



# COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION  
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RICHMOND, VIRGINIA 23219-2000

Gregory A. Whirley  
Commissioner

April 20, 2012

Ms. Irene Rico  
Division Administrator  
Federal Highway Administration  
P.O. Box 10249  
Richmond, VA 23240-0249

**SUBJECT: Fairfax County Parkway Interchange Improvements**  
State Project: 0095-029-890, P101; UPC 96259  
Interchanges of the Fairfax County Parkway (Route 286) with  
Interstate 95 and Rolling Road (Route 638)  
**REVISED ENVIRONMENTAL ASSESSMENT**

Dear Ms. Rico:

This letter and the enclosed Environmental Assessment (EA) (**Attachment 1**) constitute the Revised EA for the subject project, required pursuant to 23 CFR 771.119(g). Based on these documents, the Virginia Department of Transportation (VDOT) recommends and requests that the Federal Highway Administration (FHWA) issue a Finding of No Significant Impact (FONSI) for this project.

The EA was approved by FHWA for public availability on March 30, 2010. The EA was distributed to affected units of federal, state, and local governments. Its availability for public review was advertised in local newspapers and the document was made available for public inspection at a public hearing on June 16, 2010. The document also was posted on the project's website

([http://www.virginiadot.org/projects/northernvirginia/fairfax\\_county\\_parkway\\_interchange\\_improvements.asp](http://www.virginiadot.org/projects/northernvirginia/fairfax_county_parkway_interchange_improvements.asp))

and was available for review at VDOT's Northern Virginia District Office.

## 1. CHANGES SINCE COMPLETION OF EA AND PUBLIC HEARING

### 1.1 Changes to Route Numbers and Project Number

- On February 15, 2012, the Commonwealth Transportation Board approved the redesignation of the Fairfax County Parkway from the secondary road system to the primary road system, with a change in route number from 7100 to 286. The Board also approved the redesignation of Franconia-Springfield Parkway to a primary road, renumbering it from Route 7900 to Route 289. The changes in designations make the roads eligible for funding under the primary highways program. All references to Route 7100 in the attached EA should now be

interpreted as Route 286. Likewise, all references to Route 7900 should now be interpreted as Route 289.

- Additionally, the state project number has changed from BRAC-96A-101, PE-101; UPC 81738 to the number in the subject heading of this letter.

## **1.2 Changes to Project and Identification of Preferred Alternative**

- For the **Rolling Road interchange, Alternative E**, with modifications, has been identified as the preferred alternative. As described in the EA, Alternative E would involve widening the existing single-lane loop ramp to two lanes, reconfiguring the northbound entry into the ramp from a free-flow entry to a signal-controlled entry, and a merge of the dual acceleration lanes into existing three-lane northbound Fairfax County Parkway. The preliminary design required moving the existing retaining wall along northbound Fairfax County Parkway to accommodate the acceleration lanes, which in turn would require displacement and relocation of several parking spaces in the adjacent townhouse development. The signal-controlled entry into the loop ramp would eliminate a safety concern associated with the acute merge angle of traffic entering the loop from the northbound direction and traffic entering the loop from the southbound direction.
- The modifications to Alternative E include:
  - Dropping the existing third northbound lane through the interchange. The through lane would be dropped at the westbound Franconia-Springfield Parkway-to-Rolling Road exit ramp. One of the loop ramp acceleration lanes then would become the third northbound lane west of the interchange. This modification would eliminate the need to move the retaining wall along the northbound Fairfax County Parkway northbound lanes and the associated impacts to the townhouse parking spaces. Further, better lane balance is achieved and fewer lane changes would be required for traffic entering from the loop ramp and continuing north on Fairfax County Parkway. A similar lane drop in the southbound direction was implemented for the recent construction of interchange improvements on the south side of Fairfax County Parkway and Franconia-Springfield Parkway.
  - The second acceleration lane along the northbound Fairfax County Parkway for the Rolling Road interchange would be extended to Stream Way.
- For the **I-95 interchange, Alternative 3, left turns/eliminate existing loop ramp option** (referred to in other subsequent documents as Alternative 3B), has been identified as the preferred alternative. As described in the EA, this alternative would involve constructing a single-lane flyover ramp to carry traffic exiting northbound I-95 to go north on Fairfax County Parkway. The flyover ramp would come down to grade on the left side of the northbound Parkway lanes and continue as the third lane on the Fairfax County Parkway northbound lanes. This design would preclude traffic on the flyover ramp from accessing Backlick Road or the Boudinot Drive interchange. This is to avoid conflicts with traffic entering Fairfax County Parkway from the right and weaving movements at the Boudinot Drive interchange. To provide for the Backlick Road and Boudinot Drive interchange access, the existing loop ramp would be eliminated and left-turn lanes would be constructed at the terminus of the existing ramp currently being utilized by traffic going to southbound Fairfax County Parkway and Loisdale Road. Left turns are not currently permitted at this intersection. This alternative would eliminate the undesirable weave movements between the two existing loop ramps at this interchange.

