Involving the Public

Leadership Group Meeting

Community Leaders discuss public needs, concerns and viewpoints.

Community Briefing

"City's Seawall is Far Worse Than Experts Had Predicted."

–Seattle Times
Sunday, 4 May 2003

News conference from seawall test pit June 2002

Posters are displayed at each open house

The purpose of the open houses is to invite people to share their ideas and feedback on the project.

Open House

Citizens viewing the five alternatives and their costs and schedules.

Community Briefings
Ongoing since 2001 - 175 total

WSDOT and City staff presenting information.

Open Houses

- 8 June Mountaineer's Club (Seattle)
- 15 November (West Seattle)
- 14 November (Downtown)
- 13 November (Queen Anne)
- 28 February (West Seattle)
- 27 February (Ballard)
- 26 Febrary (Burien)
- 25 February (Downtown)
- 5 March (North Seattle)
- 17 June (Seattle Center)
- 30 July (Fremont)
- 25 July (West Seattle)
- 24 July (Downtown)
- 2 October (West Seattle)
- 1 October (Downtown)
- 30 September (Fremont)

Leadership Group Meetings

19 June · 1 August · 15 October · 12 February · 18 June · 23 July · Viaduct Tour March · 24 July

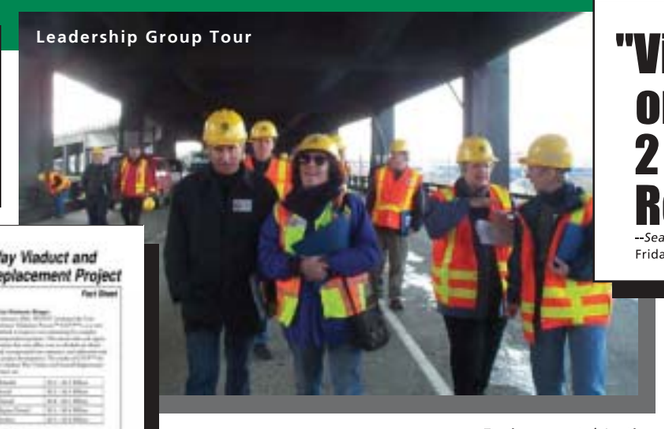
2001 · 2002 · 2003

WSDOT Website
http://www.wsdot.wa.gov/projects/viaduct

The project website is up by the first Leadership Group Meeting

February 2002

The project website became interactive allowing people to review the project online and to submit comments and questions.



Leadership Group Tour

"Viaduct Still on the Move; 2 Inches Shy of Repair Work."

--Seattle Times
Friday, 20 February 2004

Posters, Postcards, Brochures, E-mail Updates
Ongoing

"Viaduct Tilting, Needs Repairs"

–Seattle P.I.
Thusday, 26 April 2001

Alaskan Way Viaduct and Seawall Replacement Project

Environmental Justice

Outreach to social service agencies along the project corridor began in 2002 . The purpose of environmental justice outreach is to learn about low income and homeless people along the corridor.

Environmental Justice

Environmental Justice Interviews

Exhibit 4-1

CHAPTER 4 - DEVELOPING THE ALTERNATIVES

1 How were the Alternatives developed?

Very few people question why the project is needed—we need a roadway and seawall that will be strong enough to withstand earthquakes and last another 50 to 100 years. The best way to do this is, however, a challenging question. The alternatives for replacing the Alaskan Way Viaduct and Seawall have been developed by the lead agencies (City, WSDOT, and FHWA) by evaluating information on transportation, urban design, engineering, and constructability. As the alternatives have evolved, the lead agencies have consulted with the public, citizen groups, elected officials, and other government agencies

The alternatives were developed based on concepts that emerged from existing knowledge regarding the condition of the viaduct and seawall and a variety of widely held public opinions about the shape the project might take. Available engineering and technical information was applied to create early design and construction concepts. More study and new information led to discarding some ideas, looking for refinements in others, and opening the process to new ideas altogether. A community leadership group has met many times to review and comment on alternatives as they emerged. The urgency of the project and high level of public interest naturally led to many opportunities for citizens to be involved. Primarily, this has been at open houses, but an extensive program of outreach and involvement to the public at-large has also been undertaken.

