### OCEAN PAVILION 90% DESIGN

SEATTLE DESIGN COMMISSION AUGUST 20TH, 2020



### **OVERLOOK WALK + OCEAN PAVILION** AGENDA

### INTRODUCTION

• Multidisciplinary/multicultural team

### **APPROACH**

- Seattle Aquarium Conservation Mission
- Seattle Aquarium key value honoring place
  - Coast Salish tribal involvement
  - Community engagement
  - Public Art
- Land meets the sea white cap to white cap

### BACKGROUND

- Summary of 60% SDC approval and feedback
- Integration of Waterfront Seattle/Overlook Walk/ Seattle Aquarium
  - Major Circulation Paths
  - Coordination of form and material palette
  - Transparency and activation of public spaces
  - A place for gathering & mixing of cultures

### 90% DESIGN

### **AQUARIUM ROOF & OPEN SPACES**

- Overview
- Circulation
- Program
- Planting
- Roof open space and Overlook
- North stairs
- Promenade Below SAOP
- Exterior Lighting

### **OCEAN PAVILION**

- Conservation mission/Aquarium campus
- Sustainability
- Program organization
- Experience and Materials:

  - Integration with Salish steps
  - Integration with waterfront context
  - Integration with the promenade
- Public art program

• Integration with waterfront/ urban context

### **HEADWATER PEOPLE CONSULTING**

ANNE HAMILTON COAST SALISH TRIBAL CONS			SDOT		DAN FR	
		NSULTAN		IN F	PCA	
ORCA JACOBS			FRIENDS OF THE WATERFRONT			
DRAGON FLY SEATTLE A			QUARIUM ANI		IKEN, NA	
OFFICE OF THE WATERFRONT			PAE	GREEN	IBUSH	
STUDIO PACI		THINC	ASIA TAIL	JCFO	ANCHO	
TURNER	JMB CO	ONSULTI	NG		н	
TBD CONSULTANTS	DARKLIGH	T SHA		SON MK	A GREI	
LAND MORPHOLO			Y EZCURRA AQUAR	-		

### RIDAY **PIELOW STANTEC ATIONAL AQUARIUM** MILLER HULL SOJ **DR QEA HOFFMAN** HLB ENBUSH RALER E SEGREST

# APPROACH

- Seattle Aquarium Conservation Mission
- Seattle Aquarium key value honoring place
  - Coast Salish tribal involvement
  - Community engagement
- Land meets the sea white cap to white cap

# DRAFT

### NATURAL HISTORY OF LAND AND WATER

"I don't believe in magic. I believe in the sun and the stars, the water, the tides, the floods, the owls, the hawks flying, the river running, the wind talking. They're measurements. They tell us how healthy things are." - BILLY FRANK JR.

Nisqually advocate for Indian treaty rights and environmental stewardship

"... a once in a lifetime oppertunity to emphatically connect downtown to the waterfront and Elliott Bay, and to revitalize the environmental, social, and economic bases for the city and the entire region."

- JAMES CORNER, JCFO

WATERFRONT SEATTLE **PUBLIC OPEN SPACE** 



### "Nothing else will matter if we fail to protect the ocean. Our fate and the ocean are one." - DR. SYLVIA EARLE, National Geographic Explorer-in-Residence

### SEATTLE AQUARIUM CONSERVATION MISSION



### HERO FOR THE PLANET

DRAFT

### **NATURAL HISTORY OF** LAND AND WATER

SEATTLE AQUARIUM CONSERVATION MISSION

WATERFRONT SEATTLE **PUBLIC OPEN** 





HONORING PLACE PROCESS

Welcome people from all over the world to participate - not merely observe

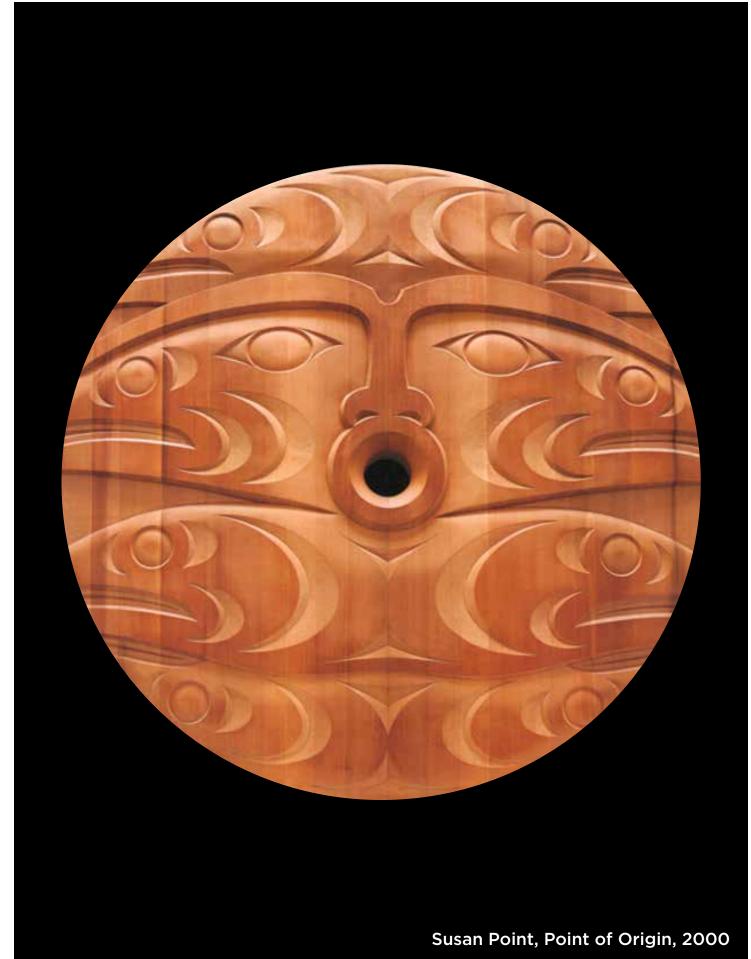
Acknowledge the Aquarium's location on Coast Salish land

Speak to the necessity of Indigenous knowledge for the future of our shared **One** Ocean

Storytelling as a **shared experience** that helps us imagine the world we want to live in

### Mitakuye-Oyasin

All my relations, is a worldview of interconnectedness and oneness. All living things are connected. I cannot exist without you and you cannot exist without me. Everything we do has an effect on others and on our world.





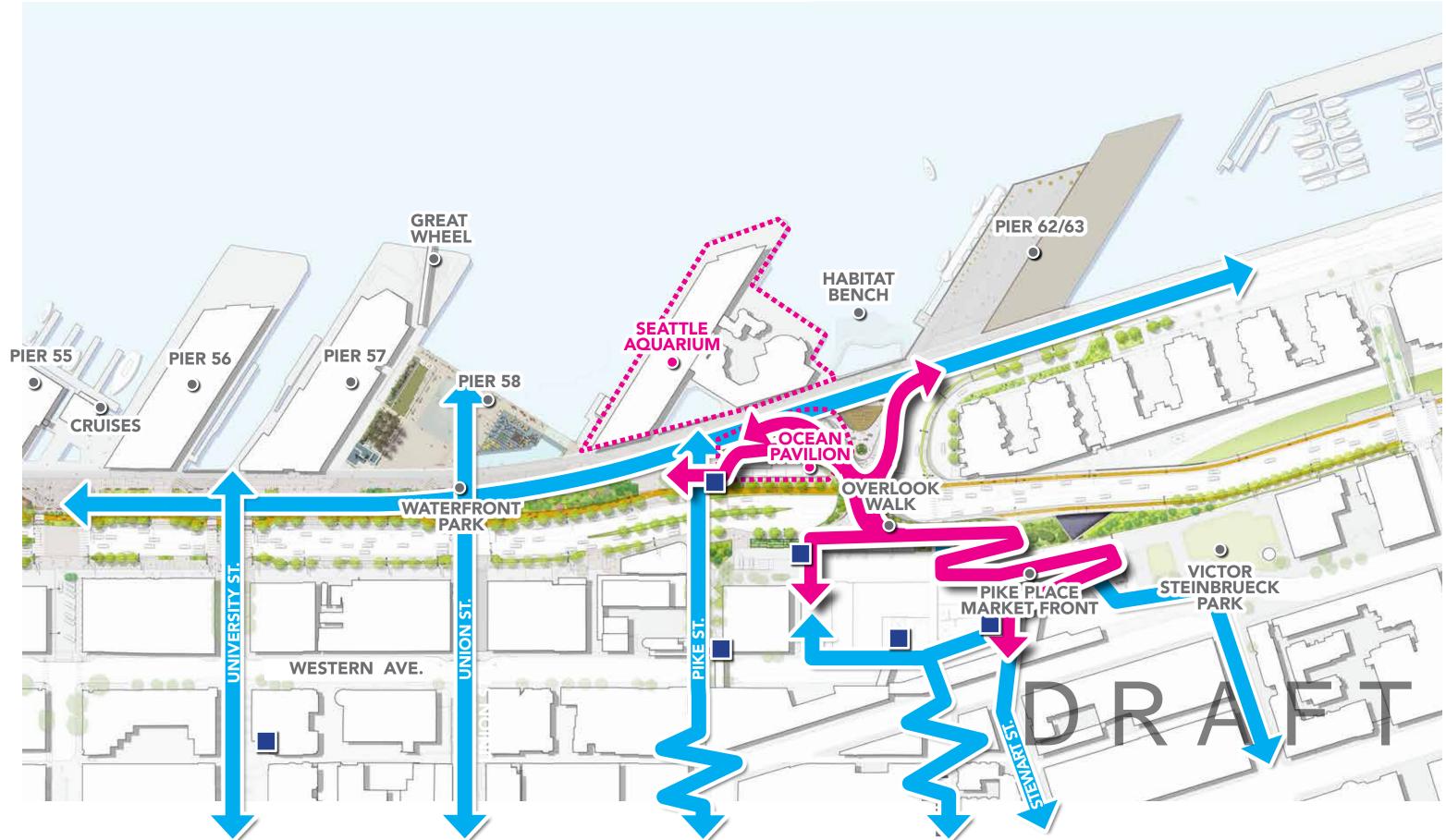
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# and feedback

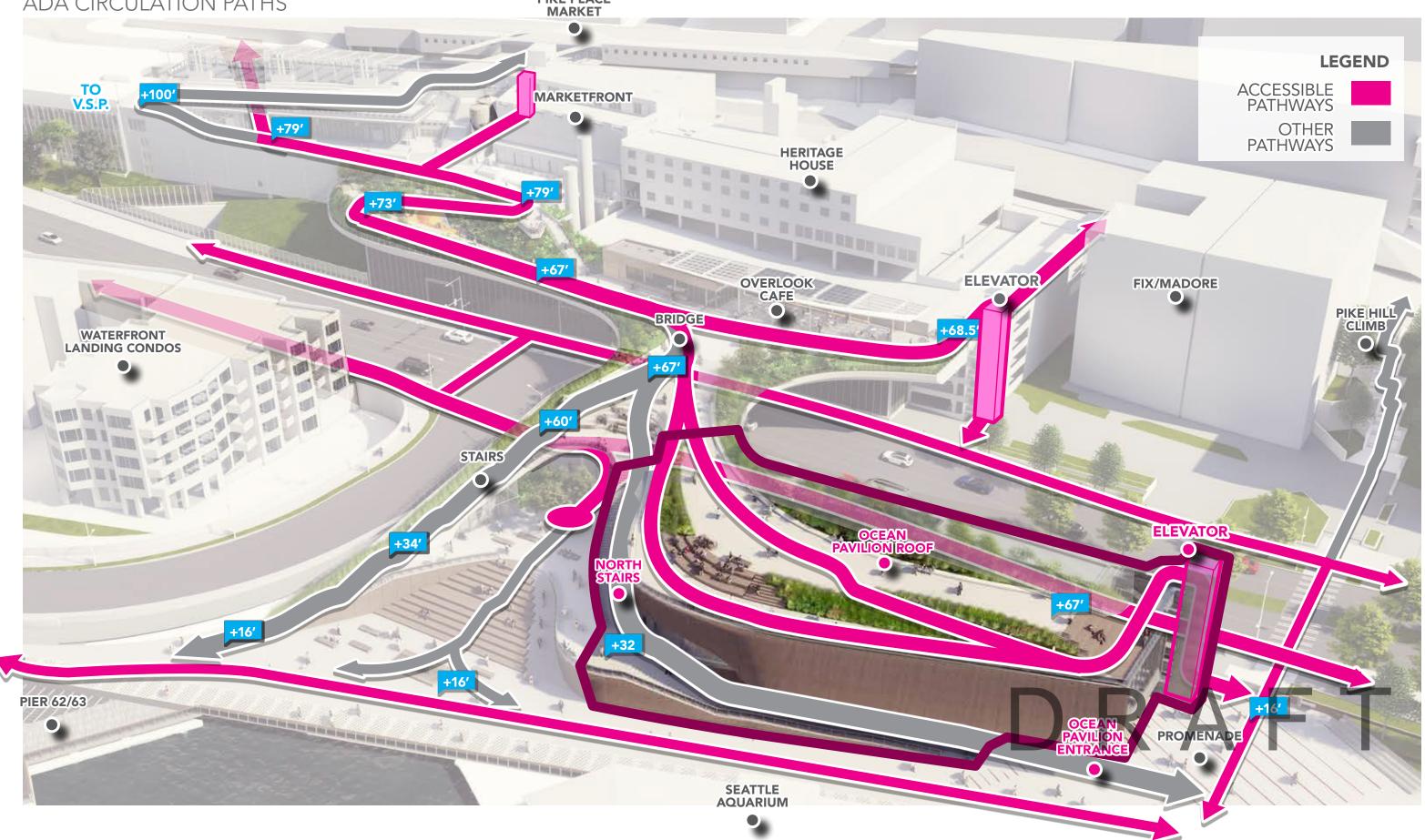
# erial palette f public spaces g ef cultures

### **CONTEXT** OPEN SPACE CIRCULATION



### **OCEAN PAVILION** ADA CIRCULATION PATHS





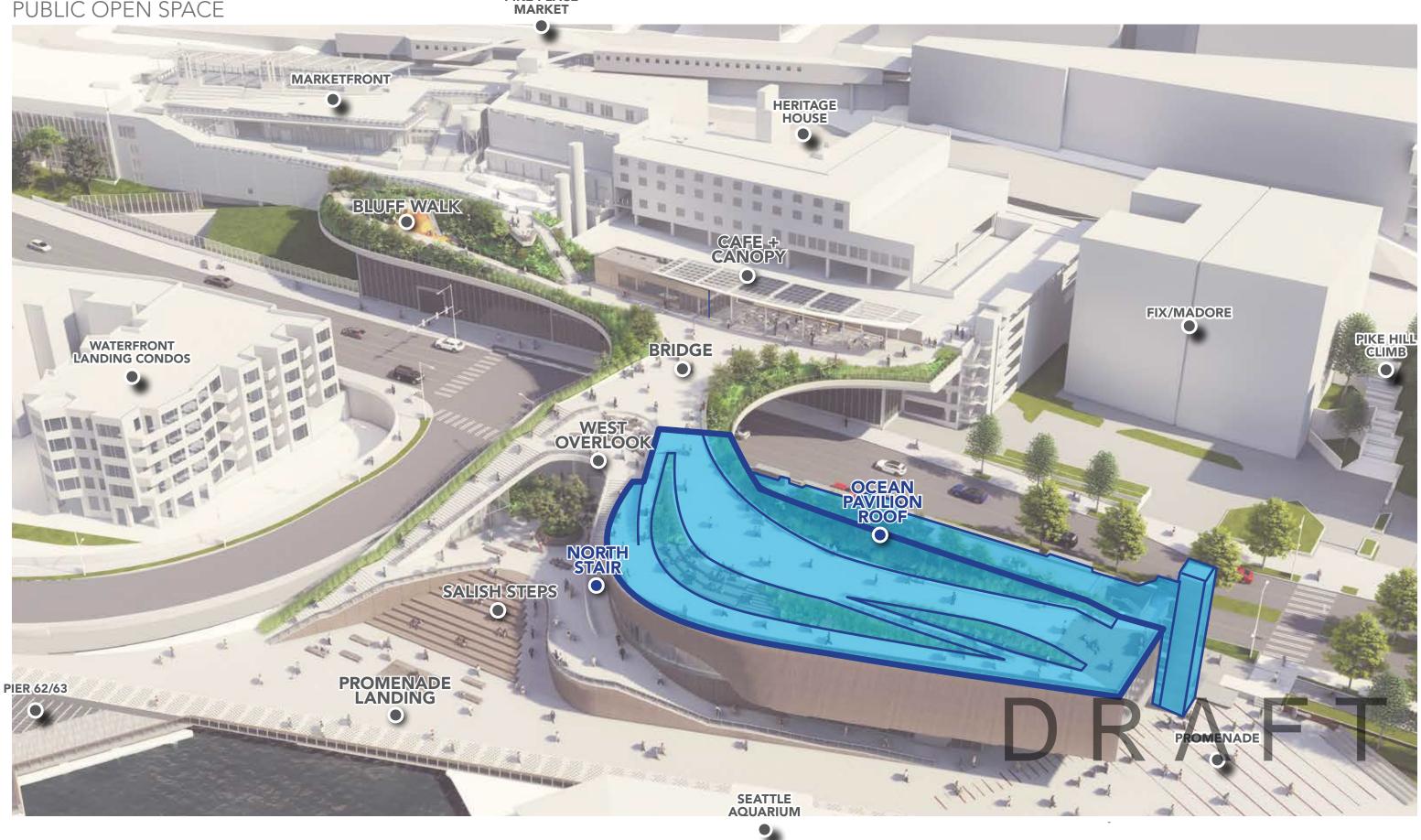


# **OCEAN PAVILION ROOF/ OPEN** SPACES

- Circulation
- Program
- Planting
- Roof open space and Overlook
- North stairs
- Promenade Below SAOP
- Exterior Lighting



### **OCEAN PAVILION ROOF** PUBLIC OPEN SPACE



PIKE PLACE

# ICHE ICHE ISHSEA



### **OCEAN PAVILION ROOF** UPLAND TO LOWLAND



COMMON CAMAS



HORSETAIL





THIMBLEBERRY



WILD MINT



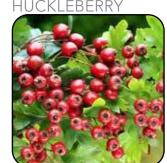
PICKLEWEED

**SOILS/SUBSTRATE** sand, mud, detritus

**VEGETATION** phytoplankton

WILDLIFE aquatic invertebrates, fish, birds, marine mammals





HAWTHORN









SOILS/SUBSTRATE gravel, sand, silt, mud, rock, vegetation, mineral nuterients

LEVADAR VAR VELATE TALLANDE

INDIAN PLUM

WHITE FAWN LILLY

SALAMANDER

**VEGETATION** wetland flora, halophytes, algae, phytoplankton

WILDLIFE aquatic invertebrates, fish, birds, marine mammals, lowland wildlife, bacteria







