Public Spaces | Public Life

for Seattle's Central Waterfront

2010 Scan | Design Interdisciplinary Master Studio
University of Washington : College of Built Environments

Studio Participants

Landscape Architecture
Andrea Gousen
Easton Branam
Ginger Daniel
Pamela Emerson
Aaron Vandenberg
Daniel Shaw
Harley Pan
Andrea Slusser
Delia Lacson
David Tomlinson
Minsoo Doo
Tianwen Zhou
Tera Hatfield

Jordan Bell
Marian Hansen

Architecture
AJ Taaca
Kristina Feliciano
Joe Swain
Allan Co

Urban Planning
Mary Roderick (Ph.D)
Laura Barker

Structural Engineering
Cecelia Guess

Real Estate
Julia Levitt

Nancy Rottle, Associate Professor Landscape Architecture
Sharon E. Sutton, Professor of Architecture, Urban Design and Planning
Merritt M. Ertel, Teaching Assistant Architecture
Bianca Hermansen and Louise Grassov, Master Teachers, Gehl Architects

Acknowledgements

Scan I Design by Inger & Jens Bruun Foundation
Gehl Architects
Seattle Department of Transportation
Seattle Department of Planning and Development
Mithun
J.A. Brennan Associates, PLLC
Dedicated to our friend, Aaron Vandenberg

Cover image designed by Merritt Ertel

Foreword

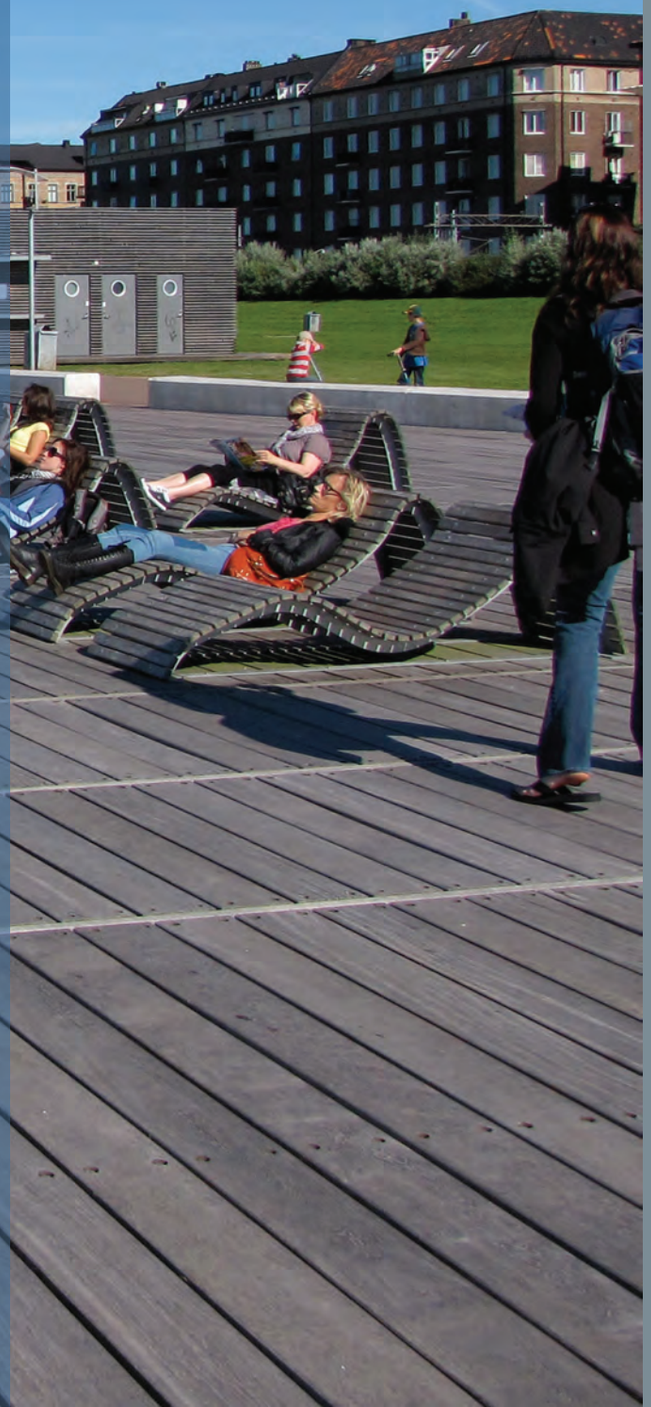
Seattle's Central Waterfront is heralded as one of the most significant civic projects in the city's history. With imminent removal of the Alaskan Way Viaduct and replacement of the aging Elliott Bay Seawall, Seattle has the opportunity to reconnect the city to Elliott Bay, set an ecological example for urban Puget Sound shorelines, and create a new city living room, a "waterfront for all." With these goals in mind, our studio focus was to envision an active, vibrant and multi-dimensional public realm that serves a multicultural, intergenerational population and reclaims the waterfront as an ecological space, both aquatic and terrestrial. We also addressed the need to establish a new structural framework for the Central Waterfront, identifying districts and strategies to connect the reclaimed edge back to its adjacent neighborhoods and the city. This planning work included proposing a flexible road alignment for the revised Alaskan Way, a new seawall configuration that accounts for both aquatic habitat needs and public interaction, and strategies to collect, clean and re-use stormwater from streets that currently discharge polluted runoff directly into Elliott Bay.

Through the generous sponsorship of the ScanlDesign Foundation, our interdisciplinary graduate planning, architecture and landscape architecture students were able to experience contemporary waterfronts and sustainable urban design in Denmark and Sweden, and then apply lessons and inspiration to their Central Waterfront design work in Seattle. As part of our September tour, students had to opportunity to study with the internationally renowned Danish firm of Gehl Architects, and practice their methods for assessing and creating quality public space. As a class we walked Copenhagen's and Malmo's pedestrian networks, sketched and analyzed their public spaces and traveled on the cities' separated bicycle tracks to experience their renewed neighborhoods, innovative architecture, and repurposed waterfronts. The staff of Gehl Architects, Copenhagen's bicycle planners, Malmo's Western Harbor designers, COBE Architects and others were our guides, providing insight into the cities' historical development and contemporary planning issues, elucidating design approaches to successful projects, and sharing personal perspectives. Back in the studio in Seattle, we applied the lessons learned to our framework planning and designs for the Central Waterfront, aided by the expert guidance of Bianca Hermansen and Louise Grassov of Gehl Architects and the munificent engagement of Seattle planners, designers and civic advocates throughout the term.

We have many people to thank for this remarkable opportunity. Without the support of the ScanlDesign Foundation we could not have applied the rich set of images and experiences from Scandinavia or so deeply integrated Gehl's approach in our design work. We are sincerely grateful for Bianca Hermansen's and Louise Grassov's clear teaching and helpful critique, and to Helle, Lars, Camilla and Rasmus at Gehl Architects for the fantastic lectures and tours in Copenhagen. Marshall Foster, Steve Pearce, and Dave Goldberg from Seattle DPD and SDOT, Lee Copeland from Mithun and JA Brennan's office were especially helpful in Seattle, in addition to over forty reviewers and technical advisors who assisted and engaged with the studio over the term. Finally, we couldn't have done it without our able and talented teaching assistant, Merritt Ertel, who has kept us organized for the last many months, in Copenhagen and in Seattle, and who has worked closely with the students to design and compile this document.

We thank you all, and hope that this work will make a difference not only in the education of our students, but also will suggest exciting, equitable designs for our city's new public waterfront while promoting enhanced health of Elliott Bay's and Puget Sound's blue spaces.

Nancy Rottle, Associate Professor, Landscape Architecture
Sharon E. Sutton, Professor of Architecture



Copenhagen Study Tour

September 03 - 20
Scan|Design Master Studio Study Tour

In September 2010, 17 graduate students from the University of Washington's College of Built Environments studied exemplary urban and regional planning strategies in Copenhagen, Denmark. Students were immersed for two weeks in the famous Danish networks of public space and the culture's emphasis on bicycle and pedestrian planning.

Students came from many disciplines including: Architecture, Landscape Architecture, Urban Planning & Design, Real Estate, and Civil Engineering. In Copenhagen, these students were led by the renowned urban planning consultants Gehl Architects, who introduced the group to their working methods. Other highlights included tours of redeveloped neighborhoods, the waterfront, plazas, and parks. The trip to Copenhagen was generously supported by the ScanIDesign Foundation.

After returning from the trip, the group continued working in our Scan|Design Master Studio course to study and design public spaces in Seattle's Central Waterfront, with the goal of creating a socially vibrant, ecologically healthy public realm.

Scan|Design travel-study group at Lars Gemzøe's allotment garden

source: Nancy Rottle

Copenhagen Waterfront

source: Merritt Ertel

Malmo Waterfront

source: Nancy Rottle

Helsingborg Waterfront

source: Merritt Ertel

Lessons from the Scan|Design Travel Study

CONNECTIVITY:
Surface treatments and delineated linkages improve place to place connectivity. Small carved out spaces with interesting edges and active spaces provide person to person connectivity. Direct access to waterfront initates a connection between person and place.

ELEMENTS OF DELIGHT:
Mundane elements of daily life can be transformed into fine grain details of comfort and delight using color, warmth, and humor.

TEXTURE:
Bold use of color, pattern and dimension create more interesting and memorable streetscapes.

MEANDERING PATHS:
Subtle curves into hidden destinations inscribe a human scale and encourage human powered modes of transportation.

UNEXPECTED VIEWS:
Framed views create a sense of protection and element of surprise for site users.

Copenhagen pedestrian streets
source: Delia Lacson

Helsingborg waterfront
source: Delia Lacson

Copenhagen cycling culture
source: Delia Lacson

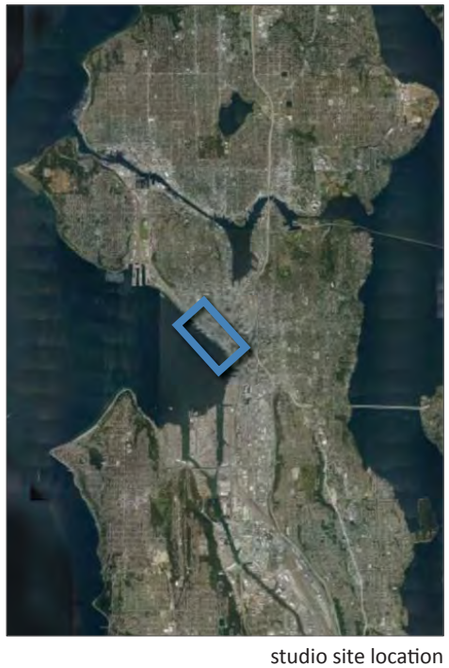
Studio Project

In the studio, we began by collecting and sharing the significant amount of research and previous planning conducted for the waterfront. We also invited expertise from local planners, designers, and stakeholders, who gave us a detailed waterfront tour, presented significant issues in an expert panel, and provided as-needed advising and information. We augmented our knowledge of global waterfront designs by investigating over a dozen precedents of significant contemporary projects, for which students developed and presented case studies. Our initial planning exercise was then to quickly establish essential "framework" parameters, including defining cohesive waterfront districts and their adjacent neighborhoods, and identifying important regional, city-wide and neighborhood connective threads.

This planning provided the structure and background for four teams to approach district planning and urban design work. Three teams tackled the northern (Aquarium/Pike Place Market), central (Historic Piers) and southern (Colman Dock/ Pier 48) districts, suggesting strategies for strengthening each district and integrating interconnections between them. A fourth interdisciplinary team provided leadership for overall studio tasks such as model fabrication, and developed solutions for waterfront-wide connective tissue including new road and seawall alignment, stormwater integration, design guidelines, and unifying design elements. These were no small tasks.

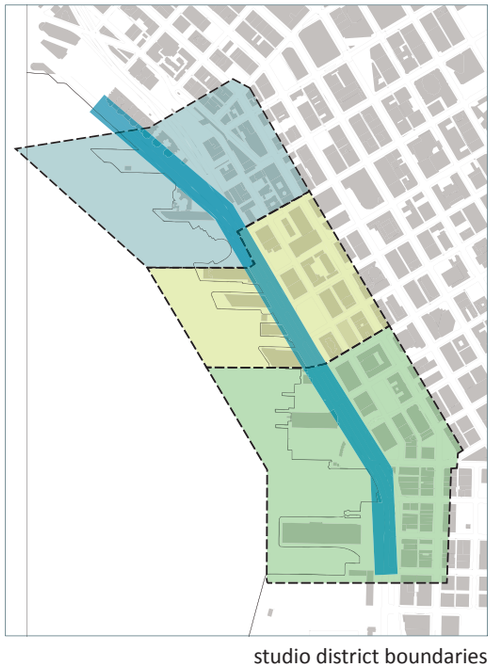
Design students worked individually or in pairs to develop detailed proposals for specific sites according to their particular interests. They developed and re-examined their work through several cycles over the course of ten weeks, interacting with Bianca Hermansen and Louise Grassov of Gehl Architects, studio professors Rottle and Sutton, and outside professional and faculty reviewers as well as through peer review. Our aim has been to integrate Gehl Architects' theory and methodology for successful public space, Seattle's aspirations for a "waterfront for all," and our region's ecological knowledge, goals and ethics. Our working process is outlined in the following Analysis and Framework section, and the students' more detailed district and design proposals are represented in the final Design sections of this document.

Seattle Waterfront
source: Robery Scully Seattle DPD



studio site location
source: Google Earth

studio site location
source: Google Earth



studio district boundaries
source: Merritt Ertel

Scan|Design Travel Study + Studio

Summer Travel Study to Denmark + Sweden

ScanIDesign Master Studio

Precedent Studies

Allegheny Riverfront Park
Brooklyn Bridge Park
Coal Harbour
Embarcadero Boulevard
SE False Creek Waterfront
HafenCity, Hamburg
Helsingborg Waterfront
Houtan Expo Park
Hudson River Park
Minato Mirai 21
Olympic Sculpture Park
Slussen Masterplan
Zhongshan Shipyard Park

Site + Context Analysis

History + Site Use
Land Use + Built Environment
Circulation + Pedestrian Environment
Ecological Environmental
Economical Environment
Lessons from the Travel Study

Framework Connections Plan

Rewater the Front
Team Puzzle
Waterfront as Exhibit
Distinctive Voices

Gehl Architects:
Theory + Methodology

District Concepts

The Irregular Edge
Streams,Eddies+Tidal Pools
Vital Traces + Performative Futures
Water I Born

Individual Projects

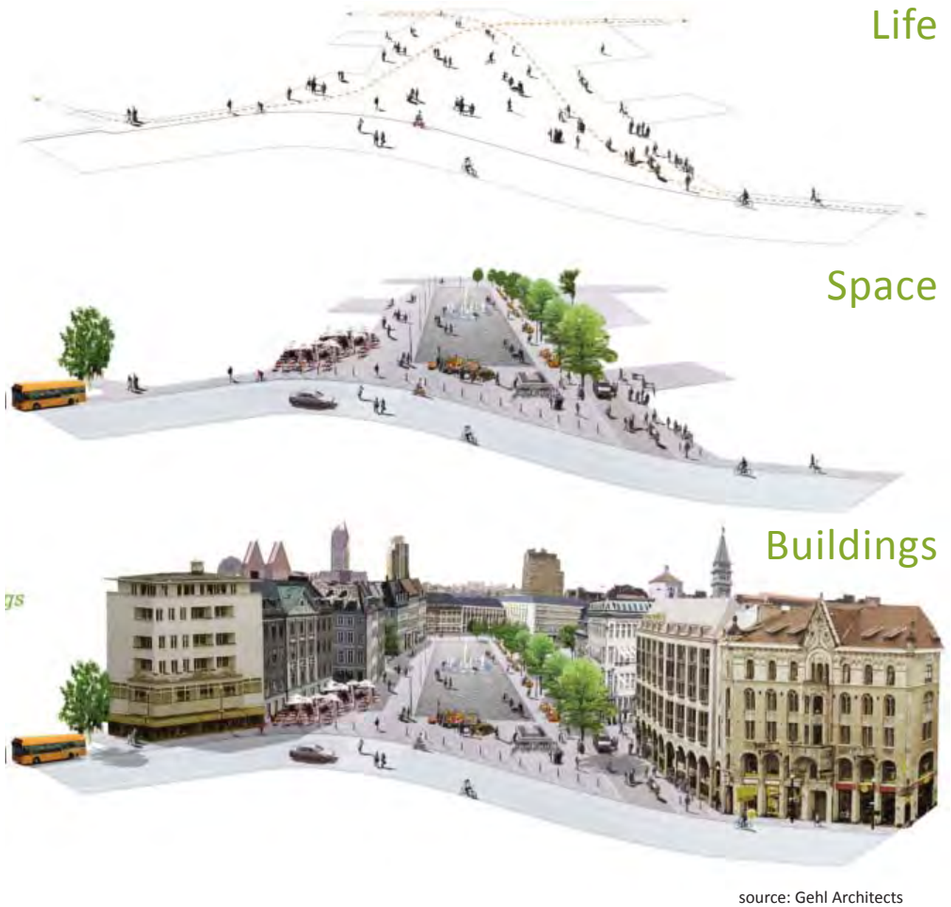
Design Methodology

12 Quality Criteria

During site analysis, students used Gehl Architects' 12 Quality Criteria approach for observing and assessing sites for their pedestrian quality. This approach complemented the project area's quantitative pedestrian analysis, allowing students to understand how people might experience the neighborhood. The students also used these 12 Quality Criteria to evaluate their finished design proposals.

Life | Space | Buildings

In addition to using the 12 Quality Criteria, in one exercise called "Life|Space|Buildings" students took on different roles: student, artist, business woman, clubber, etc. to establish the required program elements needed to create vital public space that is inviting to all.



source: Gehl Architects

PROTECTION

PROTECTION AGAINST VEHICULAR TRAFFIC
- Traffic accidents
- Pollution, fumes, noise
- Visibility

PROTECTION AGAINST CRIME & VIOLENCE
- Well lit
- Allow for passive surveillance
- Overlap functions in space and time

PROTECTION AGAINST UNPLEASANT SENSORY EXPERIENCES
- Wind / Draft
- Rain / Snow
- Cold / Heat
- Pollution
- Dust, Glare, Noise

INVITATION

INVITATIONS FOR WALKING
- Room for walking
- Accesibility to key areas
- Interesting facades
- No obstacles
- Quality surfaces

INVITATIONS FOR STANDING AND STAYING
- Attractive and functional edges
- Defined spots for staying
- Objects to lean against or stand next to

INVITATIONS FOR SITTING
- Defined zones for sitting
- Maximize advantages
- pleasant views, people watching
- Good mix of public and café seating
- Resting opportunities

INVITATIONS FOR VISUAL CONTACT
- Coherent way-finding
- Unhindered views
- Interesting views
- Lighting (when dark)

AUDIO & VERBAL CONTACT
- Low ambient noise level
- Public seating arrangements condusive to communicating

PLAY, RECREATION & INTERACTION
- Allow for physical activity, play, interaction and entertainment
- Temporary activities (markets, festivals, exhibitions etc.)
- Optional activities (resting, meeting, social interaction)
- Create opportunities for people to interact in the public realm

DAY / EVENING / NIGHT ACTIVITY
- 24 hour city
- Variety of functions throughout the day
- Light in the windows
- Mixed-use
- Lighting in human scale

VARYING SEASONAL ACTIVITY
- seasonal activities. (skating, christmas markets,)
- extra protection from unpleasant climatic conditions
- Lighting

DELIGHT

DIMENSIONED AT HUMAN SCALE
- Dimensions af buildings & spaces in observance of the important human dimensions in related to sences, movements, size & behavior

POSITIVE ASPECTS OF CLIMATE
- Sun / shade
- Warmth / coolness
- Breeze / ventilation

AESTHETIC & SENSORY
- Quality design, fine detailing, robust materials
- Views / vistas
- Rich sensory experiences

12 Quality Criteria
source: Gehl Architects

Studio Team and Group Work

Throughout the quarter the students had the chance to work in various groups to take advantage of the interdiscplinary studio format. The students were divided into pairs for precedent studies and small groups for site analysis. For the final design project, the studio was divided into four teams that focused on a district within the entire central waterfront site. As a district, each team developed a masterplan design in which their individual or team project was located. Over the course of the term, students continually refined their design proposals, working between districts and site scales and responding to feedback from guests, peers, faculty, and Bianca Hermansen and Louise Grassov of Gehl Architects.

Bianca and the Autumn 2010 studio group
source: Merritt Ertel

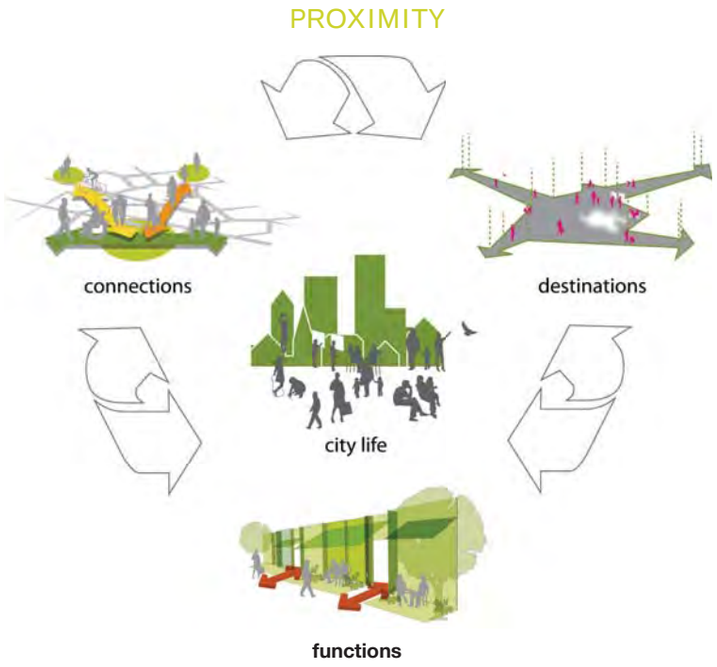
Gehl Architects Master Instructors

Students were first introduced to Gehl Architects' working methods while in Copenhagen, through lectures and exercises. Students benefitted from an additional two weeks working with Bianca Hermansen in Seattle, during the middle point of the studio, as well as from a studio visit by Louise Grassov at the end of the term. Both provided valuable feedback to guide the development of students' designs for the pedestrian realm.

Students had a studio space in Gould Hall
source: Merritt Ertel

Bianca worked intensively with district design teams
source: Merritt Ertel

Formal reviews included guest critics in the fields of architecture, landscape archtecture, and urban planning
source: Merritt Ertel



concept of proximity vs. density
source: Gehl Architects

Precedent Studies

During the initial stage of site analysis, students researched relevant precedents from around the world with a focus on waterfronts. The full case studies can be found on the Master Studio course website (http://courses.washington.edu/gehlstud).

Helsingborg Waterfront
Helsingborg, Sweden
source: www.momondo.com

Allegheny Riverfront Park
Pittsburgh, Pennsylvania
source: www.mvvainc.com

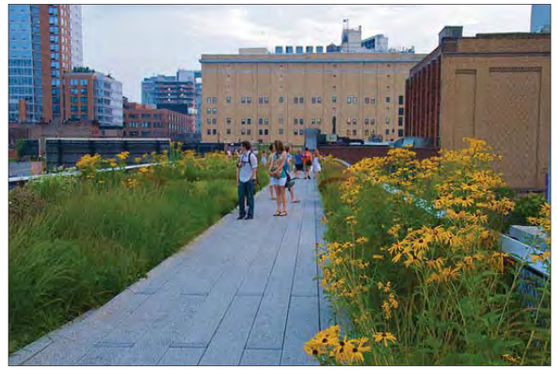
Coal Harbour
Vancouver, British Columbia
source:www.cielocoalharbour.com

Minato Mirai 21
Yokohama, Japan
source:www.nyfiken.exblog.jp

Brooklyn Bridge Park
Brooklyn, New York
source: www.flickr.com

Hudson River Park
New York City, New York
source: www.hudson-river-park.com

Houtan Expo Park
Shanghai, China
source: www.bustler.net

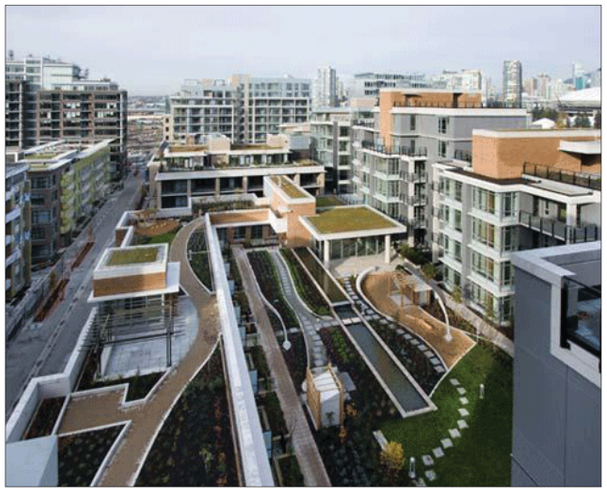


Zhongshan Shipyard Park
Zhongshan City, China
source:www.studiomezz.com

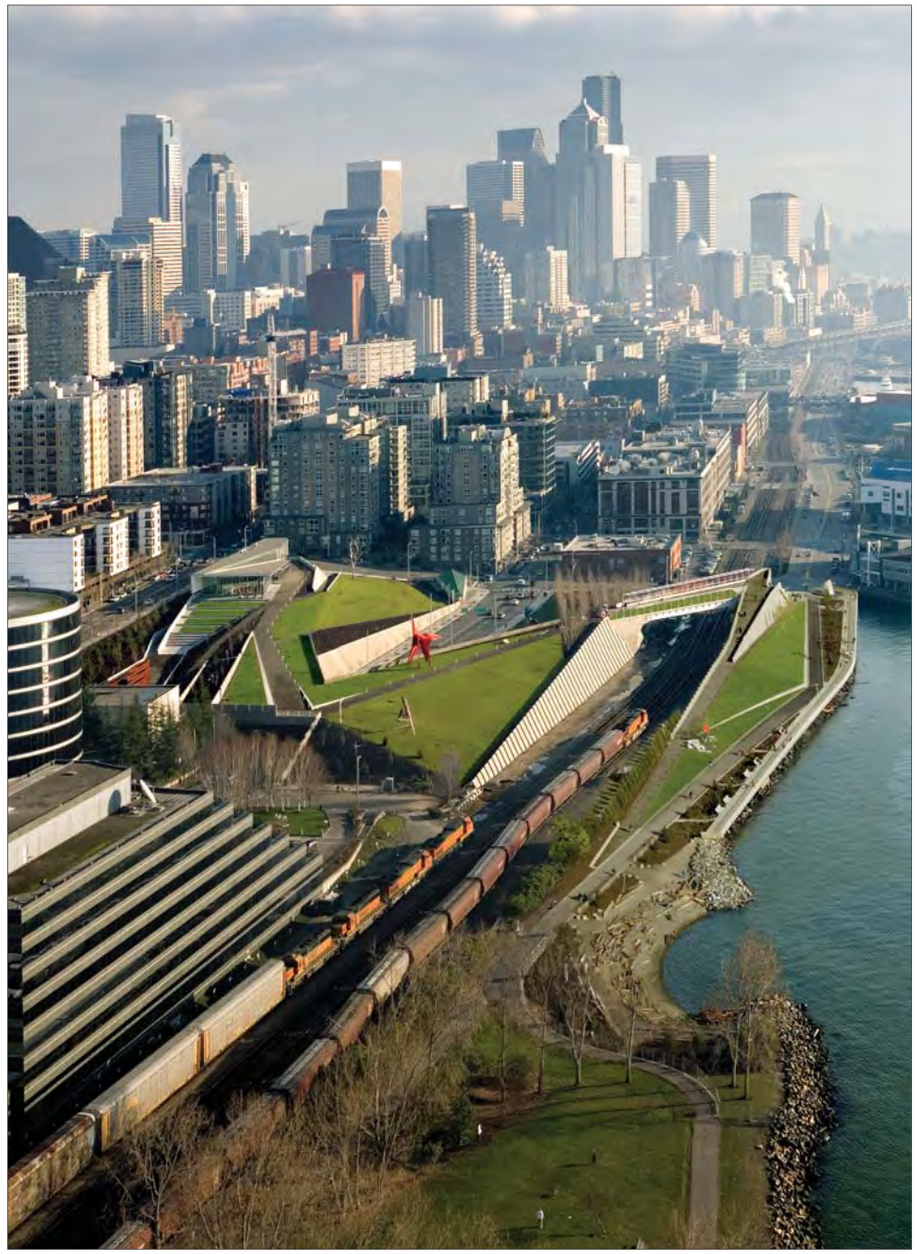
HafenCity, Hamburg
Hamburg, Germany
source: www.theworldedition.com

Embarcadero Boulevard
San Francisco, California
source:www.flickr.com

Slussen Masterplan
Stockholm, Sweden
source: www.bustler.net



SE False Creek Waterfront
Vancouver, British Columbia
source:www.greenroofs.com



Olympic Sculpture Park
Seattle, Washington
source:www.taylormadepress.com

History

1990s: implementation of ongoing planning

1982: waterfront streetcar links waterfront activity

1970s: concerted effort for recreational development

1950s: 99 Viaduct built

1939-1945: World War II

1930s: Railroad Avenue is rebuilt as Alaskan Way/Seawall

1920s: World War I & the Great Depression retards growth

1911: Port of Seattle formed

1900s: transportation industry dictates development

1889: Great fire destroys much of downtown

1895: Klondike Gold Rush

1893: Great Northern Railroad is completed, ending in Seattle

1873: Seattle loses bid for Northern Pacific Railroad (N-S) terminus

1852: Henry Yesler develops Yesler steam mill

prior to1792: Salish uses included hunting, fishing, gathering

1900: large reclamation projects reshape the waterfront - monopolies

SOURCES

www.seattle.gov/dpd/Planning/Central_Waterfront/Archive/Background/default.asp
"East-West and Physical Connections" graphic

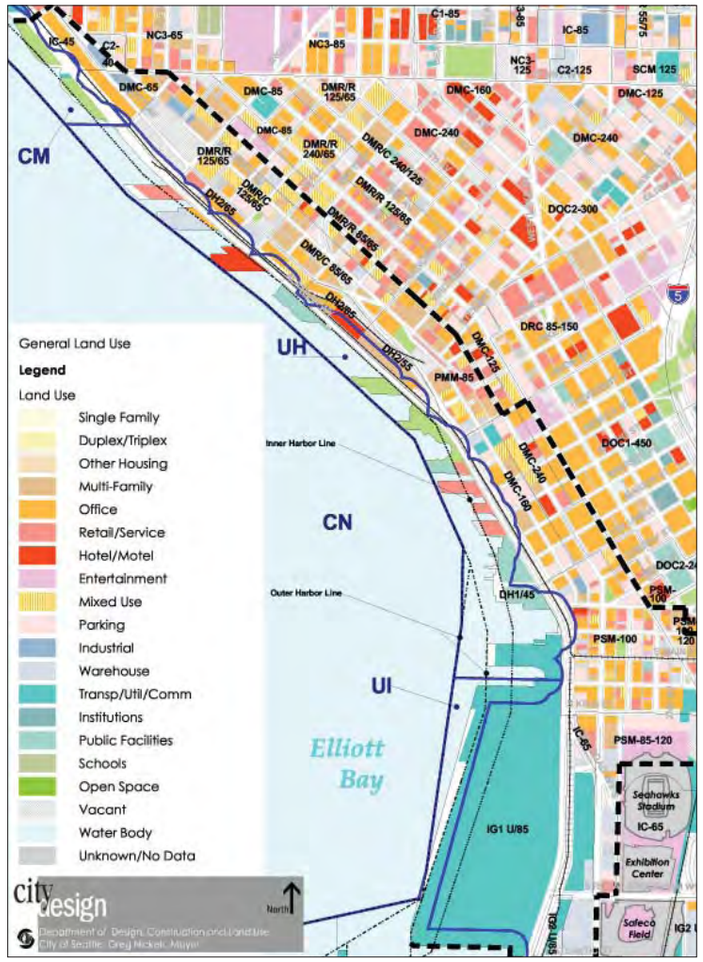
www.seattle.gov/dpd/Planning/Central_Waterfront/PartnershipsCommittee/BriefingBook/index.htm
"Council Legislation Related to the Central Waterfront"
"Center City Public Realm Guide"
"County Legislation Related to the Central Waterfront"
"2006 Central Waterfront Concept Plan Summary"

www.historylink.org/index.cfm?DisplayPage=output.cfm&file_id=7072
"Seattle Central Waterfront Tour, Part I: Overview" (information and photos)

www.historylink.org/index.cfm?DisplayPage=pf_output.cfm&file_id=7056
"Port of Seattle Central Waterfront Cybertour" (photos)

Land Use + Built Environment

Land Use

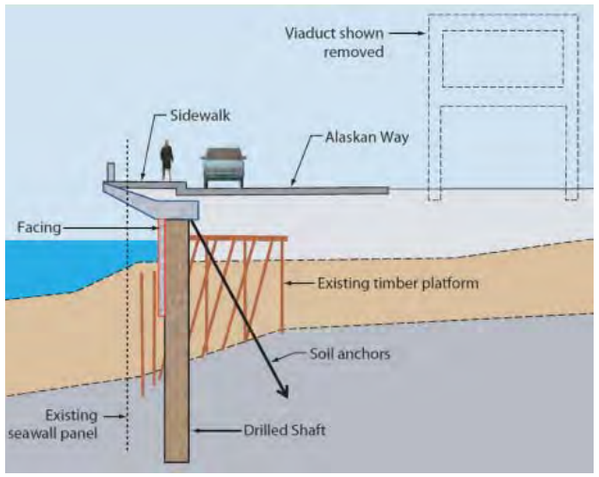


source: City of Seattle

Waterfront Uses

source: City of Seattle

Seawall Replacement Proposals



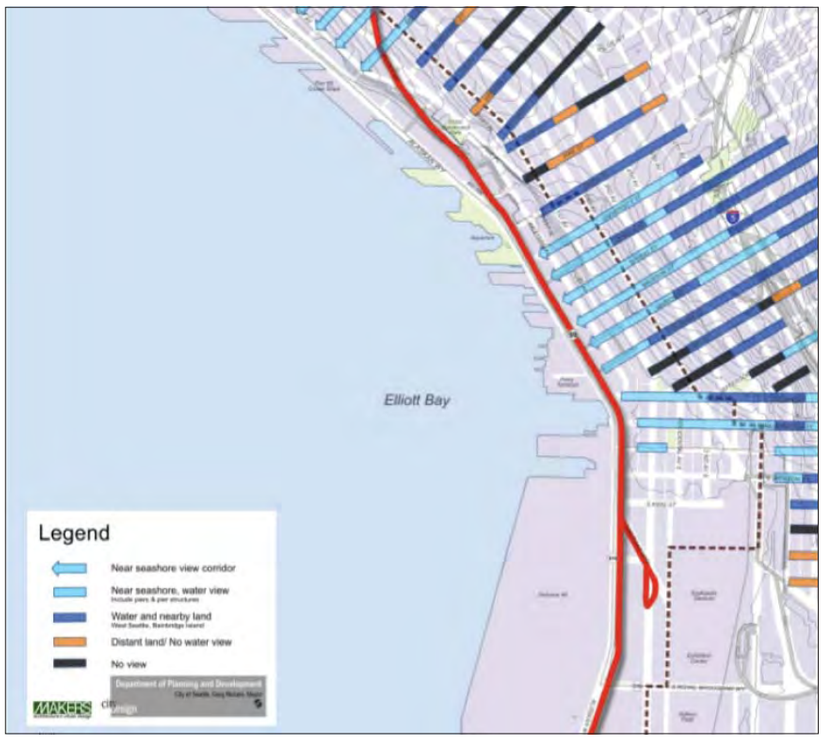
source: City of Seattle

Circulation + Pedestrian Environment

Views:

source: City of Seattle

View Corridors:

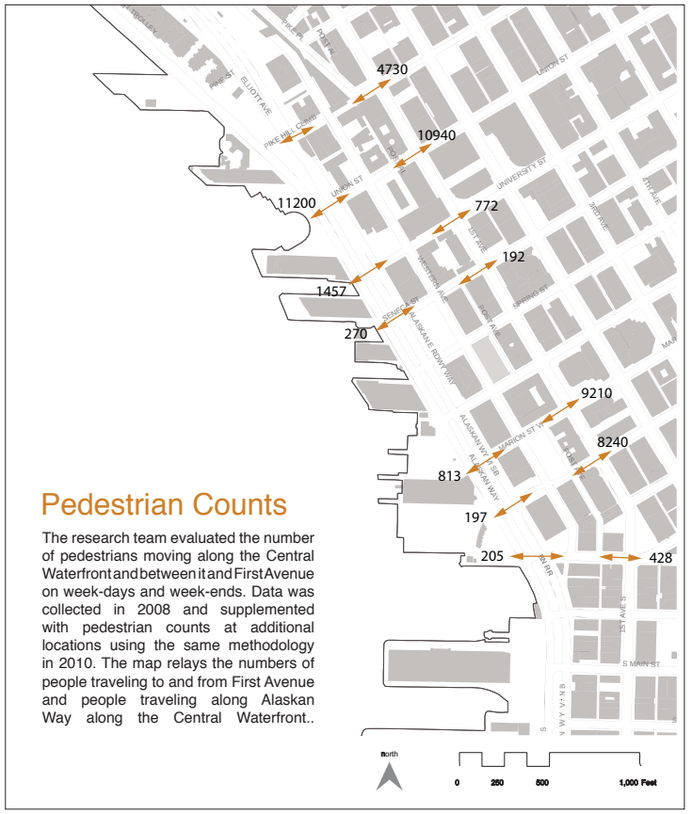


source: City of Seattle

Transit Hubs:

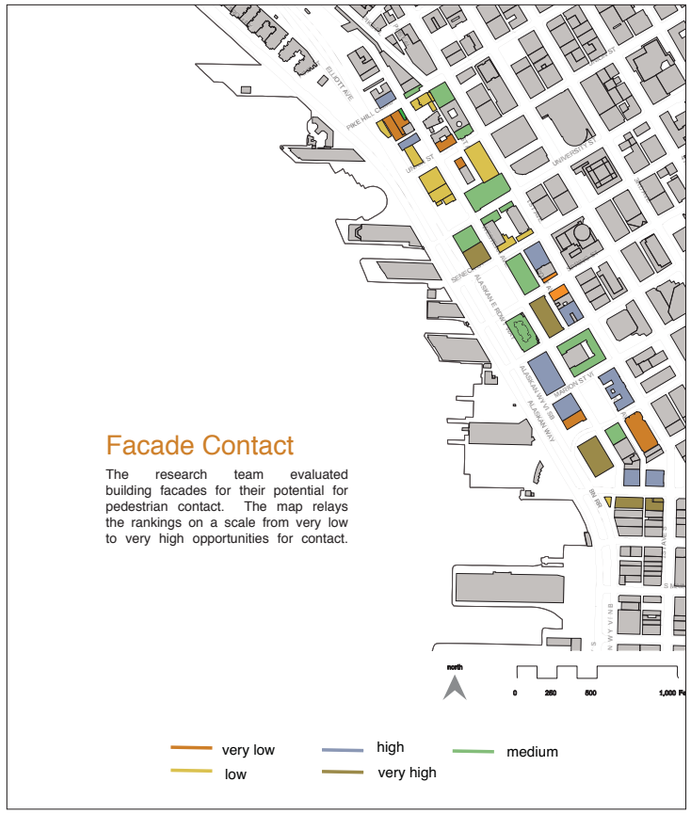
source: City of Seattle

Pedestrian Activity:



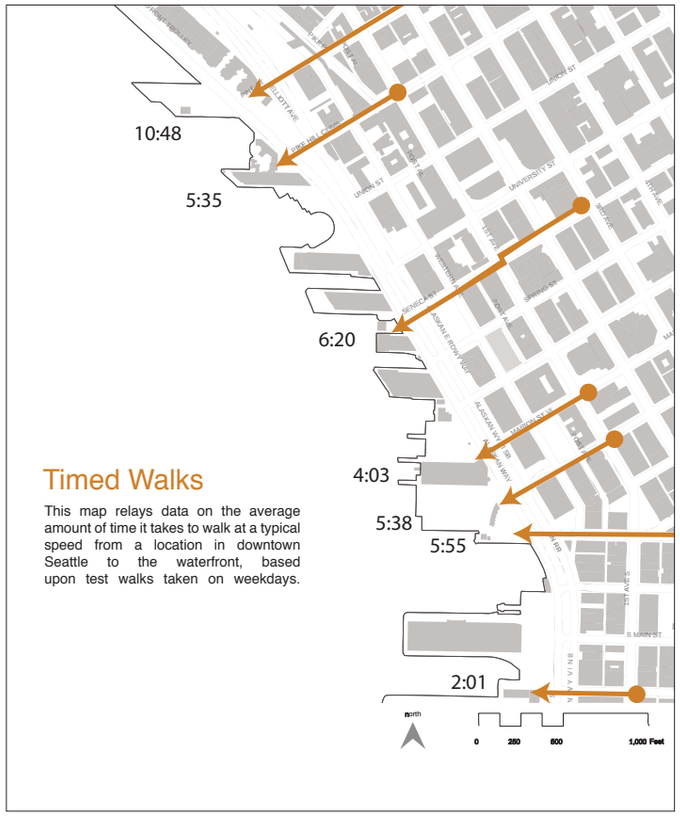
source: GFL Waterfront Analysis 2010

Facade Quality:



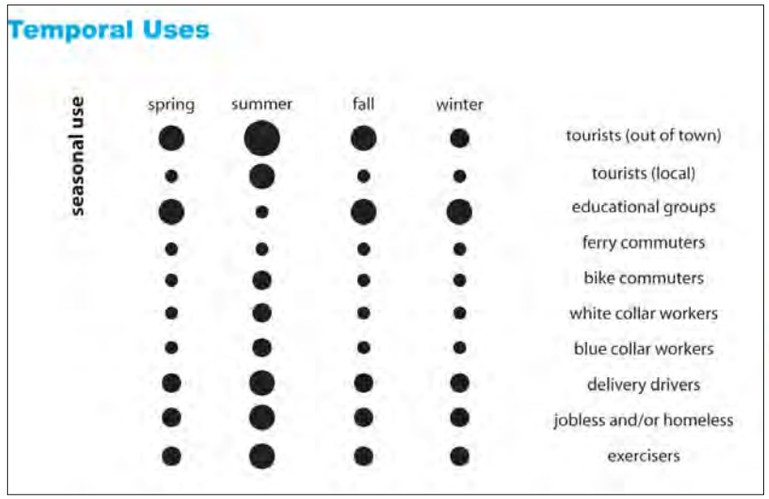
source: GFL Waterfront Analysis 2010

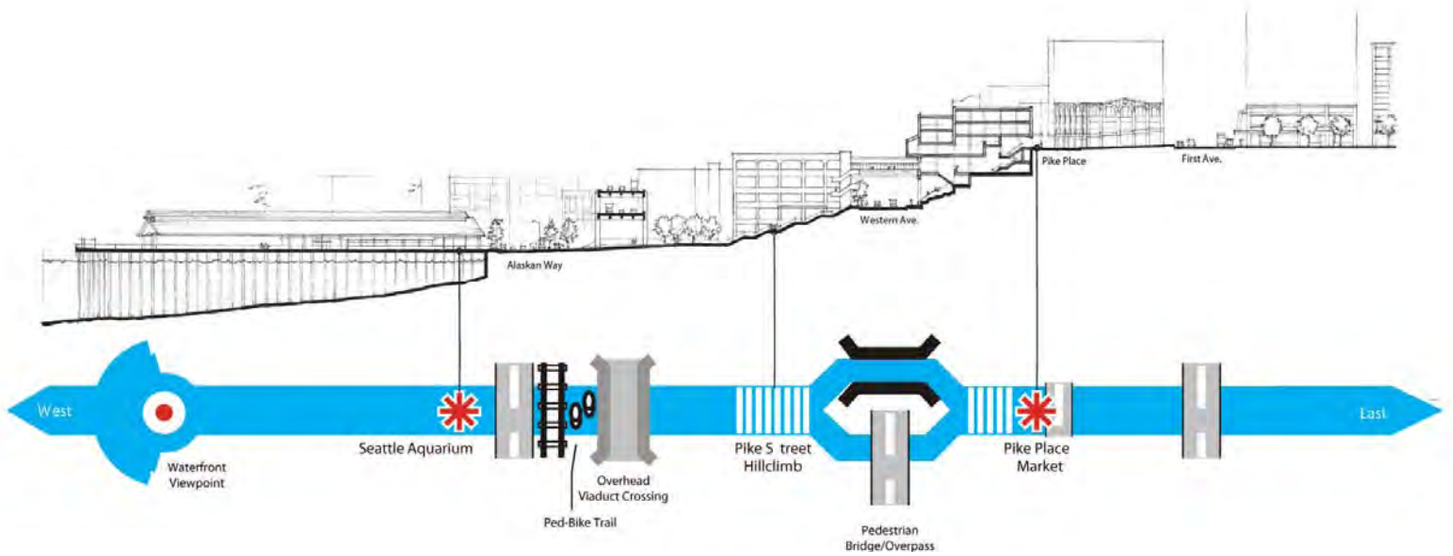
Timed Walks:

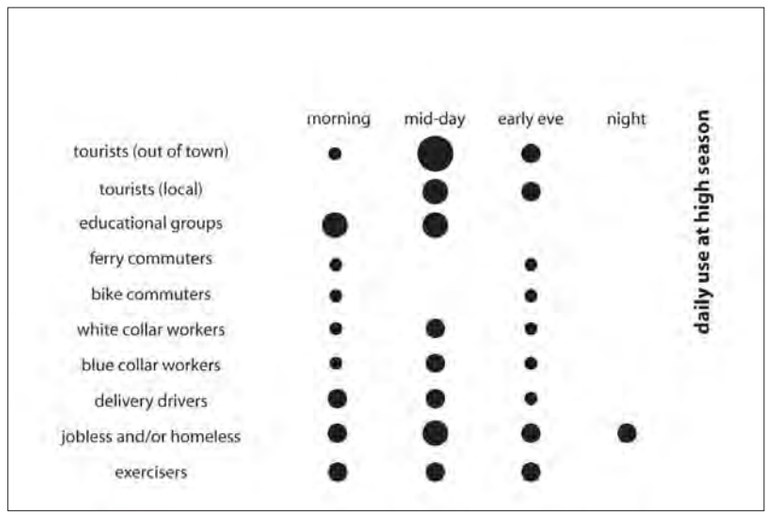


source: GFL Waterfront Analysis 2010

Temporal Environment







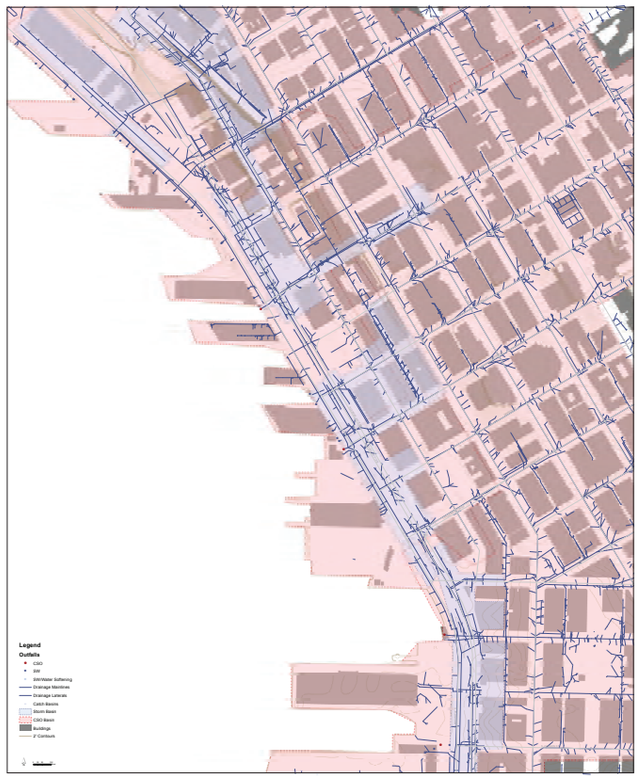
Ecological Environment: stormwater

Visualize Climate Change:

source: Aaron Vandenberg

Consequences of a 20’ rise in sea level

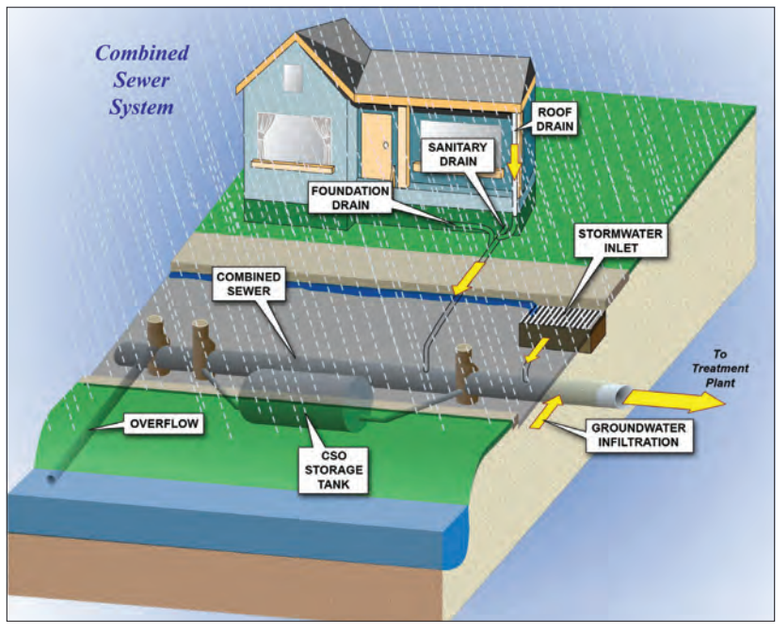
Stormwater Basins:



source: City of Seattle

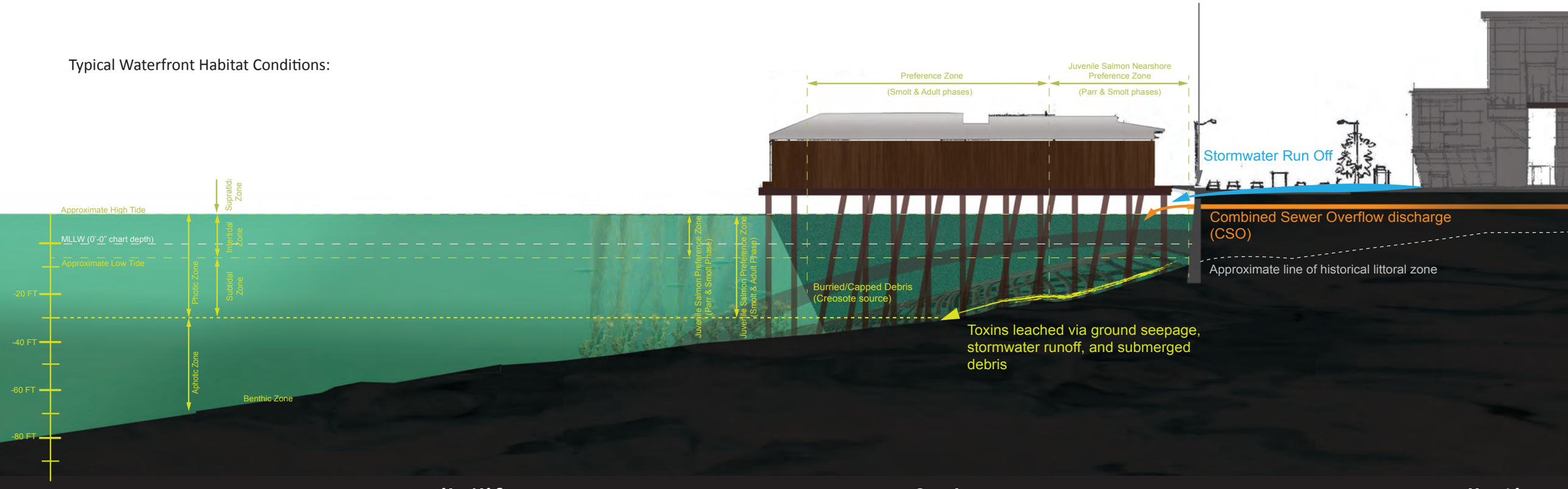
Several separated stormwater “pipesheds” (lavender) discharge polluted water directly into Elliott Bay. Pink areas are drained into combined sewers.

Combined Stormwater System:



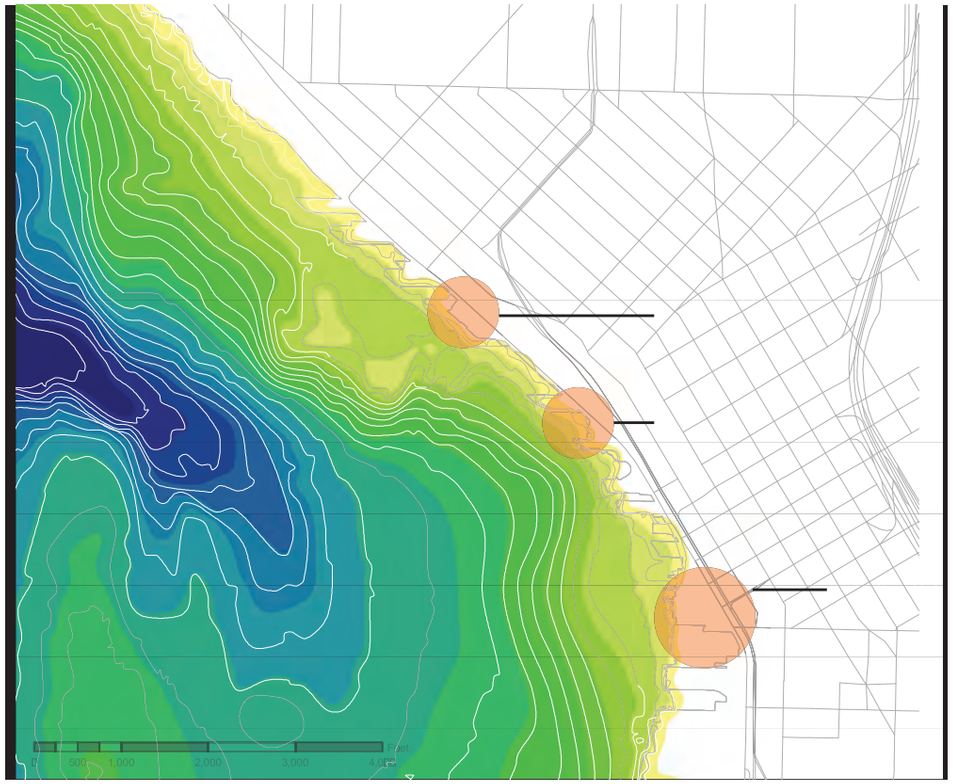
source:City of Seattle -Windermere Basin CSO Reduction Project; Public Meeting: May 20, 2010

Typical Waterfront Habitat Conditions:



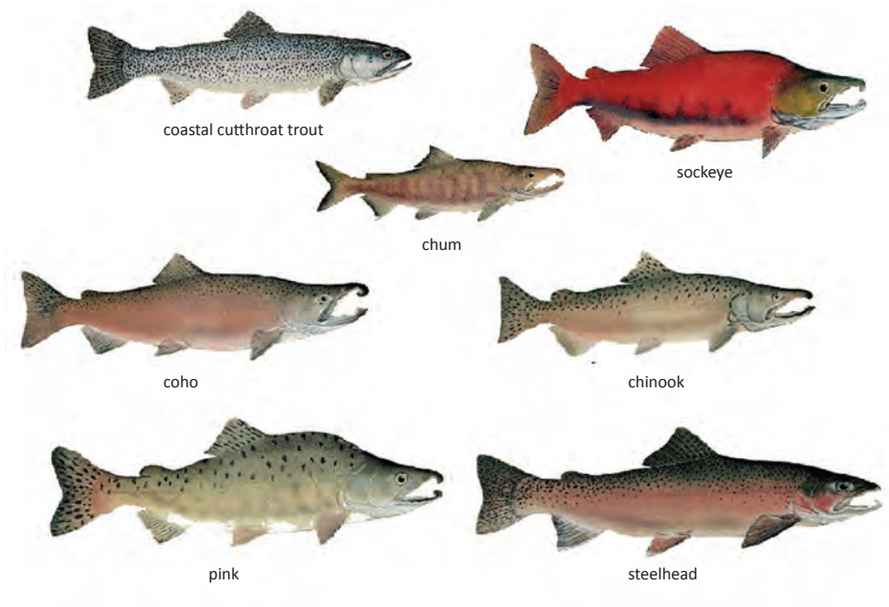
Ecological Environment: habitat

Waterfront Bathymetry:



source: Easton Branam and Aaron Vandenberg

Three areas have been identified as potential shallow water and beach to improve aquatic habitat conditions.



source: http://www.epa.gov/wed/pages/staff/lackey/pubs/illusion.htm

Wildlife: Life Over Water

Birds: Birds are among the species most adaptable to living in the highly urbanized environment of downtown Seattle. For further information, a complete bird species list can be found in the DEIS (wsdot.wa.gov).

