

# Burke-Gilman Trail Missing Link Project



City Council Transportation Committee Briefing  
January 19, 2018



**Seattle**  
Department of  
Transportation

# PROJECT OVERVIEW

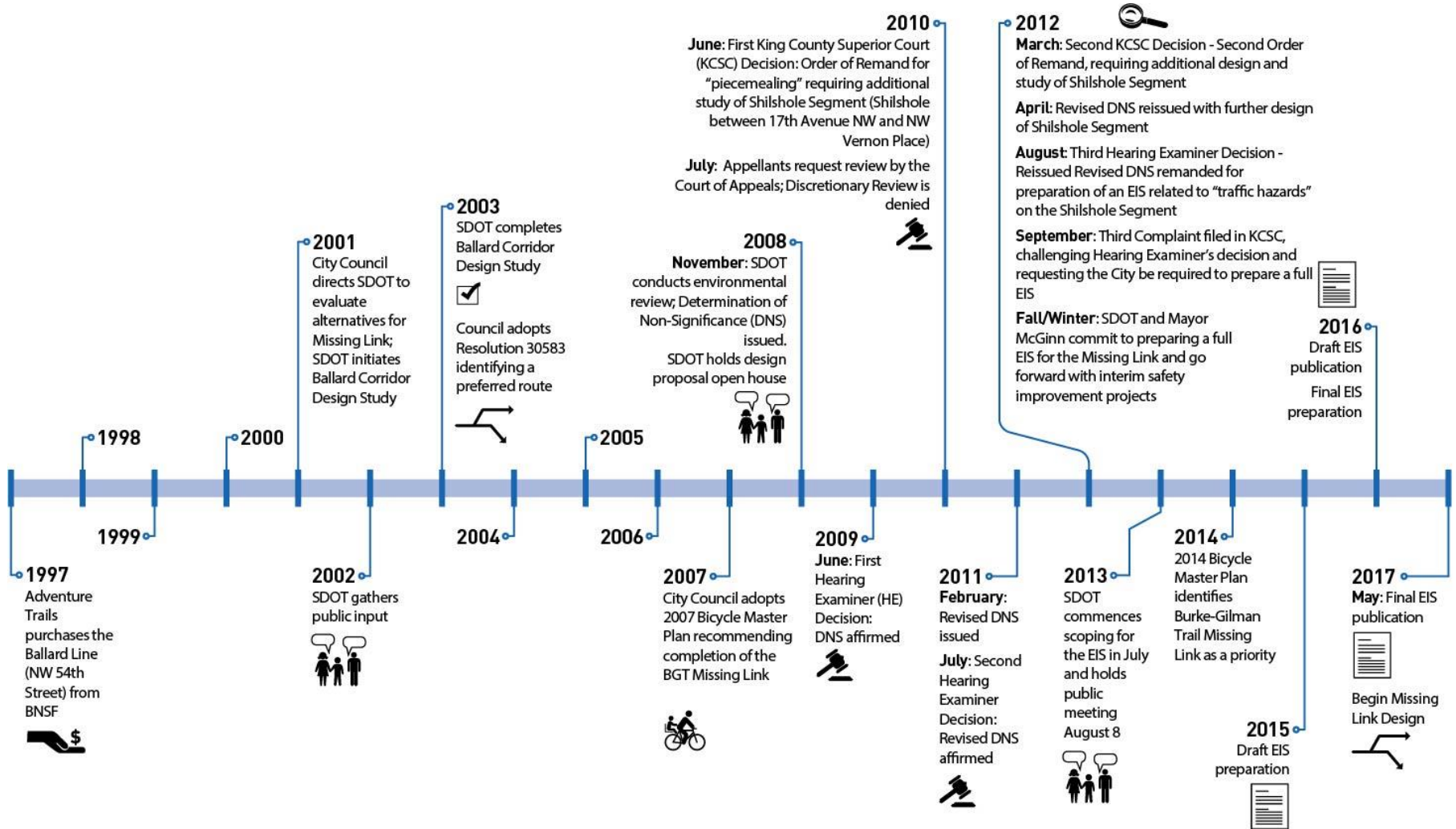
# MISSING LINK VISION



Complete the Burke-Gilman Trail to create a **safe, direct, and well-defined route** for people of **all ages and abilities** traveling across the City and through Ballard

**Improve predictability** for motorized and non-motorized users while maintaining safe **truck and freight access** to local businesses.

# PROJECT HISTORY



# ROUTE ALTERNATIVES



# PREFERRED ROUTE



# WHY THIS ROUTE?

- **Most direct, shortest, and flattest route through Ballard**; flat is important, as this improves sight-lines and safety for all corridor users
- **Route used most often** by cyclists and pedestrians to get to the existing Burke-Gilman Trail, and would likely remain used if another route was selected
- **Least number of roadway intersection crossings**, which have the greatest potential for conflict between drivers and cyclists or pedestrians
- **Least number of rail crossings**, which are dangerous for cyclists and rail operators
- **Least effect on, or need to modify, existing driveways or loading docks**

# PROJECT OUTREACH



# MISSING LINK - DESIGN OUTREACH TO DATE

## MAY 2017

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

## JUNE

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

## JULY

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

## AUGUST

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

## SEPTEMBER

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

## OCTOBER

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

## NOVEMBER

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

## DECEMBER

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

### LEGEND

#### DAC meetings

- 5/4 DAC Meeting #1
- 5/25 DAC Meeting #2
- 6/14 DAC Walking Tour
- 6/15 DAC Meeting #3
- 7/27 DAC Meeting #4
- 8/17 DAC Meeting #5
- 9/28 DAC Meeting #6
- 10/2 DAC Field Test
- 10/26 DAC Meeting #7
- 11/6 DAC Driveway Signage Workshop
- 12/15 DAC Meeting #8

