatory Branch
803 Front Street
Norfolk, VA 23510-1011
Office (757) 201-7488
Work cell (757) 777-5426

david.a.knepper@usace.army.mil

<https://gcc01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.nao.usace.army.mil%2FMissions%2FRegulatory.aspx&data=02%7C01%7CSpagnolo.Ralph%40epa.gov%7C984328124cd64559512b08d7f1a837af%7C88b378b367484867acf976aacbeca6a7%7C0%7C0%7C637243577112833566&sdata=P%2B0iQE%2B6s0VSBvnMpoH38WV2yLNyHZdXTmACoFjphdY%3D&reserved=0>

Alex Nies

From: Mark Eversole <mark.eversole@mrc.virginia.gov>
Sent: Monday, April 27, 2020 2:04 PM
To: Alex Nies
Subject: FW: Bailey Bridge Connector Project, Chesterfield County

Trying again with your correct email address.

From: Mark Eversole <mark.eversole@mrc.virginia.gov>
Sent: Monday, April 27, 2020 2:00 PM
To: anies@atcsple.com
Cc: Mark Eversole <Mark.Eversole@mrc.virginia.gov>; Lou Atkins <lou.atkins@mrc.virginia.gov>
Subject: Bailey Bridge Connector Project, Chesterfield County

Mr. Nies,

This will respond to the request for comments regarding the Bailey Bridge Connector Project. Specifically, the applicants have proposed to construct a two-lane roadway on new alignment from Bailey Bridge Road to Brad McNeer Parkway in Chesterfield County. Based on a desktop review of the information provided, it appears that this new roadway will cross over portions of Swift Creek. As such, this project WILL require a permit from this agency. Please be advised that the Virginia Marine Resources Commission (VMRC) pursuant to Chapter 12, 13, & 14 of Title 28.2 of the Code of Virginia administers permits required for submerged lands, tidal wetlands, and beaches and dunes. The VMRC administers the enforceable policies of fisheries management, subaqueous lands, tidal wetlands, and coastal primary sand dunes and beaches which comprise some of Virginia's Coastal Zone Management Program. VMRC staff has reviewed the submittal and offers the following comments:

Fisheries and Shellfish: Potential to impact aquatic species through construction activities.
State-owned Submerged Lands: The project crosses over State-owned submerged lands.
Tidal Wetlands: There are no impacts to tidal wetlands associated with this project.
Beaches and Coastal Primary Sand Dunes: None in close proximity to the project area

This project has foreseeable impacts on the VMRC's enforceable policies. Upon receipt of a complete Joint Permit Application and project drawings, our staff will review the application and proceed with a full public interest review. Any permit issued by the VMRC will specify necessary special conditions for the project. If you have any questions please contact me at (757) 247-8028 or by email at mark.eversole@mrc.virginia.gov. Thank you for the opportunity to comment

Mark Eversole
Environmental Engineer
Virginia Marine Resources Commission
380 Fenwick Road
Building 96
Fort Monroe, Virginia 23651
O) 757-247-8028

Alex Nies

From: Simkins, John (FHWA) <John.Simkins@dot.gov>
Sent: Monday, April 27, 2020 3:11 PM
To: Alex Nies
Cc: Stearns, Palmer
Subject: RE: Federal Project: STP-5A27(616) - Bailey Bridge Connector Project - NEPA Scoping Request

Follow Up Flag: Follow up
Flag Status: Completed

Alex,

Since FHWA is the lead federal agency for the project, there is no need to send us a scoping request.

John

John Simkins
Planning, Environment, Realty, and Freight Team Leader
FHWA – Virginia Division
804-775-3347
John.Simkins@dot.gov

From: Alex Nies [<mailto:anies@atcsplc.com>]
Sent: Monday, April 27, 2020 11:05 AM
To: Nelson, Thomas (FHWA) <thomas.nelson@dot.gov>
Subject: Federal Project: STP-5A27(616) - Bailey Bridge Connector Project - NEPA Scoping Request

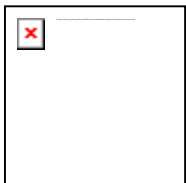
Good morning,

I am writing to follow up on my email below from March 24th asking for your input on any issues or concerns regarding resources under your jurisdiction or interest within the Bailey Bridge Connector Project study area.