### **1.3 Changes to Traffic Forecasts**

- The design year used for traffic analyses for the EA was 2030. All traffic volume data were derived from traffic forecasts originally developed for the Fort Belvoir Base Closure and Realignment (BRAC) Environmental Impact Statement (EIS) using the Metropolitan Washington Council of Governments' (MWCOG) Travel Demand Model Version 2.1, Release D, Edition 50, and the Round 7 Cooperative Land Use Forecast. The model data contained volumes for the years 2006, 2011, and 2030. These data were adjusted to reflect to analysis years of 2008 (to represent existing conditions at the time of EA initiation) and interim year 2020.
- Traffic forecasts have been redone for a design year of 2040. The revised travel demand forecasts for this project were developed using Version 2.2 of the Metropolitan Washington Council of Governments (MWCOG) regional travel demand model, with Round 8.0 Cooperative Land Use Forecasts, released in December 2010. This study used the base year model (2011) and the 2020 and 2040 horizon year models to develop forecasts for the opening year and design year, respectively. Adjustments to the MWCOG model were made as appropriate to more accurately represent the roadway network and conditions within the study area and to reflect BRAC-related land use and employment changes data provided by Fort Belvoir.

### **1.4 Changes in Affected Environment**

- Construction of the Fairfax County Parkway has been completed and opened to traffic between Fullerton Road and Rolling Road.
- The motel adjacent to the northeast quadrant of the I-95 interchange was demolished and is being replaced with a new hotel/restaurant complex.

### **1.5 Changes in Regulations**

- On July 13, 2010, FHWA published in the Federal Register revised regulations regarding procedures for abatement of highway traffic noise. The regulations became effective July 13, 2011. The revised noise analyses are consistent with the new regulations.

## **2. SUMMARY OF DESIGN PUBLIC HEARING**

### **2.1 Description of Hearing**

A design public hearing was held on June 16, 2010 from 6:00 p.m. to 8:00 p.m. at the Greater Springfield Volunteer Fire Department Meeting Hall in Springfield. The purpose of the hearing was to provide citizens an opportunity to review and discuss the preliminary designs for a flyover ramp from northbound I-95 to northbound Fairfax County Parkway (Exit 166) and widening of the existing ramp from Rolling Road to northbound Fairfax County Parkway to two lanes. Information provided for review included:

- Displays illustrating alternative designs for the improvements.
- The Environmental Assessment.
- An informational brochure.
- Display boards summarizing project information, contacts for additional information, and information on how comments could be submitted.
- Technical reports for analyses of air quality, noise, and traffic.

Comments sheets were provided to attendees for use in submitting comments. Oral comments also were recorded, and email and mailing addresses were provided for submitting comments after the hearing. The sign-in sheets show that 52 people attended the hearing.

## 2.2 Key Issues and Concerns

From the comments received at and after the hearing, the following key issues and concerns were identified:

### 1. Need for updating traffic data.

**Response:** Previous work used 2030 as the design year; VDOT policy generally requires that the design year be the opening year plus 22 years, or, in the case of northern Virginia, the latest year for which MWCOG has data, which is 2040. Accordingly, the traffic forecast and analyses were updated to year 2040.

### 2. Noise impacts, particularly in the Daventry and HiddenBrooke communities.

**Response:** Noise studies were redone using the updated traffic data noted above. Further the studies were done in accordance with updated FHWA noise regulations at 23 CFR 772<sup>1</sup> that became effective July 13, 2011 and VDOT's updated noise abatement policy and guidelines.<sup>2</sup> Pursuant to discussions with representatives of the Daventry Park Home Owners Association, the noise studies were expanded to assess and document noise impacts and potential noise abatement measures for the community, which lies just north of the study area used for previous Fairfax County Parkway Interchanges Improvements noise studies. This area is beyond the limits of the project.

### 3. Need for a traffic signal at Hunter Village Drive and Rolling Road intersection.

**Response:** This intersection is the next intersection to the north from the Fairfax County Parkway / Rolling Road interchange ramp intersection. VDOT conducted a study to determine if a signal is warranted and concluded that signal warrants are met. A signal will be installed at the intersection as a separate project.