Terrestrial wildlife: Terrestrial animal species range from domestic dogs, cats and rabbits to bats, ermine and mink. The highly urbanized environment only allows for species that are highly adaptable to the intense urban setting.

Vegetation: The only notable vegetation along the waterfront are mature street trees planted along the length of the project area.

Special Status Species: Bald eagle (Haliaeetus leucocephalus) – protected under the Bald and Golden Eagle Protection Act of 1940 (16 USC 668-668c). Southern resident killer whale (Orcinus orca): Federally and State listed as endangered. Marbled murrelet (Brachyramphus marmoratus): Federally and State listed as threatened. Puget Sound Steelhead (Oncorhynchus mykiss)Distinct Population Segment: Proposed for Federal listing as threatened.

Puget Sound/Outer Elliott Bay - Pelagic Waters: Orcas, gray whales, and Dall's porpoise occasionally pass through this area. Seals and sea lions are more frequently seen here.

Salmon: Life Under Water

Nearshore Marine Environment

While shady areas are critical for salmon spawning habitat, it is believed to be a less desirable condition during the juvenile and adult life stages.

> "Like the habitat use patterns observed in Lake Washington, juvenile Chinook salmon in the marine nearshore and estuary areas of central Puget Sound tend to be closely associated with shallow habitats located close to shore (KCDNR 2001)."
>
> "Because Puget Sound Chinook out migrate as younger and smaller juveniles, they are more dependent on forage in the estuaries and near- shore systems to increase their body weight and condition before moving into more pelagic environments (i.e., deeper Puget Sound waters or the Pacific Ocean) (Levy and Northcote, 1982; Pearce et al., 1982)."
>
> "Marine nearshore areas and estuaries may be particularly important for juvenile Chinook salmon for migration, feeding, and rearing within the central Puget Sound (KCDNR 2001). Moreover, some of these areas are used by juveniles for the physiological transition from freshwater to saltwater (especially mouths of creeks and Duwamish River). "

Essential Fish Habitat

Essential Fish Habitat (EFH) is "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity" (16 U.S.C. 1802(10).

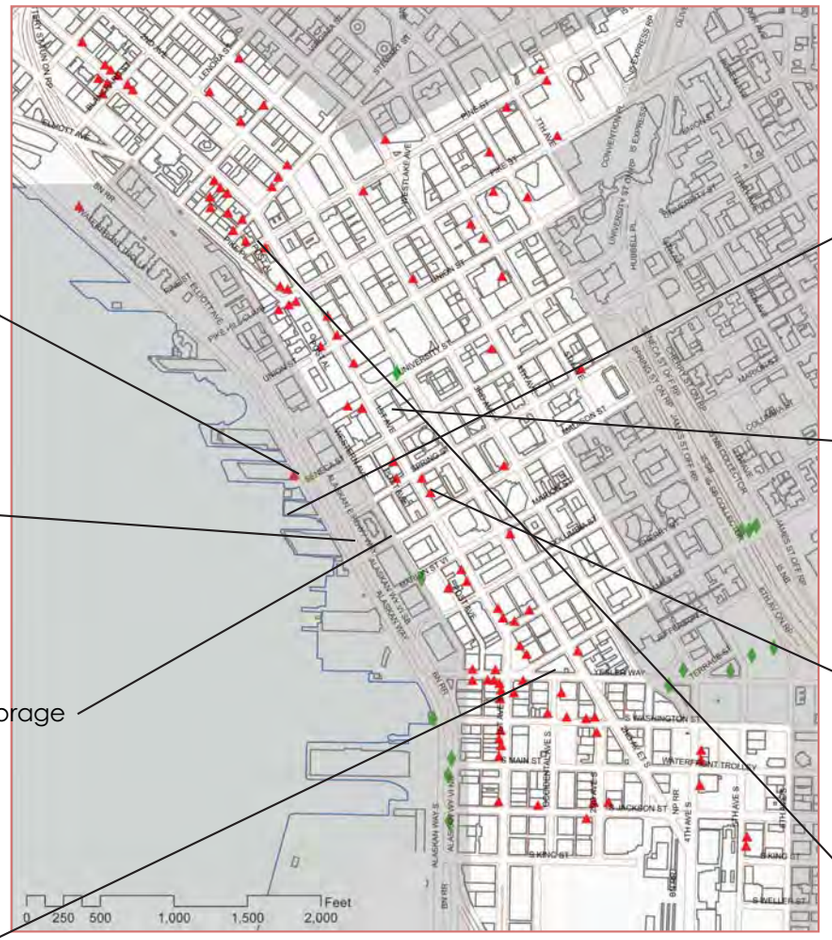
Economic Environment

Waterfront boardwalk
Tourist-centric restaurants, retail + water-dependent businesses

Under the Viaduct
Surface parking

Western Ave.
Large antiques, furniture stores, storage

Pioneer Square
Cafes, bars, clubs & eclectic retail

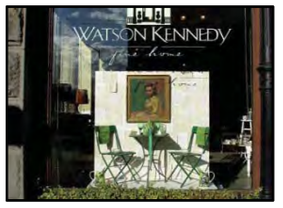


Map1- downtown in the evening

Legend
night – eat/drink
night – homeless sleep

Historic and Older Buildings
Creative and small-business office

High-rise on 1st Ave.
Traditional CBD office: FIRE, law



1st Ave. Ground Floor
National chains, spas, boutiques

Pike Place Market
Open-air vendors, eclectic shops, cafes

Constraint: Economic diversity limited by physical and regulatory barriers

Solution: Diversity of Business Uses

- Connection to downtown Seattle
- Pedestrian crossings at every corner
- Multiple types of uses and users
- Water- and nonwater-dependent mix on the pier
- Year-round activities (office workers)
- Day and night activities

Questions Raised:

1. How can tourism better integrate with local economic activity?

2. How can business along the waterfront reflect culture and history?

3. Are there opportunities for green jobs to locate on the waterfront?

Previous Documents

The Blue Ring Plan (2002)

Seattle's Central Waterfront Plan Charrette (2004)

The Green Futures Charrette (2006)

Seattle's Central Waterfront Concept Plan (2006)

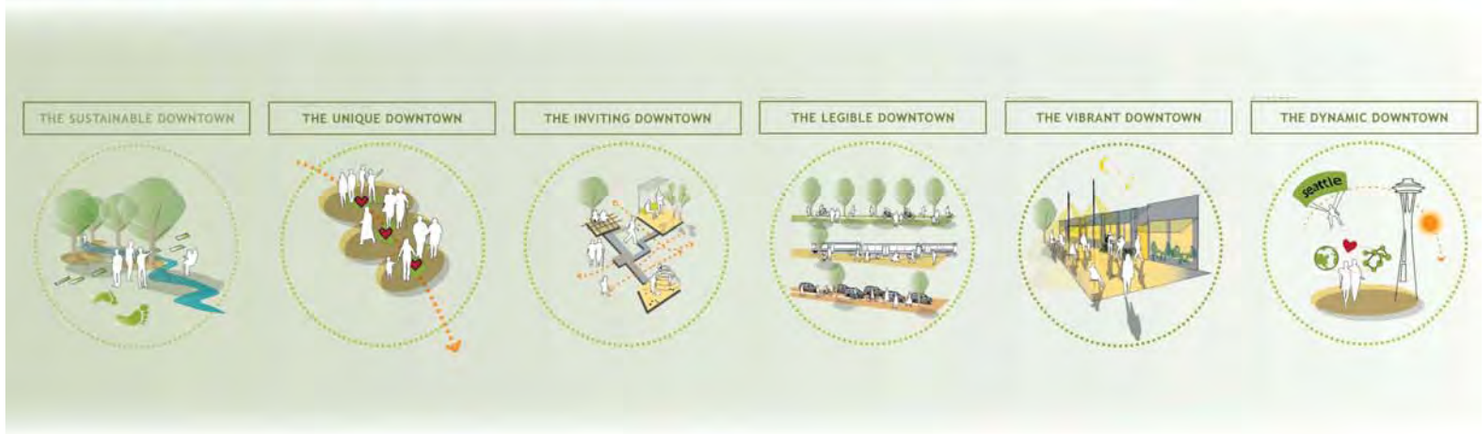
Central Waterfront Master Parks Plan (2007)

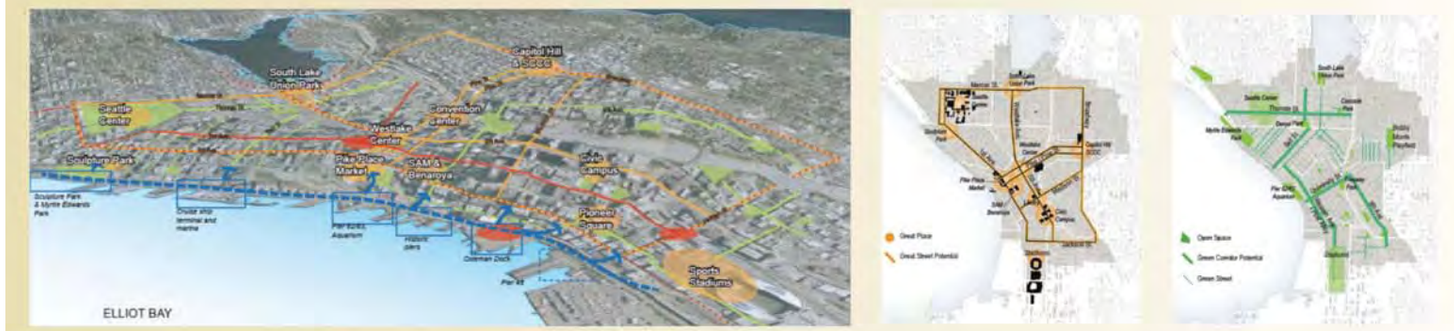
Public Spaces Public Life- Gehl Architects (2009)

Center City Public Realm Guide (2009)

City of Seattle Request for Statements of Qualifications (2010)

Public Space Public Life Seattle Central Waterfront Produced by the UW Green Futures Lab (2010)





Public Space | Public Life
Seattle Central Waterfront 2010

A public realm inventory based on data from the 2008 City of Seattle Public Space/Public Life study by the International Sustainability Institute, Gehl Architects, and the UW Green Futures Lab for the City of Seattle, and updated in 2010 by the Green Futures Lab with support from the Scan | Design Foundation.

Nancy Rottle, Associate Professor Landscape Architecture | Director, Green Futures Lab
Mary Fialko, Architecture, 2010 Scan | Design Intern
Jenny Hampton, Landscape Architecture, 2010 Scan | Design Intern
Katherine Wimble, Landscape Architecture, 2009 Scan | Design Intern

Waterfront Framework Connections

Ecological Networks

The North Pacific to Central Waterfront

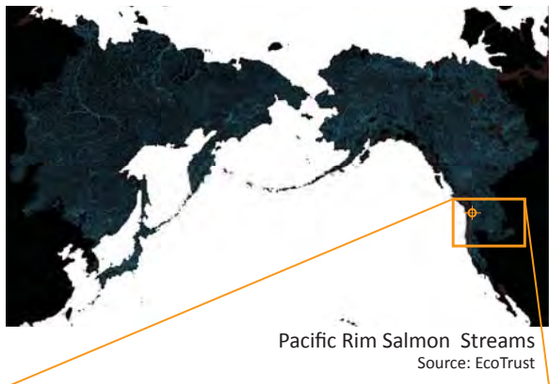
The Central Waterfront belongs to a larger geographical and ecological region, one that can be defined by the range of salmon spawning habitats across the North Pacific.

Ecological & Recreational Networks: Central Puget Sound to Elliott Bay

Sources: Google Earth; NOAA; EPA; Washington DOE; Shared Salmon Strategy; Puget Sound Partnership; The Nature Conservancy; WA Watertrails Assoc.

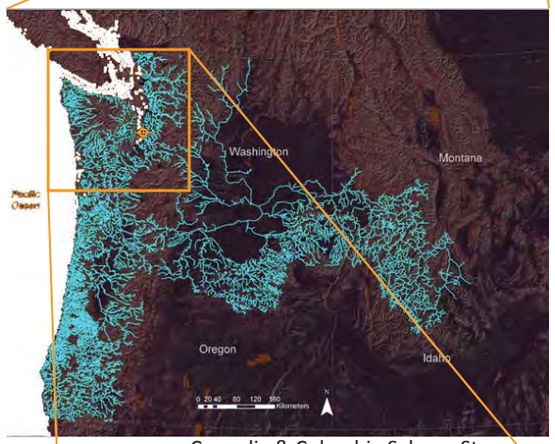
Ecological & Recreational Networks:Elliott Bay to Central Waterfront

Sources: Google Earth; NOAA; EPA; Washington DOE; Shared Salmon Strategy; Puget Sound Partnership; The Nature Conservancy; WA Watertrails Assoc.



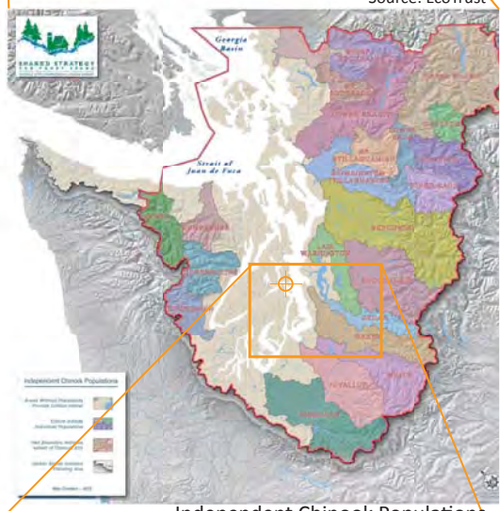
Pacific Rim Salmon Streams

Source: EcoTrust



Cascadia & Columbia Salmon Streams

Source: EcoTrust

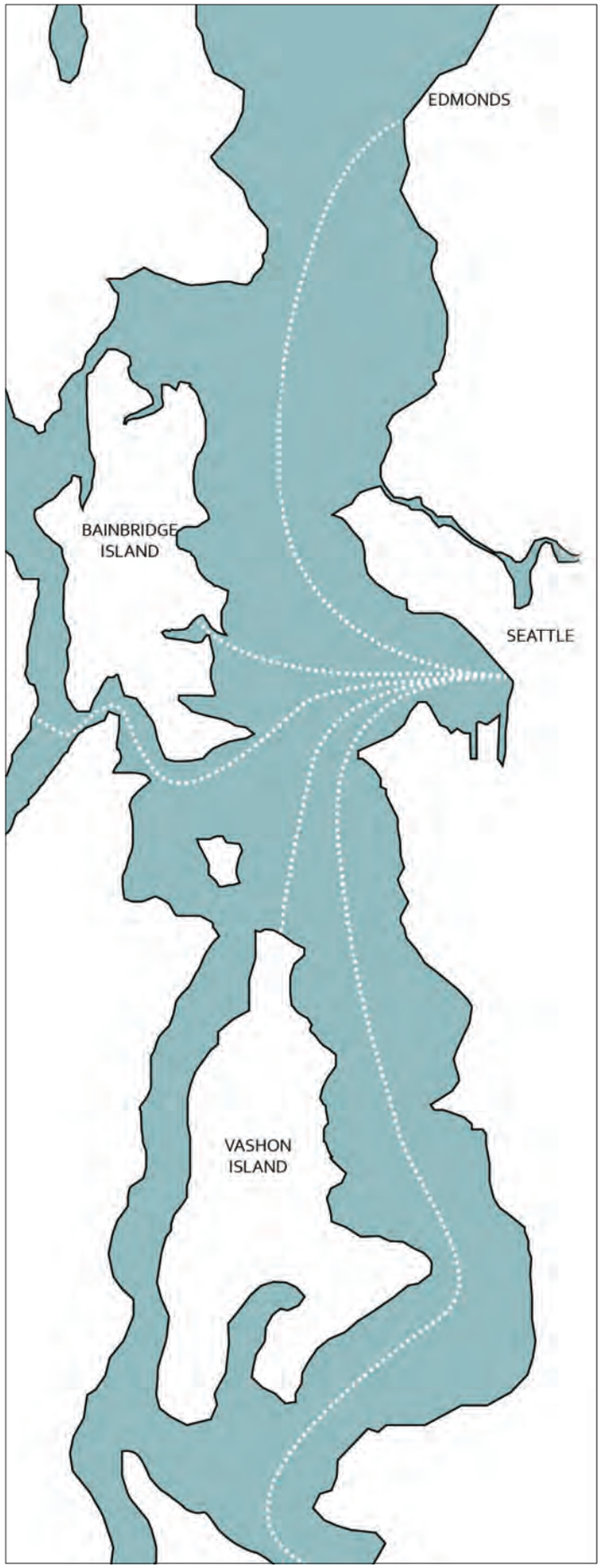


Independent Chinook Populations

Source: Shared Salmon Strategy for Puget Sound

WRIA 9: Duwamish-Green Rivers

Source: WA DOE



Existing and potential boat connections to Puget Sound

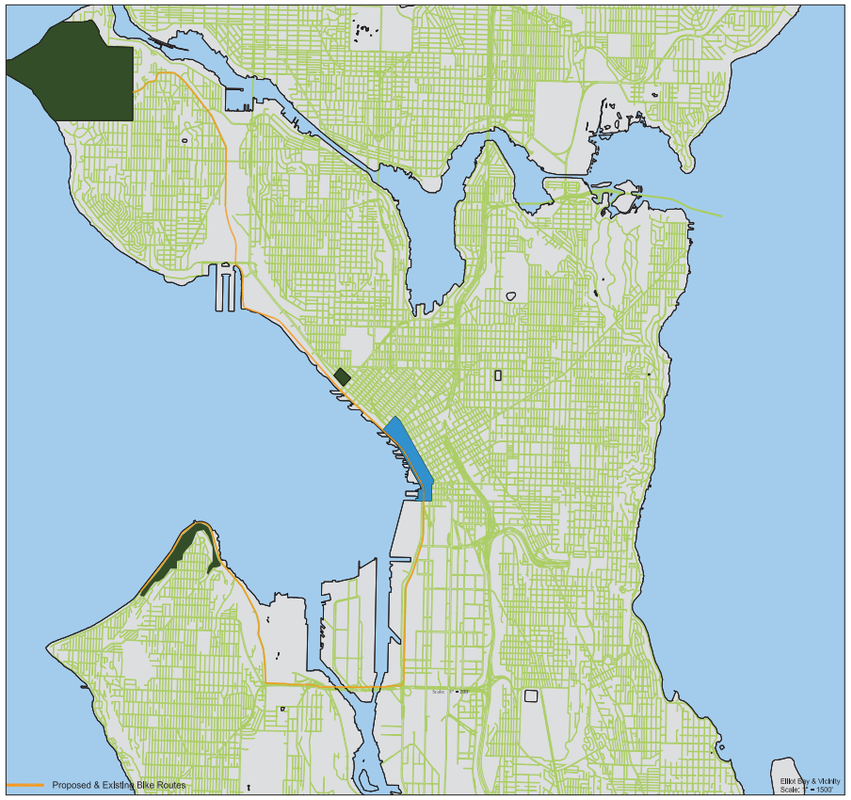
Regional Networks

Open Space Systems

Seattle's Blue Ring project proposes an addition to the historic Green Ring plan developed by the Olmsteds in 1903. The Blue Ring strategy aims to implement a similar network of open spaces within the city center. The Elliott Bay Bicycle Trail system is one thread that connects the Blue Ring with the Green Ring. Central Waterfront Park is a crucial element in all of these networks.

Existing Green Ring and Proposed Blue Ring Networks

Source: City of Seattle



Elliott Bay Bicycle Trail System

Data Source: WAGDA, accessed Dec. 2010

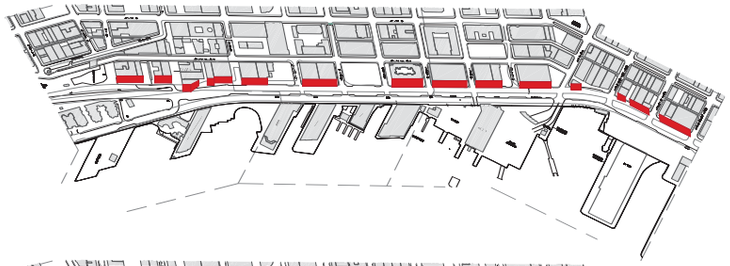
Waterfront Framework

Spatial Constraints

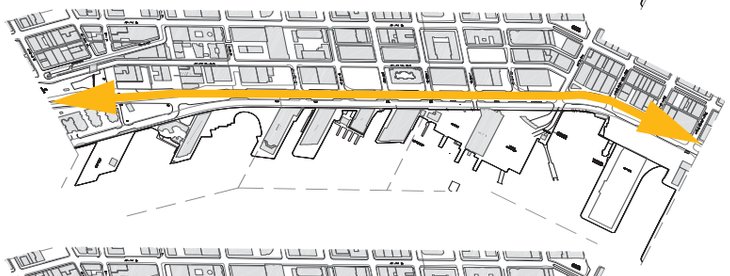
City Edge - Roadway - Seawall - Pier Edges

The Central Waterfront Park site is characterized by four typological elements: the city's edge, the proposed Alaskan Way road, the Seawall and the Pier Edges.

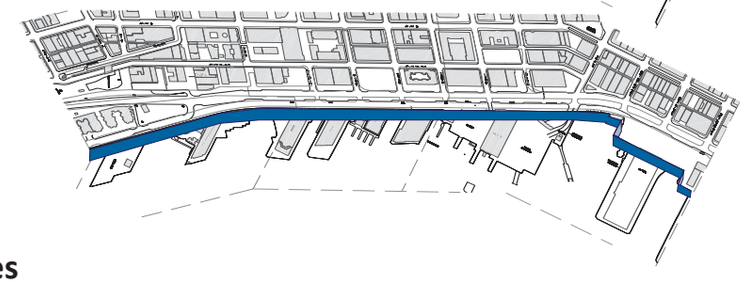
City Edge



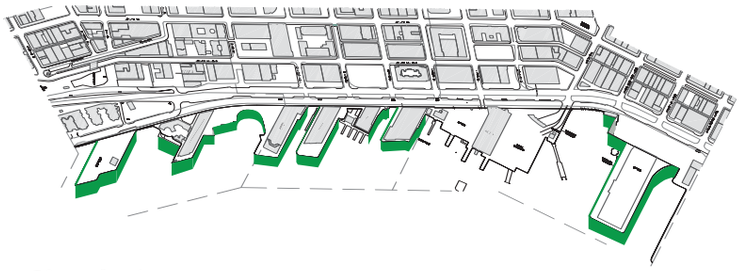
Roadway



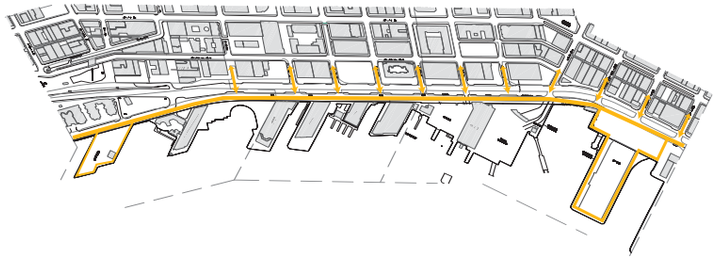
Seawall



Pier Edges



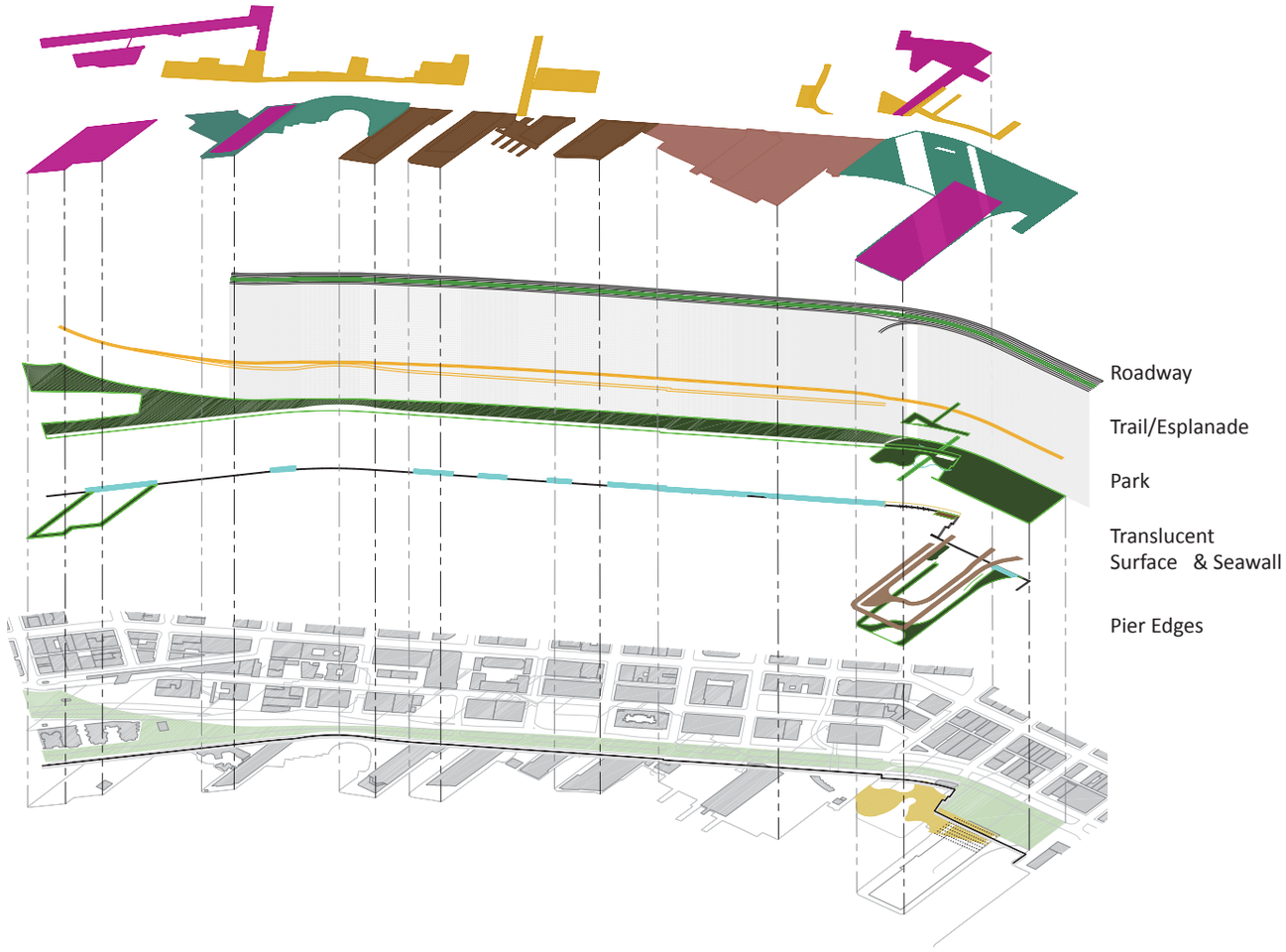
Pedestrian Circulation



Overlays

Inter-district Typologies & Park

While each district is defined by its topographical specificity, there are major programmatic elements that are shared between the different districts and the Water Front. Each fragment of urban fabric corresponds to one or more of the following categories: *cultural, drosscape, ecological, historical, and transit.* Mapping these onto the Central Waterfront Park begins to address the complexity of the site, its simultaneous programs and the plurality of user-group identities.



Circulation

East-West Connections

Pedestrian access is crucial to connecting the City to the Waterfront. East-west connections knit the urban fabric to the Waterfront at the pedestrian scale.

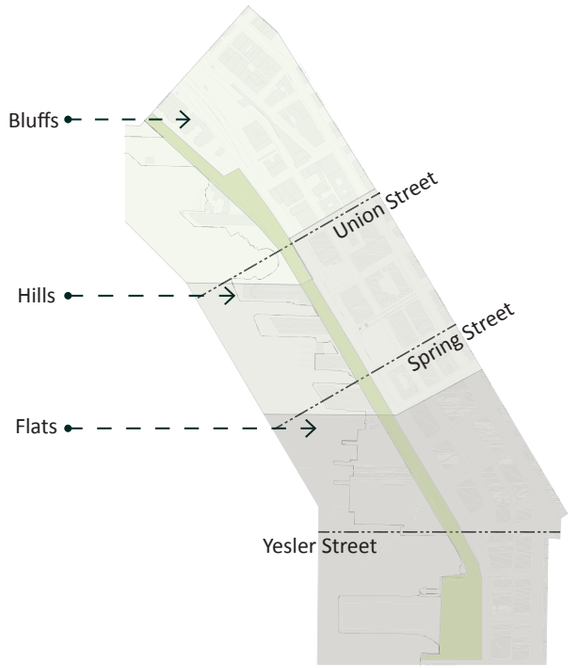
Overlay Legend

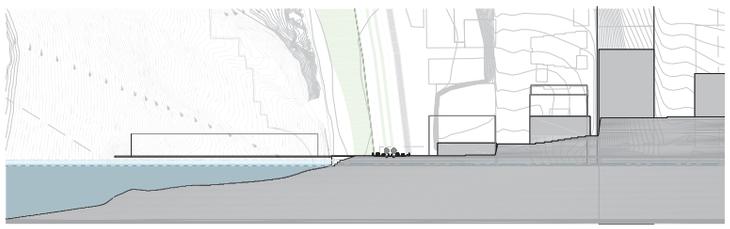
- Cultural
- Drosscape
- Ecological
- Historical
- Transit

Districts

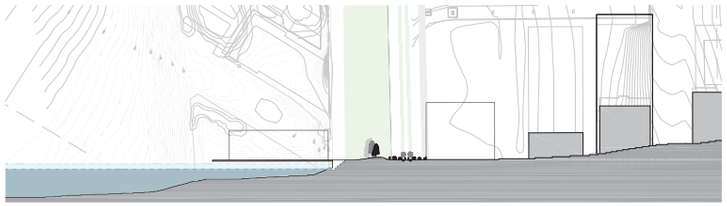
Topographical Zoning

The Waterfront is divided into 4 districts based on topographical characteristics and the type of east-west connections particular to each condition. The *Bluffs* are characterized by the Union Street section, the *Hills* by Spring Street, and the *Flats* by Yesler Street. The fourth district is the waterfront park.

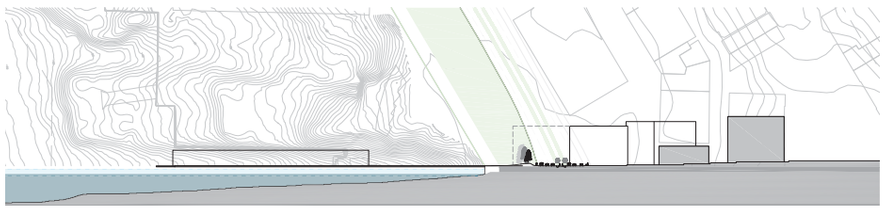




Union Street



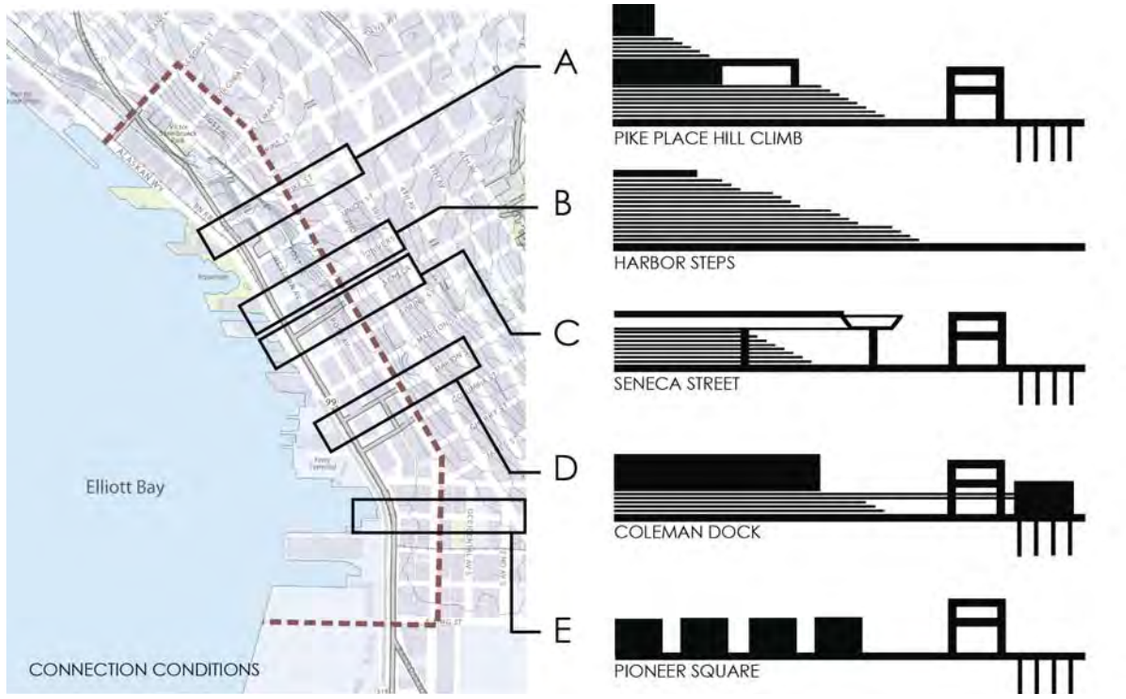
Spring Street



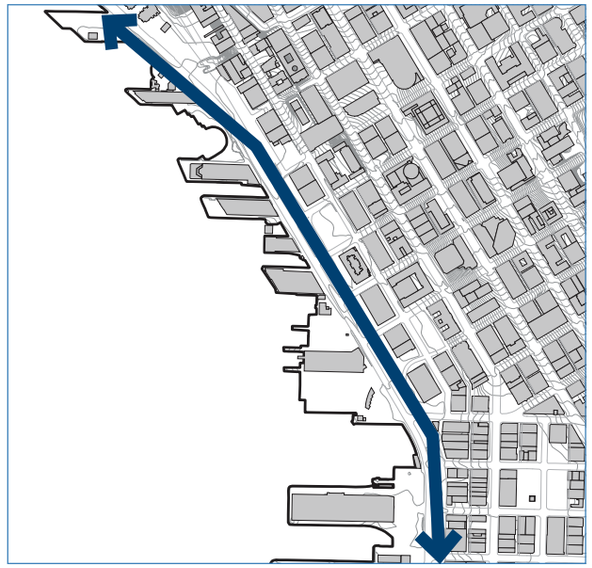
Yesler Street

Studio Districts

Teams of five to six students worked on each of the four districts along the Central Waterfront.



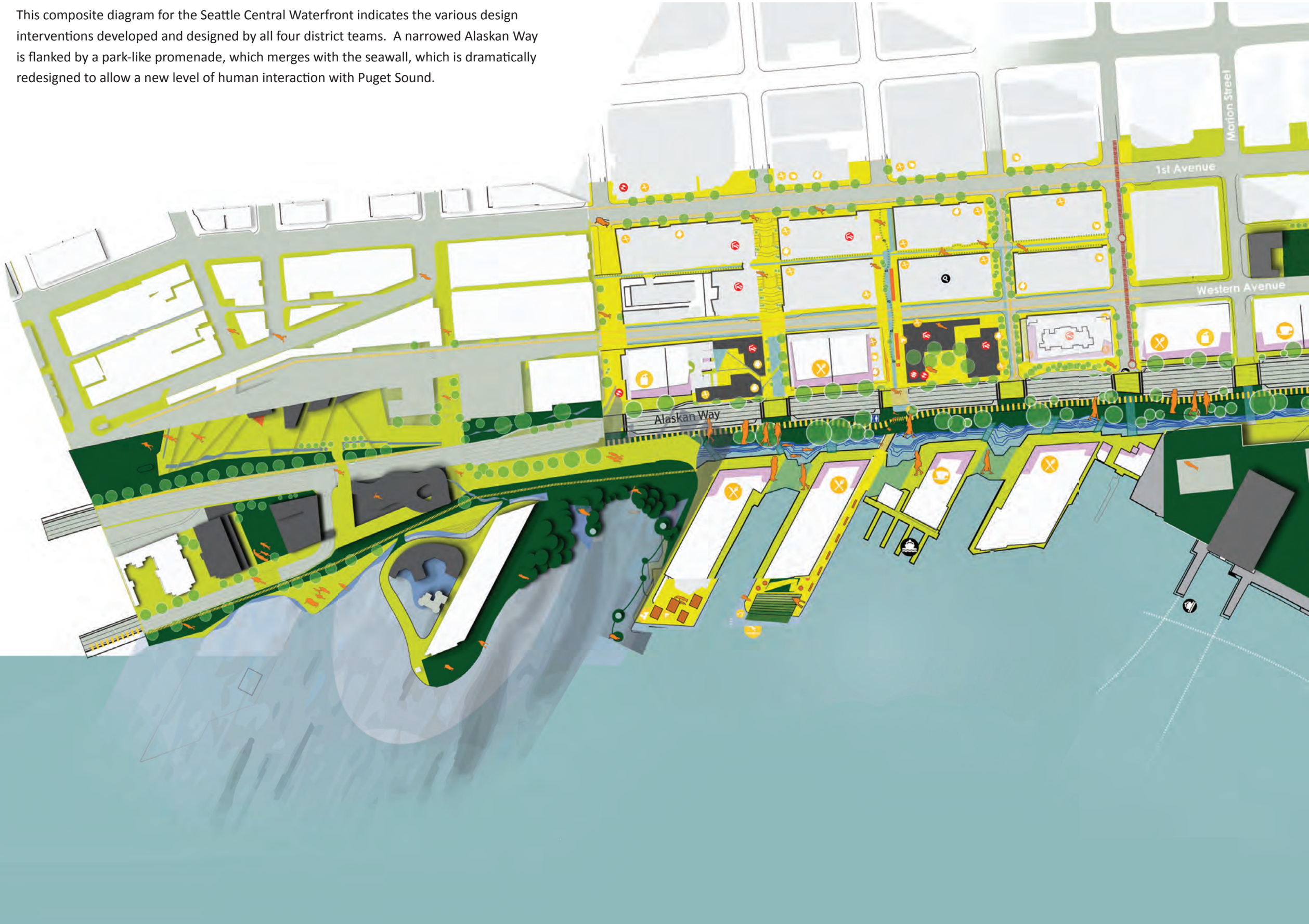
Connections back to city



central waterfront composite

Composite Design Proposals

This composite diagram for the Seattle Central Waterfront indicates the various design interventions developed and designed by all four district teams. A narrowed Alaskan Way is flanked by a park-like promenade, which merges with the seawall, which is dramatically redesigned to allow a new level of human interaction with Puget Sound.



Unifying Elements

Identity

The Waterfront logo could be used on fixtures, signage such as banners and posted signs to improve ease of wayfinding.

Promenade Paving

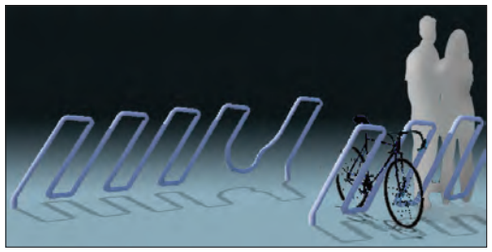
Continuing to celebrate the damp climate of the Pacific Northwest and the waterfront's very nature, a specialized concrete that reveals a pattern upon being wetted will be used strategically along the waterfront. Possible patterns could include artistic designs, facts about the natural history of Puget Sound, quotes and dedications.

Seating

Benches emulating the form of the water molecule have been designed to seat varying numbers and arrangements of people: singles and pairs to parties wanting to face each other for a chat, or face outwards in any direction.

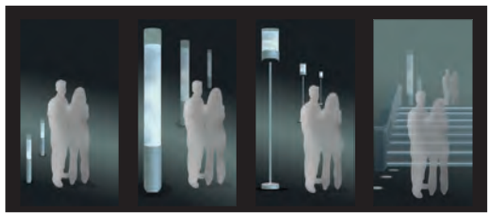
Bicycle Parking

Bicycle access has been a constant consideration throughout the waterfront design process, so a bicycle rack has been designed that makes use of a stylized outline of the piers and Waterfront Park's distinct cove.

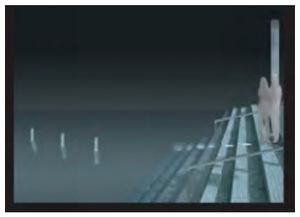


Lighting

Light fixtures have been designed to reflect the character of the waterfront, and will be installed over the length of the site. The lights consist of a water-filled Plexiglass chamber, LED light sources and brushed nickel hardware.



Similarly designed light fixtures embedded in the ground plane help with nighttime safety and navigation. Floating light systems extending into Puget Sound at the waters edge tie the two spaces together, further knitting the city back to its waterfront.

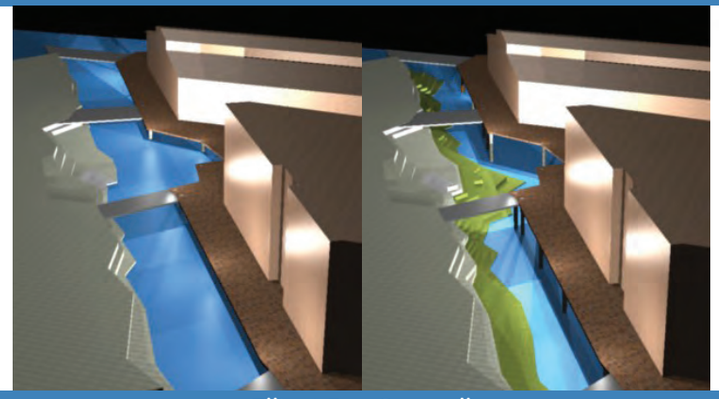


JULIA LEVITT MSRE
DAVID TOMLINSON MLA
DAN SHAW MLA
ANDI SLUSSER MLA
CECELIA GUESS MSCE

with Mary Roderick UDP, PhD

the irregular edge

Alaskan Way Boulevard



Elliott Bay Seawall

Stormwater Strategies

Design Guidelines

The Irregular Edge

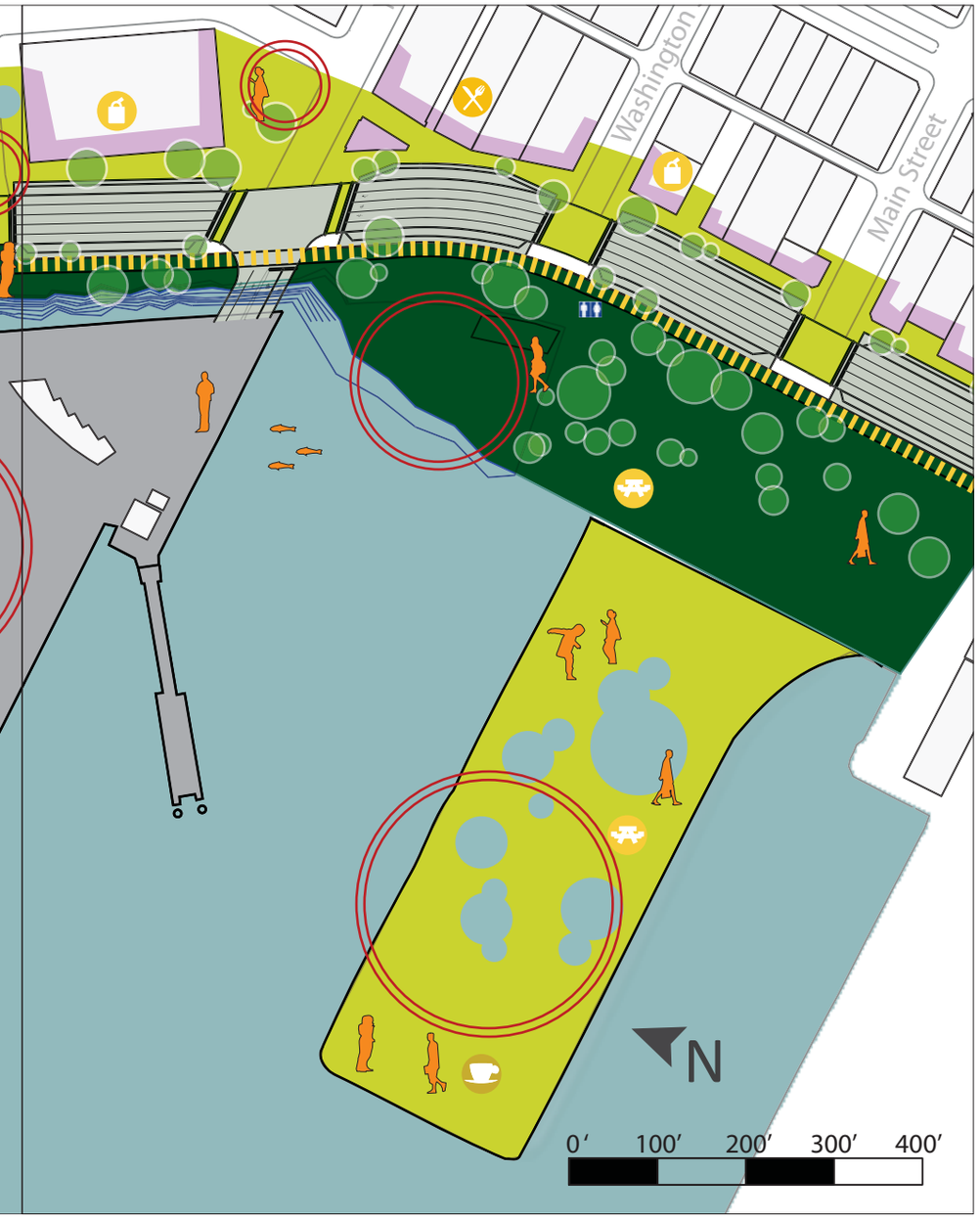
A Network of Edges

The Central Waterfront Team has developed a basic framework concept intended to provide a common language that will knit the three individual districts together as a whole. The concept is titled “The Irregular Edge,” referencing the ecological reality that biodiversity thrives along non-uniform edges.

The framework identifies four spatial and programmatic edges that must become “irregular” in order to encourage urban biodiversity. Our team has worked closely with members of each district team to design and program these edges, and to produce a set of unifying details and materials including light fixtures, outdoor furniture and paving.

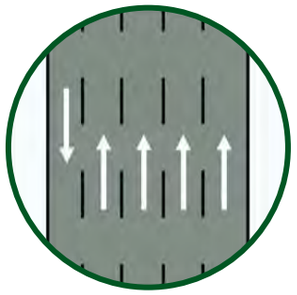
These solutions reflect our intentions to reconnect the city to the water via active, year-round public spaces appealing to a diversity of human users and a consideration of ecological needs. Environmental stewardship was a main guiding factor, as we examined how best to have the seawall respond to the needs of migrating juvenile salmon, and how to capture and treat stormwater in order to prevent polluted runoff and combined sewer overflow into the Sound.

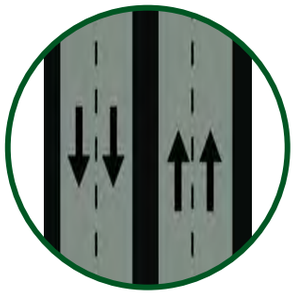
As a team, we identified three sets of criteria to guide the production of successful public space: Legibility; Visual Interest at the Pedestrian Scale; and Convenience, Safety and Cleanliness. We also chose to emphasize Seattle’s unique relationship with water, including both the water in Puget Sound and the water that falls so abundantly from the sky during most of the year. Our intention is to create a place where it is fun and exciting to be caught in the rain.



Interventions

Depicted before and after redesign





Roadway

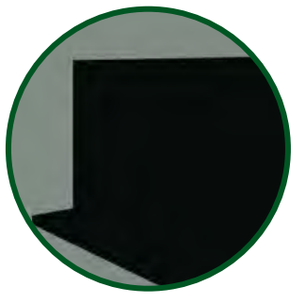
Reduce roadway footprint by designing an innovative, flexible boulevard that has the ability to adapt to varied traffic demands. Roadway detailing creates a soft edge between vehicles and people.

Pier Edges

Open up a continuous path of public access linking the land to the western edges of the piers. Use programming to invite visitors to linger at the western edges of the piers.

Water's Edge

Move the seawall east, responding to the original shoreline and existing bathymetry. Allow light and air to reach underwater habitat and blur the lines between water and land.



City Edge

Create an active urban sidewalk along the eastern edge of Alaskan Way. Remedy inactive building fronts and back-end uses with pedestrian-friendly, human scale details.

Alaskan Way Boulevard

DESIGN GOALS & OBJECTIVES

Lively & Engaging

Design the new boulevard as an integral part of the Seattle waterfront, rather than a barrier between the cityscape and Elliott Bay.

Provide amenities to encourage active use of the waterfront 24-hours a day.

Design the waterfront as both a commuter route and recreational haven.

Healthy

Improve the waterfront air quality by eliminating excessive automobile use.

Implement the “Green Roads” construction methodology.

Attractive and Safe

Provide safe pedestrian crossings and vehicular routing through the corridor which promotes positive vehicle-pedestrain interactions.

Provide streetscape amenities that facilitate safe and efficient travel of pedestrians in all seasons of the year.

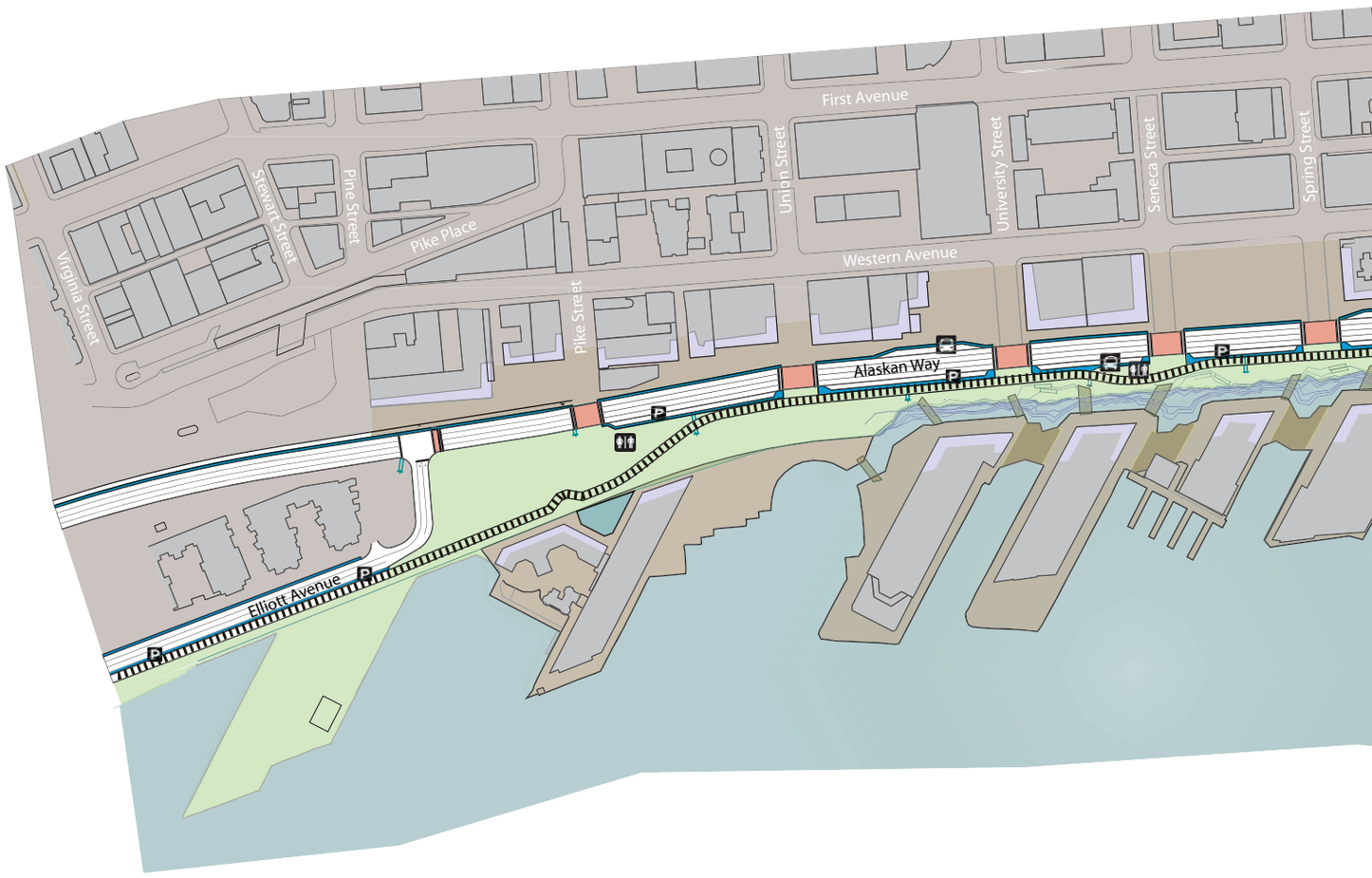
Sustainable

Develop an innovative stormwater treatment plan that supports a self-sustaining waterfront ecosystem.

Promote rainwater harvesting and stormwater reuse.

Doing MORE with LESS: Flexible Roadway Design

Based upon best available data, we propose an integrated corridor management system using intelligent transportation systems to replace the N-S vehicular corridor along Seattle’s waterfront (this includes both Highway 99 and the Alaskan Way South surface street). It is in the best interest of a “People’s Waterfront”, that Seattle be innovative in its approach when rebuilding the surface boulevard. We recognize that maintaining North-South vehicular flows along the corridor is crucial to our region’s economic vitality. However, we believe that the answer to our rapidly increasing traffic woe’s must be creative, in order to minimize traffic and reduce paving.



Traffic demands along Seattle’s waterfront vary according to time of day, ferry scheduling, season of year, and especially during special events hosted in, or nearby, the downtown central business district. Instead of the city’s proposed 6-7 lane boulevard, we propose a flexible roadway design composed of reversible lanes, HOT lanes, public transportation facilities, and parallel parking. Our proposed design is not only versatile, but it will effectively tackle traffic demands while significantly reducing the roadway footprint at the waterfront’s edge.

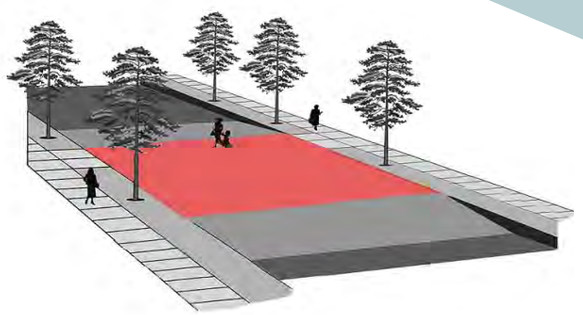
Flexible Roadway Design Features:

- 5 reversible lanes south and 4 reversible lanes north of Madison Street
- Real-Time Traffic Management Systems (ATMS) Active Traffic Management Systems
- Transit Improvements- Bus Priority Lanes (BRT)
- 3 NB and 2 SB bus stops
- Parallel parking
- Bus parking near Seattle Aquarium

Basic Configuration:

Standard	2 NB Lanes, 2 SB Lanes	↓ ↓ ↑ ↑
Morning Rush Hour	3 NB Lanes, 1 SB Lane	↓ ↑ ↑ ↑
Evening Rush Hour	1 NB Lane, 3 SB Lanes	↓ ↓ ↓ ↑
Special Events*	1 NB Lane, 1 SB Lane	XX ↓ ↑

*The 2 western lanes could be separated from traffic with a movable barrier to provide a safe space for pedestrian activity to occur. Examples of such activities range from outdoor markets to cycling and running events.



Intersection Improvements:

Most intersections should be slightly raised with ergonomic all-way crosswalks. To improve way-finding, paving at intersections is different than paving found on roadway.

