

The Alaskan Way Viaduct & Seawall Replacement Program



Program Overview

Washington State Legislature
Joint Transportation Committee
July 8, 2008

Central Waterfront

Stakeholders Advisory Committee Schedule

January **Systems Process** **Guiding Principles** **Measures**

February  

March  

April 

Early May **Building Block Workshop**

Late May **Initial Scenario Evaluation Measures**

June **Initial System Scenario Development**

July **Final System Scenarios**
Final Scenario Evaluation Measures

August **System Scenario Evaluation**

September **System Scenario Evaluation**

October **System Scenario Evaluation**

November **System Scenario Evaluation**

December **System Scenario Evaluation**

Central Waterfront

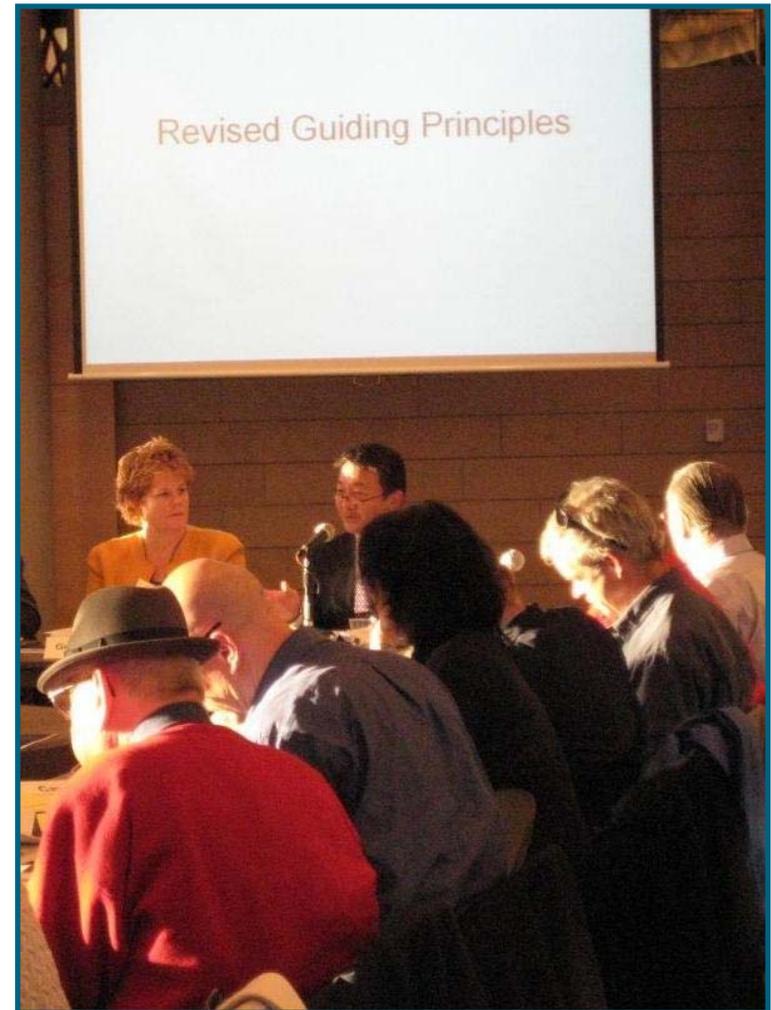
The Path Forward: Central Waterfront

- Old project area addressed SR 99; new project area considers regional transportation network
- Opportunity to improve transportation system as a whole and benefit all modes



Guiding Principles

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



SCENARIO A: Demand Management/ Low Capital

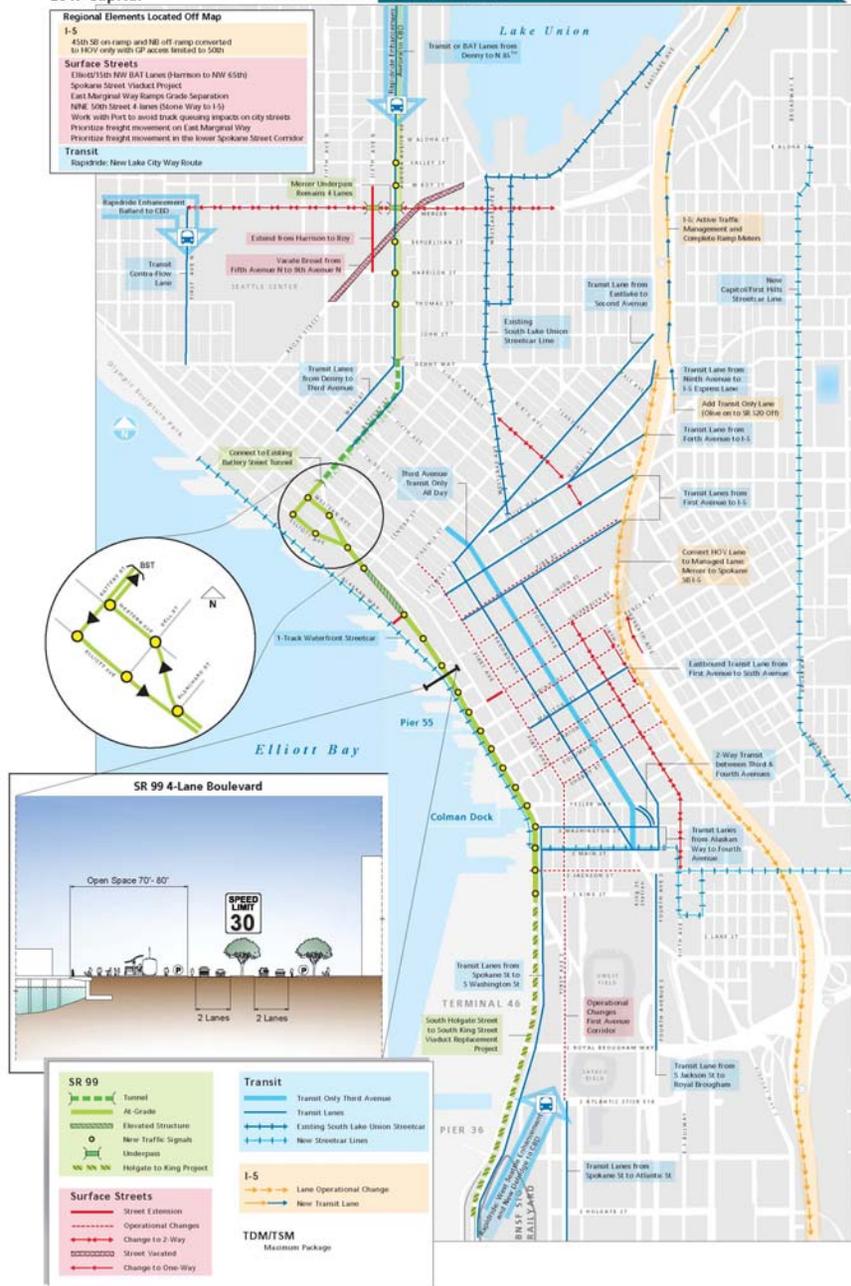
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Regional Elements Located Off Map

I-5
45th SB on ramp and NB off ramp converted to HOV only with CP access limited to 50th

Surface Streets
Ellestad/15th NW BAY Lanes (barriers to NW 65th)
Spokane Street Viaduct Project
East Marginal Way Bridge Grade Separation
NNE 50th Street 4 lanes (Dodge Way to I-5)
Work with Port to avoid truck queuing impacts on city streets
Prioritize freight movement on East Marginal Way
Prioritize freight movement in the lower Spokane Street Corridor

