

**IMPROVEMENTS TO FOREST HILL AVENUE (STATE ROUTE 683)  
RICHMOND, VIRGINIA**

**State Project Number: U000-127-155  
Federal Project Number: STP-5127(543)  
UPC: 19036**

**CATEGORICAL EXCLUSION**

**Documentation Prepared By:  
Stantec Consulting Services Inc.**

**Documentation Prepared For:  
City of Richmond  
Virginia Department of Transportation**

December 2012

## Documentation of FHWA Review

Project Name: Route 683; Improvements to Forest Hill Avenue

State Project Number: U000-127-155

UPC: 19036

Based on the preliminary environmental impact information compiled by VDOT, FHWA approved this project as a Categorical Exclusion on 10/11/2012. 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.

Mark Z. Smith 12/26/2012  
for Approving FHWA Official, Date

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<http://www.richmondgov.com/PublicWorks/ForestHillImprovementProject.aspx>

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TO: FHWA  
FROM: Nick Frolich  
DATE: 12/21/12

### CATEGORICAL EXCLUSION (CE)

**Date CE level document approved by VA FHWA Division:** 10/11/12

**FHWA Contact:** Mack Frost

**Route:** Forest Hill Avenue (State Route 683)

**Route Type:** Urban

**Project Type:** Construction

**State Project Number:** U000-127-155

**Federal Project Number:** STP-5127(543)

**UPC:** 19036

**From:** Hathaway Road

**To:** East Junction Powhite Parkway

**County/City:** Richmond

**District / Residency:** Richmond

**Project in STIP:** Yes

**Project in Long Range Plan:** Yes  No  N/A Project Outside of MPO Area

**Project Description:** The City of Richmond proposes to improve a 0.8-mile section of Forest Hill Avenue from just west of the Powhite Parkway to east of Hathaway Road. A project location map is included in the appendix. Forest Hill Avenue is an urban minor arterial (Richmond MPO, 2005) that connects with two major limited-access highways. Forest Hill Avenue’s connectivity with Chippenham Parkway and Powhite Parkway make the roadway function as a major facility for commuter traffic. The posted speed limit on the existing roadway is 45 miles per hour (mph). This section of Forest Hill Avenue is an undivided four-lane facility predominantly flanked by residential development with some commercial use near the Hathaway Road intersection. The purpose of the project is to improve multi-modal safety and enhance livability along the roadway. The need for the project is based on high traffic volumes and a high number of accidents. Over a three year period from January 2006 through December 2008, 216 crashes occurred on this section of roadway; the majority of these were read-end collisions (98), followed by angle crashes (54), side-swipe same direction (20), and head-on collisions (16). Over half of these accidents were at the Powhite Parkway intersection, with rear-end collisions being the most frequent type of accident. Current traffic volumes (2009) indicate that the road carries an average annual daily traffic volume in excess of 32,000 vehicles, with volumes projected to increase in the future.

The proposed design includes four 11-foot lanes, two 5-foot bicycle lanes (one in each direction), 12-foot raised median, curb, two 4-foot grass strips, and 4-foot sidewalks on both shoulders. The sidewalk design includes wider ‘passing sections’ that extend into the grass strip every 200 feet. These passing sections allow pedestrians to pass each other while remaining on the sidewalk. The posted speed limit would be reduced from 45 to 35 mph. In addition to providing bicycle lanes and sidewalks, the proposed design includes access management strategies to improve safety on Forest Hill Avenue. A raised median would be constructed for the length of the project and left-turns would be eliminated at three existing full-movement intersections (Norcross Road, Heartwood Road, and Glyndon Lane). These intersections would be modified to right-in/right-out intersections. Figures 1A and 1B show the proposed intersection modifications. Construction of the raised median would also prohibit left-turns from 21 driveways. To make a left turn, traffic would be directed to a nearby full-movement intersection. Given that the entire project (including all U-turn locations) is 0.8-mile in length, additional driving distances associated with making a U-turn would be limited, as the proposed intersection modifications are within several hundred feet of the U-turn locations. The proposed improvements would lengthen the westbound off-ramp of the Powhite Parkway to help reduce accidents at this location. The proposed project would also modify the existing traffic signal at the intersection of Forest Hill and Hathaway Road to include

signal heads at the Melbourne Drive intersection. Funding is currently allocated for planning, design, and right-of-way acquisition (VDOT, July 2011).

To minimize the need for additional right-of-way, the project proposes 11-foot lanes and that the roadway gutter (normally concrete) would be paved and included as part of the bicycle lane. The need for a major utility easement would be eliminated by placing utilities in the center median. In addition to median and shoulder landscaping, aesthetic enhancement measures would also include the use of specially-designed pavers in several crosswalks.

**CE Category 23 CFR 771.117: d(1)**

**Description of CE Category: 23 CFR 771.117 d(1)**

- 1) Modernization of a highway by resurfacing, restoration, rehabilitation, reconstruction, adding shoulders, or adding auxiliary lanes (e.g., parking, weaving, turning, climbing).

**USGS Map Attached**      Yes

**Logical Termini and Independent Utility:**

Yes       N/A  (For Non-highway construction only, explain in comments below)

**Comments:** In adherence with FHWA procedures for project development, the following discussion is provided to demonstrate that the proposed project: 1) connects logical termini and is of sufficient length to address environmental matters on a broad scope; 2) has independent utility or independent significance; and, 3) does not restrict the consideration of alternatives for other reasonable foreseeable transportation improvements [23 CFR 771.111(f)].

The proposed project’s termini were set to include Forest Hill Avenue from Hathaway Road to Powhite Parkway. This section of Forest Hill Avenue is between two major limited-access highways and carries a large amount of regional commuter traffic through a section of roadway flanked by single-family residences. The large number of individual driveway connections, combined with the roadway’s high amount of through traffic, has contributed to high accident rates. Modifying the roadway’s access control between the two termini will address safety and capacity issues associated with the roadway’s current access control. With respect to independent utility, this small section of highway has historically experienced very high accident rates, as detailed in the project description. The proposed project demonstrates independent utility as it would prove immediate safety benefits to travelers on the roadway within the proposed project limits. Because the proposed improvements are along the existing roadway alignment, the project does not limit the consideration of alternatives for other foreseeable transportation projects. The proposed improvements would not increase congestion or safety problems on the remainder of the roadway or create any other situation in which additional improvements would be required.

