Organizations

June 9, 2003

Andrea Tull
Project Manager
Sound Transit
401 S. Jackson Street
Seattle, WA 98104

Re: I-90 Two-Way Transit and HOV Operations –
Draft Environmental Impact Statement

Dear Andrea,

I am submitting comments on the DEIS for the I-90 Two-Way Transit and HOV project on behalf of the board of directors and the membership of the Bicycle Alliance of Washington. The Alliance promotes bicycling for everyday transportation and strongly believes that bicycling and walking enhance transit.

The Bicycle Alliance supports improved transit and HOV capacity on the I-90 Bridge between Seattle and Bellevue, and supports the alternative that promotes safer, faster and more reliable transit service -- R2B.

Our comments and concerns are as follows:

Congestion Mitigation

- It does not include mitigation to address the projected increase in congestion on the outer roadways for R2B when the Mercer Island SOV traffic is displaced from the center roadway. This question was asked in the scoping process and is still unresolved. Transit service to Mercer Island should be increased, and the capacity of the park and ride increased to accommodate those displaced drivers. These mitigation measures could reduce the congestion forecasts for R2B. O-1

Safety Concerns

- There is no detailed breakdown of the effect of the different mitigation measures proposed like reduced speed limits and banning vehicles from certain lanes that are not enforceable. Incident response service is costly and has been shown to be ineffective on 520 – collisions and stalled vehicles will continue to block lanes. O-2

- Traffic flow models demonstrate the best-case scenarios and do not take into account how the increased number of collisions, lack of shouldersand disabled blocking vehicles would cause increased congestion on R8A. The delay times and travel times still do not reflect the impact of increased collisions. Given the projected number of injury collisions (at least one per week) and the fact that O-3

O-1 Bicycle Alliance of Washington

See Common Response CR-9: TDM/TSM.

O-2

See Common Response CR-8: Safety.

O-3

See Common Response CR-6: Congestion.

disabled vehicles will block travel lanes, the projected delay and travel times listed for R8A should be higher. O-3 cont.

- Even with the proposed mitigation, R8A will cause a significant increase in injury collisions compared to the other alternatives. Will Sound Transit and WSDOT set aside mitigation funds to settle lawsuits from a flawed design? O-4

Additional Modeling Concerns

- Why doesn't the DEIS demonstrate increased HOV usage over the design period? How is it possible that the DEIS shows a decrease in HOV use under R2B? Isn't it just as likely that more people would carpool because of the proposed congestion under R2B? O-5
- Alternative R8A increases traffic volumes but the DEIS doesn't address associated congestion or air and water quality. O-6
- The DEIS acknowledges that bicyclists would be discouraged from riding across the I-90 Bridge with a 2' wide shoulder separating riders from vehicles. Many would choose to drive but there are no projections of those numbers. O-7

Bike/Ped Path Safety Concerns

- The Bike/ped path on the I-90 Bridge is already substandard at 10' and the East Channel path is even worse at 8'. Federal guidance calls for both to be 12'. O-8
- Proposed mitigation during construction is inadequate. The proposed mitigation mentioned for cyclists to use existing transit would not even begin to accommodate existing bicycle use. (Counts showed 300-600 cyclists during a 3-hour time period during which time 34 buses could carry 68 bikes). Bicyclists must have a bridge deck detour during construction. There is no other way across Lake Washington for bicycle commuters, recreation riders, walkers, runners or the large bicycle racing community. O-9
- See above bullet -- DEIS acknowledges that bicyclists because of wind, debris, close proximity to high speed traffic, and fence materials would be discouraged (fearful) from riding across the bridge when separated only by a substandard shoulder. O-10

Unanswered Questions

- What reassurance does the bicycling and driving public have that the HOV status will remain and what is the impact of that change on the different alternatives? O-11
- Why not plan for light rail right now on the center roadway? O-12

O-4

See Common Response CR-8: Safety.

O-5

In 2025, capacity limitations on the single HOV lane in Alternative R-2B causes some increases in HOV travel times in the peak direction compared with No Action (Refer to Table 3.1-2). The forecasts showed that these travel time changes result in a small decrease in HOV usage, mostly occurring to HOVs still traveling in the congested outer roadway. Table 3.1-4 shows that Alternative R-2B would show increases in HOV usage in the center roadway but decreases in the outer roadway. Alternative R-8A provides sufficient HOV capacity in both directions and results in the largest HOV volume forecasts.

O-6

The air quality impact analysis was performed in accordance with federal traffic conformity regulations. A CO hot spot analysis was performed for potentially affected intersections along I-90 corridor. All proposed alternatives were included in the analysis and it was determined that the impacts to air quality were all very similar.

It is important to note that the air quality analysis calculated ambient CO concentrations for comparison to the NAAQS. The analysis was not intended to determine which alternative will emit the most or least pollutants, but rather to estimate air quality impacts in an effort to ensure human health would not be compromised. Also see Water Resources, Section 4.7, and Cumulative Impacts, Section 4.16 for a discussion of water quality.

O-7

The EIS acknowledges that bicyclists **could** be discouraged from riding; there is no way to predict how many would. As shown in Figure 3.4-1 of the EIS, if half of the peak-period bicyclists using the path decided to drive, representing bicycle trips that are largely non-recreational in purpose, the increase in traffic would amount to less than 1 percent of

- Where will trucks that carry flammable cargo be directed and how will that impact neighborhood safety? O-13
- Why isn't additional transit to Mercer Island studied? Why isn't additional Park and Ride capacity on Mercer Island included in mitigation? O-14
- Is "incident response service" really adequate, safe and fast or the same as a 10' shoulder? O-15
- Why does the DEIS support general capacity improved travel times instead of transit? O-16
- And finally, why is a project being proposed that violates the 1976 Memorandum of Agreement that states clearly that there be no more than 8 lanes on the I-90 Bridge? O-17

The Bicycle Alliance supports the project goal of improving two-way transit and HOV on the I-90 Bridge that maintains high safety standards, improves transit reliability without encouraging more general-purpose drivers and keeps the promise made to the voters – R2B. It's safer, cheaper and faster to implement! O-18

Sincerely,

Barbara Culp
Executive Director
Bicycle Alliance of Washington

the AM or PM peak-hour traffic volumes on I-90, below the threshold of daily variations in traffic.

O-8

See Response A-13.

O-9

See Common Response CR-3: Shared-use Pathway.

O-10

See Common Response CR-3: Shared-use Pathway.

O-11

Any change proposed by WSDOT to the HOV system will be in consultation with PSRC and with local jurisdictions according to the 1976 Memorandum Agreement. However it is noted that the effects would have to be studied at the time it were proposed due to many unknown factors. Changes to the HOV system could be proposed from sources over which WSDOT has no control such as the Federal Government, the State Legislature or citizen initiatives.

O-12

The goal of the I-90 project is to provide reliable and safe two-way transit and HOV operations on I-90 between Seattle and Bellevue. The goal of Sound Transit's Regional Express projects is to improve transit speed, reliability and access. The I-90 project is consistent with this goal.

Sound Transit's Regional Transit Long-Range Vision identifies the I-90 corridor as the High Capacity Transit (HCT) crossing for Lake Washington. The Trans-Lake project identifed the operation and cost advantages of the I-90 corridor for HCT across Lake Washington. Implementation of HCT on I-90 would occur as part of a future phase of *Sound Move*. See also Common Response CR-2: High Capacity Transit (HCT).

O-13

See Common Response CR-5: Flammable Cargo Routing Issues with Preferred Alternative R-8A.

O-14

See Common Response CR-9: TDM/TSM.

O-15

In general, shoulders eight feet or more in width reduce the number of blocking incidents on a freeway by providing a refuge for motorists with disabled vehicles. For example, on I-90 today, with outside shoulders adequate to provide a refuge in approximately 99 percent of the corridor length, blocking incidents comprise 25-30 percent of the total reported incidents on I-90. This value is slightly larger but comparable to national study data that indicates about 20 percent of all reported incidents block travel lanes. In addition, wider shoulders provide a means for incident response vehicles (service or tow trucks, police, fire, or other emergency aid responders) to bypass traffic stopped in travel lanes upstream of an incident blocking travel lanes. Where it is not possible to provide shoulders of a width adequate to provide a refuge, incident response service mitigates the effects of reduced shoulder widths by clearing blocking incidents in less time than would otherwise be required.

With the Preferred Alternative, eight- and ten-foot wide shoulders would be provided on I-90 east of Island Crest Way, and in other selected portions of the corridor where additional roadway width is available or can be provided with incremental widening. The enhanced incident response service would be focused on the portions of I-90 west of Island Crest Way and east of Rainier Avenue, where major structures such as the lids, tunnels, and floating bridges preclude additional widening. A detailed incident management plan will be prepared by WSDOT as a part of subsequent design activities on the project.

O-16

When HOV lanes are added to existing highways to improve travel times and reliability for transit, carpool, vanpool, and other eligible traffic modes, an indirect effect is that some additional capacity becomes available to general purpose traffic. The purpose of this project, however, is not to provide additional capacity for general purpose traffic but "to improve regional mobility by providing reliable and safe two-way transit and HOV operations..., while minimizing impacts to the environment and to other users and transportation modes", which includes general purpose traffic. One of the tests to measure traffic impacts is travel time. Table 3.2-12 in the DEIS shows that Alternatives R-1, R-5 Restripe and R-5 Modified do not impact the travel times of general purpose traffic. Alternative R-2B increases general purpose traffic travel times while R-8A decreases them.

In Table 3.1-2 of the EIS, transit travel times with Alternative R-2B and the R-5 alternatives would decrease slightly in the reverse-peak direction, but with Alternative R-2B transit travel times would increase in the peak direction and reliability would be reduced with the loss of a second peak-direction travel lane in the center roadway. Alternative R-8A would decrease transit travel times in both the peak and reverse-peak directions, and would maintain the existing reliability of the peak-direction transit operations.

O-17

See Common Response CR-1: Memorandum Agreement.

O-18

Your preference is noted. See also Common Response CR-11: Why is Alternative R-8A the Preferred Alternative?

19 June 2003

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Andrea F. Tull, Sound Transit
401 South Jackson
Seattle, WA 98104

cc: Mayor Greg Nickels & Seattle City Council
600 Fourth Avenue
Seattle, WA 98104

COMMENTS ON I-90 TWO-WAY TRANSIT PROJECT DRAFT EIS

To Sound Transit and the City of Seattle:

The Eastlake Community Council (ECC) supports a configuration for the I-90 bridge and tunnels that favors transit and non-motorized travel and that protects urban streets and neighborhoods from additional traffic, pollution, noise, and risks to health and property. ECC is opposed to alternative R-8A because it expands the I-90 automobile lanes from the current eight to a total of ten, while disadvantaging transit, bicyclists, and pedestrians, and doing harm to neighborhoods, the environment, and the safety of I-90 itself.

O-19

Section S.11, "Areas of Concern or Controversy" states that, "The only major area of concern or controversy associated with the Project is impacts on non-motorized users of the floating bridges." This statement ignores several other important areas of concern or controversy, among them: diversion of flammable and hazardous cargo trucks from I-90, causing unnecessary additional mileage on I-5 and local streets; congestion on I-5 and local streets caused by additional I-90 single occupant vehicle capacity; and, negative consequences for the I-90 bicycle and pedestrian pathway.

Flammable and hazardous truck cargoes. Of greatest concern to the residents of the Eastlake neighborhood, alternative R-8A is the only alternative that forces flammable and hazardous truck cargoes off I-90, requiring much additional mileage on alternative routes through more of the City's neighborhoods. The agencies and consultants responsible for this draft EIS have failed to provide an estimate of the traffic volume of flammable and hazardous cargo trucks that will follow various alternative routes if forced to detour around I-90. R-8A's prohibition of flammable loads on I-90 would have severe risk impacts on the neighborhoods along SR520 and I-5 that would suffer an increase in flammable cargoes, including Eastlake.

O-20

117 E. Louisa #1 • Seattle, WA 98102

O-19 Eastlake Community Council

Your preference is noted. See also Common Response CR-11: Why is Alternative R-8A the Preferred Alternative?

O-20

See Common Response CR-5: Flammable Cargo Routing Issues with Preferred Alternative R-8A.

The draft EIS does not consider the potential for additional collisions and congestion that stems not only from the fact that the trucks would be detouring hundreds of thousands of additional miles each year, but also from the fact that the routes they would be taking (especially SR-520, I-5, and local streets) include substandard lane widths, higher congestion, and other features that would increase the collision rates for these trucks. The EIS does not consider the unusually difficult safety problems with gasoline tanker trucks, which experience higher collision rates than other trucks of their size.

O-21

Alternative routes add an extra 15 to 20 miles to each trip that these trucks take; the draft EIS does not consider the economic impact of R-8A on truckers who would be denied access to I-90, and would have to take large detours, consuming precious time and fuel, and increasing wear on the trucks.

O-22

The draft EIS does not consider the potential for increased fires, explosions, and spills from the additional mileage of flammable and hazardous cargo trucks that would be forced off I-90 by R-8A. The gasoline in a single tanker truck carries a maximum potential charge equivalent to 100 tons of TNT. As just one example of the analysis that has not yet been done, it is certain that R-8A will cause an increase in the number of flammable and hazardous cargo trucks driving underneath the Convention Center on I-5 on their way to SR520—yet the EIS does not even mention this change, nor consider its potentially catastrophic consequences.

O-23

Increased congestion on I-5, and local streets. Alternative R-8A is described as lowering overall levels of congestion, but queues and delays at the system interchanges would increase. The EIS tends to hide the high levels of congestion that R-8A would cause at the I-5 interchanges, caused by stressing the travel times in the middle of the corridor between Rainier Avenue and the Eastlake Channel Bridge. The EIS does not consider serious Transportation Demand Management and Transportation Systems Management that could reduce the level and impacts of single occupancy vehicle traffic on I-90.

O-24

Failure to assess R-8A's full impact in encouraging SOV travel. The draft EIS does not consider the extent to which further expanding single occupancy vehicle capacity on I-90 will weaken our ability to promote transit ridership. Because alternative R-8A provides more advantages to SOVs than any of the other alternatives, any advantages it may provide to HOVs are reduced in significance. The draft EIS fails to consider how R-8A's increase in single occupancy vehicle capacity undermines the other modes.

O-25

Negative consequences for the I-90 bicycle and pedestrian pathway. As a walking and biking-friendly neighborhood organization, the Eastlake Community Council is concerned that the draft 2003 EIS does not capture the negative impacts of alternative R-8A upon the existing bicycle and pedestrian pathway. This pathway offers unique

O-26

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O-21

See Common Response CR-5: Flammable Cargo Routing Issues with Preferred Alternative R-8A.

O-22

See Common Response CR-5: Flammable Cargo Routing Issues with Preferred Alternative R-8A.

O-23

See Common Response CR-5: Flammable Cargo Routing Issues with Preferred Alternative R-8A.

O-24

See Common Response CR-6: Congestion. Also see Common Response CR-9: TDM/TSM.

O-25

See Response O-16.

O-26

See Common Response CR-3: Shared-use Pathway.

recreational opportunities, and a significant proportion of its users are not commuters, but people who are using it for a recreational outing. Even if the pathway is not narrowed, alternative R-8A will virtually eliminate the shoulder, bringing fast-moving traffic much closer to the pedestrians and bicyclists, increasing their danger when collisions occur in the motor vehicle lanes, and exposing the pedestrians and bicyclists to unacceptable levels of noise, splash, solid debris, and air and water pollution.

The EIS understates R-8A's air pollution impacts. The draft EIS section on energy consumption acknowledges that, among the alternatives, R-8A results in the greatest vehicle miles traveled and thus the greatest energy consumption. However, in the section on air quality, the draft EIS does not acknowledge that, as a logical consequence, R-8A will also produce the most air pollutants. Particulates are known to increase more directly by vehicle miles traveled, and to have the most direct relationship to health problems such as asthma and heart attacks. A supplemental or final EIS must look at particulates and other air pollutants whose increase is related to the increase in vehicle miles traveled.

Conclusion. The Eastlake Community Council strongly supports improved transit access on the I-90 bridge, but urges that in doing so, Sound Transit not increase the bridge's single occupancy vehicle traffic, harm the pedestrian and bicycle path, and cause flammable and hazardous cargo trucks to detour hundreds of thousands of miles, exposing freeway users and nearby residents and businesses to greater risk. A fair analysis will show that these are fatal flaws for alternative R-8A, and this alternative should not be adopted.

Sincerely,

Kari Mosden, Board Member
Eastlake Community Council
117 East Louisa #1
Seattle, Washington 98102

O-26 Cont.

O-27

O-28

O-27

The air quality impact analysis (AQIA) was performed in accordance with federal traffic conformity regulations. A CO hot spot analysis was performed for potentially affected intersections along I-90 corridor. A PM_{10} analysis is not required because I-90, from I-5 eastward is in attainment for PM_{10} and there are no indications that any of the alternatives would contribute substantially to ambient PM_{10} levels. The portion of I-90 from I-5 west to its terminus is the northern boundary of the Seattle-Duwamish PM_{10} maintenance area. However, only a qualitative analysis can be performed, as the EPA does not have a model or technique that adequately calculates PM_{10} emissions or concentrations due to mobile sources.

O-28

Your preference is noted.

EASTSIDE TRANSPORTATION PARTNERSHIP

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June 9, 2003

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Andrea Tull
Project Manager, Sound Transit
401 South Jackson Street
Seattle, WA. 98104

Dear Ms. Tull:

On behalf of the Eastside Transportation Partnership (ETP), we are writing to express our support for alternative R 8A for the I-90 Two-Way Transit and High Occupancy Vehicle (HOV) project Draft Environmental Impact Statement (EIS). We believe that this alternative, which would add new HOV lanes to the outer roadway, best meets the project objectives of improving travel time for transit and HOVs in the non-peak direction. This alternative will carry the most people, offer travel-time savings for transit and HOV, and have the additional benefit of reducing other congestion as well. It is also cost effective, and is expected to pay for its construction cost in six years, when equating (design year) travel-time savings to dollars. O-29

ETP believes that improved mobility within this regional corridor that connects our county's most significant employment centers is critical for meeting our region's ambitious economic and growth management plans. This project offers a real opportunity to improve our area's livability by providing travelers within the corridor a measurably improved travel time—a real reduction in congestion upon project opening and in future years. Both Seattle and Eastside jurisdictions would benefit directly, and the rest of the region would receive system-wide improvements. Compared to many of the other large projects planned, two-way transit and HOV improvements on I-90 are relatively low cost and offer multi-modal solutions. Given the need to replace the SR 520 bridge, it is imperative that improvements to I-90 move forward as quickly as possible so that these can be in place and operational before any construction in the SR 520 corridor begins. O-30

In addition, ETP supports this alternative because of its future potential for High Capacity Transit. (HCT). ETP endorses the regional vision of future cross-lake HCT in this corridor, and feels that this alternative creates an opportunity to build future HCT within the center lanes. In doing so, it would also allow for adequate transit/HOV capacity to meet future travel demand. It is critical to ensure that the center lanes remain available to take advantage of this opportunity. O-31

Beaux Arts ♦ Bellevue ♦ Bothell ♦ Clyde Hill ♦ Hunts Point ♦ Issaquah ♦ King County ♦ Kenmore ♦ Kirkland ♦ Medina
Mercer Island ♦ Newcastle ♦ Redmond ♦ Renton ♦ Sammamish ♦ Snohomish County Woodinville ♦ Yarrow Point
Eastside Transportation Committee ♦ Puget Sound Regional Council ♦ Sound Transit ♦ Transportation Improvement Board
Washington State Department of Transportation ♦ Washington State Transportation Commission

O-29 Eastside Transportation Partnership

Your preference is noted.

O-30

Your comment is noted.

O-31

Sound Transit is currently evaluating HCT in the I-90 corridor and will make a decision regarding the corridor and the most appropriate technology to be used based on analysis and public input. This will be done in a regional transit planning and environmental process separate from the I-90 Two-Way Transit and HOV Operations project.

The I-90 Steering Committee identified Alternative R-8A, HOV lanes on the outer roadway, as its preferred alternative at its July 15, 2003 meeting, as an essential first step towards achieving a long-term transit vision for the Eastside; providing a strong transit connection between east and west King County; and improving the region's economy, mobility and quality of life. The Steering Committee also identified its recommended ultimate configuration for I-90, with HCT in the center roadway. See also Common Response CR-2: High Capacity Transit (HCT).

ETP recognizes that several issues have been raised and not totally resolved at this point. We applaud the significant work that has been done to address the concerns of the bicycle community. The current proposal is a good compromise, but we hope that more could be done to address theses safety concerns. Similarly, we encourage Sound Transit to continue to work with the trucking industry to address remaining issues about flammable cargo routing.

Communities on both sides of Lake Washington will only see the full benefit of Sound Transit and the regional HOV system if there are two-way transit and HOV lanes on I-90. Completing the environmental process and progressing through the environmental and design stages quickly are critical to the continued mobility throughout the region.

On behalf of the members of the Eastside Transportation Partnership, thank you for your consideration.

Sincerely,

Fred Butler
Councilmember, City of Issaquah
Chair, ETP

Phil Noble
Councilmember, City of Bellevue
Vice Chair, ETP

cc: ETP Members
Ron Sims, King County Executive
Maria Cantwell, Senator, U.S. Senate
Patty Murray, Senator, U.S. Senate
Jennifer Dunn, Representative, 8th District, U.S. House of Representatives
Jay Inslee, Representative, 1st District, U.S. House of Representatives
Jim McDermott, Representative, 7th District, U.S. House of Representatives
Adam Smith, Representative, 9th District, U.S. House of Representatives
Greg Nickels, Mayor, City of Seattle
Seattle City Council

O-32

O-32

Your comment is noted.

The I-90 *Safety* Coalition

1000 Friends of Washington • The Bicycle Alliance of Washington • Cascade Bicycle Club • Feet First
Livable Communities Coalition • The Metropolitan Democratic Club • People for Modern Transit
Sierra Club Cascade Chapter • Seattle Community Council Federation • Transportation Choices Coalition

5 June 2003

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Andrea Tull
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Sound Transit
401 S. Jackson Street
Seattle, WA 98104

Re: Comments on the I-90 Two-Way Transit Project DEIS

Andrea:

We have reviewed the Draft Environmental Impact Statement for the I-90 project and enclose our comments. The attached document includes two pages of summary, followed by eight pages of detailed comments on specific sections of the DEIS.

As we have stated before, the I-90 *Safety* Coalition supports the project goal of improving transit and HOV operations on the I-90 corridor and we believe that the best alternative that maintains high safety standards, improves transit reliability without encouraging more general-purpose drivers, and keeps promises to voters is the R2B alternative.

Sincerely,

Rebecca Slivka

cc: Sound Transit Board Members

Bicycle Alliance of Washington
206.224.9252
www.bicyclealliance.org

Transportation Choices Coalition
206.329.2336
www.transportationchoices.org

O-33

O-33 The I-90 Safety Coalition

Your preference is noted. See also Common Response CR-11: Why is Alternative R-8A the Preferred Alternative?

Summary Comments on the I-90 Two-Way Transit Project DEIS

The Draft EIS on I-90 is a flawed, incomplete, biased document with too many unanswered questions to be used to choose a preferred alternative. Many key issues and questions raised during the scoping process are still unaddressed or insufficiently answered and there are inconsistencies and flaws in the analysis.

Flaws:

Missing mitigation for displaced Mercer Island single-occupant vehicles

The DEIS does not include mitigation to deal with projected increase in congestion in outer roadways for R2B when Mercer Island single-occupant vehicle traffic is displaced from center lanes. This question was asked over two years ago, and no work has been done to resolve this. At the very least, transit service on Mercer Island could be increased, and park & ride lots could be expanded to accommodate the drivers displaced from the center roadway, reducing congestion forecasts for R2B. O-34

Mitigation to reduce accidents with R8A unreliable and incomplete

There is no detailed breakdown of the effect of the different mitigation measures proposed, and measures like reduced speed limits and banning vehicles from certain lanes are not enforceable. "Incident response service" would be costly and not in use all the time, so accidents and disabled vehicles will still block lanes, just like they do on SR520. O-35

Increased accidents and disabled vehicles will block traffic and increase congestion

Traffic flow models still do not take into account how the increased number of accidents, lack of shoulder, and disabled vehicles blocking would cause increased congestion with R8A. The delay times and travel times still do not reflect the impact of increased accidents—yet this point was raised over 2 years ago. Given the increased number of injury accidents (at least one more per week) and the fact that disabled vehicles will block travel lanes, the projected delay and travel times listed for R8A should be higher. O-36

Cost of increased accidents

R8A would still have a significant increase in accidents and injury accidents compared to all other alternatives, even with proposed mitigation. How much money would have to be set aside to settle lawsuits from those injured in these additional crashes (at least one more injury accident per week) when they sue Sound Transit and WSDOT for implementing a flawed, defective design? O-37

HOV usage changes inconsistent

Why is there no increase in HOV usage over design period? In fact, alternative R2B is shown to have a DECREASE in HOV usage—how could this be possible! If you believe the forecast increase in congestion in the outer roadway, that should lead more people to carpool, not fewer. O-38

R8A increases volumes, but associated congestion and pollution missing

How is it that R-8A shows higher total traffic volumes than the other alternatives (15800 vehicles per hour for R8A compared to 15000 for R-1 and R-2B) yet no corresponding increase in air pollution or congestion is mentioned? Those additional cars and emissions have to go somewhere! O-39

Reducing quality of bike-ped path will force more people into cars

The DEIS acknowledges that reducing outer roadway shoulder from the standard 10 feet to only 2 feet on R8A would discourage bicyclists from using adjacent path, but there is no mention of what those bicyclists would do. Many of those riders may choose to drive instead, but the forecasts do not include those additional drivers. O-40

O-34

See Common Response CR-9: TDM/TSM.

O-35

See Common Response CR-8: Safety.

O-36

See Common Response CR-6: Congestion.

O-37

With the crash reduction measures that are incorporated into Alternative R-8A, the number and rate of both overall and injury crashes would be similar to those that would occur with the No Build Alternative (R-1). See also Common Response CR-8: Safety.

O-38

See Response O-5.

O-39

The air quality impact analysis (AQIA) was performed in accordance with federal traffic conformity regulations. A CO hot spot analysis was performed for potentially affected intersections along the I-90 corridor. Transportation modeling performed by HNTB calculated a 5.3 percent increase in the number of vehicles per hour, traveling along the I-90 corridor under Alternative R-8A over that of Alternative R-2B. While the difference between the two alternatives is small, whichever alternative results in increased traffic volumes and results in higher fuel consumption will create more emissions of NO_x, VOC, CO_2 and particulate matter. A hotspot analysis considers how emissions vary with vehicle speed, traffic queue lengths, signal light timing, roadway geometry and other factors to calculate ambient CO concentrations. It is important to note that the air quality analysis calculated ambient CO concentrations for comparison to the NAAQS. The analysis was not intended to determine which alternative will emit the most or least pollutants, but rather to estimate air quality impacts in an effort to ensure human health would not be compromised.