Throughout the process of developing the alternatives, the lead agencies have exercised professional engineering and planning judgment with the support of consulting experts. At times, screening tools have been applied to ensure careful, methodical evaluation of the ideas and possibilities suggested.

Regarding SR 99

"This is a critical state road. Delay in replacing it puts our economy and public safety at risk. The viaduct is moving with or without our help. The only question is which will move next, the legislature or the viaduct."

- **Greg Nickels**
Seattle Mayor

2 How have the public and other interested agencies been involved in developing the Alternatives?

In the early stages of the project, the Seattle Mayor and WSDOT Secretary of Transportation formed a Leadership Group of civic and business leaders to serve as a sounding board during project development. The volunteer group was invited to engage in an ongoing series of briefings and discussions about the project. The project team has shared with the Leadership Group details on the deteriorated condition of the viaduct and seawall. Many Leadership Group members have toured the viaduct and seawall to see close-up the poor condition of both facilities. The Leadership Group has helped the project team determine critical needs that must be met by the project and identify potential opportunities for improvement. In formal meetings and many informal conversations, members of the Leadership Group have made substantial contributions to the lead agencies' understanding of public needs, concerns, and viewpoints. In turn, the lead agencies have explained the engineering and construction considerations that must be taken into account in the project.

Since the Nisqually earthquake, the public has taken a keen interest in the project. Hundreds have contributed valuable ideas and feedback as the alternatives have been developed. Public meetings and open houses have been conducted as ideas for the project have evolved. Each has given people interested in the project a chance to see the latest information, ask

Resource Agency Leadership Forum Participants (RALF)

Richard Brooks	Suquamish Tribe
Kurt Buchanan	Washington Department of Fish and Wildlife (WDFW)
Bob Chandler	City of Seattle
Susan Chu	City of Seattle
Bob Donnelly	National Oceanic and Atmospheric Administration (NOAA) Fisheries
Kimberly Farley	Washington State Department of Transportation
Allison Ray	Washington State Department of Transportation
Jonathan Freedman	Environmental Protection Agency (EPA)
Mike Grady	NOAA Fisheries
Mary Gray	FHWA
Sandy Gurkewitz	City of Seattle
Karen Huber	King County
Tom Hudson	Puget Sound Clean Air Agency
Sandra Lange	Washington Department of Ecology (Shorelands)
Judith Noble	City of Seattle
Leslie Sacha	Port of Seattle
Glen St. Amant	Muckleshoot Indian Tribe
Kate Stenberg	Army Corps of Engineers
Therese (Terry) Swanson	Army Corps of Engineers
Emily Teachout	U.S. Fish and Wildlife Service
Rex Thompson	Washington Department of Natural Resources (DNR)
John Witmer	Federal Transit Administration (FTA)