EVERGREEN TREE TIPS GARRY OAK





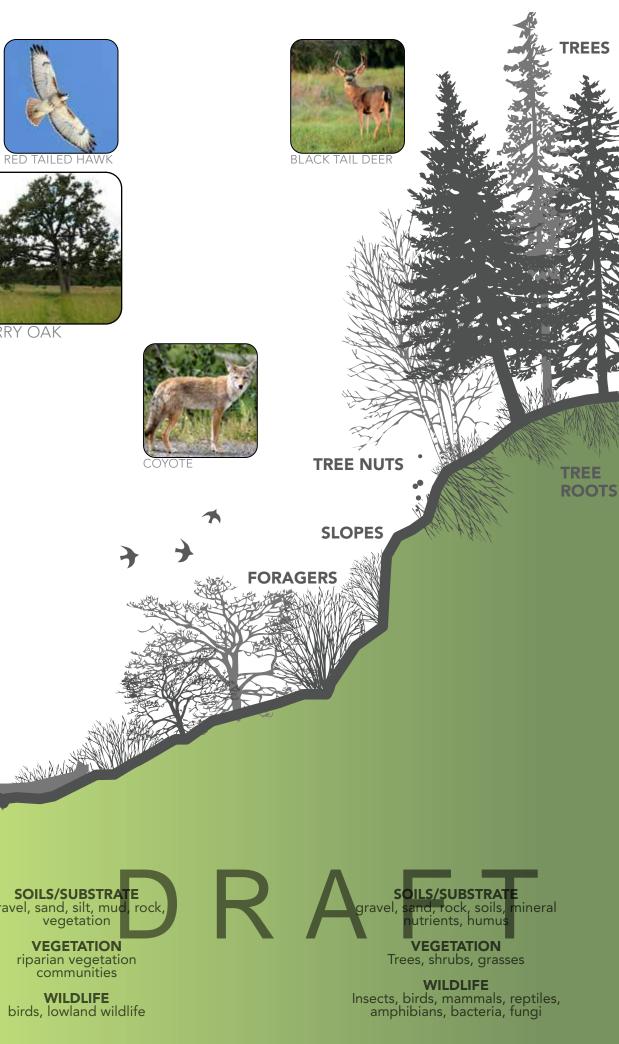
COMMON LOON









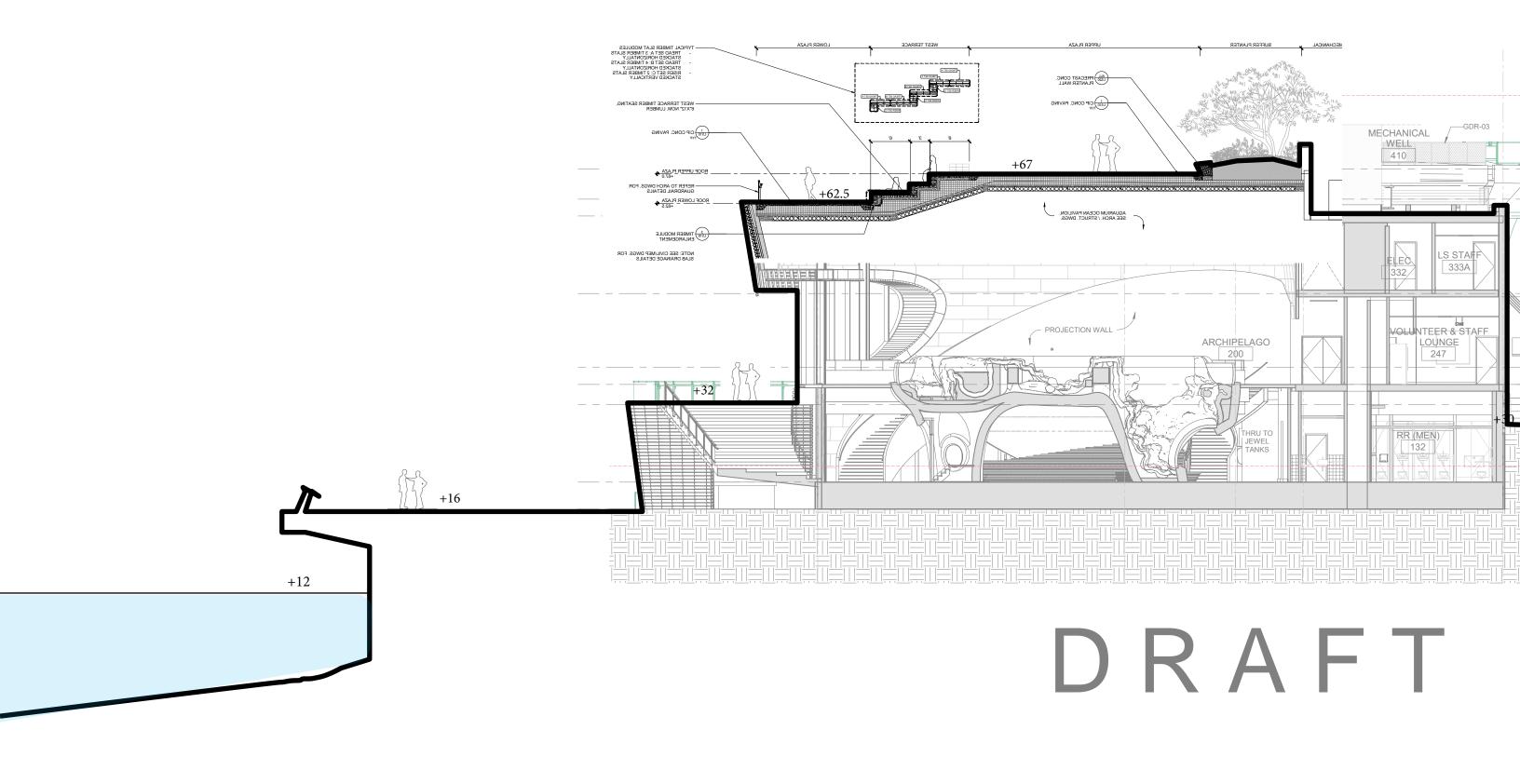


**SOILS/SUBSTRATE** gravel, sand, silt, mud, ro vegetation

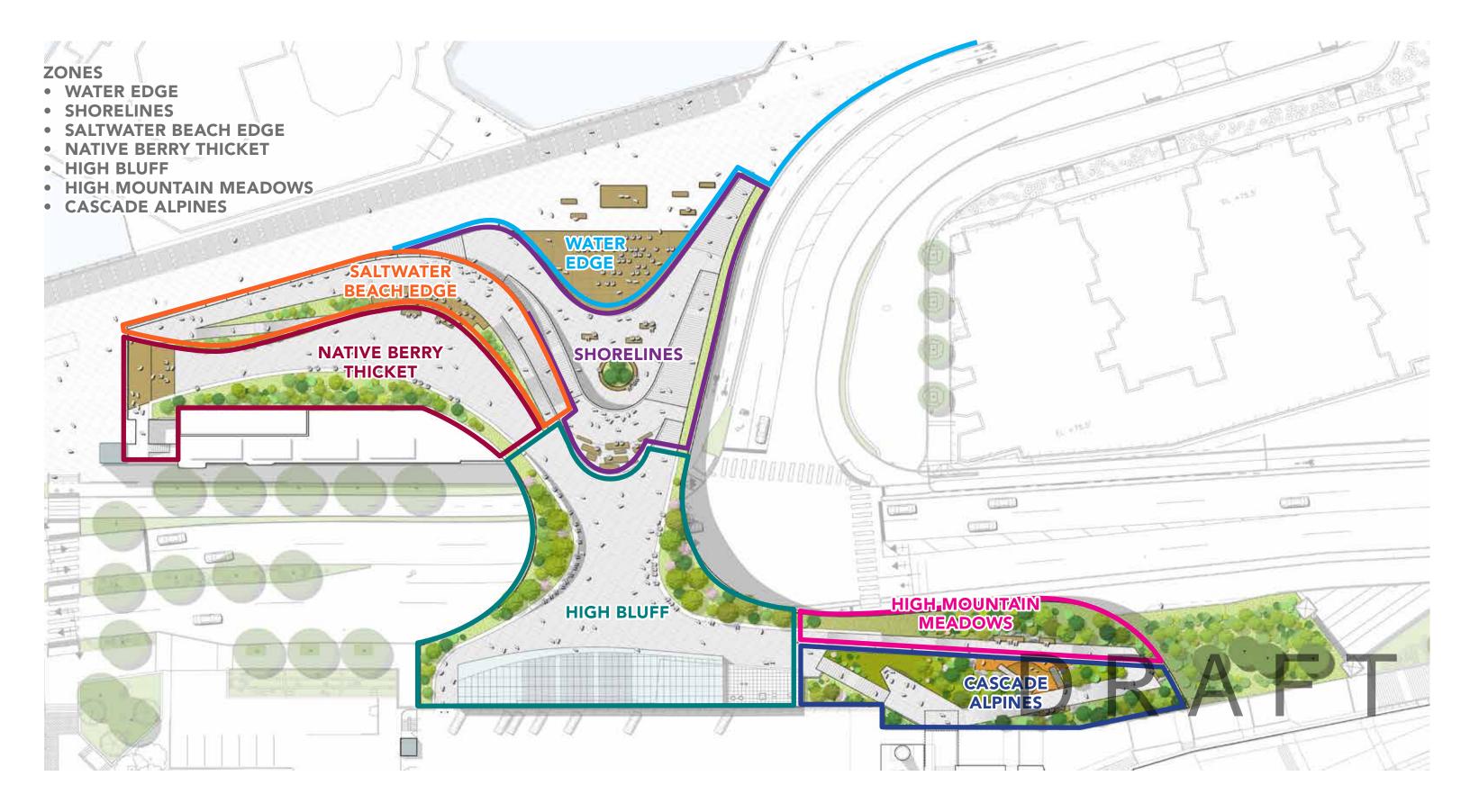
> VEGETATION riparian vegetation communities

WILDLIFE birds, lowland wildlife

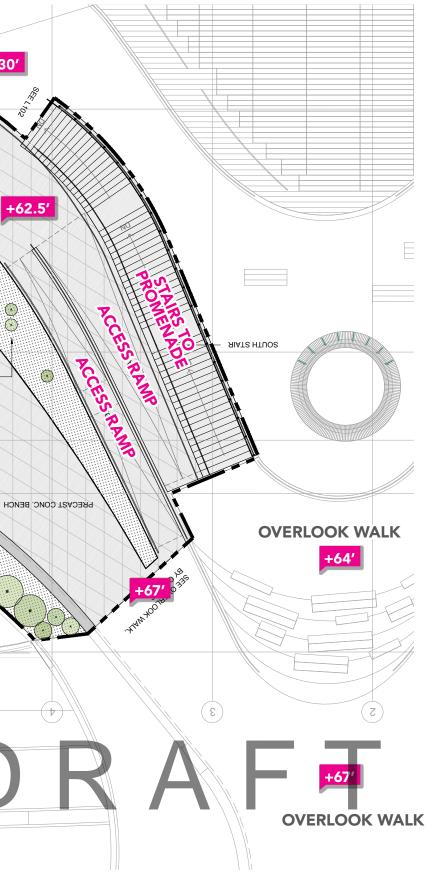
### OCEAN PAVILION ROOF UPLAND TO LOWLAND



### **OCEAN PAVILION ROOF** EXPANDED CONCEPT

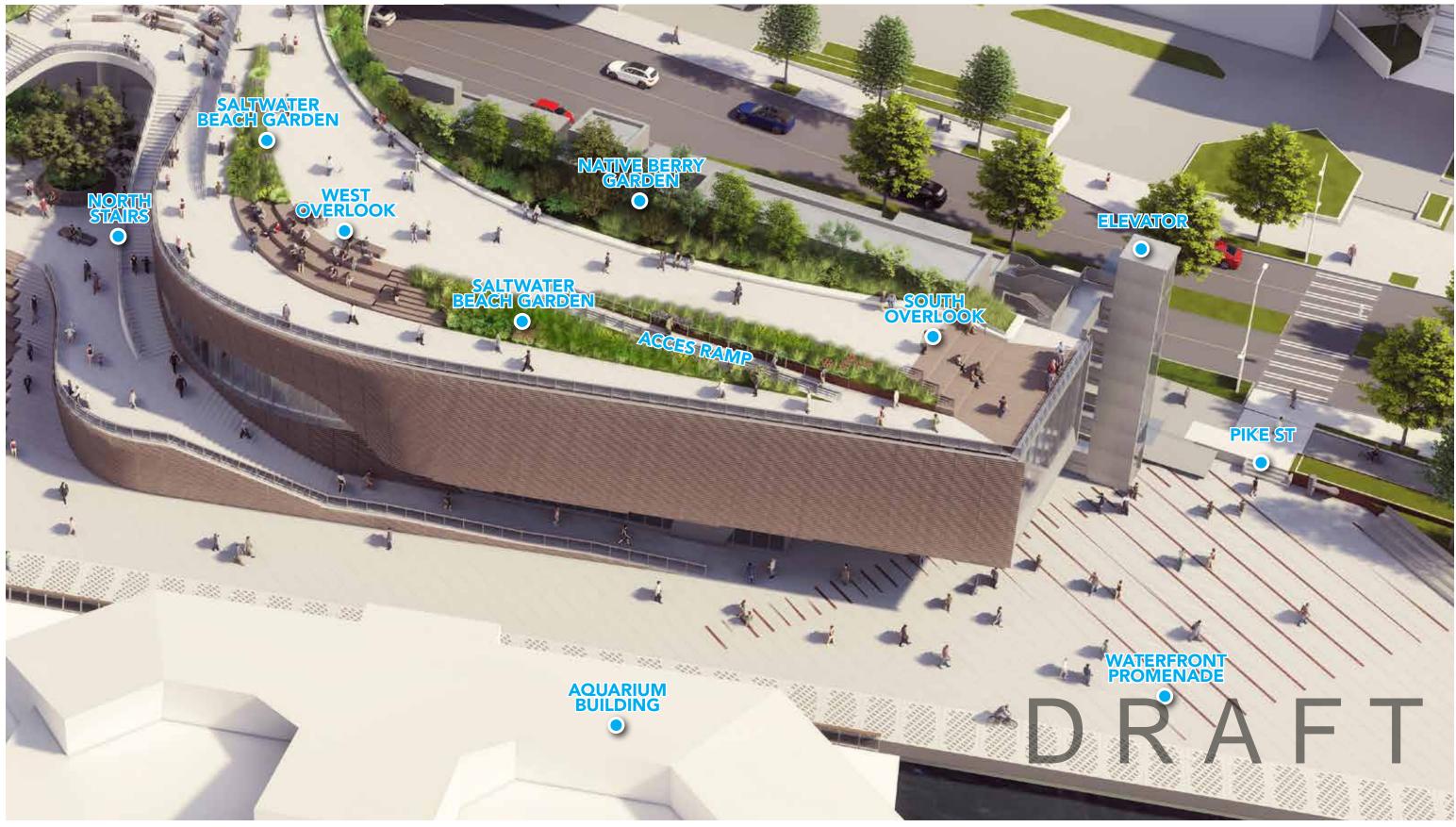


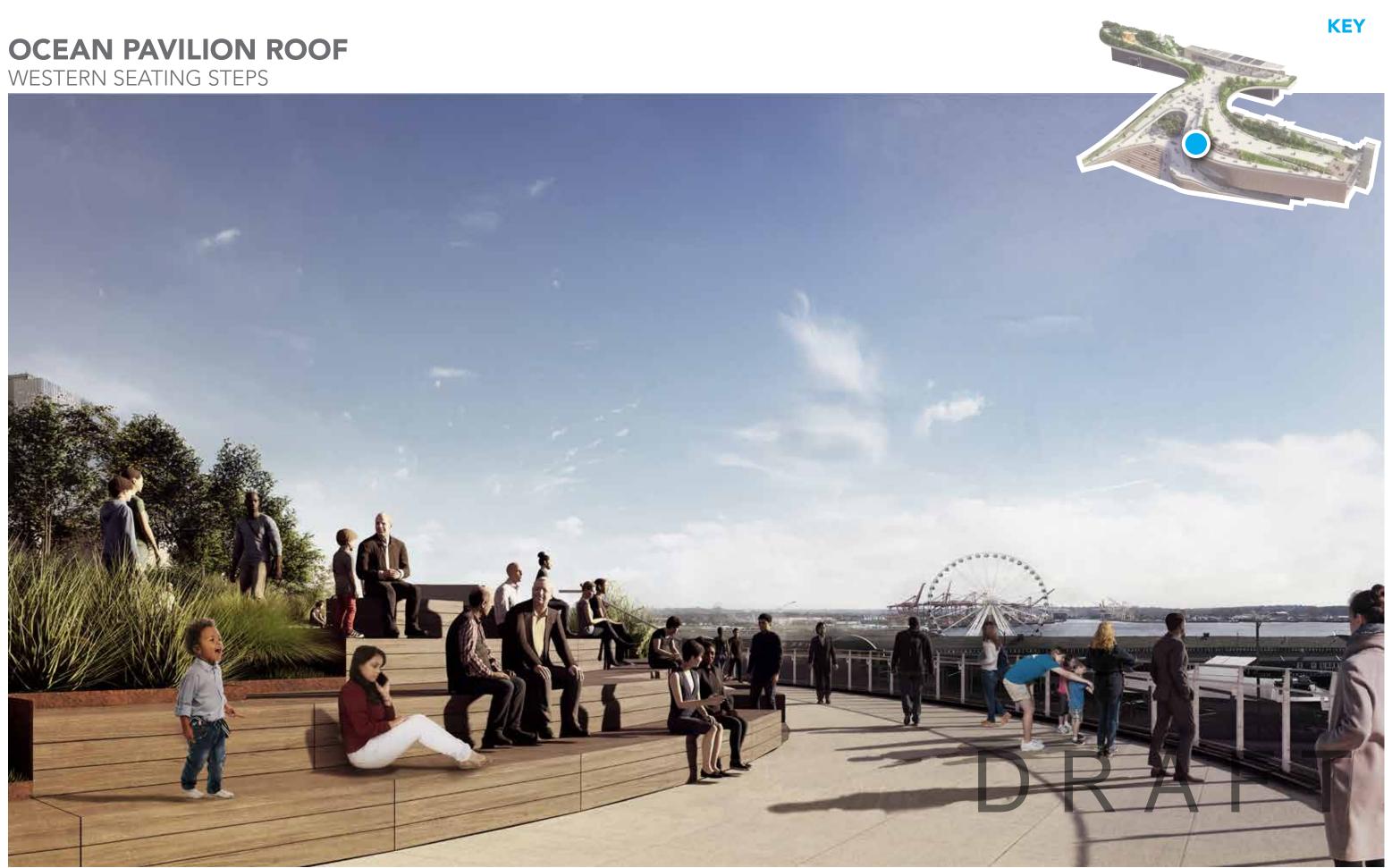
### **OCEAN PAVILION ROOF** LAYOUT +30' +16' +62.5' LOWER DECK ERAUARIUM ROOF PLANTER3 +62.5' WATERFRONT 0 0° +62.5' -67 ACCESS RAMP AQUARIUM ROOF WEST TERRACE +67' $(\cdot)$ $\odot$ Tel de la como $(\cdot)$ $\bigcirc$ **AQUARIUM ROOF** (\* UPPER $\odot$ $\odot$ DECK AQUARIUM ROOF PLANTER4 +67' ΑQUARIUM ROOF PLANTER2 +16' AQUARIUM ROOF SOUTH TERRACE +62.5' TRATINAJ9 7008 MUIRAUDA $\bigcirc$ $\bigcirc$ $\mathbf{x}$ LOWER DECK $\odot$ ()澎 0 +62.5' ELEVATOR + STAIR TO PROMENADE 0 OHV $\square$ $\left( \begin{array}{c} 8 \end{array} \right)$ (9) 9 L (H)UF 0

