PWC
PEOPLE'S WATERFRONT COALITION
CITIZENS FOR A HIGHWAY-FREE SHORE

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November 22, 2010

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

This letter is to provide comments on draft environmental impact statement for the Alaskan Way Viaduct Replacement Project. The People's Waterfront Coalition is very interested in a sustainable, forward-looking transportation solution that protects the opportunity for Seattle's new waterfront. We have been active participants in this discussion for 6 years, including serving on the 2008 Viaduct Replacement Stakeholder Advisory Committee.

Concerns have been grouped into eleven categories. There are specific requests for action in each category, and a summary of more comprehensive requests for action at the end.

C-001-001

1. Access into downtown is a vital function of the Alaskan Way Viaduct. Solutions must provide good access. The preferred alternative does not.
A primary use of the current viaduct is to access downtown; 42% of trips are coming and going to downtown neighborhoods. Downtown Seattle is a center for jobs and commerce, perhaps the core economic engine for Washington State. 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. This EIS should identify local mobility and access to downtown as a goal, and evaluate alternatives based on their ability to provide this.

The usage of the viaduct has not been described accurately in this DEIS. The importance of the viaduct for local access for people and freight has been understated in the assumptions and criteria, and usage of the viaduct as a through-route has been exaggerated. Consequently the analysis doesn't give decision-makers an accurate portrayal of the challenge.

The DEIS says in Ch 1pg 4 that the viaduct carries 20-25% of traffic traveling through downtown. What is the source for this claim? 90,000 - 110,000 trips a day travel on the viaduct currently, depending on exact location. When compared to a total of 1,670,000 trips to and through Seattle, the viaduct carries less than 7% of traffic. The exaggeration of importance for bypass trips in this DEIS, and the disregard for local access and mobility, misrepresents the basic challenge and creates an inaccurate analysis.

Action: Mobility and access into downtown Seattle should be included as an integral goal and evaluation measure. **Additional transit service at significantly higher levels should be included** as part of the bored tunnel alternative in this DEIS.

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C-001-001

The Final EIS Chapter 1, Introduction, describes the Purpose and Need for the project and one of several purposes is to provide capacity for automobiles, freight, and transit to efficiently move people and goods to and through downtown Seattle. The Final EIS contains a discussion explaining how the preferred alternative meets the project's purpose and need. The Bored Tunnel Alternative does provide access both through and to and from downtown. Access to downtown from SR 99 and from downtown to SR 99 are provided near S. King Street in the south and near Harrison Street in the north. Appendix C, Transportation Discipline Report, addresses the importance of the viaduct as a transportation corridor. It also covers issues related to capacity, local access, mobility, and transit service and other modes for each build alternative. Please refer to the Final EIS for current information.

The source for the description that SR 99 carries 20 to 25 percent of traffic traveling through downtown is Exhibit 4-10 on page 67 of Appendix C for the 2010 Supplemental Draft EIS. This exhibit has been updated for the Final EIS and can be found in Appendix C for the Final EIS. Exhibit 4-10 indicates that SR 99 carries 91,400 vehicles north of Seneca Street. Total vehicle traffic for Alaskan Way, I-5, city streets west of I-5 at this point total 445,100 vehicles per day at this same screenline north of Seneca. When you divide 91,400 by 445,100 the result indicates that SR 99 carries 20.5 percent of traffic through downtown Seattle. The range provided in the EIS (20 to 25 percent) is a general range that has changed based on various traffic analyses conducted since the project began in 2002. For the Final EIS a single percentage is reported.

C-001-002

2. Traffic impacts to local streets caused by the preferred alternative are unacceptable. Especially for the Pioneer Square Historic District.
Currently, the viaduct offers seven on and off ramps to provide access to downtown Seattle neighborhoods, spread from the stadium area to Belltown. (Ch 4 pg 74) The tunnel alternative reduces this to one highway interchange, located adjacent to the Pioneer Square Historic District. This configuration concentrates all the traffic going between SR-99 and downtown Seattle on only a few streets.

Without tolling, this DEIS states that 50,000 cars a day are expected to use the southern interchange ramps (Ch 5 pg 104). It says that 29,000 of current SR-99 users will shift to City streets (Ch 2 pg 19).

If tolling is implemented (Ch 9), as required by the funding plan for the tunnel alternative, **an *additional* 40,000 to 45,000 cars are expected to divert to city streets.**

The Pioneer Square Historic District is already inundated with car traffic during events at Safeco Field, the Stadium Exhibition Center, and Qwest Field for over one hundred days a year, with a significant number of these happening during the week at rush hour. How will this additional traffic, somewhere between 50,000 and 80,000 trips a day (with tolling), generated by the southern interchange be accommodated on event days?

C-001-003

After analyzing the traffic impacts on surface streets that would result from tolling, the conclusion is that "These effects would not be acceptable as part of a long term tolling solution." (Ch 9, pg 214) No alternative is suggested other than to say another alternative is needed.

After analyzing tolling impacts on transit riders (Ch 9, pg 215) the conclusion again is that "These effects would not be acceptable as part of a long term tolling solution."

C-001-004

The existing street grid in this area is not well connected, and there are not many viable routes for drivers. Some of the streets are narrow, historic, physically fragile, and pedestrian oriented, and not suitable for use as access roads to highway interchange.

Predictions for the waterfront Alaskan Way are also alarming. The SDEIS traffic projections reveal that 35,000 cars a day will use the new Alaskan Way in this area. While it is possible to design a quality street that carries this volume, attracting this volume of new traffic to the new waterfront runs counter to Seattle's vision for this site.

C-001-005

Action: This DEIS must describe in more detail the traffic volumes that are expected on specific streets around the southern interchange for the preferred alternative. How many cars and trucks will use Alaskan Way, First Ave, Second Ave, Fourth Ave? How many more cars would be added to each of the streets if tolling is implemented and 40,000 to 45,000 vehicles from SR-99 choose to avoid the toll?

The DEIS must describe what street revisions WSDOT will implement to make room for all these vehicles, and what are the impacts of these so-called street improvements.

C-001-006

Does WSDOT plan to remove on-street parking, or any of the mature and cherished London Plane trees in the Historic District? Will these changes affect the access to and viability of retail? How will the planned revisions affect the pedestrian character of the streets, and their viability for biking and walking? Are these historic streets, built on fill and supported by 100 year old areaways and retaining walls, physically capable of carrying these increased traffic volumes? Pioneer Square is hoping to reconnect to the new waterfront park, and re-establish its presence as a waterfront neighborhood; how will the proposed widening and increased traffic volumes on the new Alaskan Way affect these hopes?

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C-001-002

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.

Because traffic in the Pioneer Square Historic District is controlled by signals, it is not anticipated that the increased volume will affect the pedestrian character nor will it make it more difficult to walk to shops or restaurants. Pioneer Square has historically been an active place with a high volume of traffic. For event traffic, improved access to and from SR 99 near the south portal would result in reduced congestion before and after events. Appendix C, Transportation Discipline Report, addresses traffic impacts on the Pioneer Square neighborhood, including event traffic. Please refer to the Final EIS for current information.