The Alaskan Way Viaduct and Seawall Leadership Roster

Bruce Agnew	Cascadia Discovery Institute
Frank Chopp	Washington State House of Representatives
Peter Coates	Seattle and King County Building and Construction Trades Council
John Coney	Queen Anne Neighborhood Representative
Richard Conlin	Seattle City Councilmember
Lee Copeland	Mithun Architects
Mary Lou Dickerson	Washington State House of Representatives
Bob Drewel	Puget Sound Regional Council
Joni Earl	Sound Transit
Christine Endresen	Kitsap County Representative
Steve Erickson	Magnolia Neighborhood Representative
Dan Evans	Daniel J. Evans & Associates
Dave Gering	Manufacturing and Industrial Council
David Goodyear	TY Lin International
Tom Graff	Downtown District Council
Jerry Grinstein	Madrona Investments
Virginia K. Holtzman-Bell	U.S. Coast Guard
Joel Horn	Seattle Monorail Project
Peter Hurley	Transportation Choices Coalition
Fred Jarrett	Washington State House of Representatives
Steve Leahy	Greater Seattle Chamber of Commerce
Leo Lozano	U.S. Coast Guard
Stephen Lundgren	Ballard Neighborhood Representative
Doug MacDonald	Washington State Secretary of Transportation
Dan Mathis	Federal Highway Administration
Mary McCumber	Puget Sound Regional Council
Paige Miller	Port of Seattle Commissioner
Ed Murray	Washington State House of Representatives
John Musgrave	West Seattle Neighborhood Representative
Greg Nickels	Mayor of Seattle
Jane Nishita	Qwest
Connie Niva	Washington State Transportation Commission
John Okamoto	Port of Seattle
Patty Otley	BNSF
Ralph Pease	Argosy Cruises
Neil Peterson	Flex Car Program
Erik Poulsen	Washington State Senate
Margarita Prentice	Washington State Senate
Charles Roeder	University of Washington
Don Royse	Seattle Design Commissioner
Judy Runstad	Forster, Pepper, Shefelman
David Spiker	Seattle Design Commissioner
Peter Steinbrueck	Seattle City Council
Harold Taniguchi	King County
Michael Thorne	Washington State Ferries
Tom Tierney	Port of Seattle
Paul Tomita	Seattle Planning Commissioner
Herald Ugles	International Longshoreman and Warehouseman Union Local 19
Doug Vann	Pioneer Square Neighborhood Representative
Steve Williamson	King County Labor Council
David Yeaworth	Allied Arts
Jim Young	Seattle Steam Company

questions of agency and project staff, and offer their opinions and ideas. The meetings have been well attended and marked by lively discussion.

Members of the public were invited to:

- Participate in initial EIS project scoping (June 2001).
- Provide feedback on the project scope, potential impacts, and possible design concepts (November 2001).
- Discuss the preliminary design concepts (February/March 2002).
- Discuss urban design issues related to the surface street designs for the central waterfront area (June 2002).
- Learn about the alternatives and costs (July 2002).
- Learn about the updated alternatives and costs (September/October 2003).

The project team has also met with business and neighborhood groups such as the Downtown Seattle Association (DSA), Chamber of Commerce, South Downtown (SODO) business group, and freight interests from the Ballard and Interbay areas. Each series of meetings had specific purposes-to introduce people to the need for improvements, to review engineering designs or concepts, and to gather feedback on possible alternatives.

As the alternatives have evolved, project staff members have sought out organizations and agencies that serve low-income, homeless, and minority communities along the corridor. In meetings with homeless shelters, food banks, job services, and clinics, staff members have shared information about the project and looked for ways to avoid or reduce impacts to these communities. These discussions will continue as planning and design move ahead.

This project will require a variety of environmental resource permits and approvals from local, state, and federal agencies. Time spent obtaining approvals can be lengthy and have the potential to affect the project schedule. The Resource Agency Leadership Forum (RALF) was organized in November 2001 to involve resource agencies in the project. The lead agencies host regular meetings with this group to facilitate collaboration on several complex environmental issues. These resource agencies have contributed substantial effort and made many helpful suggestions. They were also specifically involved in concurring with the Purpose and Need Statement, screening criteria, and the alternatives to be evaluated in this Draft EIS. In the future, this group will help approve permits for the project.

> "The Boomtown Café appreciates the efforts of the project team in reaching out to organizations such as ours. The AWV project became much more manageable and real to us after we met with project team members. We are looking forward to working together throughout the life of the project. There is a strong sense that the AWV team does want to work with Boomtown to make this process as smooth as possible."
>
> - **Bob Kubiniec**
> Executive Director, Boomtown Cafe

3 How did ideas from the public and interested agencies shape the Alternatives?

As the project has progressed, the alternatives have been shaped by community concerns identified through public meetings and comments, information learned about the condition of the viaduct and seawall, feasible engineering solutions, potential project effects, and funding constraints.