Inadequate Mitigation for negative impacts on bicycle-pedestrian path:

The bicycle-pedestrian path on the Homer M. Hadley Bridge is a substandard 10 feet; the East Channel path is even narrower, at 8 feet. According to federal guidelines both paths should be widened to 12 feet. Proposals to remove or narrow the adjacent shoulder make this even more important. O-41

Proposed mitigation for closing bike/ped path during construction is totally inadequate. The primary mitigation (TRAN-27) mentioned is for bikes/peds to use existing transit and/or shuttles—but that would not even accommodate current bicycle use (34 buses in 3 hours can carry 68 bikes—but minimum counts show 300-600 bicyclists in that same time period). This subject was discussed months ago at length, and in detail, with Sound Transit staffers, yet it appears the concerns raised were ignored. Bicyclists must have a rideable detour on the bridge deck that is available 24/7. O-42

Unanswered questions:

There is no discussion of the (im)permanence of HOV status and the impact that would have on different alternatives. How do we know that lanes designated as HOV would not be opened to general-purpose traffic, further increasing volumes, congestion, and air pollution? O-43

No substantiation for claims that R8A would be better for future high capacity transit than R2B. In fact, light rail could be added to the center roadway right now without adversely affecting the bike-ped path or narrowing any lanes or shoulders. There should be more detailed discussion of future conversion to light rail with the different alternatives. O-44

Rerouting Flammable and Hazardous cargo onto SR520 or I405 doubles the mileage those trucks must travel to cross Lake Washington, yet they claim no increased risk. How can this be? O-45

Bias:

The DEIS is biased against R2B and for R8A:

Many R2B issues could be addressed by mitigation, but very little is mentioned or discussed. At the very least, the following mitigations should be evaluated and included in the EIS: O-46

- Increase transit service on Mercer Island to accommodate drivers displaced from the center roadway.
- Increase park & ride spaces on Mercer Island (what happened to the P&R project that was originally paired with this project?)
- Evaluate "incident response service" for center roadway (as was proposed to mitigate for R8A)

Data emphasizes general purpose traffic over transit:

Most of the data on the different alternatives emphasize the impact on the general-purpose travel times—yet this project is supposed to use transit money to supposedly improve transit times. If you believe the numbers in the DEIS, transit speeds would be the same under both R2B and R8A, but R8A would increase capacity for SOV and improve travel times for SOV. We should not be spending transit dollars on general-purpose traffic. O-47

Sound Transit and local governments need to keep their promises:

The 1976 Memorandum of Agreement clearly spells out that there are to be no more than 8 lanes on the I-90 bridge(s), and that the center roadway is to be converted to two-way transit and HOV, yet R8A violates the agreement. Why are government agencies continuing to promote an alternative (R8A) that goes against the legally-binding agreement, would injure more people, increase traffic volumes, and cost more than 3 times as much, when R2B is safer, cheaper, and faster to implement? O-48

O-40

See Response O-7.

O-41

See Response A-13 and Common Response CR-3: Shared-use Pathway.

O-42

See Common Response CR-3: Shared-use Pathway.

O-43

Any change proposed by WSDOT to the HOV system will be in consultation with PSRC and with local jurisdictions according to the 1976 Memorandum Agreement. However it is noted that the effects would have to be studied at the time it were proposed due to many unknown factors. Changes to the HOV system could be proposed from sources over which WSDOT has no control such as the Federal Government, the State Legislature or citizen initiatives.

O-44

See Common Response CR-2: High Capacity Transit (HCT).

O-45

See Common Response CR-5: Flammable Cargo Routing Issues with Preferred Alternative R-8A.

O-46

Sound Transit's Mercer Island park and ride project will add approximately 200 park and ride spaces at the existing Mercer Island Park and Ride, located along North Mercer Way. The project is expected to be complete by late 2006. See Common Responses CR-8: Safety and CR-9: TDM/TSM.

O-47

See Response O-16.

O-48

See Common Response CR-1: Memorandum Agreement.

Detailed comments on I-90 Two-Way Transit Project DEIS

Comments, Questions, Concerns—by section

S.4.3.1 (p. S-7) Description of R-5 Restripe roadway operations describes transit use of shoulder "between East Mercer Way and east portal of Mount Baker Ridge Tunnel." Where do buses merge? What happens at tunnel? How much delay will this merging cause? Same questions apply to 2.4.4.1 with R-5 Modified. O-49

S.4.2.2 (p. S-7) No detailed description of amount of widening required. Need to at least show a % of total roadway length that will require widening and what shoulder widths would be along each segment. O-50

S-5 Cost tables do not include final design, which is estimated at 10 to 12 percent. The tables should show the extra 12% explicitly, which would more accurately reflect the extreme difference in cost of the different alternatives. And, what about contingencies? O-51

S.7.1.2 Operations
Inconsistent, confusing and biased language states that with R8A we would have "lowering overall levels of congestion, but queues and delays at the system interchanges would increase." Queues and delays ARE congestion! O-52

S.7.1.2 Operations – Maintenance (p. S-13)
How often would the center roadway need to be closed for pontoon maintenance? How often does it happen now? Must it be done during the day or can it be scheduled for off-peak? Need to see numbers to judge how significant an issue this might be. O-53

S.7.2 Visual Resources (p. S-13)
The DEIS falsely states "No unavoidable adverse visual resource impacts for operation have been identified." R8A mitigation proposals to add a screen/barrier on top of the existing concrete barrier between the bike/ped path and the motor vehicle lanes would significantly degrade views for path users as well as motorists. O-54

S.7.3.2 Noise – Operation
No mention is made of increased noise levels for bike/ped path users under R8A. By reducing shoulder to 2 feet on bridge, moving motor vehicles extremely close to path users will significantly increase noise levels for path users. This is an additional a safety issue because it will be even more difficult for users to hear bells, voice calls when bicyclists or faster pedestrians signal to pass. O-55

O-49

The weaving maneuver for eastbound buses would begin at the junction of the roadways from the north and south tunnel bores at the Mount Baker Ridge, and extend onto the LVM Floating Bridge. For westbound buses, weaving could begin after the 76th Avenue on-ramp on Mercer Island, and extend across the HMH Floating Bridge. These weaving maneuvers were estimated to require an additional 20 seconds per lane change, or a total delay of about one minute to enter or exit the transit shoulder.

O-50

Table 2-1 from the Transportation Discipline Report provides this information for each alternative considered in the DEIS.

O-51

Design costs were not included in the preliminary estimates of probable construction costs that were shown in the Draft EIS. These have been updated based on value engineering analysis and cost estimation validation processes. The updated costs to complete by alternative are included in Sections S.5 and 2.2.8 of the Final EIS and are included in Common Response CR-10: Project Costs on costs.

O-52

See Common Response CR-6: Congestion.

O-53

Currently there are regular scheduled maintenance closures for the center roadway every other Tuesday. The usual closure hours on those days are between 10:00 AM and 1:30 PM. With Alternative R-8A this schedule is expected to continue. With Alternative R-2B some nighttime closures would be implemented in order to minimize disruptions to center roadway traffic.

O-54

Chapter 4.3 Visual Resources discusses the changes in views from the shared-use pathway (identified as Viewpoint 3). The freeway barrier,

S-11 Areas of Concern or Controversy
The DEIS falsely states that "the only major area of concern or controversy associated with the Project is impacts to the nonmotorized users of the floating bridges." In fact, major concerns have been raised about the R8A increasing capacity and the hazards associated with narrowing shoulders throughout the entire corridor (leading to increased crashes and congestion due to disabled vehicles blocking travel lanes). O-56

Table S-1 Summary of Proposed Potential Environmental Impacts

p. S-25 No mention of impacts to bike/ped path under HMH section for R-5 and R8A O-57

p. S-26 No mention of impacts to bike/ped path under East Channel Bridge section for R-5 and R8A O-58

p. S-27 (during construction) Pedestrian and Bicycle Access lists the totally inadequate "shuttle on existing transit service, possible deadheading buses, or dedicated shuttle" to accommodate users during closure. Nothing less than full time on-bridge detour route will be acceptable to path users. Shuttles are too expensive, not effective, and cannot accommodate the volume and access that path users require. O-59

p. S-32 (2025) Pedestrian and Bicycle Access table should list impacts under each alternative instead of using "Same as Alternative x"—which misleads readers. Need to explicitly mention gusting winds, glare, and debris, as well as reducing effective width of path caused by higher railing/barrier. O-60

p. S-34 Visual Resources. Missing degradation of views for R-5 and R8A due to higher barrier between bike/ped path and motor vehicle travel lanes. O-61

p. S-56 Air Quality. Missing degradation in air quality for R8A due to increased capacity and traffic volumes. O-62

p. S-57 Noise. Missing increased noise levels for bike/ped path users under R5 and R8A due to narrowed shoulder width, and increased capacity/traffic volumes under R8A. O-63

p. S-59 Energy. Missing mitigation. Since R8A increases traffic volumes, it also increases energy consumption, but that is omitted here. O-64

p. S-61 Hazardous Materials. Missing mitigation. R8A diverts hazardous and flammable materials to SR520 or I-405, but there is no mitigation listed for that. There should be. O-65

p. S-61 Public Service. Missing mitigation. R8A includes higher barrier between bike/ped path, but no mention of how this would impact emergency services personnel access path, or stranded motor vehicle drivers trying to get to the path. O-66

1.1.2 Existing Transit use of I-90
Explain why such a huge range in carpools ("18 to 26 percent of vehicle flow"). O-67

concrete barrier, and adjacent freeway lanes with cars and trucks are visible in the foreground and middleground from the pathway today. It is acknowledged in the text that Alternatives R-5 Restripe, R-5 Modified and R-8A, due to higher barriers and the addition of screening, would have a limited effect on restricting or screening views from the pathway to the south. The extent of the effect will depend upon the screening materials that are selected. One option is a transparent material.

O-55

The Draft EIS specifically did evaluate future traffic sound levels for the shared-use pathway on the north side of the HMH Floating Bridge (Table 4.5-7 and text on page 4.5-17). Because it is a transportation facility, the shared-use pathway is not considered a noise receptor and the FHWA noise abatement criteria are not applicable. In response to comments, however, the Final EIS has been updated to include a sound measurement on the pathway and revised traffic sound predictions. The measured L_{eq} was 80 dBA on the pathway on the HMH Floating Bridge. The revised design-year L_{eq} levels from traffic on the shared-use pathway have been predicted to range from 81 to 83 dBA under the alternatives, which are still within the range of those presented in the Draft EIS. The highest L_{eq} levels would occur under Alternative R-8A, because of its relatively higher volumes and closer distance of the nearest traffic lane to the shared-use pathway.

O-56

Additional text has been added to this section for the Final EIS. Areas of Concern or Controversy added are the following: rerouting of flammable and hazardous cargo trucks from I-90 to other routes with Alternative R-8A and the potential impacts to those geographical areas; changes in I-90 lane and shoulder widths with R-8A; and the potential for accidents, crashes, and blocking incidents. Added analysis and information on these topics beyond that included in the DEIS can be found in Section 3.5 Freight Movement and 3.2 Freeway Operations of the FEIS. See also Section 4.10 of the FEIS.

O-57

Operational impacts to the shared-use pathway for year 2025 are listed in Table S-1 on page S-32 of the DEIS. Impacts for year 2005 would be similar.

O-58

Table S-1 has been corrected in the FEIS. No modifications would occur to the shared-use pathway on the East Channel Bridge. The adjacent shoulder, which is 8-feet wide on the Bellevue Way and East Mercer Way ramps, and 10 feet wide over the bridge between the ramps, would remain in place as-is with any of the alternatives evaluated in the DEIS, and with the Preferred Alternative. As such, no impacts would occur to the shared-use pathway on the East Channel Bridge.

O-59

See Common Response CR-3: Shared-use Pathway.

O-60

The summary tables are revised in the Final EIS.

O-61

The text in the Summary table for Visual Resources on page S-34 has been revised to note the effect on views to the south from the shared-use pathway for Alternatives R-5 Restripe, R-5 Modified and R-8A.

O-62

Please see Response O-39.

O-63

Please see Response O-55 for a discussion of noise issues associated with the shared-use pathway on the floating bridge.

O-64

No mitigation measures for energy used during operation are required. See Chapter 4.8 Energy of the Final EIS.

O-65

Your comment is noted. See revised Section 3.5 Freight Movement of the FEIS concerning the routing of trucks carrying flammable materials and revised Section 4.10 Hazardous Materials for a risk analysis associated with the reroutes.

O-66

Openings will be provided in the screening to allow for emergency access to the shared-use pathway. The interval of these openings and other design details will be determined in subsequent design phases of the project, working with emergency service providers, representatives of pathway user's groups, and other stakeholders.

O-67

The cited statement is a summary across both the AM and PM peak hours. The higher percentages (as percent of total vehicles) of carpooling are found in the PM peak hour, while the AM peak hour percentages are lower. The actual percentages have been reviewed and updated, as reflected in Chapter 1 of the FEIS.

1.2.2 (p. 1-6) Show carpool and transit usage in a table instead of burying numbers in paragraphs. | O-68

1.2.2 (p. 1-7) List source of data for bicycle counts. How were numbers measured and which days (and how many days) were used? | O-69

Pedestrian usage of bike/ped path appears drastically undercounted. How were numbers measured and which days (and how many days) were used? | O-70

1.2.4 (p. 1-8) The DEIS states that "HOV lanes encourage the user of transit and other higher occupancy modes by providing travel-time saving and increased reliability compared to travel in the general-purpose lanes." However, R8A improves travel time more for general-purpose vehicles than for transit, which will encourage more people to drive on their own. We should not spend transit money to make it easier for people to drive! | O-71

1.3.3.1 (p. 1-10) Memorandum of Agreement. R8A violates the memorandum of agreement ("no more than eight motor vehicle lanes"). | O-72

Figures 2-2, 2-3, 2-5, 2-9 Missing widths for barriers between bike/ped path and motor vehicle lanes and between center and outer roadway on HMH. | O-73

There are no diagrams of cross sections of the roadway on the East Channel Bridge. We need to see this to understand the impact on motorists and trail users. | O-74

2.2.5.2 (p. 2-30) R8A Roadway operations. Need to show what percentage of bridge will have narrower shoulders. "Central portion" and other terms used are too vague. | O-75

3.1.1.1 Existing Transit operations.

Need to use a table to show the buses. Embedding the numbers in paragraphs makes it harder to understand. | O-76

(p. 3.1-1) Transit Frequency numbers don't add up. Peak period westbound has 87 buses, but peak hour westbound has 24 buses. Since peak period is three hours, and peak hour is the maximum in that period, then peak period must have 72 or fewer buses. One or both of these numbers are wrong. | O-77

Transit Ridership. (p. 3.1-3) Need to define terms "peak period" here and everywhere used. | O-78

HOV Usage. (p. 3.1-3) Counts missing for outer roadways. We need to see these numbers. | O-79

O-68

Chapter 1 is intended to be a short, 'bullet-list' summary of the findings documented in Chapter 3. More details, including tables and graphics are shown in Chapter 3 and the Transportation Discipline report.

O-69

Bicycle and pedestrian counts were performed in August/September 2001 and May 2002. Counts were conducted by WSDOT on the shared-use pathway at the west end of the floating bridge near the Mt. Baker Ridge Tunnel. The data cover weekdays, weekends, the Labor Day and Memorial Day holiday weekends, and Bike-To-Work Day (May 17, 2002). Additional manual count data was collected in conjunction with truck counts on July 11th, 17th, and August 17th, 2002.

O-70

See Response O-69.

O-71

Alternative R-8A provides improved travel times for each mode. The largest growth in HOV usage is in the reverse-peak direction, where Table 3.1-2 of the EIS shows a substantially higher time savings for transit/HOV compared with the General Purpose traffic. This accounts for the increases in HOV usage shown in Table 3.1-4. In the peak direction, Alt R-8A shows a larger decrease in GP travel times, while HOV travel times stay constant. As a result, the peak direction HOV usage in the center roadway decreases somewhat during certain time periods with Alternative R-8A. Conversely, there is a benefit for HOVs traveling in the outer roadway where the new HOV lane would be located. HOVs would save time resulting in increased HOV usage in the outer roadway documented in Table 3.1-4.

O-72

See Common Response CR-1: Memorandum Agreement.

O-73

The width of the single-face barrier is approximately 16 inches. The double-face barrier is 24 inches wide.

O-74

Cross-sections of the build alternatives at the East Channel Bridge are available in the appendix to the Transportation Discipline Report. Cross-sections of the Preferred Alternative at the East Channel Bridge are shown on in Chapter 2 – Alternatives Considered.

O-75

Page 2-30 of the DEIS states "On the central portion of the bridge, approximately 5,500 feet out of the total bridge length of approximately 8,500 feet, ..." This is about 65 percent of the bridge.

O-76

Figure 3.1-1 in the DEIS provides a graphical depiction of the bus volumes. We have moved that figure up to section 3.1.1.1 Transit Frequency in the FEIS for better clarification.

O-77

Agreed. The number of buses should be 34. We have corrected that in 3.1-1. See also Common Response CR-7: Transit Volumes and Reliability.

O-78

The "peak period" for AM and PM are defined on page 3.1-1 as 6 to 9 AM and 3 to 6 PM. Peak Period is also defined in the Glossary.

O-79

The various vehicle occupancy counts taken in the corridor over the past few years provided us with a good estimate of the outer roadway HOVs.

(p. 3.1-4) Missing counts for HOV usage in the reverse-peak direction. How can you fulfill the purpose and need of the project ("two-way transit and HOV operations") without measuring existing HOV usage?! There is no basis for the assumptions listed to guess at numbers. There is no excuse for not having reverse-peak direction HOV counts considering the cost of this study and the costs of the contemplated alternatives. O-80

Park-and-Ride Facility Usage (p. 3.1-4) The DEIS states "demand exceeds capacity" at some of the park-and-ride lots, but does not list amounts. We need to see numbers. O-81

Table 3.1-2 Point to Point Travel Time. This table is not an accurate reflection of travel times, because it does not include the I-5 merge. You need to show times for the entire length of the corridor–from I-405 to I-5. Also, this table does not include travel time delays for buses stopping on Mercer Island–a significant component of their trip. Percentage differences would not be as significant once the actual total time of the transit trips are listed. O-82

Transit Reliability (p. 3.1-13) The DEIS claims that R8A would "achieve the highest travel time and reliablity benefits" but elsewhere the travel times for transit are shown to be comparable between R2B and R8A. What is the basis of this claim? And how can we believe it, when R8A is more vulnerable to delays caused by blocking vehicles, since the shoulders would be gone (or too narrow to accommodate a disabled vehicle). O-83

Table 3.1-4 HOV Volume comparisons (p. 3.1-16) Appears to show that HOV usage will actually DECREASE. Explain if this is so, and how this accomplishes purpose and need of project. O-84

Table 3.1-6 (p. 3.1-22) Comparison of Operational impacts on Transit and HOV only shows travel times between Bellevue Way and Rainier Ave S, but should show times for the complete length of the corridor–from I-5 to I-405. O-85

TDM/TSM Sensitivity Test (p. 3.1-17)
The TDM/TSM studied is flawed and inadequate. First, only $30 million was used–stated as "approximately the difference in cost estimated between R2B and R8A"–when it should have been $60-$70 million. The primary TDM component listed was increasing transit service, but erroneously there was no evaluation of increasing service ON Mercer Island, but only increasing bus service on I-90. During the scoping process, it was specifically requested that the DEIS evaluate the impact of improving bus service for Mercer Island residents as a means to getting them out of their cars. This was totally ignored in place of the known inadequacy of expanding park-and-ride lots and buses between Bellevue and Seattle. This should be done over, and done right. O-86

HOV Usage (p. 3.1-20) Unexplained inconsistencies with R2B–if general purpose travel times are so bad with R2B, then why does HOV usage go down instead of up? O-87

Throughout this section, you need to use specific amounts instead of subjective statements: "subtantially higher", "small net increase", "negligible changes". O-88

O-80

See Response O-79.

O-81

Please refer to page 3.1-4 in the Draft EIS for information about capacity and usage. For the first quarter of 2003, the total capacity was 257 with a utilization of 271 or 105 percent (*1st Quarter 2003 Park-and-Ride Lot Utilization Report*, King County DOT).

O-82

The transit travel time data contained in the EIS (see Table 3.1-2) is for the portion of I-90 between the Rainier Avenue Transit Station and the East Channel Bridge. West of this portion of I-90, nearly all transit buses utilize the D2 Roadway, which would not experience any material change in operation or travel times. Similarly, east of this portion of I-90, all transit buses are either on the existing HOV lanes, or exit to Bellevue Way SE. Hence, the data provided in the EIS allows for a direct comparison between the alternatives in the portion of the corridor where differences in travel times would exist. While the requested information could be provided, it would not reflect and material difference between alternatives.

O-83

See Common Response CR-7: Transit Volumes and Reliability.

O-84

See Response O-5.

O-85

See Response O-82.

O-86

See Common Response CR-9: TDM/TSM.

O-87

See Response O-5.

O-88

Your comment is noted. Specific amounts are used where the amounts can be specifically quantified.

Reversible Lane Operations (p. 3.2-2) Lists incomplete description of priority of vehicles in the center, reversible lanes. | O-89

Design Speeds (p. 3.2-2) Lists design speeds as "30 mph west of I-5"—but that is a ramp, not the highway. | O-90

Mainline Queues (p. 3.2-7, 2-8) Missing bottlenecks at I-5 and I-405. | O-91

On-Ramp Queses (p. 3.2-8) What is the D2 roadway? Please identify. | O-92

Figure 3.2-2 Comparison of Highway crash rates Table does not define range. | O-93

p. 3.2-11 "The crash rates for the portions of I-5 with non-standard design element and HOV lanes are generally higher than those observed for portions of I-5 with standard design elements without HOV lanes." Give us actual numbers! "Generally higher" is not meaningful. | O-94

Missing table showing traffic volumes throughout corridor by segment and by roadway section (east/west/center). The only place could find volume numbers (and only for peak hour) was in Figures 3.2-3, 3.2-4, 3.2-5. | O-95

Traffic Volumes (p. 3.2-17) Once again states that HOV usage would decline by 2025. How does this satisfy purpose and need of project?! | O-96

Table 3.2-11 Comparative Contruction for Build Alternatives is missing impacts on bike/ped path for R-5 and R8A on the HMH and East Channel Bridges. | O-97

Figure 3.2-7 Person Throughput by Transportation mode (p. 3.2-37) incorrectly shows SOV usage down in 2025 for R8A, when other data (p. 3.1-16) shows HOV use down and total volume of cars up. There is something wrong here! | O-98

Figure 3.2-10 & 3.2-11 Potential Overall Crash Rates needs to show how the different "crash reduction measures" influence the potential crash rates. (p. 3.2-43) | O-99

(p. 3.2-51) Maintenance and Operations

R8A requires closure of how many lanes for routine maintenance? It's not clear from the paragraph. | O-100

3.2.3.1 Crash Reduction Measures

Need to show where along the corridor each of the methods/measures would be used, and identify what percentage of crashs they would reduce. | O-101

TRAN-4 (p. 3.2-60) What is feasibility of using illuminated pavement markers on highway? Aren't these used only in crosswalks? What is the durability of the markers and their use at high speed with the volume and weight of vehicles on I-90? | O-102

O-89

A complete priority listing is shown on page 1-10 of the EIS. The priority identified in the 1976 Memorandum Agreement (see Appendix I of the FEIS) is (1) transit, (2) carpools, and (3) Mercer Island traffic.

O-90

I-90 officially begins at the touchdown point of these "ramps" at 4th Avenue S in Seattle. The portion of I-90 west of I-5, which utilizes ramp design criteria for geometric elements that control the design speed, provides a transition from the higher speed sections to the east to the lower speeds encountered on surface streets, and as such is considered part of the mainline facility for the purpose of the discussion referenced in the comment.

O-91

See Common Response CR-6: Congestion.

O-92

The D2 roadway is a barrier separated, two-way transit/HOV facility providing one travel lane in each direction. This roadway provides a transit and HOV connection between I-90 and downtown Seattle. It terminates on the surface at 5th Avenue and Airport Way, and also provides transit-only ramp connections to the downtown bus tunnel.

O-93

See Common Response CR-6: Congestion.

O-94

These crash rates are represented in Figure 3.2-2 of the EIS.

O-95

Peak hour traffic volumes for each major segment of I-90 within the project limits are shown in Figures 3.2-3, 3.2-4, and 3.2-5 of the EIS. Daily volumes for the floating bridge have been added in a new Table 3.2-11a.

O-96

The text on page 3.2-17 is describing what would happen with Alternative R-1, the No Build Alternative. The HOV volumes are reduced because of the assumed change in occupancy from HOV 2+ to HOV 3+ by 2025. This is consistent with regional HOV policy. Each of the build alternatives results in neutral or positive increase in HOV usage, as documented in the FEIS Table 3.1-4. This table shows an "apples-to-apples" comparison of HOV 2+ users in 2005 and HOV 3+ users in 2025.

O-97

Impacts to the shared-use pathway are covered in Section 3.4.

O-98

The bars for general purpose travelers shown for Alternatives R-1, R-2B and R-5 in Figure 3.2-7 include people in HOV2+ vehicles. The center roadway lanes and ramps for these alternatives would become congested in 2025 if HOV2+ traffic were allowed, so an HOV3+ rule would be used in the center roadway. The center roadway lanes and ramps for Alternative R-8A would not become congested in 2025 with HOV2+ traffic, therefore the bar for general purpose travelers for R-8A in Figure 3.2-7 does **not** include people in HOV2+ vehicles. People in HOV2+ vehicles for R-8A are represented by the striped bar.

O-99

See Common Response CR-8: Safety.

O-100

With Alternative R-8A closure of one travel lane in the Mount Baker Ridge Tunnels and the First Hill Lid would be required for routine maintenance such as sweeping shoulders and cleaning CCTV cameras. Maintenance closures could possibly take place during night time hours.

O-101

See Common Response CR-8: Safety.

O-102

Illuminated pavement markers are as durable as the standard 4-inch round pavement markers currently in use. Illuminated pavement markers are powered by induction and require no physical contact with the underlying cable to operate, therefore they can be replaced as easily as standard pavement markers.