Alaskan Way Boulevard

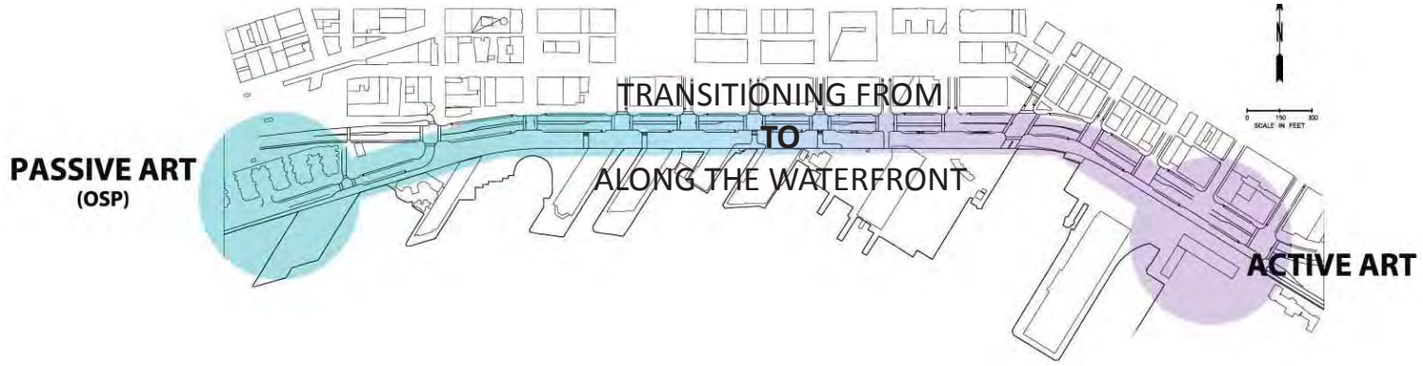
Recreational Trail

Alaskan Way South is one of the most active bicycle commuting corridors in Seattle. Directly north of the waterfront is the Elliott Bay Trail. The Elliott Bay Trail runs from the Olympic Sculpture Park to east Magnolia providing a great connection from the Downtown Seattle Waterfront to N/NW Seattle. Just to the south of the waterfront a 14-foot-wide bicycle and pedestrian path will be added to the west side of Alaskan Way South. The Seattle waterfront is a crucial link in the Mountains to Sound Greenway Regional Trail, therefore we propose a 16-foot-wide trail along the west side of Alaskan Way Boulevard. The trail will accommodate both commuters and recreational users, and will provide ample bicycle storage facilities.

Source: Mountains to Sound Greenway Organization; http://mtsgreenway.org/about/regional-trails

Quick Wins: Interactive Art

What might an active experience of art look like? Participatory. Before the viaduct is removed, sections of parking under the viaduct can be closed off to automobile usage and replaced with interactive art exhibits. A significant amount of parking will be removed when the viaduct is demolished. Removing small sections of parking at a time will help ease the transition and offer unique opportunities for the city to study how people react. The interactive art exhibits will draw people to the waterfront while engaging their senses, intellect, and bodies. With the Olympic Sculpture Park as a passive art experience, we can think of the waterfront as a progression from passive art to interactive, or "active", art.




Source: Nivah Samuel Hastrup


Source: www.falloutminneapolis.com


Source: www.zimbo.com

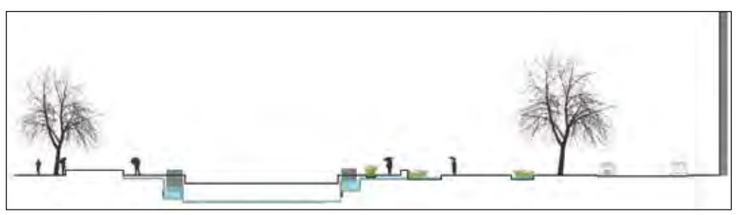

Source: www.fastcompany.com


Source: www.dopefulhopefiend.com


Source: www.travel.webshots.com

Stormwater Treatment

Alaskan Way is designed with a 2% cross-slope, sloping down in the eastwardly direction. All road surface water is treated in swales located on the park side between the roadway and the recreational trail. The lowest point of each swale is located in between each intersection. The clean water can then be piped under the trail and further treated, and then re-used in the waterfront park or directly discharged into Elliott Bay.


Source: Nivah Samuel Hastrup

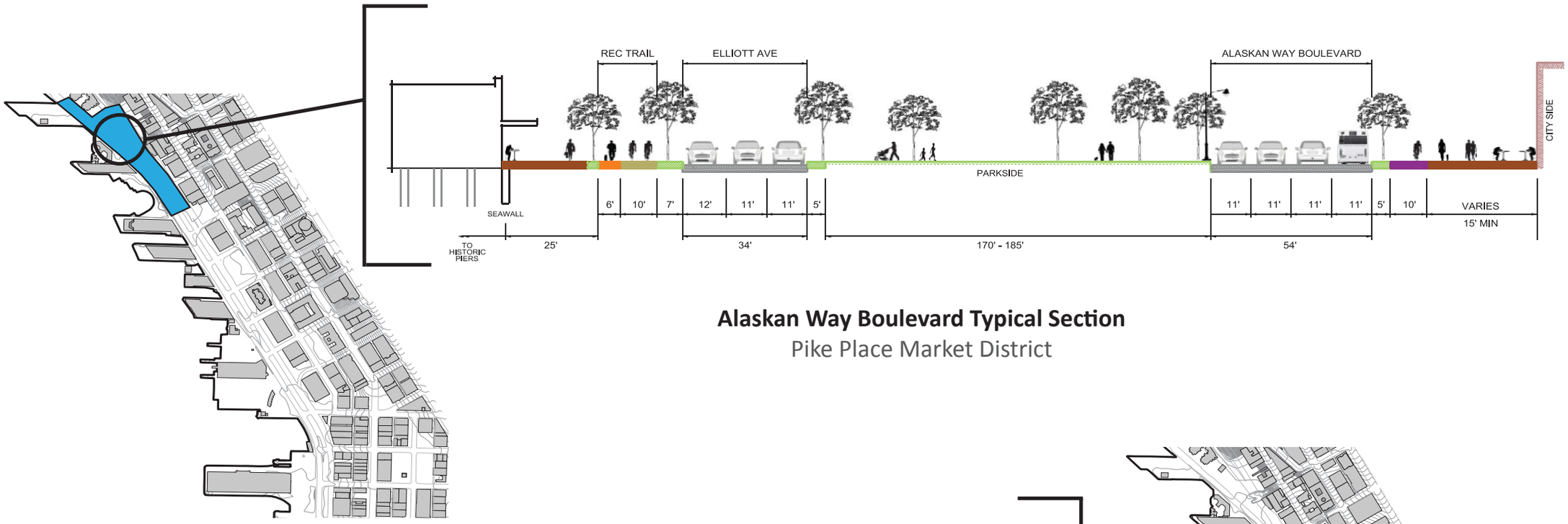
Green Road Design

Using the Greenroads checklist shown in Figure 2 as design guidance, the new boulevard will be designed as an integral part of stormwater treatment solutions and sustainability practices along the waterfront. The Greenroads Foundation is a non-profit organization developed by the University of Washington and CH2M Hill in the summer of 2010. The Greenroads rating system has four different certification levels depending upon total score. (www.greenroads.org)

Public Restrooms

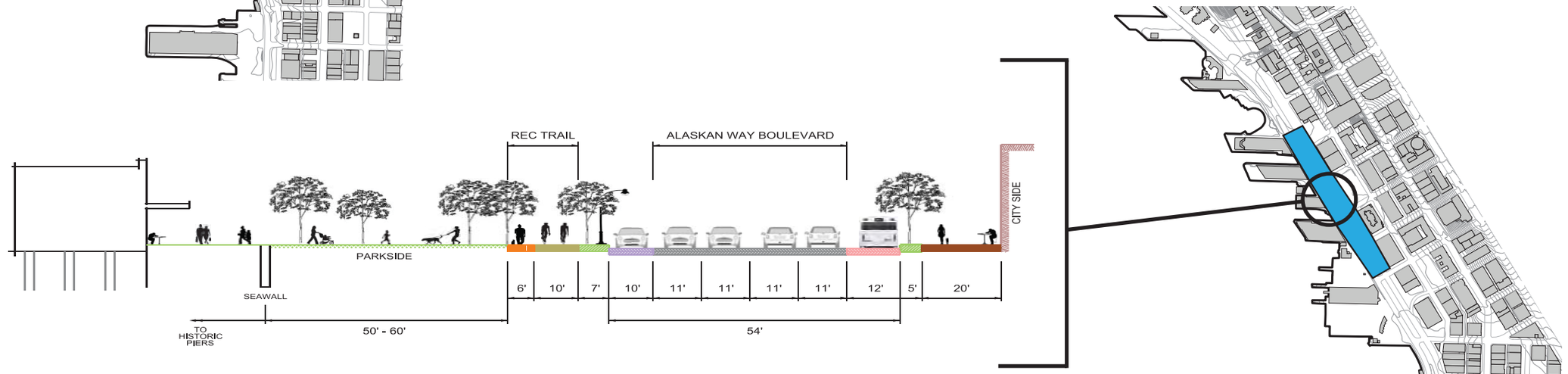
We have proposed at minimum three public restrooms along the waterfront. Due to Seattle's history of public restroom facilities, we recommend that the restroom facilities are supervised by a "keeper" at all times. Visitors would then only have to pay a small user fee in order to use the facilities. Eco-friendly restroom facilities to include:

Rainwater Harvesting for Flushing and Faucets
Low energy fixtures - solar energy
Recycled material - natural interiors
Non-heated air-dryers
Energy saving exteriers



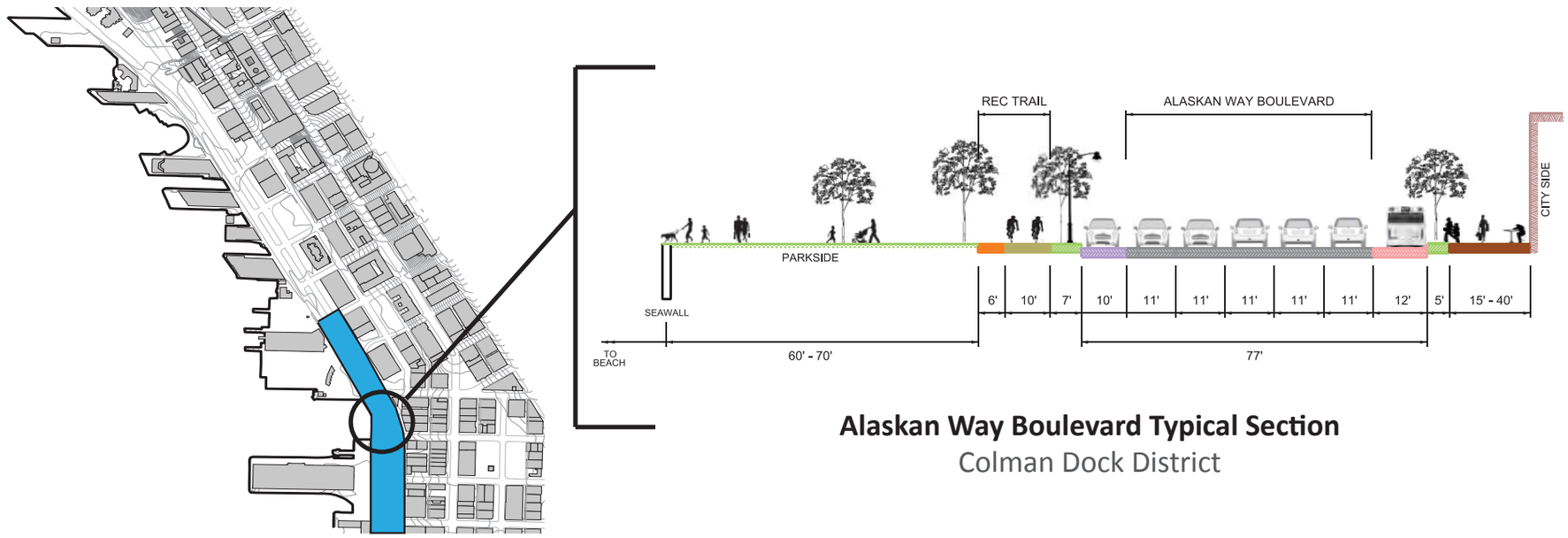
Alaskan Way Boulevard Typical Section

Pike Place Market District



Alaskan Way Boulevard Typical Section

Historic Pier District



Alaskan Way Boulevard Typical Section

Colman Dock District

LEGEND

- Pedestrian Sidewalk
- Flexible Roadway
- Bus Stop
- Parallel Parking
- "Wheels" Only Lane
- Jogging Path

Exchange Zone Rediscovered: Elliott Bay Seawall

Setting

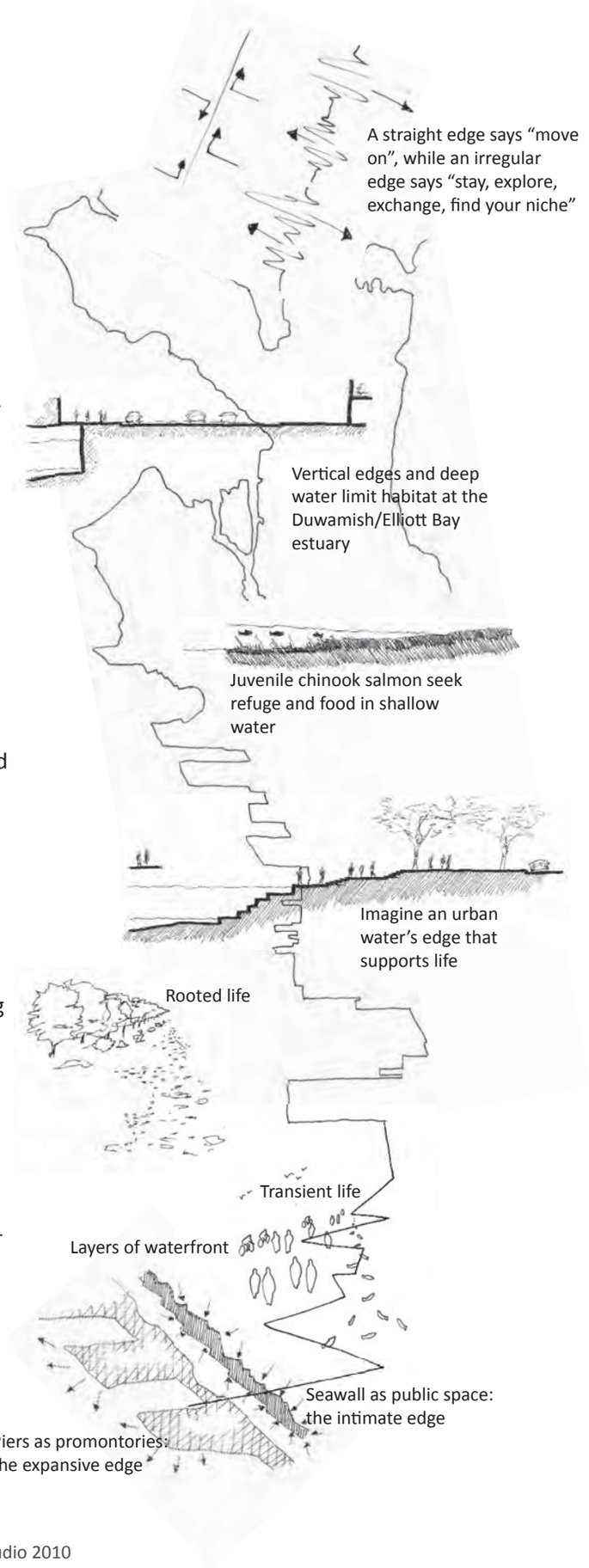
Seattle's Elliott Bay seawall marks the boundary between city ecology and aquatic ecology. The stretch of wall in front of Piers 54, 55, 56, and 57 sits below a concentration of human culture and commerce along the waterfront, a potentially vibrant eco-cultural exchange zone.

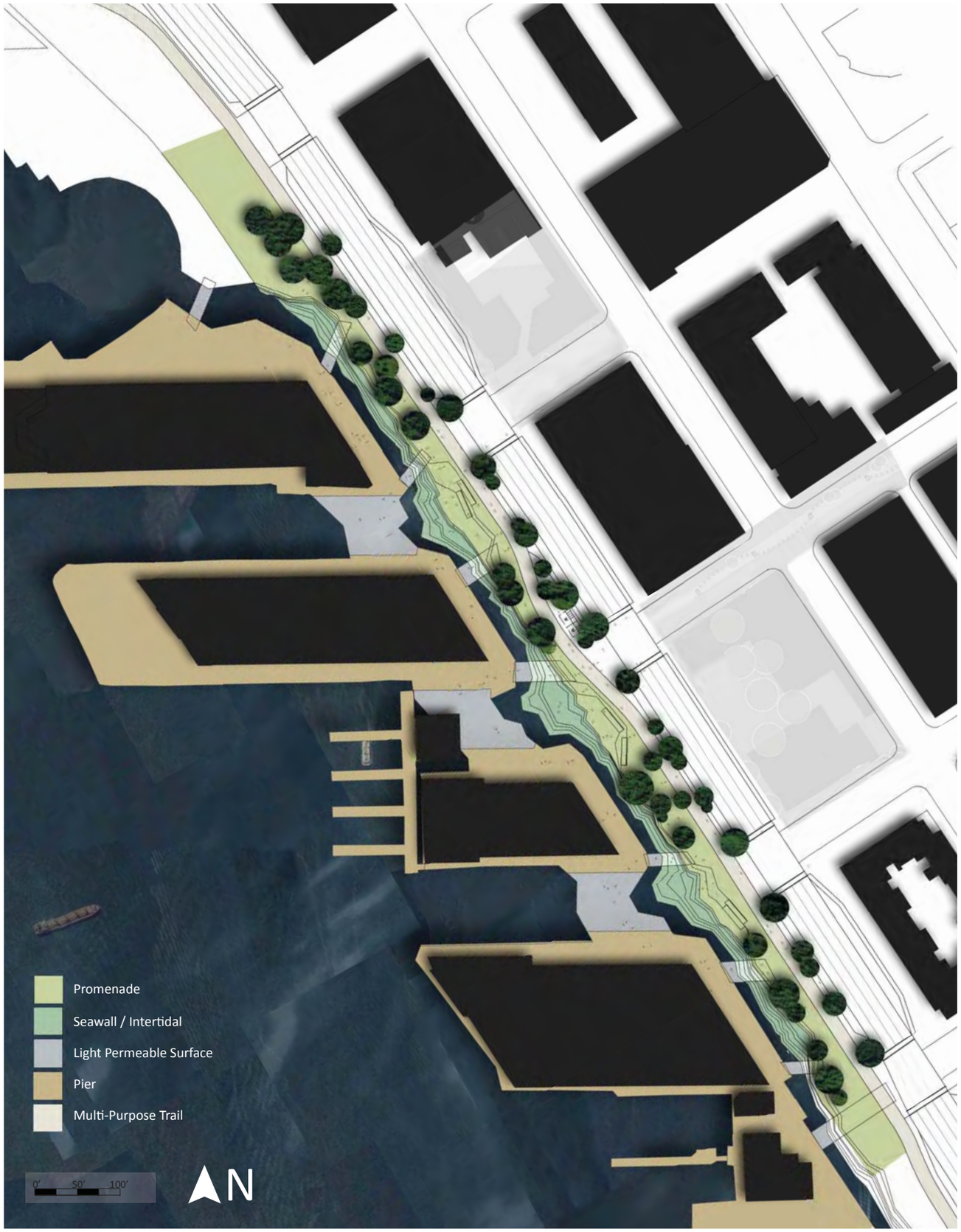
Disconnect

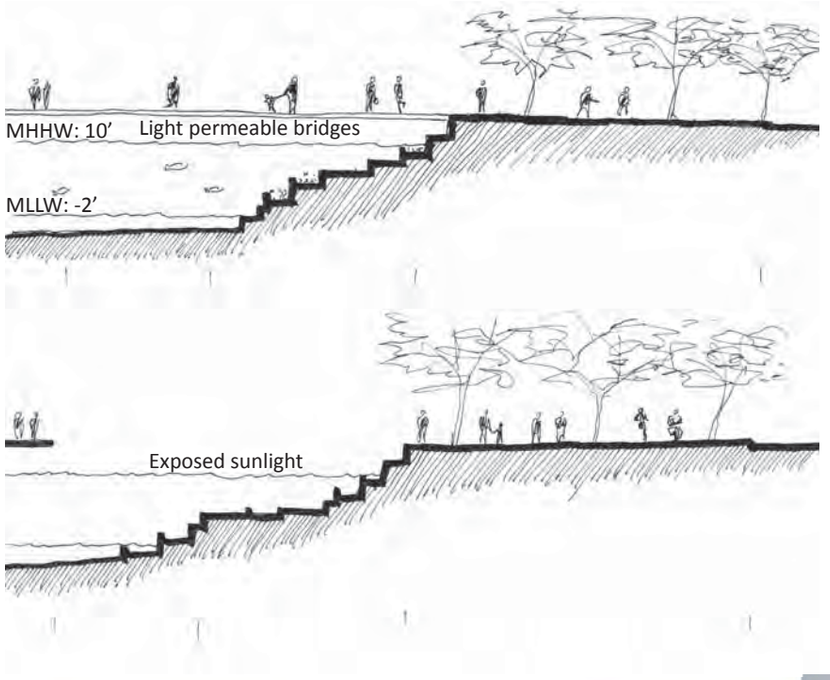
The seawall, due to be replaced, is a vertical edge that limits human engagement with water, while offering inhospitable conditions for migrating salmon and other species.

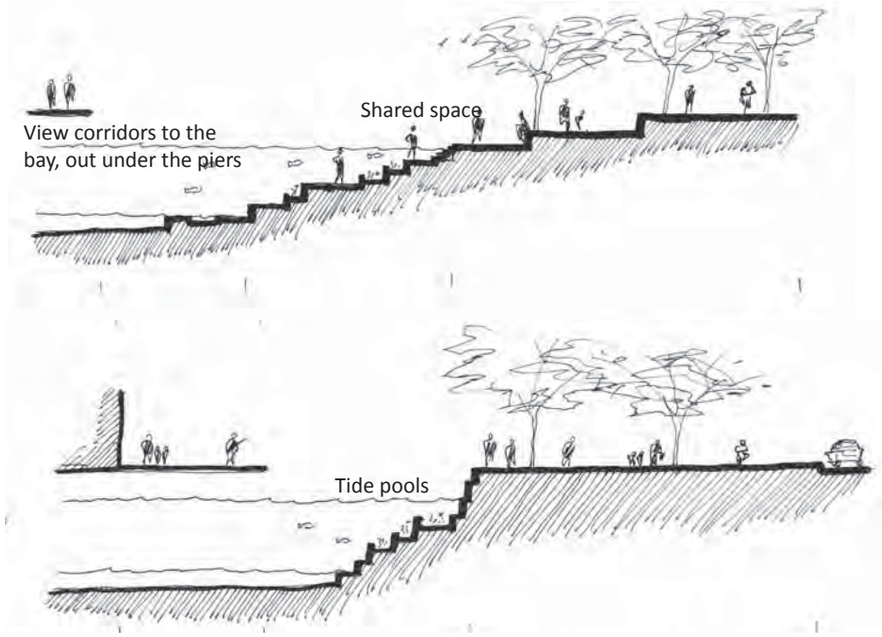
Concept

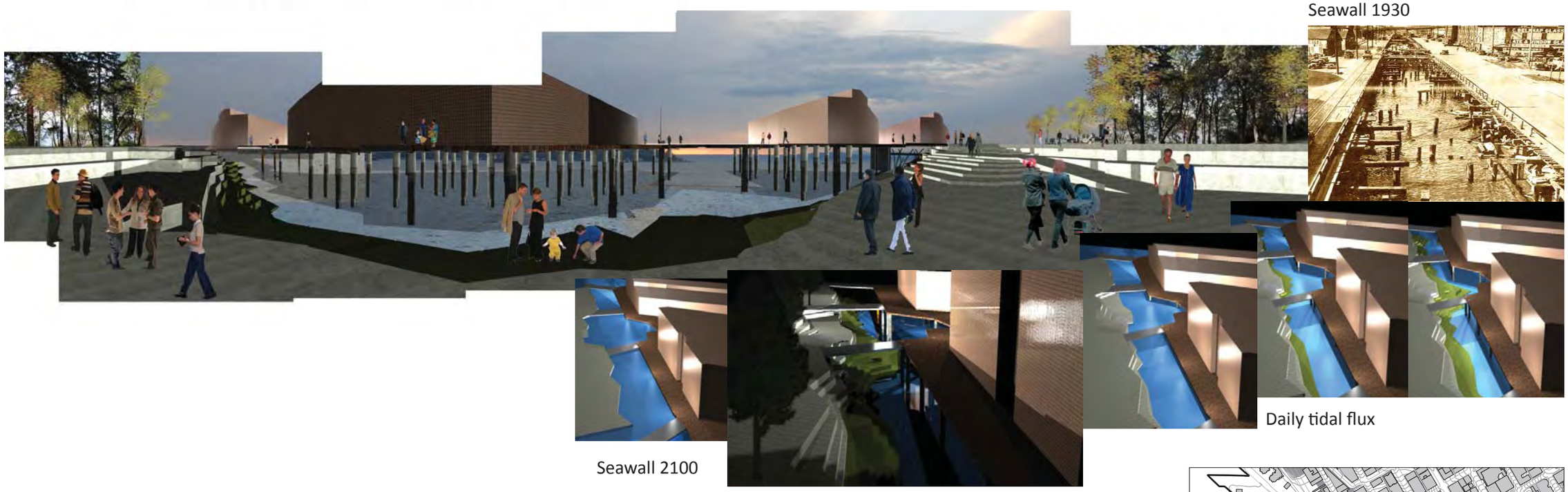
A new seawall that's an irregular edge. Increasing and creating the surface area of exchange zone. Drawing water inland while making piers "islands". Reimagining the seawall as a border rather than a boundary. Wildlife habitat as armature for public space. Seawall-as-promenade. Seawall-as-habitat corridor. An intimate waterfront edge, a walk along a re-discovered tidal zone. A chain of human-scaled nodes.











Seawall 2100

Seawall 1930

Daily tidal flux

Shape

The new seawall is a stepped, sloping, and terraced intertidal zone and promenade, irregular and engaging in both its horizontal and vertical dimensionality. It is a three-dimensional shape that effectively houses ecology and public space.

Continuity

Unfragmented networks of public space, intertidal habitat, sunlight exposure, and view corridors are all interwoven, linking the waterfront to the region.

Flux

The fluctuating physical surface is adaptive to the flux of the site’s phenomenological processes through time. The seawall’s shape changes hourly with the tides. Unprogrammed spaces can welcome any user group. And while exposed water references the piers’ history, terraced public spaces stepping towards the water will send a powerful message the day that high tide finally overtakes them; an experiential gauge of rising waters.

Public Spaces | Public Life for Seattle’s Central Waterfront

Stormwater Strategies: Reveal, Reduce, Reclaim

REVEAL

In undeveloped conditions stormwater is absorbed, filtered and used to replenish aquifers and nourish plant and aquatic systems. In urban environments these processes are severly disrupted. Stormwater is collected and conveyed from roofs and streets into either a separated storm or combined sewer system.

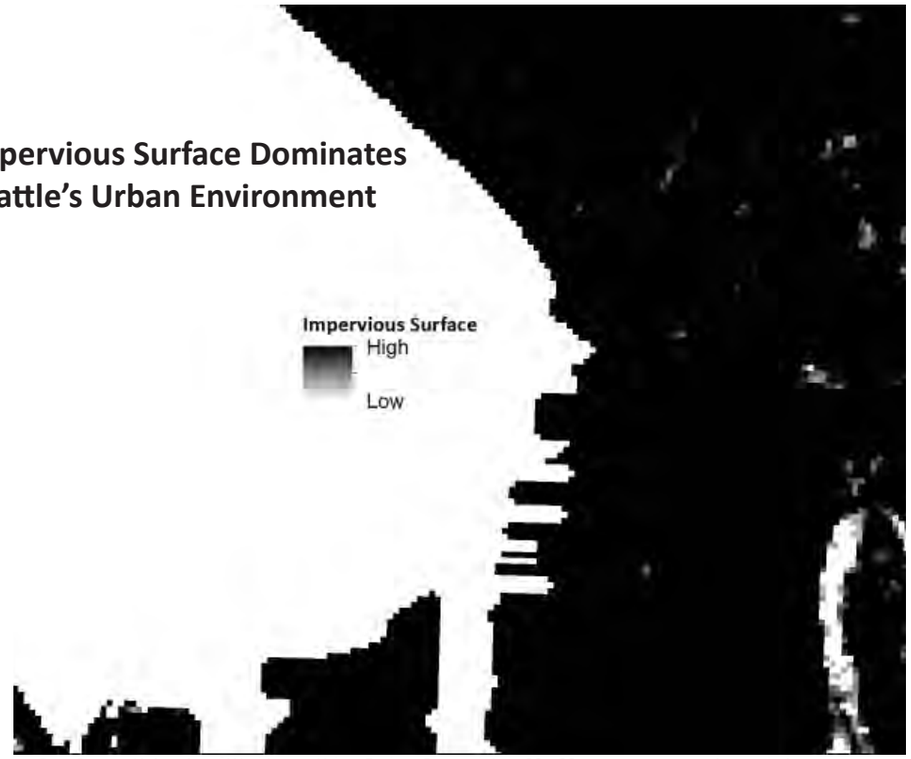
Strategy: Eco-Revelatory Design

Expose ecological processes and functions to improve their performance in the built environment and to educate people of the larger implications of their decisions and actions.

Combined sewer overflow -
raw sewage, mixed with stormwater.
Discharged directly into Elliott Bay.
Source: Washington Dept of Ecology

Wellington, NZ Waterfront Treatment Swales/Habitat/Irrigation
Source: Nancy Rottle

Impervious Surface Dominates Seattle's Urban Environment



Data Source: University of Washington Urban Ecology Research Lab, 30 x 30 meter remote sensing analysis

REDUCE

Surface runoff is the major source of toxic chemicals in Puget Sound according to the WA Department of Ecology. Stormwater discharge from one square mile of roads and parking lots can yield approximately **20,000 gallons** of residual oil per year, in addition to toxic concentrations of a wide range of other pollutants. Currently, stormwater flows untreated directly into Elliott Bay. Much of downtown is also a combined sewer system, with an average of **43.7 million gallons** of overflow per year in the study area during heavy rainfalls. Roofs, the largest surface area in the dense urban fabric have the cleanest discharge, yet are usually connected to the combined system. Source: SPU Combined Sewer System Modelling Report

Strategy: Treat Streets Retain Roofs

Divert street runoff into treatment swales before releasing into separated system, use green roofs and cisterns (vertical/underground) to delay discharge into combined system.

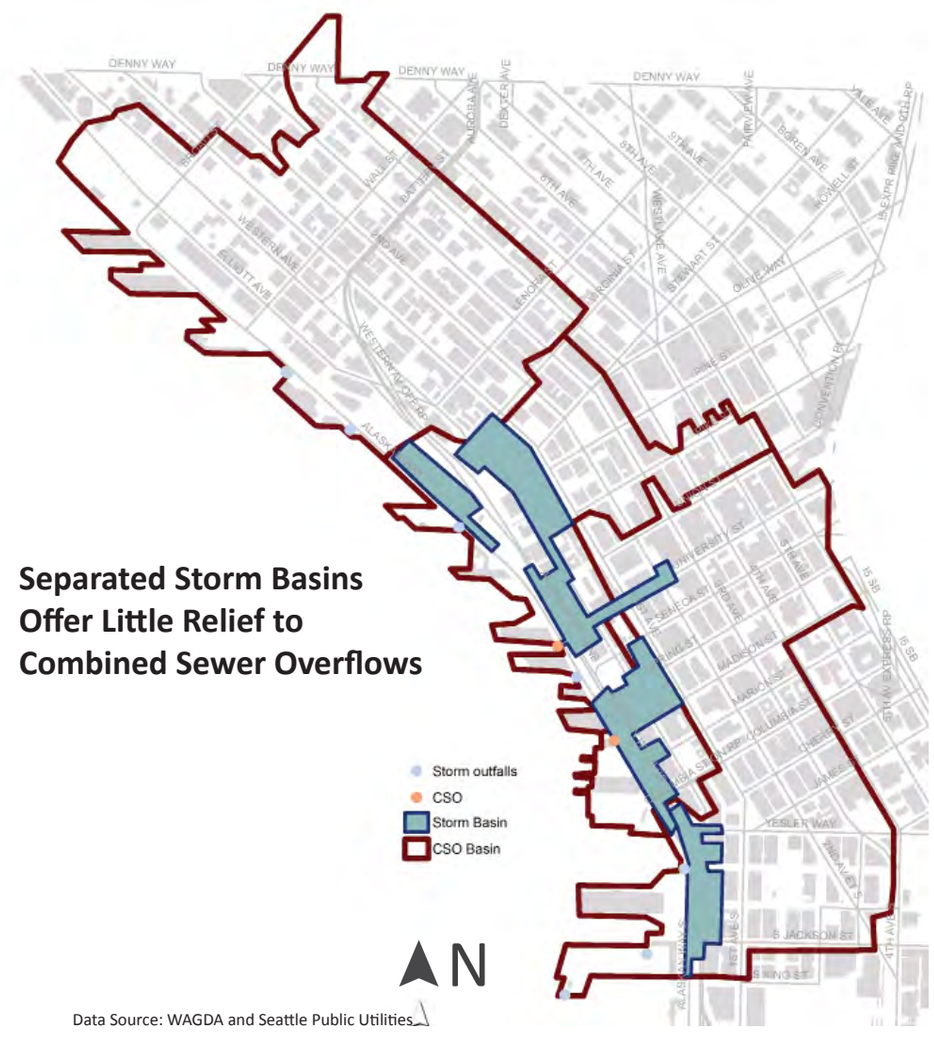
RECLAIM

Freshwater is an increasingly limited resource with many competing users. Global climate change is already affecting precipitation patterns and the future of water is fragile. Much of the world already experiences water shortages and these are projected to increase along with water-driven conflicts much like those over oil today. Water management is a key aspect of just sustainability.

Strategy: Runoff as Resource Not Refuse

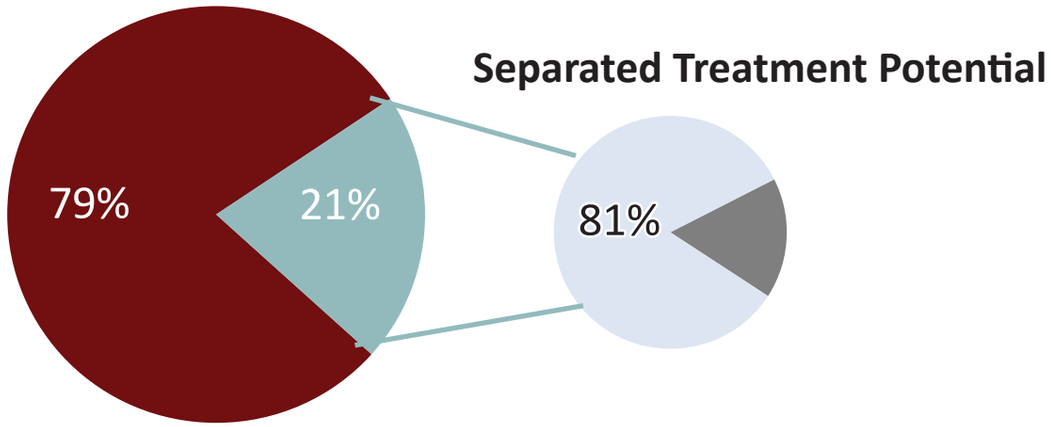
Water sheds from the urban environment in the millions of gallons during heavy rainfall. Finding the right source for the right use has become a trend in 'Total Water Management'. Treated runoff can be used for irrigation, habitat, and water features which delight in the hardened urbanscape. Clean roof runoff can be used to supplement infrastructure services such as energy and sanitation.

Separated Storm Basins Offer Little Relief to Combined Sewer Overflows



Data Source: WAGDA and Seattle Public Utilities

Combined vs. Separated Storm Volume Ratio



Storm Volumes & District Potentials

Combined	Separated
4.3 Million Gallons	1.1 Million Gallons
Potential Storage	**Potential Treatment**
3 Million Gallons	945,000 Gallons

Volumes based on drainage basin areas (see map opposite page) multiplied by runoff depth.

Runoff Depths

Combined: 1.28” rainfall (flow control design storm, 2 Year/24 Hour)

Separated: 1.08” rainfall (water quality design storm, 6 Month/24 Hour)

Potentials based on specific site area calculations and design interventions.

See district strategies and individual designs for detailed approaches.

Different Strategies for Different Typologies

Combined or separated systems
Steep or flat topography
Upland or end-of-pipe

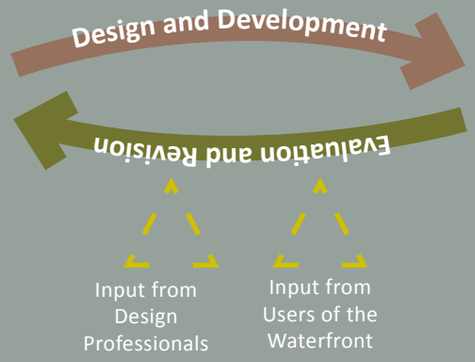
} **Diverse Design Opportunities: REVEAL, REDUCE, RECLAIM**

Guidelines for Design + Programming

Implementation

These guidelines are intended to be used as a work in progress, allowing flexibility to create a place with lasting relevance as both a local amenity and a globally significant example of civic design.

As new development occurs, evaluate its performance systematically to determine whether the guidelines are providing adequate direction for meeting goals and objectives. Evaluation by both designers and the public users of the waterfront will guide the revision of both goals and specific strategies to respond to influences that are both near-term and local, and long-term and global.



Influences

Near Term and Local
As major interventions such as the demolition of the Viaduct and opening of the Deep Bore Tunnel take place, the demographics, economic climate and private investment interest in the waterfront will respond. In addition, the cyclical nature of the built environment will influence the pace and nature of both public and private development at the waterfront itself, in the downtown area and in surrounding neighborhoods.

Long Term and Global
New information on the implications of carbon emissions, climate change and sea level rise will effect global political and economic decisions as well as local political and social responses.

Overarching Goals

These design and programming recommendations outline a route for achieving six overarching goals for Seattle's Central Waterfront. The six goals were identified by the studio Design Committee, a subcommittee of the LARC504 studio including representatives from each of the studio's four district teams. The following goals will be addressed with specific design and programming strategy recommendations throughout this document:

I. Civic Waterfront

Provide an urban public space where Seattle residents, workers and visitors can engage in social activity, recreation, observation, conversation and public gathering that promote social vitality.

II. Local Economic Development

Support an economy that prioritizes diverse, resilient and distinctive water-dependent businesses and industry, including local and small, locally owned enterprises.

III. Multi-Modal Mobility

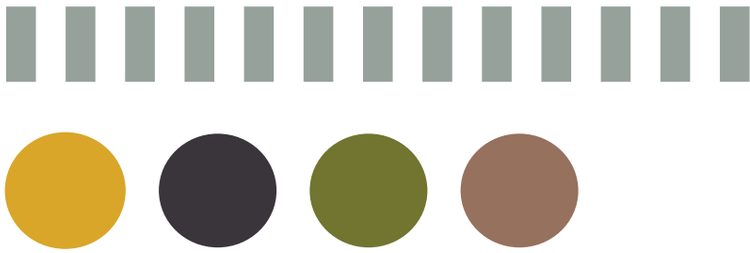
Facilitate comfortable, safe and convenient universally-designed multi-modal transportation to, from and through the central waterfront, prioritizing the needs of pedestrians, cyclists and public transit users.

IV. Cultural and Social Diversity

Support a diverse cultural context though universally accessible features and use of color, material, shape and form that reflect the Puget Sound region's social and cultural diversity.

V. Ecological Design

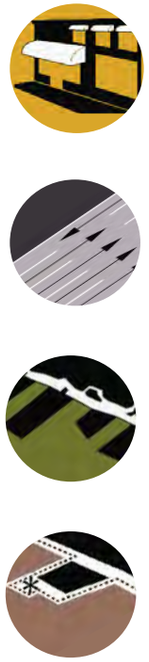
Support the health of native aquatic and terrestrial ecology through the prioritization of ecological design strategies.

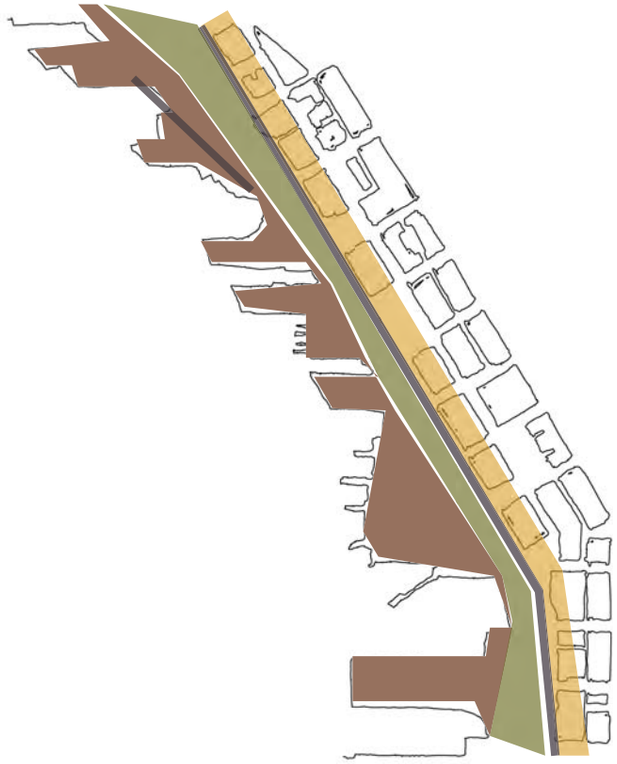


Apply Overarching Goals to four Spatial Edges using Design and Programming Strategy Recommendations

Note: A more detailed list of design guidelines can be found on our course website under Studio Autumn 2010 http://courses.washington.edu/gehlstud

Spatial Edges

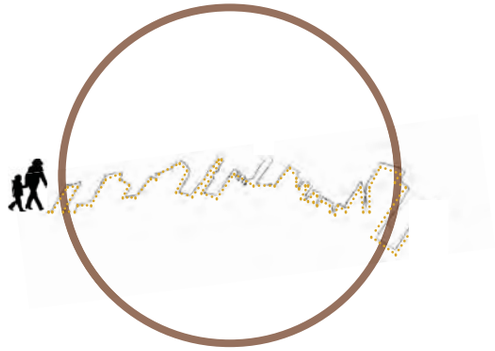




Examples of Strategies

Piers: Public Access

All public and private property owners must provide their respective portions of a continuous, legible path enabling public access along the waterfront edges of all piers.



Roadway: Parking

Pave surface parking lots with sturdy, permeable, light-colored materials to filter dirty runoff from beneath cars and reflect sunlight.

Water's Edge: Water Contact

Where bathymetry and habitat conditions allow, incorporate built and landscape features that allow visitors to come in direct contact with the water.

City Edge: Existing Structures

Adapt functional structures such as loading docks to active pedestrian uses whenever possible.

Application of Goals

	Piers	Water's Edge	Roadway	City Edge
Civic Waterfront	●	●		●
Local Economic Development	●	●		●
Multi-Modal Mobility	●		●	
Cultural and Social Diversity	●	●	●	
Ecological Design	●	●	●	●

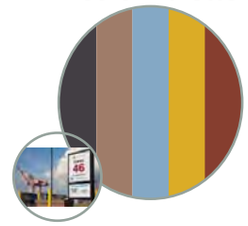
Unifying Elements

The following will have consistent and legible design language throughout the Central Waterfront:

Public Art

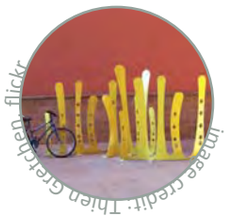
Paving

Color Palette



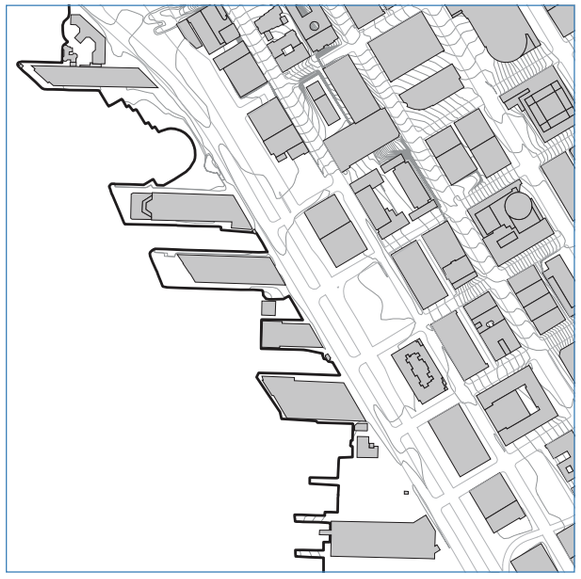
Water Contact

Lighting



Cyclist Services

Public Restrooms



DELIA LACSON MLA
JOE SWAIN MArch
KRISTINA FELICIANO MArch
MINSOO DOO MLA
MARIAN HANSEN MLA
AARON VANDENBERG MLA

with Andi Slusser MLA

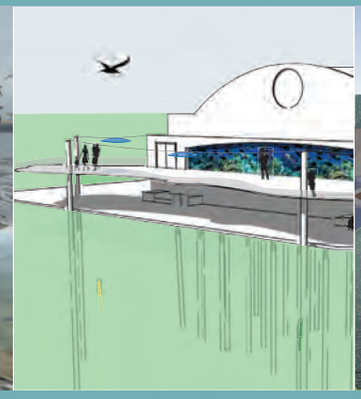
streams, eddies, + tidal pools

market TERRACE

Activity-Performance-Attraction

Neighborhood School

Restoration for Education



Pier 59

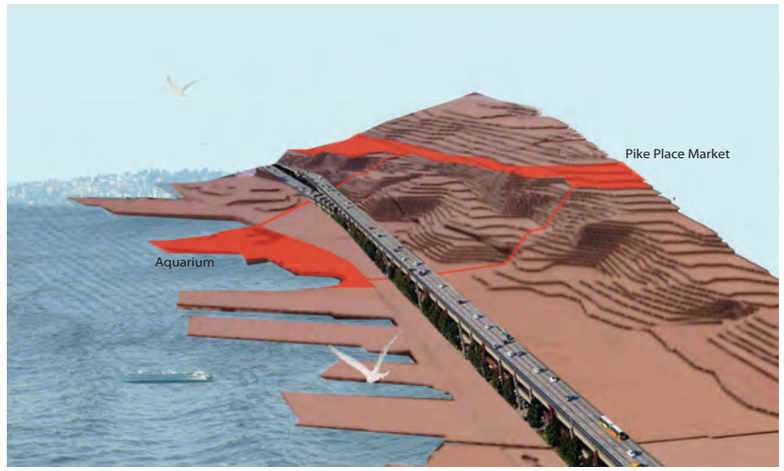
Waterfront Park Living Edge

Pike to Watefront

Streams, Eddies, and Tidal Pools

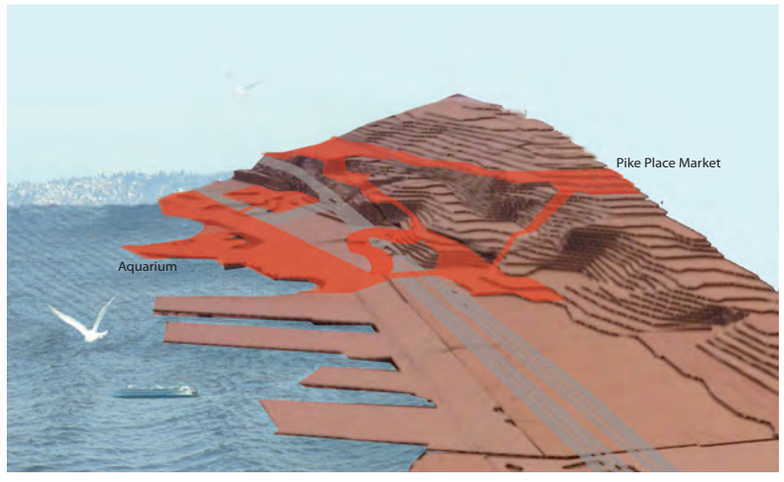
Design Challenges

- Overcome topographical variation
- Address monotonous, disconnected and underused spaces
- Ease the transition of hard “edges” on-site, including the Alaska Way Viaduct removal
- Create a visible, small, and indiscrete pathway to the Waterfront and through dark underutilized spaces

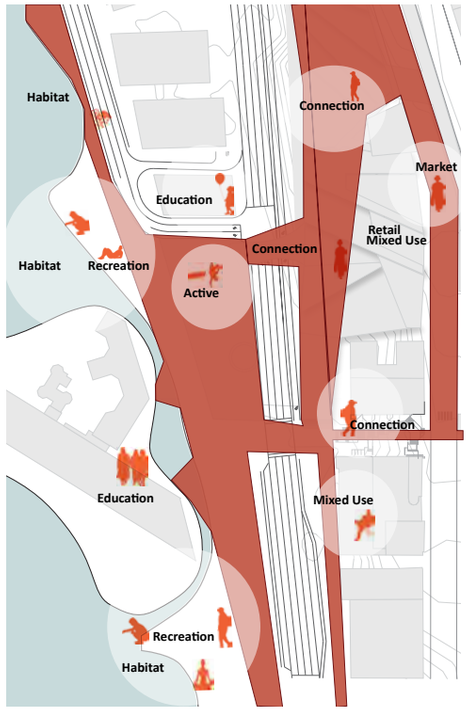


Proposed Design

- Visually and physically connect Pike Place Market area to the waterfront
- Offer variety of activities and circulation options along the water

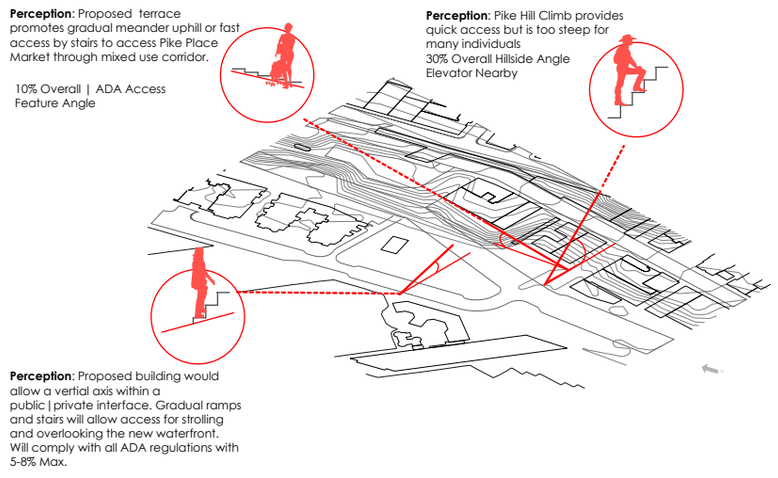


Programming

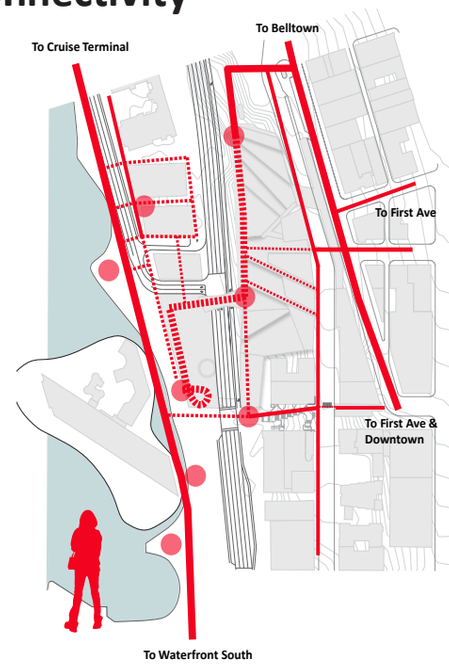


Programming Objectives

- Increase access and refine legibility from Pike Market to the Central Waterfront
- Extending Pike Place Market to the Waterfront through mixed-use development
- Create pluralistic, active, and restorative spaces that invite a diverse population of users
- Enhance terrestrial and aquatic habitat where possible
- Treat and mitigate stormwater runoff on-site

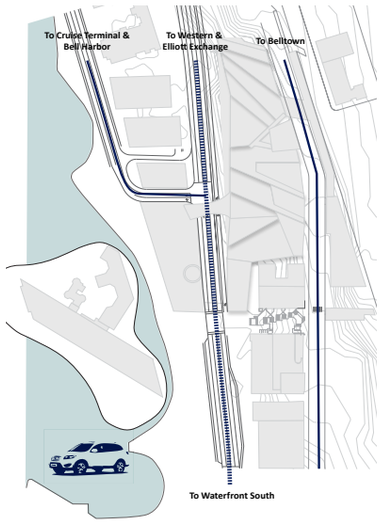


Connectivity



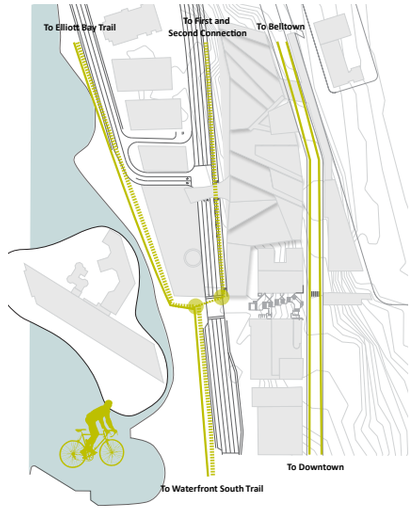
Proposed Pedestrian Circulation

- Proposed Meeting Zones
- Major Existing
- Minor Existing
- Proposed Major
- Proposed Minor



Proposed Car Circulation

- Existing Route
- Proposed Major
- Proposed Minor

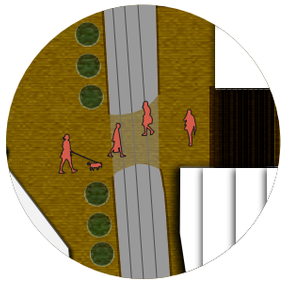


Proposed Bike Circulation

- Proposed Meeting Zones
- Major Existing
- Minor Existing
- Proposed Major
- Proposed Minor

Quick-Wins

These “quick-wins” are fast and/or temporary interventions to strengthen the connection between downtown and the Waterfront and include opportunities for people to engage with the Sound and bring the Pike Place Market down to the water.



Extend Pedestrian Paving

Use pedestrian-designated paving to connect the Waterfront to the Pike Place Hill Climb, and Pier 62/63 to the Waterfront residences.

Small Boat Launch on Pier 62/63

An opportunity to engage the public and connect visitors to the water.

Boat Parking in Waterfront Park

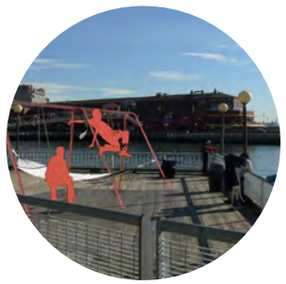
Provide opportunities for visitors to arrive at the Waterfront via the water.

Farmers Market Boat

To bring Pike Place Market down to the Waterfront, hold a weekly Farmers Market on a boat docked in Waterfront Park.

Reactivate Pier 62/63

Hold temporary activities on Pier 62/63 to engage the public.