For example, in July 2002, the first round of alternatives and their costs were presented to the public and community leaders. An early concept for a full corridor tunnel from the waterfront through Belltown offered a new vision for the central waterfront, but was too expensive. As a result, the lead agencies scaled the alternatives back to reuse Battery Street Tunnel with some shorter tunnels just along the waterfront. Comments from the Port of Seattle and Burlington Northern Santa Fe Railroad led to the development of new concepts in the south that do a better job of balancing needs of vehicles and freight and rail operations. In addition, the Surface Alternative was added to see how transportation and other needs might be met without large, new structures and at lower construction costs.

> "A surface plan should be included in the EIS so that if the viaduct fell today, or was no longer usable, a plan where everyone is on the surface should be in place. We need to know what will happen in the worst-case scenario."
>
> - **Leadership Group Comment**
> 24 July 2003

4 What ideas were considered but are not analyzed in the Draft EIS?

Early analysis by the project team and discussion with the community generated a wide range of ideas. A total of 76 initial viaduct replacement design concepts and seven seawall concepts were gathered and organized into six groups.

- Viaduct Improvements from S. Holgate to the Battery Street Tunnel
- Battery Street Tunnel improvements
- Roadway improvements outside of the corridor
- Multi-modal solutions (transit, bike, and pedestrian opportunities)
- Related improvements
- Seawall Improvements

Then, the best ideas from these six groups were shaped into the five alternatives evaluated in this Draft EIS. Ideas that would not work or could not meet the needs of the project were dropped from further consideration.

Viaduct Improvements From S. Holgate Street to the Battery Street Tunnel

A range of viaduct repair and replacement design concepts were considered, including retrofitting the existing viaduct; rebuilding the viaduct; or replacing the viaduct with an aerial structure, tunnel, surface boulevard, or a combination of structure types.

Components of these design concepts have been included in the alternatives being evaluated in this Draft EIS. However, there are some design concepts,

Public Participation

How has the public been involved with this Project?

- 15 public meetings and community open houses
- Two workshops to discuss flexible transportation concepts
- Discussions with community groups at more than 140 community meetings and community interviews
- Meetings with businesses along the corridor
- Newsletters and brochures, including project fact sheets translated into four languages
- Press releases
- Project website
- Email list and project hotline
- Information displays at libraries and community centers

Additional information about public outreach is contained in Appendix A, Agency and Public Coordination.

The Screening Process

Where can I find out more information about the concepts considered but not analyzed in this Draft EIS?

Detailed information about the screening process is incorporated by reference and contained in documents titled Final Revised Screening of Design Concepts and Final Revised Screening of Seawall Concepts, Parametrix, 2003a and 2003b.

Retrofitting vs. Rebuild

How is retrofitting the Viaduct different from rebuilding it?

To "retrofit" the viaduct, the existing structural members such as columns and foundation supports are strengthened. To "rebuild" the viaduct, most of the existing viaduct components would be replaced

[1] Parsons Brinckerhoff, 2002 and 2003.

such as retrofit and tunnel, which are only feasible in certain locations of the project area.

For example, engineers closely examined the possibility of retrofitting the entire viaduct instead of rebuilding it. Their research demonstrated that rebuilding the double-level viaduct is superior to retrofitting it when seismic performance, aesthetics, cost, and risk are balanced.[1] Conversely, the engineers' analysis of the viaduct's single-level section between the Battery Street Tunnel and Stewart Street revealed that retrofitting these structures might be more cost-effective than rebuilding them. Therefore, retrofitting the double-level viaduct sections from S. Holgate Street to Pike Street was judged infeasible and is not be considered in this Draft EIS. However, retrofitting some sections of the viaduct, such as the connection to the Battery Street Tunnel and the ramps into downtown, is feasible so it is evaluated in this Draft EIS.

