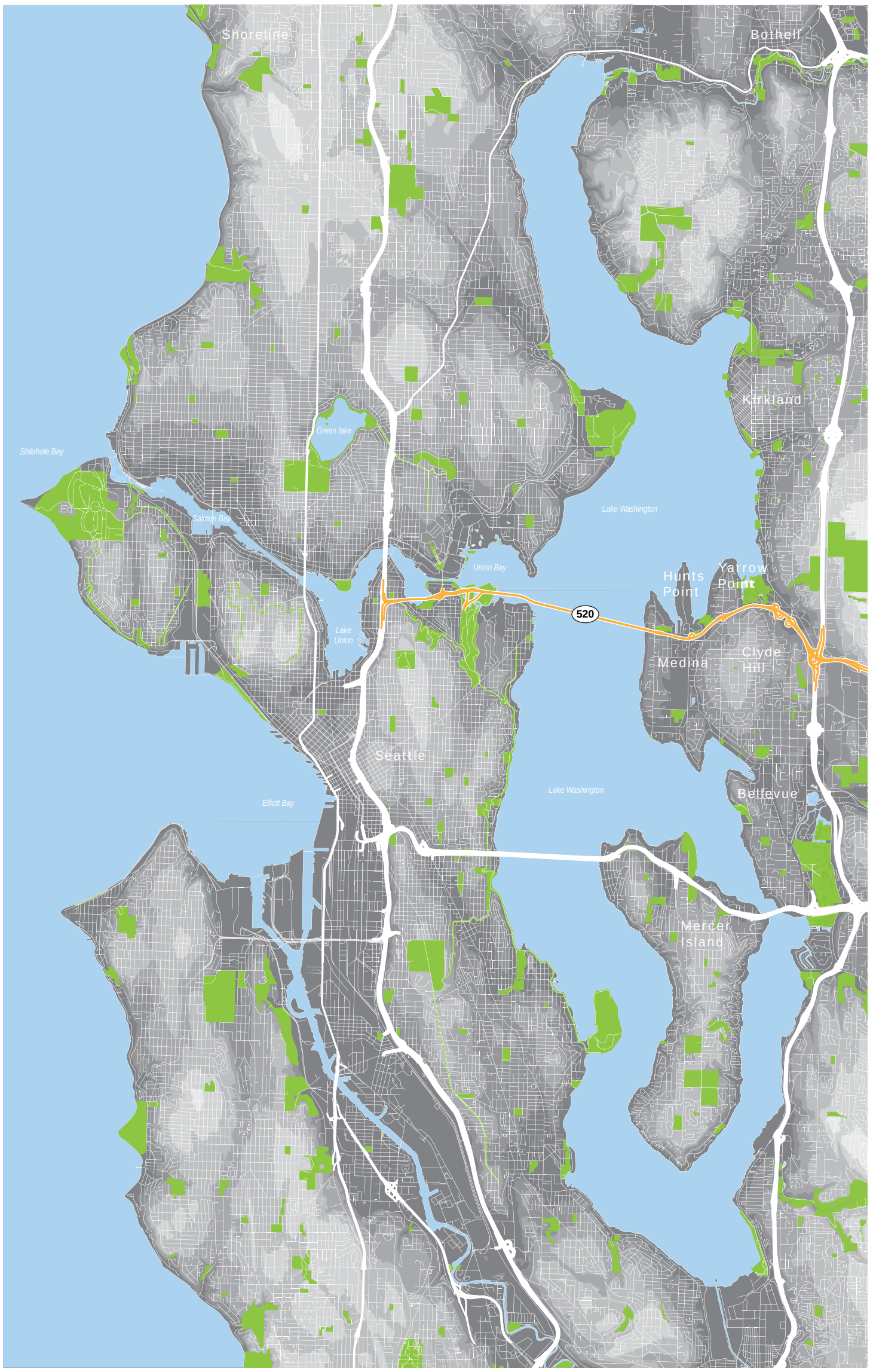
Regional Context - How SR 520 Fits in the Network

Transportation networks are an essential element of our metropolitan Seattle quality of life. Our complex geography, transformed by historic glaciation, and our human engineering choices have shaped corridors to cross great waters and climb local ridges. The SR 520 corridor is the northern of two floating bridges, which create efficient passage between east and west communities.

