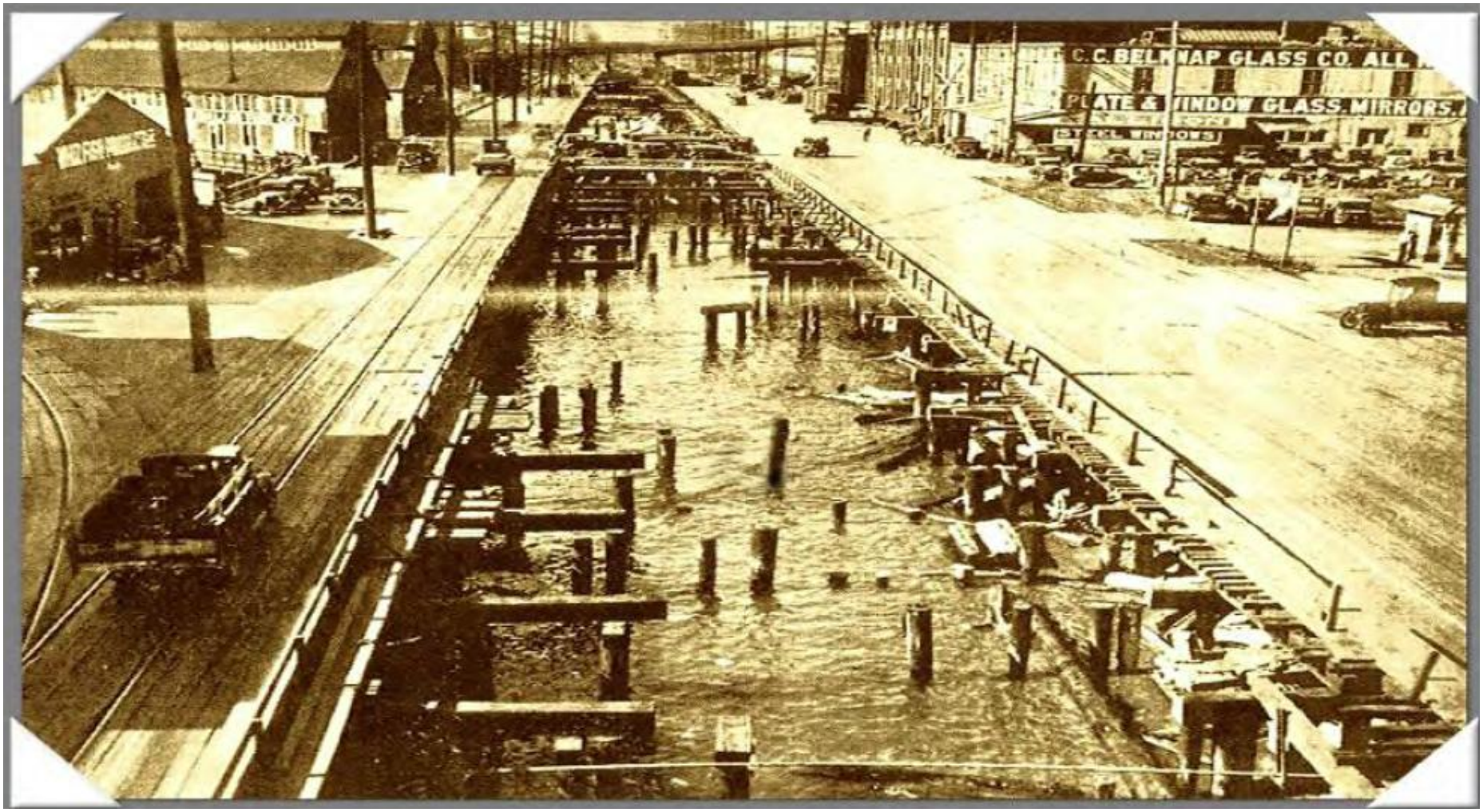
Elliott Bay Seawall Project

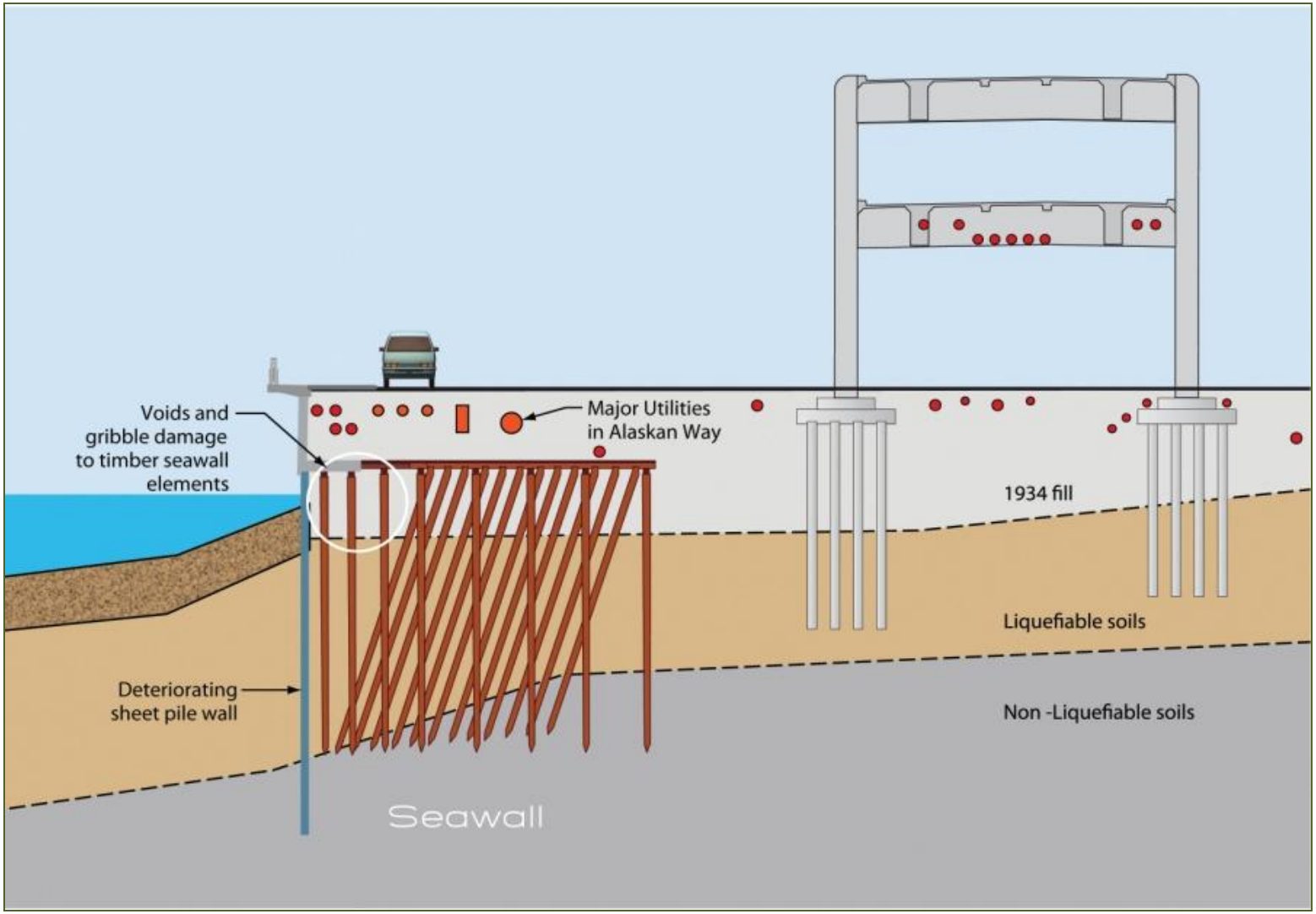
Seattle City Council
Special Committee Public Hearing
June 27, 2012