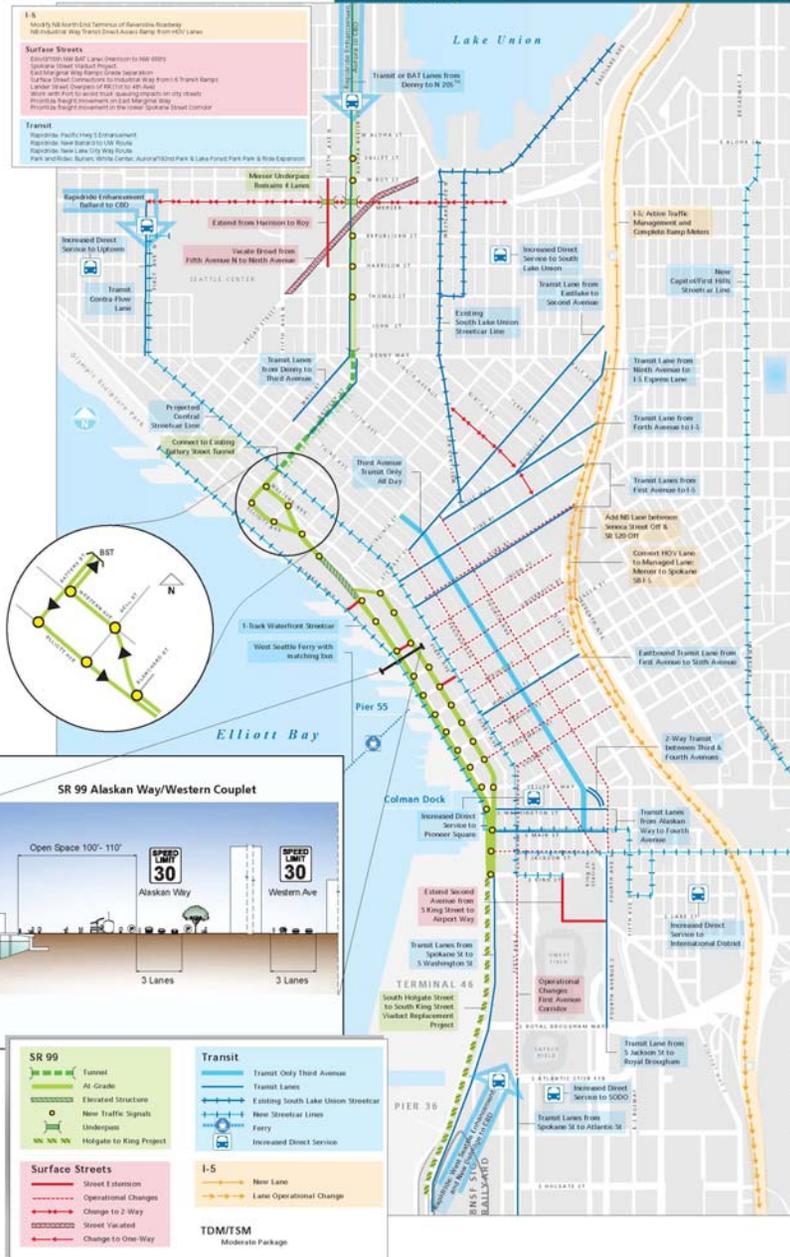
Transit
RapidRide: New Lake City Way Route



SR 99	Transit
Tunnel	Transit Only Third Avenue
At-Grade	Transit Lanes
Elevated Structure	Existing South Lake Union Streetcar
New Traffic Signals	New Streetcar Lines
Underpass	
Hidgate to King Project	
Surface Streets	I-5
Street Extension	Lane Operational Change
Operational Changes	New Transit Lane
Change to 2-Way	
Street Varied	
Change to One-Way	
	TDM/TSM
	Maximum Package

SCENARIO C: Alaskan Way/Western Couplet

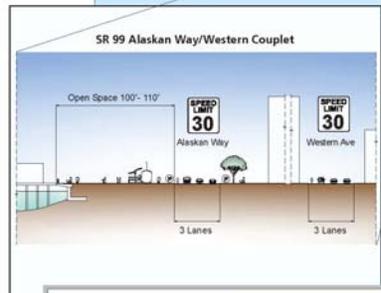
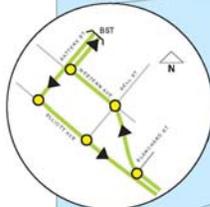
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I-5
Modify NB North End Terminus of Alaskan Way Viaduct to include West Transit Street Access Ramp from Existing Lane

Surface Streets
Extend/Propose New BAT Lane (transition to New SR99)
Increase Street Width Project
East/Propose New Transit Street Access Ramp
Surface Street Conversion to Residential Street from 4 Transit Ramps
Lateral Street Conversion of SR 101 to 4th Ave
West Side Front to Access Street Access Ramp on city street
Propose Street Conversion of SR 101 to 4th Ave
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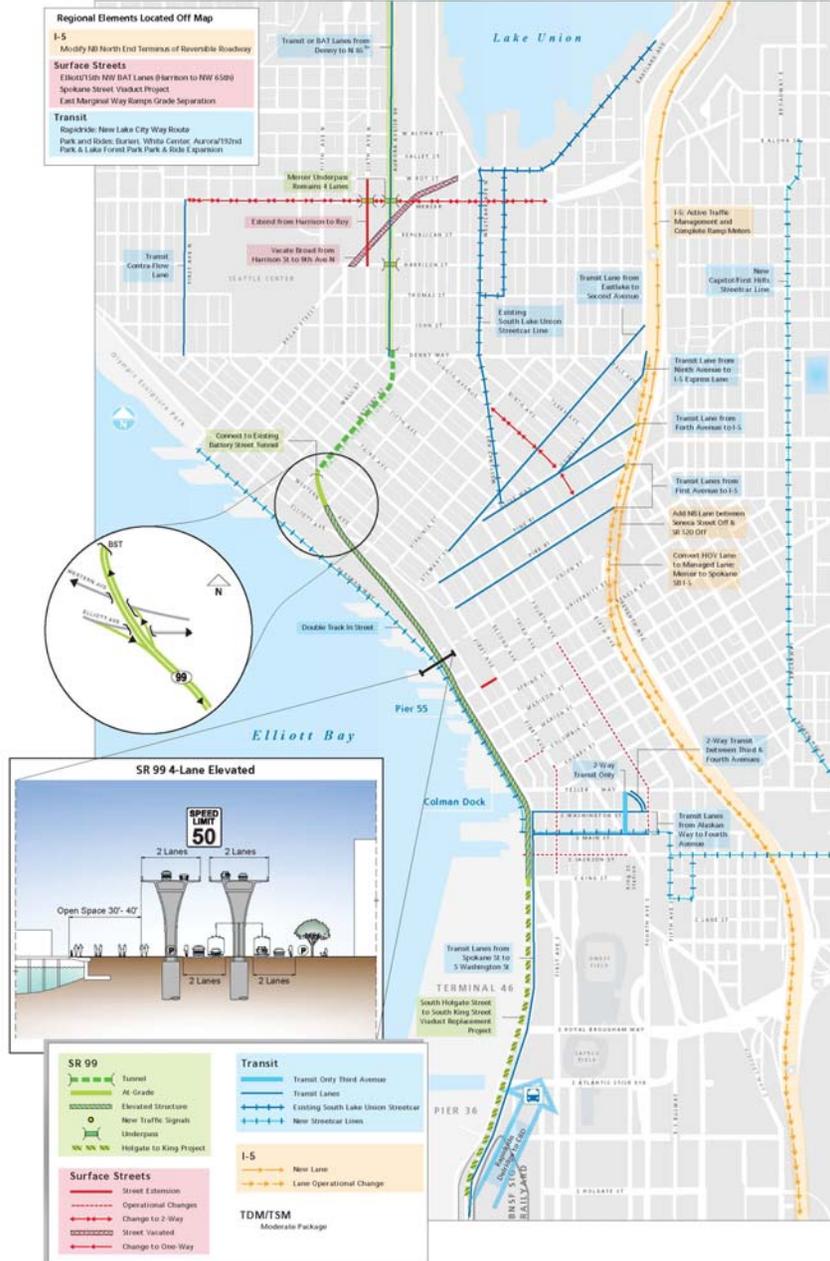
Transit
Propose Transit Only 3 Enhancement
Propose New Transit Only Lane
Propose New Lane City Way Route
Park and Ride Station Street Corner, Aurora/10th Park & Lake Forest Park Park & Ride Expansion



