

Seattle Department of Transportation

# SEATTLE BICYCLE MASTER PLAN

## 2017-2021 Implementation Plan



MARCH 2017



**Seattle**  
Department of  
Transportation



# CONTENTS

## **Chapters**

1. Introduction	4
2. Safety	5
3. Bicycle Master Plan Progress	6
4. Prioritization	8
5. 2017-2021 Projects	9
6. Coordination Projects Update	22
7. Project Delivery: Taking Projects from 1% Design to 100% Construction	24
8. Funding and Costs	26

## **Appendices**

Appendix 1: Performance Measures	29
Appendix 2: Strategies and Actions	30
Appendix 3: Project Changes in this Update	36

# 1. INTRODUCTION

## BACKGROUND

The Seattle Bicycle Master Plan's (BMP) vision is that riding a bicycle is a comfortable and integral part of daily life in Seattle for people of all ages and abilities. The BMP identifies projects and programs to be implemented from 2014 to 2033 to achieve the vision and meet the plan's goals for safety, ridership, equity, connectivity, and livability.

Implementing the BMP also supports other city plans and priorities, including the [Housing Affordability and Livability Agenda](#), [Age-Friendly Seattle](#), [Vision Zero](#), and [Seattle 2035](#).

To achieve its vision and goals, the BMP calls for a connected network that includes approximately 100 miles of protected bicycle lanes and nearly 250 miles of neighborhood greenways. The BMP also identifies activities designed to support and encourage riding such as facility maintenance, bicycle parking, and educational events.

This 2017-2021 BMP Implementation Plan identifies projects and programs that, combined with existing facilities, will make significant progress towards implementing the BMP in the next 5 years.

Since 2016, BMP implementation has been funded primarily by the Levy to Move Seattle, which was approved by voters in 2015. The new levy targets building a total of 50 miles of protected bicycle lanes and 60 miles of neighborhood greenways over the 9-year levy period.

## PURPOSE

This implementation plan describes the work that the Seattle Department of Transportation (SDOT) and our partners will undertake to implement the BMP over the next five years. We update the implementation plan each year to:

- Provide a list of specific projects SDOT is planning to build each year;
- Serve as an accountability and reporting tool; and
- Guide future budget requests.

## REPORTING REQUIREMENTS

Consistent with Council Resolution 31515, this implementation plan is updated annually by March 31. Adjustments are made to the project lists and maps to reflect changes to project schedules, changes to project types, and to add or remove projects.

Also consistent with Council Resolution 31515, SDOT submits a progress report to the City Council as part of the annual implementation plan update. The progress report summarizes work done during the prior year, and was reviewed and endorsed by the [Seattle Bicycle Advisory Board](#) (SBAB). SDOT also provides updates to the City Council and SBAB every 6 months on the status of projects, programs, and actions in the implementation plan.

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**Protected bicycle lanes:** facilities physically separated from motor vehicle traffic and distinct from the sidewalk; they may be 1-way or 2-way, and may be at street level or raised several inches above.

**Neighborhood greenways:** residential streets with low motorized traffic volumes and speeds that are designated and designed to give people walking and biking safe and pleasant travel priority.

## 2. SAFETY

A central focus of the BMP is to design and implement bicycle facilities that are safe and comfortable for riders of all ages and abilities. Since the BMP was adopted in 2014, we have launched our Vision Zero initiative, which addresses safety for all roadway uses, and completed the Bicycle and Pedestrian Safety Analysis (BPSA). These complement the BMP's focus on safety, and are described below.

### VISION ZERO

In 2015, the City of Seattle launched Vision Zero, our plan to end traffic deaths and serious injuries by 2030 through innovative engineering, enforcement, and education initiatives. Staff who implement the BMP are now part of SDOT's Vision Zero team, which enhances collaboration and leverages our commitment to safety.

The bike facilities included in this plan (see Chapter 5) provide innovative engineering and smarter street designs that support Vision Zero, and the bicycle safety programs in Appendix 3 help implement the education components of the BMP and Vision Zero. To address the enforcement component, the Seattle Police Department (SPD) will continue to conduct targeted enforcement throughout the city to improve safety for our most vulnerable users, along with enhanced driving under the influence enforcement. We will work with SPD to educate people in advance of these patrols, so everyone will expect appropriate enforcement and develop a better understanding of the rules of the road.

### BICYCLE AND PEDESTRIAN SAFETY ANALYSIS

In 2016, we completed the [Bicycle and Pedestrian Safety Analysis](#), which studied 8 years of citywide data to identify the roadway designs and user behavior characteristics most highly correlated with collisions involving people walking or biking. Based on the data analysis, we developed a safety prioritization model to identify opportunities for spot and corridor improvement projects. Understanding the contributing circumstances of bicycle and pedestrian crashes will inform our work going forward, and move us more quickly towards our Vision Zero goal.



# 3. BICYCLE MASTER PLAN PROGRESS

The projects in the table below were completed in 2016 and collectively added more than 5 miles to the network. They range from short extensions like that on 2nd Ave, to projects like Westlake that dramatically increased network connectivity.

PROJECTS COMPLETED IN 2016					
Project Name	On Street	From Street	To Street	Facility Type	Facility Mileage
2nd Ave PBL Demonstration	2nd Ave Ext S	Yesler Way	S Washington St	PBL	0.07
Delridge Way SW PBL	Delridge Way SW	SW Myrtle St	SW Holden St	PBL	0.38
N 34th St PBL	N 34th St	Fremont Ave N	Phinney Ave N	PBL	0.23
Roosevelt Way NE Paving and Safety Improvements	Roosevelt Way NE	NE 65th St	University Bridge	PBL	1.37
University Bridge PBL	University Bridge	Roosevelt Way NE	Fuhrman Ave E	PBL	0.35
Westlake Ave N PBL	Westlake Ave N	W Raye St	Valley St	PBL	1.23
Meridian Ave N Paving and Safety Improvements	Meridian Ave N	N 103rd St	N 112th St	BL	0.44
Renton Ave S BL	Renton Ave S	51st Ave S	City Limits	BL	1.34
SW Admiral Way BL	SW Admiral Way	California Ave Sw	63rd Ave SW	BL	1.39
39th Ave NE NGW Extension	39th Ave NE / NE 85th St / 38th Ave NE / NE 89th St	NE 80th St	32nd Ave NE	NGW	0.8
E Columbia St NGW	E Columbia St	12th Ave	29th Ave	NGW	1.02
Wallingford NGW Upgrade (Added improvements to existing)	N 43rd St / Burke Ave N / N 44th St / NE 44th St	Stone Way N	Latona Ave NE	NGW	N/A
39th Ave NE NGW Upgrade (Added improvements to existing)	39th Ave NE	Burke-Gilman Trail	NE 80th St	NGW	N/A

PBL = Protected Bike Lane  
 BL = Bike Lane  
 NGW = Neighborhood Greenway

At the beginning of 2016, we set goals for project and program delivery as shown in the table below.

2016 MOVE SEATTLE DELIVERABLES		
Deliverable	2016 Goal	2016 Status
Education (Schools Reached)	N/A <sup>1</sup>	Every 3rd, 4th, and 5th grade class in Seattle Public Schools
Bike Parking Spaces	500	622
Wayfinding (miles)	N/A <sup>1</sup>	2.13
Spot Improvements	10	11
Move Seattle Neighborhood Greenways (miles constructed)	6.67 (60 miles over 9 years)	1.82
Move Seattle Protected Bike Lanes (miles completed)	5.56 (50 miles over 9 years)	3.63

<sup>1</sup>Though the Levy to Move Seattle didn't set goals for these programs they are carry-over goals from Bridging the Gap being pursued by partner programs.

These goals are intended to help us reach the 9-year targets established in Move Seattle. We met or exceeded the education, bike parking, wayfinding and spot improvement goals, and did not meet the neighborhood greenway and protected bicycle lane goals. Several factors contributed to us not meeting those goals. For example, the Rainier Valley Neighborhood Greenway was delayed due to the need for additional public outreach along the

6-mile corridor and the opportunity for coordination with pavement repair. Other projects were not completed before year-end due to a particularly wet and severe winter, construction/utility conflicts, and inter-agency coordination issues. Those projects are listed below, with their new completion dates. In spite of not meeting all of our 2016 goals, we are on track to catch up with our Move Seattle deliverable goals in the next few years.

DELAYED 2016 PROJECTS <sup>1</sup>		
Project Name	Estimated Completion	Reason(s) for delay
Banner Way NE Corridor	2017	Weather delay
Dexter Ave N PBL	2017	Weather delay
N 92nd St PBL	2017	Weather delay
Gilman Ave W (Part of the Interbay Trail Connections)	2017	Added to contract with Nickerson St paving
Center City - 9th Ave N PBL (Northern segment)	2017	Weather delay
Center City - 9th Ave N PBL (Southern segment)	2017-2018	Private construction and utility coordination
Rainier Valley NGW	2017-2018	Needed additional public outreach and paving project coordination
S Dearborn St PBL	2017-2018	WSDOT and paving project coordination
SODO Trail	2018-2019	WSDOT and Metro coordination

<sup>1</sup>Please note that all projects listed in this table are included in the Project Lists and Maps in Section 5 along with their extents and associated mileage.

PBL = Protected Bike Lane

BL = Bike Lane

NGW = Neighborhood Greenway

# 4. PRIORITIZATION

The project list in this plan was developed using the prioritization process established in the BMP, which includes both a quantitative and a qualitative process.

## QUANTITATIVE PRIORITIZATION

Quantitatively, projects are assigned scores based on 5 factors, listed below from highest weight to lowest:

- Safety
- Connectivity
- Equity
- Ridership
- Livability

The sum of these scores is assigned to individual project segments, which are then divided into 5 different priority 'Tiers' of projects. Tier 1 is the highest scoring 20% of the projects, Tier 2 is the next highest 20%, and so on.