Traffic Volumes Table 3.3-1 (p. 3.3-6) Table should show overall traffic volume changes. How is it possible for there to be NO increase in volumes on Rainier with R8A, even though R8A will be increasing capacity and volumes (see table in Figure 3.2-5). There is something missing here! O-103

Pedestrian trip counts (p. 3.4-3) are way too low (5 per day?!). How, where, and when was this data collected? O-104

TRAN-28 Proposed shuttle service for bicycles during construction is totally inadequate. Bicyclists must have on-bridge detour available 24/7 during any and all construction closures. O-105

TRAN-30 (p. 3.4-8) "The increased railing height would decrease the efffective width of the pathway, ...consequently reducing levels of service during peak-use periods." Increasing the height of the barrier between the pathway and the motor vehicle lanes will degrade the path and discourage users. O-106

Glare from on-come traffic is present for EASTbound bicyclists (not "westbound", as is listed on p. 3.4-10 and at least two other places in the DEIS). O-107

(p. 3.5-3) Diversion of Hazardous cargoes from I-90 to SR520 or I-405 under R8A does not mention impact to those roadways. SR520 is known to be deficient, so how will this affect safety on that bridge? "Additional crash exposure" is mentioned, but no numbers listed. How many more crashes, injuries, etc.? O-108

3.5.2.3 Table 3.5-2 Comparison of Impacts on Freight Movement missing impact of diverting hazardous cargoes. What is economic impact on truckers (if they must double their mileage to drive around)? How will truck-involved crashes increase elsewhere? O-109

4.3.2 Visual Resources Impacts

(p. 4.2-8) Inadequate choice of viewpoints. Missing two key viewpoints--on bike path looking south, and on westbound HMH roadway looking north. O-110

(p. 4.3-15) Missing impact of increasing height of barrier between bike/ped path and motor vehicle lanes. How will emergency personnel access bike/ped path users? How will stranded motorists be able to get onto bike/ped path. How will increased noise levels from proximity of motor vehicles affect path users' ability to hear bells and voice of overtaking users (bicyclists passing)? O-111

4.15 Unavoidable Adverse Impacts - Pedestrian/Bicycle Access

(p. 4.15-1) The DEIS states that path closures would "require pathway users to use alternative access routes or shuttle services which will be provided." As stated elsewhere in these comments, shuttle service not adequate to handle the volume and use of path by bicyclists. The only acceptable solution is an on-bridge detour route that is available 24/7. O-112

O-103

Table 3.3-1 shows total volumes and percentage changes from Alternative R-1. This format allows most readers to identify the scale of changes among alternatives. The Transportation Discipline Report contains additional traffic volume information from which the reader could compute actual volume differences (rather than percentages). The travel model was validated against traffic volumes along Rainier Avenue S among other streets. It is not surprising that Alternative R-8A does not show a change in volume on Rainier Avenue S, since the types of trips that are shifted were found to be regionally-oriented between I-405 and I-5, or to/from locations in and around downtown Seattle. Rainier Avenue S was not estimated to be a route of choice for these types of trips.

O-104

See Response O-69.

O-105

See Common Response CR-3: Shared-use Pathway.

O-106

See Common Response CR-3: Shared-use Pathway.

O-107

The FEIS text has been corrected.

O-108

See Common Response CR-5: Flammable Cargo Routing Issues with Preferred Alternative R-8A.

O-109

See Common Response CR-5: Flammable Cargo Routing Issues with Preferred Alternative R-8A.

O-110

Your comment is noted. The eight viewpoints selected were intended to be representative of the various types of views from the roadway.

O-111

Chapter 3.4, in the discussion of TRAN-30, identifies trade-offs to be considered in the design of screening to mitigate the traffic proximity impact associated with the Preferred Alternative. Among these trade-offs to be considered are provisions associated with the safety and security issues identified in the comment. Design of the screening will consider provisions for access by emergency personnel, and by stranded motorists. This would most likely be handled by providing periodic gaps in the screening, accompanied by signing and possibly lighting to demarcate the openings. Screening materials under consideration include solid materials that could provide some degree of noise attenuation, although this is not the purpose of the screening. Chapter 4.3 is a discussion of Visual Resources and includes a discussion of the impacts of views from the shared-use pathway.

O-112

See Common Response CR-3: Shared-use Pathway.

Table 5-4 Comparison of Nonmotorized Impact
(p. 5-10) Table lists shuttle as an option during path closure, but that is unacceptable. Bicyclists must have an on-bridge detour route that is available 24/7. Table should also list the closure/detour information under R8A instead of just referring to R5. O-113

5.3.1.3 Nonmotorized Transportation users - Operation
(p. 5-11) Under R8A decreasing the buffer between bike/ped path and motorized vehicle lanes, "...with this degradation in the user environment, some decreases in the shared use of the path...could be expected." How much? O-114

Bike-Ped Path not shown accurately on diagrams

Figures S-1 and 1-1 purport to show the I-90 corridor and adjacent Shared-Use Pathway, but many segments of the path are not located accurately. Errors listed below: O-115

- Figure incorrectly shows path crossing from north to south side of I-90 between 23rd Ave S and Rainier Ave S. In fact, the trail splits at 23rd, with a spur paralleling the northbound off ramp to Rainier and ending at Hiawatha, while the main trail jogs immediately to the south side of I-90 at 23rd.
- Figure appears to show the path paralleling I-90 through Mt Baker tunnel, when in fact the path diverges from the roadway at the west end of the HMH bridge goes through a separate tunnel above the motor vehicle tunnel, and then meanders through Sam Smith Park.
- At the east end of the HMH bridge, the path actually remains on the north side of the westbound onramp from West Mercer Way from the bridge all the way to West Mercer Way (in figure, path is incorrectly shown south of the onramp for part of it).
- Orientation and location of Path crossing Mercer Slough is wrong.
- Junction of path at 118th Ave SE is inaccurate and bike lane/path along 118th Ave SE south of I-90 is missing.

Vague and inconsistent usage:

In many places, "peak hour" data is used along side "peak period". Need to be very clear which is which. O-116

In many places, subjective statements like "subtantially higher", "small net increase", "negligible changes" are used instead of specific amounts. These should all be changed (or augmented with acutal numbers). O-117

R8A alternative states 2-4' shoulder adjacent to bike path on HMH bridge. Which is it? Need to use precise numbers or identify percentage of corridor with different widths. If it's 2 feet for 98% of the bridge (most likely), then say 2-feet. O-118

O-113

See Common Response CR-3: Shared-use Pathway.

O-114

See Response O-7.

O-115

Figures S-1 and 1-1 have been revised in the FEIS to reflect corrections to the location of the shared-use pathway.

O-116

Your comment is noted.

O-117

See Response O-88.

O-118

The bridge approach structures (totaling 3,000 feet) would have 4-foot shoulders; the central portion of the bridge (5,500 feet or 65 percent of the total) would have 2-foot shoulders.

Because the roadway and environment change significantly through the corridor, the corridor should be analyzed in discrete sections and those sections should be identified. For example: Mt Baker Tunnel, HMH & LVM bridges, MI Lid, East Channel Bridge, etc. O-119

Issues change over each section and in order to be evaluated we need to see % of project length, roadway width/shoulders, bike/ped path width & proximity to motor vehicle lanes, etc. Need schematic showing number of lanes, ramps, merges, etc., through entire corridor. Summary tables are not adequate. O-120

Additional Concerns

What is the structural integrity of the barrier between the bike/ped path and motor vehicle lanes? Under R8A, with reduction of shoulder to 2 feet, how will barrier guard against override, penetration, or movement of barrier by motor vehicles? O-121

Summary tables that use "same as alternative X" are misleading and difficult to read–and make it appear that some items have little or no impact. Comments should be listed in all appropriate alternatives equally (with a note "same as alternative "x", if desired). O-122

Need table showing SOV, HOV, and transit by direction during peak hour (make it consistent comparison–not peak period v. peak hour). O-123

Travel time numbers need to be for I-5 to I-405, not just segments in the middle of the corridor (Rainier to East Channel Bridge). The merge at the beginning and end are essential components of the trip and to omit those numbers is misleading. O-124

Need to see accident mitigation by section within the corridor. If all the mitigation (lane markings, tow trucks, etc.) are identical throughout then say so, otherwise need to see where each is applied–and show how each mitigation factor impacts the crash numbers. Also, these mitigation methods additive, or do some of them conflict? O-125

Bias

There are many instances of bias in the language chosen to desribe R8A compared to the other alternatives. For example, R8A merge at I-405 will cause "increased queuing", but R2B at I-5 will have "increased congestion". Which sounds worse? They are both the same. O-126

Future Light Rail Operation (p. 4.16-11)
The DEIS claims that R8A would be "the most adaptable alternative in terms of compatibility for conversion of the I-90 center roadway to light rail use" but provides no justification. R2B could be converted to light rail, with HOV lanes added to the outer roadway later, without compromising safety in the short term. Additionally, under R8A, if HOV lanes are built in the outer roadway now, there would be no place to move Mercer Island traffic when the center roadway is taken over by light rail. In light of this, R2B is actually BETTER for future light rail than R8A. O-127

O-119

The transportation analysis was conducted on discrete sections of the corridor and many of the tables in Chapter 3 organize the impacts by these sections. Impacts on the environment were defined by discrete section when appropriate (Chapter 4).

O-120

Detailed schematics are not typically a part of the EIS. Schematic drawings are contained in the supporting discipline reports.

O-121

The existing concrete bridge rail that separates the shared-use pathway from the adjacent travel lanes is integral to the bridge deck, and as such, is not subject to deflection or deformation when struck by a typical motor vehicle. Provisions for screening on top of the existing concrete traffic barrier will minimize the amount of debris that might land in the shared-use pathway in the event of a collision with the barrier. In addition, the face of the barrier is a shape that redirects an errant vehicle away from the barrier if struck – this feature is particularly effective at the shallow angles of approach that would exist with the reduced shoulder widths on the floating bridge. Finally, crash reduction measures, specifically rumble strips, would reduce the incidences of collisions with the barrier, by alerting errant motorists. See also Common Response CR-3: Shared-use Pathway.

O-122

This format is standard for most EISs. The intent is to reduce text and avoid excessive repetition.

O-123

Revised Table 3.2-16 in Section 3.2 of the FEIS presents delay estimates by mode for the two six-hour AM (5-11 AM) and PM (2-8 PM) periods of an average weekday.

O-124

Table 1-2 in the Transportation Discipline Report contained a summary of travel times for general-purpose traffic between I-5 and I-405. It is reproduced below for reference.

Table 1-2
General Purpose Traffic - Corridor Travel Times
All Alternatives, Years 2005 and 2025

	Travel Time (minutes)[1]				
Roadway	**R-1**	**R-2B**	**R-5R[2]**	**R-5M[2]**	**R-8A**
AM Peak Hour, 2005					
Eastbound Outer(reverse-peak direction)	11.5	10.4	11.5	11.5	9.0
Westbound Outer(peak direction)	10.1	9.9	10.1	10.1	8.4
PM Peak Hour, 2005					
Eastbound Outer(peak direction)	11.6	13.8	11.6	11.6	8.9
Westbound Outer(reverse-peak direction)	10.7	9.8	10.7	10.7	8.3
AM Peak Hour, 2025					
Eastbound Outer(reverse-peak direction)	15.4	14.7	15.4	15.4	9.6
Westbound Outer(peak direction)	13.1	14.4	13.1	13.1	8.6
PM Peak Hour, 2025					
Eastbound Outer(peak direction)	13.7	13.8	13.7	13.7	9.0
Westbound Outer(reverse-peak direction)	13.8	10.8	12.4	12.4	11.8

Notes: 1) Peak hour general purpose traffic from I-5 to I-405
2) Alternatives R-5 Restripe & R-5 Modified

Source: HNTB, 2002

O-125

See Common Response CR-8: Safety.

O-126

A variety of performance measures pertaining to traffic operations were examined at the I-5 and I-405 system interchanges. The performance measures included person-hours of delay and queue lengths at the various interchange ramps, and speeds on mainline segments of I-5 and I-405 adjacent to the I-90 interchanges during peak hours. For the I-90 corridor, congestion was characterized by the number of hours during which traffic operates below 40 mph anywhere in the corridor.

Alternative R-2B would provide one fewer traffic lane in the peak direction of travel, due to the loss of one center roadway lane. For travel in the eastbound direction on I-90 during the PM hours, this feature would aggravate the existing bottleneck at the Mount Baker Ridge tunnel. Over 50 percent of the total corridor delay with Alternative R-2B would occur in the segment of I-90 between I-5 and Mount Baker Ridge (approximately 2,800 person-hours in 2005, and 5,100 person-hours in 2025). In these same segments for Alternative R-8A, less than 25 percent of the corridor delay is generated (170 person-hours in 2005, and 200 person-hours in 2025). Alternative R-8A also produces fewer hours of congested operation in these segments, so is characterized as having less congestion.

In Alternative R-8A, one additional travel lane would be available for peak-direction traffic. Traffic volumes on the I-5 interchange ramps also would be higher with Alternative R-8A, by six to eight percent compared to Alternative R-1. The additional capacity represented by the outer roadway HOV lanes will enable Alternative R-8A to deliver more I-90 traffic to the interchanges, which will in turn produce more queued vehicles on some interchange ramps, however, with the added outer roadway lanes these queues would be shorter in length than with the No Build Alternative. In the 2025 AM peak hour, for instance, Alternative R-8A would produce a peak-hour queue length of 1,275 feet leading to northbound I-5, compared to 2,525 feet in Alternative R-1. At the same location, the queue would be 675 feet in length with Alternative R-2B, because the reduced peak-direction capacity would reduce the throughput of I-90. As indicated in the person hours of delay estimated for each alternative, The longer queue lengths do not translate directly to increased hours of congestion or increased person-hours of delay within the I-90 corridor or on the interchange ramps.

O-127

See Common Response CR-2: High Capacity Transit (HCT).

SEATTLE COMMUNITY COUNCIL FEDERATION

June 9, 2003

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COMMENTS ON I-90 TWO-WAY TRANSIT PROJECT DRAFT EIS

To Sound Transit and the City of Seattle:

The Seattle Community Council Federation has long and emphatically supported a configuration for the I-90 bridge and tunnels that favors transit and nonmotorized travel and that protects urban streets and neighborhoods from additional traffic, pollution, noise, and risks to health and property. SCCF is opposed to alternative R-8A because it expands the I-90 automobile lanes from the current eight to a total of ten, while disadvantaging transit, bicyclists, and pedestrians, and doing more harm to neighborhoods, the environment, and the safety of I-90 itself than other alternatives that cost a lot less.

For more than 30 years, the Seattle Community Council Federation has been a party to legal and policy debates about I-90, most recently in the scoping for this EIS and in commenting to the I-90 Steering Committee on the 2001 Project Status Report that preceded the EIS process. As a member of the I-90 Safety Coalition, we helped to prevent King County, Sound Transit, and other jurisdictions from designating R-8A as their preliminary preferred alternative. However, we are concerned that bias in favor of R-8A in these agencies continues and has carried over into the EIS process. We believe that the I-90 Steering Committee and the agencies and consultants responsible for the EIS have arbitrarily ignored our requests for balanced analysis of the R-8A and its alternatives.

O-128

Draft EIS does not examine fatal safety flaws in alternative R-8A, and will not withstand legal scrutiny. The I-90 Steering Committee, the Washington State Department of Transportation (WSDOT) and the Federal Highway Administration (FHWA) initially ruled that alternative R-8A would not be considered because of its several fatal safety flaws. Political pressure was brought to bear locally, the engineers' safety concerns were overruled, and the I-90 Steering Committee began to study the alternative. However, FHWA continued to rule that alternative R-8A's fatal flaws meant that it did not merit serious study, and that it could not emerge from an EIS scoping process to be examined as an EIS alternative. Again politics intervened and through language in an

O-129

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O-128 Seattle Community Council Federation

Your preference is noted. See also Common Response CR-11: Why is Alternative R-8A the Preferred Alternative?

O-129

See Common Response CR-8: Safety.

appropriations bill, Congress required that, despite the fatal flaws, FHWA must allow R-8A to be studied.

It is important to note that, in advancing R-8A for further analysis, Congress did not in any way constrain the application of the National Environmental Policy Act and its regulations from full examination in the EIS of R-8A's fatal flaws. We believe that a fair analysis will again show R-8A to have fatal safety flaws. However, we are deeply concerned that the analysis that is presented in this draft 2003 EIS has not been conducted fairly, but rather in a way that has obscured R-8A's deficiencies and overstating its advantages, while doing the reverse for other alternatives.

This draft EIS is a throwback to the seriously flawed I-90 EIS that was twice rejected by a federal judge in 1970 and 1972 because it was so biased in favor of a ten or more lane I-90. In turning the EIS down the second time in 1972, the judge stated: "The impact statement submitted in this case fails to meet minimum legal standards. By seriously underestimating their duty, defendants have caused yet another costly delay with this project." [350 Fed. Suppl. 265 (1972] The situation is similar today, and a judge would likely rule accordingly. Because the 2003 draft EIS is so biased in favor of alternative R-8A, the agencies will now have to do a lot of new research and analysis before they can have any confidence that the EIS will withstand legal scrutiny.

O-129 cont.

Supplemental EIS needed to correct flaws in the draft EIS. The 2003 draft I-90 EIS is so seriously deficient that only a supplemental EIS can correct its flaws. To correct the deficiencies in the 2003 draft will require such an extensive act of revision as virtually to create a new EIS, while denying the public a timely opportunity to comment on the new material until it becomes a fait accompli in the final EIS. The draft EIS is poorly organized and incomplete, stacked in favor of alternative R-8A, and biased against the other alternatives. It ignores the many commitments that were made in the 1977 EIS under which I-90 was constructed. The 1976 memorandum of understanding and/or the 1977 EIS that enabled construction of the I-90 bridge specified that the I-90 center lanes would be for two-way transit operations, that continued access of Mercer Island single occupancy vehicle drivers to the center lanes was lowest in priority, and the I-90 bridge and tunnels would "accommodate no more than eight motor vehicle lanes." .

O-130

Section S.11, "Areas of Concern or Controversy," states that "The only major area of concern or controversy associated with the Project is impacts on nonmotorized users of the floating bridges." This materially false statement ignores several other important areas of concern or controversy well known to the agencies and consultants regarding alternative R-8A, among them (1) addition of two lanes more than allowed by the 1976 MOA and the 1977 EIS; (2) congestion on I-405, I-5, and local streets caused by additional I-90 single occupant vehicle capacity; (3) diversion of flammable and hazardous cargo trucks from I-90, causing unnecessary additional mileage on I-5, SR520, I-405, and local streets.

O-131

O-130

A Supplemental EIS is not warranted based on applicable federal regulations (40 CFR 1502.9 (c)(1). This guidance indicates that a supplement to a draft EIS may be prepared when either: a) the agency makes substantial changes in the proposed action that are relevant to environmental concerns; or b) there are significant new circumstances or information relevant to environmental concerns that bear on the proposed action or its impacts. Neither of these criteria are relevant or applicable to this project. See also Common Response CR-1: Memorandum Agreement in regards to your comments on the 1976 Memorandum Agreement.

O-131

Please see Response O-56.

Incorporate by reference the comments by the I-90 Safety Coalition and 1000 Friends. In addition to our own comments below, we wish to incorporate by reference the impressive EIS comments that have recently been filed by the I-90 Safety Coalition (nine pages) and 1000 Friends of Washington (12 pages). These comments reflect a high degree of professionalism and an extraordinary amount of work by dedicated volunteers.

O-132

Acknowledge and implement provisions in the 1976 MOA and 1977 EIS. This draft EIS ignores or countermands commitments for transit, especially in the center lanes, that were made in the 1976 Memorandum of Agreement and the 1977 EIS that enabled construction of I-90. The draft 2003 EIS does acknowledge (p. 1-10) that the 1976 Memorandum of Agreement limited the I-90 bridge and tunnels to 8 lanes, and specified two lanes would be dedicated to transit, with other vehicles allowed on the lanes only if optimal transit speeds were maintained. However, the EIS is not responsive to our scoping suggestion that "you should quote the exact language regarding the limitation to eight lanes, and the need for mutual agreement before departing from the agreement." The 2003 EIS does not even mention that alternative R-8A would breach this condition

The 2003 draft EIS must be revised to provide and honor the legal and historical facts that are quoted here from the 1977 EIS sec. 2.3, p. 17):

> "The center roadway will be designed in accordance with the provisions of the inter-jurisdictional Memorandum of Agreement of December 1976, which is reproduced as technical Appendix C to the EIS. ... The Agreement specifies that there shall be two lanes designed to accommodate either a two-way or a reversible method of operations at no less than 45 miles per hour average speed, with the first priority given to transit, the second to carpools, and the third to general Mercer Island traffic. The center lanes will operate initially in a two-way directional mode with the lane carrying the minor flow restricted to buses. The center roadway will be designed to accommodate conversion to a fixed guide-way mode of rapid transit at some time in the future.
>
> The 1977 I-90 EIS continues: "To further promote the use of the center roadway as a transit facility, and to encourage the development of a more comprehensive areawide transit system, the Memorandum of Agreement also records the inter-jurisdictional agreement on...transit projects directly related to I-90. ... These transit access provisions and the use of the center roadway for the encouragement of the use of transit and high-occupancy vehicles are an integral part of a comprehensive regional program of the Department of Highways and other agencies, to provide visible incentives for motorists to shift their mode of travel to something more efficient than the single-occupant automobile."

O-133

The draft EIS does not examine R-8A's behavioral and institutional barriers to future transit use of the center lanes. The lack of behavioral and institutional analysis causes the draft 2003 EIS to make the demonstrably false statement that alternative R-8A is "the most adaptable alternative in terms of compatibility for conversion of the I-90 center

O-134

O-132

The comment letters submitted by the I-90 Safety Coalition and the 1000 Friends of Washington are included in the FEIS in their entirety. The postcard from the Transportation Choices Coalition is included on page 458 of the FEIS.

O-133

See Common Response CR-1: Memorandum Agreement.

O-134

See Common Response CR-2: High Capacity Transit (HCT).

roadway to light rail use." However, once one makes use of behavioral and institutional analysis, it can be seen that the exact opposite is the case. Once drivers become accustomed to using the center lanes, they will be highly resistant to losing "their" lanes to light rail, with the most likely result that light rail will never be built. Because all the other alternatives stay with the current eight lanes, they will all be more conducive to light rail, because the addition of light rail will not require a net reduction in traffic lanes.

O-134 cont.

The EIS must be revised to acknowledge and analyze this dynamic and make clear its consequences for the adaptability of the various alternatives to the addition of light rail in the future. The center lanes of the I-90 bridge were designed to accommodate light rail and other all-transit technologies. Opening up this area of the bridge now to more automobile traffic will jeopardize our future ability to convert some of that space to light rail or to a bus-only lane. In other parts of the country, transit lines have faced much more opposition when they proposed to displace existing traffic lanes than when they left the same number of traffic lanes.

O-135

The EIS needs to use behavioral and institutional analysis to estimate the probability that bus or HOV lanes will actually remain so. This draft EIS makes the unrealistic assumption that lanes dedicated to bus or HOV use will always remain so. But the experience in Washington state, in other states, and around the world is that many bus or HOV lanes are eventually opened up to single occupancy vehicles, greatly compromising the applicability of any EIS analysis that had assumed they would always remain HOV or transit lanes. The draft EIS should make use of behavioral and institutional analysis to produce an estimate of the probability that the current or proposed I-90 bus or HOV lanes will actually keep that designation. More likely is that these bus or HOV lanes eventually will be opened up to single occupancy vehicles. This projection is borne out by the behavioral and institutional analysis in a study that I coauthored with Preston Schiller and Kristin Pauly for the Chesapeake Bay Foundation, Rethinking HOV--High Occupancy Vehicle Facilities and the Public Interest, by Chris Leman. An electronic version of this study is available through USDOT's National Transportation Library; the link is http://www.bts.gv/NTL/DOCS/retk.html.

O-136

Negative consequences for the I-90 bicycle and pedestrian pathway. As a longtime supporter of bicycle and pedestrian access to I-90, the Seattle Community Council Federation is concerned that the draft 2003 EIS does not capture the negative impacts of alternative R-8A upon the existing pathway. Even if the pathway is not narrowed (as alternative R-8A has long assumed), this alternative will virtually eliminate the shoulder, moving fast-moving traffic much closer to the pedestrians and bicyclists, thus increasing their danger when collisions occur in the motor vehicle lanes, and exposing the pedestrians and bicyclists to unacceptable levels of noise, splash, solid debris, and air and water pollution. The photo simulation presented in Figure 4.3-4 makes the traffic appear farther away from the bicyclists and pedestrians than it actually would be. This simulation should be redone to present an accurate picture of the small degree of separation.

O-137

O-135

See Common Response CR-2: High Capacity Transit (HCT).

O-136

Your comment is noted.

O-137

The photo simulations are correct as depicted in the DEIS.

5

We challenge the position of the Federal Highway Administration and the Federal Transit Administration that the I-90 bicycle/pedestrian pathway is not a recreational facility. This pathway offers unique recreational opportunities, and a significant proportion of its users are not commuters, but people who are using it for a recreational outing. O-138

Failure to assess R-8A's full impact in encouraging SOV travel. In its bias for R-8A, the draft EIS does not consider the extent to which further expanding single occupancy vehicle capacity on I-90 will weaken our ability to promote transit ridership. Our scoping comments urged that the EIS should compare the mode share produced by the different alternatives, and we pointed out that "R-8A will have the worst impact on mode share, because more people will drive alone, reducing their incentive to take the bus. Car pools that only have two occupants are also not a positive development if they take away riders from transit, van pools, and 3+ car pools.

Contrary to our input during the scoping process, the draft EIS fails to consider how R-8A's increase in single occupancy vehicle capacity undermines the other modes. In fact, the 2001 Project Status Report chronicled that 55 per cent of the time savings from R-8A would accrue to single occupancy vehicles, while only ten per cent of the time savings would accrue to transit riders. O-139

The statement is made on p. 1-8 that "HOV lanes encourage the use of transit and other higher occupancy modes by providing travel-time saving and increased reliability compared to travel in the general purpose lanes", with no recognition that in actuality, the opposite will happen if similar or greater improvements are also provided to single occupancy vehicles. Because alternative R-8A provides more advantages to SOVs than any of the other alternatives, any advantages it may provide to HOVs are reduced in significance--but the draft EIS fails to even mention this possibility.

The statement at p. 3.1-13 that R-8A would "achieve the highest travel time and reliability benefits" for transit cannot be sustained. The analysts have failed to consider the additional transit delay caused because of R-8A's elimination of the safety shoulders, which are a major asset in helping to clear disabled vehicles and reduce their congestion impacts.