Another design concept that is only feasible in certain locations is replacing the viaduct with a tunnel. Engineers determined that a tunnel is not a reasonable alternative in the south end of the project area because of poor soil conditions1. Between S. Spokane Street and S. King Street, the soil is composed of deep, unstable silt washed down from the Duwamish River. There is no cost-effective way to stabilize a tunnel in these silty liquefiable soils. However, the soil north of S. King Street is less silty, making a tunnel feasible. Therefore, a tunnel is not proposed in the south end of the project area, but two tunnel alternatives are evaluated in this Draft EIS along the waterfront north of S. King Street.

Battery Street Tunnel Improvements

Two main concepts were proposed for improving the Battery Street Tunnel. One idea was to completely replace it with a new, larger tunnel and the other was to upgrade it to meet existing safety requirements. The cost of replacing the existing tunnel with a new, larger tunnel was very high, making this option technically feasible but financially unrealistic. Therefore, replacing the Battery Street Tunnel with a new tunnel is not evaluated in this Draft EIS, but improving the tunnel to better meet fire and life safety requirements is evaluated.

Alternatives and Options Chart

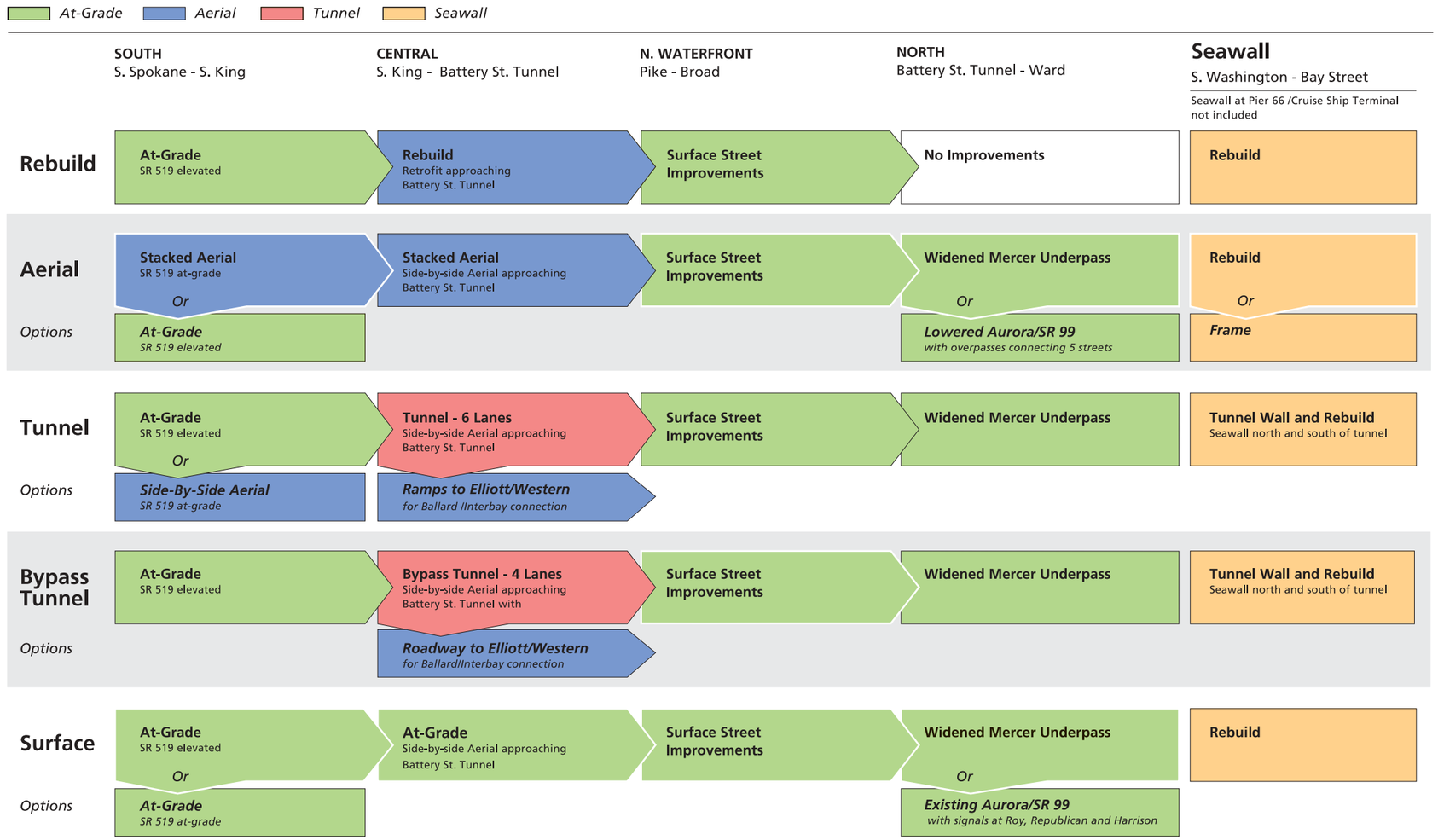


Exhibit 4-2

The Alternative and Options Chart shows the five alternatives and their proposed options. The alternative components are shown in rows, and the options are shown in smaller boxes below the rows.

Related Improvements

The lead agencies investigated several related improvements. Some ideas, such as improving ferry connections and enhancing vehicle, pedestrian, and bicycle access within the corridor, are incorporated into the proposed alternatives. Other ideas were dropped and are not considered. Ideas that are not considered in this Draft EIS include concepts such as adding ramps at specific locations (like S. Spokane Street to Fourth or Sixth Avenues), extending the AWV Corridor to I-5 or SR 520, and providing grade separation in specific areas. These ideas are not evaluated in this Draft EIS because many of them could

be built as separate projects or they are marginally related to the purpose of this project and therefore could not be logically included.

Multi-Modal Solutions - Improving Transit