## QUALITATIVE PRIORITIZATION

The next step of our prioritization process considers qualitative factors including policy directives, community interest, and geographic balance. In collaboration with the Seattle Bicycle Advisory Board (SBAB) these factors were considered along with the quantitative data to select projects that helped to connect and extend Seattle's all ages and abilities network.

## LEVERAGING OPPORTUNITIES

Leveraging the benefits of other SDOT projects was another high priority in this year's project selection process. SDOT and SBAB prioritized BMP projects if they could be completed at the same time as another project involving major work on a street, including bus rapid transit, paving, or safety projects.<sup>1</sup> This complete streets approach helps to reduce construction impacts and provides benefits to multiple SDOT and partner agency programs. We also look for opportunities to partner with private development to support HALA through BMP investments.

Throughout the next 5 years, we will also be looking to leverage funding opportunities outside SDOT and the City, including those available through Sound Transit Station Access Improvement funding. SDOT will also leverage opportunities presented by WSDOT's replacement of the SR 520 bridge in improving bike connections.

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<sup>1</sup>Approximately 25 miles of bike facilities will be delivered by other programs over the next 5 years.



# 5. 2017-2021 PROJECTS

The following pages describe the selected projects for implementation for 2017 through 2021.

For ease of review and discussion, the project list and maps are organized by geographic sector (north, central, and south), and provide a description including year, facility type, and project length. All projects for the 5-year implementation plan are included to show the connected network.

There are several projects on the list and map where the exact route, length, and/or facility type of each project are still unknown. In those instances, we listed “TBD” (to be determined) and showed the projects on the maps as dashed blue lines (indicating potential routes). Subsequent implementation plans will be updated with more specific information as these projects enter into the project definition phase.

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## QUICK WINS

We consistently look for opportunities to install low-cost bike facilities to quickly enhance safety and comfort - both for permanent and interim facilities. This can include installing minor-separation bike lanes and later upgrading them to protected bike lanes, or installing “paint and post” bike lanes and later upgrading to more permanent separation. 4 examples of upcoming quick wins are described here.

### (1) S Dearborn St

We will be repaving S Dearborn St in 2018, but rather than wait until then to provide improved bike facilities, we will be installing a low-cost buffered bike in lane in 2017 as an interim step to enhance safety. We will upgrade this facility to be a protected bike lane during the paving project the following year.

### (2) Western Ave

We are installing a low-cost protected bike lane on Western Ave from University St to Virginia St (0.34 miles) in partnership with Pike Place improvements.

### (3) 4th Ave

We are still planning the One Center City bike network. Rather than wait until a final configuration is figured out, we are installing minor-separation bike lanes on 4th Ave in 2017 and 2018 to improve near-term bike connectivity downtown.

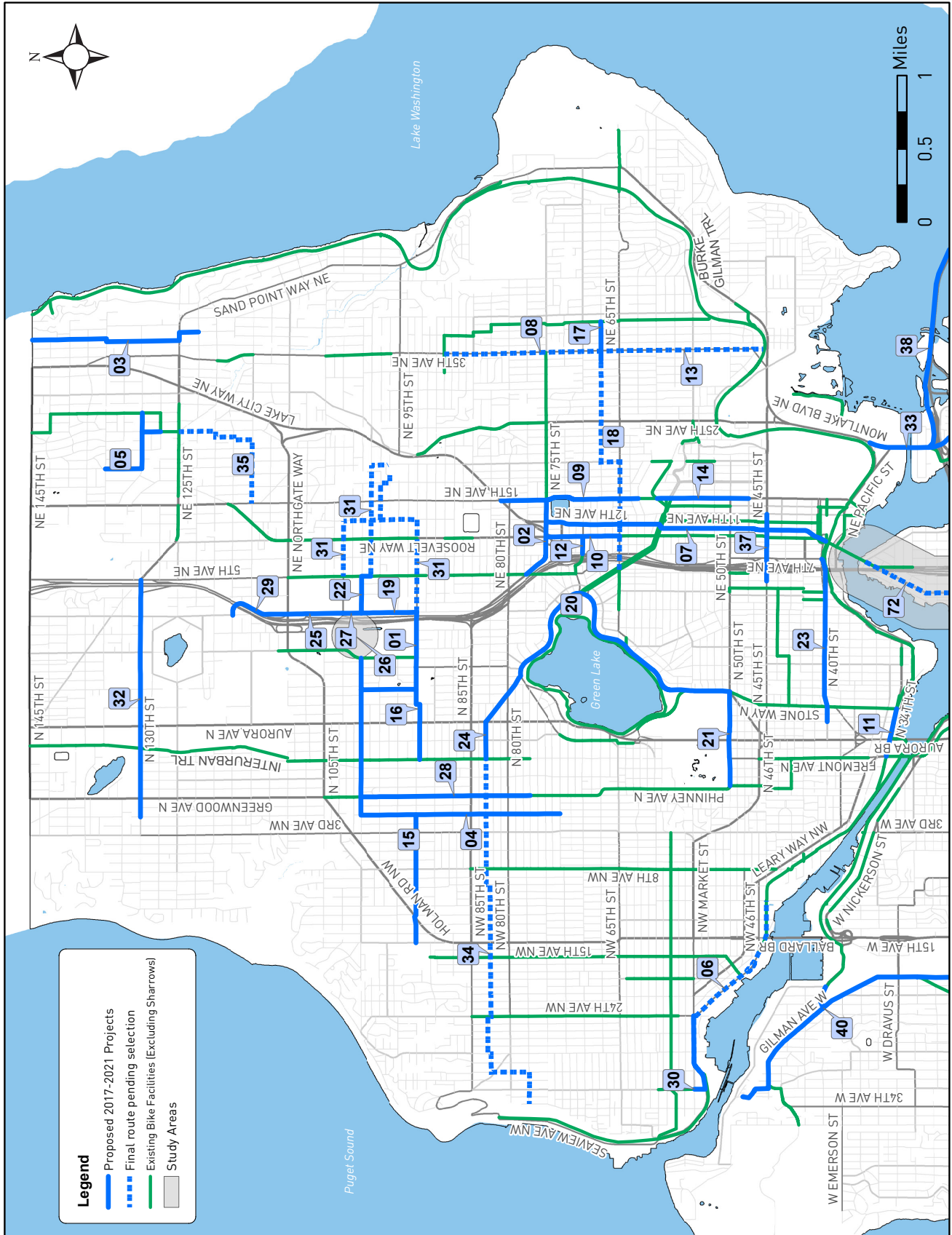
### (4) Chief Sealth Trail

In collaboration with the southeast Seattle community, we have identified several locations along the Chief Sealth Trail where we can make connections between the existing trail and the existing road network quickly and cost-effectively. While these connections are less than ¼ mile in length, they will improve convenience for trail users without major capital investment.

### (5) Spot Improvements

Bike Master Plan work is coordinated with Vision Zero, the Pedestrian Master Plan, and the Bicycle Pedestrian Safety Analysis to implement spot improvements every year. The Levy to Move Seattle has allocated funding for 2017 to improve safety on bridges throughout the City, including the Ballard Bridge.

# NORTH SECTOR PROJECT MAP



**NORTH SECTOR PROJECT LIST**

Project #	Project Name	On Street	From Street	To Street	Facility Type	Facility Mileage	Target Year**
<b>2017</b>							
01	N 92nd St PBL	N 92nd St	Wallingford Ave N	1st Ave NE	PBL	0.38	2017
02	Banner Way NE Corridor	Banner Way NE	5th Ave NE	15th Ave NE	BL	0.57	2017
03	Cedar Park Elementary NGW Connection*	37th Ave NE / NE 125th St / 38th Ave NE	NE 123rd St	NE 145th St	NGW	1.21	2017
04	Greenwood Elementary NGW Connection*	1st Ave NW	N 73rd St	N 92nd St	NGW	0.98	2017
05	Olympic Hills NGW Connection*	25th Ave NW / NE 130th St / 27th Ave NE	NE 127th St	NE 135th St	NGW	0.76	2017
<b>2018</b>							
06	Burke Gilman Trail Missing Link	Burke-Gilman Trail	11th Ave NW / NW 45th St	NW Market St / NW 54th St	TRL	1.42	2018
07	11th / 12th Ave NE 2018 Paving	Eastlake Ave NE / 11th Ave NE / 12th Ave NE	University Bridge	NE 75th St	PBL	1.94	2018
08	35th Ave NE 2018 Paving - Northern Segment	35th Ave NE	NE 65th St	Ne 89th St	PBL	1.20	2018
09	15th Ave NE 2018 Paving - Northern Segment*	15th Ave NE	NE 62nd St	Lake City Way NE	PBL	0.94	2018
10	Roosevelt PBL Extension*	Roosevelt Way NE	NE 65th St	NE 75th St	PBL	0.50	2018
11	N 34th St PBL	N 34th St	Fremont Ave N	Stone Way N	PBL	0.33	2018
12	NE 70th St PBL*	NE 70th St	8th Ave NE	Roosevelt Way NE	PBL	0.12	2018
13	35th Ave NE 2018 Paving - Southern Segment*	35th Ave NE	Burke-Gilman Trail	NE 65th St	BL	0.98	2018
14	15th Ave NE 2018 Paving - Southern Segment*	15th Ave NE	NE 47th St	Cowen Pl NE	BL	0.62	2018
15	North Seattle NGW	N 92nd St / 1st Ave NW / N 100th St	15th Ave NW	College Way N	NGW	2.70	2018
16	Eagle Staff Middle School NGW Connection*	N 92nd St	Fremont Ave N	Wallingford Ave N	NGW	0.62	2018
17	Wedgwood NGW Connection*	NE 68th St	34th Ave NE	39th Ave NE	NGW	0.26	2018
18	NE 65th St Vision Zero Corridor*	NE 65th St / NE 68th St / 70th St	NE Ravenna Blvd	34th Ave NE	TBD	1.56	2017-2018

\*These projects were not included in the 2016-2020 Implementation Plan and are new to this year's plan.

\*\*Target year is year of completion.

