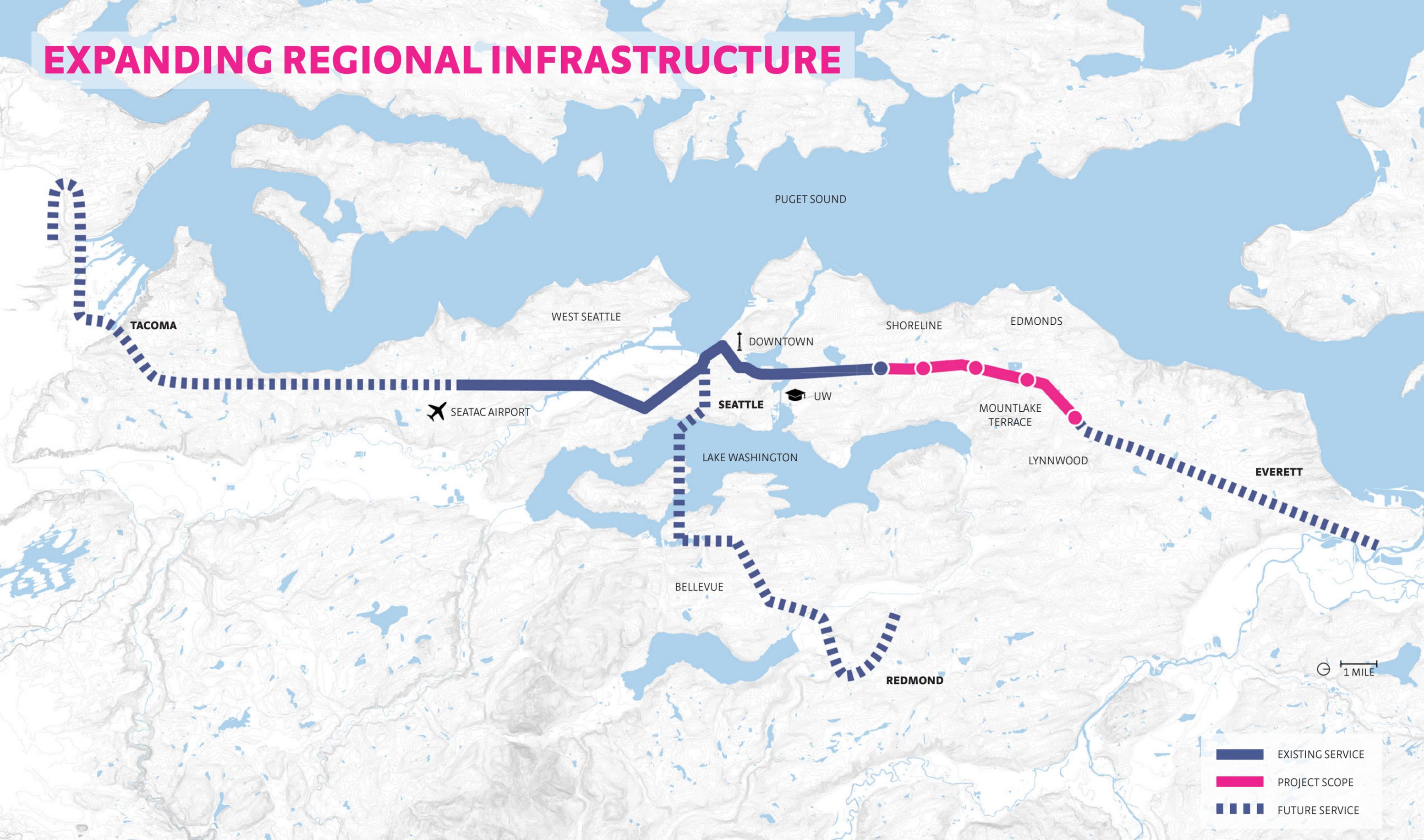
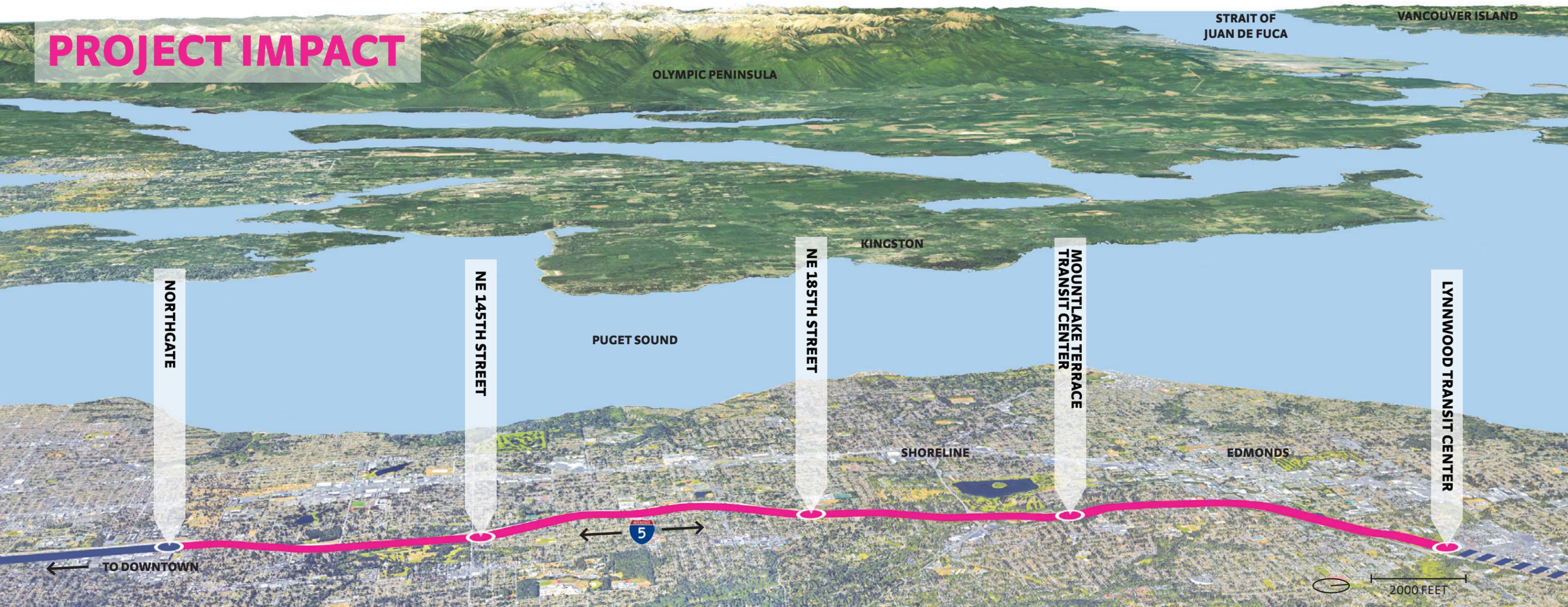