**Typical Section:** As shown in Figure 3, the proposed design includes four 11-foot lanes, two 5-foot bicycle lanes (one in each direction), 12-foot raised median, curb, two 4-foot grass strips, and 4-foot sidewalks on both shoulders. In addition to providing bicycle lanes and sidewalks, a raised median would be constructed for the length of the project. As shown in Figure 3, the proposed typical section is 84.5 feet wide and was designed to fit within the existing typical section. Established trees adjacent to the roadway would be preserved or replaced and the center median and grass strips would be landscaped.

**Structures:** This section of Forest Hill Avenue does not cross any streams. There are no existing structures and the proposed project would not require the construction of any drainage structures.

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"/>
<i>Source:</i> USBOC, 2010.				
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"/>

<b>Source:</b> Field surveys identified the Willow Oaks Country Club near the eastern terminus of the project.				
Community Services	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Source:</b> City of Richmond, 2012. GRTC Transit, 2012				
Consistent with Local Land Use: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
<b>Source:</b> VDOT, 2011. RRMPO, 2008.				
Existing or Planned Bicycle/Pedestrian Facilities	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Source:</b> City of Richmond, 2010.				
<p><b>Comments:</b> To determine the presence of minority populations within the project study area, 2010 US Bureau of the Census (BOC) demographic databases were reviewed. The BOC database illustrates minority population variation within individual census tracts (i.e., block level data), which allowed for a more precise analysis of the project study area. No minority or low-income populations were identified along the roadway corridor. The proposed project will not cause any disproportionately high and adverse effects on any minority or low-income populations.</p> <p>No direct impacts to schools, police stations, fire stations, churches, or other community facilities are associated with the proposed project. Huguenot High School, Thompson Middle School, and Southampton Elementary School are located within the immediate vicinity of the project and bus routes for these schools utilize Forest Hill Avenue. Construction of the proposed project would have minor temporary effects on school bus routes and emergency response times due to possible delays caused by construction and traffic related to construction. Upon completion, the proposed project would aid in the reduction of emergency response times within the project study area and vicinity. GRTC Transit Route Nos. 64 Express and 70 travel this section of Forest Hill Avenue. There are a total of six signed bus stops along the project corridor (three in each direction); all bus stops would be maintained and replaced in-kind. No new bus stops or modifications to existing stops are included in the proposed improvements.</p> <p>No adverse impacts to families, neighborhoods, or communities are anticipated from the proposed improvements. The project would benefit the local community by: improving safety along a high-accident corridor, improving multi-modal safety with the addition of bicycle and pedestrian facilities, and enhancing livability along the roadway. The proposed project's inclusion of bicycle and pedestrian facilities is consistent with the USDOT's <i>Policy Statement on Bicycle and Pedestrian Accommodation</i> (i.e., "Complete Streets" policy) as well as recommendations contained in the <i>Mayor's Pedestrian, Bicycling and Trails Planning Commission Report</i> (May 2010) and the Richmond Area Municipal Planning Organization's <i>plan2035 Long-Range Transportation Plan</i> (July 2012). In addition to providing safe multimodal access to shopping and other services in the Hathaway Road area, the project would also provide connectivity to the Powhite Creek Greenway near the project's eastern terminus.</p>				

<b>SECTION 4(f) and SECTION 6(f)</b>	<b>YES</b>	<b>NO</b>
Use of 4(f) Property: No Acres of use: Zero	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Name of Resource: N/A		
<b>Type of Resource:</b>		
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"/>

<i>Source:</i> Cultural Resources Inc., 2009. VDHR, 2012.		
DeMinimis:	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Type of Use:</b>		
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:	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Acres of Conversion:		
<i>Source:</i> USDOJ, 2012.		
<b>Comments:</b> No comments.		

\*Note that a Constructive Use and a Temporary Non 4(f) Use do not apply with a De Minimis finding.

CULTURAL RESOURCES	COMPLETE	N/A
<i>Source:</i> Cultural Resources Inc., 2009. VDHR, 2010.		
"No Effect" Pursuant to 1999 DHR Agreement	<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 type="checkbox"/>	<input checked="" 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: 2/2/10		
MOA Attached: N/A <input checked="" type="checkbox"/> Execution Date: / /		
Name of Historic Property:		
Comments: A Phase I Cultural Resources Study was prepared in July 2009, which identified a number of houses eligible for listing on the National Register of Historic Places. The City of Richmond provided this study to the State Historic Preservation Office (SHPO) and in correspondence dated February 2, 2010, SHPO indicated that the project would not affect any historic properties and that no further identification efforts are warranted.		

NATURAL RESOURCES	PRESENT		IMPACTS	
	YES	NO	YES	NO
Surface Water:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Linear ft.	
<i>Source:</i> Stantec, 2009. USGS, 1994. NRCS, 2012.				
<b>Federal Threatened or Endangered Species:</b>				
Terrestrial: None	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Aquatic: None	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Plants: None	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>Source:</i> VDOT, 2005. Stantec, 2009. VDGIF, 2012. USFWS, 2012a.				
100 Year Floodplain:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>Source:</i> FEMA, 2012.				
Tidal Waters/Wetlands:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Acres Type	
Wetlands:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Acres Type	
<i>Source:</i> Stantec, 2009. USFWS, 2012b.				

Permits Required:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>Source:</b> USACE, 2012.			
<b>Comments:</b> Drainage for the proposed project will be designed in compliance with Virginia Stormwater Management Program (VSMP) regulations and any other regulations that may be applicable due to the project's proximity to the Chesapeake Bay Preservation resource management area (RMA) south of the project. Coordination will be maintained with permitting agencies during final design, permitting, right-of-way acquisition, and construction.			

AGRICULTURAL / OPEN SPACE	PRESENT		IMPACTS	
	YES	NO	YES	NO
Open Space Easements:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Source:</b> Cedar GIS, 2012.				
Agricultural/Forestal Districts:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Source:</b> Cedar GIS, 2012.				
<b>Comments:</b> No comments.				

FARMLAND	YES	NO
NRCS Form CPA-106 Attached:	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Alternatives Analysis Required:	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>If Form CPA-106 is not attached check all that are applicable:</b>		
Land already in Urban use:	<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:	<input type="checkbox"/>	<input type="checkbox"/>
NRCS Determined no prime or unique farmland in the project area.	<input type="checkbox"/>	<input type="checkbox"/>
<b>Source:</b> City of Richmond, 2012.		
<b>Comments:</b> No comments.		