SR 99	Transit	I-5	TDM/TSM
Tunnel	Transit Only Third Avenue	New Lane	Moderate Package
At-Grade	Transit Lanes	Lane Operational Change	
Elevated Structure	Existing South Lake Union Streetcar		
New Traffic Signals	New Streetcar Lanes		
Underpass	Ferry		
Holgate to King Project	Increased Direct Service		
Surface Streets			
Street Extension			
Operational Changes			
Change to 2-Way			
Street Widened			
Change to One-Way			

SCENARIO D: 4-Lane Elevated

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SCENARIO E: 4-Lane Integrated Elevated

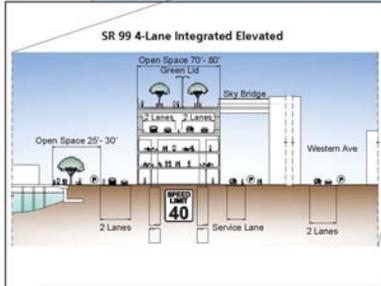
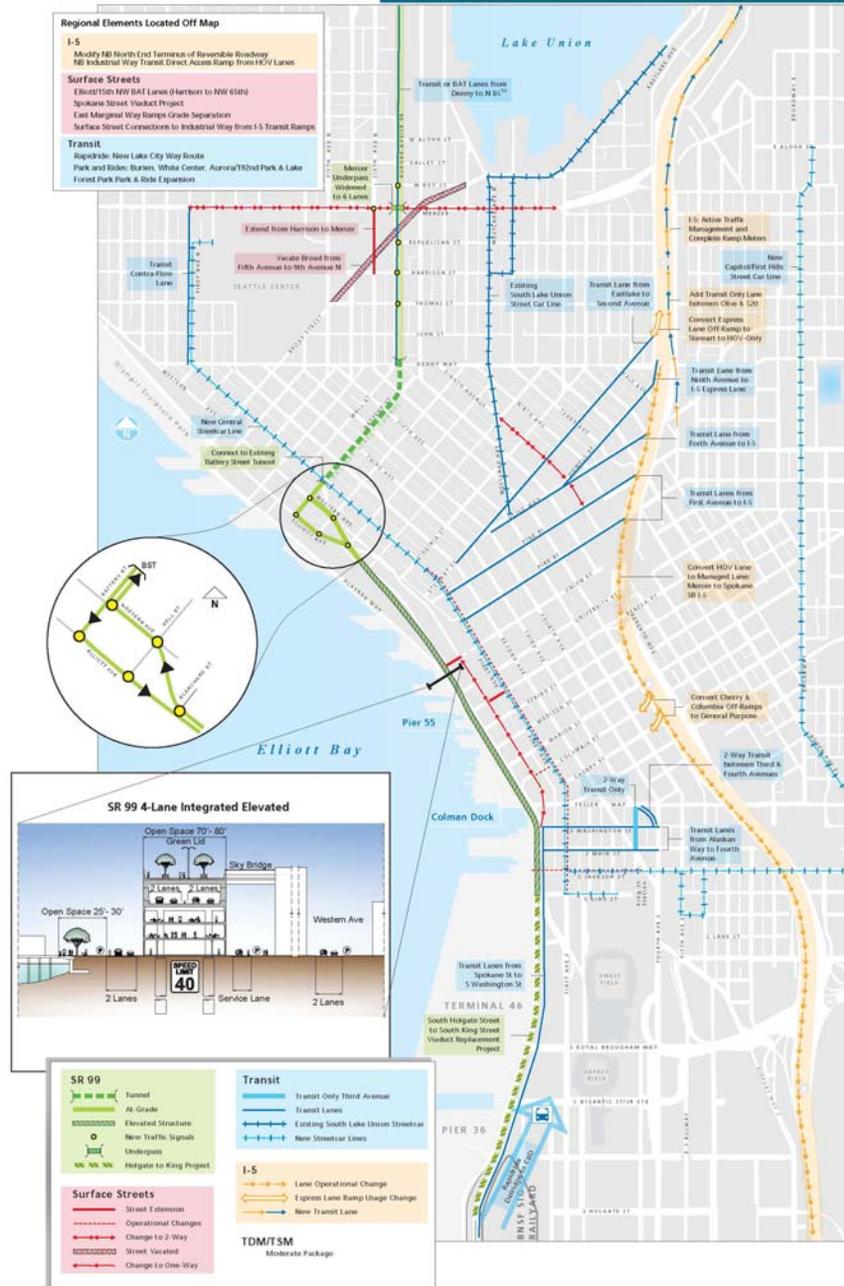
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Regional Elements Located Off Map

I-5
 Mobility 360 North (2nd Terminus of Reversible Roadway)
 90 Industrial Way Transit Street Access Ramp from HOV Lanes

Surface Streets
 Elliott 15th NW B&T Lanes (Extension to NW 65th)
 Spokane Street Viaduct Project
 East Marginal Way Ramps Grade Separation
 Surface Street Connections to Industrial Way from I-5 Transit Ramps

Transit
 RapidRide: New Lake City Way Route
 Park and Ride: Burien, White Center, Aurora/193rd Park & Ride
 Forest Park Park & Ride Expansion



SR 99

- Tunnel
- All-Grade
- Elevated Structure
- New Traffic Signals
- Underpass
- Hudgate to King Project

Surface Streets

- Street Extension
- Operational Changes
- Change to 2-Way
- Street Viated
- Change to One-Way

Transit

- Transit Only Third Avenue
- Transit Lanes
- Existing South Lake Union Streetcar
- New Streetcar Lines