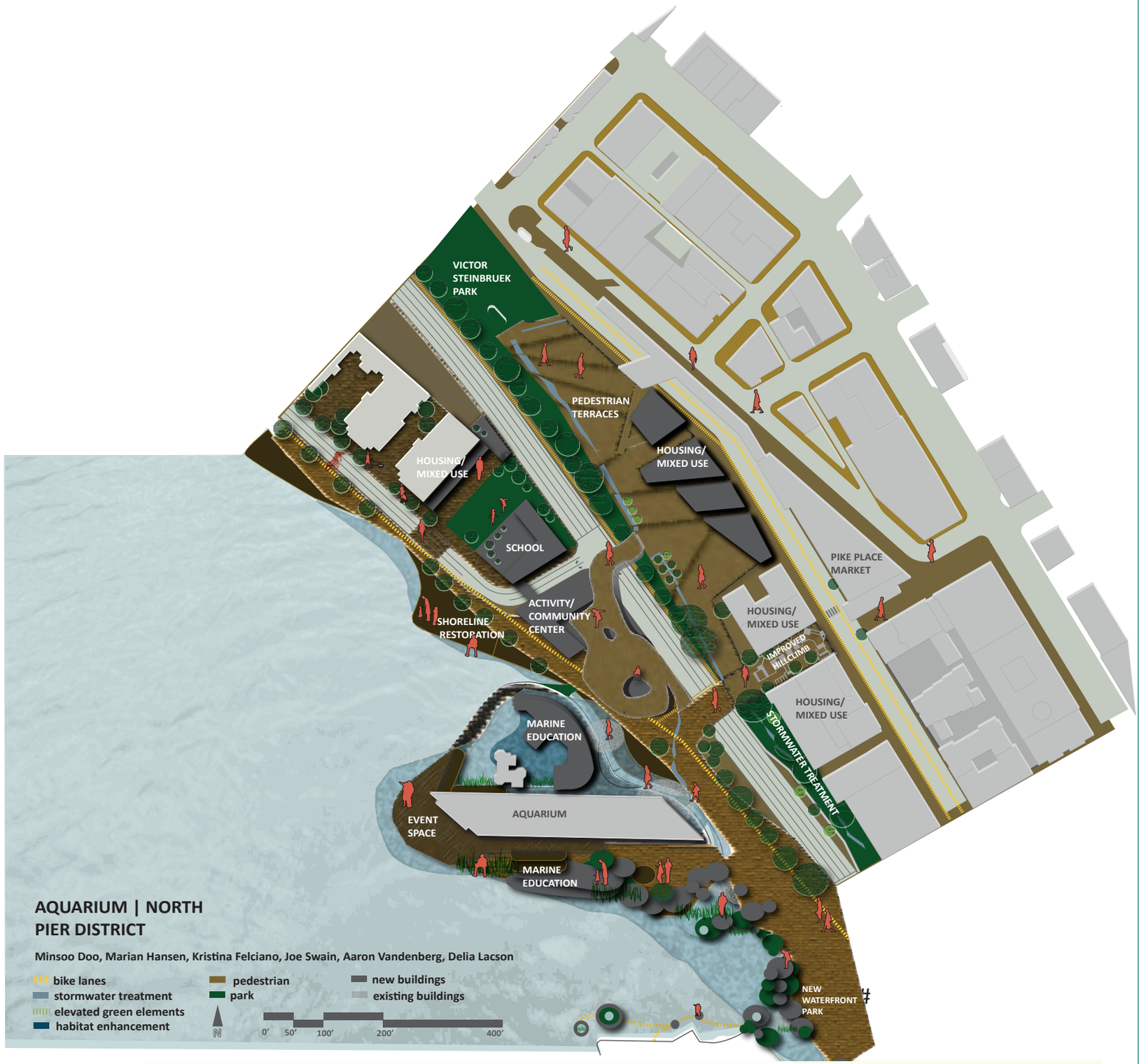


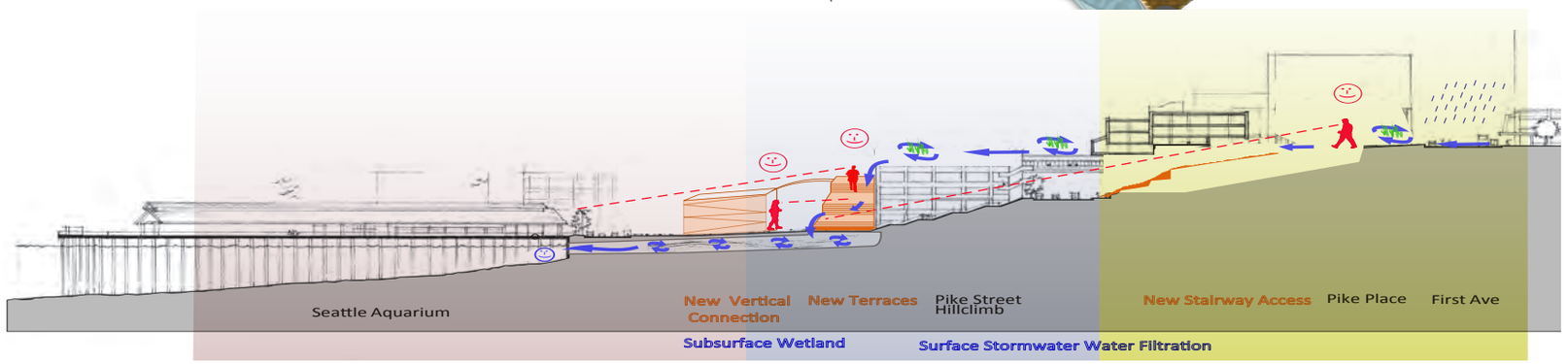
Swings and Hammocks in Waterfront Park

A fun and carefree activity for adults and children to engage with the water and Waterfront Park.

Art Walk in Pike Place Hill Climb

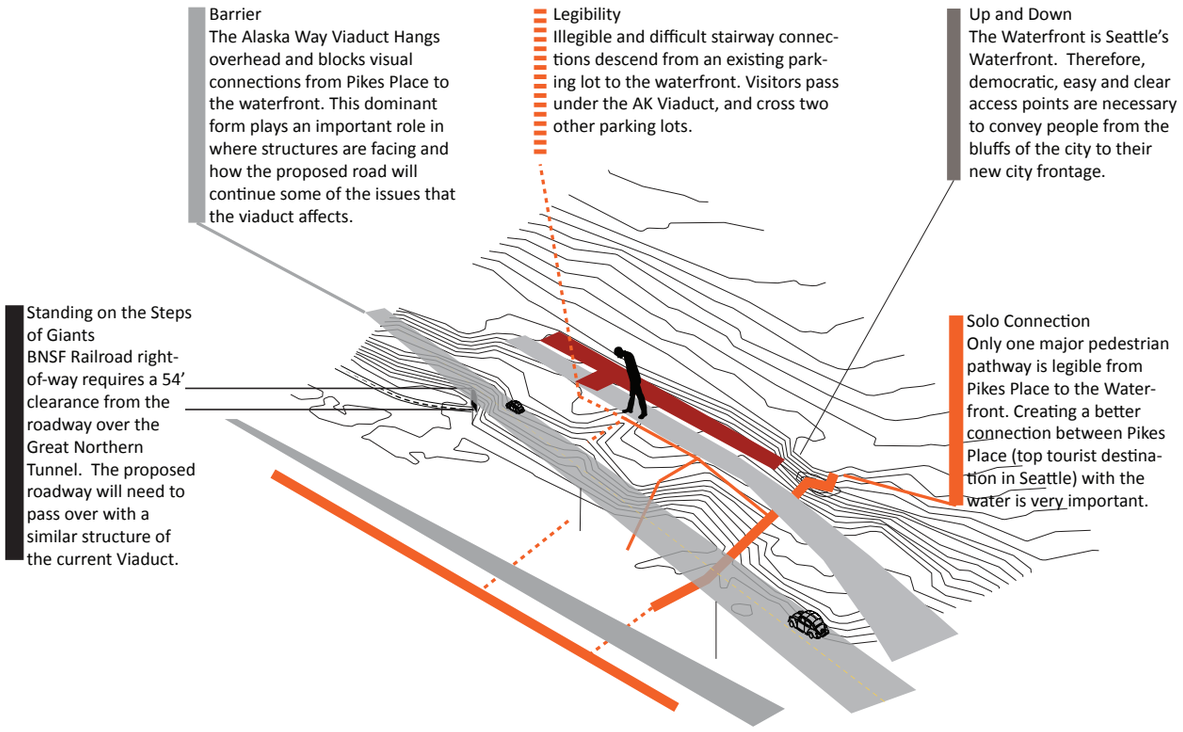
Invite artists to share their work and brighten the hill climb with murals celebrating the history of Pike Place Market.





market TERRACE

Site Analysis



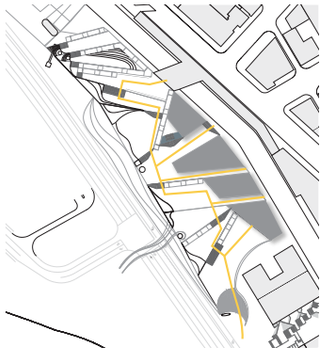
Programming

Design Goals

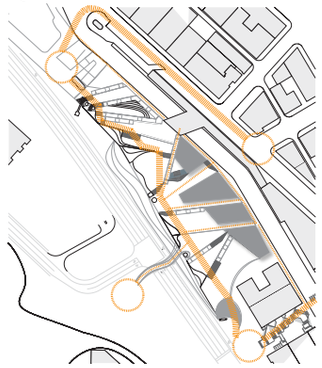
- Connect Pike Place Market to the new Waterfront Park.
- This design connects Pikes Place to the Waterfront over 80 feet of existing topography, and moves pedestrian over and around a proposed four-lane, 30 mph, 9% grade surface street road.
- Provides a vibrant extension of the market and increases the opportunity for tremendous vistas that stretch out over Elliott Bay.
- Clean stormwater with terraced fountains within fountains on the upper terraces.

Connections

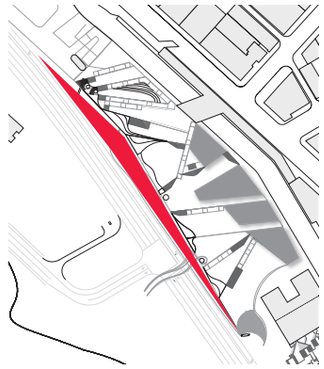
Retail Movement



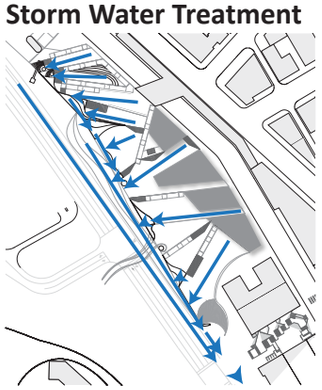
Quick Movement



No-Pedestrian Areas

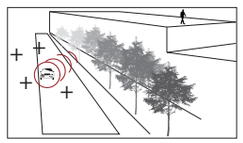


Storm Water Treatment



Spatial Design Opportunities

Project Assets



Shinjiku Gardens
Source: www.inhabit.com

Pike Place Facade
Source: Chris Rankor

Noise Buffer

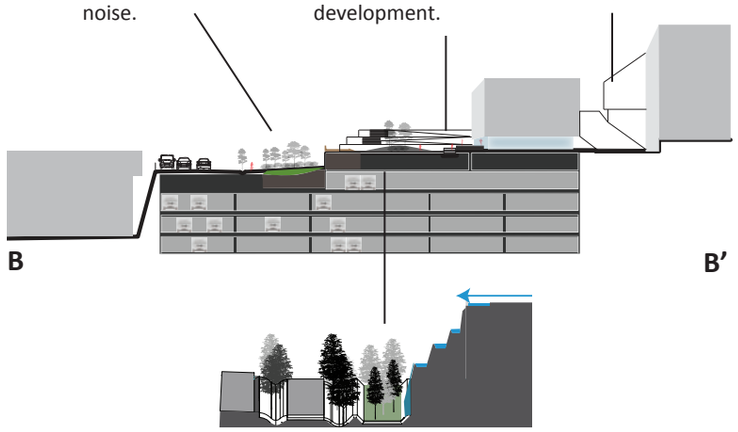
Green infrastructure helps soften hard edges and blocks road noise.

Green Park

Parking lot mitigates 300 lost parking spaces from waterfront development.

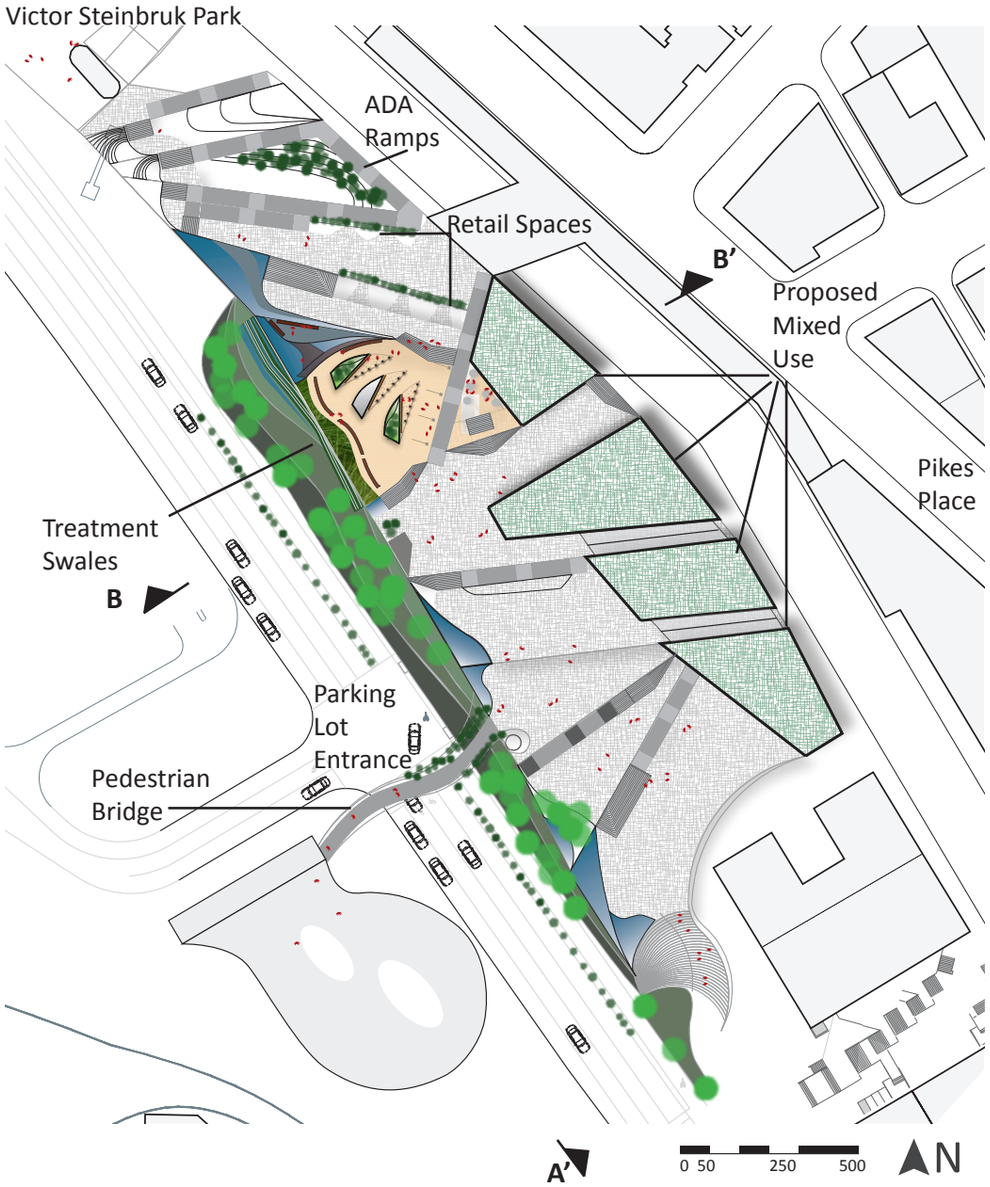
Character Styles

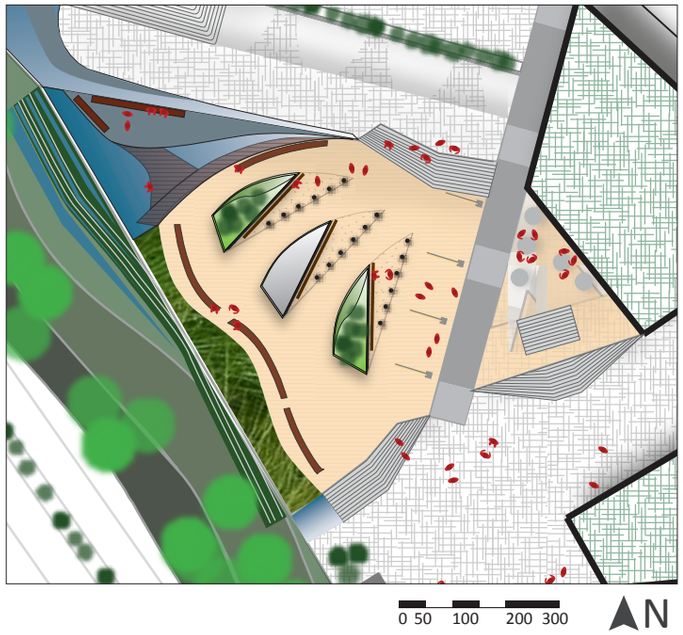
Extend mixed use housing down through the terraces.



Water Treatment

Conveyance swales clean water from road and terraces and provide a soft edge transition.





Looking Out|Looking In

Cafes, restaurants and housing looks out over the beautiful views of the bay 24/7. Each terrace provides limitless opportunities to connect with the larger waterfront.

"Quick Wins" Designs

Signs and Paving Legibility

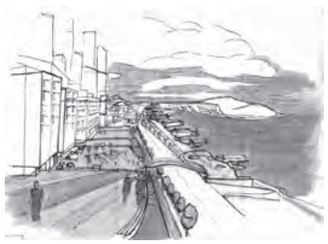
Increase signs legibility to draw people to existing stair connections.

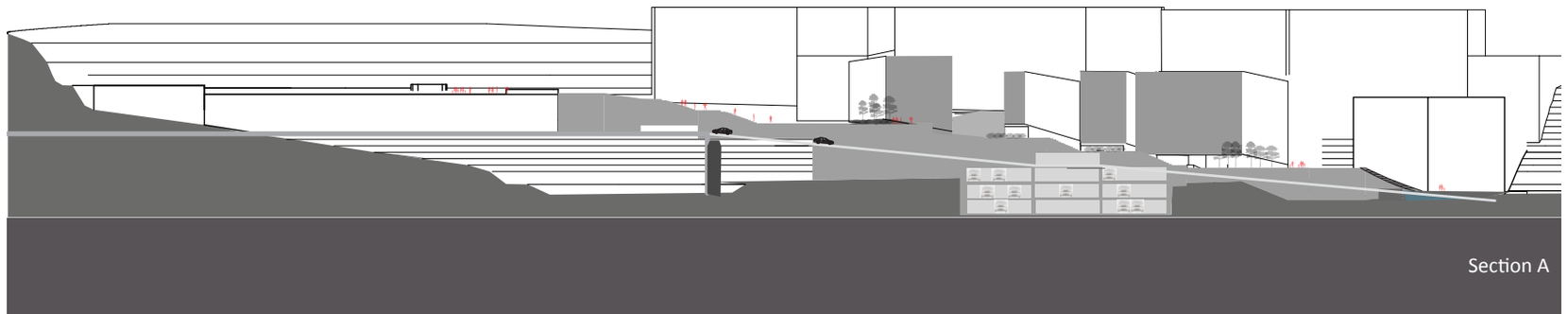
Flexible Parking Floor Retail

Integrate temporary shops on ground floor of Pikes Place Parking Garage.

A Seat with a View

Installing comfortable seating along the existing parking lots will help connect visitors with the vistas of Elliott Bay.





Section A

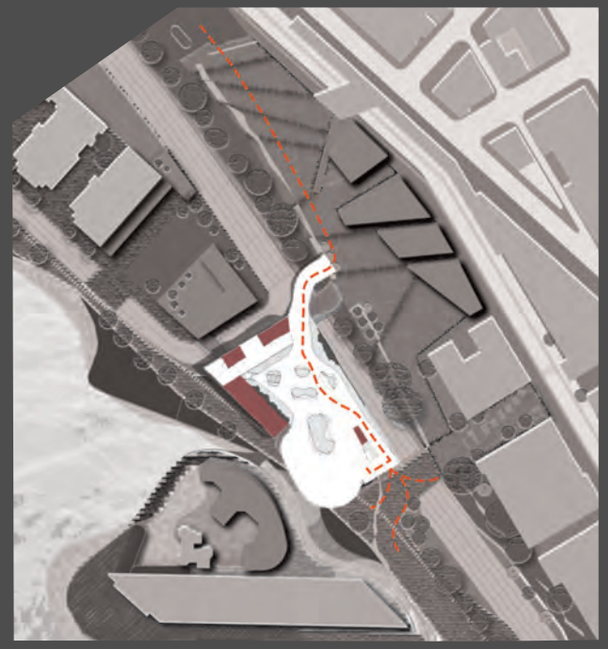
Public Spaces | Public Life for Seattle's Central Waterfront

ACTIVITY PERFORMANCE ATTRACTION

Performers & Spectators

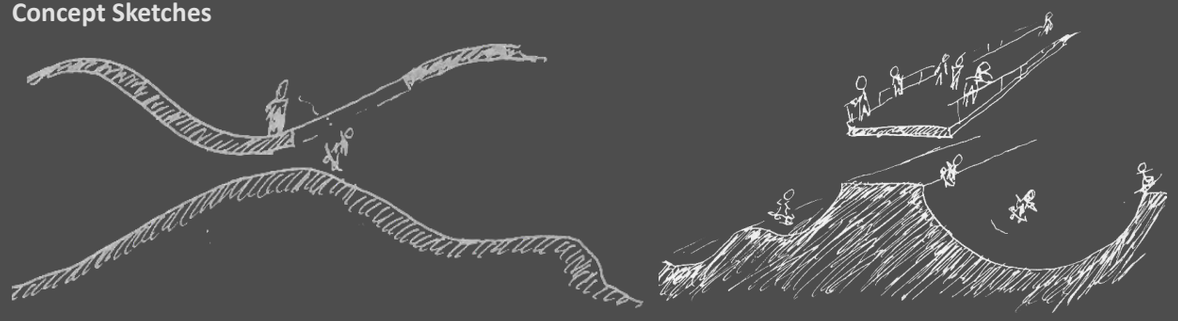
This project seeks to bring vitality to a critical site on the waterfront by drawing upon the mutual attraction between performers and spectators. Recognizing that one group's awareness of the other can result in a collective energy greater than the sum of the individuals', the building serves as both a stage for various activities and an open theater for passersby. A pedestrian landscape acts as a link between the Market and the Waterfront, allowing pedestrians to overcome a great elevation change while observing activity below. The activities, which include skateboarding, basketball, rock climbing and parkour, are supported by an attached community center. This center anchors the developing neighborhood in the area and includes multiuse spaces, meeting rooms, and offices, as well as facilities that serve the general public, such as rest rooms, a cafe, retail and tourist information.

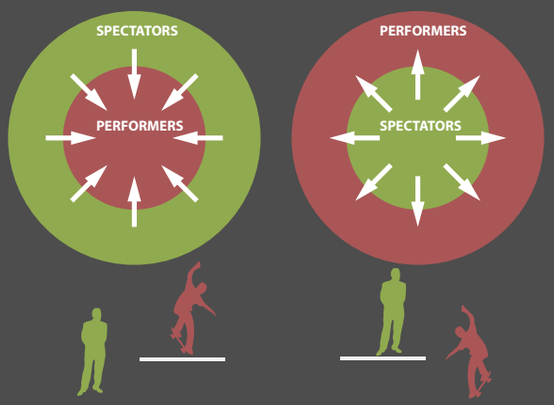
View Overlooking Elliott Bay

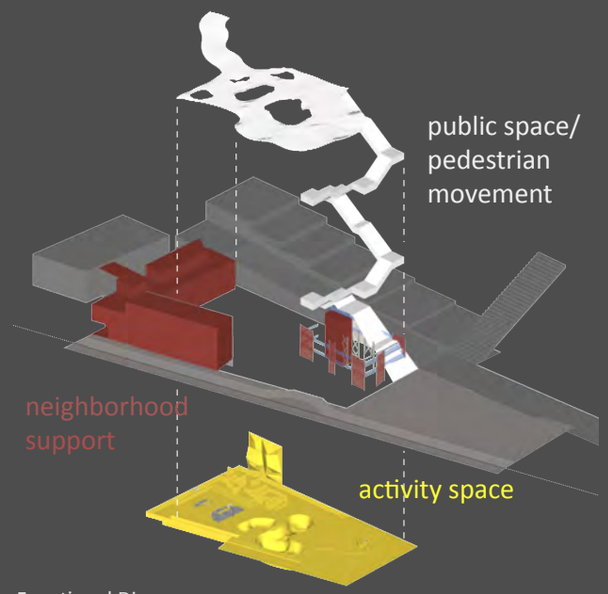


Site Movement Diagram

Concept Sketches





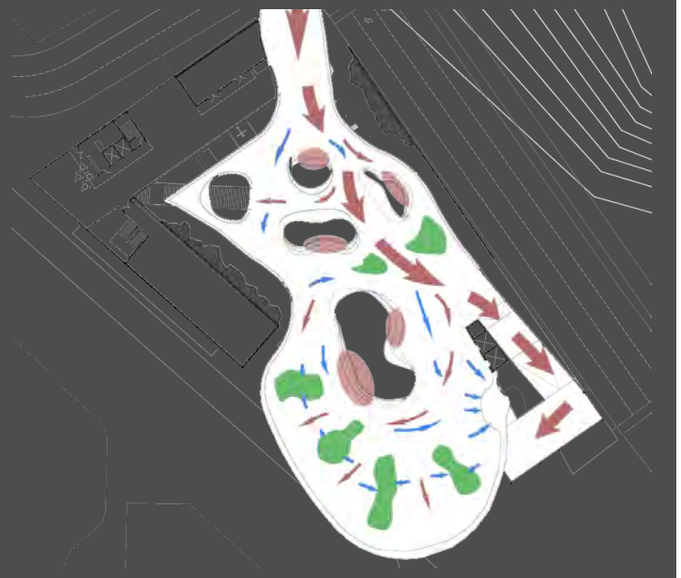


Functional Diagram

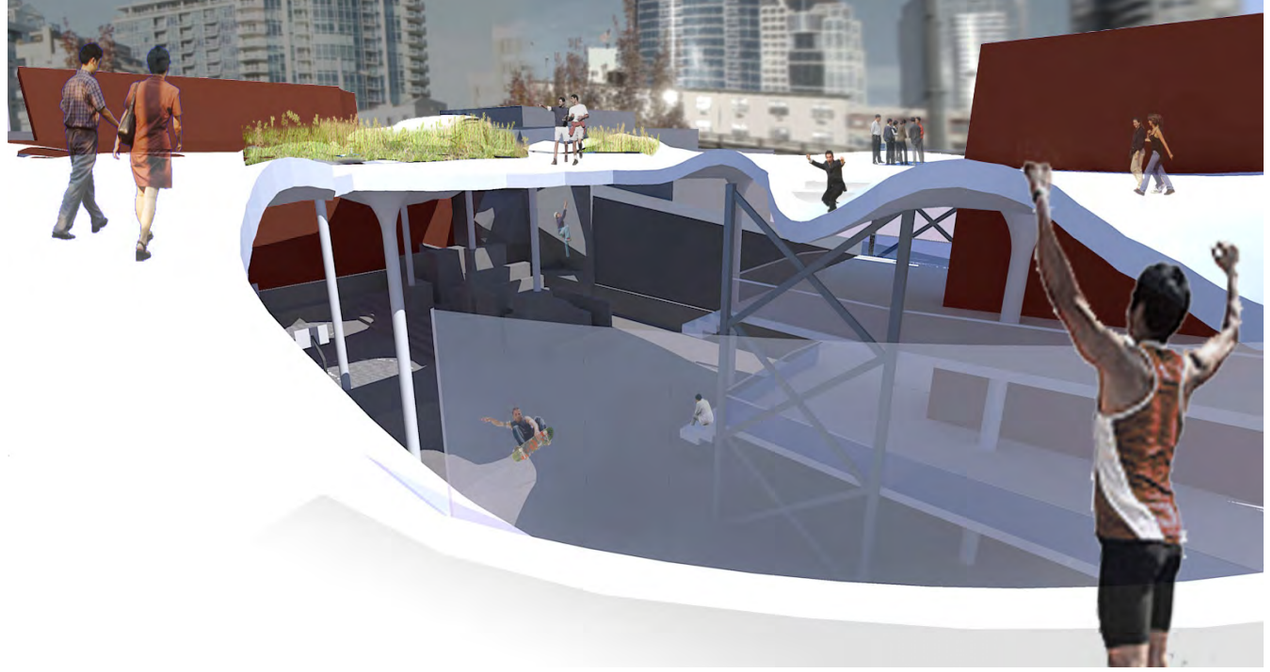
Streams, Eddies, and Tidal Pools

Joe Swain

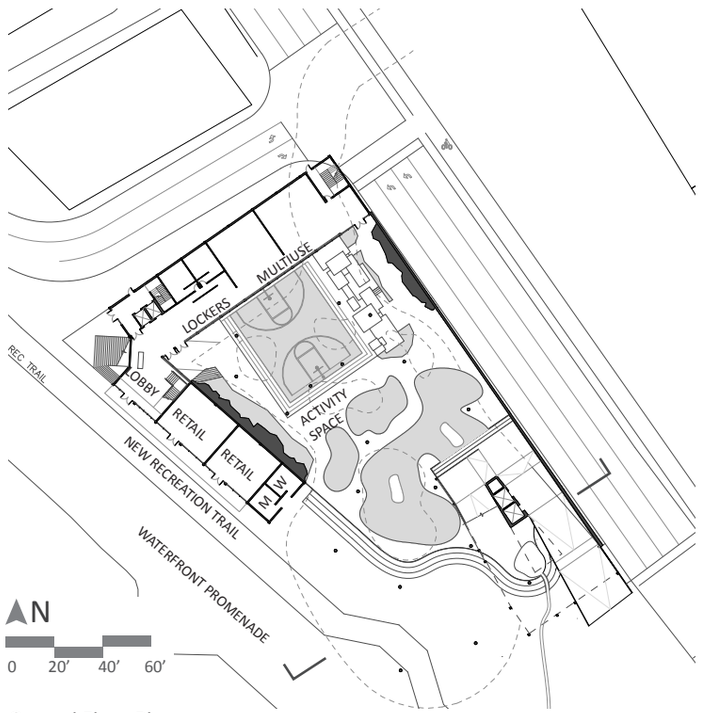
Activity Performance Attraction



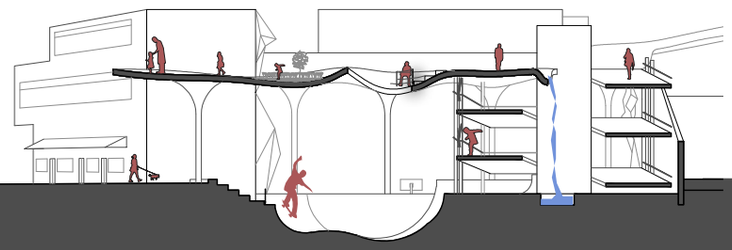
Upper Floor Plan & Pedestrian/Water Movement Diagram



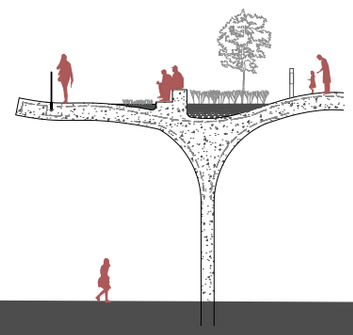
View of Activity Landscape



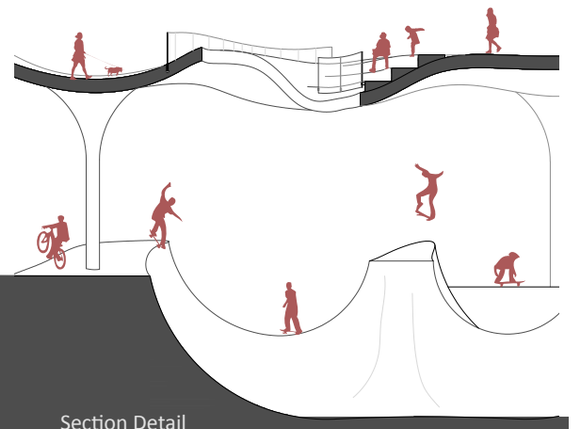
Ground Floor Plan



Building Section



Construction Detail

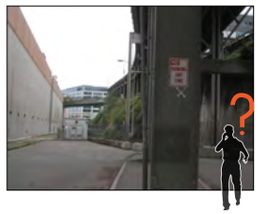


Section Detail

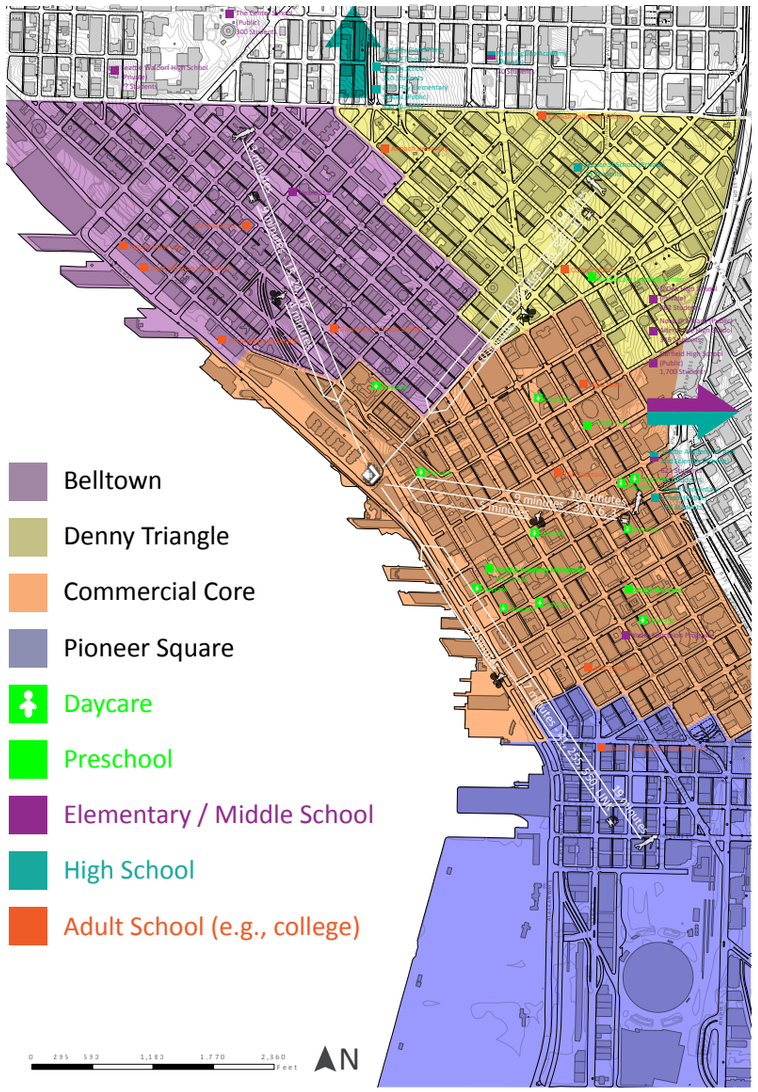
Public Spaces | Public Life for Seattle's Central Waterfront

The Waterfront Neighborhood School

The Seattle Waterfront serves as a destination for both tourists and locals, yet it lacks the feeling of a neighborhood. There is a disconnection between the residences, the waterfront, and the city. Dead-end alleys and dark spaces do not offer personal safety or comfort. By introducing retail shops, open spaces, and a school, a waterfront neighborhood is possible. A school for K-12 does not currently exist in downtown Seattle. A K-12 magnet school in this location will help transition youth from daycares and preschools and provide opportunities for older students to learn in an urban setting.



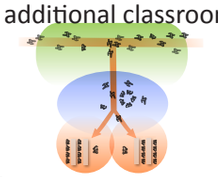
Existing Schools and Commute Times in Downtown

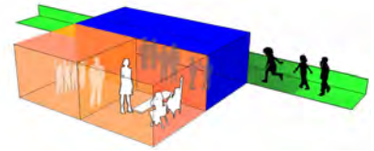


Section Perspective of the Waterfront School and Adjoining Public Space

Classroom

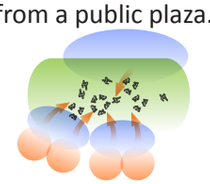
The classrooms serve as the “homebase” for each grade. Each 15’x15’ classroom accommodates up to 12 students (a total of 24 students per grade). Students shift from the school community to their classrooms through a shared common space that can become additional classrooms.

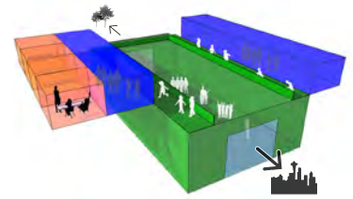




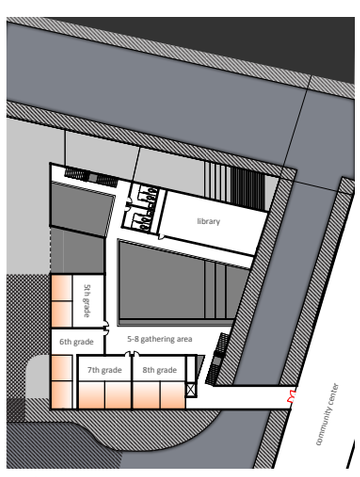
School

Just as the classrooms are the homebase for each grade, the school acts as the homebase for the students in the city. The atrium serves as an assembly space, and students must pass through this large common space into successive shared spaces to reach their private classrooms. Similarly, the entrance to the school is from a public plaza.

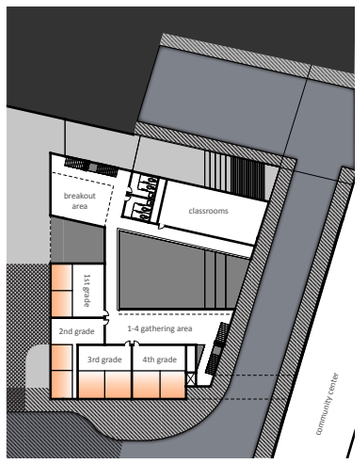




1st Floor Plan



3rd Floor Plan



2nd Floor Plan 0’ 25’ 50’ 75’ 100’

Neighborhood

What is a neighborhood?

A place to LIVE

+

A place to SHOP

+

A place to ENJOY

+

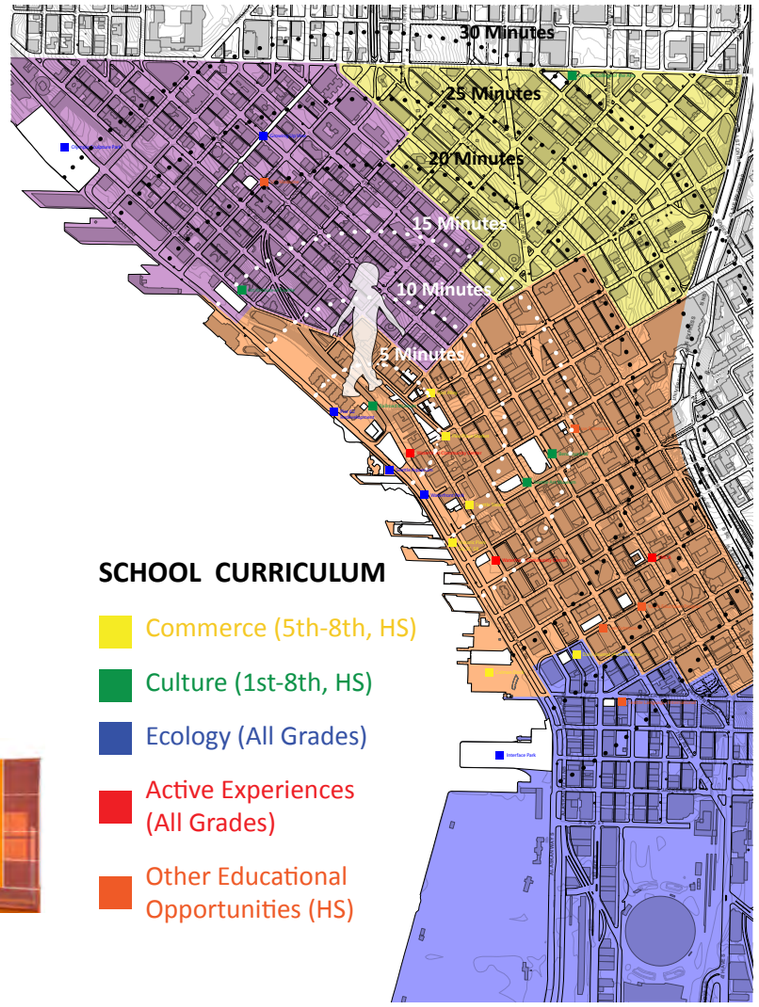
A place to LEARN

=

NEIGHBORHOOD

The Urban Classroom

Adjunct facilities in the waterfront and downtown within walking distance of the school that expands the education of the students.



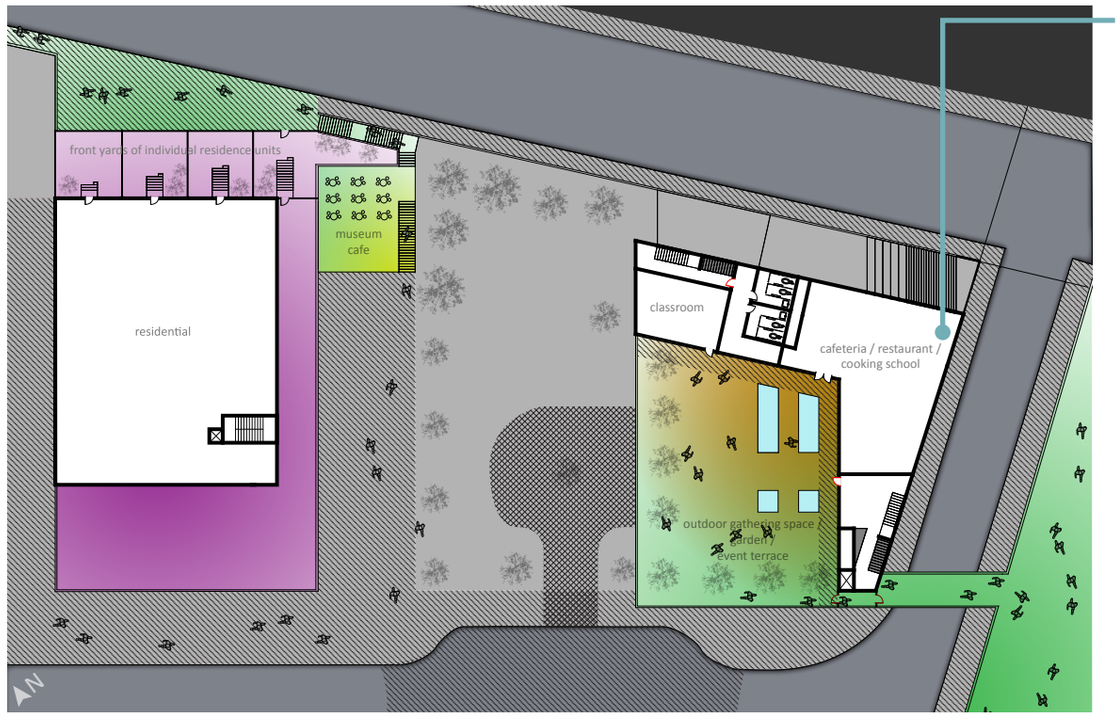
SCHOOL CURRICULUM

- Commerce (5th-8th, HS)
- Culture (1st-8th, HS)
- Ecology (All Grades)
- Active Experiences (All Grades)
- Other Educational Opportunities (HS)

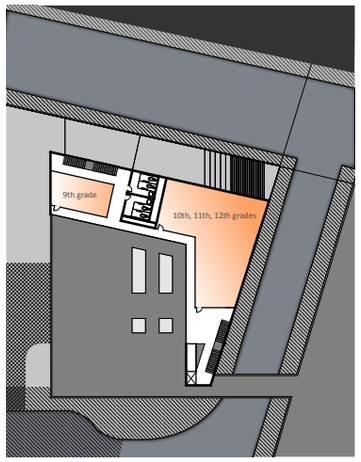
The Waterfront School at Night

The 4th Floor Outdoor Terrace and Gardens

A public-private enterprise that serves as a cafeteria during school hours, functions as a restaurant (using ingredients from the outdoor terrace) during off-school hours, and offers adult cooking classes in the evenings. Access to this level is controlled using fire exit doors and timed doorways. During evenings, weekends, and summer months, this level is open to the public to hold special events, to enjoy the waterfront views, to dine at the restaurant, and to stroll through the gardens.



4th Floor Plan 0′ 25′ 50′ 75′

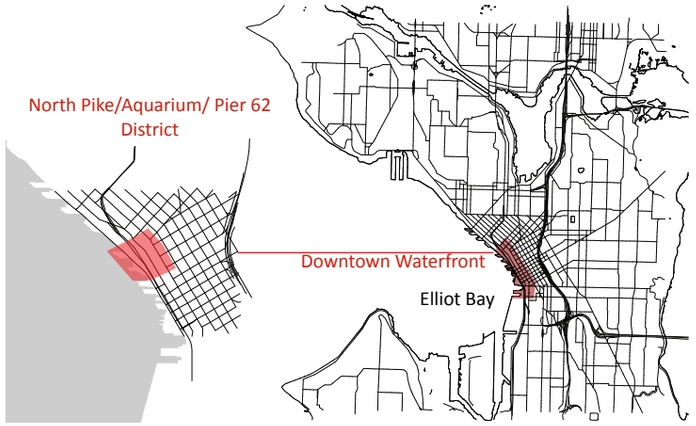


5th Floor Plan 0′ 25′ 50′ 75′ 100′

Public Spaces | Public Life for Seattle's Central Waterfront

The New Aquarium: Restoration for Education

Site Analysis



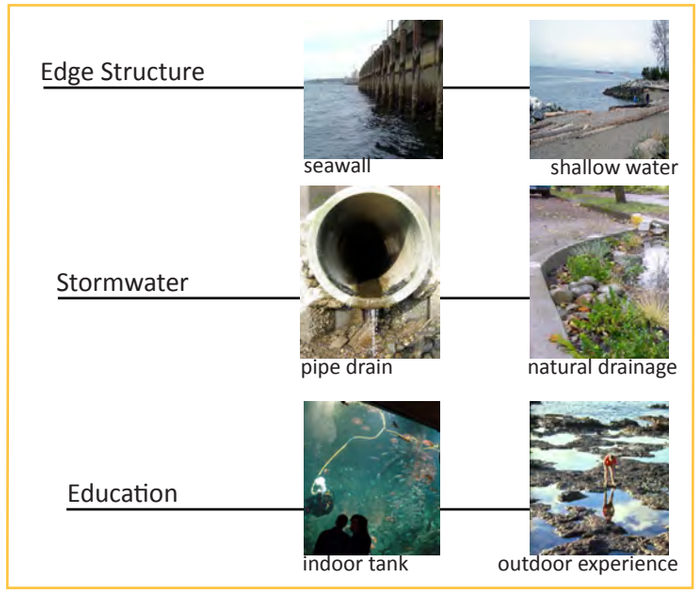
Context / Location

North Pike/Aquarium/Pier 62 District Concept Plan

Conclusion

Exsiting conditions of Seattle Waterfront can be characterized as 'hard' and 'fixed'. This condition prevents the interface between human and nature and also decreases its ability to adapt to future changes.

Mitigating Hard Edges



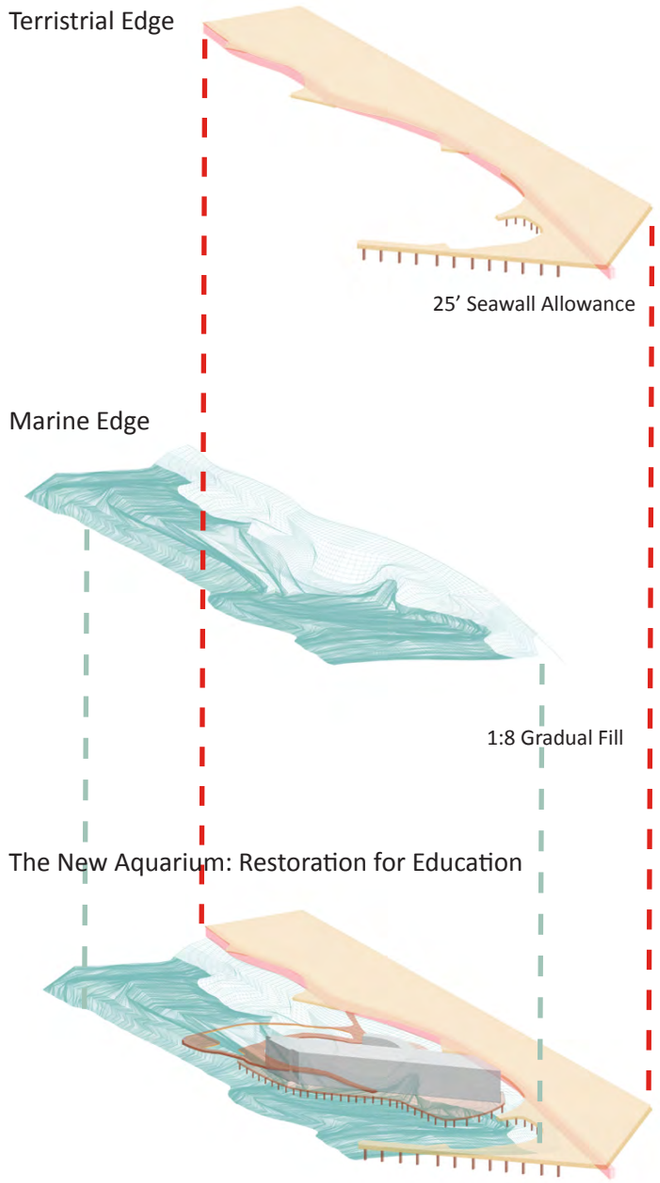
source:
http://www.ecy.wa.gov/programs/wq/stormwater/ , www.sustainablesites.org
http://debtorby.typepad.com/connections/travel/ , http://commons.wikimedia.org/wiki/File:Tidepools_Small.jpg , http://www.seagrasswatch.org/cairns.html

Design Objectives

- Interface human and nature by softening boundaries
- Create a new marine educational facility where 18' tidal change becomes an asset
- Exibit changes of unique marine environments
- Reduce the stormwater flows into the Elliot Bay
- Accomodate an important circulation node at the intersection of Alaskan and Pike
- Create opportunity for human interaction
- Prepare for long-term adaptation

Design Concept:
Overlapping Boundaries

Seawall curves in and out to allow better human and nature interaction. Gradual filling of seabed slope means more space will be share by marine and terrestial life. Aquarium turns into rich outdoor learning area surrounded by shallow water .



Tidal habitat is restored for education. Human and ecological space co-exist within the terristrial and marine boundaries.

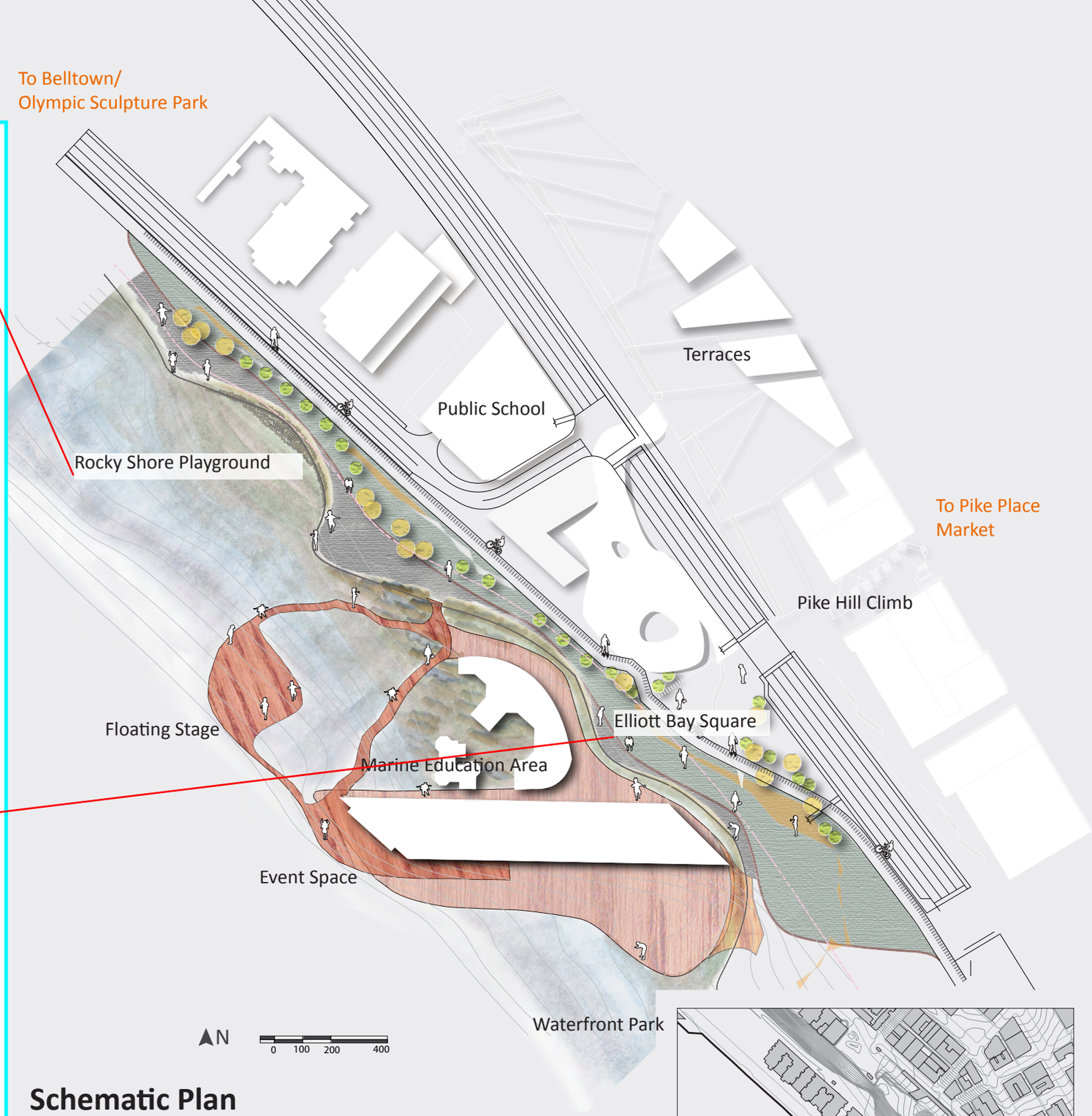
Site Specific Details

Rocky Shore Playground

Designed to serve the proposed K-12 School adjunct to the site, Rocky Shore Playgound is a little more casual place where younger students can begin to engage with nature. Unlike traditional playground, there are no play equipments installed in here. Textured concrete and rounded rouck provides a safe place to explore the carefully restored near shore tidal habitat which stretches over 200 feet.

Elliott Bay Square

Downtown Seattle lacks public square where people can gather, interact and form a community. Placed near the circulation node of Pike and Alaskan, Elliott Bay Square celebrate Seattle's marine heritage as well as its local culture. Along with the new public school proposed nearby, the Elliott Bay Square will be the social and cultural center of future downtown resident populations.



Schematic Plan

Public Spaces | Public Life for Seattle's Central Waterfront

Pier 59

Informing the Edge

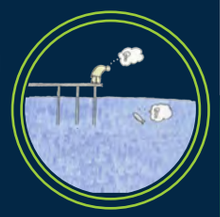
Goal: Gaining Access

Currently, public access to the west end of Pier 59 is prohibited, enforced by a tall chain link fence, which secures the aquariums' research equipment. The regional views from the end of the pier can be spectacular so it is especially disappointing that the public is being denied these views in favor of equipment storage. My design goal is to create an open area, accessible to all waterfront visitors, while respecting the needs of the aquarium.

Program: Science, Art and Recreation

The space is designed to bring together education, art and recreation in a place and form accessible to everyone. The setting, adjacent to the Seattle Aquarium, inspires a space for learning and sightseeing during the day, and the fee-free, lit aspect provides a safe place for people to be at nighttime.

Concept: Information Flow



We're constantly learning more and more about the world we live in, but rarely bother to tell the natural world about ourselves.