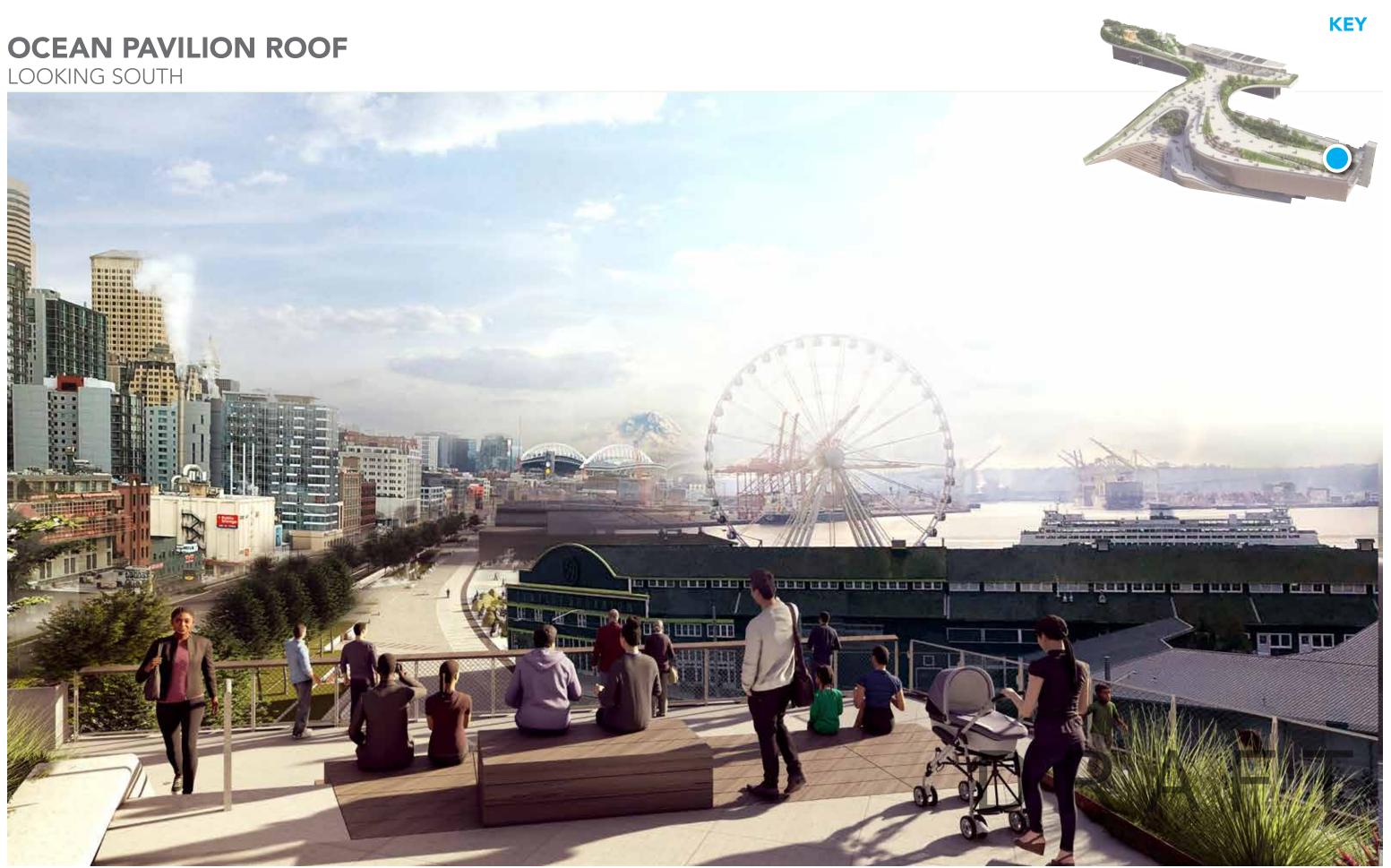


### **OCEAN PAVILION ROOF**

PUBLIC OPEN SPACE



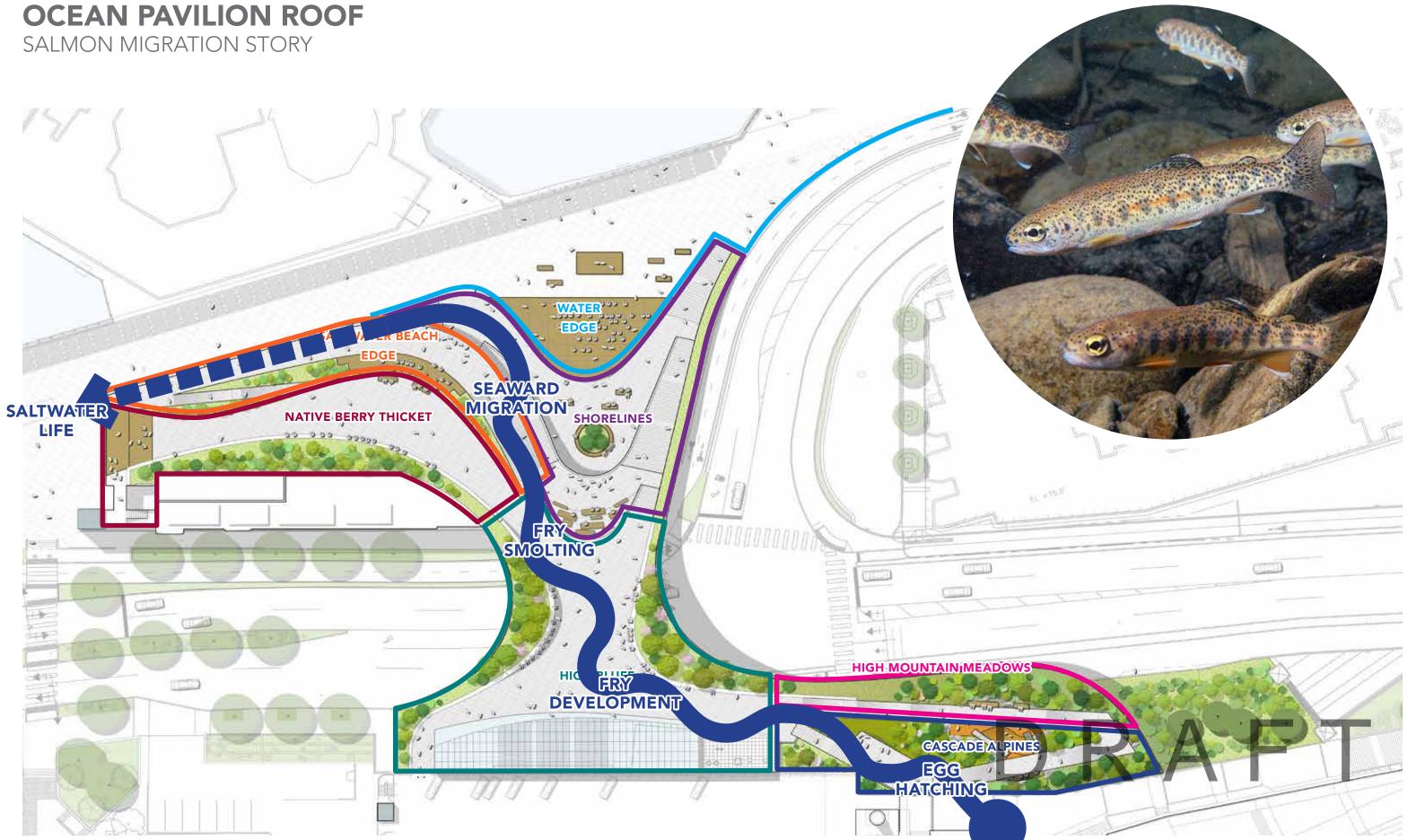




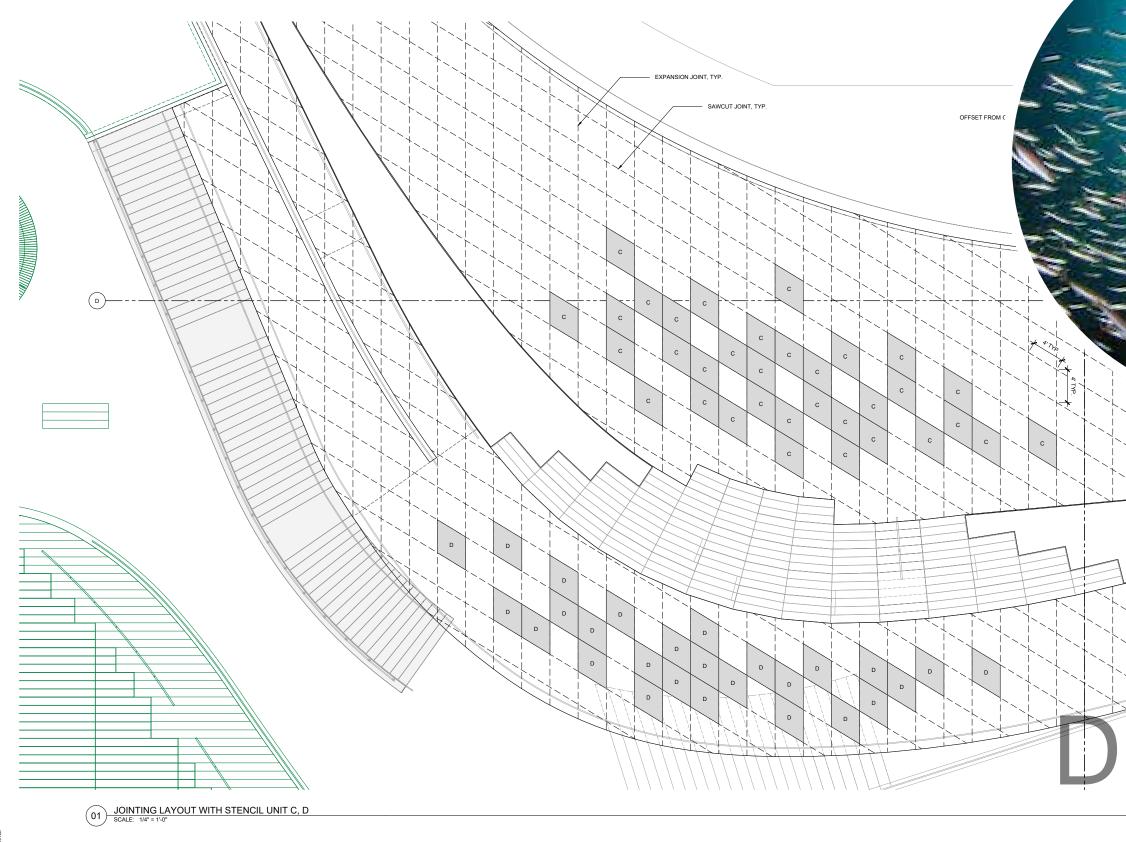
### TELLING PEOPLE **PLANTS** MEANINGFUL WILDLIFE **STORIES SALMON**



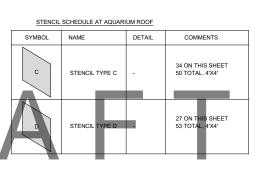
# DRAFT



### **OCEAN PAVILION ROOF** MIGRATORY SALMON SHOAL IN PAVEMENT







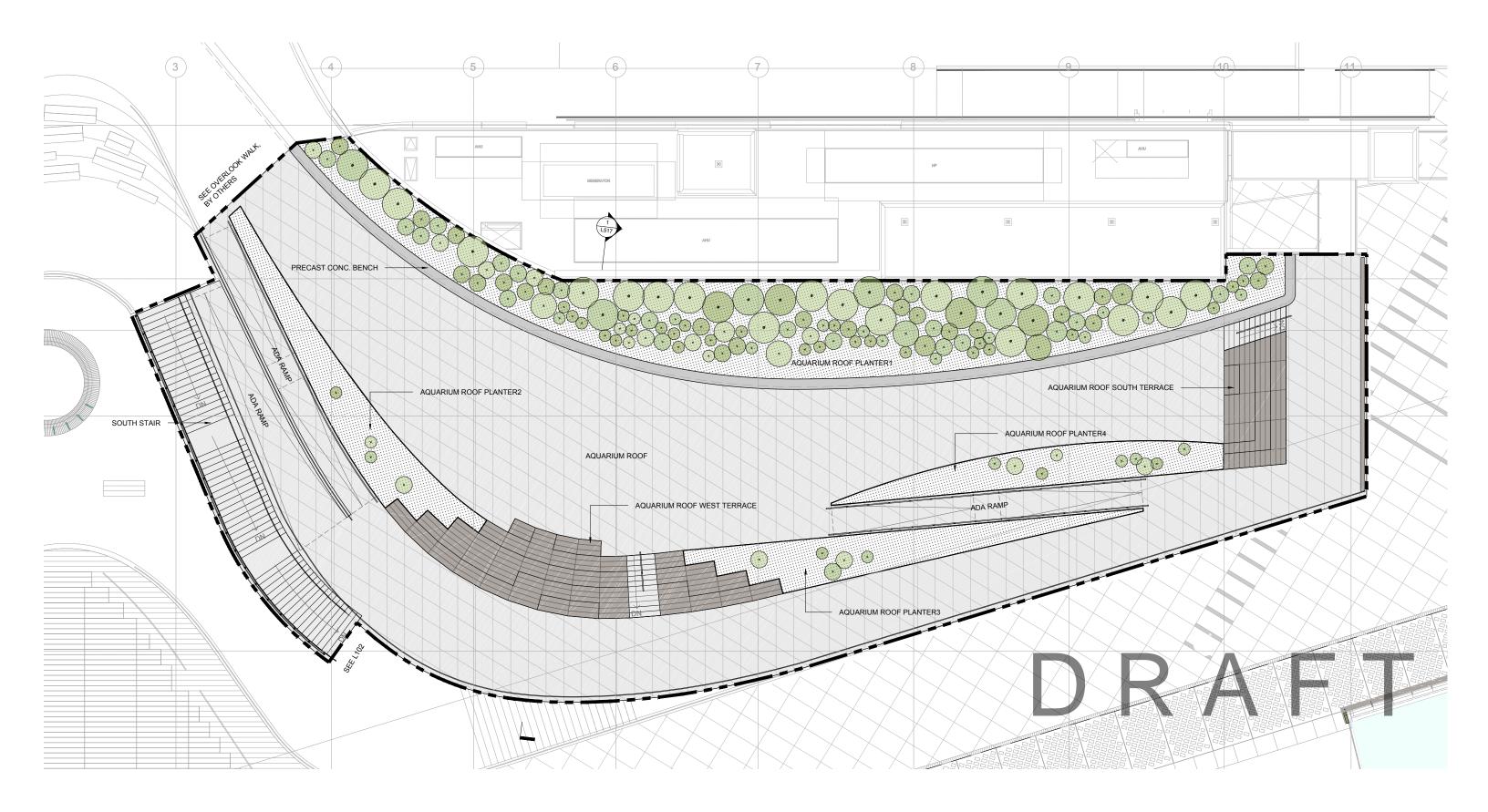
NOTE: 1. REFER TO DETAIL 4 SHEET L510 FOR SAW CUT JOINT DETAIL 2. REFER TO ARCH/CIVIL DWGS FOR EXPANSION JOINTS

\*GENERAL NOTE: 1. GREEN LINES INDICATE SCOPE NOT INCLUDED IN THIS PROJECT SHOWN FOR REFERENCE ONLY. 2. FINISHES AND PLANTINGS ON THE SALISH STEPS SEATING AND UPPER PLAZA ARE BY THE OFFICE OF THE WATERFRONT OVERLOOK WALK PROJECT. 3. DIAGRAM ON G011 DEPICTS AREA OF SCOPE.