The removal of the viaduct will facilitate re-establishing the connection between Pioneer Square and the waterfront. This connection and the widening of Alaska Way will be part of the City's Central Waterfront Project, which will undergo its own environmental review.

C-001-003

The analyses regarding how tolls might be implemented as part of the proposed action were preliminary for the 2010 Supplemental Draft EIS but have been updated for the Final EIS. They will be further refined

C-001-007

What solutions are being considered to avoid burdening Historic District streets and the waterfront with an influx of traffic generated by the interchange? What solutions are offered to reduce congestion for local delivery trucks? For instance, additional transit service to and from downtown, or routing SR-99 bound traffic away from the Historic District, investing in improvements to I-5 to shift through-trips there, relocating the interchange further away from Pioneer Square, and demand management should be analyzed for their usefulness in protecting Pioneer Square from this influx of car traffic.

C-001-008

Note: Concerns about the heavy concentration of traffic on Pioneer Square streets caused by the tunnel's interchange have been raised repeatedly by neighborhood stewards for over a year. Is a viable solution even possible? Either there is a plan for reengineering streets to accommodate these much higher volumes, which should be described in this DEIS, or it is impossible to solve this problem without ruining Pioneer Square streets. Withholding this information from decision-makers obscures what might be the most egregious impacts of the tunnel alternative.

C-001-009

3. **The significant traffic impacts of tolling are ignored**. When tolling is included in the traffic modeling, the preferred alternative loses so many users that it effectively doesn't meet the statement of purpose and need.

The DEIS states (Ch 9 Pg 205) "As currently defined, the Bored Tunnel Alternative does not include tolls." The analysis in the entire document (except for Ch 9), including travel times, traffic volumes, greenhouse gas emissions, and stormwater runoff all assume that there will be no tolling on the project. However, tolling revenue is a necessary part of the basic funding plan, and use of tolling will dramatically affects tunnel usage and impacts.

The non-tolled tunnel sends 29,000 of the viaducts cars and trucks to city streets. The tolled tunnel sends an additional 40,000 to 45,000 vehicles to city streets. **This causes 74,000 new trips outside the tunnel, and 41,000 inside the tunnel. The preferred alternative, at $3.1 billion cost, only serves about 1/3 of the transportation challenge, and offers no solutions for 2/3 of travelers.**

As this preferred alternative is described, the negative impacts to local mobility for people and freight are egregious. When the diversion effects of tolling are included, these negative impacts are intolerable.

Action: Tolling must be included in the modeling and analysis throughout this DEIS to clarify the impacts. Without it, this DEIS creates an inaccurate depiction of the very utility of the tunnel, as well as traffic and environmental impacts of toll diversion. A mitigation plan must be developed to show how WSDOT will prevent, resolve, or mitigate the unacceptable detriments to the functioning of Seattle's local transportation system.

C-001-010

4. **The preferred alternative causes alarming physical risks to Historic Resources – Pioneer Square Historic District and buildings. The viaduct replacement project must guarantee protection from harm.**

Boring a tunnel next to Seattle's historic neighborhood, with its historic buildings, fragile and brittle infrastructure, high water table, and unstable soils, is a steep engineering challenge. This DEIS describes the risks of digging and boring in this location (Ch 5 pg 126), possible damage to 12 historic structures (Ch 2 pg 31), and possible collapse or dramatic damage to two buildings (Ch 6 pg 142) because of difficulty controlling soil loss or preventing over-excavations or sinkholes.

The DEIS says this of the Western and Polson buildings, both 'contributing' buildings in the Pioneer Square Historic District: "Mitigation measures to protect the buildings may not prevent the need for demolition to avoid the possibility of collapse."

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during final design through a joint planning effort (described below) should the state legislature authorize tolls on the SR 99 Bored Tunnel. The analysis in the Final EIS represents a conservative estimate of the impacts of tolling the SR 99 Bored Tunnel. We anticipate that any effects due to applying tolls to the SR 99 Bored Tunnel will be notably less than those described in the Final EIS analysis.

Prior to a final decision about how the SR 99 Bored Tunnel would be tolled, the Washington State Department of Transportation will be working with the Seattle Department of Transportation and other agencies to refine and optimize how to toll the SR 99 tunnel while minimizing diversion of traffic to city streets and minimizing potential effects to transit, bicycle, and pedestrian travel. WSDOT, with cooperation from the City of Seattle, the Port of Seattle, and King County, will establish a Tolling Advisory Committee to provide strategies for minimizing diversion impacts. Chapter 8 of the Final EIS further discusses the role and objectives of the Tolling Advisory Committee.

As part of the Bored Tunnel project and related projects, WSDOT and partner agencies have or will implement several strategies that should reduce the effects of potential diversion. For example, both the south and north portal configurations include bus priority lanes to provide reliable travel times for SR 99 transit service into and out of downtown. The streets that transition between SR 99 and the downtown street grid are designed in a manner that meets the City's Complete Street goals and include treatments for pedestrians, bicycles, freight, and adjacent land uses.

In advance of construction, WSDOT funded Intelligent Transportation System (ITS) investments that provide improved signal operations and travel time information on SR 99 and city streets such as 15th Avenue NW that were likely to see increased volumes due to SR 99 construction activities. These investments will have lasting value. Supplemental

C-001-010 It says twelve buildings within the Pioneer Square Historic District or listed on the National Register of Historic Places – including the Historic Federal Building -- may be affected by settlement, structures could crack, and utilities may be disrupted or damaged. While the DEIS states measures will be implemented to avoid or minimize damage, it mentions that unavoidable damage might still occur with the preferred alternative.

> **Action: WSDOT must provide more information on how and when damage is likely to occur, and fully describe what they will do to prevent, repair, or mitigate damage.** What damage could soil settlement from tunnel boring cause, specifically? Is WSDOT planning to purchase and demolish any of these buildings? What is the likelihood of unavoidable damage to the fourteen buildings at risk? Will residents and users of those buildings be at risk of harm?

WSDOT will not know if there is an adverse effect to an at-risk building due to their boring activities until they start tunneling under it.

> **Action: To ensure protection of the at-risk buildings cited in the DEIS, WSDOT should do 3-D laser scans before, during and after construction.** This technology represents current best practice in historic preservation, and is being used widely. The before scan will show existing cracks and the tilt of the walls, etc. During-construction scans will monitor the cracks and tilts, and if any significant movement is detected, the project should halt and do something to stop the problem. A post-construction scan would show if any damage occurred so that WSDOT knows to repair. And exterior laser scan should also be done for all buildings along the proposed route.

C-001-011 Will Pioneer Square's unique but delicate areaways and historic underground be put at risk?

> Action: **WSDOT must provide more information on how and when damage is likely to occur, and fully describe what they will do to prevent, repair, or mitigate damage.** What buildings specifically need to have their supporting soil improved with jet grout? What impacts will that have on the use of underground floors? What sidewalks will be closed, what streets will be closed, what basements will be altered, what areaways will be temporarily or permanently affected by implementation of this preventative measure?

