

image credit: Joe A. Kozlowski

# Transportation for Everyone

CENTRAL CITY IN MOTION IMPLEMENTATION PLAN



**PBOT**  
PORTLAND BUREAU OF TRANSPORTATION

**CENTRAL CITY**  
*IN MOTION*

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204

Expo Center



TRU MET

TRU MET

TRU MET

Portland's Central City, just five square miles in size, is growing rapidly.

### Today, the Central City is home to:

30,000 households



= 3,000 households

130,000 jobs



= 3,000 jobs

### By 2035 the Central City will be home to:

70,000 households



180,000 jobs



### Today

39%

of the Central City's land is public right of way (streets, sidewalks)

1%

is dedicated buses and MAX

3%

is dedicated to bicycle transportation and new mobility options

20,328

curb zone spaces for parking and loading

### After *Central City in Motion*

39%

of the Central City's land is public right of way (streets, sidewalks)

2%

is dedicated buses and MAX

4%

is dedicated to bicycle transportation and new mobility options

19,328

curb zone spaces for parking and loading



# Portland's Central City is the driver of the state's economy.

As the largest concentration of jobs and cultural and educational institutions in the state, the Central City needs a transportation network that supports the daily movement people and goods as efficiently as possible.

**We can't add new streets, but we can use the streets we have more productively. *Central City in Motion* (CCIM) is the city's guide to this efficiency through smart investments in all travel modes, designed to:**

## Maximize our streets

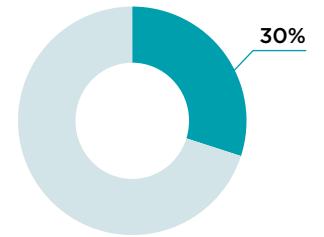
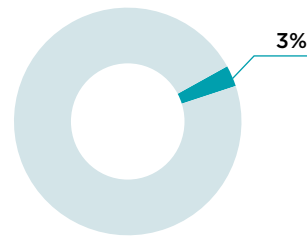
Thirty-nine percent of the Central City is comprised of the public right-of-way (streets and sidewalks). The uses of this space have constantly evolved since Portland's downtown streets were first platted in the 1800s, well before the ascendancy of the automobile. By re-allocating an additional two percent of Portland's public right-of-way for transit priority lanes, bikeways, and safer pedestrian crossings, we can strategically increase the efficiency of streets capacity of streets to move more people without making driving more difficult than it is today.

**The 18 key projects recommended in *Central City in Motion* increase the people moving capacity of their respective streets by an average of over 60%.**

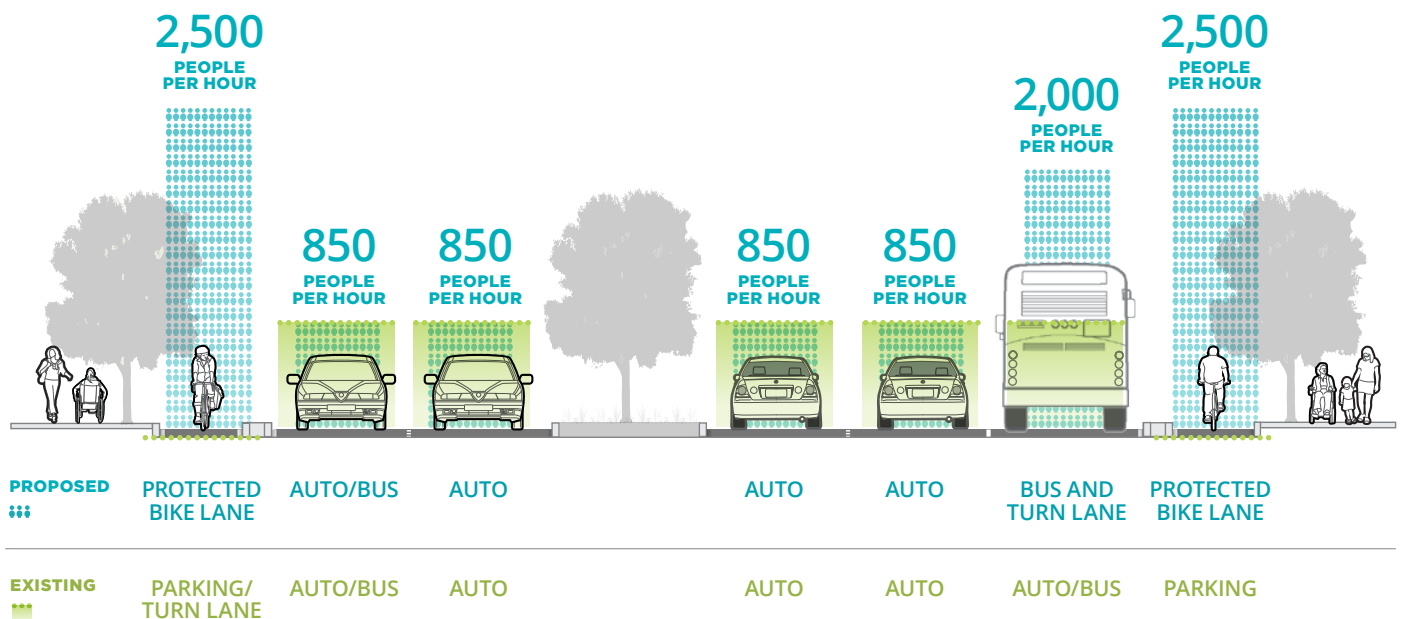
### THE CENTRAL CITY IS SMALL IN SIZE, BUT GROWING FAST

The Central City is 3% of Portland's overall land area

A third of Portland's population growth will occur in the Central City



### REDESIGNED STREETS CAN ACCOMMODATE A GROWING CENTRAL CITY



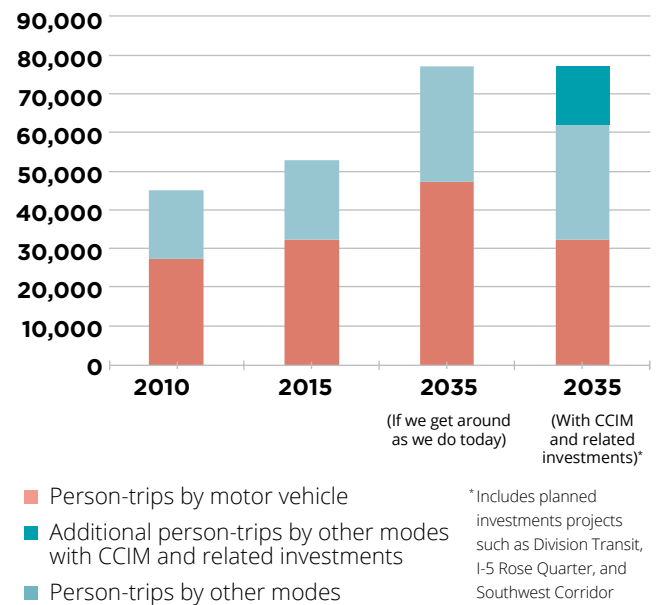
**W Burnside: new bus and protected bike lanes will increase the people moving capacity of the street**



## Manage growth

If all the new residents and commuters in our Central City traveled around as we do today, the result would be a roughly 47% increase in the number of cars on Central City streets. Imagine thousands of additional cars attempting to jam into our already congested streets at the busiest times of day, and the associated costs in terms of pollution, lost time, and lost productivity. The investments in the *Central City in Motion* plan are designed to hold traffic congestion steady for the next two decades, despite a more than 130 percent increase in residents and a 40 percent increase in jobs. By investing in projects that allocate slightly more space to the bicycle and pedestrian network and by prioritizing transit, overall travel speeds through the Central City are expected to decrease only 1 mph by 2035. More importantly, these improvements mean that our system could accommodate over 60% percent more people in the same space.

**CENTRAL CITY TRIPS BY MOTOR VEHICLE AND OTHER MODES**



## Increase safety

The City of Portland is committed to Vision Zero, which focuses on eliminating serious injuries and deaths on our transportation network by 2025. Utilizing crash data from the state, Portland Bureau of Transportation (PBOT) has identified the intersections with the highest number of fatal and injury crashes involving people walking or biking – almost half of them (45%) are in the Central City. Every project outlined in this report improves safety for everyone traveling in our Central City and thirteen of the projects are specifically designed to improve safety at known high crash intersections. For example, protected bike lanes have demonstrated safety benefits for all roadway users—including people driving—so these projects benefit all of us.





## Provide options for all

The Central City is home to more than a third of the region's housing, and 54 percent of Central City housing is affordable to people making less than 60 percent of the median family income. It is also home to the highest concentration of social services in the region. The number of Portlanders living in Central City affordable housing will only grow, with 40% of City's upcoming affordable units located in the Central City. *Central City in Motion* will provide safer access to affordable housing and the social services that are vital to addressing the housing crisis.

Nearly one-quarter of Central City residents live below the poverty line (compared to 14 percent of the City of Portland as a whole). Because more than one-third of Central City residents do not have access to a car, increasing the reliability and efficiency of transit and providing more robust and safe bicycle and pedestrian networks is imperative. *Central City in Motion* will provide reliable, convenient low-cost options for all Central City residents, including those that cannot afford a car.

## Promote freight and support business

Specific attention has been paid in this plan to maintaining freight access, particularly in the Central Eastside Industrial District (on the east side of the Willamette River), which is home to 1,100 businesses and 17,000 jobs. Ensuring that new residents and commuters have comfortable and convenient transportation options other than driving is critical to the sustainability of the Central Eastside. Shared bus and freight priority lanes have been identified, with wide turning radii maintained in areas where businesses depend upon large trucks and delivery vehicles. In some places, streets have been redesigned to ensure that freight access is maintained while improving safety for bicyclists and pedestrians. Bus priority lanes create a more efficient transit system, helping service workers and others who travel into the Central City to access jobs and other services.

# Transportation investments to meet the following goals:

## Prioritize safety

Our Central City transportation system should be designed to prioritize safety first and eliminate traffic-related fatalities and serious injuries (Vision Zero).

## Enable efficiency

Our Central City transportation system should enable the movement of people, goods, and services reliably and predictably.

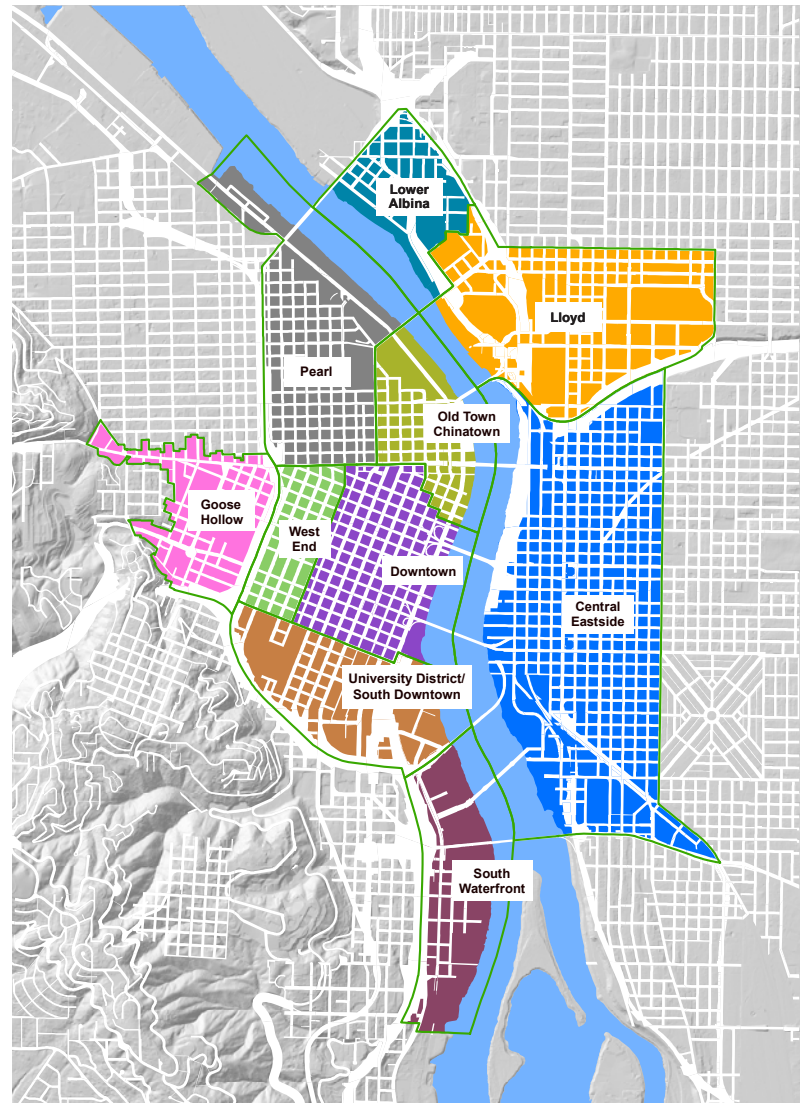
## Promote equity

Our Central City transportation system should ensure affordable and convenient travel options for everyone, including people who want or need to travel without a car.

## Improve sustainability

Our Central City transportation system should help residents and businesses reduce carbon emissions and improve air quality (Portland's Climate Action Plan).

**NEIGHBORHOODS THAT COMPRISE THE CENTRAL CITY**





# The Plan

Building on previous adopted plans, *Central City in Motion* recommends 18 key projects that will help Portland meet its established transportation goals.

*Central City in Motion* builds upon a robust trajectory of plans designed to create a better city: The Comprehensive Plan; Central City 2035 Plan; Transportation System Plan; NE, SW, and SE Quadrant Plans; PedPDX; and 2030 Bicycle Master Plan. *Central City in Motion* prioritizes specific transportation projects to be built over the next five years, as well as providing guidance for the City of Portland Bureau of Transportation's plans for our network over the next 10 years, recommending a total of \$72 million of investments. These projects will dedicate more than nine miles of right of way to transit investments, create nearly 100 safer crossings for people walking and rolling, and create or improve nearly 30 miles of low-stress bikeways. Taken together, these improvements create a more reliable transportation system, both in the Central City and throughout the region.

## Listening to Portlanders

*Central City in Motion* is the product of an extensive public engagement effort, drawing upon the ideas and experience of thousands of Portlanders over the course of two years. Input and dialogue were fostered through online surveys, in-person workshops and focus groups, meetings of a multi-stakeholder Sounding Board, and the assistance of a technical advisory committee. Over seven thousand comments were weighed to help guide the plans' goals and the design of specific projects.

The Portland Bureau of Transportation paid particular attention to service workers and low-income residents in the Central City, conducting a survey of hospitality workers through a partnership with Travel Portland and convening multiple focus groups with residents of Central City Concern's affordable housing. The resulting input ensured the project team understood the transportation needs and challenges of low-income residents and employees, and informed project design (e.g. in prioritizing safer crossings and a bus lane on W Burnside).

## Two years of engagement

<b>3</b> online open houses with over 9,000 participants	<b>2</b> focus groups with Central City Concern residents	<b>14</b> meetings with the Central Eastside Industrial Council	<b>144</b> hospitality workers surveyed
<b>5</b> Sounding Board meetings	<b>52</b> presentations at neighborhood, civic, and advisory committee meetings	<b>2</b> open houses attended by more than 200 people	<b>50</b> meetings with representatives of business associations representing members in the Central City

## Meeting City of Portland goals

The City of Portland's Central City 2035 Plan and Transportation System Plan—which guides transportation investments for the next 20 years—both call for transit, walking, and bicycling to account for 85 percent of all Central City trips. *Central City in Motion* projects are a key element for accomplishing the City's adopted goal. The robust transportation options provided by will offer more people—including the tens of thousands of new commuters and residents coming to the Central City—more choices about how to get around today and in the future. Investing in these projects will maintain roadway space for people who drive, and for businesses that need goods and services access to the Central City.

## The Big Picture: Taking a holistic look at Central City transportation

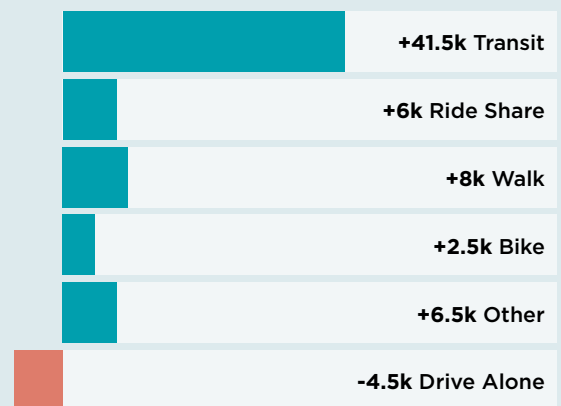
Thousands of Portlanders rely on the Central City's transportation networks and stakeholders have made clear that changes to our streets must be comprehensive, thoughtful, and forward-looking. The Central City in Motion project team carefully studied how people get around today to determine how we might move differently in the future. The team collected traffic crash data and analyzed crash risks, identified gaps in the bike network utilizing new data sources like Strava and RideReport, evaluated transit delay, and mapped dozens of features such as driveways, loading zones, slip lanes, unsignalized pedestrian crossings, parking spots, and freight portals. The team used regional and Central City traffic models to understand the impacts of proposed designs on travel patterns, including traffic volumes and speeds, today and in 2035. This comprehensive approach of understanding current conditions and looking to the future informed the design of all 18 projects.

## Lessons from Seattle

One of the fastest growing cities in the country, Portland's northern neighbor Seattle, has made robust investments in pedestrian safety, protected bike lanes, and dedicated bus lanes. As a result, over the past seven years, Seattle added 60,000 jobs in its downtown core and yet 4,500 fewer people drove to work. Smart investments meant all the new commute trips were accommodated by transit, ridesharing, walking, and biking. This resulted in a 10% reduction in drive alone commuting – even as downtown Seattle gained jobs. In fact, Seattle's transit ridership is growing faster than any other city in the country. *Central City in Motion* will help Portland accomplish similar transportation system improvements that Seattle has realized.

### DAILY COMMUTER TRENDS 2010-2017

From 2010 to 2017, downtown Seattle saw an increase of 60,000 jobs. Net growth in peak period commutes was fully absorbed by non-drive-alone modes while single occupancy vehicle commutes declined by 4,500.



Source: Commute Seattle



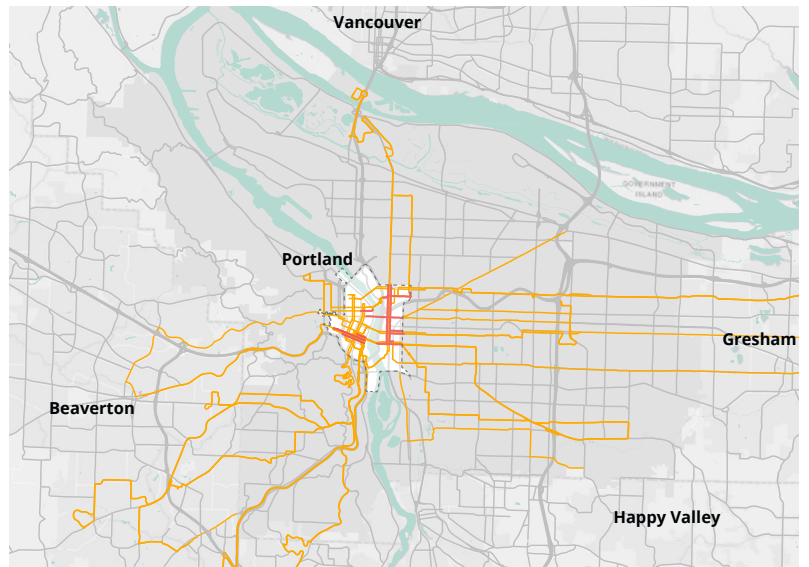


## Transit Riders

### Creating greater efficiency

Traffic delays in the Central City—particularly when high volumes of people are crossing the Willamette River—ripple throughout the system, reducing reliability and increasing travel times for bus riders throughout the entire region. These delays cost people and organizations: TriMet, which pays to operate more buses to maintain a reliable schedule; transit riders, and businesses, who rely on employees arriving on time. PBOT and TriMet collaborated on identifying where the busiest busses are most frequently stuck in congestion. *Central City in Motion* projects establish bus priority lanes and signal priority at these specific choke points, zeroing in on the spots that cause the greatest delay to the most people riding transit. These transit priority lanes allow TriMet buses to proceed first through intersections or to have dedicated lanes and stops helping buses load passengers more quickly and re-enter the traffic stream more seamlessly.

