



U.S. Department  
of Transportation  
**Federal Transit  
Administration**

REGION X  
Alaska, Idaho, Oregon,  
Washington

915 Second Avenue  
Federal Bldg. Suite 3142  
Seattle, WA 98174-1002  
206-220-7954  
206-220-7959 (fax)

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September 22, 2006

Kate Stenberg  
Alaska Way Viaduct Environmental Manager  
Alaska Way Viaduct Project Office  
999 Third Avenue, Suite 2424  
Seattle, WA 98104


Dear Ms. Stenberg:

Enclosed please find comments from the Federal Transit Administration (FTA) on the SR 99: Alaskan Way Viaduct and Seawall Replacement Project Supplemental Draft Environmental Impact Statement (Supplement). As you are aware, FTA is a federal cooperating agency for this National Environmental Policy Act (NEPA) analysis.

As everyone on your team is acutely aware, this project will create enormous challenges for our community, regardless of the alternative selected. We congratulate your team for the tremendous amount of good work done so far on this project.

We appreciate your consideration of the attached comments and look forward to continued collaboration on transportation projects in Washington. Please contact Linda Gehrke at 206.220.4463 if you have any questions.

Sincerely,

 R.F. Krochalis  
Regional Administrator

Enclosure

cc: Steve Boch, FHWA  
Angela Freudenstein, WSF  
Gary Kreidt, King County  
Dorinda Costa, Seattle DOT  
Karen Richter, PSRC

**FTA COMMENTS**  
**Alaskan Way Viaduct Project**  
**Supplemental Draft Environmental Impact Statement (July 2006)**  
**September 22, 2006**

**General Comments**

**F-007-001** | Selection of preferred alternative. The apparent reasons for selecting the Tunnel Alternative as the Preferred Alternative appear only at the very end of the document (p.118) at the end of the answer to a question on another topic. FTA recommends that the proponents' reasons be included in Chapter 2, where the Supplement describes the modified Tunnel Alternative and identifies it as the Preferred Alternative.

**F-007-002** | Project costs. FTA found the discussion of project costs (pp. 19-20) too brief. A major topic in the public debate on this project has been the question of value: Is the added cost of a tunnel justified? Yet the crucial question, "How much will the project cost?" (p. 19) receives only a five-paragraph answer. There is no discussion explaining which of the Tunnel Alternative elements make that option 50 percent more expensive than the Elevated Structure, and there is no way to determine even roughly how expensive different "options" are (e.g., Lowered Aurora as opposed to Partially Lowered Aurora, or the Steinbrueck Park Lid). Cost estimates at this stage of project development are necessarily very gross, but that is not a reason to omit them. This shortchanges the members of the public and the decision makers interested in this question. We also did not find any discussion of the ongoing operating and maintenance costs of the alternatives. Even a qualitative comparison would be useful. We do, however, appreciate the updated cost estimates released on September 20.

**F-007-003** | Travel demand forecasting. The explanation of the travel demand model used is not clear. This applies to the explanations in both the Supplemental DEIS (p. 39) and the technical appendix (2006 Appendix C, p. 11). FTA interprets the explanations to mean that the model used in the DEIS was revised for use in the Supplement's sections on forecasting construction impacts, but not elsewhere in the Supplement. FTA Region 10 is not aware of another DEIS that employed two different forecasting models to discuss short-term and long-term impacts. FTA recommends that the Final EIS include analyses based on only one model.

\* \*

**Long-term impacts:**

**F-007-004** | SODO Ramp. The Stadium/SODO ramp area will be the focus of a great deal of traffic under both alternatives. The proposal calls for new ramps at S. Atlantic St. and S. Royal Brougham Way to connect the Duwamish Industrial Area, Harbor Island, SR 519, and I-90, as well as a new "loop ramp" to facilitate connections across SR99 from the Port of Seattle industrial area and the SIG.

**F-007-001**

The process that led to the identification of the preferred alternative is described in Chapter 2 of the Final EIS.

**F-007-002**

The discussion of costs in the 2006 Supplemental Draft EIS is consistent with FHWA, WSDOT, and City of Seattle NEPA and SEPA procedures. The discussion has been updated in the Final EIS to reflect the current alternatives. Costs are intentionally not a major part of these environmental documents so that people can focus on environmental impacts and benefits. The lead agencies have provided more detailed cost information to decision-makers and the public through avenues other than the environmental documents.

**F-007-003**

An updated travel demand model has been used for the traffic analysis in the Final EIS. Data from the updated model was used to analyze both short-term (construction) and long-term (operational) effects of the project.