C-001-012 Some of the 'solutions' proposed to prevent structural damage actually exacerbate other problems.

Given that water table is quite close to the surface, there is risk that the solidification of soils -- due to tunnel walls, retained cuts at the portals, and the injection of jet grout under buildings -- might alter natural water flows, create a water barrier, and cause water to back up in the Pioneer Square Historic District. (Ch 5 pg 127.)

> Action: **WSDOT must provide more information on how and when damage is likely to occur with the preferred alternative, and fully describe what they will do to prevent damage or safety risk to building users.** What exactly is the risk of potentially submerging subsurface structures? What structures are vulnerable? Will decayed and fragile underground water and sewage infrastructure be at risk of failing if the ground becomes over-saturated due to altered water flows? What is the risk of basements flooding? Many of these basements are occupied, either by active retail or other business uses. Many are part of the historic underground, which is a popular visitor attraction, and occupied at times by hundreds of people. **What will WSDOT do to protect against flooding events and guarantee safety?**

C-001-013 Pioneer Square Historic District is listed in the National Register of Historic Places. Why is it not being protected via Section 4(f)?

> **Action:** This DEIS should provide Pioneer Square Historic District full protection under section 4(f). It should identify and evaluate alternatives that avoid the possible harms to the streetscape, the buildings, and the underground that together comprise the unique quality of this district.

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transit services and transportation demand management were also implemented with assistance from the City of Seattle and King County, and these strategies can form the blueprint for future strategies.

C-001-004

Analysis of traffic patterns for vehicles accessing ramps to and from SR 99 in the Stadium area show that vehicles will disperse on to a variety of streets in the area such as Royal Brougham, Alaskan Way, First Avenue, Fourth Avenue, etc. Please see the Final EIS Appendix C, Transportation Discipline Report for transportation analysis. Included within the discipline report are a variety of metrics that looked at roadway and intersection performance. These analyses were performed with analytical tools using data for a range of modes including pedestrians, trucks, transit ferries and automobiles. The ultimate design of Alaskan Way will be determined as part of the City of Seattle's Central Waterfront Project.

C-001-005

Screenline information is used to understand the total volume of traffic that would use the transportation system in the study area. Projected vehicle volumes on specific roadways is provided in the 2010 Supplemental Draft EIS and the Final EIS for SR 99, Alaskan Way, and I-5.

Please see Final EIS Appendix C, Transportation Discipline Report, for detailed analysis of non-tolled and tolled conditions for the Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure Alternatives. Mitigation for the project is described in Chapter 8 of the Final EIS.

C-001-006

There are no plans to remove any of London Plane trees. Decisions about parking will be made by SDOT, not WSDOT. SDOT has identified

C-001-014

5. **The Statement of Purpose and Need was recently rewritten with narrower language to exclude viable and cost effective alternatives, and favor the preferred alternative.**

The range of alternatives to be considered flows from the statement of purpose and need. However, in this current draft, the statement of purpose and need was rewritten into a much narrower definition. The **statement of purpose and need** (Ch 1 pg 4) should continue to use the long- established definition for this project, 'mobility for people and freight', not redefine the target as vehicle 'capacity.' The statement of purpose and need from the 2006 SDEIS should be kept: "The project will maintain or improve mobility, accessibility, and traffic safety for people and goods along the existing Alaskan Way Viaduct Corridor."

By using the term capacity instead of mobility, solutions that include **transit, demand management, or available capacity on other facilities are disqualified**. It is not legal under SEPA – or prudent -- to frame the statement so narrowly as to exclude reasonable alternatives.

When the bored tunnel was announced as the preferred alternative in January 2009, the package included $190 million worth of transit investments. Additional transit service was then, and is now, deemed necessary to provide access to and from downtown Seattle, since the bored tunnel alone does not provide any downtown ramps.

The benefits of transit are many. A robust transit system offers an affordable alternative to the high cost of car ownership for many citizens. For some families, this is a big deal: saving roughly $8000 annually by getting by without a second car can mean more education or better housing. Transit is a key part of a larger strategy to reduce green house gas emissions. It reduces congestion for other roadway users, especially freight trips, car-pools, and other travelers who need to drive. A recent survey by T4America shows that 59% of Americans believe we need to increase public transportation to reduce traffic congestion, and make it easier to walk and bike.

Action: WSDOT should change the operative phrase in the statement of purposed and need back to "mobility and access for people and freight."

C-001-015

6. All reasonable alternatives have not been included.
The alternatives analysis is the heart of the Environmental Impact Statement, and state law says all reasonable alternatives must be evaluated. A viable alternative that serves mobility, serves access to Seattle, AND also preserves the opportunity for Seattle's waterfront should be included in this DEIS.

Deep bore tunnels are marvels of engineering but also among the most difficult projects to plan and control financially. This proposed tunnel would be the largest diameter bore ever attempted in the world, in tricky soil and water conditions, under our state's most valuable real estate. Abrasive soils, clay, boulders, uncontrollable water flows, or unexpected utilities could stop the boring machine in its tracks. The delay and cost consequences of the machine getting stuck are very high. Removing a 56' x 400' machine from underneath downtown Seattle streets or buildings would be a nightmare, and huge financial risk.

According to a thorough analysis of 258 massive transportation projects by one of the world's foremost authorities on the subject, Bent Flyvbjerg, a professor at the University of Oxford, 9 out of 10 transportation megaprojects run over their cost estimates. For tunnel and bridge projects, Flyvbjerg found, "actual costs are on average 34 percent higher than estimated costs."

Both tunnel experts hired by the City of Seattle affirmed that costly problems are likely to emerge, despite WSDOT's best intentions. Using WSDOT's own data, these professionals predicted this project is 40% likely to exceed its establish cost cap. Further, David Dye, WSDOT leading project official at that time, said on record at

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a number of strategies to offset the loss of short-term parking. Although specific parking mitigation strategies have not yet been determined, the project has allocated $30 million for parking mitigation. Analysis of traffic patterns for vehicles accessing ramps to and from SR 99 in the stadium area show that vehicles would disperse onto several streets such as S. Royal Brougham Way, Alaskan Way, First Avenue, Fourth Avenue, etc. Please see the Final EIS Appendix C, Transportation Discipline Report for the transportation analysis. Because traffic in Pioneer Square is controlled by signals, it is not anticipated that the increased volume will affect the pedestrian character nor will it make it more difficult to walk to shops or restaurants. Pioneer Square has historically been an active place with a high volume of traffic.

Adverse effects to areaways in Pioneer Square are not expected for this project. Please see the Final EIS, Chapter 6, for the discussion of construction effects on historic resources. However, if deemed necessary during the development of the individual historic building monitoring plans, targeted areaways could be monitored during construction. Areaways are also discussed in more detail in Chapters 4 and 6 of Appendix I, Historic, Cultural and Archaeological Discipline Report, of the Final EIS.