## REGIONAL TRANSIT BENEFITS



Central City in Motion: Regional Transit Benefits

- Central City in Motion investments in transit priority
- TriMet bus routes that benefit from Central City in Motion
- Central City boundary



Data provided by the City of Portland, TriMet and Metro. Map produced 10/25/2018







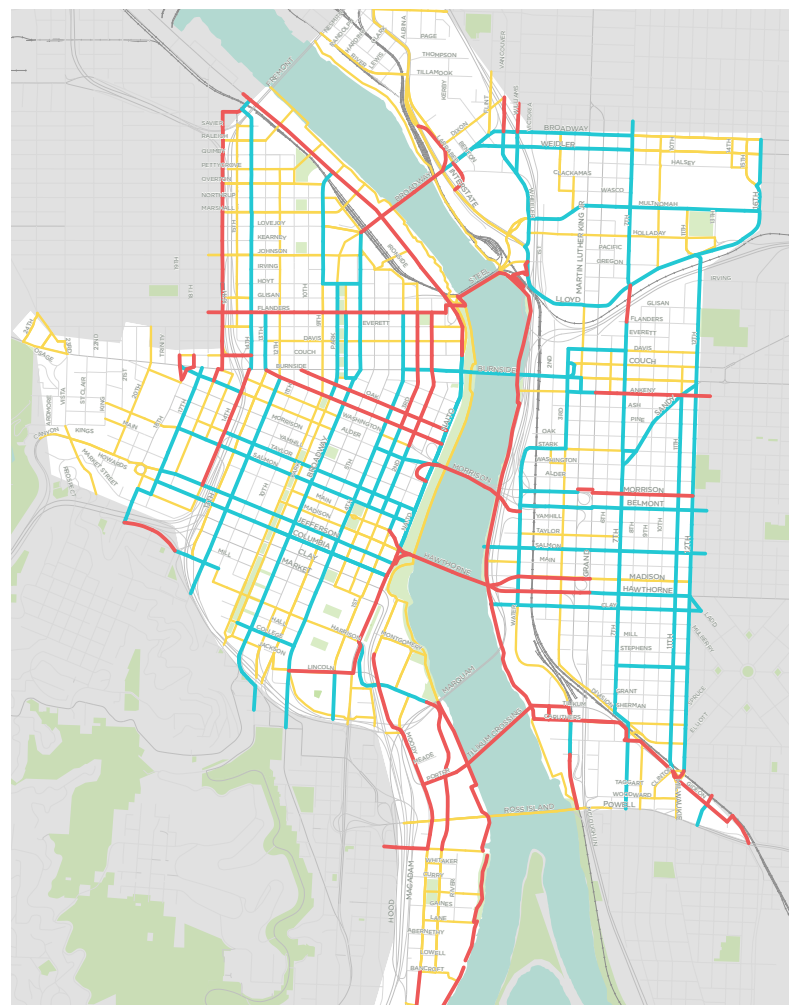
image credit: dakarany

## People on Bikes

### Building a cohesive network

Less than 10 percent of adults in the United States feel comfortable riding in mixed traffic or painted bike lanes, yet more than 80 percent indicate they would ride in protected bike lanes, which separate bikes from traffic. The proposed low-stress bikeway network in the *Central City in Motion* plan creates an easy-to-use, connected, and direct set of bike routes that are suitable for people of all ages and abilities. Though not all low-stress bikeway projects are proposed for the first phase of implementation (years 1 through 5), this network will be the City of Portland's implementation plan for low-stress bike routes in the Central City over the next 10 years, ensuring when new commuters and residents consider how to travel around, biking is a comfortable and safe option. Providing a clear network for people biking will improve transportation for everyone - high quality bike facilities help people who drive to know where to expect cyclists and reduce conflicts between buses, cars, and people biking by separating them.

## LOW-STRESS BICYCLE NETWORK



### LOW-STRESS BICYCLE NETWORK FOR PRIORITY IMPLEMENTATION

The minimum operable bicycle network designed for people of all ages and abilities to access and travel throughout the Central City.

CENTRAL CITY IN MOTION

- Existing and Funded Low-Stress Bikeway Network
- Possible Low-Stress Bikeway: Designed for Riders of All Ages and Abilities
- Other Existing or Planned Bikeway



Data provided by the City of Portland and Metro. Map produced August 2016.







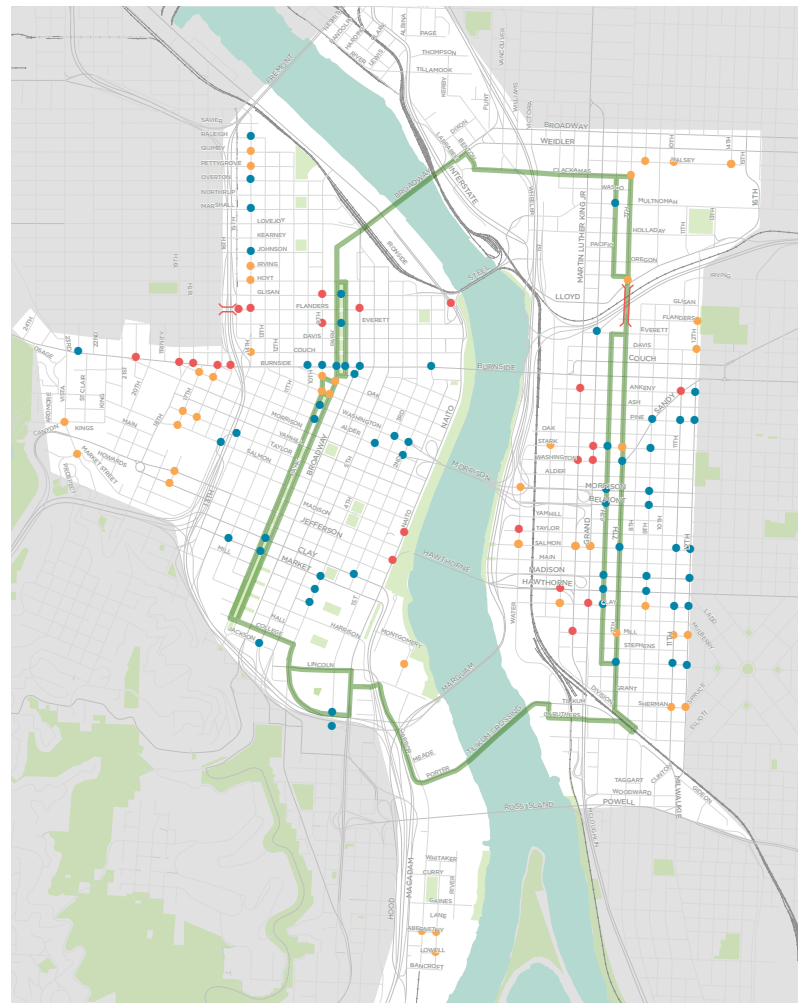
Image credit: City of Portland

# People Walking and Rolling

## Safety and accessibility in the Central City

Portland is renowned for having a walkable downtown, yet there are still many places where crossing the street is challenging—and even dangerous. *Central City in Motion* projects make many crossings safer and improve access for people using mobility devices. We know that making it safe for people to cross busy streets is critical to creating a walkable Central City, and that just like bikeway improvements, making pedestrian crossings safer and accessible makes streets safer for everyone. Crossing improvements include adding crosswalks, building new ADA-compliant ramps, installing signalized crossings, building median refuge islands and/or curb extensions and maximizing opportunities to eliminate conflicts between pedestrians and vehicles at signalized crossings. Every pedestrian improvement includes better access and safety for people with disabilities, including new curb ramps and access for people using mobility devices.

### PEDESTRIAN NETWORK IMPROVEMENT NEEDS



#### PEDESTRIAN NETWORK IMPROVEMENT NEEDS

CENTRAL CITY IN MOTION

#### POSSIBLE PEDESTRIAN SAFETY PROJECT LOCATIONS

- Funded Crossing Improvements\*
- Specific Crossings that Need Safety Improvements\*\* (Source: TSP and PBOT's MPA Analysis)
- Crossing Improvements Identified through Central City in Motion Process (Source: PBOT's Growing Sprouting Analysis and Central City in Motion Virtual Open House)
- Potential Green Loop Alignment

\*Not included in Central City in Motion

\*\*Projects to address deficient crossings could include signals, crosswalks, curb extensions, elimination of double turn lanes, or other crossing enhancements

Note: ADA compliance will be addressed at every project location where improvements are implemented

Data provided by the City of Portland and Metro. Map produced April 2018.







TRIMET

3716

trimet.org

4



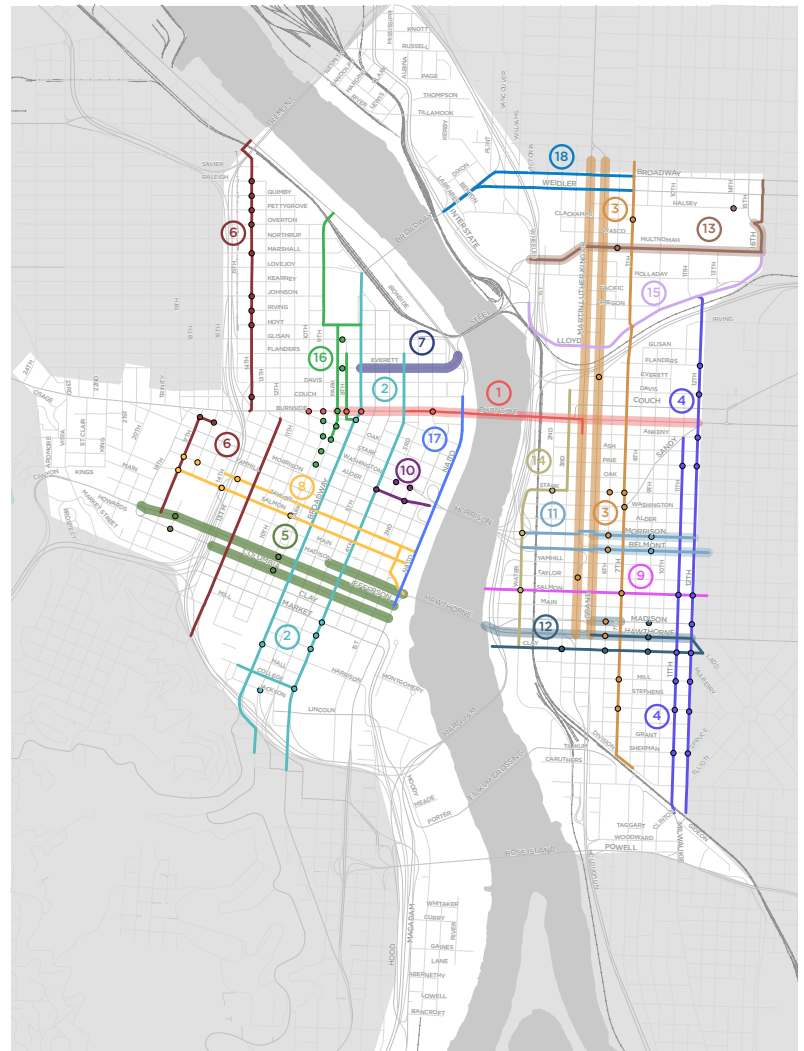
474998

Powered by biodiesel

# The 18 Projects

The 18 *Central City in Motion* projects represent a meaningful investment in the safety, vibrancy, and people moving capacity of our streets.

## PROJECT LOCATIONS



**PROJECT LOCATIONS**  
CENTRAL CITY  
IN MOTION

- Pedestrian Crossing Improvement Project Locations
- Low-Stress Bikeway Project Locations
- Enhanced Transit Corridor Project Locations

0 1500 3000 FEET

Data provided by the City of Portland and Home. Map produced August 2018.





# W Burnside St

## From W 10th Ave to E 12th Ave

### Project Highlights

Burnside was established as the city’s east-west axis in 1912. A critical street ever since, this project will make Burnside more efficient, allowing it to carry more people as the city grows. The proposal includes a Bus and Turn lane, a series of crossing improvements, and protected bikeways.

These investments will provide faster, more reliable TriMet service, improve safety and accessibility on West Burnside approaching the bridge, and facilitate more cycling trips across the river.

**Estimated Cost: \$5,300,000**

### Benefits



**BUSINESS ACCESS & TRANSIT LANES** on Burnside will improve the speed and reliability of bus service without reducing access to local destinations. Transit priority BAT lanes will allow the buses to access and get through downtown, relieving a major pinch point in the transit system.



**PROTECTED BIKEWAY** Bikeway improvements will make it safer and more intuitive to bike between the Burnside Bridge and downtown. Protected bike lanes at each end of the bridge will make it easier to connect with other low-stress bikeways.



**CROSSWALK IMPROVEMENTS** A set of new signalized crosswalks will make crossing Burnside safer and easier, improving connectivity between downtown and the Pearl District. Rapid Flashing Beacon signals greatly increase the likelihood that people driving will stop for people crossing the street, reducing collisions with people walking by 47%.



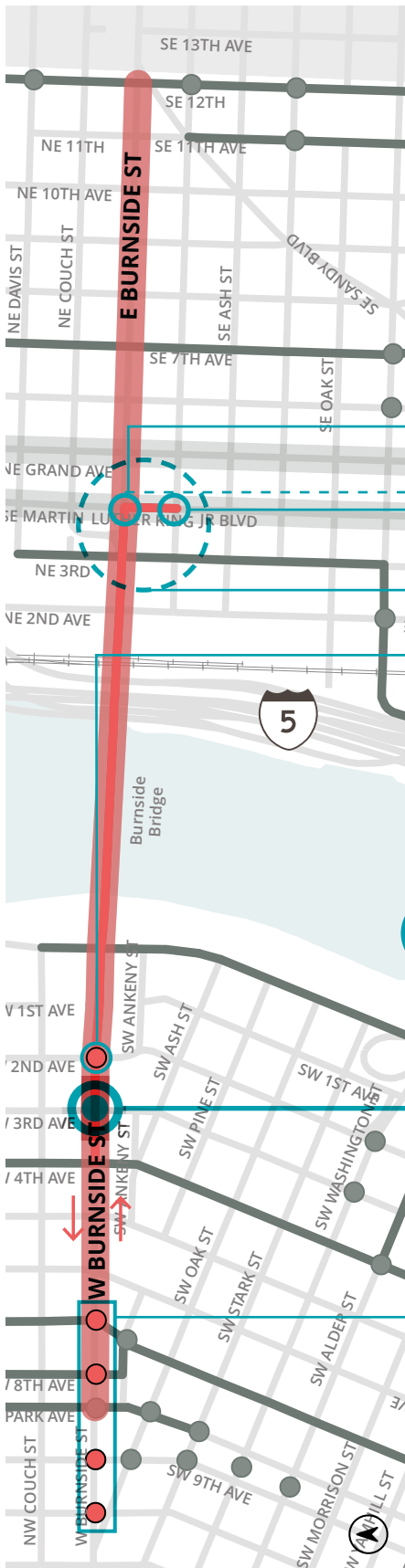
**PEOPLE MOVING CAPACITY** Changes in street design would increase the number of people that the street could accommodate by +145%.

### Key Considerations

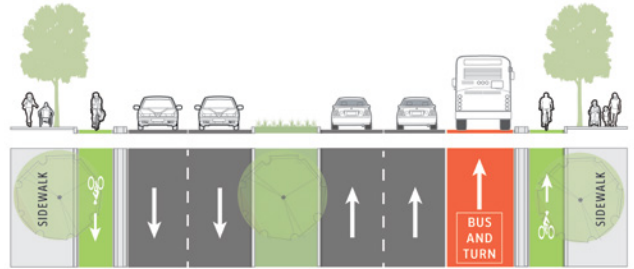
- To accommodate protected bike lanes and the BAT lane on West Burnside, on-street parking and some median street trees would be removed.
- Partnership with Multnomah County will be required to improve bike facilities on the Bridge and to resolve the bike / bus / right turn movements at E Grand Ave intersection and W 2nd Ave.
- While a bike lane will be provided on East Burnside, the all-ages-and-abilities route will be provided on SE Ankeny Street. The CCIM project will include a connection from the Burnside Bridge to Ankeny Street.



# Project Details



## SECTION A W BURNSIDE ST FROM W 4TH - BURNSIDE BRIDGE view looking east



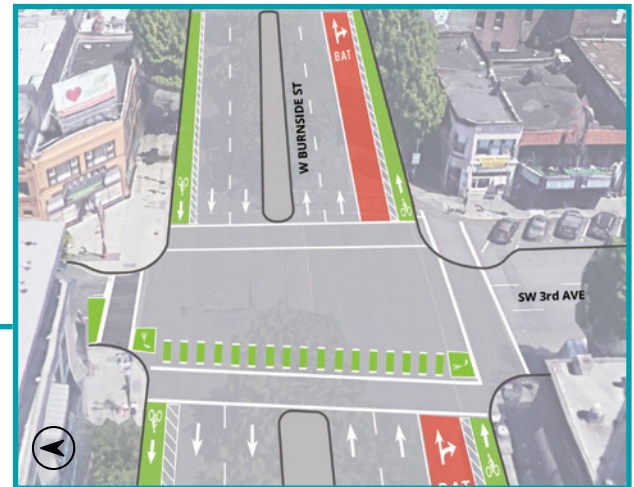
**Separate Right Turn Phase**  
for Vehicles allows Bike / Bus / Pedestrian Thru movement

**Protected Bike Facility**  
on East Side of MLK Connects to Ankeny Greenway

**Bikeway Connections**  
to Neighborhood Greenways on Davis and Ankeny

**Separate Right Turn Phase**  
Allows Protected Bike Turn and Thru Movement

## W BURNSIDE ST & SW 3RD AVE view looking east



**Protected Bike Lanes**



**BAT Lane**



**Protected Bike Lanes**  
(See section A)



**Area of Park Block Ped/Bike Connectivity Improvements**

### LEGEND

- Pedestrian Improvement Project Locations
- Low-stress Bikeway Project Locations
- Enhanced Transit Corridor Project Locations

# NW / SW Broadway St / 4th Ave

## Project Highlights

This project would create a signature north-south bike facility on the 4th Avenue and Broadway couplet, while upgrading unsignalized pedestrian crossings in South Downtown. The couplet would increase access for people biking to major destinations and employers, including PSU and the downtown retail core, and increase crossing safety along both streets.

**Estimated Cost: \$6,620,000**

## Benefits



**BIKE FACILITIES** Installing bicycle facilities increases cyclist predictability, reduces sidewalk riding, and increases traffic control compliance.



**PROTECTED BIKEWAY** Protected bike lanes would connect all through downtown, from the Broadway Bridge to just south of I-405, providing access to PSU and the retail core. Separating people biking from other vehicles will improve safety for all roadway users in this High Crash Corridor. Protected Bike Lanes have been shown to reduce crashes by 40%.



**CROSSWALK IMPROVEMENTS** New signalized crosswalks in the vicinity of PSU will make walking safer and more intuitive. The new signals will also be coordinated to smooth traffic flow.