These bridges connect us and provide us with a means to build our local economy, interact socially, and create a regional culture to meet our future challenges. Our goals are to improve transportation connectivity, support local communities through quality urban design, and to keep Washington moving efficiently.



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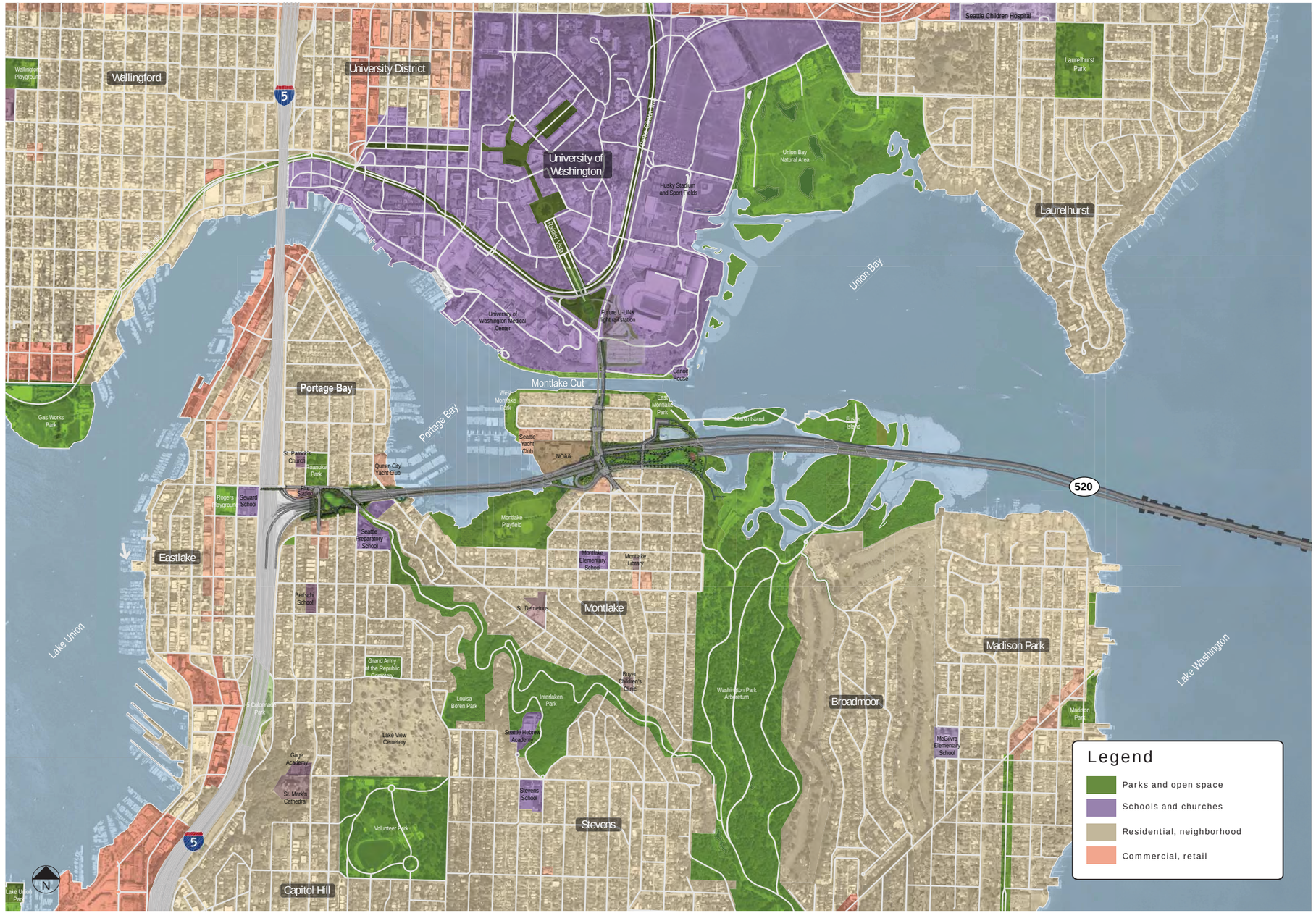
STATE ROUTE 520

Seattle Context - Neighborhood Districts

Description

The City of Seattle is comprised of a series of diverse neighborhoods situated within a historic Olmstedian framework of green boulevards and open spaces. This green network provides both social and ecological benefits, allowing different ways to move safely, comfortably and efficiently within neighborhoods and through the city at large. Greenways and parks connect people to their fellow citizens, to the shorelines of Lake Washington, Lake Union and Puget Sound, and to centers of educational, retail and community activity. The SR 520 facility integrates neighborhood, city and regional planning efforts and contributes to improving both local and regional mobility, by filling gaps in the network and preserving and creating new green connections within the city for drivers, cyclists and pedestrians.