Streams, Eddies, and Tidal Pools

Andrea Slusser

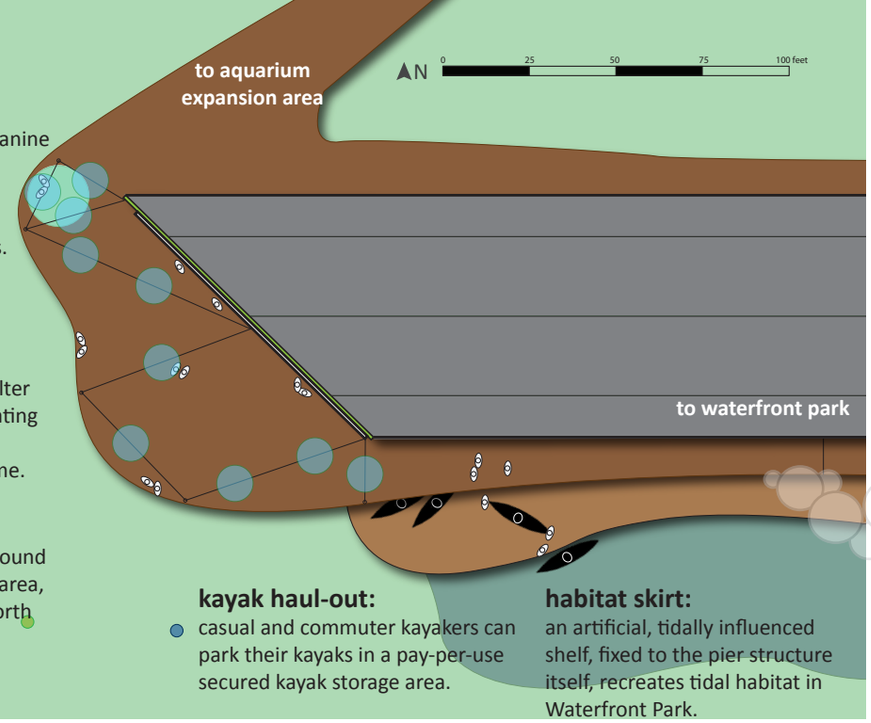
Scan | Design Master Studio 2010

Design Plan

promontory:
a translucent pad gives the mezzanine a focal point, drawing visitors to the outermost point of the pier and can also serve as a central activity area for social gatherings.

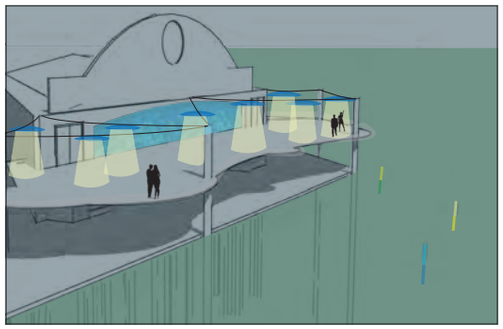
lighting system:
LED lights are bright and energy efficient, and the plexiglass lens-shaped covers provide some shelter from the weather, as well as creating an artful piece reminiscent of Waterfront Park's circle pad theme.

fishlight installation:
about a dozen lights scattered around the Pier 59 and Waterfront Park area, with additional lights installed north and south along the waterfront.



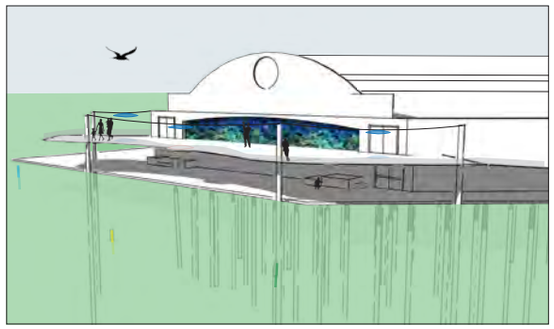
kayak haul-out:
casual and commuter kayakers can park their kayaks in a pay-per-use secured kayak storage area.

habitat skirt:
an artificial, tidally influenced shelf, fixed to the pier structure itself, recreates tidal habitat in Waterfront Park.



Nighttime Vignette

At night, the mezzanine could be livened up for a party or dressed down for a quiet space to enjoy a peaceful Puget Sound evening. The catenary lighting system provides a sense of mood and safety, and the fishlights are especially whimsical.



Daytime Vignette

During the day, the mezzanine serves as a classic viewpoint for the waterfront. Scenic views, wildlife watching and passive play as well as aquarium activities and social events could be scheduled here.

Precedents

The famous Monterey Bay Aquarium, in Monterey, California, has an exemplary outdoor exploration and seating area for **tidepool observation**, presentations and **scenery and wildlife viewing**. Though quite lovely, the outdoor space is only accessible if the entrance fee has been paid, denying many people access.

photo: iNetTours.com
(www.inetours.com)

An **enormous fish tank** comprises a large portion of a retail building facade in Waikiki, Hawaii. Even in a city renowned for its sealife, the tank **attracts tourists** by the hundreds, further activating an already bustling retail district.

photo: Foxworthy Family album
(www.flowersfamily.com)

Translucent paving cells will be used along the waterfront in varying locations, as a salmon habitat enhancement measure. This effect will also be emulated on the Pier 59 mezzanine for aesthetics and as a programing cue.

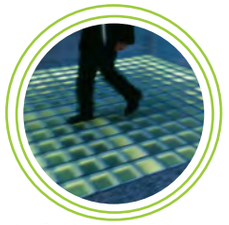
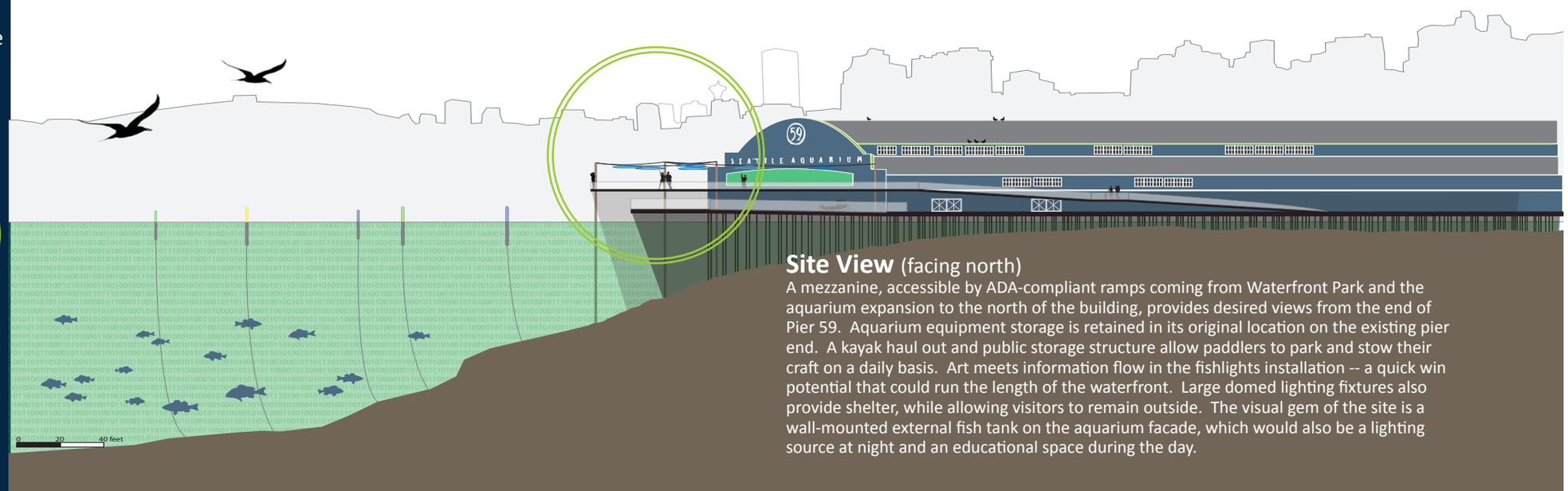


photo: Grant Faint via Getty Images
(www.gettyimages.com)

Dr Natalie Jerimejenko, a scientist and artist, developed and temporarily installed a project entitled "Fish 'n' microChips" in New Yorks East River in 2009. **Passive sonar fish detectors** are placed in long clear tubes fixed with colored LED lights and anchored in a grid arrangement. When **a fish is detected, the light comes on**, informing people on shore that the fish are present.

photo: Bldg Blog
(bldgblog.blogspot.com)



Site View (facing north)

A mezzanine, accessible by ADA-compliant ramps coming from Waterfront Park and the aquarium expansion to the north of the building, provides desired views from the end of Pier 59. Aquarium equipment storage is retained in its original location on the existing pier end. A kayak haul out and public storage structure allow paddlers to park and stow their craft on a daily basis. Art meets information flow in the fishlights installation -- a quick win potential that could run the length of the waterfront. Large domed lighting fixtures also provide shelter, while allowing visitors to remain outside. The visual gem of the site is a wall-mounted external fish tank on the aquarium facade, which would also be a lighting source at night and an educational space during the day.

Waterfront Park Living Edge

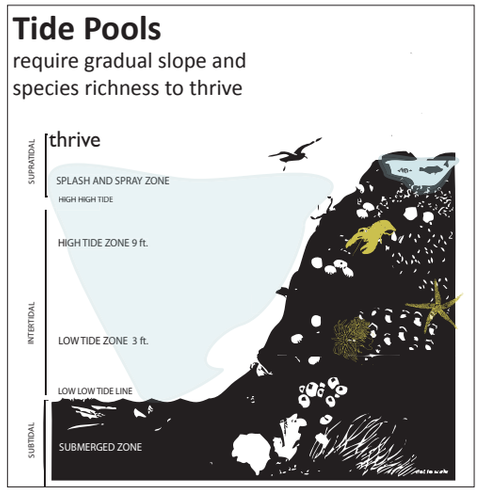
source: Delia Lacson

CHALLENGES

Waterfront park is located in Seattle's central downtown waterfront. The park neighbors with the Seattle Aquarium and Historic Pier 57 on Elliot Bay in the Puget Sound. Presently, the park's design features react more to the Alaskan Way viaduct to the east, than the shoreline that holds the west edge of the site. Barriers bisect the site and create an unnatural flow of movement and interaction.

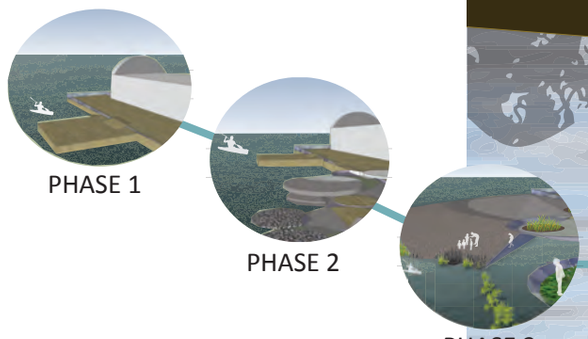
OPPORTUNITIES

A partnership with the Aquarium could improve aquatic habitat and create opportunities for environmental education. Site activation begins with small boat access and develops over time into a series of circular overlapping platforms connected by ADA paths that wind toward the waters edge. The edge leads up to salt marsh piers down to a series of constructed tidal pools. Recycled concrete from viaduct demolition and glass will evolve into a rich mix of intertidal life, coastal marsh grasses, pacific willows and red twig dogwood.

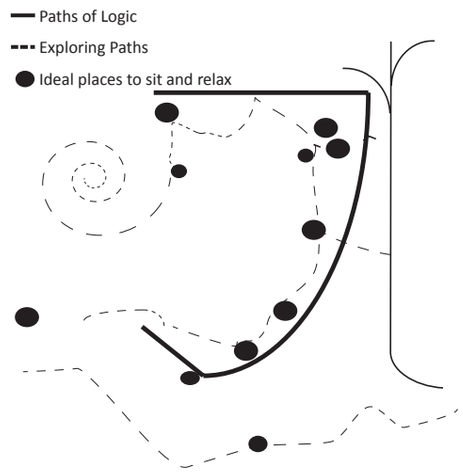


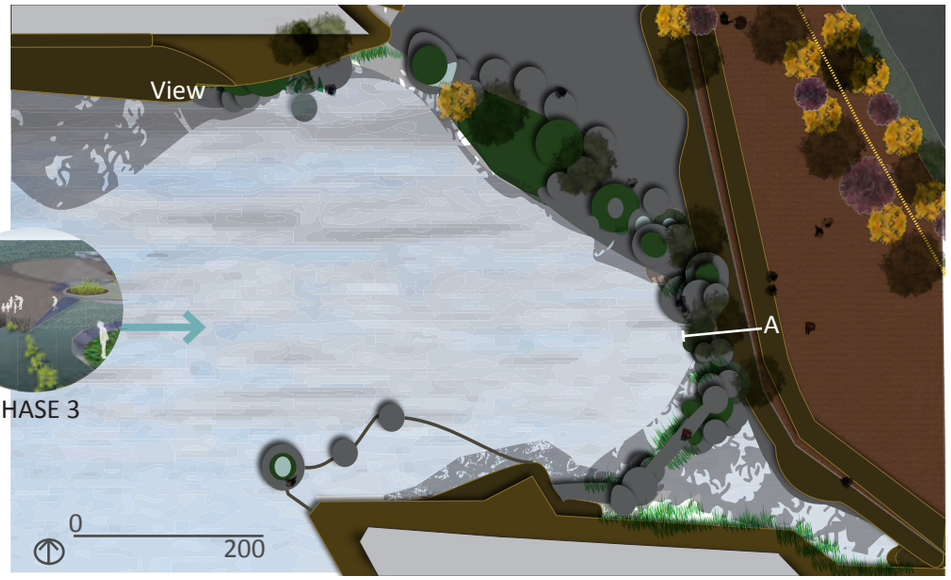
source: adapted from earthguide.ucsd.edu

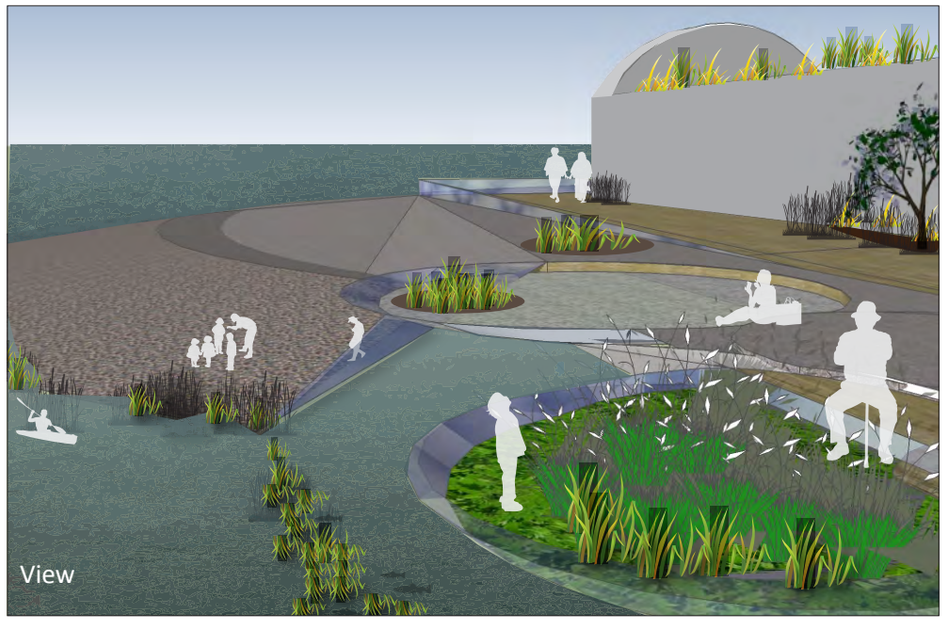
SITE ACTIVATION



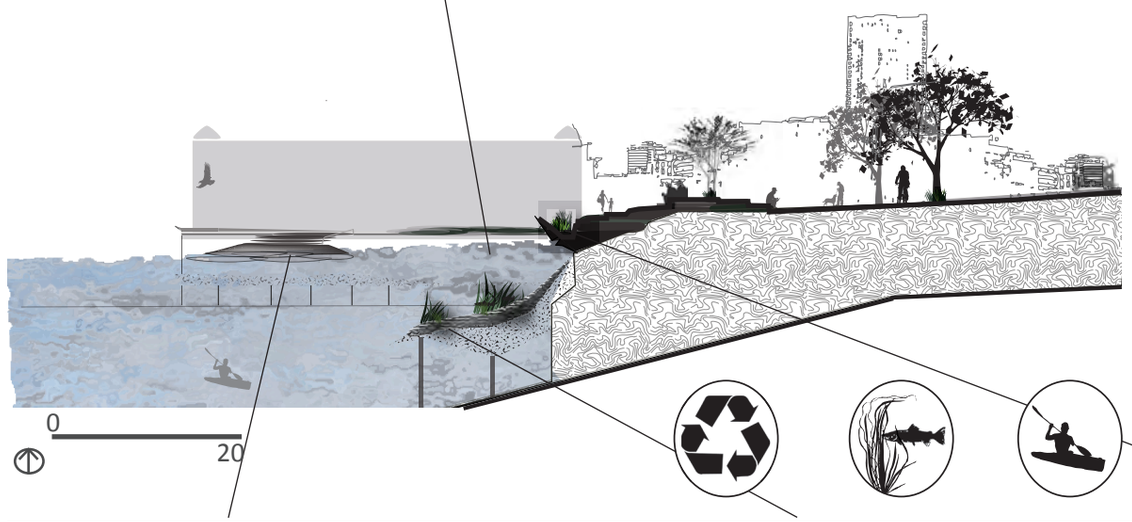
MOVEMENT DIAGRAM





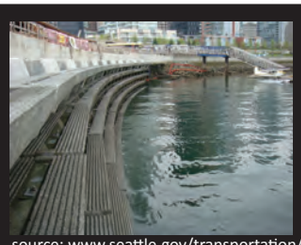


Section A



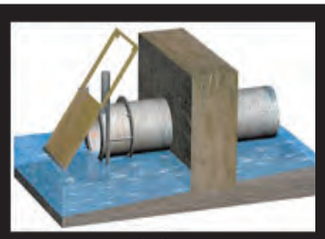
Floating dock can provide flexible high and low tide access to water for boats and tide poolers

source: www.dfo-mpo.gc.ca



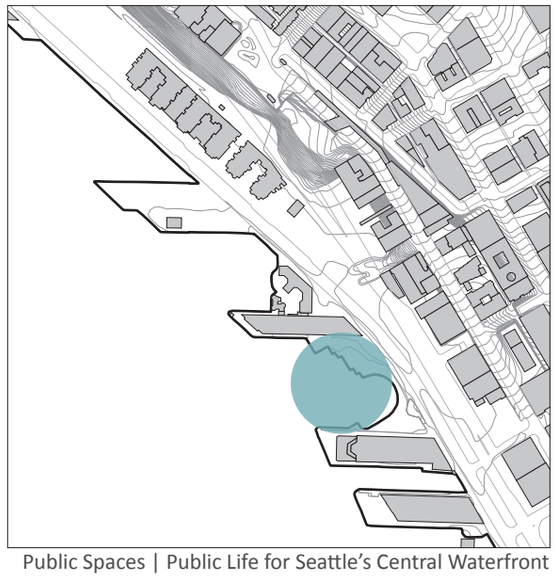
A habitat ledge interface to the seawall, positioned on pilings, can improve nearshore habitat for migratory salmon

source: www.seattle.gov/transportation/seawall_glossary.htm



The gates are opened when sea water rises and close with tidal ebb to ensure clean habitat for constructed salt marsh platforms

source: www.seattlepi.com



Public Spaces | Public Life for Seattle's Central Waterfront

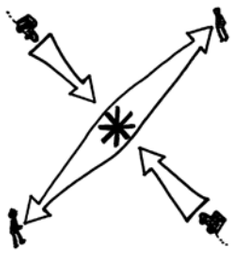
Pike to Waterfront

HUB CONCEPT

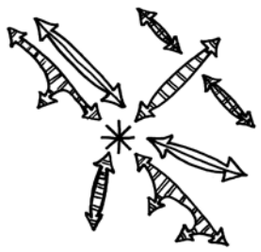
PROGRAM

Pedestrian access and circulation
Bike access and circulation
Provide framed views and gathering spaces
Activate the area with year-round retail and restaurants
Conveyance and biofiltration of limited surface water

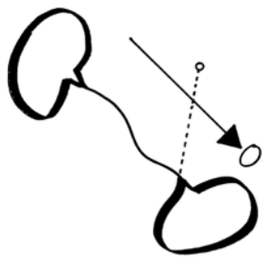
SITE ANALYSIS



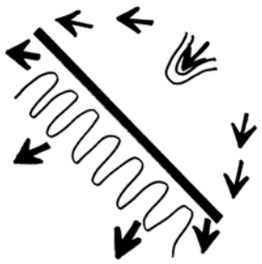
Pedestrian Crossing



Pedestrian/Bike Flow



Water Flow

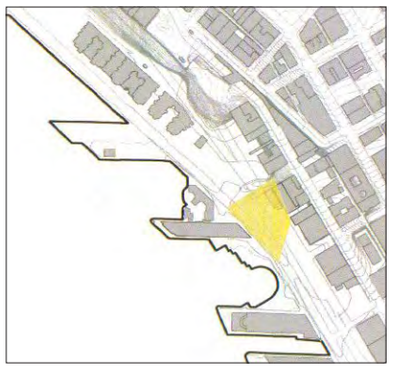


Views Blocked

EXISTING CONDITIONS

source: Marian Hanson

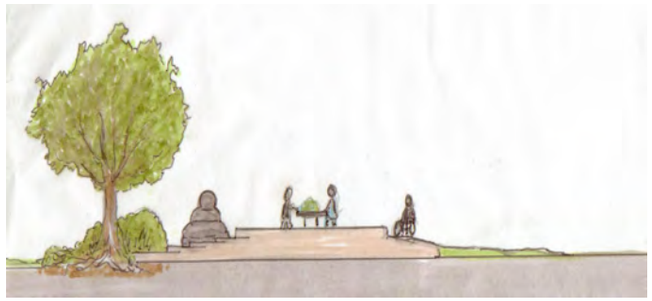
At the foot of the Pike Hill Climb to the Aquarium, currently parking and the Alaskan Way viaduct cover it.



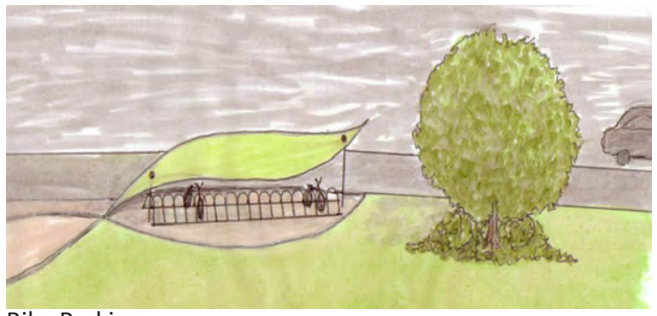
SITE PLAN

SECTION 1: East to West

SECTION 2: North to South



SECTION 3: North to South



Bike Parking

PLANTS to buffer, frame, filter, add green space and color

Activate the Site with restaurants, retail and gathering space with cafe seating

SEASONAL CHANGES

Spring

Summer

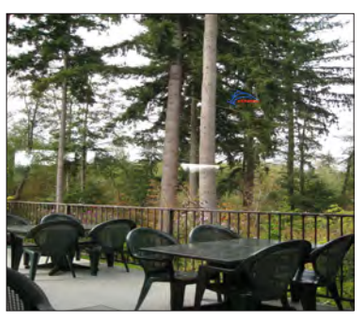
Autumn

Winter

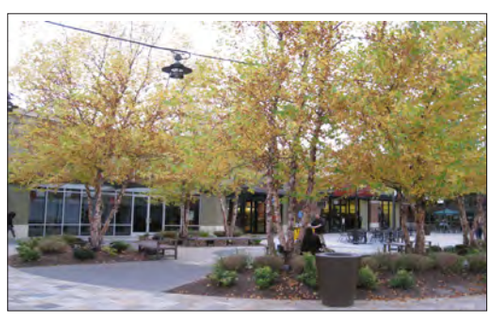
PRECEDENTS

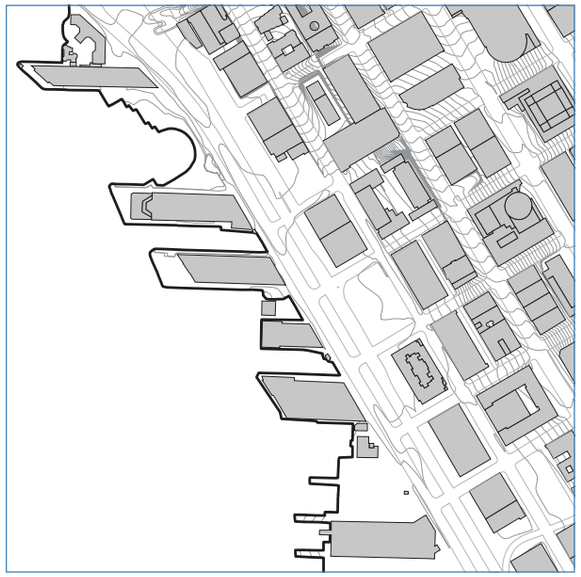
Red Ribbon Park in Qinhuangda
source: China at www.turenscape.com

Mill Creek Town Center
source: Marian Hanson



Alderwood Mall, Lynnwood, WA
source: Marian Hanson

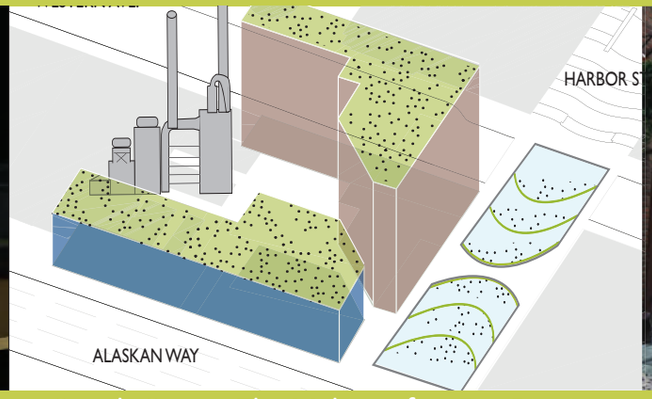




EASTON BRANAM MLA
ANDREA GOUSEN MLA
PAM EMERSON MLA
GINGER DANIEL MLA
TERA HATFIELD MLA
JORDAN BELL MLA

vital traces + performative futures

spontaneous commons



Seattle Steam: The Making of an Eco-District

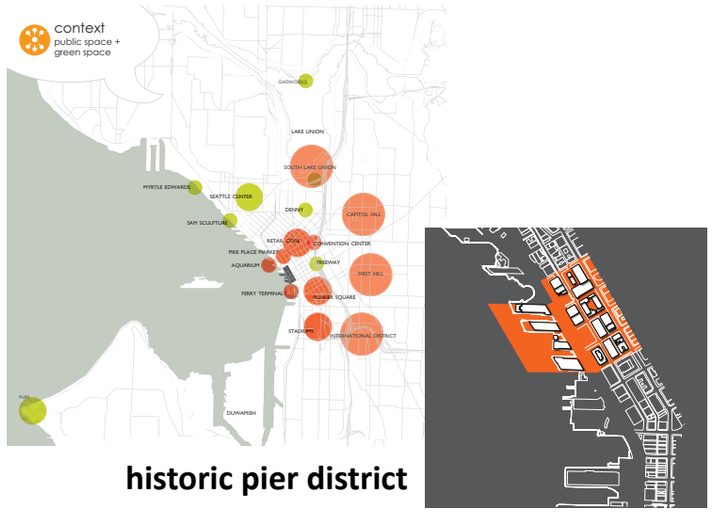
Post Alley: Urban Sustenance Corridor

Seneca Thread [thickening the strand]

vital traces + performative futures

harnessing the potential energies of hydrologic, industrial, and infrastructual history to create dynamic, high-performance spaces that integrate people- centered public space with regenerative ecological function

context



historic pier district

Protection - Comfort - Delight:
Gehl's 12 quality criteria district highlights

Protection against traffic and accidents
The new district plan creates 4 pedestrian-prioritized streets, providing safe and inviting access throughout the urban grid.

Opportunities to see
A new viewing platfrom built on the relics of the viaduct, cafe seating on former loading docks, a new urban canal space, and performative lighting at night throughout the district provide a diversity of experiences

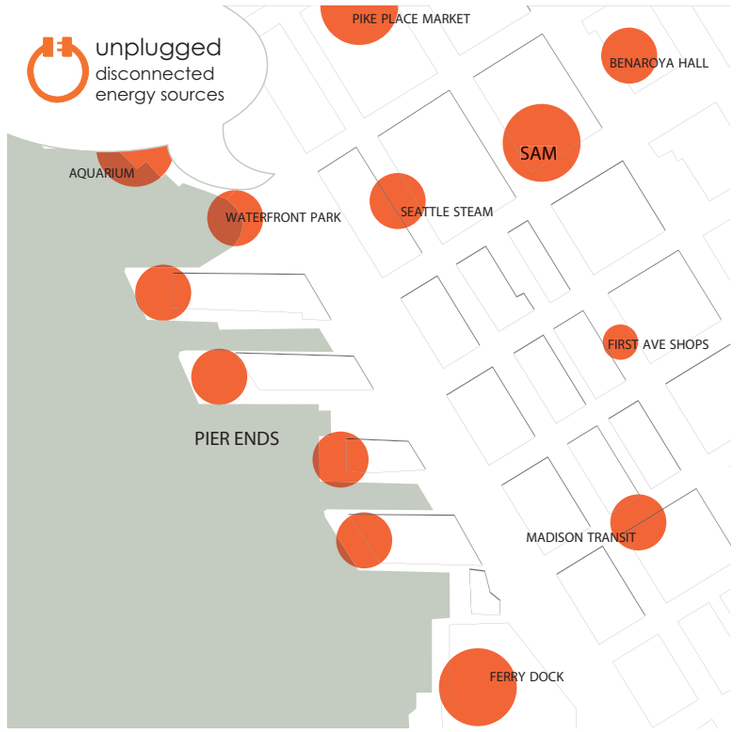
Opportunities for play + exercise
A biotic skatescape, a community center filled with rec. options and a new public steam sauna provide unique recreational options.

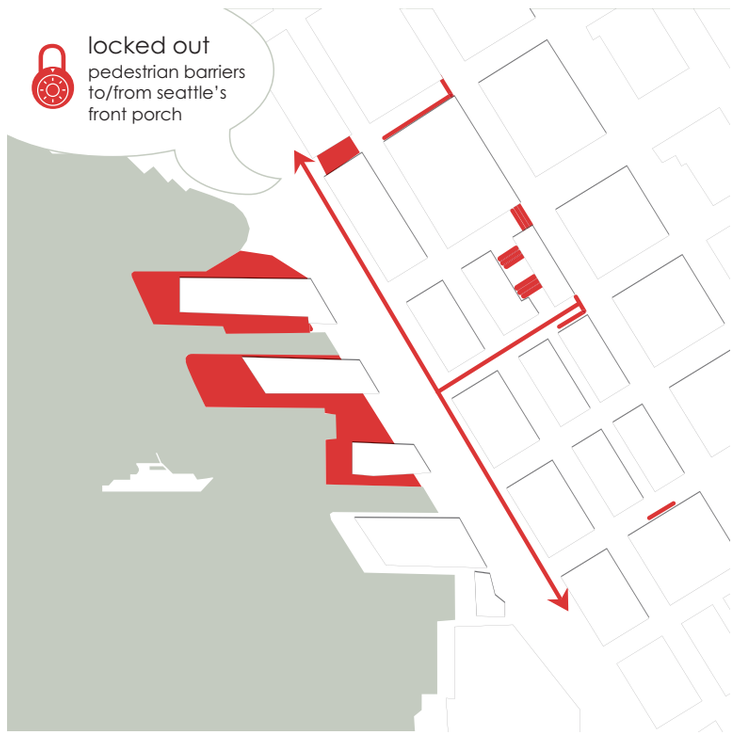
Positive sensory experiences
Only criteria that mentions nature. The district is filled with vegetation, performative bioswales, steam-inspired sculpture, and an urban food corridor.

In addition to these pedestrian-focused criteria, the Vital Traces | Performative Futures design addresses habitat and ecological function in these ways:

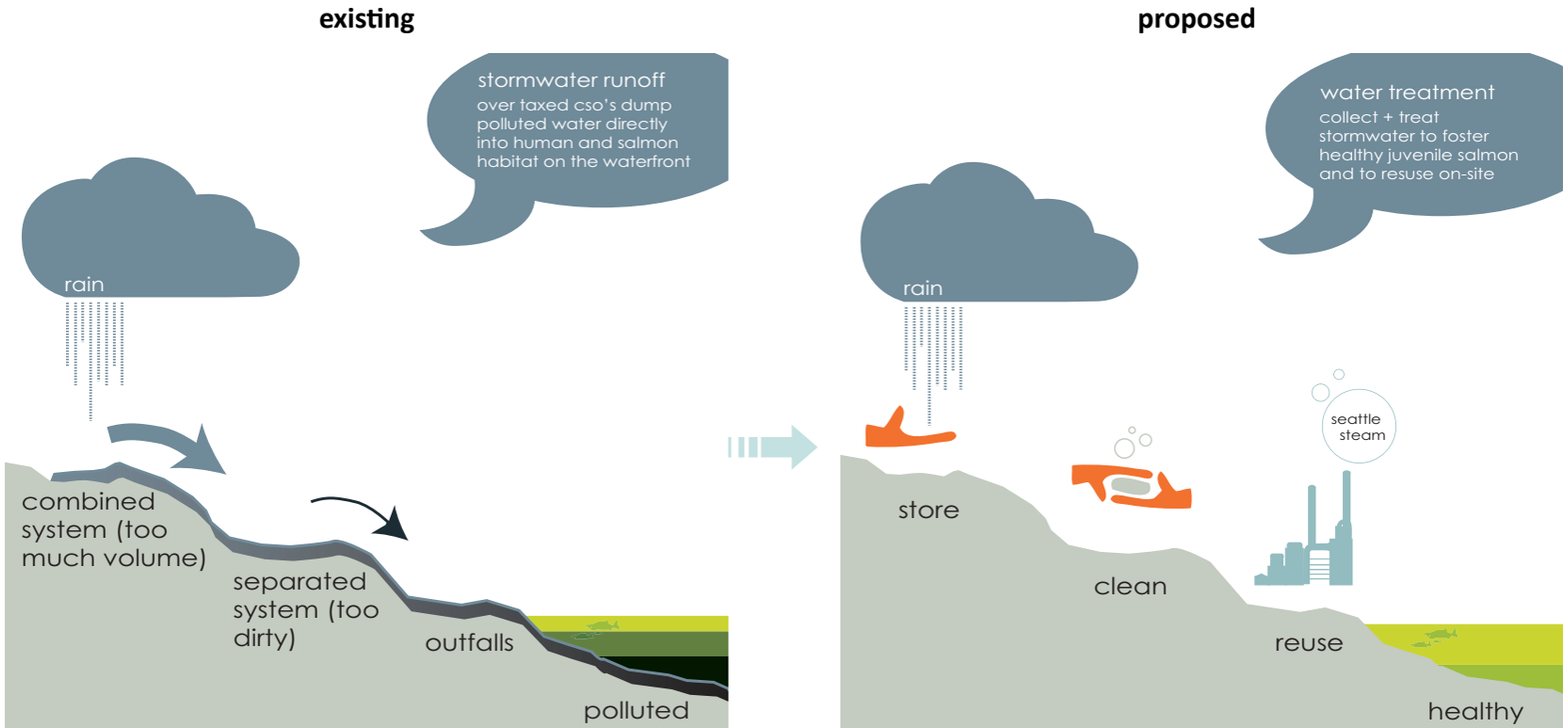
- multi-storied vegetation
- native species (plant + animal)
- green roofs + vertical walls
- habitat corridors
- vegetated bio-filtration
- food cultivation
- pedagogic design
- ecological education

existing conditions





interventions



design goals

• legible connection between the city center and the central waterfront

• on-site stormwater capture, storage and treatment [distrcit-scale]

• functional juvenile salmon habitat at the waterfront edge

• rich and satisfying pedestrian and bicycle experiences

• legible connection between the waterfront edge and the pier skirts/ends

•cohesive and unique neighborhood identity

•universally accessible, all-season opportunity for recreation and civic life

• public/private partnership development for financial viability and enrichment of public life

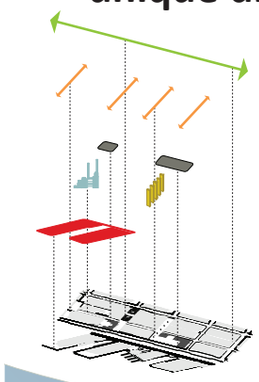
quick wins

Night Light Show
Illuminates the energy matrix at work beneath the city [seen from the parking lot adjacent to seneca + spring]

Roll Out The Red Carpet on Union Street
[seen from first avenue staircase leading down to the waterfront]

vital traces + performative futures

unique district opportunities



post alley
vital east/west streets
undeveloped lots
seattle steam
relics of viaduct
historical piers

Scale: 1" = 50'-0"

pedestrain
park
stormwater treatment
new buildings
ped oriented furniture + kiosks
bike lanes
street car
elevated green elements

Elliot Bay

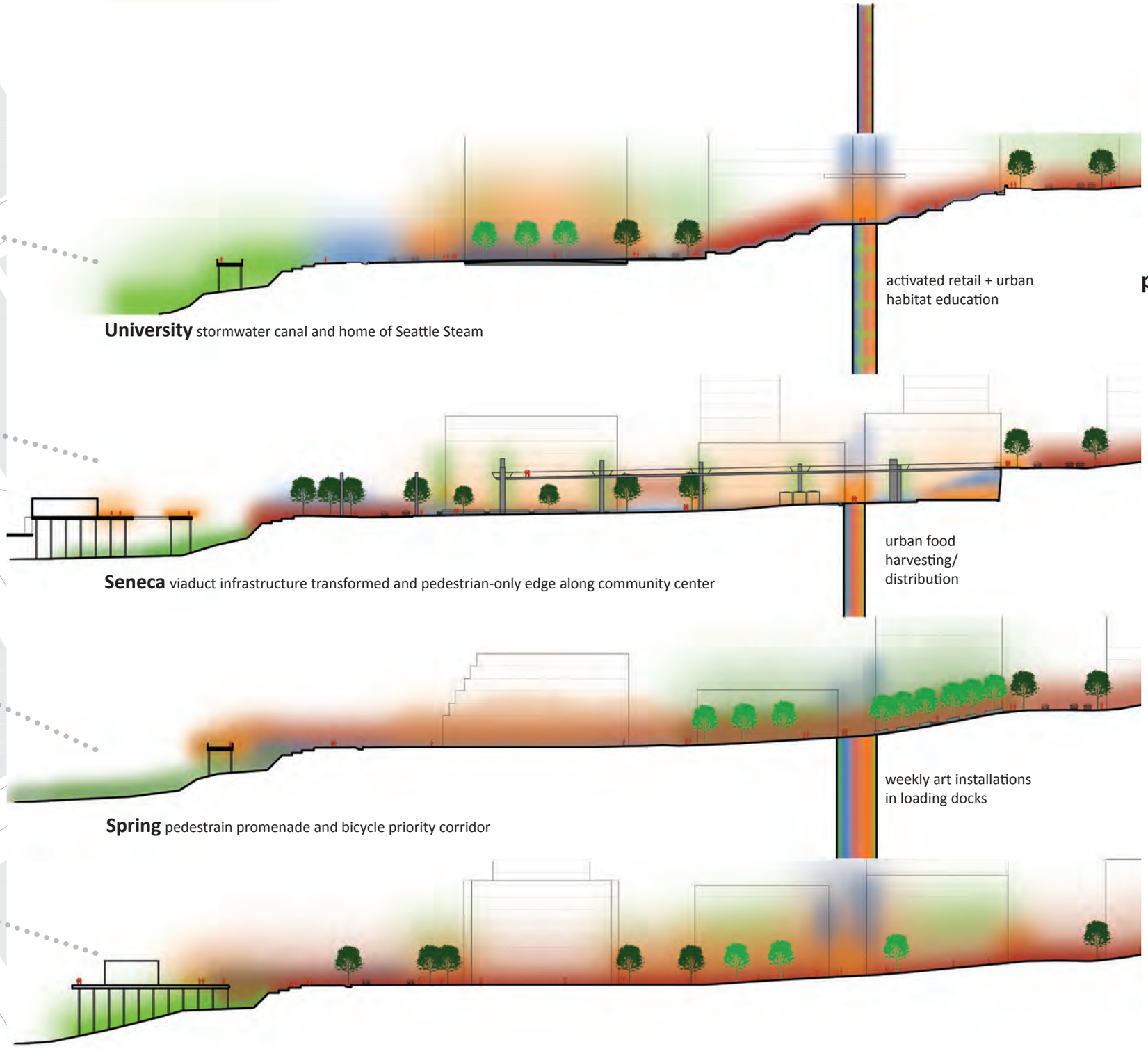
connective energies:

pedestrian through transit

pedestrian staying activities

water collection, treatment, movement

plant and wildlife habitat



University stormwater canal and home of Seattle Steam

Seneca viaduct infrastructure transformed and pedestrian-only edge along community center

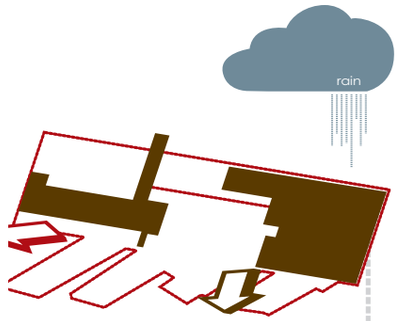
Spring pedestrain promenade and bicycle priority corridor

Madison public transportation corridor with two-way street car

proposed stormwater scheme:

existing system

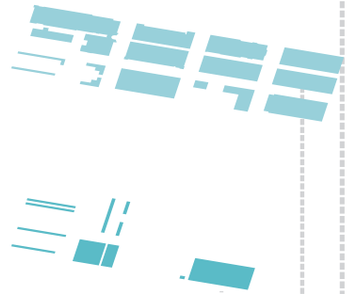
Current district system receives approximately 85000 cubic ft. of rain water in a one inch storm event. Rougly a third of this volume is directed into a separated storm water system and discharged into Elliot Bay, untreated. The remaining volume is combined with sewage water and directed to the regional waste water facility for treatment. During peak storm events, 1-3 times per year, the combined system is overwhelmed and stormwater mixed with sewer water is discharged directly into Elliot Bay via CSO outfalls.



proposed system

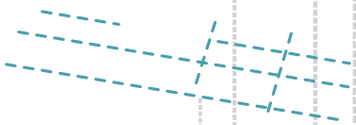
ROOF CATCHMENT

Rain water from roofs in the district generates approximately 30,000 cubic ft. of stormwater in a one inch storm. All other impermeable surfaces generate roughly 55,000 cubic ft. of run-off. The proposed system separates roof from road water to prevent further contamination of roof water.



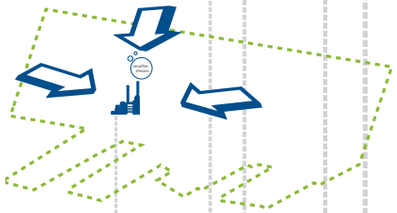
STORAGE

Proposal adds 135,000 cubic ft. of water storage capacity under the Seattle Steam mixed-use development and an additional 165,000 cubic ft. of storage capactiy under the Seneca/ Spring mixed-use development.



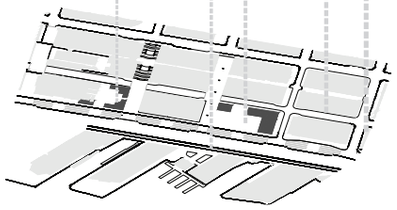
TREATMENT

Polluted runoff is treated in vegetated swales adjacent to roadways and in a reed bed canal adjacent to Seattle Steam. The total capacity of the district treatment system is 25,000 cubic ft.



REUSE

Seattle Steam, a district heat utility, currently purchases and uses 2 million cubic ft. of potable water annually to generate heat for 200 commercial customers in the downtown business district and beyond. The proposed district scheme provides for roughly 15% of the annual water needs of Seattle Steam.



private life/public space//spontaneous commons

Located directly adjacent to Alaskan Way and underneath the viaduct, this site is currently a parking lot. Once the viaduct is removed Seattle downtown will be transformed. This site in particular will reconnect to the sky and water making it a beautiful place for life to unfold.

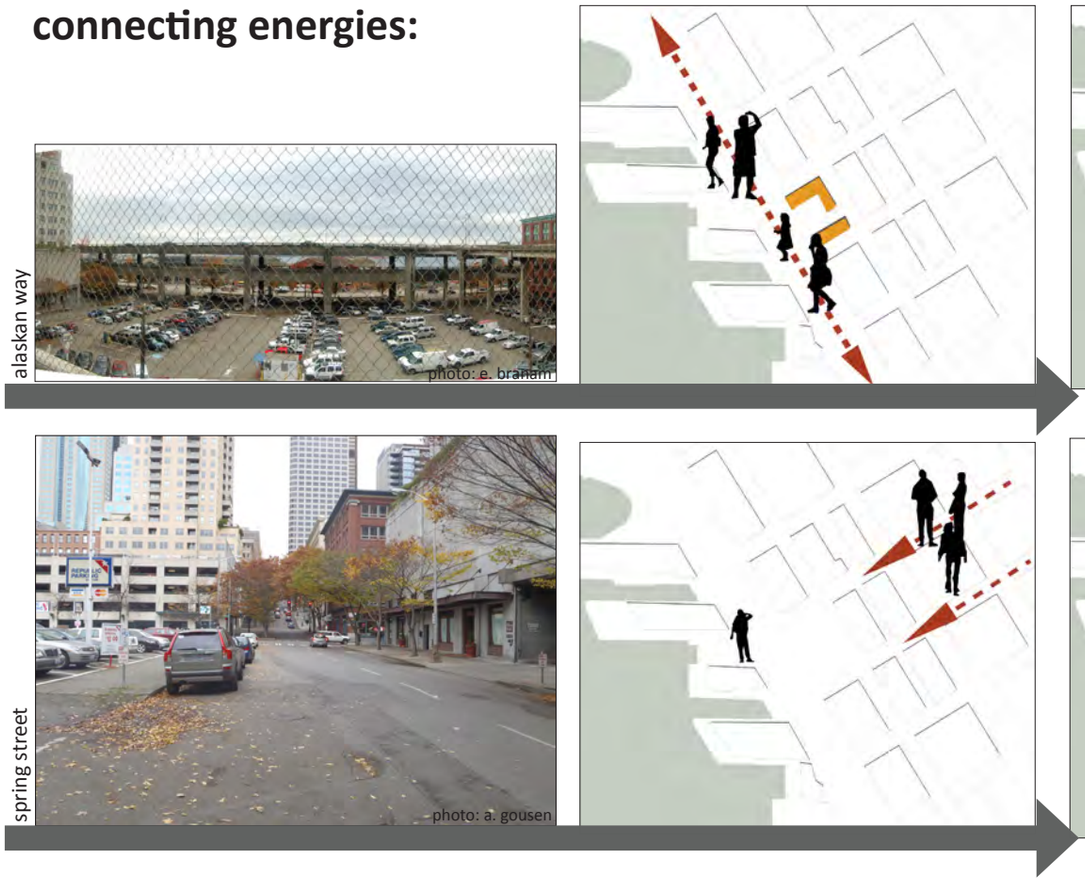
This project aims to renew life on the waterfront:
_*Who are the users and how might that change after the viaduct comes down?*
_*Who do we want the users to be?*
_*What might these users need in order to make a life for themselves?*
_*How can we harness current strengths surrounding the site?*
_*What opportunities are there for ecologically responsible site design?*

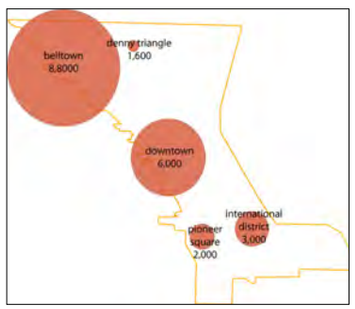
This project responds to the lack of community that typifies the existing Seattle waterfront.

Both the Seattle downtown and the waterfront along Elliot Bay **lack identity**; there is no sense of belonging when a pedestrian wanders through the dead-ends, narrow sidewalks, and out of scale high-rise buildings that typify this part of the city. Seattle residents will tell you they might venture downtown to take a visiting friend to Pikes Place Market; the waterfront itself is simply the place to find parking under the oppressive frame of the viaduct.

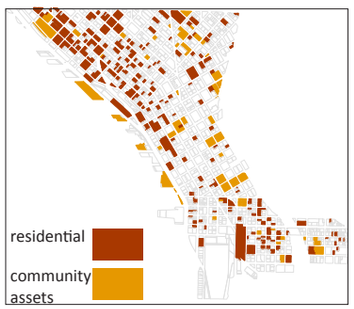
The re-design of the central waterfront is an unprecedented opportunity for the city of Seattle to **unite the core of the city with its spectacular edge**. It is also an opportunity to create **public** and **private spaces** in the heart of the city that are both tourist destinations and home to local residents. The only undeveloped lot on the central waterfront, this site is nestled between Spring and Seneca St. It is re-visioned from its existing condition as a sprawling parking lot, both as a neighborhood scale residential development, and the site for a much needed down-town community center.

connecting energies:



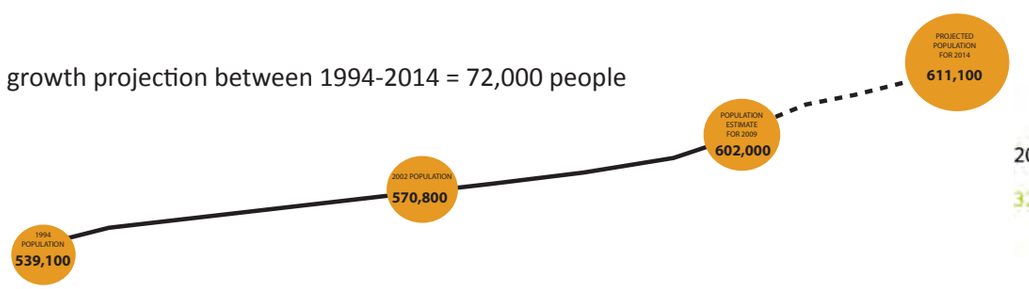


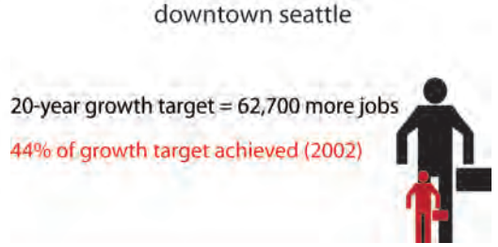
population of downtown seattle neighborhoods



location of residential and community assets

future downtown seattle population and growth targets:



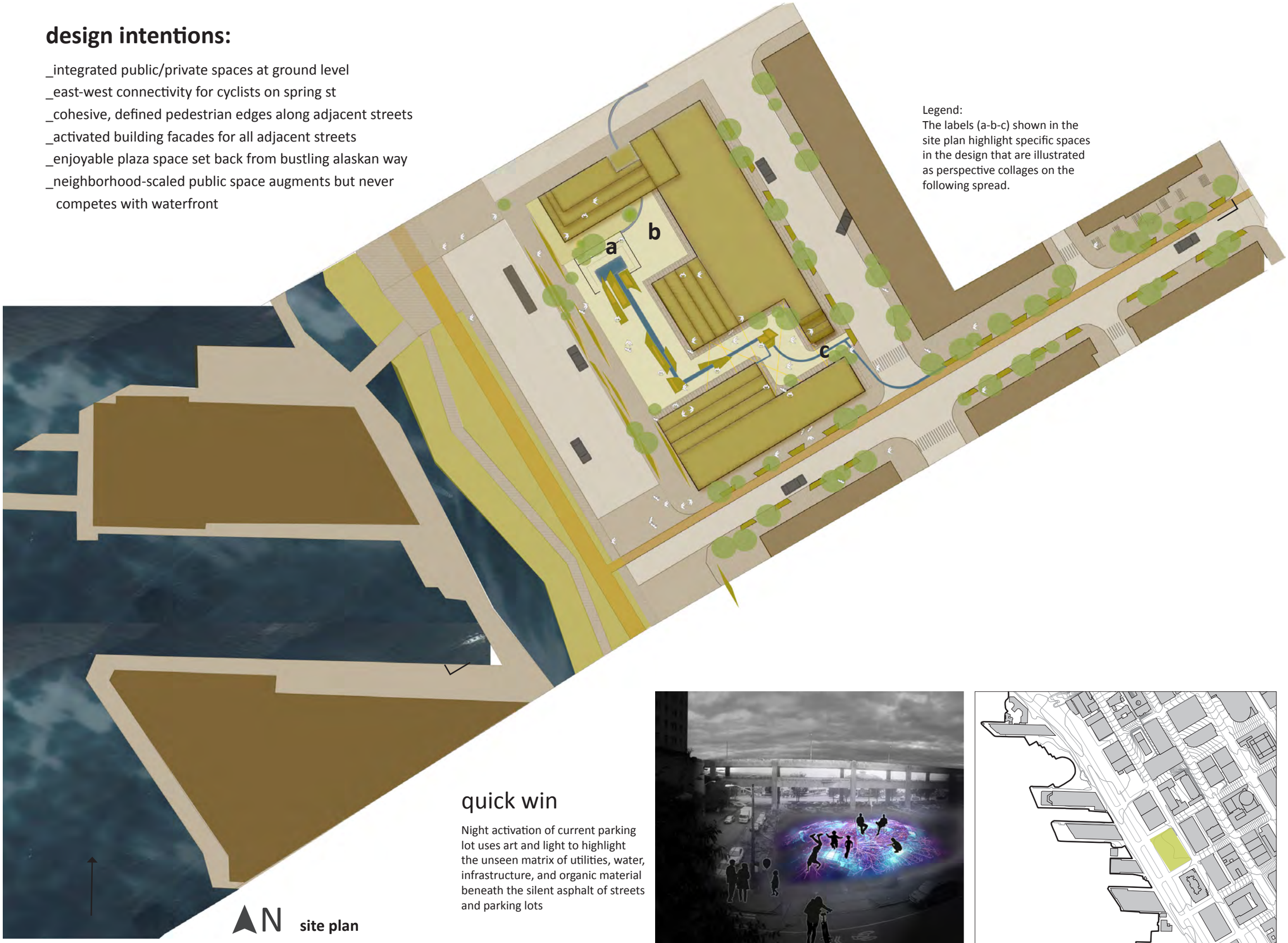


The city of seattle encourages **45%** of citywide residential growth to occur in **urban centers**.

Downtown seattle is 1 of 5 urban centers that will need to accommodate this growth.

design intentions:

_integrated public/private spaces at ground level
_east-west connectivity for cyclists on spring st
_cohesive, defined pedestrian edges along adjacent streets
_activated building facades for all adjacent streets
_enjoyable plaza space set back from bustling alaskan way
_neighborhood-scaled public space augments but never competes with waterfront



N **site plan**

Legend:
The labels (a-b-c) shown in the site plan highlight specific spaces in the design that are illustrated as perspective collages on the following spread.

quick win

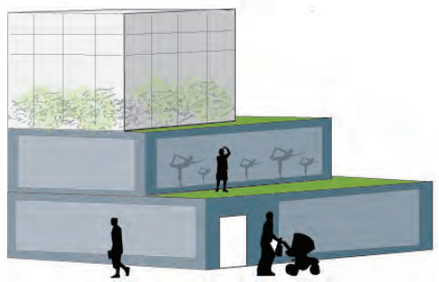
Night activation of current parking lot uses art and light to highlight the unseen matrix of utilities, water, infrastructure, and organic material beneath the silent asphalt of streets and parking lots

private life/public space//spontaneous commons

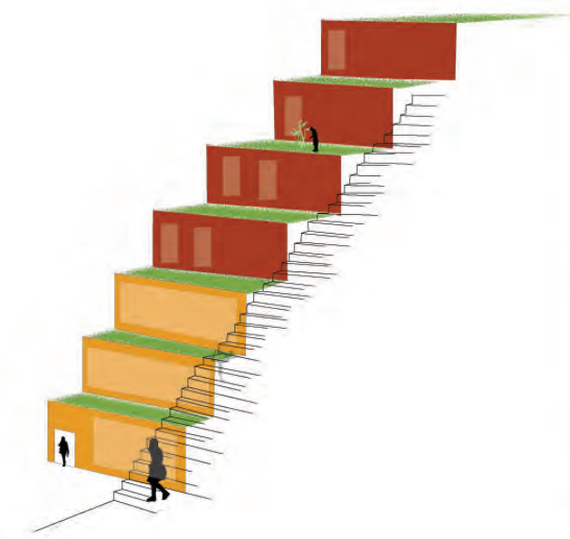
nested scales
housing/community/downtown seattle

The inclusive nature of the development and the presence of the three-story community center ensures public access to all the ground level areas of the plazas, through-ways and alleys.