INVASIVE SPECIES	PRESENT		
	YES	NO	UNKNOWN
Invasive Species in the project area:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Source:</b> Stantec, 2009. VDCR, 2009.			
<b>Comments:</b> Although not observed in abundance, the roadway corridor likely has locations where invasive species such as Chinese privet ( <i>Ligustrum sinense</i> ), blackberry ( <i>Rubus</i> sp.), trumpet creeper ( <i>Lonicera sempervirens</i> ), and Japanese honeysuckle ( <i>Lonicera japonica</i> ) are present. The proposed improvements include plantings along the roadway shoulders and in the raised median; these plantings will be maintained by the City of Richmond, which will prevent passive cultivation of invasive species.			

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.		



<b>Ozone</b>		
This project is located in an Ozone	<input type="checkbox"/> Attainment Area	<input checked="" 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 checked="" type="checkbox"/> Properly programmed in the 2031 CLRP and FY 12 - 15 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.		
<b>Fine Particulate Matter (PM2.5)</b>	<b>Yes</b>	<b>No</b>
This project is located in a PM <sub>2.5</sub>	<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 <sub>2.5</sub> Hotspot Analysis Required? (If "Yes", Please Attach Analysis)	<input type="checkbox"/>	<input 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 % _____		
<b>Mobile Source Air Toxics (MSAT)</b>		
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 checked="" 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 _____		
<i>Source:</i> VDOT, 2009. VDOT, 2011.		
<p><b>Comments:</b> The project is in attainment for Carbon Monoxide (CO) and Fine Particulate Matter (PM2.5) and a maintenance area for Ozone. The project is regionally significant and regional conformity requirements apply. It comes from the 2031 Long Range Transportation Plan and Fiscal Year 2012-2015 Transportation Improvement Program that has been found to conform to the State Implementation Plan. The project completion schedule, design concept and scope are correctly reflected in the currently conforming transportation plan and program.</p> <p>The project does not include or directly affect any roadway whose design year average daily traffic volume, skew angle or level of service would exceed the threshold criteria specified 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 the "worst-case" parameters has been conducted for these thresholds and it has been determined that projects, such as this one, for which the thresholds would not be exceeded would not significantly impact air quality and would not cause or contribute to a new violation, or delay timely attainment of the National</p>		

Ambient Air Quality Standards for carbon monoxide.

This project will not result in any meaningful changes in traffic volumes, vehicle mix, location of the existing facility, or any other factor that would cause an increase in emissions impacts relative to the no-build alternative. As such, FHWA Has determined that this project will generate minimal air quality impacts for Clean Air Act criteria pollutants and has not been linked with any special MSAT concerns. Consequently this effort is exempt from analysis for MSATs.

Moreover, EPA regulations for vehicle engines and fuels will cause overall MSATs to decline significantly over the next 20 years. Even after accounting for a 64 percent increase in vehicle-miles-travelled (VMT), FHWA predicts MSATs will decline in the range of 57 percent to 87 percent from 2000 to 2020, based on regulations now in effect, even with a projected 64 percent increase in VMT. This will both reduce the project level of MSATs as well as the possibility of even minor MSAT emissions from this project.

<b>NOISE</b>	<b>YES</b>	<b>NO</b>
Type I Project:	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>Source:</i> VDOT, 2011.		
Noise Analysis Attached:	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Barriers Under Consideration:	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>Source:</i> VDOT, 2011.		
<b>Comments:</b> A noise analysis is not required for the proposed project, in accordance with criteria detailed in the VDOT Highway Traffic Noise Impact Analysis Guidance Manual (VDOT, 2011).		

<b>RIGHT OF WAY AND RELOCATIONS</b>	<b>YES</b>	<b>NO</b>
Residential Relocations:	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>Source:</i> Parcel data and preliminary designs for proposed project.		
Commercial Relocations:	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>Source:</i> Parcel data and preliminary designs for proposed project.		
Non-profit Relocations:	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>Source:</i> Parcel data and preliminary designs for proposed project.		
Right of Way required: If "Yes", acreage amount: 0.33-acre (See details below.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<i>Source:</i> Parcel data and preliminary designs for proposed project.		
<b>Comments:</b> To minimize the need for additional right-of-way, the project proposes 11-foot lanes and that the roadway gutter (normally concrete) would be paved and included as part of the bicycle lane. The need for a major utility easement would be eliminated by placing utilities in the center median. In addition to median and shoulder landscaping, aesthetic enhancement measures would also include the use of specially-designed pavers in several crosswalks and decorative stone or stone façade for proposed retaining walls.		
The proposed project is being designed to fit within the existing right-of-way; however, additional right-of-way will likely be required at six locations (Hathaway Road, Melbourne Drive, Windsorview Drive, Woodberry Lane, Rettig Road, and Willow Oaks Country Club) where short right-turn lanes or U-turn tapers are necessary. Additional right-of-way ranging from 0 to 10 feet would be required for a 500-foot (0.09-mile) section on the north side of Forest Hill Avenue at Melbourne Road. This would be an additional 5,000 ft <sup>2</sup> (0.11 ac) maximum. Approximately 10 feet of additional right-of-way would be required for a 1,400-foot (0.27-mile) section on the south side of Forest Hill Avenue from Melbourne		

Drive to just east of Woodberry Lane. This area would be approximately 1,400 ft<sup>2</sup> (0.03 ac). Additional right-of-way ranging from 10 to 15 feet would be required for a 450-foot (0.09-mile) section on the north side of Forest Hill Avenue along the Willow Oaks Country Club property, where the Powhite Parkway westbound off-ramp would be lengthened. This area would be an additional 6,750 ft<sup>2</sup> (0.16 ac). There are three other locations outside these areas where U-turn tapers are proposed. Each U-turn taper would require approximately 450 ft<sup>2</sup> (0.01 ac). The U-turn locations include the northwest quadrant of Windsorview Drive, the northwest quadrant of Rettig Road, and the southeast quadrant of Rettig Road.