Project Area

History: Railroad Avenue (1931)



Sample Seawall Cross-Section



Type B Seawall (Madison to Union)

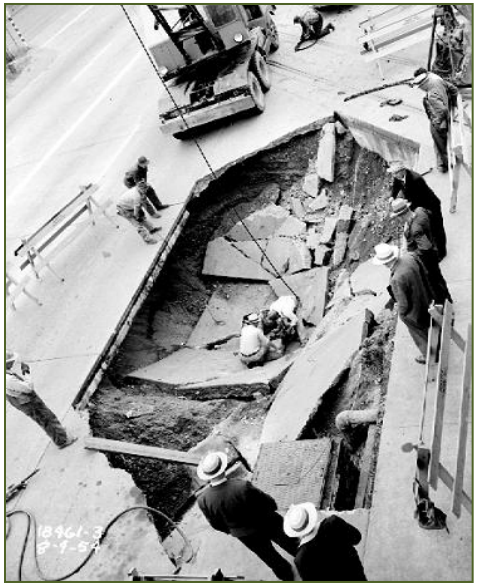
What's at Risk?

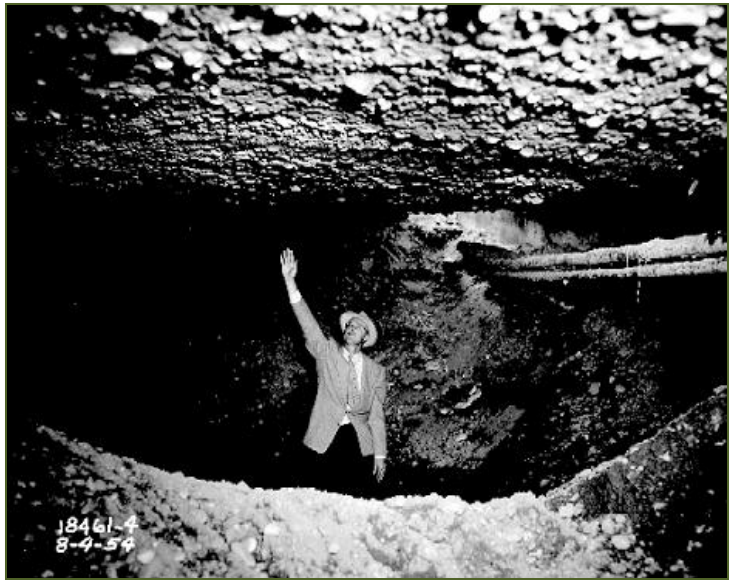
- Public safety
- Transportation corridor
- Critical utilities
- Residential and commercial structures
- Public recreation
- Tourism and local attractions
- Seattle's front porch

Seawall Project Purpose

- Reduce the risks of coastal storm and seismic damages
- Protect public safety, critical infrastructure, and associated economic activities along Seattle's central waterfront
- Improve the degraded ecosystem functions and processes of the Elliott Bay nearshore in the vicinity of the existing seawall

Seawall Vulnerabilities

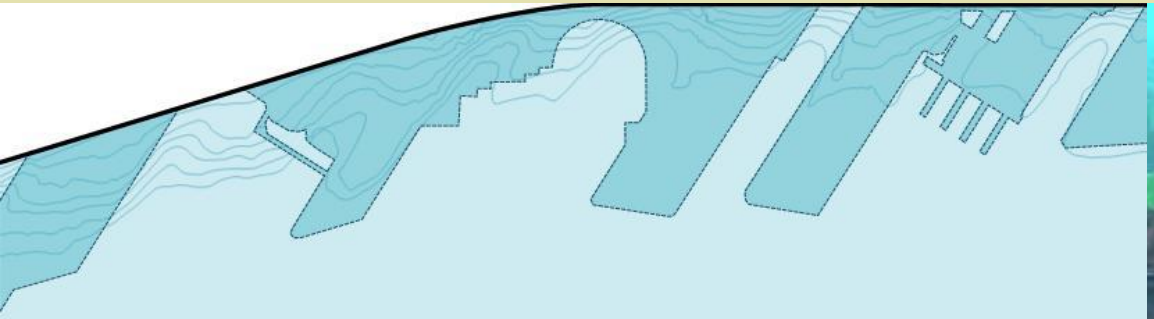




1954 failure, Clay Street (above/at right)