Downplaying of R-8A's negative consequences at the expense of other alternatives. In addition to those presented above, here are some other seriously biased statements in the draft EIS that must be eliminated or reworded in any supplemental or final EIS:

Section S.7.1.2: Alternative R-8A is described as "lowering overall levels of congestion, but queues and delays at the system interchanges would increase." It doesn't take a rocket scientist to realize that these "queues and delays" are in fact congestion, and at some locations, they would actually be worse for R-8A than for any of the other alternatives whose congestion is supposedly worse! O-140

O-138

Your comment is noted. Please see the letter of November 25, 2002 from FTA and FHWA to WSDOT which is included in Appendix F (in both the Draft and Final EIS) - Agency Correspondence. Also refer to the paper included in Appendix F: "Evaluation of the I-90 Bicycle and Pedestrian Path as a Potential Section 4(f) Resource." It is acknowledged in the letter that recreation is an important function of the path, but that this function is secondary to the primary purpose of transportation. As a result, FHWA and FTA concurred with the WSDOT determination that the shared use path is not a Section 4(f) resource as per 23 CFR 771.135. Consistent with the FHWA and FTA directives in this letter, "all appropriate measures and actions will be taken to reduce or eliminate the project impacts to the shared-use path and its users". Mitigation measures to reduce impacts to the shared use path as a result of the preferred alternative, as well as the other alternatives evaluated, are detailed in Section 3.4.3 of the Draft and Final EIS.

O-139

There are no substantial differences in transit ridership between alternatives. HOV usage would be higher with Alternative R-8A than any other alternative, because HOV 2 carpools could be accommodated.

The forecasts take into account the relative differences in travel times between modes. With Alternative R-8A, for example, the model accounts for the improved travel times for HOV's as well as the improved travel times for general purpose traffic. Despite the improved travel times for general traffic, the travel times for HOV's and transit are still much better. This results in the higher HOV usage forecast for R-8A (apart from the changed occupancy definition of HOV 2+). The technical results do not support the assertion in the comment that there would be a reduction in HOV or transit usage with R-8A.

The decision to designate HOV 2+ or 3+ is a regional policy discussion. It is not part of the purpose of this project to recommend one designation over the other. R-8A as analyzed would allow either designation to occur, while Alternative R-2B would require an HOV 3+ designation.

The EIS tends to hide the unique high levels of congestion that R-8A would cause at the I-5 and I-405 interchanges by stressing the travel times in the middle of the corridor (e.g. between Rainier Avenue and the Eastlake Channel Bridge), even though the majority of the travelers will be driving all the way between I-5 and I-405. Contrary to requests that SCCF made during the scoping process, the EIS does not consider serious Transportation Demand Management and Transportation Systems Management that could reduce the level and impacts of single occupancy vehicle traffic on I-90, especially that traffic that is going to and from Mercer Island.

O-140 cont.

Flammable and hazardous truck cargoes. Alternative R-8A is the only alternative that forces flammable and hazardous truck cargoes off I-90, requiring much additional mileage on alternative routes. However, the draft EIS contains almost no analysis of this impact and its consequences. No mitigation measures are proposed (see Table S-2 of proposed potential mitigation measures). The Seattle Community Council Federation's 2001 comments on the project report, which at our request were incorporated as scoping comments for the EIS, stated that R-8A's prohibition of flammable loads on I-90 "would have severe risk impacts on the neighborhoods along SR520, I-5, I-405, and SR522 that would suffer an increase in flammable cargoes." We urged examination of the consequences, and for their incorporation into benefit cost analysis; neither of these recommendations were taken by the EIS writers.

O-141

Despite our strong urging in the scoping process that the flammable and hazardous cargo trucks issue be carefully studied, the draft 2003 EIS treats the issue in only a cursory fashion, with little data or analysis of the consequences of this aspect of R-8A. Consider:

- Although the EIS acknowledges that the main detour routes if flammable and hazardous cargo trucks were prohibited from I-90 would be SR520/I-5 and I-405/I-5 (see p. 3.5-3), no estimate is provided for what proportion of the traffic would take each route.

- The draft EIS does not consider the potential for additional collisions and congestion that stems not only from the fact that the trucks would be detouring many additional miles, but also from the fact that the routes they would be taking (especially SR-520, I-5, and local streets) include substandard lane widths, higher congestion, and other features that would increase the collision rates for these trucks. The EIS does not consider the unusually difficult safety problems with gasoline tanker trucks, which experience higher collision rates than other trucks of their size. According to the enclosed 1992 article by Los Angeles Times reporter Tom Furlong, the tanker trucks have an unusually high center of gravity and narrow wheelbase, causing dozens to roll over every year; and their thin aluminum tanks are easily punctured in a collision.

O-142

- The draft EIS does not consider the potential for increased fires, explosions, and spills from the additional mileage of flammable and hazardous cargo trucks that would be forced by off I-90 by R-8A. The gasoline in a single tanker truck carries a maximum potential charge equivalent to 100 tons of TNT. As just one example of the analysis

O-143

Once all of the travel times are factored into the model, there are resulting forecasts of transit, carpool, and SOV users. These results are documented in the DEIS and FEIS.

The effects of the changed geometrics on transit incidents and reliability are addressed in the DEIS and FEIS.

O-140

See Common Responses CR-6: Congestion and CR-9: TDM/TSM.

O-141

See Common Response CR-5: Flammable Cargo Routing Issues with Preferred Alternative R-8A.

O-142

See Common Response CR-5: Flammable Cargo Routing Issues with Preferred Alternative R-8A.

O-143

See Common Response CR-5: Flammable Cargo Routing Issues with Preferred Alternative R-8A.

that has not yet been done, it is certain that R-8A will cause an increase in the number of flammable and hazardous cargo trucks driving underneath the Convention Center on I-5 on their way to SR520--yet the EIS does not even mention this change or consider its potentially catastrophic consequences. O-143 cont.

- The draft EIS does not consider the economic impact of R-8A on truckers who would be denied access to I-90, and would have to take large detours, consuming precious time and fuel, and increasing wear on the trucks. O-144

The draft EIS does not address the likely extent and consequences of truckers' disregard of the prohibition on flammable and hazardous cargo trucks on I-90. WSDOT is well aware that this disregard currently occurs during maintenance when I-90 is temporarily closed to flammable and hazardous cargoes, according to the attached article in the Seattle P-I "Getting There" column: "It's only an $86 ticket if they go through there (and are caught)," said Wayne Federer, lead technician at the Mount Baker tunnel. So far we haven't had any tanker fires, and we hope we never do. There's always the possibility something could happen." Note that these illegal flammable and hazardous truck trips on I-90 are occurring when the firefighting systems are being worked on and thus are not available to put out any fire that did start. If R-8A is implemented on I-90, will WSDOT continue to maintain the I-90 firefighting systems at the present state of readiness? If not, the consequences of a fire or explosion in the tunnels or on the bridge could be much more serious than it is a present. None of these prospects are examined in the draft 2003 EIS. O-145

The agencies and consultants responsible for this draft EIS have failed to provide an estimate of the traffic volume of flammable and hazardous cargo trucks that will follow various alternative routes if forced to detour around I-90. When we inquired about the lack of information on this question in the EIS, Sound Transit's Andrea Tull replied on April 22 that "WSDOT contacted the shippers on their flammable prohibitions (such as when sprinklers are being tested) list for routing information, and got no response from them." At the May 21 open house, Sound Transit, WSDOT, and its consultants told us that this contact had been by letter, but that systematic followup had not been done to encourage a response from the addressees or to obtain the same information by interviewing them. Such efforts should be undertaken now. Also, it appears that no effort was made to assuage business concerns about releasing proprietary information, such as by displaying the information in such a way that competitors would be unable to tell which company had given it. O-146

It is also distressing that the preparers of this draft EIS have failed to take advantage of a natural source of data on the detouring routes of those flammable or hazardous cargo, in that these trucks are periodically kept off I-90 because of maintenance of the firefighting systems. The truck detour routes during these ongoing temporary closures are a possible indication of the routes that would be taken if these same trucks were prohibited permanently from using the I-90 bridge and tunnels.

O-144

See Common Response CR-5: Flammable Cargo Routing Issues with Preferred Alternative R-8A.

O-145

WSDOT continues to maintain and operate the fire suppression systems in the tunnels at present or improved levels, as it does now and for the preferred alternative for the I-90 project.

Carriers of flammable materials violating the flammable cargo restrictions in the tunnels have not been found to be a problem to date. Washington State Patrol occasionally gets calls from citizens reporting violators of the flammable cargo restrictions. When WSP has investigated the situation, it has turned out that the cargo was a non-flammable material such as diesel fuel. If violations become a problem WSDOT will work closely with Washington State Patrol to enhance enforcement.

For more information please also see the expanded section of flammable cargo in Section 3.5 of the Final EIS. See also Common Response CR-5: Flammable Cargo Routing Issues with Preferred Alternative R-8A and Response A-120.

O-146

See Common Response CR-5: Flammable Cargo Routing Issues with Preferred Alternative R-8A.

The draft EIS also failed to examine the impacts in 1989-92 when the I-90 construction caused a three-year prohibition of flammable cargoes eastbound on the I-90 bridge and tunnels. The enclosed July 17, 1989 article in the Seattle Times, "I-90 Restriction Upsets Truckers," reports that the alternative routes add an extra 15 to 20 miles to each trip that these trucks take. The article quoted several trucking companies as being very concerned about the negative economic impacts of the prohibition.

O-146 cont.

The EIS understates R-8A's air pollution impacts. The draft EIS section on energy consumption acknowledges that, among the alternatives, R-8A results in the greatest vehicle miles traveled and thus the greatest energy consumption. However, in the section on air quality, the draft EIS does not acknowledge that, as a logical consequence, R-8A will also produce the most of certain air pollutants. The Seattle Community Council Federation's EIS scoping comments urged that the air quality analysis include particulates, which, more than with carbon monoxide, are "known to increase more directly by vehicle miles traveled, and to have the most direct relationship to health problems such as asthma and heart attacks." Our suggestion was in vain, because this draft EIS looks only at carbon monoxide. As we previously requested, a supplemental or final EIS must look at particulates and other air pollutants whose increase is related to the increase in vehicle miles traveled.

O-147

Environmental justice analysis is seriously deficient. Our scoping comments pointed out that the negative impacts of alternative R-8A would fall largely on non-white, low income populations. However, the draft EIS section on environmental justice contains no analysis whatsoever of this concern. While residents of Mercer Island would enjoy the greatest benefits of R-8A, low-income and non-white Seattle residents would suffer the most, experiencing greater local traffic and its impacts , while losing access to I-5 and I-90 because of the additional congestion that R-8A would cause.

O-148

Conclusion. The Seattle Community Council Federation strongly supports improved transit access on the I-90 bridge, but urges that in doing so, Sound Transit not "subsidize the competition" by increasing the bridge's single occupancy vehicle traffic, harming the pedestrian and bicycle path, and cause flammable and hazardous cargo trucks to detour hundreds of thousands of miles, exposing freeway users and nearby residents and businesses to greater risk. A fair analysis will show that these are fatal flaws for alternative R-8A, and it should not be recommended.

O-149

Sincerely,

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O-147

The air quality impact analysis was performed in accordance with federal traffic conformity regulations. A CO hot spot analysis was performed for potentially affected intersections along the I-90 corridor. Transportation modeling performed by HNTB calculated a 5.3 percent increase in the number of vehicles per hour, traveling along the I-90 corridor under alternative R-8A over that of R-2B. While the difference between the two alternatives is small, whichever alternative results in increased traffic volumes and results in higher fuel consumption will create more emissions of NO_x, VOC, CO_2 and particulate matter. A hotspot analysis considers how emissions vary with vehicle speed, traffic queue lengths, signal light timing, roadway geometry and other factors to calculate ambient CO concentrations. It is important to note that the air quality analysis calculated ambient CO concentrations for comparison to the National Ambient Air Quality Standards (NAAQS). The analysis was not intended to determine which alternative will emit the most or least pollutants, but rather to estimate air quality impacts in an effort to ensure human health would not be compromised.

O-148

Alternative R-8A reduces congestion for all users. There is no evidence to indicate that low-income and non-white Seattle residents would experience greater local traffic and its impacts, nor would they lose access to I-5 and I-90 due to Alternative R-8A.

O-149

Your preference is noted. See also Common Response CR-11: Why is Alternative R-8A the Preferred Alternative?

GETTING THERE: Ban on gasoline truck in tunnels is a sometimes thing

Question: Why are trucks hauling flammable material, like gasoline, kept out of the Interstate 90 tunnels only part of the time?

"It seems odd that sometimes they allow tankers through the tunnel and then randomly .... they don't," said reader Jerry Benson.

Answer: The ban is only in effect while state Department of Transportation crews do routine checks on the tunnels' fire-suppression systems.

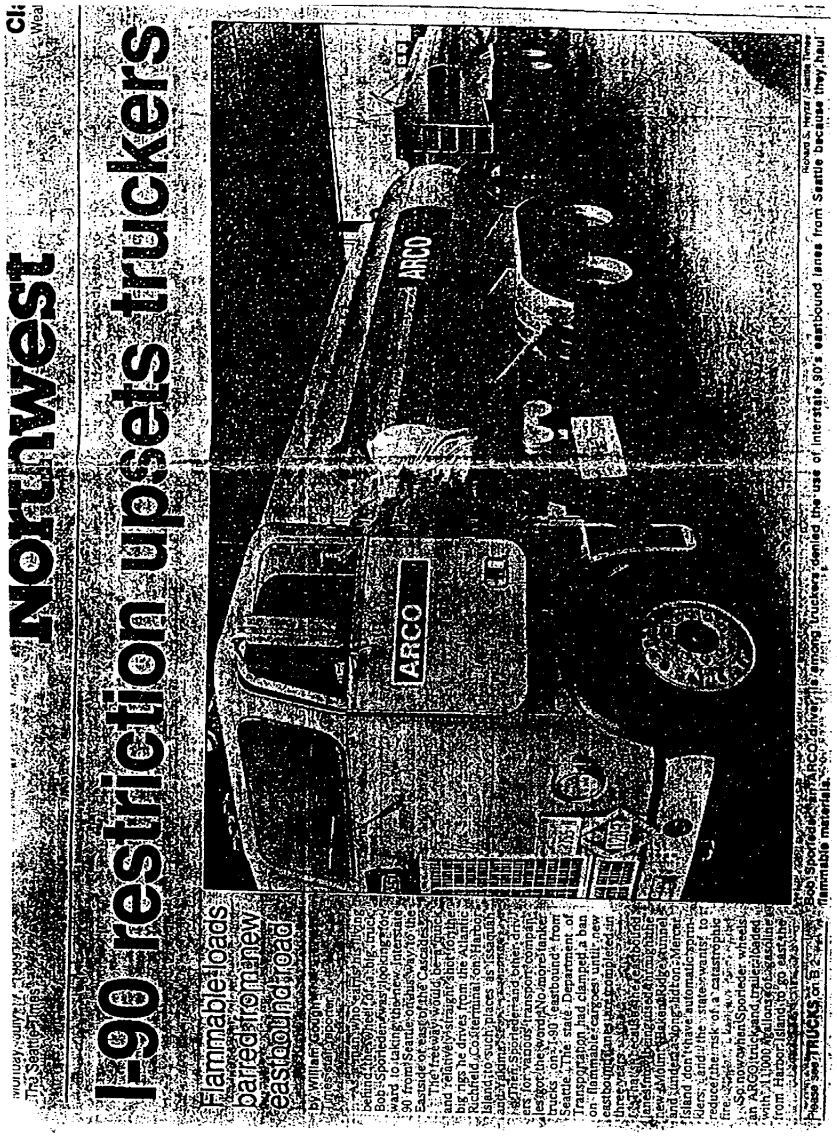
Benson, in an e-mail, said he raised the question out of curiosity – and because he'd noticed a tanker rolling through one tunnel when the "no flammable material" sign was on. "How do they regulate it?" he asked of the occasional ban.

Basically, it's when they can. Fire-suppression systems in both the Mount Baker and Mercer Island tunnels get routine maintenance every three months. That's when the flammable traffic is nixed – to prevent a fire when the system can't douse it.

Tunnel crews have noticed, as Benson has, that some tankers ignore the signs. But unless errant tanker drivers are spotted and ticketed by police, not much can be done.

"It's only an $86 ticket if they go through there (and are caught)," said Wayne Ferderer, lead technician at the [redacted] tunnel. "So far we haven't had any tanker fires, and we hope we never do. There's always the possibility something could happen."

P-I reporter Larry Lange can be reached at 206-448-8313 or larrylange@seattlepi.com



Northwest

I-90 restriction upsets truckers

Flammable loads barred from new eastbound road

ARCO

who was able to get the
to work together. Now,
, he appears to be a team
n the Republican side and
y mean taking pro-admin-
n votes on issues he
care about deeply.
ere are two national par-
id if you want to move
you have to modify your
" added Nick Licata, an-
ormer supporter and local
rat. "He felt comfortable
his conservative side full
"
hington state Republicans
ecome so right-wing that
may be in keeping with the
Licata said, "but among
like myself, he has moved
away from his orientation
is disappointing."
possible that some of that
cy may be cured for Miller.
w is full of praise for the
peaker Foley is treating the
lican minority, and Foley's
modations may help to
he right-wing tendency in

arding charges of public-
king, Miller defends him-
don't think a member
seek publicity for public-
ake," he said. "But if you
orking on something, and
ecome expert at it, you
to let your constituents
about it. That's the political
s."
ler said he's justified in
about his foreign-policy
"Radio Moscow has
ided to my comments the
fter. I made them. I have
hours on human-rights
that didn't get any public-
but he notes that he never
press conferences or hands
ess releases on issues not
his committees or within
pertise.
s year, he said, issues such
spills and drift nets were
topics for the Merchant
e Committee and sanctions
it China and the proposed
fighter deal with Japan were
agenda for Foreign Affairs.
said that his amendment to
ll legislation may not give
oast Guard more power than
before, but that it "sends a
er signal" that it should
ver spill cleanups if private
ry isn't up to the job.
d while he did oppose
ington state interests on the
provisions for assessing pen-
he argues that the resulting
which allows states to tap
al cleanup money is better
the state had dreamed of."
ller does concede that the
of his former aide, Perez,
ave cost him in the quality
litical advice he gets and
d his approach too much to
issues without enough atten-

tion to Washington, D.C., advice.
"This is a balance," he said.
"No one way is right or wrong."

Fire danger sparks ban

TRUCKS

continued from B 1

must drive farther north on Interstate 5, take the Evergreen Point Floating Bridge across Lake Washington and go south on I-405 before he can head east on I-90. Or he can go around the south end of the lake via I-405.

Sam Johns, president of Pacific Trucking, estimated that about 40 loaded tanker trucks each day had been traveling east from various terminal points in Seattle across the I-90 floating bridge.

Taking the other routes means driving an extra 15 to 20 miles. Those miles are adding to hauling costs, and could drive up the cost of petroleum products on the Eastside and in Central Washington.

The ban doesn't apply to I-90's westbound lanes, whose covered sections are protected by foam sprinkler systems.

But it will be in effect on the eastbound lanes through the tunnel and Mercer Island lid for the next three years, until new eastbound lanes are built. Their covered sections will have sprinklers.

Then the present eastbound lanes will be converted into reversible lanes for buses and carpools only.

The highway builders decided motorists in those lanes don't need the protection of overhead sprinklers in covered sections, pointing out that there are fire hydrants, emergency telephones and portable fire extinguishers in them.

The opening of seven miles of new I-90 between Seattle and Bellevue has allowed the old twin tunnels through Mount Baker Ridge and the old Mercer Island Floating Bridge to be closed for reconstruction. They will become part of the new eastbound lanes in 1992.

The ban on flammable materials took effect last month when the temporary eastbound lanes were opened. Sporleder said he was unaware of it at first and drove tanker rigs eastbound on I-90 for a few days before being notified to stop. He is among truckers and officials of trucking firms who question the need for the ban, while recognizing that I-90 should be kept as safe as possible from fires and explosions.

"It's a nuisance. We're considering proposing, along with other trucking companies, a change in tariffs to the Utilities and Transportation Commission that would allow us to recoup some of our extra expenses over the next three years," said Mark Johns, an owner of Pacific Trucking Inc.

"It concerns us greatly," Bud Hill, division manager of Arrow Transportation, said of the ban. "It's costing us a great deal of money. Miles are dollars."

Bill Dues, acting manager of the I-90 construction project for the state Department of Transportation, said the decision to ban eastbound trucks was made late last year: "The new lids are much longer, so the potential for a serious accident is much greater. We just couldn't risk having gasoline tankers going through them without a foam sprinkler system," he said.

Dues said that only flammable cargoes, not all hazardous materials, are banned from the eastbound lanes, adding that even sprinkler systems would prove useless in the event of some chemical spills.

Mercer Island Fire Marshal Ed McKinney and Seattle Fire Marshal Bobby Lee Hansen were rankled several years ago when they learned that there would not be sprinkler systems throughout the new tunnel, an adjacent lid and the long lid at First Hill on Mercer Island. At that time trucks carrying flammable cargoes were to be allowed on the temporary eastbound lanes.

McKinney said his concern has been reduced but not erased.

"I still believe that these kinds of tunnels should be fully sprinklered for the safety of public transportation. I would be screaming like crazy if they were letting tankers go through," McKinney said.

Flammable materials are defined as liquids and solids with a flash point under 100 degrees Fahrenheit in quantities of more than 1,000 pounds, the Department of Transportation reports. These include flammable gases of 100 pounds or more. Class A explosives, such as dynamite and nitroglycerin, are also prohibited.

"The state bureaucracy strikes again," said Sporleder, a 16-year driver who lives in Federal Way. "If we could use that old bridge with its reversible lanes and the old tunnels all these years without a sprinkler system, I don't see why we can't use the new eastbound highway. The new I-90 is one of the safest pieces of highway in the Seattle area. ... That's a beautiful stretch of freeway."

Associated Press

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Critics dub gasoline tankers rolling bombs

By Tom Furlong
Los Angeles Times

CARMICHAEL — On a peaceful morning in February 1991, a fiery gasoline-tanker crash jolted this Sacramento suburb like a terrorist car bomb.

Residents awakened about 3:15 a.m. to a thunderous blast after a fully loaded tanker truck rolled over, skidded 110 feet on its side and landed on a parked car in a field at the edge of a tranquil residential neighborhood.

Incredibly, no one died. But property damage spread for blocks, including two homes that burned to the ground. "It was like a war zone," said Mike Griffin, one of the first police officers to arrive.

The accident lent graphic testimony to a simple truth about the omnipresent gasoline tanker: It is easily the most destructive and deadly of all vehicles that carry hazardous materials on the nation's highways.

A computer analysis by the Los Angeles Times, using accident reports from the U.S. Department of Transportation, shows that in the past 10 years well over half the deaths and almost half the property damage from major hazardous-material accidents on the nation's highways was caused by gasoline tankers.

With good reason, gasoline trucks are sometimes called "rolling bombs." A loaded truck generally carries fuel with a maximum potential charge equivalent to about 100 tons of TNT — enough to level several city blocks.

> *'People don't understand the dangers of these time bombs running through the streets'*
>
> — Roger A. Dreyer, attorney

Although the federal government has moved to increase tanker safety in recent years, The Los Angeles Times found that these trucks remain a serious potential menace:

■ They are imperfectly designed. Their tanks are built high off the ground to limit the risk of damage to the pipes underneath. But that makes the trucks top-heavy. With a high center of gravity and a narrow wheelbase, scores of tankers roll over in serious accidents every year.

■ Driver error is a major problem, accounting for up to two-thirds of all tanker accidents. Tankers traveling too fast around a curve are disasters waiting to happen.

■ Tankers are especially vulnerable to the unexpected. The few seconds following a blown tire or brake failure can turn into life-and-death dramas. Thin aluminum tanks are readily punctured in accidents. A tanker pulling a trailer can be hard to control in an emergency.

With few restrictions on its transport, gasoline accounts for about half the nation's hazardous-materials shipments. Though the vast majority of gasoline tankers deliver their product safely, the fraction that does not poses a significant threat.

"There is no question that these trucks roll over with greater frequency (than other vehicles) and when they do, horrible things can happen," said David R. Pesuit, a veteran highway accident investigator in Northampton, Mass., who is the author of a major report on tanker safety.

From 1982 to 1991, gasoline truck accidents killed 52 people, injured 79 and forced the evacuation of 1,648 people, according to U.S Department of Transportation accident reports. The true toll is far higher, safety experts say, because major gaps exist in the government's information.

Simple as it sounds, the best advice for drivers may be to stay as clear of petroleum tankers as possible. "People don't understand the dangers of these time bombs running through the streets," said attorney Roger A. Dreyer, who is representing homeowners in the Carmichael accident.

Defenders argue that gasoline tankers are much safer than they used to be and have excellent safety records — if they are driven carefully and well-maintained.

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June 9, 2003

Andrea Tulla
Sound Transit
Union Station
401 S. Jackson St.
Seattle, WA 98104

RECEIVED
REGIONAL EXPRESS
JUN 1 0 2003
PROJ NAME
CONTRACT#
DC CODE#

Re: **I-90 Two-Way Transit and HOV Operations project**

Dear Ms. Tulla:

The Sierra Club strongly encourages improving transit and HOV capacity and reliability on the I-90 bridge between Bellevue and Seattle. We support the best alternative that promotes safer, faster and more reliable transit service and moves more people in fewer cars: R-2B.

As you know, alternative R-2B would provide one travel lane in each direction (separated by a concrete barrier) along the entire length of the center roadway for transit and eligible carpools only. HOV eligibility requirements would likely be changed from two or more to three or more occupants per vehicle with this alternative. Additional ramps would be built on Mercer Island at 77th and 80th Avenues to complete the downtown interchange with the center roadway and the Bellevue Way ramp would be converted to two-way operation. We believe R-2B is the best course of action because of the many benefits it provides:

- Its configuration moves more people across the bridge in fewer cars.
- It offers better transit speed and reliability on I-90 than R-8A, which gives commuters a real transit alternative to driving and encourages people to carpool, use park-and-rides, and take the bus.
- By moving more people in high occupancy vehicles and via transit, R-2B will reduce vehicle exhaust emissions and help improve our air quality.
- It maintains standard lane and shoulder widths providing space for broken down vehicles to safely remain out of traffic's way.
- It maintains the 10-ft wide bike and pedestrian path, and preserves the shoulder width next to this path, which is safer for all users.
- It is safer, cheaper, more effective than other alternatives, and can be implemented in half the time of R-8A, with existing Sound Transit and WSDOT funds (at 1/3 the cost of R-8A.). The millions of dollars this alternative would save can help support improved bus service, and more park and ride facilities, especially on Mercer Island.
- R-2B keeps the promises made to voters of the "I-90 two-way center roadway" made in Sound Move (1996) and the legally binding agreement for transit in the center roadway (1976).

O-150
O-151
O-152
O-153
O-154
O-155
O-156
O-157

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O-150 Sierra Club

Your preference is noted. See also Common Response CR-11: Why is Alternative R-8A the Preferred Alternative?

O-151

See Common Response CR-7: Transit Volumes and Reliability.

O-152

See Common Response CR-7: Transit Volumes and Reliability.