NORTH SECTOR PROJECT LIST (CONTINUED)							
Project #	Project Name	On Street	From Street	To Street	Facility Type	Facility Mileage	Target Year**
<b>2019</b>							
19	Northgate Light Rail Station Corridor -Segment 1	1st Ave NE	NE 92nd St	NE 100th St	TRL	0.38	2019
20	Green Lake 2019 Paving	Green Lake Dr N / E Green Lake Dr N / E Green Lake Way N / Green Lake Way N	Aurora Ave N / N 83rd St	N 50th St	PBL	2.55	2019
21	N 50th St 2019 Paving	N 50th St	Phinney Ave N	Green Lake Way N	PBL	0.64	2019
22	NE 100th St PBL	NE 100th St	1st Ave NE	5th Ave NE	PBL	0.31	2019
23	N / NE 40th St 2019 Paving	N 40th St / NE 40th St	Woodland Park Ave N	7th Ave NE	BL	1.12	2019
24	Ballard NGW - Eastern Segment	N 83rd St	Fremont Ave N	Aurora Ave N	NGW	0.25	2019
<b>2020</b>							
25	Northgate Light Rail Station Corridor - Segment 3	1st Ave NE	NE 103rd St	NE Northgate Way	TRL	0.38	2020
26	Northgate Pedestrian and Bicycle Bridge	New Facility	N 100th St	1st Ave NE	TRL	0.27	2020
27	Northgate Light Rail Station Corridor - Segment 2	1st Ave NE	NE 100th St	NE 103rd St	TRL	0.13	2020
28	Greenwood Ave N PBL*	Greenwood Ave N	N 77th St	N 100th St	PBL	1.15	2020
29	Northgate Light Rail Station Corridor - Segment 4	1st Ave NE	NE Northgate Way	N 117th St	PBL	0.45	2020
30	NW Market St 2020 Paving*/***	32nd Ave NW / NW 54th St / NW Market St	32nd Ave NW / NW Market St	24th Ave NW	BL	0.60	2020
31	Northgate Light Rail Connection NGW*	NE 103rd St	1st Ave NE	20th Ave NE	NGW	1.25	2019-2020

\*These projects were not included in the 2016-2020 Implementation Plan and are new to this year's plan.

\*\*Target year is year of completion.

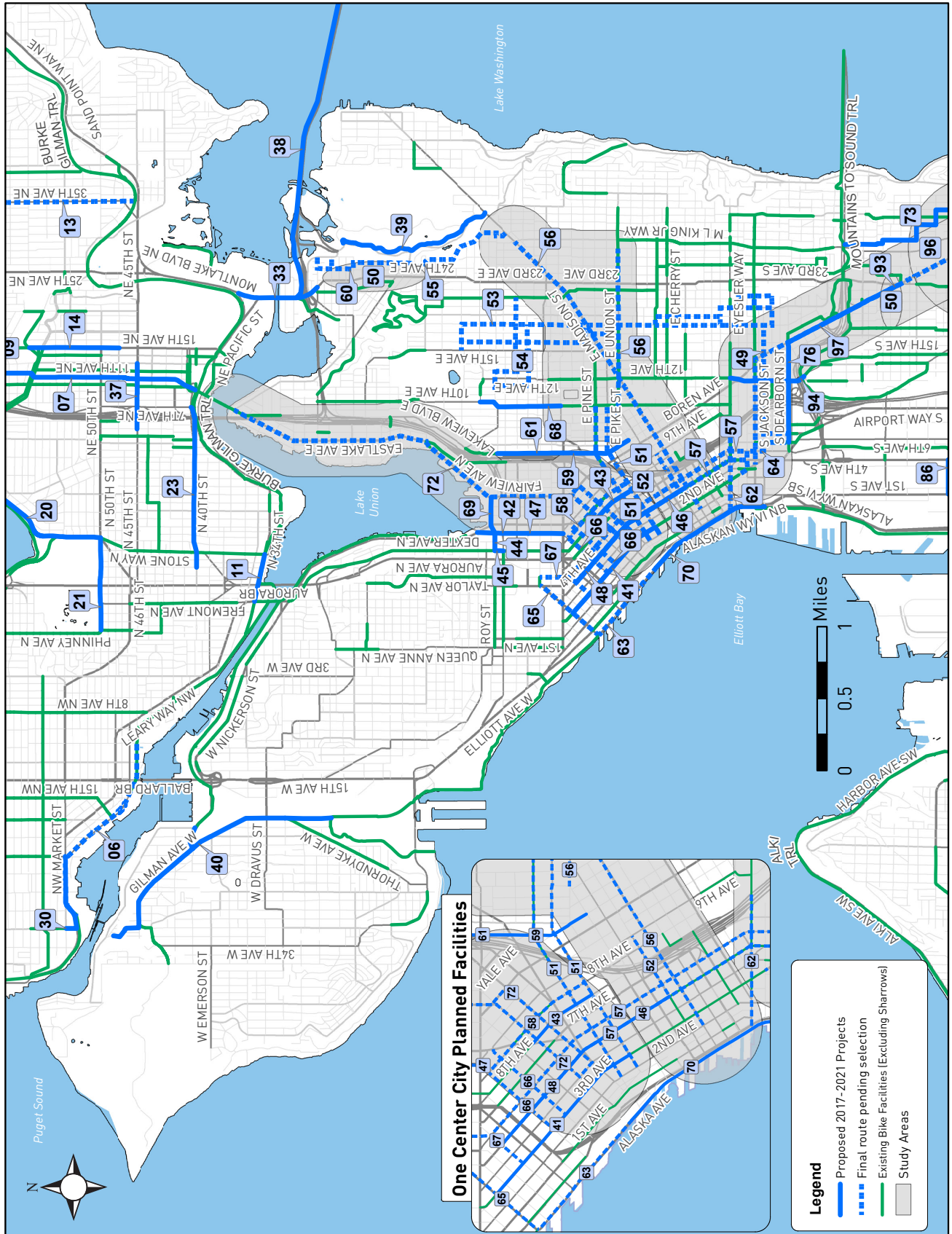
\*\*\*This project will be coordinated with Project #6, Burke-Gilman Trail Missing Link.

NORTH SECTOR PROJECT LIST (CONTINUED)									
Project #	Project Name	On Street	From Street	To Street	Facility Type	Facility Mileage	Target Year**		
2021									
32	N 130th St 2021 Paving*	N 130th St	1st Ave NW	5th Ave NE	PBL	1.62	2021		
33	Montlake Blvd NE PBL*	Montlake Blvd E / Montlake Blvd NE	NE Pacific Pl	E Roanoke St	PBL	0.57	2021		
34	Ballard NGW - Western Segment	NW 83rd St / NW 77th St	Loyal Way NW	Fremont Ave N	NGW	2.81	2020-2021		
35	Pinehurst NGW*	25th Ave NE / NE 115th St	NE 125th St	15th Ave NE	NGW	1.00	2021		
36	NGW Connections (2018-2021)*	Various	Various	Various	NGW	1.33	2018-2021		
37	Market / 45th Transit Improvement Area*	NE 45th St	4th Ave NE	Brooklyn Ave NE	TBD	0.46	2021		
Facility Type	2017 Mileage	2018 Mileage	2019 Mileage	2020 Mileage	2021 Mileage	5-year Totals	Northern Mileage Total		
TRL	0	1.42	0.38	0.78	0	2.58	34.36		
PBL	0.38	5.03	3.5	1.6	2.19	12.7			
BL	0.57	1.6	1.12	0.6	0	3.89			
NGW	2.95	3.58	0.25	1.25	5.14	13.17			
Facility TBD	0	1.56	0	0	0.46	2.02			

\*These projects were not included in the 2016-2020 Implementation Plan and are new to this year's plan.

\*\*Target year is year of completion.

# CENTRAL SECTOR PROJECT MAP



**CENTRAL SECTOR PROJECT LIST**

Project #	Project Name	On Street	From Street	To Street	Facility Type	Facility Mileage	Target Year**
<b>2017***</b>							
38	520 Bridge Trail (WSDOT)	SR-520 Bridge	Montlake Blvd E	City Limits	TRL	2.18	2017
39	Washington Park Arboretum Loop Trail (Seattle Parks Dept.)	New Facility	Graham Visitor Center	E Madison St	TRL	1.20	2017
40	Interbay Trail Connections	20th Ave W / Gilman Ave W	Elliot Bay Trail	20th Ave W	PBL	1.92	2017
41	One Center City - 2nd Ave PBL	2nd Ave	Broad St	Pike St	PBL	0.83	2017
42	One Center City - 9th Ave N PBL (Phase 1)	9th Ave N	Westlake Ave N	Harrison St	PBL	0.35	2017
43	One Center City - 7th Ave PBL	7th Ave	Westlake Ave	Pike St	PBL	0.33	2017
44	Roy St PBL	Roy St	Dexter Ave N	9th Ave N	PBL	0.12	2017
45	Dexter Ave N PBL	Dexter Ave N	Mercer St	Roy St	PBL	0.06	2017
46	One Center City - 4th Ave BL (Phase 1)*	4th Ave	Spring St	Pike St	BL	0.28	2017
<b>2018</b>							
47	One Center City - 9th Ave N PBL (Phase 2)	9th Ave N	Harrison St	Denny Way	PBL	0.24	2017-2018
48	Center City - 4th Ave BL (Phase 2)*	4th Ave	Pike St	Vine St	BL	0.69	2018
49	Chinatown / International District- Judkins Park NGW	S King St / 7th Ave (N-S connection to S Dearborn St)	5th Ave S	20th Pl S	NGW	1.25	2018
50	Central Area NGW Connection*	TBD	TBD	TBD	NGW	0.50	2017-2018
<b>2019</b>							
51	One Center City - Pike and/or Pine PBL*	Pike St and/or Pine St	1st Ave	Broadway	PBL	2.00	2019
52	One Center City - Spring Street BL	Spring St	4th Ave	9th Ave	BL	0.3	2019
53	Central Ridge NGW	16th Ave E / 18th Ave E / 20th Pl S	E Prospect St	S King St	NGW	2.69	2018-2019

\*These projects were not included in the 2016-2020 Implementation Plan and are new to this year's plan.