1986 relieving platform repairs (to right)

Degraded Nearshore Habitats

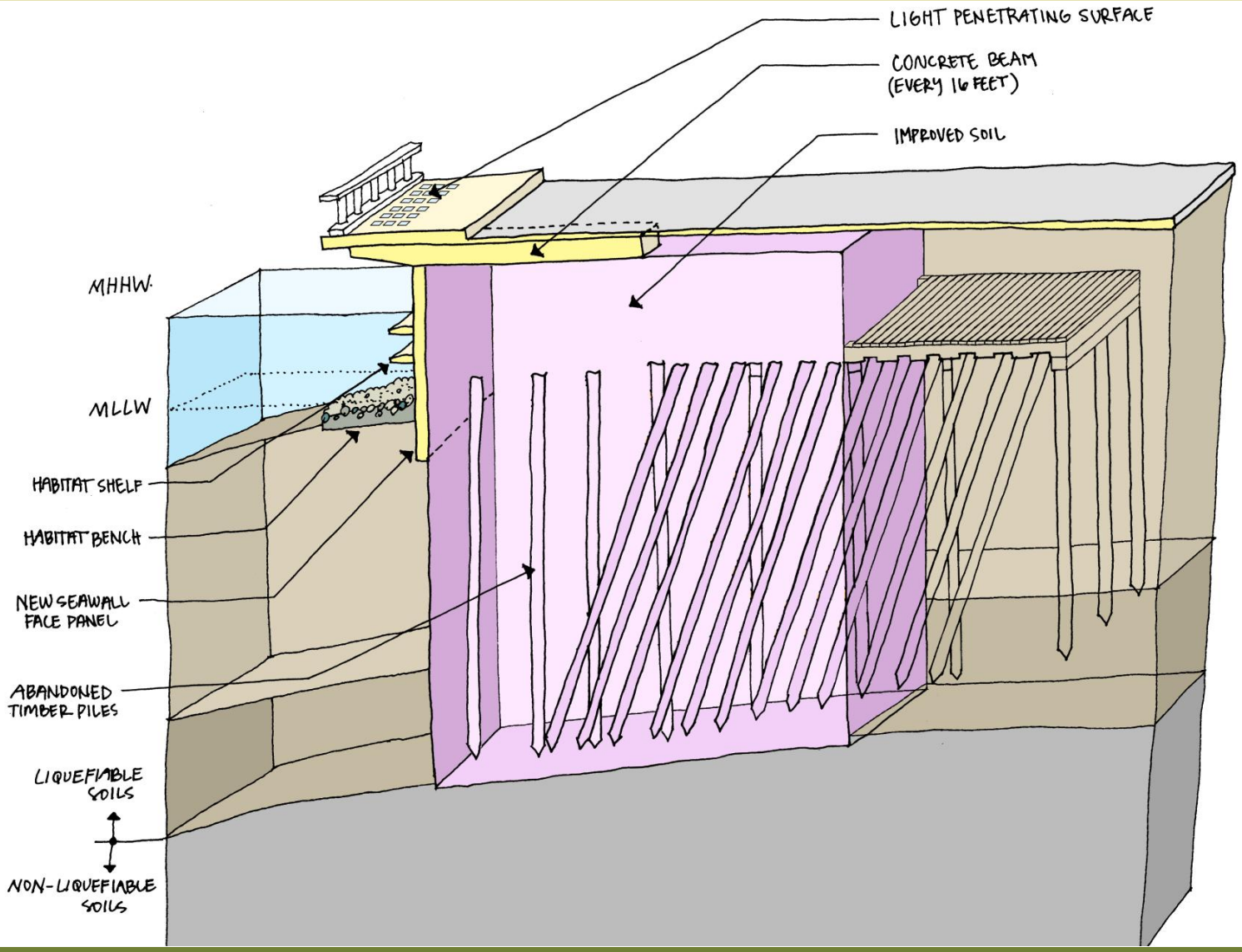


- Migratory corridor
  - Depth
  - Light
- Nearshore ecosystem productivity
  - Aquatic and riparian vegetation
  - Macroinvertebrates
  - Substrate diversity