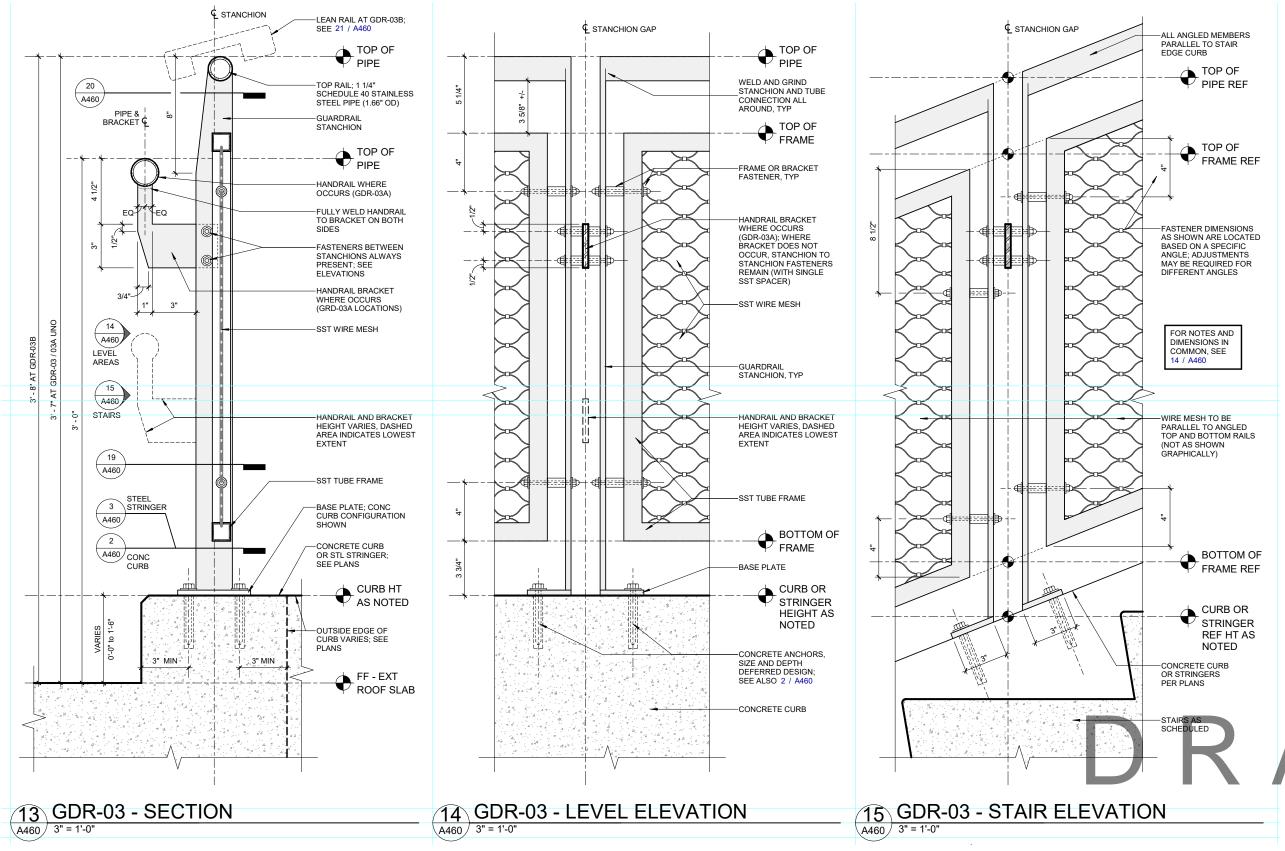


### **OCEAN PAVILION ROOF** RAILING



### OCEAN PAVILION ROOF

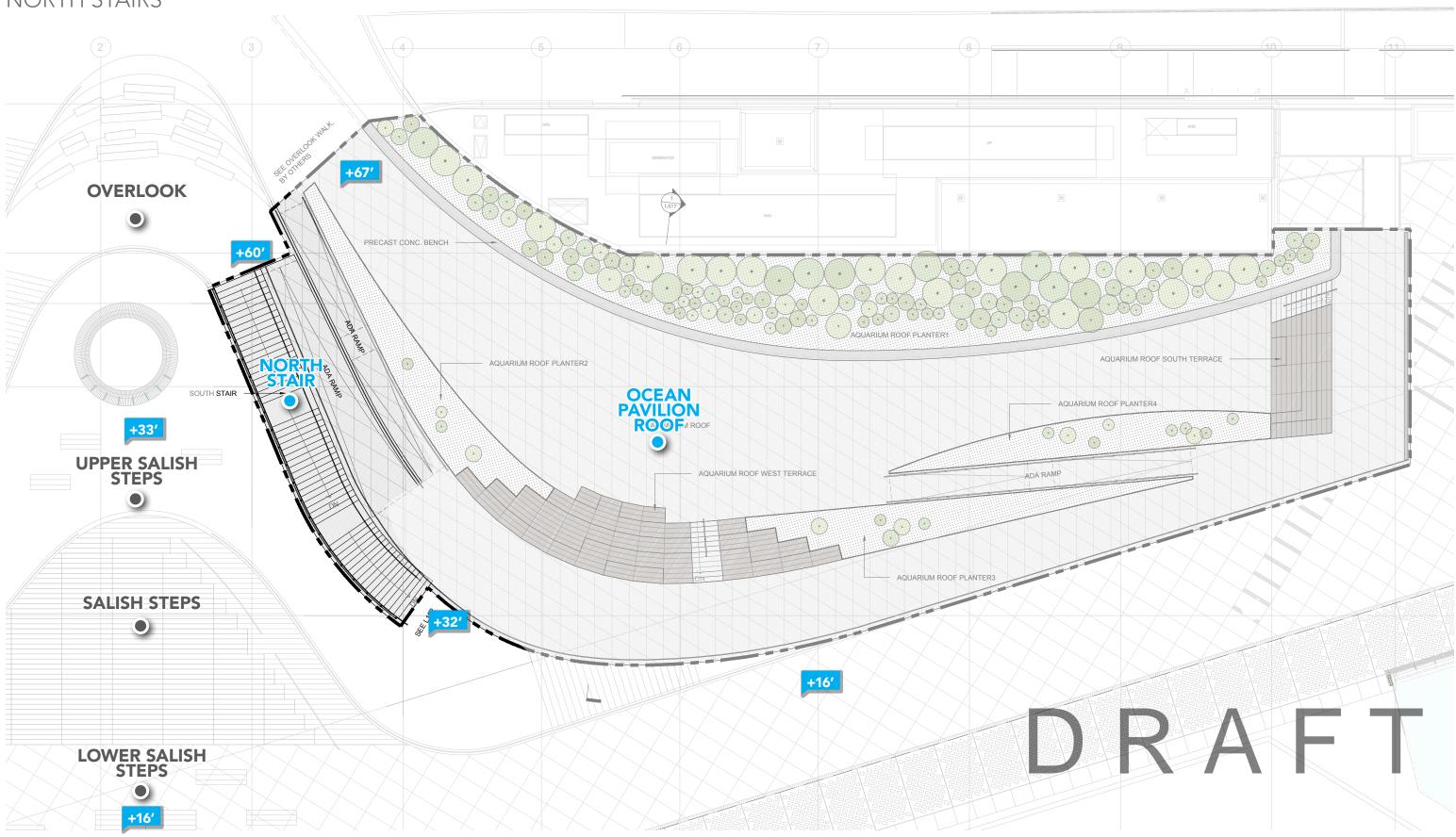
GUARDRAILS



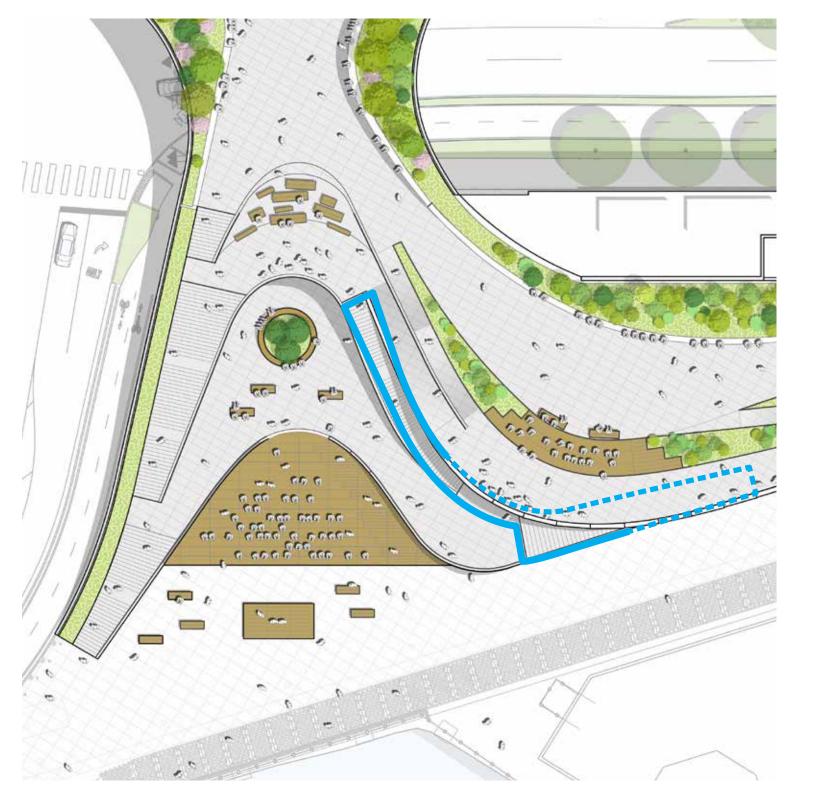
# AFT

### **OCEAN PAVILION ROOF**

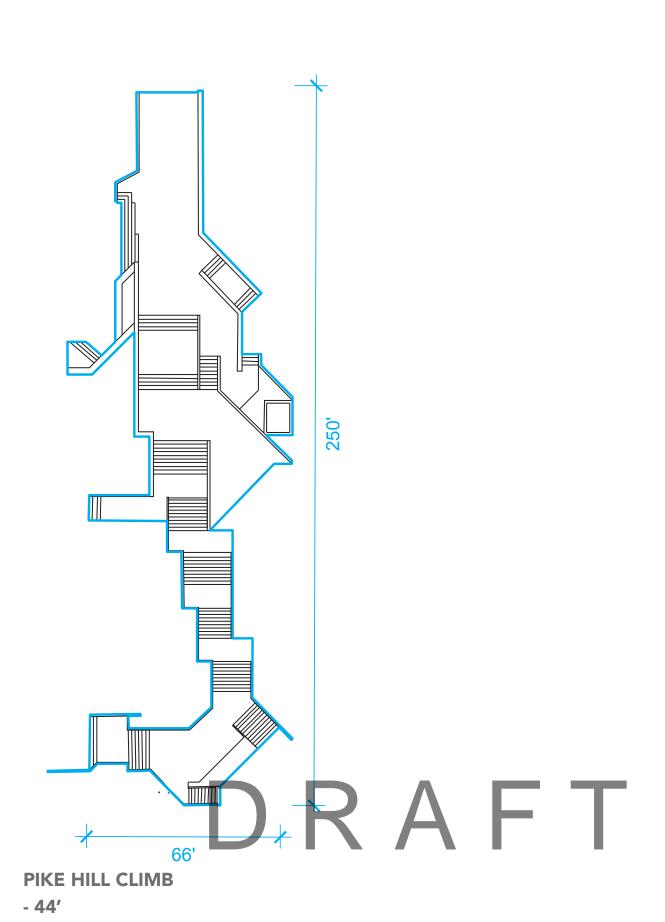
NORTH STAIRS



### **OCEAN PAVILION ROOF** NORTH STAIRS

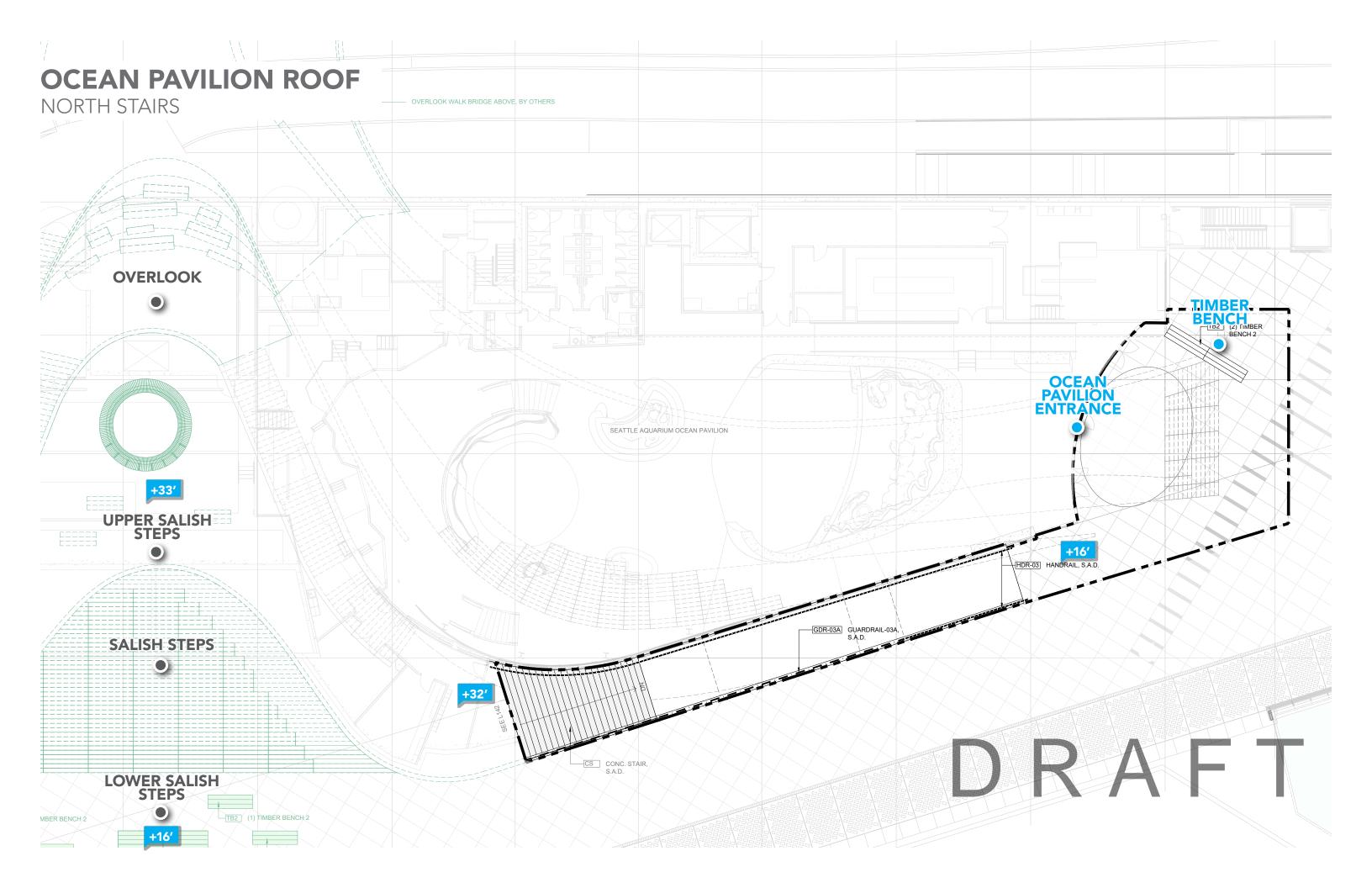


OVERLOOK WALK

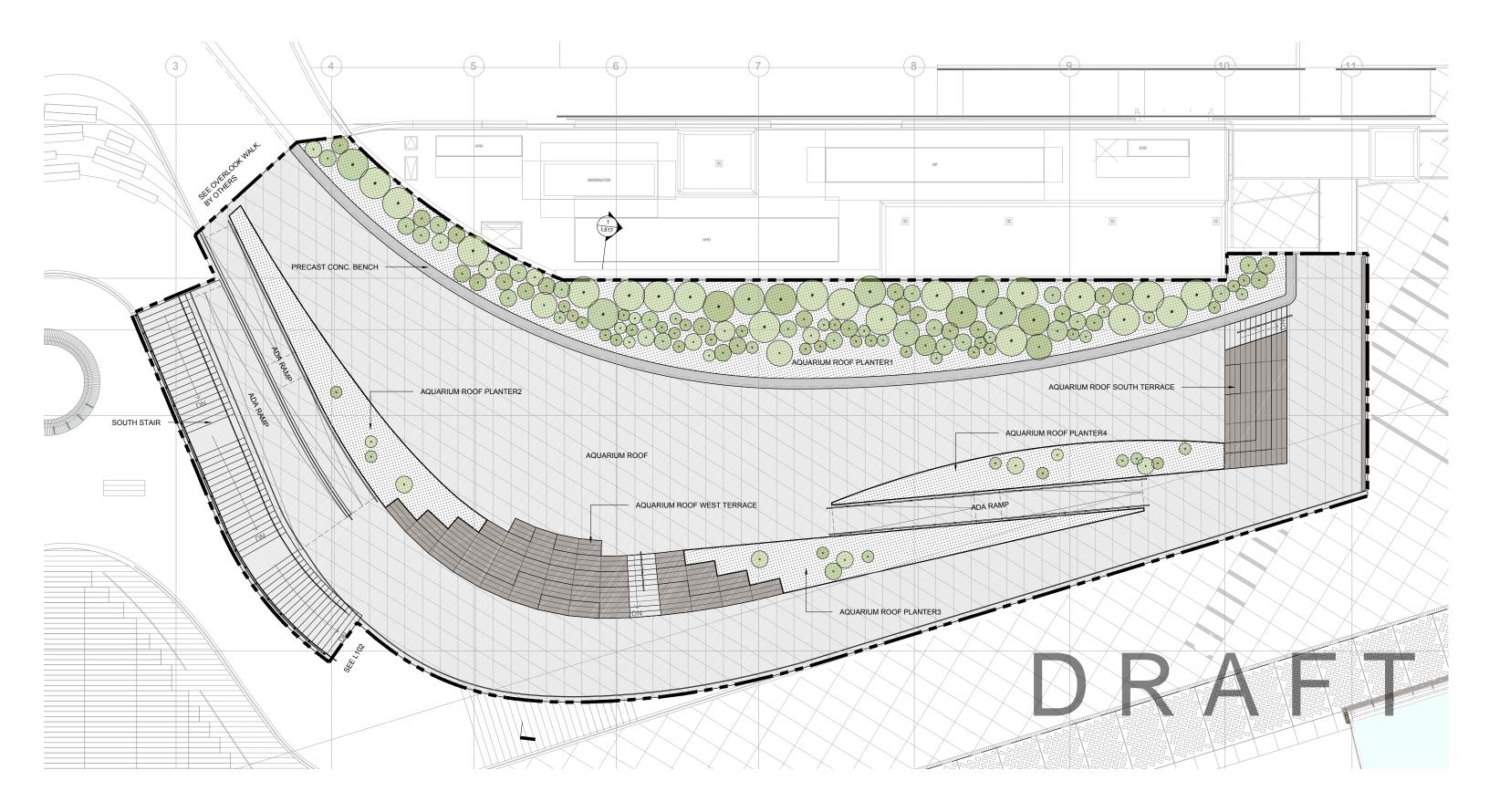


- 88 STEPS

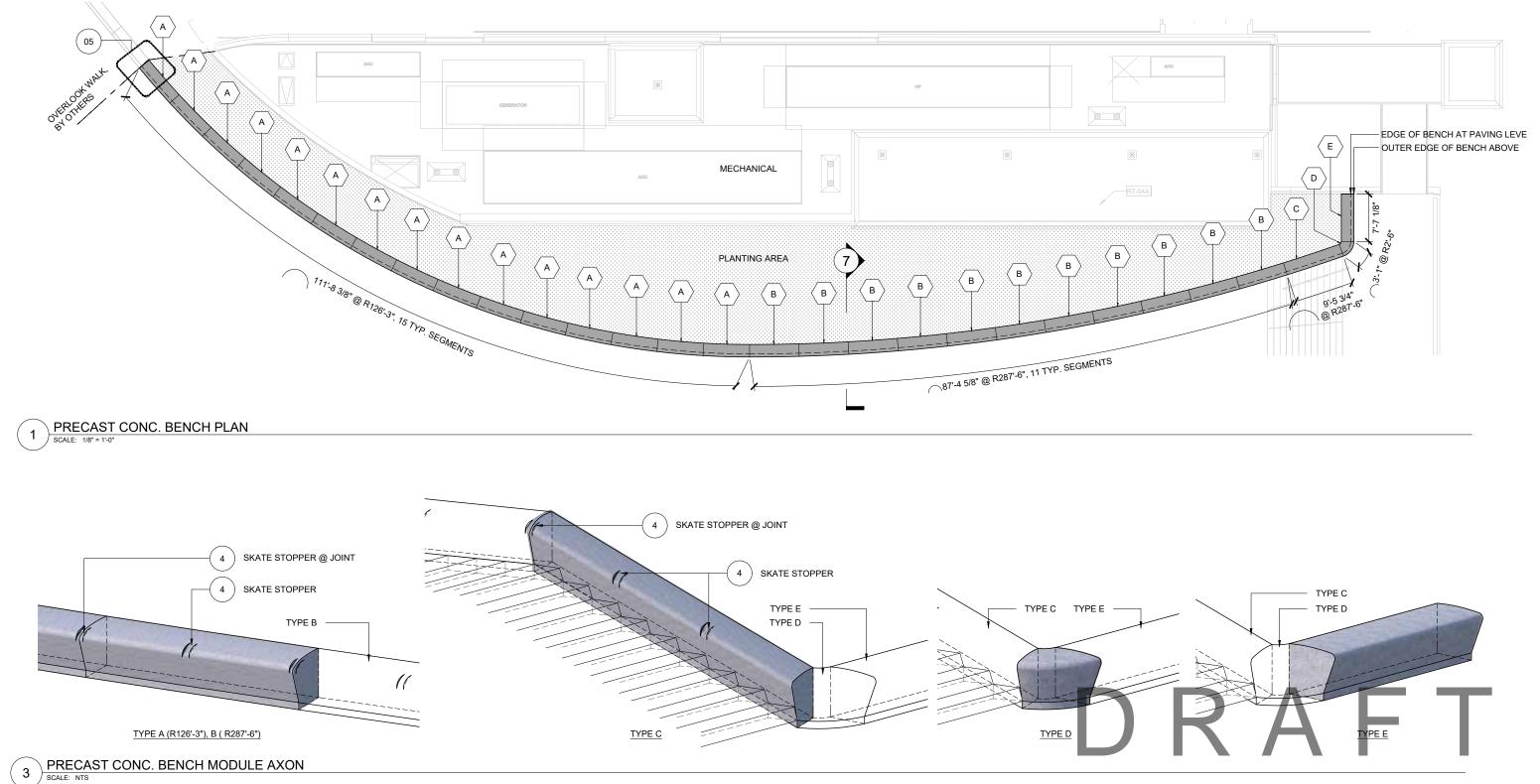
- 88 STEPS



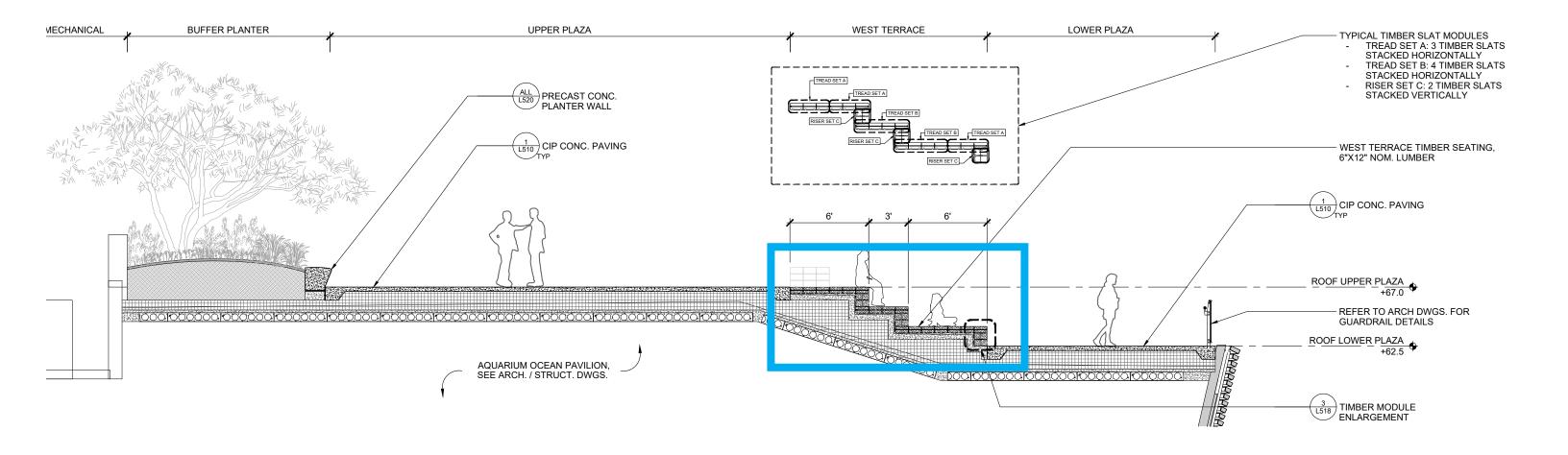
### **OCEAN PAVILION ROOF** SEATING



### **OCEAN PAVILION ROOF** PRE-CAST CONCRETE BENCH



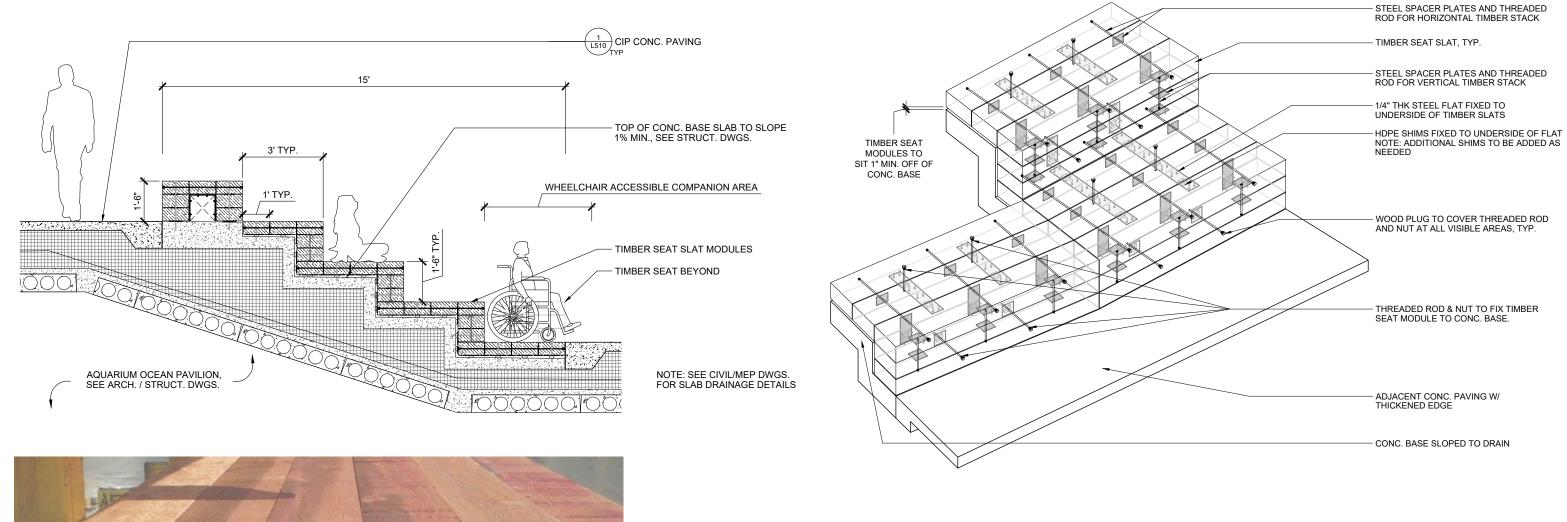