#### Workshops/Briefings

- 6/14 Ballard District Council Briefing
- 6/27 NW Market St Segment Workshop
- 6/29 Shilshole Ave NW Segment Workshop
- 7/11 45th St NW Segment Workshop
- 8/3 Industrial Community Workshop
- 8/3 Seattle Design Commission (30%)
- 8/10 Ballard Ave Landmark District Board Briefing
- 9/28 All Segment Workshop
- 10/5 Ballard Alliance Briefing
- 10/11 Seattle Pedestrian Advisory Board Briefing
- 10/17 Seattle Freight Advisory Board Briefing
- 10/19 Seattle Design Commission (60%)
- 11/6 Multi-department Open House (First Lutheran)
- 11/14 Ballard Rotary Briefing

#### Public events

- 6/25 Ballard Farmer's Market
- 7/8-7/9 Ballard Seafood Fest
- 7/13 Open House #1
- 10/1 Ballard Farmer's Market
- 10/12 Open House #2
- 10/14 Self-guided Public Walking Tour

#### Online open houses

- 7/10-7/23 (Share pre-30% design)
- 10/9-10/23 (Share 60% design)

# MISSING LINK OUTREACH TO DATE



**36** briefings and meetings



**3** local fairs and festivals with **370+** attendees



**31,300+** mailers sent



**300+** flyers distributed to local properties



**6** in-person public events and workshops, and **1** self-guided walking tour with **530+** attendees



**8** meetings, **1** walking tour, and **1** field test with the 11-member Design Advisory Committee

**7** notification emails to **240+** recipients



**2** 14-day, **24/7** online open houses with **800+** visitors

**12** social media posts to **260,000+** followers

Design materials provided at **8** local gathering places



# DESIGN ADVISORY COMMITTEE

Collection of stakeholders representing 11 diverse interests:

- Freight
- Commercial/Retail/Marina
- Maritime
- Pedestrians
- Trail users
- Ballard residents
- Cultural/Historic
- Ballard Businesses
- Bicycle Riders
- Industrial
- Unhoused community

Members met 11 times in the past 9 months to **review corridor design and share constituent feedback, questions, and concerns**