Recommended Design Features

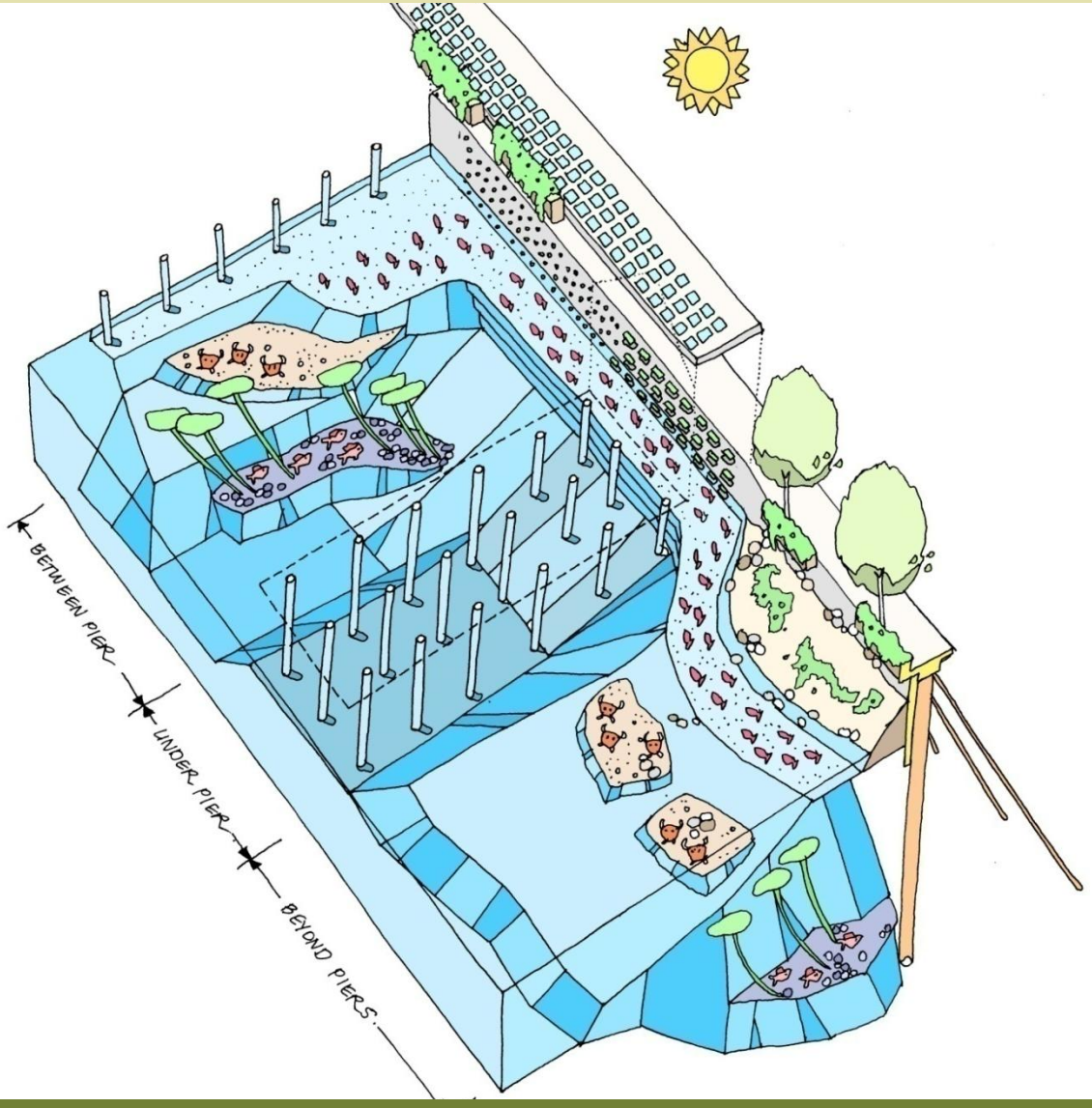
- Face of wall: 10-15 feet inland
- Soil stabilization with jet grouting
- Continuous migration corridor and nearshore restoration
- Restored Alaskan Way and pedestrian/bicycle facilities
- Early program wins