## **OCEAN PAVILION ROOF** WESTERN WOOD SEATING STEPS







## **OCEAN PAVILION ROOF** WESTERN WOOD SEATING STEPS

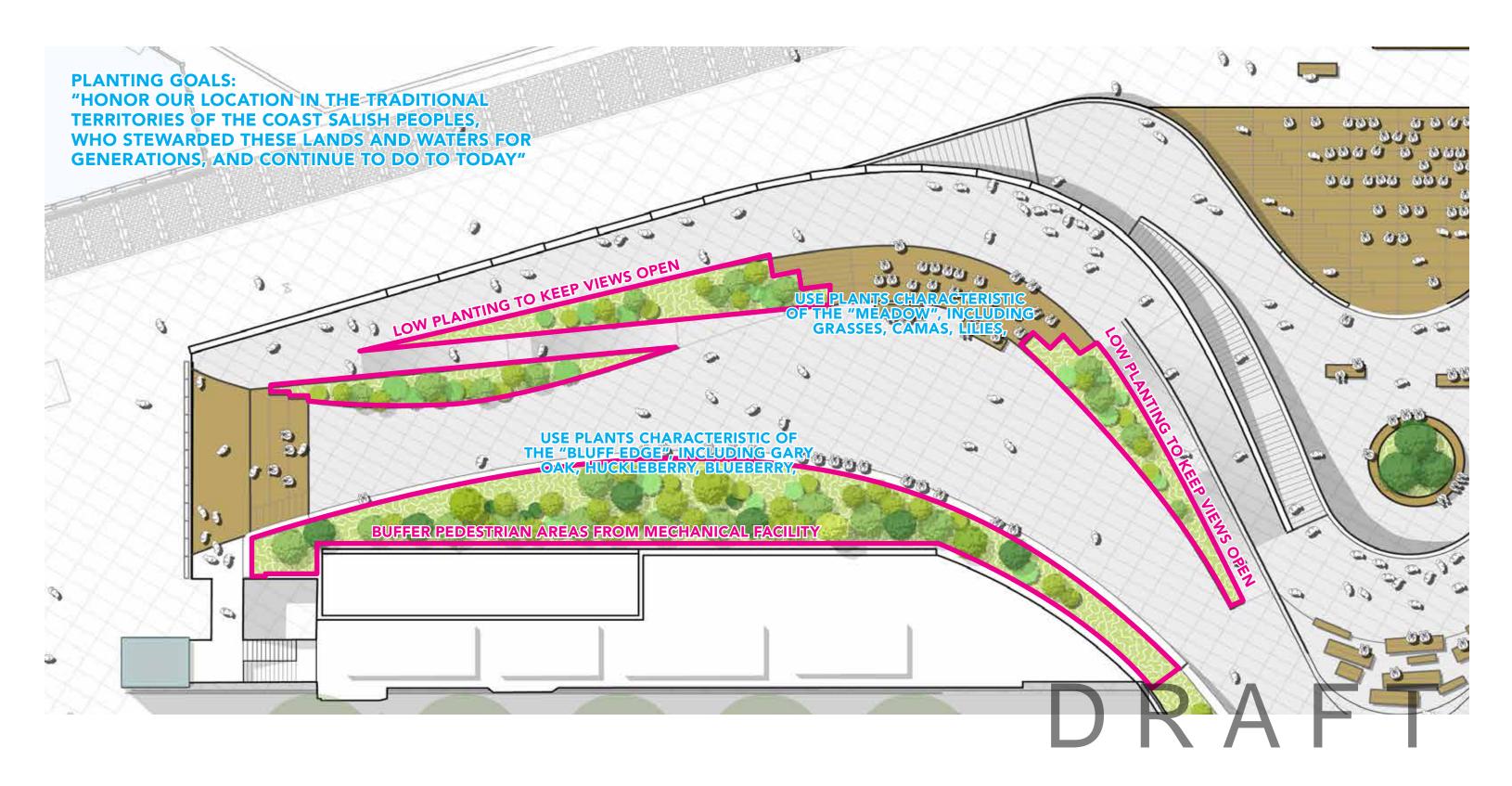




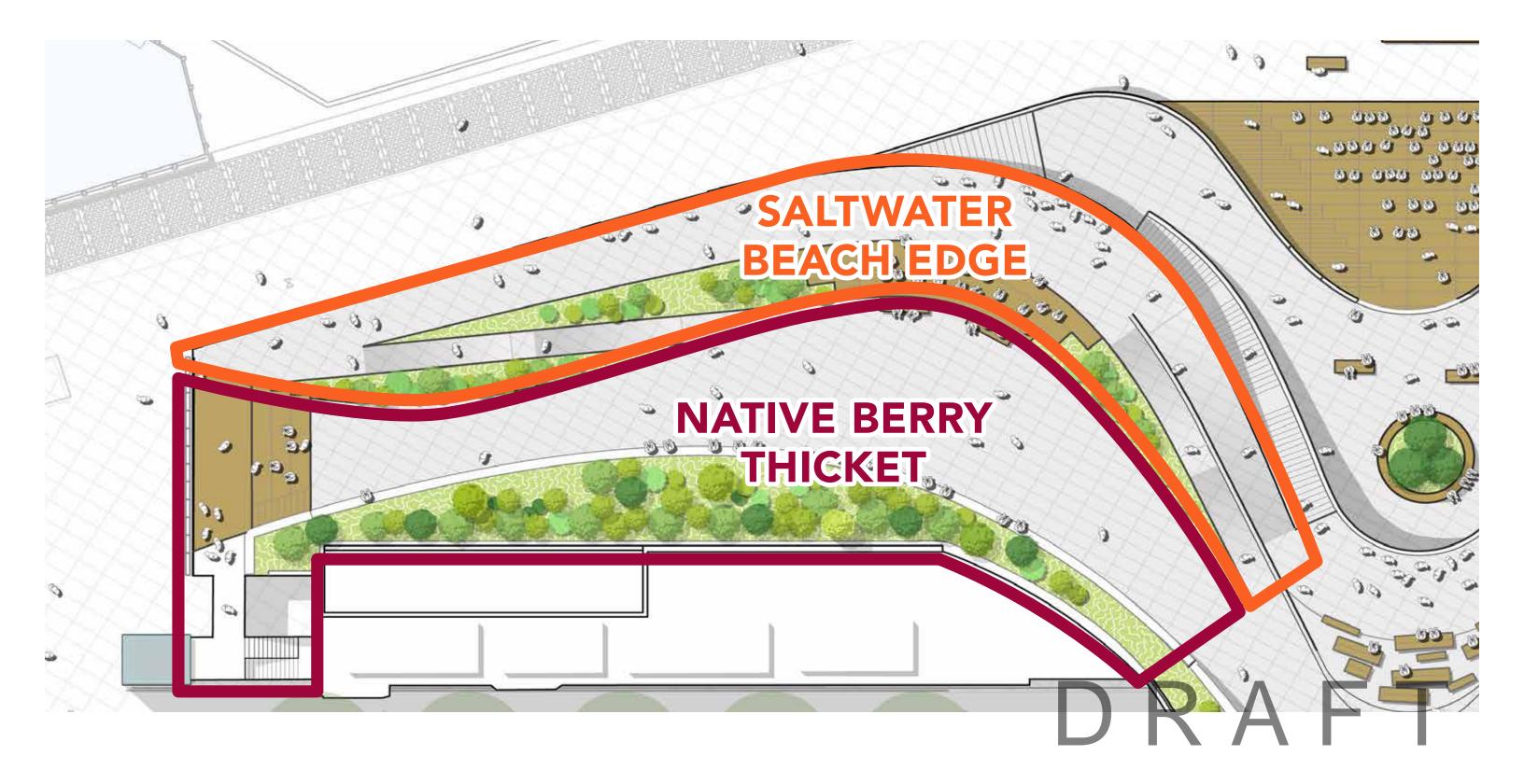
## WOOD SOURCING FROM TRIBAL FOREST



### **OCEAN PAVILION ROOF** PLANTING



## **OCEAN PAVILION ROOF** TELLING MEANINGFUL STORIES



Native Berry Garden Salal Red Huckleberry Evergreen Huckleberry Thimbleberry Salmonberry Oregon Grape Gooseberry High Bush Cranberry Wild Trailing Blackberry



















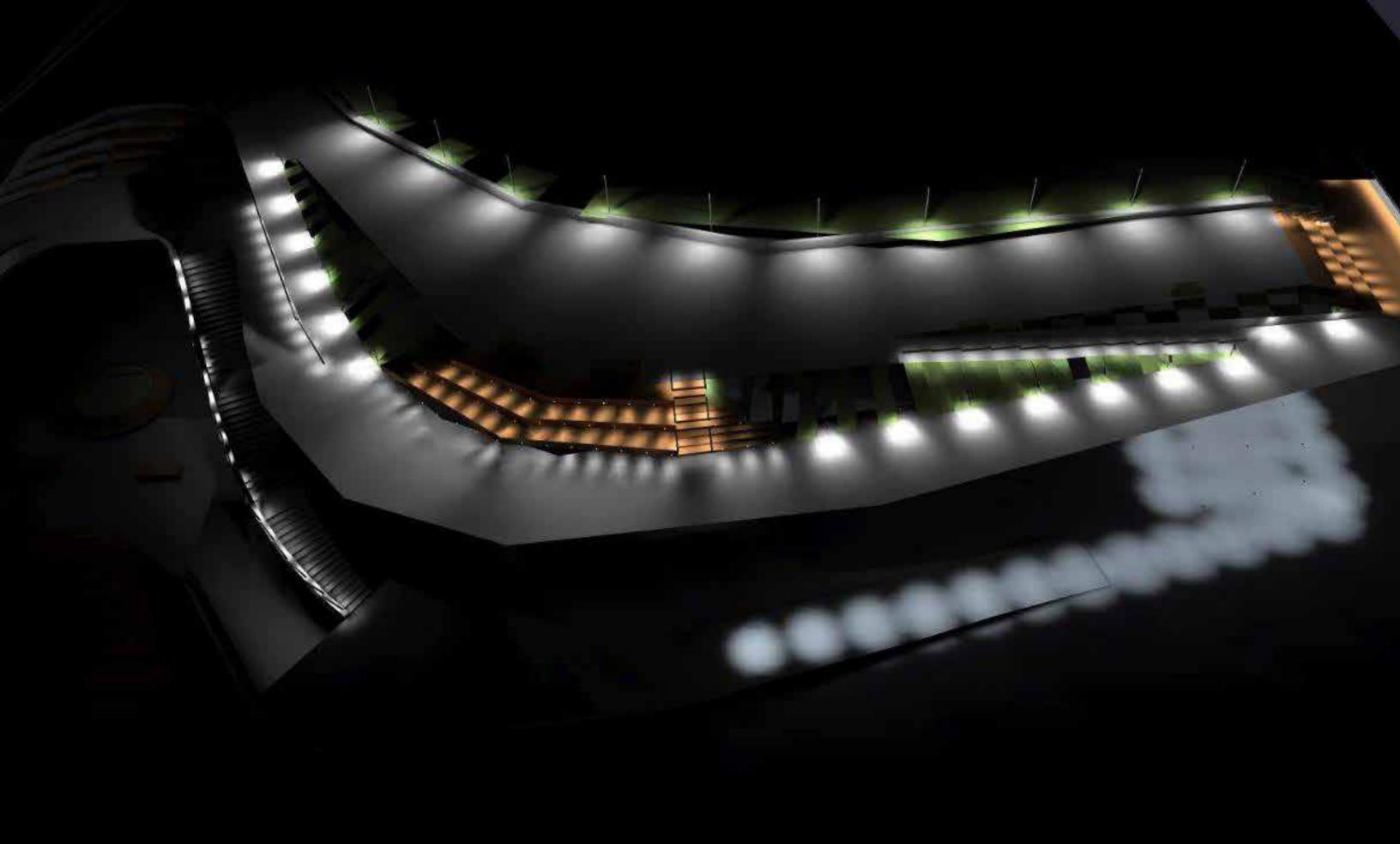


Saltwater Beaches Nootka Rose Yarrow Nodding Onion Wild Strawberry Kinnikinick Hairy Manzanita