Please review the attached documents and provide comments as appropriate. The documents are also available at the following link: <https://documentcloud.adobe.com/link/track?uri=urn%3Aaaid%3Aascds%3AUS%3A8a4db571-3225-4fe9-8f3b-4fd0c327631c>

Please feel free to send responses directly to me at this email and contact me should you have any questions or concerns.

Thank you,



Alex Nies
Project Manager, Environmental & Noise Abatement Services
4470 Cox Road, Suite 105 | Glen Allen, VA 23060
O: 804-476-0378 | D: 804-351-5289 | C: 814-881-2873
atcsplc.com | [Facebook](#) | [LinkedIn](#) | [Twitter](#)

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From: Alex Nies <anies@atcsplc.com>

Sent: Tuesday, March 24, 2020 10:38 AM

To: thomas.nelson@dot.gov

Subject: Federal Project: STP-5A27(616) - Bailey Bridge Connector Project - NEPA Scoping Request

Good morning,

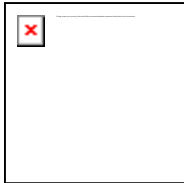
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Thank you,



Alex Nies

Project Manager, Environmental & Noise Abatement Services

4470 Cox Road, Suite 105 | Glen Allen, VA 23060

O: 804-476-0378 | D: 804-351-5289 | C: 814-881-2873

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Alex Nies


From: Andersen, Troy M <troy_andersen@fws.gov>
Sent: Monday, April 27, 2020 10:56 AM
To: Alex Nies
Subject: RE: [EXTERNAL] Federal Project: STP-5A27(616) - Bailey Bridge Connector Project - NEPA Scoping Request
Attachments: 20151030_Letter_Service to Interested Parties_Online Project Reviews SIGNED.pdf

Greetings:

We do not provide individual responses to requests for environmental reviews/scoping requests. Instead, we utilize an online project review process. The attached letter provides an overview of the process as well as a link to the process website. If you have additional questions regarding the process, don't hesitate to contact me.

The species list from IPaC that you have already pulled represents our input on issues or concerns regarding resources under our jurisdiction.

V/R
Troy



Troy Andersen
Assistant Field Office Supervisor – Endangered Species
Virginia Field Office
6669 Short Lane
Gloucester, VA 23061
804-824-2428

From: Alex Nies <anies@atcspc.com>
Sent: Monday, April 27, 2020 10:19 AM
To: Andersen, Troy M <troy_andersen@fws.gov>
Subject: [EXTERNAL] Federal Project: STP-5A27(616) - Bailey Bridge Connector Project - NEPA Scoping Request

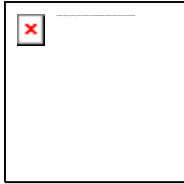
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Please review the attached documents and provide comments as appropriate. The documents are also available at the following link: <https://documentcloud.adobe.com/link/track?uri=urn%3Aaaid%3Aascds%3AUS%3A4ab4e1f9-322a-4e98-a8ec-740e2b072b86>

Please feel free to send responses directly to me at this email and contact me should you have any questions or concerns.

Thank you,



Alex Nies

Project Manager, Environmental & Noise Abatement Services

4470 Cox Road, Suite 105 | Glen Allen, VA 23060

O: 804-476-0378 | D: 804-351-5289 | C: 814-881-2873

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From: Alex Nies <anies@atcsplc.com>

Sent: Tuesday, March 24, 2020 7:57 AM

To: troy_andersen@fws.gov

Subject: Federal Project: STP-5A27(616) - Bailey Bridge Connector Project - NEPA Scoping Request

Good morning,

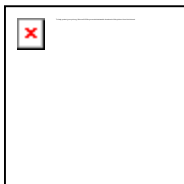
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<https://documentcloud.adobe.com/link/track?uri=urn%3Aaaid%3Aascds%3AUS%3A4ab4e1f9-322a-4e98-a8ec-740e2b072b86>

Please feel free to send responses directly to me at this email and contact me should you have any questions or concerns.

