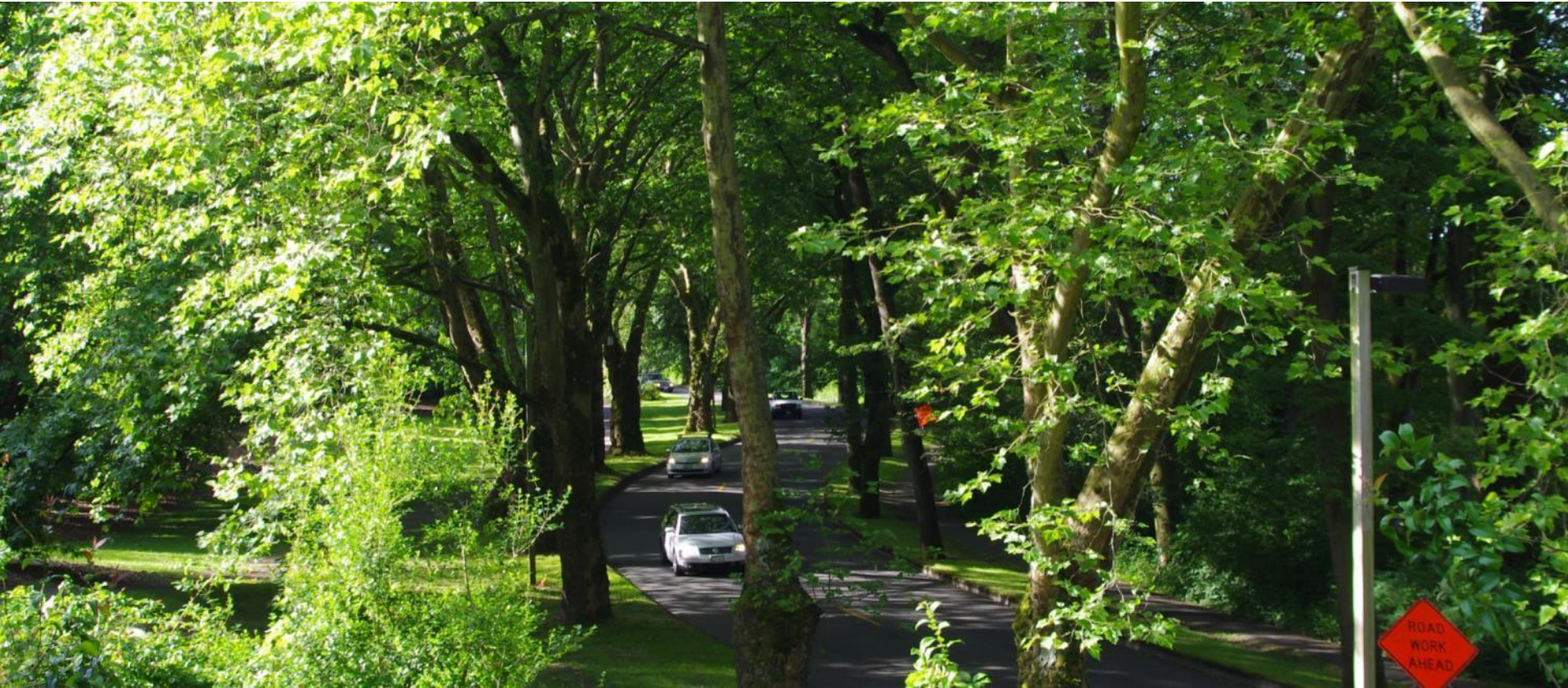


Washington Park Arboretum



Multi-use Trail

March 20, 2014

Public Information Campaign

Meetings	Date	Other Outreach: Websites
Friends of Seattle Olmsted Parks	6/6/2011	Seattle Parks and Recreation Arboretum Multi-Use Trail Project Information
ABGC Project Presentation	6/8/2011	University of Washington Botanic Gardens 520 Updates WSDOT: "SR 520 Bridge Replacement Program Updates"
Public Meeting #1: "Multi-Use Trail"	6/8/2011	WSDOT: "SR 520 Bridge Replacement Project Mitigation Presentation"
Blogs 2014		
Public Meeting #2: "Multi-Use Trail"	8/31/2011	Montlaker Neighborhood Blog: "New Multi-Use Trail Coming to the Arboretum"
Seattle Bicycle Advisory Board	4/4/2012	Montlake Community Club Blog: "Feb 27 Arboretum Multi-Use Trail Approaching Final Design"
Seattle Pedestrian Advisory Board	5/12/2012	Madison Park Blogger: "Arboretum Rehab Plan Revealed"
Seattle Design Commission	5/3/2012	Seattle Bike Blog: "State Will Fund New Arboretum Trail"
Fiends of Seattle Olmsted Parks	1/6/2014	Sustainable City Network: "Arboretum & WSDOT Reach \$7.8 Million Agreement"
Seattle Bicycle Advisory Board	1/8/2014	Seattle Parks and Recreation "Parkways" Blog (1/24)
Madison Community Council	2/3/2014	Seattle Parks and Recreation "Parkways" Blog (2/14)
Seattle Pedestrian Advisory Board	2/12/2014	
News Sources 2014		
Public Meeting #3: "Multi-Use Trail"	2/27/2014	King 5 News: "Arboretum Trades Empty Ramps for New Trails"
Montlake Community Council	3/4/2014	Komo 4 News: "Arboretum Gets \$7.8 Million for New Trail, Improvements"
ABGC Tour of Trail	3/12/2014	Seattle Times: "State to Tear Down Highway 520 'Ramps to Nowhere'"
Seattle Design Commission	3/20/2014	Curbed Seattle: "Washington Park Arboretum Getting \$7.8M Facelift" Madison Valley News: "Arboretum Multi-Use Trail Public Meeting" Capitol Hill Times: "Arboretum to Undergo Historical Expansion, Remove Bridges to Nowhere"
Press Releases 2014		
Committee and board meetings listed are open to the public		Arboretum and WSDOT Reach Ground Breaking \$7.8 Million Agreement

Public Meeting Input

Public Comments	Planning & Design Response
<p>"Will you use pervious/rough material for the trail as a natural traffic calming device to passively slow speeds?"</p>	<p>The Multi-Use Trail surface will be a special mix of coarse asphalt for traffic calming and traction.</p>
<p>"I am very concerned about bike commuters on the trail." "Bike/pedestrian conflict will ensue and pedestrians won't use it."</p>	<p>Toole Design Group, specializing in bicycle/pedestrian planning and design, was hired as part of the design team to analyze the corridor and recommend traffic calming measures.</p>
<p>"Why are we not using Arboretum Drive for biking?"</p>	<p>A connection to Arboretum Drive is included as part of a counter-clockwise loop through the Arboretum providing better access to a diversity of users and to new areas.</p>
<p>"Multi-use trails can be very dangerous for pedestrians because of speeding bicycles."</p>	<p>We interviewed members of local bicycle clubs and bicycle commuters who articulated their preferred route will remain Lk Washington Blvd or the Lk Washington Loop through Montlake.</p>
<p>"Can you design better access to neighborhood." "Is it possible to connect Wilcox Bridge to bring neighborhood in?"</p>	<p>Neighborhood connections to the Multi-Use Trail will be provided and enhanced at five major access points.</p>

Site Overview



North Entry

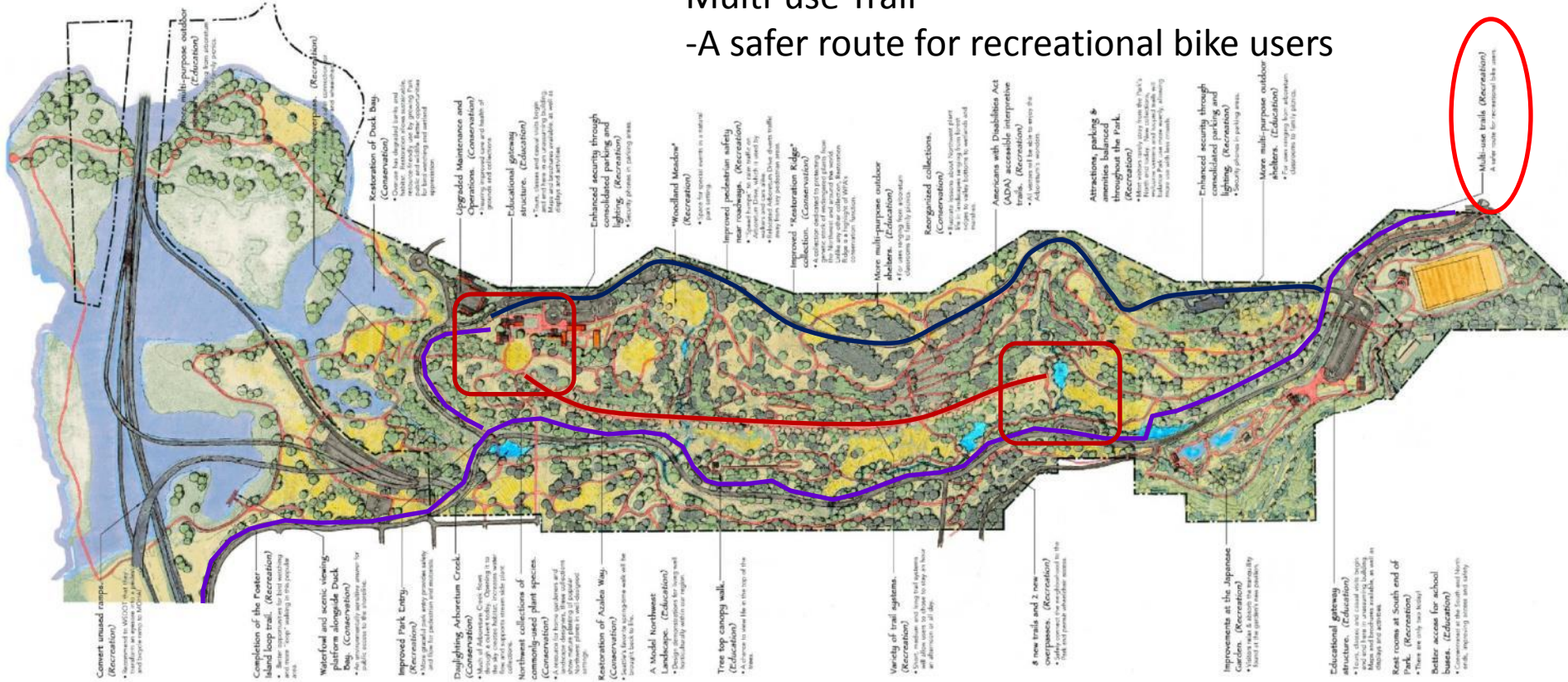
Arboretum Multi-use trail



Renewing Washington Park Arboretum Master Plan – December 2000

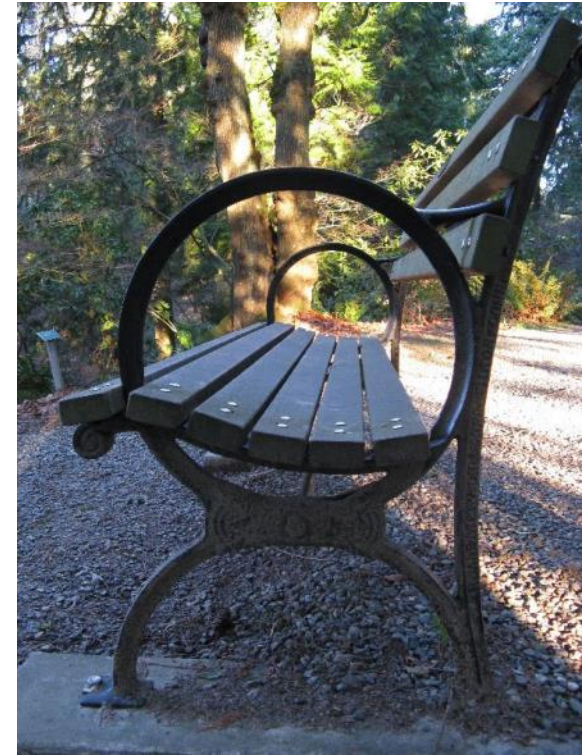
Multi-use Trail

-A safer route for recreational bike users



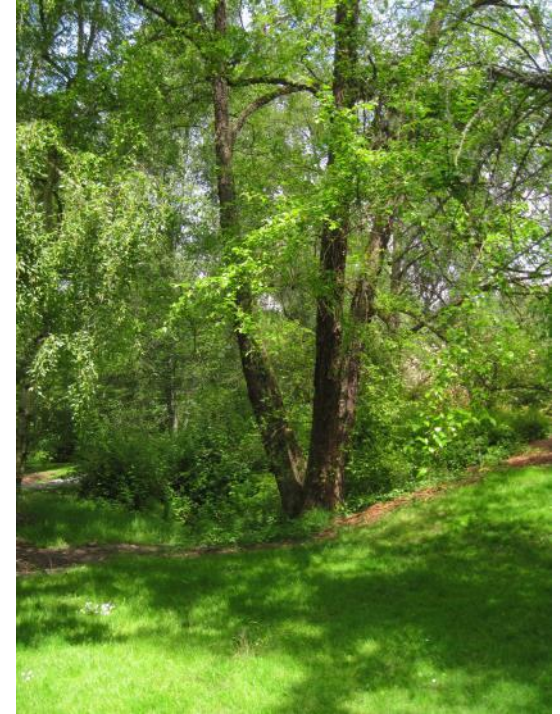
Arboretum Master Plan Goals

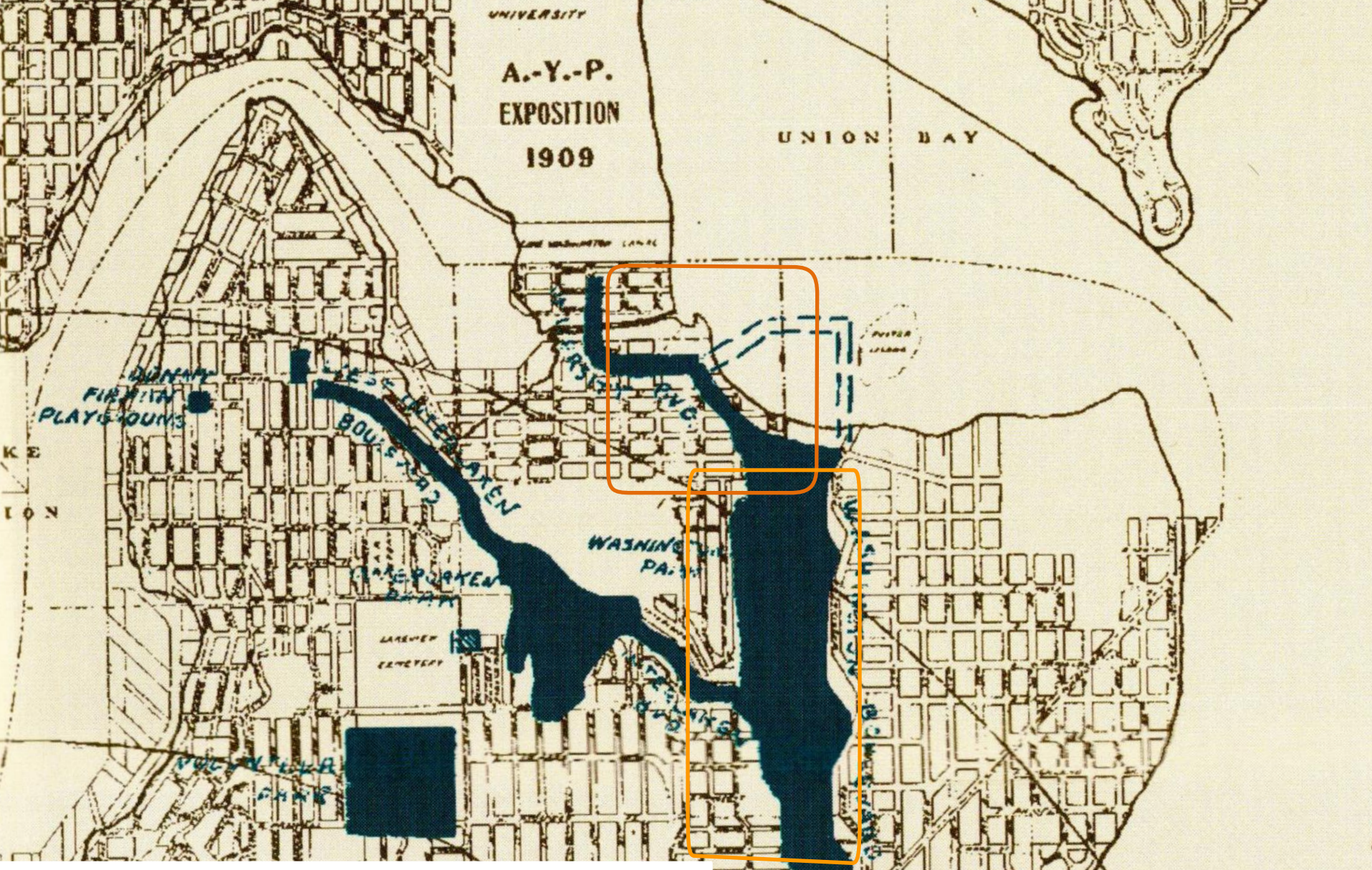
- Increase awareness and visitors
- Enhance natural environment
- Arboretum Drive – safety for all users
- Improve surfacing – accessibility
- Improve appropriate recreational bicycle access through Washington Park Arboretum
- Improve pedestrian entrances



Arboretum Master Plan Goals

- Improve connections east and west of Lake Washington Boulevard
- Increase habitat diversity – Restore the natural function of Arboretum Creek
- Promote an increase in un-structured recreation building of education, display and conservation
- Reduce crime and the magnitude of potentially unsafe locations









Olmsted Boulevard System







Bicycle Through-Traffic Alternatives to Multi-Use Trail













Alternatives

-  Lake Washington Blvd (Existing Sharrow)
-  Lake Washington Loop (Existing Signed Route)
-  Arboretum Drive (Existing "Shared street")
-  Multi-Use Trail (Future Off Street)

Citywide Network

- | Existing | Recommended | |
|---|---|---------------------------------------|
|  |  | Off street |
|  |  | Cycle track (protected bicycle lanes) |
|  |  | Neighborhood greenway |