# EXPANDING REGIONAL INFRASTRUCTURE



The Lynnwood Link Extension is one length of a rapidly expanding regional light rail system serving the Seattle metropolitan region. The complex undertaking involves permitting in 4 municipalities, 2 counties, and federally owned/state managed highway ROW.

# PROJECT IMPACT



**63,000+ PEOPLE**  
PROJECTED TO BE SERVED EACH WEEKDAY



**8+ MILES**  
OF NEW TRACK



**4 NEW STATIONS**  
WITH PROVISIONS FOR AN ADDITIONAL 2



**40% REDUCTION**  
IN AVERAGE COMMUTE TIME OVER DRIVING

The Lynnwood Link Extension expands service from Seattle's northern commercial hub at Northgate out into the region's growing suburban centers. When completed, the project will run alongside Interstate 5 along one of the most heavily congested highway corridors in Washington.

# LANDSCAPE AS LEVERAGE

## VALUES

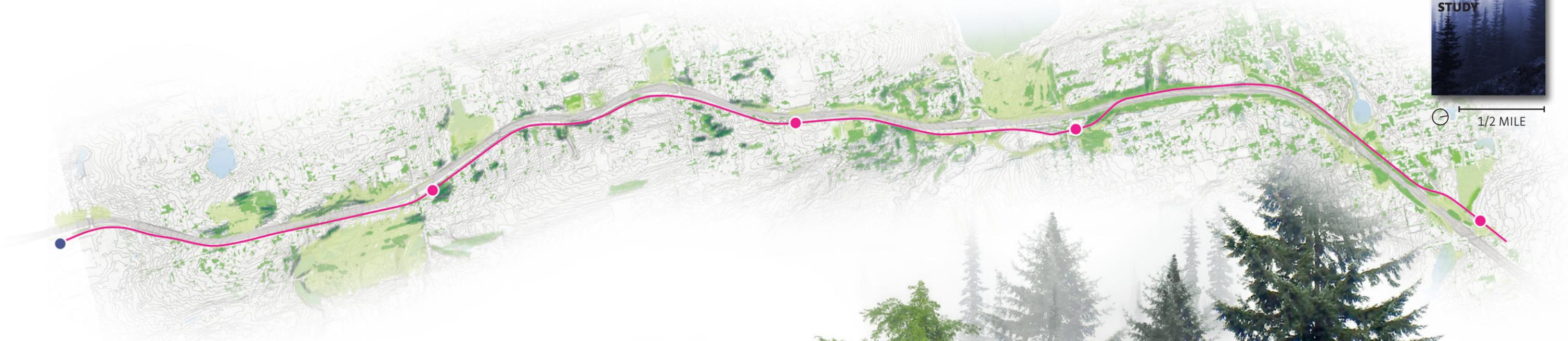
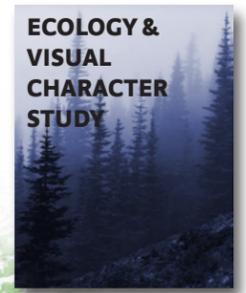
DEVELOP A STRATEGY THAT VISUALLY AND FUNCTIONALLY INTEGRATES THE 8-MILE TRANSIT CORRIDOR WITH PACIFIC NORTHWEST REGIONAL CHARACTER

ELEVATE THE IMPORTANCE OF THE LANDSCAPE AND PASSENGER EXPERIENCE WITHIN A LARGE-SCALE, LONG-TERM ENGINEERING PROJECT



The landscape architect produced 5 white papers to leverage their expertise and research into action to enhance the passenger experience of Pacific Northwest region, restore construction-damaged plant communities, understand existing tree resources, and preserve and create community identity.

# SPATIAL AND VEGETATIVE CONTEXT



OPEN FIELDS

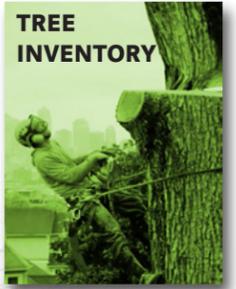
WETLANDS

DECIDUOUS CANOPY

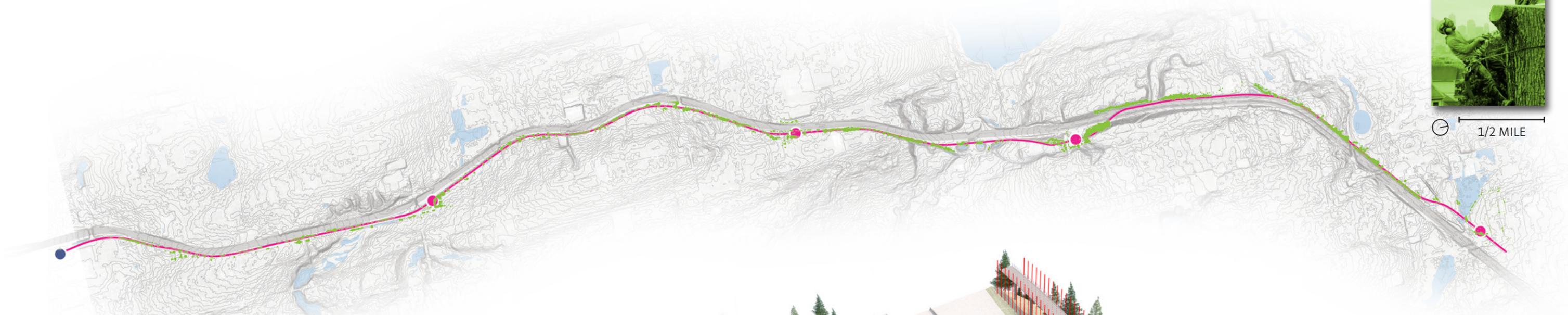
EVERGREEN STANDS

Though the project is primarily a transportation infrastructure project, the strategic approach of the landscape architect during the Preliminary Engineering Phase was to inform and influence the design response of the engineering team to a complex localized landscape context.

