

FAMPO Advisory Committee Meeting  
I-95 Corridor Study – Phase 1  
May 31, 2016

**ATTENDANCE: Members:**

Doug Fawcett, City of Fredericksburg; Ed Petrovitch, County of Spotsylvania; Keith Dayton, County of Stafford; CTAG – Alternate, Rupert Farley; Chris Arabia, DRPT; Elliott Moore, FHWA; and Annette Adams, VDOT

**ATTENDANCE: Others:** Paul Prideaux, Michael Baker International; Marcie Parker and Michelle Shropshire, VDOT

**ATTENDANCE: Staff:** Paul Agnello, Marti Donley, Nick Quint, Daniel Reese & Lloyd Robinson, FAMPO; Diana Utz and JoAnna Roberson, GWRC

**I. WELCOME & INTRODUCTIONS**

Mr. Agnello thanked everyone for attending the fifth advisory committee meeting for Phase I of the I-95 Corridor Study and introductions were made from all who were in attendance.

**II. FINAL TWO HYBRID ALTERNATIVES FOR ADDITIONAL STUDY**

Mr. Paul Prideaux with Baker Consultants advised that this is the fifth Advisory Committee meeting, and this meeting will update the committee on modeling data for northbound traffic on the weekends and performance data on two hybrid alternatives.

Mr. Prideaux stated that the next goal for the committee is to come to agreement on the two hybrid alternatives and to determine how the phases for each project could be accomplished. Mr. Prideaux advised that originally the committee started with ten alternatives (not counting the no-build option). Mr. Prideaux stated that now the committee focus consists of two hybrid/bundled alternatives and the no build option. Mr. Prideaux advised that unless there is committee objection, the alternatives to move forward for final study-level detail are as follows: a No-Build option, Hybrid Alternative 3c7b; and Hybrid Alternative 7a11.

Mr. Prideaux advised that Slide #4, which depicts the No-Build alternative, has not had any changes since the last meeting. This alternative includes the following: I-95 Express Lanes extension; a fourth southbound General Purpose lane within Segment 2; the interchange reconstruction at Exit 140; the Courthouse Road widening project in Stafford County; the I-95 southbound Rappahannock River Crossing CD lane project; and the Route 3 HSIP interchange safety project.

Mr. Prideaux relayed that Slide #5, (Alternative 3c7b) is the General Purpose widening project; the northbound Rappahannock River Crossing project; and CD lanes with new, full access at Harrison Road. The General Purpose lanes would be widened within Segments 2, 3, 4 and 8 and would also include two northbound CD lanes in segments 5 and 6 as previously described in

Alternative 4. Mr. Prideaux stated that this Alternative would include a new I-95 connection point at Harrison Road which would include extending the Collector-Distributor lanes at State Route 3 in both directions. The CD lanes would begin/end south of the new Harrison Road interchange. Lastly, the General Purpose widening would be included as shown in Segment 8 that would connect the north-facing ramps at Exit 126 to the new CD lanes at Harrison Road. Mr. Prideaux stated that the latest revision would provide for an uninterrupted ribbon of no gaps on the roadway system.

Mr. Prideaux stated that Slide #6 for Alternative 3c7b is a new slide from last month's meeting. This slide shows that to the extent possible, that the proposed CD lanes in this area will utilize the existing General Purpose lane alignments and the I-95 mainline will be reconstructed to the median. In slide 6, each line represents a single lane of travel; the No-Build infrastructure elements are shown in black and the proposed improvements are shown in red. Mr. Prideaux stated that this slide is not to scale and is intended to show the lane balances with the allowed movements. Mr. Prideaux stated that this slide is for providing an inventory of what is already in place; where and how it could connect to another segment; and depicts how many CD lanes would be needed, etc.

Mr. Prideaux advised that Slide #7 depicts Alternative 7a11. This hybrid alternative extends the reversible Express Lanes to just south of Route 17; includes two northbound CD lanes in segments 5 and 6 as previously described in Alternative 4; allows new north-facing I-95 connections with Harrison & Courthouse Roads that will include CD lanes in both directions between Exit 130 and Courthouse Road. The CD lanes will not extend south of Courthouse Road in this alternative; however, the southbound deceleration lane to Exit 126 at Massaponax will be lengthened. This alternative includes widening of Harrison Road to four lanes to the east of I-95 and possibly to more than four lanes to the west of I-95. This alternative does not assume a widening of Courthouse Road.

