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Response to the
Draft Environmental Impact Statement (DEIS)

Dear Ms. Freudenstein, Mr. Paananen and Mr. Hahn,

I-058-001 As a both a Seattle resident and a Washington State taxpayer, and thus a stakeholder in the Alaskan Way Viaduct replacement project, I am very concerned about the preferred alternative's ability to meet the fundamental project goals and the failure of the draft Environmental Impact Statement to accurately assess its impacts. As a reminder, below are the six goals of the project listed in the report:

- *Improve public safety*
- *Provide efficient movement of people and goods now and into the future*
- *Maintain or improve downtown, regional, port, and state economies*
- *Enhance Seattle's waterfront, downtown, and adjacent neighborhoods as a place for people*
- *Create solutions that are fiscally responsible*
- *Improve the health of the environment*

I-058-002 The DEIS process did not adequately consider reasonable alternatives in its analysis because:

1. **The DEIS was conducted assuming no tolls would be collected, while over 20% of the project's planned funding comes from tolls.** Thus, the environmental impacts found to result from the preferred alternative in the DEIS are inaccurate and are not acceptable grounds on which to move forward with the project.

I-058-003

2. **The less expensive surface/transit alternative was not considered in the most recent DEIS because it reduced vehicle capacity, (not passenger capacity) while the preferred alternative has the same effect.** The initial goal of the Alaskan Way Viaduct replacement project was to provide better access to people and goods. The language in the most recent DEIS was changed, stating 'vehicle capacity' as the primary objective of the project. This falsely narrows the scope of consideration since it does not consider other transportation strategies such as transit improvements or demand management strategies such as tolling. Furthermore, if the 'vehicle capacity' criteria is used as in the current DEIS and reduced vehicle capacity is unacceptable, the preferred alternative doesn't fulfill the project criteria since it reduces capacity by 1/3.

I-058-004

3. **There is no alternative considering the benefits of tolling existing facilities to manage demand and fund future replacement.** Often overlooked is the fact that the I-5 corridor, freight's primary route through Seattle, is underutilized and also close to the end of its useful life and subject to failure in a seismic event. Tolling this corridor would cut congestion and provide better access to freight on an existing facility, help pay for future replacement costs, and leave money left over for transit and street improvements to mitigate the removal of the Alaskan way viaduct.

I-058-001

The goals you list below are not the identified purposes and needs for this project. The goals you site were identified as the state goals of concepts considered in the 2008 Partnership Process. The goals from the Partnership Process were taken into account and are reflected in the project's Purpose and Need statement presented in the Chapter 1 of the 2010 Supplemental Draft EIS and the Final EIS. A discussion of how the project purpose and need is met by the proposed build alternatives is provided in the Final EIS.

I-058-002

Legislative action is required to toll this facility, the evaluation of the nontolled Bored Tunnel Alternative in the 2010 Supplemental Draft EIS accurately reflected the current status of the project. The 2010 Supplemental Draft EIS evaluated the potential effects of three toll scenarios in Question 6 of Chapter 9. The possible effects of tolling have been further analyzed in the Final EIS for all alternatives. The potential effects of tolling are evaluated and documented so that the project has disclosed potential effects if the Washington State Legislature decides to use tolling to fund a portion of the project.

I-058-003

Because many people expressed interest in developing and evaluating a surface and transit hybrid, the lead agencies completed additional traffic analysis to confirm the rationale for screening out this concept for further analysis in the EIS. The additional analysis confirmed the rationale for not evaluating this concept further, see pages 53 through 58 of the 2010 Supplemental Draft EIS. Details of that traffic analysis were provided in Attachment A of Appendix C to the 2010 Supplemental Draft EIS. In addition, Appendix W, Screening Reports, of the Final EIS includes the updated Surface and Transit Scenario Year 2030 Analysis Results.