# CATALOGING TREE ATTRIBUTES



1/2 MILE



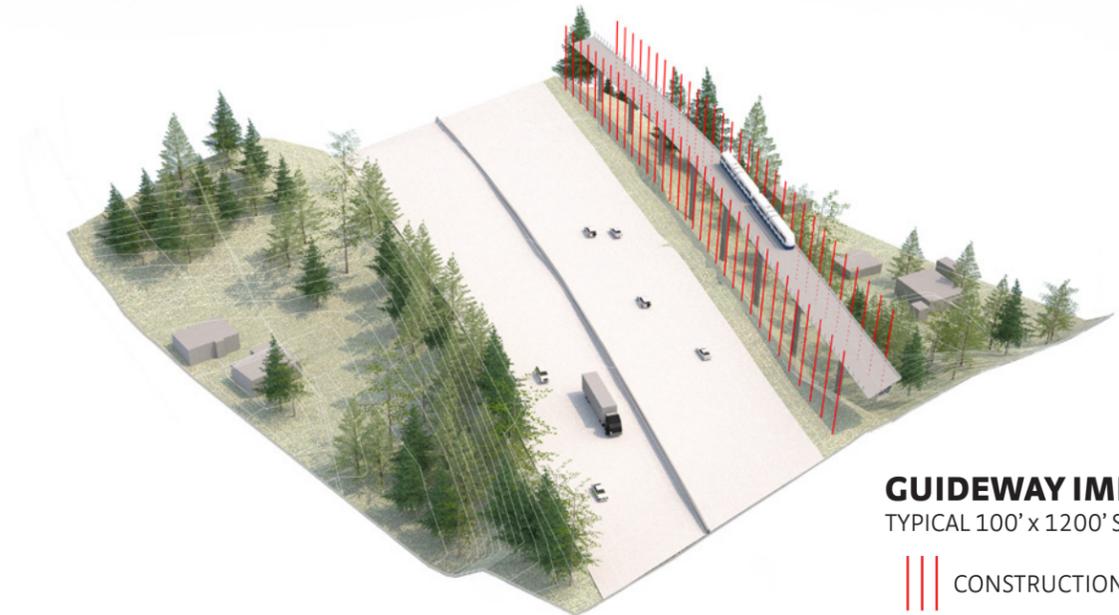
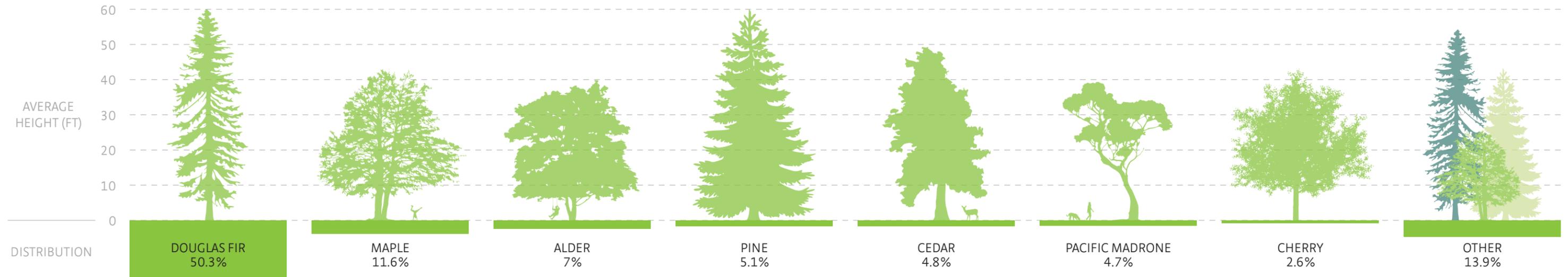
WORKING WITH AN ARBORIST, A SURVEY OF TREES POTENTIALLY IMPACTED BY CONSTRUCTION AND OPERATIONS WAS CONDUCTED.

## MINIMIZING TREE RISK

- UNDERSTAND COST RISK EXPOSURE BY QUANTIFYING NUMBER OF TREES REMOVED TO ADDRESS MITIGATION STRATEGIES.
- UNDERSTAND THE POTENTIAL PHYSICAL RISK OF TREES AFFECTING RAIL OPERATION. THIS INVENTORY CAN SERVE AS A DATABASE VALUABLE FOR LONG-TERM MONITORING AND MANAGEMENT OF TREES AS A RESOURCE.