### 4. Security and safety issues with respect to the petroleum products storage/transfer facilities adjacent to I-95.

**Response.** In response to these concerns, VDOT has met several times with representatives of Kinder Morgan and Motiva. Further coordination will occur during the design phase to minimize right of way needs from the tank farm properties, to avoid or minimize disruption of operations at the facilities, to ensure security of the facilities, and to ensure safety during construction.

### 5. Fairfax County Department of Transportation (DOT) supports alternatives C and D at Rolling Road/Franconia-Springfield Parkway, which would increase capacity, minimize queues and delay compared to Alternative E. Due to short ramp merge area of NB rights and SB lefts, the county proposes a signalized NB right turn ramp to help alleviate merge safety concerns. In

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<sup>1</sup> 23 CFR 772, as amended, 75 FR 39820, July 13, 2010 – “Procedures for Abatement of Highway Traffic Noise and Construction Noise,” U.S. Department of Transportation, Federal Highway Administration.

<sup>2</sup> *Highway Traffic Noise Impact Analysis Guidance Manual*, Version 1. Effective July 13, 2011. Virginia Department of Transportation.

addition, we support dual left turns at SB Rolling Road and the extension of the acceleration lanes from the loop ramp onto NB Fairfax County Parkway.

**Response:** Alternative E has been identified as the Preferred Alternative, with modifications as described above.

6. Fairfax County Department of Transportation supports a flyover ramp and left turns from the I-95 ramp on to NB Fairfax County Parkway (Alternative 3)

**Response:** This is the Preferred Alternative for the I-95 interchange.

7. Page 23 of the EA notes that temporary and permanent stormwater management measures would be provided, "including vegetative controls, detention basins, and filtration systems." Adequacy of outfall consistent with provisions in the county's Public Facilities Manual should be ensured. A courtesy review of stormwater management plans by the Fairfax County Department of Public Works and Environmental Services is suggested.

**Response:** Stormwater provisions will be consistent with all applicable state and federal stormwater management requirements. Coordination of project development with Fairfax County will be continued as needed.

8. Page 24 of the EA states that, due to the small size of impacts to wetlands and high cost of land in the vicinity of the project, it is likely that compensation for wetland impacts would be accomplished through the purchase of credits at an approved wetlands mitigation bank or through a payment to the Virginia Aquatic Resources Trust Fund. Prior to pursuing either of these approaches, the project sponsors should contact the Stormwater Planning Division of the Fairfax County Department of Public Works and Environmental Services (703) 324-5500 to identify the potential to pursue or contribute to nearby restoration projects.

**Response:** Appropriate mitigation measures will be identified and developed during final design and the water quality permitting process.

9. County efforts supporting water quality protection are identified on pages 26 and 27 of the Draft EA; however, the context of some of these efforts is not presented clearly or accurately (there appears, for example, to be some confusion between stormwater management best management practices and stream buffering and an incorrect attribution of BMP requirements from the early 1980s to stream protection, as opposed to water supply protection). While this discussion does not detract from the purpose of the document, the identification of impacts associated with the proposed project and actions that will be taken to reduce and compensate for these impacts could be stated more clearly to reflect current practices. As the Final EA is prepared, the project sponsors are encouraged to contact county staff at the Fairfax County Department of Planning and Zoning at (703) 324-1369 for guidance regarding current and past environmental protection policies and regulations.

**Response:** The intent of the referenced discussion was to identify in general local government efforts to offset adverse effects to water quality of ongoing land development activities in the county. More explicit or detailed discussion is not necessary for purposes of the EA.

10. A large mound of fill is present inside the loop ramp in the northeastern quadrant of the existing Rolling Road/Fairfax County Parkway interchange. This mound is large enough to provide at least some shielding of the Hunter Village Drive/Rolling Woods Court area from noise generated from Rolling Road in the area of the interchange. If this mound was to be

removed, one would anticipate increased noise impacts at some of the residential receptors in the area identified in Figure 3 as "NSA B." What is the planned disposition of the mound of fill? If this mound may be removed, was that factored into the modeled noise levels at receptor locations in NSA B? Would that have made a difference in the modeling results or preliminary noise barrier design?

**Response:** The mound was taken into account in the noise modeling and was assumed to remain in place. Should any changes during final design result in partial or total removal of the mound, it could affect the results of the noise analysis. However, such changes could be addressed in final noise studies to be conducted during final design of the project to take into account final design features of the project.

### **3. FINDINGS, AGREEMENTS, AND DETERMINATIONS**

**No Effect on Historic Properties.** Pursuant to Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations at 36 CFR 800, effects on historic properties have been taken into account during development of the project. No historic properties would be affected by the project. The Virginia Department of Historic Resources (the State Historic Preservation Office for Virginia) has concurred with this determination.