Thank you,



Alex Nies

Project Manager, Environmental & Noise Abatement Services

4470 Cox Road, Suite 105 | Glen Allen, VA 23060

O: 804-476-0378 | D: 804-351-5289 | C: 814-881-2873

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Alex Nies

From: Rayfield, Bettina <bettina.rayfield@deq.virginia.gov>
Sent: Monday, April 13, 2020 2:35 PM
To: Alex Nies
Subject: Bailey Bridge Scoping
Attachments: BAILEY BRIDGE CONNECTOR.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Please find VDH's response to the scoping request.

Ms. Bettina Rayfield

Manager

Environmental Impact Review and Long Range Priorities Program

[804.698.4204](tel:804.698.4204)

Bettina.rayfield@DEQ.Virginia.gov

Department of Environmental Quality

1111 East Main Street, Suite 1400

Richmond, Virginia 23219

Mailing address

Post Office Box 1105

Richmond, Virginia 23218

www.DEQ.Virginia.gov

For program updates and public notices please subscribe to Constant
Contact: <https://lp.constantcontact.com/su/MVcCump/EIR>

Alex Nies

From: Rayfield, Bettina <bettina.rayfield@deq.virginia.gov>
Sent: Monday, April 13, 2020 2:37 PM
To: Alex Nies
Subject: Re: Bailey Bridge Scoping
Attachments: Bailey Bridge VDH.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Sorry, the other copy did not have all the pages. See attached.

Ms. Bettina Rayfield

Manager

Environmental Impact Review and Long Range Priorities Program

[804.698.4204](tel:804.698.4204)

Bettina.rayfield@DEQ.Virginia.gov

Department of Environmental Quality

1111 East Main Street, Suite 1400

Richmond, Virginia 23219

Mailing address

Post Office Box 1105

Richmond, Virginia 23218

www.DEQ.Virginia.gov

For program updates and public notices please subscribe to Constant
Contact: <https://lp.constantcontact.com/su/MVcCump/EIR>

On Mon, Apr 13, 2020 at 2:35 PM Rayfield, Bettina <bettina.rayfield@deq.virginia.gov> wrote:
Please find VDH's response to the scoping request.

Ms. Bettina Rayfield

Manager

Environmental Impact Review and Long Range Priorities Program

[804.698.4204](tel:804.698.4204)

Bettina.rayfield@DEQ.Virginia.gov

Department of Environmental Quality

1111 East Main Street, Suite 1400

Richmond, Virginia 23219

Mailing address

Post Office Box 1105

Richmond, Virginia 23218

www.DEQ.Virginia.gov

For program updates and public notices please subscribe to Constant
Contact: <https://lp.constantcontact.com/su/MVcCump/EIR>



Memorandum

Chesterfield County, Virginia

TO: File

FROM: Chessa Faulkner, Senior Engineer, Department of Transportation
Brent Epps, Assistant Director, Department of Transportation

DATE: December 18, 2019

SUBJECT: **Bailey Bridge Connector (Brad McNeer Parkway to Bailey Bridge Road), UPC 111713
Locally Preferred Alternative**

Citizen Information Meeting

Chesterfield County has secured funding to develop construction plans for a connector road from Brad McNeer Parkway to Bailey Bridge Road, referred to as the Bailey Bridge Connector. A Citizen Information Meeting for the Bailey Bridge Connector project was held on October 3, 2019 at Manchester High School. The purpose of this meeting was to provide an overview of the project, present the three alignment alternatives under consideration, and solicit input from the public. All materials from the meeting were posted on the project website (www.streamlinechesterfield.com).

Summary of Public Input

A total of 161 attendees were recorded on the meeting sign-in sheet. Comments were received following the meeting through October 31, 2019. A total of 126 written comments were received. A summary of responses to each comment sheet question is provided below. Based on citizen feedback there is general support for the project, with 56% of respondents in support of the project. Also attached is a summary of the predominate questions received and responses.