## SPECIES DISTRIBUTION

8020 TREES SURVEYED



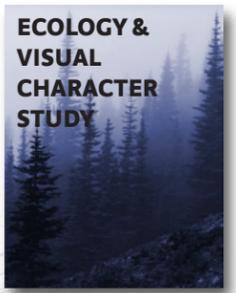
## GUIDEWAY IMPACT ANALYSIS

TYPICAL 100' x 1200' SITE CONDITION

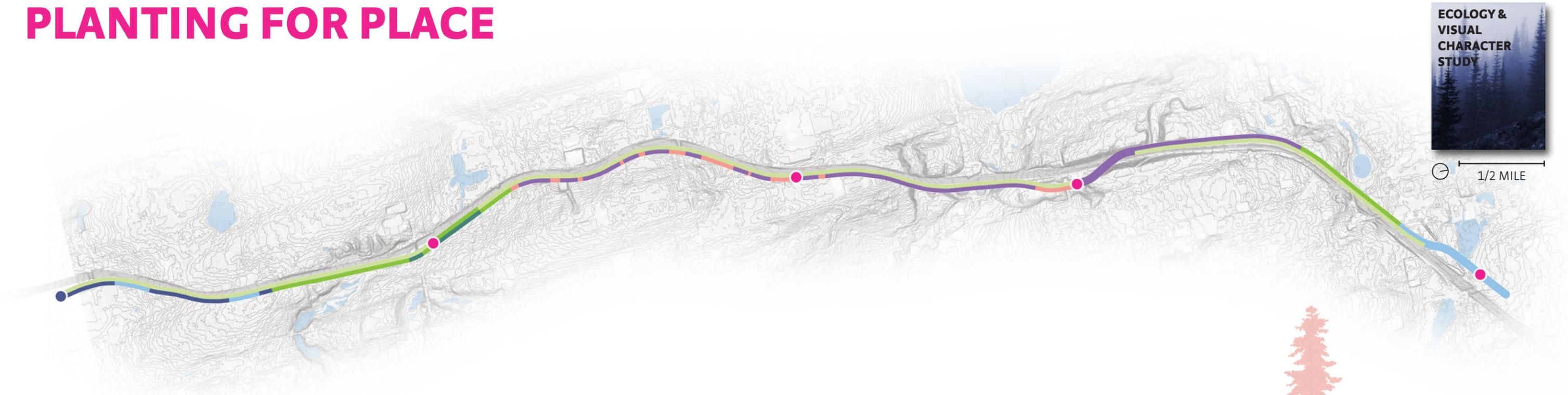
CONSTRUCTION IMPACT ZONE

An analysis of tree attributes provided a context from which the client could limit risk by more realistically addressing scope and costs for tree mitigation as well as safety and maintenance risks of trees to rail operations.

# PLANTING FOR PLACE



1/2 MILE



## RESTORATION PLANTING TYPOLOGIES

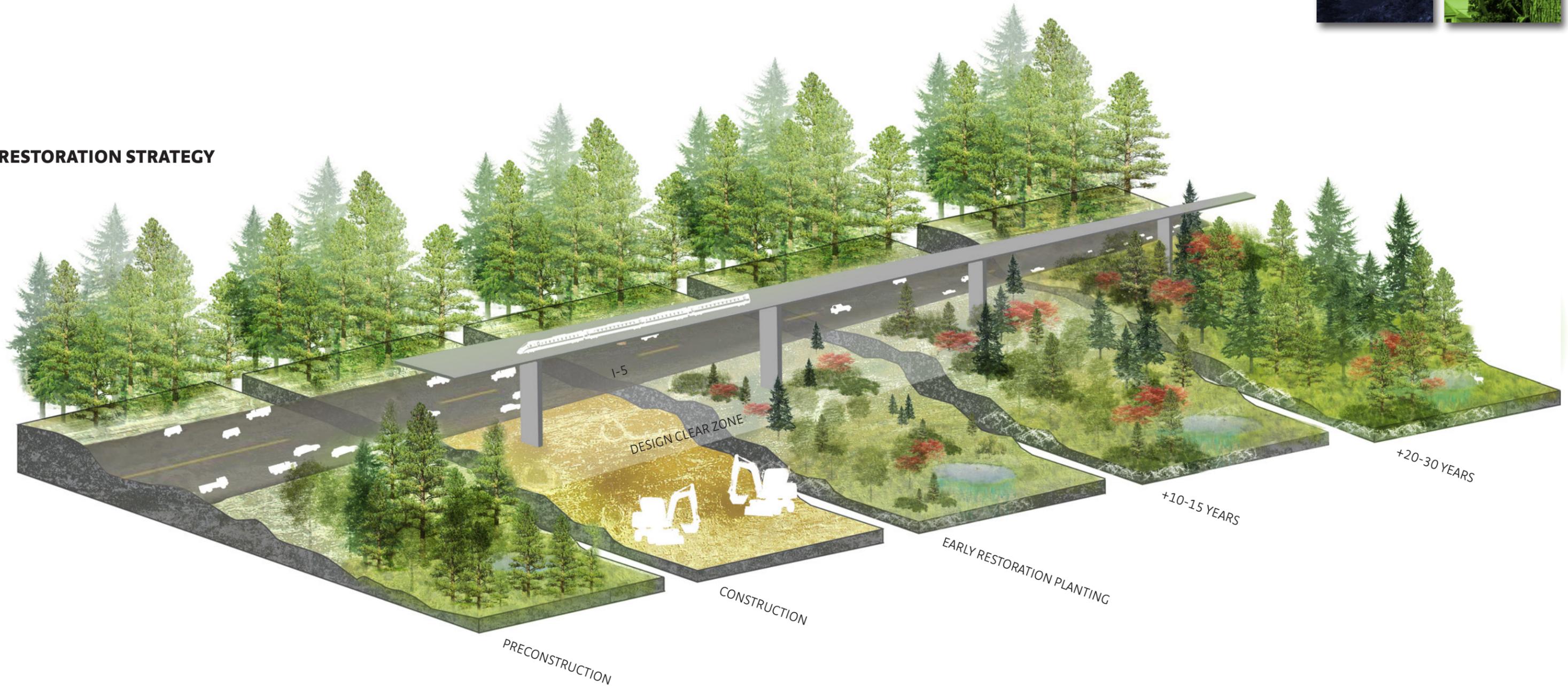
PERENNIALS AND GROUNDCOVERS	WET - UNDERSTORY	WET - TREES	MESIC - UNDERSTORY	MESIC - TREES	DRY - UNDERSTORY	DRY - TREES

Using the concept of succession, the revegetation strategy focused on understanding ecological conditions along the corridor, and developing a palette of native and highly adaptive plant species that are suited for those environments.