Mr. Prideaux stated that Slide #8 (Alternative 7a11) depicts how to the extent possible, the proposed CD lanes in this area will utilize the existing General Purpose lane alignment and the General Purpose lanes will be reconstructed to the median. In this slide as well, each line represents a single travel lane; the No-Build infrastructure elements are shown in black and the alternatives are depicted in red. This is not shown to scale and is intended to show lane balances and allowable movements.

On Slide #9, Mr. Prideaux advised that this data comes from the Interchange Modification Report (IMR) of the Rappahannock River Crossing project and shows the conceptual layout of the CD lanes through the Route 3 interchange. Approximately 4,400 feet is needed to transition the General Purpose mainline over into the new alignment to the median. The CD lanes will also use the same distance for transitioning over to the new alignment where the General Purpose lanes currently exist. Mr. Prideaux stated that another approximate 4,400 feet of transition would also be needed at the southern end of this section, probably to occur near Harrison Road.

Mr. Prideaux stated that Slide #10 shows a conceptual layout of a CD-lane system through the Route 3 interchange and allows for a southbound slip ramp allowing Harrison Road bound traffic to access the CD lanes and allows a northbound slip ramp from Harrison Road that would have access to the General Purposes lanes.

Mr. Prideaux advised that Slide #12 shows the existing Route 3 interchange pier layout facing the southbound direction. The piers would need to be relocated to accommodate the General Purpose lanes in the median. Mr. Prideaux stated that possibly the new new pier could be placed in the center to possibly avoid beam replacements/modifications. Mr. Prideaux stated that to date, cost estimates have not been established; however, this alternative appears to be less expensive than having to reconstruct the entire interchange.

Mr. Prideaux stated that Slides #14 and #15 show examples of how a direct ramp connection could be made from Route 610 to and from the I95 Express Lanes. Mr. Prideaux stated that there is no new data to present at today's meeting and nothing has changed from what has been previously addressed and studied.

### **III. ALTERNATIVE PERFORMANCE**

- Increase in person throughput during weekday commuting periods
- Decrease in person delay during weekday commuting periods
- Anticipated alternative performance during weekend peak travel

Mr. Prideaux stated that the upcoming slides present high-level person movement and delay comparisons of the selected alternatives. The information is specifically for I-95 as well as corridor-wide that include impacts found on both US Route 1 and I-95.

Mr. Prideaux advised that Slide #20 depicts the 2040 northbound data for a No-Build Alternative on the General Purpose lanes for data for weekend versus weekday travel delays.

Slide #21 depicts the 2040 northbound weekend versus weekday travel delays on the General Purpose lanes. This study showed that the weekend delay is higher than the weekday travel; however, it is still lower than the weekday No-Build alternative. The traffic delays are still worse on Sundays but they are better than they were before. Mr. Prideaux stated that this slide shows that moving forward with one of the alternatives will prove to be successful, even though still not a perfect system.

Mr. Prideaux stated that Slide #22 depicts the 2040 northbound weekend versus weekday travel delays for the General Purpose lanes. Mr. Prideaux stated that his firm can provide more detailed data on this concept. Slide #22 is for Alternative 7a11 and shows that the weekend travel delays are higher than the weekdays; however, they are still lower than weekday data from the No-Build option. The General Purpose lanes are marginally better on weekends.

#### **IV. ALTERNATIVE PLANNING LEVEL COST INFORMATION**

Mr. Prideaux advised that Slides #24 and #25 present planning level cost estimates for the two hybrid alternatives remaining for consideration. The cost is broken down into typical elements that have been required in the past for similar large projects such as this. Mr. Prideaux stated that these estimates do not include any proffers, locality support, state or federal support and are not designed to be taken as an engineer's estimate but simply as base-line estimation for project comparisons.

It was requested from the committee that Mr. Prideaux provide data on project cost elements that are also reflected geographically.