In total, up to 14,500 ft<sup>2</sup> (0.33-acre) of additional right-of-way would be required. Nearly half of this amount (6,750 ft<sup>2</sup>, 0.16-acre) would be along the Willow Oaks Country Club property line. These preliminary estimates may be reduced during the project's final design phase. Where practicable, low retaining walls would be utilized to eliminate the need for grading and minimize the amount of additional right-of-way required. The proposed project's hydraulic design may require additional right-of-way for the project's drainage design and stormwater detention. The City of Richmond is currently evaluating options for stormwater management.

It is anticipated that approximately 42 temporary construction easements will be required for the proposed project.

	PRESENT		IMPACTS	
	YES	NO	YES	NO
Septic Systems, Wells, or Public Water Supplies:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>Source:</i> Subsurface surveys conducted for the proposed project.				
Hazardous Materials:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>Source:</i> Froehing & Robertson Inc., 2009.				
<p><b>Comments:</b> Due to the urban setting of the project study area, a number of utilities including water, sewer, telephone, and cable lines may be present within the area. The proposed project may require the relocation of existing utilities with the possibility of short-term interruptions to service during construction. The proposed project would have no long-term impact to utilities.</p> <p>An environmental site assessment was completed on June 17, 2009 which indicates that there are 11 leaky underground storage tank (LUST) and two underground storage tank (UST) sites located within 500 feet of the roadway (250 feet off each side). The majority of these sites are associated with home heating oil USTs. All 11 LUST sites have been closed by the Virginia Department of Environmental Quality and do not require further investigation or remedial action. The report also notes what appear to be two concrete fillports in a concrete slab in the Stratford Hill Shopping Center at the Richmond Bag Company location. No land disturbing activities are anticipated at this or any other hazardous material location. The assessment noted that if petroleum contamination is detected during project-related activities, work should stop and the contamination be reported to the Virginia Department of Environmental Quality.</p> <p>The report also notes that several pole-mounted transformers are located in the project area. Although not identified as containing PCBs, some of these transformers may contain PCBs. The report recommends that removal of any of these transformers be coordinated with Dominion Power.</p>				

CUMULATIVE AND INDIRECT IMPACTS	PRESENT		
	YES	NO	N/A
Present/ reasonably foreseeable future projects (highway and non-highway) in 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<i>Source:</i> VDOT, 2011. Richmond Regional MPO, 2008.			
<p><b>Comments:</b> South of the proposed project, the City of Richmond plans to widen Jahnke Road from Blakemore Road to Forest Hill Avenue. The construction schedules of the Jahnke Road widening and Forest Hill Avenue improvements may overlap and as such, short-term, temporary travel time impacts may be experienced within the local roadway network. The City will develop construction schedules and traffic maintenance plans for the two projects to ensure these effects are minimal. The City will notify emergency services of construction initiation and, if necessary, coordinate with the Richmond Public School System regarding any changes to school bus routes.</p> <p>The intensity of the incremental impacts of this 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.</p>			

<b>PUBLIC INVOLVEMENT</b>	<b>YES</b>	<b>NO</b>
Substantial Controversy on Environmental Grounds:	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>Source:</i> Public involvement activities conducted for the proposed project.		
Public Hearing: (Design)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other Public Involvement Activities: If "Yes", type of Involvement: Stakeholder Meetings and Public Workshops (7)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p><b>Comments:</b> The project was developed in coordination with the public. From 2008 to 2011, a total of seven stakeholder meetings and public workshops were held for the proposed project. Stakeholder concerns included safety concerns along the roadway, encroachment on private property, and removal of existing trees. Along with roadway improvements, the group noted the need to convey a residential aesthetic to drivers as a way to improve safety. Based on comments received at these meetings, the project design was modified and presented at the last stakeholder meeting (October 26, 2011).</p> <p>Based on comments received at stakeholder meetings, the project design was modified and presented at the last stakeholder meeting (October 26, 2011). As a result of stakeholder coordination, the project's typical section was reduced by including tree wells for existing trees within the shoulder planting strips and paving/marketing the gutter section as part of the bicycle lane. Stakeholders expressed the desire to reduce the sidewalk width to 3 feet; however, this width would be below minimum ADA requirements. In compliance with the ADA, the approved typical section includes 4-foot wide sidewalks. Conceptual plans for design elements such as sidewalks, crosswalks, tree protection, and median/shoulder plantings were also developed in coordination with stakeholders and the public.</p> <p>Underground utilities remain a recommendation and strong desire by stakeholders. The City of Richmond investigated this action and determined that it would cost approximately \$3.2M but funding is currently unavailable. Stakeholders requested that the City continue efforts to secure additional funding and stated that they would contact local officials to promote the need for underground utilities.</p> <p>A design public hearing will be held in early 2013 to provide citizens an additional opportunity to comment on the project.</p>		

## **COORDINATION**

The following agencies were contacted during development of this study:

U.S. Army Corps of Engineers  
U.S. Fish and Wildlife Service  
Virginia Department of Air Pollution Control  
Virginia Department of Conservation and Recreation  
Virginia Council on the Environment  
Virginia Department of Game and Inland Fisheries  
Virginia Water Control Board  
Virginia Department of Waste Management  
Virginia Marine Resources Commission  
Virginia Department of Historic Resources, State Historic Preservation Office

## **ATTACHMENTS**

Figures  
Project Location Map  
SHPO Concurrence

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.