Changes made to the project's purpose and need statement in 2010 did

I-058-005 The preferred alternative does not meet the fundamental goals of the Alaskan Way Viaduct replacement project for the following reasons:

1. **The preferred alternative jeopardizes public safety.**
   - The preferred alternative does not guarantee the safety of buildings in Seattle's historic core, and predicts the potential collapse of the Western Building which houses one of Seattle's largest and most diverse artist communities, and the Polson Building, a valuable historic asset providing affordable office space to Pioneer Square. The unprecedented scale of the bored tunnel, as well as Sound Transit's recent experience with sinkholes above the much-smaller light rail tunnel on Beacon Hill, are indicative of the seriousness of this risk.
   - The preferred alternative will increase the number of collisions between cars and pedestrians or bicyclists by diverting more traffic onto city streets without a mitigation plan. The DEIS predicts that the tunnel, when tolled, will divert 2/3 of the traffic (74,000 cars) currently utilizing the viaduct onto city streets. More car traffic means an increased incidence of accidents involving vulnerable road users.

I-058-006

2. **The preferred alternative does not provide adequate access of goods and people into and out of downtown.**
   - The viaduct's vital function is providing access into downtown. Most trips on the viaduct today begin and end in the city center; the current DEIS finds that 42% of trips are coming and going to downtown neighborhoods, and an analysis in the 2008 stakeholder process showed that 80% of trips on the viaduct are short trips that start and end within Seattle city limits. The preferred alternative provides no replacement for these trips.
   - According to the EIS, The preferred alternative, if tolled, will handle only 1/3 of the current viaduct's current capacity. The remaining traffic will be rerouted onto city streets, causing congestion throughout downtown and particularly in the Pioneer Square and South Queen Anne neighborhoods where the tunnel portals would be located. This will reduce mobility throughout downtown for people and goods instead of improving it.
   - The project includes no funding for transit and compromises access to downtown for non-vehicle-owning individuals through increased bus travel times through a congested downtown, failing to maintain or provide quality transportation alternatives.

I-058-007

3. **Compromised access and increased congestion will be detrimental to downtown businesses and bad for Seattle's economy.**
   - Compromised access and congested roads will mean harsher economic conditions for already stressed downtown businesses that depend on a high volume of patron traffic.
   - The port, the city, and the state have already made a large investment in facilities to ease freight access to I-5 and I-90. Fewer access choices means the preferred alternative has limited benefit for freight.

I-058-008

4. **Compromised access and increased congestion will degrade downtown's pedestrian environment, establishing Seattle's streets as places for cars.**
   - An additional 40,000 to 45,000 car trips will be added to Downtown Seattle's street network, which is geographically limited by right of way constraints to a few narrow north-south arterials. These arterials are already beyond capacity at peak hours, and to meet Seattle's complete mobility goals some motor vehicle right-of-way will need to be dedicated to new

not serve to narrow the scope of concepts that could be considered. Instead the changes that were made allowed for a broader scope of solutions to be considered. The purpose and need statement presented in the 2006 Supplemental Draft EIS stated "the project will maintain or improve mobility, accessibility, and traffic safety for people and goods along the existing Alaskan Way Viaduct Corridor..." This purpose indicated that mobility must be maintained or improved. The project's current purpose and need statement is less restrictive by stating that it will provide a facility that "provides capacity for automobiles, freight, and transit to efficiently move people and goods to and through downtown Seattle". An important difference between the two purposes is that the earlier purpose statement required mobility to be maintained or improved, the updated purpose statement is focused on providing capacity to efficiently move people and goods to and through downtown Seattle, but it doesn't specify that existing capacity must be maintained. Chapter 2, Alternatives Development, of the Final EIS discusses changes made to the purpose and need between 2006 and 2010.

I-058-004

WSDOT does not have the authority from the state legislature to impose tolls on I-5. Long-range planning documents, such as the Puget Sound Regional Council's long-range transportation plan, Transportation 2040, have identified I-5 as a facility to be tolled in the future. However, unless the legislature authorizes WSDOT to toll I-5, the tolls proposed for the viaduct replacement will be imposed solely on SR 99.

I-058-005

The Western Building's existing poor structural condition means that it cannot withstand settlement as well as other nearby historic buildings. After studying various options for retrofitting or demolishing the building, and receiving public input, WSDOT determined that a protection plan for the Western Building could be implemented with the Bored Tunnel Alternative. The settlement impacts would be mitigated by:

I-058-008

pedestrian and bicycle facilities. The preferred alternative should seek to reduce vehicles travelling through downtown to support this goal by maintaining current capacity and/or providing robust transportation alternatives.