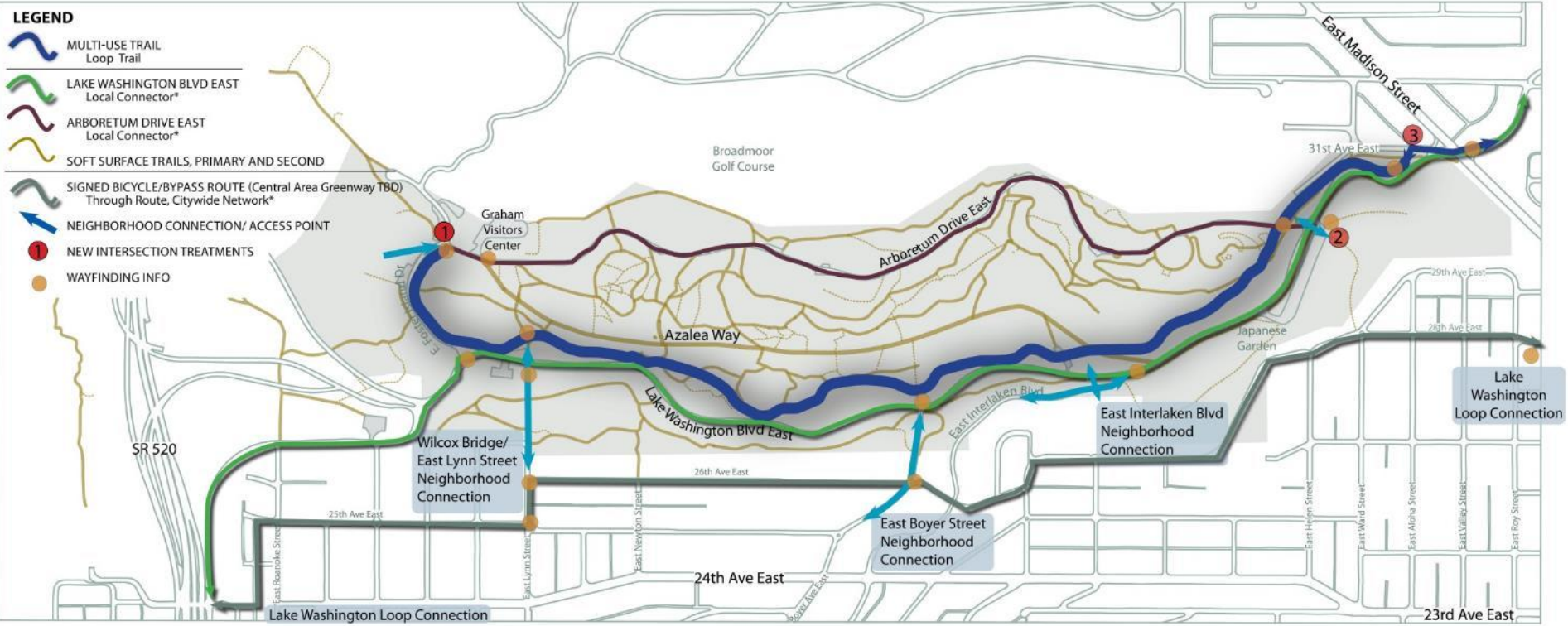
Local Connectors

- | Existing | Recommended | |
|---|---|---------------------------------------|
|  |  | Off street |
|  |  | Cycle track (protected bicycle lanes) |
|  |  | In street, minor separation |
|  |  | Neighborhood greenway |
|  |  | Shared street |

Pedestrian Master Plan Goals

- **Safety** – Reduce the number and severity of crashes involving pedestrians
- **Vibrancy** – Develop a pedestrian environment that sustains healthy communities and supports a vibrant economy
- **Equity** – Make Seattle a more walkable city for all through equity in public engagement, service delivery, accessibility, and capital investments
- **Health** – Raise awareness of the important role of walking in promoting health and preventing disease

Circulation



* Reflects 2013 Bicycle Master Plan Connections

Circulation Hierarchy

CIRCULATION HIERARCHY	ROUTE NAME	USER	Traffic Control and Messaging	Character/ Context
THROUGH or DIRECT ROUTES Citywide Network*	Signed Bicycle/Bypass Route (Central Area Greenway TBD)		Signed 25 mph, no centerline	Local street-wide, flat, straight
SCENIC LOOPS Local Connectors*	Lake Washington Boulevard		Signed 25 mph, speed humps, traffic control	Collector arterial roadway - wide, flat, with gentle curves
	Arboretum Drive		Closed to through traffic	Access roadway - narrower, rolling terrain, gentle curves
	Multi-Use Trail		Accessible paved path	Loop Trail - rolling terrain, curvy alignment, connected but not direct
	Azalea Way		None	Pastoral path - narrow, indirect, circuitous
	Soft-surface path		None	Pastoral path - very narrow, indirect, circuitous

*Reflects 2013 Bicycle Master Plan Designations

Reducing User Conflicts

Principles

- Right route for the ride – Understanding audience and ride purpose
- Good design invites right use
- Use defines behavior



Reducing User Conflicts

Right Route for the Ride – Understanding Audience and Ride Purpose

- Signed by-pass route
- Lake Washington Boulevard
- Arboretum Drive East



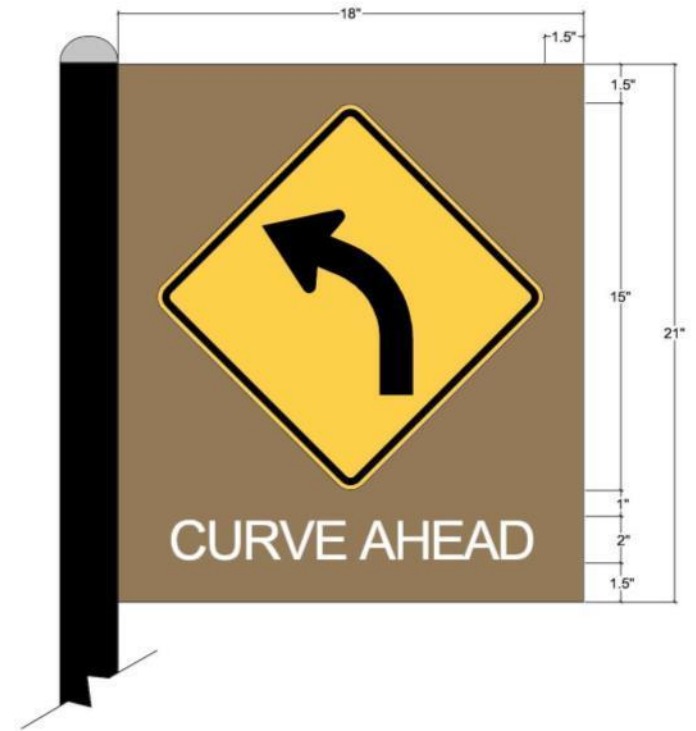
Reducing User Conflicts

Good Design Invites Right Use

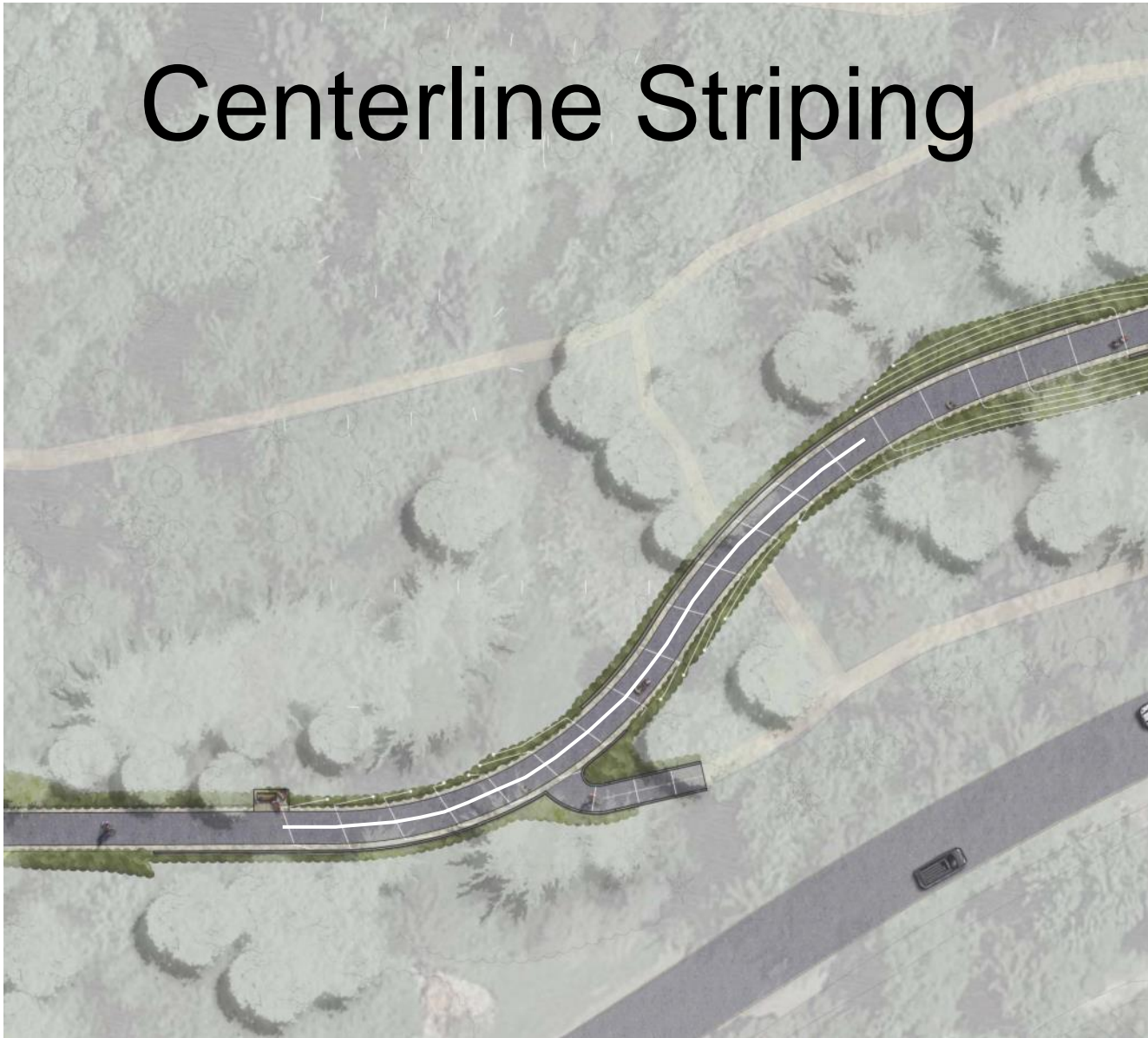
- Wayfinding, warning and Regulatory signing
- Curving alignment
- Sense of enclosure with vegetation
- Bridges and narrowed trail sections
- Rolling terrain