O-153

Air quality would improve with an increase in HOV and transit usage and a decrease in single occupancy vehicle traffic. However, even with the HOV and transit options currently available the majority of commuters still choose to drive in single occupancy vehicles. Traffic congestion has not facilitated a transition into the available HOV and transit options. Alternative R-2B may not encourage a shift from single occupancy vehicles to mass transit and any gains in air quality due to HOV and transit lane improvements could be offset by the traffic idling on the outer roadways.

It is important to note that the air quality analysis calculated ambient CO concentrations for comparison to the National Ambient Air Quality Standards (NAAQS). The analysis was not intended to determine which alternative will emit the most or least pollutants, but rather to estimate air quality impacts in an effort to ensure human health would not be compromised.

O-154

See Common Response CR-8: Safety.

O-155

See Common Response CR-3: Shared-use Pathway.

O-156

See Common Response CR-8: Safety.

In contrast, the other leading option, R-8A, would be detrimental for future high-capacity transit in this corridor. It would narrow traffic lanes, reduce shoulders to 2 feet, place cars only 2 feet from the bicycle lane, and result in more accidents. R-8A would cause immense delays over the course of two years of construction and is almost five times the cost of R2B. O-158

We urge you as a member of the I-90 Steering Committee to support R2B. R2B is a good start to improving multi-modal options in the Puget Sound Region and will be a strong message to the public that local leaders are committed to unlocking gridlock in the King County and the Puget Sound Region. O-159

Please feel free to contact me if you have any questions or comments.

Sincerely,

Tim Gould

Tim Gould
Sierra Club, Cascade Chapter
Transportation Committee
206-523-2147
cascade.chapter@sierraclub.org

O-157

See Common Response CR-1: Memorandum Agreement.

O-158

See Common Response CR-2: High Capacity Transit (HCT).

O-159

Your preference is noted.

June 5, 2003

RECEIVED
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PROJ NAME I-90
CONTRACT# 3332-2032
DC CODE#

Andrea Tull, I-90 Project Manager
Sound Transit
401 S. Jackson St
Seattle Washington 98104

Dear Andrea,
On behalf of **1000 Friends of Washington** I am submitting the enclosed I-90 DEIS Review Comments, 12 pages, plus Appendix 1-I-90 History, two pages, ~~and Appendix 2 Low Cost Hybrid combining R-5+Restriped/R2B, one page.~~

Thanks you very much for you assistance during the DEIS process. Our organization and I look forward to working with you and the I-90 Project staff in the future on this important project.

Yours truly.

Virginia K. Gunby

Virginia K. Gunby, Representing 1000 Friends of Washington
I-90 Safety Coalition member
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vgunby@aol.com
Phone and FAX-206-524-2731

CC: Joni Earl, Executive Director
Sound Transit

08/05/03 THU 16:15 FAX 1 206 398 5215 RTA 006

2003 I90 DEIS Review Comments -Sound Transit/WSDOT/FHWA- 6/5/03
Reviewer-Virginia Gunby, Representing 1000 Friends of Washington

1.*NEPA and SEPA are federal and state environmental disclosure laws to alert all involved in a project of the possible environmental consequences of the proposed action. If there isn't a fair disclosure in the consideration of the alternatives, the DEIS can be found to be an inadequate statement.*

2.*NEPA in 40 C.F.R. 1502.2(g) also states that the EIS should not be a justification of the decisions that were made prior to the completion of the environmental analysis.*

2003 I-90 DEIS is Slanted to Favor R8A- Even though no Preferred Alternative was identified in the 2003 I-90 DEIS, the presentation of the alternatives is definitely biased toward the R8A option. The continued reinforcement of the favored R8A position of the I-90 Steering Committee members who have guided the study resulted in a biased product. There appears to be a vested local interest protecting the status quo in the operation of the I-90 center lanes. 1000 Friends had mentioned in its 2001 written I-90 Scoping Comments of the need to prepare an objective document that promotes the sustainability of the I-90 Bridge and Corridor, and the interests of regional and local transit. R8A has become a political compromise that gives something to everyone now, and shortchanges the long-term transit vision for the region. With R8A, WSDOT will get new highway capacity, and Sound Transit and Metro get two new unsafe, outside transit/HOV lanes. The expensive, new, outside Transit /HOV lanes are inconsistent with the state's center-lane HOV/Transit policy. They are squeezed out of the existing three lanes and shoulders by re-striping them to be narrower. This will create new, unsafe, outside transit/HOV lanes with no space for breakdowns or emergency vehicles. The R8A option would increase I-90 capacity by 800 single occupant vehicles, at the peak-hours, by freeing up the space currently used by transit/HOVs in the six, east/west mainline lanes.

O-160

All of the DEIS alternatives, except R2B, maintain the two existing underutilized I-90 Center reversible express lanes. These lanes are currently operating at an average Level of Service A/B (See page3.2-7, Table 3.2-4) which have lots of additional capacity and are remarkably free of traffic, except in the vicinity of Rainier Ave. to the entrance of the HOV tunnel in the PM peak. For an urban area state limited access highway that LOS is unique. Cross-lake transit routes of Sound Transit and Metro buses require a two-way center reverse lane for local and express transit to maintain schedules, reliability, efficiency and to expand service.

Yet with R2B, the DEIS bias for R8a is demonstrated by the lack of any mitigation strategies for the moving of the Mercer Island SOVs out of the center lane to the mainline, which must be done if R2B is to be a success. R8A is loaded with all types of mitigation and milder descriptive adjectives and words, in the main body of the lengthy DEIS, as well as the Appendixes. Not to mitigate and to have no other Hybrid combinations that would use two-way center lanes, continues to under-utilize the center lanes. To continue the special treatment for center lanes as reversible Transit /HOV/Mercer Island OK-express lanes, is done in spite of total inconsistency with a legally enforceable intergovernmental 1976 I-90 Memorandum Agreement between five public agencies, and the 1996 RTA vote. This bias is limiting the search for improvement of regional transit services now and into the future.

O-161

27 years of broken I-90 public promises later, the 1976 center lane operation's Agreement is still being avoided. The I-90 Steering Committee was set up by Sound Transit to provide "consultation with and involvement of the other parties as a prerequisite to the WSDOT Commission for action". (See Page 13, 1976, Memorandum Agreement) Sound Transit has followed the rules in the non-enforced 1976 I-90 Agreement. This process has resulted in third party control of the project. The outcome is a biased 2003 I-90 DEIS. So far it appears that the unrepresentative Steering Committee will take the lead, rather than the Sound Transit Board to advise on the final I-90 WSDOT Commission decision. Only selective parts of the Memorandum Agreement, on which the Steering Committee members agree, are being applied. The I-90 alternatives playing field is not level in this DEIS. The DEIS cannot be used for decision-making until it can serve as an unbiased problem solving tool and a framework to build a real consensus on the present and future direction for the I-90 corridor.

Unanticipated Impacts That Are Not In the I-90 DEIS/Cumulative Effects Analysis-The original Sound Transit 1996 I-90 Two-way Transit project was planned to be complete in two years. Seven years later, with the DEIS under review in 2003, the DEIS-favored R8A project is planned for construction in 2005-2008. Delays in the Phase 1 Light Rail plan, from 2006 to 2009 and the postponed Phase 2 has delayed consideration of implementing I-90 cross-lake light rail. Reserving the I-90 Two-way center lanes, and building eastside transit service and ridership should be Sound Transit's highest priority. The claim by Sound Transit staff that the proposed R8A would not preclude the center lanes for light rail in the future is a fantasy. There are no agreements between Sound Transit and WSDOT to keep them from being operated reversible express general purpose lanes between Bellevue and Seattle. This center lane express scenario was analyzed in the I-90 Two-way tTransit Operations Project, Draft Status Report URS 2001 Project Report #53-38602003, 7/9/01.
One of the conclusions found in the 2001 URS Report is that R8A, when compared with R-1-No Build, offers travel time savings and person hours of congestion relief overall of 25%, but the personal time savings are not supportive of improving I-90 transit. R8A unfortunately favors single occupant cars and trucks. The extra R8a SOV peak hour corridor capacity is not openly discussed in the DEIS

O-162

O-160 1000 Friends of Washington

Sound Transit will evaluate HCT in the I-90 corridor and make a determination regarding the corridor and the most appropriate technology to be used based on analysis and public input. This would be done in a regional transit planning and environmental process separate from the I-90 Two-Way Transit and HOV Operations project. That process is being initiated and is anticipated to be completed in 2005. In doing so, Sound Transit will be guided by the Steering Committee's recommendation as well as the agency's Long Range Vision, which identified the I-90 corridor as a potential rail extension crossing for Lake Washington. Sound Transit will also be guided by the Trans-Lake study, which confirmed the use of the I-90 corridor for HCT. HCT alternatives include light rail and other fixed-guideway technologies that operate in their own dedicated right-of-way.

WSDOT is very concerned about adverse impacts to other users of the roadway. Converting the center roadway to two-way transit adversely affects the outer roadway users. In order for the center roadway operate at a satisfactory level of service, Mercer Island SOV users and HOV 2+ shortly thereafter would have to be displaced from the center roadway and moved to the outer roadways. This would seriously degrade the level of service (LOS) on the outer roadways and adversely impact general purpose traffic and all HOV 2+. In addition with R-2B, the LOS for transit and HOV 3+ in the center roadway would be improved only in the reverse peak direction.

In the peak direction there would be one less lane for transit and HOV 3+ than the current configuration of the roadway. Even with HOV 2+ and Mercer Island SOVs displaced to the outer roadways, this configuration does not provide as much peak direction capacity in the center roadway as current conditions, and thus causes transit and HOV 3+ travel times to be degraded. Alternative R-8A increases capacity for transit and HOV traffic in both directions by providing the added HOV lane on the outer roadways.

The outer roadway HOV lanes proposed with Alternative R-8A will be added on the inside, left of the traffic lanes, similar to most of the states'

The 2001URS Report forecasted that the travel time savings will be enjoyed as follows:

- 55% by the single occupant cars and trucks
- 35%by the carpools and vanpools
- 10% by the transit riders

The "**Express Center Lane Scenario**", discussed in the above 2001 URS Report, could increase throughput of SOV vehicles in a center lanes operation even more that R8A. The operation could be revised when users of the I-90 six mainline lanes view the under-utilized center lane space, operating at Level of Service A/B, and clamor for WSDOT to revise operations, so they could gain entry into them between Bellevue Way and Seattle. This revision in center lane operation could add another 2000+ vehicles east and westbound at the peak hours, plus more SOV trips generated at the non-peak. This is an example of potential threats to reduce transit use on the I-90 corridor between Seattle and Bellevue.

The significant widening of I-405 as planned, but not funded, will place more pressure to widen the East Channel bridge and the I-405 on-and-off ramps for SOVs at the intersection with I-90. Pressure to change I-90 operations to reduce the "bottleneck" at the peak hours would lead to plans to expand the SOV capacity of I-90. The new Seattle SR 519 on/off ramps to 1st Avenue/Royal Brougham Way are an example of moving the SOV "bottlenecks" from one location to another to temporarily deal with interchange congestion. The pressure for unending cycles of SOV expansion on the four large state highways needs to be replaced with more strategies to emphasize using transit, particularly at the peak hours.

Building R8A and Widening the Corridor *first*, Is Backwards- If you want **R2B** to improve I-90 two-way east/west transit service and ridership in the center lanes, the center lane SOV users have to get guaranteed mainline space to travel in. **R8a** provides the 800 cars of additional SOV capacity that will be used and gone years before the center lanes are operated as two-way transit/HOV lanes. **R8A is needed after** there is agreement for reserving or adding Bus Rapid Transit first, and later light rail transit to the center lanes, or it will be precluded forever. By the next cycle for transit improvements after this project, the SOV drivers would have more than 15-20 years of ownership of the center lanes. They would never be willing to join the AM and PM peak tides of autos in the outside lanes and there would be no space for them, without costly and controversial reconstruction..

1.Where does that leave future plans for eastside transit service and for cross-lake transit?

2.Why wasn't it important in the I-90 DEIS Cumulative Impact Analysis to analyze the impacts of proposed changes on future transit in the proposed I-90 connections, and

3. Why weren't the future impacts of the interrelated system dynamics between the I-5, I-90, SR-520 and I-90 corridors thoroughly discussed?

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Limited and Incomplete Safety Information on R8A-In the 2003 I-90 DEIS, safety issues do not receive unbiased treatment. The DEIS is encyclopedic and not analytic or concise in the way the safety issues are identified, presented and analyzed. They are spread out between Crash Data Table 3.29 and a comparison of crash rates on 3.2.10 and the thirty Freeway Operation Mitigation Measures, in Appendix J, J-1 to J-4 3.2, Tran-1 to Tran-26 and construction information.

In a financially tight highway-funding era, the feasibility of ever allocating adequate capital and maintenance funds to implement the safety mitigation measures needed for R8A is doubtful. The success of R8A relies upon mitigation funds being available, but that guarantee of money is not discussed in the DEIS. It seems to assume that the funds would be there for long term mitigation. The mitigation package will be costly and should be identified along with the value engineering cost estimates.

If the R8A option was implemented, there would be a significant increase in all I-90 highway users' time lost due to major incidents which isn't calculated into the travel times. Incidents will be one of the major causes of highway congestion and breakdown, particularly on which is not really analyzed in the I-90 DEIS. Drivers will be accustomed to driving on a highway built to interstate lane and shoulder standards that will have been significantly narrowed. The congestion will be due to lack of adequate shoulders to pull-off disabled vehicles and narrowed lanes causing increases in injuries from rear-end, side-swipes and fixed object collisions. In addition, buses will have difficulty trying to weave from the outside lanes to use the center D-2 center I-90 bus-way, in order to get into the Bus tunnel, or to 4th and Dearborn St., to exit at Bellevue Way, or north and south connections with I-405 and/or I-5. This will limit the interconnectedness of the state HOV lanes system with other state corridors.

The DEIS does not adequately discuss the safety impacts, particularly on users. Degraded safety conditions on one of the safest Interstate facilities in the state is a profoundly significant problem with R8A on the I-90 corridor. Safety on the re-striped corridor has not been discussed in proportion to its significance. In spite of the safety mitigation, by increasing SOV capacity significantly, the DEIS predicts for R8A lane configuration, significant increases the accident levels over R2B. There will be more than 50 additional injury accidents per year, on one of the currently safest Interstate facilities in the state and nation.

Impact of R8A on I-90 User Safety- There is also no comparison between **R2B** with **R8A** in the DEIS of the public and private safety costs. The long-term estimated costs of the state patrol/ambulance/wreckers/police and legal costs to respond to incidents, lawsuits and the impacts of accidents on adjacent bus and SOV lane traffic flow, after the shoulders/lanes are narrowed, is not available in the DEIS. The present I-90 safety record-(p. 3-2-10) for 1990-2000, is .85. It has a low risk Interstate highway safety record now, which shouldn't be negatively impacted, and with 185,000 ADT forecast in 2025 particularly as the region grows. (Average Interstate Safety record is 1.00 in Washington.)

O-162 cont.

O-163

O-164

O-165

HOV lanes. The added crash reduction measures will reduce the potential for accidents with this roadway configuration. With the crash reduction measures, the accident rates for Alternative R-8A will remain within the range of current conditions. Alternative R-8A includes enhanced incident management as well as provisions for refuge areas for disabled vehicles.

O-161

See Common Responses CR-1: Memorandum Agreement and CR-4: Hybrid Alternative.

O-162

Each mode of travel benefits with R-8A. These relative benefits are identified in the EIS Sections related to person hours of delay.

O-163

Your concern is noted. The Express Lanes operations scenario, which would have allowed access to the full length of the center roadway for single-occupant vehicles (SOVs), was eliminated from further consideration during the EIS scoping process. Alternative R-8A as analyzed in the EIS retains the existing restrictions on SOV access to the center roadway, with this traffic only allowed on the center roadway between Island Crest Way on Mercer Island and Rainier Avenue in Seattle. The Steering Committee, in identifying a Preferred Alternative, has indicated that the long-term vision for I-90 includes the deployment of high capacity transit in the center roadway. Certain bottlenecks exist at either end of I-90, as you note. (Future decisions on the SR 519 project may improve conditions to Seattle access. The I-405 project is evaluating improvements to the I-405/I-90 interchange, taking into consideration bottlenecks on I-90.)

O-164

See Response O-160. You are correct that it is physically possible to implement two-way center roadway operations now (e.g. Alternative R-2B) then add outer roadway HOV lanes when conditions worsen. Our analysis indicates that the outer roadway traffic conditions would worsen almost immediately at the year of opening. The DEIS does document

Historical Reminder-We built I-90 to reduce Injuries and Accidents!-The U.S 10 "Sunset (L.V. Murrow Bridge and Highway)" corridor was rebuilt in 1980-90s to Interstate standards to prevent the rapidly increasing traffic accidents on the unsafe "death" corridor. It had substandard narrow lanes and shoulders and a center "bulge" for the draw-span operations, that added to the number of accidents and deaths, while driving on it.
Questions: Who is protecting the I-90 regional public and the I-90 present and future users' overall safety interests?
Who will be sued for injuries and damages?
Will it be WSDOT or Sound Transit who will be liable, due to the intentional construction and operation of a less safe transportation project, that is going to significantly degrade traffic conditions and operations, and increase users' accidents and injuries?

Before **R8A** is built, the impacts on travel from the increase in injuries caused by the narrowing of the lanes need to be assessed. The accidents will be a continual reminder of the forecasted accidents and congestion caused by the substandard lanes and shoulders. There will be continuous public operational life-costs for stationed tow trucks and state patrol assistance, not to mention the legal suits filed against the state for adopting a corridor highway operations policy that degrades the Interstate standards and causes slowdowns, wrecks and increased injuries.

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I-90 DEIS Needs to Learn About and Coordinate with the TDM SR 520 and I-405 Corridor Management Plans & Programs-
1000 Friends of Washington requested verbally, during the I-90 2001 Scoping process, and in writing that new TDM techniques and studies underway on the adjacent SR 520 and I-405 corridor s, that they should be used as models for both construction and long-term mitigation on I-90. The suggestions were not taken. The TDM and TSM discussion in the I-90 DEIS is not responsive to our Scoping request. Please rectify this omission and oversight.
As written, the I-90 project DEIS, and all of the alternatives, have not made the connection between strategies to increase transit ridership and to promote transit-friendly development, and other alternatives that would reduce SOV trips during and after construction of whatever option is finally approved. 1000 Friends and the I-90 Coalition knew that in order to support the **R2B** option, Mercer Island single occupant vehicles would need alternative programs and increased local transit, in order to vacate the center lanes. An I-90 Corridor Management plan and tested TDM measures are needed to mitigate change in the center lanes. The DEIS needed to present new ideas for community agreements to generate increased transit use, transit friendly land-use and development and targeted commute reduction programs at employment centers. The erroneous conclusion of the TDM/TSM Sensibility Analysis summarized on I-90 DEIS Pages 3.1-17, 18 and 20 was that **"Traffic volumes on I-90 and SR 520 would show negligible changes as a result of these actions".** In addition "most of the TSM would result in a small increase in I-90 ridership, which diverts bus riders from other corridor bus routes." Other than the brief generic DEIS TDM discussion, the DEIS makes no mention of the specific WSDOT's TDM work on Translake/SR 520 and I-405 Studies

In July 1999, at the end of Phase 1 of the Translake study, WSDOT and the Translake Study Committee agreed to recommend alternative solutions for improving travel across Lake Washington. WSDOT applied for and received two federal grants to develop tools and strategies that would cross agencies' boundaries to develop a land-use and TDM strategy to ease corridor congestion and environmental impacts. With these funds they studied the effects of "committing substantial resources to TDM/TSM strategies, such as transit and vanpool strategies, changes in land use plans, trip reduction goals, transportation pricing and bus/HOV improvements. The results will be considered in the Translake project's forthcoming DEIS. The Translake Study Committee's recommendations were suggested and supported by 1000 Friends of Washington's representative on the Study Committee. They are described in a grant application pamphlet prepared in 2001 by Parametrix and read as follows:

"TDM should build and expand on the region's considerable commitment and success in commute trip reduction programs, and assess the impact of committing substantial resources toward TDM measures. The analysis should include both land use actions and effective trip reduction measures, while enhancing commercial traffic mobility. Inter-local corridor agreements should be developed to implement TDM and TSM measures. The Inter-local agreements should include trip reduction goals with milestones and monitoring plans and funding plans. The recommendations anticipate leveraging WSDOT and non-WSDOT funds, with involvement of local and regional jurisdictions." **(In fact, WSDOT has received two Federal TDM grants since this application ,and are currently at work on programs for both the I-405 and SR 520 Corridors.)**

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Need an I-90 Hybrid Combination of Alternatives Now- (See Attachment 2- HYBRIDS-Proposed Low Cost Hybrid—R-5 Re-stripe Modified/R2B/ After the many negative 2001 Scoping comments were submitted, relating to the problems with R8A, it is unfortunate that no better Hybrid I-90 option was developed for the DEIS. A model hybrid that did not add as much SOV capacity, promotes transit and future rail, protects the bike lanes and/or fulfills the original two-way operational purpose of the I-90 center lanes and mitigates the removal of Mercer Island SOV traffic from the center express HOV/Transit lanes.

No evaluation was included in the DEIS of the cumulative impacts of R8A on increased 800 SOV capacity at the peak hour. What are the impacts of latent demand, which all studies have shown will fill the new SOV capacity in a short time, and only generate more congestion. **R8A** tries to continue to build more capacity to "reduce congestion." Even though new FHWA studies find that it

O-165 cont.

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the interrelated effects among the freeway corridors mentioned as part of the cumulative effects analysis.

Please refer to the cumulative effects analysis in Section 4.16.3.5 of the EIS.

The project is intended to improve bus transit and HOV operations; it is not a light rail or HCT project. Sound Transit will evaluate HCT in the I-90 corridor and make a determination regarding the corridor and the most appropriate technology to be used based on analysis and public input. This would be done in a regional transit planning and environmental process separate from the I-90 Two-Way Transit and HOV Operations project. That process is being initiated and is anticipated to be completed in 2005. In doing so, Sound Transit will be guided by the Steering Committee's recommendation as well as the agency's Long Range Vision, which identified the I-90 corridor as a potential rail extension crossing for Lake Washington. Sound Transit will also be guided by the Trans-Lake study, which confirmed the use of the I-90 corridor for HCT. HCT alternatives include light rail and other fixed-guideway technologies that operate in their own dedicated right-of-way.

HCT is discussed in the cumulative impacts analysis only as to whether any of the alternatives either preclude future HCT on I-90 or would facilitate future HCT.

O-165

See Common Response CR-8: Safety.

O-166

See Common Response CR-9: TDM/TSM.

O-167

See Common Response CR-4: Hybrid Alternative.

O-168

The effects of induced travel are reflected in Common Response CR-6: Congestion.

does not solve congestion.. With the "ad-hoc" R8A-preferred alternative, we are literally on a I-90 "crash course" to worsening its congestion and increasing accidents, while not significantly increasing transit use.

Potential Hybrid Scenario-Except for a possible "Hybrid" version discussed on I-90 DEIS pages 5.6 and 5.7, or a new "Low Cost Hybrid" (Attachment 2), the major alternative proposals in the I-90 DEIS are not in tune with the transportation needs of the times, and are offering the wrong alternatives. Where is the political leadership and new vision of the future to promote a combination of options that includes the I-90 two-way bus transit and the acceleration of future I-90 bus rapid or light rail transit?

I-90 DEIS Limits Discussion of I-90's Future- A limited Vision of the future in the DEIS is frustrating because it is silent on alternative future uses of the center lanes. That omission provides a needless gap in the analysis of the problem, and continues the bias for R8A. A community discussion of the future of I-90 is needed now in order to plan for and gain the use of the center right-of way from WSDOT for future Sound Transit Bus Rapid or Light Rail Transit plans. **A DEIS mitigation strategy is needed that avoids adverse impacts in the future, by anticipating them within the boundaries and as part of the present project public discussion and decisions.** The cumulative long-term impact of allowing the center lane operations to remain unchanged to avoid controversy is unconscionable. If not done now, and postponed for 8-10 years it will not happen. Why is Sound Transit continuing to avoid the issue and go along with a short-term project solution that primarily assists single occupant vehicles?

The Puget Sound Regional Council's adopted Destination 2030, Implementation Guidance and Actions, Chapter 5, page53, states that "Sound Transit's Long-range Vision Plan describes a 30 year high capacity transportation system that provides goals, policies and strategies to guide the development of the regional transit system during each implementation phase. Phase II will build on the improvements identified in the phase I program," and the 100 miles of potential HCT extensions listed include running from Downtown Seattle on I-90 to Bellevue and further.

Why is I-90 Two-way Center Transit/HOV Decision Now A Politically Incorrect Question? - The 1976 I-90 Memorandum was negotiated to settle a long standing controversy, but was forgotten except for the parts that were convenient to implement. Ambiguities in the I-90 Agreement have never been clarified. Most of what is in the agreement was never implemented and needs to be either cast-off or updated and rewritten. 1976 "rear view mirror" issues continue to determine the 21st century future of the I-90 bridge and corridor. So far the Agreement has negatively impacted the growth of transit service and use and was a major failure in the work done to try to develop cross-lake transit for our region during the 20th century. To postpone discussion of the political "hot-potato" on I-90 Two-way transit project again, is a sure sign that it will never be politically the correct time to suggest that the center lanes be used in the future by transit/ HOVs and later for light rail.

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I-90 DEIS Analysis is Biased by the Sound Transit/WSDOT I-90 Contract-We are concerned that the contract Sound Transit has for this Project with WSDOT results in biased choices. WSDOT is paid 14% by Sound Transit for overseeing the administration of consultants on the I-90 DEIS and project work, which will need final approval by WSDOT because Interstate highways are their responsibility. They will probably oversee the execution of contracts for I-90 construction bids. Their many roles from planning to execution leaves us concerned about the need for separate checks and balances between the designers of a project and the implementers. Particularly when we read that the R8A option WSDOT is supporting increases solo drivers initially by about 800 at the peak hour, and provides a 55% reduction in personal hours of travel for SOVs while only providing 10% reduction in person hours of travel for transit users.

NEPA Sec. 1506.5 (e) states that the outcome of the proposed DEIS needs to be "***free of self-serving research and analysis.***" The current WSDOT Secretary observed a few weeks ago, that if R8A was not chosen, the I-90 traffic, (*auto and truck, not transit*) "would be backed up all the way to North Bend." Clearly his perceived bias was in favor of a new I-90 highway capacity, not transit capacity. Apparently he perceives that the R8A option would improve the forecasted traffic congestion on the I-90 corridor, all the way to North Bend, in rural King County.