# PUBLIC WALKING TOUR (10/14)



# DESIGN UPDATE

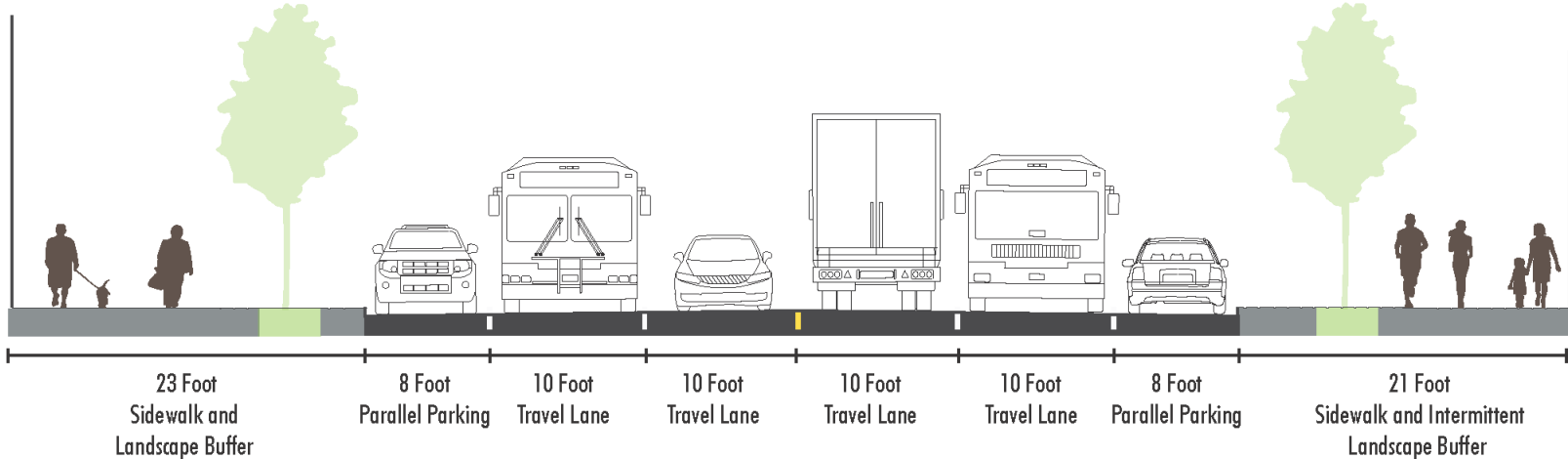
# PROJECT SEGMENTS



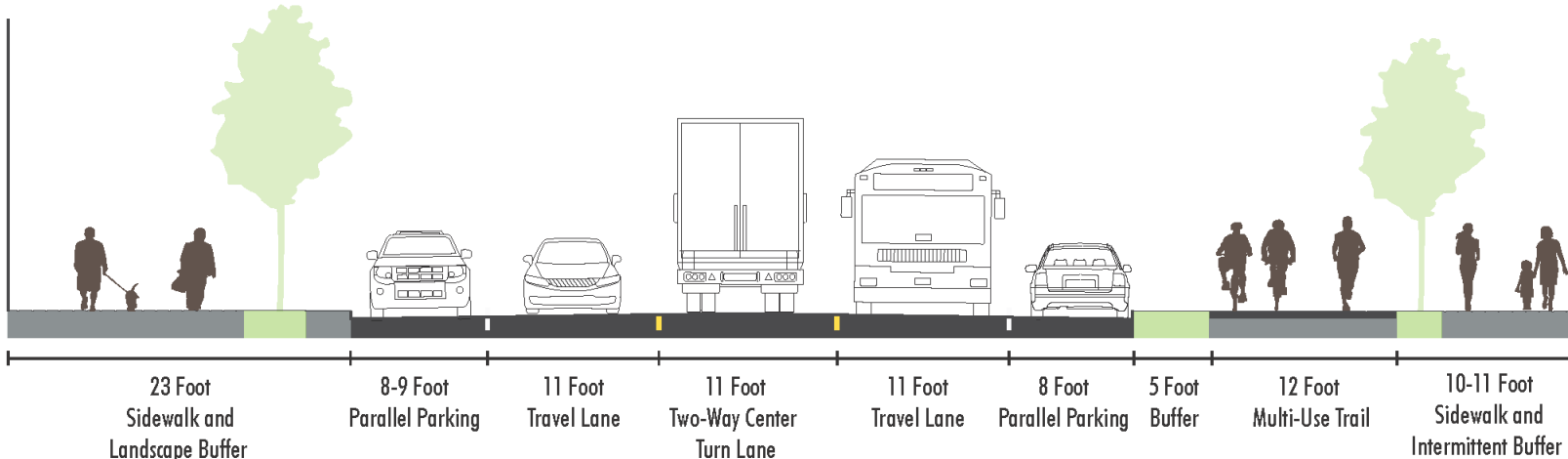
**Market St**

# TYPICAL SECTION - NW MARKET ST (between 24<sup>th</sup> Ave NW / NW 54<sup>th</sup> St)

## EXISTING (FACING EAST)



## PROPOSED (FACING EAST)





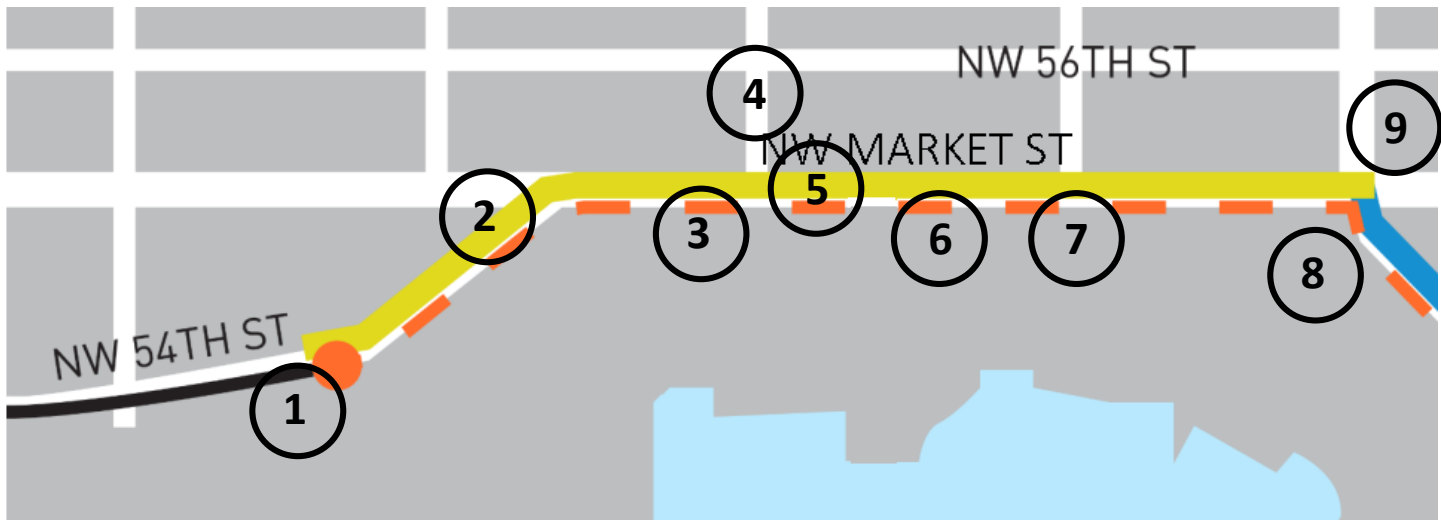
# NW MARKET ST (EXISTING – FACING EAST)