Trail Regulatory Signage



Centerline Striping



Arboretum Loop Trail

E. Madison Street



Graham
Visitors
Center

Stone Cottage

Pacific Connections

Azalea Way

Japanese Garden

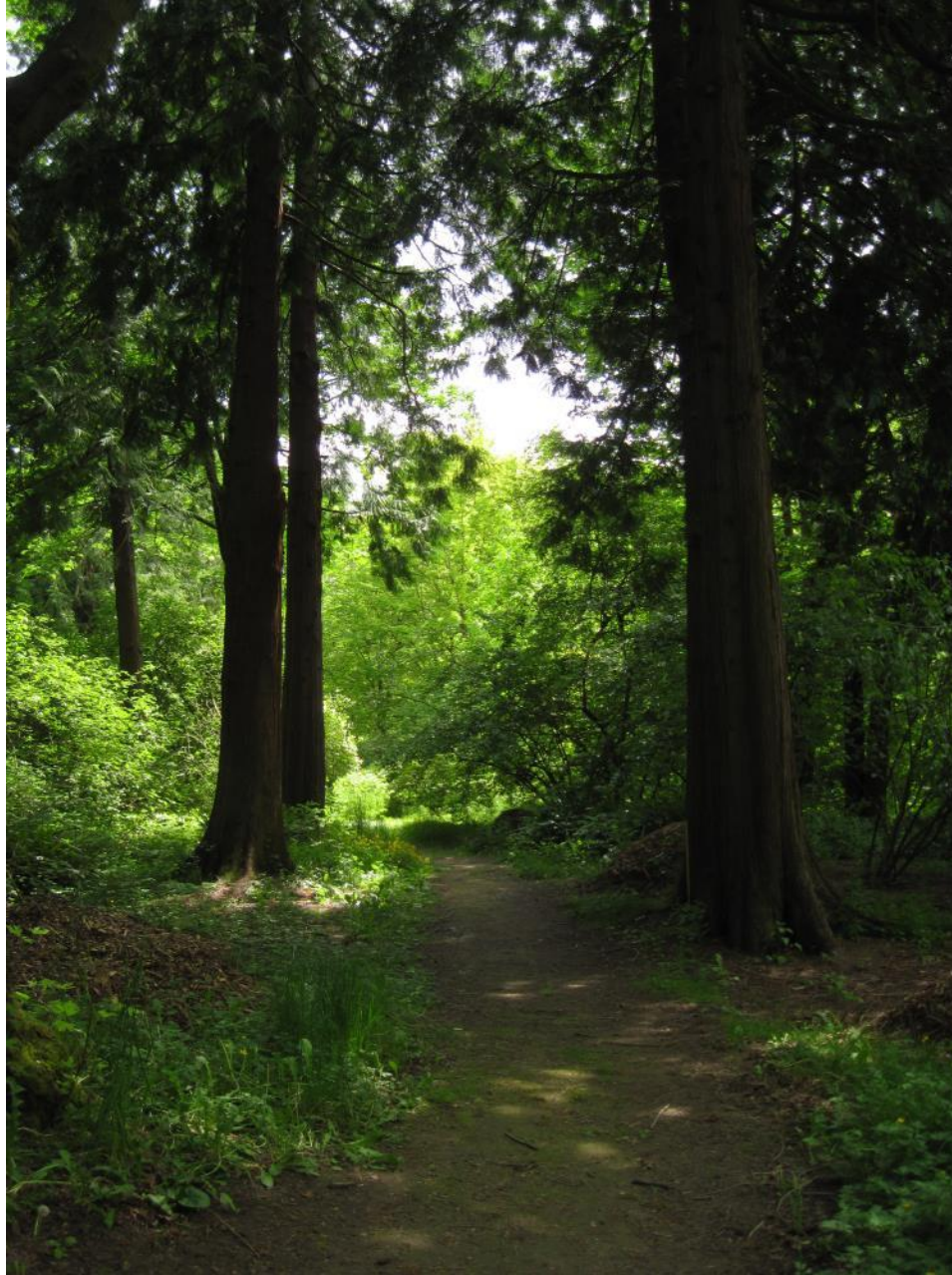
SR 520

Wilcox Bridge

Arboretum Creek

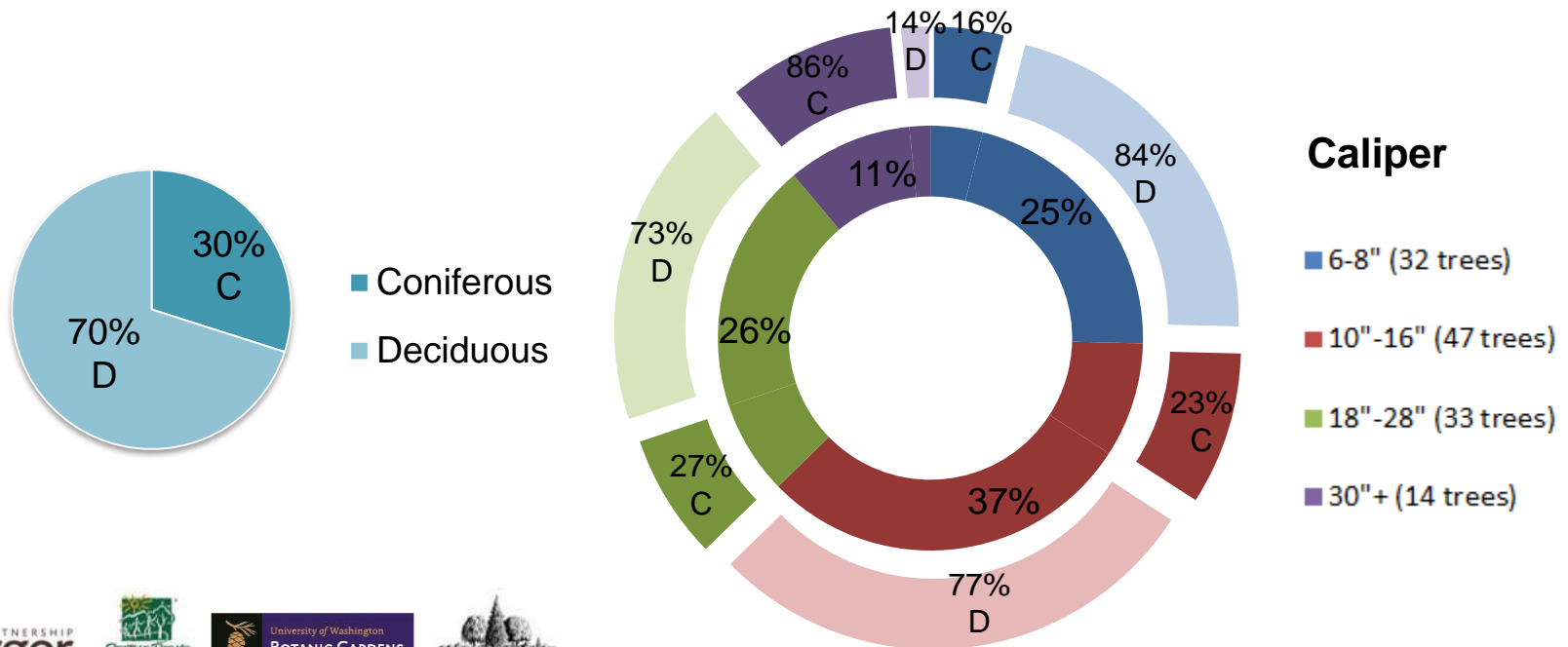
Trail Alignment and Tree Preservation





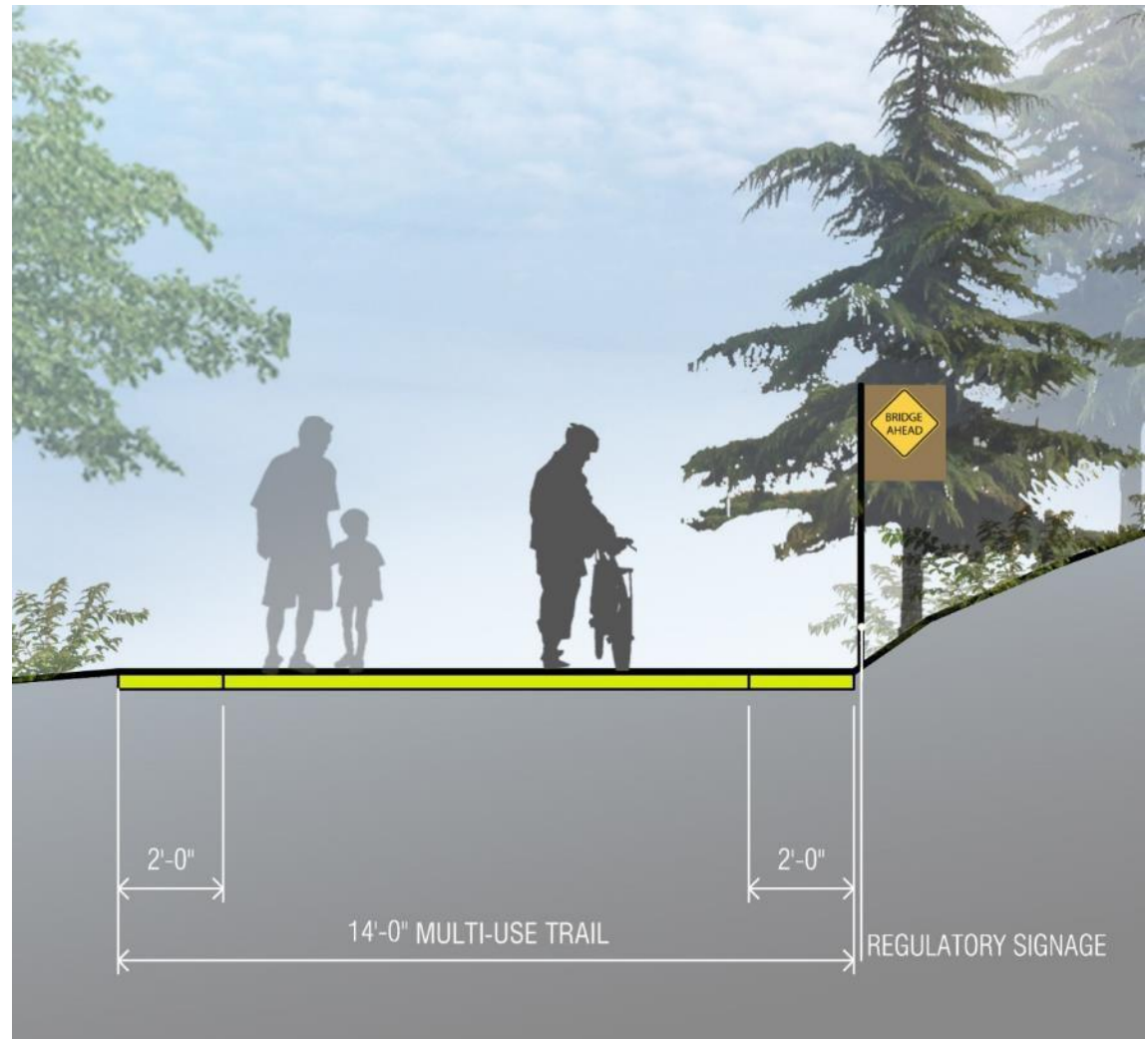
Tree Replacement

- Trail alignment adjusted to avoid many major trees
- 127 trees to be removed (all will be recycled on-site)
- 254 replacement trees to be planted in Arboretum
- Additional tree planting/restoration in southwest greenbelt

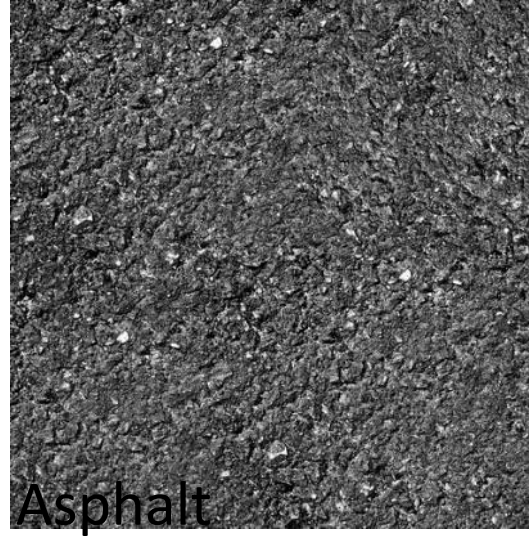


Typical Trail Cross Section

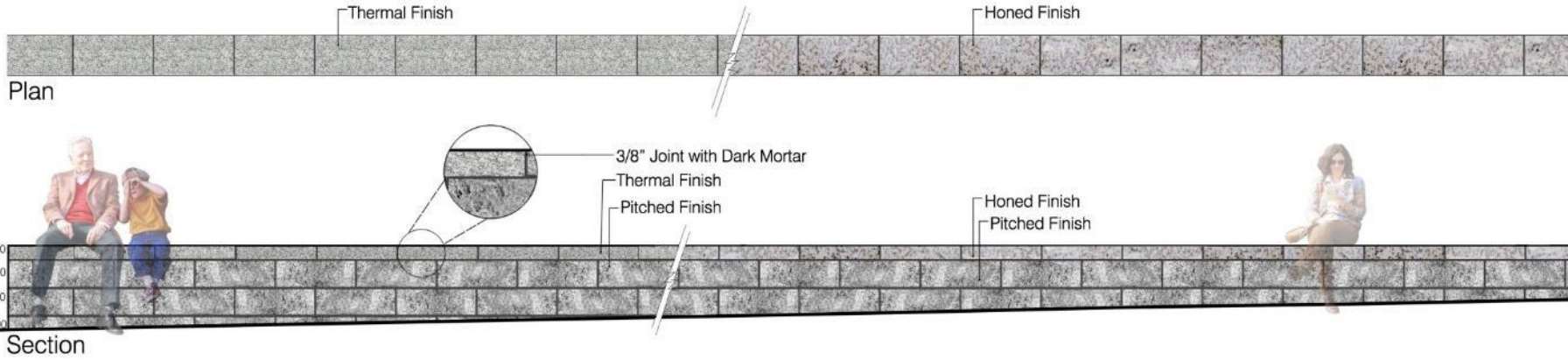
- Trail pavement – Asphalt.
- Shoulder – Crushed rock.
- Trail Restoration – Native plantings.



Materials



Materials



WPA-Arboretum Loop Trail
Stone Wall Study

1" = 1'-0"

Site Furniture



Interpretive signage

➤ Pedestrian Orientation

MATERIALS

- steel-reinforced concrete footing
- terrazzo base
- powder-coated metal
- phenolic sign panel (see following page) mounted with safety screws on metal plate

(see Recommended Materials, page 4)

NOTES

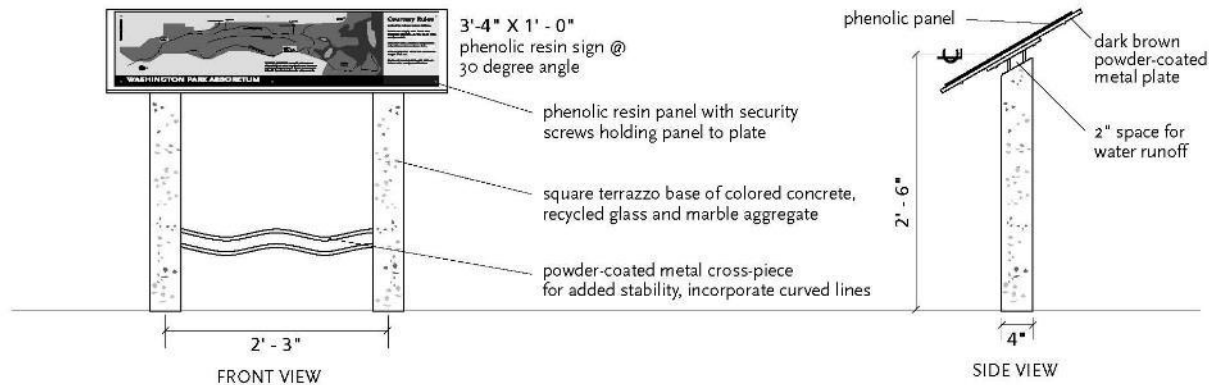
Terrazzo base is to be planted in ground so that concrete footing is never exposed.

Screw holes should be oversized to allow for difference of thermal expansion between phenolic and metal.

Back of phenolic should be sealed to metal.

See the Wayfinding section of this guide for more information.

For suggested placement in Arboretum, see Appendix: Proposed Locations for Site Elements.



STYLE GUIDE



Plant Palette



Linnaea borealis / Twinflower



Lysichiton americanus / Skunk Cabbage



Mahonia aquifolium / Tall Oregon Grape



Mahonia nervosa / Dwarf Oregon Grape



Mianthemum dilatatum / False Lily-of-the-Valley



Mercurialis fernigena / Rusty Menziesia



Oplaxia hirtellus / Devil's Cling



Oxalis oregana / Redwood Sorrel



Polypodium glycyrrhiza / Licorice Fern



Polystichum munitum / Western Sword Fern



Polytrichum juniperinum / Juniper Haircap Moss



Smitelacina racemosa / False Solomon's Seal

Plant Palette



Achlys triphyta / Vanilla Leaf



Adiantum pedatum / Maidenhair Fern



Asarum canadense / Wild Ginger



Athyrium filix-femina / Lady Fern



Blechnum spicant / Deer Fern



Carex deweyana / Dewey's Sedge



Carex obtusa / Slough Sedge



Clintonia uniflora / Queen's Cup



Cornus canadensis / Bunchberry



Corydalis scouleri / Scouler's Fumewort



Dicentra formosa / Pacific Bleeding Heart



Erythronium revolutum / Manogony Hawthily

Plant Palette



Tiarella grandiflora / Fringe Cup



Tiarella trifoliata / Foamflower



Tolmiea menziesii / Piggy-back Plant



Trillium ovatum / Pacific Trillium



Vaccinium ovatum / Evergreen Huckleberry



Vaccinium parvifolium / Red Huckleberry

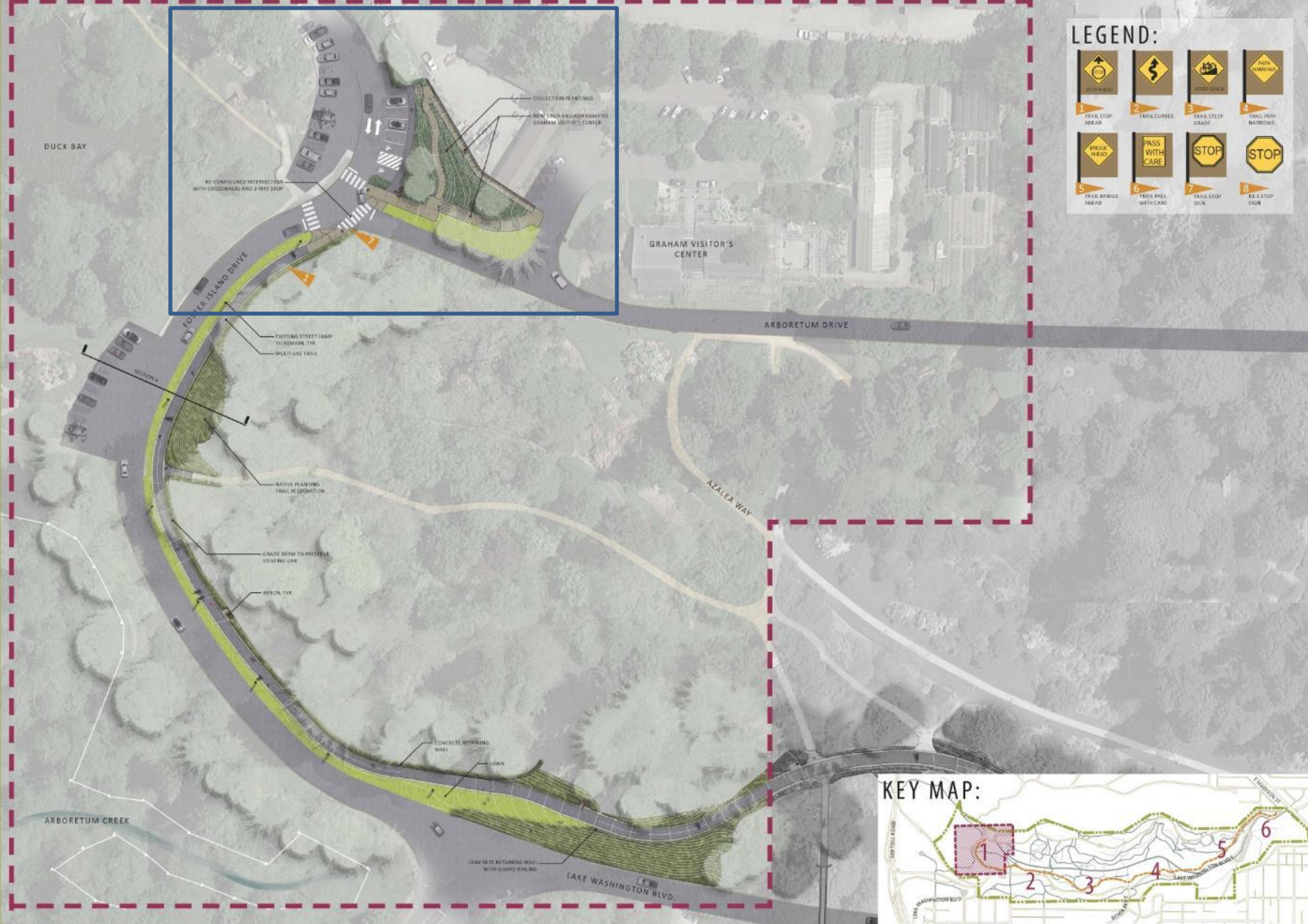


Vancouveria hexandra / Inside-out Flower

Plant List:

Achlys triphylla / Vanilla Leaf
Adiantum pedatum / Maidenhair Fern
Asarum canadense / Wild Ginger
Alyxium filix-ferina / Lady Fern
Blechnum spicant / Deer Fern
Carex deweyana / Dewey's Sedge
Carex obovata / Slough Sedge
Clintonia uniflora / Queen's Cup
Cornus canadensis / Bunchberry
Corydalis scouleri / Scouler's Fumewort
Dicentra formosa / Pacific Bleeding Heart
Erythronium revolutum / Mahogany Fawnlily
Linnaea borealis / Twinflower
Lysichiton americanus / Skunk Cabbage
Mahonia aquifolium / Tall Oregon Grape
Mahonia nervosa / Dull Oregon Grape
Masiphysma distatum / False Lily-of-the-Valley
Menziesia ferruginea / Rusty Menziesia
Opiopanax horridus / Devil's Club
Oxalis oregana / Redwood Sorrel
Polypodium glycyrrhiza / Licorice Fern
Polystichum munitum / Western Sword Fern
Polystichum juniperinum / Juniper Haircap Moss
Smilacina racemosa / False Solomon's Seal
Tiarella grandiflora / Fringe Cup
Tiarella trifoliata / Foamflower
Tolmiea menziesii / Piggy-back Plant
Trillium ovatum / Pacific Trillium
Vaccinium ovatum / Evergreen Huckleberry
Vaccinium parvifolium / Red Huckleberry
Vancouveria hexandra / Inside-out Flower

GRAHAM VISITOR'S CENTER



DUCK BAY

TRIFURCATED INTERSECTION WITH CROSSWALKS AND 3-WAY STOP

COLLECTION PLANTINGS

NEW STAIR AND ASPHALT TO GRAHAM VISITOR'S CENTER

GRAHAM VISITOR'S CENTER

ARBOTUM DRIVE

TRIP ISLAND DRIVE

PAVING STREET LAMP SUDENMARTIN MULTI-LANE TRAIL

NATIVE PLANTING TRAIL RESTORATION

GRAB BENCH TO PREVENT CRASHING VAN

BENCH TOP

CONCRETE RETAINING WALL

LAWN

CONCRETE RETAINING WALL WITH GRATED RAILING

LAKE WASHINGTON BLVD.