I-5

- Lane Operational Change
- Express Lane Ramp Usage Change
- New Transit Lane

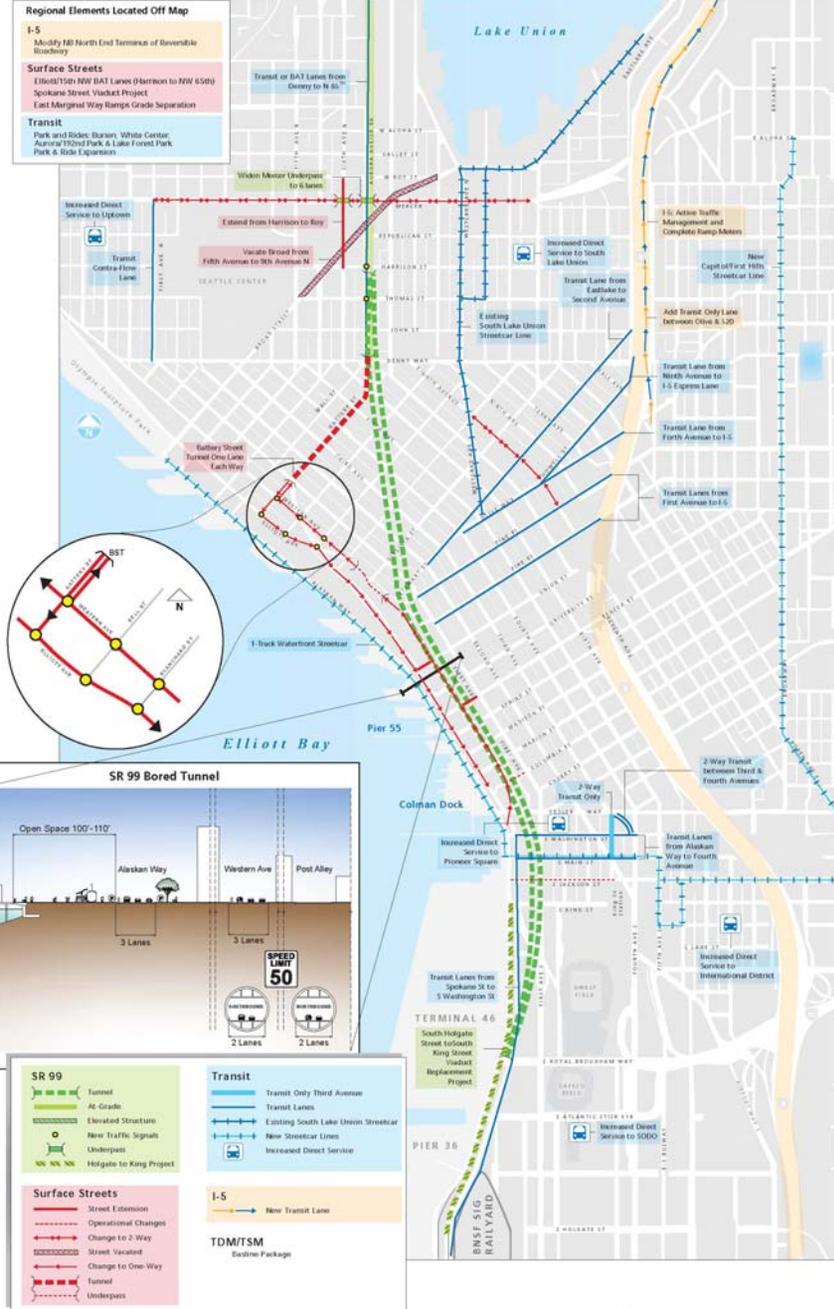
TDM/TSM
Moderate Package

SCENARIO F: 4-Lane Bored Tunnel

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Alaskan Way Viaduct & Seawall Replacement Program

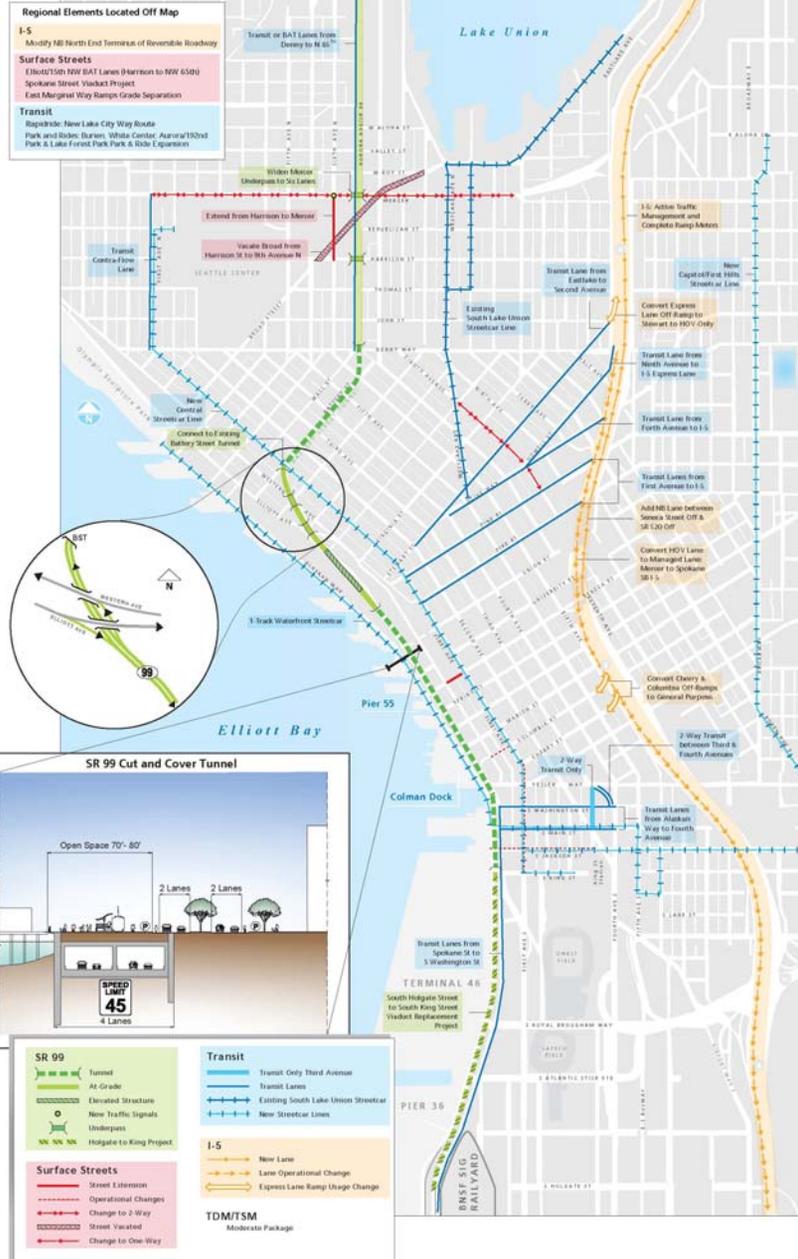
Central Waterfront



SCENARIO G: 4-Lane Cut and Cover Tunnel

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Alaskan Way Viaduct & Sewall Replacement Program
Central Waterfront



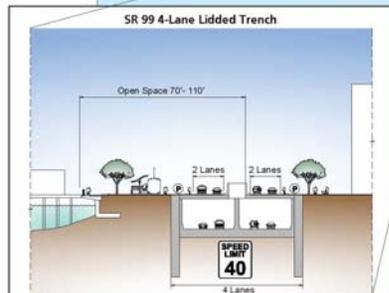
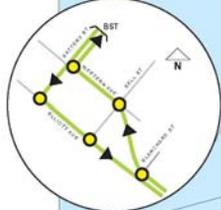
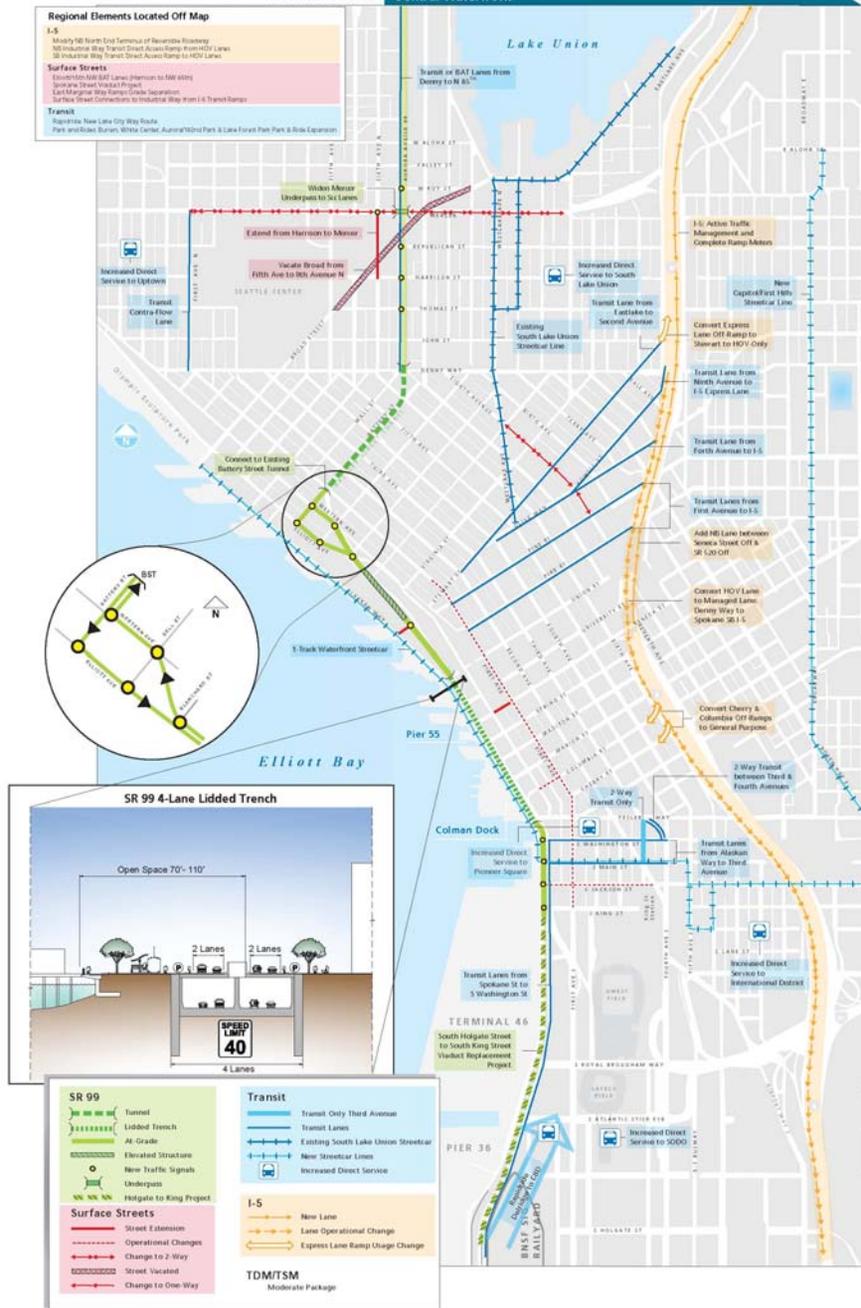
SCENARIO H: 4-Lane Lidded Trench