# NW MARKET ST (PROPOSED – FACING EAST)



# KEY CHANGES BETWEEN EIS AND 90%



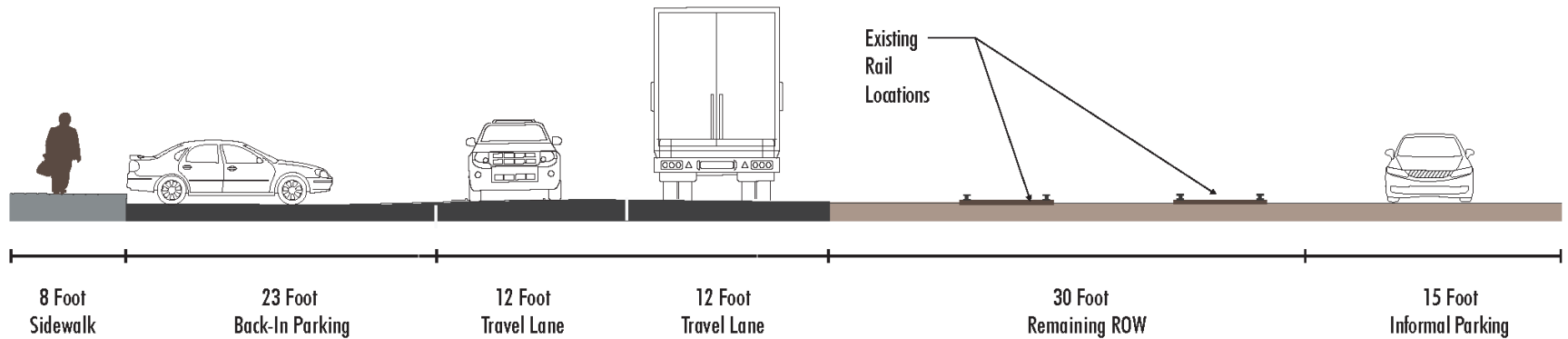
1. Restriped parking at the Ballard Locks, added “Rules of the Trail” signage (this is 1 of 3 locations), and refined the proposed mixing zone
2. Removed pinch point at 54<sup>th</sup>/Market to allow for both sidewalk and trail
3. Relocated bus stop to the southwest corner of Market St / 28<sup>th</sup>
4. Improved connections to the Neighborhood Greenway at 28<sup>th</sup> / Market
5. Added westbound left turn lane with protected signal phase at Market / 28<sup>th</sup>
6. Added Nordic-inspired concrete stamping between 28<sup>th</sup> and 26<sup>th</sup> on Market
7. Converted 26<sup>th</sup> to one-way south of Market St
8. Reconfigured 24<sup>th</sup> / Market intersection, modified sidewalk cafes, and refined mixing zone
9. Extended bicycle lanes on 24<sup>th</sup> to Market St and added crossing treatments