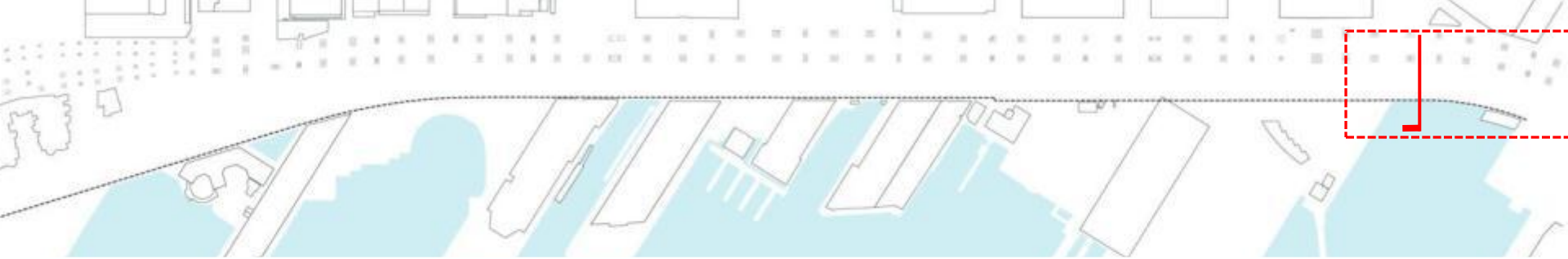
Soil Stabilization: Jet Grouting

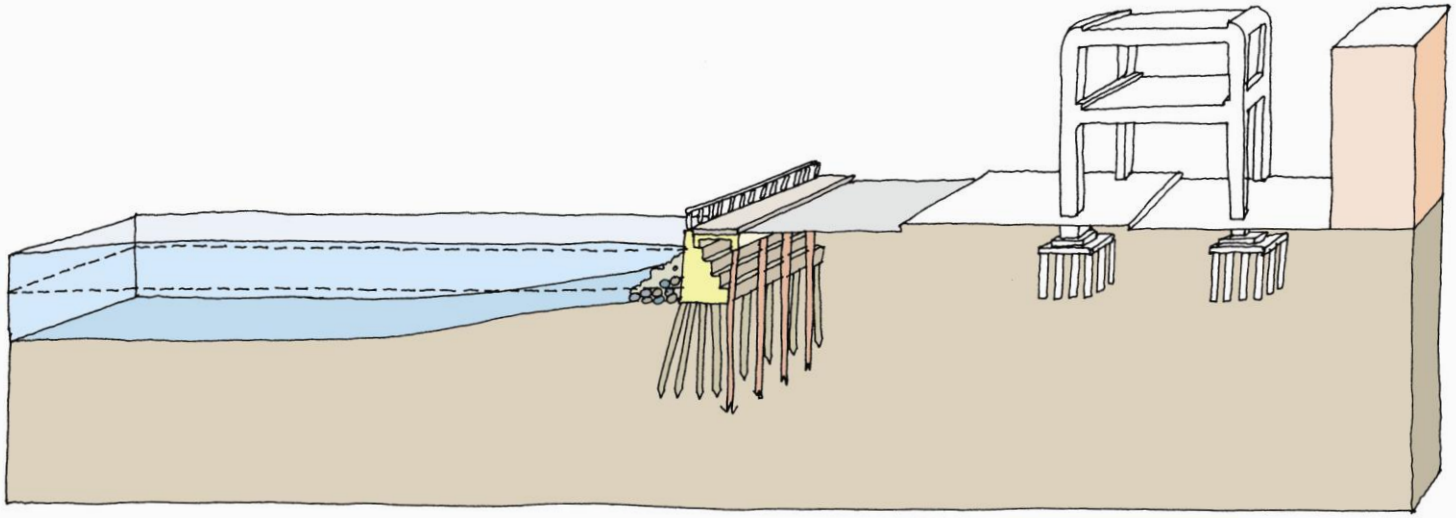


Potential Habitat Enhancement Measures

- Textured seawall
- Intertidal corridor
- Lighting
- Riparian vegetation
- Substrate enhancement
- Cobble reefs