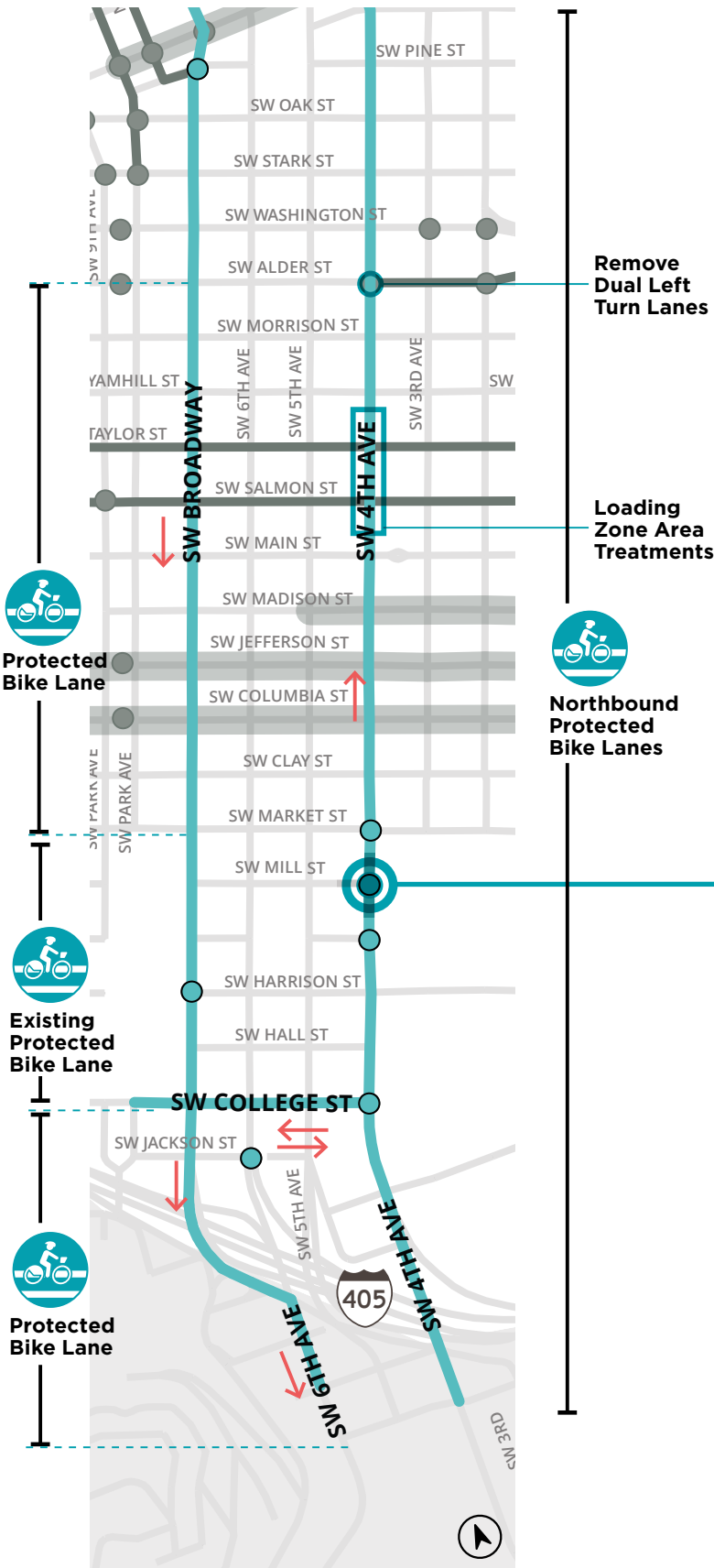


**PEOPLE MOVING CAPACITY** Changes in street design would increase the number of people that the street could accommodate by +65%.

## Key Considerations

- To accommodate the protected bike lane, one travel lane on 4th Avenue and Broadway would be removed. This approach retains on-street parking and loading zones.
- To accommodate protected bike lanes on both sides of NW Broadway (north of Burnside), parking on both sides of the street would be removed. The design would maintain two southbound travel lanes, and one northbound travel lane with a center turn lane in some blocks.

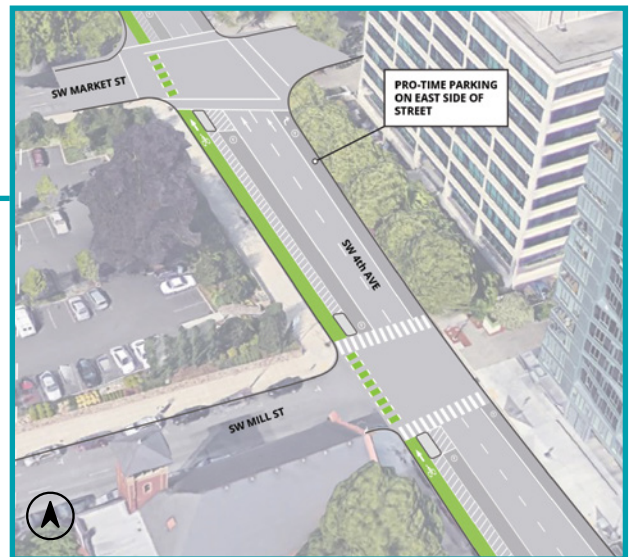
# Project Details | from I-405 to Burnside St





## SECTION A SW 4TH AVENUE view looking north



## SW 4TH AVE ST & SW MILL ST view looking north



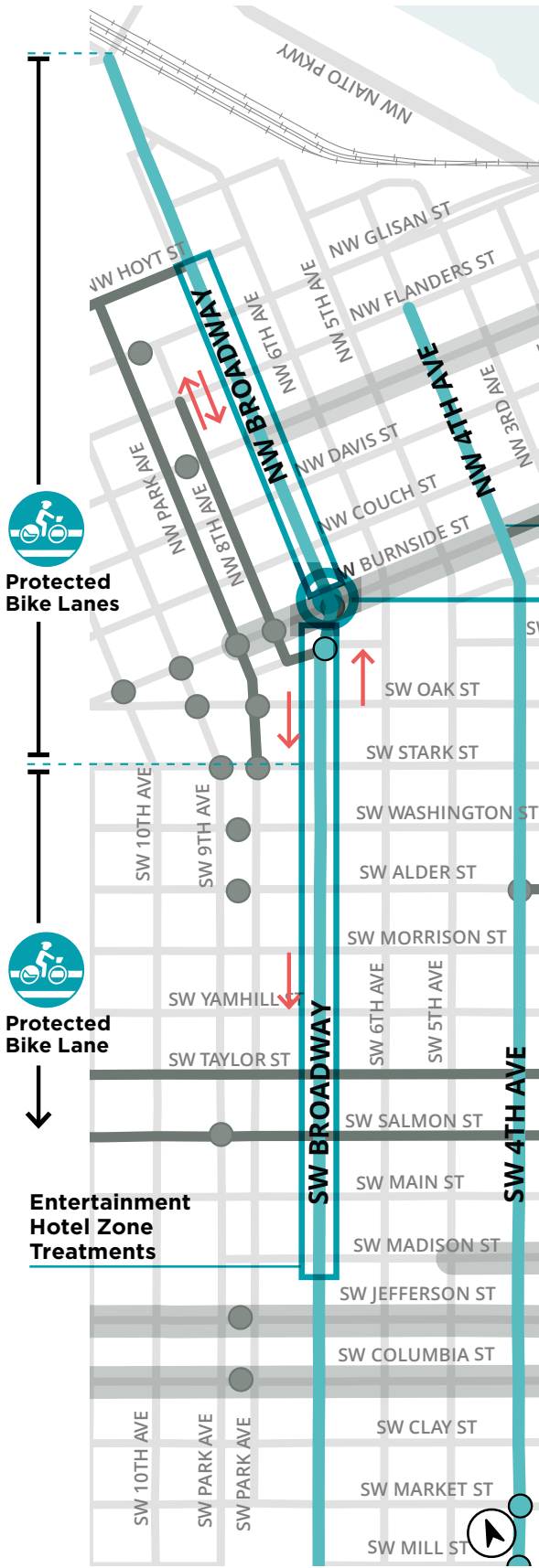
### LEGEND

-  Pedestrian Improvement Project Locations
-  Low-stress Bikeway Project Locations

continued on next page →



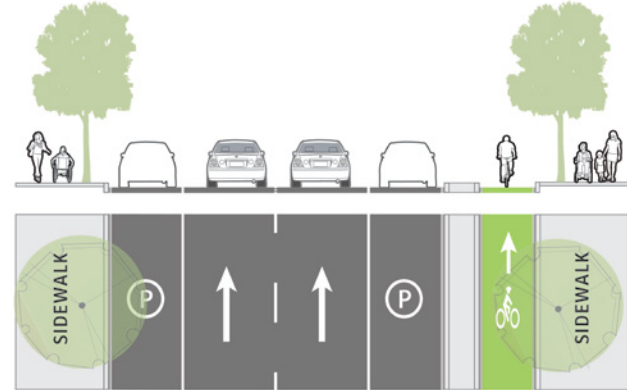
Project Details | from Burnside St to Broadway Bridge



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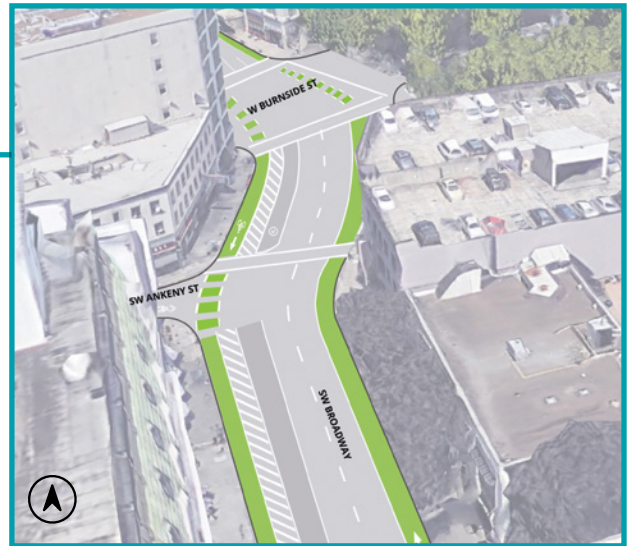
**SECTION A**  
SW BROADWAY ST - SW STARK ST TO SW MARKET ST

view looking south



**Wide Bike Lane Preserves Parking and Streetscape / Pedestrian Improvements**

**SW BROADWAY ST AT W BURNSIDE**  
view looking north



**Protected Bike Lane on 4th Ave**

**LEGEND**

- Pedestrian Improvement Project Locations
- ▬ Low-stress Bikeway Project Locations





ONE  
WAY  
→

Mall  
SW 4th Ave  
● ●  
Eastbound

TRI MET  
MAX

# NE / SE Grand / 6th / 7th

## Project Highlights

Coordinating to serve freight, auto, transit and bike needs, these projects would improve how people move through the heart of the Central Eastside. MLK and Grand would include Bus/Streetcar and Turn (BAT) lanes that could also accommodate freight. New pedestrian crossings of MLK and Grand would improve safety and access. Protected bike lanes on 7th Avenue would connect the Sullivan’s Crossing to the Tilikum Bridge. 6th Avenue, the likely location of the future Green Loop, would include new pedestrian crossings.

**Estimated Cost: \$8,530,000**

## Benefits



### **BUSINESS ACCESS & TRANSIT LANES**

Transit priority BAT lanes will allow the buses to access and get through the Central Eastside, relieving a major pinch point in the transit system.



### **PROTECTED BIKEWAY**

Protected Bike Lanes have been shown to reduce crashes for all roadway users by 40%.



### **CROSSWALK IMPROVEMENTS**

New signalized crosswalks will help people walking and biking on 6th Ave cross major streets. Improving these crossings is a first step to establishing the Green Loop. Enhanced crossings of MLK, Grand and 6th Avenue will improve access for people walking and using mobility devices in the Central Eastside.



### **NEIGHBORHOOD GREENWAY**

The mid section of 7th Ave will connect to the Sullivan’s Span. Neighborhood greenways offer a low-stress connection on low traffic, low-speed streets without creating separate space for cyclists.



### **FREIGHT**

use of BAT lanes could improve reliability and access for trucks on Grand and MLK.



### **PEOPLE MOVING CAPACITY**

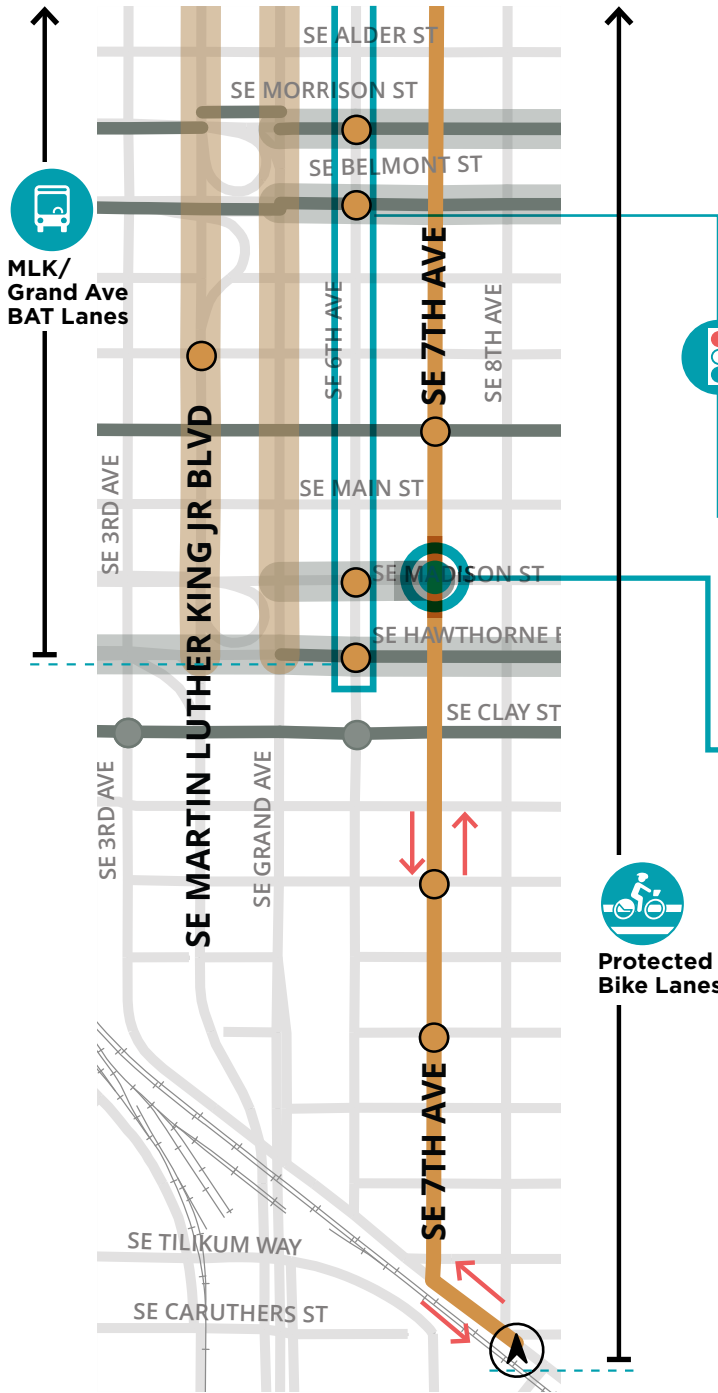
Changes in street design would increase the number of people that the street could accommodate by 324%.

## Key Considerations

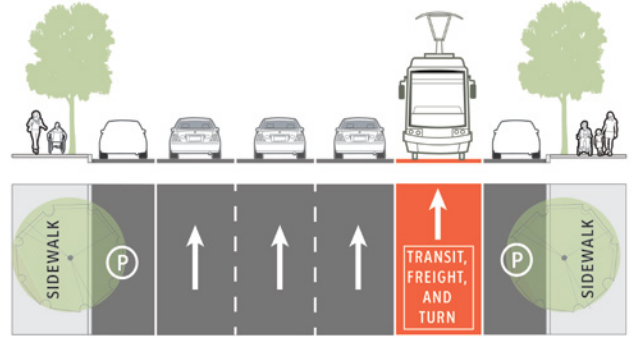
- On MLK and Grand from the Hawthorne Bridge to Broadway, the lanes with streetcar tracks would be converted to BAT lanes for bus and streetcar.
- To accommodate new protected bike lanes on NE 7th Avenue from Broadway to I-84, parking would be removed.
- To accommodate new protected bike lanes on SE 7th Avenue from Stark to Division Streets, on-street parking on the west side of SE 7th Avenue would be removed.



# Project Details | SE Division to SE Alder

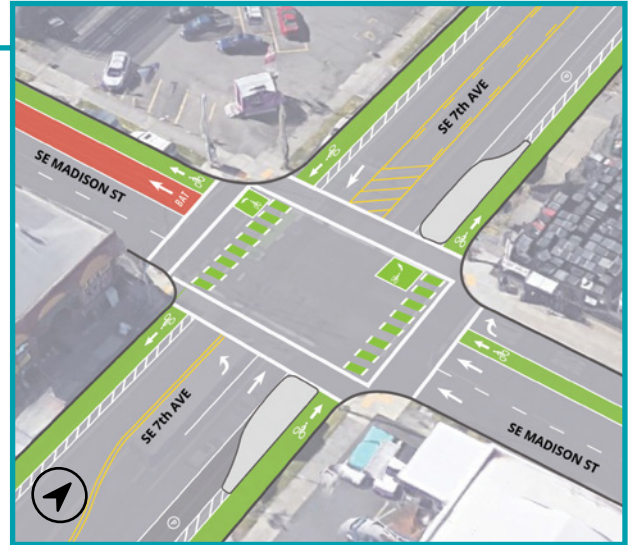


## SECTION A GRAND AVE - HAWTHORNE BLVD TO I-84 view looking north



**New Pedestrian Crossings on 6th Avenue Lay the Groundwork for the Green Loop**

## SE 7TH AND SE MADISON ST view looking north



### LEGEND

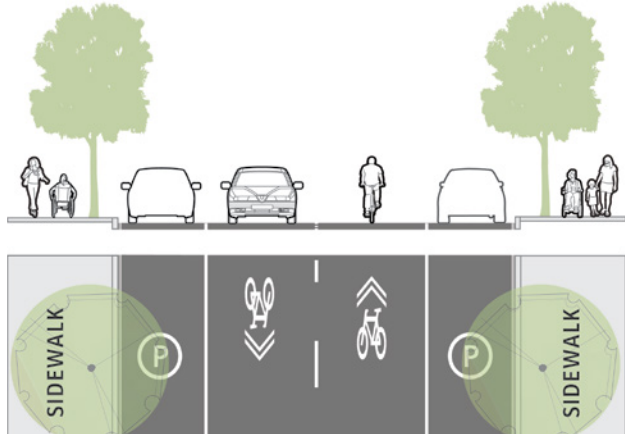
- Pedestrian Improvement Project Locations
- ▬ Low-stress Bikeway Project Locations
- ▬ Enhanced Transit Corridor Project Locations

Project Details | from SE Alder to NE Broadway

**SECTION A**

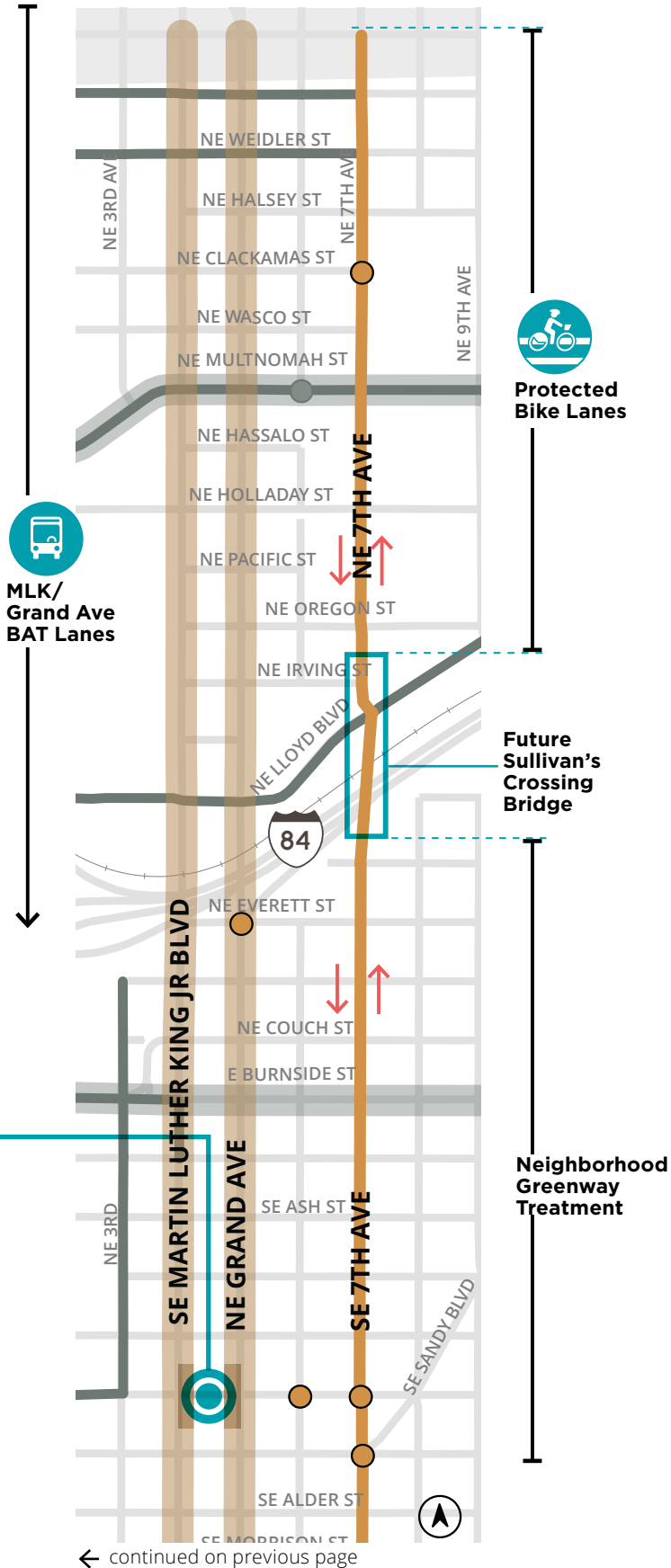
**NE/SE 7TH AVE - SE SANDY BLVD TO I-84**

view looking north






**SE GRAND AVE AND SE MLK JR AT SE STARK ST**

view looking north



**LEGEND**

-  Pedestrian Improvement Project Locations
-  Low-stress Bikeway Project Locations
-  Enhanced Transit Corridor Project Locations

← continued on previous page







# NE / SE 11th Ave / 12th Ave

## Project Highlights

11th and 12th Avenues are an important north-south route for freight, transit, autos, and people biking. Today the roadways feature two narrow travel lanes that don't accommodate trucks or buses well. They are also difficult to cross. The project would redesign the roadways to include one wider travel lane to better accommodate buses and trucks, a wide bike lane, parking, and a series of pedestrian crossing and bus stop improvements.