Sound Transit's partner WSDOT, received $15 million from the 2003 Legislative session to build some type of $30 to$100+ million I-90 project. The state gas tax is constitutionally limited to fund only highway projects. WSDOT is not a transit planner or operator, nor do they have funds to implement/operate transit in the I-90 center lanes. Sound Transit Board must find funds in the region or from the Feds to construct any option chosen. Sound Transit must convince WSDOT and FHWA For the need to change center lane operations, and agree to reserve the center I-90 lanes for future light rail now. I-90 High Capacity Transit plans are in the adopted Puget Sound Regional Council's Metropolitan Transportation Plan, Destination 2030, and in the Sound Transit's Regional Transit Plan.

Unanswered Questions:

- **If Sound Transit does not have a role on the I-90 project, how is Sound Transit going to guarantee that the 1996 voter approved funds will be spent well to improve primarily transit, on the I-90 project?**
- **What actions will Sound Transit take to lead to a center lane, cross-lake transit project?**
- **If R8A is built first, it is unclear in the DEIS, how any future HCT plans will be implemented.**

O-168 cont.

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Your comment is noted.

O-170

See Common Response CR-2: High Capacity Transit (HCT).

O-171

As part of their recommendation for Alternative R-8A as the preferred alternative for the I-90 project, the I-90 Steering Committee made a commitment toward development and execution of a future Memorandum Agreement (MA) outlining their collective interest in developing and implementing High Capacity Transit (HCT) in the I-90 corridor. See letters from I-90 Steering Committee members in Appendix F of the FEIS.

O-172

WSDOT is the responsible for operation of Washington State highways. The Sound Transit Board approved Resolution No. 99 in October 1997, authorizing the execution of a Memorandum of Understanding with the Washington State Department of Transportation establishing a cooperative relationship for the construction, ownership, and operation of high capacity transportation facilities.

Construction and operation of the improvements contained in *Sound Move* requires cooperation and coordination with other service providers in the region. WSDOT is a major service provider that owns and operates highways throughout the region.

On October 23, 1997, the Board of Directors authorized the execution of a Memorandum of Understanding (MOU) between Sound Transit and WSDOT which described the respective roles for the two agencies in implementing *Sound Move* projects on WSDOT rights-of-way. The MOU calls for Sound Transit to be the lead agency for environmental processes and public involvement with WSDOT providing technical engineering support. Sound Transit procured consultant contracts for environmental documentation and public involvement for capital projects

for the I-90 project and other projects in the Federal Way, Kirkland, and Lynnwood areas. Work programs for these consultant contracts call for WSDOT to provide civil engineering services for HOV Access ramps and parking facilities located on WSDOT property.

This agreement specified that WSDOT would provide engineering services for improvements within WSDOT rights of way to support the environmental and public outreach process. The contracts were intended to produce facility designs at the 30% completion phase and to complete the environmental documentation required for the projects. At that point, Sound Transit would contract with WSDOT for implementation of projects within WSDOT rights of way.

See also Response A-118.

O-173

Alternative R-8A was identified as the preferred alternative by the I-90 Steering Committee, which includes WSDOT representation, as best meeting the purpose and need for the project. In addition, WSDOT is concerned about the impacts of the project on all modes of transportation. This concern includes ensuring that any one transportation mode is not disproportionably adversely affected by the project. Alternative R-8A has the least impacts to any user or transportation mode of the roadway of all of the alternatives.

O-174

The goal of the I-90 project is to provide reliable and safe two-way transit and HOV operations on I-90 between Seattle and Bellevue. The goal of Sound Transit's Regional Express projects is to improve transit speed, reliability and access. The I-90 project is consistent with this goal.

Sound Transit will evaluate HCT in the I-90 corridor and make a determination regarding the corridor and the most appropriate technology to be used based on analysis and public input. This would be done in a regional transit planning and environmental process separate from the I-90 Two-Way Transit and HOV Operations project. That process is being initiated and is anticipated to be completed in 2005. In doing so, Sound Transit will be guided by the Steering Committee's recommendation as well as the agency's Long Range Vision, which identified the I-90 corridor as a potential rail extension crossing for Lake Washington. Sound Transit will also be guided by the Trans-Lake study, which confirmed the use of the I-90 corridor for HCT. HCT alternatives include light rail and other fixed-guideway technologies that operate in their own dedicated right-of-way. See Common Response CR-2: High Capacity Transit (HCT).

- **Which agency is responsible for next steps and future actions? The regional "Public" needs answers to these questions now, but the DEIS does not provide a clue. The DEIS states that R8A doesn't "preclude" HCT in the center lanes, but has no discussion of how that is accomplished.**

Given all of the uncertainty of WSDOT'S changing HOV policies, on 4/24/03, Sound Transit Board Motion 2003-44 approved the execution of a weak inter-local agreement with WSDOT on the use of Sound Transit funded facilities. But the proposed I-90 project will be funded from non-Sound Transit fund partners like WSDOT, RTID or the Feds. There is no operational agreement between WSDOT and Sound Transit that prohibits the changing of the I-90 center lane operations to general-purpose express lanes in the future by WSDOT, or the Legislature, if R8A is built. The DEIS is silent on this issue which could significantly impact transit operations.

The 1996 Regional Transit Plan, which Regional voters approved, stated- "*The RTA will negotiate an agreement with WSDOT and the PSRC, similar to the state Transportation Commission's existing statewide freeway HOV policy, to specify mutually acceptable speed and reliability standards, and how these standards will be monitored and maintained. In negotiating this agreement the RTA will seek to specify how it will be compensated if those standards are not maintained and the advantages to transit created by its investment are reduced.*" (RTA Plan Page 13.) Was this agreement ever consummated between WSDOT and Sound Transit? Why is this not included in the I-90 DEIS. How does Sound Transit plan to protect its interest in the I-90 corridor as a bus transit operator and later a rail transit operator? No answers to these questions or information are available in the 2003 I-90 DEIS.

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SR 520/Translake Study of I-90- The Translake study concluded that if the I-90 center lanes were not vacated and available when needed for light rail, a new parallel I-90 HCT bridge across Lake Washington would cost over $1 billion. Under this scenario the east and west land and shore-side environmental new bridge/corridor impacts need consideration now, in order to stress the urgency of evaluating future potential use of the I-90 center lanes now, rather than later. The Translake studies also concluded that an I-90 rail/transit operation was not feasible, due to physical and weight limitations of the floating bridge structure. Additional studies are needed now to rule that conclusion in or out. Joint operations of bus and rail planned for the CBD tunnel in the future will provide new operational knowledge on the feasibility of I-90 joint bus/rail operations.

2005-2025 Future of Rail Transit Ignored- The DEIS claims that R8A does not precludes HCT in the center lanes, which is a politically safe but naïve and an erroneous conclusion. Even though the I-90 DEIS has a 2025 projection presented, there is no evaluation or strategy outlined about the difficulty of removing center lane users by 2025 to gain access the center lanes of I-90 for future light rail transit. It will be precluded, if the current center lane express operations continues unchanged, and they are not operated with two-way Transit/HOV. The SOVs will have been using the center express lanes for 15-20 years, and gained a permanent ownership. In addition, the long-term rail operations alternative by 2016, for the center lanes was not considered in this 2003 I-90 DEIS. In spite of the fact that I-90 is the assumed, designated preferred cross-lake High Capacity Corridor in the Sound Transit Plan, the Puget Sound Regional Council's Metropolitan 2030 Transportation Plan, and recent Translake/SR 520 studies, this I-90 DEIS really avoids discussing this important and related issue.

Because of these additional reasons listed above, 2003 I-90 DEIS bias for R8A, 1000 Friends believes that the I-90 DEIS is inadequate. The DEIS needs further study and additions. In its current form it does not present a fair and impartial discussion of the most appropriate alternatives, in order that factual and objective reviewer responses can be developed.

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2003 I-90 Project Purpose Revised from 1996 Voter Approved Two-way/HOV Transit- The major purpose of the past regional plans and current adopted 2001 PSRC's regional, four county Destination 2030 Metropolitan Transportation Plan and Sound Transit's three county voter approved plan, has been to inter-connect land use and transportation decisions, in order to develop sustainable transportation systems and corridors that promote sensible growth management plans and development. That policy is not represented in the I-90 DEIS and in fact R8A is inconsistent with Destination 2030 and Vision 2020. The I-90 Steering Committee revised the rules to serve their purposes. The purpose in the 1996 RTA I-90 ballot measure was broadened to "minimizing the impacts to the environment and to the other users and transportation modes." The RTA voter approved I-90 promise was broken. The new project purpose is not consistent with the 1996 ballot measure and the 2030 Metropolitan Transportation Plan. The original 1996 voter approved project purpose was to improve the speed and reliability of I-90 Two-way Transit. This new project purpose is counter-productive to promoting increased transit/HOV use over increased SOV travel.

I-90 spawns SOVs/ SR 520 Grows Transit/HOV Trips-When one compares users during the last 10 years of new I-90 capacity and the Transit/HOV/SOV growth with the constrained SR520 cross-lake bridge, (See ADT Chart on Page 8) we learn the lesson that I-90 has taught us very well. "If you build I-90 with new SOV capacity, and with no Two-way transit in the center lanes, the SOVs will not only come, they will keep coming and seek more lanes." SR 520 users with four lanes, and a similar economic status to the I-90 users, ride transit more. The SR 520 corridor commute trips are on transit and the HOV trips are higher than I-90 too. While transit use is growing slowly on I-90 it has been handicapped for 10 years, since it was reconstructed and opened, by not enjoying a reverse Transit /HOV center lane. Because of that, the SOV has prevailed, and east/west I-90 transit service has far fewer users than it would have had with Two-way Transit/HOV from the opening of the new I-90 corridor.

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See Common Response CR-2: High Capacity Transit (HCT).

O-176

Regarding use of HOV lanes by general purpose traffic, Sound Transit and WSDOT entered into an agreement (Motion No. M2003-44) to protect Sound Transit's investment in the direct access ramps and the HOV system while preserving the Transportation Commission's authority and ability to make operational changes as necessary for the effective functioning of the overall highway system.

The agreement reaffirms respective commitments by the two parties to the terms of the 1997 Memorandum of Understanding (MOU), requires that the Sound Transit Board be consulted prior to any changes in the HOV system operations and/or performance standards, limits use of the direct access ramps to transit buses and high-occupancy vehicles, and gives Sound Transit a role in the review and approval process mandated by FHWA of any proposed significant HOV operating policy changes. In the agreement, WSDOT assumes Sound Transit's continuing control obligations with respect to FTA grant funds to the extent such funds are used for direct access and HOV facilities; Sound Transit agrees to take reasonable steps to operate transit vehicles able to maintain highway speeds; instruct Sound Transit operators on applicable laws and operational characteristics of HOV facilities; provide service frequency and span of service outlined in the Service Implementation Plan; provide incentives to encourage utilization of transit service using the WSDOT HOV system; participate in incident response efforts to clear disabled transit buses from the freeway; support WSDOT grant applications for HOV projects; and support publicly WSDOT efforts to improve the operations of the HOV system.

The agreement creates contractual obligations between Sound Transit and WSDOT and the failure of one party to fulfill its obligations gives the other party the right to seek enforcement in a court of law.

In addition, proposed changes to I-90 operation would require consultation with representatives from the cities and agencies that were signatory to the 1976 Memorandum Agreement.

O-177

HCT on the I-90 corridor is identified in Sound Transit's Regional Transit Long Range Vision. The Trans-Lake Study also identified the operational and cost advantages of the I-90 corridor for HCT across Lake Washington. A WSDOT study confirmed that HCT can be accommodated on I-90 in the center roadway. It did find, based on the assumptions in the study, that joint operation of light rail and buses in the center roadway was not feasible.

The Trans-Lake Project confirmed that there were operational and cost advantages with maintaining the identified I-90 cross-lake routing for HCT. This is consistent with Sound Transit's Long Range Vision which included HCT on I-90 as the recommended cross-lake route. HCT operation on I-90 will be evaluated as part of accelerated planning for future HCT investments in the I-90 corridor by analyzing various HCT alternatives consistent with the update of the Regional Transit Long-Range Vision. HCT on I-90 is not part of this I-90 project and Sound Transit will not be conducting a project-level EIS for I-90 HCT at this time. See also Common Response CR-2: High Capacity Transit (HCT).

O-178

See Common Response CR-2: High Capacity Transit (HCT).

O-179

Your comment is noted. See response to individual comments above.

O-180

See Common Response CR-1: Memorandum Agreement.

O-181

Your comment is noted.

Just as the 1977 I-90 FEIS was ignored, and the 1976 Agreement reinterpreted, the I-90 Steering Committees has revised the I-90 voter approved Two-way Transit/HOV 1996 ballot purpose. This change was **never adopted by 2/3rds vote of the Sound Transit Board,** and is a very good example of "third party project scope creep." The project budget has increased from a $15 million total cost to a total of over $120 million, when all of the pre-planning, EIS, design, preliminary and final engineering and constructions costs are added up. The broadened purpose opened a costly Pandora's box of I-90 transportation corridor goodies to a select group, way beyond the intent of the original voter approved scope and purpose. The result has precluded or postponed a cost-effective I-90 cross-lake public transit service in favor of the private interests. Now seven years after the vote we are at least 2-4 years away from construction of any I-90 option. Sound Transit has spent $7 million through 2003, and a total project budget of $18.8 million by 2006, and only $15 million from the 2003 session is for future construction.

O-182

WSDOT was allocated $15 million for I-90 from the 2003 Legislature's "nickel tax" for highway construction. It is inadequate to build the unstated "Preferred Alternative", **R8A for $100+ million.** Even if I-90 funding were available, from a 2004 RTID voter approved package, and/or a 2003 federal grant, the money is primarily for road expansion. Any I-90 option selected would take one to two years for construction, depending upon its complexity. That would stretch completion out to2008 or beyond. It is time to "bite the bullet" now and to talk about the future corridor sustainability. Improved cross-lake transit options on the I-90 bridge, and corridor from I-5 and I-405 will make the difference between needing more cross-lake bridges and corridors with their enormous environmental impacts, or being able to handle the trips with improvements to the existing ones. To have an I-90 DEIS that talks about I-90 in 2025, *without any High Capacity Transit in operation*, consistent with the RTA Plan and the 2030 Metropolitan Transportation Plan, is insulting to the intelligence of the many transit supporters who have been following the issue and are in support of Sound Transit programs.

O-183

The cross-lake transit errors of the 20th century are about to be repeated in the 21st century on I-90 **if R8A is the preferred option.** The alternative chosen should not be so narrow as to only seek to provide a lane for outside reverse lane for transit/HOV, while expanding SOV corridor trips significantly. It would be a wasteful public investment. The "purpose" must be supportive of the Sound Transit long-range plan and the vision of implementing light rail on I-90. I-90 light rail can only be implemented in the future if there is enough growth in transit use on I-90 to justify the investment in cross-lake light rail. If the center lanes are not revised to two-way transit/HOV now, the trend will be to continue the present inequitable modal operations. That decision would mean that in 8-10 more years, Sound Transit will never be able to change the operation of the center lanes to two- way operations, in order to operate cross-lake light rail. The continued support of more auto lanes, the related auto-dependent Eastside land-use and lack of cost effective I-90 transit service will reduce transit ridership and service into a vicious downward spiral. It will not promote a cost-effective separate corridor that can be switched over to rail in the future.

O-184

Under **R8A** the project purpose is not served. The project impacts are not minimized for any of the users, except for the Mercer Island SOVs and some HOVs. Without good transit service, Mercer Island residents and related service trips generate **65,000 trips** on I-90 each day. Over half of the average daily trips, according to the I-90 DEIS, on the East Channel Bridge are from Mercer Island. This is an average of three trips a day for every person, (Mercer Island population=22,000, -2000 Census) who live on "built out" Mercer Island. For the other users including commercial and freight trucks and tankers, transit/HOVs, single occupant vehicles, and bicycle and pedestrian path users, I-90 will become a more dangerous route, or a route they are not allowed to use. R8A will significantly and negatively impact all of them when breakdowns and accidents occur on the substandard eight lanes and the two foot shoulders. Under R8A, safety problems and congestion are increased, and are not really minimized even with mitigation. A public highway "improvement" should result in a better not a poorer facility. On the other hand, Mercer Island single occupant vehicles and other center express transit/HOV users, have a lot of underutilized center lane space and will have more when many of the HOVs move to the outside lane. The I-90 R8A alternative is not transportation progress, nor is it a "transportation improvement." Interstate and regional travel interests cannot be served by the unsafe, dangerous expansion of I-90 with planned with the **R8A option.**

O-185

Supplements to the I-90 DEIS Process In addition to a Supplemental DEIS to provide information that was requested in the Scoping process but was not included, an early warning I-90 public information program is needed. It is important to inform and help the 145-150,000 I-90 trip-makers each day understand what is planned for the corridor, that was not mentioned in the plans and newspapers. Since fewer than 200 people attended the public meetings and the local papers did not cover them, more I-90 public information distribution is needed. Not enough people know what is being proposed.

O-186

Construction TDM Program Needed A Construction TDM Package was not mentioned in the DEIS, but can be an effective tool to reducing corridor dislocations, reducing trips or transferring trips to transit. SR 520 staff prepared one as a sample for that corridor and it should be checked out. It is an error for the preparers of the DEIS to find that the impact of TDM/TSM programs are "negligible." It is only because of their lack of awareness of what is going on currently in our own region on SR 520 and I-405. The DEIS documents that if R8A is adopted, all of the users except center express lane users, Transit, Mercer Island SOV/HOVs, are negatively impacted during at least 2 years of construction. The details of those construction delays need to be detailed and documented in regular reports to the I-90 users and to residents in adjacent communities.

O-187

O-182

See Common Response CR-1: Memorandum Agreement.

O-183

HCT operations in 2025 will be addressed in a separate environmental process. The Draft EIS for the I-90 project includes only projects that are in the design phase, not projects that are not part of a current planning process. See also Common Response CR-2: High Capacity Transit (HCT).

O-184

Your preference is noted. See also Common Response CR-11: Why is Alternative R-8A the Preferred Alternative?

O-185

See Common Responses CR-7: Transit Volumes and Reliability and CR-8: Safety.

O-186

Please see Chapter 6 of the EIS which summarizes public and agency outreach for the I-90 project. DEIS Public Hearings, as required by NEPA, were held at the following times and locations:

Mercer Island – Tuesday, May 20, 5-7:30 p.m.; Seattle – Wednesday, May 21, 4-7 p.m.; Bellevue – Thursday, May 22, 4-7 p.m. As shown in greater detail in Chapter 6 of the DEIS, there was extensive scoping activities including meeting with government agencies and community organizations, receiving written comments, and conducting three public open houses in December 2001. Chapter 6 lists all newspapers where advertisements were made and all community groups in the Beacon Hill area that received the I-90 newsletter and scoping notice information. Chapter 9 lists all recipients of the DEIS.

O-187

Once a preferred alternative is finalized, a construction mitigation program will be developed as part of the design activities. Included could be a TDM package that can help reduce demand and impacts on I-90 users. Strategies similar to those identified in the TDM/TSM section of the FEIS will likely be considered.

Diversions to I-90 from SR 520 Tolling/HOT Lanes What are the impacts if the I-90 operation's was changed by WSDOT to Tolled/HOT or express center lanes? There is no estimate in the DEIS of the long-term impacts. The future status of operations on I-90, given future policy changes over construction, or tolling on SR 520, I-405 or I-5 provides major unknown issues that will impact all of us. Proposed SR 520 Tolls impact on I-90 were not mentioned, but obviously would divert traffic to the "free" I-90 Corridor. WSDOT should have tolls on I-90 along with SR 520, to prevent the diversion of trips to I-90. These are all "What if "questions that should be recognized and dealt with now to avoid last minute future unanticipated operational impacts.

O-188

Transit Ridership-The DEIS finds that **R2B has the largest increase in transit ridership of 70 daily more transit riders by 2005, over R8A. It also has largest increase in the reverse peak direction riders and decrease in travel times.** It has 100 transit riders over R8A by 2025, which seems to be very little difference in 22 years. Can you explain why so little transit ridership growth with either option? (DEIS 5.2.13). (See summary of ADT and Transit trips on EIS Review Pages 7,9). But again, the DEIS suggests no mitigation strategies that would significantly increase a growth in transit ridership, along with the increased HOV capacity which R8A provides. Expending some of the project costs on programs such as new local transit circulation service on Mercer Island, adding new park and ride lots further east on I-90, Corridor would start to help. New I-90 Corridor Management Agreements and Transportation Demand strategies, such as increased Commute Trip Reduction programs for I-90 users, should be coordinated with funding for the program from medium and large employers in Seattle and the Eastside

O-189

Congestion can encourage pedestrian/friendly land-use development, particularly in urban center s. It's impact has been documented elsewhere to encourage increased transit use and reduce SOV use, particularly between centers of activity. Unfortunately Sound Transit/WSDOT proposed nothing to reduce the new SOV capacity created by R8A. Operating the new HOV lanes only at the peak hours, along with investing in effective TDM strategies, to reduce SOV trips were not given adequate consideration. Increases in local and express transit service and routes, particularly on Mercer Island, where almost one half of the I-90 Average Daily Traffic trips are generated, is really needed. In order for there to be enough transit ridership, and related transit supportive land-use development, to justify ever investing in light rail on the I-90 corridor, additional programs and agreements with the adjacent communities, and corridor-users and employers are critical. Strategies to reduce SOV use on the corridor are needed to lower the traffic counts, noise, emissions and energy consumption and improve the air quality and health of residents who live adjacent to the corridor.

O-190

R2B two-way transit is cheaper, safer, less-polluting, less dangerous and faster, due to fewer predicted incidents and injuries, and has more projected transit riders in 2005 and 2025, than **R8A**. If **R2B** were implemented, it could solve the peak hour reverse commute bus delays by providing a full-time, all-day I-90 two-way separated transit right-of-way. Unlike **R8A, R2B** also does not create new SOV capacity that discourages use of alternatives to the auto. With a TDM Corridor Management Program it would be less impacting on other users, the current mainline and center lane SOVS, Bike/Ped path users. Flammable freight loads would not have to move to alternative routes. It does not narrow the lanes to down-grade the standard 12 foot lane widths and helps to retain I-90's safety records as one of the safest Interstate corridors in Washington and the U.S.

O-191

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Proposed Hybrid-Both the R-5 Re-stripe and/or R5 Modified are simpler and inexpensive solutions to solve the need for an additional peak and reverse lane for transit and for HOV2+ users, if added, during the peak hours only. Only a small amount of new capacity, equal to the number of peak-hour buses, would provide new SOV capacity to the existing three mainline lanes. R5 Modified would have the AM buses in the eastbound off-peak direction and in the re-striped, outside shoulder lane, and they would be in the center lane away from the bike/ped path, in the westbound direction.

O-192

A better R-5 Re-stripe could be combined with the R2B as a Hybrid R-5 restripe/R2B as an interim more expensive option, combined with an effective I-90 Corridor Management TDM program, until the region decides the future fate of HCT operations on the I-90 Corridor. The center lanes would be converted to two-way bus and HOV3+carpools, and the restriped, south outside shoulders, and north inside shoulders would be available for both buses and HOV2. This less costly Hybrid option is preferred because it starts operating the center lanes for two-way transit as agreed to in the 1976 I-90 Memorandum Agreement and provides what voters approved in 1996. Separate right-of-way would be available for accelerating the first Bus Rapid Transit to the Eastside. In addition, it would reserve the center lanes now for future Sound Transit planned cross-lake LRT

O-193

Average Daily Traffic and Transit on the I-90 Corridor- It is difficult to find this info in the DEIS, because it is buried. **R8A increases SOV use by 800 cars at the peak hour and is not a strategy to increase transit use and to reduce the growth of traffic on the I-90 corridor.**. The analysis performed by the I-90 DEIS consultants presents a growth of average daily traffic ADT of 3% a year or 180,000 more vehicles on I-90 by 2025, rather than the 2% projected by PSRC and WSDOT. **Which one is correct? It appears that the I-90 DEIS projections may be inflated, in order to justify the need for R8A. Is the projected ADT growth rate at 2% or 3%.?**

According to the PSRC/WSDOT traffic counts, the growth of traffic on the I-90 corridor between I-405 and I-5 has been growing at 2% a year to 131,000 ADT in 2001, and actually declined in the past two years. The writers of the I-90 DEIS project that the rate of future growth is over 3% or 145,000 in 2001. At a King County Council Transportation Committee briefing on May 28,2003, Bill James I-90 consultant, replied, when asked the I-90 ADT today, stated that it was 150,000. The projections seem to assume that latent unconstrained SOV demand will fill all available freed up capacity. This will surely not happen without a Corridor Management and

O-188

Your comment is noted. A primary purpose of this project is to provide the two-way transit priority indicated in the comment. See also Common Response CR-9: TDM/TSM.

O-189

See Common Responses CR-7: Transit Volumes and Reliability and CR-9: TDM/TSM.

O-190

See Common Response CR-9: TDM/TSM.

O-191

Your preference is noted. See also Common Response CR-11: Why is Alternative R-8A the Preferred Alternative?

O-192

Your preference is noted.

O-193

The growth forecasts were developed from the regionally adopted PSRC model, which includes detailed land use projections in the region. We are not aware of a 2 percent growth factor used by PSRC and WSDOT and did not employ a simple growth factor approach. The resulting forecasts are reasonable estimates of future travel in the I-90 corridor given best available modeling methods. The forecasts also include trips diverted to and from I-90 in response to conditions in other corridor. The forecasts also include a mode share model that predicts changes in auto, transit, and HOV modes based upon existing and future travel conditions throughout the region.

While it is likely true that traffic volumes have decreased somewhat during the recent economic slowdown, the forecasts are based upon longer-range expected growth over the next 20 years. The numbers cited in the table reflect the data provided in the EIS. The 2001 numbers cited were not specifically used in the analysis and we have not researched their validity.

community strategy that emphasizes managing the system efficiency, and a shift of average daily vehicle trips with a strategy to increase two way transit/HOV use and service. This would "shift their mode of travel to something more efficient that the single occupant automobile."(Washington Department of Highways – 1977- I-90 FEIS)

I-90 Average Daily Traffic

PSRC/WSDOT 2001	I-90 DEIS 2003-	2025- I-90 DEIS
131,000 Mid I-90 Bridge ADT	145,000Mid I-90 Bridge ADT	180,000 ADT-Projected
	155,000 Mid East Channel Bridge	
	65,000 Mercer Island ADT I-90 (55% of East Channel ADT)	

(Projected increase in DEIS Alternative R8A per peak hour traffic is 800 cars at the Peak Hour over R2B)

1988 ..Old I-90 4-lane ADT 64,780
1990 Opening ADT-105,780 (Added Capacity Results in More Traffic!)