Comment Sheet Question #1	Yes	No	Not Sure/ No Response	Total # of Responses
Do you support the project?	71	38	17	126

Comment Sheet Question #2	Alt. 1 [Yellow]	Alt. 2 [Blue]	Alt. 3 [Red]	Not Sure/ No Response	Total # of Responses
Which alternative do you prefer?	13	88	14	11	126

Comment Sheet Question #3	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Not Sure/ No Response	Total # of Responses
County representatives were helpful and able to answer my questions:	44	40	12	3	6	21	126

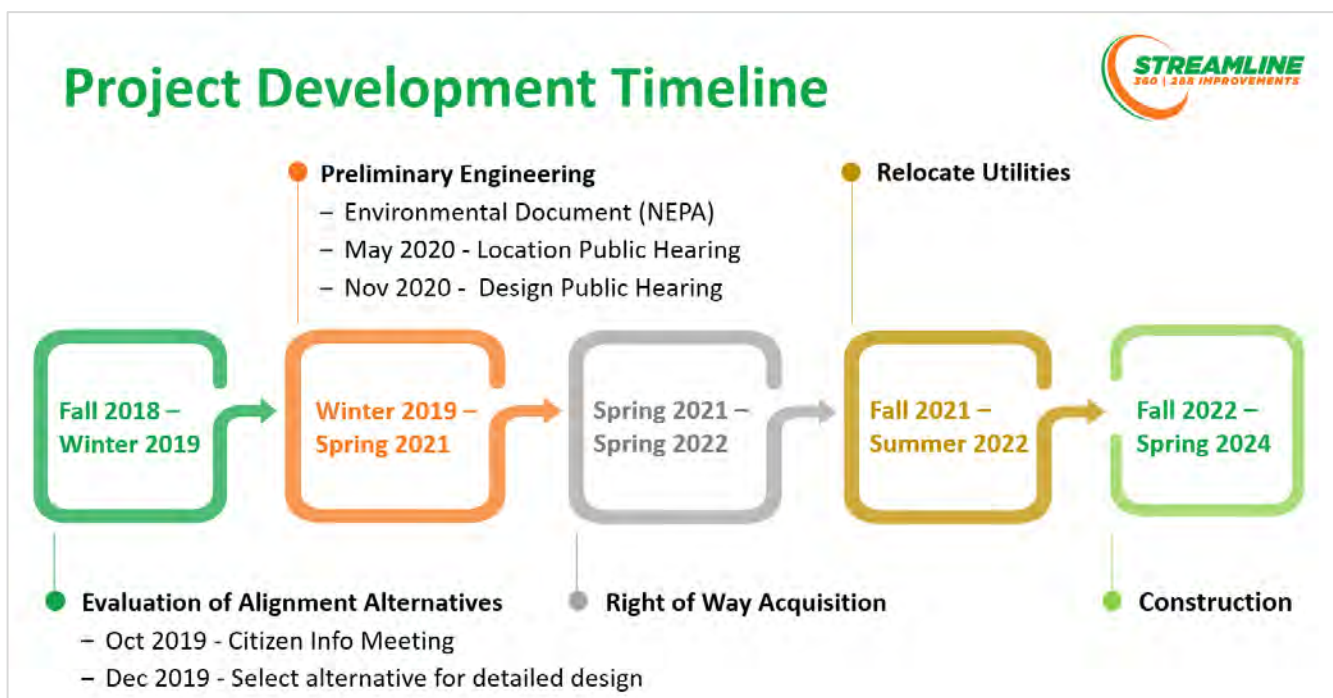
Locally Preferred Alternative

Based on the comparison of estimated impacts, as summarized in the attached evaluation matrix, Alternative 2 has been selected as the locally preferred alternative. Highlights of the evaluation matrix are noted below.

- 70% of respondents selected Alternative 2.
- Alternate 2 impacts the fewest number of parcels.
- Alternate 2 has the lowest estimated construction cost.

Next Steps

The county will begin preliminary engineering of the locally preferred alternative. The project development timeline is provided below. The public will have multiple opportunities to review the project plans and provide comment. Updates will be provided on the Streamline Chesterfield website.



Attachments:

- Locally Preferred Alternative Graphic - dated December 17, 2019
- Evaluation of Alternatives Matrix - dated December 17, 2019
- Summary of Frequently Asked Questions - dated December 18, 2019