ARBOTUM CREEK

AZALEA WAY

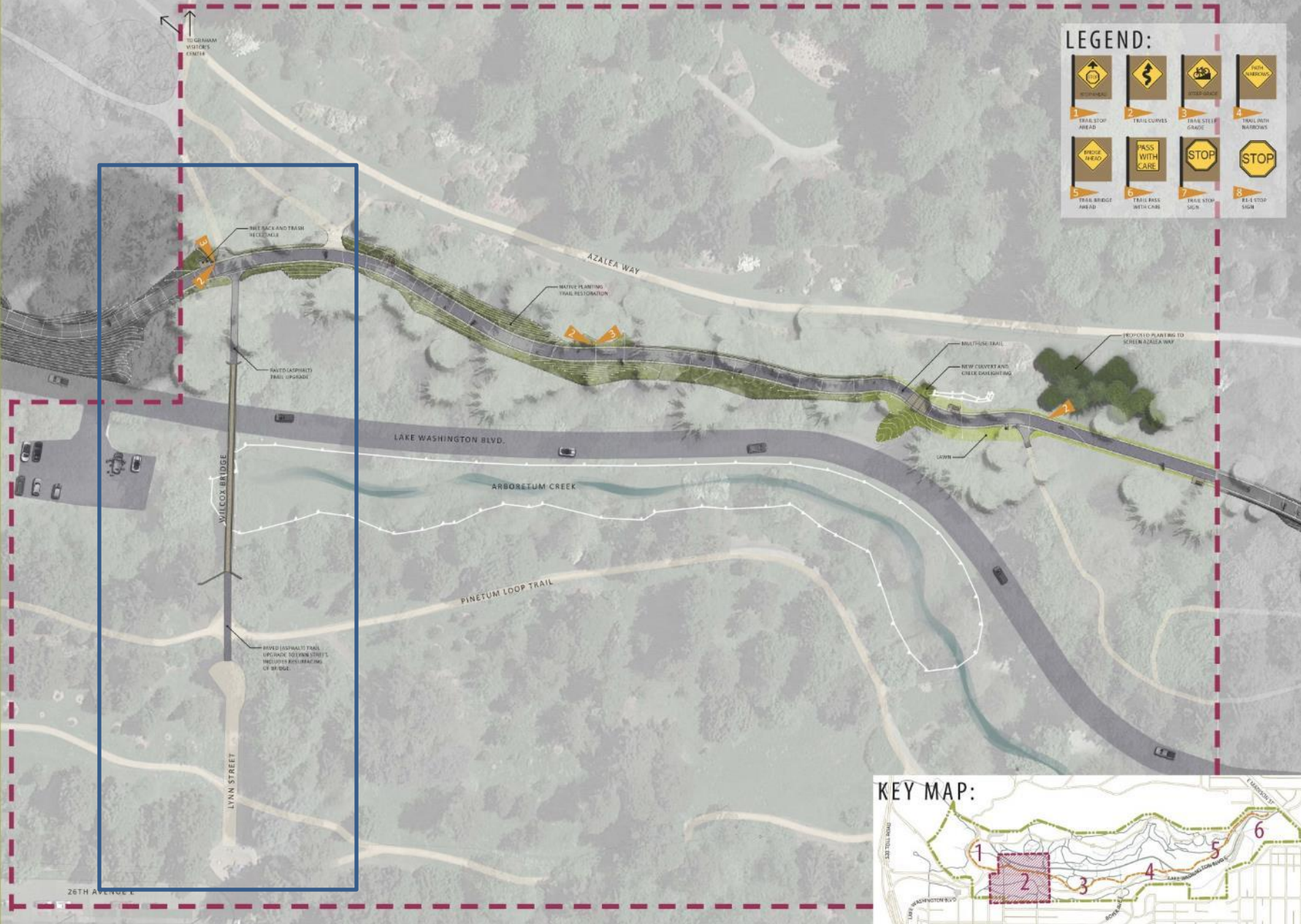
KEY MAP:



AY



WILCOX BRIDGE



LEGEND:

1 TRAIL STOP AHEAD	2 TRAIL CURVES AHEAD	3 TRAIL STEEP GRADE	4 TRAIL NARROW
5 TRAIL BRIDGE AHEAD	6 TRAIL PASS WITH CARE	7 TRAIL STOP SIGN	8 YIELD STOP SIGN



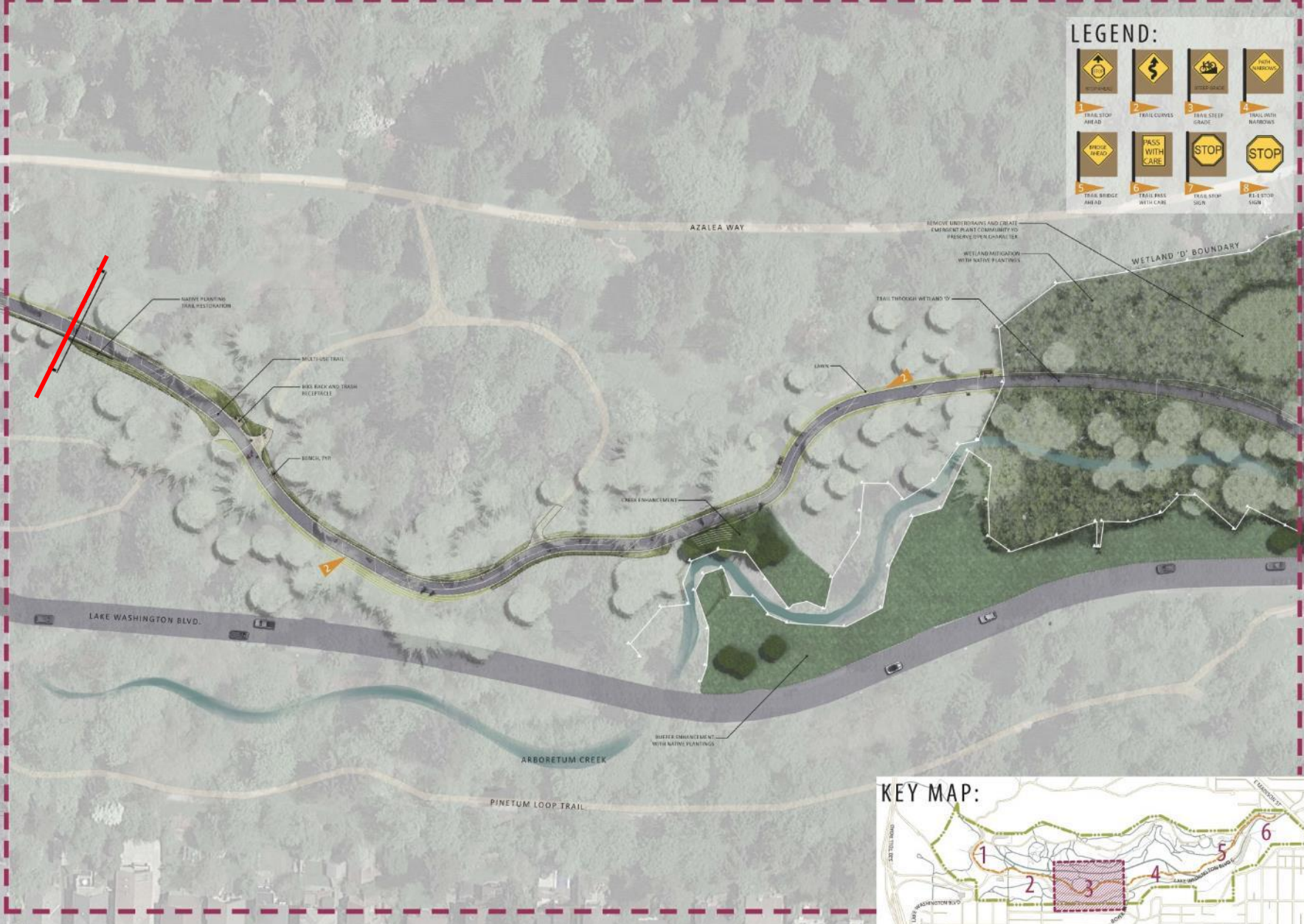




THE KNOLLS

LEGEND:

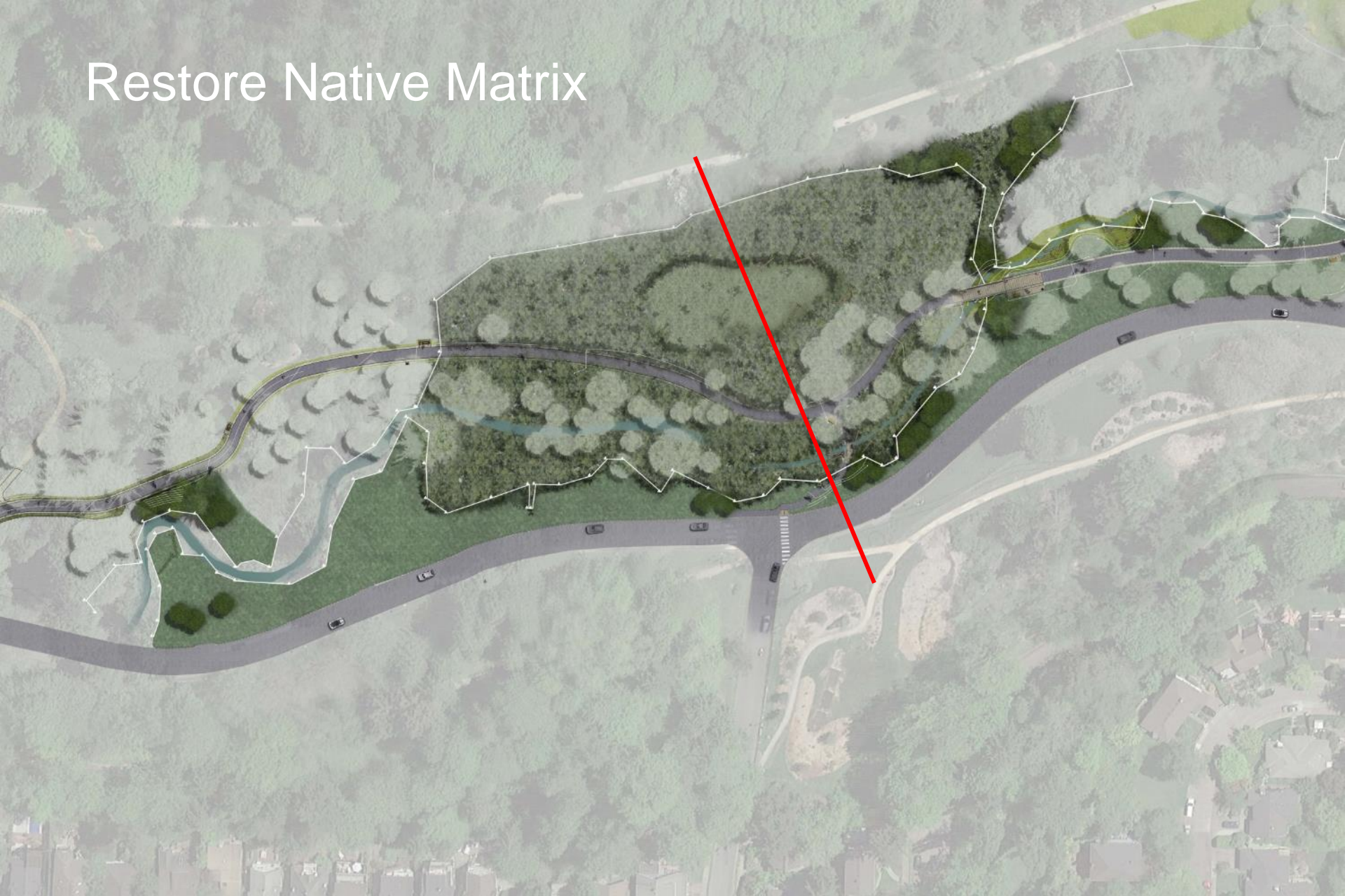
1 TRAIL STOP AHEAD	2 TRAIL CURVES	3 TRAIL STEEP GRADE	4 TRAIL INTO NARROWS	
5 TRAIL BRIDGE AHEAD	6 TRAIL PASS WITH CARE	7 TRAIL STOP SIGN	8 TRAIL STOP SIGN	