All of the alternatives evaluated in this Draft EIS incorporate measures to improve transit, reduce vehicle trips, and provide alternatives to driving single-occupant vehicles. Together, these measures are called the flexible transportation package. The flexible transportation package will help move people through the project area during construction, and some of the approaches may also provide long-term benefits to the area. More information on flexible transportation can be found in Chapter 10 and Appendix C.

High-capacity transit is not included as part of this project for several reasons. One is because there are already plans to build light rail and monorail lines through downtown. However, they are included in the transportation modeling. Also, to be effective, high-capacity transit needs to run through the dense commercial core of the city. That's a big part of why the monorail and light rail lines will follow Second and Third Avenues. In contrast, the viaduct runs along the edge of downtown and in many areas is separated from workplace destinations by a steep grade.

Roadway Improvements Outside of the Corridor

The project team investigated several possible roadway improvements outside of the existing corridor. One of these concepts included building a tunnel to replace the viaduct in another downtown location, such as Western Avenue or First Avenue. While building a tunnel in a different downtown location might be feasible, it would probably need to be a deeper, longer, and more expensive tunnel than the tunnel proposed along the waterfront in this Draft EIS. In addition, a deeper tunnel would be riskier to construct, so these ideas were not pursued. In addition, building a tunnel elsewhere in the city would not replace the seawall. To fix the deficiencies of the seawall, a separate construction project would be needed. Conversely, a tunnel under the Alaskan Way surface street would serve as a travel route for viaduct traffic and it would replace the seawall. Therefore, other locations for a tunnel are not considered.

Other ideas that are not evaluated in this Draft EIS include replacing the viaduct with a bridge across Elliott Bay, a floating tunnel, or an expanded I-5. Replacing the viaduct with a bridge or floating tunnel is not being considered because it would negatively affect Seattle's shipping industry, scenic views, and aqua-tic habitat. Expanding I-5 is not considered as a replacement for the viaduct because it would not meet the purpose and need of the project. In addition, these concepts would not replace the seawall, so a separate seawall construction project would still be needed.