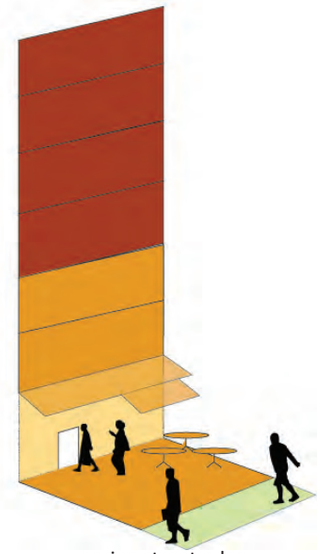
program levels: vertical integration



community center edge



plaza edge

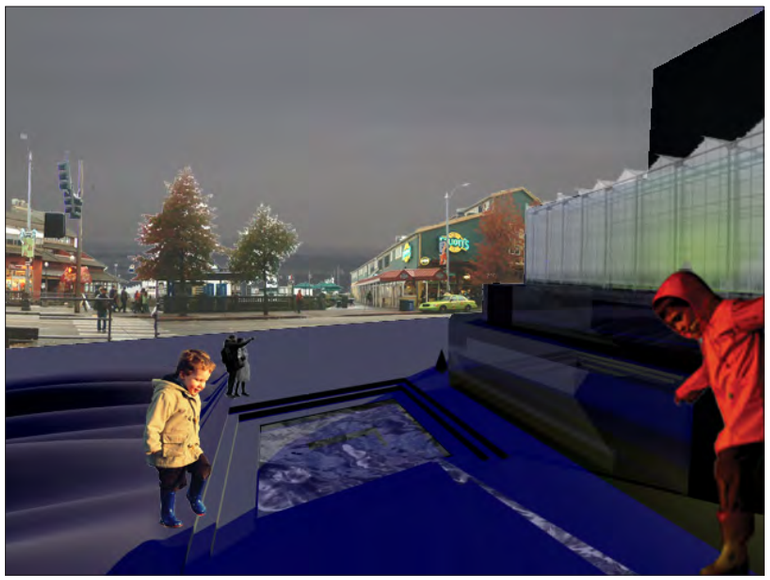


spring street edge

The first three stories of the residential units are also commercial/retail or office/studio spaces; residents have private terraces with a view over the public life below and to the waterfront; although private residences are elevated to ensure privacy, the building is only seven stories to maintain appropriate neighborhood scale

the multiple uses of rain water

Rain water is captured and held to water vegetation in the greenhouse located on the top of the community center, to flush toilets in the community center and to send to Seattle Steam where it will plug into the current system of district heating with steam.



wet/dry (a)
The Cistern Plaza, located just outside the community center, is a dynamic part of this site. Inspired by the Rotterdam Watersquares, this spaces serves a function year-round.

(b) Entrance from the corner of AlaskanWway and Spring st, looking towards waterfront

(c) View from the plaza looking through community center to Seneca Street

Spring Street section: activated ground floor from Alaskan way to 1st Avenue

Seattle Steam: The Making of an Eco-District

History + Customers

Seattle Steam is a century-old private district heat utility serving over 190 commercial customers in Seattle's Downtown and First Hill neighborhoods.

Water Source

Roughly 15 million gallons of potable water are used annually. This water is purchased from Seattle Public Utilities and originates in the Cedar River watershed of the Cascade Mountains.

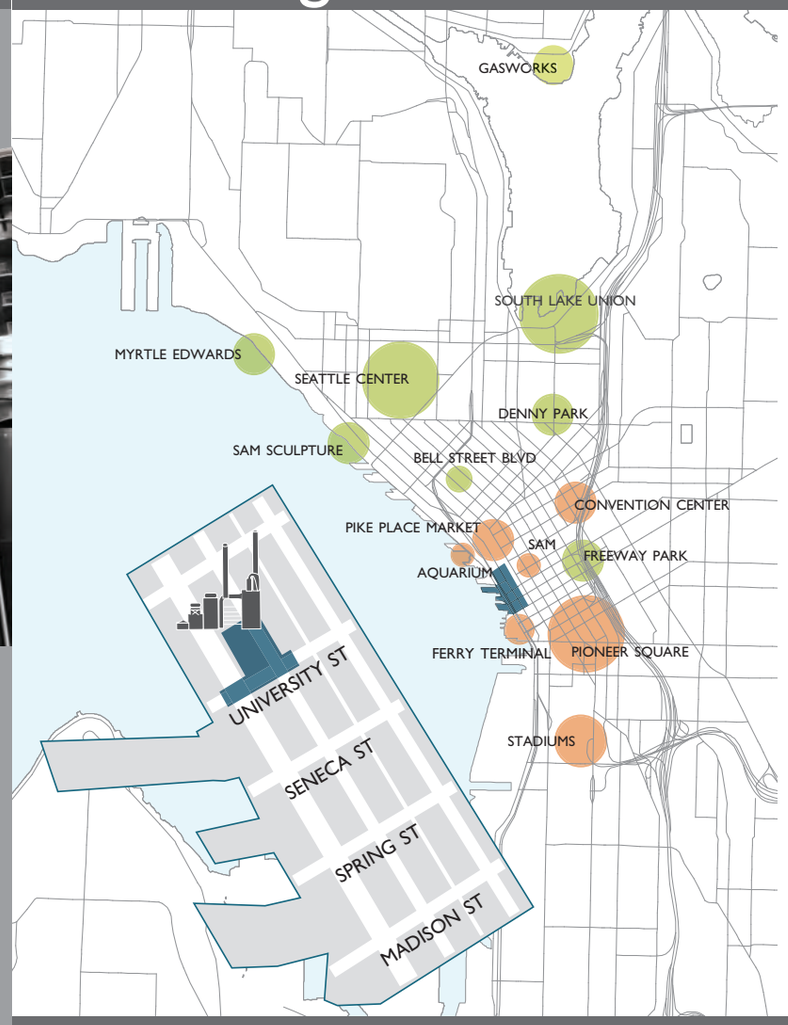
Fuel Source

Seattle Steam uses natural gas boilers and, as of 2009, a biomass boiler. The latter burns construction wood waste and woody debris procured from Cedar Grove. Over 250 tons are used daily.

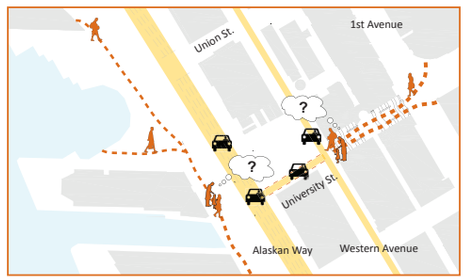
Condensate Reuse

Customers can repurpose steam condensate for non-potable uses such as laundry, irrigation and source water for building cooling systems. Unused condensate is piped & treated as waste water.

Scan | Design Master Studio 2010



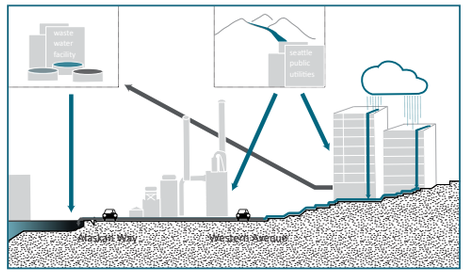
key design opportunities



Poor Pedestrian Experience

Source: Pam Emerson

Disjointed, illegible and uncomfortable
Poorly maintained, car-dominated block
At-grade parking, no elements of comfort



Inefficient and Ineffective Water System

Source: Pam Emerson

Clean rainwater mixes with polluted runoff then discharges directly into Elliot Bay. Seattle Steam uses potable water for source water, condensate is treated as waste water.

Lack of Winter Attractions on the Waterfront

Source: Pam Emerson

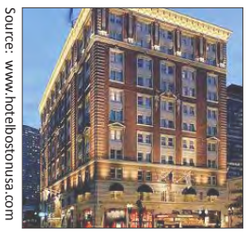
Harbor steps in the summer and winter

eco-hotel + canalfront

The "Calliope" Eco-Hotel is a showcase development for carbon neutrality, net zero water use, urban habitat & soil regeneration utilizing: Seattle City Light electricity, Seattle Steam heat and hot water, cleansed urban stormwater for non-potable uses, green roofs, & composting toilets in public restrooms.

The hotel presents Seattle as a leader in ecological development to visiting tourists and business people

The site offers an ideal location with stunning views and easy walks to: Seattle Art Museum, Pike Place Market, the Cruise Terminal & Bell Harbor Center.

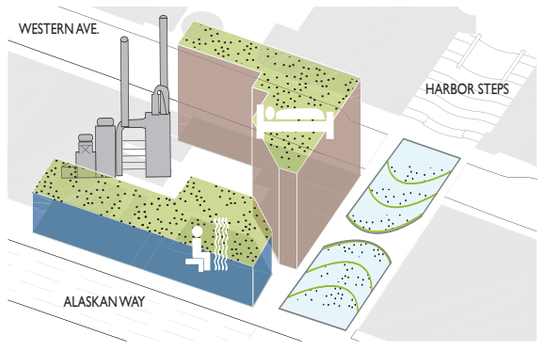


Source: www.hotelbostonusa.com

Lenox Hotel, Boston

Source: http://english.peopledaily.com

Hammarby, Sweden



The adjacent canal reveals and cleanses stormwater collected from the Harbor Steps and adjacent building roofs before directing it to a 1M gallon underground cistern for storage and reuse as source water

The strategy is replicable on dead end streets to the north & south (Union St. and Seneca St., respectively)

Bringing water into the grid holds potential to raise property values, activate the streetscape, extend the "waterfront" inland, provide new bird habitat, and highlight seasonal ebbs and flows

public sauna

The public sauna provides an all-season & evening attraction on the waterfront as well as a unique event venue with striking views of Seattle Steam and Waterfront Park.

The amenity holds broad appeal for locals and visitors alike and is also an invitation to diverse users, celebrating rich public bathhouse traditions of several of Seattle's immigrant communities

Unconventional uses for reclaimed stormwater demonstrate and reveal the closed-loop water and energy systems of the eco-district.

Source: www.life.com/image/71575099

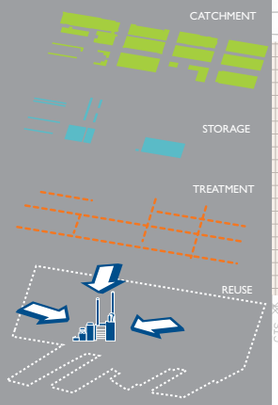
Bath, England

Source: http://edwardlifson.blogspot.com

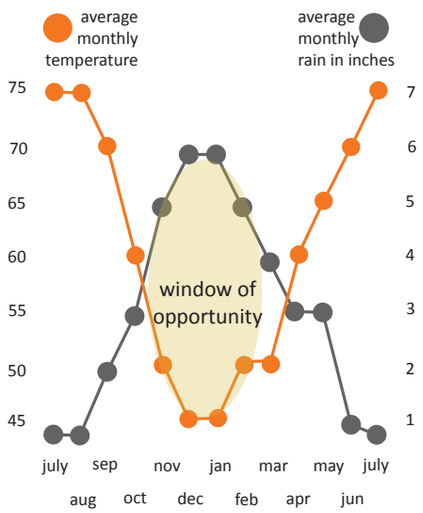
Vals, Switzerland

rain to heat

Rainwater falling on roofs in the district is directed to a 10000 cubic foot treatment canal where it is pushed through a series of biofiltration filters. The cleansed water is then directed to a 140000 cubic foot underground storage vault & is used as alternative source water for Seattle Steam.

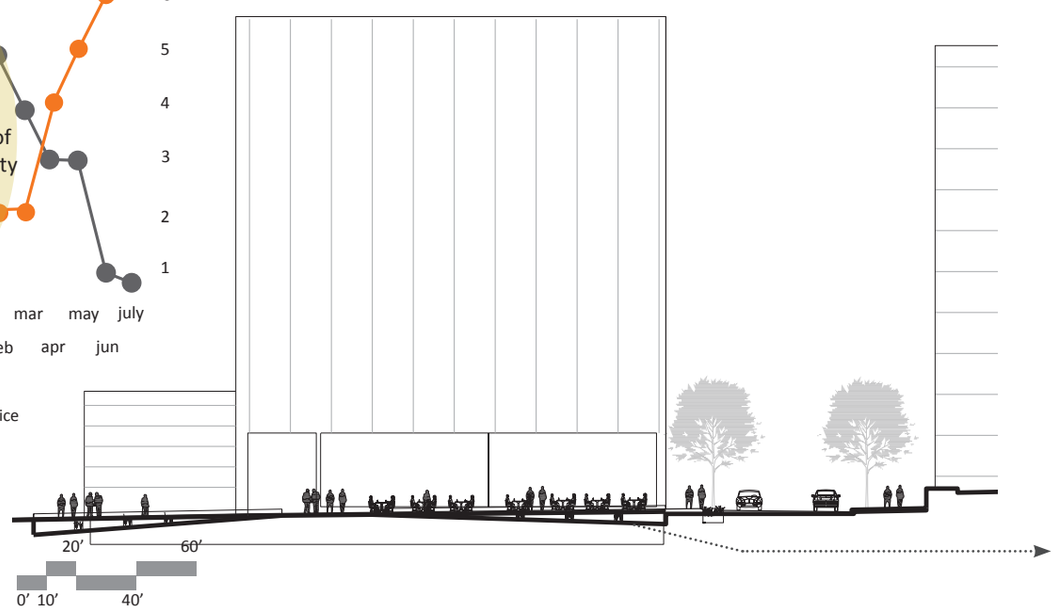


Seattle Steam requires approximately 2 million cubic feet of water annually to supply heat energy reliably to its customers. The demand for heat is greatest during the winter months, coinciding with the rainiest period of the year. This presents a unique opportunity for managing urban stormwater in a manner that transforms a regulatory headache & ecololgical challenge into an elegant waste-water-energy system. The scheme also also offers potential long-term cost savings for Seattle Steam customers and all SPU rate-payers.

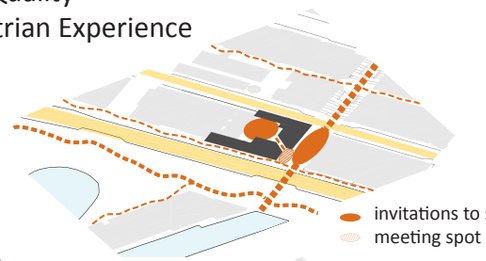


Data source:
NOAA National Weather Service
50 year averages

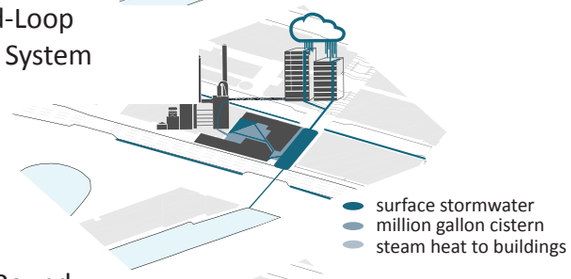
A Canal Front, Looking North



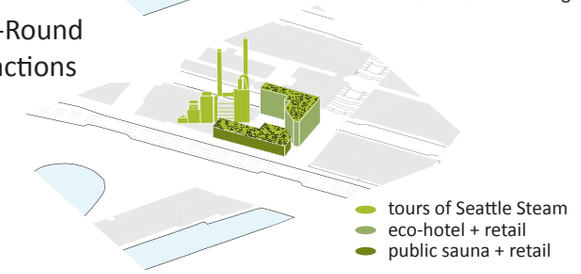
High-Quality Pedestrian Experience



Closed-Loop Water System



Year-Round Attractions



Stormwater Canal Study

The stormwater treatment canal fills gradually from east to west through a series of biofilters. When the water level reaches the central isthmus, it is released via a culvert into the western portion of the canal. In summer (dry) months, the canal reads as a series of carex beds with a sloping groundplane. In winter, the central path disappears. The lowpoint is 2 feet below grade.

Post Alley: Urban Sustenance Corridor

A MODEL FOR CITY

Underused, visually disconnected, and lacking the attractions of the north end connection to Pike Place Market, Post Alley has the opportunity to be a model for day and night activation, urban stormwater treatment and habitat, and performative food production.

Put on the map by the world-famous gum wall and bookended by teeming Pike Place Market and gallery-laden Pioneer Square, Post Alley is well positioned to provide a rich and entertaining pedestrian connection for tourists and locals alike.

But in light of climate change, peak oil and water, and the densification of urban areas, Post Alley's proximity to Pike Place Market and its alley topology also provide a strategic testing ground for urban food production. Already on the public stage, Post Alley and the city of the Seattle are ripe for taking leadership by creating the first urban sustenance corridor.

CURRENT USES

union to university

university to seneca

seneca to spring

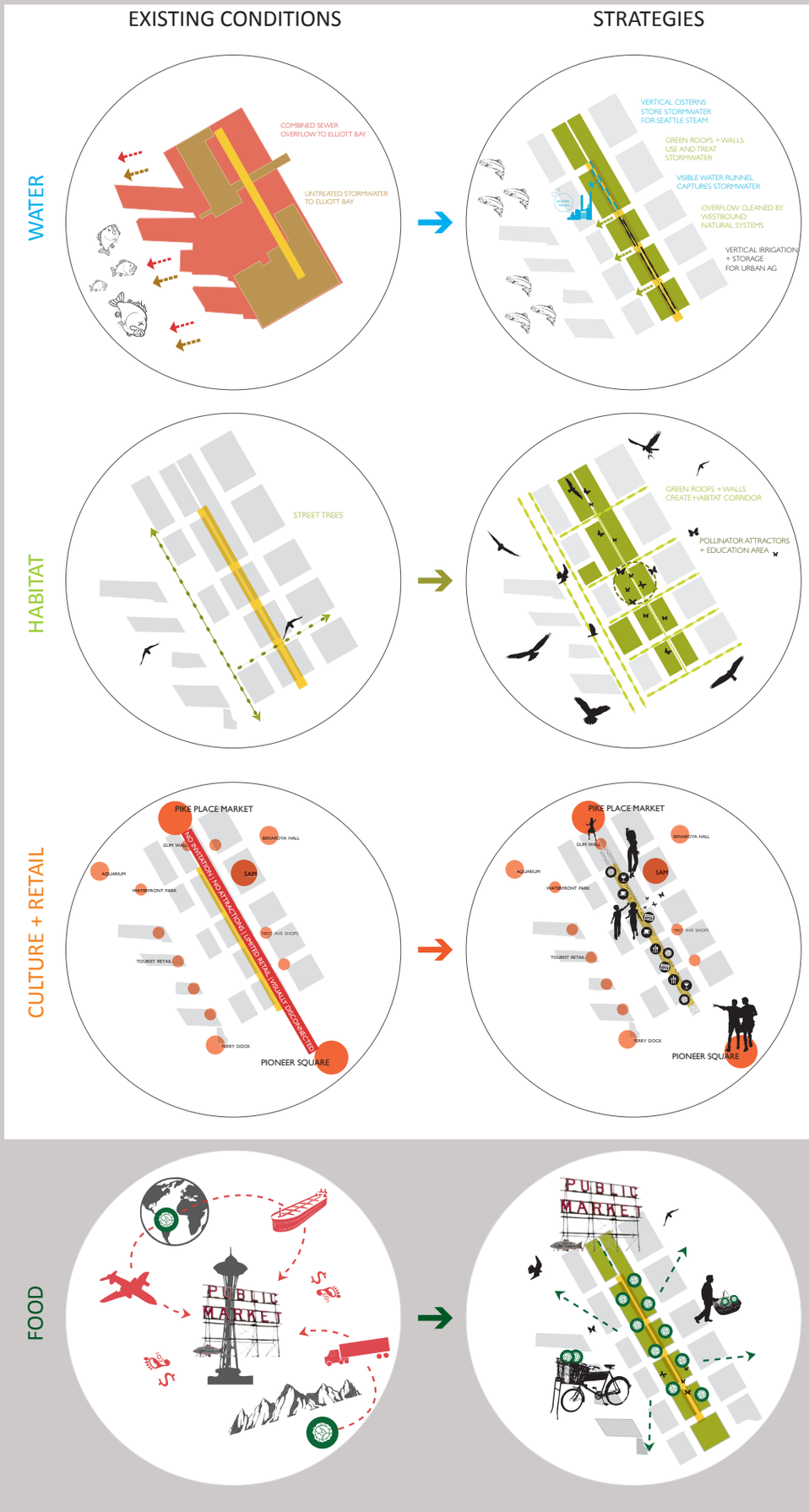
spring to madison

A FOOD SYSTEM IN AN ALLEY?

While alleys are finally getting their due around the world as vital urban public spaces and critical stormwater corridors, their design also provides a strategic infrastructure for building a hyper-local, scalable urban food system.

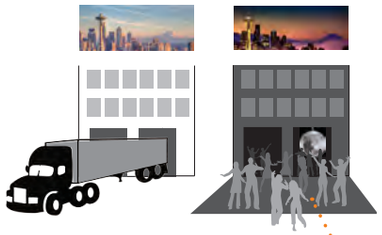
Typically used as a conduit for deliveries, these are ideal spaces to process and distribute food produced on adjacent rooftops. Underused loading docks provide necessary storage space for harvesting/vertical hauling equipment. Traditionally the site for trash dumpsters, compost collection is easily accessible and used on-site. Corner retail/office spaces provide educational and income generation services.

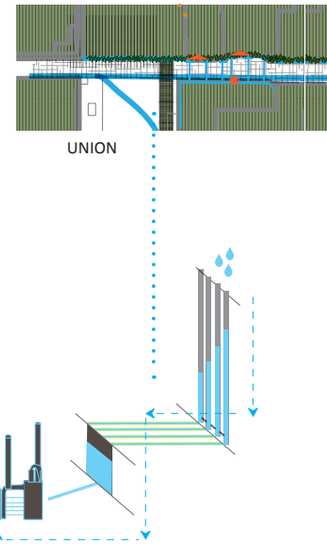
Post Alley is particularly primed to test and market this model by being known for whimsical public art and its connection to the oldest continuously functioning farmer's market in the country. Weekly performative harvesting delight urban eaters with kale and lettuces caught by a net strung between two buildings. A high-end "Post Alley Greens Mix" is marketed to walkable local restaurants who vie for serving it one night a week. A significant portion is reserved for a local homeless shelter to provide critical nutrients for those who might not otherwise have access.



EXEMPLIFYING STRATEGIES IN POST ALLEY

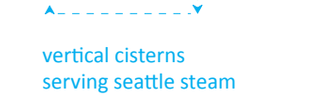
loading dock by day | disco by night





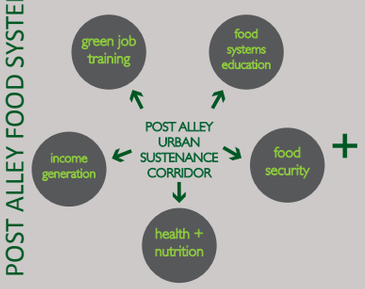
LEGEND

- vertical cistern
- visible water runnel
- permeable pavement
- biofiltration + irrigation
- vegetated downspout
- vegetated bioswale
- green roof + food production
- vegetated wall + food production
- vegetation
- retail
- culture + art
- seating

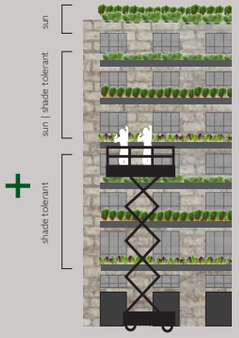


vertical cisterns serving seattle steam

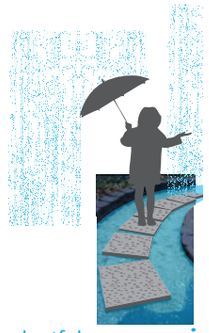
POST ALLEY FOOD SYSTEM



driving goals of urban food system

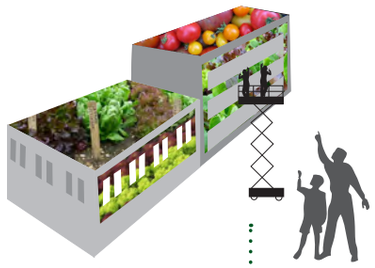


shade | sun placement + seasonal sequencing of edibles



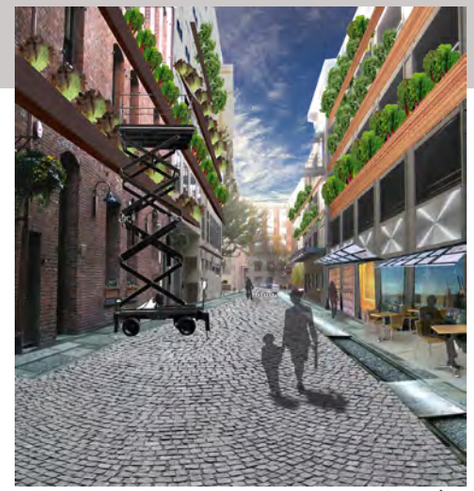
visible and artful
stormwater runnel

pollinator alley

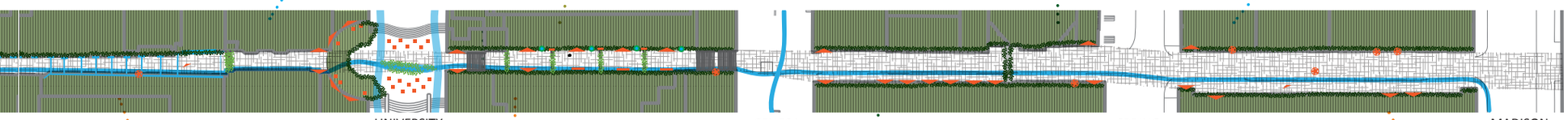


vertical + rooftop
food production

gravity fed + solar-pumped
irrigation



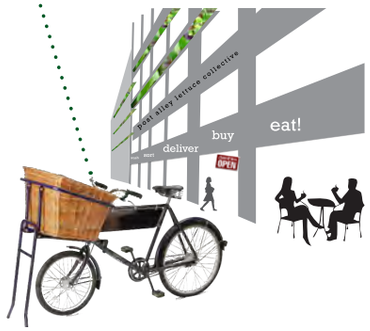
seneca to spring



micro mobile food carts +
seating

activated local food
retail + cafes

post alley food hub,
processing + distribution



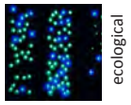
street + loading dock
art installations

AESTHETIC THREADS

permeable pavement

awnings

pavement lighting



ecological signage

ceiling lighting

identity signage

EDIBLES

native nettles

kale

mesclun

chard

parsley + herbs

native miner's lettuce

number of square feet of green roofs

CHICAGO	534,507
SEATTLE	94,488
POST ALLEY	205,338

source: green roofs in seattle | a survey of vegetated roofs and rooftop gardens
gis | cad analysis + computation

Public Spaces | Public Life for Seattle's Central Waterfront

starts cultivated in
rooftop greenhouse

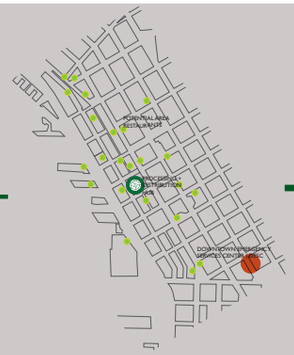
+ compost +

compost collected from
local residences + restaurants

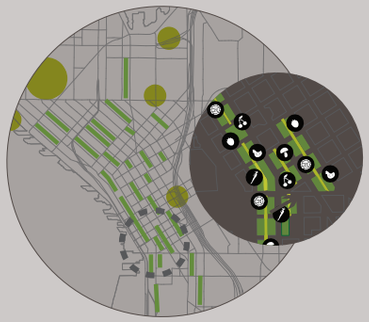
walls + roofs irrigated by
stormwater

vertical hydraulic harvesters allow
for access, compact storage
+ performative harvesting

visible + community oriented
distribution hub brings food from
wall + roof to table



demand + need | serving local
restaurants and providing fresh
food to those in need



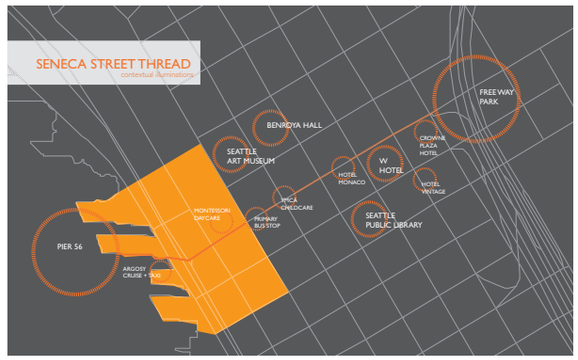
the vision | a network of
hyper-local food production made
possible by alley infrastructure

Vital Traces + Performative Futures

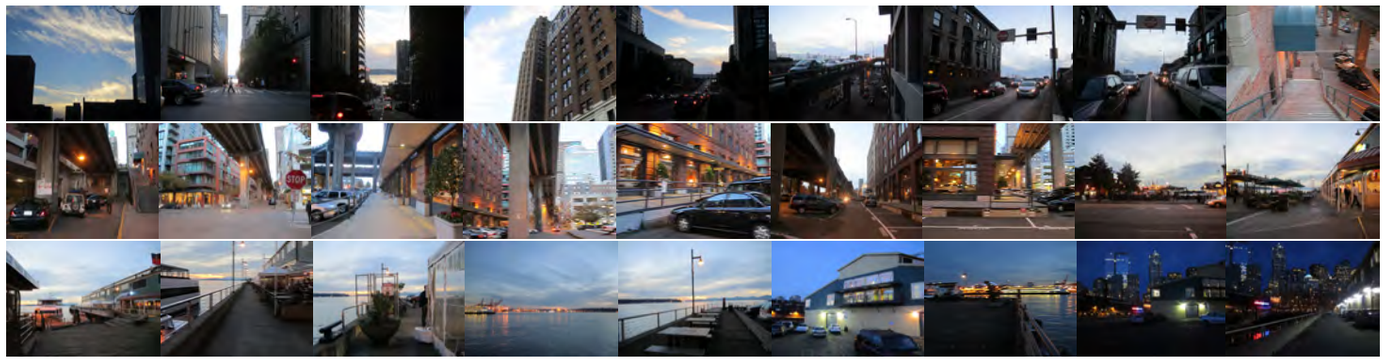
Ginger Daniel

Seneca Thread [thickening the strand]

contextual illuminations



the seneca thread_1st ave. to end of pier 56_evening rush hour



design goals

manifold, open ended threads_strengthen the strand and enliven public space by thickening ecological, social, economic and infrastructural threads

reflective, watery threads_provide visual and physical series of insertions and extensions that project water/light inland as well as pull people into physical contact with the ecology and drama of elliot bay

historical threads pulled in multiple directions_reuse of water and vestige material from the viaduct, deep bore tunnel, and cuts from pier 56 are transferred to select points along the thread

successful failures_produce resilient, flexible thread designs that can adapt to variable conditions and fail successfully with the projected 25-36' sea level rise in the next 50-100 years

strategies

the introduction of social and ecologically performative surfaces that offer opportunities for dynamic function and interpretation of uses. building upon Chris Reed's StoSS LU team research, these variable surfaces serve to thicken and enrich ecological, social, economic and infrastructural systems over time.

ecological surfaces

social surfaces

Image Source: StoSS LU

visual and mobility barriers

site stills progress from first avenue and seneca intersection [where the seneca viaduct spur meets grade on first] all the way to the end of pier 56

mapped locations of barriers and current building usages

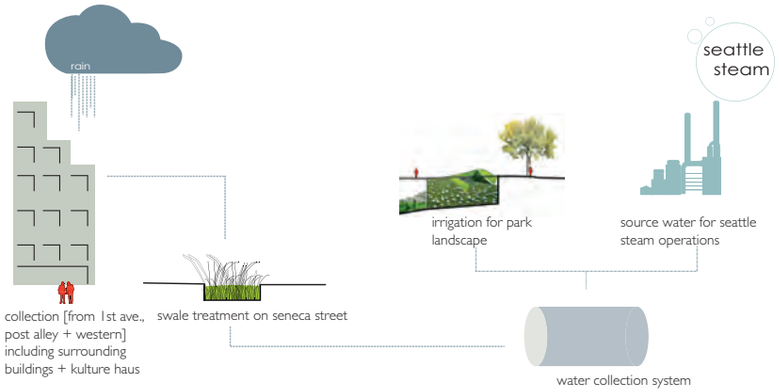
Gehl architects 12 quality criteria

human-scaled planning with a focus on quality urban environments that provide proximity, comfort, protection and a lively public realm

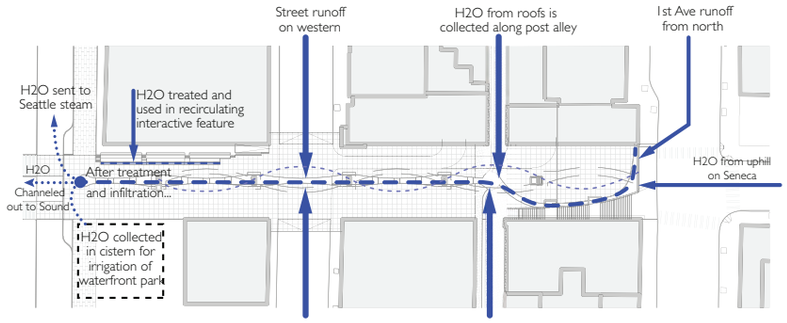
shaping opportunities for play, delight, rest and walking

Source: Gehl Architects

seneca thread stormwater simplified



seneca thread flows + treatment



multiple threads

flows

scaffold

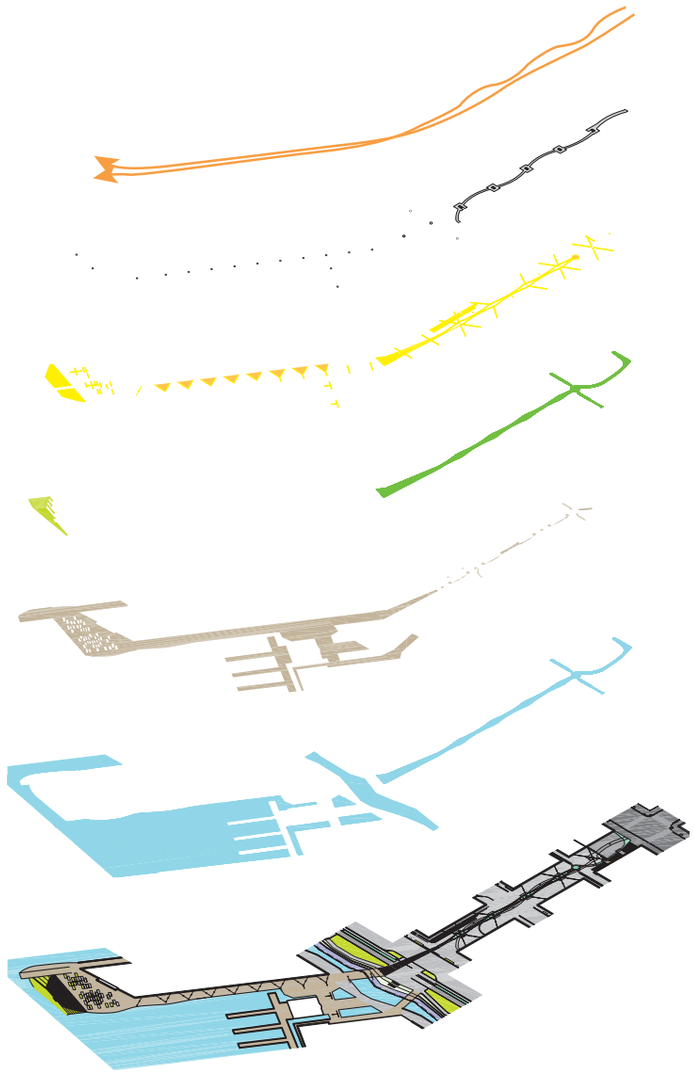
lighting

biotic armature

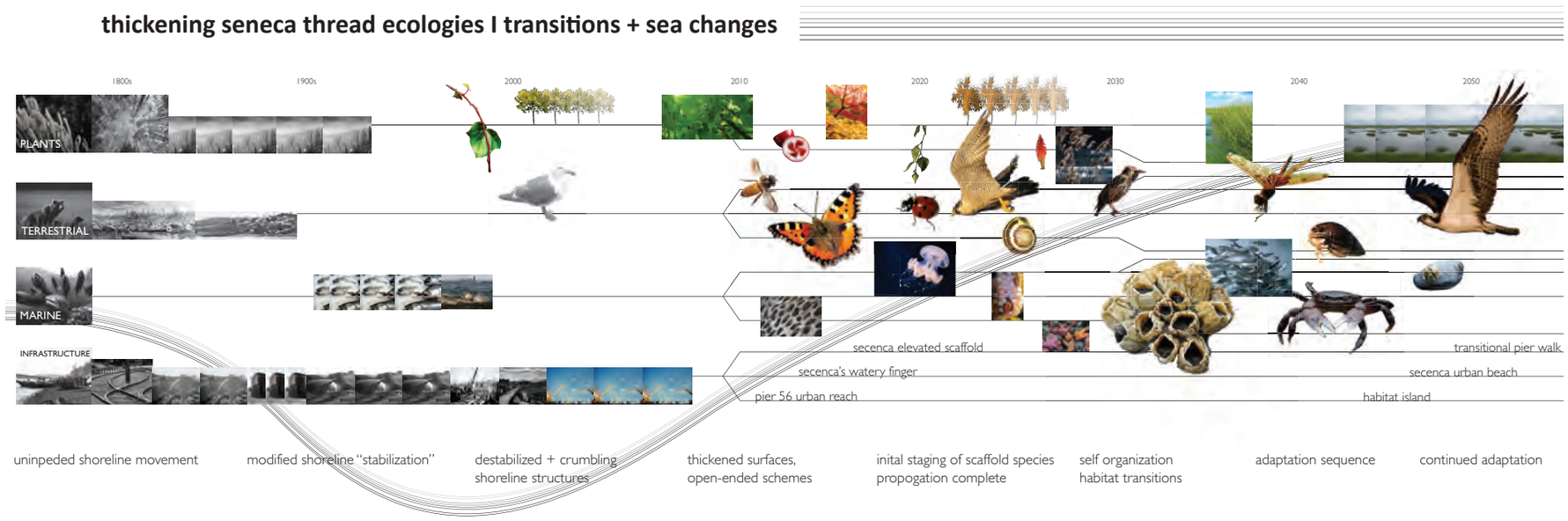
pier planking

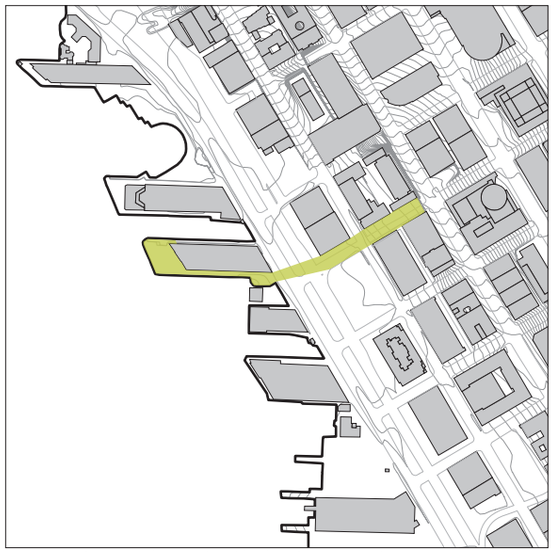
water

collapsed surface threads

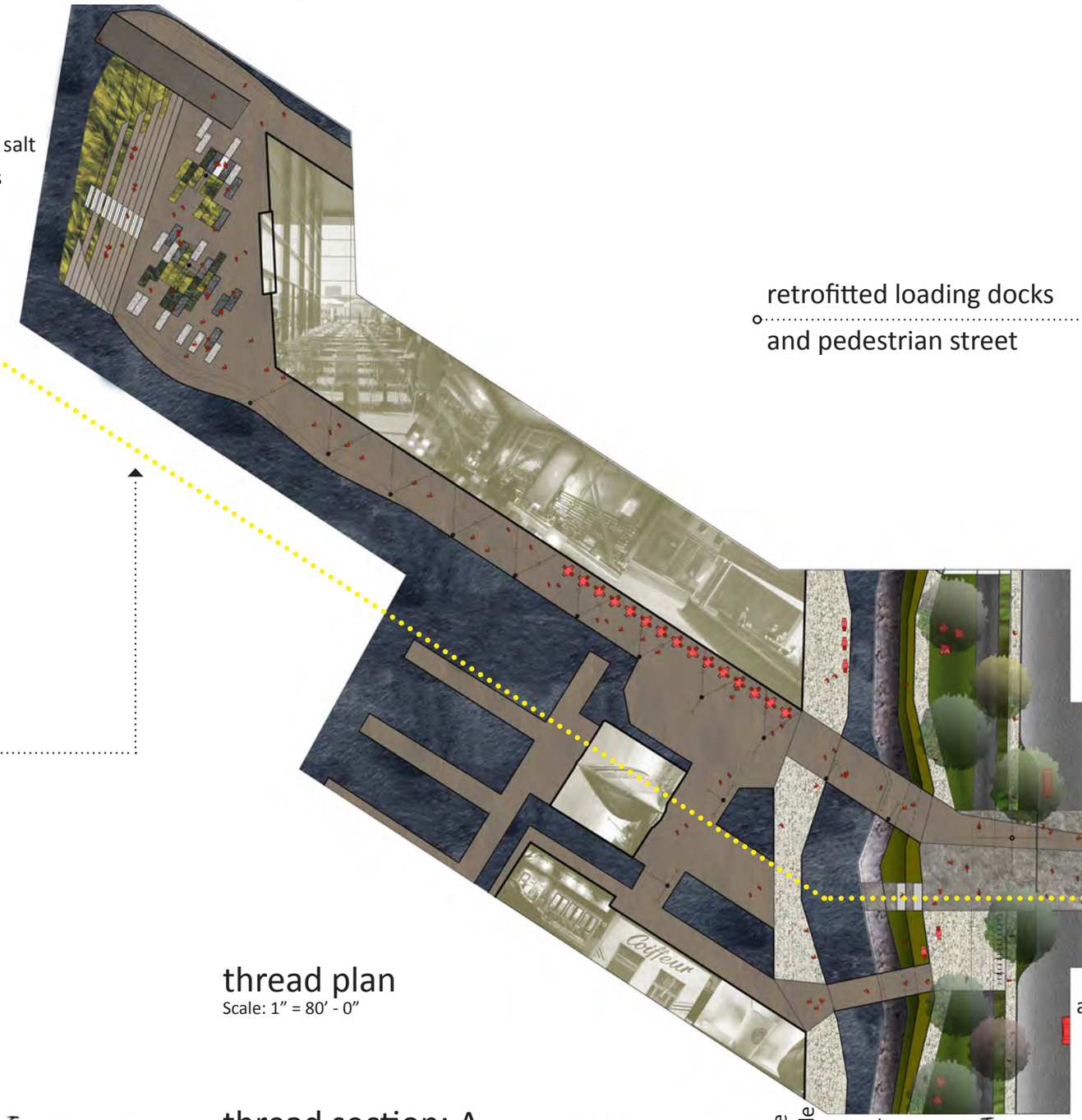


thickening seneca thread ecologies I transitions + sea changes

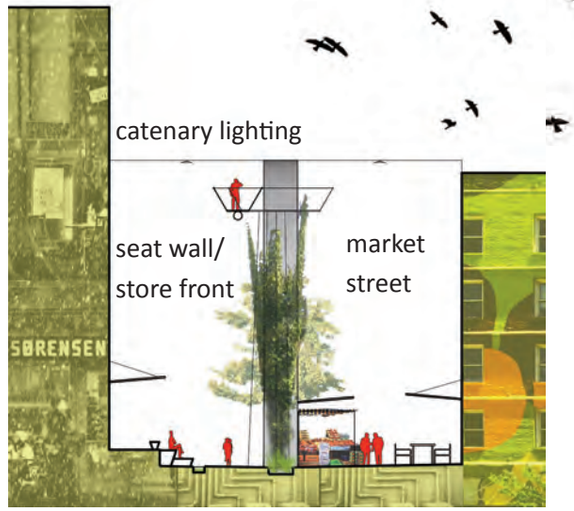




Seneca Thread [thickening the strand]

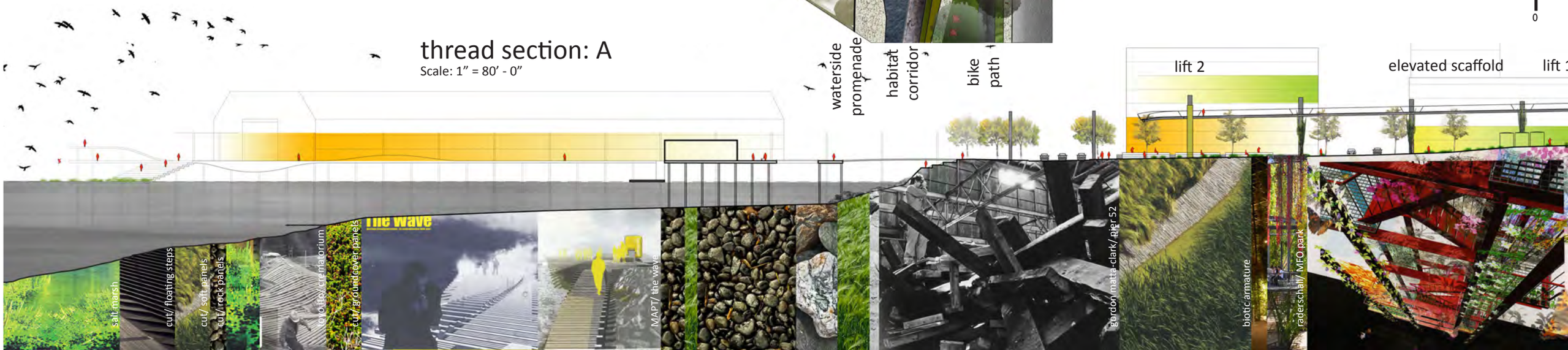


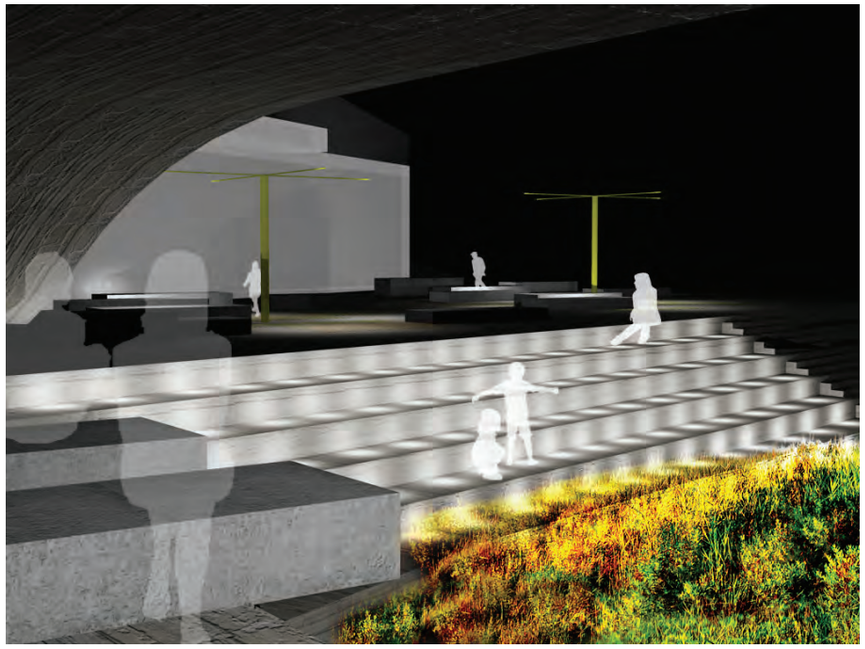
thread plan
Scale: 1” = 80’ - 0”

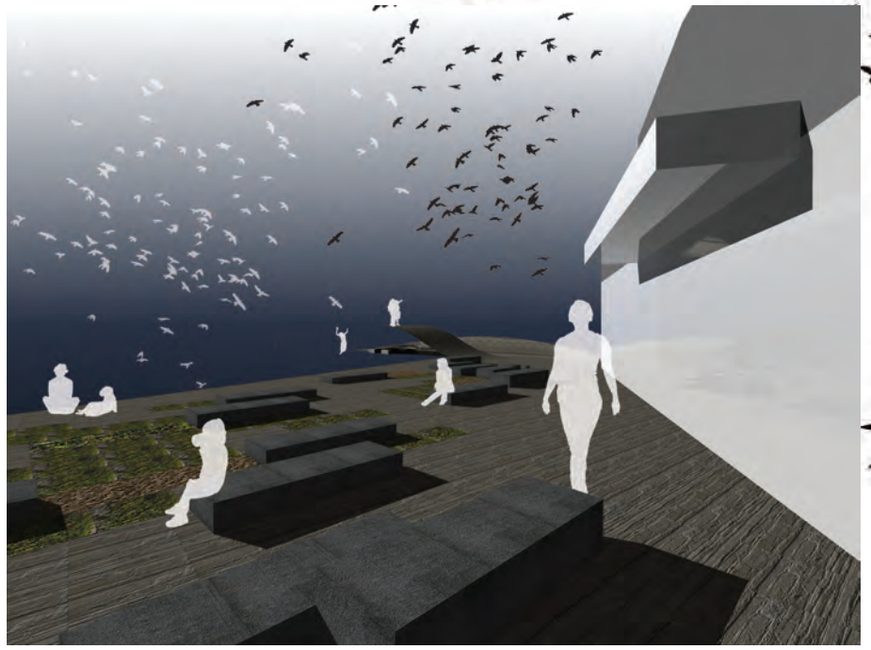


thread section: B
Scale: 1/32” = 1’ - 0”

thread section: A
Scale: 1” = 80’ - 0”

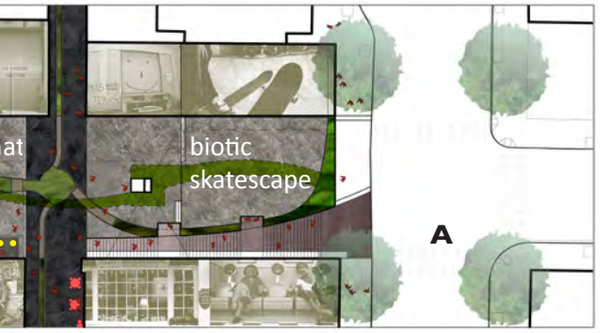






pier 56

- creation of saturated salt marsh benches at the foot of the new steps and a floating deck area allows for multiple types of interaction and expanded aquatic habitat
- extensive lighting allows for 24 hour use
- interior civic space + cafe replaces parking on pier end
- creation of a new public space by building seating and textured surfaces. cutting into the edge and allowing access to the water below as well as raised areas for viewing and diving

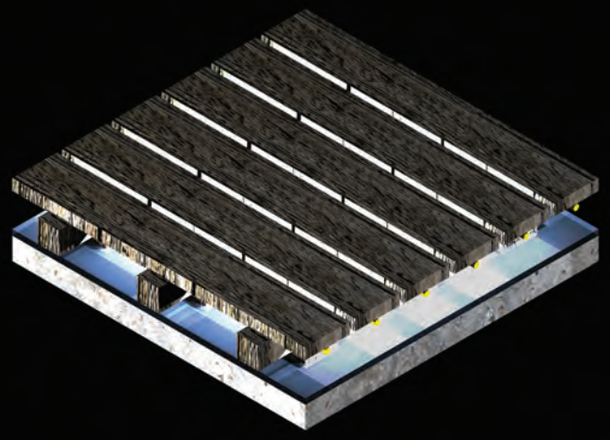


retrofitted loading docks and pedestrian street

- lighted metal seat walls and steps are cut into the high curbs and loading docks around the historic warehouses allowing for access to new commercial spaces
- retaining viaduct columns and adding biotic armature creates urban rooms and human scale spaces by dividing the street. small bridges allow access across the armature

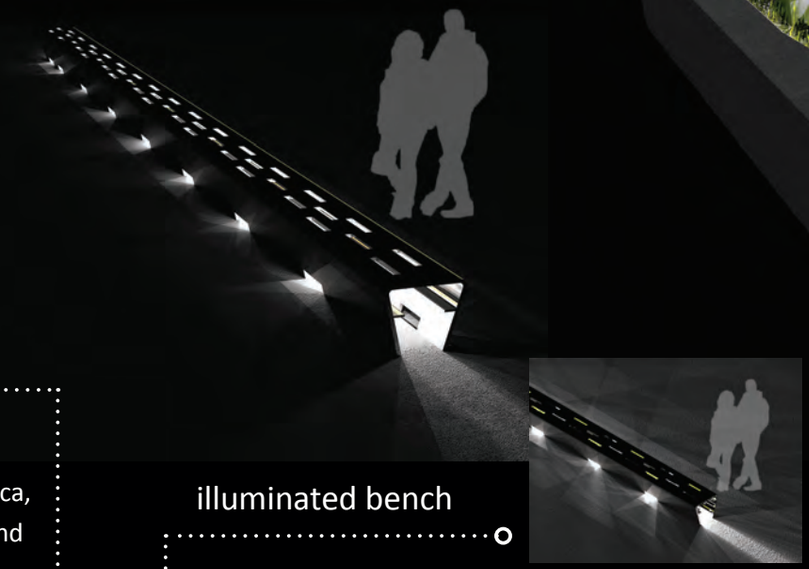
Seneca Thread [thickening the strand]

lighting morphology + details



deck

- in the spirit of gordon matta-clark, pier end planks are cut and repurposed for green armature and alaskan ped crossing on seneca, pulling the historical thread of the pier inland
- standing water beneath the decking provides illuminated reflections up through the planking, lighting the path to pier 56's end



illuminated bench

- stainless steel bench with high polished interior and point lights
- a series of repeated cuts and insertions allow light to bleed into the street and sidewalk
- bench runs the length of the historic building's loading dock facade, simultaneously creating a stage, an event and seating

biotic armature

- surface runoff from 1st ave. and seneca is collected stored and treated and recycled to seattle steam
- a series of planked crossings [repurposed cuts from the pier] allow pedestrians to cross the armature at a multitude of points

lighting scheme

n.t.s.

great seattle fire

- the fire decimated waterfront construction; reconstruction followed, and in 1900 pier 56 was built

viaduct construction

seneca spur

quick wins

- light sculpture under the viaduct
- small tribal lead tours onto elliot bay and into the city to retrace historical shoreline and tribal ecology
- ball pit under viaduct on seneca + first