**F-007-004**

Since 2006, the plans for this section of the project have evolved. The Bored Tunnel Alternative has been identified as the preferred alternative. With this alternative, full northbound and southbound access to and from SR 99 would be provided in the south portal area between S. Royal Brougham Way and S. King Street. The ferry holding area would not be moved to the location referred to in this comment. Please see the Final EIS for the current alternative configurations and proposed mitigation measures.

F-007-004

As a result, through this very complex set of structures will pass a high percentage of both freight and stadium/exhibition traffic, in addition to considerable vehicular and transit traffic. In addition, both plans propose to locate the ferry holding area in this same area, east of Alaskan Way near Railroad Way S or Royal Brougham Way.

The Tunnel Alternative puts still more vehicles on the streets with its King Street exit just a short distance from the SODO ramps. Under the Tunnel Alternative, all northbound SR 99 traffic that is bound for downtown Seattle, as well as all northbound traffic carrying hazardous or flammable materials, will exit at King Street.

If it is impossible to avoid concentrating so much activity in this area, FTA recommends that the FEIS look carefully at the need for significant mitigation. Under existing conditions, "Freight trips in the North Duwamish area, including port-related trips, must share the street system with other uses, including stadium event and ferry access traffic, both of which can overwhelm the street network at times, preempting other uses. Roads and rail lines intersect at many locations, and rail traffic preempts use of the roadway when train activity is present. Since trains are assembled at rail switching yards in the area, some of the train activity is switching movements that can block intersections for an extended time." 2004 DEIS Appendix C, p. 86.

F-007-005

Impact of SR 519. The SR 519 Project, already underway in the same geographic location, seeks to address some of the same goals as the SODO Ramps. That project's Phase 2 Alternative Feasibility Assessment (April 2006) presents a concept for "a direct east-west grade-separated connection (South Atlantic St. – South Massachusetts St.) from I-90 to Alaskan Way, SR 99, and waterfront (T-46)." How would this affect the SODO Ramp proposal in the Supplement, if at all?

F-007-006

Travel times from King Street ramps. The Supplement notes that under the Tunnel Alternative, transit access to downtown from northbound SR 99 would be via the new ramps to Alaskan Way near S. King Street (p. 53). It then notes that "this would extend transit service coverage to a larger portion of the downtown area – particularly the Pioneer Square area. Bus travel times to most areas would remain similar to existing conditions, depending on the rider's final destination." Are these statements accurate? FTA is not aware of a shortage of transit service in Pioneer Square. Moreover, it seems unlikely that travel times would be unaffected if northbound buses have to use the King Street ramp to Alaskan Way and then proceed via Washington or Main Street to First Avenue. The King Street ramp is also used to approach the stadium/exhibition center vicinity and is especially likely to be congested during events. FTA recommends that the FEIS assess the likely delay to transit making the movements between SR 99 and the downtown street system.

F-007-007

Impact to streetcar network. The Supplement notes that a single-track streetcar on Alaskan Way would not provide the same opportunities to expand the streetcar system as a two-track system (pp. 22, 53). It should mention that the City already has a plan to connect the Waterfront Streetcar to a S. Jackson Extension. (see, e.g., Executive Summary, South Jackson Streetcar Extension, 2005 Seattle Streetcar Network: South Jackson St. Corridor Report, SDOT (2005)). Also, both alternatives will replace King County's Alaskan Way

## F-007-005

Coordination with the SR 519 project has been a key component of the Alaskan Way Viaduct Replacement Project, particularly in the context of the overall planning and roadway design process within the stadium area. The SR 519 project is now completed. The project team worked with the SR 519 project to ensure that designs and project development activities were coordinated and consistent. Please note that the SR 99 - S. Holgate Street to S. King Street Viaduct Replacement Project is currently in construction and will include new or rebuilt connections at S. Atlantic Street and S. Royal Brougham Way to improve mobility in the south downtown area.

## F-007-006

These statements referenced in your letter are correct. Buses that currently access the Seattle Central Business District via the Seneca/Columbia Street ramps (predominantly originating in West Seattle/Burien) do not serve the southern portion of downtown Seattle, which includes Pioneer Square.

The Bored Tunnel Alternative has been identified as the preferred alternative. Under this alternative, the Columbia/Seneca Street ramps would be removed, and all transit currently operating on SR 99 would need to exit and enter SR 99 in the stadium area. This change in service coverage would increase the number of buses traveling through south downtown Seattle. The change would increase transit travel times to destinations in central downtown. Some of these travel time effects will be mitigated by the provision of the northbound transit-only lane on SR 99 from S. Holgate Street to the off-ramp intersection. Please see the Final EIS and Appendix C, Transportation Discipline Report for current information on effects to transit for each alternative.