Restore Native Matrix





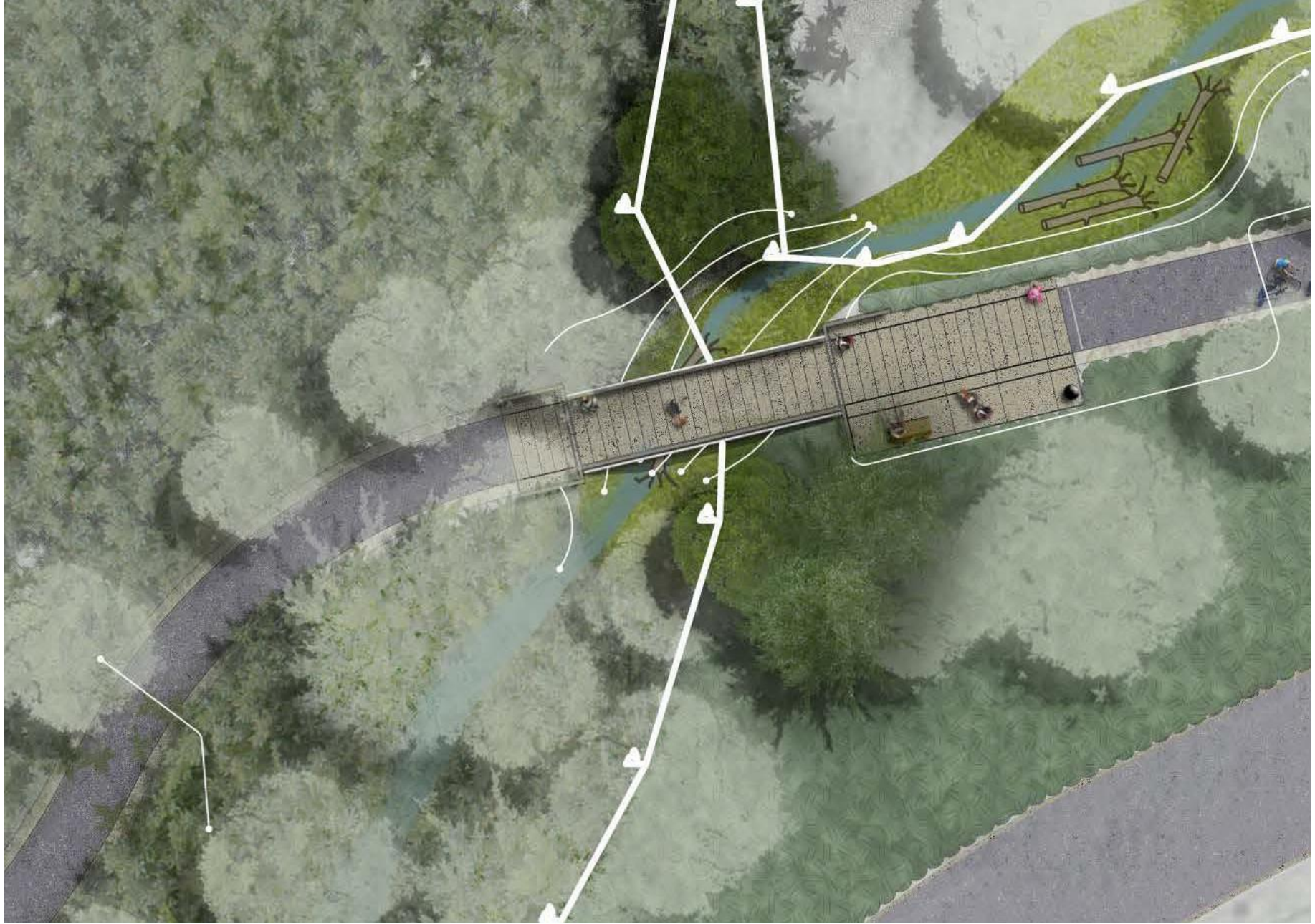




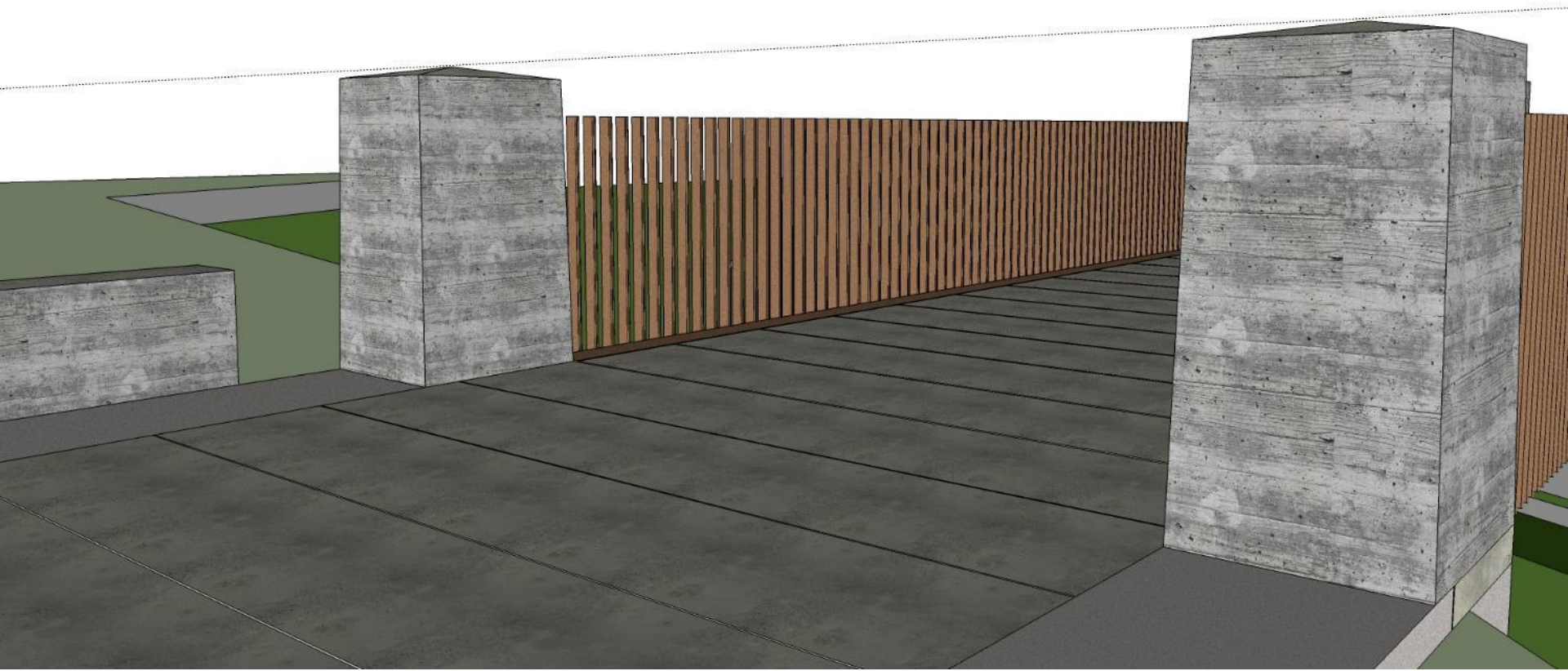






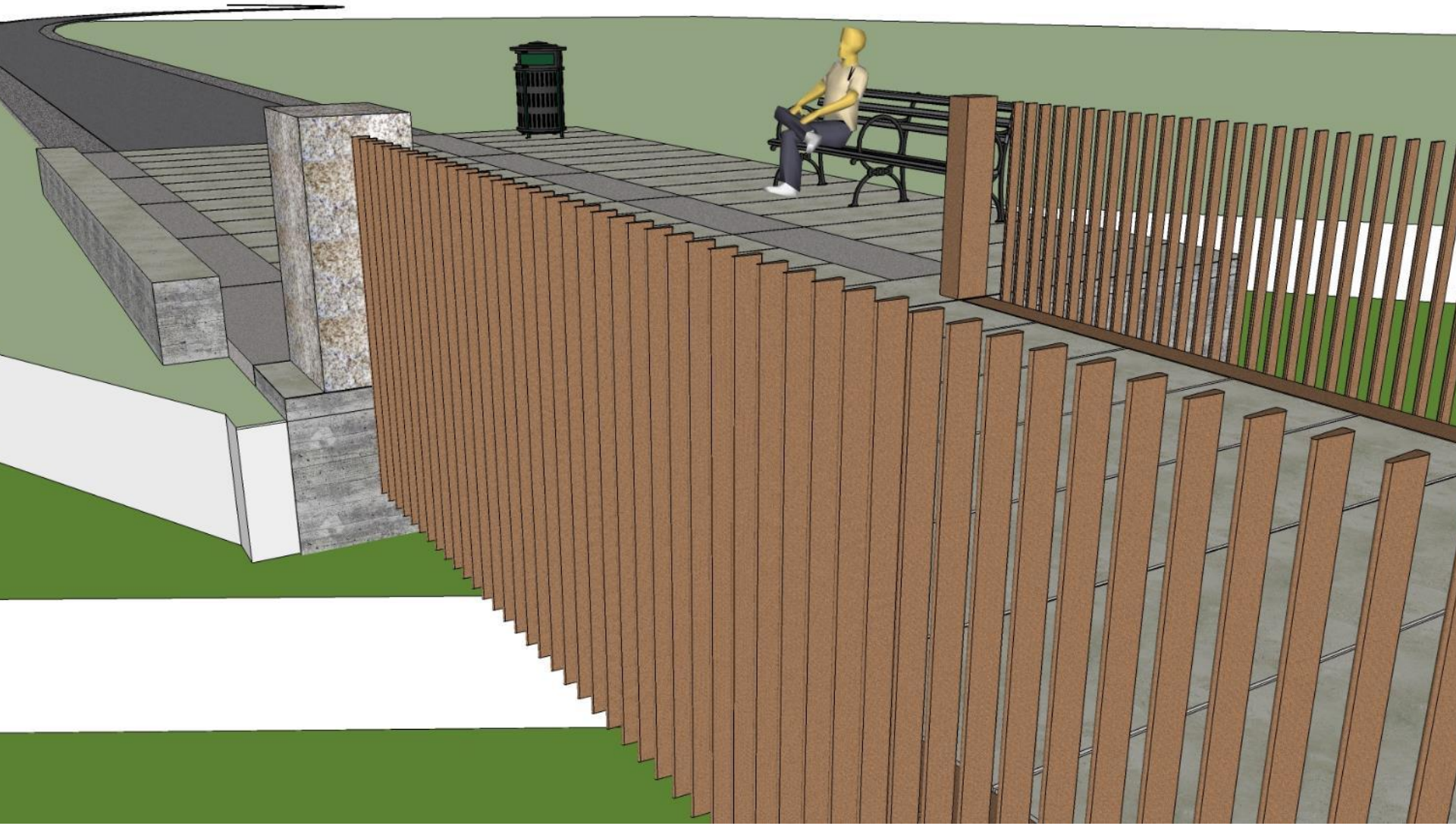


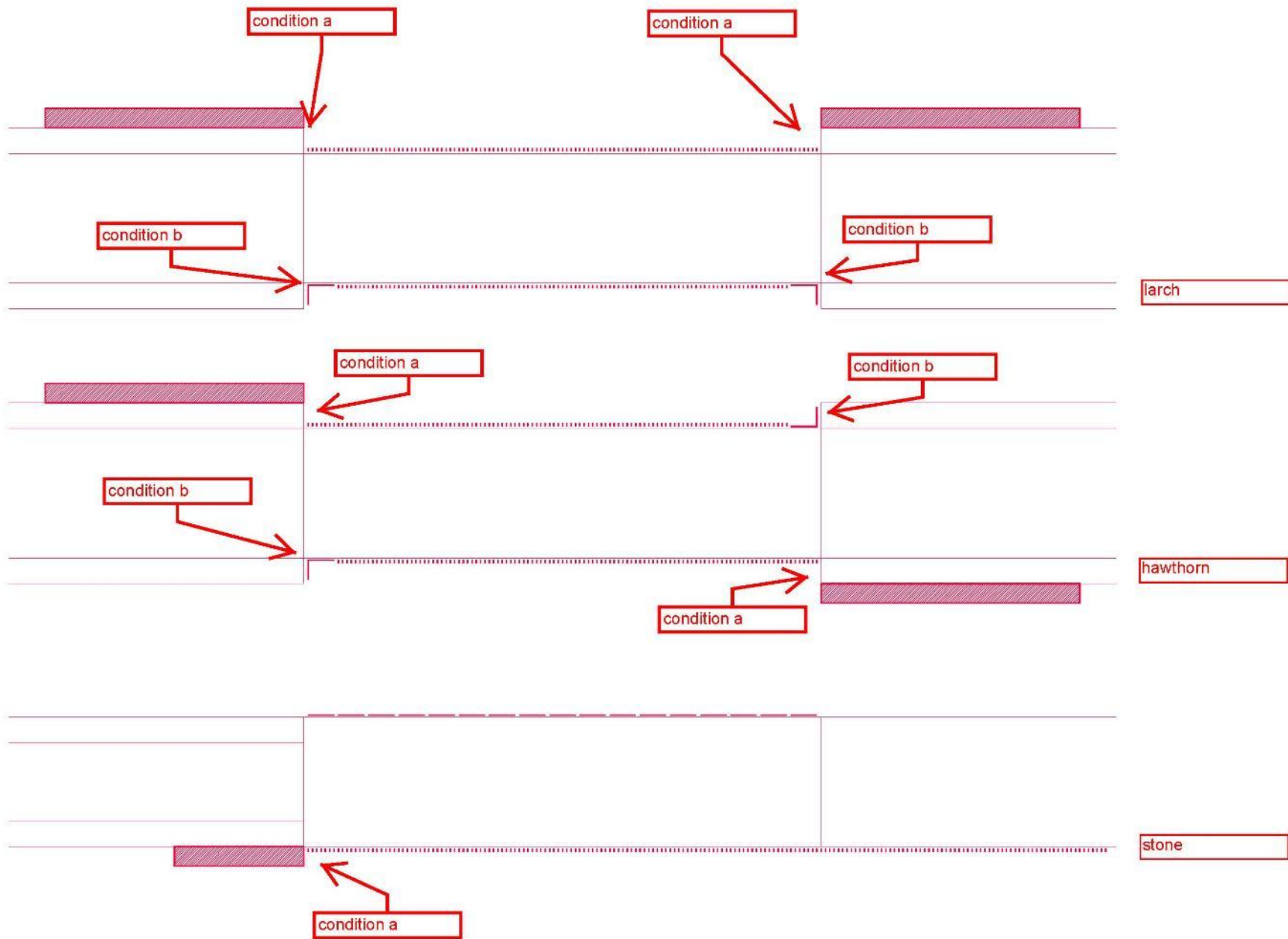


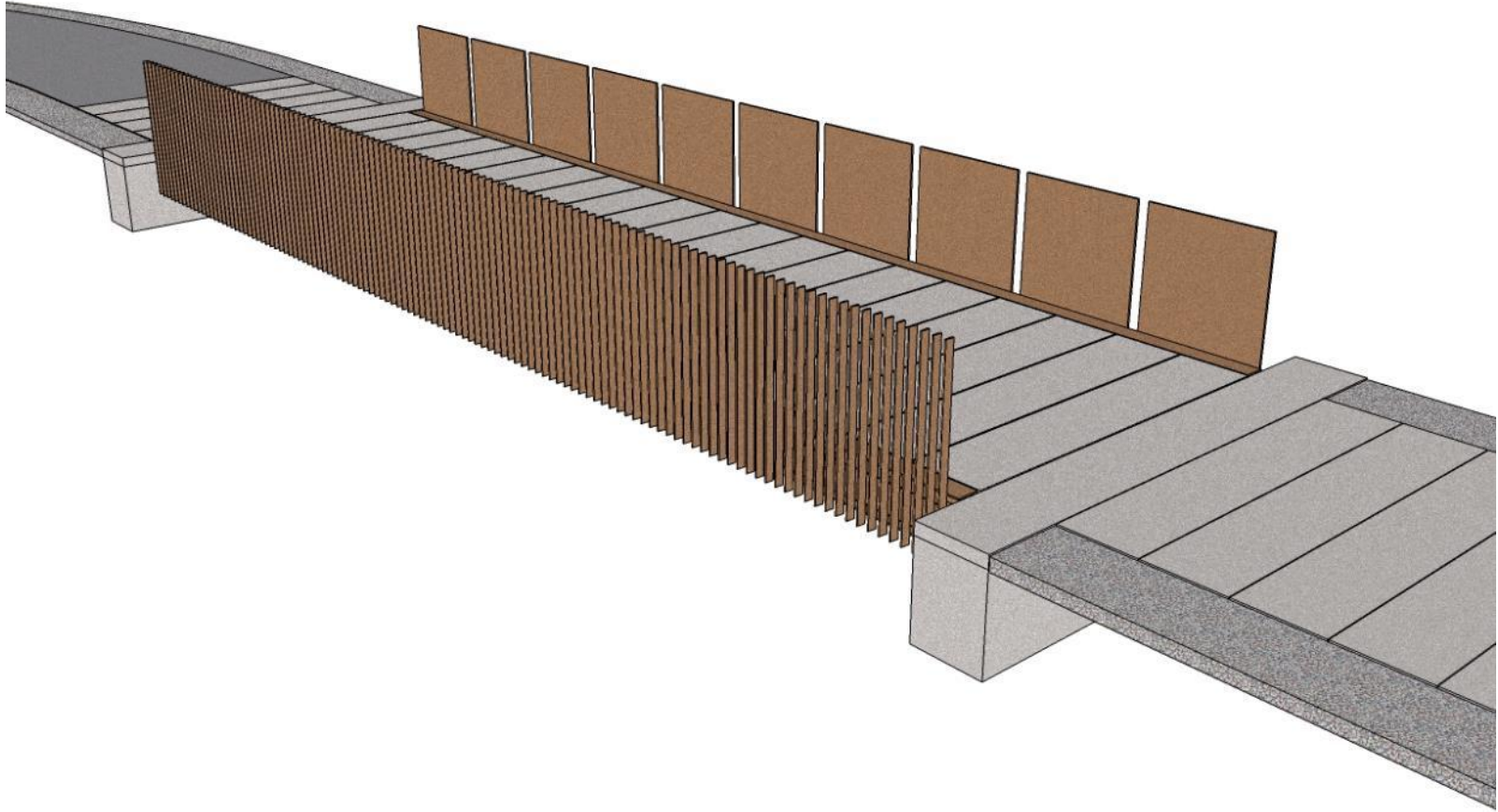


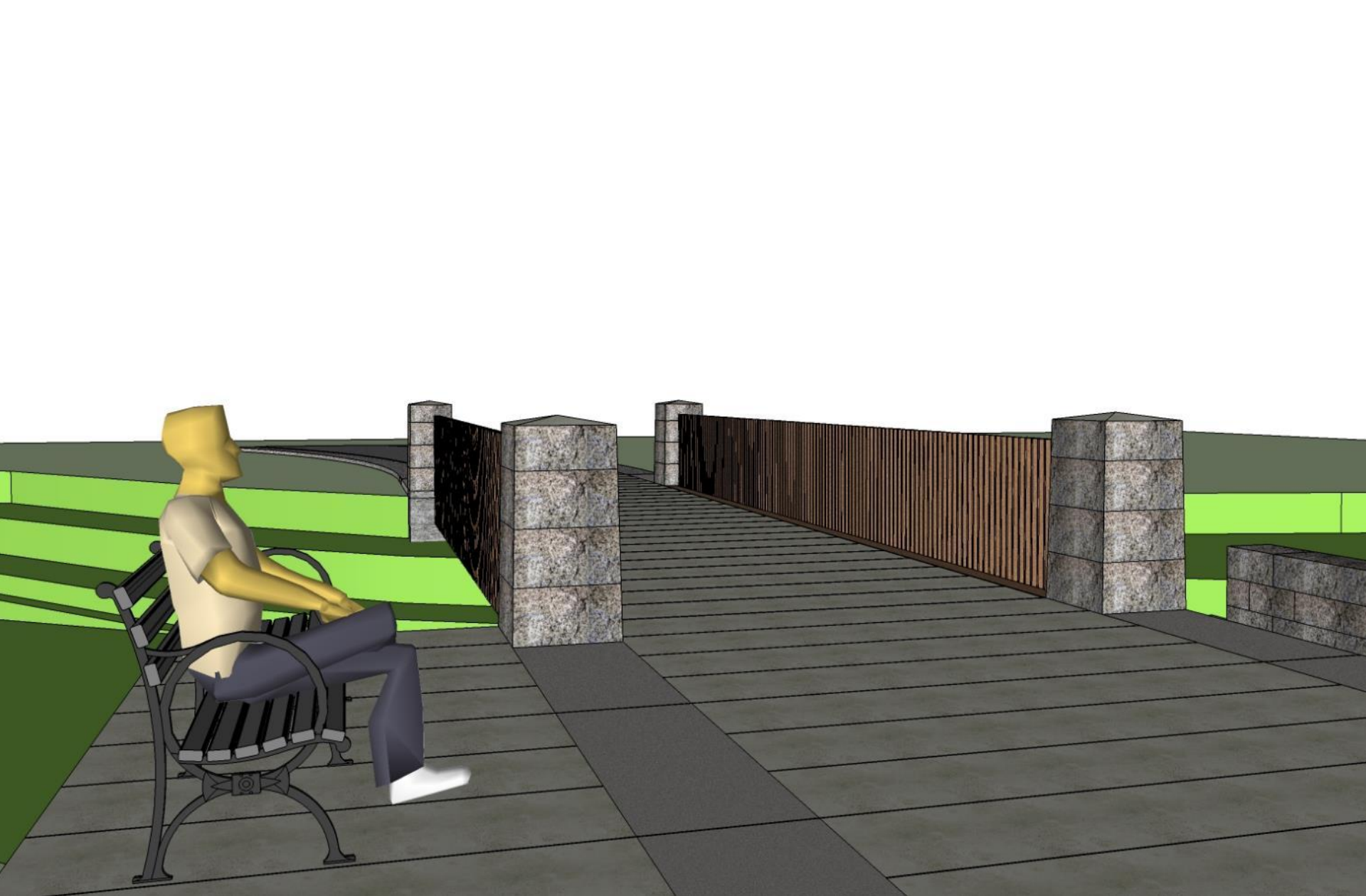




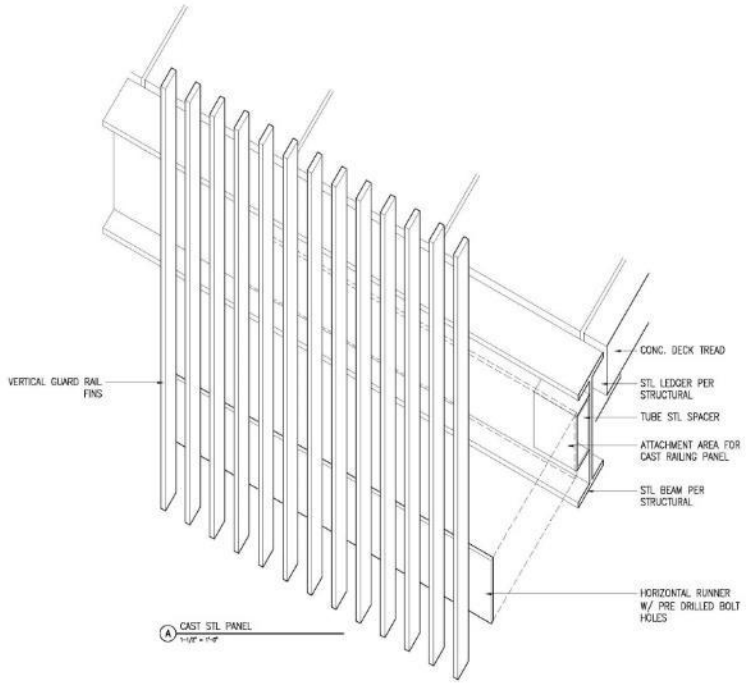




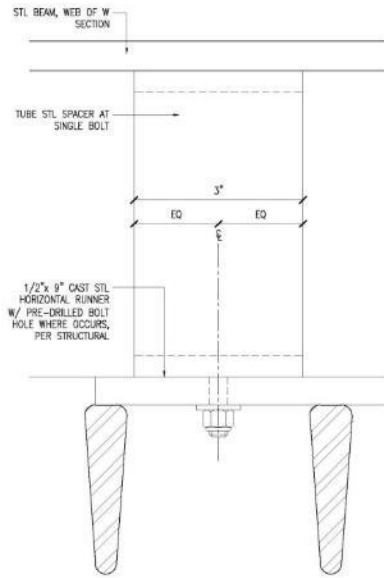




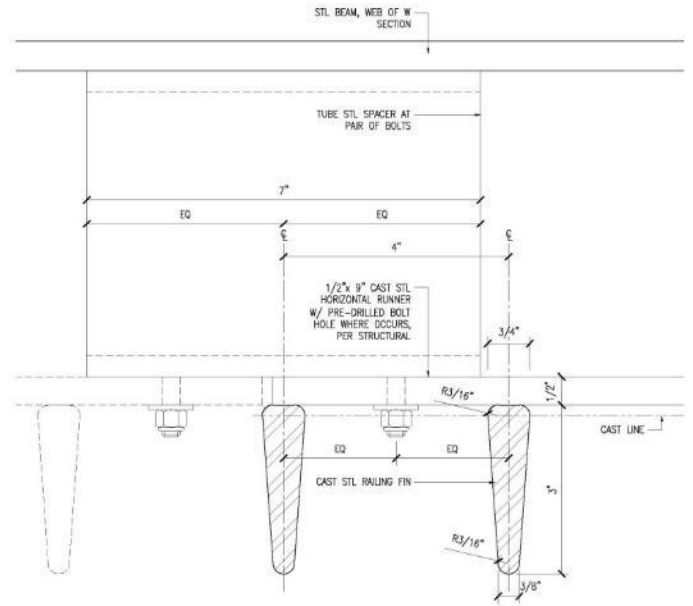




6 GUARD RAILING PANEL COMPONENTS
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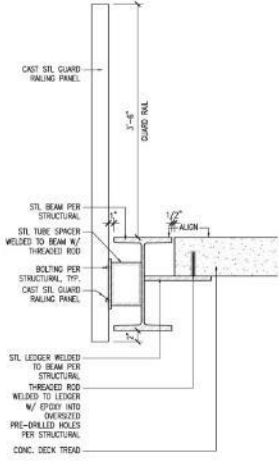


8 GUARD RAILING PROFILE - PLAN VIEW
1'-0" x 1'-0"

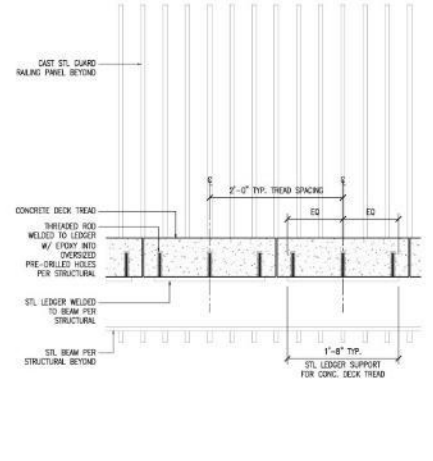


NOT LESS THAN TWO OR MORE THAN TEN BUSINESS DAYS PRIOR TO COMMENCING EXCAVATION OR CONSTRUCTION. SECURE THE SERVICES OF A COMMERCIAL UNDERGROUND UTILITY LOCATOR REFERRED TO PROPERTY AND ENGINEERING IMPROVEMENTS THAT MAY NOT BE INDICATED ON THE UNIVERSAL PUBLIC UTILITY RECORDS SHALL BE AT THE USER'S RISK. SEE SDP (JOB 08A 100).