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Bicycle, Pedestrian, and Transit Network - Filling Gaps for a Complete District

Description

Seattle has a vibrant and growing bicycle and pedestrian network. Existing routes help people to connect safely and efficiently to work, home, parks and other activity centers. The SR 520 Regional Bicycle and Pedestrian Shared Use Path will improve mobility in the local and regional network by filling gaps in the network with a major new east/west non-motorized link between Redmond and Seattle. The SR 520 non-motorized path complements and responds to proposed improvements by the City of Seattle, Washington Park Arboretum Master Plan, and the University of Washington, as well as other stakeholders.The character of the SR 520 Regional Path and its connections to the local Seattle network will be shaped by public feedback and interagency cooperation.

Design Goals

Access and mobility

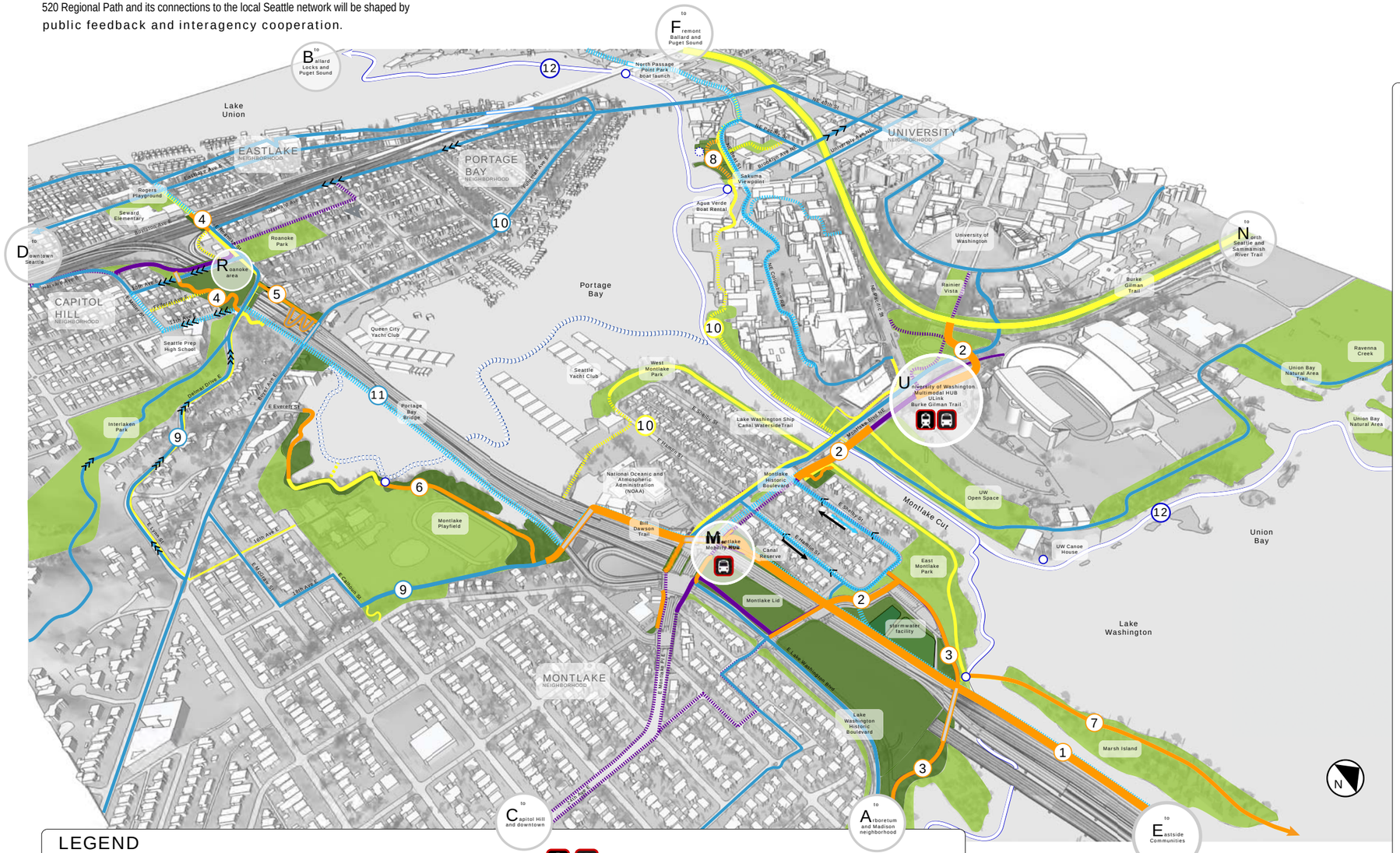
- Mobility between and through neighborhoods with convenient travel options and routes
- Access to all levels, abilities and needs through best practices and compliance with Americans with Disabilities Act (ADA) requirements
- Capacity for current and future non-motorized traffic volumes