## APPENDICES

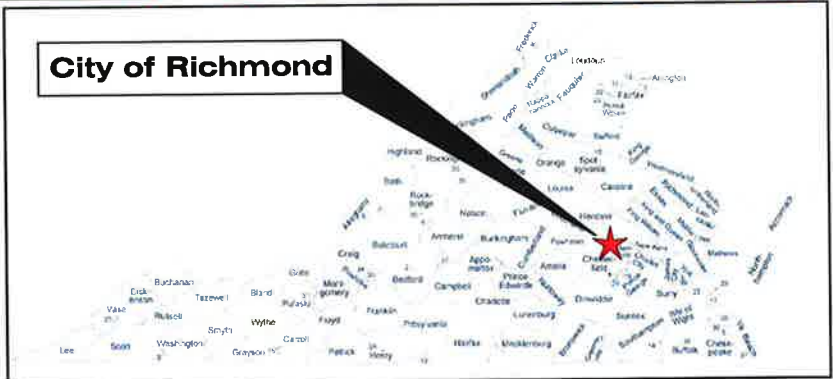
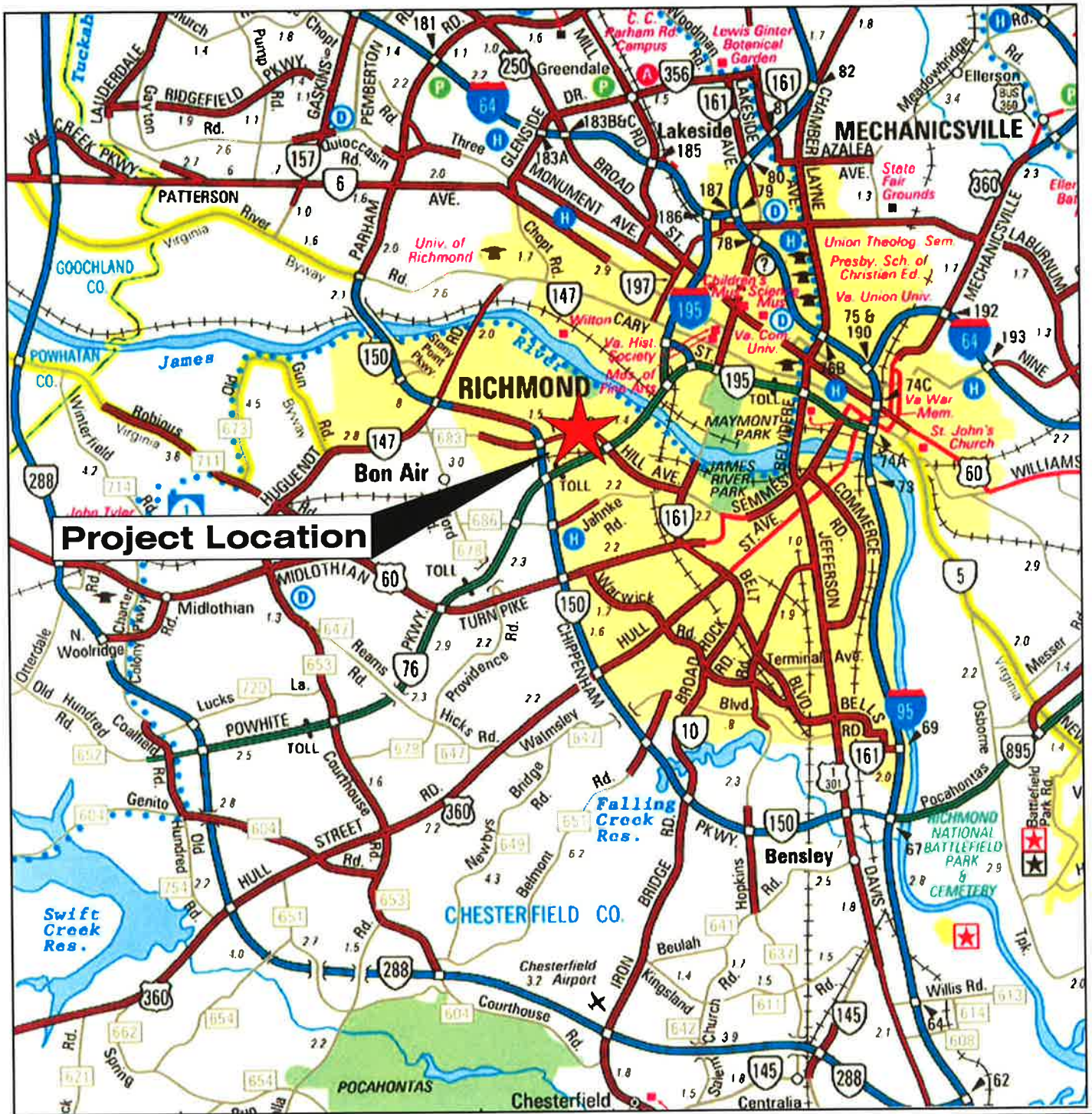
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Project Location Map  
Figures  
SHPO Concurrence  
Natural Resources Field Survey Memo  
USFWS IPaC System Search Results  
List of References

\* The project information listed below can be viewed online at  
<http://www.richmondgov.com/PublicWorks/ForestHillImprovementProject.aspx>

Project Schedule  
Costs and Funding  
Aerial Mapping  
Conceptual Design  
State Environmental Review Process  
Preliminary Environmental Inventory  
Traffic Study  
Noise Study Volume Data  
Preliminary Drainage Study  
Stakeholder Coordination





**Forest Hill Avenue Widening**  
 Hathaway Road to East Junction of Powhite Parkway  
 City of Richmond Public Works Department  
 Richmond, Virginia