## F-007-007

Construction of the Olympic Sculpture Park and the resulting

- F-007-007** | Streetcar. The project would need to provide a maintenance facility for the new streetcar (unless King County agrees to provide one).
- F-007-008** | Colman Dock access. Has Washington State Ferries validated the adequacy of the proposed vehicle and pedestrian access to Colman Dock, both during and after construction? Presumably the percentage of walk-on passengers will increase during construction as people avoid unnecessary driving in downtown Seattle. Has that been factored in to the access plans?
- F-007-009** | Colman Dock traffic counts. As the Supplement notes, it used considerably lower traffic estimates for vehicles entering Colman Dock than the DEIS used. The DEIS explained that its use of the higher figures reflected "very busy conditions, to allow identification of traffic operating conditions during peak levels of ferry demand." 2004 Appendix C, p. 102. Many people familiar with the ferries would argue that those very busy conditions are not uncommon, and the ferry system overall projects an increase of 60 percent by 2020 (WSF, "An Introduction to the Largest Ferry System in the Nation," May 2003). Please explain the decision to change your modeling baseline from "very busy conditions" (1000 vehicles/hour) to a number almost 50 percent smaller (540 vehicles/hour). FTA recommends that any forecasting rely on numbers that are consistent with (a) WSF's long-range plan for growth at this facility, and (b) projections made by the Puget Sound Regional Council.
- F-007-010** | Impact of train yard alterations. Does the traffic modeling include the planned relocation of the mainline passenger tracks into King Street Station to accommodate significant projected increases in passenger rail trains? The forecasting should assume the maximum possible number of daily Sound Transit Sounder trips. FTA recommends that the project proponents use Sound Transit's most recent Sounder forecasts, not Sound Move forecasts (2004 Appendix C, p. 42). And do the traffic models include Amtrak's planned expansion of its maintenance facilities north and south of South Holgate St., between First and Second Avenues, reducing South Holgate's ability to accommodate east-west traffic movements? (See SR 519 Phase 2 Alternative Feasibility Assessment (April 2006), p. E-1).
- F-007-011** | Impacts to pedestrians (waterfront area). The discussion of impacts to pedestrians in Chapter 5 is incomplete. The Supplement notes at page 54 that the west-side waterfront sidewalk in the Elevated Structure Alternative would be only 15 feet wide -- narrower than described in the DEIS, and narrower than existing conditions. The impact of that is made clear in 2006 Appendix C.:
- In areas of high pedestrian use and activity such as the waterfront, a pedestrian space of 25 to 35 feet would generally be preferred to allow separation between those browsing street side activities and faster-paced walkers. With the narrower walkway proposed as part of the Elevated Structure Alternative, the limited area available would restrict pedestrian speed and freedom to maneuver beyond the existing conditions. A pedestrian's ability to cross the pedestrian stream would be impaired, as would the ability to pass slower walkers. (Page 87)
- At transit stops, of course, the sidewalk congestion would be greater.

displacement of the vehicle storage and maintenance facility led to the indefinite suspension of the Waterfront Streetcar service in 2008. None of the build alternatives for this project includes a maintenance facility for the streetcar once operations recommence on Alaskan Way. To date, there has been no resolution on location of the maintenance facility, which is required to re-start service. Under the Bored Tunnel Alternative, the City of Seattle will undertake planning for the central waterfront area, including the Waterfront Streetcar. Both the Cut-and-Cover Tunnel and Elevated Structure Alternatives provide for its replacement but would still require a new maintenance facility.

#### F-007-008

The project team has coordinated with Washington State Ferries throughout the design process for all build alternatives. The Final EIS Appendix C, Transportation Discipline Report, discusses the effects of the preferred alternative, the Bored Tunnel, both during construction and in the built condition. Travel model results and traffic analysis tools were used to determine potential effects of vehicles entering and exiting Colman Dock. A key finding is that "in peak hours, overall LOS (level-of-service) at the Alaskan Way/Marion Street intersection and at the Alaskan Way/Yesler Way intersection is forecasted to perform well (LOS D or better) for the Bored Tunnel Alternative in the built condition." However, it must be noted that as with existing ferry operations, there would be service disruptions at times, due to issues with vessels (weather or breakdowns), or seasonal demand spikes that would cause variations and disruptions in traffic along Alaskan Way in the vicinity of the Seattle Ferry Terminal.

If the Bored Tunnel Alternative is selected, the final configuration of Alaskan Way would be determined through the City of Seattle's Central Waterfront Project. That project would coordinate with Washington State Ferries regarding access to and from the terminal for pedestrians and vehicles accessing from Alaskan Way.