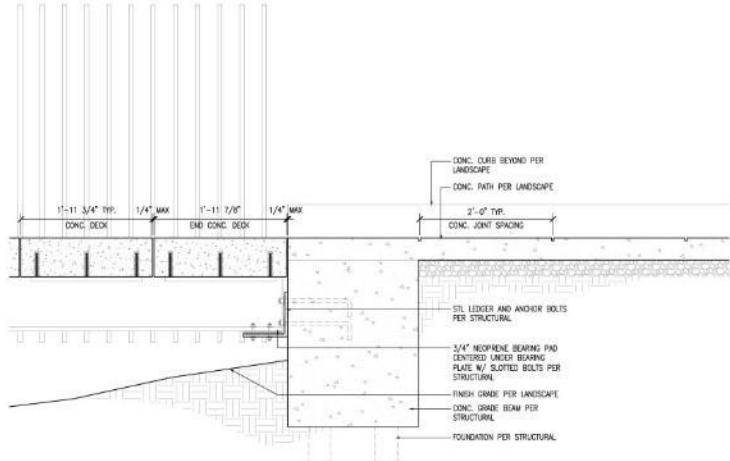
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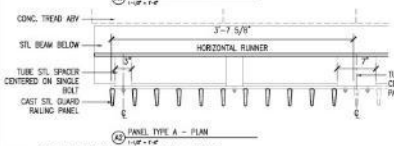
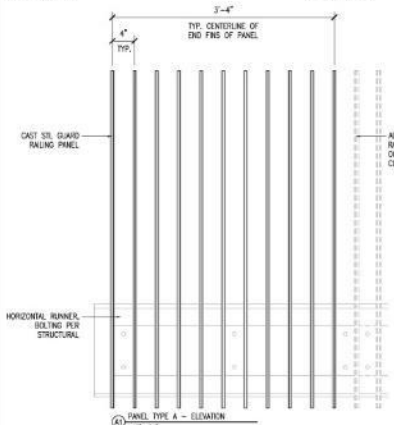
6 GUARD RAILING DETAIL
1'-0" x 1'-0"



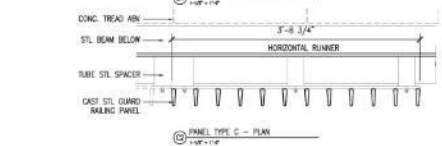
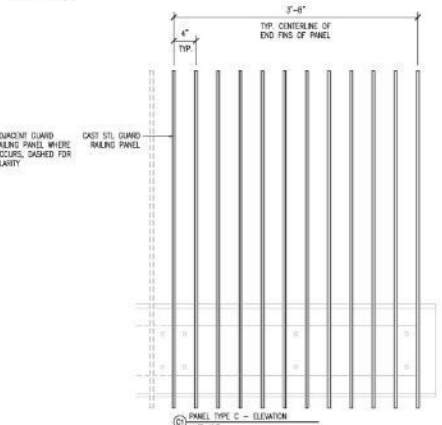
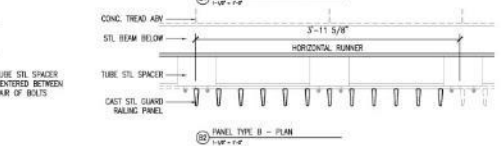
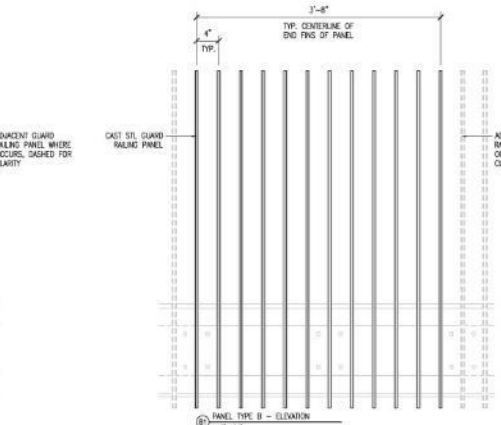
7 CONC. DECK SUPPORT
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9 CONC. DECK SUPPORT
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16 GUARD RAILING PANEL TYPES
AS INDICATED



DESIGN DEVELOPMENT

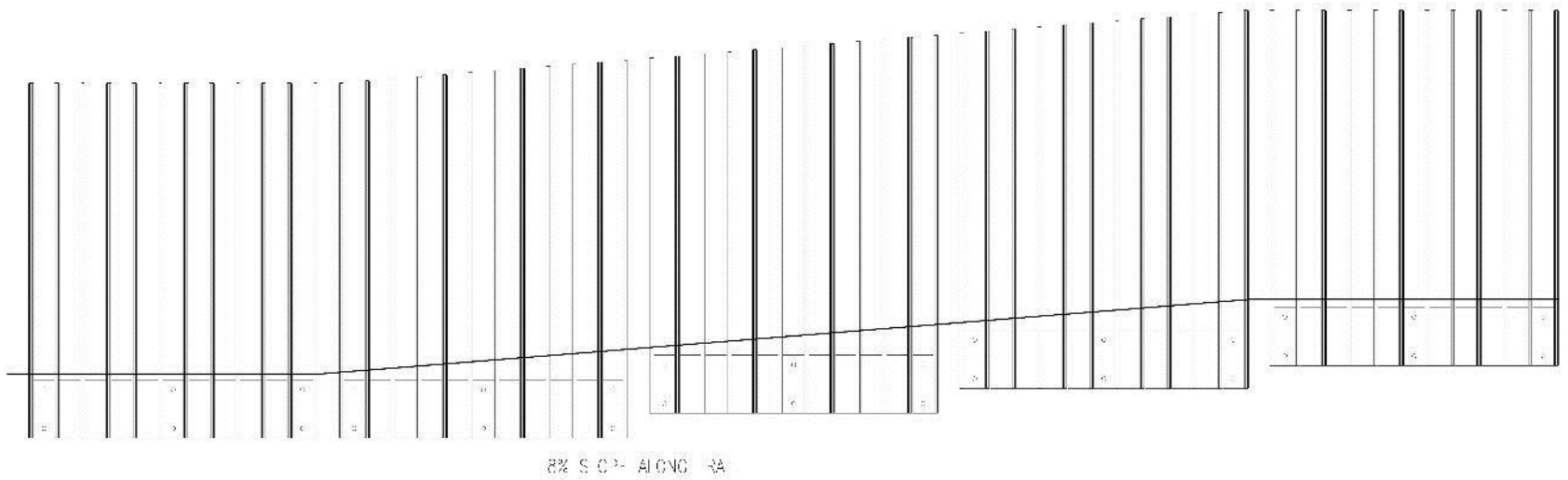
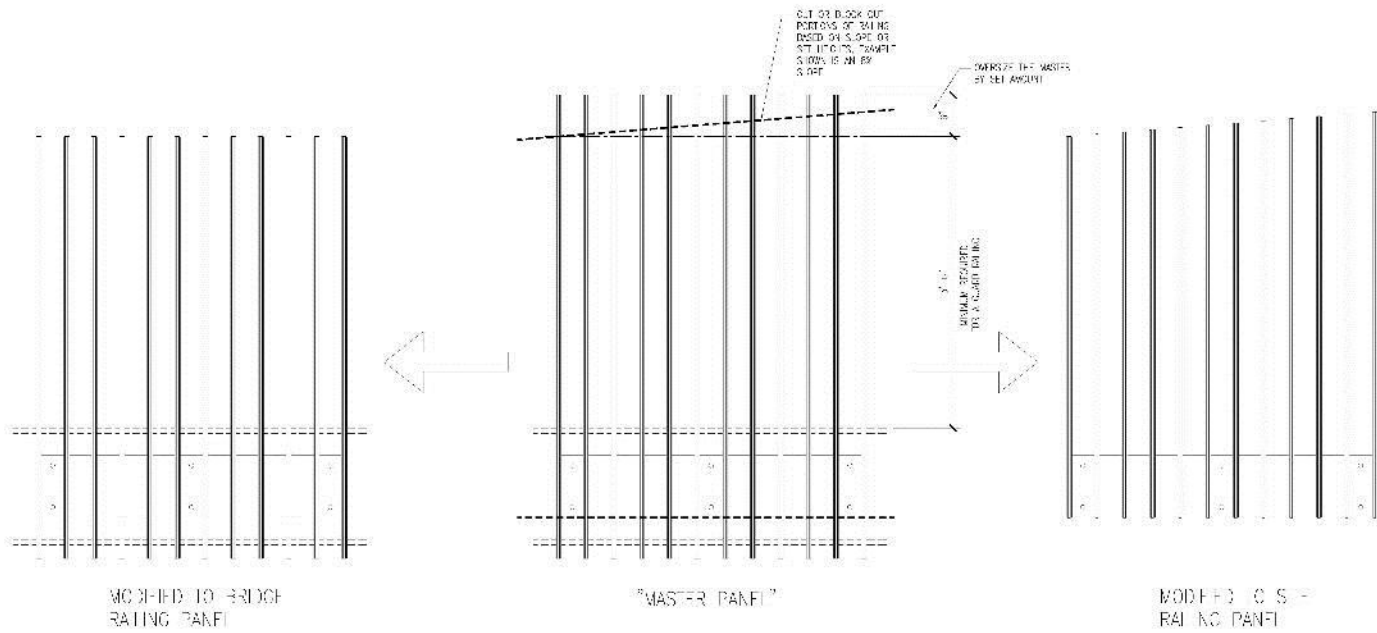
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berger PARTNERSHIP
 (206) 465-1000 | 206.325.6977
 10010 Northside Way, Suite 100, Seattle, WA 98118

Seattle Parks and Recreation
 WASHINGTON PARK ARBORETUM
 MULTI USE TRAIL

DESIGNED BY:	DATE: 12-09-2018
CHECKED BY:	SHEET: 01
APPROVED BY:	A7.2
CONTRACT NO.:	
TITLE: AS NOTED	



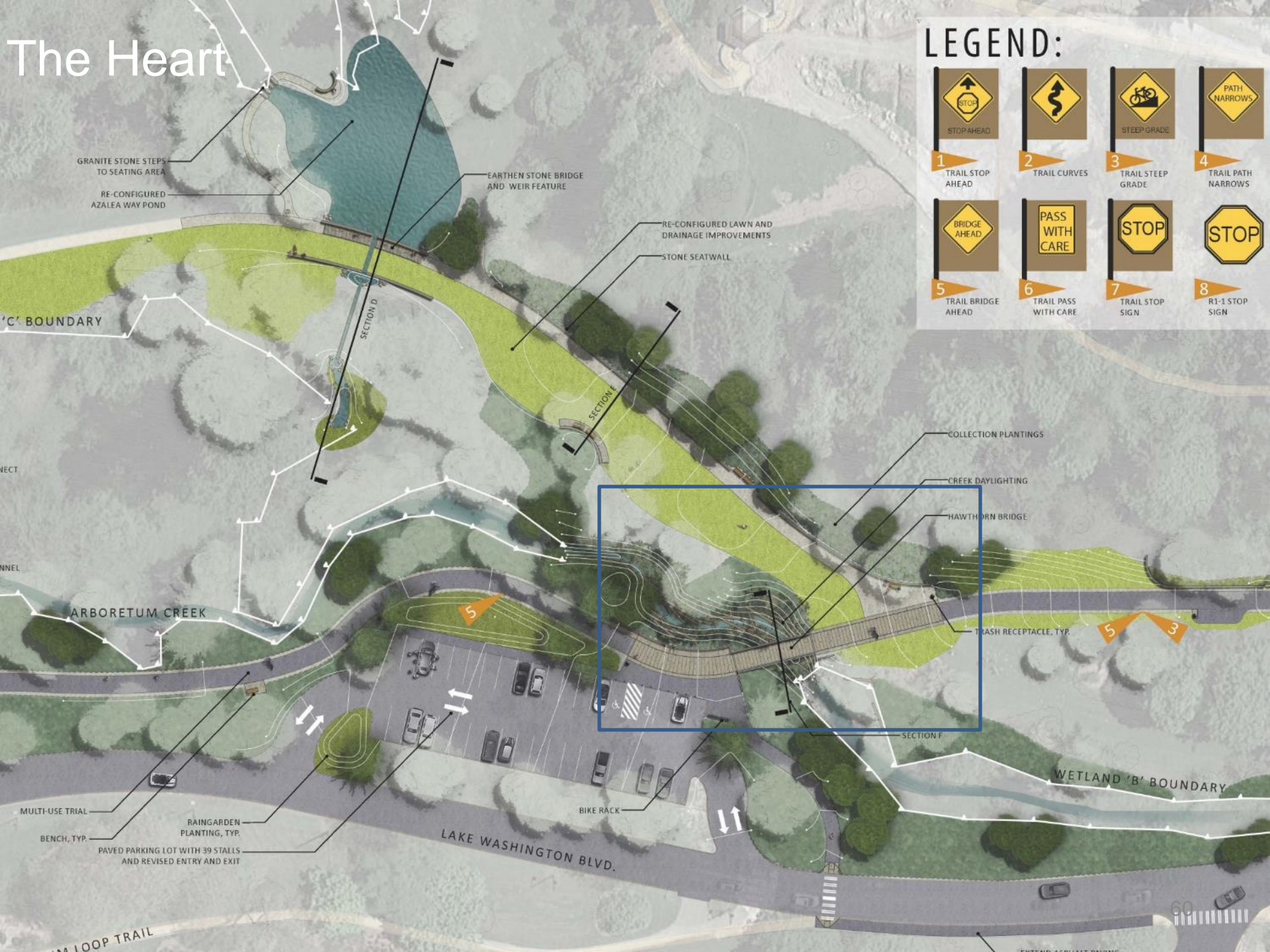
THE FLATS



The Heart

LEGEND:

 STOP AHEAD	 TRAIL CURVES	 TRAIL STEEP GRADE	 TRAIL PATH NARROWS
1  TRAIL STOP AHEAD	2  TRAIL CURVES	3  TRAIL STEEP GRADE	4  TRAIL PATH NARROWS
 BRIDGE AHEAD	 PASS WITH CARE	 STOP	 STOP
5  TRAIL BRIDGE AHEAD	6  TRAIL PASS WITH CARE	7  TRAIL STOP SIGN	8  R1-1 STOP SIGN



GRANITE STONE STEPS TO SEATING AREA

RE-CONFIGURED AZALEA WAY POND

EARTHEN STONE BRIDGE AND WEIR FEATURE

RE-CONFIGURED LAWN AND DRAINAGE IMPROVEMENTS

STONE SEATWALL

'C' BOUNDARY

SECTION D

SECTION E

COLLECTION PLANTINGS

CREEK DAYLIGHTING

HAWTHORN BRIDGE

TRASH RECEPTACLE, TYP.

SECTION F

WETLAND 'B' BOUNDARY

ARBORETUM CREEK

LAKE WASHINGTON BLVD.

BIKE RACK

MULTI-USE TRAIL

RAINGARDEN PLANTING, TYP.

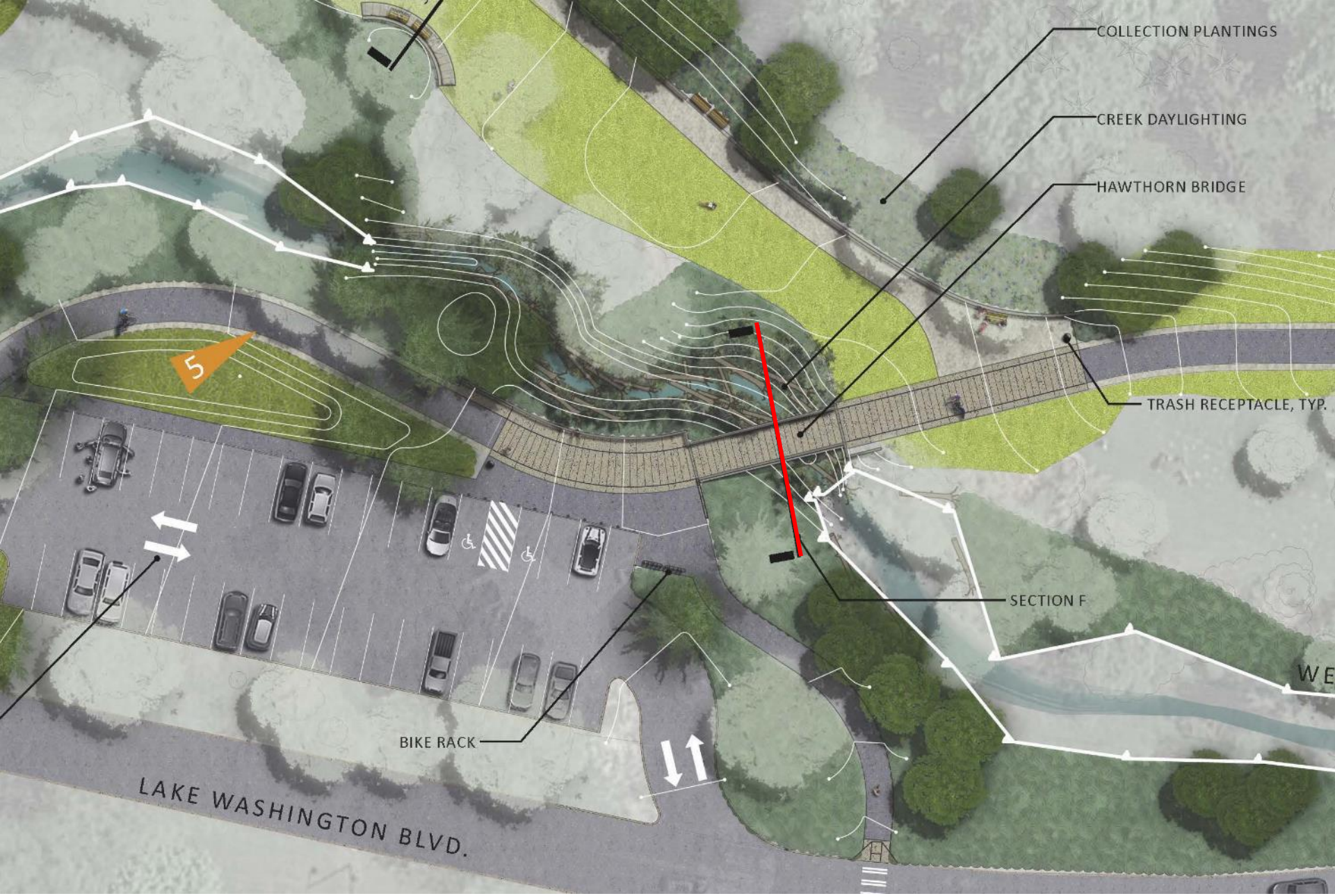
BENCH, TYP.