Health and safety

- Safe and interesting cycling and walking routes to attract the most users for recreation and health
- Reduction of potential conflicts among cyclists, pedestrians and vehicles to prevent accidents and promote traffic calming
- Promoting commute-trip reduction (CTR) , congestion and greenhouse gas (GHG) reduction

Character and clarity

- Building connections to and through green open space networks which can support multiple uses
- Use of paths to activate open spaces and lids, and make easy connections to activity centers
- Clear wayfinding (good signage) to promote cycling and walking as an everyday activity for travel



ROUTES/DESTINATIONS

WSDOT Planned Facilities

1. **Regional Bicycle/Pedestrian Shared Use Path**
   planned
   - WSDOT Regional non-motorized transit facility 14.5 miles of new dedicated path between Redmond to downtown Seattle
   - Identified in City of Seattle Bicycle Master Plan (2007)
2. **Regional Bicycle and Pedestrian Shared Use Path to UW/ULink/Burke-Gilman**
   existing with planned improvements
   - City of Seattle Bicycle Master Plan (2007)
   - WSDOT
3. **Arboretum Multi-Use Path Connection**
   planned
   - WSDOT
   - Washington Park Arboretum Master Plan (2004) completion of Arboretum Waterfront Trail
4. **Delmar Lid and Roanoke I/5 Path Connection**
   planned
   - WSDOT
5. **Roanoke Steps/Boyer Connection**
   existing with planned improvements
   - WSDOT
   - City of Seattle Pedestrian Master Plan (2009)

WSDOT Supported Facilities

6. **Montlake Playfield Waterfront Park Gravel Trail/Boardwalk**
   planned
   - WSDOT Shoreline Permit Requirement
   - City of Seattle Parks and Recreation
   - Friends of South Portage Bay Reclamation Project
   - Fuhrman/Boyer Neighborhood Improvement Association (FABNIA)
7. **Arboretum Waterfront Trail**
   existing with planned improvements
   - WSDOT Shoreline Permit Requirement
   - Washington Park Arboretum Master Plan (2004)
8. **Bryant Building Site**
   planned
   - WSDOT Mitigation
   - University of Washington Campus Master Plan (2003) proposed waterfront improvements

Non-WSDOT Network Facilities

9. **Delmar and Downtown Local Connection**
   existing
   - City of Seattle Bicycle Master Plan (2007)
10. **Portage Bay Loop**
    portions existing with proposed improvements
    - City of Seattle Parks and Recreation Bands of Green Plan (2006)
    - City of Seattle Bicycle Master Plan (2007)
    - University of Washington Campus Master Plan (2003) proposed waterfront improvements
    - Seattle Neighborhood Greenways Plan (2012)
11. **Community-Requested Portage Bay Bridge Connection**
    requires further study
    - identified in City of Seattle Bicycle Master Plan (2007)
    - Seattle Community Design Process (SCDP) (2011-2012) Ongoing public feedback
12. **Lake to Locks Water Trail**
    existing and proposed improvements
    - Washington Water Trails Association