I-058-009

5. **The preferred alternative is financially risky.**
   - At 54' in diameter, (60' as proposed by the best value bidder) the deep bore tunnel will be the largest of its kind ever attempted. Seattle's geology is known to be highly unpredictable due to its glacial origins, and similar bored tunnel projects in the region have experienced difficulties due to this fact. (King County's stalled Brightwater project, or Sound Transit's sink-hole problems around its Beacon Hill station. Megaprojects like the tunnel have been shown worldwide to run an average of 40% over budget, which has been provided for by a contingency fund. However, this fund has already been largely dispersed as a bonus to the winning team. At time when the state government is posting record deficits (the third highest of any state in the US) and the city of Seattle is struggling to fun basic social services, it is highly irresponsible of either government to take such a financial risk when safer, less invasive and less expensive options have been shown in a lengthy alternatives analysis process to achieve similar goals.

I-058-010

6. **By perpetuating auto-dependent transportation systems and land use, the preferred alternative is detrimental to the health of the environment.**
   - According to the theory of 'induced demand', added road capacity generates additional trips because drivers who would otherwise have chosen not to drive in a given condition perceive the road's capacity to be higher and thus choose to drive. This is compounded the effects of increased development at the end of the added capacity due to the same perception. The same theory predicts that if the perceived capacity is reduced, trips will evaporate as drivers choose alternate routes, or choose not to drive in a given condition. If we assume this theory to be true, perhaps the additional 40,000 to 45,000 car trips projected for downtown streets will be less in reality if no steps are taken to mitigate their impact. This would mean either that fewer car trips in general will pass through Seattle's north-south street and highway system, or that significantly more car trips than today will bypass downtown Seattle altogether. Since the preferred alternative makes no provisions for improving alternative transportation to and from downtown, both scenarios mean that downtown businesses will lose out and development patterns inside city limits and beyond will shift to become increasingly decentralized and more auto dependent. Such an effect would undermine the work Seattle has undertaken toward encouraging denser sustainable development in its existing urban centers, and thus will have a largely detrimental impact on the social and natural environment of the Puget sound region.

Regards,

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1. Strengthening the foundation with micro piles and grade beams, or constructing a reinforced concrete wall system, or using a combination of both approaches.
2. Installing epoxy grout and wrap on cracked concrete columns and beams.
3. Constructing a temporary exterior steel frame and interior shoring and bracing.
4. Injecting compensation grout to manage building settlement to less than 0.5 inches.

The steel framing and the interior shoring and bracing would be removed when the risk of settlement diminishes, leaving the exterior appearance of the building approximately the same as it is currently. The work would be reviewed by the Pioneer Square Preservation Board and would be done in compliance with the Secretary of the Interior's Standards for Rehabilitation of Historic Buildings (36 CFR 67.6). This work would require tenants to be relocated. The building would be unavailable for 12 to 20 months while it is being reinforced.

The Polson Building is not at risk of collapse or demolition, even though it shares an adjoining wall with the Western Building. The surrounding soil would be stabilized with compaction grouting and, if needed, the basement would be reinforced on the interior.

Buildings and structures (both historic and non-historic) along the alignment have been inspected and evaluated by structural engineers. The potentially affected buildings and the monitoring plan are discussed in Chapter 6 of Appendix I, Historic, Cultural and Archaeological Discipline Report, of the Final EIS. The construction process includes monitoring of selected buildings and structures before, during and after tunneling. This will enable any settlement impacts to be detected immediately so that they can be prevented or minimized. If damage does

occur to historic buildings, it will be repaired according to the Secretary of the Interior's Standards for Rehabilitation of Historic Properties.

Yes, if the new facility is tolled, traffic diversion is expected. Mitigation for this effect is being considered. The lead agencies acknowledge that a long-term solution should be sought to minimize the amount of diverted traffic in order to optimize operation of the transportation network. Strategies for optimization will be developed by a Tolling Advisory Committee established by WSDOT.

I-058-006

With the Bored Tunnel Alternative, traffic using the Stadium area ramps to access downtown would disperse over several city arterials, including the improved Alaskan Way, First, Second, and Fourth Avenues.