## OCEAN PAVILION ROOF

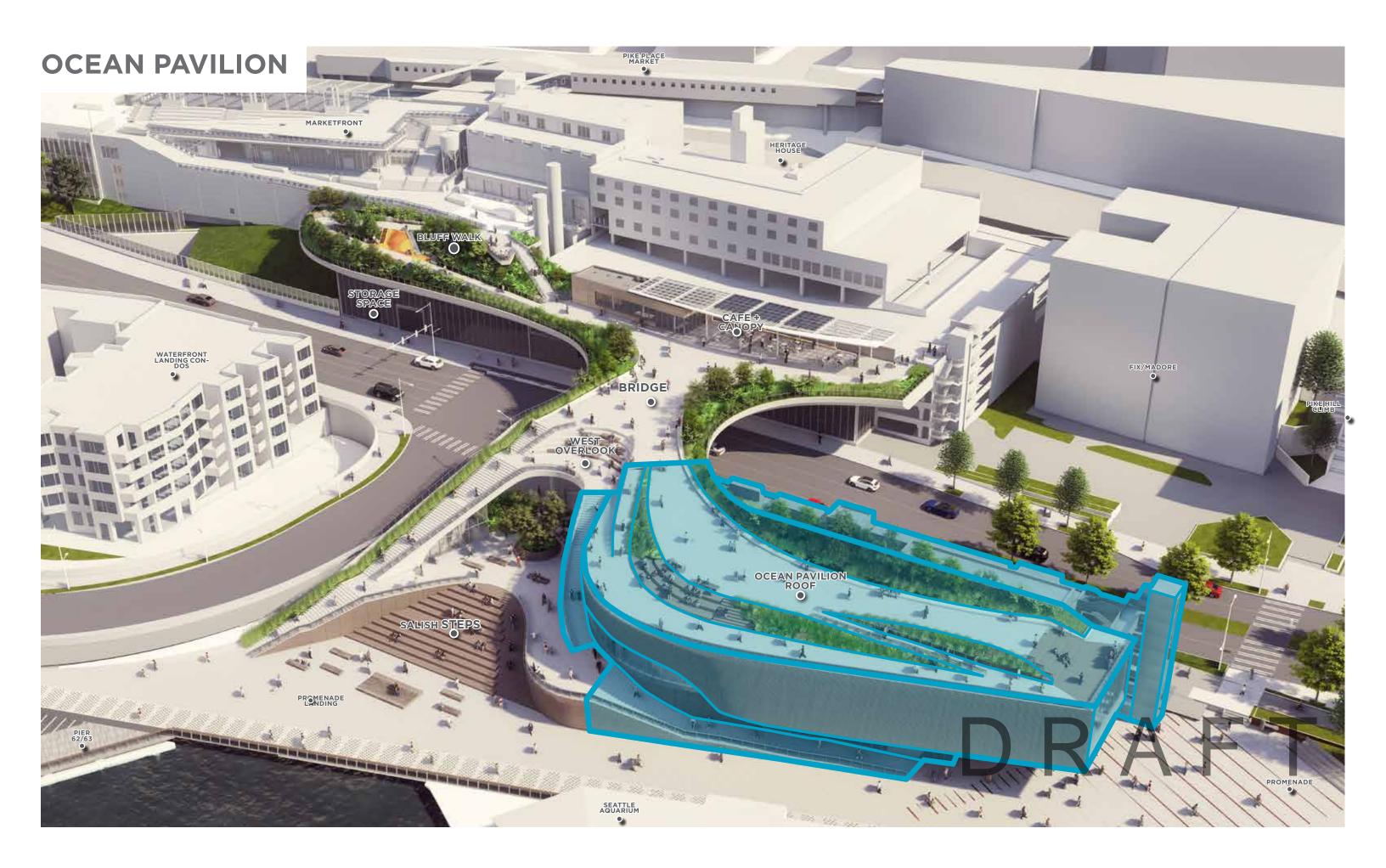


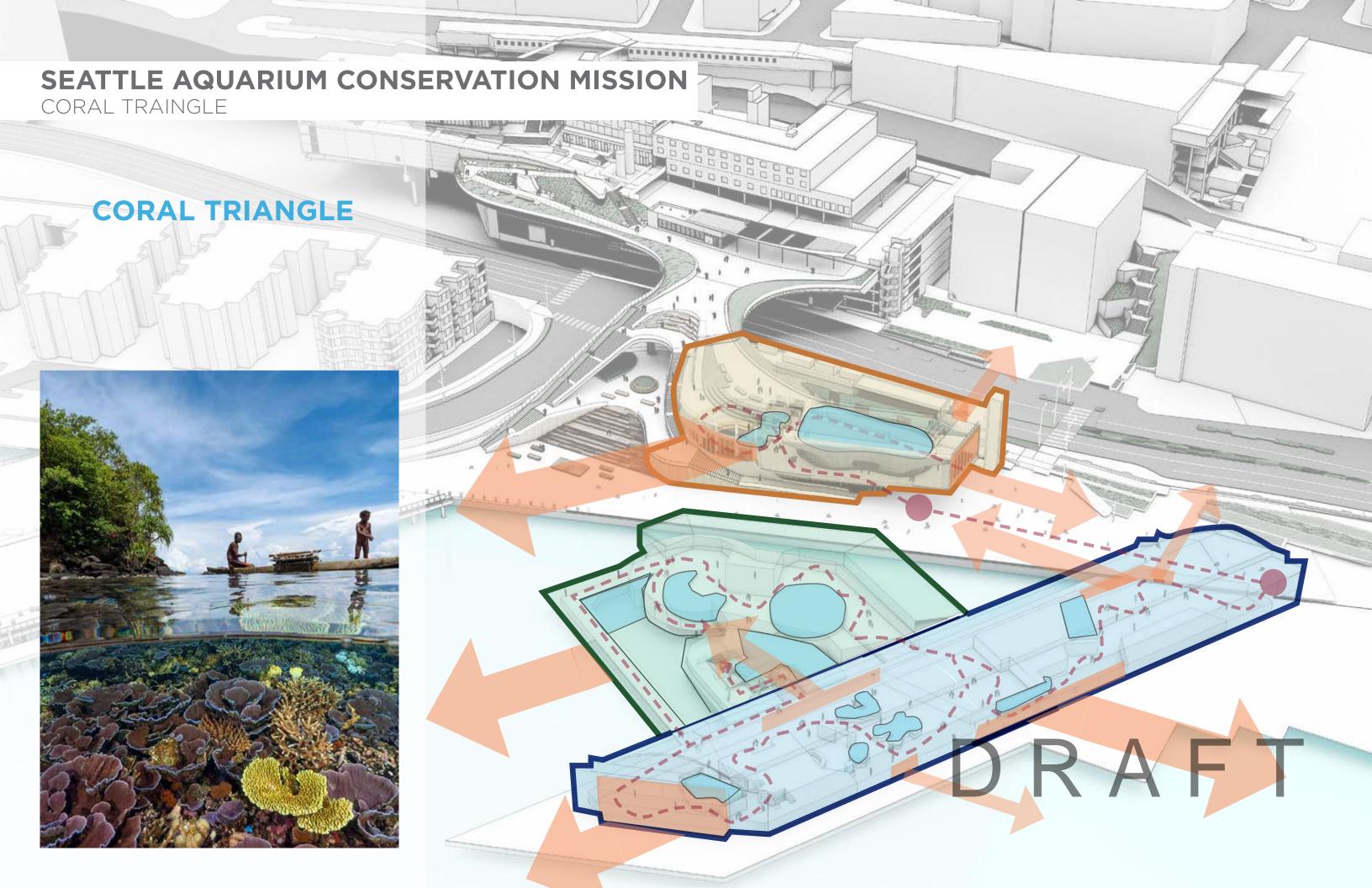


# **OCEAN PAVILION**

- Conservation mission/Aquarium campus
- Sustainability
- Program organization
- Experience and Materials:
  - Integration with waterfront/ urban context
  - Integration with Salish steps
  - Integration with waterfront context
  - Integration with the promenade
- Public art program







## SEATTLE AQUARIUM CONSERVATION MISSION RELATIONSHIP WITH THE OCEAN

## WE ARE IN A RELATIONSHIP WITH THE OCEAN The Ocean Pavilion redefines "aquarium" for the 21st century

- A model of a thriving human culture, **a community of care**, that fosters a thriving ecology
- Exhibits that develop empathy towards wildlife and inspire wonder for life creating the conditions for life on our planet
- A landmark site that acknowledges Coast Salish lands and waters and the **vital role of Indigenous knowledge** in our future ocean
- An inclusive space that "meets people where they are" with a full range of living, immersive, and interactive experiences
- An **open invitation** for learning, sharing, and caring for our world ocean





**HEALTH OF THE SALISH SEA** manage sea water discharge and stormwater eliminate harmful materials (zinc, copper, mercury,...) reduce transportation impacts

## CLIMATE CHANGE & OCEAN ACIDIFICATION reduce energy use & carbon emissions

reduce refrigerants/ eliminate fossil fuel use expand comfort range

## EQUITY

acknowledgment of land sovereignty social justice through environmental stewardship inclusive design

### **PLASTICS & MATERIALS**

reduce/ eliminate pvc use sustainable materials and coatings utilize low carbon concrete

### **RESILIENCE** design for higher sea levels utilize future weather files evaluate redundancy in critical systems

## **SUSTAINABILITY STRATEGIES**

#### **DESIGN IMPACTS ON GHG EMISSIONS**

Eliminating boilers and relying on electric heat reduces the amount of carbon released into the atmosphere and the causation of ocean acidification

#### **NO FOSSIL FUELS**

Project avoids use of greenhouse gas emitting fossil fuels

#### SUSTAINABLE MATERIALS

Reduced PVC piping and eliminated materials harmful to marine environment (vinyls, zinc, copper, mercury, etc.)

### MINIMAL REFRIGERANTS

Heating and cooling are distributed with water throughout the building

#### CONSERVATION MESSAGING

Exhibits and interpretive elements focus on marine conservation

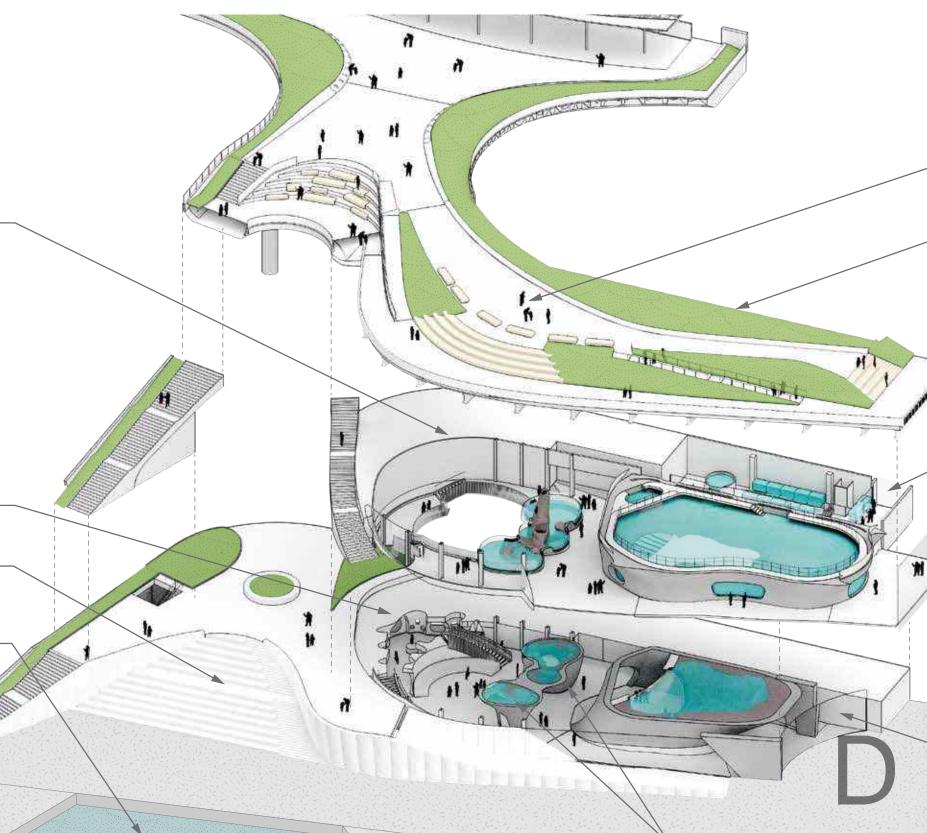
#### ENHANCED CONNECTIVITY

Public stairs connect the waterfront and the downtown core.

### CONNECTION TO NATURE Exhibits integrated with

habitat in the bay

**BIOPHILIA** Exhibit vegetation brings biophilia indoors promoting human health and well-being



#### SUSTAINABILITY TARGETS

LEED Gold 70% Energy Use Reduction 95% Carbon Emissions Reduction (based on similar aquariums)

#### PUBLIC OPEN SPACE

Green roof with native plantings reduces storm water runoff

#### **BUILDING ENVELOPE**

High performance glazing and building envelope

#### **BUILDING METERING**

Metering of energy categories to track building performance

#### **EMBODIED CARBON REDUCTION**

Low carbon concrete and rebar Wood Siding

#### LIFE SUPPORT SYSTEMS

Building heating/cooling and animal life support systems share energy and recover heat from each other; Semi-closed system conserves water and energy