\*\*Target year is year of completion.

\*\*\*Western Ave from University St to Virginia St (0.34 miles) was completed in 2017. It is listed under Quick Wins on p. 9.

CENTRAL SECTOR PROJECT LIST (CONTINUED)									
Project #	Project Name	On Street	From Street	To Street	Facility Type	Facility Mileage	Target Year**		
<b>2019 (Continued)</b>									
54	Lowell-Meany Schools NGW Connection	E Roy St / 11th Ave E / 13th Ave E / E Republican St / E Harrison St	11th Ave E	21st Ave E	NGW	0.79	2019		
55	Lake Washington Loop NGW - Phase 1 (Southern segment)*	26th Ave E / E Harrison St	37th Ave E	Boyer Ave E	NGW	1.20	2018-2019		
56	Madison RapidRide (G Line) Complementary Route*	E Union St from University / Boylston to 27th or 29th Ave. Full Complementary Route TBD, will not be on E Madison St	TBD	TBD	TBD	TBD	2019		
57	One Center City - 4th or 4th / 5th PBL*	4th Ave / 5th Ave	Vine St	Main St	PBL	TBD	2019		
58	One Center City - 8th Ave PBL*	8th Ave	Pike St	Bell St	PBL	TBD	2019		
<b>2020</b>									
59	Melrose Promenade - PBL portion	Melrose Ave / Minor Ave	University St	E Denny Way	PBL	0.49	2020		
60	Lake Washington Loop NGW - Phase 2 (Northern leg)	26th Ave E	Boyer Ave E	E Shelby St	NGW	1.00	2019-2020		
61	Melrose Promenade - NGW portion	Melrose Ave E	E Denny Way	E Roy St	NGW	0.47	2020		
62	One Center City - Yesler Way PBL	Yesler Way	Alaskan Way	E/s of I-5	PBL	TBD	2020		
63	One Center City - Alaskan Way PBL	Alaskan Way	Virginia St	Elliot Bay Trail	PBL	TBD	2020		
64	One Center City - South End Connection PBL*	2nd Ave Ext S / S Main St / 5th Ave S / S King St / 6th Ave S	S Washington St	S Dearborn St	PBL	TBD	2020		
65	One Center City - Broad Street PBL	Broad St	Elliot Bay Trail	5th Ave	PBL	TBD	2020		
66	One Center City - Bell and/or Blanchard PBL*	Bell St and/or Blanchard St	2nd Ave	8th Ave / 9th Ave	PBL	TBD	2020		
67	One Center City - Vine Street*	Vine St / Taylor Ave / Taylor Ave N	2nd Ave	Thomas St	TBD	TBD	2020		

\*These projects were not included in the 2016-2020 Implementation Plan and are new to this year's plan.

\*\*Target year is year of completion.

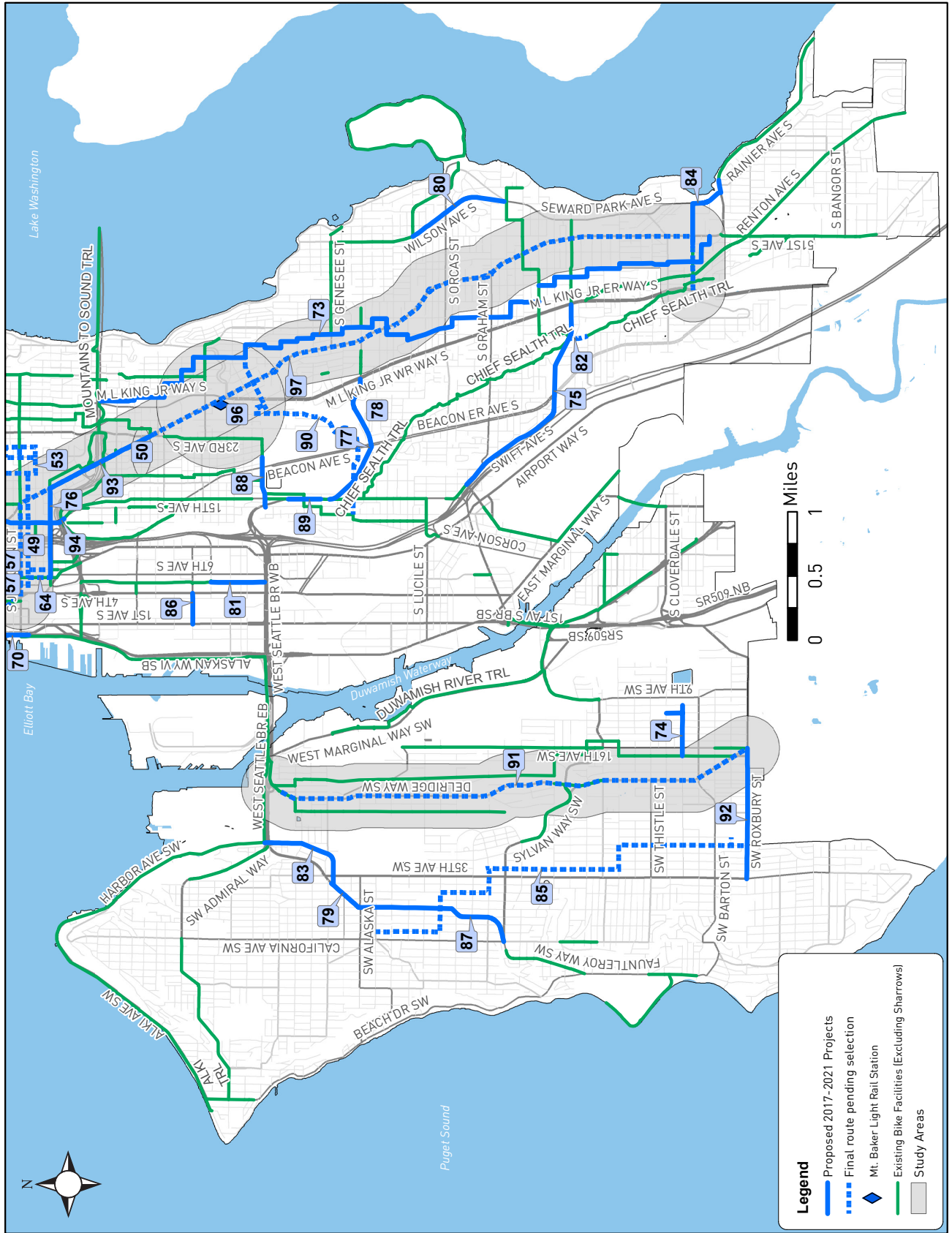


CENTRAL SECTOR PROJECT LIST (CONTINUED)									
Project #	Project Name	On Street	From Street	To Street	Facility Type	Facility Mileage	Target Year**		
2021									
68	First Hill Streetcar: Broadway Extension	Broadway / 10th Ave E	E Denny Way	E Aloha St	PBL	0.57	2021		
69	Valley Street PBL	Valley St	9th Ave N	Fairview Ave N	PBL	0.25	2021		
70	Central Waterfront (Alaskan Way Viaduct Replacement)	Alaskan Way	S King St	Virginia St	PBL	0.90	2021		
71	NGW Connections (2018-2021)*	Various	Various	Various	NGW	1.33	2018-2021		
72	Roosevelt RapidRide	TBD	TBD	TBD	TBD	TBD	2021		
Facility Type	2017	2018	2019	2020	2021	5-year Totals	Central Mileage Total		
TRL	3.38	0	0	0	0	3.38	21.94		
PBL	3.61	0.24	2	0.49	1.72	8.06			
BL	0.28	0.69	0.3	0	0	1.27			
NGW	0	1.75	4.68	1.47	1.33	9.23			
Facility TBD	0	0	0	0	0	0			

\*These projects were not included in the 2016-2020 Implementation Plan and are new to this year's plan.

\*\*Target year is year of completion.

# SOUTH SECTOR PROJECT MAP



**SOUTH SECTOR PROJECT LIST**

Project #	Project Name	On Street	From Street	To Street	Facility Type	Facility Mileage	Target Year**
<b>2017</b>							
73	Rainier Valley NGW	28th Ave S / S Ferdinand St / 46th Ave S	S Mt Baker Blvd	S Henderson St	NGW	6.20	2017-2018
74	Highland Park NGW Connection*	SW Trenton St / 11th Ave SW	17th Ave SW	10th Ave SW	NGW	0.52	2017
<b>2018</b>							
75	Swift Ave S / S Myrtle St / S Othello St 2018 Paving	Swift Ave S / S Myrtle Pl / S Othello St	S Albro Pl	ML King Jr Way S	PBL	1.75	2018
76	S Dearborn St PBL	S Dearborn St	6th Ave S	Rainier Ave S	PBL	0.69	2017-2018
77	S Columbian Way - Western Segment (PBL)*	S Columbian Way	15th Ave S	ML King Jr Way S	PBL	0.56	2018
78	S Columbian Way - Eastern Segment (2018 Paving)	S Columbian Way	Beacon Ave S	ML King Jr Way S	PBL	0.55	2018
79	Fauntleroy Way SW Boulevard*	Fauntleroy Way SW	SW Alaska St	36th Ave SW	PBL	0.29	2018
80	Wilson Ave S 2018 Paving	Wilson Ave S	S Dawson St	Seward Park Ave S	BL	0.81	2018
<b>2019</b>							
81	SoDo Trail Extension	SoDo Trail / E3 Busway	S Forest St	S Spokane St	TRL	0.42	2018-2019
82	Chief Sealth Trail Connections*	Various	Various	Various	TRL	0.25	2019
83	SW Avalon Way 2019 Paving	SW Avalon Way	SW Spokane St	SW Alaska St	PBL	0.90	2019
84	S Henderson St / Seward Park Ave S BL*	S Henderson St / Seward Park Ave S / Rainier Ave S	50th Ave S	Ithaca Pl S	BL	0.66	2018-2019
85	West Seattle NGW	34th Ave SW	SW Roxbury St	S Edmunds St	NGW	3.61	2018-2019
<b>2020</b>							
86	S Lander Street Bridge*	S Lander Street	1st Ave S	4th Ave S	TRL	0.24	2020
87	Fauntleroy Way SW PBL	Fauntleroy Way SW	SW Morgan St	SW Alaska St	PBL	1.30	2020
88	S Spokane St 2020 Paving*	S Spokane St	14th Ave S	19th Ave S	BL	0.39	2020
89	15th Ave S 2020 Paving	15th Ave S	S Nevada St	S Bradford St	BL	0.25	2020
90	Beacon Hill / Mt Baker NGW	S Snoqualmie St / Cheasty Blvd S / S Walden St	13th Ave S	34th Ave S	NGW	2.02	2020
91	Delridge RapidRide (H Line)	TBD	TBD	TBD	TBD	TBD	2020

\*These projects were not included in the 2016-2020 Implementation Plan and are new to this year's plan.