The removal of the viaduct will facilitate re-establishing the connection between Pioneer Square and the waterfront. This connection and the widening of Alaska Way will be part of the City's Central Waterfront Project, which will undergo its own environmental review.

C-001-007

Because operational effects of the built alternative would be substantially better than the Viaduct Closed (No Build Alternative), long-term transportation mitigation measures are not anticipated. However, a number of mitigation measures in place during construction could have

C-001-015 the conclusion of the 2008 stakeholder process, about why they did not select the bored tunnel: "And so it's a cold dose of fiscal reality that I guess I'm the one who has to bring the bucket and pour on this.... But it is out of reach in the current state of affairs to make it happen."

C-001-016 There is a significant uncertainty around the state's ability to fully fund the bored tunnel alternative. It is essential for this DEIS to consider a viable back up plan that meets goals for mobility and access into downtown neighborhoods -- *and* protects the full opportunity of the future waterfront. Neither of the two other alternatives in this DEIS offers this. Further, both these alternatives were soundly rejected by Seattle voters in the 2007 advisory ballot.

C-001-017 At the conclusion of the 2008 stakeholder process, the leaders of the City, County and State Departments of Transportation recommended two alternatives for viaduct replacement: the I-5/ Surface / Transit hybrid, and the Elevated / Transit hybrid. After a year-long evaluation, these two approaches proved best for meeting the agencies six goals for viaduct replacement at an affordable cost. **Each of these two solutions was determined by the City, County and State DOTs as feasible, lower cost, and effective in providing mobility after exhaustive analysis. The I-5/ Surface/ Transit hybrid alternative should be evaluated in this EIS.**

The I-5/ Surface / Transit proposals A and B provide mobility for through-travel and for local access, offer a four lane urban street on the waterfront, and can be achieved at a cost savings of $700 million to $1 billion compared to the tunnel. Like the tunnel, these options offer a calm, four-lane waterfront street, which is central to the City's plans for the new waterfront. To exclude these from the DEIS analysis creates a false choice for waterfront proponents.

Further, the City of Seattle Ordinance 12246 states the City's preference for an alternative to the tunnel: "In the event a tunnel proves to be infeasible, the City recommends the development of a transit and surface street alternative that meets the intent of Resolutions 30664 and 30724." This alternative would offer the City one of the key advantages it seeks – reclaiming the downtown waterfront – at a significant cost savings.

Action: A version of I-5/ Surface / Transit alternative that includes an urban, four-lane waterfront street should be included in this EIS so that decision makers who care about mobility for people and freight AND Seattle's new waterfront have a lower cost, lower risk alternative to consider.

C-001-018 7. **This project should plan for reducing vehicle usage and greenhouse gas emissions, according to by City, County, State and Federal policies and statutory benchmarks.**

The City has policies urging transportation agencies to pursue decreased Vehicle Miles Traveled over time, and increase the viability of other modes, as part of a larger effort to reduce green house gas emissions from vehicles.

- The City recently established a goal for Carbon Neutrality as one of its 16 priorities for 2010, knowing that this will demand dramatic efforts to reduce fossil fuel consumption and driving. A citizens' commission is at work defining specific implementation steps.
- The City's transportation policy as defined by the Comprehensive Plan states: Ensure that transportation decisions, strategies and investments are coordinated with land use goals and support the urban village strategy.
- The City's Climate Action Plan, launched in 2006, says: "The goal of the Seattle Climate Protection Initiative is to reduce greenhouse gases in Seattle by 7% below 1990 levels by 2012, 30% below 1990 levels by 2024, and 80% below 1990 levels by 2050." Reducing VMT is a key strategy to reduce emissions, as 60% of Seattle's emissions come from vehicles.

The County has put addressing climate change at the center of its comprehensive plan, as one of three

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benefits over the longer term. Refer to Chapter 8 Mitigation in the Final EIS for details.

C-001-008

These mitigation measures are described in Chapter 8 of the Final EIS, and Appendix C, Transportation Discipline Report, addresses traffic impacts on the Pioneer Square neighborhood in detail and relevant mitigation measures. Please refer to the Final EIS for current information.

C-001-009

Updated tolling analysis has been conducted for the Final EIS and the effects of tolling are considered for all three build alternatives in Chapter 5. Please refer to Appendix C, Transportation Discipline Report, of the Final EIS for detailed analysis of tolling impacts to transportation elements. Other appendices contain technical supporting details of environmental effects for tolled and non-tolled alternatives for elements such as air quality, environmental justice, etc.

Currently, the Washington State Department of Transportation does not have the authority from the Washington State Legislature to toll State Route 99 (SR 99). As legislative action is required to toll this facility, the evaluation of the non-tolled Bored Tunnel Alternative in the 2010 Supplemental Draft EIS accurately reflects the current status of the project. Possible effects of tolling are not ignored in the 2010 Supplemental Draft EIS, rather they are presented in Chapter 9 and in Appendix C, Transportation Discipline Report.

C-001-010

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,

C-001-018

framework policies guiding the entire plan. FW-102 states that "King County will be a leader in prevention and mitigation of, and adaptation to, climate change effects." This overarching policy is carried through the rest of the comprehensive plan, including the following policies on Reducing Climate Pollution:

- Recommends that the County collaborate with other local governments to reduce greenhouse gas emissions in the region to 80% below 2007 levels by 2050 (Policy E-216)
- Establishes a goal of reducing County government GHG emissions by 6% below 2000 levels by 2010 (Policy E-204).

The State has established statutory benchmarks and policy urging transportation agencies to pursue decreased Vehicle Miles Traveled over time, and increase the viability of other modes, as part of a larger effort to reduce green house gas emissions from vehicles.

- State law says we shall "By 2035, reduce overall emissions of greenhouse gases in the state to twenty-five percent below 1990 levels, and by fifty percent by 2050." (http://apps.leg.wa.gov/rcw/default.aspx?cite=70.235.020)

State law requires agencies distributing capital funds for infrastructure projects to consider whether the entity (WSDOT) has adopted policies to reduce greenhouse gas emissions. The agencies must consider whether the project is consistent with the state's limits on the emissions of green house gases and statewide goals to reduce annual per capita miles traveled.

The federal government – the DOT, the EPA and House of Representatives -- have shifted policies away from vehicular capacity and congestion relief and toward mobility by other modes in order to reduce greenhouse gas emissions and reduce oil dependence.

At the end of 2009, the U.S. Environmental Protection Agency (EPA) announced that greenhouse gases (GHGs) threaten the public health and welfare of the American people. EPA also announced their finding that GHG emissions from on-road vehicles contribute to that threat.

Ray La Hood, Secretary of the US Department of Transportation, announced in March 2010 a dramatic change from existing policy regarding transportation funding. This "major policy revision" aims to give bicycling and walking the same policy and economic consideration as driving. "Today I want to announce a sea change.... This is the end of favoring motorized transportation at the expense of non-motorized." A major thrust of the DOT's current priorities are to foster livability, sustainable communities, and reduced car dependence. One of their six principles is: "**Provide more transportation choices** to decrease household transportation costs, reduce our dependence on oil, improve air quality and promote public health."