LEGEND

- Planned SR 520 non-motorized route
- Possible SR 520 non-motorized route being evaluated - may be part of the project or developed with or by other agencies
- 6392 Legislative Work Group Recommendations for bicycle and pedestrian routes
- 6392 Legislative Work Group Recommendations for further study
- Existing City of Seattle on-street bicycle routes (sharrows, striped lanes, or signed arterials and non-arterials)
- Proposed City of Seattle bicycle routes
- Existing City of Seattle or other dedicated nonmotorized routes
- Proposed City of Seattle non-motorized routes improvement projects
- Transit
- Existing water trails/routes
- Proposed water trail
- Existing hand-carried boat launch
- Proposed hand-carried boat launch
- Tunnel or underpass
- Existing City of Seattle green network
- Proposed green network enhancements

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Washington State Department of Transportation

STATE ROUTE 520

Portage Bay Bridge East Underbridge Area - West Montlake to Shoreline

Description

An overview of existing conditions and exploration of options for treatment or possible uses of the underbridge area and options for making pedestrian connections between Montlake Boulevard and the Bill Dawson Trail to Montlake Playfield.

Design Goals

- Provide a safe connection to Montlake Playfield and Bill Dawson Trail from the SR 520 regional shared use path
- Manage under bridge areas to be safe, maintainable and usable as a community asset