\*\*Target year is year of completion.

SOUTH SECTOR PROJECT LIST (CONTINUED)							
Project #	Project Name	On Street	From Street	To Street	Facility Type	Facility Mileage	Target Year**
2017							
92	SW Roxbury 2021 Paving*	SW Roxbury St	35th Ave SW	16th Ave SW	PBL	1.02	2021
93	Rainier Ave S Paving*	Rainier Ave S	S Dearborn St	23rd Ave S	PBL	0.88	2020-2021
94	12th Ave S PBL	12th Ave S	E Yesler Way	S Charles St	PBL	0.53	2020-2021
95	NGW Connections (2018-2021)*	Various	Various	Various	NGW	1.33	2018-2021
96	Accessible Mt Baker	TBD	TBD	TBD	TBD	TBD	2021
97	Rainier RapidRide	TBD	TBD	TBD	TBD	TBD	2021
Facility Type	2017	2018	2019	2020	2021	5-year Totals	Southern Mileage Total
TRL	0	0	0.67	0.24	0	0.91	24.65
PBL	0	3.84	0.9	1.3	2.43	8.47	
BL	0	0.81	0.66	0.64	0	2.11	
NGW	6.2	0	3.61	2.02	1.33	13.16	
Facility TBD	0	0	0	0	0	0	

\*These projects were not included in the 2016-2020 Implementation Plan and are new to this year's plan.

\*\*Target year is year of completion.

CITYWIDE 2017-2021 MILEAGE						
Facility Type	2017	2018	2019	2020	2021	5-year Totals
TRL	3.38	1.42	1.05	1.02	0	6.87
PBL	3.99	9.11	6.4	3.39	6.34	29.23
BL	0.85	3.1	2.08	1.24	0	7.27
NGW	9.15	5.33	8.54	4.74	7.8	35.56
Facility TBD	0	1.56	0	0	0.46	2.02

This plan calls for 36.10 miles of trails/protected bike lanes and 35.56 miles of neighborhood greenways, which keeps us on track for meeting Move Seattle 9-year goals.

In addition, 6 neighborhood greenways will be upgraded in 2017. Because they are existing facilities and won't add new mileage to the bike network, they are listed separately below.

2017 NEIGHBORHOOD GREENWAY UPGRADES					
Project Name	On Street	From Street	To Street	Facility Type	Length (miles)
17th Ave NE Neighborhood Greenway Upgrade – Signs & Markings	Spot Locations	N/A	N/A	NGW	N/A
Central Area Neighborhood Greenway Upgrade – Signs & Speed Humps	Spot Locations	N/A	N/A	NGW	N/A
Delridge East Neighborhood Greenway Upgrade - Speed Humps	26th Ave SW	SW Andover St	SW Graham St	NGW	N/A
Delridge West Neighborhood Greenway Upgrade – Crossing Improvements	16th Ave SW	SW Kenyon St	SW Webster St	NGW	N/A
Jackson Place Neighborhood Greenway Upgrade	S Dearborn St / Hiawatcha Pl S	Rainier Ave S	S Norman St	NGW	N/A
PhinneyWood Neighborhood Greenway Upgrade - Safety & Speed Humps	Fremont Ave N	N 77th St	N 110th St	NGW	N/A

# 6. COORDINATION PROJECTS UPDATE

Some of the projects that contribute to building out the all ages and abilities bicycle network involve multiple agencies and have multi-year schedules. For these projects, we provide

an annual update through this report, while additional information is available through the individual project websites.

Project	Description	Expected Completion Date	Bike Components	Where to Learn More
SR-520 Bridge Replacement and HOV Program	Replaces the SR-520 floating bridge across Lake Washington and makes transit and roadway improvements throughout the SR-520 corridor from I-5 in Seattle to I-405 in Bellevue	Montlake Phase: 2022-2023 Portage Bay Phase: 2026-2028 Montlake Cut Phase: 2027	<ul style="list-style-type: none"> <li>14-foot wide bicycle and pedestrian path across Lake Washington (opening in 2017) and Portage Bay (Scheduled for 2028)</li> <li>New bicycle/ pedestrian crossings over SR 520 and I-5</li> </ul>	Email: <a href="mailto:SR520bridge@wsdot.wa.gov">SR520bridge@wsdot.wa.gov</a> Website: <a href="http://www.wsdot.wa.gov/Projects/SR520Bridge/">www.wsdot.wa.gov/Projects/SR520Bridge/</a>
Accessible Mt. Baker	Builds near-term access and safety improvements at the Mt. Baker Link light rail station, and builds long-term multimodal transportation enhancements	2021 - in conjunction with Rainier RapidRide	<ul style="list-style-type: none"> <li>Potential protected bike lanes on MLK Jr Way S, Rainier Ave S, S McClellan St, and S Mt. Baker Blvd.</li> <li>Potential neighborhood greenways on S Winthrop St, Cheasty Blvd S and 25th Ave S</li> </ul>	Website: <a href="http://www.seattle.gov/transportation/accessibleMtBaker.htm">www.seattle.gov/transportation/accessibleMtBaker.htm</a>
Burke-Gilman Trail Missing Link	Connects two existing portions of the Burke-Gilman Trail in Ballard to complete the regional facility that otherwise runs continuously from Kenmore Park to Golden Gardens	2018	1.4-mile multi-use trail potentially on NW 45th St, Shilshole Ave NW, and NW Market St.	Email: <a href="mailto:BGT_MissingLink_Info@seattle.gov">BGT_MissingLink_Info@seattle.gov</a> Website: <a href="http://www.seattle.gov/transportation/BGT_Ballard.htm">www.seattle.gov/transportation/BGT_Ballard.htm</a>
One Center City	Builds near- and long-term improvements to the transportation system and public realm in Seattle's Center City neighborhoods	2019-2035	Potential bike facilities on multiple north-south and east-west streets in the Center City (locations to be determined)	Email: <a href="mailto:info@onecentercity.org">info@onecentercity.org</a> Website: <a href="http://onecentercity.org/">http://onecentercity.org/</a>
Waterfront Seattle	Rebuild Seattle's waterfront following the removal of the Alaskan Way Viaduct	2020+	A 2-way protected bike lane from S King St to Pine St	Email: <a href="mailto:info@waterfrontseattle.org">info@waterfrontseattle.org</a> Website: <a href="http://www.waterfrontseattle.org/">www.waterfrontseattle.org/</a>

Project	Description	Expected Completion Date	Bike Components	Where to Learn More
Northgate Pedestrian and Bicycle Bridge	Build a new pedestrian and bicycle bridge over I-5 to improve connections within the Northgate community	2020	<ul style="list-style-type: none"> <li>• A new pedestrian and bicycle bridge over I-5</li> <li>• A potential shared-use path on the west side of 1st Ave NE between NE 92nd St and NE 103rd St</li> <li>• A potential shared-use path on the east side of 1st Ave NE between NE 103rd St and NE Northgate Way</li> </ul>	Email: <a href="mailto:NorthgateBridge@seattle.gov">NorthgateBridge@seattle.gov</a> Website: <a href="http://www.seattle.gov/transportation/northgatepedbridge.htm">www.seattle.gov/transportation/northgatepedbridge.htm</a>
RapidRide Expansion Program	Build 7 new RapidRide corridors throughout the City	2019-2024	Potential improvements to crossings, neighborhood greenways, and bike facilities	Email: <a href="mailto:RapidRide@Seattle.gov">RapidRide@Seattle.gov</a> Website: <a href="http://www.seattle.gov/Transportation/RapidRideExpansion.htm">www.seattle.gov/Transportation/RapidRideExpansion.htm</a>



# 7. PROJECT DELIVERY: TAKING PROJECTS FROM 1% DESIGN TO 100% CONSTRUCTION

We rely on key tools and practices to develop and deliver our projects, including conducting a Complete Streets review, applying the Race and Social Justice Initiative equity toolkit, engaging with community members, and evaluating alternatives. The BMP identifies where bicycle facilities are needed and what facilities are appropriate; our public engagement process focuses on soliciting community input to ensure projects balance community interests. We describe these tools here and combine them along with the guidance in the BMP to direct the Project Delivery Process laid out on the following page.

## COMPLETE STREETS POLICY

Bicycle facilities are an integral aspect of [Complete Streets](#). Established in 2012, the Complete Streets policy guides how we develop projects to provide for all users of the roadway. We use a [checklist](#) to help us review the needs of other modes, relationships to land use, and the future vision for streets so that we can reflect those needs in our project development.

## RACE AND SOCIAL JUSTICE INITIATIVE

The vision of the Seattle [Race and Social Justice Initiative](#) is to eliminate racial inequity in the community. To do this requires ending individual racism, institutional racism, and structural racism. The [Racial Equity Toolkit](#) lays out a process and a set of questions to help evaluate and guide project and program development. This toolkit was used as part of creating the BMP, and is also used to evaluate individual projects.

## PUBLIC ENGAGEMENT

During the planning, design, and construction phases of all our projects, we plan for inclusive public engagement and strive to balance varying needs presented by public comments that we receive at each step of our outreach processes.