#### DAYLIGHTING

Windows bring natural light into aquarium reducing need for artificial lights

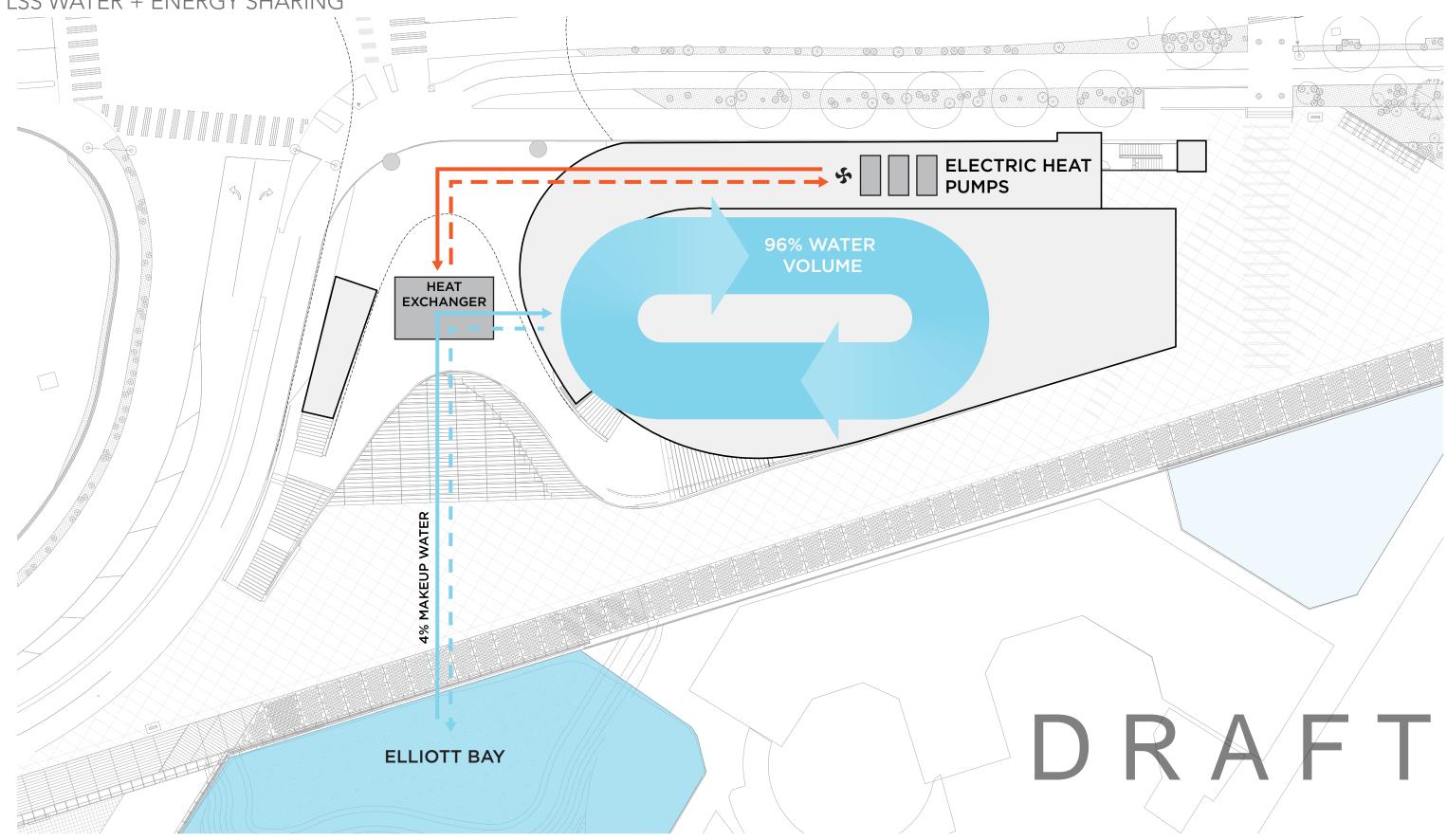
#### WATER EFFICIENCY

Low Flow Flush Fixtures

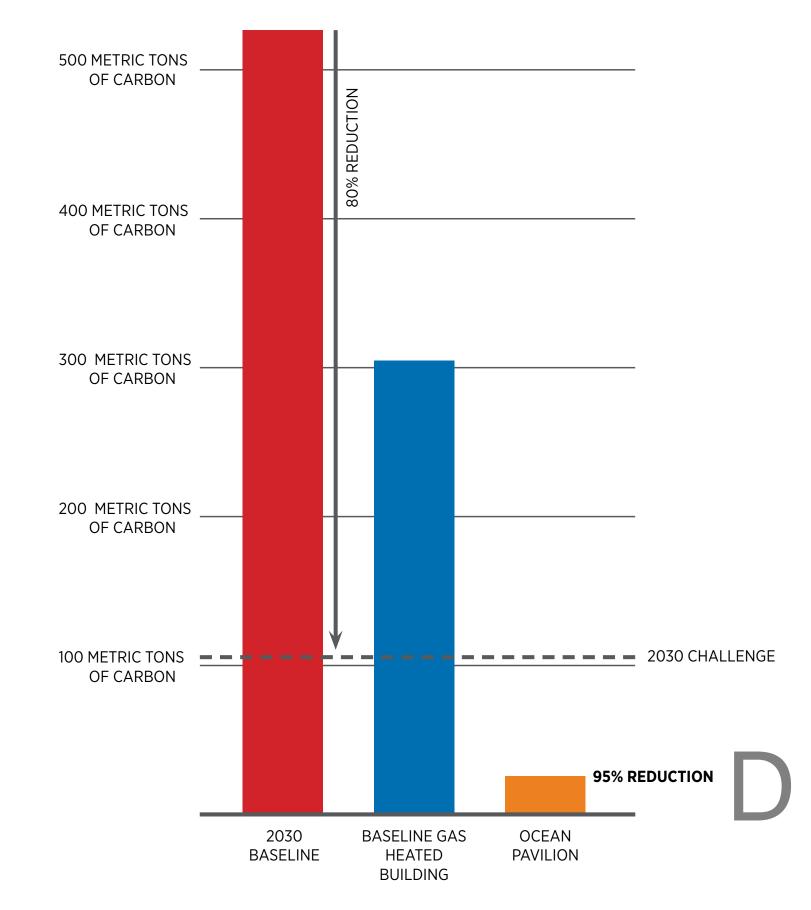


LIGHTING Daylight Control; Power densities below stringent Seattle Energy Code

## **SUSTAINABILITY** LSS WATER + ENERGY SHARING

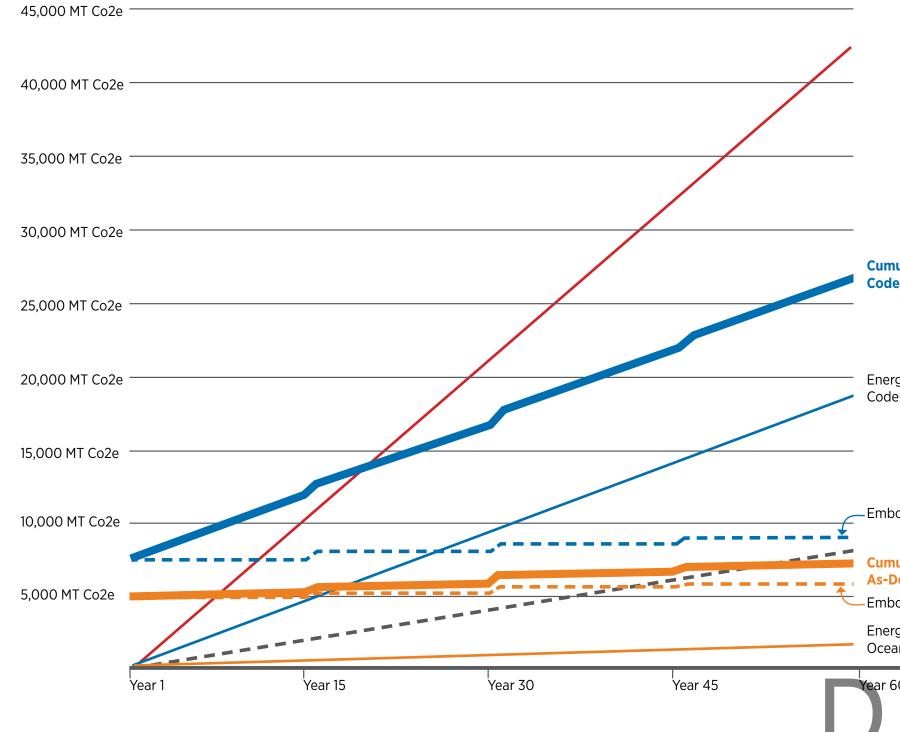


## **ANNUAL CARBON EMISSIONS**



# 95% REDUCTION D R A F T





60-year Cumulative Carbon Emissions for Baseline and Proposed Aquarium

**Cumulative Co2e, Code-Compliant** 

Energy Use CO2e Code-Compliant

-Embodied Co2e

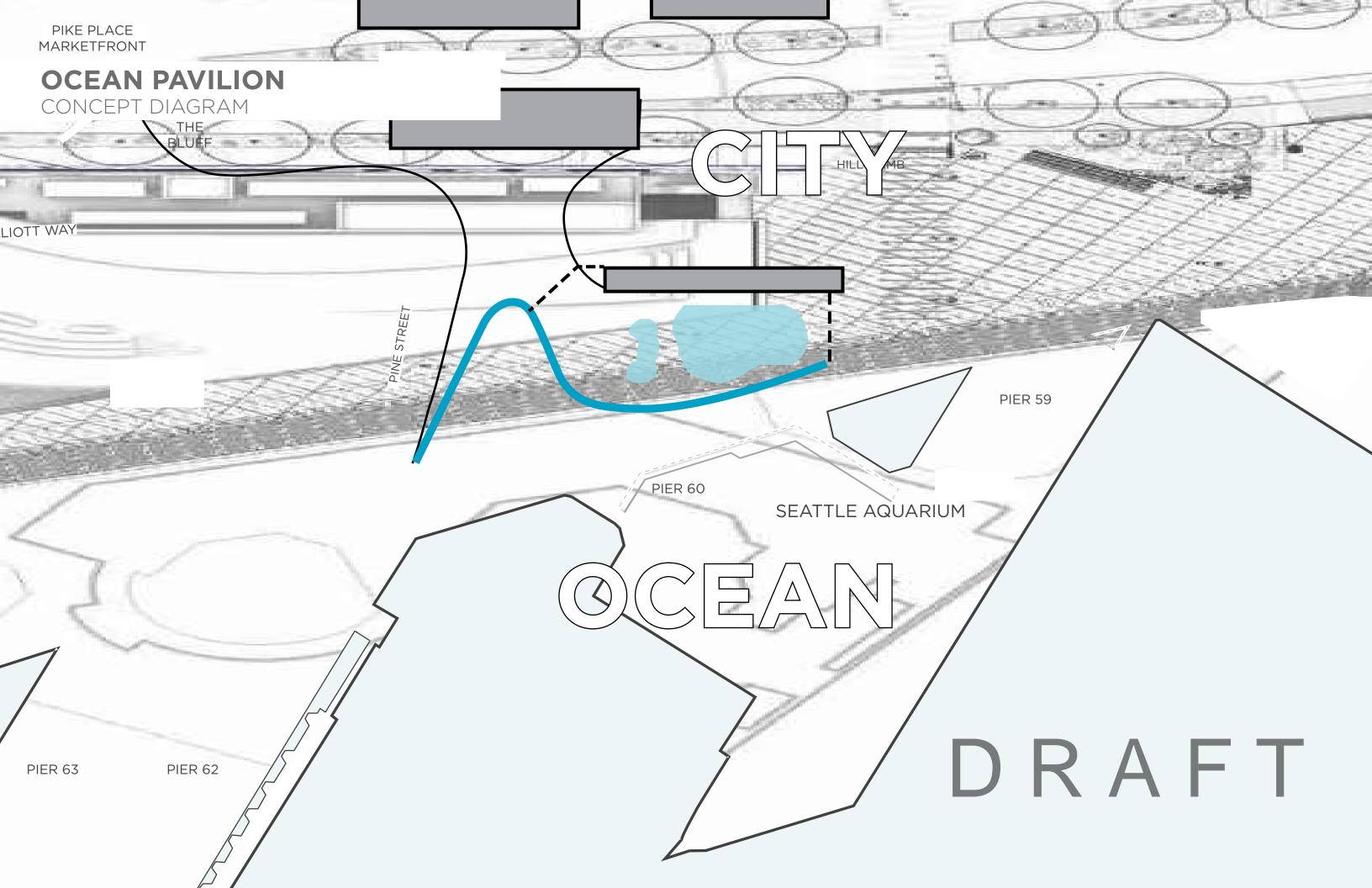
#### Cumulative Co2e, **As-Designed**

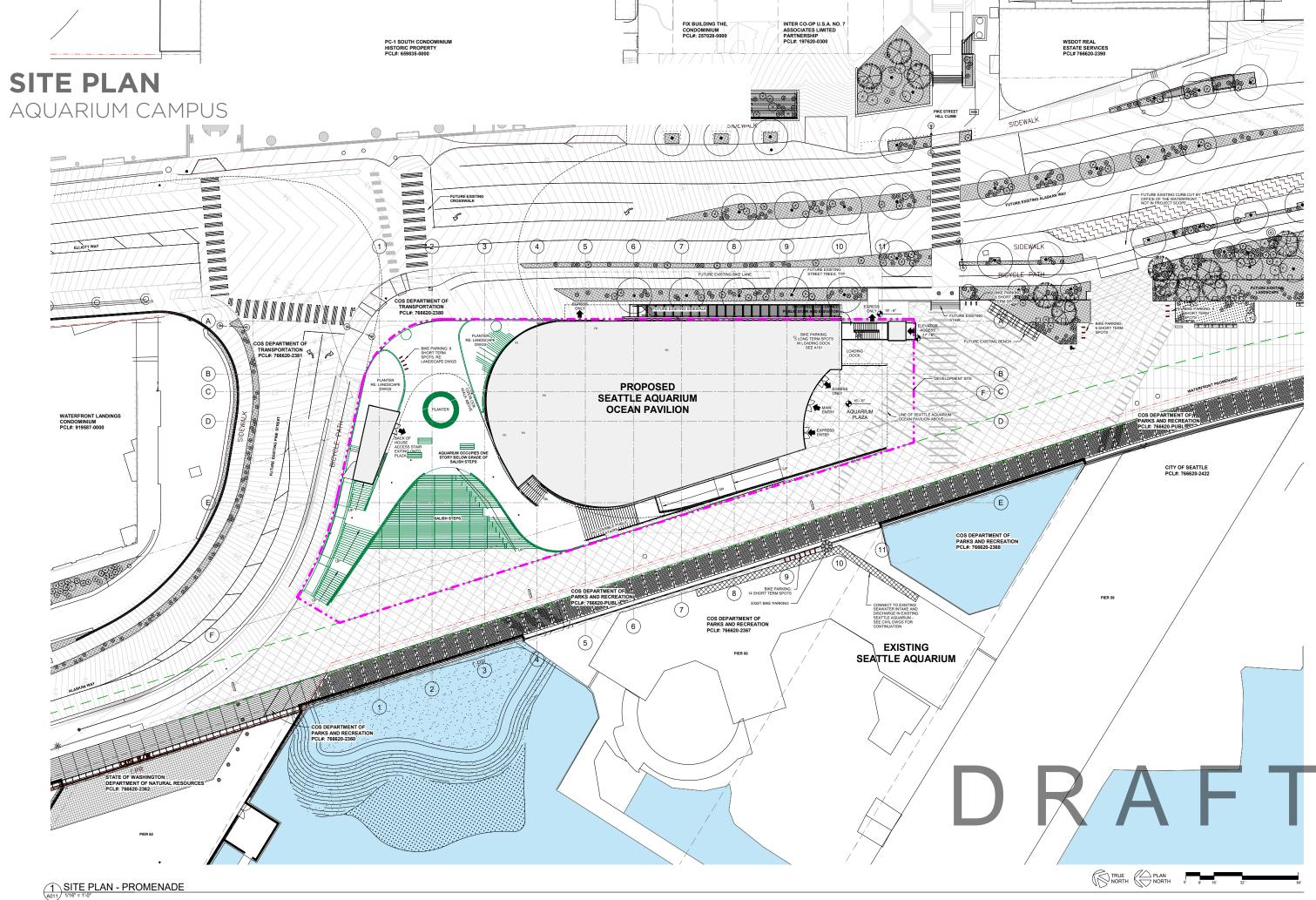