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Central Waterfront

Regional Elements Located Off Map

- I-5**
 - Modify NB North End Terminal of Alaskan Bypassing
 - SB Industrial Way Transit Direct Access Ramps from HOV Lanes
 - SB Industrial Way Transit Direct Access Ramps to HOV Lanes
- Surface Streets**
 - Extend from SR 99 Lanes (Johnson to 100' Width)
 - Operative Street Viaduct Project
 - East Marginal Way Ramps Grade Separation
 - Surface Street Connections to Industrial Way from I-5 Transit Ramps
- Transit**
 - Repeatably New Lake City Way Route
 - Park and Ride: Burns, White Center, Aurora/3rd Park & Lake Forest Park & Risk Expansion

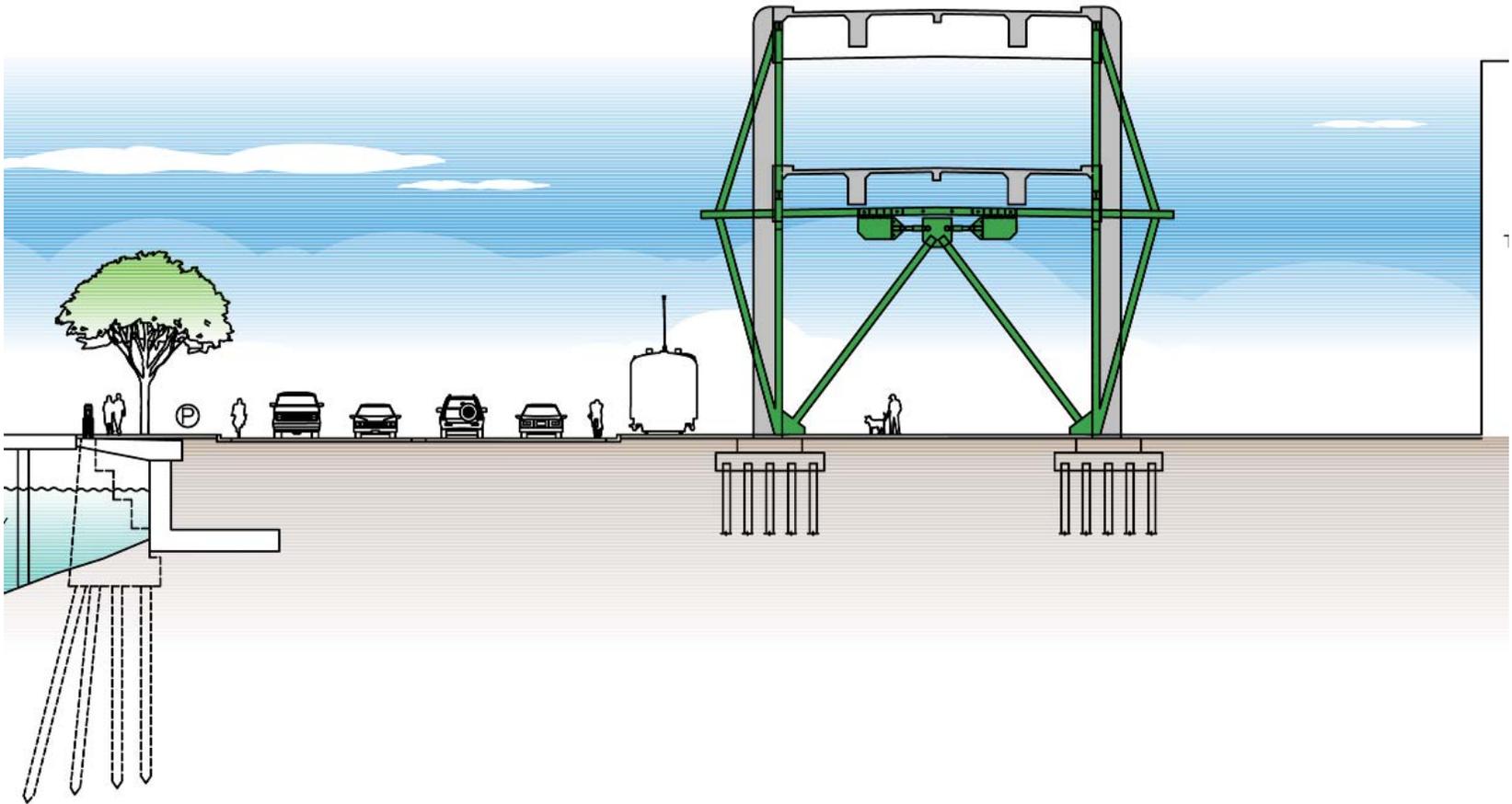


<p>SR 99</p> <ul style="list-style-type: none"> Tunnel Lidded Trench At-Grade Elevated Structure New Traffic Signals Underpass Holgate to King Project <p>Surface Streets</p> <ul style="list-style-type: none"> Street Extension Operational Changes Change to 2-Way Street Vandalism Change to One-Way 	<p>Transit</p> <ul style="list-style-type: none"> Transit Only Third Avenue Transit Lanes Existing South Lake Union Streetcar New Streetcar Lines Increased Direct Service <p>I-5</p> <ul style="list-style-type: none"> New Lane Lane Operational Change Express Lane Ramp Usage Change <p>TDM/TSM</p> <p>Moderate Package</p>
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Guiding Principles

- Improve public safety.** Replacing the viaduct is an urgent public safety issue. Any solution to the Alaskan Way Viaduct must improve public safety for current viaduct users and along the central waterfront.
- Provide efficient movement of people and goods.** Any solution to the Alaskan Way Viaduct must optimize the ability to move people and goods today and in the future in and through Seattle in an efficient manner, including access to businesses, port and rail facilities during and after construction.
- Maintain or improve downtown Seattle, regional, the port and state economies.** Any solution to the Alaskan Way Viaduct must sustain the city, region, port and state's economic vitality during and after construction.
- Enhance Seattle's waterfront, downtown and adjacent neighborhoods as a place for people.** Any solution to the Alaskan Way Viaduct must augment Seattle's reputation as a world-class destination.
- Create solutions that are fiscally responsible.** Any solution to the Alaskan Way Viaduct must make wise and efficient use of taxpayer dollars. The state's contribution to the project is not to exceed \$2.8 billion in 2012 dollars.
6. **Improve the health of the environment.** Any solution to the Alaskan Way Viaduct must demonstrate environmental leadership, with a particular emphasis on supporting local, regional and state climate change, water quality and Puget Sound recovery initiatives.