Seawall Improvements

The project's fundamental purpose requires repairing or replacing the seawall near its present location. The project team originally investigated seven seawall design concepts, and five of them were dropped. Three of the concepts assumed the relieving platform would not need to be replaced. When project engineers discovered that the relieving platform had been extensively damaged by gribbles and is in need of replacement, the three concepts that relied on future use of the existing platform were dropped.

Two of the remaining seawall design concepts were dropped because they would not allow sufficient room to relocate utilities currently located under the Alaskan Way surface street. The remaining two concepts, rebuilding the seawall or replacing it with a frame, are evaluated in this Draft EIS.

5 What alternatives are being studied in this Draft EIS?

Five alternatives in addition to the No Build Alternative (often called the No Action Alternative) are analyzed in this Draft EIS. The five alternatives all include building replacement structures for both the Alaskan Way Viaduct and the Alaskan Way Seawall. Each alternative is named according to the type of roadway proposed through the central waterfront. The five alternatives are Rebuild, Aerial, Tunnel, Bypass Tunnel and Surface.

There are several possible options within the five proposed alternatives. The options provide different choices that can be mixed and matched with the proposed alternatives. Exhibit 4-2, the Alternatives and Options Chart, shows the five alternatives and their proposed options. The alternative components are shown in rows, and the options are shown in smaller boxes below the rows.

6 What is the difference between alternatives and options?

For the purposes of analyzing the project impacts, the alternatives and options have been organized as shown on the Alternatives and Options Chart. An alternative is defined as the primary plan. Options are defined as different choices that could be mixed and matched with the proposed alternative.

Both alternatives and options are evaluated in this Draft EIS. Alternatives are evaluated in detail with measurements, calculations, and complete descriptions. Options are evaluated with written descriptions and in comparison to an alternative. Systemwide impacts and direct impacts are evaluated for each alternative, whereas systemwide impacts are not evaluated for the options since they can be mixed and matched in different ways.

Further analysis of systemwide impacts of options will be evaluated in the Final EIS if any of the options are selected as part of the preferred alternative.

7 What is the No Build Alternative?

On most projects, it's fairly easy to say what will happen if none of the alternatives are built. For the viaduct and the seawall, however, doing nothing leaves both structures vulnerable to an earthquake and failure due to old age. Since we don't know when or how strong the next earthquake will be, it's hard to predict the consequences of doing nothing. To illustrate what could happen, three scenarios are evaluated as part of the No Build Alternative (often referred

"The five plans give us real choices about the future replacement of the viaduct. It's crucial for WSDOT, FHWA, and the City to keep moving and for the public to let us know what they think about these possibilities."

- **Doug MacDonald**
WSDOT Secretary of Transportation

to as the No Action Alternative)[2] These scenarios include:

- Scenario 1 - Continued operation of the viaduct and seawall with continued maintenance.
- Scenario 2 - Sudden unplanned loss of the viaduct and/or seawall but without major collapse or injury.
- Scenario 3 - Catastrophic failure and collapse of the viaduct and/or seawall.

Scenario 1 - Continued operation of the viaduct and seawall with continued maintenance as practicable

Under Scenario 1, the viaduct and seawall would continue to operate, and maintenance activities would continue to increase. The current roadway restrictions imposed on the viaduct, including speed reductions and lane restrictions for large vehicles, would remain in place. Additional roadway restrictions would be put in place, when needed, as the viaduct and seawall age. Viaduct and seawall repairs would be made as necessary to keep the facilities open; however, maintenance would become more difficult and expensive as the structures continue to age, and at some point in the future, likely before 2030, they could be closed.

Environmental effects of this No Build scenario would be similar to what they are today. As the structure continues to age, further traffic restrictions will be required, which would substantially increase travel times over existing conditions. This could also generate congestion on other roadways. When additional loading restrictions are needed, freight and bus transit might be limited or required to use other routes. Construction of viaduct and seawall repairs would be completed as needed, which might require temporary closures of the viaduct or Alaskan Way surface street. Seawall repairs would require in-water work to replace riprap and the face of the seawall. The costs of maintaining the existing viaduct and seawall will escalate higher and higher as the structure nears the end of its useful life. Eventually, parts of both facilities could be closed, which would result in unknown changes over existing conditions.