**Project  
 Location Map  
 Not To Scale  
 Exhibit 1**



Figure 1A: Existing Intersections

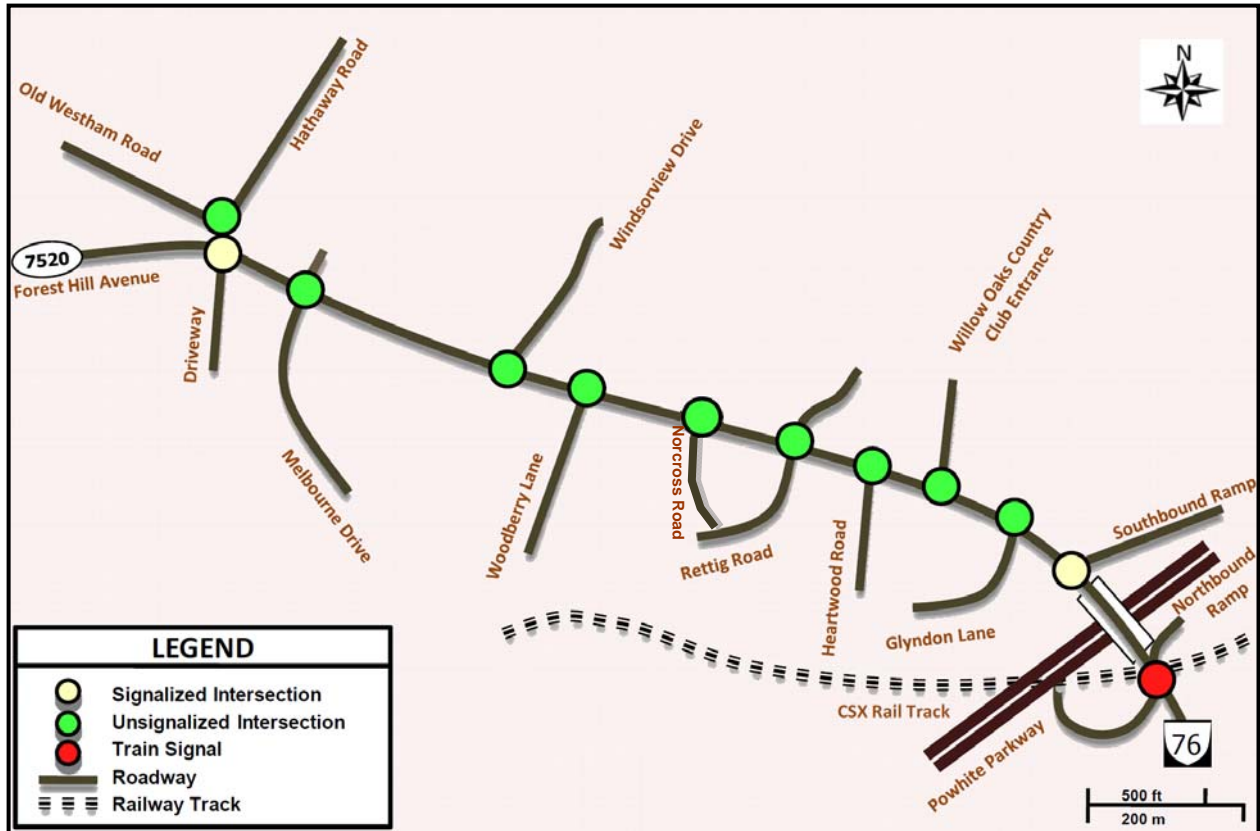


Figure 1B: Proposed Intersection Modifications

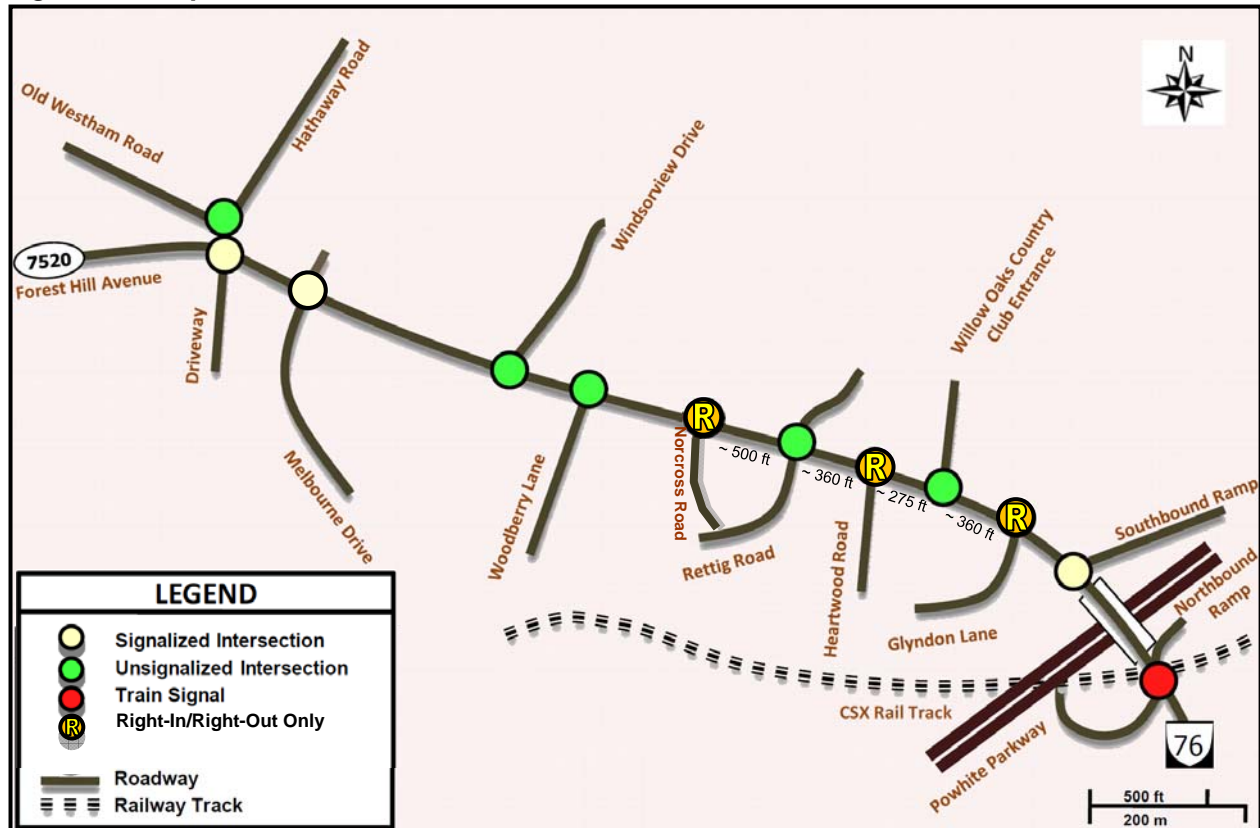
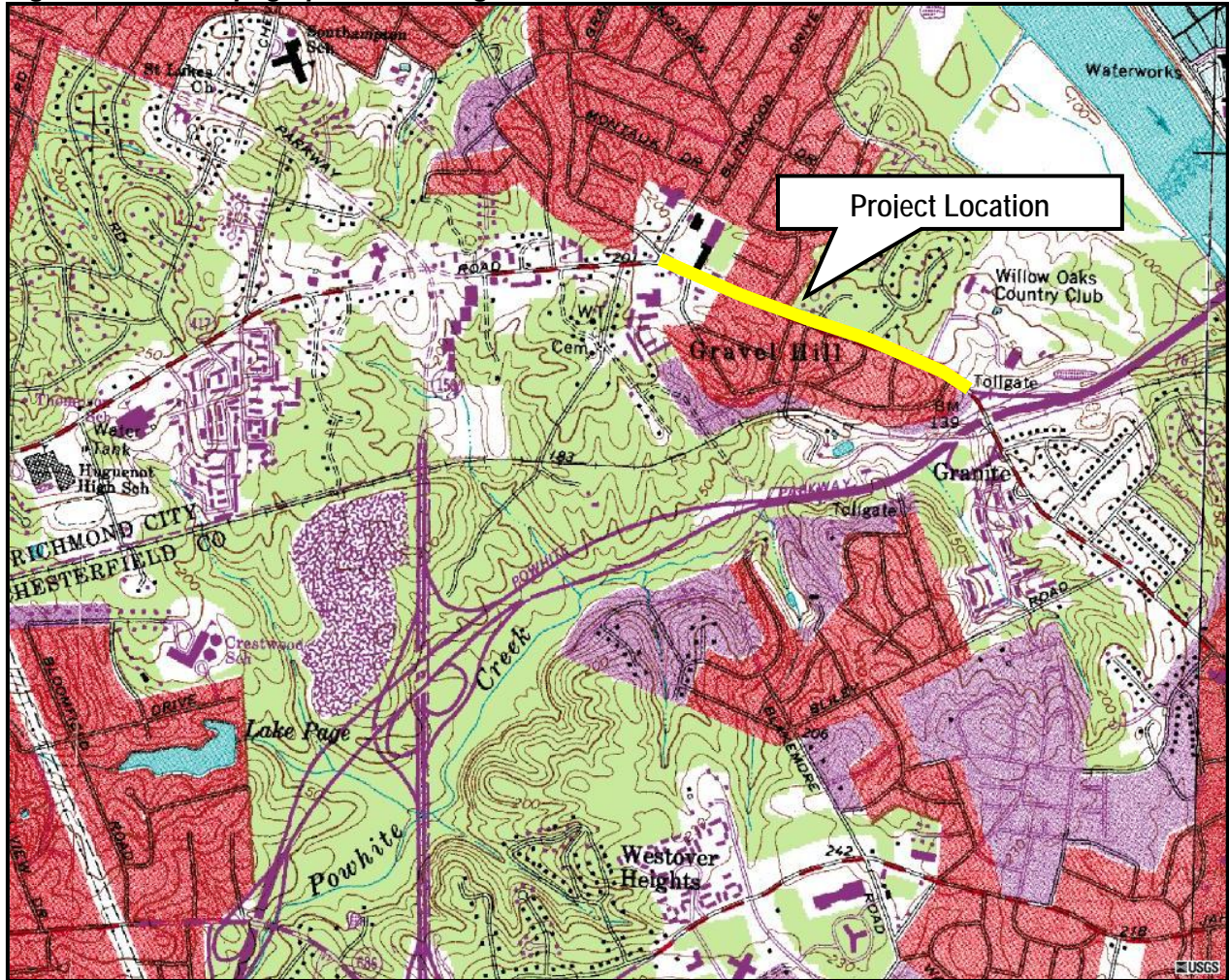