**Wetland Finding.** Based upon the assessment of wetland impacts, it has been determined, in accordance with Executive Order 11990, *Protection of Wetlands*, that there is no practicable alternative to the proposed construction in wetlands and that the proposed action will include all practicable measures to minimize harm to wetlands that may result from such use. The project would impact approximately 15 linear feet of stream bottom in Field Lark Branch and approximately 0.4 acres of wetland associated with Field Lark Branch.

**Floodplain Finding.** No Federal Emergency Management Agency (FEMA)-designated 100-year floodplains would be crossed by the project. Accordingly, no finding with respect to Executive Order 11988, *Floodplain Management*, is necessary.

**Section 4(f) Properties.** The project would not involve the use of any properties subject to Section 4(f) of the Department of Transportation Act.

**Threatened or Endangered Species.** No impacts to federally listed threatened or endangered species have been identified.

**Noise.** The noise study conducted for the EA indicated that approximately 33 residential properties in two noise-sensitive areas would incur noise impacts under design year 2030 build conditions for any of the Rolling Road interchange alternatives due to noise levels approaching or exceeding the 67-dBA noise abatement criterion (NAC). In both areas, the estimated design year noise levels were 66 or 67 dBA, just at the threshold of being considered "impacted." Further, estimated design year noise levels were the same for both no-build and build conditions. Noise barriers were evaluated for both areas. For one, the area located northeast of the interchange, a noise barrier was determined to be feasible but not cost-effective. For the other, located along the west side of Rolling Road, a noise barrier was determined to be not feasible because openings would need to be provided for access to the neighborhood, and the barrier would not be effective with such openings. At the I-95 interchange, the noise analysis identified no noise impacts for what has now been identified as the Preferred Alternative.

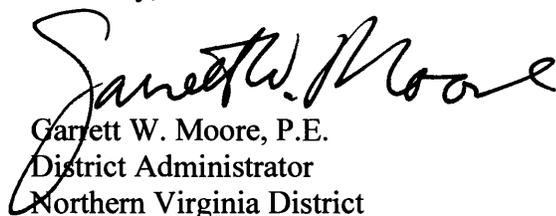
Because of the update to the traffic forecast to the revised design year of 2040 using the updated regional travel model, the noise analysis was redone. Due to comments received from residents, the analysis area was expanded to include the Daventry Park subdivision located on the west side of Rolling Road to the north of the original study area. The analysis area also was expanded to the west to include residential development along the northbound side of Fairfax County Parkway between the original study area and Stream Way because of the extension of the proposed acceleration lane to that intersection. Based on the new data, design year build (2040) noise levels are not projected to approach or exceed the NAC at any receptor sites. Likewise, the project would not result in any substantial increase in noise levels at any location. Accordingly, the project would have no noise impacts and consideration of noise abatement measures is not warranted. Notwithstanding, during the final design phase, all areas of the project will be reconsidered in light of more detailed designs, refined project alignments, and reanalysis of the roadway/noise receptor relationships.

**Air Quality and Conformity.** The air quality analysis also was redone using the updated traffic data. The new analysis showed no substantive changes to the conclusions of the previous study:

- Fairfax County is within an area designated by the US Environmental Protection Agency as nonattainment for ozone and small particulate matter (PM<sub>2.5</sub>).
- The project would result in no violations of the National Ambient Air Quality Standards (NAAQS) for carbon monoxide (CO).
- With regard to PM<sub>2.5</sub> particulate matter, the project is of a type that would not be of air quality concern.
- The project is considered a type that is not of concern for mobile source air toxics. On a regional basis, EPA's vehicle and fuel regulations, coupled with fleet turnover, will result in substantial reductions in emissions, and in almost all cases, will cause region-wide mobile source air toxics to be significantly lower than they are today.
- The project is included in the National Capital Region Transportation Planning Board's 2011 financially constrained long-range transportation plan (CLRP) and FY 2011-2016 Transportation Improvement Program (TIP), which were found to conform to the State Implementation Plan.
- The temporary air quality impacts from construction are not expected to be significant. Construction activities are to be performed in accordance with VDOT's current *Road and Bridge Specifications*.
- The project is regionally significant and regional conformity requirements apply; it originates from a regional financially constrained long range transportation plan and Transportation Improvement Program that have been found to conform to the State Implementation Plan.
- The project is not expected to cause or contribute to any violations of the NAAQS or to interfere with the attainment or maintenance of the applicable NAAQS.

See the air quality technical report for details of the analysis and findings.

Sincerely,

  
Garrett W. Moore, P.E.  
District Administrator  
Northern Virginia District