Viaduct Retrofit



Why is a retrofit no longer being considered?

Guiding Principle 1.

A long term solution requires a 1,000 year earthquake standard. Standards for either a 500 year (the previous standard) or a 1,000 year earthquake can only be met with costly and disruptive partial reconstruction of existing structure.

Still have narrow lanes, no shoulders, and minimal space for merging.

Guiding Principle 4.

Little or no changes to the waterfront as a place for people.

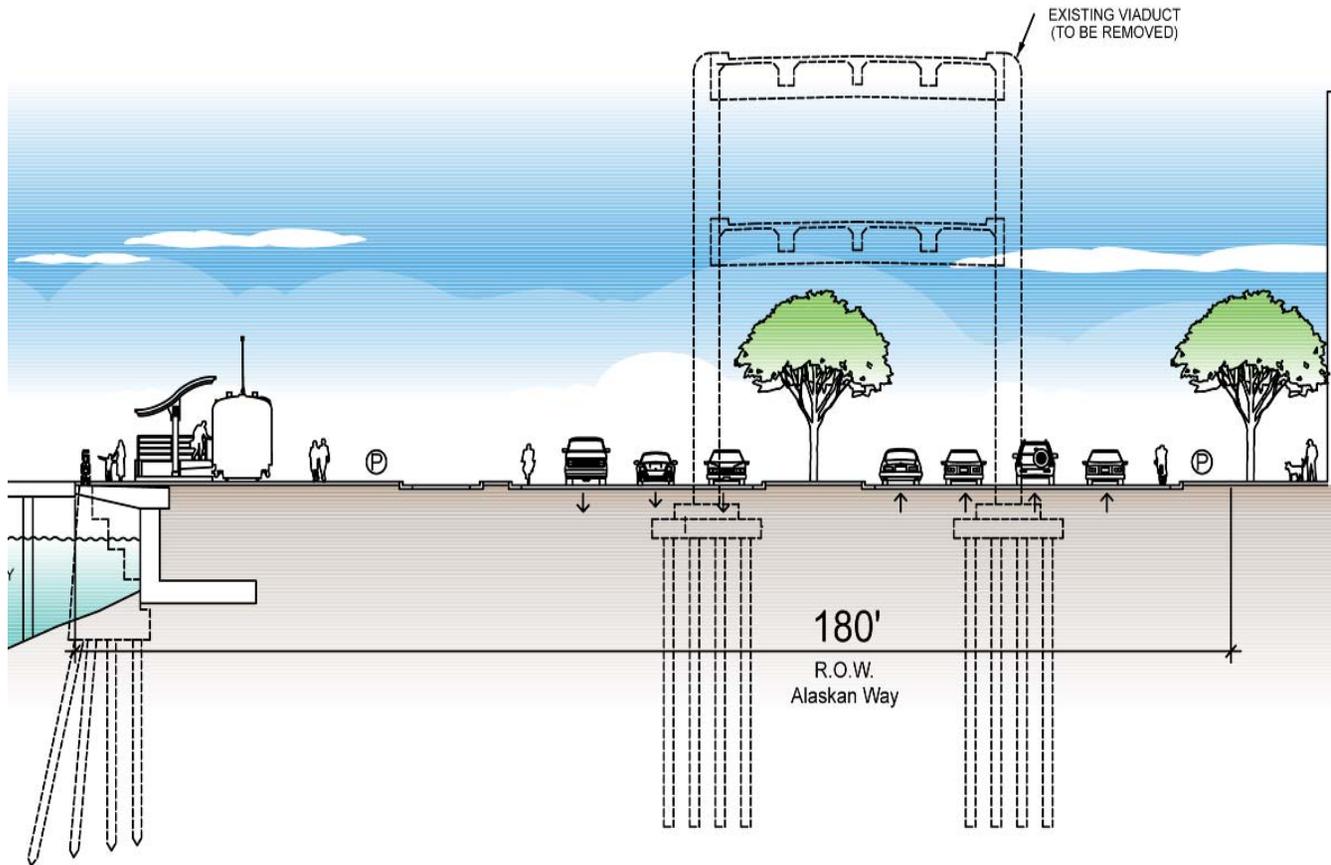
Guiding Principle 5.

Cost of a retrofit approaches 80 percent of the cost of a new structure, which is not cost effective.

Guiding Principle 6.

Little or no improvements to the environment.

Alaskan Way Surface Expressway



Why is the surface expressway no longer being considered?

Guiding Principle 4.

Limited possibilities for providing public open space on the waterfront.

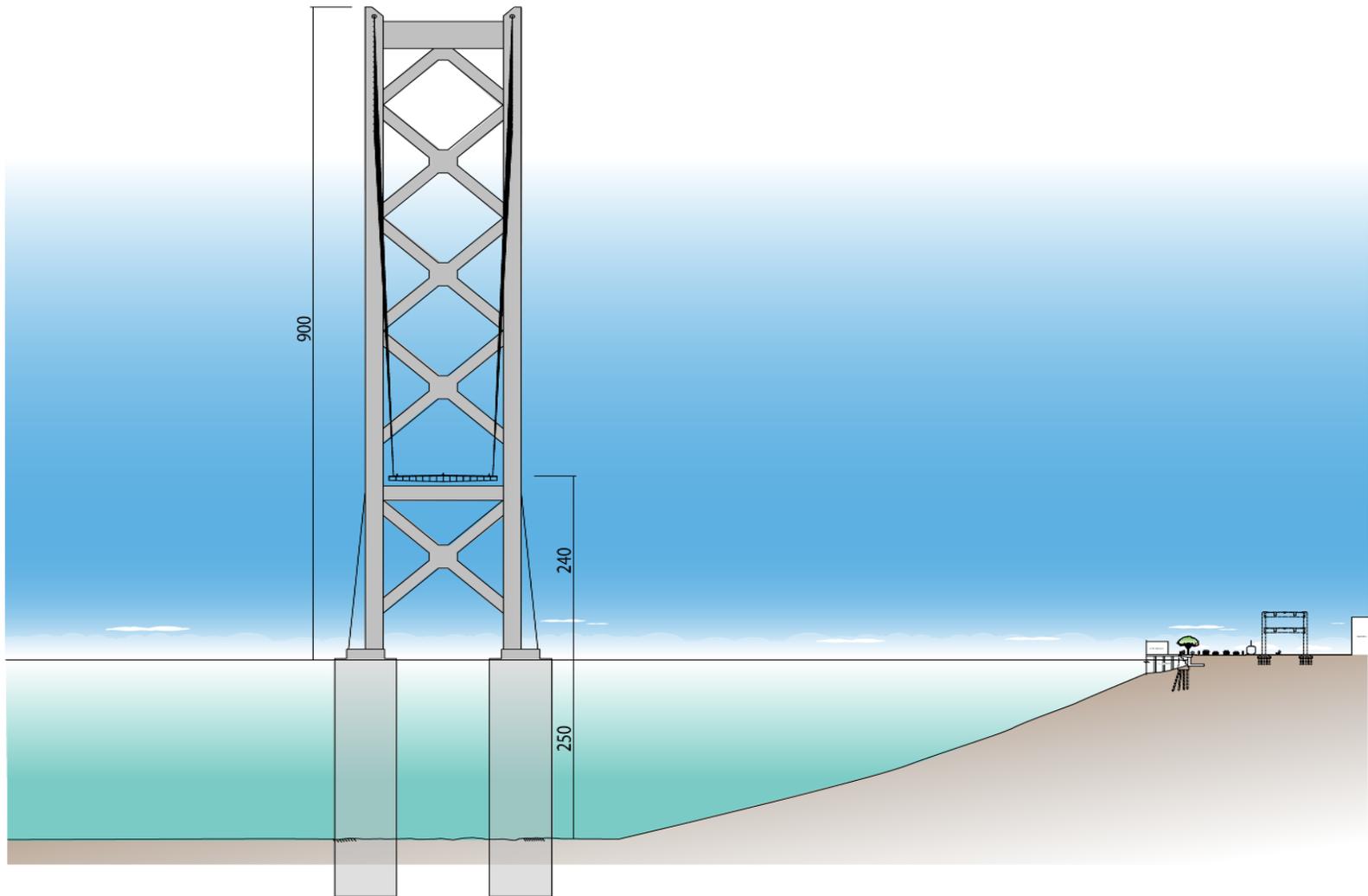
Could be a greater barrier for people accessing the waterfront than the existing viaduct.