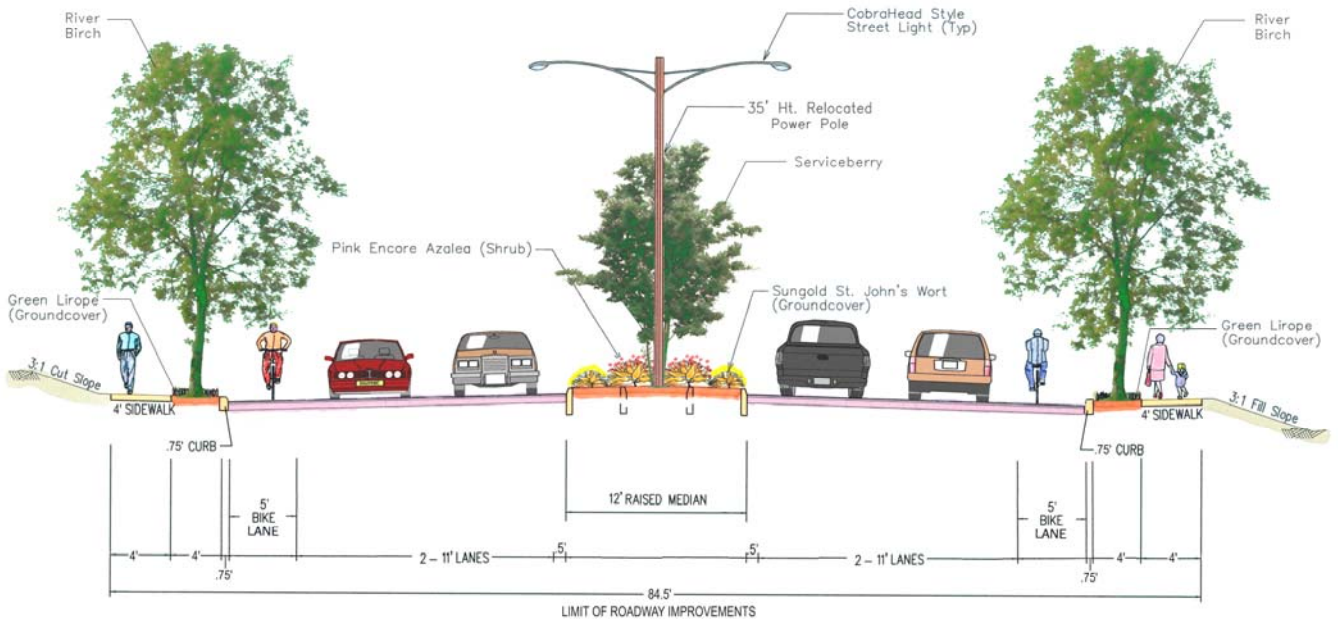


Figure 2: USGS Topographic Quadrangle



SOURCE: Microsoft Research Maps: US Geological Survey Topographical Quadrangle for Richmond, Virginia. 1994.  
<http://msrmaps.com/default.aspx>

**Figure 3: Typical Section**





# COMMONWEALTH of VIRGINIA

## Department of Historic Resources

2801 Kensington Avenue, Richmond, Virginia 23221-0311

L. Preston Bryant, Jr.  
Secretary of Natural Resources

Kathleen S. Kilpatrick  
Director


Tel: (804) 367-2323  
Fax: (804) 367-2391  
TDD: (804) 367-2386  
www.dhr.virginia.gov

### MEMORANDUM

**DATE:** 2 February 2010

**DHR File #** 2009-0686

**TO:** Mr. Kevin T. Newcomb  
City of Richmond

**FROM:**  Marc E. Holma, Architectural Historian (804) 367-2323, Ext. 114  
Office of Review and Compliance

**PROJECT:** Proposed Forest Hill Avenue Widening  
City of Richmond

This project will have an effect on historic resources. Based on the information provided, the effect will not be adverse.