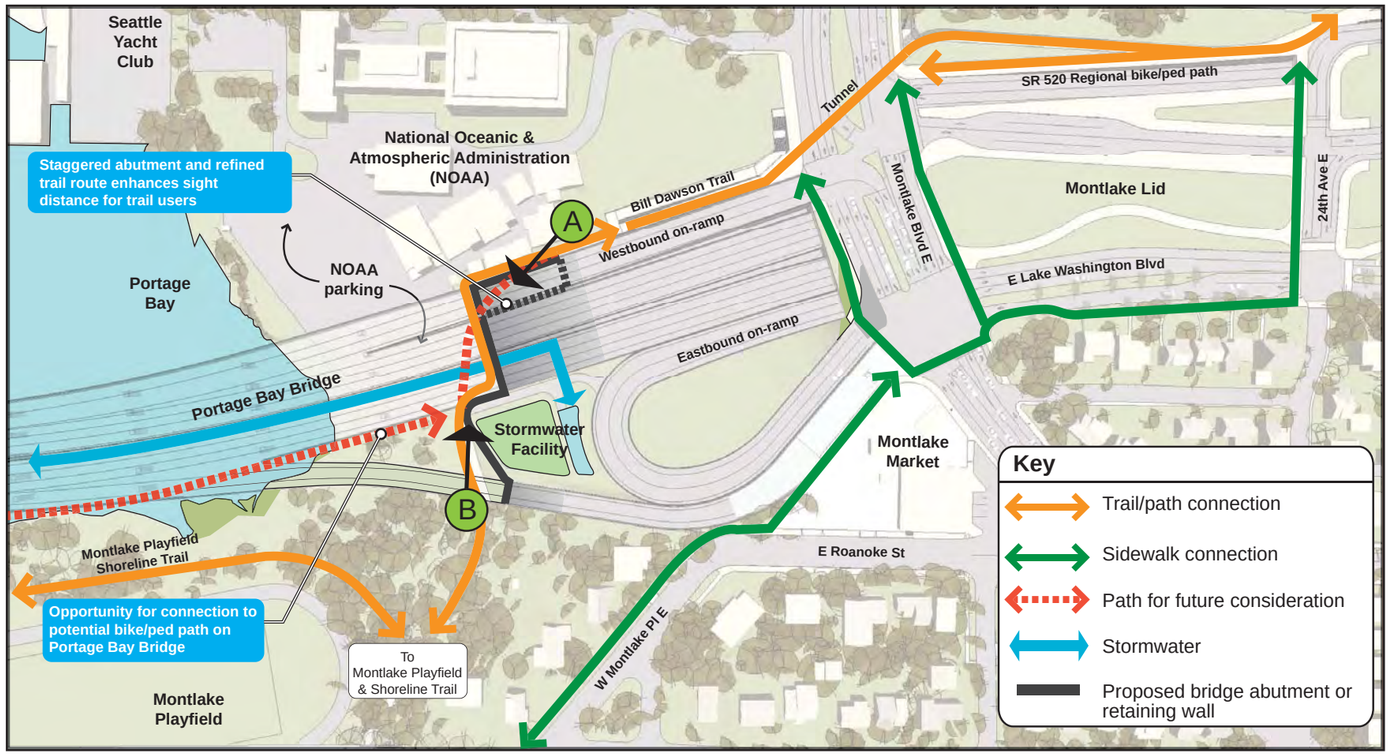
Benefits

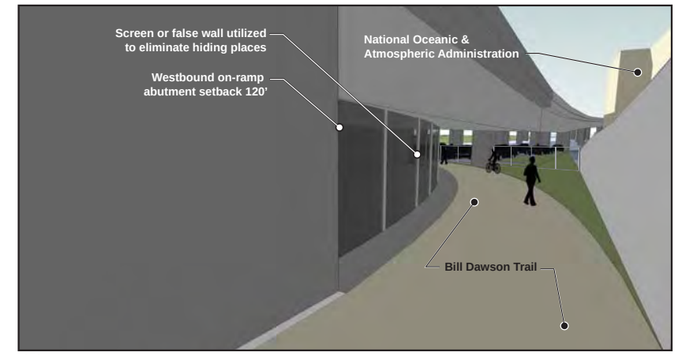
- Improved sight distance for trail users
- Stepped abutment allows for trail to meet design standards for trail width and turning radius

Considerations

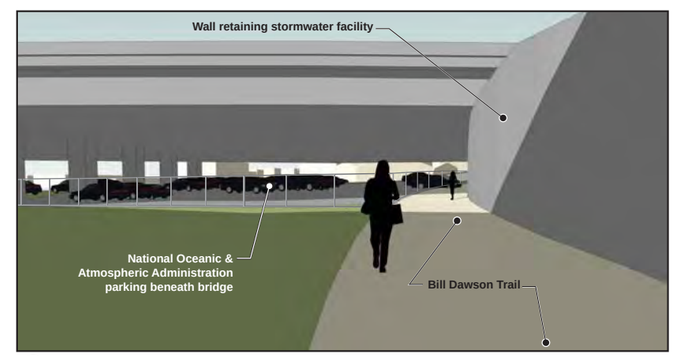
- Limited right of way area, sensitive areas, and need to locate stormwater facilities near the under bridge area constrains path alignment
- Location of path and surrounding elements to maximize sight distance for path users to avoid conflicts

Access and Circulation Diagram



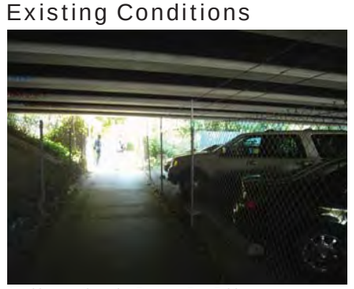


A View looking west along the Bill Dawson Trail near the Portage Bay Bridge abutment



B View looking north along the Bill Dawson Trail south of SR 520

Existing Conditions



Looking south under Portage Bay Bridge

Looking west along NOAA

Precedents

East Bank Esplanade Portland OR

Buffalo Bayou Promenade Houston TX

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STATE ROUTE 520

Portage Bay Bridge West Underbridge Area - Delmar Drive East to Boyer Area

Description

An overview of existing conditions and exploration of options for treatment or possible uses of the underbridge area, and options for making safe, comfortable pedestrian connections in the area between Delmar Drive East and Boyer Avenue East and the west shoreline of Portage Bay. Program commitments are to:

- Replace existing Bagley Viewpoint parking on new lid structure
- Provide Americans with Disabilities Act (ADA) access from Delmar Drive East or 11th Avenue East to Roanoke Avenue East or Boyer Avenue East

Design Goals

- Manage underbridge areas to be safe, maintainable and useable as a community asset if possible
- Provide useable, efficient connections between neighborhoods and to downtown