#### **V. DISCUSSION ON PREFERRED ALTERNATIVE**

Mr. Prideaux stated that a summary of Alternative 3c7b includes the following:

The concept of moving the General Purpose lanes into the median near the Route 3 interchange effectively prohibits the extension of future express lanes through the area.

This alternative is the highest performing from a throughput and delay standpoint for the southbound p.m. travel data.

The average estimated planning level cost of this alternative is approximately 7% higher when compared to Alternative 3c7b. Mr. Prideaux stated that when considering the degree of precision in the planning level costs, 7% is not really a meaningful difference.

Alternative 3c7b for the full interchange at Harrison Road only is 30% less expensive than the Alternative 7a11 concept which is for partial interchanges at Harrison & Courthouse Roads for the same area.

The Benefit/Cost Factor for Alternative 3c7b is lower than that calculated for Alternative 7a11, indicating that Alternative 3c7b is of lesser value.

Mr. Prideaux stated that a summary of Alternative 7a11 includes the following:

The concept of moving the General Purpose lane into a median near the existing Route 3 interchange prohibits the extension of future express lanes in this area.

This alternative is the highest-performing from a throughput and delay standpoint among all alternatives in the most congested conditions for the southbound p.m. traffic delays.

The estimated planning level cost of this alternative is about 7% higher when compared to Alternative 3c7b; however, considering the degree of precision in the planning level costs this is not necessarily a meaningful difference. Alternative 7a11 has the potential to include public-private partnership (P3) financing for the Express Lane portion.

Alternative 7a11 concept (Express Lanes) for the northern portion of the study area (Exit 133 to Exit 143) is 18% less expensive than the Alternative in the 3c7b concept (General Purpose widening) for the same area.

The Benefit/Cost Factor for Alternative 7a11 is 36% higher than those calculated for Alternative 3c7b indicating that Alternative 7a11 is a better value, especially due to the P3 opportunity mentioned above.

## **VI. DISCUSSION ON ALTERNATIVE PHASING**

Mr. Prideaux stated that the committee will need to come to an agreement on how the phasing of projects that will be recommended for moving forward will come to play and this is an item that will be discussed at the upcoming meeting on June 17<sup>th</sup>.

## **VII. NEXT STEPS**

Committee feedback to be provided by June 8<sup>th</sup>

Next Advisory Committee meeting (tentatively scheduled) for Friday, June 17<sup>th</sup> from 10:00 a.m. to 12:00 noon

## **MEMBER COMMENTS, QUESTIONS, ETC.**

Mr. Robinson stated that he will be interested in seeing the modeling data and results of Alternative 3c7b for south of Exit 130 and 7a north of Exit 133.

Mr. Agnello asked Ms. Parker if General Purpose widening for a fourth lane is cheaper than building an Express Lane. Ms. Parker stated that the fourth lane option is cheaper to build but not easiest to maintain. So on a long-term basis, the interim solution would result in lower capital and higher operational costs.

Ms. Adams stated that the data presented today does indicate that for northbound travel that CD lanes going to General Purpose lanes has benefits; whereas, heading in the southbound direction, that General Purpose lanes converted to CD lanes seems to offer more benefits.

Mr. Agnello advised that the current modeling data today shows that the southbound traffic is worse than the northbound traffic even if the data does depict weekday versus weekend traffic.

Mr. Dayton asked how does the committee know if the reversible lane switches are implemented that the switch occurs at the right point or segment. Mr. Prideaux stated that more detailed data will be conducted to fine-tune the connection points.

Mr. Quint asked why the southbound weekend data was not explored further. Mr. Prideaux stated that the traffic is not as bad heading in the southbound direction on the weekends and they wanted to look at the worst three-hour congestion period.

Mr. Robinson stated that to date, in regard to HB2 project classifications, it appears that a project can be successful in the consideration process even if the project costs are estimated at slightly higher than the actual cost would be. Mr. Robinson stated that whatever solutions move forward it will be better than what is being experienced now. However, if nothing was completed, the region in 2040 would score a grade of F; and if all projects were completed then we would still receive a C+ grade.

Mr. Prideaux stated that in all of the alternatives combined, moved forward, or no longer considered, that the northbound Rappahannock River Crossing project is always a constant in the study. Mr. Prideaux stated that to date, the cost benefit analysis has not been completed.