-Embodied Co2e

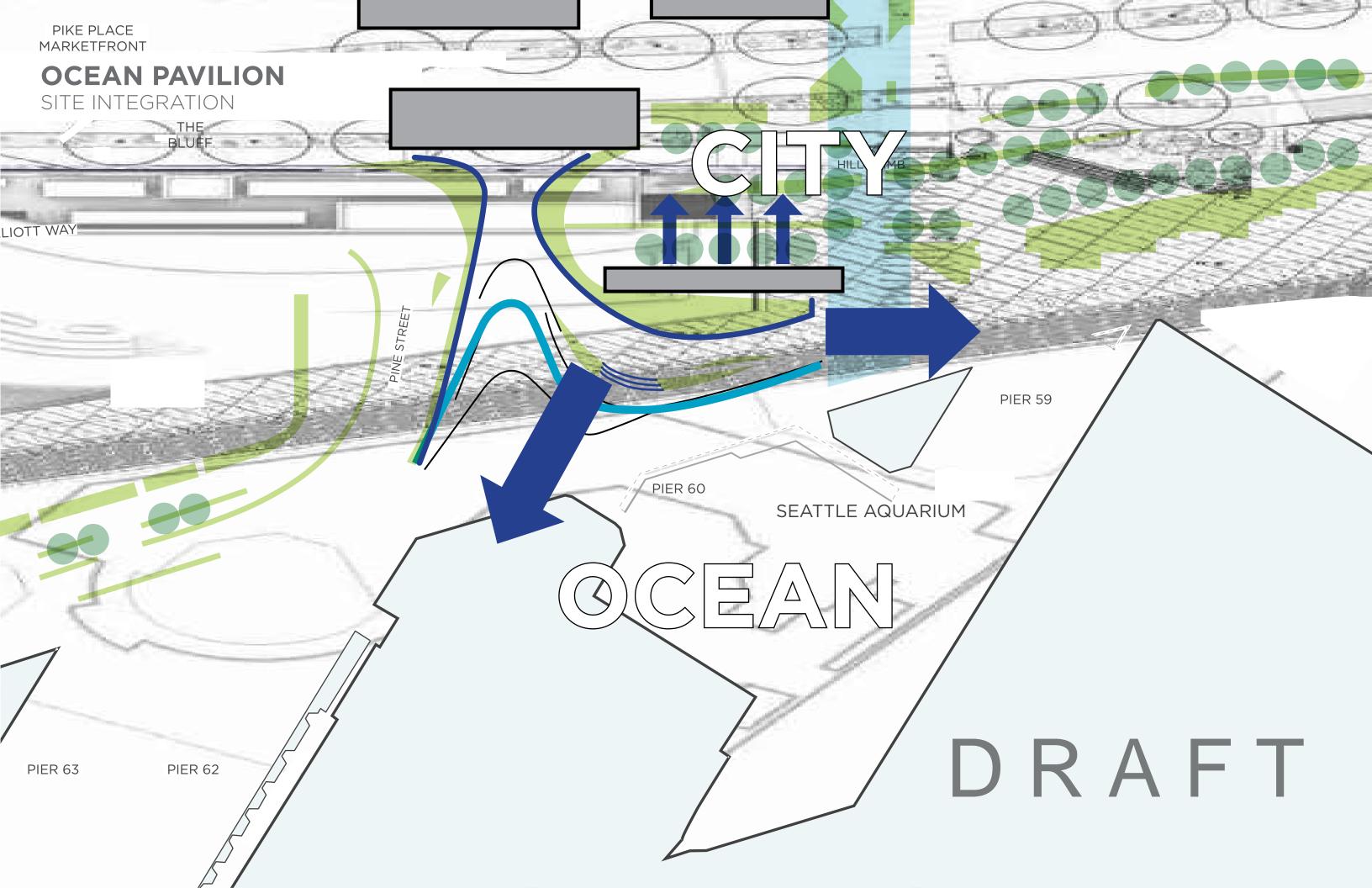
Energy Use CO2e Ocean Pavilion

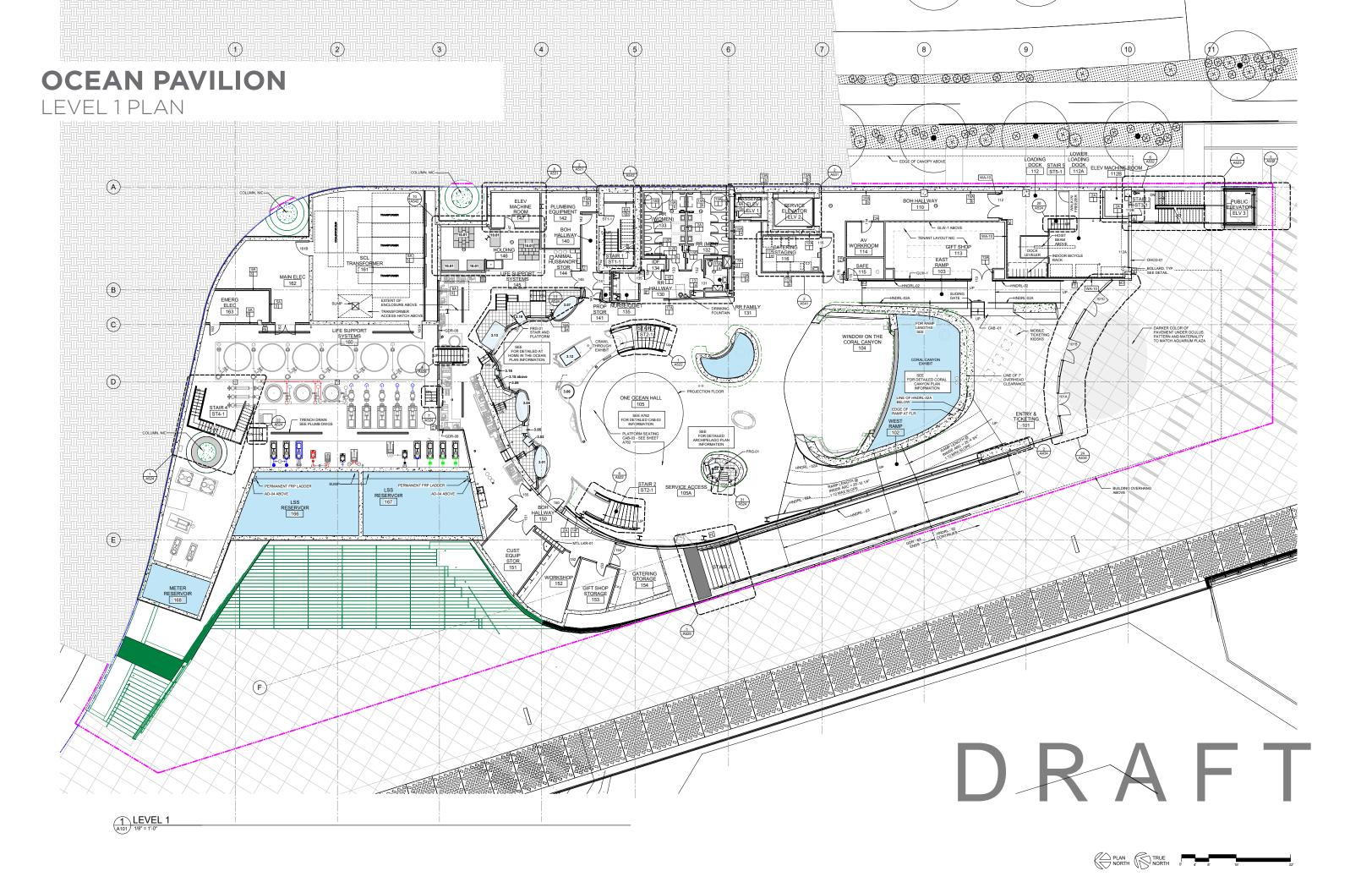


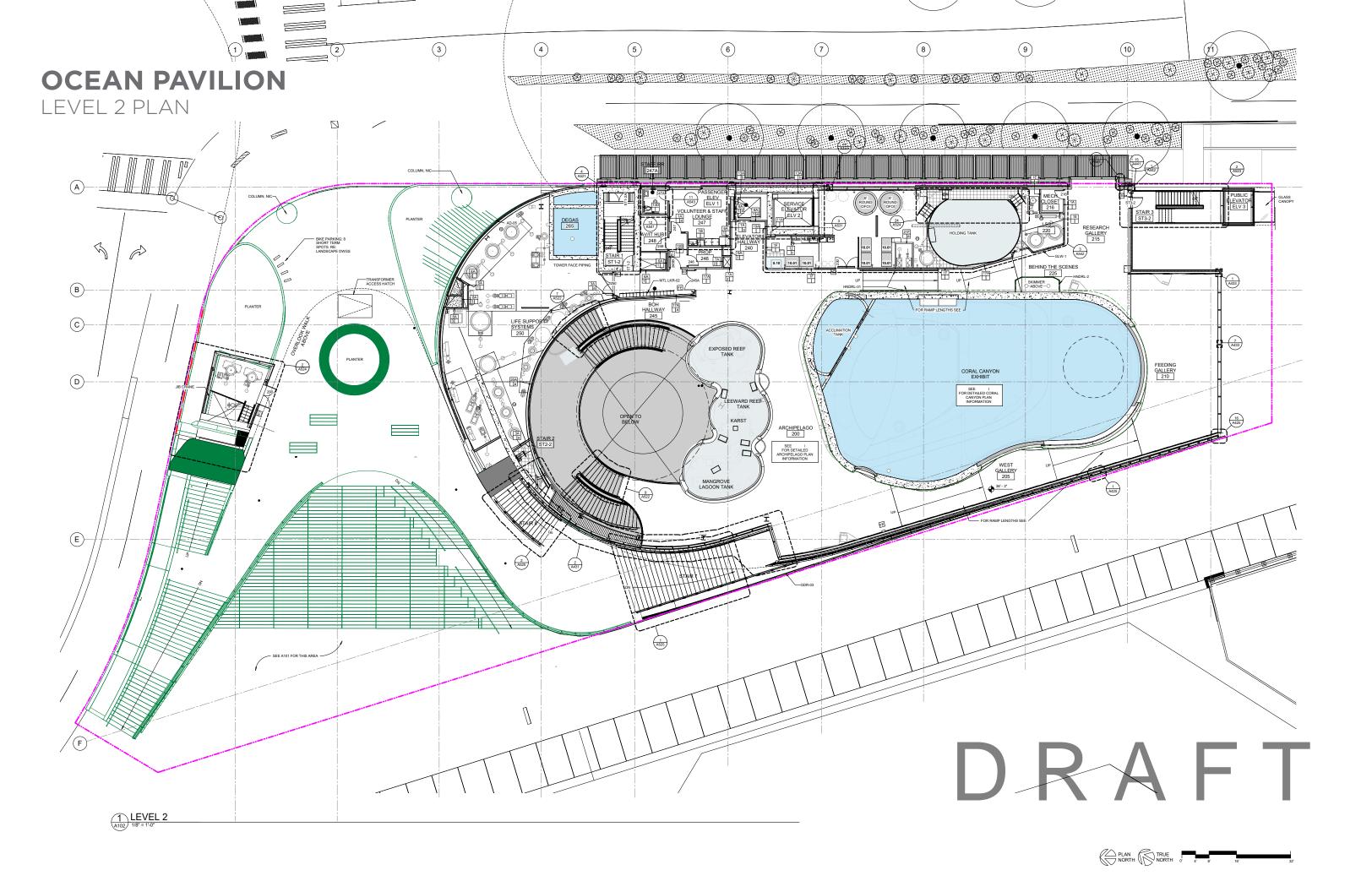


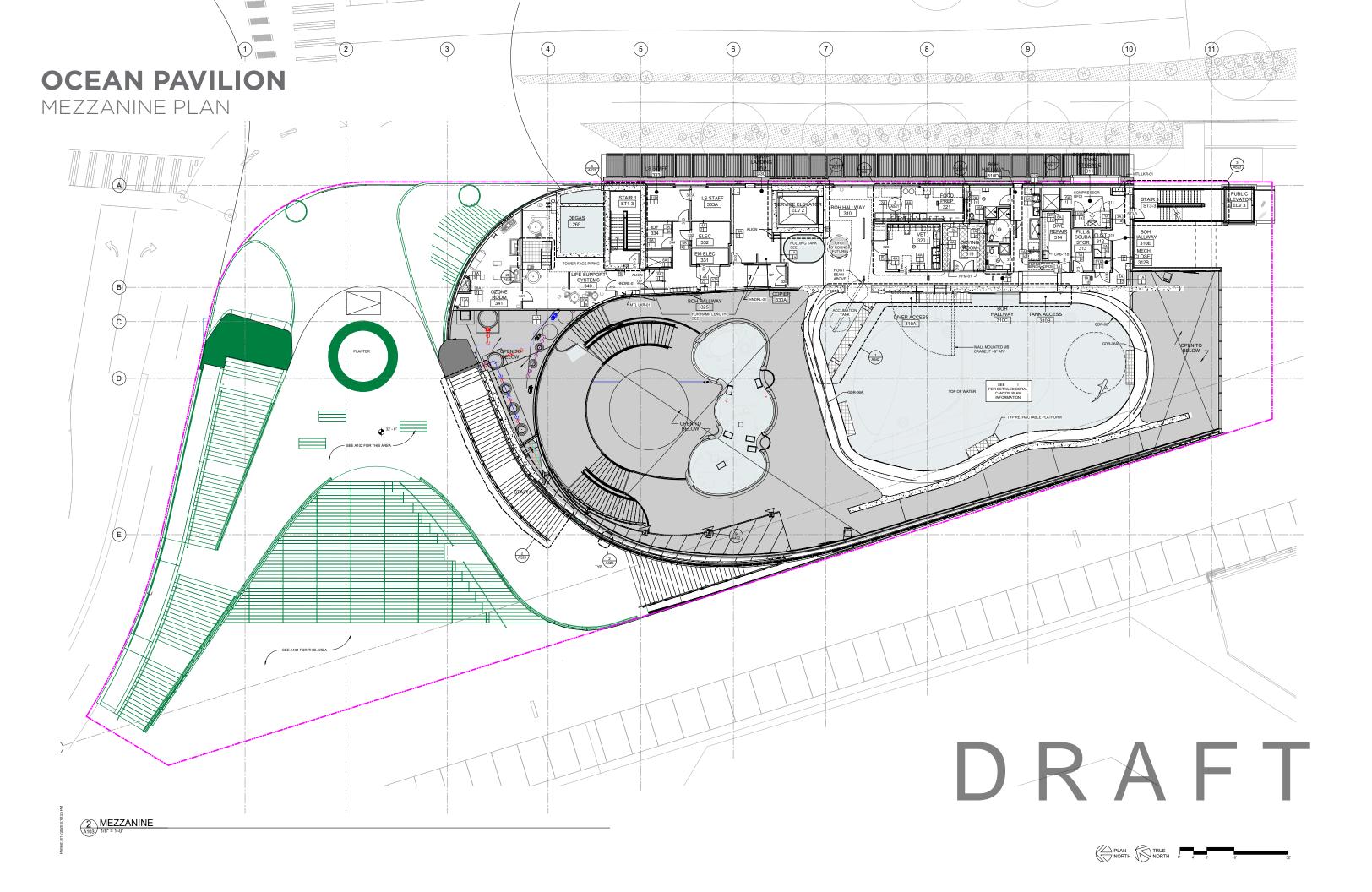




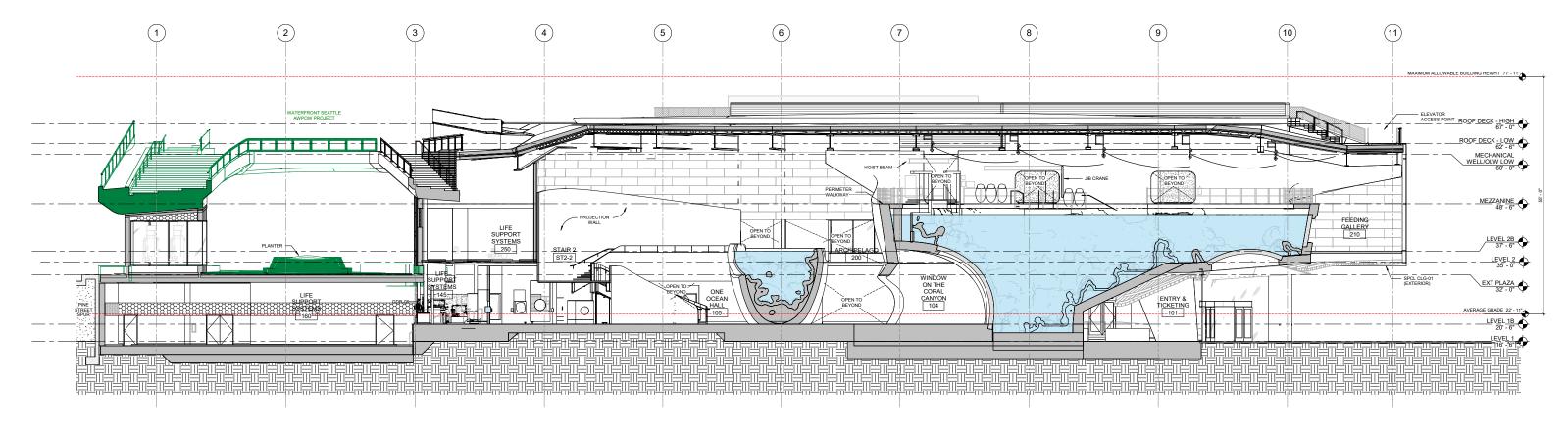








## **OCEAN PAVILION** SECTIONS



1 A3002 1/8" = 1'-0"

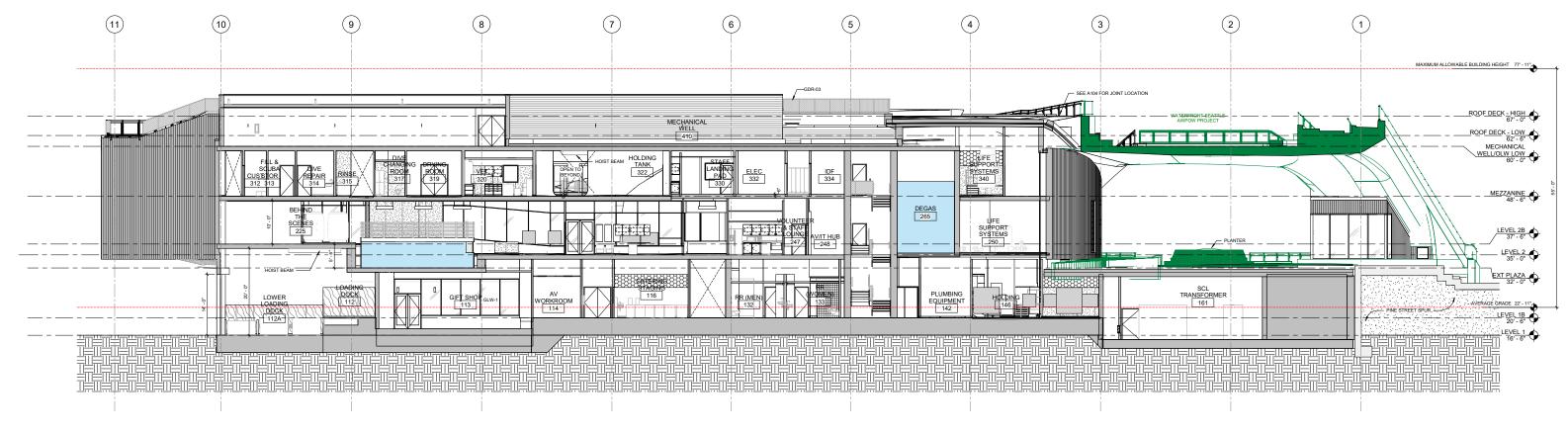








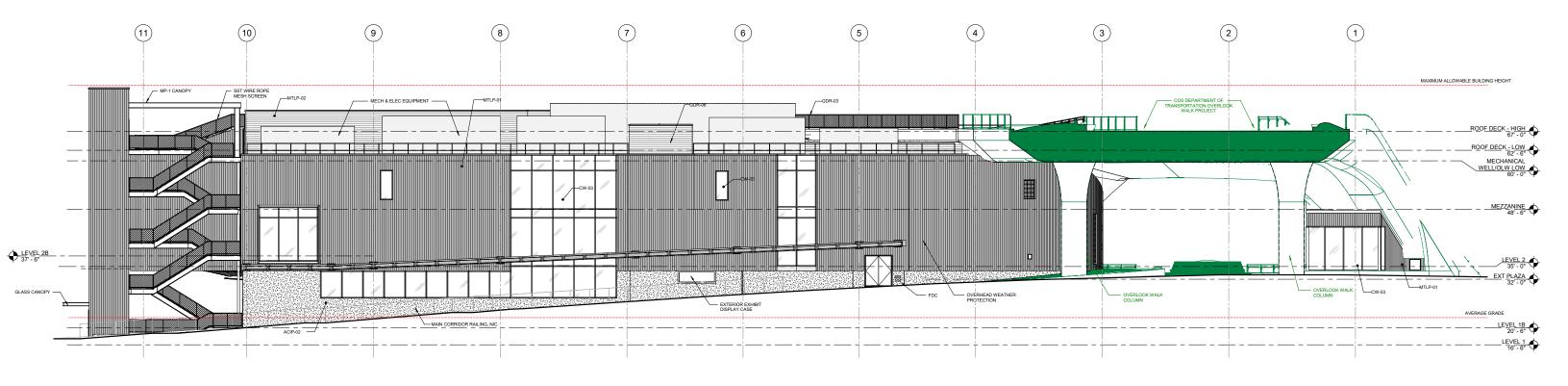
## **OCEAN PAVILION** ANIMAL CARE



2 N-S SECTION FACING WEST



## **OCEAN PAVILION** EAST ELEVATION



## 1 EAST ELEVATION (A201) 1/8" = 1'-0"

## DRAFT



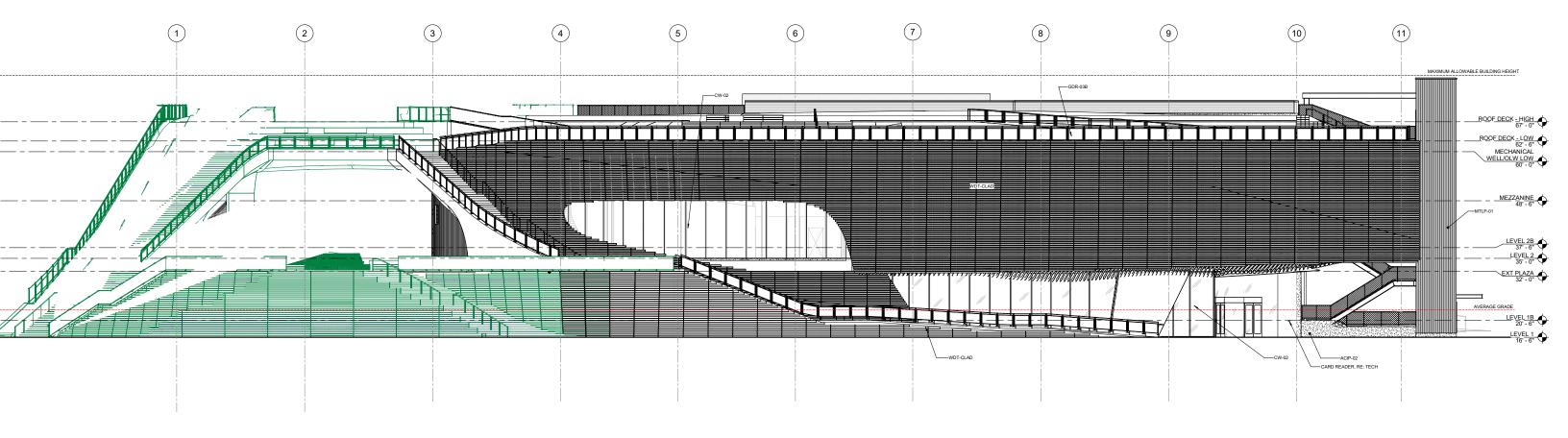








## **OCEAN PAVILION** WEST ELEVATION



5 WEST ELEVATION (A202) 1/8" = 1'-0"

# DRAFT