Guiding Principle 6.

Likely be negative impacts to the environment on the central waterfront.

Central Waterfront

Elliott Bay Crossing



Why is an Elliott Bay crossing no longer being considered?

Guiding Principle 3.

Would be likely to disrupt shipping and Port activity.

Guiding Principle 5.

May not be cost effective due to the depth of Elliott Bay and high risk associated with type of construction.

Guiding Principle 6.

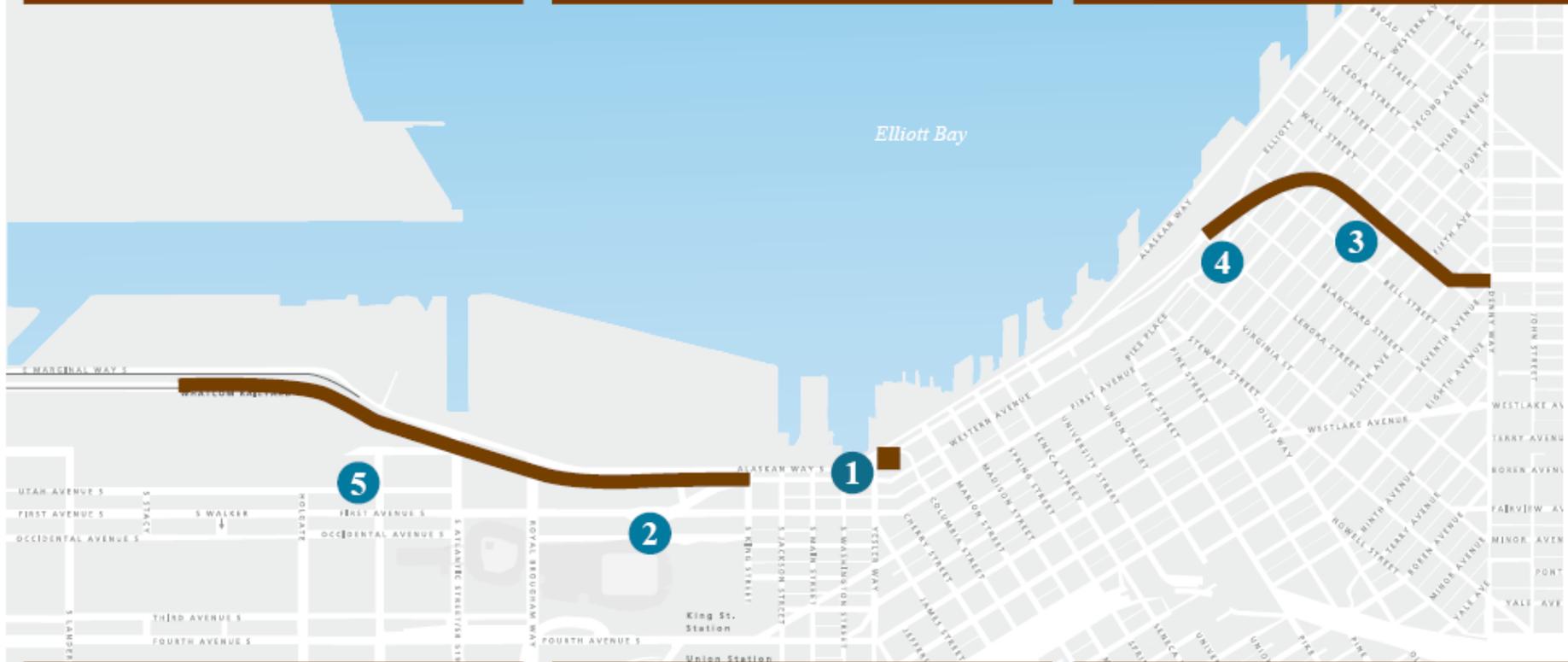
Structures in water would create environmental impacts that would be difficult to justify to permitting agencies under current law since options on land are feasible.

Moving Forward Projects

1 Stabilize four columns foundations between Columbia Street and Yesler Way

2 Relocate electrical lines between South Massachusetts Street and Railroad Way South

3 Upgrade the fire and life safety systems in the Battery Street Tunnel



4 Stabilize the viaduct between Lenora Street and the Battery Street Tunnel

5 Replace the viaduct from South Holgate Street to South King Street

6 Implement transit enhancements and other improvements

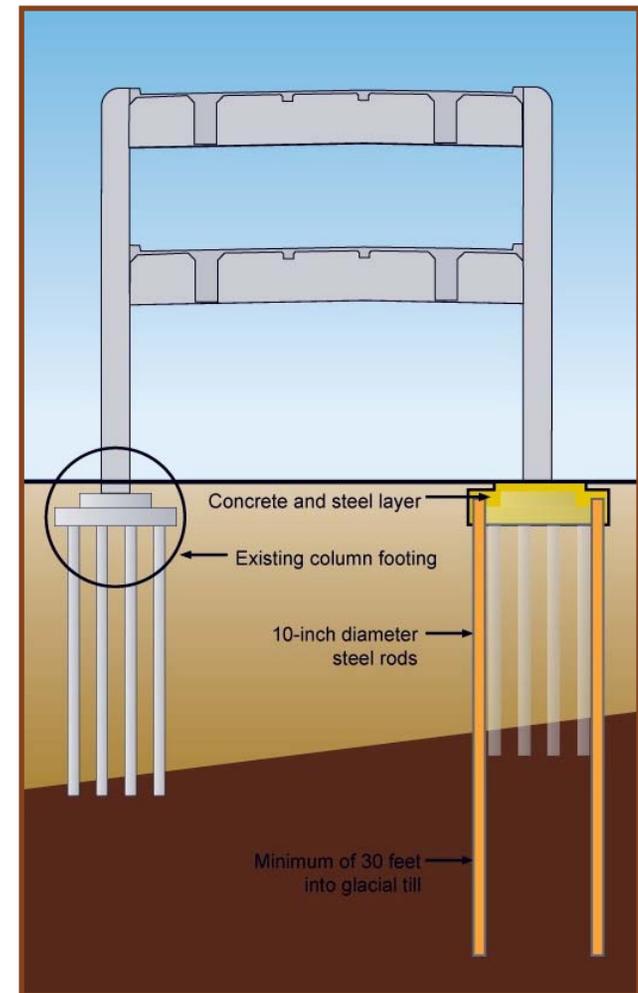
Moving Forward Projects

#1 - Repair Viaduct Between Columbia and Yesler

- Construction started in October to stabilize four footings
- Work includes:
 - Drilling a series of steel rods into stable soil
 - Placing a reinforcing layer of steel and concrete around existing footings