**Estimated Cost: \$7,800,000**

## Benefits



**CROSSWALK IMPROVEMENTS** Crosswalk Improvements New signalized crosswalks will help people walking and biking on E-W streets cross SE 11th and 12th Aves.



**PEOPLE MOVING CAPACITY** Changes in street design would increase the number of people that the street could accommodate by +9%.



**WIDE BIKE LANES** Provide a comfortable space for cyclists where physical protection is not possible.



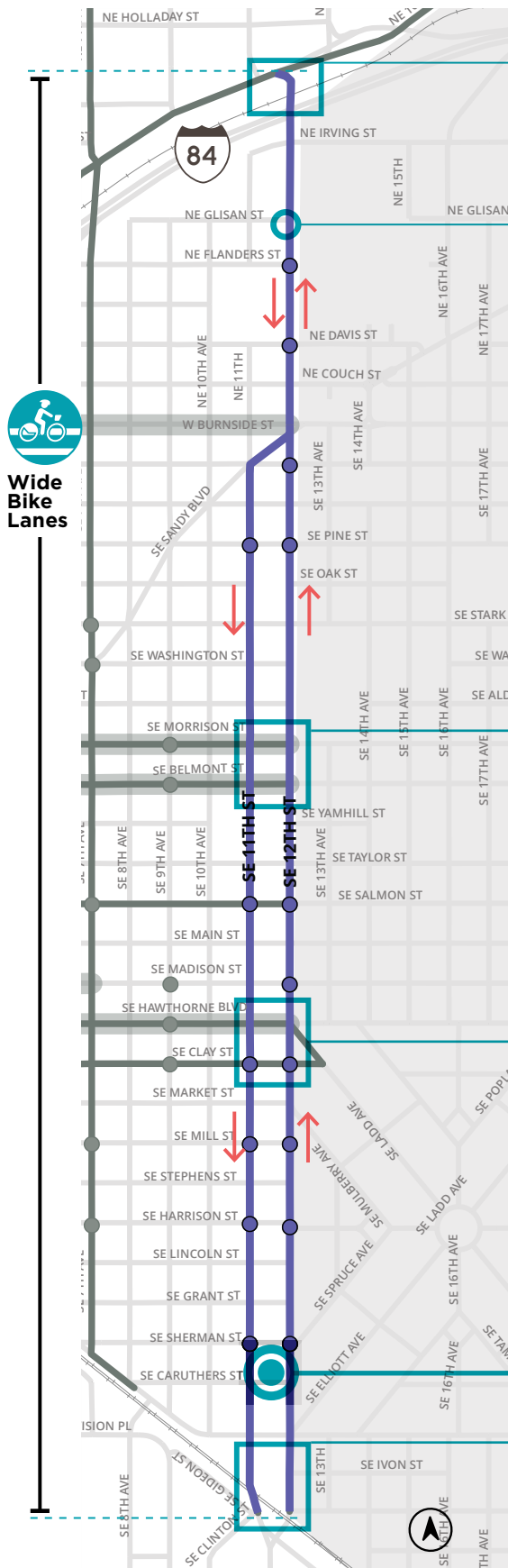
**FREIGHT** A wider travel lane will enable freight trucks to use this corridor.

## Key Considerations

- To create space for a wide bike lane (similar to Oak and Stark Streets downtown), one vehicle lane on both SE 11th and SE 12th Avenues would be removed. The remaining travel lane would be wider than today to better accommodate buses and trucks.
- Bus stop "islands" would reduce bike/bus conflicts by routing bikes behind bus stops and allow buses to stop in the travel lane improving bus travel time and reliability.
- South of Division Street, parking would be removed in order to accommodate wide bike lanes and preserve travel lanes approaching the railroad crossing.



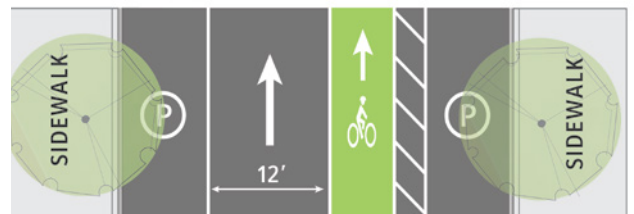
# Project Details



**Bike Facilities at Sidewalk Level**

**Benson High School Drop off Preserved**

## SECTION A SE 12TH AVE - DIVISION TO BURNSIDE ST view looking north



**Roadway Configuration to Accommodate Heavy Turning Movements**

## SE 11TH/12TH AT SE CARUTHERS ST view looking north



**Area of Traffic Bus/Bike Interaction**



**Coordination with Division Transit Project**

### LEGEND

- Pedestrian Improvement Project Locations
- Low-stress Bikeway Project Locations

# SW Jefferson / Columbia / Madison

## Project Highlights

Multiple bus lines use Columbia and Jefferson to connect from Goose Hollow to the Hawthorne Bridge. These streets are also critical east/west connections through downtown Portland for cars and trucks. The proposed project would improve transit reliability and speed by adding a Bus and Turn lane and bus stop improvements. Traditional bike lanes would also be provided.

**Estimated Cost: \$3,000,000**

## Benefits



### **BUSINESS ACCESS & TRANSIT LANES**

Transit priority BAT lanes on Jefferson and Columbia will allow the buses to access and get through downtown, relieving a major pinch point in the transit system.



**CROSSING IMPROVEMENTS** Pedestrian crossing improvements can improve safety and increase the likelihood that people driving will stop for people crossing the street.



**BIKE LANE** Moving the bike lane on Madison will eliminate weaving with the buses.



**BIKEWAY** Portions of the bikeway connections from the Hawthorne Bridge will be protected. Separating people biking on Madison from other vehicles will improve safety for all roadway users.



**PEOPLE MOVING CAPACITY** Changes in street design would increase the number of people that the street could accommodate by +74%.

## Key Considerations

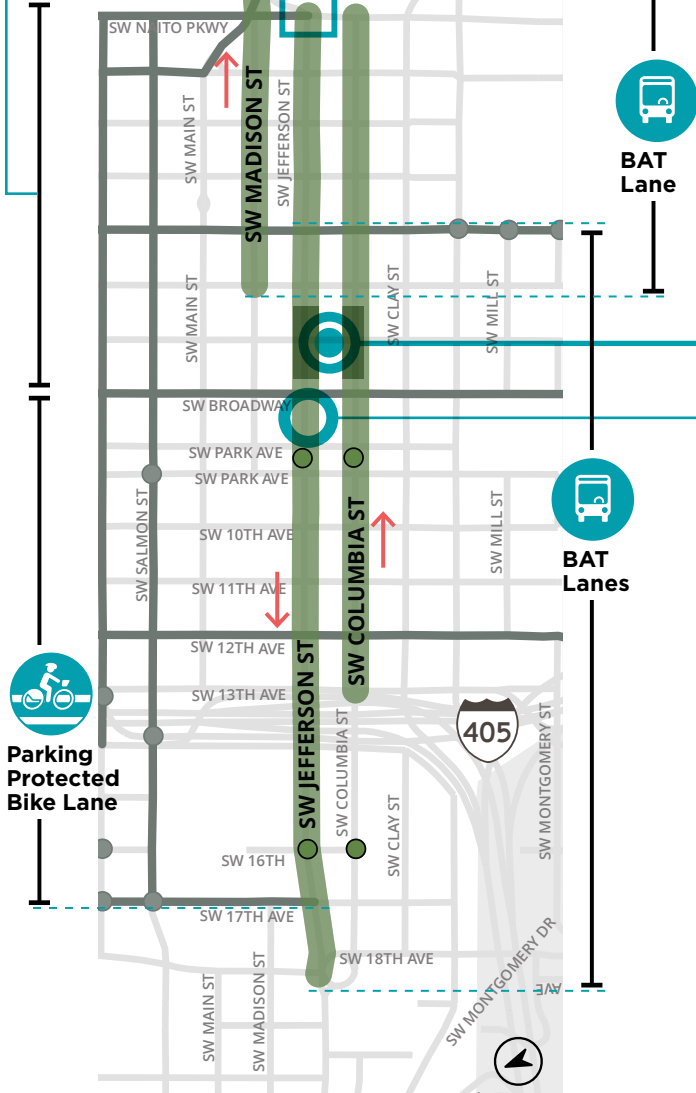
- To accommodate the BAT lane from 1st to 5th Avenues on SW Madison, all parking would be removed.
- To accommodate the BAT lane from 4th Avenue to Broadway on SW Jefferson, parking on the north side would be removed.
- From 12th Avenue to Collins Circle, SW Jefferson could accommodate the protected bike lane, BAT lane and two travel lanes.
- To accommodate a BAT lane and bike lane on SW Columbia, some parking on the south side of the street would be removed. Most parking on the north side of SW Columbia would be retained.



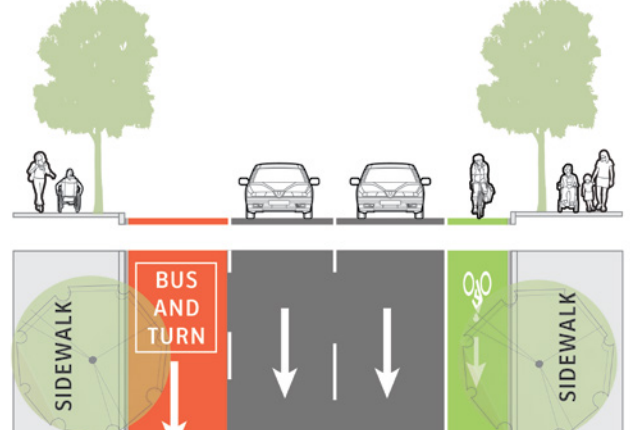
# Project Details



Standard Bike Lane

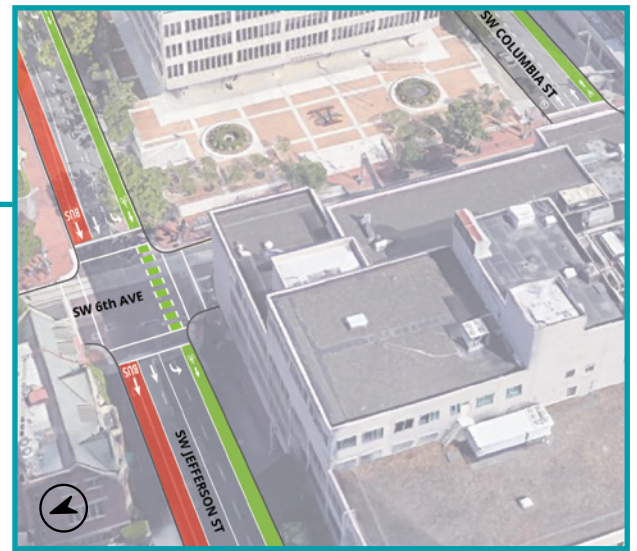


## SECTION A SW JEFFERSON -SW BROADWAY ST TO SW 4TH AVE view looking east



Area of Traffic/Bus/Bike Interaction

## SW JEFFERSON ST AND SW COLUMBIA ST AT SW 6TH AVE view looking north



Single Auto Travel Lane from Broadway to 12th Ave

### LEGEND

- Pedestrian Improvement Project Locations
- Enhanced Transit Corridor Project Locations

# NW / SW 12th / 14th / 17th

## Project Highlights

These streets work together to provide access to and from the Pearl District and through Goose Hollow. NW 14th would create a protected bike lane from Burnside to Hoyt, and a wide bike lane from Hoyt to Savier. Improvements to SW 17th Avenue would create a protected two-way bikeway from Salmon to Alder, and a neighborhood greenway from Madison to I-405. A protected bicycle facility on SW 12th from College to Stark would provide access to the west side of the PSU campus.

**Estimated Cost: \$3,030,000**

## Benefits



**CROSSWALK IMPROVEMENTS** New signalized crosswalks will help people walking and biking on E-W streets and cross NW 14th Ave. Rapid Flashing Beacon signals greatly increase the likelihood that people driving will stop for people crossing the street, reducing collisions with people walking by 47%.



**PEOPLE MOVING CAPACITY** Changes in street design would increase the number of people that the street could accommodate by +18%.



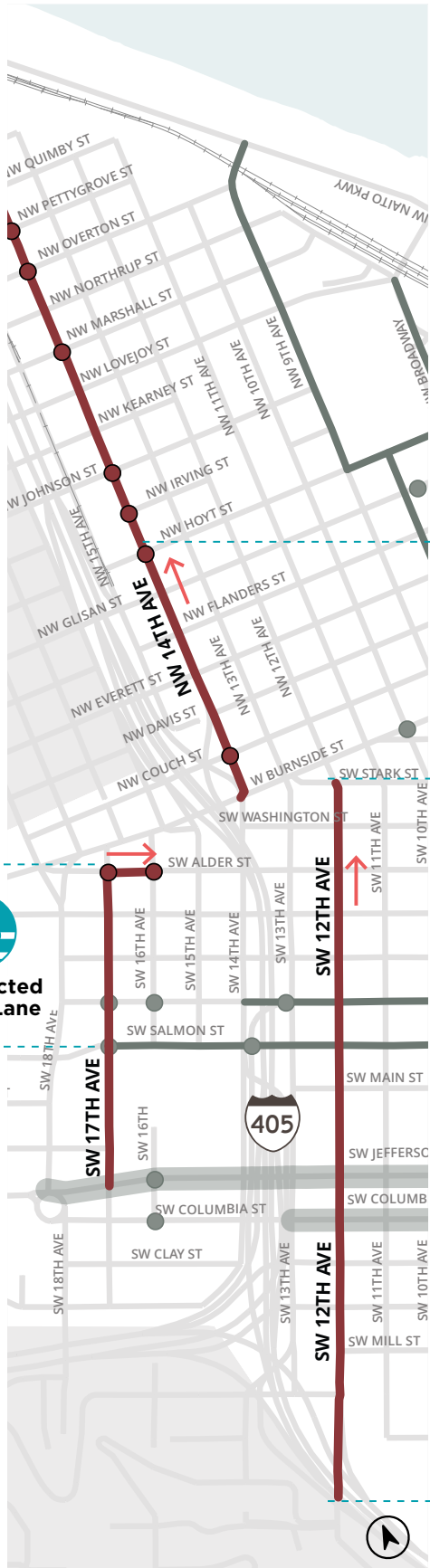
**PROTECTED BIKEWAY** Protected Bike Lanes have been shown to reduce crashes for all roadway users by 40%.

## Key Considerations

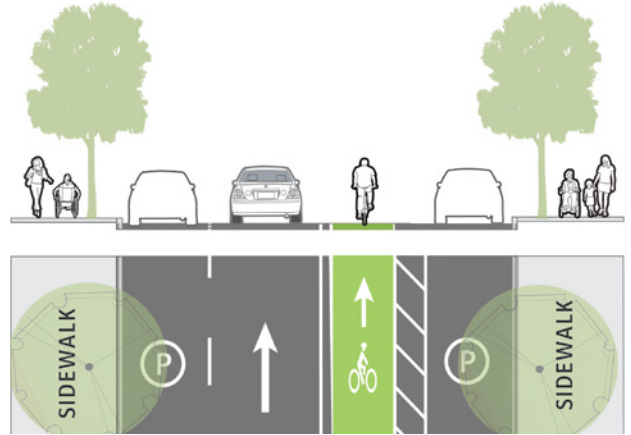
- To accommodate the protected bike lane on SW 12th Avenue, one travel lane would be removed. This approach retains on-street parking and loading zones.
- To accommodate the protected bike lane on SW 17th Avenue from Burnside to Salmon, parking on both sides of the street would be removed.
- To accommodate the protected bike lane on SW 14th Avenue from Burnside to Hoyt, parking on both sides of the street would be removed from Couch to Everett and one travel lane would be removed from Everett to Glisan.



# Project Details



## SECTION A NW 14TH - NW HOYT ST TO NW SAVIER ST view looking north



## NW 14TH STREET AT NW JOHNSON ST view looking north



### LEGEND

- Pedestrian Improvement Project Locations
- Low-stress Bikeway Project Locations

# NW Everett St to Steel Bridge

## Project Highlights

In addition to MAX and Amtrak, the Steel Bridge carries thousands of commuters on TriMet buses, including lines 4, 8, 16, 35, 44, and 77. This project would make these bus trips faster and more reliable by adding a Bus and Turn (BAT) lane on Everett approaching the bridge. It would address the ramps on the west side of the bridge that create merging conflicts, further improving transit commutes out of downtown.

**Estimated Cost: \$4,260,000**

## Benefits



**BUSINESS ACCESS & TRANSIT LANES** Transit priority BAT lanes on Everett will allow the buses to access and get through downtown, relieving a major pinch point in the transit system.

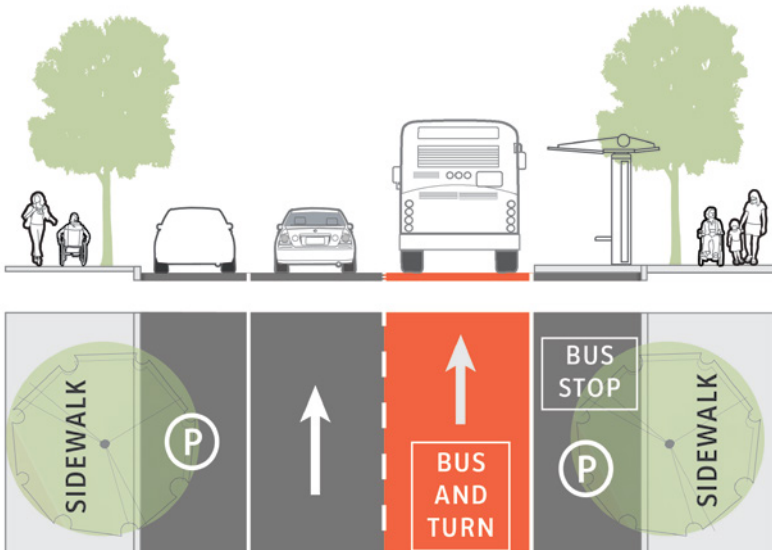


**PEOPLE MOVING CAPACITY** Changes in street design would increase the number of people that the street could accommodate by +68%.