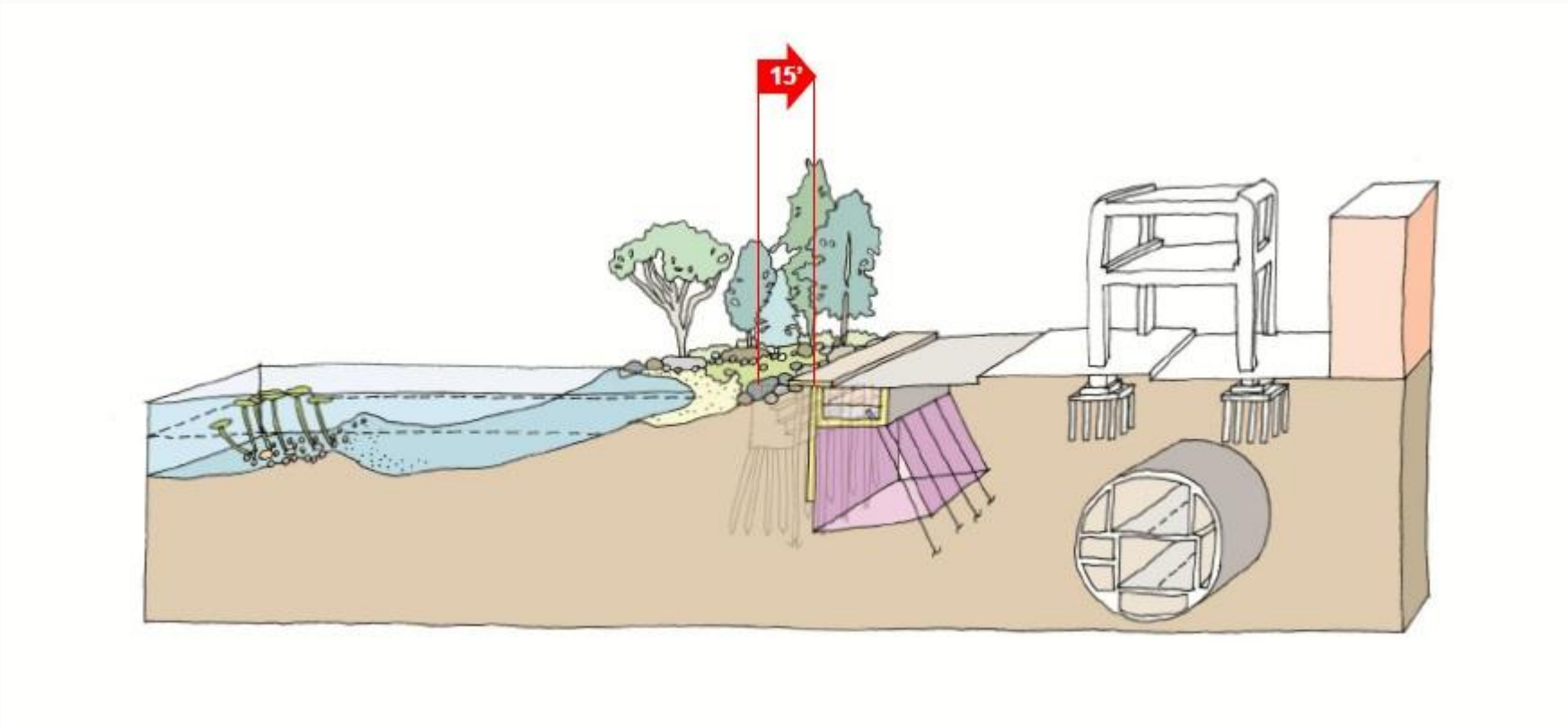






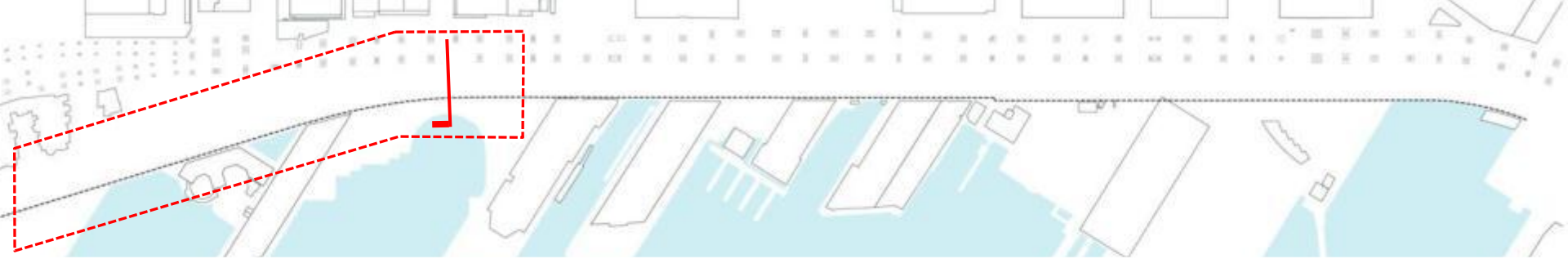
Existing – Zone 1

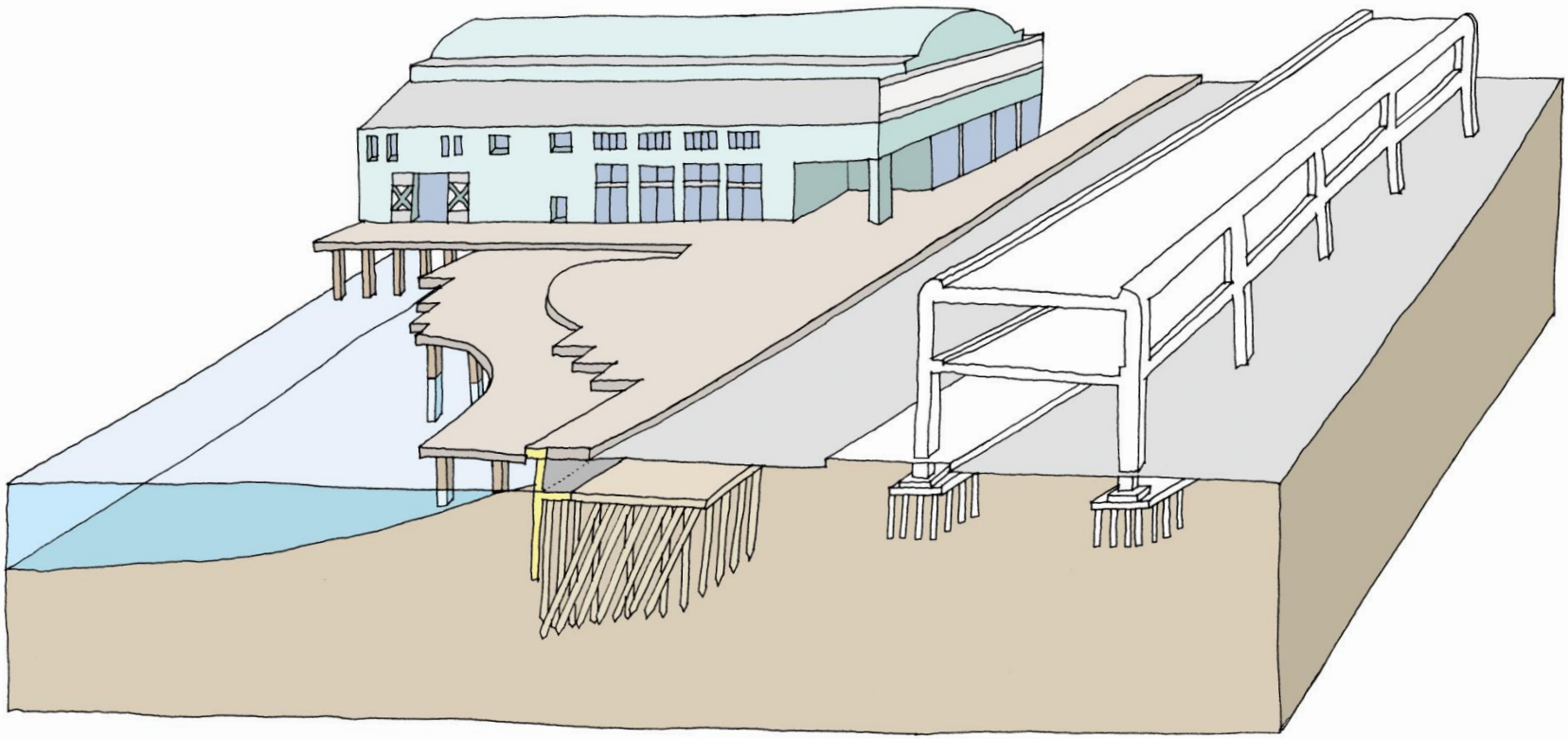
Elliott Bay Seawall Project



Recommended Design – Zone 1

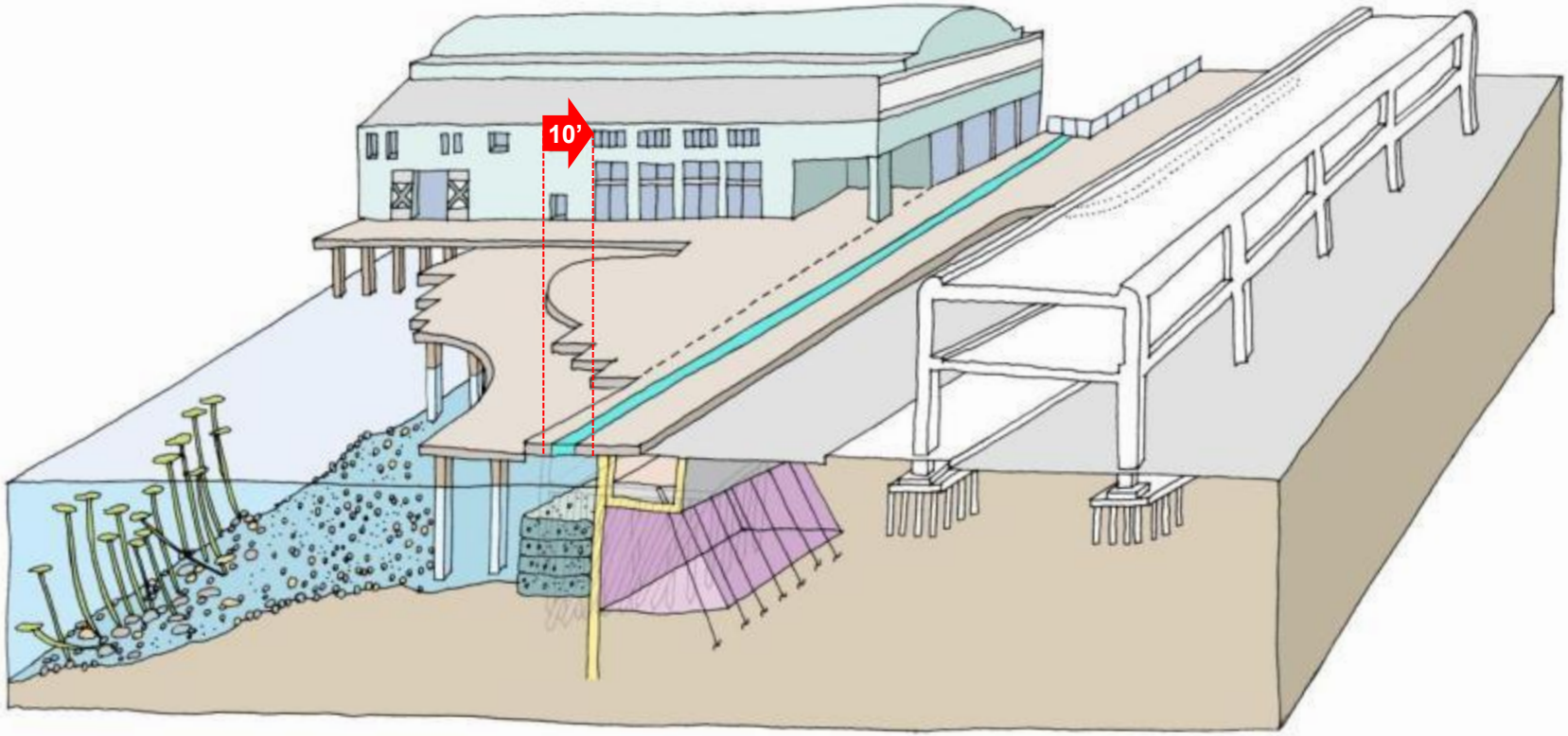
Elliott Bay Seawall Project





