

The Alaskan Way Viaduct & Seawall Replacement Program



Central Waterfront

Alaskan Way Viaduct
Stakeholder Advisory Committee

Scenario Evaluation Results – Enhance Seattle’s Waterfront – Measure 3
September 25, 2008

Guiding Principles

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

Scenario Evaluation Measures for Guiding Principle 4

1. Evaluate open space opportunities.
2. Evaluate pedestrian connectivity and barriers between the waterfront and other key downtown destinations.
- 3. Measure shadowing and view blocking impacts.**
4. Assess changes in bicycle and pedestrian environment throughout Center City, including impacts of traffic volumes, traffic management changes, speeds, and air pollution.
5. Assess changes in traffic noise levels on the waterfront and in adjacent Center City neighborhoods.
6. Assess transit access to and on the waterfront.
7. Assess impacts on historic structures and districts.

Shadowing and View Blocking

- Measure:
 - Directly shaded area on central waterfront.
 - Shading modeled for equinox; Pike Street to King Street.
- Discuss:
 - View blockage to and from central waterfront and blockage due to ventilation structures.
 - Views from roadway.

Key Findings

- Surface scenarios (A, B, C):
 - Will not have shadows and view blocking impacts.
 - Surface intersections on Elliott and Western avenues reduce shadows.
 - Will provide views from vehicles of Elliott Bay that are framed by waterfront piers as well as surface level views of downtown buildings and development on the waterfront.
 - Pedestrian views from waterfront to downtown will be improved.

Key Findings

- Tunnel scenarios (F, G, H):
 - Will not have shadows and view blocking impacts on waterfront.
 - Vehicles traveling in the tunnel have no view.
 - Will provide views from the surface street of Elliott Bay that are framed by waterfront piers as well as surface level views of downtown buildings and development on the waterfront.
 - Ventilation buildings, if required, could have localized visual impacts (Cut & Cover and Bored Tunnel scenarios only).
 - The Cut and Cover tunnel includes a pedestrian structure which adds open space with panoramic views for pedestrians connecting waterfront to Victor Steinbrueck Park.

Key Findings

Elevated Structure Shadows*

	Existing Viaduct	Scenario D: Independent Elevated	Scenario E: Integrated Elevated
8 a.m. shadows	440,400 sq ft	433,700 sq ft	450,000 sq ft
Noon shadows	80,100 sq ft	125,000 sq ft	69,000 sq ft
4 p.m. shadows	464,400 sq ft	438,000 sq ft	453,000 sq ft
First sunlight**	8:24 A.M.	9:10 A.M.	8:52 A.M.

* All calculations are on the equinox.

** Time direct sun reaches sidewalk in front of Pier 55. With no structure first sun is at 8:10 A.M.

Key Findings

- Scenario D: Independent Elevated
 - Similar and somewhat greater shadow impacts than the existing viaduct.
 - View blocking would be similar to and somewhat less than the existing viaduct.
 - Improved clearance for views under the higher structure.
 - Fewer columns.
 - Views from SR 99:
 - Northbound views of Elliott Bay and the Olympic Mountains to the west and northwest would be substantially restricted by southbound traffic on the same level.
 - Southbound views of Harbor Island and West Seattle would be enhanced.

Key Findings

- Scenario E: Integrated Elevated
 - Similar shadow impacts to the existing viaduct.
 - Substantially greater view blocking from the waterfront and downtown.
 - Views from vehicles on SR 99 would be substantially restricted by the structure which would essentially eliminate panoramic views.
 - Panoramic views for pedestrians would be provided from the upper deck but would require a special trip.

What Did We Learn?

- Scenarios without new structures open views between downtown and central waterfront.
- Shading impacts generally similar to existing structure.
 - A 4-lane Independent Elevated with structures at different heights would have less shading but more view blockage.
- Integrated Elevated
 - Greatest view blockage.
 - Creates panoramic vista for pedestrians on lid.