

lanes. We need to consider any impacts to safety and operations to the remaining highway lanes that this project could create. Please see comments 10, and 16 through 19 below for addition information we will be requesting regarding impacts to safety and operations.

4. Page 1-12, left column, first two bullets

We would like copies of the report on the full-scale load test and the planning-level analysis of the feasibility of the rail expansion joint necessary for construction and operation of light rail on the I-90 floating bridge.

5. Page 2-10, Expansion Joints

This section states that Sound Transit compared the movements of modern passenger rail suspension bridges to the I-90 floating bridge to see if the bridge can accommodate the light rail. The degree of movement and rotation of the I-90 floating bridge joint substantially exceeds that of a typical suspension bridge. While we agree that this is probably the best comparison to make since there are no floating bridges that have light rail, we do not agree that there has been enough work done to justify the conclusion that this comparison demonstrates that it is feasible to design a light rail track system to accommodate the movements of the I-90 floating bridge. We think there is additional work to be done to determine if it is feasible to design an expansion joint to accommodate light rail.

6. Page 2-11, Exhibit 2-13

The figure does not show enough detail for the reader to understand how the interstate ramps will be changed.

7. Page 2-12, Exhibit 2-14

The figure does not show enough detail for the reader to understand how the interstate HOV direct access ramp(s) will be changed.

8. Page 2-21, Segment C

Do alternatives C1T and C2T maintain the existing number of travel lanes?

9. Page 2-23

Does alternative C3T maintain the existing number of travel lanes?

10. Page 2-24, left column

This section describes that 110th Ave NE would become one way in the southbound direction with trains traveling northbound, and 108th would become one way in the northbound direction with the trains traveling southbound. Was any consideration given to potential safety problems that may be created through driver distraction with trains traveling in the opposite direction of vehicles? In other words, was consideration given to drivers unfamiliar with the area turning the wrong way on the one way street because they are looking at the direction of the trains rather than the direction of vehicles?

Will left- and/or right-turn movements be limited by the light rail at-grade installation for alternative C4A? If there are any access changes proposed, they should be discussed.

11. Page 2-24

Do alternatives C7E and C8E maintain the existing number of travel lanes?

12. Page 2-25, Segment D

Do alternatives D2A, D2E, and D3 maintain the existing number of travel lanes? Widening is mentioned, but it is not clear that it is to maintain the number of lanes.

13. Page 2-41, Section 2.7.3

It is unclear why FTA would "certify" the ROD. FTA should issue the ROD.

14. Pages 3-9 and 3-10, Exhibits 3-4 and Table 3-3

Exhibit 3-5 shows I-90 across Lake Washington (EB and WB) as having a v/c ratio of > 1.2 for 2030 pm peak without East Link. Table 3-3, Screenline 2 has a v/c ratio of 0.90 EB and 0.95 WB for the no build. These two figures appear to supply different information for the same stretch of I-90.

15. Page 3-10, Screenline 2

This section states that the future v/c ratios in the peak direction is expected to become slightly higher than with no build, but overall conditions on I-90 would improve with the project. FHWA is not sure we agree with the conclusion that overall conditions improve with the project at this time. We have not yet completed our review of the traffic analysis, so we will likely have additional comments related to our opinion on how I-90 travel lanes will function in the future.

16. Section 3.5, Highway Operations and Safety, General Comment

FHWA believes that the analysis on highway operations and safety is too focused on the transit element and does not go into enough depth and detail on the impacts to the highway impacts resulting from this project.

17. Page 3-42, second column

The impacts to vehicles are not sufficiently covered, particularly with respect to the changes from the revised or eliminated interchange ramps. Where will the ramps to Mercer Island be located? Are they HOV direct access ramps (accessed from the inside lanes) or general purpose ramps (accessed from the outside lanes)? What will happen with the elimination of the Bellevue Way EB HOV direct access off-ramp and the WB on-ramp to HOV traffic? Page 3-42 states this closure would not impact HOV or SOV travel times, but what about the additional weaving by HOVs to use the general purpose exits? This paragraph states only 100 HOVs will be affected, but if the current conditions are approaching capacity, an additional 100 vehicles could cause significant impacts to LOS and safety.

If the EB off-ramp to Bellevue Way is maintained, but the inside shoulder width and sight distance is reduced, what impacts will there be to safety? Will there be additional weaving movements caused by this, thus potentially impacting both safety and operations?

Will there be any impacts to safety and operations resulting from moving all the vehicles to the outside lanes?

18. Page 3-43, second column and Page 3-92, second column

The text states vehicles to and from Mercer Island would be allowed to use the outer roadway HOV lanes as long as the lanes meet performance standards or until such a time as they are managed differently based on the WSDOT and the Mercer Island Access Plan. The paragraph below then states that the HOV lanes already operate unacceptably near Rainier Ave S and would also fail near Island Crest Way. If the HOV lanes already do not meet performance standards, why is there a proposal to allow the SOVs to Mercer Island to use the HOV lanes? In addition, it is likely their movements from the HOV lanes to the ramps on Mercer Island would introduce additional weave, resulting in impacts to safety and operations. Lastly, how would the HOV lanes be enforced through this stretch? FHWA currently does not have enough information to be able to support allowing Mercer Island SOV traffic to use the HOV lanes.