The American Clean Energy and Security Act passed last summer set the goal of reducing greenhouse gas emissions by 17% from 2005 levels by 2020, and 83% by 2050.

To summarize, climate change is the most significant and daunting environmental issue facing this generation. Many agencies at all levels are working to shift how mobility is understood and delivered to achieve reduced pollution, increased choice, and reduced economic dependence on fossil fuels. Countless scientific and policy analyses of how to meet these goals arrives at the same fundamental conclusions: decision makers and agencies must commit to more alternative transportation, and pro-actively plan for reduced Vehicle Miles Traveled, in order to achieve reductions in GHG emissions. The preferred alternative directly violates statutory benchmarks, goals and policies at all levels of government by aiming for and facilitating increased car usage.

Action: In light of City, County, State, and Federal policies aimed to reduce greenhouse gas emissions from vehicles, the EIS should aim for reductions in emissions and VMT. Greenhouse gas emissions should be compared for all the alternatives. The analysis should examine the cumulative use impacts created by the decision in this corridor – not just the trips on the facility, but the area wide effects generated by the decision in this corridor.

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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:

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

C-001-019 Beyond policies, there is practical evidence that calls into question the narrow focus on vehicle capacity in this corridor.

This project uses PSRC forecasts for future travel, which extrapolates past growth rates for driving. However, the empirical data for the Seattle area and this facility make those assumptions dubious. According to the City's annual counts, usage of the Alaskan Way Viaduct has been flat over the past twelve years. Research from Sightline Institute (http://www.sightline.org/publications/reports/braking-news-gas-consumption-goes-into-reverse/) reveals car travel has been declining the past 13 years in our region. A new study by Advertising Age reveals that young people (16-20 years old) are driving 20 to 25% less than their parents' generation. (http://adage.com/digital/article?article_id=144155).

Forty percent of regional trips are less than 2 miles in length, which means it would be viable to serve a significant portion of SOV trips by biking, walking, or transit.

Demographics are changing, societal values are changing, the energy economy is changing, and land use and transportation patterns in Seattle are changing. Actual rates of driving have been flat or declining. This project should plan for serving Seattle's future travel patterns and policies, not the past.

C-001-020 Furthermore, this inaccurate portrayal of "need" for car capacity is worsened in this DEIS by ignoring the fact that travel on the viaduct is expected to decrease by about 1/3 during the 4.5 years of construction. After 4.5 years, travel patterns will have already adjusted to the lower capacity. (Ch 6, pg 139) People and freight will have found other routes, modes and solutions, and our local travel patterns will have shifted. At that point, the 'need' will be different. It is fallacious for this EIS to predict a spontaneous surge in demand in car travel from perhaps 70,000 trips a day before the new tunnel opens to 117,000 trips a day after it opens. It is misleading for this analysis to justify such an expensive facility on predictions of 'need' that are contradicted by empirical evidence.

Action: It would be **more accurate -- and compliant with City and State policy – for this project to plan for a reduced number of car trips**, and increased use of transit, biking, and ride-sharing. Evaluation measure should compare access and mobility for people and freight, and favor solutions that provide viable alternatives to travel by car.

C-001-021 **8. This EIS should carefully consider the public safety risk of delaying viaduct closure from the promised date of 2012 to 2015, 2016, or beyond.**
By default or by design, the Viaduct is severely damaged and will come down. The city and region desperately need interim traffic solutions to be in place before it does. Plans for dealing with the loss of the viaduct have been developed. Many of the elements in these plans are necessary for local access, whatever the final decision for viaduct replacement. These alternative traffic solutions should be implemented now, so the viaduct may be closed earlier if necessary, and public safety is not eroded any further by delaying the promised closure date of 2012.

Linking Viaduct removal to the opening of the deep-bored tunnel idea only delays the inevitable closure and increases the danger. According to many experts in transportation planning and earthquake preparedness policy, it is better to bring the structure down in controlled fashion than to let it pancake during a seismic event. http://seattletimes.nwsource.com/html/opinion/2002837776_viaduct02.html
Furthermore, analysis in the DEIS states that the viaduct is particularly vulnerable to damage from soil settlement during construction, if the bored tunnel is pursued, and may fail before 2016.

Action: Seattle DOT should work with WSDOT to update plans for local access and mobility without the viaduct, based on the Center City Access Strategy and Urban Mobility Plan, and prioritize these investments NOW. A seismic event or further settlement may damage the viaduct at any time, and the

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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.

C-001-011

The potentially affected buildings and the monitoring plan are discussed in the Section 106 Memorandum of Agreement, which is an attachment to Appendix I (Historic, Cultural and Archaeological Discipline Report) of the Final EIS, and in Chapter 6 of Appendix I. Buildings,structures (both historic and non-historic), and areaways along the alignment have been inspected and evaluated by structural engineers. The construction process includes extensive monitoring of each building and structure 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. While laser scans could identify damage after it occurs, this process will enable any settlement impacts to be detected immediately so that they can be prevented or minimized. If damage does occur to historic buildings or areaways, it will be repaired according to the Secretary of the Interior's Standards for Rehabilitation of Historic Properties.

C-001-012

Measures that can be employed to mitigate the risk of groundwater mounding behind tunnel walls or ground improved areas are outlined in the Appendix P, Earth Discipline Report, of the Final EIS. The level of detail provided in the Earth Discipline Report is appropriate for environmental review purposes. The risk of groundwater mounding and associated mitigation will be further evaluated during final design of the project. Design guidelines will provide for mitigation of groundwater

C-001-021 systems needed to provide mobility must be ready to go. . **The project should prepare to provide mobility and access in case the viaduct must be closed sooner than 2016.**

C-001-022 **9. The high cost of tolls, in combination with the significant degradation of transit travel times, is particularly onerous for low-income citizens. This must be evaluated as a social justice impact for the preferred alternative.** This DEIS reveals WSDOT intends to charge tolls of up to $4 each way for a trip through the tunnel. This could add up to hundreds of dollars in additional costs each week for taxi drivers, local freight movers, and any small businesses that provide delivery or site visits as part of their service. Further, the DEIS states that tolling significantly impairs transit service due to increased congestion. After analyzing tolling impacts on transit riders (Ch 9, pg 215) the conclusion is that "These effects would not be acceptable as part of a long term tolling solution."

Action: This DEIS must analyze how the combination of high tolls, the default on the January 2009 promise of additional transit, and impairments to existing transit from congestion affects lower income people. How affordable is this toll for low and average income earners? Does the plan for high tolls and impaired transit support the State's intention of improving mobility for everyone, or just wealthy car owners who can afford the toll?