Scenario 2 - Sudden unplanned loss of the viaduct and/or seawall but without major collapse or injury

Under Scenario 2, an event such as a moderate earthquake, like the Nisqually, would cause a sudden unplanned closure of the viaduct and/or damage to the seawall. The viaduct would be out of service for an unknown period of time, but would be repairable. With this scenario, the damaged area of the viaduct would be repaired and the facilities would eventually be replaced. If the seawall were damaged, sections would likely have to be replaced. Damage to the Alaskan Way surface street and utilities would also be repaired if needed.

Environmental effects of this scenario would depend entirely upon what damage was sustained to the viaduct, seawall, or both. Similar to the day following the Nisqually earthquake, severe travel delays would be experienced until the damage could be fixed. The time needed to make repairs could be from only a few weeks to many months. Even after these repairs, the viaduct will still be near the end of its useful life, and maintenance costs will climb higher and higher.

An event such as an earthquake would likely cause property damage to cars and possibly buildings or piers near the structures. A sudden unplanned event could also cause injuries if people were struck by debris. If small sections of the seawall fail, it could cause a release of sediment and debris to Elliott Bay. In addition, utilities on the viaduct or under the Alaskan Way surface street could be damaged and require repairs. A temporary loss of services such as electricity might result if utilities were damaged. Utility damage could also cause spills from sewer or gas pipes. Utility and seawall repair would cause more traffic disruptions along the waterfront. Making all of these repairs could take weeks, months, or years. Further damage to the viaduct from a sudden event would likely require further restrictions related to vehicle speeds and weight. Eventually, parts of the viaduct and seawall could be closed or replaced, likely before 2030, which would result in unknown changes over existing conditions.

Scenario 3 - Catastrophic failure and collapse of the viaduct and/or seawall

Scenario 3 of the No Build Alternative considers the effects of catastrophic failure and collapse of the viaduct and/or seawall. A seismic event with greater magnitude than the Nisqually earthquake could trigger failure of large portions of the viaduct and/or seawall. This event would likely cause damage or collapse of piers and buildings near the seawall due to movement of liquefiable soils that extend as far east as Western Avenue. The anticipated movements could disrupt utilities, including power, sanitary and storm sewer, natural gas, oil, steam, and fiber optics, and would likely cause settlement of the Alaskan Way surface street.

This scenario would have the greatest effect on people and the environment. Catastrophic failure or collapse of the viaduct, seawall, or both would cause substantial property damage to cars, adjacent buildings, and piers. Failure of either structure would cause injuries and could even cause death to people traveling on or near the viaduct or seawall. Traffic impacts would be severe and prolonged, which might require improvements on other city streets to help alleviate traffic until a viaduct and seawall replacement could be built. Spills of sediment, debris, sewage, and possibly gas to Elliott Bay would be anticipated if sections of the seawall failed. In addition, many utilities (such as power, water, communication lines, sewer, and gas) would be damaged, which would cause a lengthy disruption to service for large parts of Seattle until repairs could be made. The extent of damage, the environmental effects, and the length of time it would take to repair (and obtain funds for repair) are unknown, but the effects would be severe.

"The images of the freeway that collapsed on itself 13 years ago in Oakland, California durring the earthquake that occurred in the San Francisco Bay area are burned into my mind and I am sure those same images are burned into your mind as well. From the studies that have been done by structural engineers, the Alaskan Way Viaduct would suffer the same fate as well in the next major earthquake."

- **Ryan Hayes**
Citizen comment

[2] The No Build Alternative is required to help provide a baseline for comparing the alternatives. More detailed environmental effects from the No Build Alternative are contained in the technical memoranda and discipline reports located in the appendices.