# RESILIENT BY DESIGN



## RESTORATION STRATEGY

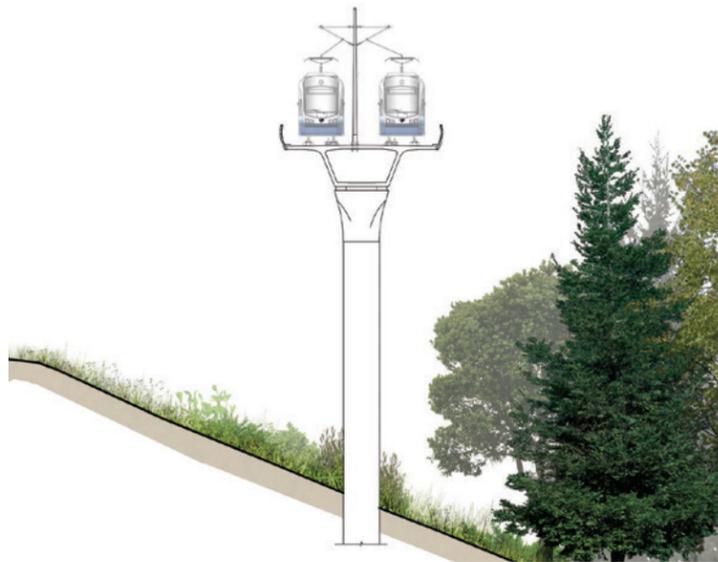


The restoration plan considers existing micro-climatic conditions along the linear site, specifying species that correspond to the analogous native plant community. This strategy encourages natural succession and desirable volunteer growth, leading to self-sustaining plant communities and cost effective maintenance.