\* \*

**Construction impacts**

- F-007-012** | The project proponents have demonstrated their commitment to developing effective construction mitigation strategies. We look forward to seeing a more comprehensive plan put before the public prior to release of the FEIS. FTA is especially interested in the transit-related construction mitigation measures. We may be a source of funding or expertise for some of them. Please keep us informed as these potential measures are fleshed out.
- F-007-013** | Public review of detailed mitigation plan. Given the length of the construction period and the intensity of construction-related impacts, FTA would have preferred to see a detailed mitigation plan released concurrent with the Supplement. We understand that many mitigation measures are identified in the appendices in addition to those called out in the Supplement itself; that additional strategies are being devised even now; and that detailed plans will be included in the FEIS. FTA recommends that the Record of Decision (ROD) respond to comments on the mitigation measures presented in the FEIS. Please see below for additional comments related to the mitigation plan.
- F-007-014** | Costs of mitigation measures. Will the project proponents will pay for whatever mitigation measures are adopted? Or are the measures in the Supplement and the Appendix available for consideration but contingent upon funding? Similarly, it is not clear whether the cost of mitigation has been included in the project cost ranges found on page 20. If mitigation is included, what was the basis of the cost estimate? In a project with construction impacts of this magnitude, FTA recommends that the project proponents estimate the actual costs of providing enough mitigation to meet the project's goal of "maintaining reliable transit service" (p. 96), rather than applying a formula ("X percent of construction costs for mitigation," for instance).
- F-007-015** | Additional buses as mitigation. FTA recommends that the final Construction Transportation Management Plan include a procurement plan for purchasing buses, identifying the numbers, types, sizes, fuel sources, vendor, and needed-by dates (bearing in mind that multi-year lead times may be required). In addition, FTA notes that local transit agencies presently have a limited amount of extra maintenance capacity. Depending on the number of buses required as mitigation, additional maintenance facilities may be required and should be analyzed in the FEIS.
- F-007-016** | Prioritization of mitigation strategies. FTA recommends that the project proponents prioritize the mitigation measures included in the FEIS, at least those related to transit. The priorities might be different for different areas of the city, and for different phases of construction.
- F-007-017** | Relation of Mitigation Plan to strategies. "While the final Construction Transportation Management Plan will accompany the Final EIS, transportation management strategies will be added to the plan once they are deemed effective at mitigating a construction effect of building the project" (2006 Appendix C, p. 154). Does that mean that the Plan adopted with the EIS will not include any strategies? Or that strategies not adopted with the Plan

**F-007-009**

The decision to update the ferry modeling baseline and forecast numbers was based on information and comments received from Washington State Ferries (WSF).

Based on updated information, the 2006 Supplemental Draft EIS estimates that 540 vehicles arrive at Colman Dock during the existing PM peak hour under current conditions. This estimate is based on existing PM peak hour demand at Colman Dock for the 30th busiest day of the year, which corresponds to a 92nd percentile weekday and is of a magnitude that is consistent with traffic counts taken in the vicinity of Colman Dock. These factors have been discussed fully with WSF staff.

**F-007-010**

The location of the passenger tracks into King Street Station does not affect traffic modeling. The Sounder frequency assumptions included in the 2030 Baseline Model include 12 two-way trips between Everett and Tacoma and 8 one-way trips from Tacoma to Everett. The 2030 Baseline Model also includes reduced capacity on S. Holgate Street to reflect increased train activity. The transportation modeling has been updated to provide current information for the Final EIS. Please see the Transportation Discipline Report, Appendix C for the current assumptions used and updated analysis.

**F-007-011**

In the 2006 Supplemental Draft EIS, the Elevated Structure Alternative proposed improving pedestrian-related amenities on the west side of the corridor. Starting at S. Washington Street, in front of the S. Washington Street Boat Landing, a 25-foot-wide area would be devoted to a sidewalk, a bicycle path, and an unstructured open space. From Yesler Way north, an area comprised of these same uses would be 41 feet wide; between Union and Pine Streets, a public open space would be added to the sidewalk and bicycle path, resulting in a public waterfront