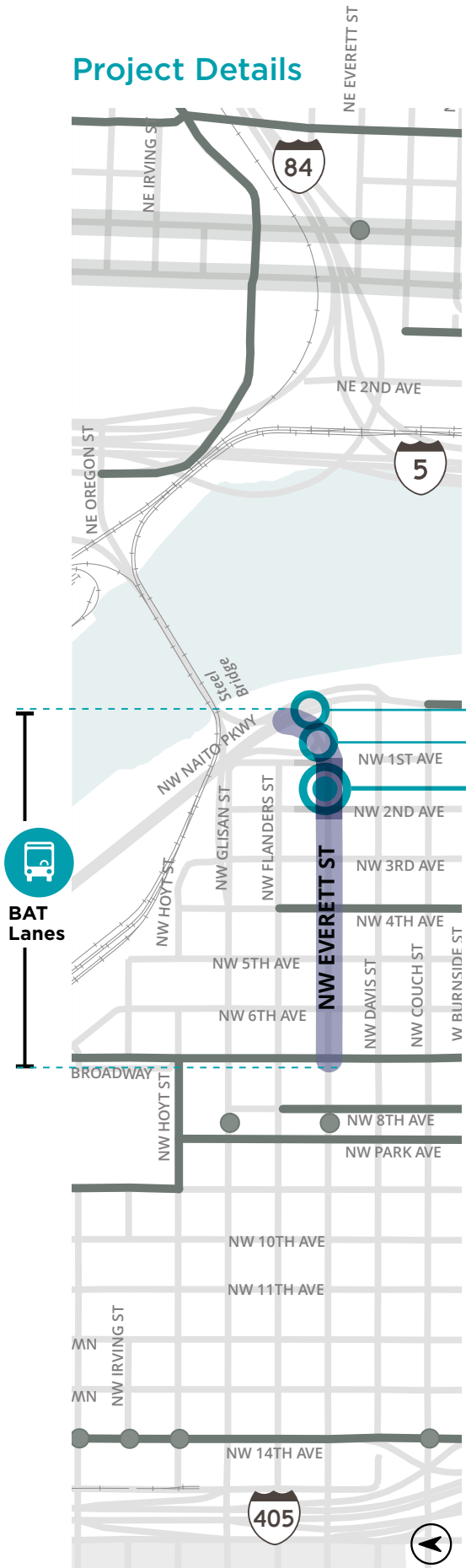
## Key Considerations

- To remove conflicts between buses and vehicle traffic heading eastbound over the Steel Bridge, the ramp connecting southbound Naito to the bridge would be closed and a ramp meter would be added to the ramp from northbound Naito.
- To accommodate a BAT lane on NW Everett from Broadway to 2nd Avenue, a travel lane would be removed.

### SECTION A NW EVERETT ST - NW BROADWAY TO STEEL BRIDGE view looking east



# Project Details



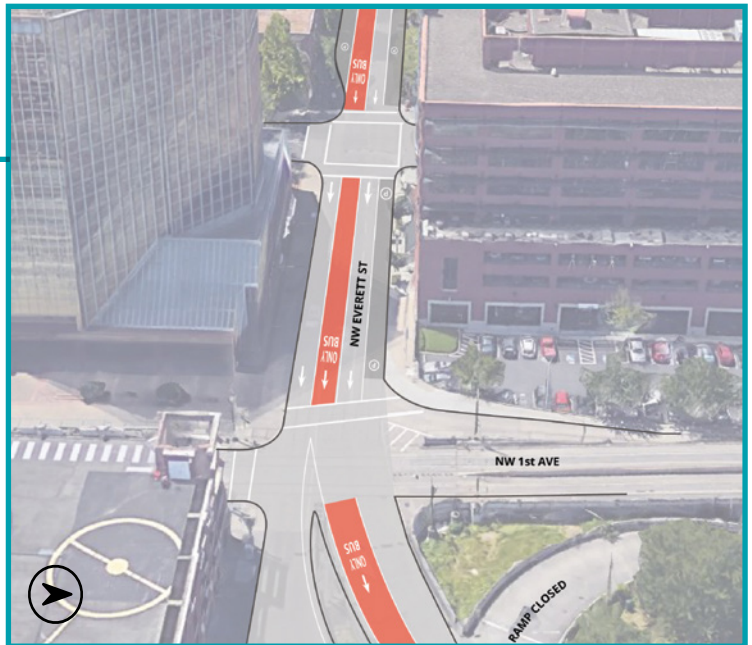
**Potential Ramp Closures (No Cars) From NB/SB Naito Parkway to Steel Bridge**




**New Signal for Transit Priority at Top of Ramp from Everett**

## NW EVERETT ST AT NW 1ST AVE

view looking west



### LEGEND

-  Enhanced Transit Corridor Project Locations



# SW Salmon / Taylor St

## Project Highlights

SW Salmon and Taylor are proposed to become key east/west bike routes for people of all ages and abilities between Goose Hollow and the Willamette by creating a protected bike lane on both streets. They would link to the Hawthorne Bridge via a new protected bike lane on SW 1st. Pedestrian crossing improvements on both streets and bus stop improvements on SW Salmon are also proposed.

**Estimated Cost: \$3,770,000**

## Benefits



**CROSSWALK IMPROVEMENTS** New signalized crosswalks will make street crossings safer for people walking and biking.



**PEOPLE MOVING CAPACITY** Changes in street design would increase the number of people that the street could accommodate by +156%.



**PROTECTED BIKEWAY** Protected Bike Lanes have been shown to reduce crashes for all roadway users by 40%.

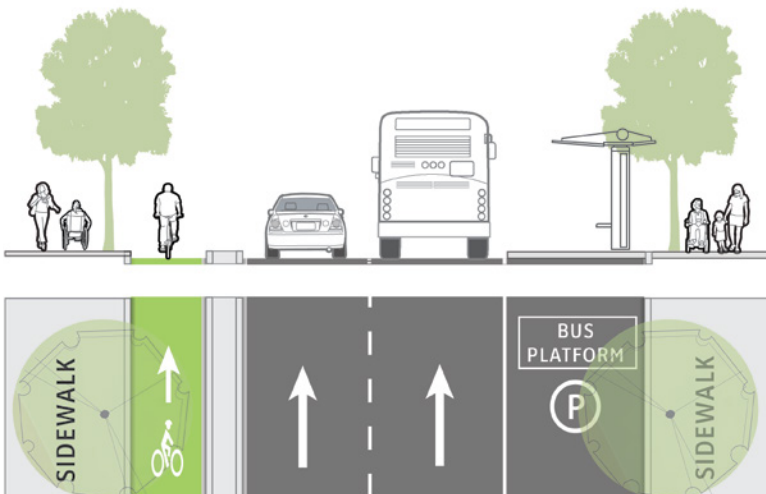
## Key Considerations

- To accommodate protected bike lanes, parking would be removed along one side of Salmon and Taylor.

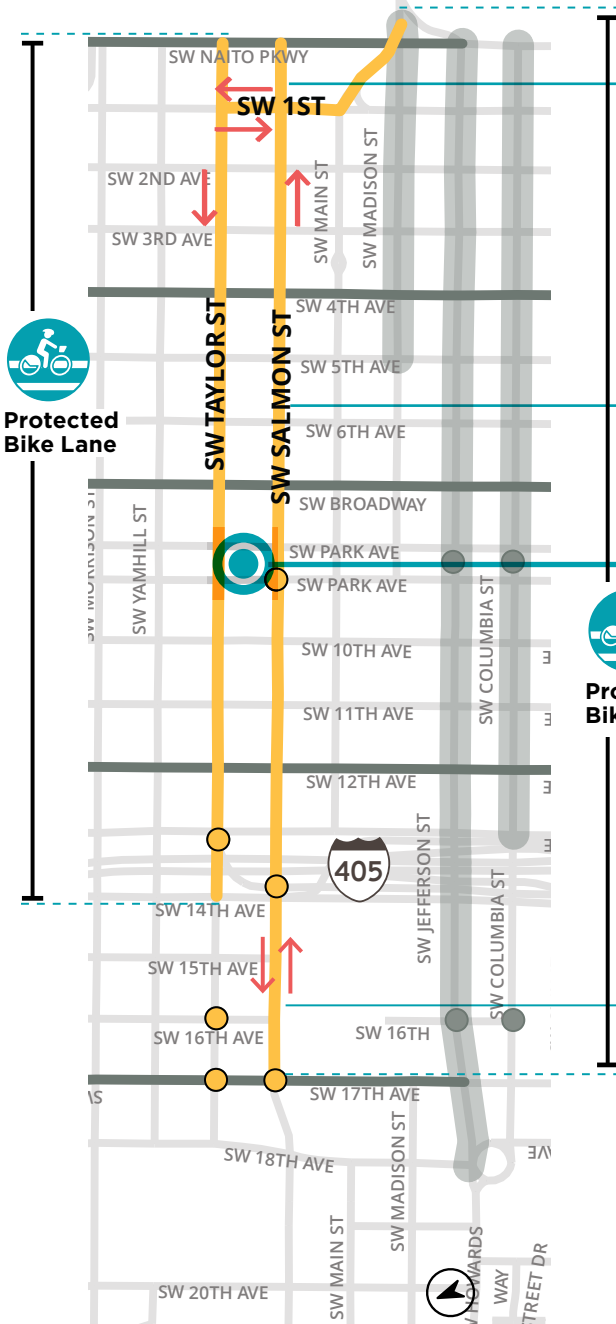
### SECTION A

#### SW SALMON FROM SW 13TH AVE - SW NAITO PKWY

view looking east



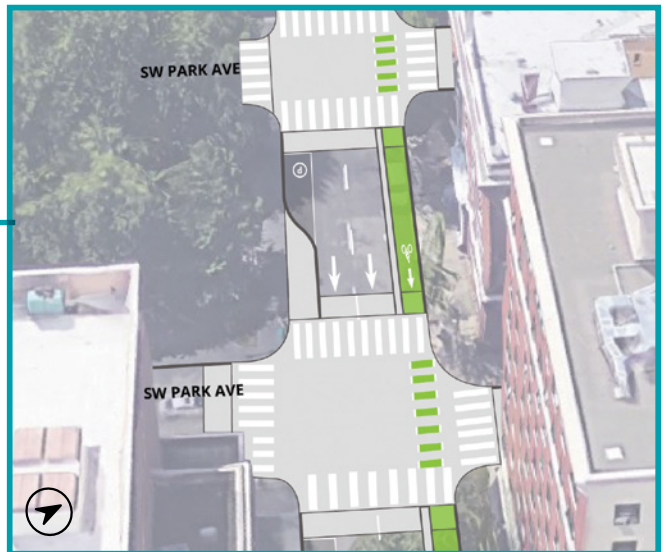
# Project Details



**Two-Way Bikeway Connects Salmon/Taylor to Hawthorne Bridge**

**Bus Stop Consolidation and Curb Extensions**

**SW SALMON ST AT SW PARK AVE**  
view looking west



**Two-Way Facility Near Lincoln High School**

**LEGEND**

- Pedestrian Improvement Project Locations
- ▬ Low-stress Bikeway Project Locations

# SE Salmon

## Project Highlights

SE Salmon community greenway would provide a family-friendly bike connection to the Eastbank Esplanade and the Willamette River. This project would include improved crossings at the intersections at Water, MLK, Grand, 7th, 11th, and 12th.

**Estimated Cost: \$600,000**

## Benefits



**CROSSWALK IMPROVEMENTS** New signalized crosswalks will make street crossings safer for people walking and biking.



**PEOPLE MOVING CAPACITY** Community greenway treatment is focused on comfort and will not significantly change people moving capacity.



**NEIGHBORHOOD GREENWAYS** Offer a low-stress, family-friendly bike connection on low traffic, low speed streets without creating separate space for cyclists. Strategic traffic diversion is important for keeping traffic volumes low, so people traveling by car and bike can safely share the road.

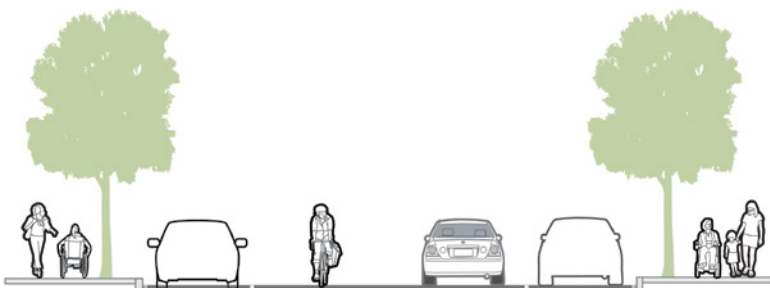
## Key Considerations

- Some traffic calming may be necessary depending on the results of more detailed traffic analysis.

### SECTION A

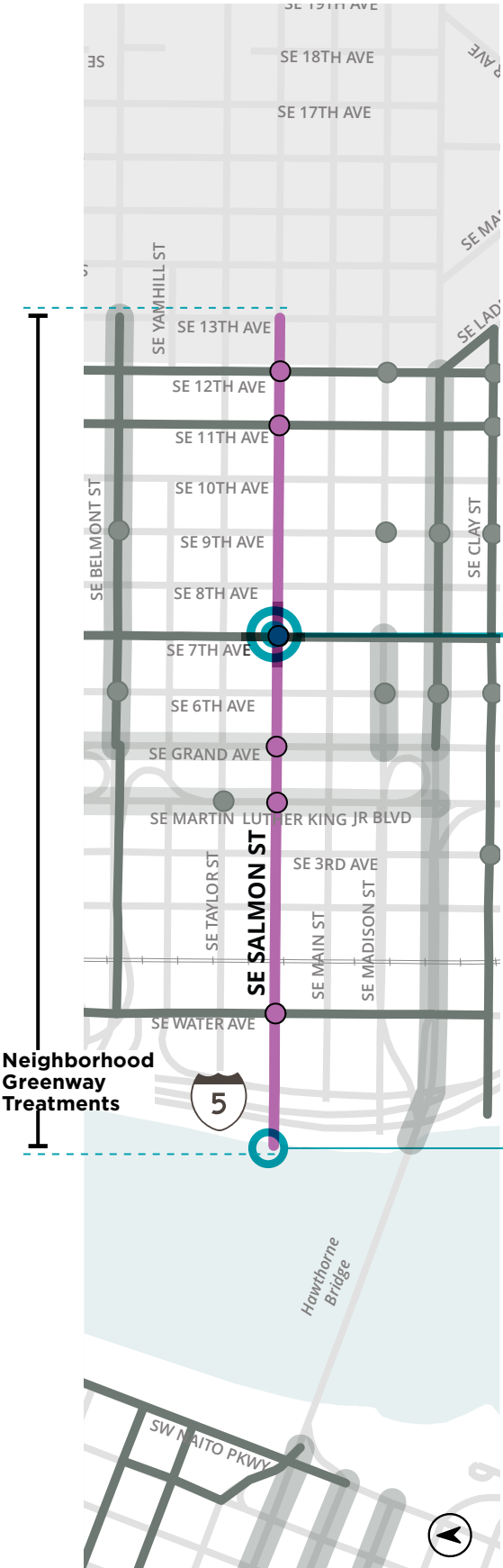
#### SE SALMON ST - SE WATER TO SE 12TH AVE

view looking east



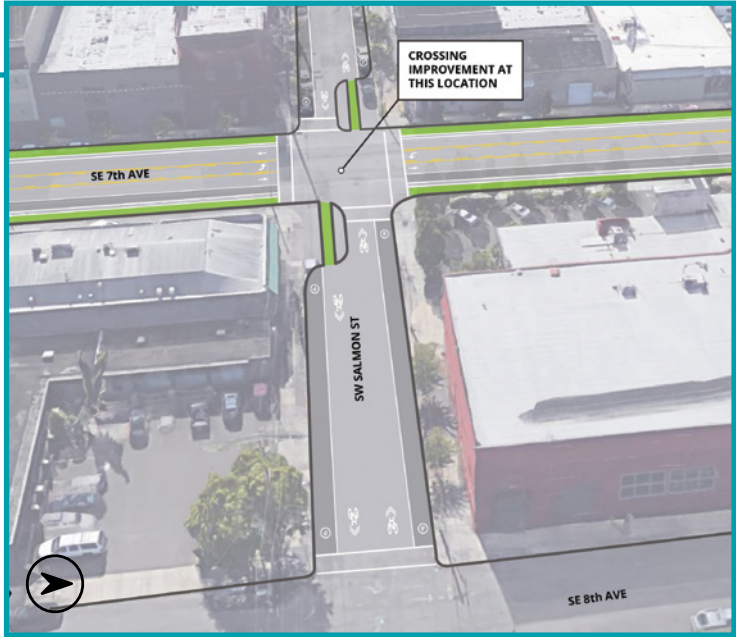


# Project Details





Traffic Diversion Study Area

**SE SALMON ST AT SE 7TH AVE**  
view looking west



Connect to Eastbank Esplanade

**LEGEND**

-  Pedestrian Improvement Project Locations
-  Low-stress Bikeway Project Locations

# SW Alder / Washington

## Project Highlights

The Morrison bridge has a wonderful existing walking and biking path, but access to it is poor. This project would improve pedestrian access and safety by eliminating dual turn lanes approaching the bridge. A short segment of a two-way protected bikeway would connect 4th Avenue to the bridge, leveraging existing infrastructure to provide a critical connection between downtown Portland and the Central Eastside.

**Estimated Cost: \$1,400,000**

## Benefits



**CROSSWALK IMPROVEMENTS** New signalized crosswalks will make street crossings safer for people walking and biking. Removing dual left-turn lanes improves safety by reducing the number of conflict points for people crossing the street.



**PEOPLE MOVING CAPACITY** Changes in street design would increase the number of people that the street could accommodate by +294%

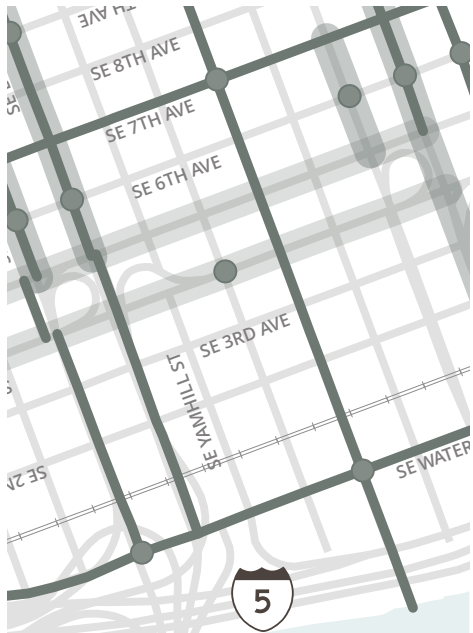


**PROTECTED BIKEWAY** Protected Bike Lanes have been shown to reduce crashes for all roadway users by 40%. Adding a bikeway to SW Alder fills a gap in the network, improving access to and from the existing path on the south side of the Morrison Bridge.

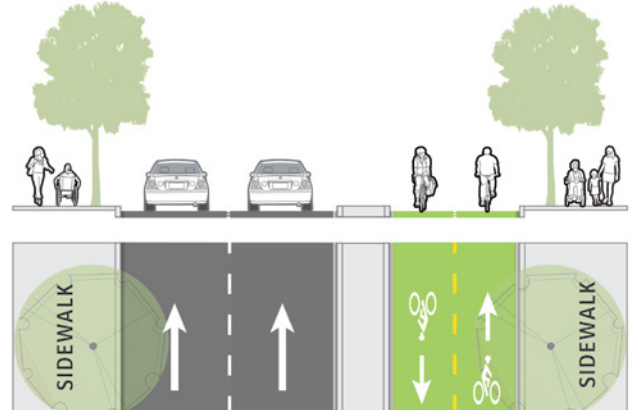
## Key Considerations

- To improve pedestrian safety, dual left turns from Washington to 3rd Street and dual right turns from 4th to Alder and Alder to 3rd would be reduced to a single turn lane at each location.
- To develop a two-way protected bike facility on Alder from 2nd to 4th Avenues to connect to the Morrison Bridge, parking would be removed from both sides of Alder.