SDOT has developed an effective public engagement process built on gathering input from community members about their needs and concerns, presenting them with options that meet project goals and objectives, and incorporating their input along with our expertise and collected data in selecting a design for a particular project.

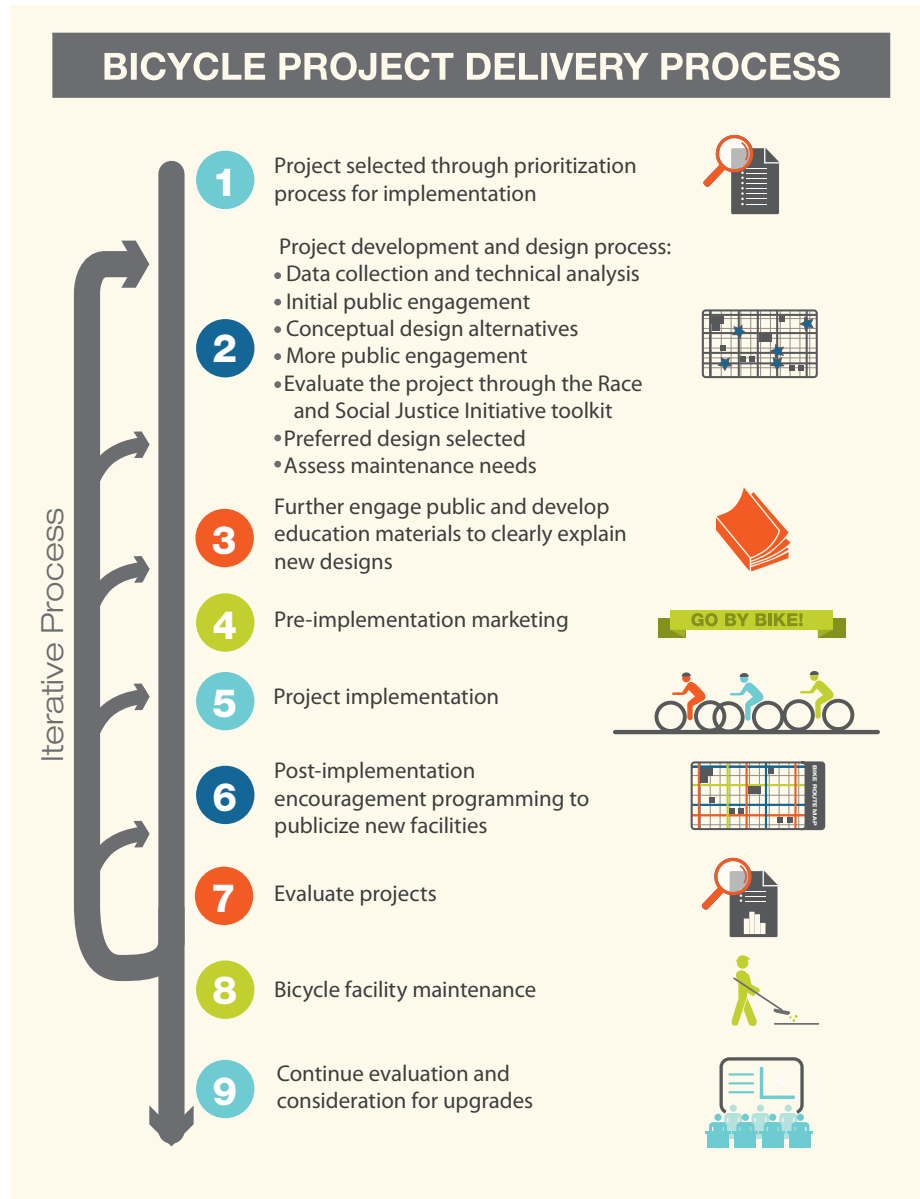
We also reach out to the public when we implement the strategies, actions, and programs shown in Appendix 2, which include installing bicycle parking, conducting education and encouragement programs, and performing bike facility maintenance.

SDOT uses a wide variety of methods to reach community members, including mailers, traditional open houses, drop-in events, online open houses and surveys, and taking information to regularly scheduled meetings and events of community-based organizations. We will continue working with the Seattle Bicycle Advisory Board (SBAB) and the Department of Neighborhoods to strengthen our public engagement strategies and reach more members of the community in engaging ways.



## ALTERNATIVES DEVELOPMENT AND EVALUATION

The project development and delivery process is outlined in the BMP and summarized in this diagram:



The bicycle network recommended in the BMP was developed based on a robust methodology. However, as projects move through the project development process, our analysis, design, and community engagement may lead to a project being developed in a different way or location than

envisioned in the plan. For example, the BMP may recommend a protected bike lane on a particular street, but through our project development and outreach process, we may determine that an alternate facility, such as a parallel neighborhood greenway, would be preferable.

# 8. FUNDING AND COSTS

## FUNDING ASSUMPTIONS

The 2017-2021 Implementation Plan leverages the funding provided by the Levy to Move Seattle with other local funds as well as existing and anticipated grant funding. Additionally, some of our larger capital projects, such as the RapidRide projects, are required to deliver bicycle improvements where appropriate. This multi-layered funding approach allows us to maximize the return on local public funding.

The Levy to Move Seattle provides \$65 million over nine years to build approximately 50 miles of protected bike lanes and 60 miles of neighborhood greenways, and \$7 million for programs (including maintenance and bicycle parking). On an annual basis, the levy provides \$8.0 million per year for BMP implementation, which includes \$7.2 million for facilities and \$0.8 million for programs. For 2017-2021, the plan assumes that some of the money from 2021 would be allocated to 2017 and 2018, per the City Council directive to accelerate bike facility construction.

In 2017, in addition to the levy funds, we have \$3.4 million in unspent funds from previous years, and \$1.3 million that was reallocated from Pronto bikeshare.

The funding assumptions include secured grants as well as estimates for grants we will be seeking in the future. If we receive grant funding at a higher or lower amount, it will affect the number, type, extent, and features of the projects we can construct. We will continue to partner with other agencies and programs, and to seek additional grants and funding sources to meet the Move Seattle mileage goals.

Funding assumptions for 2017-2021 BMP implementation are provided in the table on the following page.



BIKE MASTER PLAN BUDGET						
Funding (Millions)	2017	2018	2019	2020	2021	5-Year Total
Local Carryforward <sup>1</sup>	4.4 M	0.0 M	0.0 M	0.0 M	2.2 M	4.4 M
Grant Carryforward <sup>1</sup>	5.9 M					5.9 M
Local Sources <sup>2</sup>	10.2 M	13.2 M	9.2 M	9.2 M	7.2 M	49.0 M
Bike Share Transfer	1.3 M					1.3 M
Grants (Secured)	1.3 M	0.5 M	3.5 M			5.3 M
Grants (Assumed) <sup>3</sup>		2.5 M	0.0 M	2.2 M	2.2 M	6.9 M
<b>Total Funding</b>	<b>23.1 M</b>	<b>16.2 M</b>	<b>12.7 M</b>	<b>11.4 M</b>	<b>11.6 M</b>	<b>72.8 M</b>
Cost (Millions)	2017	2018	2019	2020	2021	5-Year Total
New Trails, Protected Bike Lanes, and Bike Lanes	13.8 M	11.4 M	7.1 M	4.2 M	5.1 M	41.7 M
Neighborhood Greenways	6.1 M	2.7 M	4.3 M	2.4 M	3.9 M	19.3 M
Maintenance and Spot Improvements	1.8 M	1.0 M	1.0 M	1.0 M	1.0 M	5.8 M
Strategies and Actions	1.3 M	1.1 M	0.2 M	1.6 M	1.7 M	5.8 M
<b>Total Cost</b>	<b>23.0 M</b>	<b>16.2 M</b>	<b>12.7 M</b>	<b>9.2 M</b>	<b>11.7 M</b>	<b>72.6 M</b>
<b>Running Budget Surplus/Shortfall</b>	<b>0.1 M</b>	<b>0.0 M</b>	<b>0.1 M</b>	<b>2.2 M</b>	<b>0.0 M</b>	<b>0.2 M</b>

<sup>1</sup>Any budget surplus carries forward to the next year.

<sup>2</sup>Local sources include Vehicle Licensing Fees, Move Seattle Levy, Accelerated Move Seattle Levy, and Urban Trails and Bikeways funding. Levy funding will vary year to year and project and mileage will be adjusted.

<sup>3</sup>The budget assumes a placeholder amount for assumed grants based on what we typically receive, but acknowledges current uncertainty in obtaining federal grants. If we receive grant funding at a higher or lower amount, this will affect the number, type, extent, and features of the projects we can construct.

## COST ASSUMPTIONS

To develop estimates for new projects, we use data from recently completed projects and final estimates from projects about to begin construction. Project costs vary greatly due to the wide range of designs (from paint and post to fully raised and separated paths), site conditions (working downtown or near steep slopes can increase costs), and whether the project can be combined with other nearby projects.

We are always looking for ways to deliver more with the available funds, and in 2017 we will conduct a thorough review of internal and external costs, as well as research what others have done to streamline and improve the efficiency of project delivery.

For the 2017 projects in this plan, preliminary cost estimates have been developed based on each project's individual characteristics. For the 2018-2021 projects, we used a planning level per-mile cost estimate of \$750,000 for trails, protected bike lanes, bike lanes, and undetermined facility types, and \$500,000 for neighborhood greenways.

## CENTER CITY PROJECTS

Many of the projects in or near downtown are being developed in conjunction with the [One Center City](#) project. For some of these projects, the costs and funding sources are still being developed, and will be added to the implementation plan when they are available. The One Center City projects with costs and funding included in this plan are: 2nd Ave PBL, 4th Ave

BL, 7th Ave PBL, 9th Ave N PBL, Spring Street BL, and two additional miles of PBL (which are assigned to the Pike and/or Pine PBL at this time, but may change as the plan evolves). The One Center City projects with costs and funding to be determined are: 4th and or 4th/5th PBL, 8th Ave PBL, Alaskan Way PBL, Bell and/or Blanchard PBL, Broad St PBL, South End Connection PBL, Vine St (facility TBD), and Yesler Way PBL.