**Shilshole Ave NW**

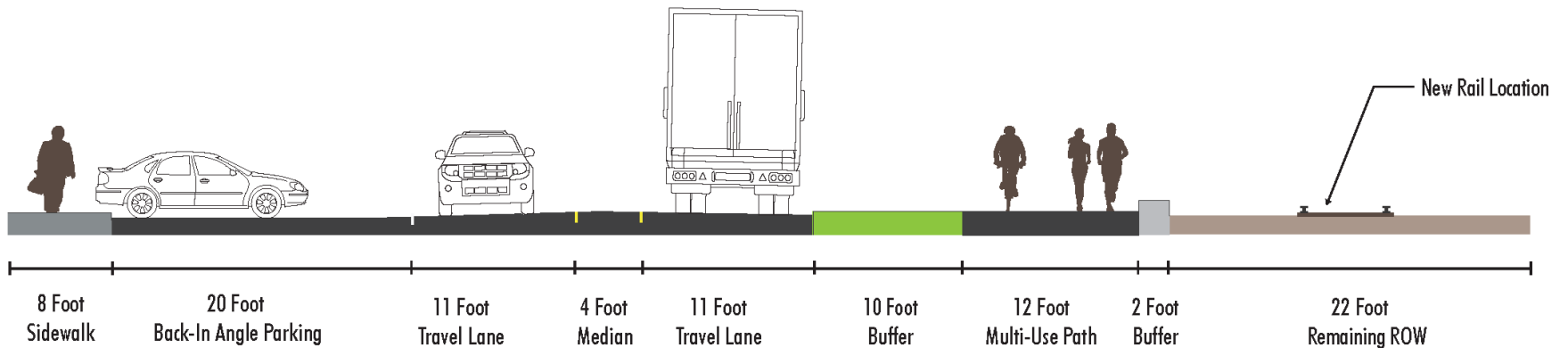
# TYPICAL SECTION: SHILSHOLE AVE NW

## (between 24<sup>th</sup> – 15<sup>th</sup> Ave NW)

### EXISTING (FACING EAST)



### PROPOSED (FACING EAST)



# SHILSHOLE (EXISTING – FACING EAST)



# SHILSHOLE (PROPOSED – FACING EAST)



# SHILSHOLE (PROPOSED – FACING EAST)

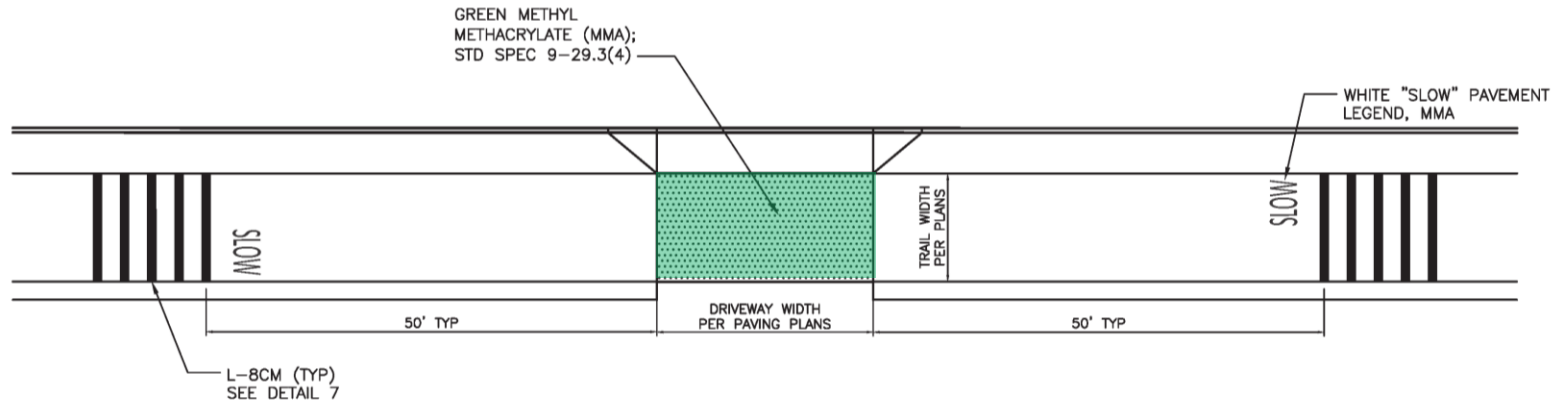




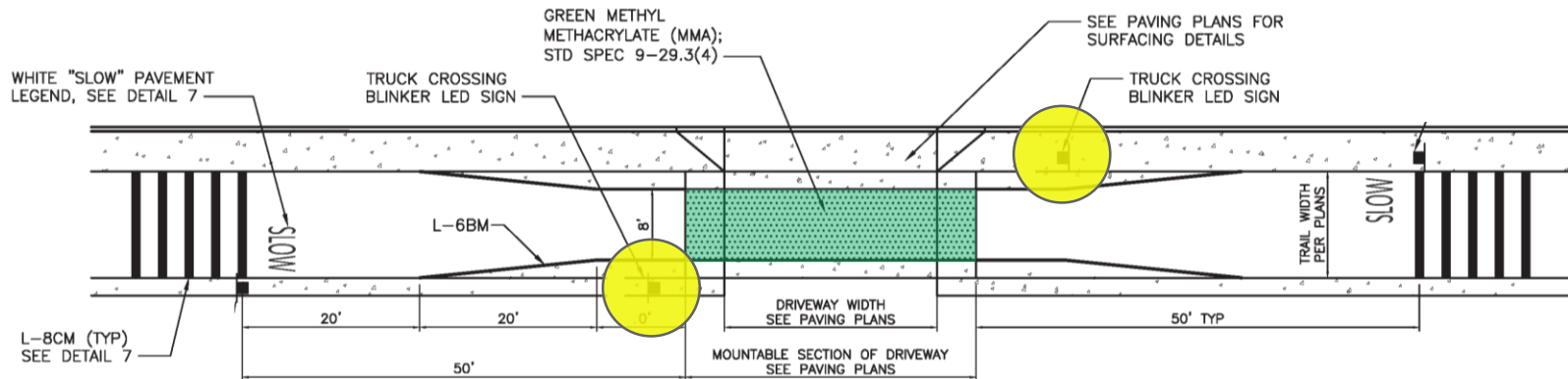
# DRIVEWAY FIELD TEST (OCT 2017)



# TYPICAL VS INDUSTRIAL DRIVEWAYS



TYPICAL DRIVEWAY MARKINGS 5  
NOT TO SCALE CT-122



INDUSTRIAL DRIVEWAY MARKINGS 6  
NOT TO SCALE CT-122

# COMPREHENSIVE SAFETY PACKAGE

## **Trail offset from the street**

- Increases visibility and is shown to reduce crashes

## **Raised Trail**

- Proven to be safer (slows vehicles and makes trail users more visible)

## **Improved sight lines**

- Improved visibility for all users

## **On-pavement trail markings (“SLOW”, speed lines)**

- Typical first level of treatment to alert trail users

## **Green driveway markings**

- Green pavement at the crossings is a now universal sign for a conflict zone (to bike riders and motorists)

## **Narrowing of trail**

- Trail best practice says that narrowing the trail is the best way to slow trail users
- Adding a centerline stripe is a form of narrowing the trail (makes each direction feel more constricted)

## **LED warning signs**

- Complex system, will be the first installation in this context in Seattle
- Specifying solar power signs to decrease maintenance
- Specified for vehicles exiting driveways with large numbers of large vehicles reported
- Still developing technical solution to address right-turning movements into driveways