# Project Details



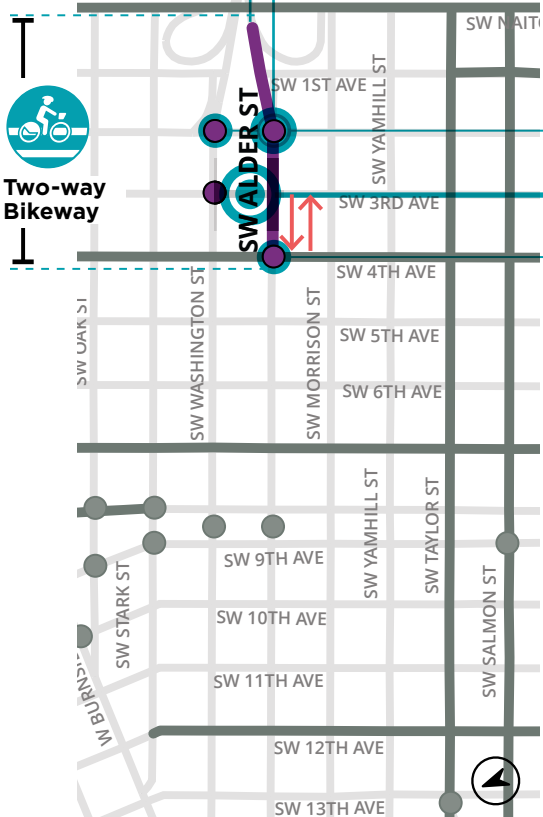
## SECTION A SW ALDER ST - SW 4TH AVE TO MORRISON BRIDGE view looking east



Connects to Morrison Bridge Shared Use Path



Pedestrian Crossing Improvements

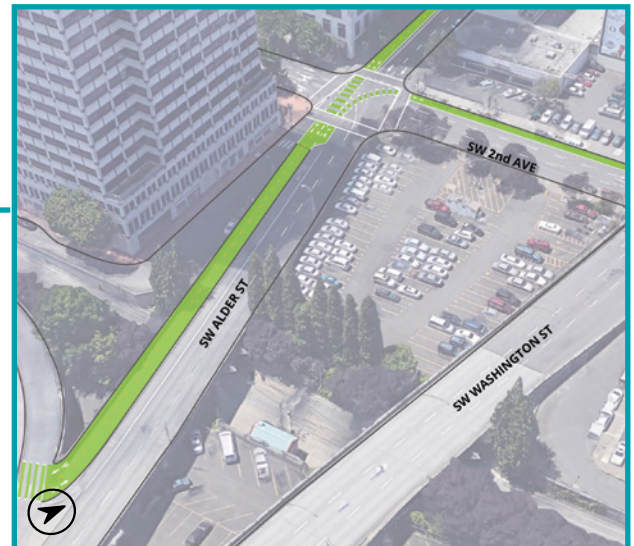


Remove Dual Turn Lanes



Remove Dual Turn Lanes

## SW WASHINGTON ST AT SW 1ST AVE view looking west



### LEGEND

- Pedestrian Improvement Project Locations
- ▬ Low-stress Bikeway Project Locations



# SE Belmont / Morrison

## Project Highlights

Belmont and Morrison are key east/west connections in the Central Eastside, providing important retail, freight, and transit access. This project improves transit access and speed with new transit islands, improves pedestrian crossings, and provides protected bike lanes.

**Estimated Cost: \$3,020,000**

## Benefits



### BUSINESS ACCESS & TRANSIT LANES

Transit priority BAT lanes on Belmont and Morrison will allow the buses to access downtown, relieving a major pinch point in the transit system.



### PEOPLE MOVING CAPACITY

Because treatment on SE Morrison makes a current condition an all day condition, it does not change the people moving capacity.



### PROTECTED BIKEWAY

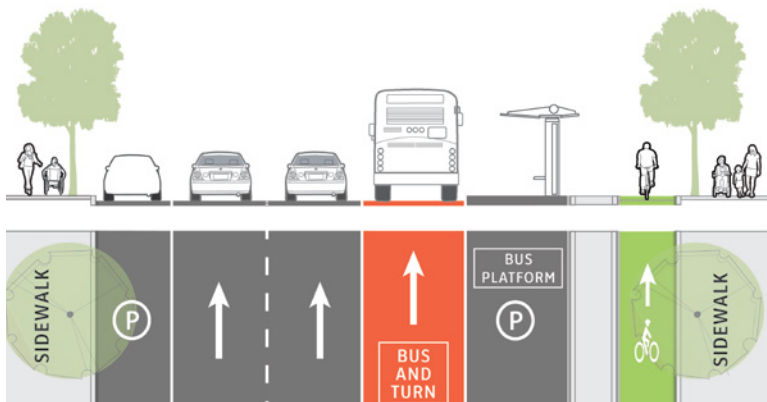
Protected Bike Lanes have been shown to reduce crashes for all roadway users by 40%.

## Key Considerations

- On SE Morrison Street, the current pro-time transit lane would become an all-day BAT lane.
- To create a parking-protected bike lane on SE Belmont, all parking on the north side of Belmont from Grand to 12th Avenue would be removed.

### SECTION A SE MORRISON - MLK TO MORRISON BRIDGE

view looking west



# Project Details






**SE MORRISON FROM SE 11TH TO SE 12TH**  
view looking east



**BAT Lane on Morrison only**

**Wide Bike Lane with Smooth Pavement Below Viaducts**

**LEGEND**

-  Pedestrian Improvement Project Locations
-  Low-stress Bikeway Project Locations
-  Enhanced Transit Corridor Project Locations

# SE Hawthorne / Clay / Madison

## Project Highlights

Madison, Hawthorne, and Clay are critical east/west connections for the Central Eastside due to their connections to the Hawthorne Bridge. This project includes a host of multimodal improvements to make these streets more efficient, including transit priority at intersections on Hawthorne and Madison, protected bike lanes on Hawthorne and Clay, and pedestrian crossing improvements on all three streets.

**Estimated Cost: \$3,810,000**

## Benefits



### TRANSIT PRIORITY

Transit priority BAT lanes on Madison will allow the buses to access downtown, relieving a major pinch point in the transit system. New transit islands on Hawthorne would increase transit speed and reliability while reducing conflicts with people driving and biking.



### PROTECTED BIKEWAY

Separating people biking from buses and other vehicles at the east end of the Hawthorne will make travel safer for all. Protected bike lanes on SE Clay will require converting a portion of SE Clay to a one-way street westbound for people driving.



**CROSSING IMPROVEMENTS** New signalized crosswalks at 9th will make street crossings safer for people walking and biking.



### PEOPLE MOVING CAPACITY

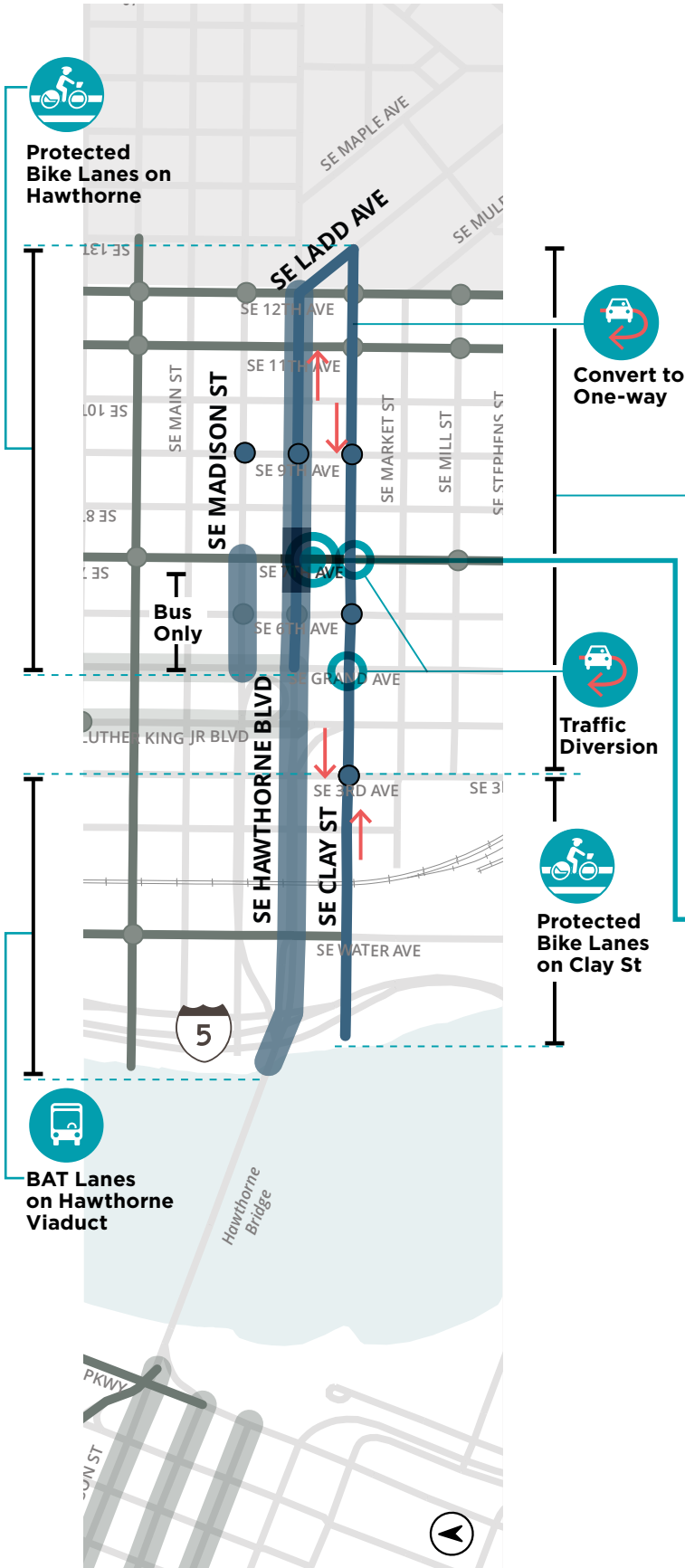
Changes in street design would increase the number of people that the street could accommodate by +46%.

## Key Considerations

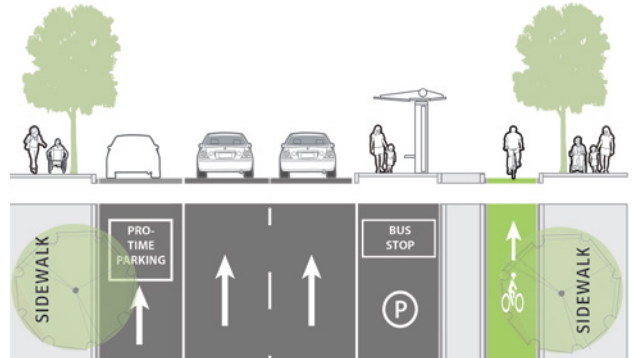
- To accommodate a parking protected bike lane, the northernmost lane on Hawthorne would become a pro-time parking lane; no parking would be provided on the north side of Hawthorne during the peak hour.
- On SE Madison Street, the current pro-time transit lane would become an all-day BAT lane. For westbound traffic, right turns to SE Grand Avenue would be restricted; those turns would be accommodated at SE 7th Avenue.
- Creating a protected bike lane in both directions on Clay from Water to 6th Avenues would require removal of on-street parking. East of 6th Avenue, Clay would be converted to a westbound one-way street to allow for a protected bike lane in both directions and preserve street parking and loading.



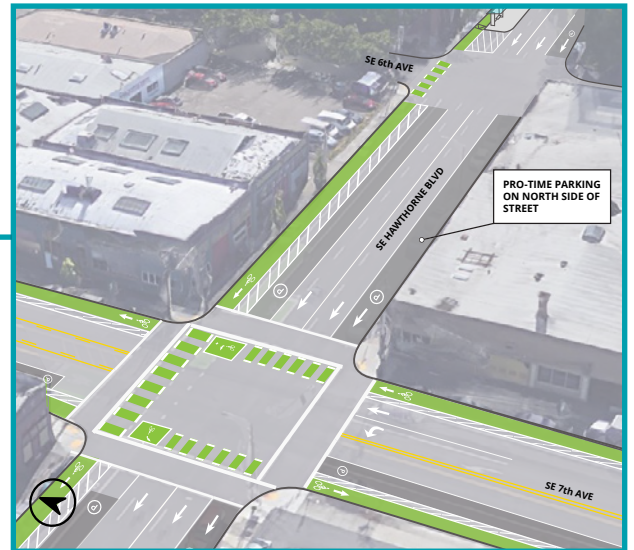
# Project Details



**SECTION A**  
**SE HAWTHORNE BLVD - SE 6TH AVE TO SE 12TH AVE**  
 view looking east



**SE HAWTHORNE BLVD AT SE 7TH AVE**  
 view looking east



**LEGEND**

- Pedestrian Improvement Project Locations
- ▬ Low-stress Bikeway Project Locations
- ▬ Enhanced Transit Corridor Project Locations

# NE Multnomah / NE 16th

## Project Highlights

NE Multnomah is a key east/west connection through the Lloyd District that provides access to retail and other destinations. This project would improve the existing parking-protected bike lane on NE Multnomah and address bus/bike conflicts. A Neighborhood Greenway on NE 16th would provide a connection between this route and NE Portland neighborhoods.

**Estimated Cost: \$4,000,000**

## Benefits



**TRANSIT ISLANDS** allow TriMet buses to stop in lane, speeding boarding and reliability while reducing conflicts with cyclists.



**NEIGHBORHOOD GREENWAYS** offer a low-stress, family-friendly bike connection on low traffic, low speed streets without creating separate space for cyclists.



**PROTECTED BIKEWAY** Protected bike lanes on NE Multnomah would offer a comfortable and direct through the heart of the Lloyd and would eliminate the bus/bike conflict at bus stops. At 15th and NE Wasco, the biking facility would transition to a Neighborhood Greenway.

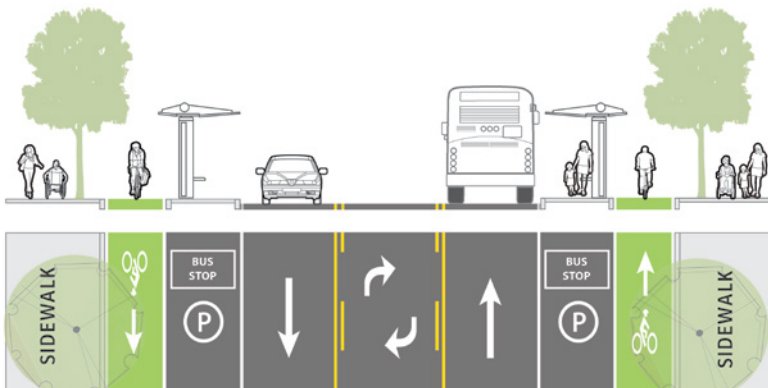


**PEOPLE MOVING CAPACITY** Changes in street design would increase the number of people that the street could accommodate by +4%.

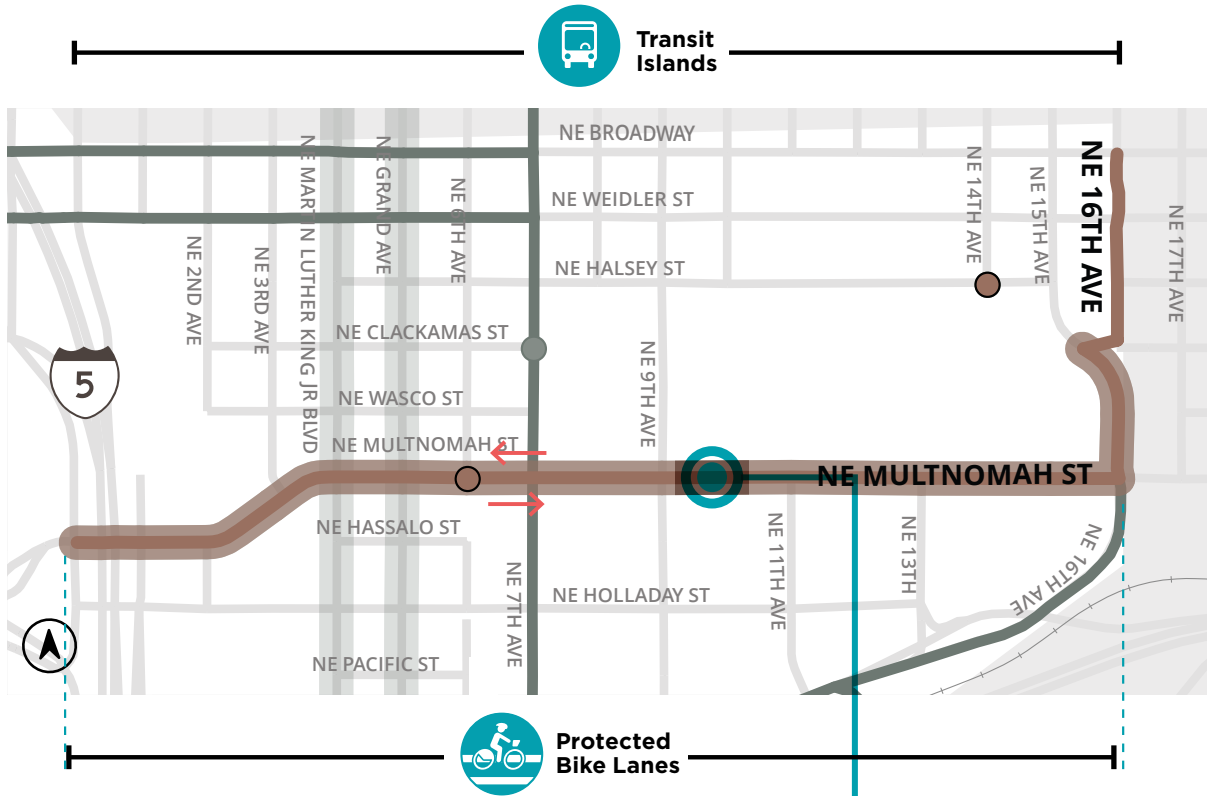
## Key Considerations

- On NE Multnomah Street, the current buffered bike lane would become a parking-protected bike lane.

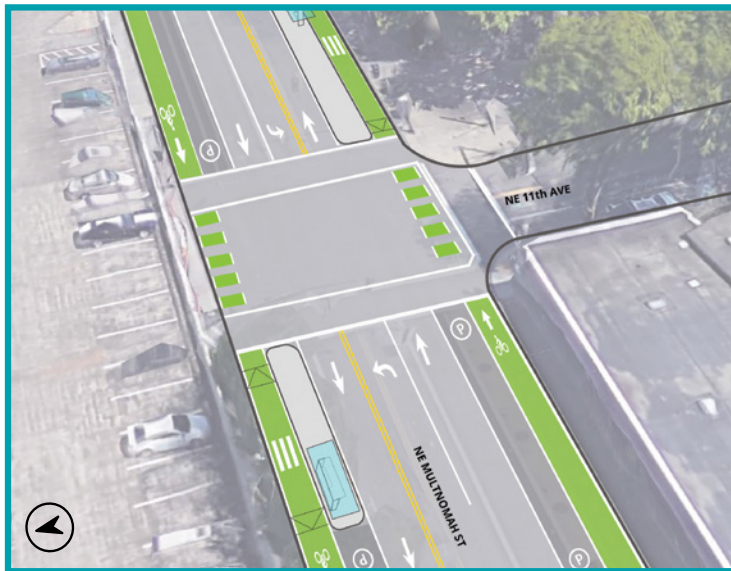
### SECTION A NE MULTNOMAH ST - NE WHEELER ST TO NE 16TH AVE view looking east



# Project Details



**NE MULTNOMAH ST AT NE 11TH AVE**  
view looking east



**LEGEND**

- Pedestrian Improvement Project Locations
- Low-stress Bikeway Project Locations
- Enhanced Transit Corridor Project Locations



# SE Water / Stark / 3rd

## Project Highlights

A two-way bikeway on Water Avenue would provide a safe and convenient alternative to the often heavily used Eastbank Esplanade, providing direct access to bridges and destinations in the inner Central Eastside Industrial District.

**Estimated Cost: \$2,520,000**

## Benefits



**CROSSWALK IMPROVEMENTS** New signalized crosswalks on Water Ave will make street crossings safer for people walking and biking.