<b>F-007-017</b>	will not be formal mitigation measures? Please explain the relationship between the Plan and the strategies.
<b>F-007-018</b>	<u>Remote parking for construction workers.</u> We note that the potential mitigation measure of requiring transit and/or remote parking (possibly with shuttle buses) for construction workers (p. 33) would ameliorate adverse impacts to traffic and air quality as well as parking. Given these benefits, FTA strongly urges that any final construction mitigation plan include this measure.
<b>F-007-019</b>	<u>Travel times.</u> FTA recommends that the FEIS include some analysis of impacts to transit travel times, rather than only looking at intersection congestion levels.
<b>F-007-020</b>	<u>Reduction in traffic through downtown.</u> What is the basis for the conclusion that total traffic for north-south routes through central downtown Seattle are expected to decrease by an estimated 7 percent during viaduct closures and 4 percent during viaduct restrictions (p. 95)? Do the traffic forecasts in the Supplement take these decreases into account? Do they take into account other alternate routes/diversions identified in the Supplement (e.g., the First Avenue South Detour)?
<b>F-007-021</b>	<u>Vanpools for ferry riders.</u> Additional ferry-landing-based vanpools and ride-sharing have also been proposed as likely mitigation during construction; do the Colman Dock access plans take those activities into account? Are vanpool vehicles available? Where will the vans be stored?
<b>F-007-022</b>	<u>Section 4(f).</u> Several properties potentially subject to Section 4(f) of the Dept. of Transportation Act of 1966 were declared ineligible in language similar to this: <b>Conclusion regarding Section 4(f) use:</b> This resource is not protected by the provisions of Section 4(f) <i>because it is primarily designed for passive viewing</i> and as such is not considered a park or recreation resource." 2006 Appendix B, p. 37 (emphasis added). What is the basis for the statement that "resources primarily designed for passive viewing" may not be considered a park or recreation resource? FTA does not believe that is a reason to disqualify a resource from 4(f) consideration.
<b>F-007-023</b>	<u>Staging areas.</u> FTA recommends an improved description of the potential staging areas. Of special concern is the plan to use local street rights-of-way (2006 Appendix C, p. 47), given the stresses likely to exist on local streets near the project. Even where on-street staging does not affect traffic conditions, it could hinder accessibility to bus stops and thereby impact speed and reliability.
<b>F-007-024</b>	<u>Construction haul routes.</u> Construction haul routes need more definition in the FEIS. The removal of 2.6 million cubic yards under the Tunnel Alternative (and perhaps an additional 650,000 cy if the Lowered Aurora option is selected) will itself contribute noticeably to congestion. (See Supplement, p. 103). Disposal sites may become an issue and require the use of different routes if AWW construction overlaps with Sound Transit (University Link), SR 520, I-405 and I-5 work. FTA recommends that the FEIS explain why or why not barge and rail hauling are possible.

space--up to 115 feet wide--in which people could walk or ride bicycles.

However, the project has evolved since 2006, and the exact configuration and types of activities provided on the waterfront under the Bored Tunnel Alternative will be determined by the Central Waterfront Project being led by the City of Seattle, not the Alaskan Way Viaduct Replacement Project. Descriptions of the central waterfront area under the Cut-and-Cover Tunnel or Elevated Structure Alternatives are provided in Chapter 3 of this Final EIS.

#### F-007-012

The lead agencies are committed to investing in mitigation for transit operations in the areas impacted by construction activities. Many of these strategies can be found in the Transportation Discipline Report, Appendix C of the Final EIS.

The project also acknowledges the offer by the FTA for potential funding assistance for mitigation. Please see Chapter 8 of the Final EIS for proposed mitigation measures.

#### F-007-013

The various mitigation measures developed for this project have been distributed for public review and comment as planning and design progress. The result is the mitigation measures included with the Final EIS. The nature of these measures is that they will continue to evolve and adapt to changing demands through the construction process. The ROD will include responses to comments received on the Final EIS.

#### F-007-014

The proposed mitigation for this project includes measures that are under the authority of and funded by the lead agencies. However, there are many independent projects underway that will have the effect of