C-001-023 **10. The public and decision makers have been misled about the finality of a decision for the bored tunnel alternative in advance of comprehensive environmental review of impacts.**

WSDOT has advanced design, development, and contracts for the deep bore tunnel far beyond the other alternatives. SEPA law requires that a final Environmental Impact Statement be completed *before* decisions are made that commit the government to a particular course of action. Until the FEIS is completed, agencies are precluded from making decisions that pre-judge the choice among alternatives.

There are many indications, especially in the State's advocacy efforts and public communications, that the playing field has been tilted and the tunnel is in a substantially favored position already:

- Preparation of, and pressure to sign, MOAs for the tunnel with the City,
- Significant development of the bored tunnel design,
- Preparation of contracts with tunnel construction bidders, with the intention to sign them before the FEIS is issued, and
- Numerous statements by state officials that a "Decision has already been made and would not be revisited," which have deceived and confused the public about the status of environmental review and record of decision.

WSDOT's actions effectively preempt any opportunity for a deliberate and balanced decision-making process after environmental analysis is complete. Giving the tunnel alternative a two-year head start, and investing substantive resources into creating the illusion that it is the only possible solution at this point – before harms and risks and negative impacts are made known to the public – directly violates SEPA. As the public is just now learning, the tunnel alternative comes with a high price tag, many unresolved challenges, and significant impact to the City of Seattle.

C-001-024 To summarize the shortcomings that are finally revealed in this DEIS: The preferred alternative only solves a portion of the transportation challenge. Unless significant investments to local mobility are added to the preferred alternative, it would create havoc on city streets for people and freight. It has a very high price but only benefits a few of the region's travelers. High toll rates render the capacity useless for 2/3 of potential SR-99 users. Construction might do irreparable damage to historic buildings and the Pioneer Square Historic District, and WSDOT may not have sufficient budget to offer protection or mitigation. Funding plans reveal a high risk of cost escalation, meager contingency reserves, and no funding plan for potential cost overruns.

C-001-025
C-001-026

mounding to within existing tidal fluctuations. Please see the Final EIS, Chapter 8 Mitigation. for current infomration on the mitigation measure that will be implemented.

C-001-013

The Section 4(f) Evaluation in the Final EIS and Appendix J, 4(f) Supplemental Materials, recognize that the Pioneer Square Historic District is a protected 4(f) resource and discuss the effects of the build alternatives on this resource.

C-001-014

Changes made to the project's purpose and need statement in 2010 did 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. Environmental documentation for the project has been prepared in compliance with the National Environmental Policy Act (NEPA)(42 U.S.C. 4322(2)(c)) and the State Environmental Policy Act (SEPA)(Ch. 43.21 C RCW). The Final EIS Chapter 1, Introduction, describes the history of the project, including development of the Purpose and Need and alternatives. Please refer to the Final EIS for current information.

C-001-027

Action: This DEIS should compare current and reasonable alternatives to the tunnel, alternatives that improve access and mobility in Seattle while protecting the opportunity for a new waterfront -- in case its merits do not outweigh the costs and risks.

C-001-028

11. Decision makers and the public deserve complete clarity on the promised project scope, budget, and security of funding.
With the data that exists now, it is practically impossible for decision makers to get a firm fix on full cost of the preferred alternative. It is not clear what elements of the project scope are funded and what might be cut, the full cost of protecting against or mitigating for expected harm is not known, and contingency reserves necessary for potential future problems seem to have been mostly drained.

The funding side is as unclear. There is a firm budget cap of $2.4 billion on the state's resources. That leaves $700 million in unsecured commitments. The Port of Seattle's promised $300 million has not materialized, and may not. This $400 million from future toll revenues may not be realistic. There is significant doubt as to whether the state will be able to float bonds on future tolling revenue because the state is at the limit currently for debt capacity, and both SR-520 and SR-99 projects are dependent on raising $2.4 billion in new bonds. Initiative 1053 also casts doubt on whether WSDOT can impose tolls without action by the legislature, which may not happen. Finally, there is firm resistance from all parties – City, County, and State -- to accept liability for the cost overruns, overruns that are likely to occur with 40% probability.

Action: WSDOT must prepare a table comparing full project costs (including reasonable contingency reserves), and a full funding plan, (including back up plans if the unsecured funds fall through, and willing sources for potential overruns) and present it to the public and decision makers.

Summary

C-001-029

1. The tunnel alternative only answers part of the viaduct replacement challenge. Trips that bypass downtown Seattle neighborhoods are well-served; access into Seattle neighborhoods for vehicles, freight and transit users is not. As the preferred alternative is described, the negative impacts to local streets are egregious. When the diversion effects of tolling are included, these negative impacts are unacceptable – and cast doubt on whether the alternative as it will be used meets the statement of purpose and need.

C-001-030

WSDOT must develop a plan to show how WSDOT will provide good access to downtown Seattle for people and freight, and prevent, resolve, or mitigate the intolerable impacts to the streets of Pioneer Square Historic that are caused by the preferred alternative. Solutions such as additional transit, routing traffic away from Historic District streets, transportation demand management, improvements to I-5, and relocating the interchange elsewhere should be analyzed for their ability to enhance local mobility and access while protecting Historic District streets.

C-001-031

2. **WSDOT must develop a mitigation plan to show how WSDOT will prevent, resolve, or mitigate potential damage to all historic buildings along the tunnel route, and in the Pioneer Square historic district and underground.** This plan should include 3-D laser scans of each building before, during, and after construction. Damage must be arrested as it is occurring, if significant. Laser scans are necessary to identify which buildings must be repaired afterward.

C-001-032

3. A full budget for all alternatives should be developed that identifies the appropriate responsibility and source for each line item. **This is a state project, and the state must show it can cover costs for the preferred alternative, including:**
- The bored tunnel itself,
- Other project components promised as part of the program (lids over the cut and cover sections, improvements to the street grid around the interchanges, reconnecting three streets across SR-99 in

C-001-015

Chapter 3 in the 2010 Supplemental Draft EIS describes the alternatives development process, whcih includes the range on concepts that were considered and the screening process that led to the identification of the build alternatives evaluated in the 2010 Supplemental Draft EIS and the Final EIS. Environmental documentation for the proposed project has been prepared in compliance with the National Environmental Policy Act (NEPA)(42 U.S.C. 4322(2)(c)) and the State Environmental Policy Act (SEPA)(Ch. 43.21 C RCW). The lead agencies believe all reasonable alternatives have been considered. The Final EIS Chapters 1 and 2, discuss the project's purpose and need statement and the alternatives development process.

The state legislature authorized funding to replace the Alaskan Way Viaduct in RCW 47.01.402. According to this law;

"The legislature finds that the replacement of the vulnerable state route number 99 Alaskan Way viaduct is a matter of urgency for the safety of Washington's traveling public and the needs of the transportation system in central Puget Sound."

This legislation also authorizes WSDOT to obligate two billion eight hundred million dollars. In order to fund this obligation the legislation further identifies sources of funding: $2,400,000,000 of state funding; $400,000,000 of toll funding.

In the absence of toll funding WSDOT would still have the authorization to issue contracts up to $2,800,000,000 but the mix of funding sources would change. It is assumed that the toll funding would be replaced by new or reprioritized federal, state, or local funding sources.