# KEY CHANGES BETWEEN EIS AND 90%

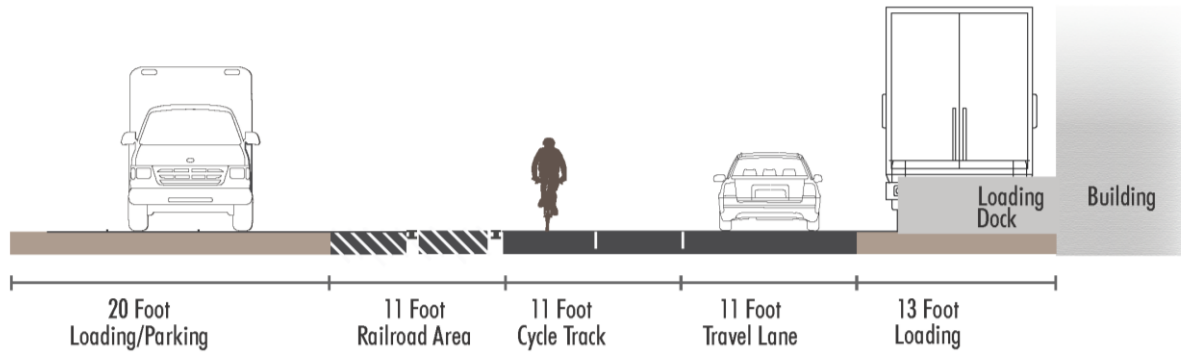


1. Added landscape terrace at 24th / Shilshole
2. Extended 54th and converted 24th to a dead end
3. Added rapid flash beacons and crosswalk at 54th / Shilshole
4. Added signal to Shilshole / Vernon
5. Driveway and LED warning signage refinements at high volume driveways (narrowed trail and added centerline striping to slow non-motorized users)
6. Extended sidewalk and landscaping at 20th Street End
7. Installed crosswalks and a half-signal at Dock / Shilshole
8. Added left turn pocket at 17th and Shilshole
9. Redesigned 17th / Shilshole for truck turning movements
10. Added lighting, fencing, and signage at improved trail/railroad crossing

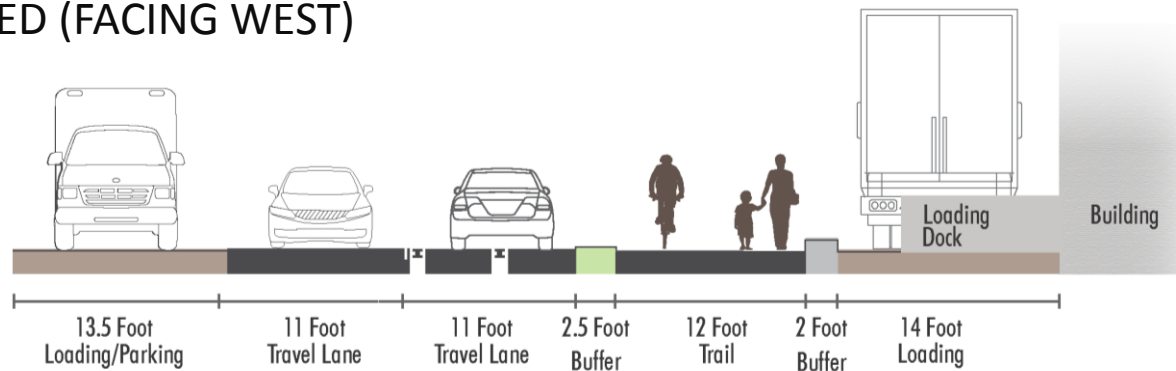
**NW 45<sup>th</sup> St**

# TYPICAL SECTION: NW 45TH ST (between 15<sup>th</sup> - 11<sup>th</sup> Ave NW)

## EXISTING (FACING EAST)



## PROPOSED (FACING WEST)



# NW 45TH ST (EXISTING – FACING EAST)



# NW 45TH ST (PROPOSED – FACING EAST)





# KEY CHANGES BETWEEN EIS AND 90%



1. Connected the trail to the existing King County bike lane including new crosswalks, rapid flash beacons, and pedestrian lights
2. “Trucks Next Mile” signage added (this is 1 of 3 locations)
3. Increased lane width to 11 feet on 45th St to accommodate large trucks
4. Restriped parking on the south side of 45th
5. Retained loading access for properties on the south side of 45th

# Benefits by User Group



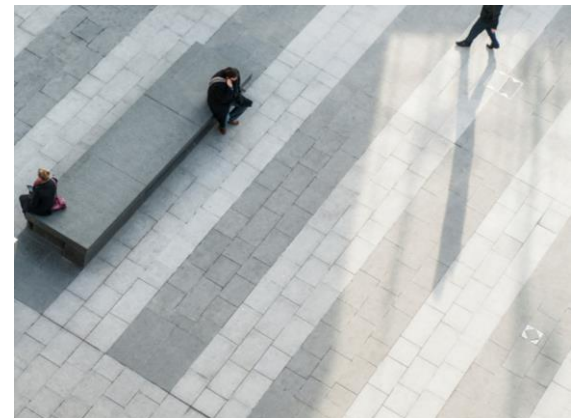
**The Missing Link corridor  
incorporates design elements that  
benefit all users, including  
pedestrians, trucks, bicycles, and  
cars**



PEDESTRIANS



- New and/or improved sidewalks and curb ramps (next slide)
- Enhanced crosswalks
- New rapid flashing beacons at key crossings
- Pavement treatments to highlight pedestrian/bicycle mixing zones





# SIDEWALKS (PROPOSED)





## TRUCKS

- Mountable aprons to facilitate wide turns at key driveways and intersections
- Realigned lanes and enhanced turn pockets
- LED alerts and signage at key driveways
- Enhanced connections to NW 54th St and other truck routes (next slide)



# 54<sup>th</sup> IMPROVEMENTS





# TRUCK ROUTES





## Bicycles



- Crossing improvements (including bike crossing signals and bike boxes) at key locations
- LED alert signage at key trail crossings along Shilshole
- Enhanced connections to existing and planned bike facilities (next slide)