PAVED PARKING LOT WITH 39 STALLS AND REVISED ENTRY AND EXIT

AM LOOP TRAIL

60

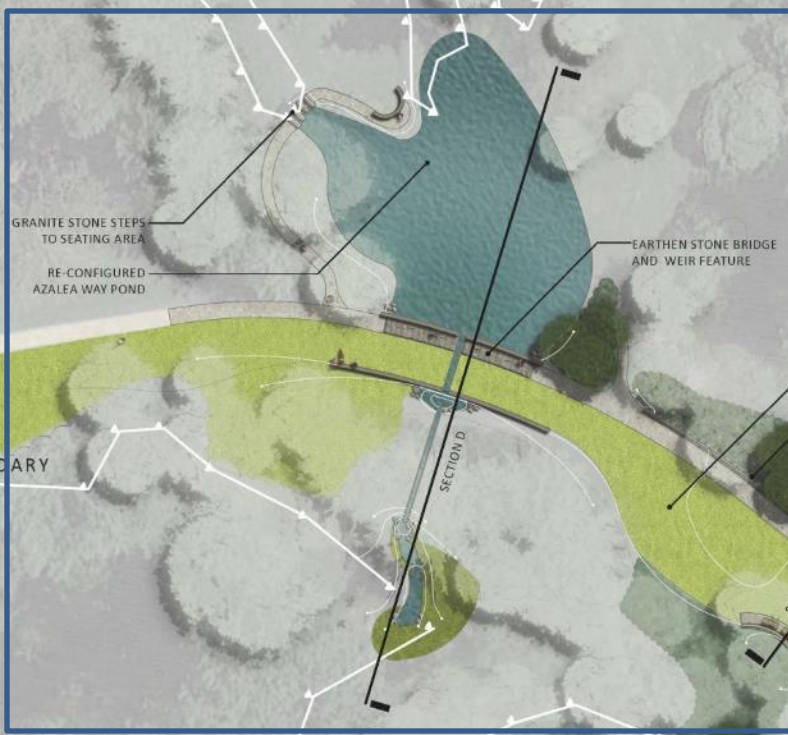
EXTEND ACQUILT DRUMS





LEGEND:

 STOP AHEAD	 TRAIL CURVES	 TRAIL STEEP GRADE	 TRAIL PATH NARROWS
1  TRAIL STOP AHEAD	2  TRAIL CURVES	3  TRAIL STEEP GRADE	4  TRAIL PATH NARROWS
5  TRAIL BRIDGE AHEAD	6  TRAIL PASS WITH CARE	7  TRAIL STOP SIGN	8  R1-1 STOP SIGN





LEGEND:

 STOP AHEAD	 TRAIL CURVES	 TRAIL STEEP GRADE	 TRAIL PATH NARROWS
1  TRAIL STOP AHEAD	2  TRAIL CURVES	3  TRAIL STEEP GRADE	4  TRAIL PATH NARROWS
5  TRAIL BRIDGE AHEAD	6  TRAIL PASS WITH CARE	7  TRAIL STOP SIGN	8  R1-1 STOP SIGN



GRANITE STONE STEPS TO SEATING AREA

RE-CONFIGURED AZALEA WAY POND

EARTHEN STONE BRIDGE AND WEIR FEATURE

RE-CONFIGURED LAWN AND DRAINAGE IMPROVEMENTS

STONE SEATWALL

'C' BOUNDARY

SECTION D

SECTION E

COLLECTION PLANTINGS

CREEK DAYLIGHTING

HAWTHORN BRIDGE

TRASH RECEPTACLE, TYP.

ARBORETUM CREEK

SECTION F

WETLAND 'B' BOUNDARY

MULTI-USE TRAIL

RAINGARDEN PLANTING, TYP.

BENCH, TYP.

PAVED PARKING LOT WITH 39 STALLS AND REVISED ENTRY AND EXIT

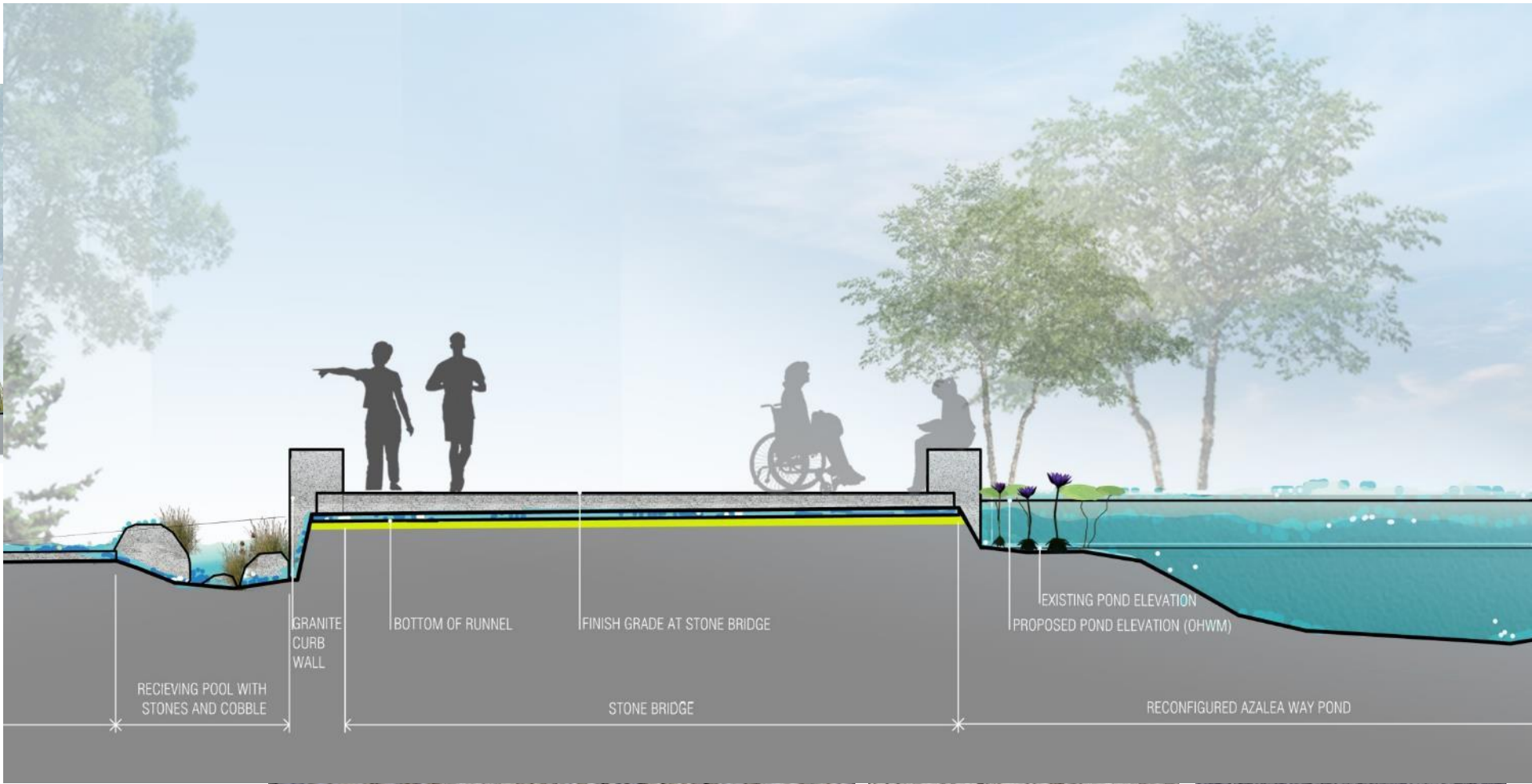
BIKE RACK

LAKE WASHINGTON BLVD.

65

AM LOOP TRAIL

EXTEND ACQUILT PARKING



LEGEND:

 STOP AHEAD	 TRAIL CURVES	 TRAIL STEEP GRADE	 TRAIL PATH NARROWS
1  TRAIL STOP AHEAD	2  TRAIL CURVES	3  TRAIL STEEP GRADE	4  TRAIL PATH NARROWS
5  TRAIL BRIDGE AHEAD	6  TRAIL PASS WITH CARE	7  TRAIL STOP SIGN	8  R1-1 STOP SIGN

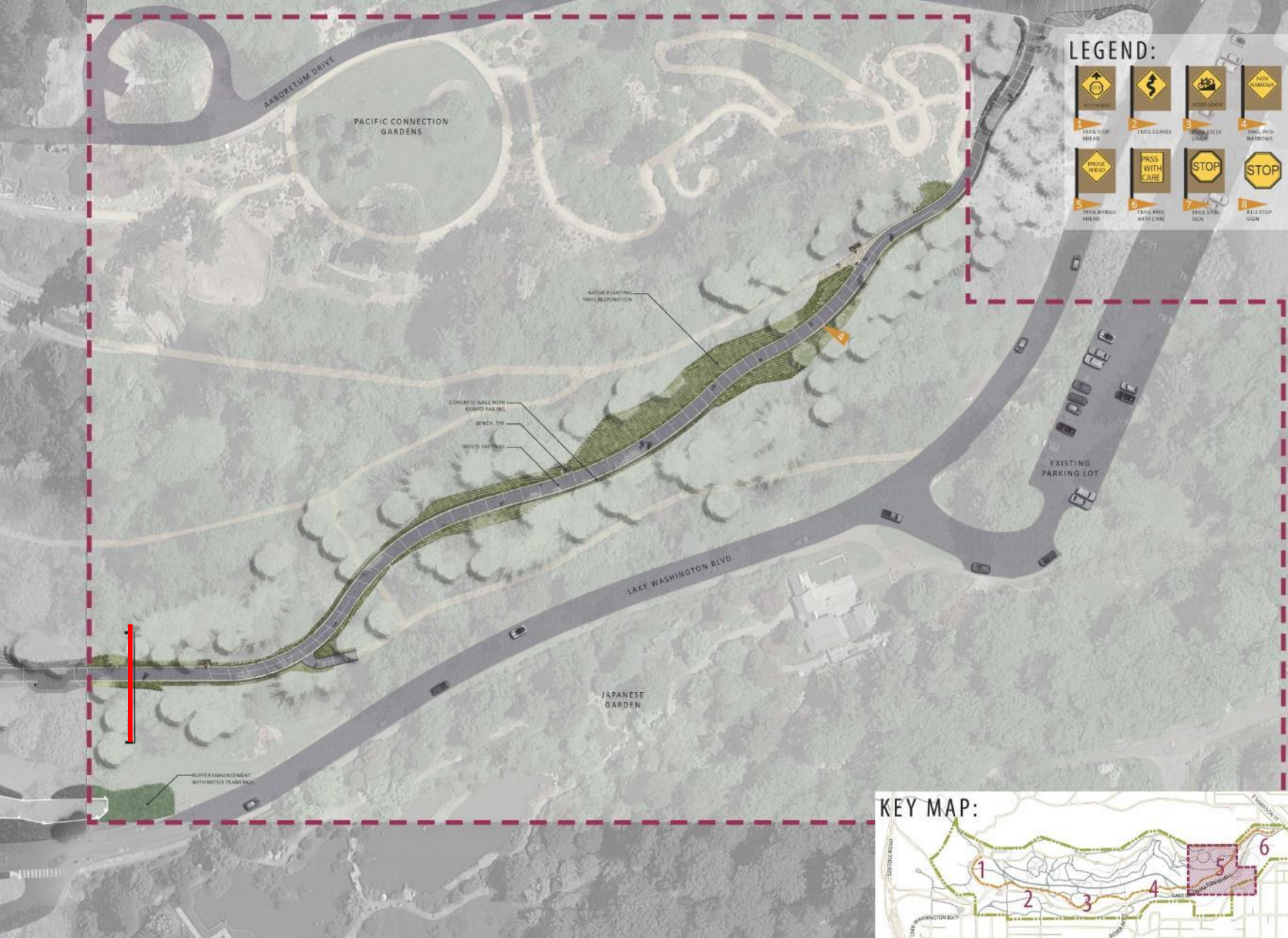




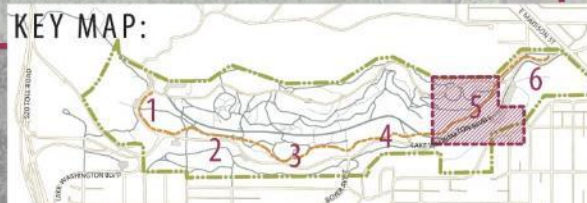


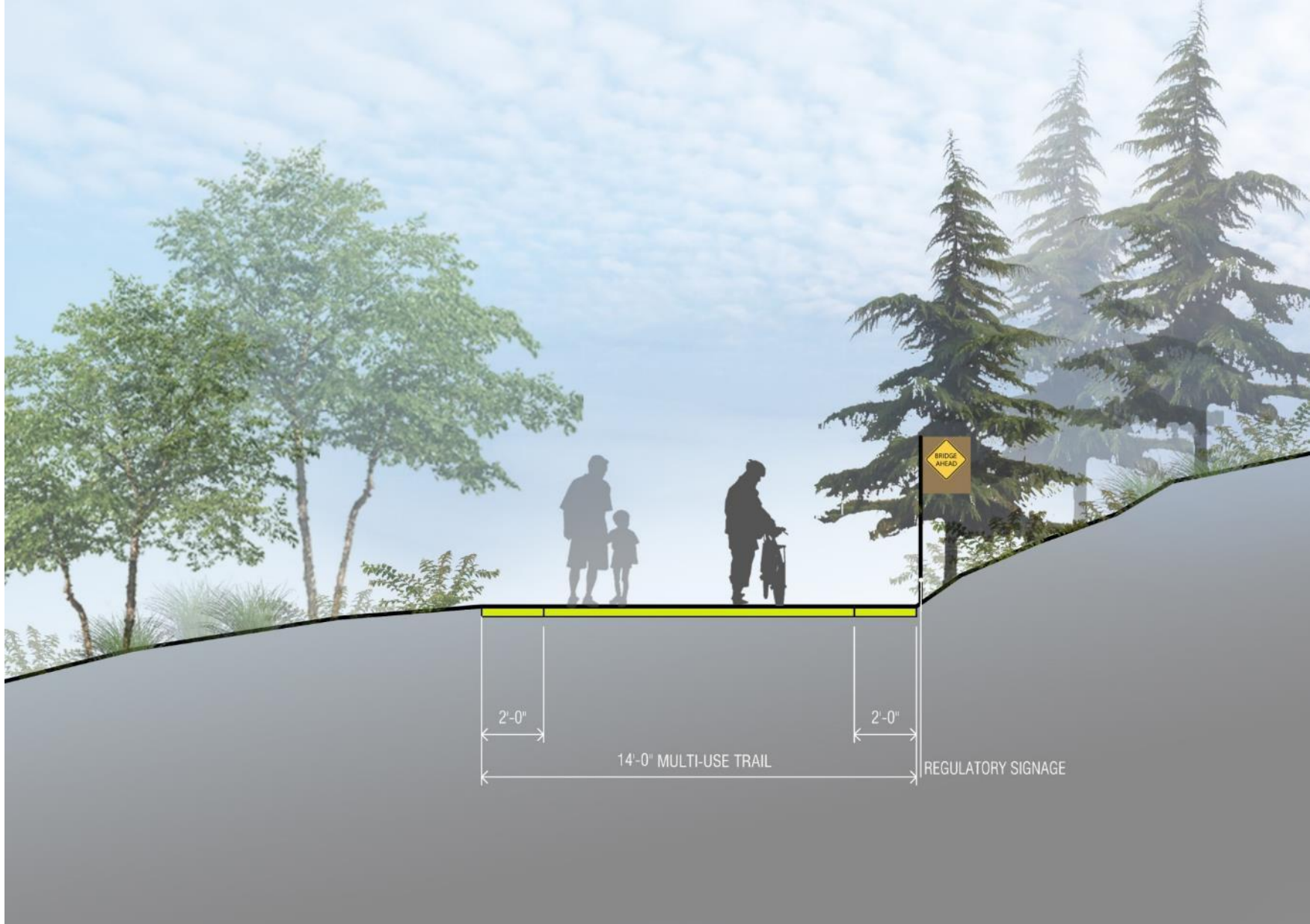


PACIFIC CONNECTIONS



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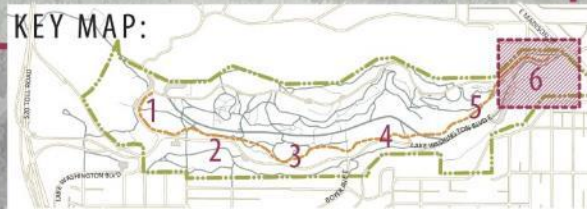