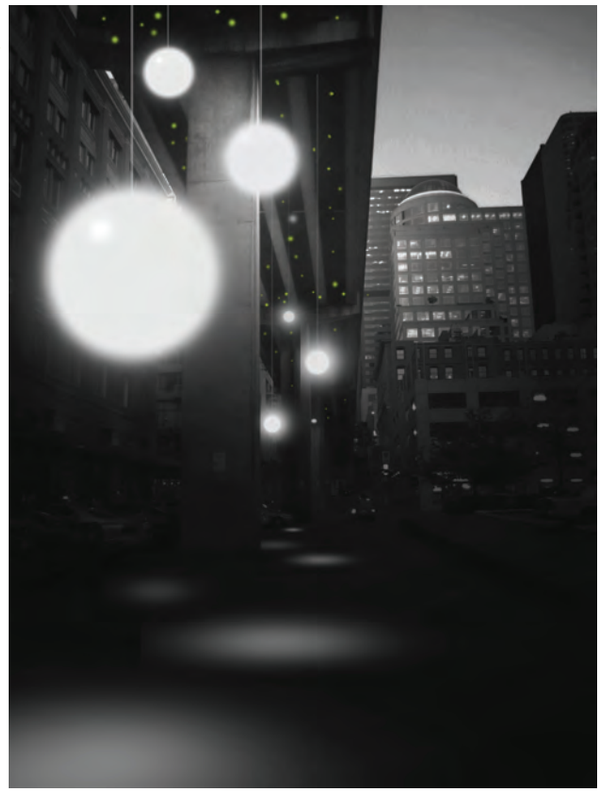
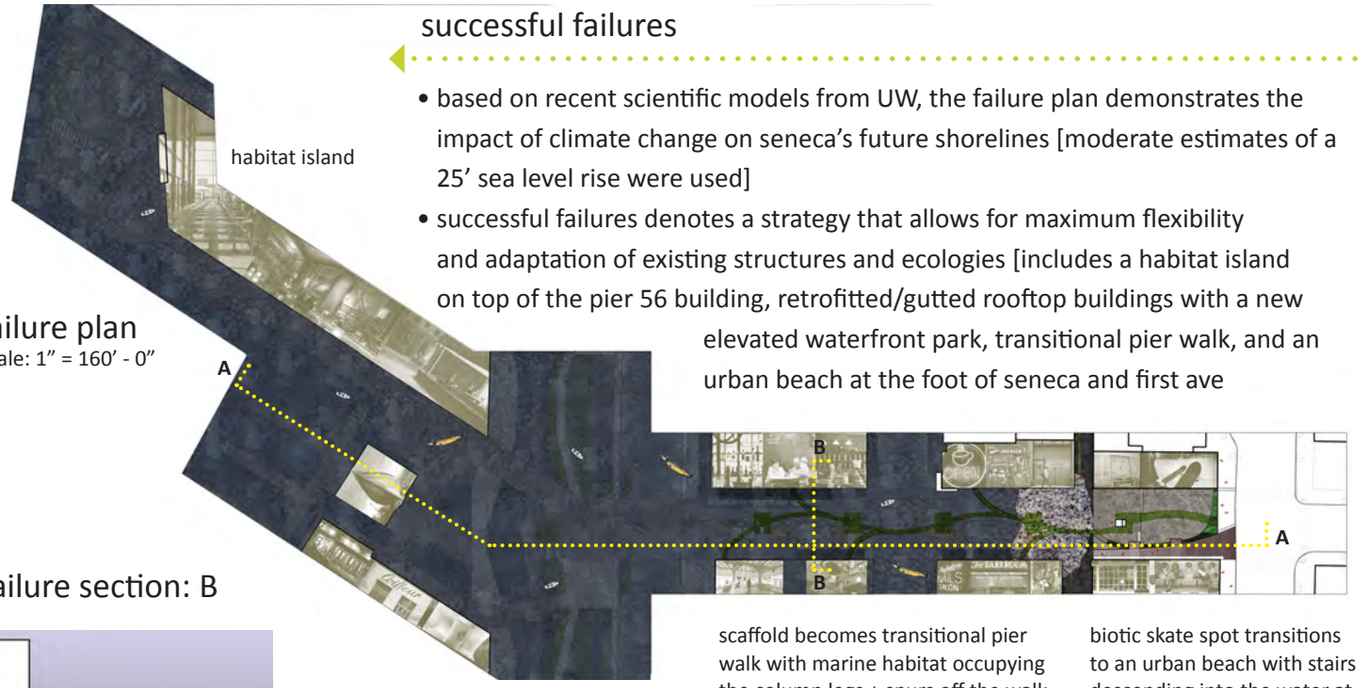


Image Sources:
http://www.wsdot.wa.gov/Projects/Viaduct/Photos/Historical.htm

thickened surface detail construction

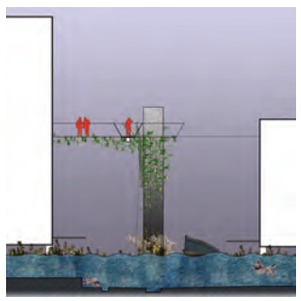
successful failures

- based on recent scientific models from UW, the failure plan demonstrates the impact of climate change on seneca's future shorelines [moderate estimates of a 25' sea level rise were used]
- successful failures denotes a strategy that allows for maximum flexibility and adaptation of existing structures and ecologies [includes a habitat island on top of the pier 56 building, retrofitted/gutted rooftop buildings with a new elevated waterfront park, transitional pier walk, and an urban beach at the foot of seneca and first ave



failure plan
Scale: 1" = 160' - 0"

failure section: B



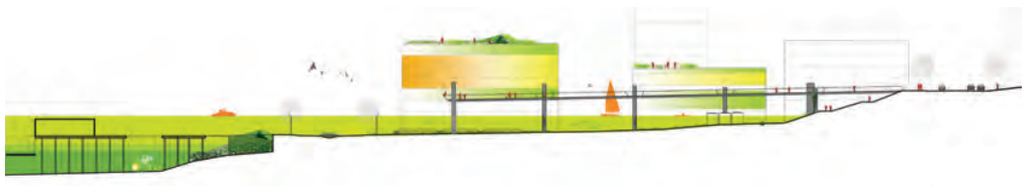
buildings retrofitted and gutted first and second stories/ waterfront park occupies roof and subsequent floors

scaffold becomes transitional pier walk with marine habitat occupying the column legs + spurs off the walk providing access to surrounding buildings

biotic skate spot transitions to an urban beach with stairs descending into the water at high tide and in storm events

n

0 80 160 320 ft.



failure section: A
Scale: 1" = 160' - 0"

1889
1952
1961
2011
2016
2100

Seneca Thread [thickening the strand]

Vital Traces + Performative Futures

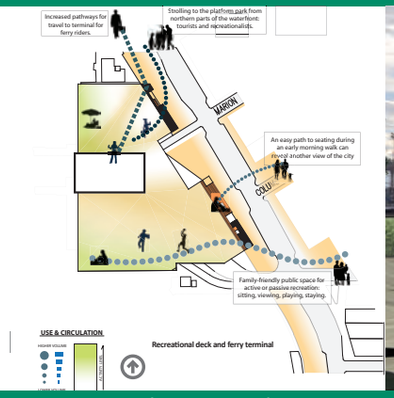
Jordan Bell + Tera Hatfield

MARY RODERICK UDP, PhD
AJ TAACA MArch
LAURA BARKER MUP
HARLEY PAN MLA
ALLEN CO MArch
TIANWEN ZHOU MLA

with David Tomlinson MLA

water | born: life on the southern waterfront

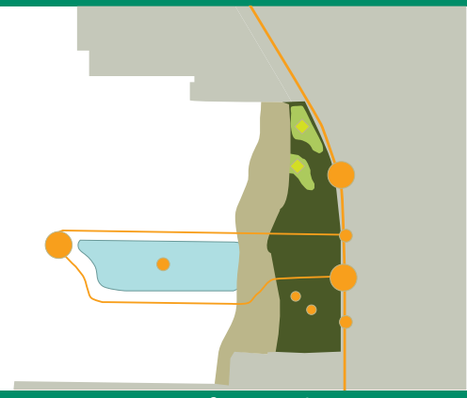
Columbia Opportunity: the Connection



Colman Deck

The Epicenter

Growing in the GAP



Interface Park

Water|Born: Life on the Southern Waterfront

site

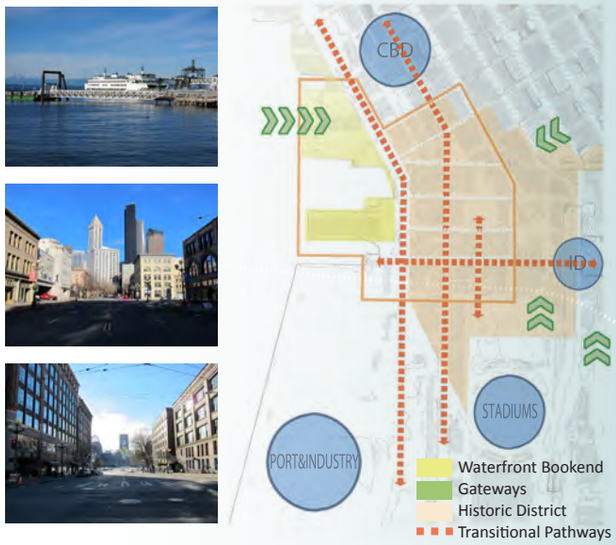
Source: WAGDA

users

Source: flickr.com

challenges

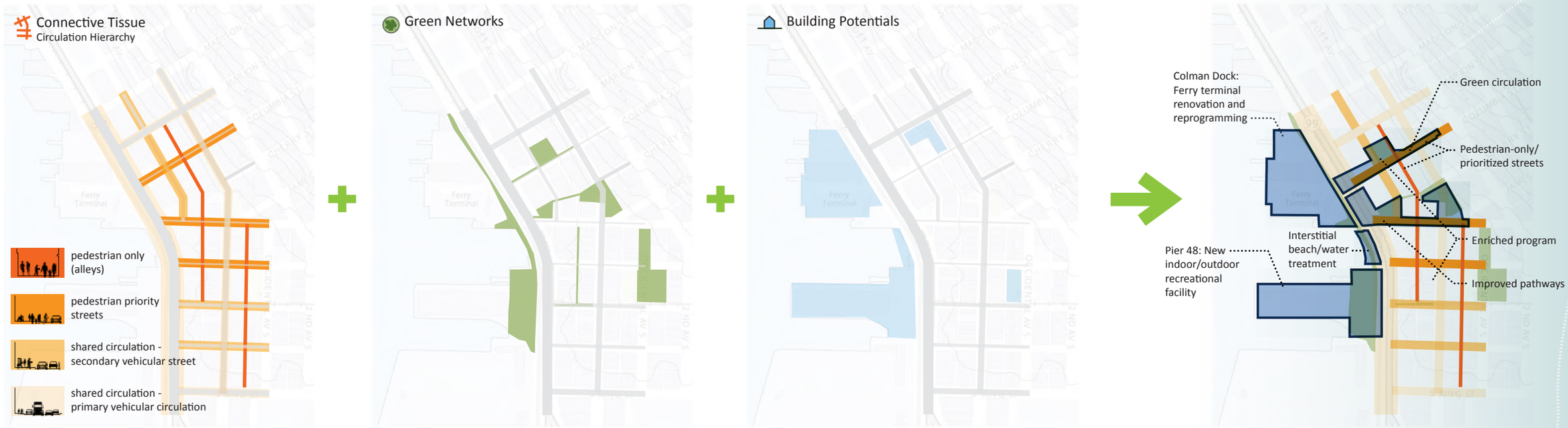
strengths



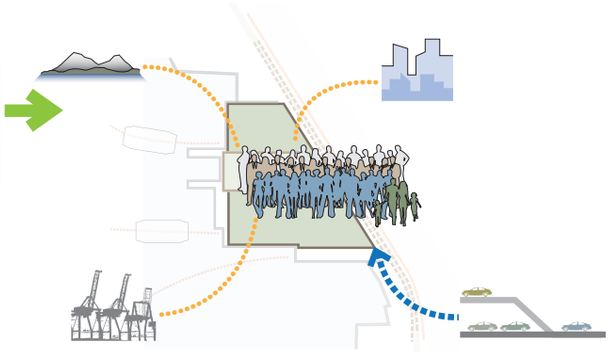
Enhancing Experience: Diverse users and needs converge daily in the district. Our goal is to create synergy between them and to enhance the experiences of each. We want to use the richness of the historic fabric, the beauty of the natural surroundings, and the liveliness of the transportation hubs to create dynamic places day and night.

Challenges: The district suffers from a land/water divide, though the topography and shallow bathymetry create a level of accessibility unique to the waterfront. Both people and salmon can benefit from a restored shoreline between Pier 48 and Colman Dock. The day/night divide is also pronounced. Though there are several bars and restaurants in the district, there are practically no hotels or nighttime retail to encourage people to stay and explore. Along the waterfront, a lack of activity attracts the homeless while still leaving them in the cold. Both pedestrian connectivity and green networks are also impoverished in the district. Isolated pedestrian and park areas exist, but they do not encourage movement between spaces. Marion Street, which has the highest level of pedestrian activity (over 10,000 people per day), is planned as a major auto corridor from Alaskan Way into the city.

Strengths: Our district is a gateway to the city. Over 7,000 cars and 17,000 passengers arrive at Colman Dock every day. Nearly 10,000 commuters use King Street Station per day, supplemented by 1.5 million Amtrak passengers per year and by the Pioneer Square and International District LINK stations. Situated between the Port and industry, the stadiums, the International District and the Central Business District, our district facilitates movement between the most diverse elements of downtown Seattle. It is also the birthplace of Seattle – remnants of the pioneer and Native American culture abound and give the district its unique identity. Pier 48 serves as the southern waterfront bookend, complementing the Olympic Sculpture Park to the north, and offers a unique opportunity for new active space in the district.



opportunity



strategy: make logical connections from Colman Dock to the surrounding city, providing activities for passersby and convenient amenities for ferry users, along with opportunities for different users to interact.

Source: Google Streetview

opportunity

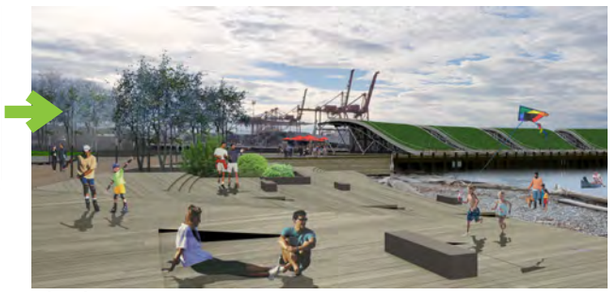
strategy: turn Columbia Street, a main connector to Colman Dock, into a pedestrian-priority street, using remnants of the removed viaduct ramp to create a pedestrian park and areas for stormwater treatment.

Source: Google Maps

opportunity

strategy: create a link between Pioneer Square and the waterfront, providing a series of recreational activities to draw pedestrian flow across Alaskan Way.

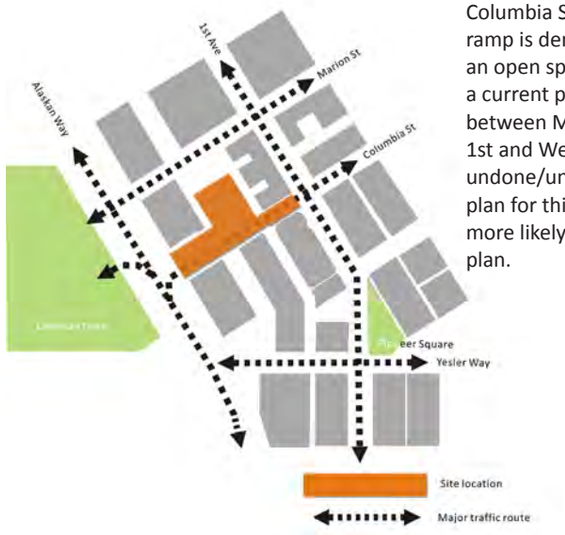
opportunity



strategy: provide a southern bookend to the Central Waterfront and connect to Colman Dock and the rest of the district, with civic space for activity and a restored natural beach, creating a habitat for both humans and marine life.

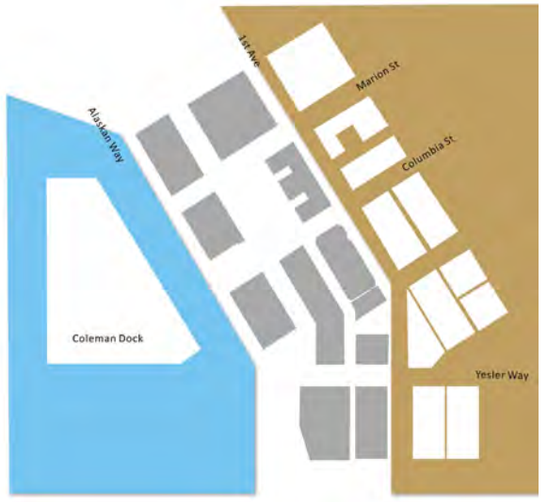
Columbia Opportunity - the Connection

Orientation



The site is located on lower Columbia Street. After the ramp is demolished, it will be an open space. There is also a current parking lot located between Marion and Columbia, 1st and Western. There is an undone/unplanned/undecided plan for this parking lot. It will more likely to be a building plan.

Water and the City



All the functional spaces/ utilities in Seattle are located in upper city. These two blocks between Alaskan Way and 1st Ave play an important role of the city. Lacking of connection from the waterfront to the city is the biggest problem currently. This problem not only exists in Pike market district but also exists in Southern waterfront district.

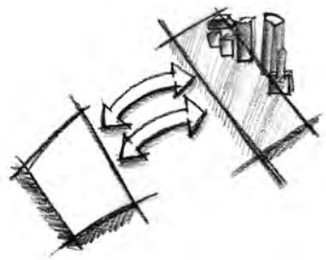
Current Conditions

Satellite picture of the Southern district

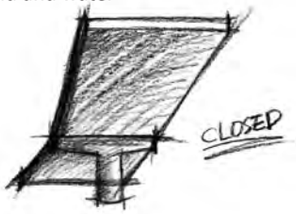
Current condition/street view on Columbia Street (Looking toward 1st Ave). The view here is only the structure of the viaduct.

Current condition/street view of Columbia Street and the ramp of the highway. (looking toward waterfront from 1st Ave.) A big “waterfront” sign is here but the path is poorly designed.

Concept and ideas

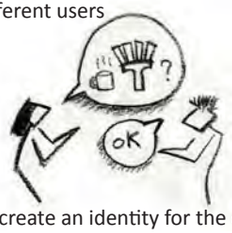


To improve the connection between land and water



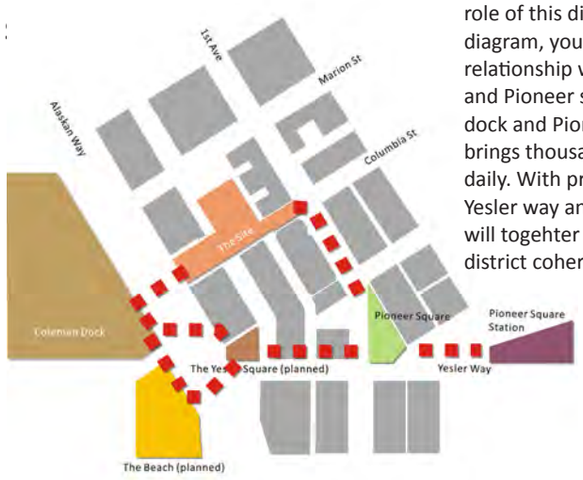
To create an identity for the city and people

To make a better space for different users



To create an identity for the city and people

Spatial Relationship



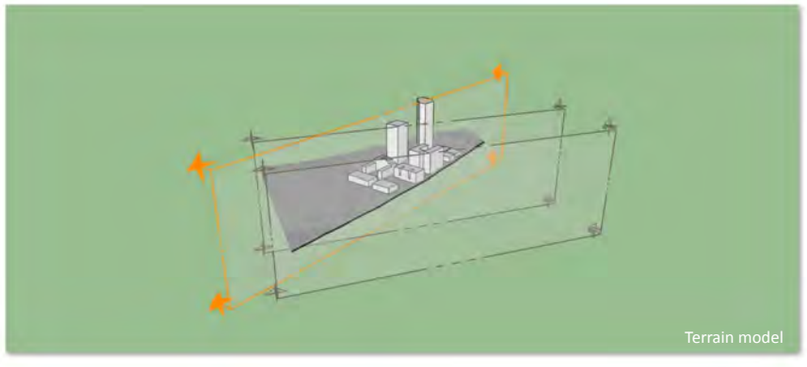
The site plays a important role of this district. From this diagram, you can see its strong relationship with Colman dock and Pioneer square. Colman dock and Pioneer square station brings thousands of people daily. With proper design, Yesler way and Columbia Street will togehter make the whole district coherrent.

Existing plans

There are two plans that the government is planning currently.

1. Marion as major vehicle-road
2. Columbia and Yesler as green street.

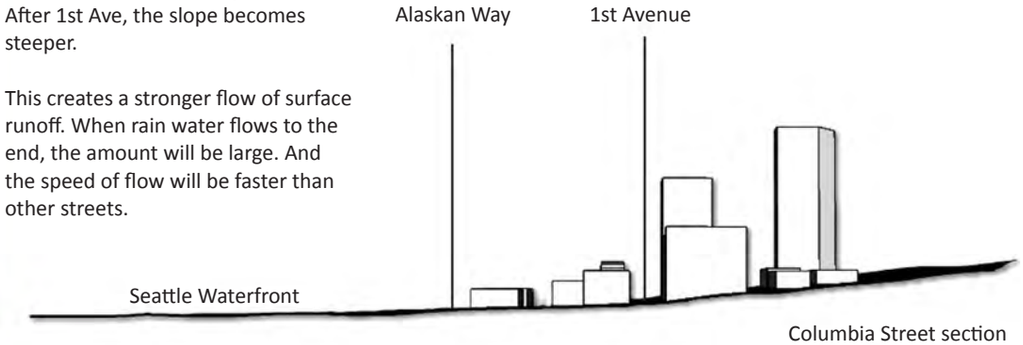
Terrain



Terrain model

Terrain below 1st Ave is quite flat. After 1st Ave, the slope becomes steeper.

This creates a stronger flow of surface runoff. When rain water flows to the end, the amount will be large. And the speed of flow will be faster than other streets.



Columbia Street section

Complete southern district terrain model

Core Concepts

Various user needs

There are three major users in this area
1. Residents
2. Commuters
3. Tourists
Commuters and tourists' needs sometimes will conflict. For example, Commuters want fast access to the city (to work), on the other hand, tourists like to enjoy the space in a slow tempo.

A more sustainable place

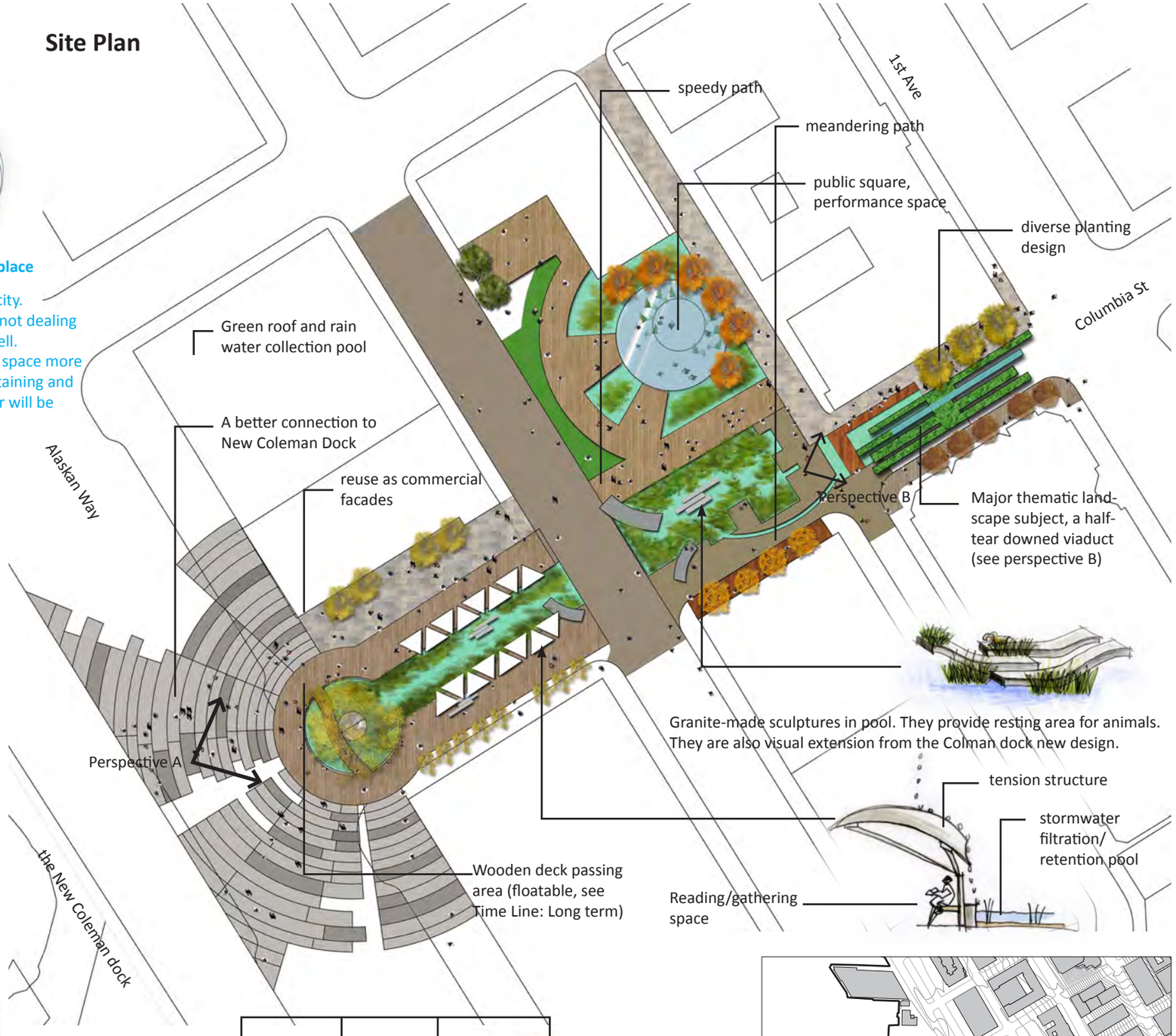
Seattle is a rainy city. However, we are not dealing with rains very well. How to make the space more sustainable by retaining and reusing rain water will be a focal point.

Columbia Opportunity/ Solution

A better Connection

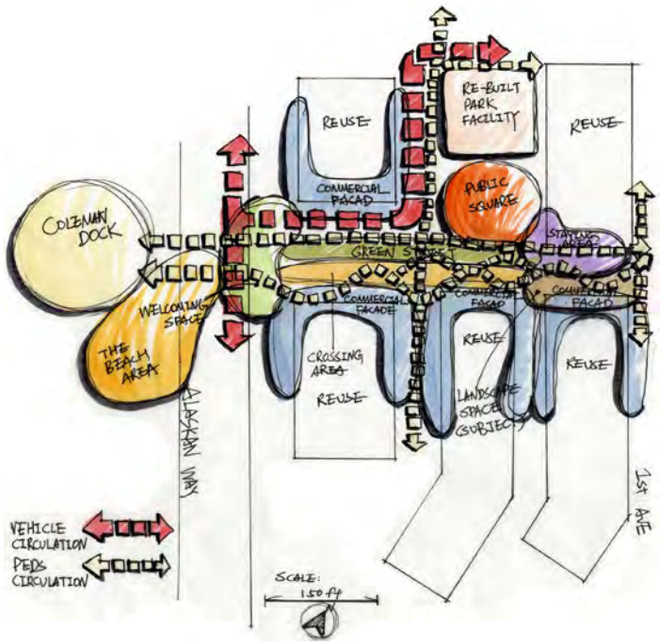
A better connection between the waterfront and the city is needed. "Waterfront users" also includes large amount of commuters from Coleman dock everyday.
How to use landscape design to enhance pedestrians' space is an interesting question.

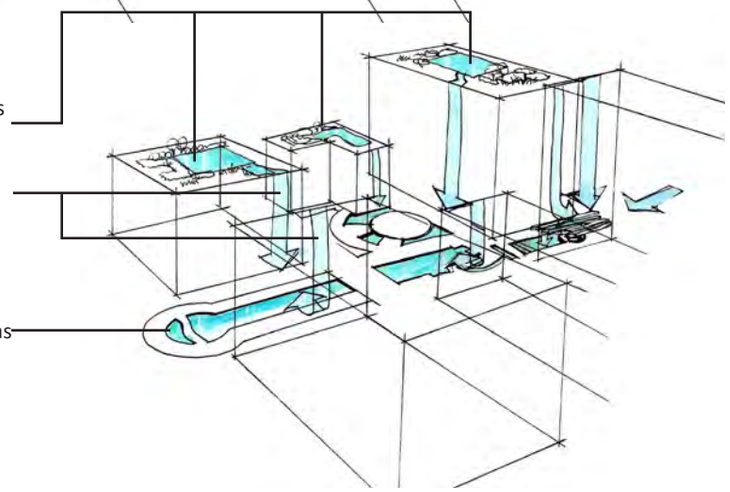
Site Plan



Granite-made sculptures in pool. They provide resting area for animals. They are also visual extension from the Colman dock new design.

Conceptual Diagram

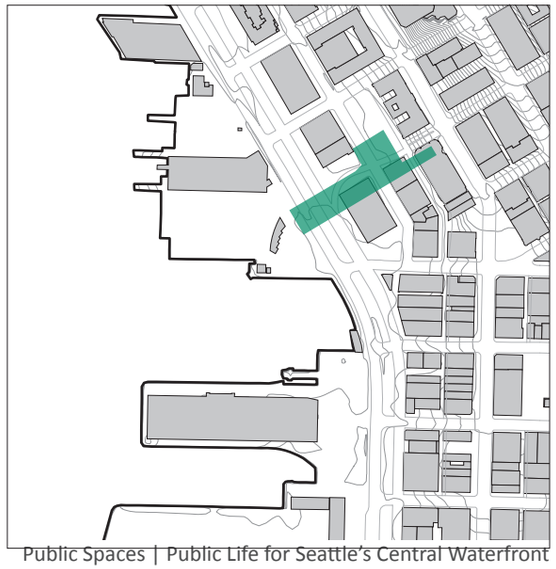




Rain water collection pools located on greenroofs

Only overflow water goes into green street storm water filtration/retaintion structure

Stormwater filtration/ retaintion pools, fuctions as landscape element too



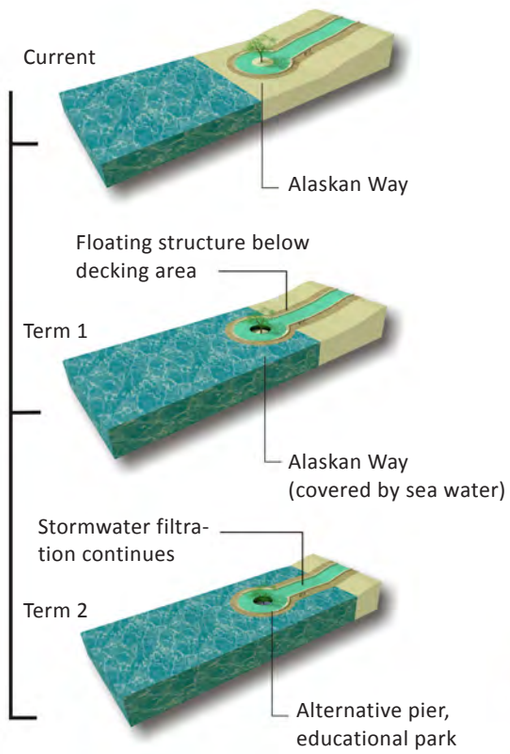
Columbia Opportunity - the Connection

Time Line: Long term

The Floating Filtration idea

-Time line simulation

As sea level rises, Alaskan way will be covered by water within 50 years. The end of the Columbia St design allows the whole storm water filtration structure floats. It not only provides continuous water filtration process but also provides open space/ linear park for people in the future. Also, it can be an alternative pier for future use.



The Entrance

Green Roofs

All of the buildings' roofs in this area are designed as green roofs. Green roofs not only can reduce the heat island effect, but also can collect rain water. Rain water is clean, and it is cleaner than gray water. In this design, the overflow rain water that is collected by these roofs will go into the ground level stormwater filtration structure and the landscape space.

An image of Entrance

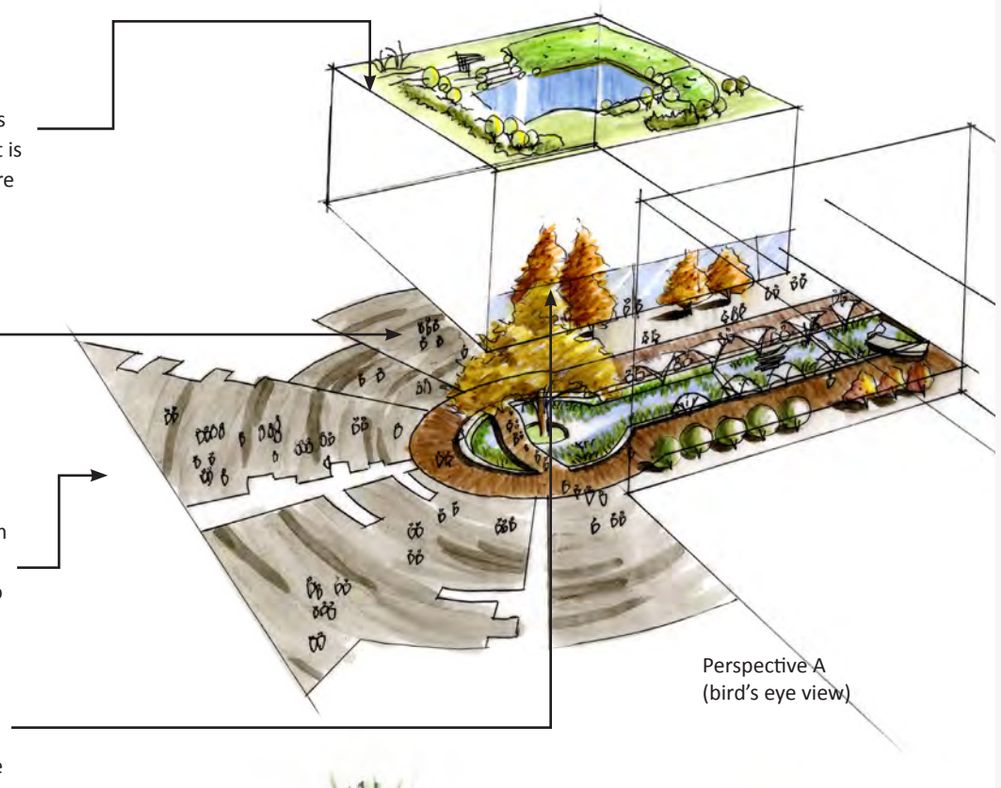
In this design, a giant tree that drops leaves will be an image of the entrance. Visually, this tree does not block all the views if people are looking at the site from Coleman dock. Instead, it reveals a distant view partially and randomly (branches swing because of the wind). It builds an identity, also an impression.

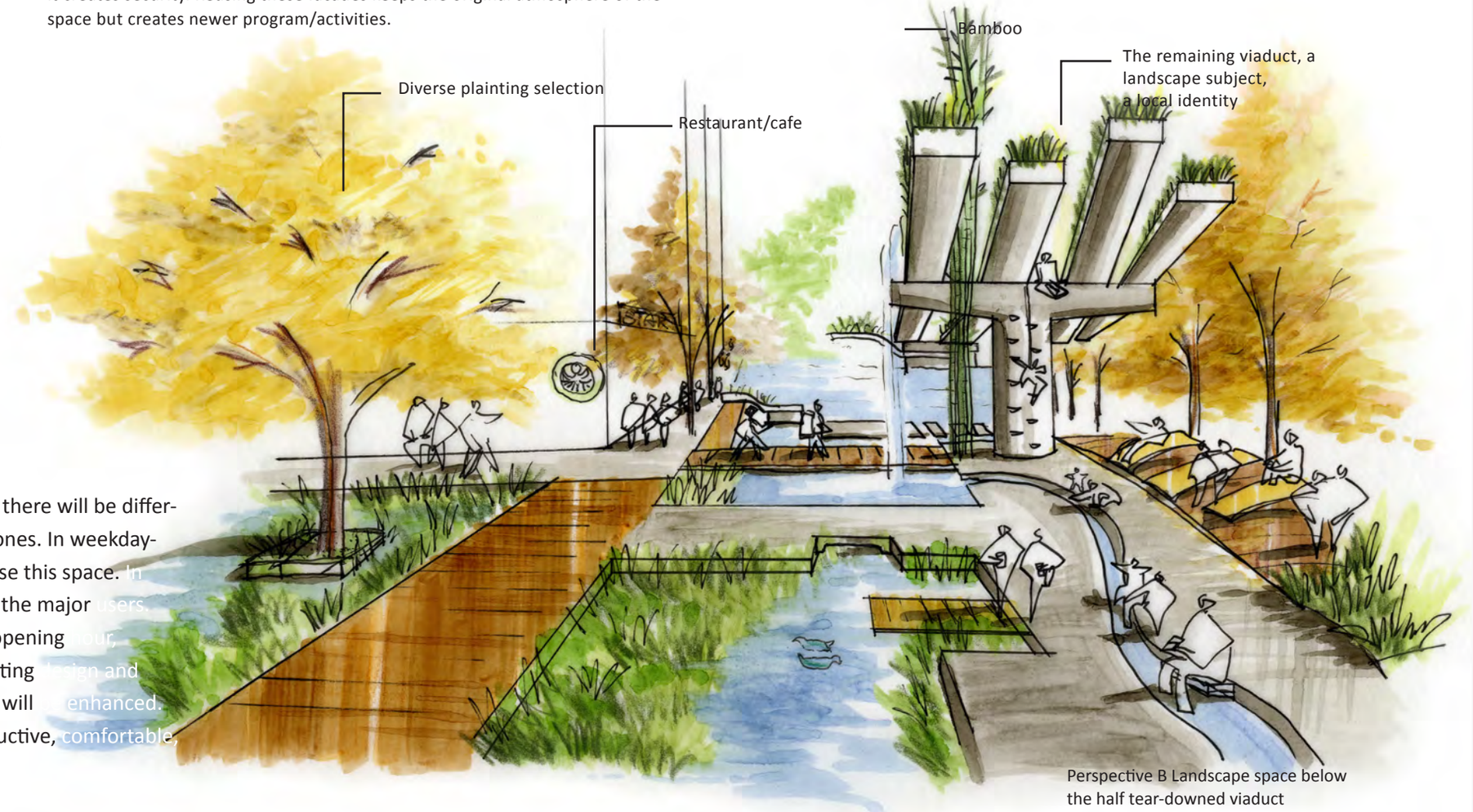
A better paving pattern

This site plays a role of connector. A better paving pattern creates a better space for connection. The new designed Coleman dock guides people to exit in front of Columbia St. Therefore the crossing part on Alaskan way is important. This pavement leads users. Also, this paving pattern/material will extend up to New Coleman dock's roof space.

Reuse Old Buildings- Mixuse

Mix-use has lots of advantages. Different types of uses have different time zones in a day. These uses can cover each other and activate the space. Also, it creates security. Reusing these facades keeps the original atmosphere of the space but creates newer program/activities.



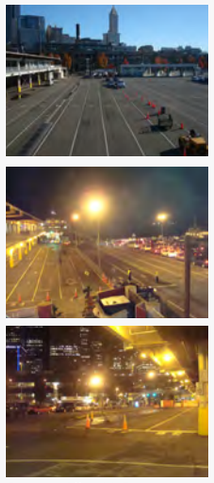


Time Line: Short term

Creating a 24/7 Space

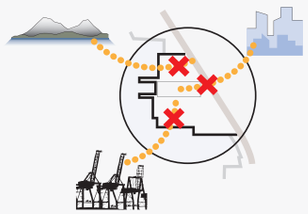
By plannning different types of uses in this site, there will be different types of users appearing in different time zones. In weekday-daytimes, commuters and tourists will mostly use this space. In holiday-daytimes, tourists and residents will be the major users. At night, by extending some restaurants/cafes opening hour, people will walk in the space. With a comfy lighting design and constently-walking-people, the space's security will be enhanced. Therefore this connection will be not only productive, comfortable, but also secure.

Colman Deck | Reimagining the Seattle Ferry Terminal

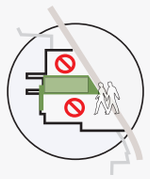


Source: Allan V. Co

CHALLENGES WITH PRESENT CONDITIONS



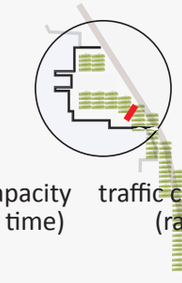
unrealized views



restricted public access

unused capacity (much of the time)

insufficient capacity (some of the time)



traffic congestion (rarely)

underserved ferry riders find practical but limited use

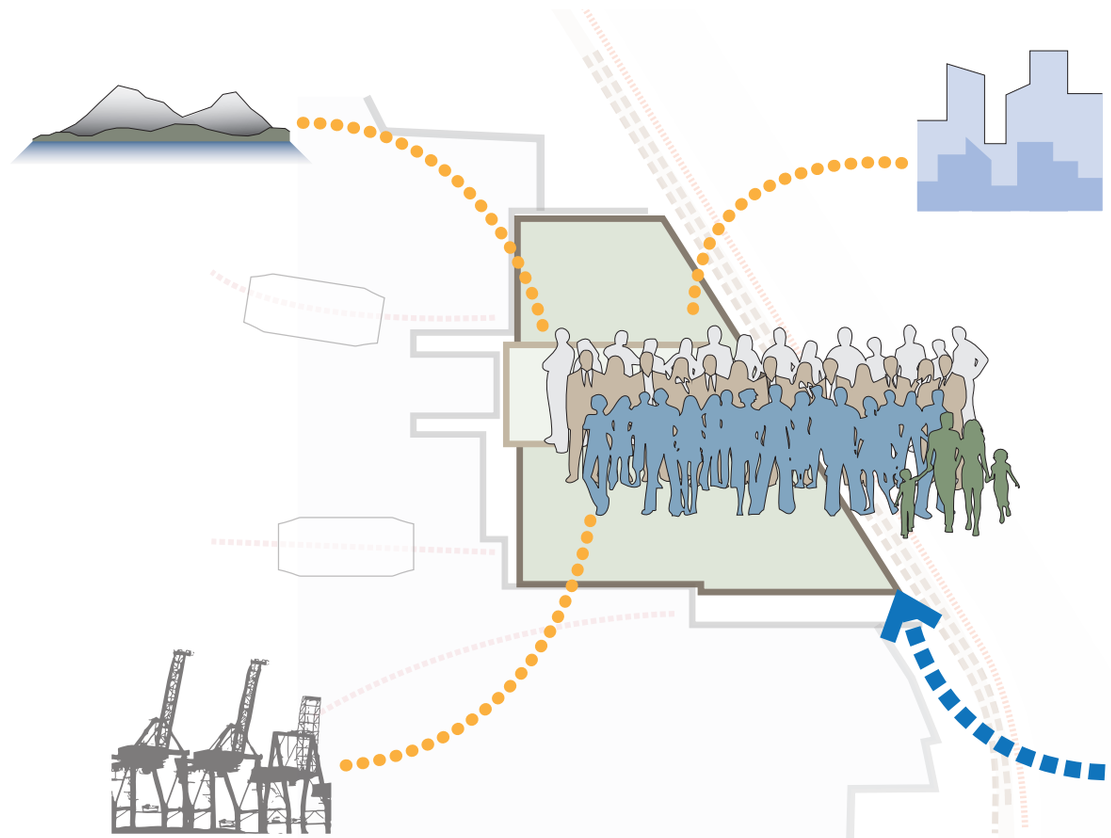
unserved residents of PSQ area have no reason to use space

recreationalist (with various purpose) have extreme seasonal use patterns

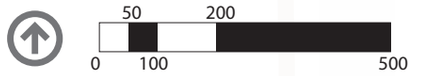
soccer fans

summer tourist

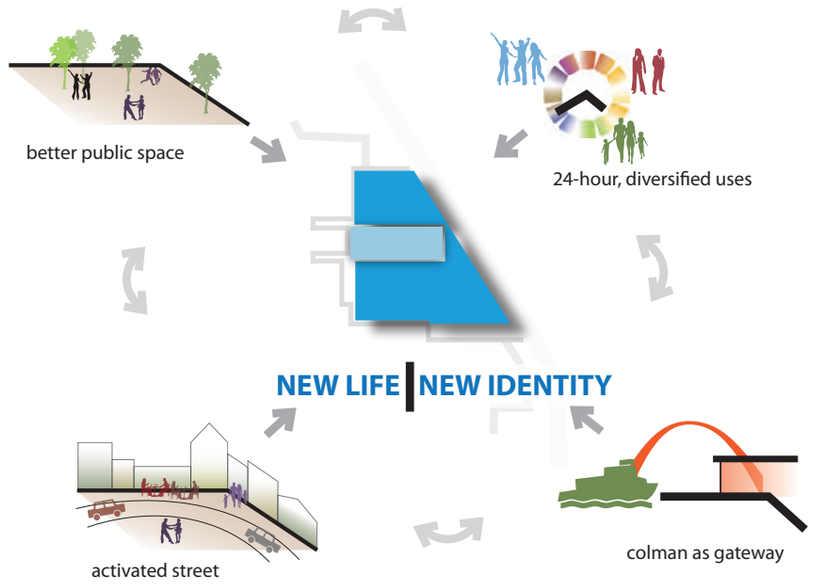
football fan ferry riders

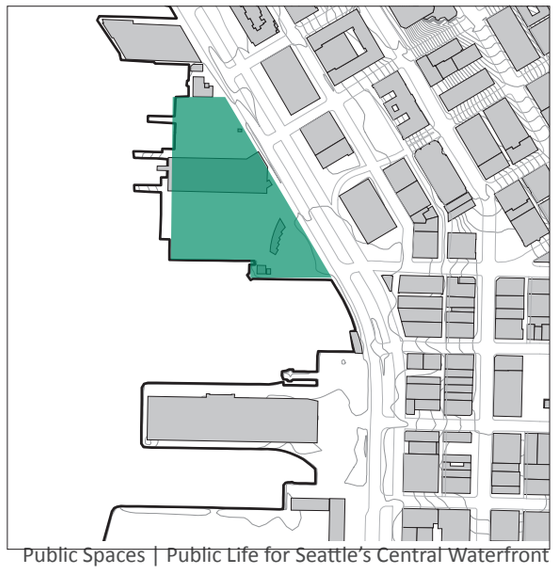


STRATEGIES FOR IMPROVEMENT



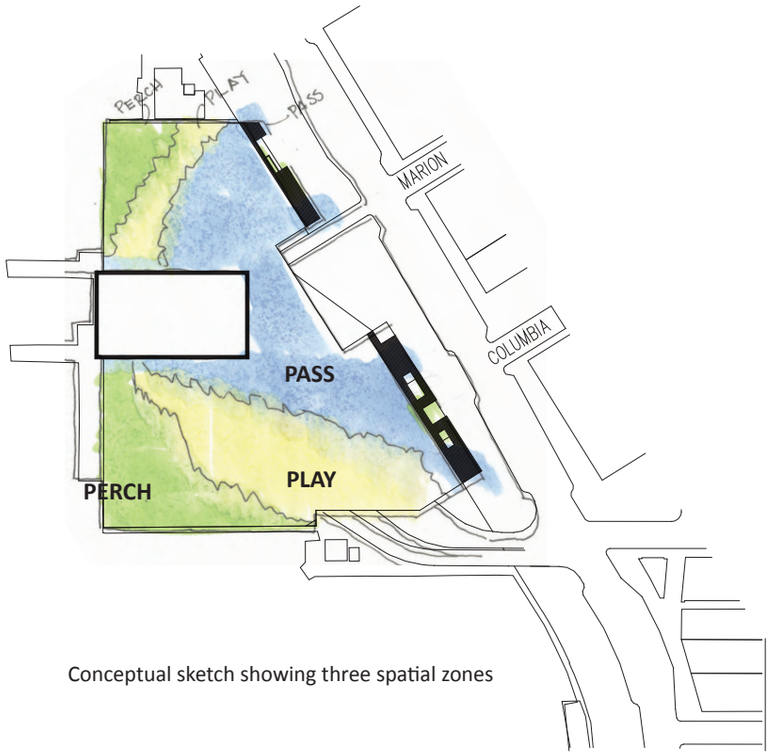
INCREASED ACCESS TO VIEWS | **DIVERSIFIED PROGRAM FOR USERS** | **RECLAMATION OF PUBLIC SPACE** | **INNOVATIVE TRAFFIC PATTERNS**



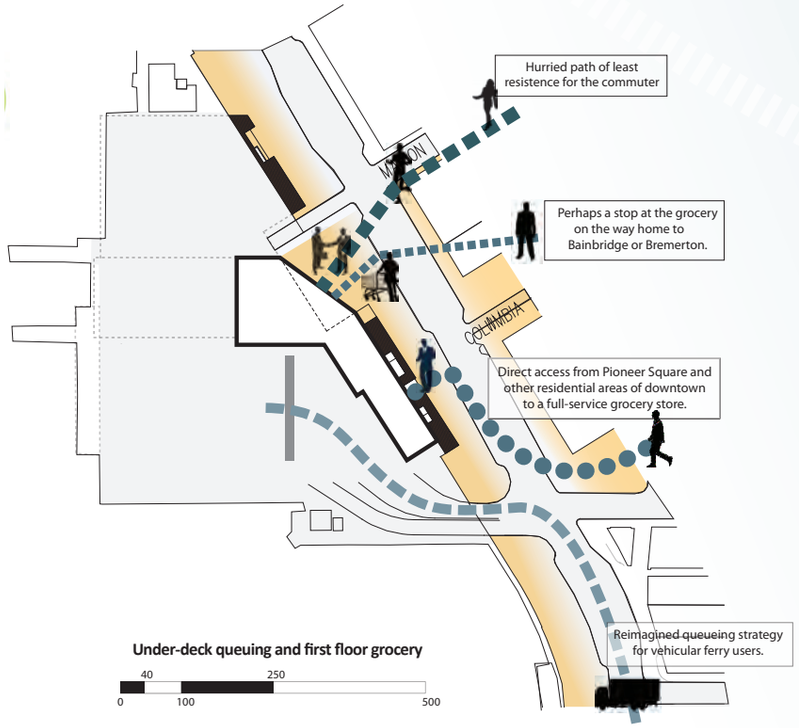


Public Spaces | Public Life for Seattle's Central Waterfront

Colman Deck | Reimagining the Seattle Ferry Terminal

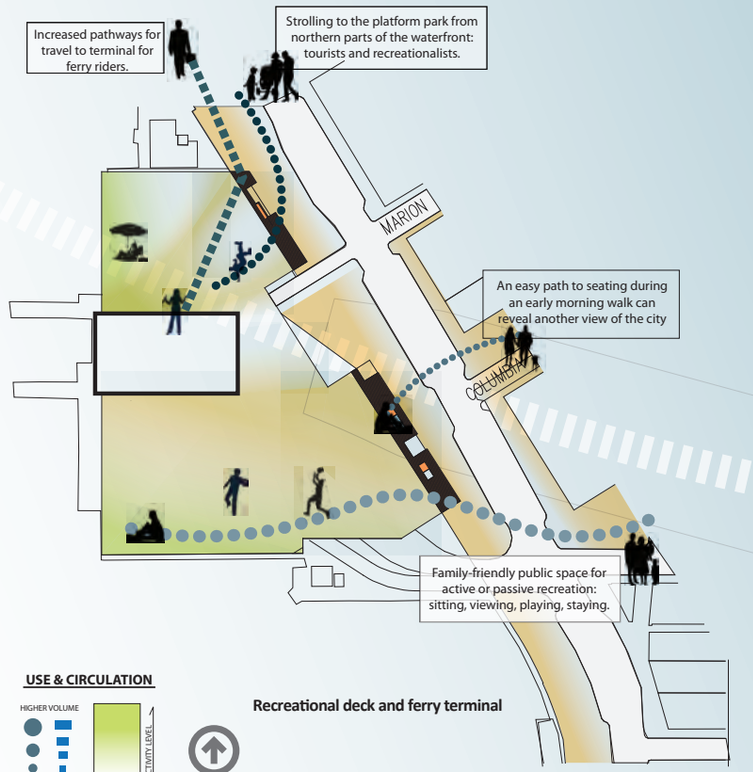


Conceptual sketch showing three spatial zones



Under-deck queuing and first floor grocery

0 100 40 250 500



USE & CIRCULATION

HIGHER VOLUME
LOWER VOLUME
ACTIVITY LEVEL

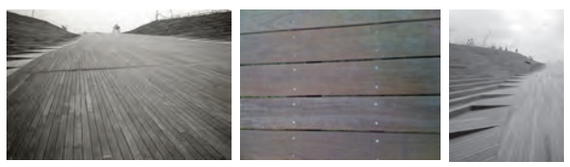
Recreational deck and ferry terminal

3 SPATIAL ZONES

PASS
a place for pedestrian transit
movement between program, between spaces
flexible hardscape can accommodate overflow queuing

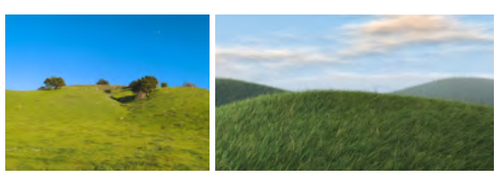
Sources: superstock.com; urbansoccer.org

PLAY
a place for active recreation
skipping, dancing, running, jumping
wood decking to nuture quicker movement



Sources: archidose.org; diychatroom.com; archidose.org

PERCH
a place for passive recreation
sitting, watching, relaxing, viewing
softscape, green space, gentle slopes and curves

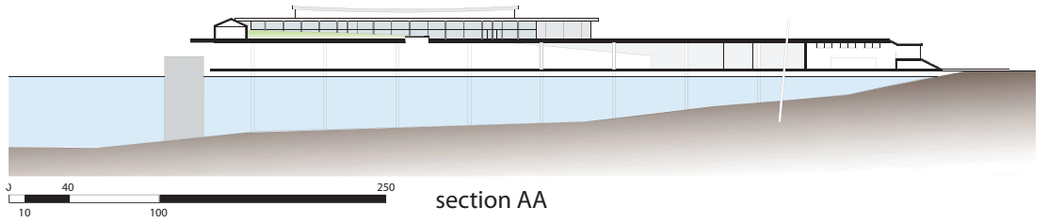


Sources: superstock.com; richardbonfield.com

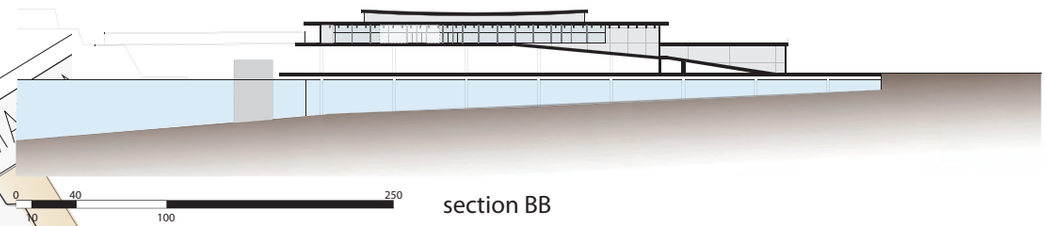
(Above) Existing conditions at Colman Dock. Source: Allan V. Co