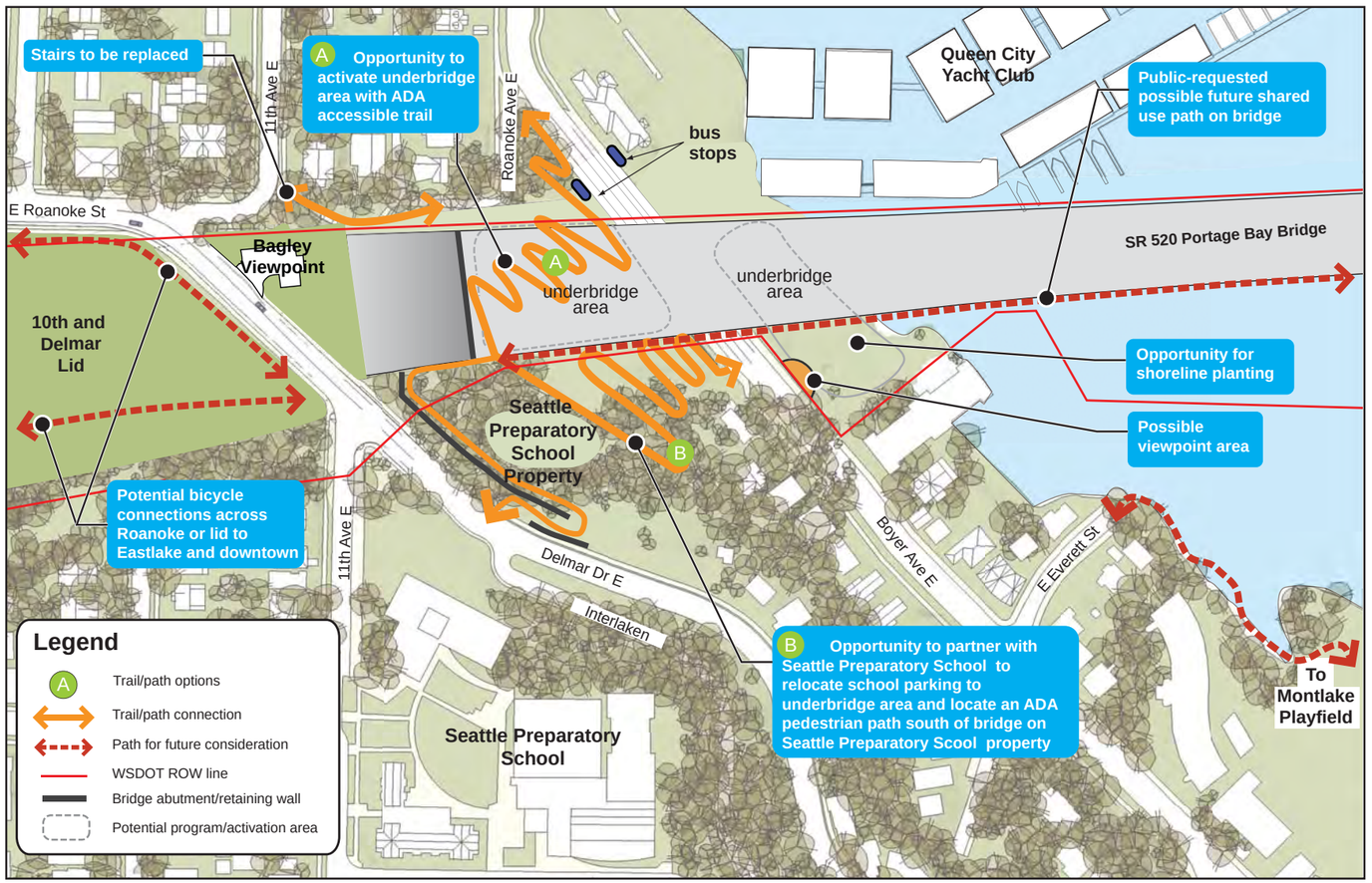
Benefits

- Connections and activity in underbridge areas improves safety by implementing Crime Prevention Through Environmental Design (CPTED) principles
- Increases community connectivity

Considerations

- Steep slopes and unstable soils in areas may limit what can be constructed
- The existing steps and path between 11th Avenue East down to Roanoke Avenue East do not meet ADA standards. A new path meeting ADA requirements with an 8 percent slope and flat landings will need to be more than twice as long as the existing path to meet ADA requirements
- Planted landscapes under bridges are difficult to maintain due to limited sunlight

Access and Circulation Diagram



Precedents

I-35 Overcrossing Minneapolis MN

Mission Creek Park San Francisco CA

I-5 Colonnade Park mountain bike trails Seattle WA

Existing Conditions

Underbridge area looking northwest from Boyer

Roanoke stairs north of bridge looking southwest

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STATE ROUTE 520