**PROTECTED BIKEWAY** A two-way protected bike lane on the west side of Water Avenue provides a more continuous access, direct connection to the Morrison Bridge path, and an opportunity to coordinate with the redevelopment of the ODOT storage lots.



**FREIGHT** Along SE 3rd, a shared street design will direct people biking to use this street to access destinations within the district while maintaining truck loading areas.

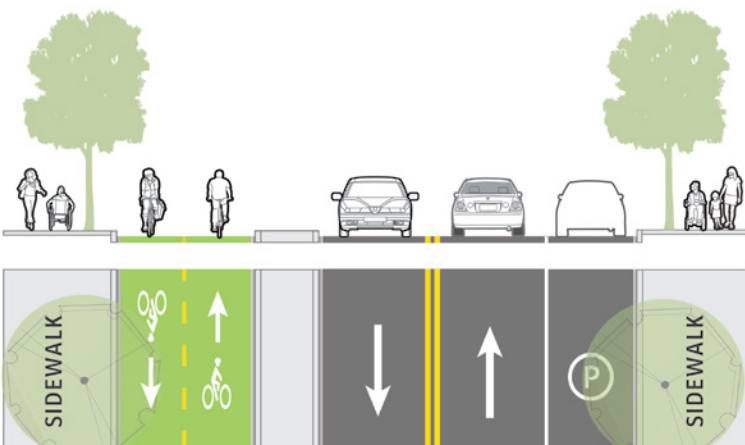


**PEOPLE MOVING CAPACITY** Changes in street design would increase the number of people that the street could accommodate by +81%.

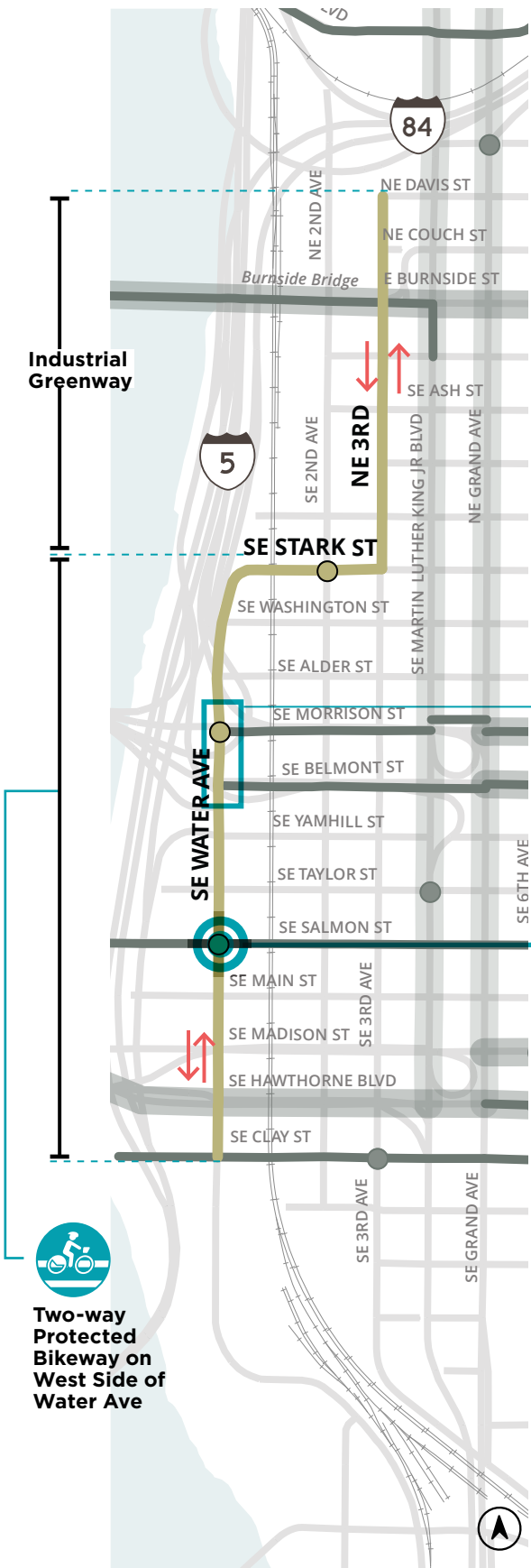
## Key Considerations

- To accommodate a two-way bikeway on Water Avenue from SE Clay to SE Stark Street, parking would be removed from the west side of Water Avenue.
- Future design work would need to consider how the protected bikeway can safely cross the I-5 and Morrison Bridge off-ramps.

### SECTION A SE WATER AVE - SE CLAY TO NE 2ND AVE view looking north



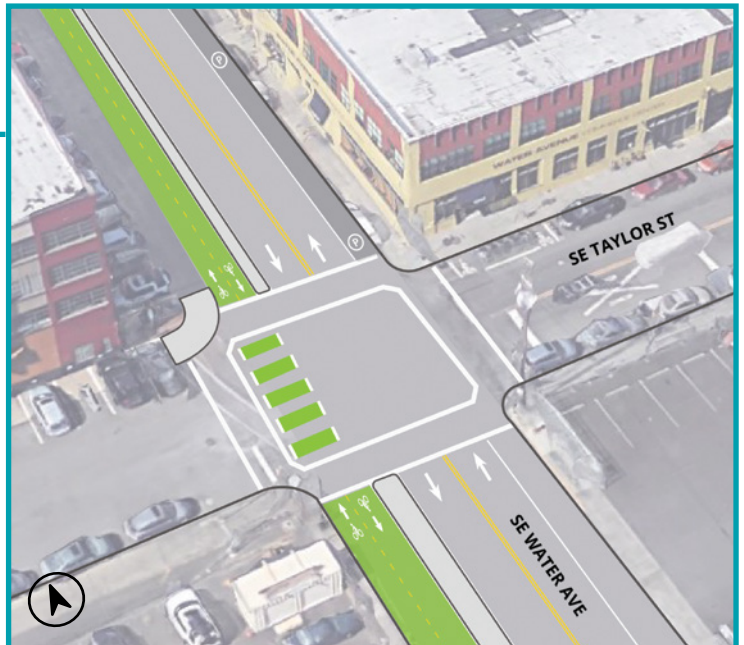
# Project Details



Improvements needed to make these busy off-ramps safe for all users



**SE WATER AVE AT SE TAYLOR ST**  
view looking north



**LEGEND**

- Pedestrian Improvement Project Locations
- Low-stress Bikeway Project Locations

# NE Lloyd Blvd

## Project Highlights

This two-way bikeway along Lloyd would provide a cycling connection from the Steel Bridge to 16th. It would connect to the forthcoming Sullivan’s Crossing – a new pedestrian and bicycle bridge to be constructed over I-84 at 7th Avenue.

**Estimated Cost: \$1,000,000**

## Benefits



**PROTECTED BIKEWAY** A two-way protected bike lane on the south side of Lloyd Blvd provides a more continuous access and direct connection to the Sullivan span.



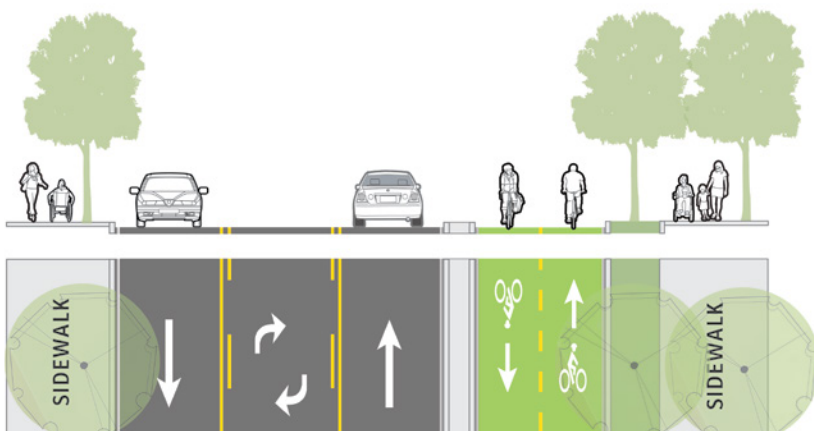
**PEOPLE MOVING CAPACITY** Changes in street design would increase the number of people that the street could accommodate by +39%.

## Key Considerations

- To accommodate the protected bikeway from Grand to NE 9th, one travel lane in each direction would be removed.
- To accommodate buffered bike lanes from NE 9th to NE 12th, the center turn lane would be removed.

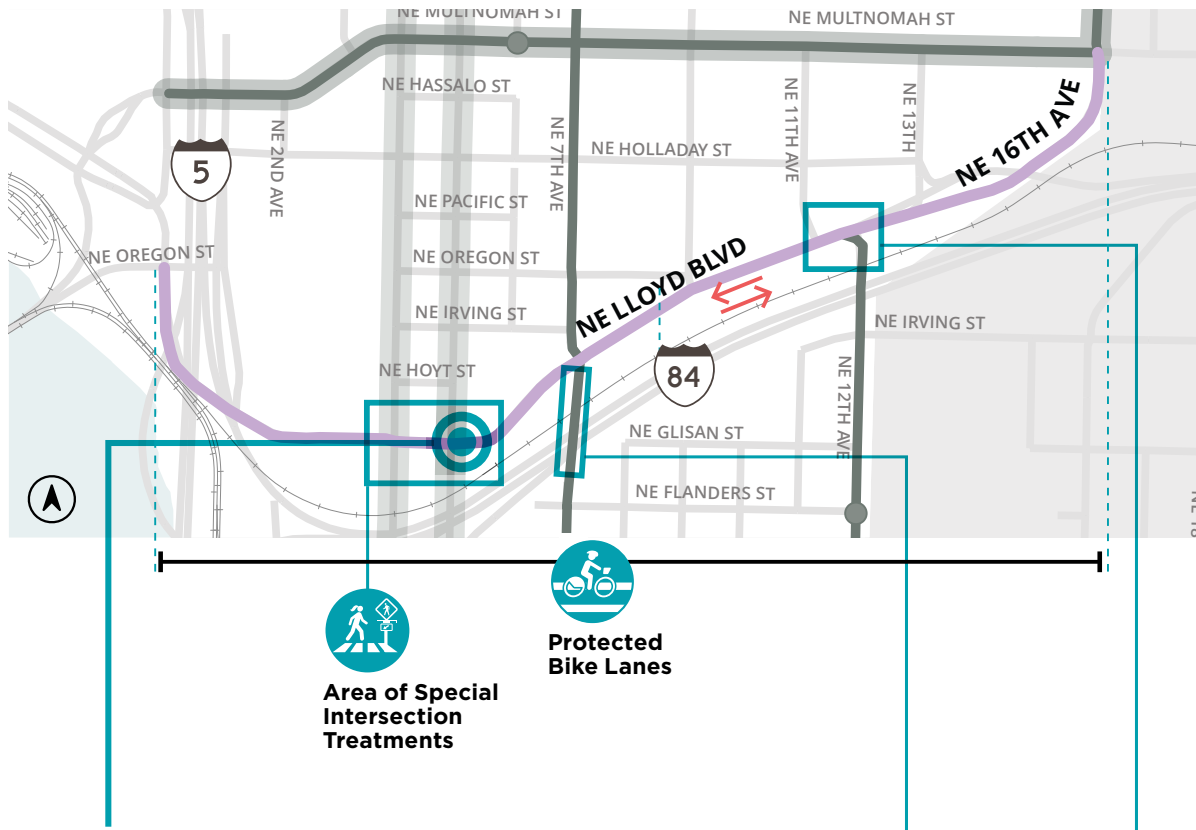
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### SECTION A NE LLOYD BLVD - NE GRAND AVE TO NE 12TH AVE view looking east

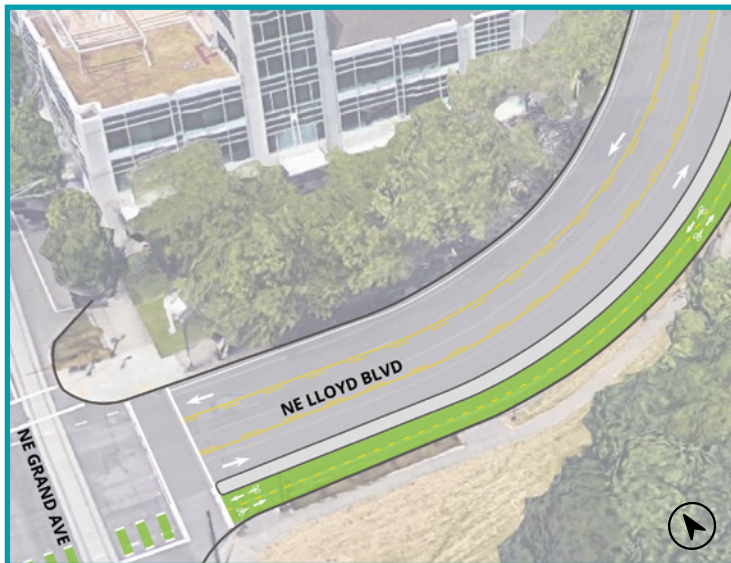




# Project Details



**NE LLOYD BLVD AT NE GRAND AVE**  
view looking east



**Future Sullivan's Crossing Bridge**

**Area of Traffic/Bus/Bike/Freight Interaction**

**LEGEND**

- Low-stress Bikeway Project Locations

# NW Park / 9th

## Project Highlights

This project provides a north/south connection from the Pearl District to downtown. Protected bike lanes on NW 9th transition to a protected bike lane on Park. New signalized crossings of Park at Glisan, Everett, Burnside, and Oak will remove barriers to walking and biking in this area.

**Estimated Cost: \$4,700,000**

## Benefits



**CROSSWALK IMPROVEMENTS** New signalized crosswalks along SW Park and 9th will make street crossings safer for people walking and biking. Improving these crossings is a first step to establishing the Green Loop along the North Park Blocks.



**DIVERSION** Strategic traffic diversion is important for the related Flanders Greenway. A diverter at NW Park and Flanders would prohibit vehicles from using Flanders as a cut through, while allowing people biking to ride through and providing greater pedestrian access across the North Park Blocks.



**PROTECTED BIKE LANES** have been shown to reduce crashes for all roadway users by 40%.

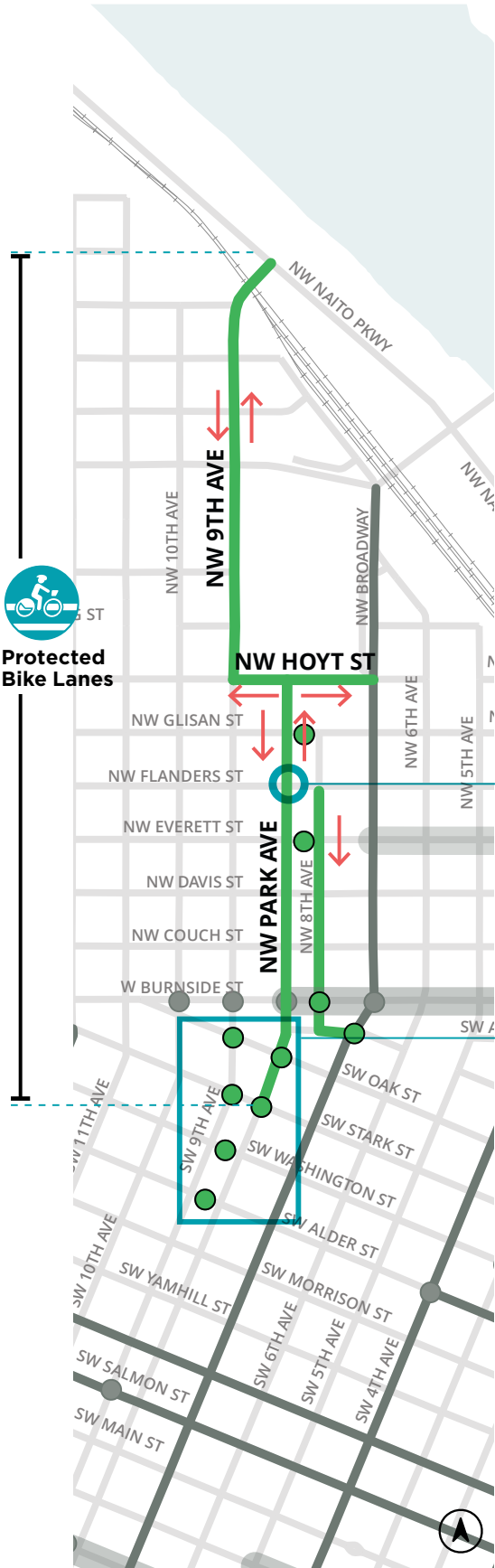


**PEOPLE MOVING CAPACITY** Changes in street design would increase the number of people that the street could accommodate by +294%.

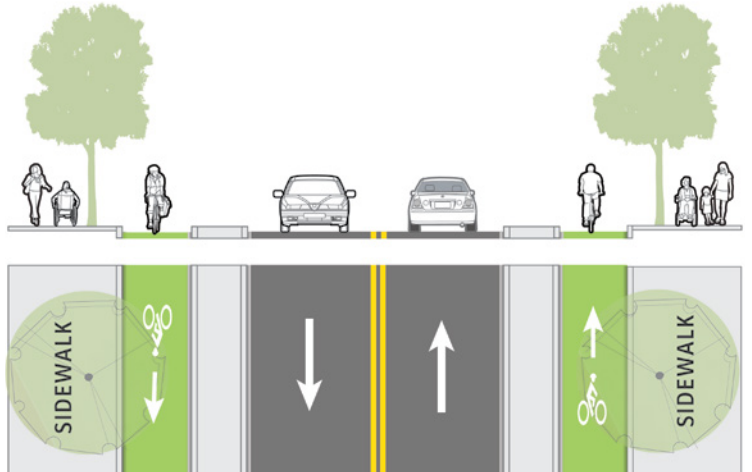
## Key Considerations

- To accommodate protected bike lanes, all parking would be removed from Naito to Hoyt including along the western edge of the Post Office site.
- Rail geometry at Lovejoy makes a two-way cycle facility along the Post Office unlikely.

# Project Details





## SECTION A NW 9TH AVE view looking north



 Traffic Diversion proposed connecting the Park Blocks

 Area of Park Block Ped/Bike Connectivity Improvements

### LEGEND

-  Pedestrian Improvement Project Locations
-  Low-stress Bikeway Project Locations



# SW Naito

## Project Highlights

Naito Parkway serves as a critical transportation spine along the west side of the Willamette. This project would implement a year-round version of “Better Naito,” providing a two-way cycletrack and sidewalk along the west side of Waterfront Park. Modern signal equipment would be installed along the corridor to better coordinate signal timing. Smart signals will smooth auto access to I-5 by detecting vehicle queues waiting to turn onto the Morrison Bridge.

**Estimated Cost: \$4,000,000**

## Benefits



**PROTECTED BIKEWAY** A two-way protected bike lane on the east side of Naito Parkway provides a more continuous access and direct connection to Waterfront Park. Protected Bike Lanes have been shown to reduce crashes for all roadway users by 40%.

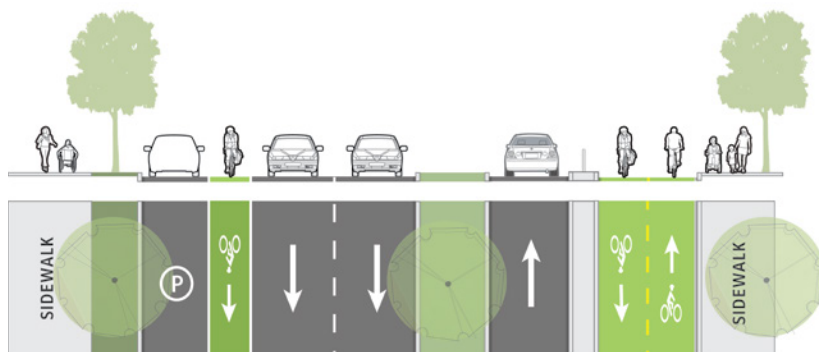


**PEOPLE MOVING CAPACITY** Changes in street design would increase the number of people that the street could accommodate by +94%.