2001 SR 520/Translake 2001-ADT=120,000-(four lanes)

	R2B Transit Riders	R8A Transit Riders DEIS Projections
AM Peak 6-9am (2005)		**R8A has 70 less Transit riders than R2B**
Eastbound	930	860
Westbound	3450	3450
TOTAL	4380	4310
AM Peak 6-9 am (2025)		**R8A has 100 less Transit riders**
Eastbound	2010	1910
Westbound	5750	5750
TOTAL	7760	7660
I-90-R2B=15,000 peak hour vehicles		**I-90-R8A=15,800 vehicles-peak hour**

NEPA/SEPA Require a Fair and Impartial I-90 DEIS Wise stewardship by the Sound Transit's Board and staff's of the RTA Plan's Phase 1 voter approved 1996 plans and investments demands a level, equitable playing field, not a biased one. A regional decision directed to serve a narrow 7.5% of the regional population does not serve the long-term regional and public interests. The I-90 proposal is controversial. A fair and impartial evaluation of the I-90 issues should be based on fairness and one-person one-vote protections. The combined population of Mercer Island and Bellevue is 131,605 or represents 7.5% of King County's 1,735,034 population.

Omitted from 2003 I-90 DEIS---Significant Information from the FEIS-SR 90 published in April, 1977,
--2.3 titled-Public Transportation and the Center Roadway, stated,
"The center roadway will be designed in accordance with the provisions of the inter-jurisdictional Memorandum Agreement of December 1976, which is reproduced as a Technical Appendix C to this EIS."
The **Agreement** specifies that *"there shall be two lanes designed to accommodate either a two-way or a reversible method of operations at no less than 45 miles per hour average speed, with the first priority given to transit the second to carpools and the third to general Mercer Island traffic. The center lanes will operate initially in a two-way directional mode with the lane carrying the minor flow restricted to buses. The center roadway will be designed to accommodate conversion to a fixed guide-way mode of rapid transit at some time in the future."* It continues,

"To further promote the use of the center roadway as a transit facility, and to encourage the development of a more comprehensive areawide transit system, the Memorandum Agreement also records the inter-jurisdictional agreement on the following transit projects directly related to SR 90:
(1.) transit access from SR 90 to downtown Seattle;
(2.) transit access from SR 90 to SR 405 and to the Bellevue CBD;
(3.) transit and general purpose access from SR 90 to the King County stadium area;
(4.) transit and general purpose access from SR 90 to arterials serving the North Duwamish-industrial/commercial area and the Seattle waterfront and
(5.) transit access from SR 90 transit lanes to SR 5."

O-193 cont.

O-194

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O-194

The identification of Alternative R-8A as the preferred alternative has been made by the I-90 Steering Committee as a step toward a regional transportation solution for all residents of Seattle, Mercer Island, Bellevue and King County. The Sound Transit Board also identified Alternative R-8A as the preferred alternative for the I-90 project in November 2003, based on the environmental analysis that was completed on the project, and on public and agency comment on the project and the Draft EIS during the review period from April 25 to June 9, 2003.

O-195

See Common Response CR-1: Memorandum Agreement. The Memorandum Agreement was included as Appendix I in the DEIS.

"These transit access provisions and the use of the center roadway for the encouragement of the use of transit and high-occupancy vehicles are an integral part of a comprehensive regional program of the Department of Highways and other agencies, to provide visible incentives for motorists to shift their mode of travel to something more efficient than the single-occupant automobile."
Underlined by reviewer for emphasis

The cumulative impacts of not implementing the I-90 1977 FEIS policies have influenced the development of the eastside, the present and future capacity and useful life of the I-90 corridor, and the need for additional bridges for cross-lake capacity for moving people. . A combination of past, present and foreseeable future actions could improve the use of I-90 for the regional community.

- What is the most effective action to ensure long-term productivity and a sustainable I-90 Corridor?
- Where is the coordination to achieve sustainable futures on the four major state transportation corridors SR 520, I-5 to I-405 and I-90 to benefit the economy and regional community and future residents/?

R8A-Impacts on Truckers of Re-routing Flammable/Hazardous Waste loaded Trucks to Alternative Routes and Mitigation strategies are not included in the DEIS.-The FHWA has ruled that R8A requires diversion of I-90 hazardous waste and flammable (tanker) freight trucks from I-90 to alternate routes such as the narrower R 520 or I-5 and I-405, but the impact of this diversion is not included in the DEIS. The DEIS is inadequate in its lack of discussion of the impacts on communities adjacent to I-5, SR 520 and I-405 through which these trucks may travel, if diverted from the I-90 Corridor. It also provides no estimate of the increased costs to truckers and to adjacent communities, to use alternate routes to I-90. Is there any way that tankers could be cleaned/purged so that empty tankers would be allowed to return on I-90? No other regional highway corridor has the fire suppression equipment that have been installed in the I-90 tunnels. Please note that the Washington State Trucker's Association have not been notified or involved in the development of the project. It appears that no notice of the project or a copy of the 2003 I-90 DEIS was sent to the WSTA, even though they have vested interest in the removal of trucks from the Interstate facility.

Bike/Ped Path Funding for mitigation of the path impacts must be a high priority. Need to widen the two-foot shoulder by adding a cantilever of two feet on the north side of the bridge so that the Path meets FHWA Path standards of 12 feet. Any fence or screen by the path that is constructed to help reduce the debris and wind from the road and vehicles, should not block the south cross-lake views of Mount Rainier, one of the best views in the region. During any construction that shuts down the path, adequate shuttles for path users must be made available, as a cost of the project. There have been verbal commitments made in meetings about the Path that are not found in the 2003 I-90 DEIS. Therefore the actual bike/path reconfigured dimensions, space from the shoulders and lanes, proposed mitigation needs and construction mitigation program needs to be clearly updated with any new information that may have been gained, since the DEIS was published.

Mitigate the Impact of Narrowing Lanes and Shoulders on Bike Path – It appears from the presentation to the ST I-90 Steering Committee in April 2003, that additional bike-path analysis is being done to cut the project mitigation costs. From what was said one could conclude that by reducing all of the auto lanes to eleven feet and narrowing the shoulders, enough space could be found to not have to build a two foot cantilevered addition to the outside of an 8 foot path. That is a mistake. Other adverse impacts on the existing sub-standard eight-foot Bike/Ped Path includes the adjacent 2 foot narrow shoulder, reduced from 10 feet, and the screening, fences and views. Because of the significantly narrowed shoulders, it is important to add the cantilevered 2 feet to bring the path to12 foot FHWA standards

How will Impact of Increased SOV Congestion on Seattle at I-5/I-90 Interchange I-405 and South and North I-5 be Mitigated? **R8A significantly** increases SOV trips by 800 vehicles at the peak hour on the I-90 corridor. This results in travel-time savings of 55% for single occupant vehicles. There are concerns about this additional I-90 SOV capacity and the back-ups, cues and bottlenecks that will increase at the connecting interchanges of I-5, I-405 and on the local city streets adjacent or in the vicinity to the I-90 off-ramps. Perhaps this congestion will create such frustration that a few will take transit as an alternative. The new SR 519 with its 4th avenue ramps and 1st Avenue entrance and exit is predicted to be all- right, except it was assumed that the whole project would be completed. Recently it was announced that half of it would not be built. How does that impact the I-90 project? The 4th and 5th Avenue at Airport Way appear to have a Level of Service E in the AM and PM.

The I-5/I-90 Interchange is rated by the Texas Transportation Institute as the third-worst-congested-Interstate Interchanges in the nation. Even with one-half of SR 519 open to traffic, the expansion of **R8A** SOV capacity with 800 additional cars at the peak hour on I-90, when I-5 is loaded now, is a significant issue that was not given consideration in the DEIS. **SR 519** moves the congestion from one bottleneck to another. We need better alternatives that provide more incentives to use transit.

Noise-The DEIS states that no noise mitigation is needed primarily, due to the previous construction of lids and placement of landscaping. Housing near the I-90 lids is continually impacted by noise and the prices are lower due to the corridor. This will be increased with increased volumes predicted with **R8a**. Walking or riding a I-90 bike path, particularly on the bridge, will continue to be an more of an "ear buster" of an experience with the vehicles 8 feet closer, will make it difficult to hear signals from other users. .

Air Quality-The DEIS states that **R2B** pollutes less than **R8A**, since it does not generate more SOVs. **R8A** does not report the increase in pollution due the additional 800 SOV vehicles. The I-90 projects and regional air quality policies and plans should all

O-195 cont.

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O-196

The Washington Trucking Associations submitted a letter with comments dated June 4, 2003. See Common Response CR-5: Flammable Cargo Routing Issues with Preferred Alternative R-8A for the impacts of rerouting flammable trucks.

O-197

See Common Response CR-3: Shared-use Pathway.

O-198

See Response A-13.

O-199

The FEIS has revised the traffic analysis to include only the SR 519 plans that are in place, based on consultation with Seattle DOT staff. The effects on Seattle intersections at the freeway interchanges have been documented in the EIS. These impacts have been reviewed with City of Seattle traffic engineering staff, who have commented on proposed traffic mitigations for each of the build alternatives. The traffic impacts of Alternative R-8A can be largely accommodated at the arterial streets in Seattle.

The primary indicator of congestion impacts at the I-5 and I-405 system interchanges with I-90 is mainline travel speed. Simulations of each alternative with year 2005 and year 2025 peak-hour traffic generally indicated that changes in mainline speeds on the adjacent congested segments of I-5 and I-405 would be less than 5 mph for any of the build alternatives. The exception would occur with Alternative R-2B on I-405 north of I90, where speeds for southbound traffic in the morning would drop about 15 mph. With the Preferred Alternative (R-8A), impacts on speeds on I-5 and I-405 would be negligible.

Increased queuing with the Preferred Alternative at the I-5 interchange would be mitigated by the increased lane capacity on I-90 at that location. Increased queue lengths on eastbound I-90 at the I-405 interchange during the PM peak period would be mitigated by extending the length of the existing auxiliary lane on the eastbound I-90 ramp.

Existing congestion problems on I-5 in the vicinity of the I-90 interchange are being studied by WSDOT as a part of another project that is examining means of rehabilitating I-5 through Seattle, and would be addressed by that project. Existing congestion problems on I-405 in the vicinity of I-90 are being studied and addressed by WSDOT's I-405 Congestion Relief and Bus Rapid Transit Project.

O-200

Design-year L_{eq} sound levels under the alternatives would increase by 1 to 2 dBA compared with the Existing Conditions. Future traffic L_{eq} levels under Alternative R-8A would be the highest of all build alternatives (by 1 dBA or less), because of its relatively higher traffic volumes. Noise mitigation was evaluated at receptors with predicted traffic noise impacts, and was found not to be reasonable and feasible under FHWA-approved WSDOT guidelines. Please see Response O-55, I-90 Safety Coalition, for a discussion of noise issues associated with the shared-use pathway on the floating bridge.

O-201

The differences between the potential air quality impacts from each alternative are similar and the choice as to the best alternative can not be based on air quality impacts alone. The air quality analysis addresses the creation of potential CO hotspots at the major intersections that could be affected by the project. The analysis determined that the impacts to air quality were very similar among those intersections. The EIS does not state "R-2B pollutes less than R-8A, since it does not generate more SOVs." It does make a qualitative assessment indicating that R-2B (3+ HOV) would create the least number of LOS D or lower intersections in the Seattle region. R-8B (2+ HOV) and R-8B (3+ HOV) would create the same number of LOS D or worse intersections, as would R-2B (3+ HOV), while R-2B (2+ HOV) would create the most. Therefore R-2B (3+ HOV), R-8B (2+ HOV) and R-8B (3+ HOV) may produce slightly lower air quality impacts than R-1 (2+ HOV), R-5 (2+ HOV) and R-2B (2+ HOV).

promote reduced SOV trips and seek actions that will result in lower CO and NOX emissions from autos through reduced trips and use of transit. With R2B, and a Corridor TDM program it would help clear the air better than R8A.

Why R8A Should Not Be Selected- 1000 Friends has concluded that R8A promotes more SOVs and dispersed travel patterns and is inconsistent with the GMA, adopted regional centers and local plans. Eastside auto-dependent sprawl is difficult to serve with a cost effective transit service. R8A continues to promote auto dependent lifestyle trend, without really promising and improvements in the future for faster pedestrian friendly, land use and ,improved transit service. R8A is inconsistent with local and regional GMA plans and policies and will negatively impact our local and regional land uses.

The impact on the environment of the action, when added to other past present and reasonably foreseeable future actions, regardless of what agency or person will undertake such other actions, needs to be assessed. A R8A option will induce indirect environmental impacts and cumulative effects by encouraging more spread-out development activities that have significant long-term effects upon the regional community. The following negative actions are the result of the flawed R8A alternative.

- Creates new lane space for 800+ SOV users, that could be available for Mercer Island residents when the conversion of the center lanes for two- way transit is needed. Sound Transit plans for future use of the two center lanes for two-way Bus Rapid Transit or Light Rail Transit will be precluded forever.
- Negatively impacts a safe Interstate corridor that meet Interstate standards, to operate with unsafe, narrowed lanes and shoulders.
- Encourages more auto trips, sprawl and auto dependent Eastside development within and beyond the urban growth boundary.
- Has lower transit use than R2B in 2005 and 2025.
- Does not emphasize improved transit use/service and transit friendly development and no has no TDM strategy or Corridor Management Agreement like SR 520 and I-405.
- Significantly impacts the Bike Pedestrian Path. Degrades the recreational/commuter use on the only cross-lake-Bike/Ped path, so that bikers/pedestrians not will be able to safely use it.
- Removes Hazardous and Flammable freight trucks from a safe Interstate route, built with fire suppression equipment in the tunnels, to unsafe, narrow lane, congested routes.
- Increases SOV capacity, and therefore reduces the incentives to use cross-lake transit service and routes.
- If built now, R8A precludes future ability to convert the operation of the I-90 center lanes from express lanes to two way Transit/HOV, or Bus Rapid Transit BRT or Light Rail.

Costs/Benefit Analysis and Value Engineering. NEPA Sec. 1502.23-says that cost benefits are a relevant issue if important to the final choice of alternatives. Choosing the most expensive alternative R8A at $100+ million, with limited transportation funds, and possibly part of an RTID ballot measure in 2004, would make one conclude that a cost benefit analysis of the two competing final options would be appropriate and valuable information. State law requires that there be Value Engineering of major state funded projects, and surely it should be done to reduce the costs of whatever is built.

No 4f Problems?- FHWA/FTA concur that the bike path is a Transportation Corridor not a recreational facility. That was a unfortunate decision that the Regional Administrators control. We believe that the Path, particularly since it is the only one across Lake Washington, is both a transportation corridor and a recreational facility. We regret that it is not getting adequate 4f review of the negative impacts on the Bike/Ped Path.

Environmental Justice Issues-The R8A proposal favors the primarily white suburban SOV drivers (65,000 trips onto I-90 from Mercer Island each day) at the expense of the central city residents. The original I-90 permanently closed 16 local city streets from use by those who lived adjacent to the corridor, and were significantly impacted, when the initial I-90 housing/property condemnations were made in the 1960's and construction was underway to 1990.

In 1999, an I-90 Hearing was held in the Mt Baker Community Center. There has been no contact or public involvement of members of that community since then, even though they were significantly involved and impacted before and during the reconstruction of I-90 in the 1960s through 1990's. There was limited public involvement in Bellevue and Mercer Island recently, and having the Seattle Hearing, near where a Mariner's game was being held did not help Seattle and I-90 residents to attend the I-90 Public Meeting. This oversight is unfortunate and should soon include Citizen Participation- from the adjacent Seattle I-90 Neighborhoods. They have not been involved or notified of the impacts to their communities of the plans for I-90 in 2003.

O-201 cont.
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O-202

Your preference is noted. Alternative R-8A has been identified as the preferred alternative by the I-90 Steering Committee.

O-203

See Common Response CR-2: High Capacity Transit (HCT). The I-90 Steering Committee has expressed a preference for Alternative R-8A with HCT in the center roadway as the ultimate configuration of I-90.

O-204

See Common Response CR-8: Safety.

O-205

Your comment is noted.

O-206

See Common Response CR-7: Transit Volumes and Reliability.

O-207

See Common Response CR-9: TDM/TSM.

O-208

Your comment is noted.

O-209

See Common Response CR-5: Flammable Cargo Routing Issues with Preferred Alternative R-8A.

O-210

Your comment is noted.

O-211

See Common Response CR-2: High Capacity Transit (HCT).

O-212

A limited benefit/cost analysis was conducted for each of the build alternatives. Only the Preferred Alternative (R-8A) would have net positive benefit. Congestion impacts associated with Alternatives R-2B, R-5 Restripe, and R-5 Modified would result in a negative benefit with those alternatives.

A value engineering study was conducted by WSDOT in March 2003. Recommendations of the VE Study team have been reviewed by the project team and incorporated into the Preferred Alternative (R-8A).

O-213

Your comment is noted. See also Response O-138.

O-214

See Response O-186.

NEPA Record of Decision- Oversight, monitoring and enforcement is needed on the final chosen I-90 project package.
ROD- The record of decision is a written public record explaining why the lead agency has taken a particular course of action.
The ROD must include:
"An explanation of the decision on the proposed action,
-Factors considered in making the decision,
-Alternatives considered and the environmentally preferred alternative,
-Any adopted mitigation measures or reasons why mitigation measures were not adopted and,
-A monitoring and enforcement program for those mitigation measures that were adopted. 40 C.F.R 505.2."

There was no ROD on the 1977 FEIS I-90 decision. The I-90 DEIS/FEIS were prepared and completed a year before the ROD regulations were adopted by the Council on Environmental Quality. The I-90 FEIS provisions for two-way transit in the center lanes have never been monitored or enforced.

Sec.1506.12 NEPA CEQ Regulations – On November 29, 1978, the Council on Environmental Quality issued regulations implementing and the procedural provisions of NEPA which are binding on all Federal agencies, and developed through interagency and public consultation, review and comment. They appear on pages 55978-56007 of Volume 43 of the Federal Register. CEQ guidance regarding agency implementing procedures were adopted July 30, 1979.
Section 1506.12 Provides that the regulations *shall apply to the fullest extent practicable to on-going activities and environmental documents begun before the effective date (This option was never pursued with I-90.)*

Unfortunately the regulations were never used for monitoring and enforcement of the I-90 1977 FEIS. The Council's guidelines were used until the regulations took effect. The question of the need to enforcement could be by one of the Memorandum Agreement signers, or residents of adjacent I-90 neighborhoods by filing litigation to enforce the 1977 I-90 FEIS.

Major ROD Concerns
1. I-90 DEIS Operation and Mitigation Measures-Will have no enforcement of the FEIS and/or center two way transit lane mitigation measures unless they are included in the ROD.
2. Monitoring and Enforcement-Given WSDOT's past I-90 history and the fact that Sound Transit will not be funding the project or in control of the final WSDOT's preferred alternative decision, the scope of the project, or the final operational configuration, the 2004 Record of Decision becomes very important. The ROD monitoring and enforcement program should be clearly set forth to ensure that whatever is committed to in the 2004 FEIS is actually funded and implemented.

Unanswered Issues
- Why was no R2B mitigation strategy comparable to R8A suggested in the DEIS for displaced Mercer Island auto users of the Express Center lanes.
- Why was no mitigation suggested to increase cross-lake local transit routes and express service park and rides and the overall system and TDM Programs like those proposed for SR 520 and I-405 (discussed earlier).
- Why did the DEIS have no I-90 BRT transition options in the I-90 center lanes to increase cross-lake travel on buses and for better transit service.
- What is the estimated annual public cost of the full R8A safety mitigation program, Trans 1-26 in the Appendix?
- What are the estimated annual public and private cost estimates from increased accidents with R8A which was not in the DEIS.
- Why does most of the DEIS data emphasize moving the general-purpose traffic travel times in preference to transit HOV or bicycles.
- Why is Sound Transit not seeking to improve and reduce the costs of I-90 Two-way transit/HOV and supporting the acceleration of plans for reserving the center I-90 lanes for future cross-lake High Capacity Transit? Many could agree with the possible need of safer lane revisions than R8A, after the cross-lake BRT or HCT plans are completed. The timing of this I-90 project is out of touch with developments on the other parallel corridors and regional system issues.
- Why shouldn't any I-90 project be delayed until many issues are resolved?

Other I-90 DEIS Comments:
1. There is a great need to shorten and get someone to edit all of the bits and pieces written by various authors in any future I-90 EIS related documents. They should be written more clearly and less lengthy and disorganized. Technical information needs better translations or charts to provide information. The complex charts made this huge DEIS difficult to review. NEPA suggests a DEIS should be a maximum of 150--300 pages, not over 500.
2. The projected ranges and percentages of I-90 transit ridership, SOV trips, etc., to the overall regional trips as provided are not very helpful for reviewers.
3. Many of the lengthy Appendixes such as B. Visual Quality, D. Hazardous Material Data Tables Appendix H. Cumulative Traffic Effects are not explained adequately to know how to use the information, or to know why they were included. Irrelevant and unexplained additions in the Appendixes, added to the weight but not to the content of the DEIS
4.

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O-215

Your comment on the content of the Record of Decision is noted.

O-216

Your comment on the importance of the content of the Record of Decision is noted.

O-217

See Common Response CR-9: TDM/TSM.

O-218

The TDM/TSM analysis documents several possibilities for increasing local and express transit routes. These ideas can be considered by King County and Sound Transit during implementation of the Preferred Alternative.

O-219

Transit buses operating in the peak direction would remain in the I-90 center roadway. Forecasts of transit patronage accounted for differences in travel times between alternatives. See also Common Response CR-2: High Capacity Transit (HCT).

O-220

When comparing alternatives to each other the WSDOT historically does not calculate ongoing maintenance costs, especially if there are only slight changes compared to the current maintenance and operational costs. Under special circumstances WSDOT may consider calculating these costs. However, in this case it has been determined that a calculation of the annual maintenance costs is not warranted.

O-221

The annual public/private accident costs for Alternative R-8A are expected to be nearly equal to current accident costs, and is in the range of a savings of $2.2 million to a cost of $0.9 million relative to the No Build alternative.

O-222

The DEIS provides travel time data on general freeway traffic, HOV, and transit.

O-223

Sound Transit and WSDOT recently completed a value engineering analysis in the effort to improve the I-90 project concept and reduce costs if possible. A significant value engineering recommendation was to eliminate bridge widening from the project. This resulted in an estimated cost savings of $16 million, reduced the construction period by approximately one construction season and eliminated the need to close the shared-use path fully during construction. In value engineering, the option of reconfiguring the existing lanes to get the needed roadway widths was developed, evaluated and recommended.

Regarding the second part of your question, that of supporting acceleration of plans for reserving the center roadway for future cross-lake High Capacity Transit (HCT), the Sound Transit Board took action on October 16, 2003, to direct staff to seek technical assistance with regional planning activities related to updating the Long Range Vision system plan from the Puget Sound Regional Council. In addition, the Sound Transit Board took action on November 13, 2003, to identify Alternative R-8A as the preferred alternative for the I-90 Project, to direct staff to immediately negotiate an agreement with the parties to the 1976 Memorandum Agreement for I-90 to define the ultimate configuration for I-90 consistent with appropriate planning activities and environmental studies, and to work with regional partners to accelerate planning for future HCT investment in the I-90 corridor by analyzing various HCT alternatives consistent with the Metropolitan Transportation Plan and the update of the Regional Transit Long Range Vision. The Board will be asked to provide direction to staff about how to proceed with evaluating HCT on I-90.

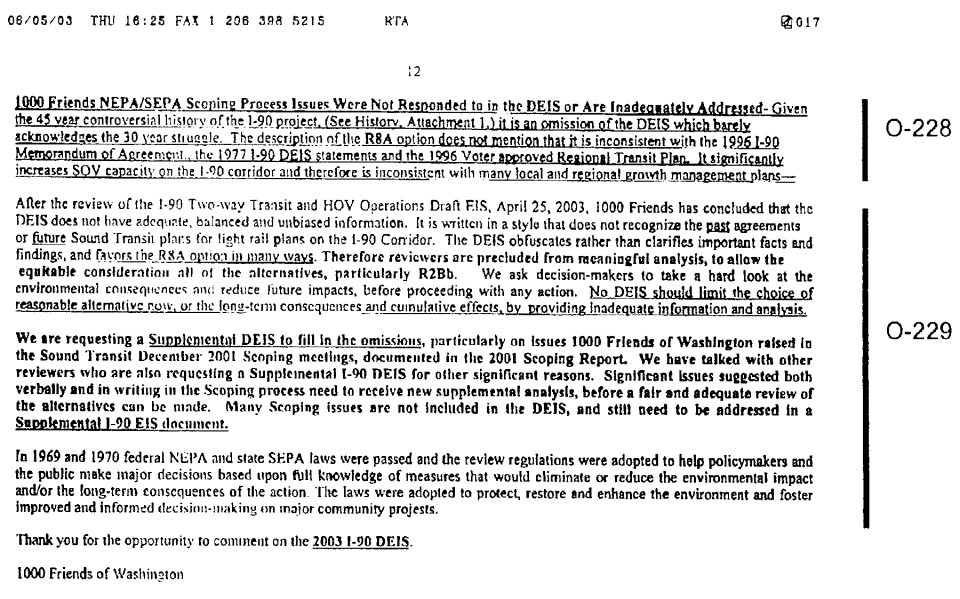
O-224

The project issues have been resolved. Many of the comments received request information that is already included in the document. Many of the responses are clarifications of information already provided. In some cases, information is updated based on recent analyses. For example, for the shared-use path, a value engineering effort that was completed after the Draft EIS was issued, determined that it was feasible to preserve the ten-foot width of the shared-use pathway by reconfiguring the Homer M Hadley bridge with four 11-foot lanes rather than by widening the bridge.

The purpose of the I-90 project is to provide reliable two-way transit and HOV operations between Seattle and Bellevue. There is an immediate need for the project to address the lack of priority for transit in the reverse-peak direction, eastbound in the AM and westbound in the PM and thereby improve the reliability of transit and HOV operations in the corridor.

The I-90 Steering Committee identified its preferred alternative for the I-90 project on July 15, 2003. They identifed Alternative R-8A, HOV lanes on the outer roadway, as an essential first step towards achieving a long-term transit vision for the Eastside; providing a strong transit connection between east and west King County; and improving the region's economy, mobility and quality of life; with the ultimate configuration of I-90 to include high capacity transit in the center roadway.