Existing – Zone 4

Elliott Bay Seawall Project

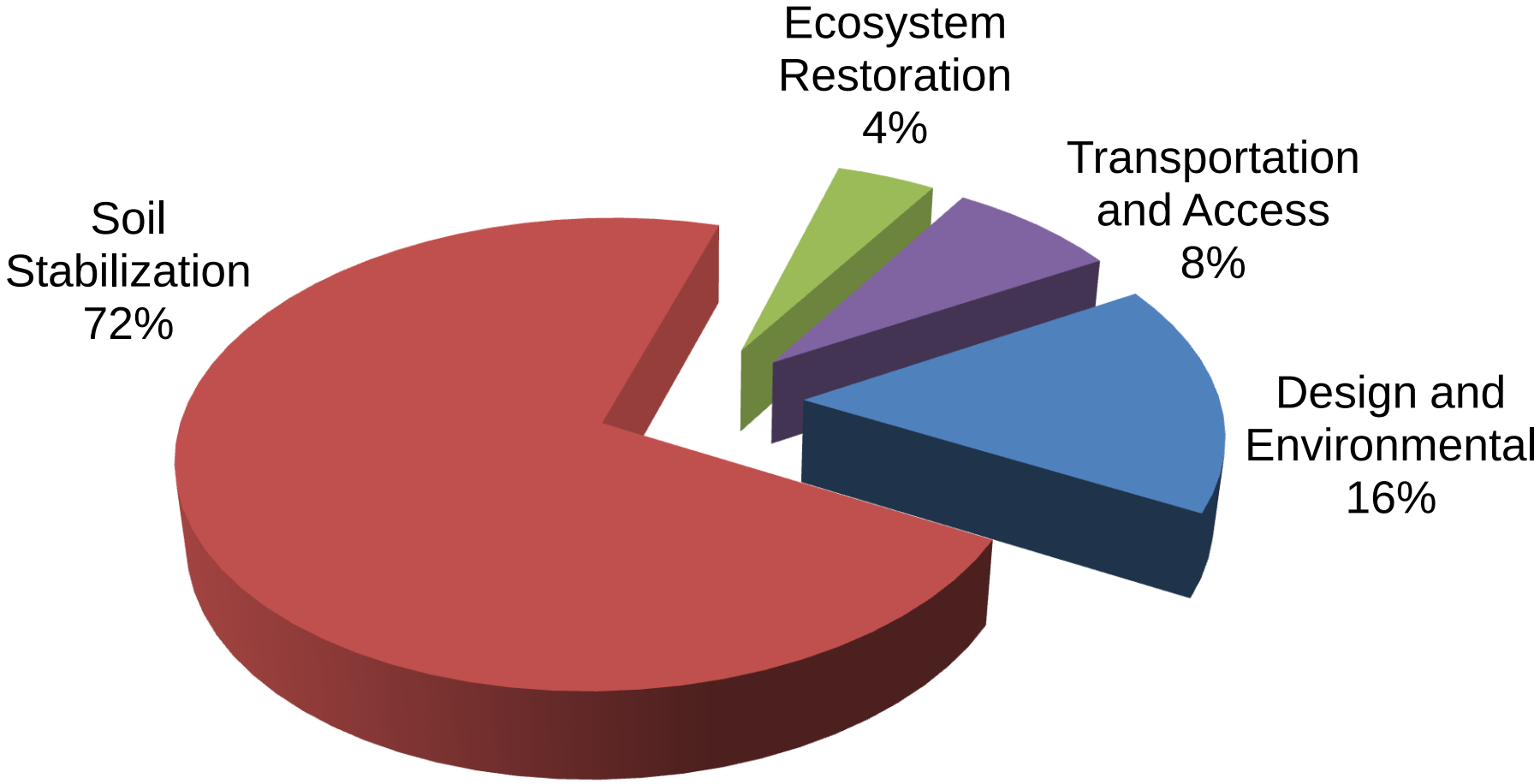


Recommended Design – Zone 4

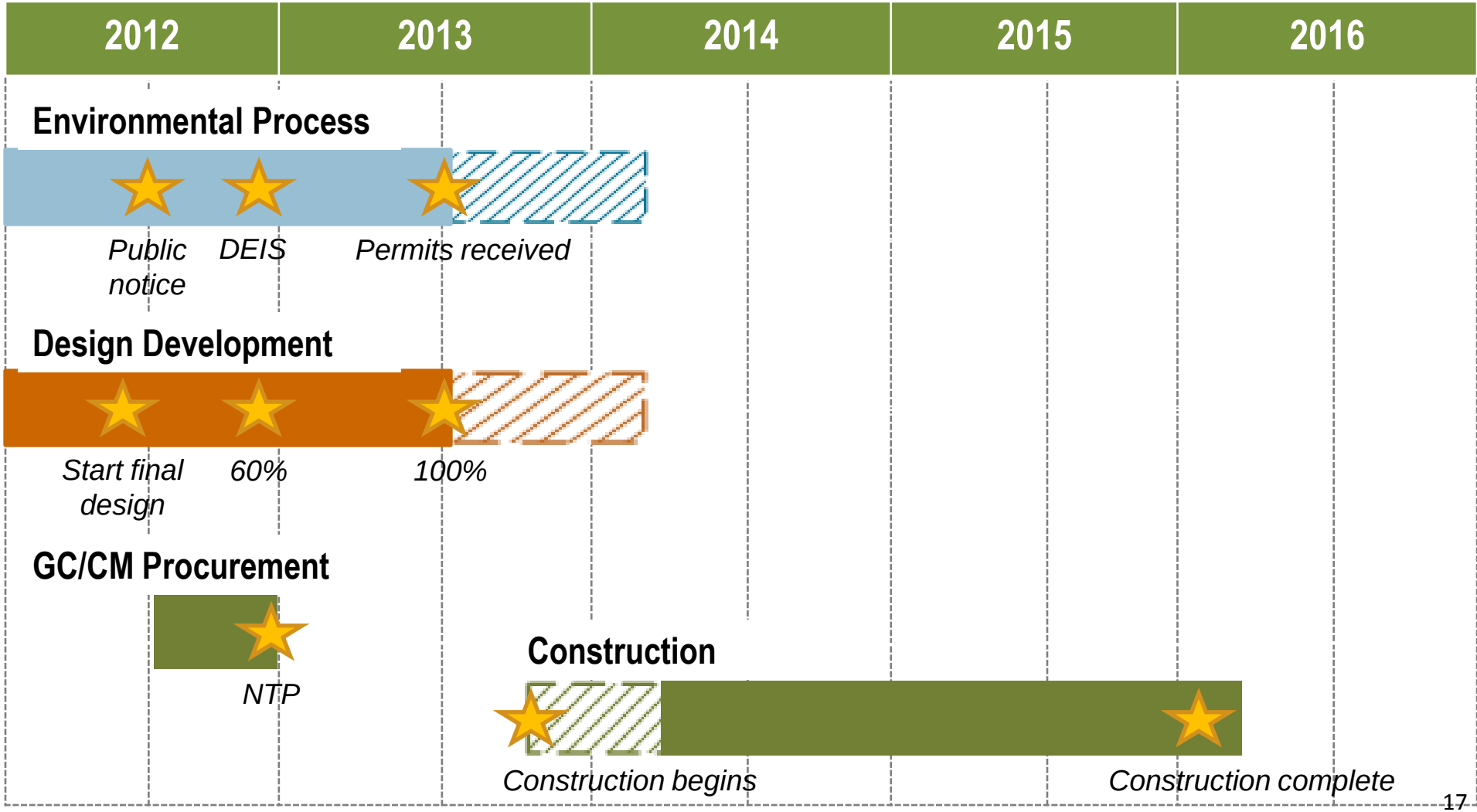
Elliott Bay Seawall Project

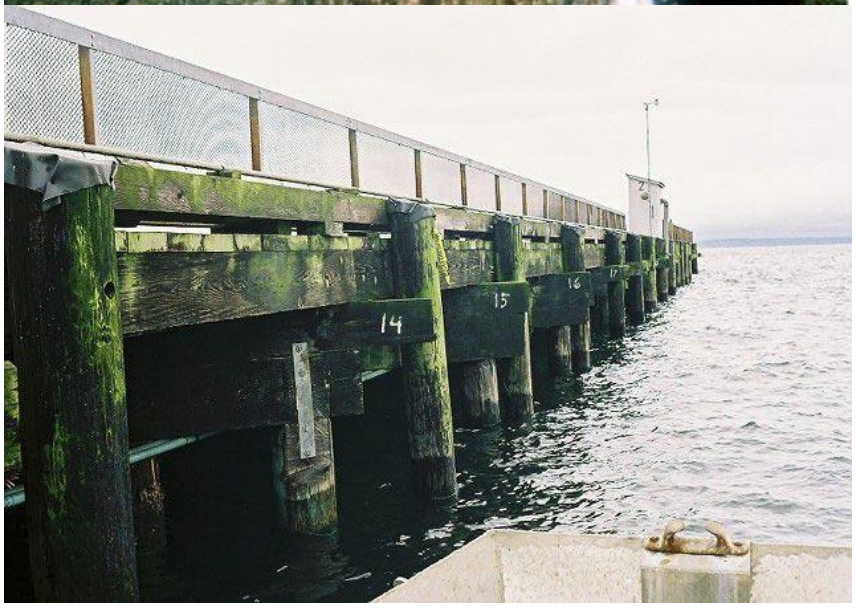
Breakdown of 35% Estimate

Total Central Seawall Cost = $300M



Project Schedule and Milestones



Other Critical Waterfront Infrastructure

- Pier 62/63 and Waterfront Park badly deteriorated and in need of rebuilding
- Function limited by structural condition
- Current conceptual cost estimate: $85M