C-001-016

The state legislature authorized funding to replace the Alaskan Way

C-001-032

South Lake Union, access to downtown Seattle, urban design and landscaping around the portals, viaduct removal and replacement of Alaskan Way surface street, etc),

- Solutions for local access and improvements to local streets,
- Protection of historic buildings and the Pioneer Square Historic District,
- How WSDOT will cover costs if they escalate from the 60% confidence interval ($1.96 billion) to the 95% confidence interval ($2.37 billion), and
- Any further cost escalations that may occur later due to the risk of boring in such complex soil and water conditions, under valuable real estate and intense commercial activity.

4. There is still significant uncertainty around whether the preferred alternative can be fully funded. Decision makers deserve a clear picture of the alternative's basic financial viability. **WSDOT should prepare a comprehensive funding plan** for the preferred alternative that addresses:

- Clear description of what project elements promised as part of the tunnel program are covered by the minimal state allocation of $2.4 billion, the project budget of $3.1 billion, and what are not,
- What the project will do if the $700 million of project funding is not secured,
- What contingency funds remain unallocated, and how much this is expressed as a percentage of full $3.1 billion project budget,
- How WSDOT plans to exceed the constitutional debt limit to borrow $2.4 billion necessary for both 520 and SR-99 projects concurrently, and
- Exactly how potential cost overruns will be covered, given the unresolved contention between governments.

The public and elected decision makers at the City and State deserve a clear picture of total project costs (item 3 above) compared to the full funding plan (item 4.) WSDOT should explain how they will address any shortfalls, and what elements or the overall program scope are vulnerable to being cut. The City of Seattle, local neighborhoods, the federal GSA, or private property owners cannot be held liable for costs of the State's project.

"Measure twice, cut once" for funding would prevent a worst case situation: if the tunnel project is started but runs into trouble, and additional funding is not unavailable. Existing funds could be consumed, the project left incomplete, leaving a further degraded Viaduct intact and no money for transportation and waterfront improvements. That situation would represent a miserable failure of leadership in pursuing a project with full knowledge of risk, but without sufficient funding or a back-up plan.

C-001-033

It is unfortunate that decisions made by WSDOT in the early stages of drafting this DEIS document led to such a flawed evaluation. Many of the concerns described here were raised in early 2009 with WSDOT and SDOT, again in late 2009 in multiple EIS scoping letters from Seattle organizations, and once again by City officials in July 2010 when an early draft was released. The sooner WSDOT rectifies these errors and omissions, the sooner the viaduct replacement project can get back on track. Decision-makers in Seattle and the State are counting on accurate and robust information so they can assure a final decision provides public safety, mobility, and access for the future – while fully protecting Seattle's assets -- at a cost effective price.

Thanks for your consideration of these comments.

Sincerely,

Cary Moon
Director, People's Waterfront Coalition

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Viaduct in RCW 47.01.402. According to this law;

"The legislature finds that the replacement of the vulnerable state route number 99 Alaskan Way viaduct is a matter of urgency for the safety of Washington's traveling public and the needs of the transportation system in central Puget Sound."

This legislation also authorizes WSDOT to obligate two billion eight hundred million dollars. In order to fund this obligation the legislation further identifies sources of funding: $2,400,000,000 of state funding; $400,000,000 of toll funding.

In the absence of toll funding WSDOT would still have the authorization to issue contracts up to $2,800,000,000 but the mix of funding sources would change. It is assumed that the toll funding would be replaced by new or reprioritized federal, state, or local funding sources.

The legislation authorizing WSDOT to proceed with the project 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.

C-001-017

The Final EIS Chapter 2, Alternatives Development, describes the history of the project, including development of the Purpose and Need and alternatives. This chapter also addresses development of the I-5, Surface, and Transit Hybrid. After the purpose and need statement was updated in 2009, design concepts were reevaluated and screened to determine the alternatives to be evaluated in the 2010 Supplemental Draft EIS. The Surface and Transit Hybrid concept was screened out because the lead agencies determined it lacked the capacity to serve the long-term needs of the region and it does not meet the project's purpose and need to provide capacity to and through downtown Seattle. The

Final EIS Appendix W, Screening Reports, includes the Surface and Transit Scenario Year 2030 Analysis Results.

C-001-018

Estimates for the potential direct emissions of greenhouse gases under the build alternatives are provided in the Final EIS and Appendix R, Energy Discipline Report. All of the build alternatives would result in a decrease in greenhouse gas emissions, compared to the Viaduct Closed (No Build Alternative).

The study area evaluated includes areas likely to be affected by changes in greenhouse gas emissions as a result of the project. The greenhouse gas effects were estimated for roadways within the city center area, as well as in the region. The city center area is bordered by Prospect Street on the north, 15th Avenue on the east, S. Holgate Street on the south, and Elliott Bay on the west. The region includes all the traffic movements in King, Pierce, Snohomish, and Kitsap Counties.

C-001-019

The travel forecasting for the project has been conducted using the industry standard modeling tools and data provided by the Puget Sound Regional Council. The modeling platform has undergone rigorous review and validation procedures. Forecasts of future travel are based on the relationship between forecasted population and employment growth and the configuration of existing and planned transit and roadway facilities. The models do not just extrapolate traffic growth trends, rather, the modeling procedures iterate mode choice, trip distribution and assignment to take into account both the demand for trip interchange between geographical areas and the capacities and services levels for transportation corridors. For further details, please refer to the Transportation Discipline Report, Appendix C of the Final EIS.

C-001-020

The Tolled Bored Tunnel Alternative is forecasted to carry 57,100 vehicles per day in 2030 as presented in Chapter 5 of the Final EIS. Traffic patterns on SR 99, including vehicle volumes, at the bored tunnel's year-of-opening are shown in the Supplemental Draft EIS, specifically in Section 5.1.4 of Appendix C, Transportation Discipline Report. Year-of-opening results are not presented in the Final EIS. Vehicles shifting back to SR 99 from alternate routes upon completion of construction will reduce the levels of traffic congestion on those routes, as discussed in Chapter 6 of Appendix C, Transportation Discipline Report, in the Final EIS. The traffic modeling methodology and assumptions are also discussed in Appendix C.

C-001-021

WSDOT and the City of Seattle have prepared an emergency response plan that addresses an unplanned event, such as an earthquake, closing the viaduct.

C-001-022

Final EIS Appendix H, Social Discipline Report, discusses the potential effects of toll payment on low-income populations, as well as the potential effects of using alternate routes to avoid the toll.

The agreement signed by the Governor, County Executive, and Mayor in January 2009 described a program of independent yet complementary projects for replacing the Alaskan Way Viaduct, and providing a strategy for overall mobility in Seattle. The State is responsible for replacing the Viaduct, the City for the seawall and central waterfront, and the County accepted responsibility for additional RapidRide and express bus service, with some identified as construction mitigation during the central waterfront phase of the viaduct program. These future transit service improvements have benefits independent of replacing the Alaskan Way Viaduct. WSDOT recognizes the funding anticipated in the agreement

has not been realized, and that the recent economic downturn has reduced other funding sources King County currently relies on for providing transit service throughout King County.

