

Failure of the Elliott Bay Seawall would devastate Seattle's economy

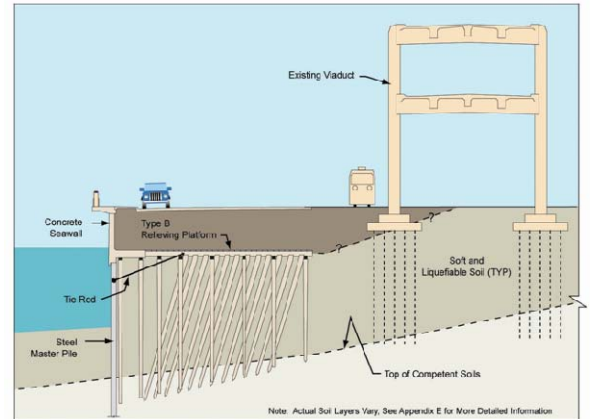


Elliott Bay Project: The Alaskan Way Seawall

Background

The Elliott Bay Seawall runs for 7,000 feet along the Seattle waterfront. The project was constructed in 1934 to provide level access to Seattle's piers and to support the Alaskan Way Viaduct and surface street.

The seawall is a concrete wall secured by a 60' wide timber tie-back structure that supports the fill underneath the surface street and the Viaduct. The timber was left untreated when the wall was built in the 1930's, and has significantly deteriorated. Since the strength of the seawall is in the timber tie-back, the concrete and steel that is visible would collapse without it.



Tests have revealed that the timber has been vulnerable to gribbles, which are microscopic marine borers that consume wood. The structure is now extremely fragile, and if a catastrophic failure of the seawall were to occur, there would be severe damage to the city and regional economies, and potential loss of life.

Current seawall a threat to downtown Seattle and the Northwest economy

The Puget Sound area was shaken by a magnitude 6.8 earthquake in 2001. The quake was felt as far away as Salt Lake City and caused widespread damage to buildings, roads, and bridges—including the Alaskan Way Viaduct. Inspections by the City of Seattle revealed the seawall suffered extensive damage due to the quake, and concluded that the structure cannot withstand another seismic event.

Even without another natural catastrophe, the seawall is not expected to last another 50 years. Eventually, enough of the timber will be lost and parts of the concrete and steel wall will begin to fail. Whether from a seismic event in the near term, or from continued deterioration over the longer term, the people and economy of Seattle and the region would be drastically affected:

- 110,000 vehicles per day travel on the Alaskan Way Viaduct
- 12,000 vehicles per day travel on the Alaskan Way surface street
- 30,000 passengers per day use the Colman Ferry Terminal
- The waterfront is a major utilities corridor serving downtown Seattle and the region
- 24 freight trains and 6 passenger trains travel the waterfront every day
- The City of Seattle's waterfront is a major tourist destination
- Access to Port of Seattle cargo terminals and billions of dollars of international trade

Moving forward

The Washington State Department of Transportation, Federal Highway Administration, and City of Seattle have included the replacement of the seawall in their plans to replace the Alaskan Way Viaduct. Options for the project include combinations of large concrete drilled shafts and injected grout, which may reach \$1B.

The Corps of Engineers received \$462,000 in FY2010 to continue participating in a study of this project. The Administration did not include funding in the FY2011 or FY2012 budget for this project. However, PNWA is seeking \$1M in FY2012 to support continued Corps participation in the study, as well as independent external technical review.

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