<b>F-007-025</b>	<u>Downtown Seattle Transit Tunnel</u> . Sound Transit Central Link service will gradually reach levels requiring displacement of all Metro bus service from the Downtown Seattle Transit Tunnel. Has that been taken into account when considering the effectiveness of dedicating downtown arterials to bus service ( <i>i.e.</i> , there may not be as much room for additional buses as anticipated)?
<b>F-007-026</b>	<u>I-5 as alternative route</u> . The Supplement states that I-5 currently operates near its maximum capacity (p. 31). However, the Supplement also cites I-5 as an alternate route that drivers could use during construction (p. 28). Is I-5 a realistic alternate route?
<b>F-007-027</b>	<u>Cumulative impacts, coordination with I-5 roadwork</u> . The Supplement appropriately notes that WSDOT is developing a plan to improve portions of I-5 from Boeing Access Road north to Northgate (p. 112). Given that I-5 is currently near its capacity and in congested conditions several hours a day, and in light of the potential for devastating slowdowns during this work, FTA believes that the cumulative impacts discussion should be more meaningful than "WSDOT will coordinate construction schedules for the AWV and I-5 projects to avoid and minimize any potential cumulative effects." FTA recommends that the FEIS include a description of how WSDOT will plan, sequence and monitor the cumulative construction impacts of the major upcoming transportation projects (I-5, SR 520, I-405, Colman Dock, Central and North Link), and how it and the City will manage a responsive mitigation program to address them.
<b>F-007-028</b>	<u>Impacts of S. Spokane St. project</u> . Does the analysis of transportation and parking impacts, both during construction and after, reflect (even qualitatively) the likely impacts of the South Spokane Street Viaduct Widening Project, which will restrict or eliminate westbound access on S. Spokane St., eliminate the parking below the viaduct for a considerable amount of time, and build new on- and off-ramps at First Ave. South? FTA recognizes that the Spokane Street project is not yet funded, but would its impacts exacerbate those of the AWV project if it were to proceed? Would not its completion before major construction on the viaduct begins provide important mitigation?
<b>F-007-029</b>	<u>Bicycle - vehicle conflicts</u> . The Supplement states that bicycles will be routed to other city streets from Alaskan Way during the construction period (p. 30). Do the project proponents have data on how many cyclists use Alaskan Way? How many already use the alternate routes? (On one random morning, 1737 cyclists were biking to or from the Central Business District during the morning commute. <i>See</i> <a href="http://seattle.gov/transportation/bikeinfo.htm">http://seattle.gov/transportation/bikeinfo.htm</a> ). Given the likelihood of increased vehicular traffic and increased transit competing for limited street capacity, will the alternate routes have barriers to prevent conflicts with vehicles? Also, it would be helpful to see graphics showing bike and pedestrian routes throughout the project area for the construction period and for the finished project. This should include the SODO Ramp/SR 519 area, the Waterfront Trail and access to Colman Dock.
<b>F-007-030</b>	<u>Impact to transit serving cruise ship passengers</u> . The Port of Seattle will receive some 735,000 cruise ship passengers this year alone through Piers 66 and 30. The number of visitors is likely to increase steadily, especially with the stimulus of the 2010 Olympics in

mitigating potential impacts but are not contingent on or funded by this project. Examples include lane re-striping on I-5 as part of pavement rehabilitation that will improve traffic operations and the bus rapid transit routes included in transit improvements recently approved by county voters. These are clearly separate projects, but they will help relieve congestion by moving more traffic.

Project costs provided to the public have consistently included estimates of mitigation costs. These estimates have been refined as planning progresses. The basis for the estimates varies for each measure depending on the level of development. Percentages of construction costs based on formulas have not been used for these estimates.

#### **F-007-015**

FHWA, WSDOT, and the City of Seattle are involved in discussions with the regional transit operators regarding the coordination of transit mitigation efforts for regional "megaprojects" (e.g., SR 520 Bridge Replacement and HOV Program, I-5 Pavement Reconstruction and Bottleneck Improvement Projects). As these discussions progress, a plan for coordinating the various vehicle and maintenance facility needs for the increased intensity of transit service will be developed. While this process is separate from this project, reference is made to it in the Final EIS, Appendix C, Transportation Discipline Report.

#### **F-007-016**

Mitigation measures for or involving transit are discussed in Chapter 8 of the Final EIS and in Appendix C, Transportation Discipline Report. These measures are not prioritized as suggested in this comment. The Record of Decision also will contain the mitigation commitments for the project.



- F-007-030** | Vancouver. Will the construction mitigation plan include provisions addressing the transportation needs of these visitors?
- F-007-031** | Independent projects. Identified as one possible construction mitigation strategy is "Improve S. Spokane St. Pavement Surface at Fourth Ave. S." 2006 Appendix C, p. 156. Since this project is independent of the AWV project, it should not be included in a list of mitigation measures, even though it may help soften the impacts of the AWV project. The same is true of the S. Spokane St. Viaduct Ramp to Fourth Ave. S (p. 157) and the Lander St. Overpass Project (p. 158). FTA urges that each of them be completed in advance of major construction on the AWV project, if at all possible, but they should not be considered mitigation unless the project proponents intend to include them as mitigation in the AWV project.
- F-007-032** | Updated list of bus routes. We were unable to locate an updated list of bus routes that use the SR 99 Corridor. This list should include not only buses on SR 99 itself, but the other routes that will be affected by the project (for example, routes that use First Avenue South).
- F-007-033** | Format. Finally, FTA found the format difficult to work with. The Supplemental Draft Environmental Impact Statement (Supplement) frequently refers back to findings or data or conclusions from the DEIS, and both documents frequently present information in a "reader-friendly" but conclusory manner, requiring the reviewer to turn to the technical appendices for understanding. A careful reviewer therefore realistically needs to work with two oversize documents and two computers on which to look up both sets of technical appendices. Moreover, the amount of material to review is simply excessive: The Supplement's Transportation technical appendix by itself constitutes some 190 pages that augment rather than supplant the 322 pages of the DEIS Transportation technical appendix. While the other 24 appendices are shorter, most members of the public will likely find such a vast sea of material more overwhelming than useful. The inclusion of the CD-ROMS with the Supplement was helpful. We understand that agencies, decision makers, and the public clamor simultaneously for more information on specific topics but less information overall, but feel compelled to comment.