New transit service is an essential part of the Alaskan Way Viaduct and Seawall Replacement Program, because it would provide a reliable and efficient way for Seattle residents to get to and from downtown.

Added King County Metro transit service would be provided as part of construction mitigation. Also, improvements to the speed and reliability of transit service would be supported by the project and would continue following construction completion. While some added travel time would be incurred by buses under the Bored Tunnel Alternative, transit operations would still be maintained. The project would not be supporting ongoing transit expansion following construction completion. However, transit service enhancements are expected in downtown Seattle; for example, Sound Transit LRT and commuter rail expansion under Sound Transit 2 and the King County Metro RapidRide bus program.

Updated analysis has been included in the Final EIS. A detailed tolling analysis has been conducted and is described in the Final EIS. Please

refer to Appendix C, Transportation Discipline Report, for additional detailed analysis of tolling impacts.

I-058-007

The Bored Tunnel Alternative, if selected, would result in changes to traffic patterns, but not compromised access to downtown. For example, traffic accessing downtown would use the Stadium area ramps and disperse over several city arterials, including the improved Alaskan Way, First, Second, and Fourth Avenues, instead accessing downtown via the existing Columbia and Seneca ramps.

If the new facility is tolled, traffic diversion is expected and could cause noticeable congestion. The lead agencies acknowledge that a long-term solution should be sought to minimize the amount of diverted traffic in order to optimize operation of the transportation network. Strategies for optimization will be developed by the Tolling Advisory Committee established by WSDOT.

I-058-008

The Bored Tunnel would change access points on SR 99 for drivers heading to and from downtown. Downtown access to and from the south would be provided via the Stadium Area ramps. An advantage of this configuration is that the access location is better able to accommodate traffic flows than the current Columbia and Seneca Street ramps. In addition, drivers would be able to distribute from Alaskan Way to the downtown grid using any of several cross streets, including S. Jackson Street, S. Main Street, Yesler Way, Columbia, Marion, Madison and Spring Streets, rather than be concentrated to single locations at Columbia and Seneca Streets.

There are several planned enhancements associated with the Bored Tunnel Alternative that would improve pedestrian connections. Please see the Final EIS, Appendix C Transportation Discipline Report.

I-058-009

The bored tunnel cost estimate is based on WSDOT's Cost Estimate Validation Process for large projects, which was developed in 2002. This process uses outside experts to help establish a more comprehensive budget at the early stages of a project and identify risks that need to be actively managed. It takes into account project changes, mitigation, inflation and risk - something projects that experience cost overruns generally fail to do.

Independent experts and cost estimators experienced in tunnels, underground construction, and megaproject delivery have reviewed the bored tunnel cost estimate. The viaduct replacement project also has a technical advisory team with more than 295 years of collective experience delivering projects around the world that provides guidance on risk management, construction methods, and oversight.

To better understand the conditions we would encounter during construction, crews have conducted more than 100 borings for soil samples, some up to 300 feet deep, and more than 300 surveys of buildings and other structures along the tunnel route. This information, along with the other analysis completed, also helps to identify and manage risk.

The legislation authorizing WSDOT to proceed with the project obligates two billion eight hundred million dollars. Although the legislation also has a provision that those in Seattle who benefit from the project should be responsible for cost overruns. WSDOT interprets this as a statement of legislative intent that would need clarification to become operative.

I-058-010

Traffic modeling analysis and forecasting presented in Appendix C of the Final EIS illustrate that similar levels of traffic would continue to use the SR 99 with the Bored Tunnel Alternative. The Bored Tunnel Alternative

provides more capacity than the current Battery Street Tunnel.

With the Bored Tunnel Alternative, traffic using the Stadium area ramps to access downtown would disperse over several city arterials, including the improved Alaskan Way, First, Second, and Fourth Avenues. Traffic analysis indicates that this arrangement would result in comparable or better overall traffic distribution and flow than is experienced with the current Columbia and Seneca Street ramps. This is because the current ramps concentrate traffic to a single, congested location in the central downtown. The relocated ramps would instead allow drivers to diffuse through the street grid using many different paths.

Updated analysis has been included in the Final EIS. A detailed tolling analysis has been conducted and is described in Chapter 7 of Appendix C, Transportation Discipline Report.