19. Page 3-45, Safety

FHWA does not believe all of the operations elements were considered to support the conclusion that the project would not increase the number of accidents in the corridor. New weaves do not appear to have been analyzed. If moving the vehicles from the additional center lanes to the outside lanes will result in additional traffic on those lanes (FHWA has not yet finished our review of the traffic analysis, and it is not intuitive that the traffic volumes on the outside lanes remain the same), then there are likely to be additional crashes due to congestion.

20. Page 4-36, Construction Impacts

There does not appear to be a safety analysis done for the construction impacts to I-90.

21. Pages 3-46 to 3-47, Potential Mitigation

FHWA is not yet sure we can agree that no potential mitigation is necessary along the I-90 mainline. When we provide our traffic comments, we will revisit this issue.

22. Page 3-53

77th Avenue SE and I-90 EB HOV off-ramp would not meet agency standards and would operate worse than the no-build condition, according to the DEIS text. It does not appear that this was analyzed in the I-90 safety and operations analysis. This has the potential to cause back-ups onto mainline, which is a significant safety concern.

23. Pg. 3-69, first paragraph under Segment A

This paragraph mentions that there will not be any direct on-street or off-street impacts yet it talks about the high potential for "hide-and-ride" parking impacts. Was this analyzed with regards to impacts to residents/businesses? In other words, if riders are using the parking currently available near the Rainier Station would this mean less parking availability for the residents/businesses in this area?

24. Pg. 3-73

There is no mention of detours associated with Segment A, as there are for other segments. Are any detours required?

25. Page 4.1-1

Why does this section state that the list of property acquisitions could be updated as the project area is defined? The FEIS should disclose any changes to proposed acquisition areas, along with information on replacement facilities for acquisitions with relocations.

26. Page 4.1-2, Table 4.1-1

I-90 and I-405 should be labeled as Interstates, rather than Federal Highways, if the table is included in the FEIS.

27. Page 4.1-6, Segment A

Will the Rainier Station also stay completely within the I-90 ROW?

28. Page 4.1-9, Section 4.1.4

For the FEIS, FHWA would expect that a new survey of available replacement housing and replacement business sites would be completed. This section reports on apartments that are under construction. With the current economic slow down and the likelihood that projects may be delayed or abandoned, this new survey will be even more important. In addition, a more current survey of houses for sale is expected. The one in this section is from October 2007, and FHWA expects the list to be much more current at the time of the EIS publications.

29. Section 4.4

A summary of the Environmental Justice analysis (Appendix C) should be part of the discussions contained in Section 4.4 Social Impacts, Community Facilities and Neighborhoods. It gives the appearance that environmental justice populations are not considered in the discussions regarding social/community/neighborhood impacts.

There is no mention of how accessibility as pertains to persons with disabilities (under the Americans with Disabilities Act) will be addressed at elevated stations/pedestrian crossings. Stairs are mentioned but nothing else. Accessibility for persons with disabilities should be described in regards to these facilities.

30. Section 4.8.2.2

For Alternatives B7 and B2E/B3, impacts to previously created wetland mitigation sites for I-90 projects must be mitigated. FHWA needs to ensure that this is done. It appears that the wetlands impacted by the alternatives mentioned above will be mitigated at a 6:1 ratio for Bellevue. FHWA would like to get a copy of any reports done for wetland monitoring, and FHWA will need Sound Transit's contingency plan for if the mitigation sites fail.

31. Page 4.13-3, Section 4.13.3.3

FHWA expects WSDOT to be receiving regular reports on the monitoring system for potential stray electrical current damage to the steel components on the I-90 Bridge, and if FHWA requests these monitoring reports, we would have access to them.

32. Page 4.16.3.3, Segment A

Will there be any staging areas that have the potential to create an adverse effect on any of the seven resources located within Segment A?

33. Page 4.16-8 to 4-16-9, Segment E

We were unable to open Appendix H4 to see the documentation on the Justice White House. Without this information, it seems odd to FHWA that an MOA would be pursued to avoid an adverse effect call. Since FHWA does not have any approval actions for this segment, we will defer to FTA's effect determination for Section 106 and potential 4(f) use.

34. Page 5-6

Since a bill to toll SR 520 has been introduced to start before 2020, FHWA expects to see the traffic analysis to be updated for the FEIS to include this. Since this is highly likely to change the traffic volumes on I-90, we expect to see a change to the traffic and operations section, and potentially the traffic safety section.