#### F-007-017

The lead agencies commit to mitigation measures within the Final EIS and, later, in Record of Decision. One of the commitments is to prepare a transportation management plan, which is not included with the Final EIS as it will be prepared after the environmental review process is complete. See Chapter 8 of the Final for a list of measures and strategies that would be included in the transportation management plan. In some cases, the lead agencies may have a suite of mitigation measures to choose from. In those cases, the lead agencies will select those mitigation measures that are commensurate with the impacts.

#### F-007-018

A number of locations for remote construction worker parking have been proposed for consideration, though final locations will be determined by the contractor.

#### F-007-019

Appendix C, Transportation Discipline Report, of the Final EIS contains the full analysis of impacts to transit speeds and travel times. These are summarized in Chapter 5 of the Final EIS.

#### F-007-020

Travel behaviors are extremely complex and varied in nature, and predicting how they will change during construction is difficult and involves some degree of uncertainty. A number of factors help to explain how and why traffic volumes would decrease overall when the viaduct is closed for construction. The primary driver of this reduction is that capacity on alternate routes has a finite limit. That is, every vehicle trip cannot be accommodated on an alternate roadway during peak travel periods.

Limited capacity on alternate routes can lead to some significant and



complex changes in travel behavior. This was reflected in the travel demand model as some auto trips changed modes (transit, carpools and vanpools), some people traveled at less congested times of the day, some people chose different destinations (e.g., driving to Southcenter to shop instead of downtown Seattle), and some trips just weren't made.

The travel demand model reflected these changes in travel behavior during construction, and as a result reflected that the increases in traffic on parallel routes will be slightly less than the amount displaced from SR 99. The model did take into account other alternate routes identified in the 2006 Supplemental Draft EIS.

Please note that the traffic information for the project has been updated since 2006. See the Final EIS and Appendix C, Transportation Discipline Report.

**F-007-021**

WSDOT, King County, and the City of Seattle have developed Transportation Improvements to Minimize Traffic Effects During Construction to keep people and goods moving during construction of the Moving Forward projects. These enhancements and improvements are independent projects that will benefit all pending Program elements. They are designed to increase transit options, shift traffic away from construction areas, and provide drivers with the information they need to choose less congested routes. These plans include information about travel alternatives and incentives to encourage use of transit, carpool, and vanpool programs. In addition to the Transportation Improvements to Minimize Traffic Effects During Construction and the transit-related projects, more localized mitigation measures will be developed as construction details are refined.

**F-007-022**

The Section 4(f) evaluation has been revised substantially since 2006,

both to follow current regulations and to address the current project. Please refer to the Final EIS Section 4(f) chapter.

**F-007-023**

An updated description of staging areas is contained in the Final EIS and Appendix B, Alternatives Description and Construction Methods. The lead agencies have coordinated with local and regional transit agencies to ensure that potential effects from using street rights-of-way for construction staging are minimized through construction scheduling, rerouting transit, informing the public of transit disruptions, and providing alternative routes.

**F-007-024**

Potential construction truck haul routes are presented in Chapter 3 of Appendix B, Alternatives Description and Construction Methods Discipline Report, of the Final EIS. However, rail and barge hauling are mentioned as possible alternatives to trucking.

**F-007-025**

As part of the traffic modeling effort, transit operations were considered for all transit routes that use the Downtown Seattle Transit Tunnel (DSTT). All routes that used the DSTT prior to the closure in 2005 were assumed to return September 2007 when the tunnel was reopened.

In 2009, when Sound Transit's Link Light Rail began operating between downtown Seattle and Sea-Tac Airport, some bus routes remained in the tunnel while others were rerouted to surface streets (Second Avenue, Third Avenue, Fourth Avenue, and Fifth Avenue). The remaining bus routes using the DSTT will not be rerouted to the surface until Link headways become too short to allow for mixed operations, which will occur over many years--well beyond the construction period of the

Alaskan Way Viaduct Replacement Project. Long-term bus operations on downtown city streets are outside the scope of this project.