# APPENDIX 1: PERFORMANCE MEASURES

The 2014 Bicycle Master Plan includes performance measures to assess whether the plan is meeting its goals. The measures are focused on assessing progress over the long-term, and data is collected and analyzed either

annually or as the data is available to help track interim progress. The table below includes the BMP performance measures and progress towards those targets based on the most recently available data.

PERFORMANCE MEASURE TARGETS			
Goal	Performance Measure	Performance Target	Performance Result
<b>Ridership</b>	Number of people biking counted at locations throughout Seattle	Quadruple ridership between 2014 and 2030	2014-2015: 11.7% increase <sup>1</sup> 2015-2016: 10.9% increase <sup>1</sup>
<b>Safety</b>	Bicycle collision rate	Reduce bicycle collision rate by half (50 percent) between 2013 and 2030	2014: 426 reported collisions 2015: 469 reported collisions 2016: 407 reported collisions
	Number of serious injuries and fatalities	Zero by 2030	2013: 27 serious injuries; 2 fatalities 2014: 29 serious injuries; 1 fatality <sup>2</sup> 2015: 24 serious injuries; 1 fatality <sup>2</sup> 2016: 26 serious injuries; 2 fatalities
<b>Connectivity</b>	Percentage of bicycle facility network completed	100 percent of bicycle system constructed by 2035	2013: 22% 2016: 28% (167/608 miles)
<b>Equity</b>	Areas lacking bicycle facilities	Zero areas of City lacking bicycle facilities by 2030	2012: 7 census tracts lacking bicycle facilities 2016: 7 census tracts lacking bicycle facilities
<b>Livability</b>	Percentage of households within ¼ mile of an all ages and abilities bicycle facility	100% of households in Seattle within ¼ mile of an all ages and abilities bicycle facility by 2035	2013: 34% 2016: 49%

<sup>1</sup>These percentages are based off of bike counts taken at 9 locations where reliable data was available for 2014, 2015, and 2016 for at least six days of counts.

<sup>2</sup>For comparison, national data (from 2015 and prior years) indicated a 12.2% increase in fatalities from 729 in 2014 to 818 in 2015. At the same time, injuries declined 11.1% nationally, from 50,000 in 2014 to 45,000 in 2015. Source: USDOT NHTSA, March 2017.

# APPENDIX 2: STRATEGIES AND ACTIONS

The following strategies and actions are pulled directly from the BMP. 2016 status is taken directly from the 2016 implementation plan, and 2017 status provides a current update to each strategy and activity.

BMP Strategy	Action	2016 Status	2017 Status
4.1 – 4.6 Implement the bicycle facilities	See project lists for projects to be studied, designed, and implemented in 2017-2021. SDOT will continue to research and incorporate best practices, leverage other capital project investments, and develop educational tools.	SDOT will work to meet targets.	SDOT will continue working to meet targets.
4.7 Implement upgrades of existing bicycle facilities	Bicycle facilities upgrade projects will be identified through BMP project prioritization and through safety corridor projects. Refer to strategy 7.3 and 7.13 for related work.	SDOT will work to meet targets.	SDOT will continue working to meet targets.
4.8 Install bicycle detection at traffic signals in every new bicycle facility, as well as with all street replacement projects	SDOT will develop consistent bicycle detection standards by bicycle facility type, inventory existing detection on high priority bike facilities to determine upgrade needs, and develop a prioritized work plan for implementation.	SDOT has been recommending appropriate bicycle detection on a case-by-case basis, and may start developing guidelines based on facility type and intersection geometry in 2016. Inventory will begin in 2016, if staffing allows for this effort.	SDOT has been implementing bicycle detection at traffic signals on a case-by-case basis when it develops a bicycle facility that crosses a major street at a signalized intersection.
4.10 Design all bicycle facilities to meet or exceed the latest federal, state and local guidelines	This is SDOT's standard practice. In addition, the update of the Seattle Right-of-Way Improvements Manual (ROWIM) will include bicycle facility design guidelines.	SDOT is currently updating the ROWIM, which include bicycle design guidelines. Director's Rule expected by end of the year.	SDOT is currently finishing the ROWIM, which includes bicycle design guidelines.
4.12 Integrate a multimodal decision making process into the update of the Comprehensive Plan	SDOT has developed a right-of-way (ROW) allocation framework, a comprehensive methodology, to determine the uses and functions of corridors.	The ROW allocation framework is within the draft Comprehensive Plan Update for consideration of adoption.	Complete. The new Comprehensive Plan became effective on November 28, 2016 and includes ROW allocation framework.

BMP Strategy	Action	2016 Status	2017 Status
5.1 Update the Seattle Municipal Code (SMC) bicycle parking requirements	SDOT will work with DPD to review the existing language and identify proposed changes.	SDOT has provided comment to DPD/SDCI on land use code changes for bicycle parking.	Updates to the SMC are currently under review process and will be submitted to City Council at some point in the future.
5.2 Develop a bicycle parking implementation program	SDOT will develop a methodology to identify and prioritize high-demand locations for bicycle parking in 2015, and will complete a Client Assistance Memo (CAM) for installation of private bicycle racks in the public right-of-way.	Internal guidelines for private bicycle rack installation in the public Right-of-Way are being developed and a CAM will be developed later in 2016.	SDOT will be developing an illustrated guide to bicycle parking in order to provide clearer and more direct assistance to business owners and developers that wish to install bike parking in the public right-of-way.
5.4 Develop a process for abandoned bicycle removal with repurposing options	Abandoned bicycles that are tagged and removed by SDOT personnel are donated to BikeWorks.	SDOT will continue to donate abandoned bicycles to BikeWorks. No timeline exists for a partnership with SPD to create a policy to donate abandoned bikes.	SDOT continues to remove abandoned bicycles from public bicycle racks after issuing a 72 hour notice.
5.5 Provide short- and long-term secure bicycle parking at high-capacity transit stations, transit hubs, and heavily-used bus stops	SDOT will partner with other agencies to coordinate the development of long-term secure bicycle parking.	Secured bicycle parking is incorporated in the Northgate and Judkins Park station designs. SDOT will continue to monitor needs at existing stations, future stations in ST3, and the Seattle RapidRide expansion program.	SDOT continues to monitor bicycle parking needs at existing and future stations, including those in ST3, Seattle's RapidRide expansion program, and other high capacity transit locations.

BMP Strategy	Action	2016 Status	2017 Status
6.1 Develop a bicycle safety program	<p>SDOT will continue to build upon existing safety educational and encouragement programs, and create new programs. Towards this effort SDOT will:</p> <ol style="list-style-type: none"> <li>1. Provide bicycle education for primary school children</li> <li>2. Assess feasibility and cost of including middle school and high school roadway safety education (as part of the School Road Safety plan).</li> <li>3. Collaborate with partners to develop, strengthen, and distribute existing "Bike 101" materials to assist a wide range of current and new riders</li> <li>4. Engage with Seattle Public Schools to continue Safe Routes to School partnerships for traffic safety education and encouragement of walking and biking to school.</li> </ol>	<ol style="list-style-type: none"> <li>1. SDOT is collaborating with Seattle Public Schools and Cascade Bicycle Club to develop a new pedestrian and bicycle safety curriculum that will be implemented in all public elementary schools. The curriculum program will be implemented in all 72 public K-5 and K-8 schools in September 2016.</li> <li>2. Pending the success of the elementary school program and funding availability, SDOT will expand the education program to middle and high school students in 2019.</li> <li>3. In 2016, SDOT will continue to publish an updated bike map; a magazine similar to the 2015 pilot BikeLife; and education and encouragement materials when projects such as the Eastlake and Roosevelt Protected Bicycle Lanes are complete.</li> <li>4. SDOT will continue to participate in the School Traffic Safety Committee, engage with advocacy groups and the Seattle Public Schools to promote walking and biking to school.</li> </ol>	<ol style="list-style-type: none"> <li>1. SDOT reached every 3rd, 4th, and 5th grade physical education class at Seattle Public Schools in partnership with Cascade Bicycle Club, and plans to continue to do so for the next seven years.</li> <li>2. SDOT will assess program expansion to middle school and high school classes.</li> <li>3. SDOT will continue to publish an annual printed bike map and distribute education and encouragement materials when projects such as the Westlake and Roosevelt Protected Bicycle Lanes are complete.</li> <li>4. SDOT will continue to participate in the School Traffic Safety Committee, engage with advocacy groups and the Seattle Public Schools to encourage walking and biking to school.</li> </ol>
	<p>SDOT will research and assess the feasibility of laws requiring that all driver training and driver's license renewal processes cover bicycle safety, traffic laws, and the consequences of unsafe travel behavior, and SDOT will work with the state legislature on implementation.</p>		<p>The Washington State Senate and House passed SB 5402 in 2017, and it is expected to be signed by the Governor in 2017. This bill would create a new statewide bicycle safety advisory council, whose work plan could include driver education.</p>



BMP Strategy	Action	2016 Status	2017 Status
6.2 Improve wayfinding and trip-planning opportunities for people on bicycles	SDOT will update the printed bicycle map annually.	On track.	SDOT continues to annually release a printed bicycle map. SDOT also releases bicycle-related data to the public via data.seattle.gov, and is exploring more options to enhance public data availability.
6.4 Support economic and community development through bicycle related activities	SDOT will attend and support events with similar mission and focus that encourage neighborhood-level active transportation.	SDOT will continue to attend and support events such as Summer Parkways, Bicycle Sundays, Kidical Mass, and the SR-520 bicycle ride.	SDOT will continue to attend and support events such as Summer Parkways, Bicycle Sundays, Kidical Mass, and other bicycle related activities.
	SDOT will continue to work with CTR employers and TMP plans to provide bicycle workshops, co-sponsor the second Annual Employer Bike Summit, and promote the 2016 Bike Commute Challenge.	In 2016 and 2017, 97 bike racks will be installed at locations outside Center City adjacent to CTR employer locations or buildings with Transportation Management Program requirements. This program will result in public bike racks outside all CTR and TMP locations. Ten more bicycle commuter workshops will be conducted in 2016 and then again in 2017 (by Commute Seattle).	SDOT has installed public bike racks at all feasible CTR and TMP locations, and will continue to conduct bicycle commuter workshops and other programs.
7.1 and 7.2 Develop and strengthen procedures and processes for bicycle project delivery	SDOT has a well-developed evaluation, design and public engagement process for neighborhood greenways. In 2016, SDOT will continue to use and refine this process, and will adapt it for other projects types such as protected bicycle lanes. In addition, SDOT will: <ul style="list-style-type: none"> <li>• Allow temporary implementation of bicycle facilities</li> </ul>	SDOT will continue to conduct data-driven planning processes, collecting quantitative “before” data and administering perception surveys as funding allows.  SDOT will continue to support PARKing day type of temporary installation of bicycle facilities.	SDOT continues to make data-driven decisions, collecting quantitative “before and after” data for our projects. We are also improving our Program & Project Management processes, which includes things like improved cost estimating tools, and streamlining our delivery and contracting methods. These improvements are expected to result in quicker implementation of bicycle projects and reduced costs.