35. Page 5-6, Exhibits 5-1 to 5-3

It does not appear that future highway projects are included in the list of foreseeable future actions. There are planned I-405 widening projects that have recently been named as projects being funded as part of the American Recovery and Reinvestment Act that are not included in Exhibit 5-1, and local street improvement projects are noted in the text on page 5-7, but no specifics are listed in Exhibit 5-3. FHWA needs to ensure that the light rail project will not preclude future planned interstate improvements, and we are interested to see if the project will preclude other planned highway improvements. There is not enough information in this section to determine if there are potential impacts to future projects.

36. Pages B-10 through B 13, Table B5

While it is useful to see the significant amount of outreach done, it is important to understand what took place at the numerous meetings noted in this table. FHWA recommends this section be improved to provide a summary of issues discussed at the meetings noted in this table for the FEIS.

37. Page D-5, Justice William White House

If an adverse effect cannot be avoided, de minimus cannot be used. Table states there is an assumption of a no adverse effect. Has SHPO completed their effect determination concurrences yet? (We were unable to open the Appendix H4 file on the CD)

FHWA Approval Action Needs

1. Page 1-12, left column, second bullet

FHWA has determined that we will need additional information to show that the bridge expansion joint is feasible. We expect to participate in the continuing coordination on the development of the design of the expansion joint.

2. Page 2-8, Segment A: Interstate 90

This section states pedestrian access is either from both 77th Avenue and 80th Avenue SE, or there is an option to construct access from 80th Avenue SE with a new pedestrian bridge over the eastbound lanes of I-90 to the station...

Even though we do not have the ROW plans in hand, we expect that this pedestrian access will require a break-in-access.

3. Page 2-20,

“There are two traction power substations for B2A, one under I-90...” and “there are two traction power substations for B3, one under I-90...” Even though we do not have the ROW plans in hand, we expect that this use of interstate ROW will be addressed in the airspace lease, and that maintenance requirements of the substations will require a break in access.

4. Page 2-13, Exhibit 2-15 and page 2-23

For the station located directly over I-405 for alternatives C3T, C4A, and C7E, FHWA will need to approve the use of the interstate ROW to accommodate this use, along with a break-in-access. As part of our review of this use of I-405 property, we will be looking to ensure that the facility will not preclude the ability to make future highway improvements. This could affect the station’s design requirements. For alternative C8E, we will need to approve a break-in-access for the tracks to cross north of the 8th Street interchange. We will also need to approve the break-in access south of the 8th Street interchange if alternatives C1T or C2T are chosen.

5. Page 3-43, second column and Page 3-92, second column

The text states vehicles to and from Mercer Island would be allowed to use the outer roadway HOV lanes as long as the lanes meet performance standards or until such a time as they are managed differently based on the WSDOT and the Mercer Island Access Plan. (See NEPA comment 18 above)

Since this plan would modify the eligibility of who qualifies to use the HOV lanes, FHWA believes we would have to concur in allowing this usage. With parts of the HOV lanes already not meeting performance standards, the potential safety and operations issues from weaving, and the enforcement issue, we are not sure we can support allowing Mercer Island SOVs using the HOV lanes.

6. Page 3-77

If Sound Transit proposes to use I-90 or I-405 ROW for temporary use for contractor parking, it will need to be included in the airspace lease, and fair market rent would need to be paid. In addition, if the parking would interfere with the safety and operations of the interstate, it is unlikely that it will be approved.

7. Page 4.1-1, column 2

This section states the area of easements for the use of public ROW is not included in the data in the chapter. For the use of Interstate 90 and 405 ROW, FHWA will need information on the needed airspace lease areas.

8. Page 4.1-11, Section 4.6

This section states that Sound Transit would comply with appropriate provisions of the Uniform Act. FHWA expects that Sound Transit would comply with all provisions that apply. The statement in the DEIS could be interpreted that Sound Transit is picking and choosing which provisions that they will comply with.

9. Section 4.1, pages 4.1-1 to 4.1-11

This section does not describe if light rail will impact any future improvements to I-90 or I-405. FHWA will need information showing that this proposal will not affect the safety and

operations on the interstate, as well as that this will not preclude any future improvements. We may have some specific requirements for the design of the transit facilities, especially if they span the width of the interstate, such as the transit Ashwood/Hospital Station over I-405.

10. General Comments

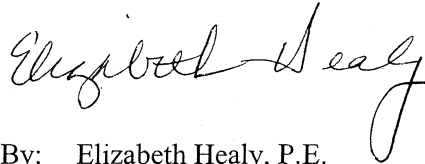
We expect to see the airspace lease to address the increased maintenance needs due to the new expansion joint, corrosion from stray currents (page 2-18) and if the cathodic protection system is functioning properly.

This list may not be all inclusive, and additional information may be requested as the design of the project develops and FHWA is better able to fully understand the project's impacts to I-90 and I-405.

If you have any questions about the comments provided, please contact Elizabeth Healy at (360) 753-8655 or at Elizabeth.healy@dot.gov.

Sincerely,

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