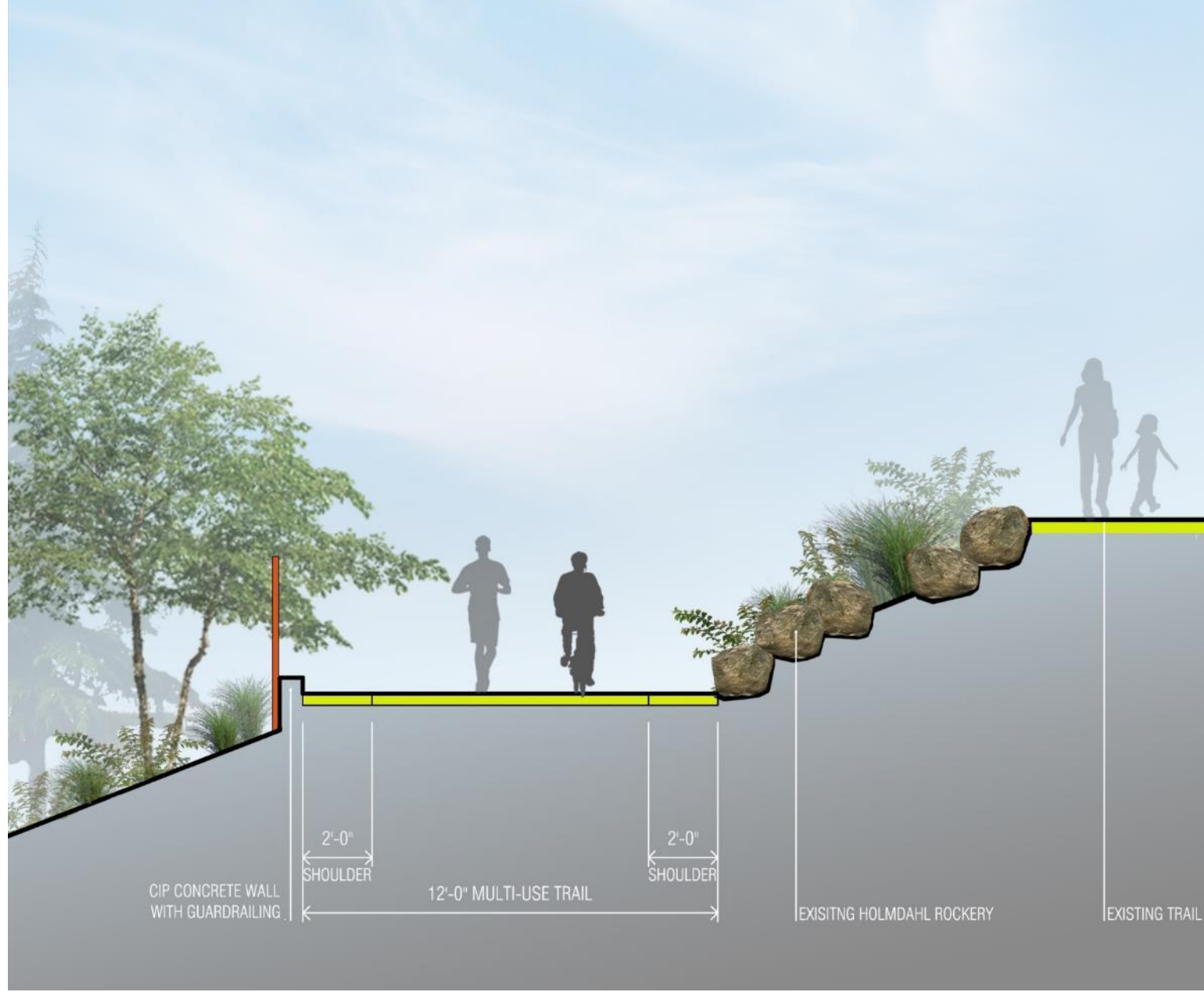


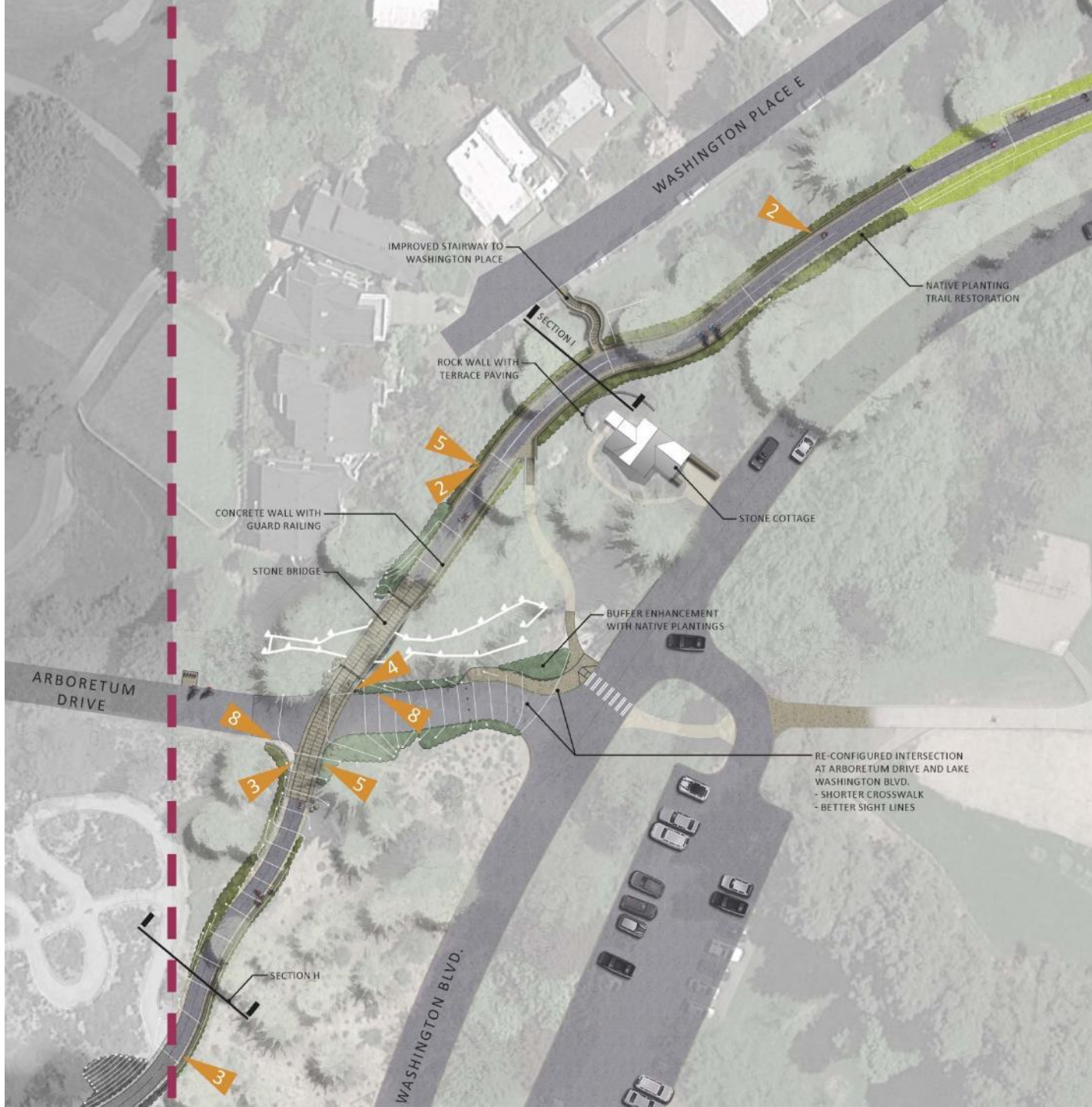
STONE COTTAGE ENTRY



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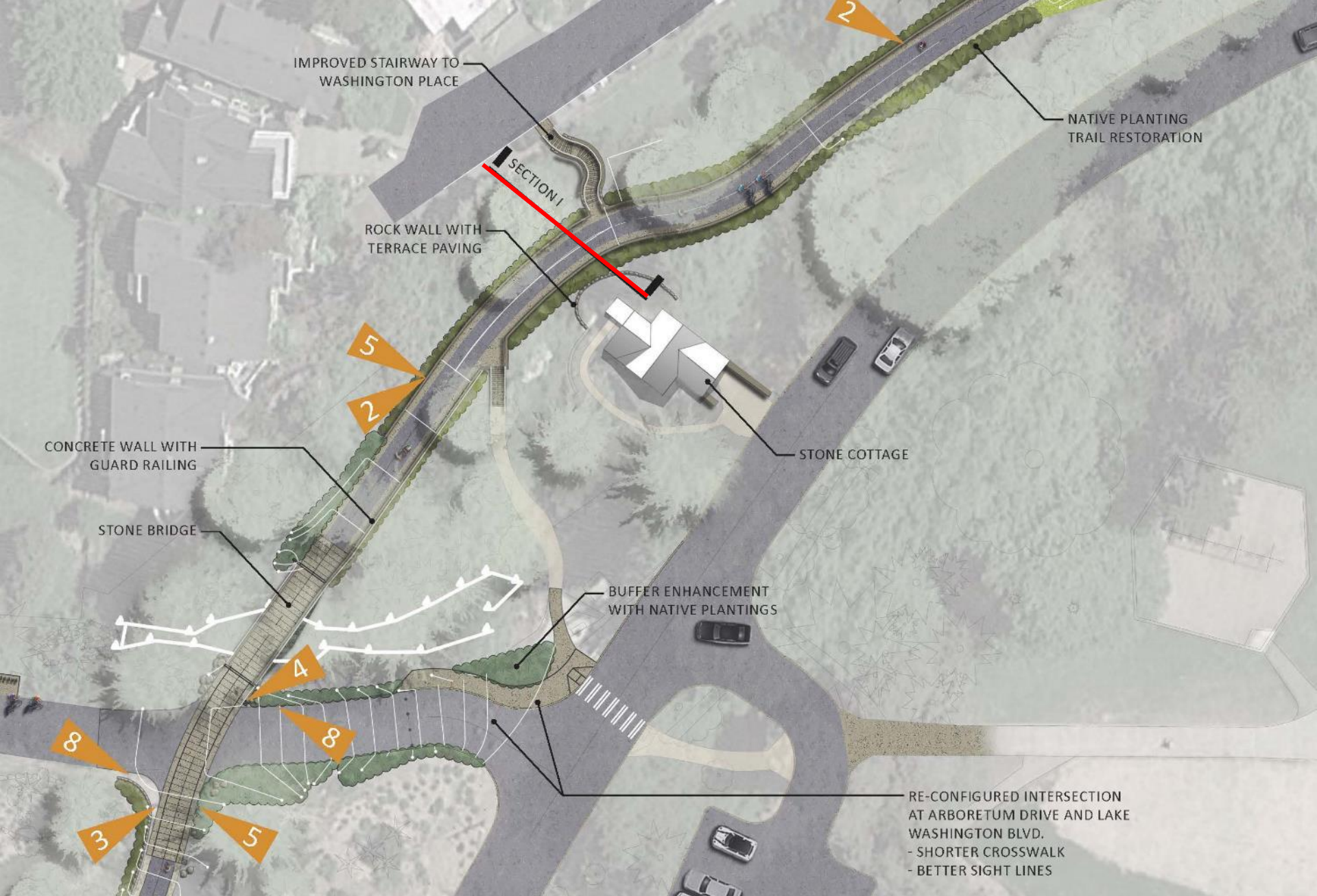












IMPROVED STAIRWAY TO WASHINGTON PLACE

SECTION I

ROCK WALL WITH TERRACE PAVING

NATIVE PLANTING TRAIL RESTORATION

5

2

2

CONCRETE WALL WITH GUARD RAILING

STONE COTTAGE

STONE BRIDGE

BUFFER ENHANCEMENT WITH NATIVE PLANTINGS

4

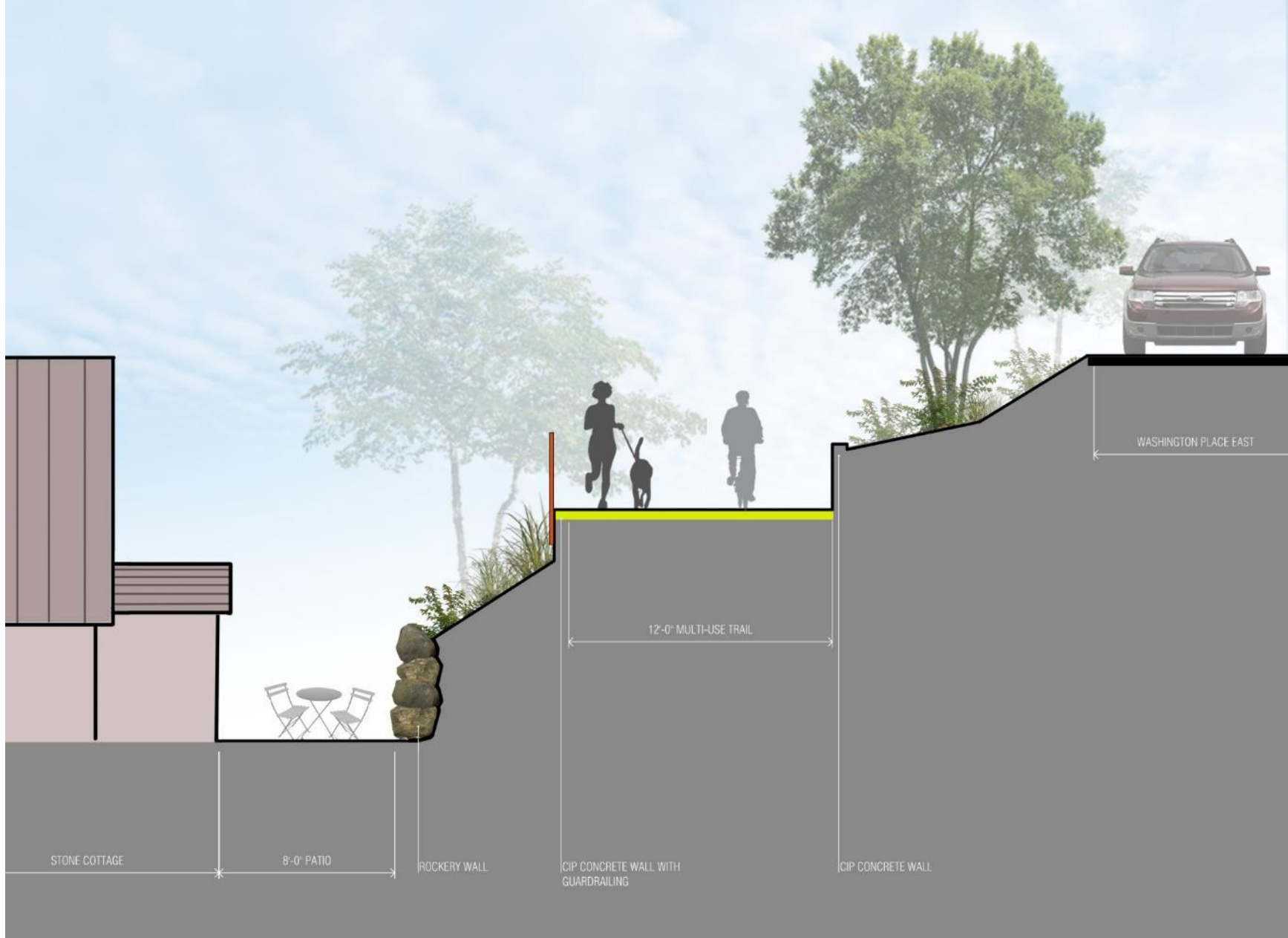
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8

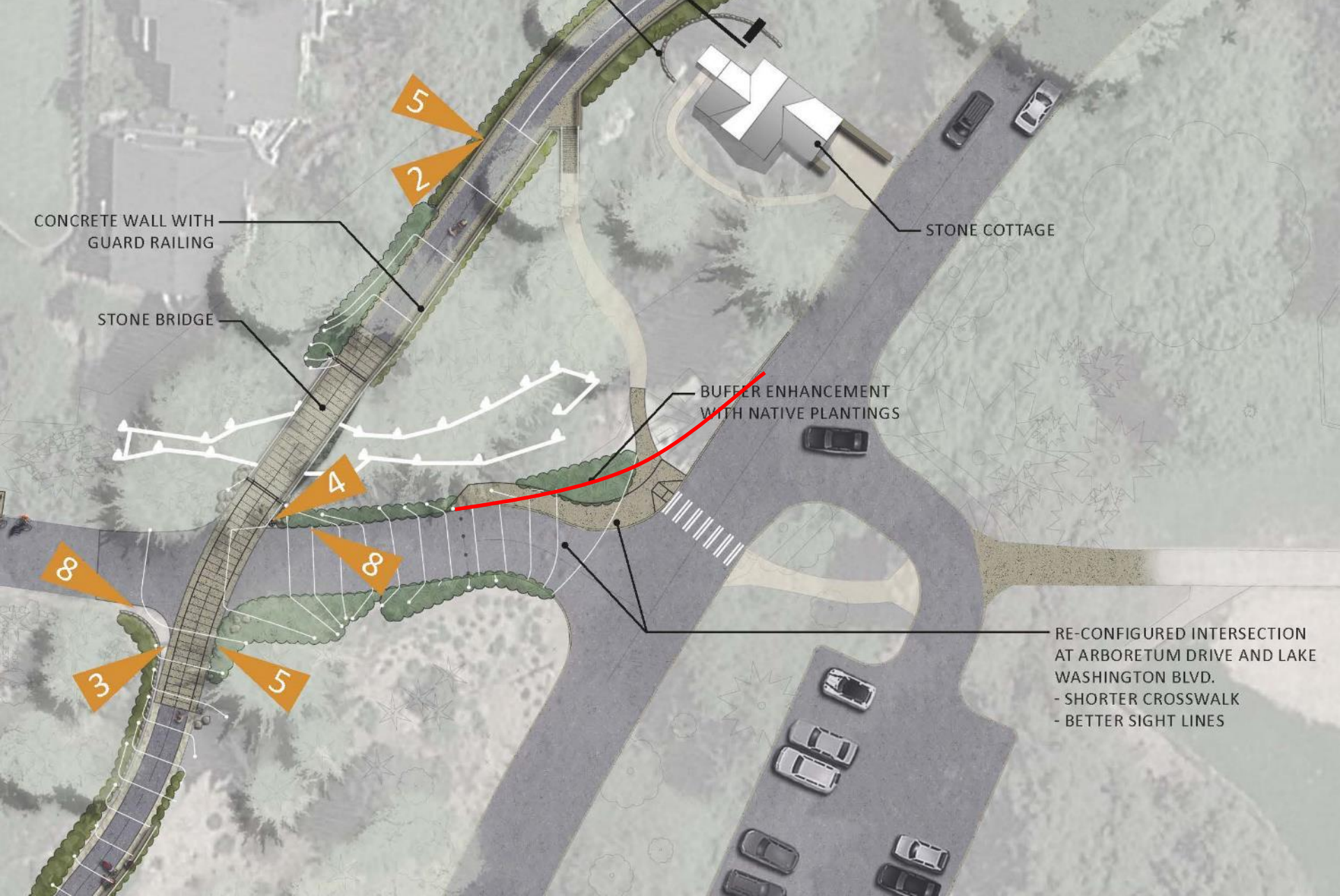
3

5

RE-CONFIGURED INTERSECTION AT ARBORETUM DRIVE AND LAKE WASHINGTON BLVD.
- SHORTER CROSSWALK
- BETTER SIGHT LINES







CONCRETE WALL WITH
GUARD RAILING

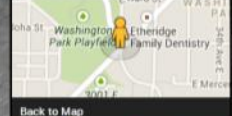
STONE BRIDGE

STONE COTTAGE

BUFFER ENHANCEMENT
WITH NATIVE PLANTINGS

RE-CONFIGURED INTERSECTION
AT ARBORETUM DRIVE AND LAKE
WASHINGTON BLVD.
- SHORTER CROSSWALK
- BETTER SIGHT LINES

31st Ave E. & E. Madison St.



Back to Map

Google

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31st Ave E. & E. Madison St.



31st Ave E. & E. Madison St.



31st Ave E. & E. Madison St.



Arboretum Loop Trail

E. Madison Street



Graham
Visitors
Center

Stone Cottage

Pacific Connections

Azalea Way

Japanese Garden

SR 520

Wilcox Bridge

Arboretum Creek

Thank you!