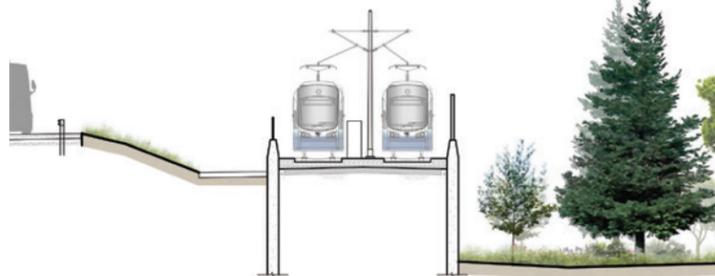
# VARIED TERRAIN



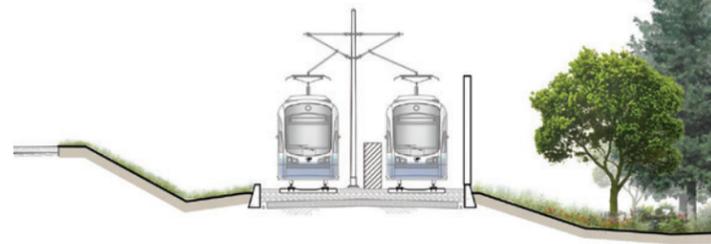
## GUIDEWAY TYPOLOGIES



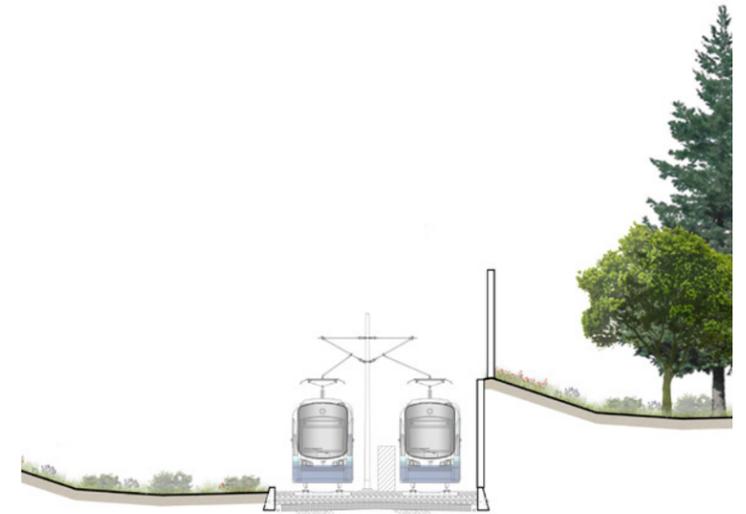
ELEVATED



ABOVE GRADE



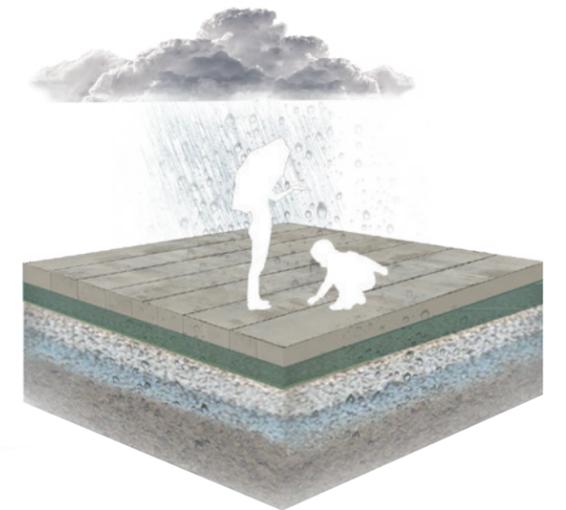
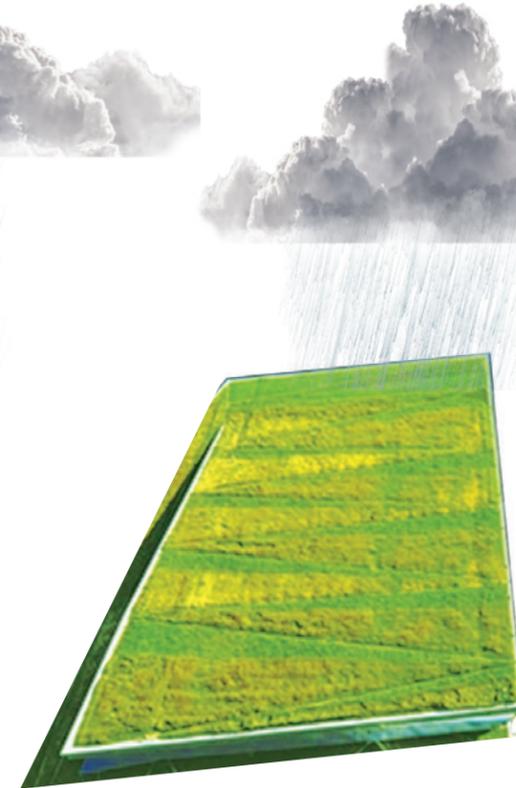
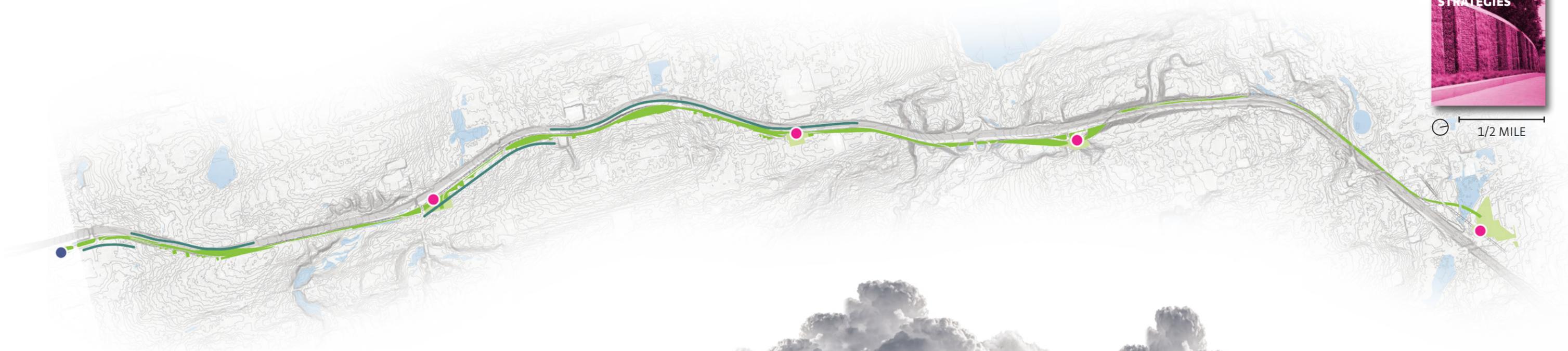
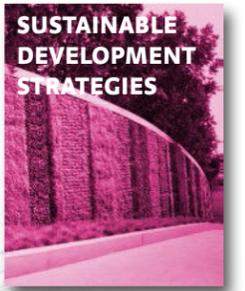
AT GRADE



BELOW GRADE

Visual and physical impacts of rail line construction and operations were studied. Walls will be prominent for retained cut/fill and noise abatement; design variations of wall structures were proposed to better integrate into surrounding conditions, from more urban to less developed areas.

# SUSTAINABLE DESIGN ELEMENTS



## VEGETATED WALL SYSTEMS

SUPPORT PLANT LIFE, ALLOW WATER MOVEMENT, PROVIDE VISUAL BENEFIT, AND REDUCE GLARE AND HEAT REFLECTION

## RESTORATION PLANTING

ENHANCES ECOLOGICAL FUNCTION OF NORTHWEST PLANT COMMUNITIES AFTER CONSTRUCTION DISTURBANCE

## REDUCE POTABLE WATER USE

IRRIGATE LANDSCAPING AREAS AND REDUCE STORM WATER RUNOFF

## GREEN ROOF

REDUCES STORM WATER DETENTION AND WATER QUALITY TREATMENT FACILITY NEEDS, REDUCES HEAT ISLAND EFFECT.

## PERVIOUS PAVING

REDUCES DOWNSTREAM STORM WATER MANAGEMENT SYSTEMS AND RECHARGES GROUNDWATER

Sustainable design strategies proposed include vegetated retaining wall systems along track, collection and reuse of rainwater at stations, soil building and native plant community restoration, green roofs at station and garage structures, and use of pervious paving at station parking lots.