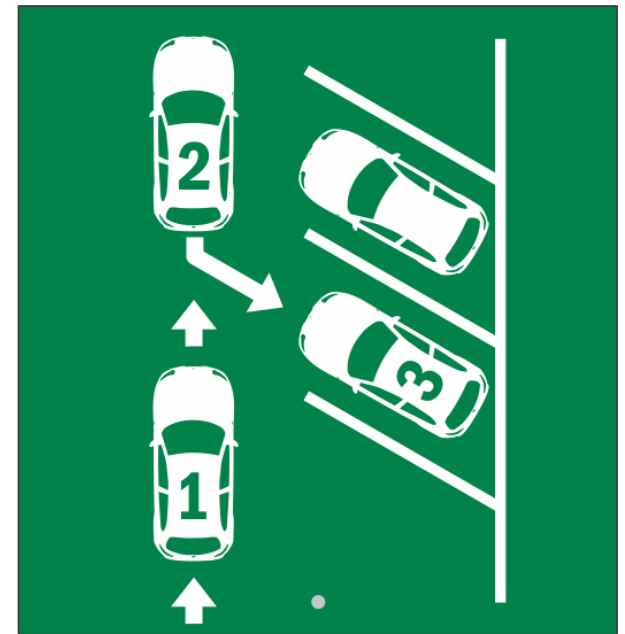
# BICYCLE AND PEDESTRIAN CONNECTIONS





CARS

- Rechannelize Market St to improve safety and create a center turn-lane
- Design enhancements to maximize parking and allow safer back-in movements
- Add turn pockets at key locations to improve safety and traffic flow
- Add or enhanced traffic signals (next slide)



# SIGNAL CHANGES



# Project Coordination

# PROJECT COORDINATION: SEATTLE RAPID RIDE

We're delivering 7 new RapidRide corridors by 2024 to advance the Levy to Move Seattle's promise of 72% of residents having 10-minute or better transit service within a 10-minute walk from their home.



## RAPIDRIDE KEY FEATURES

### DEDICATED BUS LANES

Bus-only lanes separate buses from traffic, increasing speed and reliability.



### ENHANCED BUS STOPS

RapidRide stations include real-time arrival information, larger shelters, lighting, and other amenities.



### OFF-BOARD FARE COLLECTION

Off-board fare collection helps buses move faster as riders can pay fares without waiting in line.



### SPECIALIZED BUSES

RapidRide buses offer more capacity and lower floors for easier loading and unloading.



### SMART SIGNALS

Transit signal priority extends or activates green lights to reduce waiting times for buses at signals.



### BIKE AND PEDESTRIAN CONNECTIONS TO TRANSIT

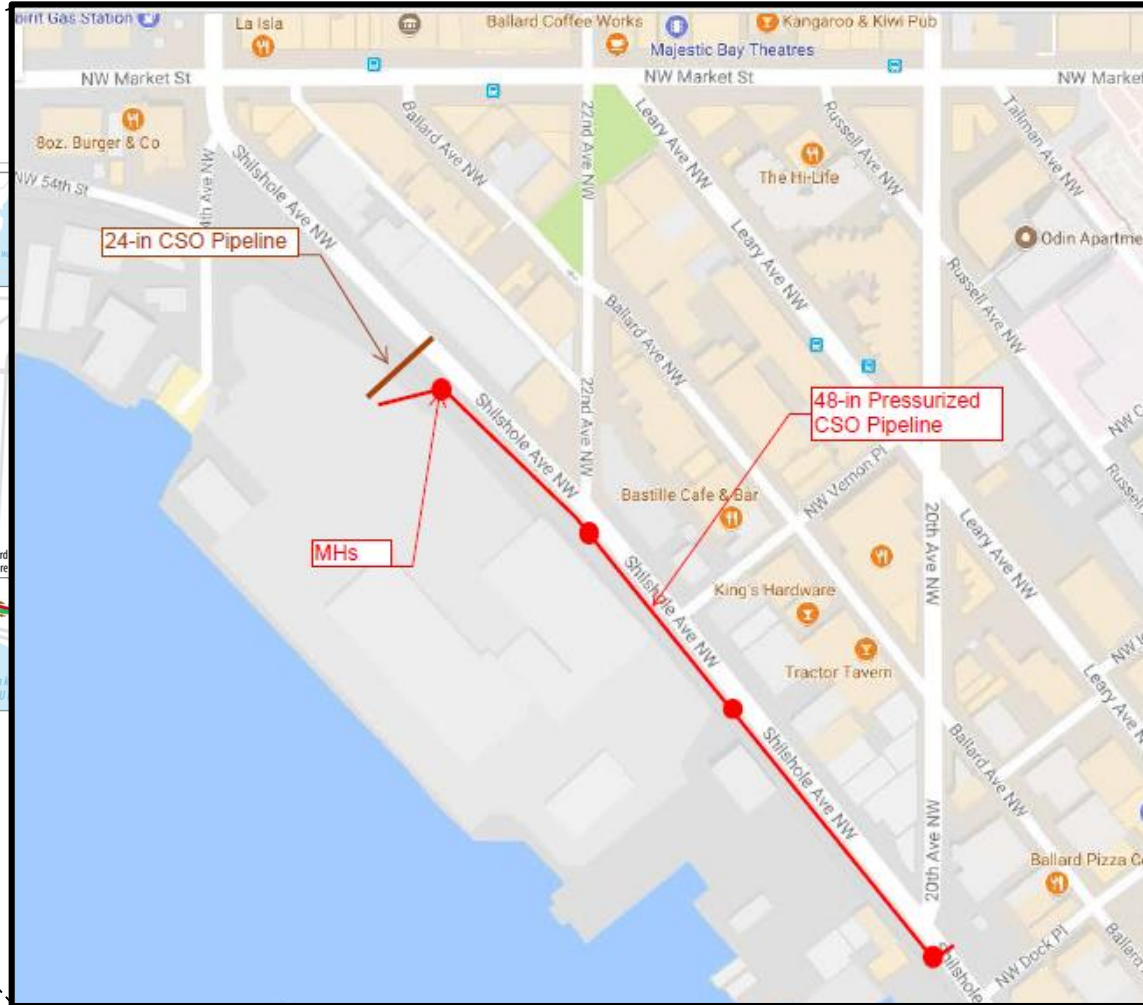
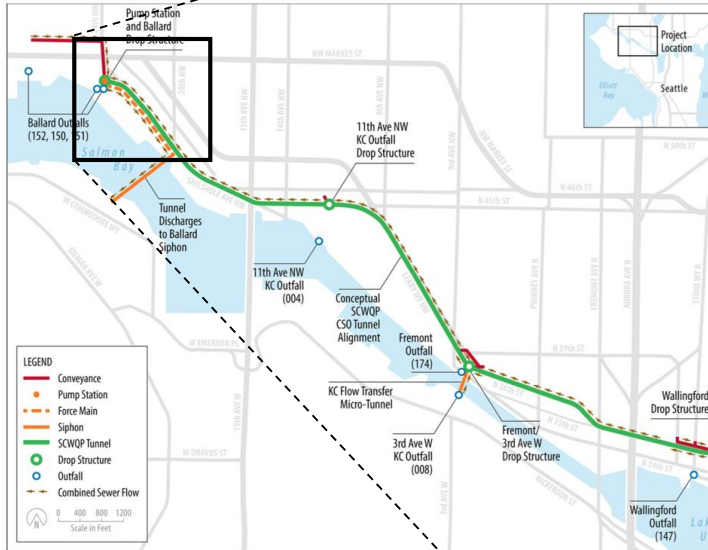
Improvements to crossings, neighborhood greenways, and bike lanes will help people get to new RapidRide lines.