Construction: Oct. 2007 - April 2008

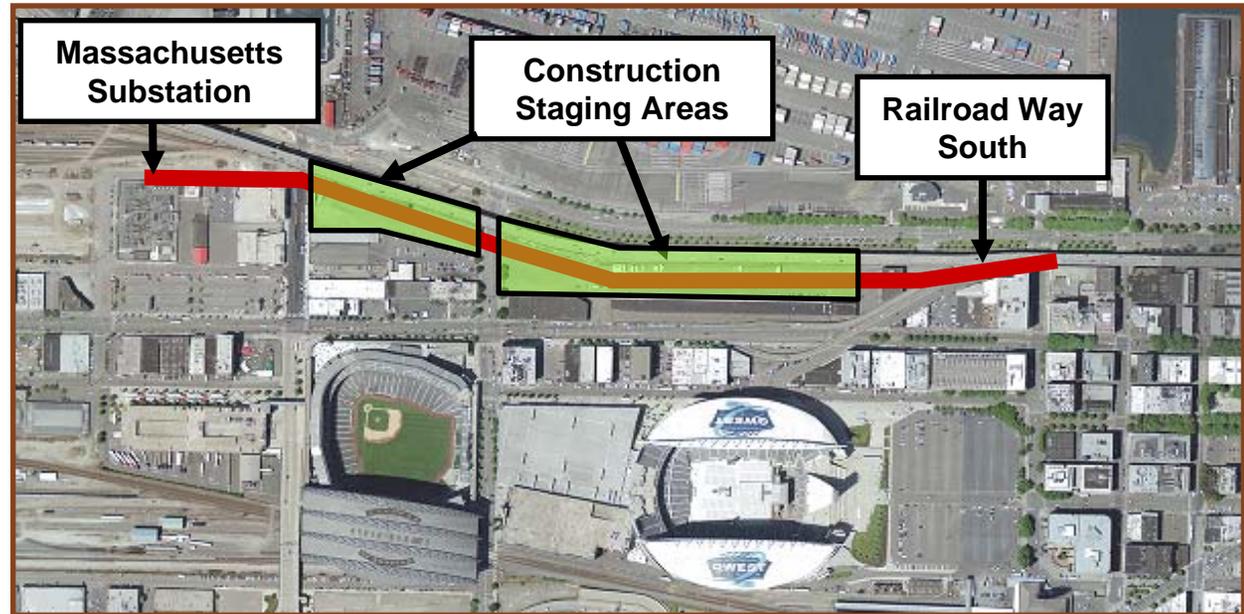
Status: Complete



Moving Forward Projects

#2 – Relocate Electrical Lines between South Massachusetts and Railroad Way South

- Relocate electrical lines to locations east of the viaduct
- Majority of work will take place on private property west of First Avenue South



Construction: 2008 - 2009

Status: Design completed

#3 - Upgrade Battery Street Tunnel

- Install new sprinkler pipes, fire alarm system, ventilation fan controls and lighting
- Reinforce roof beam connections and add second emergency exit stairwell
- Close short on- and off-ramps just south of tunnel
- Primarily night and weekend closures during construction



Construction: 2009 – 2011

Status: In design

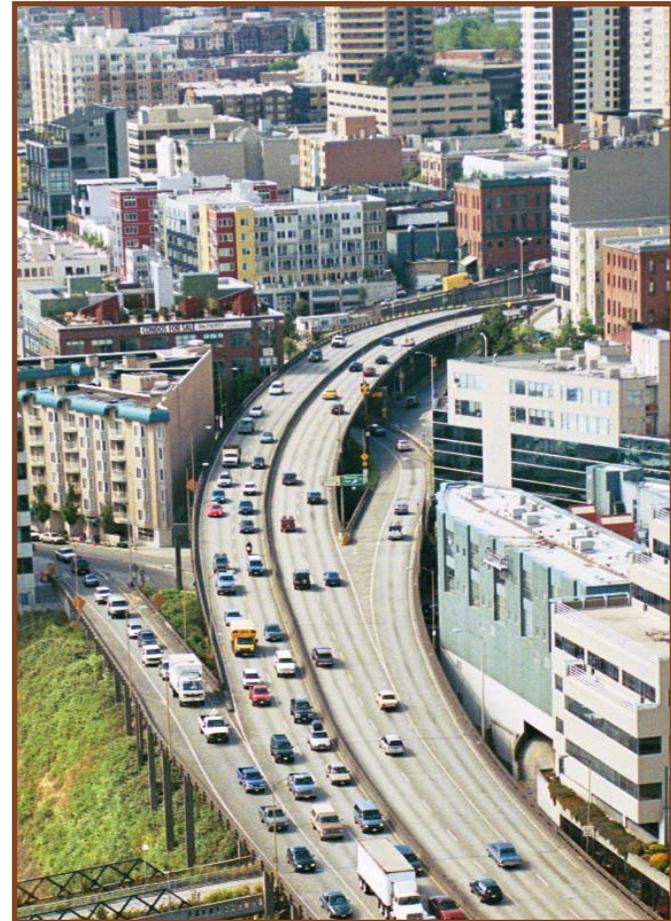
Moving Forward Projects

#4 - Stabilize Viaduct from Lenora to Battery Street Tunnel

- On hold until more is known about central waterfront

Construction: TBD

Status: 60 percent design complete



Moving Forward Projects

#5 - Replace Viaduct from South Holgate to South King

- Remove viaduct between South Holgate and South King streets
- Build new section of SR 99
- This work will:
 - Improve local mobility for pedestrians, bicyclists, vehicles and freight
 - Improve access to downtown Seattle



Construction: Fall 2009 - 2012

Status: In design

Moving Forward Projects

Comment on the Environmental Assessment

Comment period:

June 27 – August 11, 2008

Public Hearings:

- July 10, 2008
4 – 7 p.m.
Town Hall, 119 Eighth Ave
- July 15, 2008
5 – 8 p.m.
Madison Middle School
3429 45th Ave SW



Moving Forward Projects

#6 - Transit Enhancements and Other Improvements

WSDOT, King County and the City of Seattle have agreed upon a list of projects to keep people and goods moving during SR 99 construction. These projects include:

- I-5 active travel management
- SR 519 freight connections
- S. Spokane St. improvements
- Increased bus service
- Real-time traveler information
- Commuter incentives

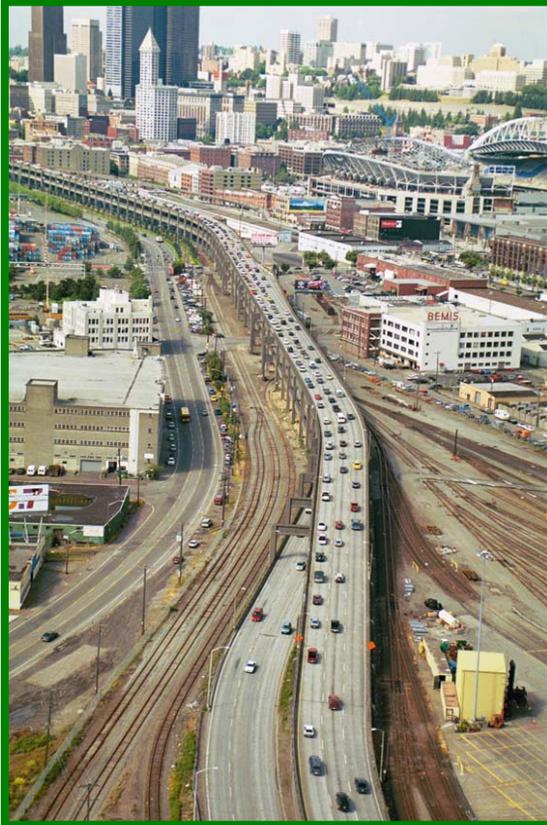
Construction: 2009 - 2012

Status: In design



Program Overview

Alaskan Way Viaduct and Seawall Replacement Program



Follow our progress: www.alaskanwayviaduct.org