This project will have an adverse effect on historic properties. Further consultation with DHR is needed under Section 106 of the NHPA.

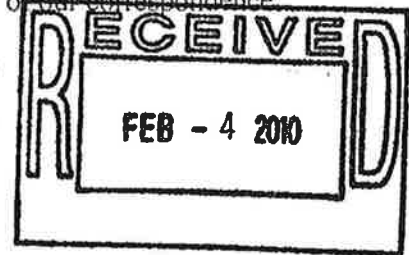
Additional information is needed before we will be able to determine the effect of the project on historic resources. **Please see attached sheet.**

No further identification efforts are warranted. No historic properties will be affected by the project. Should unidentified historic properties be discovered during implementation of the project, please notify DHR.

We have previously reviewed this project. Attached is a copy of our correspondence.

Other (Please see comments below)

### COMMENTS:



Administrative Services  
10 Courthouse Avenue  
Petersburg, VA 23803  
Tel: (804) 862-6416  
Fax: (804) 862-6196

Capital Region Office  
2801 Kensington Ave.  
Richmond, VA 23221  
Tel: (804) 367-2323  
Fax: (804) 367-2391

Tidewater Region Office  
14415 Old Courthouse Way, 2<sup>nd</sup> Floor  
Newport News, VA 23608  
Tel: (757) 886-2807  
Fax: (757) 886-2808

Roanoke Region Office  
1030 Penmar Ave., SE  
Roanoke, VA 24013  
Tel: (540) 857-7585  
Fax: (540) 857-7588

Northern Region Office  
5357 Main Street  
PO Box 519  
Stephens City, VA 22655  
Tel: (540) 868-7029  
Fax: (540) 868-7033





Stantec

# MEMORANDUM

**TO:** File

**FROM:** Andrea L. Dvorak-Grantz, AICP

**DATE:** October 8, 2009

**SUBJECT:** **Natural resources field survey** for the Forest Hill Avenue Improvements, Richmond VA. State Project No. U000-127-155. Federal Project No. STP-5127(543). UPC No. 19036

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The City of Richmond proposes to improve a 0.8-mile section of Forest Hill Avenue from just west of the Powhite Parkway to east of Hathaway Road. A majority of the proposed project would be constructed within the existing right-of-way, although the improvements would require small amounts of additional right-of-way along some property frontages.

Natural resource field surveys were conducted on October 8, 2009 for a 200-foot wide corridor along Forest Hill Avenue. The project corridor is in urban area with minimal natural resources. Most of the project corridor does not fit into any natural community classification and has been characterized as a maintained/disturbed terrestrial community. This community includes cleared areas, road shoulders, and landscaped/open commercial and residential areas. Many species are adapted to these disturbed and regularly maintained areas. The dominant plant species within these disturbed areas include fescue (*Festuca* spp.), ryegrass (*Lolium* spp.), clover (*Trifolium* spp.), blackberry (*Rubus* sp.) trumpet creeper (*Lonicera sempervirens*), Japanese honeysuckle (*Lonicera japonica*), broom sedge (*Andropogon virginicus*), pokeweed (*Phytolacca americana*), wild onion (*Allium cernuum*), Queen Anne's lace (*Daucus carota*), dandelion (*Taraxacum officinale*), Chinese privet (*Ligustrum sinense*).

Disturbed or developed land and roadway shoulders provide ample habitat to support viable populations of common wildlife species. Resident fauna is limited by continual habitat disturbance and consists mainly of small animals. Eastern gray squirrel (*Sciurus carolinensis*), American crow (*Corvus brachyrhynchos*), American robin (*Turdus migratorius*), and blue jay (*Cyanocitta cristata*) were observed within the project study area. Northern cardinal (*Cardinalis cardinalis*), tufted titmouse (*Baeolophus bicolor*), five-lined skink (*Eumeces fasciatus*), striped skunk (*Mephitis mephitis*), eastern rat snake (*Elaphe obsoleta*), northern black racer (*Coluber constrictor constrictor*), eastern harvest mouse (*Reithrodontomys humulis*), white-footed mouse (*Peromyscus leucopus*), and Virginia opossum (*Didelphis virginiana*) would also likely be found along the roadway corridor.

The project does not cross any streams and there are no wetlands within the project corridor. The project corridor does not contain any habitat suitable for federally-protected sensitive joint-vetch (*Aeschynomene virginica*).



U.S. Fish and Wildlife Service

## Natural Resources of Concern

**This resource list is to be used for planning purposes only — it is not an official species list.**

**Endangered Species Act species list information for your project is available online and listed below for the following FWS Field Offices:**

VIRGINIA ECOLOGICAL SERVICES FIELD OFFICE  
6669 SHORT LANE  
GLOUCESTER, VA 23061  
(804) 693-6694  
<http://www.fws.gov/northeast/virginiafield/>

***Project Name:***

Forest Hill Avenue Improvements



U.S. Fish and Wildlife Service

## Natural Resources of Concern

### ***Project Location Map:***



### ***Project Counties:***

Richmond (city), VA

### ***Geographic coordinates (Open Geospatial Consortium Well-Known Text, NAD83):***

MULTIPOLYGON (((-77.5202613 37.5378378, -77.5203257 37.5385184, -77.5195747 37.5384163, -77.5185447 37.5380931, -77.5169998 37.5374805, -77.5153046 37.536936, -77.5099616 37.5355918, -77.5086527 37.5351154, -77.5080948 37.5348091, -77.5075155 37.53469, -77.5086742 37.5343327, -77.5092321 37.5348091, -77.5139957 37.5360172, -77.5174933 37.5369871, -77.5193816 37.5377187, -77.5202613 37.5378378)))

### ***Project Type:***

Transportation



U.S. Fish and Wildlife Service

## Natural Resources of Concern

### ***Endangered Species Act Species List***

There are no listed species found within the vicinity of your project.

### ***FWS National Wildlife Refuges***

There are no refuges found within the vicinity of your project.

### ***FWS Migratory Birds***

Not yet available through IPaC.

### ***FWS Delineated Wetlands***

Not yet available through IPaC.

## LIST OF REFERENCES

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