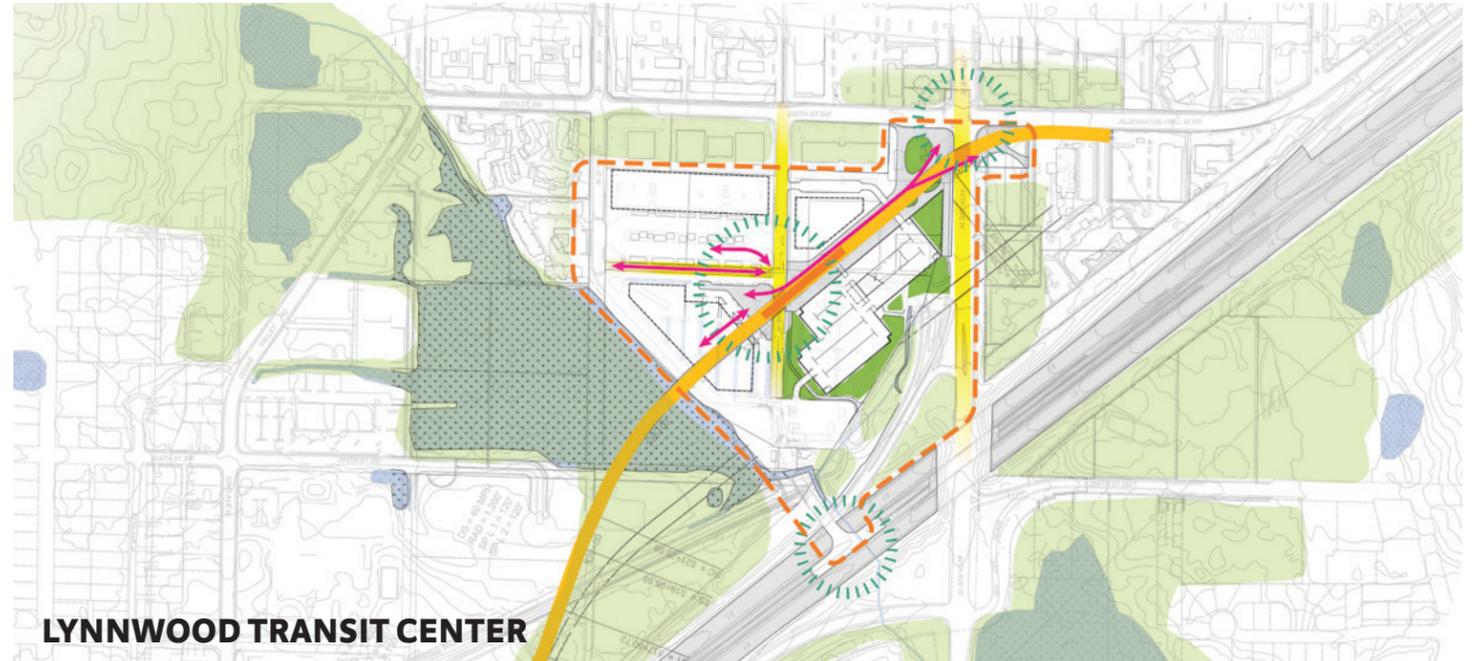
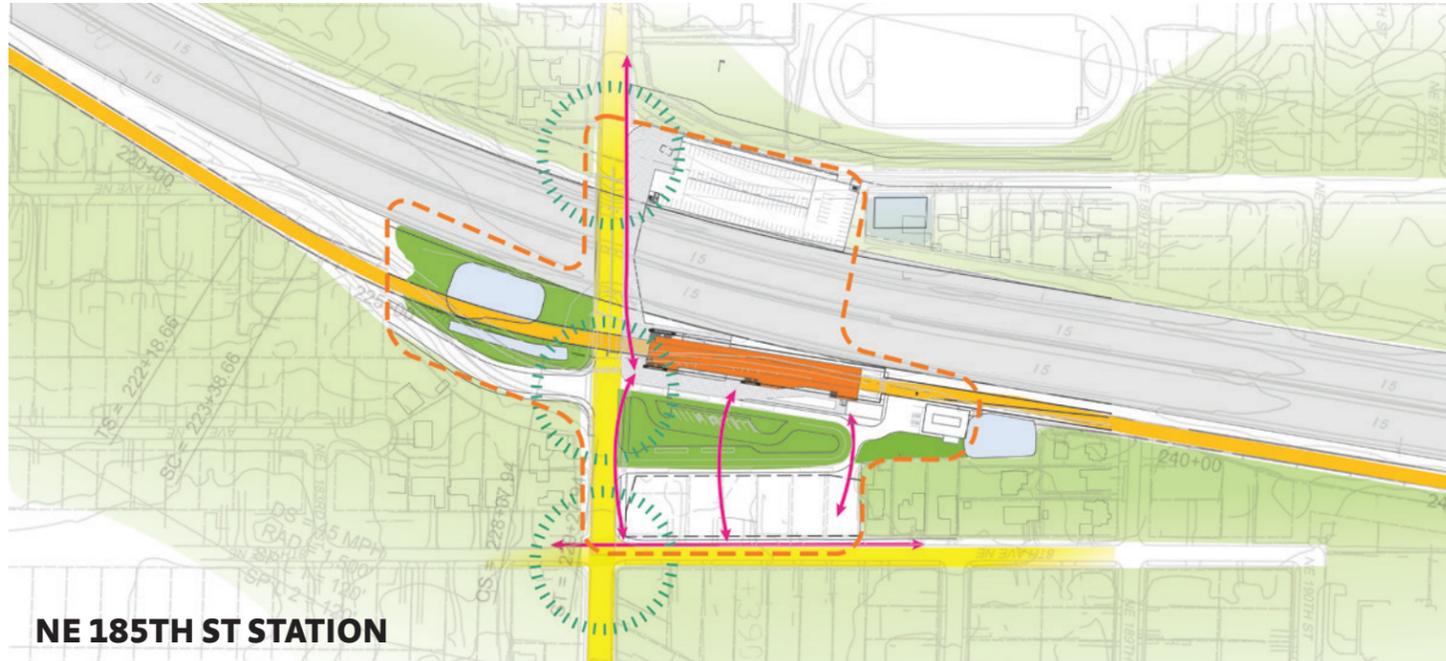
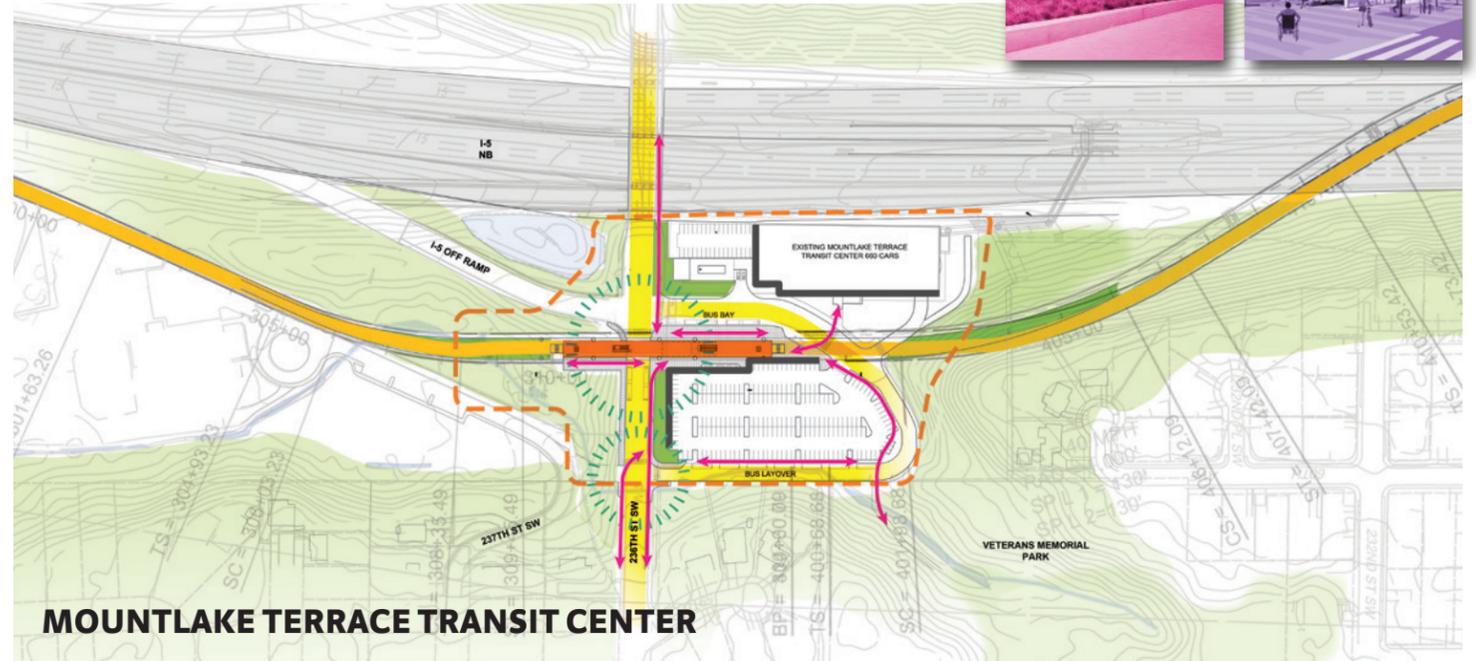
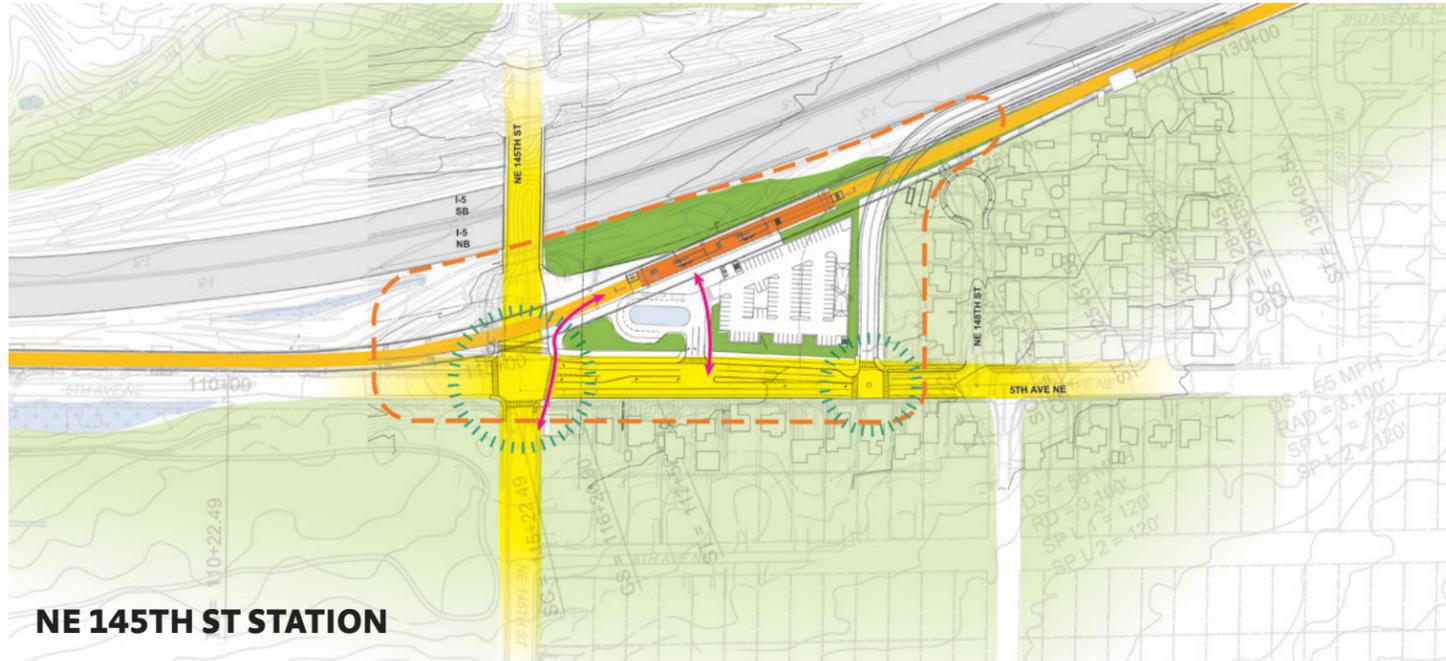
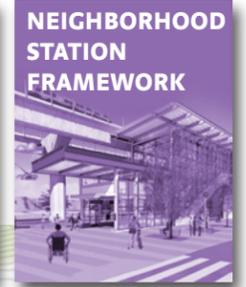
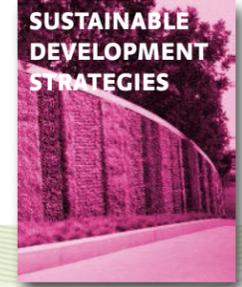
# PASSENGER EXPERIENCE



Passenger views change from densely urban to increasingly rural and forested over the 8-mile extension. Landscape is leveraged to help enhance future visual access to these rich and varied views.

# SERVING THE COMMUNITY

## STATION URBAN DESIGN



GUIDEWAY

PEDESTRIAN CIRCULATION

GATEWAY NODE

STATION PLANTING

Station areas were analyzed and planned for ease and elevation of user experience, coordinating multi-modal transit connections and pedestrian access. Street trees and plantings will integrate stations into neighborhood context, and sustainable site features satisfy development strategies.

# CONNECTING PEOPLE CONNECTING PLACES CONNECTING THE SOUND



Leveraging landscape integration and site specific solutions throughout the planning process ensures that regional character will be maintained and enhanced, sustainable design elements are integrated into the design process, and that passenger experience is a primary focus of the project.