EXPERIENCE BEFORE

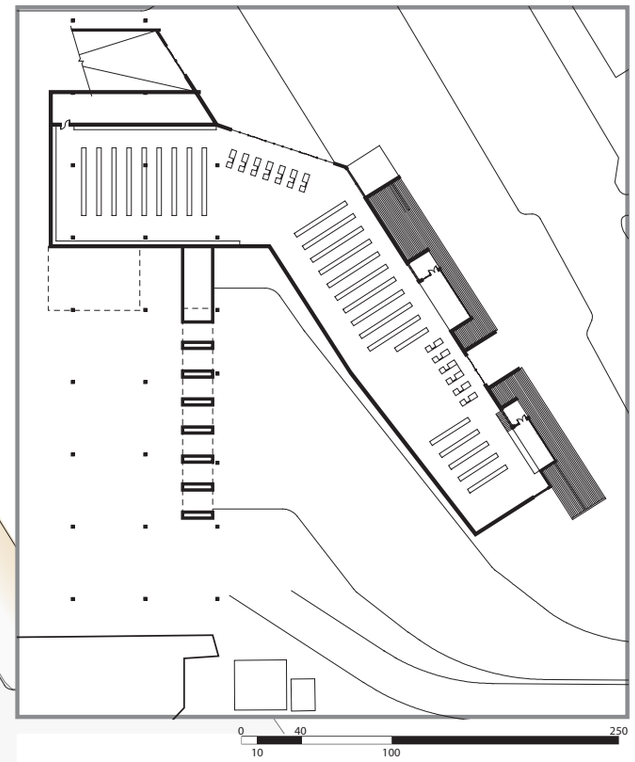
NEW EXPERIENCE | NEW LIFE



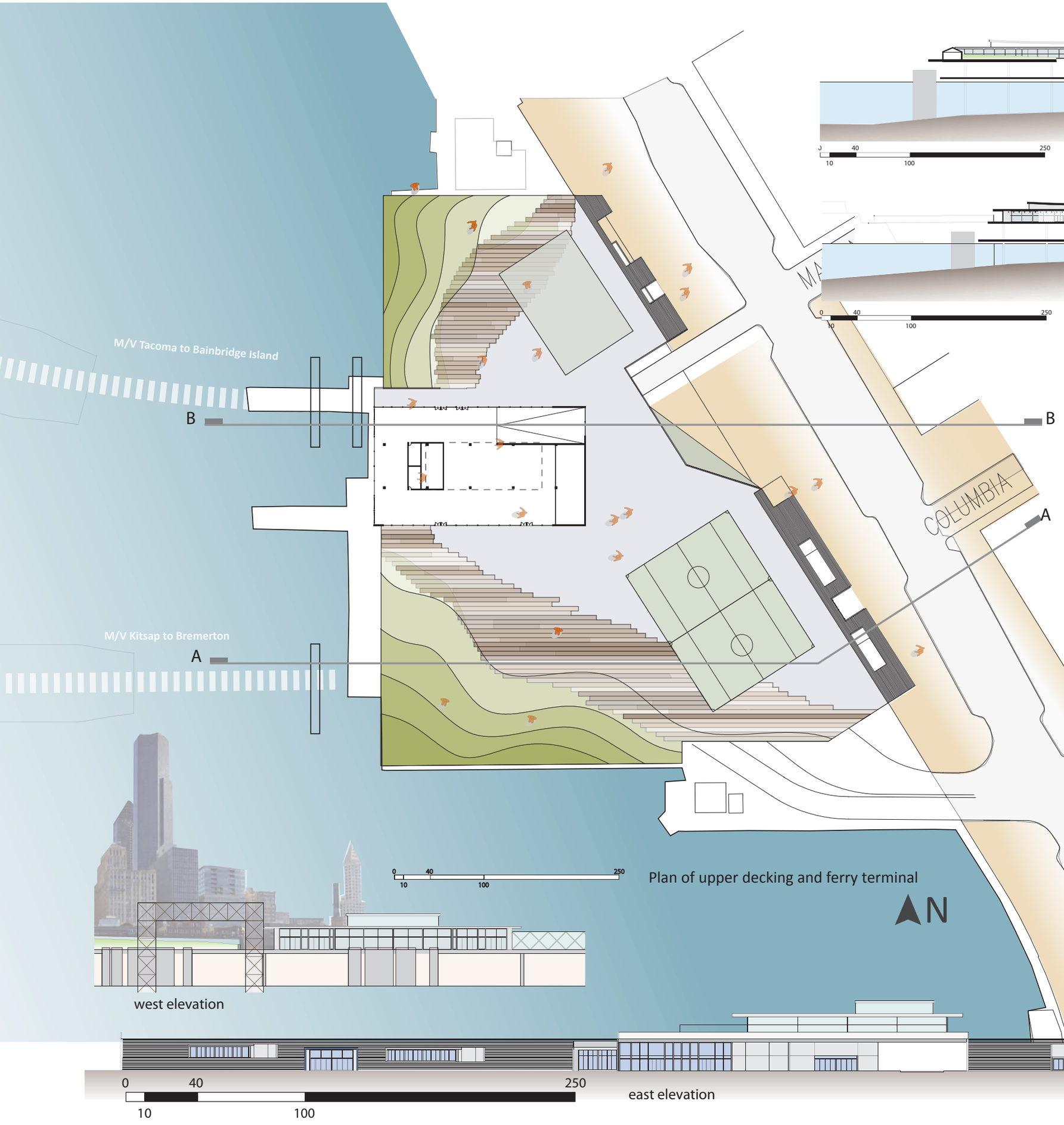
section AA



section BB



Plan of grocery store and revised queuing area



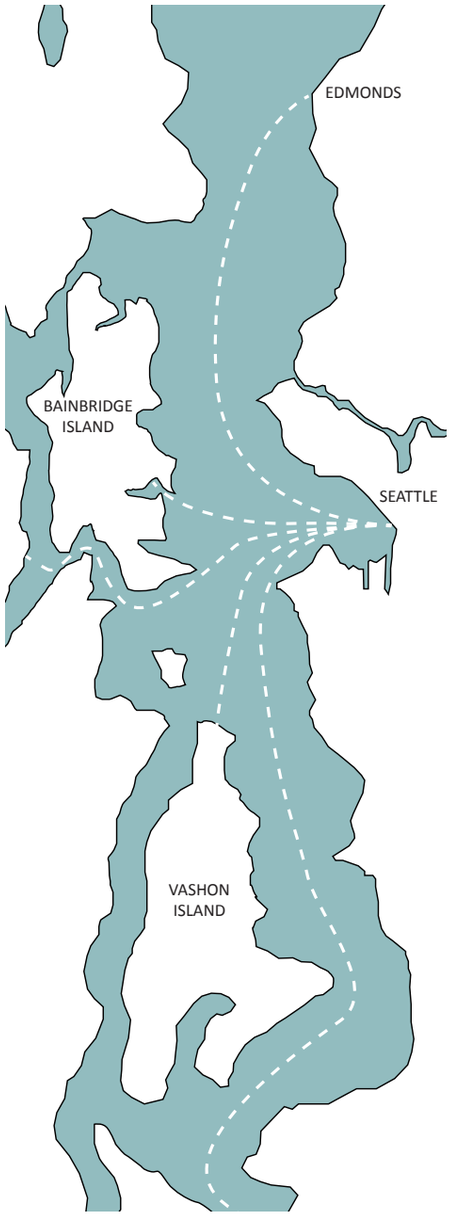
Plan of upper decking and ferry terminal

west elevation

east elevation

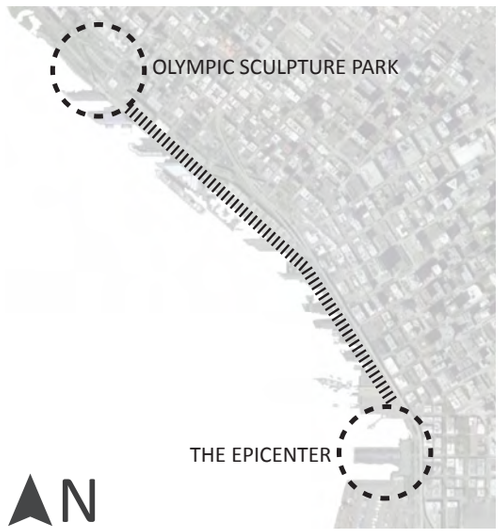
The Epicenter

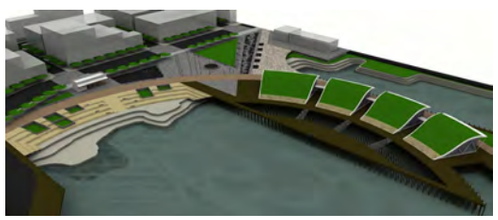
PUGET SOUND
REGION



SEATTLE
WATERFRONT

THE OLYMPIC SCULPTURE PARK IS THE STORY OF
LAND MEETING WATER
Image source: seattletimes.nwsource.com



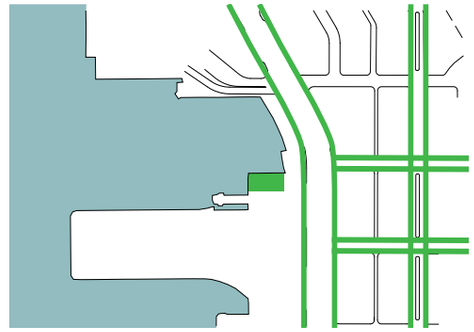


THE EPICENTER IS THE STORY OF
WATER MEETING LAND

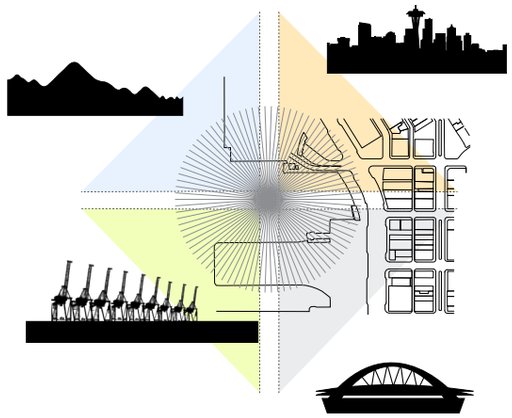
WATER|BORN
DISTRICT

MAIN ST VIEW CORRIDOR
Image source (unless otherwise noted): team members

VIEW FROM WATER



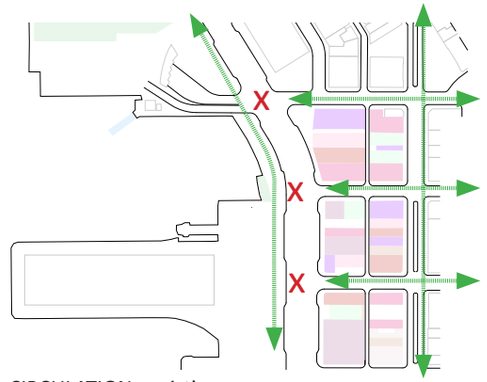
GREEN AND BLUE HABITAT - existing



PROGRAMMING - existing

ALASKAN WAY

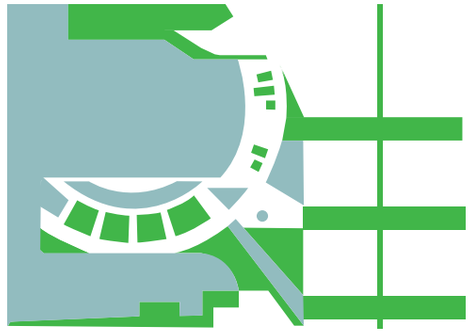
PIER 48



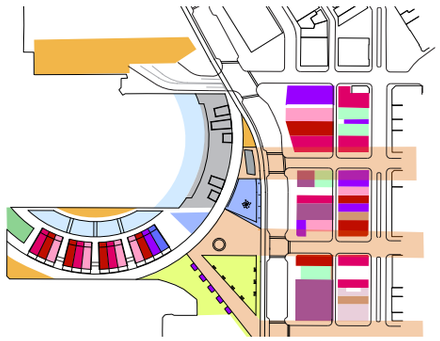
CIRCULATION - existing

A compelling bookend to the Central Waterfront

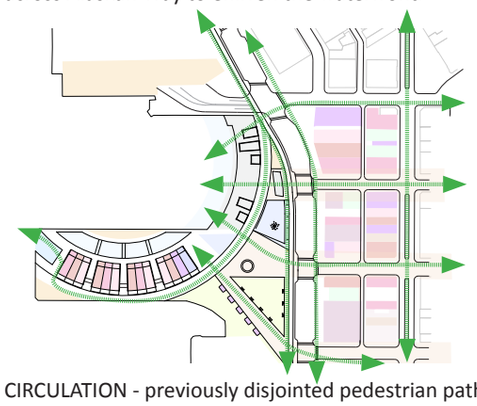
Enriching spaces that connect to the existing context



GREEN AND BLUE HABITAT - as water meets land, aquatic and terrestrial habitats mingle and are enriched by one another.

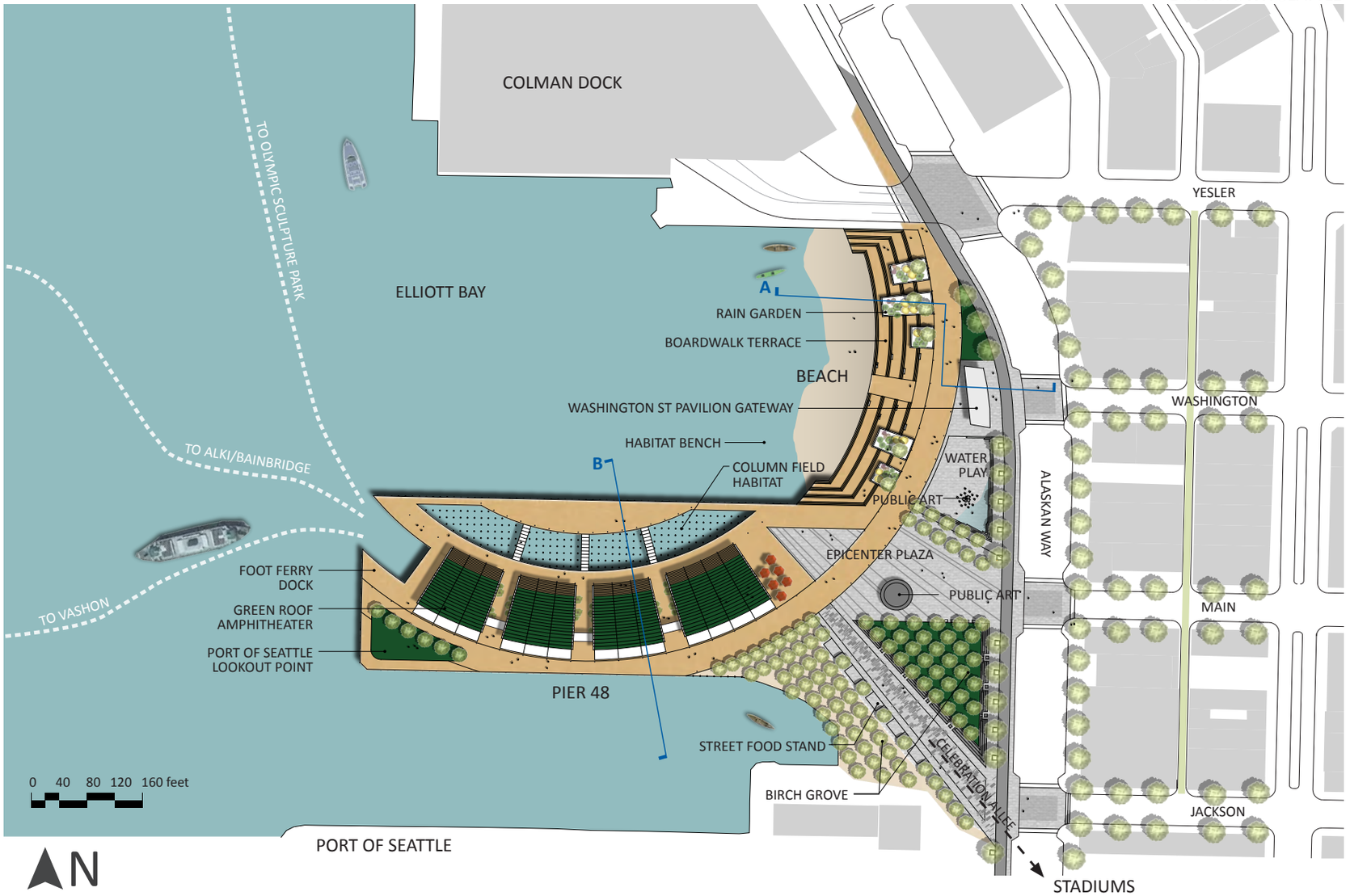


PROGRAMMING - new programming builds upon the existing richness of the district, bringing that character across Alaskan Way to enliven the waterfront.



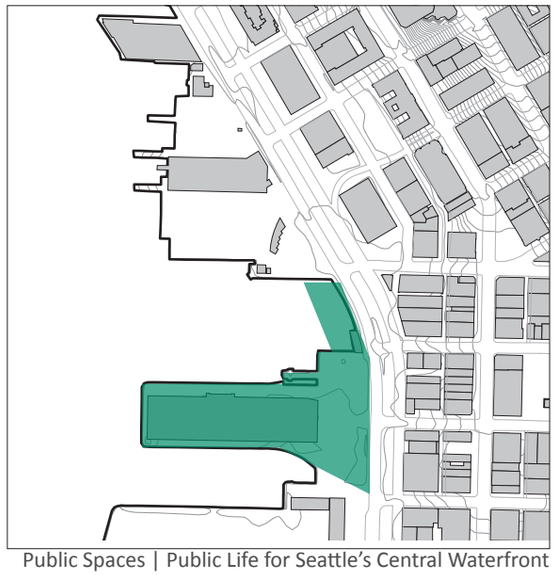
CIRCULATION - previously disjointed pedestrian paths are reconnected and existing ones are augmented, connecting the waterfront back to its surroundings.

THE EPICENTER
PARK



A center for education, recreation, and relaxation

The Epicenter urban park is a proposal that redefines Seattle public space while creating an elegant architectural and urban design solution that responds to the Olympic Mountains to the west, the Port of Seattle cranes to the south, the Seattle skyline to the north and the stadium district to the southeast. The existing Pier 48 structure was constructed in the 1920s; since then, the pier has gone through many different uses and is currently abandoned. The Epicenter is to become the southern bookend to the central waterfront, as the Olympic Sculpture Park is the bookend to the north. The Epicenter pavilions are green folds that rise to create an outdoor amphitheater, providing seating to the theater of life that is the city of Seattle. The different street access points at the urban interface respond to how different users at the regional, waterfront, and district scales will interact with each other here; the beach offers an enhanced natural habitat for wildlife as well as for humans.



The Epicenter

Enriching spaces that embrace the region, waterfront, and district

EPICENTER URBAN BEACH PARK

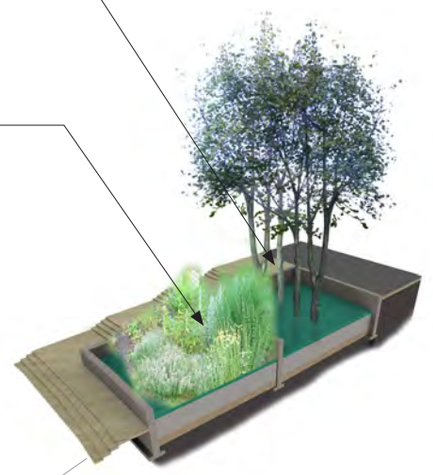
Enriching spaces that connect to the existing context

CEREMONIAL ALLEE

VIEW FROM WASHINGTON STREET

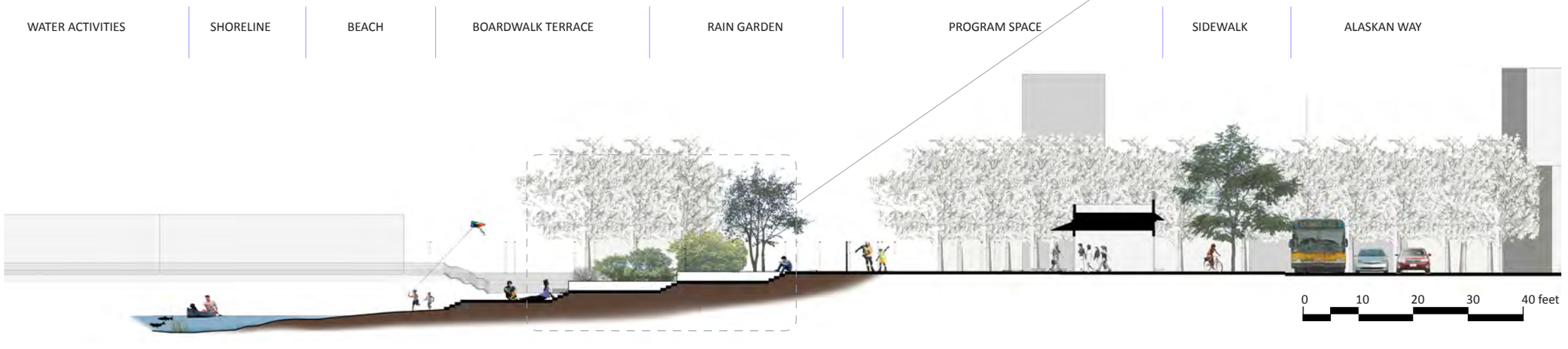
PERMEABLE PAVERS ASSEMBLY
Edge restraint
Granite pavers with sand filled joints
Bedding sand
Compacted aggregate
Geotextile
Drainage outlet
Compacted soil subgrade

RAIN GARDEN ASSEMBLY
Plantings
Water storage layer
Soil
Compacted aggregate
Drainage outlet
Compacted soil subgrade



RAIN GARDEN DETAIL

MATERIALS PALETTE
Image sources: flickr.com



SECTION A: LANDSCAPE ORDER NATURAL HABITAT INTERSTITIAL URBAN STREET

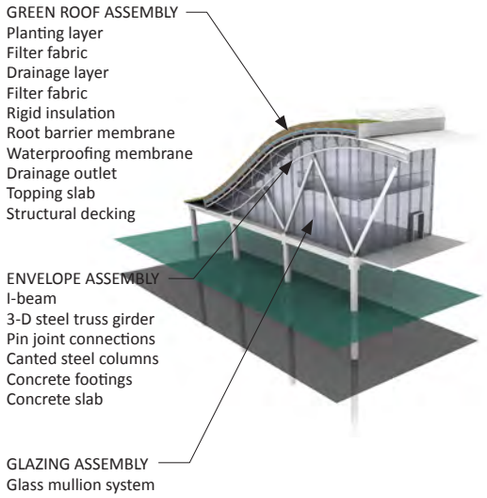
A variety of experiences

EPICENTER PAVILIONS

Seattle Central Waterfront as exhibit

COLUMN FIELD HABITAT

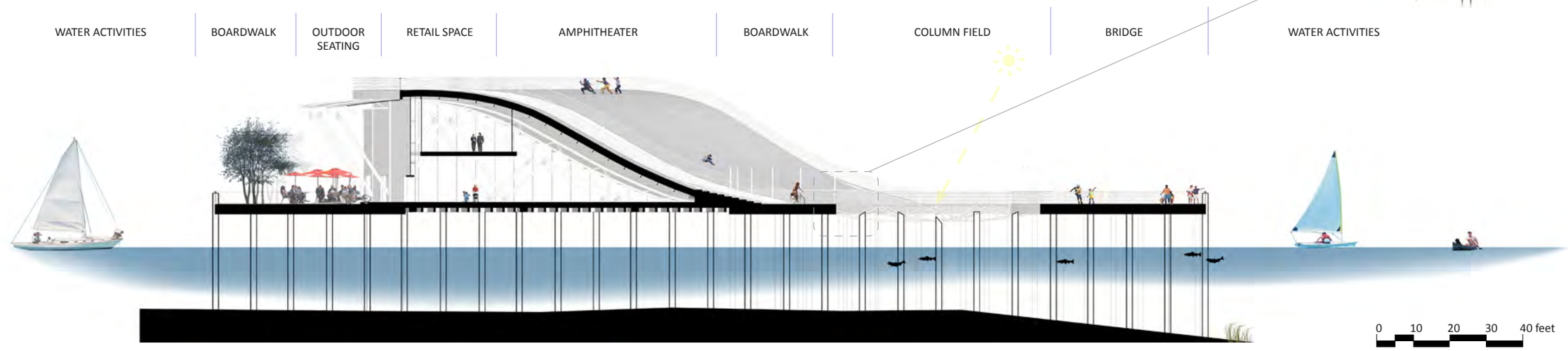
VIEW FROM GREEN WAVES



TECTONIC ORDER

ELLIOTT BAY WILDLIFE
Image sources: flickr.com

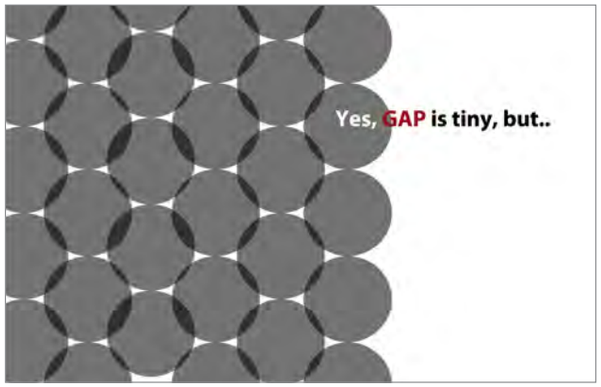
EXHIBIT DETAIL



SECTION B: PIER 48 ORDER

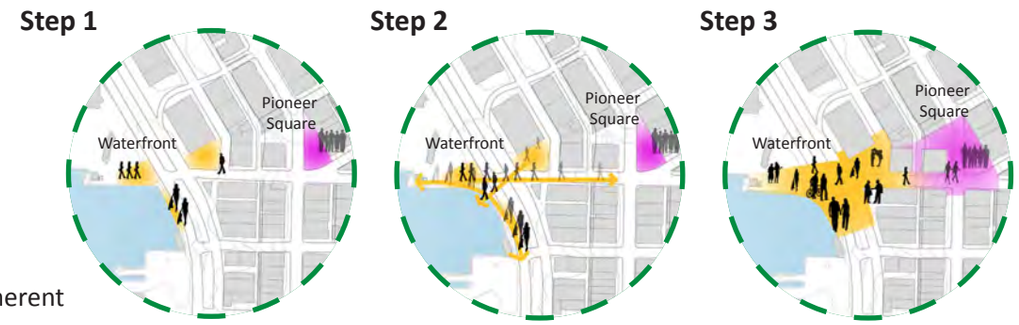
Growing in the GAP

Design Concept



Methodology

Step 1: Three Basic Units
Step 2: Grow and Extend
Step 3: Integrated and Conherent

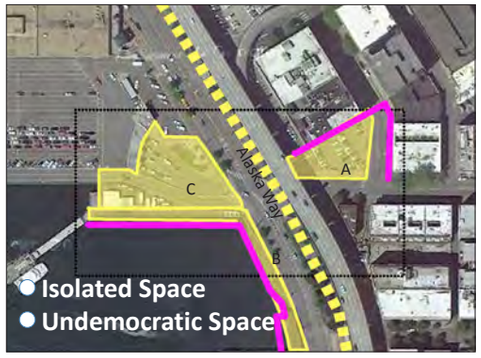


Current Condition Analysis

Byproducts of the Large Patches

A. Parking Lot

B. Rigid Seawall



Alaska Way Separates Waterfront and City

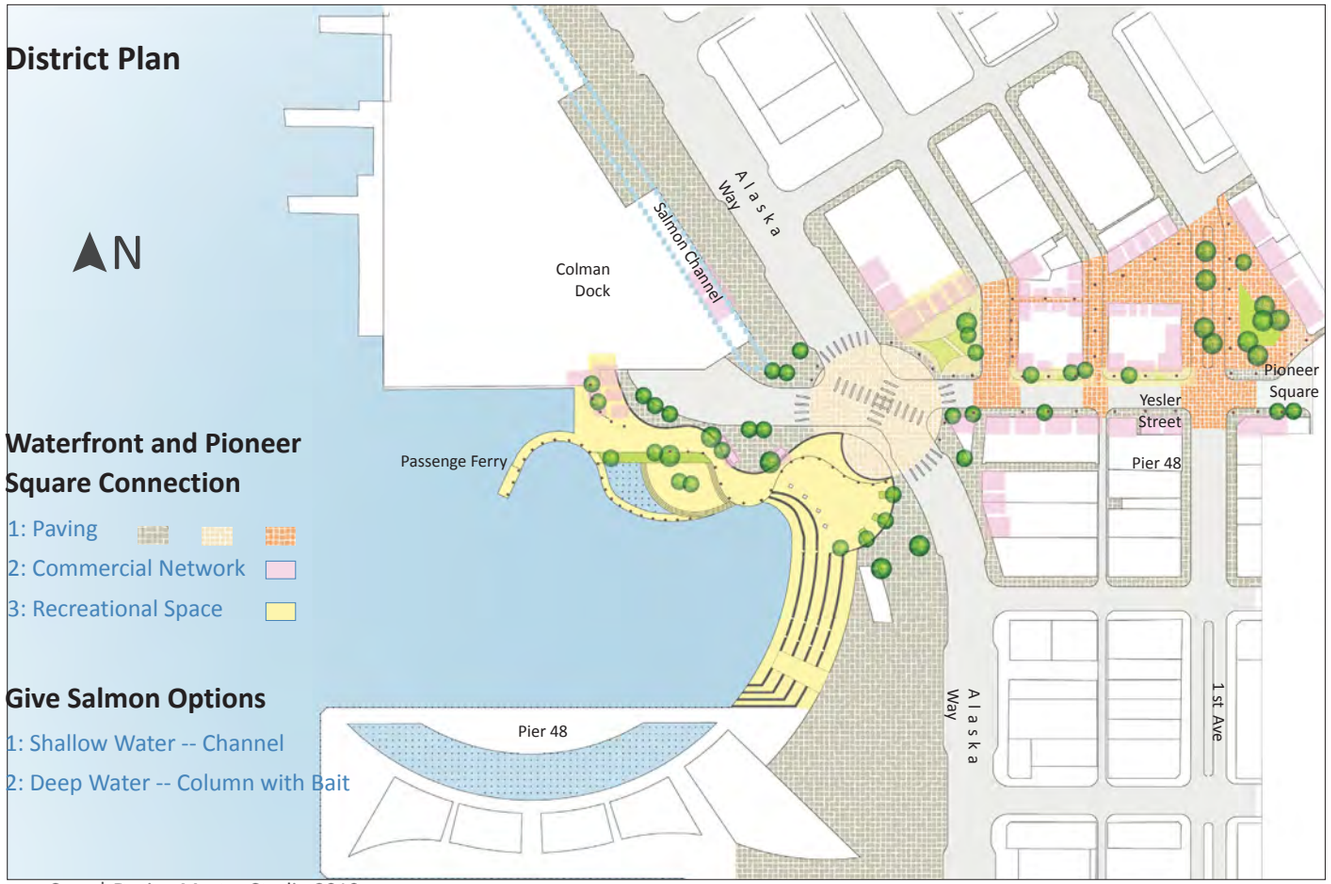
C. Traffic Entrance of Ferry Terminal

Rigid Boundaries limit the connections with other patches

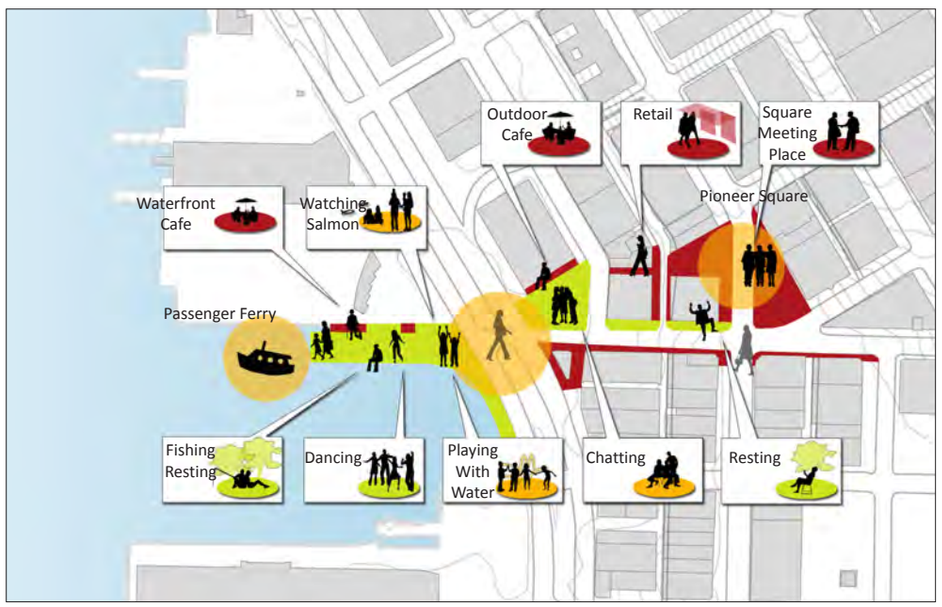
How to break the boundaries ?

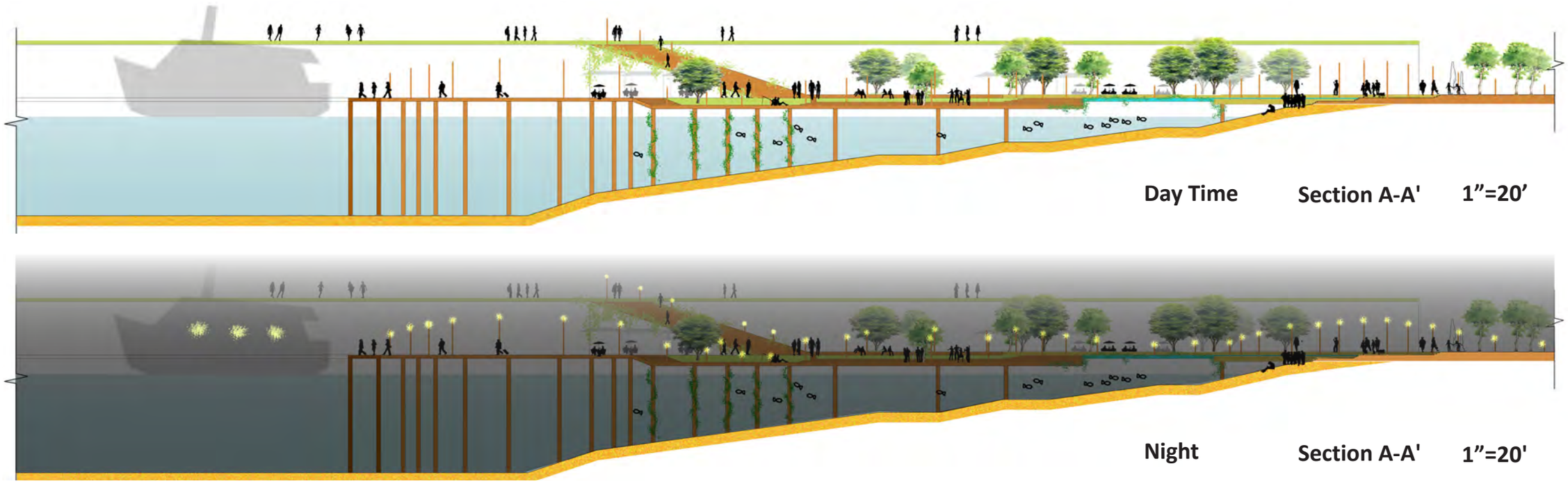
How to change into an Attractive, Coherent, and Democratic Space ?

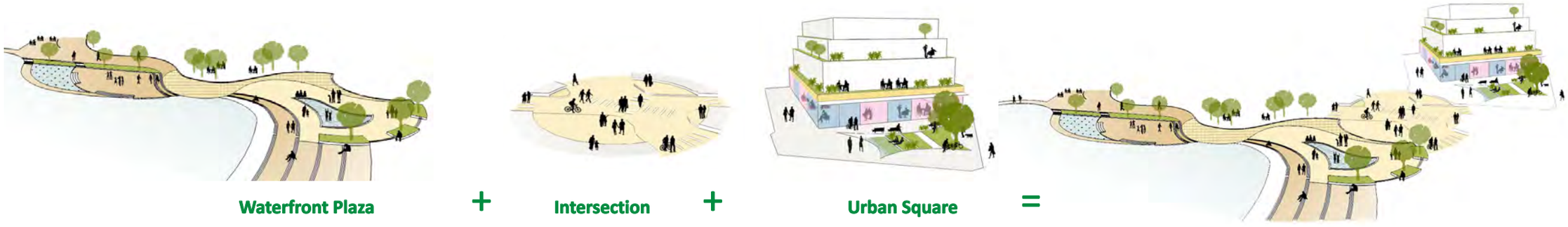
District Plan



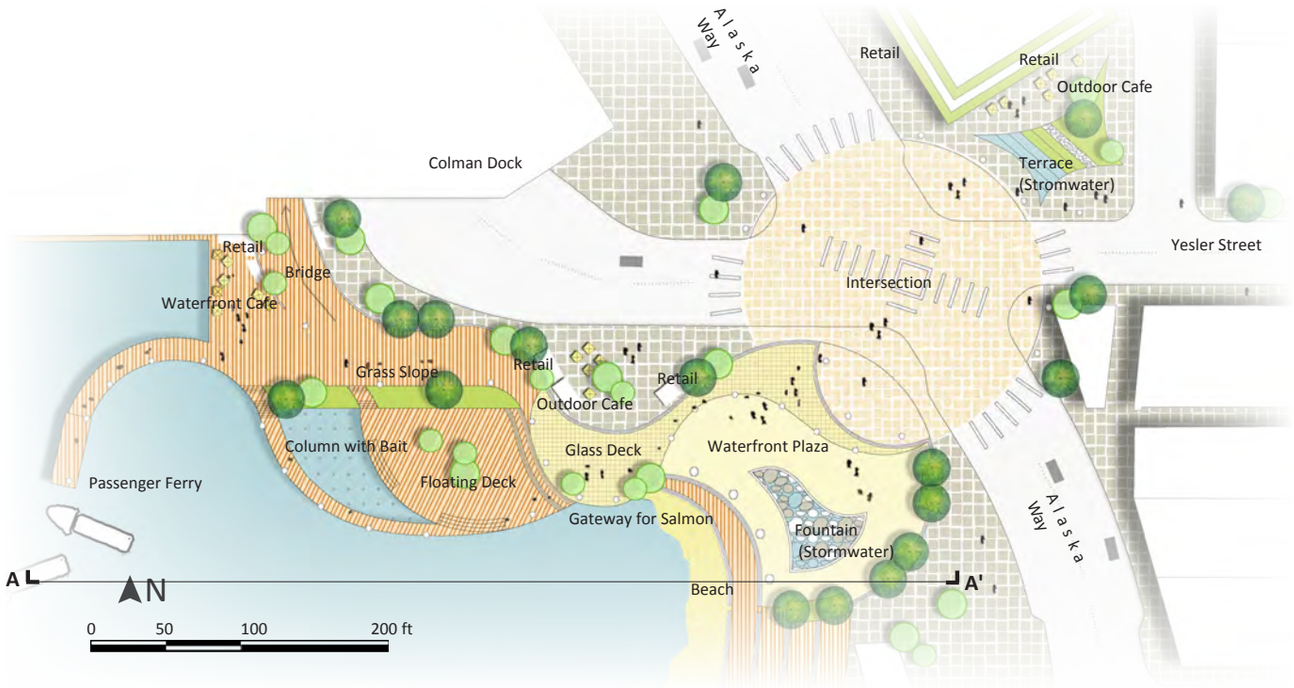
Programming







Master Plan



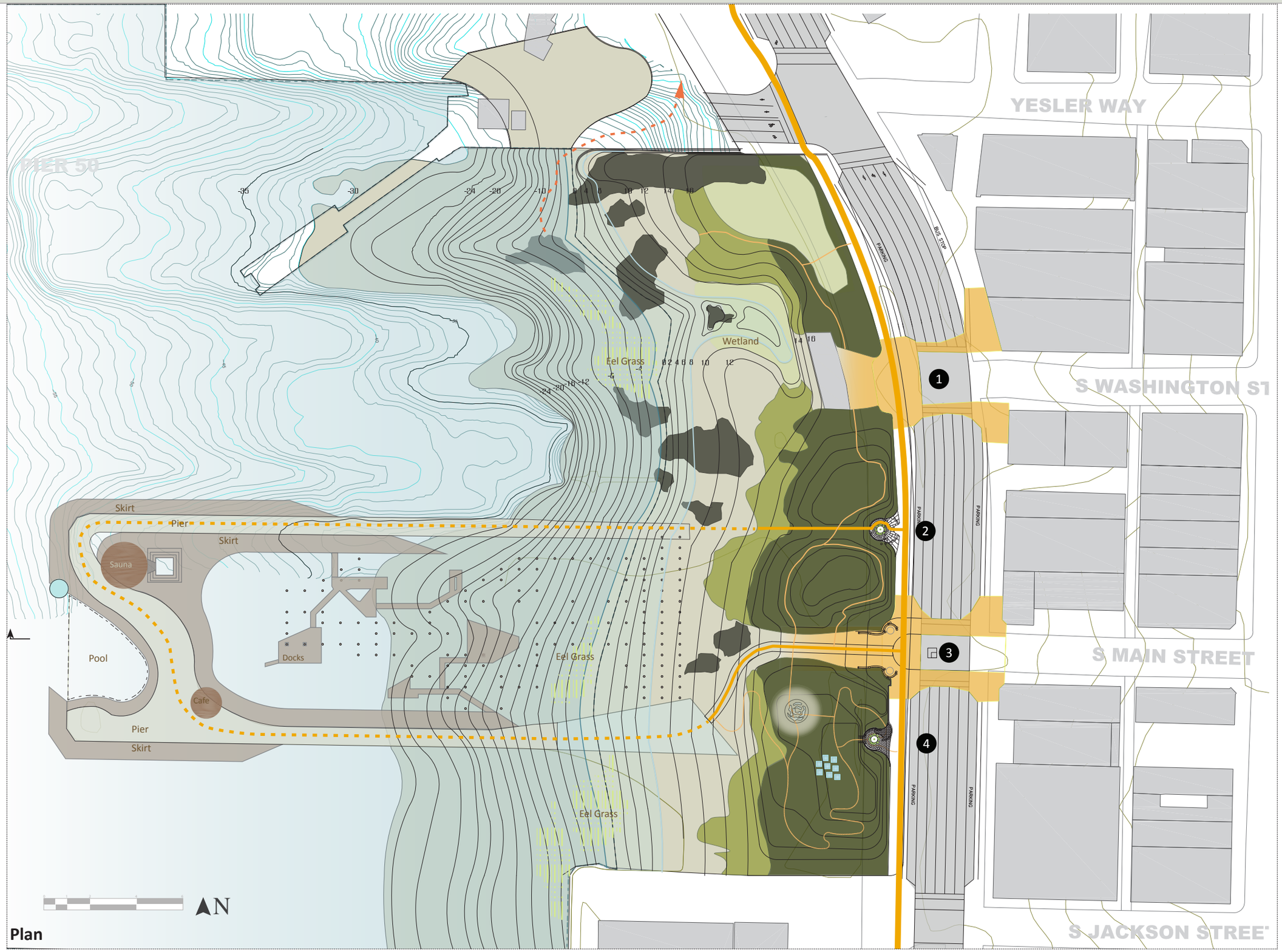
Design Instruction

This site is a node of this district, it helps connect the waterfront and the historic distric. How to cross Alaska Way to guide the social flow from Pioneer Square to the waterfront is the biggest challenge of this site. The design uses three basic units, an neighbourhood scale square, an circular intersection, and a wavy waterfront plaza, to creat a series of recreational activities. It can make the space coherently, make the city life continuously, and give people an image of "portal"(the portal of waterfront, and the portal of the central city). The designed area is 1.14ha.

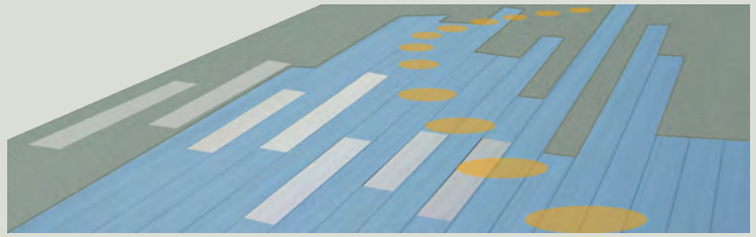
Interface Park

Reclamation & Place

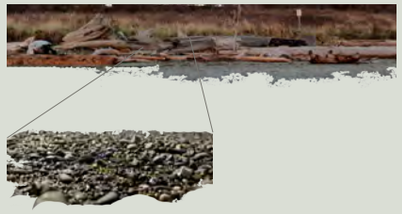
This project proposes the reclamation of a portion of the shoreline of Elliot Bay along the central waterfront from Pier 46 to Pier 52. The newly created native beach and upland habitat is conceived as an interface between two spatial hierarchies: ecological and urban. The site is regraded to optimize nearshore salmon habitat and to provide direct water access for the residents of Seattle.
Ecological infrastructure replaces the seawall. Segments of the old viaduct are secured with new pilings and infilled with rubble. Pier 48 is rebuilt to minimize over water coverage and maximize both terrestrial and nautical accessibility.



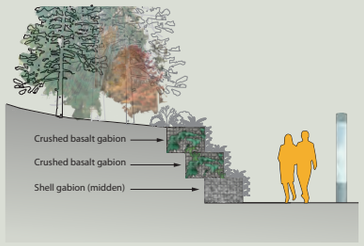
Plan



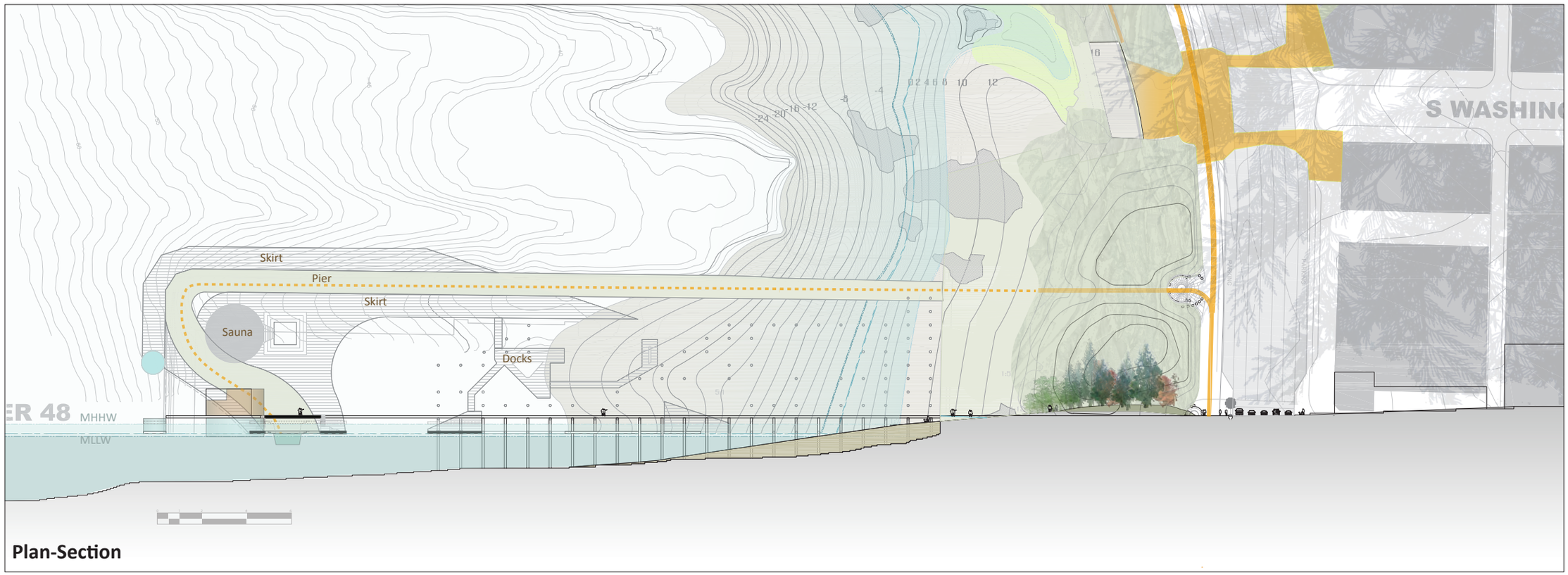
Pier Surface Treatment



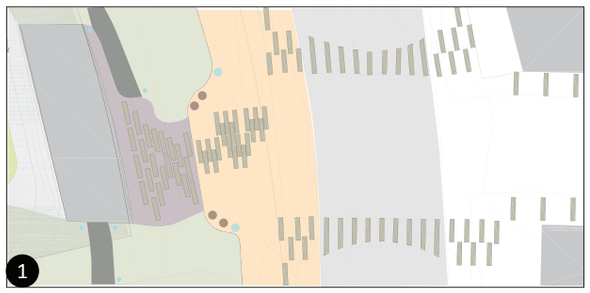
Beach Materials



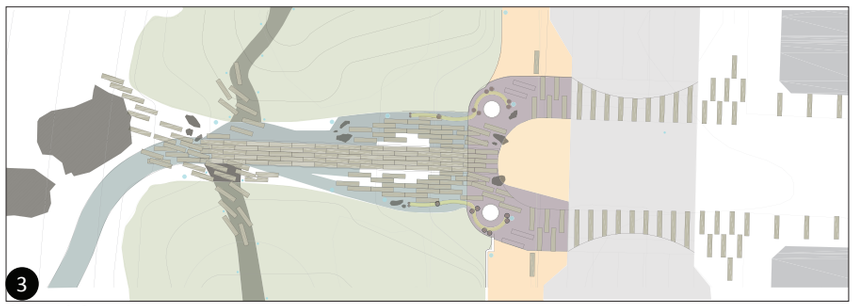
Vegetated Gabion Wall at Esplanade



Plan-Section

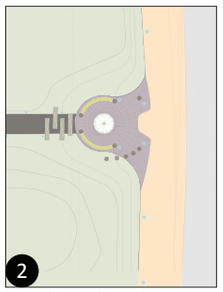


1 Historical Node & Water Taxi Depot Remnant

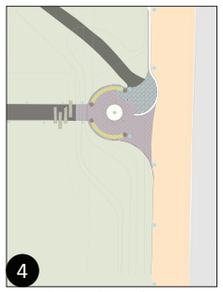


3 Central Gateway

Public Spaces | Public Life for Seattle's Central Waterfront



2 North Trail Node



4 South Trail Node

Interface Park: Reclamation & Place

Beach at Pedestrian Pier Ramp

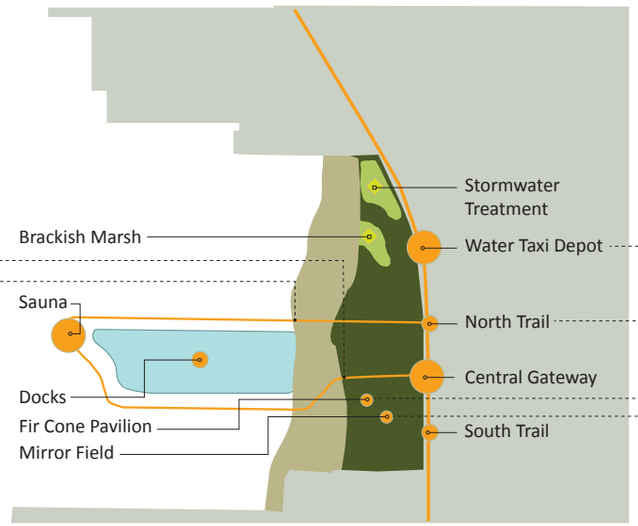
Central Gateway at Beach

S Washington Looking West

Culturally Modified Tree

Forest Trail

Rock Outcroppings at Beach



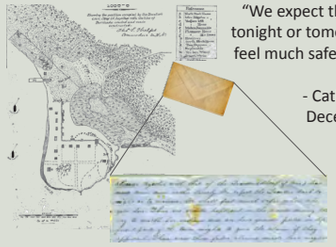
Nodes

Fir Cone Pavillion

Beach Looking South

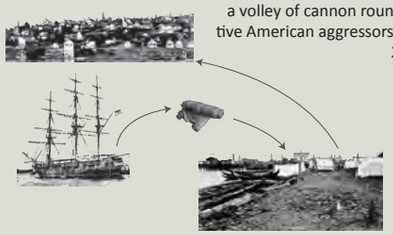
Beach at Pilings

Mirror Field



"We expect the Decatur back tonight or tomorrow. We shall feel much safer when she gets here."
- Catherine P. Blaine, December 1st, 1855

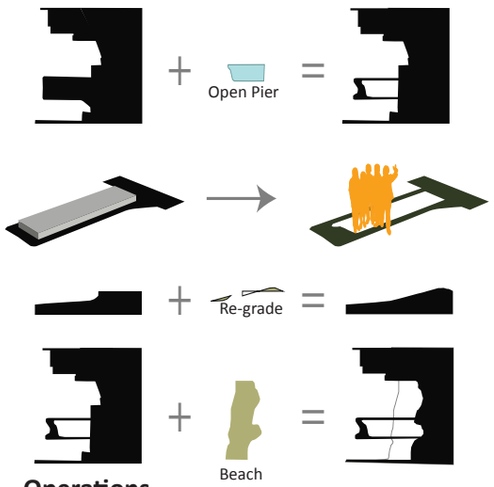
Washington Territory



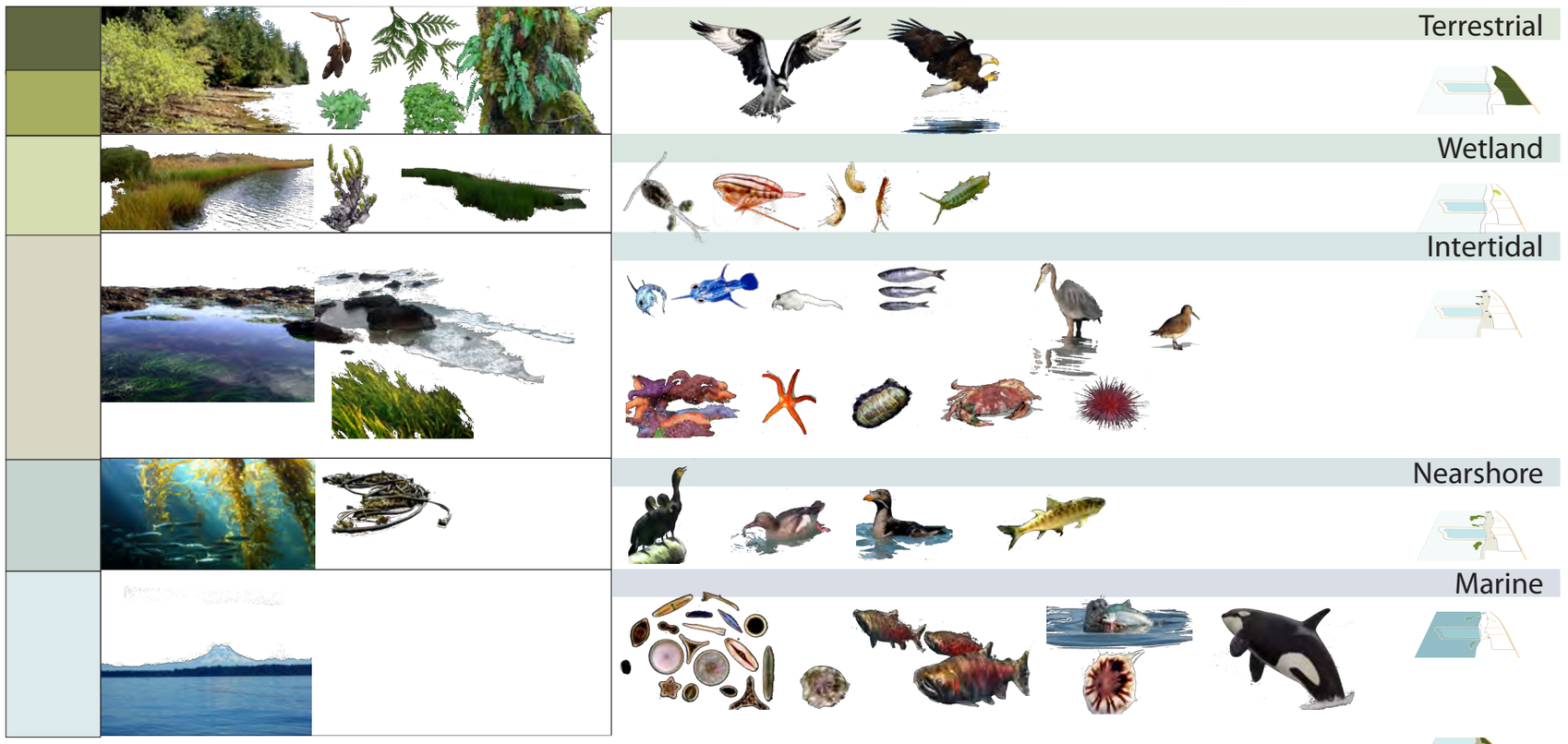
The US Navy sloop 'Decatur' fired a volley of cannon rounds at Native American aggressors, January 26, 1856.

Sloop Decatur [Source: UW Libraries Digital Collection]

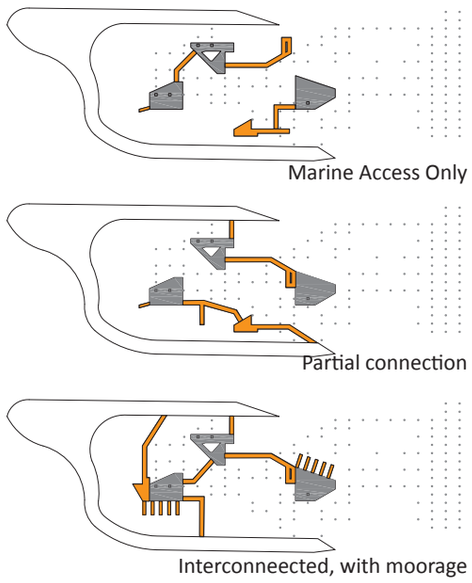
Seawall as fortification, 1934



Operations



Habitat Typologies



Pier 48 Dock Configurations

Pier 48 Programming

Summer 2010 Travel Study Group

“In lively, safe, sustainable and healthy cities, the prerequisite for city life is good walking opportunities. However, the wider perspective is that a multitude of valuable social and recreational opportunities naturally emerge when you reinforce life on foot.”

- Jan Gehl, Cities for People

Public Spaces|Public Life for Seattle's Central Waterfront

2010 Scan|Design Interdisciplinary Master Studio

University of Washington