**F-007-026**

Even though I-5 is near capacity, some drivers are expected to shift to use I-5 during construction because the number and capacity of alternative routes is limited in this section of Seattle. More trips will likely use I-5 just before or after the peak period, thereby extending the hours of congestion (per day) on this facility. Due to the current congestion and anticipated growth in demand in the corridor, I-5 is not expected to be able to handle a majority of SR 99 trips during construction, especially during the peak hours. Therefore, other alternate routes, mainly downtown north-south arterials, are expected to be used as alternate routes, though they will not be able to absorb the balance of traffic being diverted off of SR 99 during periods of major construction. Expanded transit service, demand management strategies, and some trip elimination will be needed to mitigate those trips that cannot be accommodated by city streets and I-5.

However, if the Bored Tunnel Alternative is selected, the viaduct would remain open to traffic during its construction period. SR 99 would be closed for only a few weeks to connect the new bored tunnel ramps to the surface SR 99.

**F-007-027**

WSDOT and the City of Seattle communicate regularly regarding construction staging and coordination for transportation projects occurring in the downtown Seattle area. WSDOT, King County, and the City of Seattle have developed and are implementing transportation improvement projects to minimize traffic effects to keep people and goods moving in and through Seattle. See Chapter 8, Mitigation, of the Final EIS for more information about how concurrent construction effects will be mitigated.

**F-007-028**

The majority of work for the S. Spokane Street Project, including the Fourth Avenue S. ramp and new eastbound and westbound ramps from the Spokane Street Viaduct, is scheduled to be complete by the Fall of 2011, prior to the start of major Alaskan Way Viaduct Replacement Project construction. The schedule of the S. Spokane Street Viaduct project does overlap with the S. Holgate Street to S. King Street Viaduct Replacement Project, and impacts are discussed in Chapter 7 and the cumulative effects appendix of the Final EIS.

**F-007-029**

A map showing pedestrian and bicycle facilities is included in the Final EIS. This map includes existing pedestrian and bicycle facilities. Bicycle access will be maintained during construction activities. Strategies to maintain pedestrian/ bicycle access during construction are described in Chapter 8 of the Final EIS. At times, it will be necessary to reroute bicycles using temporary facilities/detours, but these detours will be designed to minimize any inconvenience. Chapter 5 of the Final EIS describes the proposed permanent bicycle facilities for each alternative.

Barriers to prevent conflicts with vehicles are not proposed for temporary bicycle facilities/detours. Typically, bicycles operating on arterial streets in Seattle share the space with other vehicles (i.e., buses, autos) and can operate on sidewalks. Where right-of-way is adequate, bicycle lanes can be provided.

**F-007-030**

The Port of Seattle moved the T-30 cruise terminal to T-91 in Interbay in 2008, thereby reducing the number of cruise passengers and associated traffic along the waterfront. The project has met with waterfront tenants and owners. The intent is for mitigation strategies to be in effect as soon as access to the waterfront is disrupted by the project. Access to the



cruise terminal at Pier 66 for passengers and deliveries would be maintained during construction.

**F-007-031**

The City of Seattle's S. Spokane Street Project is under construction, and a new ramp connecting eastbound S. Spokane Street traffic to Fourth Avenue S. opened in August 2010. This will help divert some in-bound traffic off of First Avenue S. New westbound on- and off-ramps from First Avenue S. to S. Spokane Street are expected to open in Fall 2011. Widening of the S. Spokane Street Viaduct from East Marginal Way to Sixth Avenue S. is expected to be completed around May 2012. The Lander Street Overpass project has been placed on hold due to funding limitations. The future schedule of the project is unknown at this time, though the project remains a priority for SDOT. These projects are not considered mitigation for this project in the Final EIS.

Appendix C, Transportation Discipline Report, has been updated for the Final EIS. Please see that document for the current proposed mitigation measures.

**F-007-032**

An exhibit showing existing transit routes that use SR 99 is included in the Final EIS, Chapter 4. Project construction effects on transit routes is described in Chapter 6 of the Final EIS.

**F-007-033**

We acknowledge that there is a lot of information provided in the 2004 Draft and 2006 Supplemental Draft EIS documents. The thorough analysis conducted was completed in order to meet federal and state requirements. We are sorry to hear that the format of the document was not helpful to FTA. We continue to work hard to make the project's environmental documents useful to a wide variety of audiences. For the

Final EIS, each supporting appendix contains the current affected environmental, effects, and mitigation information for the proposed alternatives in one document.