## LINE OPENING PRELIMINARY TIMELINE

2019	2020	2021	2022	2023	2024
<b>G Line</b> Downtown Seattle to First Hill to Madison Valley	<b>H Line</b> Downtown Seattle to Delridge to Burien	<b>Roosevelt</b> Downtown Seattle to Eastlake to Roosevelt <b>Rainier</b> Downtown Seattle to Mt Baker to Rainier Beach	<b>Market</b> Ballard to Wallingford to U-District	<b>Fremont</b> Downtown Seattle to Fremont/Ballard to Northgate	<b>23rd</b> Mt Baker to Central Area to U-District

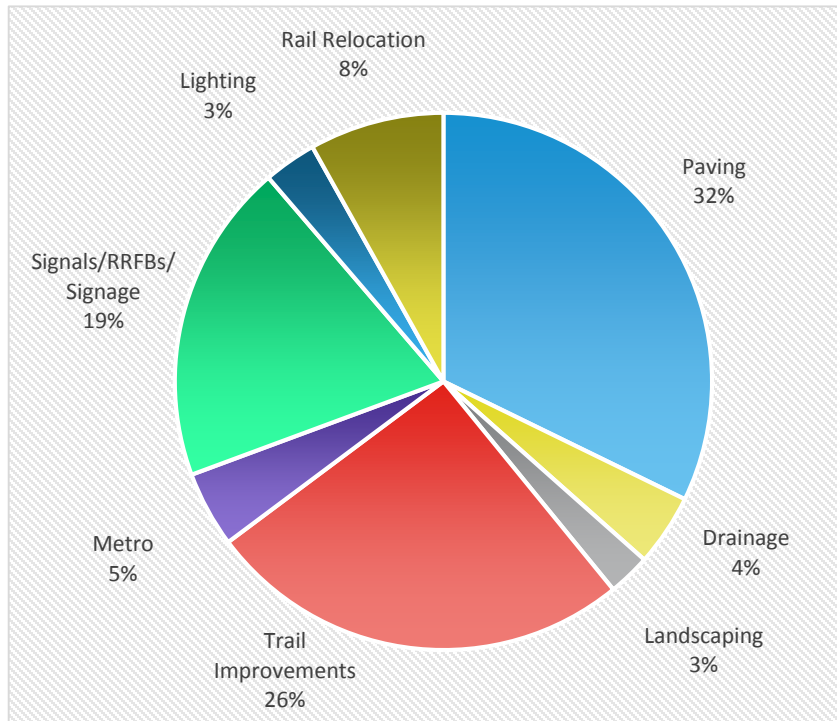
# PROJECT COORDINATION: SHIP CANAL WATER QUALITY PROJECT





# Other Updates

# BUDGET



- Funding
  - Parks Levy
  - Move Seattle Levy
- Cost Estimate
  - 54<sup>th</sup> Road Paving
  - Signals
  - Market St Improvements
  - Ped/Bicycle Connections
  - Outreach
  - Code Changes
  - Contingency/Overhead

# LIGITATION

- Final EIS published in May 2017, appealed by the “Ballard Coalition”
- The appeal raised numerous issues, but the Coalition’s focus has been on the safety of the proposal and potential impacts to their businesses.
- Hearing held November/December 2017
- Decision from HE expected late-January 2018
- Next Steps

# QUESTIONS?

[seattle.gov/transportation/BGT\\_MissingLink.htm](http://seattle.gov/transportation/BGT_MissingLink.htm)