BMP Strategy	Action	2016 Status	2017 Status
<p>7.3 and 7.13 Review bicycle-related collisions, collision rates and frequencies over time and identify and implement safety strategies. Improve bicycle facilities as needed, based on performance criteria.</p>	<p>SDOT will build on the existing collision review program and will:</p>	<p>SDOT is developing a Bicycle and Pedestrian Safety Analysis (BPSA) to address these concerns. The draft report is expected by the end of April and will help prioritize spot improvements for 2016 work program and beyond.</p>	<p>SDOT has completed development of the BPSA and will use this report to work towards proactively making Seattle's streets even safer. SDOT will continue to collaborate with SPD on increasing data sharing and data collection between the two departments.</p>
	<p>Analyze bicycle-involved collisions per facility type to identify trends, behaviors, and engineering solutions</p>		
	<p>Create a data-driven process to identify spot and/or corridor improvement projects Develop a prioritized list of spot improvement projects</p>		
<p>7.5 and 7.14 Create a multiuse trails upgrade and maintenance plan. Negotiate maintenance agreements with partners.</p>	<p>SDOT will develop a trails upgrade plan in 2015, which will guide future upgrades to the multi-use trails.</p>	<p>SDOT is developing a Trails Upgrade Plan to guide future investments. The draft report is expected by the end of April. Updated maintenance agreements with partners will be worked on following the Trails Upgrade Plan efforts (timeline unknown).</p>	<p>SDOT has completed the Trails Upgrade Plan.</p>
<p>7.6 Update the Bicycle Master Plan</p>	<p>SDOT will update the Bicycle Master Plan every 5-7 years</p>		<p>SDOT is required by Council Resolution to update the BMP and will begin work to update in 2018, aiming for a completed update in 2021, incorporating HALA and other major city initiatives.</p>

BMP Strategy	Action	2016 Status	2017 Status
<p>7.10 – 7.12 Maintain on-street and off-street bicycle facilities. Consider maintenance costs, procedures, and long-term funding mechanisms are a part of all new bicycle facility projects. Encourage people to report improvements requests to SDOT.</p>	<p>To address maintenance, SDOT will:</p>		
	<p>Create life-cycle costs per bicycle facility to better understand and gauge current and future maintenance needs</p>	<p>As we continue to build protected bike lanes, tracking maintenance costs is important. SDOT is currently researching best practices from peer cities.</p>	<p>SDOT continues to research best practices related to maintenance costs for our newest facility types.</p>
	<p>Coordinate projects with Street Maintenance Paving plan</p>	<p>As part of the 2016-2020 BMP IMP Plan, SDOT is coordinating upcoming paving projects and proposed bicycle facilities for better alignment.</p>	<p>As part of this 2017-2021 Implementation Plan SDOT looked for opportunities to coordinate paving projects and proposed bicycle facilities, and will continue to do so in the future.</p>
	<p>Evaluate additional bike facility sweeping as part of the SPU/SDOT street sweeping program</p>	<p>As the city builds a critical mass of protected bike lanes, SDOT will identify the most cost effective way to sweep bicycle facilities.</p>	<p>SDOT continues to research cost-effective ways to sweep our protected bike lanes.</p>
<p>7.17 Establish a broad-based funding approach</p>	<p>SDOT will continue to research and pursue grants, and other funding opportunities.</p>	<p>The Transportation Levy to Move Seattle was approved by voters in 2015. There is \$65M for bicycle improvements over the nine year levy timeframe.</p>	<p>SDOT will continue to look for grant and partnership opportunities to deliver more and make the most out of our Move Seattle funding.</p>

# APPENDIX 3: PROJECT CHANGES IN THIS UPDATE

## WAITLISTED PROJECTS

Waitlisted projects are those that were high priorities and may be implemented in the next five years if additional funds are available. These projects have been through the prioritization process, including recommendation by SBAB (see Chapter 4, Prioritization), but were not included in the project list due to funding and/or geographic equity constraints.

Project Name	On Street	From Street	To Street	Facility Type	Mileage	Target Year, 2016 Imp Plan
Ballard 6th Ave NW N-S Neighborhood Greenway	6th Ave NW	Burke-Gilman Trail	NW 103rd St	NGW	3.22	2020
Ballard NW 53rd St/11th Ave NW Neighborhood Greenway	NW 53rd St / 11th Ave NW	17th Ave NW	Burke-Gilman Trail	NGW	0.63	2017
Columbia City E-W Neighborhood Greenway	S Dawson St / S Ferdinand St	Beacon Ave S	MLK Jr Way S	NGW	1.2	N/A
Ravenna Park Neighborhood Greenway	NE 62nd St	NE Ravenna Blvd	45th Ave NE	NGW	1.92	N/A

## 2016-2020 PROJECTS NOT SELECTED FOR 2017-2021 PLAN

Deferred projects are those that are not being pursued within this 5-year plan because with updated quantitative data, these projects no

longer met the prioritization threshold. These projects have an opportunity to be included in the next iteration of the implementation plan if they are selected through our prioritization process in subsequent years (see Chapter 4, Prioritization). Deferred projects are included on the following page.

On Street	From Street	To Street	Facility Type	Mileage	In Last Imp Plan?	Reason Not Selected
8th Ave S*	S Kenyon S	S Trenton St	PBL	0.50	2017	Re-prioritized as Tier 4
MLK Jr Way	I-90 Trail	S McClellan St	PBL	0.84	2017	Will be evaluated in conjunction with Accessible Mt. Baker
7th Ave S	S King St	S Dearborn St	NGW	0.17	2017	Was considered as part of CID-Judkins Park NGW, but wasn't selected as most promising route
6th Ave S	S Spokane St	S Industrial Way	TRL	0.41	2018	Not part of the BMP recommended network
6th Ave S	S Dearborn St	S Royal Brougham Way	PBL	0.25	2018	Re-prioritized as Tier 5
Ravenna Pl NE	NE 55th St	Burke-Gilman Trail	PBL	0.15	2018	Re-prioritized as Tier 2
S Royal Brougham Way	S Occidental St	6th Ave S	PBL	0.34	2018	Re-prioritized as Tier 5
E Yesler Way	10th Ave	12th Ave	PBL	0.13	2018	Will be evaluated in conjunction with One Center City
S Industrial Way	6th Ave S	Airport Way S	BL	0.22	2018	Re-prioritized as Tier 5
Fairview Ave E	University Bridge	Fairview Bridge	NGW	1.70	2018	Re-prioritized as Tier 3 [also within Roosevelt RapidRide (study area)]
Terry Ave	Spruce St	University St	NGW	1.20	2018	Considered at one time as a Madison RapidRide (G Line) complementary route, but was not selected as one of the preferred routes
University St	Seneca St	Broadway	NGW	0.51	2018	Being evaluated as a Madison RapidRide (G Line) Complementary NGW Route
Spring St	1st Ave	4th Ave	PBL	0.18	2019	Will be evaluated in conjunction with One Center City
SW Morgan St / Dumar Way SW	California Ave SW	16th Ave SW	PBL	1.98	2019	Re-prioritized (in 3 segments E to W) as Tier 4, Tier 2, Tier 4
24th Ave E	E Thomas St	E Union St	NGW	0.59	2019	Not in the BMP recommended network - a NGW crossing at 24th Ave E/E Madison St/E John St will be studied with Madison RapidRide (G Line). Other N-S NGW options being studied.
27th Ave E	E Union St	MLK Jr Way E	NGW	0.70	2019	Re-prioritized as Tier 5. Being evaluated as a Madison RapidRide (G Line) Complementary NGW Route
S Ferdinand St	Beacon Ave S	37th Ave S	NGW	1.26	2019	Re-prioritized as Tier 1 but not selected by SBAB Southern Working Group as a priority project
SW Myrtle St	SW Orchard St	12th Ave SW	NGW	0.39	2019	Re-prioritized as Tier 3
15th Ave NE	NE 125th St	City Limits	PBL	1.00	2020	Re-prioritized as Tier 1 but not selected by SBAB Northern Working Group as a priority project
SW Admiral Way	California Ave SW	SW Olga St	PBL	0.49	2020	Re-prioritized as Tier 3
39th Ave S	S Myrtle St	S Kenyon St	NGW	0.53	2020	Re-prioritized (in 4 segments E to W) as Tier 1, Tier 1, Tier 2, and Tier 1, but not selected by SBAB Southern Working Group as a priority project
S Morgan St / S Holly St	Swift Ave S	46th Ave S	NGW	1.57	2020	Re-prioritized as Tier 1, but not selected by SBAB Southern Working Group as a priority project

\*SDOT is working closely with the Duwamish Valley Action Team to coordinate projects.

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