Sound Transit will evaluate HCT in the I-90 corridor and make a determination regarding the corridor and the most appropriate technology to be used based on analysis and public input. This would be done in a regional transit planning and environmental process separate from the I-90 Two-Way Transit and HOV Operations project. That process is being initiated and is anticipated to be completed in 2005. In doing so, Sound Transit will be guided by the Steering Committee's recommendation as well as the agency's Long Range Vision, which identified the I-90 corridor as a



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1000 Friends NEPA/SEPA Scoping Process Issues Were Not Responded to in the DEIS or Are Inadequately Addressed- Given the 45 year controversial history of the I-90 project, (See History, Attachment 1,) it is an omission of the DEIS which barely acknowledges the 30 year struggle. The description of the R8A option does not mention that it is inconsistent with the 1996 I-90 Memorandum of Agreement, the 1977 I-90 DEIS statements and the 1996 Voter approved Regional Transit Plan. It significantly increases SOV capacity on the I-90 corridor and therefore is inconsistent with many local and regional growth management plans—

After the review of the I-90 Two-way Transit and HOV Operations Draft EIS, April 25, 2003, 1000 Friends has concluded that the DEIS does not have adequate, balanced and unbiased information. It is written in a style that does not recognize the past agreements or future Sound Transit plans for light rail plans on the I-90 Corridor. The DEIS obfuscates rather than clarifies important facts and findings, and favors the R8A option in many ways. Therefore reviewers are precluded from meaningful analysis, to allow the equitable consideration all of the alternatives, particularly R2Bb. We ask decision-makers to take a hard look at the environmental consequences and reduce future impacts, before proceeding with any action. No DEIS should limit the choice of reasonable alternative now, or the long-term consequences and cumulative effects, by providing inadequate information and analysis.

We are requesting a Supplemental DEIS to fill in the omissions, particularly on issues 1000 Friends of Washington raised in the Sound Transit December 2001 Scoping meetings, documented in the 2001 Scoping Report. We have talked with other reviewers who are also requesting a Supplemental I-90 DEIS for other significant reasons. Significant issues suggested both verbally and in writing in the Scoping process need to receive new supplemental analysis, before a fair and adequate review of the alternatives can be made. Many Scoping issues are not included in the DEIS, and still need to be addressed in a Supplemental I-90 EIS document.

In 1969 and 1970 federal NEPA and state SEPA laws were passed and the review regulations were adopted to help policymakers and the public make major decisions based upon full knowledge of measures that would eliminate or reduce the environmental impact and/or the long-term consequences of the action. The laws were adopted to protect, restore and enhance the environment and foster improved and informed decision-making on major community projects.

Thank you for the opportunity to comment on the 2003 I-90 DEIS.

1000 Friends of Washington

O-228

O-229

potential rail extension crossing for Lake Washington. Sound Transit will also be guided by the Trans-Lake study, which confirmed the use of the I-90 corridor for HCT. HCT alternatives include light rail and other fixed-guideway technologies that operate in their own dedicated right-of-way. See Common Response CR-2: High Capacity Transit (HCT).

O-225

Your comment on the length of the EIS is noted. Sections were shortened to the extent feasible while still maintaining the information important to both the public and the decision-makers.

O-226

The use of percentage changes among alternatives is an effective way for readers to understand the relative differences in impacts. Ranges of impacts are provided in some cases to reflect the variability in the forecasts. Many issues, such as transit forecasting and TDM effects, cannot be easily capsulized into a single number.

O-227

References to the Appendices and their use are included within the relevant Chapters of the EIS.

O-228

Your comments are noted. See also Common Response CR-1: Memorandum Agreement.

O-229

See Response O-130.

APPENDIX 1-I-90 Review Comments-
I-90/Sound Transit History—Fifty Years of Defeating Transit 6/3/03

Anti-Freeway Movement 1951-1976-I-5-Corridor Tacoma/Seattle to Everett moved or razed 6600 parcels of land, and 4500 in Seattle, between 1958-1961-
June 1961-Empire Way/R. H. Thompson north south route, SR 522-N/S ext.(defeated- Seattle City Council Vote-6/1/70.
12-13-71. Stopped Bay Freeway to Alaskan Way/I-5. Judge ruled it was inconsistent with the 1960 voter approved ballot.
-Estimated Cost = $1.9 M-original $ increased to $28.M-(Decision included Connecticut Street Viaduct from Alaskan Way to I-5) All were projects in the $200 M Seattle CBD "Ring Road" or "NOOSE" linked to large garages.

1962-Voters defeated adding Public Transit to Metro
1968- Forward Thrust $385M Light Rail Plan, defeated in King County.
1970- Forward Thrust $440M Light Rail and Interim Bus Plan resubmitted and lost
1971-I-90 Public meetings on the design held on Mercer Island
1972- Metro Transit Plan for Buses. King County voters approved the creation of a Metro (countywide) Transit. Local sales tax plus state MVET financed the reorganization of Seattle Transit service, as well as private county bus services.
(1973/4- National Gas Shortage)
Early Challenges of First I-90 DEIS- I-90 was a $1.5+B highway with 92% federal 8% state money. It was a catalyst for a $.5 M renewal of the Mercer Island shopping district. (Mercer Island had only 25% of its resident's potential retail trade). The MI population flees the island for most shopping and employment. Many 1957-75 I-90 corridor/design meetings were held on Mercer Island to assist in mitigation so that they would never have to "hear, see or smell the I-90 facility".
***NOTE:** Today the 22,000 Mercer Islanders (2000 Census) add +64,000 Average Daily Traffic (ADT) to the I-90corridor.

Plaintiff's, CAF appealed a 1970 I-90 decision to the US Circuit Court of Appeals, three judge panel in 1971. This action resulted in an injunction on the DOH to stop I-90 work and property acquisition. They remanded the DEIS back to the federal District Court Judge Beeks, and state Dept. of Highways was told to prepare an adequate EIS. The DOH ignored the Appeal court's directions and resubmitted the original inadequate DEIS given to Judge Beeks in 1970. In 1972 federal Judge Beeks reaction was brief, ***"The impact statement submitted in this case fails to meet minimum legal standards. By seriously underestimating their duty, defendants have caused yet another costly delay with this project."350 F. Supp. 265 (1972)***

DOH EIS inaction resulted in federal District court decisions in 1973 and 1974. Judge Dunaway wrote that ***"The major focus must be on the total impact of the (I-90) project as a whole, whether it should be built at all, as well as if it is to be built it should be built where and as previously planned." Laitan versus Brinegar***. A 4 volume DEIS was finally completed by the state DOH. It discussed only reversible center transit lanes. The December 1976 I-90 Memorandum Agreement was negotiated and the Final EIS describing the I-90 two-way center operations was issued in April 1977.

The April 1977 I-90 FEIS stated-in 2.3, page 17, ***"The agreement specifies that there shall be two lanes designed to accommodate either two-way or reversible method of operations at no less than 45 miles per hour average speed, with the first priority given to transit, the second to carpools and the third to general Mercer Island traffic. The center lanes will operate initially in a two-way directional mode, with the lane carrying the minor traffic flow restricted to buses..... The transit access provisions and the use of the center roadway for the encouragement and use of transit and high occupancy vehicles are an integral part of a comprehensive regional program of the Dept. of Highways and other agencies to provide visible incentives for motorists to shift their mode of travel to something more efficient than the single occupant automobile."***

In 1976 U.S. Congress passed an amendment to Federal Highway Act to allow for the "withdrawal and substitution" of already allocated federal Interstate highway funds, for a any substitute transportation project in or outside the corridor. Many cities, including Portland Oregon used this law to fund public transit rail projects. The option of withdrawing and substituting the I-90 highway for transit and highway improvements was opposed vigorously in Olympia and regionally. Drawn out legal challenges on the adequacy of the federal EIS and the specific Seattle area issues went on through a state Board of Review process. It culminated with the **I-90 1976 Memorandum Agreement**, a compromise, signed by the state Department of Highways, Mercer Island, Bellevue, Seattle King County and Metro. Mercer Island, but never enforced. Mercer Island insisted that their population needed the equivalent of a 4th peak lane of traffic each way and they were not pleased with the 1976 agreement.
Final I-90 Court Case-1978-From trial testimony it was obvious that the size and scale of the I-90 had not been changed from the original 10 lane facility. The testimony during the by Bill Bulley, the WSDOT Secretary and the I-90 project manager stated under oath that even though the Memorandum Agreement was for a 3-2-3 corridor operations it would be built wide enough to be expanded to 4-2-4. Aubrey Davis, Mercer Island representative who negotiated the I-90 design for his city for 10 or more years, stated that the I-90 center lanes could fit not only future two-way high-capacity transit but an added reversible HOV/bus transit lane. The I-90 center lanes were opened as reversible ramps west in the am and east in the PM, with Mercer Island SOVs having right to entrance of the center "express" center lanes. Exclusive ramps for transit/HOV at 77th and 88th SE to Mercer Island were never built, due to FHWA action. Studies on the two-way transit operations agreed to in the 1976 Memorandum were never implemented. Transit lost and Mercer Island was allowed to permanently enter the peak direction I-90 center lanes.

2. I-90/Two-Way Transit History

June 1979-The Evergreen Point (4 lane)Bridge/SR 520 revenue bonds were repaid 20 years ahead of schedule. Four times as many vehicles were crossing as when it opened. By 1988 the average daily traffic was seven times the original estimate with high transit/HOV use on the entire corridor.
November, 1988-King County Light Rail Advisory Ballot received over 60% voter approval
July 8, 1989- Interstate 90 Corridor and Third Lake Washington floating bridge and tunnels were opened. In one year I-90 added 40,000+ ADT, and continues to increase about 2% a year. November 25, 1990- A storm during LWV bridge renovation filled eight pontoons with water. They sank, severing 12 of the new I-90 bridge anchor cables with pontoon debris.

1990 State GROWTH MANAGEMENT ACT Passed--Chapter 36.70A RCW It requires transit level of service standards, the identification of expansion needs, and to implement transportation demand management strategies, including measures to boost transit usage. Transportation plans must be consistent with land use and serve the comprehensive plans.

1995/6-Regional Transit Authority-RTA- After 5 years of planning, including a state mandated Expert Review Panel, voters defeated March 1995 RTA Plan, including cross-lake rail transit. RTA won the second election, November 1996. No cross-lake Light or Commuter Rail, but more eastside regional Bus programs within the urban boundaries of King, Snohomish and Pierce counties. The RTA I-90 Two-way bus Transit project was defined as improving two way transit operations across I-90 during peak hours, similar to the I-90 1976 Memorandum Agreement. The RTA Long- Range Plan and the Puget Sound Regional Council's 2030 Transportation Plan still include the use the I-90 center roadway for high capacity transit.

1998- I-90 Steering Committee meetings began with the 1976 I-90 MA signers to implement center lane two-way transit in two years. Committee members expanded the scope, budget and final costs of the I-90 project significantly.

I-90 Alternatives ,except for R2b, Are Inconsistent with the 1976 I-90 Agreement, InterstateSafety Standards and GMA
R-1 No Change
R2bmod-Converts the center/express lanes to two-way transit. Reserves the center roadway for future two-way HCT.
R-5-Restripe, add peak hour transit lanes on outer roadway. **R-5-mod**-Same as R-5 except transit lanes on the inside lanes.
R8a-Adds full time transit/HOV lanes, one east and one west, outside fourth lanes. Limits hazardous/flammable truck movements. Creates substandard and unsafe narrowing of the existing 3 lanes and shoulders. Potential narrowing and dangerous two- foot shoulders between bike/ped trail. The mainline is freed up of 800 vehicles during the peak hours. Unchanged are the two-center AM reversible express lanes west and to the east in PM with OK entry for all Mercer Island cars, plus transit and HOV. BUT, the with the new outer T/HOV lanes it would allow the reversible two-center reversible lane operation to be for all vehicles. (The devil is in the future details of WSDOT's I-90 center lane operational decisions!)
August 2000-Public made aware of the new **R8a** alternative. ST staff announced that it supported **R8a** as a "Locally Preferred Alternative" LPA. ST seeks and receives support from I-90 Steering Committee members.
I-90 Coalition formed to oppose R8a (LPA) with 1000 Friends of Washington, Bicycle Alliance of Washington, Cascade Bicycle Club, Transportation Choices Coalition, League of Women Voters, Seattle Community Council Federation.
Regional FHWA representative to I-90 Committee declares that R8a is "fatally flawed."

November 2000-January 2001-I-90 Coalition met with and testified at King County and Seattle City Council transportation committees and the Sound Transit Board members to persuade them not to choose a LPA-R8a and do only an Environmental Assessment but require an DEIS on the Project. King County said that ST should include R2b in the study. Seattle Council stated that R2b must be included and the Bike Path should not be narrowed.
Spring 2001:ST negotiated with FHWA to allow R8a to be part of the in the DEIS, with lots of mitigation.

July 2001- ST Board votes to require a DEIS for the I-90 Two-Way Transit Project-R.1, R2b mod, R5, R5-mod, and R-8a.
December 2001- ST "Open House" meetings on the DEIS "Scoping" for the I-90 DEIS.
(Original Schedule for I-90 DEIS Project was June-July 2002 and Oct/Dec 2002-ST for the FEIS)
April 9, 2003-Sound Transit Staff recommended and the Board approved the execution of a supplemental Master Agreement with WSDOT for the Big Four Projects including Mercer Island /I-90. They approved funding supplements to the existing WSDOT contract agreement, nnt to exceed $831,548 for Preliminary Design and environmental documentation. Motion with URS Corp, not to exceed $655,396 was for the preparation of the I-90 Two-way Transit FEIS.

***I-90 Steering Committee I-90 recommendations—Scheduled for 6/15/03-- FEIS is due 2003-04, Record of Decision-?**
TOTAL COST (est): R8a=$100 million + inflation R2b=$30 million +inflation (2002 dollars)- *Funding- 2003 State $15M

ST 2003 Budget- I-90 Two-way Transit Project, *Project 382*
1997-01 $2,856. (in thousands)
2002 798.
2003 3,722.
2004 6,856.
2005 4,657.
TOTAL $18,889 (No Construction Funds)

Other ST Mercer Island Projects
I-90 Transit Center- *Project 210* = $2.million
I-90 Park and Ride Lot-*Project 354*= $7-9.million

Transportation Choices

State Office: 1617 Boylston Avenue • Suite 202 • Seattle, WA 98122
• (206) 329-2336 • Fax (206) 329-2705
Eastern WA Office: 12615 S. SR 904 • Cheney, WA 99004
• (509) 624-7097
info@transportationchoices.org
www.transportationchoices.org

To: Board Administration
Sound Transit, Board of Directors
Union Station
401 S. Jackson St.
Seattle, WA 98104

FROM: **I-90 *SAFETY* COALITION**

SUBJECT: I-90 TWO-WAY

To Whom It May Concern:

Please distribute these letters, addressed to individual Sound Transit board members, to each member. Thank you so much for your help.

Sincerely,

Edie Gillis
Transportation Choices Coalition

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JUN 11 2003
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CONTRACT#_____
DC CODE#_____

Printed on Recycled Paper

To: Sound Transit Board
From: I-90 *Safety* Coalition
Date: June 3, 2003
Re: I-90 Two-Way Transit and HOV Operations project

Dear Councilmember Kevin Phelps,

The I-90 *Safety* Coalition, which includes Bicycle Alliance of Washington, Cascade Bicycle Club, Feet First, Livable Communities Coalition, the Metropolitan Democratic Club, People for Modern Transit, Seattle Community Council Federation, Sierra Club Cascade Chapter, Transportation Choices Coalition and 1000 Friends of Washington, strongly encourages improving transit and HOV capacity and reliability on the I-90 Bridge between Bellevue and Seattle. **We support the best alternative that promotes safer, faster and more reliable transit service and keeps the promises made to the Washington voters: R-2B.** Attached is a summary of our comments on the Draft Environmental Impact Statement (DEIS.) O-230

R-2B is the best alternative because:

- It results in 20-100 fewer injury accidents (and therefore less accident related congestion) O-231
- R-2B keeps the promises made to voters of the "I-90 two-way center roadway" made in Sound Move (1996) and the agreement for transit in the center roadway (1976). O-232
- It protects the center lanes for future light rail. O-233
- It maintains standard lane and shoulder widths providing space for broken down vehicles to safely remain out of traffic's way. O-234
- It maintains the 10-ft wide bike and pedestrian path, and preserves the 10 foot shoulder width next to this path, which is safer for motorists, cyclists, pedestrians and freight. O-235
- It is safer, cheaper, more effective than other alternatives, and can be implemented in half the time of R-8A at 1/3 the cost of R-8A. The millions of dollars this alternative would save can be used to increase bus & vanpool service and park and ride capacity, especially on Mercer Island. O-236
- It offers better transit speed and reliability on I-90, which gives commuters a real transit alternative to driving and encourages people to carpool, use park-and-rides, and take the bus. O-237
- By moving more people in high occupancy vehicles and via transit, R-2B will reduce vehicle exhaust emissions and help improve our air quality. O-238
- Its configuration moves more people across the bridge in fewer cars. O-239

In contrast, the other leading option, R-8A, would put the future high-capacity transit in this corridor at risk, by transit out of the lanes and allowing solo-drivers to remain. Also, R-8A would narrow traffic lanes, reduce shoulders to 2 feet, place cars only 2 feet from the bicycle lane, and result in more accidents. Broken-down vehicles would not have a shoulder to pull-off onto and hazardous cargo would have to be re-routed, taking circuitous routes, exposing more people to risk. R-8A would cause immense delays over the course of two years of construction, is almost four times the cost of R2B. O-240 O-241 O-242

We urge you to support R2B. R2B is a good start to improving multi-modal transportation in the Puget Sound Region and it will send a strong message to the public that local leaders are committed to affordable, effective and safe transportation solutions in King County and the Puget Sound Region. O-243

Sincerely,

O-230 Transportation Choices Coalition

Your preference is noted. See also Common Response CR-11: Why is Alternative R-8A the Preferred Alternative?

O-231

See Common Response CR-8: Safety.

O-232

See Common Response CR-1: Memorandum Agreement.

O-233

See Common Response CR-2: High Capacity Transit (HCT).

O-234

See Common Response CR-8: Safety.

O-235

See Common Response CR-3: Shared-use Pathway.

O-236

See Common Response CR-8: Safety.

O-237

See Common Response CR-7: Transit Volumes and Reliability.

O-238

The air quality analysis showed similar results for each build alternative. Air quality would be expected to improve with an increase in HOV and transit usage and a decrease in single occupancy vehicle traffic. Similarly, air quality benefits from improvements in travel speeds for all vehicles. Alternative R-2B with an HOV 3+ eligibility rule showed slightly better air quality for carbon monoxide at intersections.

It is important to note that the air quality analysis calculated ambient CO concentrations for comparison to the National Ambient Air Quality Standards (NAAQS). The analysis was not intended to determine which

Barbara Culp, Executive Director, Bicycle Alliance of Washington

Chuck Ayers, Executive Director, Cascade Bicycle Club

David Levinger, President, Feet First

Jesseca Brand, Coalition Director, Livable Communities Coalition

David Rudo, The Metropolitan Democratic Club

Richard Borkowski, President, People for Modern Transit

Chris Leman, Seattle Community Council Federation

Tim Hesterburg, Sierra Club

Peter Hurley, Executive Director, Transportation Choices Coalition

Aaron Ostrom, Executive Director, 1000 Friends of Washington

alternative will emit the most or least pollutants, but rather to estimate air quality impacts in an effort to ensure human health would not be compromised.

O-239

See Common Response CR-7: Transit Volumes and Reliability.

O-240

See Common Response CR-2: High Capacity Transit (HCT).

O-241

With the crash reduction measures that are incorporated into Alternative R-8A, the number and rate of both overall and injury crashes would be similar to those that would occur with the No Build Alternative (R-1). See Common Responses CR-8: Safety and CR-5: Flammable Cargo Routing Issues with Preferred Alternative R-8A.

O-242

Construction staging plans will be developed to minimize delays to traffic during construction. This will be accomplished by keeping all existing outer roadway lanes open during peak periods, limiting distractions due to construction work by providing screening or requiring work to be done outside of the peak period, utilization of the center roadway to facilitate traffic flow through work zones, and early implementation of enhanced incident management services.

O-243

Your preference is noted.

(Summary comments on the following page were already responded to with Responses O-34 through O-48.)

Summary Comments on the I-90 Two-Way Transit Project DEIS

The Draft EIS on I-90 is a flawed, incomplete, biased document with too many unanswered questions to be used to choose a preferred alternative. Many key issues and questions raised during the scoping process are still unaddressed or insufficiently answered and there are inconsistencies and flaws in the analysis.

Flaws:

Missing mitigation for displaced Mercer Island single-occupant vehicles

The DEIS does not include mitigation to deal with projected increase in congestion in outer roadways for R2B when Mercer Island single-occupant vehicle traffic is displaced from center lanes. This question was asked over two years ago, and no work has been done to resolve this. At the very least, transit service on Mercer Island could be increased, and park & ride lots could be expanded to accommodate the drivers displaced from the center roadway, reducing congestion forecasts for R2B.

Mitigation to reduce accidents with R8A unreliable and incomplete

There is no detailed breakdown of the effect of the different mitigation measures proposed, and measures like reduced speed limits and banning vehicles from certain lanes are not enforceable. "Incident response service" would be costly and not in use all the time, so accidents and disabled vehicles will still block lanes, just like they do on SR520.

Increased accidents and disabled vehicles will block traffic and increase congestion

Traffic flow models still do not take into account how the increased number of accidents, lack of shoulder, and disabled vehicles blocking would cause increased congestion with R8A. The delay times and travel times still do not reflect the impact of increased accidents--yet this point was raised over 2 years ago. Given the increased number of injury accidents (at least one more per week) and the fact that disabled vehicles will block travel lanes, the projected delay and travel times listed for R8A should be higher.

Cost of increased accidents

R8A would still have a significant increase in accidents and injury accidents compared to all other alternatives, even with proposed mitigation. How much money would have to be set aside to settle lawsuits from those injured in these additional crashes (at least one more injury accident per week) when they sue Sound Transit and WSDOT for implementing a flawed, defective design?

HOV usage changes inconsistent

Why is there no increase in HOV usage over design period? In fact, alternative R2B is shown to have a DECREASE in HOV usage--how could this be possible? If you believe the forecast increase in congestion in the outer roadway, that should lead more people to carpool, not fewer.

R8A increases volumes, but associated congestion and pollution missing

How is it that R-8A shows higher total traffic volumes than the other alternatives (15800 vehicles per hour for R8A compared to 15000 for R-1 and R-2B) yet no corresponding increase in air pollution or congestion is mentioned? Those additional cars and emissions have to go somewhere!

Reducing quality of bike-ped path will force more people into cars

The DEIS acknowledges that reducing outer roadway shoulder from the standard 10 feet to only 2 feet on R8A would discourage bicyclists from using adjacent path, but there is no mention of what those bicyclists would do. Many of those riders may choose to drive instead, but the forecasts do not include those additional drivers.

Inadequate Mitigation for negative impacts on bicycle-pedestrian path:

The bicycle-pedestrian path on the Homer M. Hadley Bridge is a substandard 10 feet; the East Channel path is even narrower, at 8 feet. According to federal guidelines both paths should be widened to 12 feet. Proposals to remove or narrow the adjacent shoulder make this even more important.

Proposed mitigation for closing bike/ped path during construction is totally inadequate. The primary mitigation (TRAN-27) mentioned is for bikes/peds to use existing transit and/or shuttles--but that would not even accommodate current bicycle use (34 buses in 3 hours can carry 68 bikes--but minimum counts show 300-600 bicyclists in that same time period). This subject was discussed months ago at length, and in detail, with Sound Transit staffers, yet it appears the concerns raised were ignored. Bicyclists must have a rideable detour on the bridge deck that is available 24/7.

Unanswered questions:

There is no discussion of the (im)permanence of HOV status and the impact that would have on different alternatives. How do we know that lanes designated as HOV would not be opened to general-purpose traffic, further increasing volumes, congestion, and air pollution?

No substantiation for claims that R8A would be better for future high capacity transit than R2B. In fact, light rail could be added to the center roadway right now without adversely affecting the bike-ped path or narrowing any lanes or shoulders. There should be more detailed discussion of future conversion to light rail with the different alternatives.

Rerouting Flammable and Hazardous cargo onto SR520 or I405 doubles the mileage those trucks must travel to cross Lake Washington, yet they claim no increased risk. How can this be?

Bias:

The DEIS is biased against R2B and for R8A:

Many R2B issues could be addressed by mitigation, but very little is mentioned or discussed. At the very least, the following mitigations should be evaluated and included in the EIS:

- Increase transit service on Mercer Island to accommodate drivers displaced from the center roadway.
- Increase park & ride spaces on Mercer Island (what happened to the P&R project that was originally paired with this project?)
- Evaluate "incident response service" for center roadway (as was proposed to mitigate for R8A)

Data emphasizes general purpose traffic over transit:

Most of the data on the different alternatives emphasize the impact on the general-purpose travel times--yet this project is supposed to use transit money to supposedly improve transit times. If you believe the numbers in the DEIS, transit speeds would be the same under both R2B and R8A, but R8A would increase capacity for SOV and improve travel times for SOV. We should not be spending transit dollars on general-purpose traffic.

Sound Transit and local governments need to keep their promises:

The 1976 Memorandum of Agreement clearly spells out that there are to be no more than 8 lanes on the I-90 bridge(s), and that the center roadway is to be converted to two-way transit and HOV, yet R8A violates the agreement. Why are government agencies continuing to promote an alternative (R8A) that goes against the legally-binding agreement, would injure more people, increase traffic volumes, and cost more than 3 times as much, when R2B is safer, cheaper, and faster to implement?

WTA

WASHINGTON TRUCKING ASSOCIATIONS

EXECUTIVE VICE PRESIDENT
Larry Pursley

OFFICERS:
PRESIDENT
Ed Vander Pol
FIRST VICE PRESIDENT
Scott Greek
SECOND VICE PRESIDENT
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Craig Istra

June 4, 2003

Steering Committee
I-90 Two-Way Transit and HOV Operations Project
Sound Transit
401 S. Jackson St.
Seattle, WA 98104

Dear Committee Members:

The Washington Trucking Associations (WTA) is opposed to any modifications of I-90 under the proposed Transit and HOV Operations Project alternatives which would restrict trucks carrying flammable and hazardous materials from the I-90 tunnel.

O-244

By your estimates, forcing these trucks to detour around the I-90 bridge either south to I-405 or north to SR 520 will add well over one thousand total increased daily miles traveled to these truck trips. In addition to the significant increased operational cost of each trip, the increased miles also add unnecessary exposure to the risks of traveling in heavy traffic.

I urge the steering committee to support only modifications to I-90 which will continue to permit the use of the I-90 tunnel by all trucks, and which will contribute to an improved level of safety for all motorists crossing the I-90 bridges.

O-245

Please contact me or Jay Lawley at the WTA office at any time should you have any questions.

Sincerely,

Larry Pursley

Larry Pursley
Executive Vice President

cc: Chief Ron Serpas, WSP
Ms. Grace Crunican, SDOT
Mr. John Moffat, WTSC

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O-244 Washington Trucking Associations

See Common Response CR-5: Flammable Cargo Routing Issues with Preferred Alternative R-8A.

O-245

Your preference is noted.