Currently WSDOT is providing funding for King County on the S. Holgate to S. King Street Viaduct Replacement Project to provide additional transit service hours to help mitigate the effects of construction. This program is on-going and regularly monitored to evaluate its effectiveness. For the Alaskan Way Viaduct Replacement Project, WSDOT will continue to evaluate the need for increased bus service in the West Seattle, Ballard, Uptown, and Aurora Avenue corridors during the initial portions of the construction period, as well as the need for a bus travel time monitoring system. WSDOT will also work with the County to identify funding sources for the service originally contemplated in the January 2009 agreement.

C-001-023

Environmental documentation for the project has been prepared in compliance with the National Environmental Policy Act (NEPA)(42 U.S.C. 4322(2)(c)) and the State Environmental Policy Act (SEPA)(Ch. 43.21 C RCW). A final decision on the viaduct replacement will not be made before FHWA issues a Record of Decision.

The decision to evaluate the Bored Tunnel Alternative in the 2010 Supplemental Draft EIS did not represent a commitment to proceed with that alternative. Public statements by the state and local project sponsors are not binding on FHWA, and id not influence FHWA's analysis of the build alternatives. In addition, it is acceptable under FHWA's environmental regulations for a project sponsor to develop a single alternative to a higher level of detail, including conducting preliminary engineering on that alternative, as long as it does not preclude an 'apples to apples' comparison of the alternatives in the EIS. See FHWA Order 6640.1A, FHWA Policy on Permissible Project Related

Activities During the NEPA Process (October 1, 2010). FHWA is satisfied that WSDOT's consideration of the Bored Tunnel Alternative is consistent with FHWA regulations and policies, including Order 6640.1A.

Also, FHWA design-build regulations allow a state to conduct a procurement process for a design-build contract and enter into a design-build contract prior to completion of the NEPA process. The design-build contract also is allowed to undertake preliminary engineering prior to completion of the NEPA process. WSDOT's contracting activities on this project are consistent with the requirements in the design-build regulations (23 CFR 636).

C-001-024

The Final EIS Chapter 1, Introduction, describes the Purpose and Need for the project and one of several purposes is to provide capacity for automobiles, freight, and transit to efficiently move people and goods to and through downtown Seattle. Appendix C, Transportation Discipline Report, addresses local access and mobility for people and freight. The traffic modeling methodology and assumptions are also discussed in Appendix C. Please refer to Chapter 5 of the Final EIS for the discussion of permanent transportation effects for all of the alternatives.

The City of Seattle is leading redevelopment efforts and associated environmental reviews processes for the central waterfront, which would take place under NEPA and/or SEPA as appropriate. In addition, the proposed viaduct replacement project compliments a number of other projects with independent utility that would provide other improvements such as transit enhancements and a new Alaskan Way Promenade and public space. These individual projects include the moving forward projects identified in 2007, as well as improvements recommended as part of the Partnership Process. Please refer to Chapter 2, Alternatives Development, of the Final EIS for a description of these projects.

C-001-025

Extensive real-time monitoring will be conducted to prevent building damage. The monitoring plan is discussed in the section 106 Memorandum of Agreement and in Chapter 6 of Appendix I (Historic, Cultural and Archaeological Discipline Report) of the Final EIS. Buildings and structures (both historic and non-historic) along the alignment have been inspected and evaluated by structural engineers. Monitoring of each building and structure will be done 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. No damage to the Pioneer Square Historic District is anticipated.

C-001-026

Financial planning for the project follows established WSDOT procedures and has been independently reviewed by FHWA and other agencies.

C-001-027

The Final EIS Chapter 2, Alternatives Development, describes the history of the project, including how the Purpose and Need was updated and the design concepts reevaluated and screened. All reasonable alternatives to meet the project's purpose have been considered. The City of Seattle is leading redevelopment efforts and associated environmental reviews processes for the central waterfront, which would take place under NEPA and/or SEPA as appropriate.

C-001-028

The state legislature authorized funding to replace the Alaskan Way Viaduct in RCW 47.01.402. According to this law;

"The legislature finds that the replacement of the vulnerable state route number 99 Alaskan Way viaduct is a matter of urgency for the safety of Washington's traveling public and the needs of the transportation system in central Puget Sound."

This legislation also authorizes WSDOT to obligate two billion eight hundred million dollars. In order to fund this obligation the legislation further identifies sources of funding: $2,400,000,000 of state funding; $400,000,000 of toll funding.

In the absence of toll funding WSDOT would still have the authorization to issue contracts up to $2,800,000,000 but the mix of funding sources would change. It is assumed that the toll funding would be replaced by new or reprioritized federal, state, or local funding sources.

The legislation authorizing WSDOT to proceed with the project 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.

C-001-029

The Final EIS Chapter 1, Introduction, includes the Purpose and Need for the project. Chapter 5 describes the permanent effects and includes substantial detail on transportation in downtown Seattle. The project, with or without tolling and its related effects, provides substantial benefits. All alternatives meet the project's purpose and need, and the bored tunnel provides the best combination of benefits and least effects. Appendix C, Transportation Discipline Report, addresses the effects of potential tolling.

C-001-030

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. Because operational effects of the built alternative would be substantially better than the Viaduct Closed (No Build Alternative), long-term transportation mitigation measures are not anticipated. However, a number of mitigation measures in place during construction could have benefits over the longer term. Refer to Chapter 8 Mitigation in the Final EIS for details.

Because traffic in the Pioneer Square Historic District is controlled by signals, it is not anticipated that the increased volume will affect the pedestrian character nor will it make it more difficult to walk to shops or restaurants. Pioneer Square has historically been an active place with a high volume of traffic. The removal of the viaduct will facilitate re-establishing the connection between Pioneer Square and the waterfront. This connection and the widening of Alaska Way will be part of the City's Central Waterfront Project, which will undergo its own environmental review. Appendix C, Transportation Discipline Report, addresses traffic impacts on the Pioneer Square neighborhood. Please refer to the Final EIS for current information.

C-001-031

The potentially affected buildings and the monitoring plan are discussed in the Section 106 Memorandum of Agreement and in Chapter 6 of Appendix I (Historic, Cultural and Archaeological Discipline Report) of this Final EIS. Buildings and structures (both historic and non-historic) along the alignment have been inspected and evaluated by structural engineers. The construction process includes extensive monitoring of each building and structure before, during and after tunneling. While

laser scans could identify damage after it occurs, this process 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.

C-001-032

The state legislature authorized funding to replace the Alaskan Way Viaduct in RCW 47.01.402. A detailed project budget as requested by this comment is not relevant for environmental analysis under NEPA and SEPA.

C-001-033

The Final EIS Chapter 2, Alternatives Development, describes how the project began and the alternatives development process, which included key decision points and public involvement.