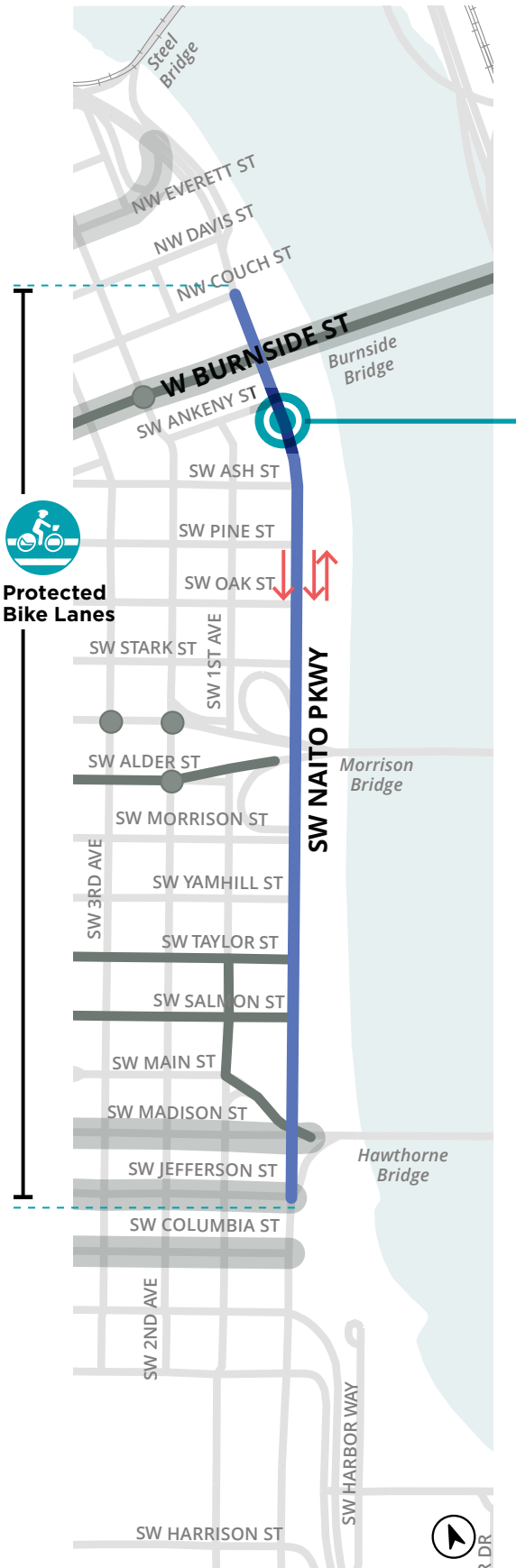
## Key Considerations

- To accommodate the two-way cycletrack, one north bound travel lane will be removed.
- PBOT studied moving the bikeway into Waterfront Park, but determined the tree impacts were too great
- A continuous sidewalk along the west side of Waterfront Park is desirable and could be implemented in phases as trees reach the natural end of their life-cycle

### SECTION A SW/NW NAITO PKWY - SW SALMON ST TO NW COUCH ST view looking north



# Project Details



**SW NAITO PKWY AT SW ANKENY ST**  
view looking north



**LEGEND**

- █ Low-stress Bikeway Project Locations

# NE Broadway / Weidler St

## Project Highlights

N/NE Broadway and Weidler Streets are a key connection between the east and west sides of the Central City. This segment of the corridor includes some of the highest crash intersections on our bicycle transportation system. This project would reconfigure travel lanes where feasible to create protected or buffered bike lanes for improved safety and circulation. The project would extend from the Broadway Bridge to NE 7th Ave to connect with existing bike lanes in the Lloyd neighborhood.

**Estimated Cost: \$4,980,000**

## Benefits



**PROTECTED BIKEWAY** Separating people biking from other vehicles will improve safety for all roadway users in this High Crash Corridor. Protected Bike Lanes have been shown to reduce crashes for all roadway users by 40%.



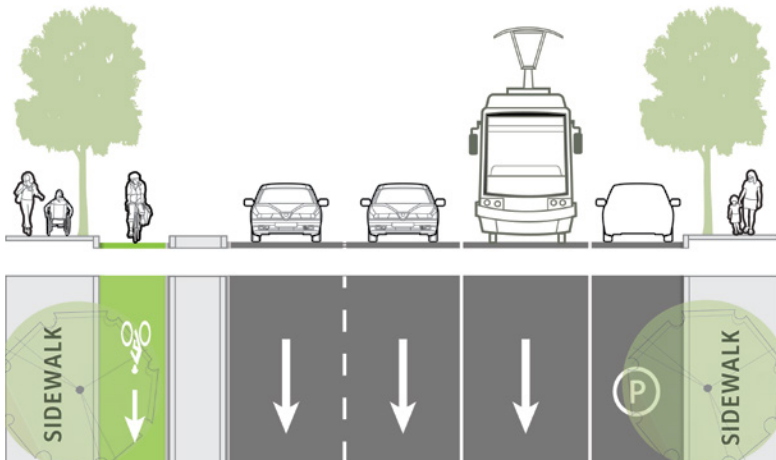
**PEOPLE MOVING CAPACITY** Changes in street design would increase the number of people that the street could accommodate by +14%.

## Key Considerations

- To accommodate safer crossings and protected bike lanes one travel lane will be removed on Broadway.
- To accommodate safer crossings and protected bike lanes one travel lane will be removed on Weidler.
- These safety improvements result in a net increase in on-street parking along the corridors

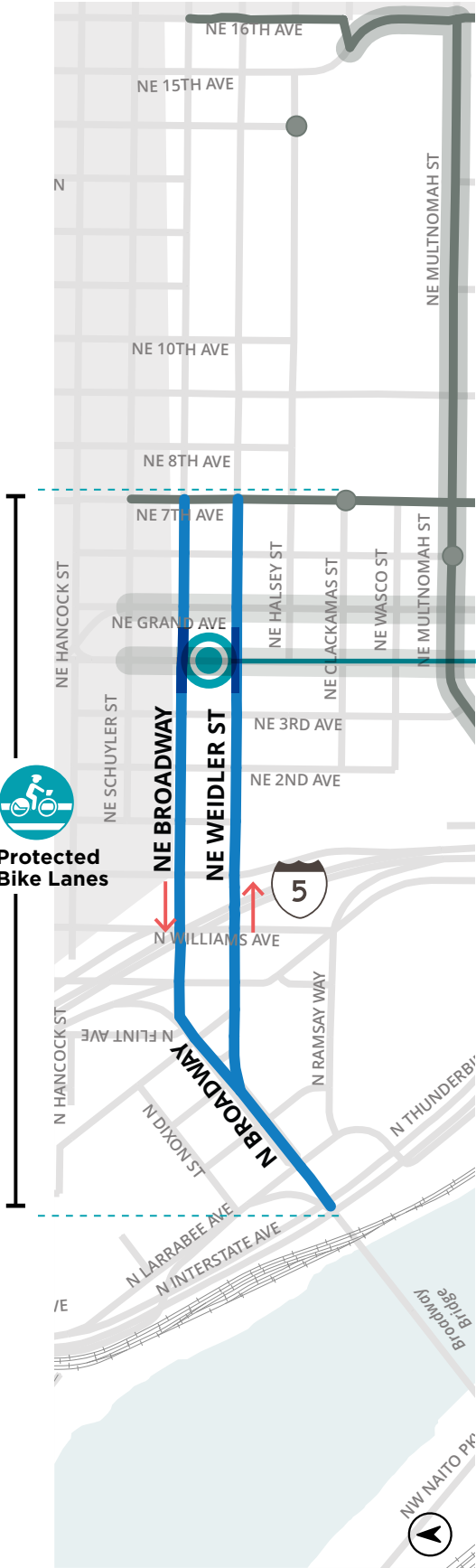
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**SECTION A**  
**NE BROADWAY - NE MARTIN LUTHER KING JR. BLVD TO NE 3RD AVE**  
view looking east

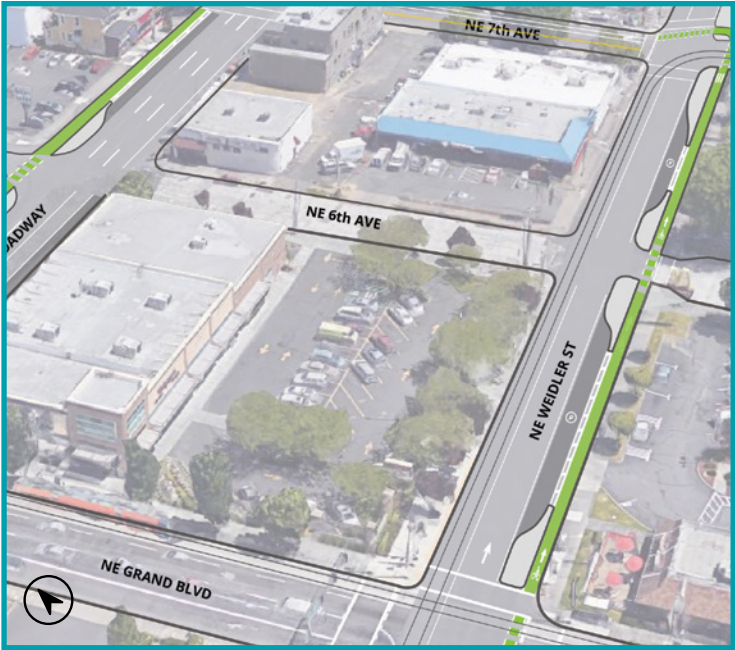




# Project Details



**E BROADWAY ST AND NE WEIDLER ST AT NE GRAND AVE**  
view looking east



**LEGEND**

- Low-stress Bikeway Project Locations







# Design for Portland's Central City

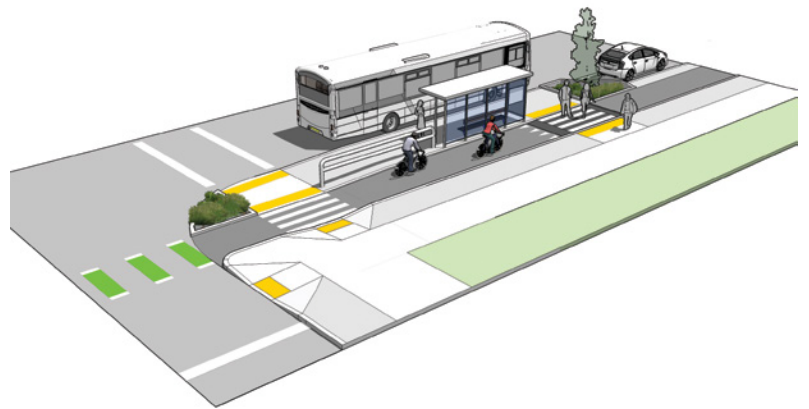
Each project is designed with an understanding of Portland's unique context while leveraging lessons learned from fast growing cities facing similar transportation challenges.

*Central City in Motion* incorporates innovative design strategies from other leading cities, to address the unique needs of Portland's roadways. Because of its dense nature, looking at Portland's Central City means considering some of the conflicts that are inherent in this complex urban space.

## Bus/bike conflicts

Moving transit efficiently means, where possible, allowing buses to stop in the travel lane. When protected bike facilities are present, a design solution like transit islands where buses load in the lane, with bike facilities between the curb and the bus stop maintain a safe environment for people bicycling and accessing buses and improve efficiency for transit.

### TRANSIT ISLAND SEPARATES BUS STOPS FROM THE BIKE LANE



Source: Nick Falbo, PBOT

## Loading and curb access

Many businesses require curb access or access to loading bays. With bus-only lanes or protected bike facilities, this access can be more challenging. Designs that work for all users will ultimately be a block-by-block exercise, but *Central City in Motion* has considered the location of loading zones, bays and other key freight access points. Creative solutions where the curb lane is used for different purposes depending on the time of day may be part of the solution.

## Emergency response

Responding to emergencies quickly is more difficult on congested streets. *Central City in Motion* seeks to preserve emergency response times in a growing city through design. On many streets, Portland requires a minimum of 20 feet of clear space for emergency response. This space cannot be used for parking or separated with curbs.

*Central City in Motion* incorporates major emergency response routes into project designs. Transit priority lanes proposed in *Central City in Motion* can serve double duty, speeding emergency vehicle response times during the most congested times of day.

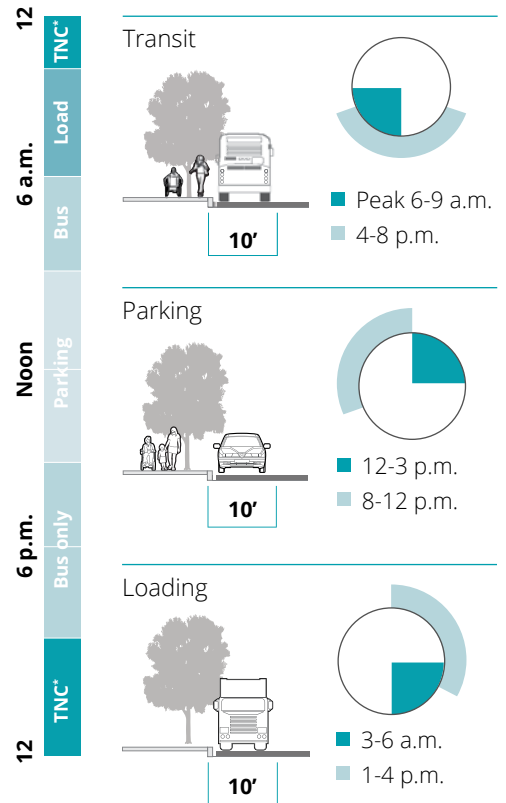
## Bike/turning vehicle conflicts

Extending protection through busy intersections is important to creating a safe, comfortable cycling and walking environment. This can be accomplished through changes to the physical environment that improves visibility between people driving and bicycling and walking, or through signal changes that give those on foot or bike a separate signal phase or head start to enhance their visibility in the intersection and reinforce their right-of-way over turning vehicles.

## Freight district design

As *Central City in Motion* projects are implemented in the Central Eastside, specific attention will be paid to creating a safe, low-stress cycling environment, while maintaining the freight access that is critical to the viability of this industrial district. Shared bus and freight priority lanes on Martin Luther King, Jr. Boulevard and Grand Avenue and replacing two narrow travel lanes on SE/NE 11th and 12th Avenues with a single wider travel lane, benefit transit, cyclists and freight. More separation and careful intersection design will be required to create a comfortable, safe environment where cyclists and freight are sharing the same roadways. It can be difficult for drivers in large freight vehicles to see cyclists on their right-hand side, so intersections in the Central Eastside will require careful design.

### TIME OF DAY USAGE OF CURB LANES



Note: this is hypothetical or illustrative  
\*Transportation Network Companies, e.g. Lyft and Uber





## The Long View: Moving Toward the Green Loop

The Green Loop is a six-mile linear park envisioned to be an easy pathway through the Central City's parks and open spaces. It will link the Broadway Bridge to the Park Blocks on the west side of the river, connecting the Tilikum Crossing and the Central Eastside before reaching the Lloyd via the new Sullivan's Gulch Crossing. The loop is envisioned to add an iconic, all-ages route to the network of bicycle and pedestrian options in the Central City, with an emphasis on open spaces, street furnishings, tree canopy and adjacent ground floor uses. Recognizing that CCIM's implementation horizon is nearer term than the Green Loop, PBOT has identified a series of pedestrian improvements at key intersections that will lay the groundwork for future investments.





image credit: SupportPPDX

image credit: NACTO



# Implementation Plan

*Central City in Motion* is an implementation plan, focused on near-term investments over the next 10 years.

Critical to the effort has been to identify what investments in Central City infrastructure should be prioritized. The 18 projects are broken into two phases: Projects recommended for implementation in the next one to five years and improvements slated for years six to ten. This investment strategy is intentionally flexible to allow PBOT to respond to changing conditions and leverage funding opportunities. The order of implementation may change during the ten-year implementation horizon, but it is PBOT's intent to implement all 18 projects in the next decade to meet the increasing transportation demands of the Central City.

## Program budget and project costs

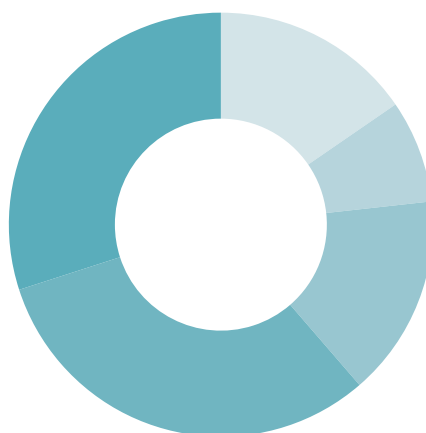
PBOT expects to invest \$35.7 million in CCIM projects in the first five years. The \$35.7 million program forecast is made up of funds dedicated to Central City in Motion (~\$8 million) and assumes leveraging related funding programs like TriMet's Enhanced Transit Corridors (~\$5.5 million) and PBOT's Transportation System Development Charges (~\$11.2 million). Another \$9 million has yet to be identified and would require additional funding sources such as state or regional grants.

Some of these funds can only be used on specific types of projects, such as \$2.8 million in Fixing our Streets funds dedicated to Central City protected bike lanes or \$5 million in Federal Funds for projects that improve air quality.

Implementing all 18 projects would cost between \$68 and \$73 million. PBOT forecasts that an additional \$36.5 million will be necessary to implement CCIM projects in years six through ten.

As a point of comparison, PBOT and agency partners have allocated over \$255 million to East Portland in Motion, PBOT's sister implementation strategy focused on investments in East Portland active transportation needs.

### CCIM 5-YEAR FUNDING FORECAST



■ \$5,500,000 <b>Federal grant</b>	Total \$35,700,000 <b>Funding in Bold is secured</b>
■ \$2,800,000 <b>Fixing Our Streets</b>	
■ \$5,500,000 Potential transit funds	
■ \$11,200,000 Potential Transportation System Development Charge	
■ \$10,700,000 TBD	



## The projects identified for funding the first five years:

- ▶ **Increase** the transportation system's capacity through multimodal investments
- ▶ **Create** a contiguous and safer network for people biking and walking and a faster and more reliable network for people using transit
- ▶ **Benefit** the Central City and the metro region
- ▶ **Leverage** partnerships with agencies including Multnomah County, TriMet, Metro and ODOT
- ▶ **Maintain** key roadway space for vital goods and services to access Central City businesses and institutions

## Design and implementation

PBOT will begin outreach and design on projects identified in the 1 to 5 year list as funding becomes available. PBOT commits to door-to-door outreach on each recommended project, with a recognition that despite a robust outreach effort, reaching every interested resident, business or property owner on project roadways wasn't feasible during the *Central City in Motion* planning effort. Building off the early geometric design done in the planning phase, each project will be designed block-by-block to best accommodate existing uses and needs (such as loading zones or accessible parking spots) while recognizing some relocations and consolidations will be required.

The project team has developed an accompanying Parking Mitigation Strategy that will be implemented concurrently with projects to minimize impacts to on-street parking. Finally, PBOT will continue to consider project phasing and piloting, looking for opportunities to implement projects quickly and to evaluate their efficacy to best meet the demands of our growing Central City. Such proposals will be shared on a project-by-project basis with relevant stakeholders.

Quick-to-implement projects (such as #5, SW Madison transit priority lane) could be completed as soon as 2019, while others will begin construction in 2020-2023.

## Flexible funding

Many projects could be constructed with a variety of finishes with different cost implications. An example of low, medium and high cost construction are shown on SE Hawthorne Boulevard at 6th Avenue. High, medium and low-cost finish options were estimated for most CCIM projects. PBOT will ultimately determine what combination of finishes to include as individual projects are designed.

### Low cost

At the lowest cost level, projects would be constructed with paint, low-cost barriers like plastic bollards, and modular transit platforms. While less durable, delivering projects with these low-cost materials can be faster and more flexible.

### Medium cost

At the medium-cost level, projects would be constructed with permanent materials like concrete curb and concrete transit platforms. New bus shelters would be similar to what TriMet uses at high-use locations today.

### High cost

At the highest cost level, projects would be constructed with permanent materials that incorporate landscape improvements and signature furnishings and transit shelters.

**LOW COST**



**MEDIUM COST**

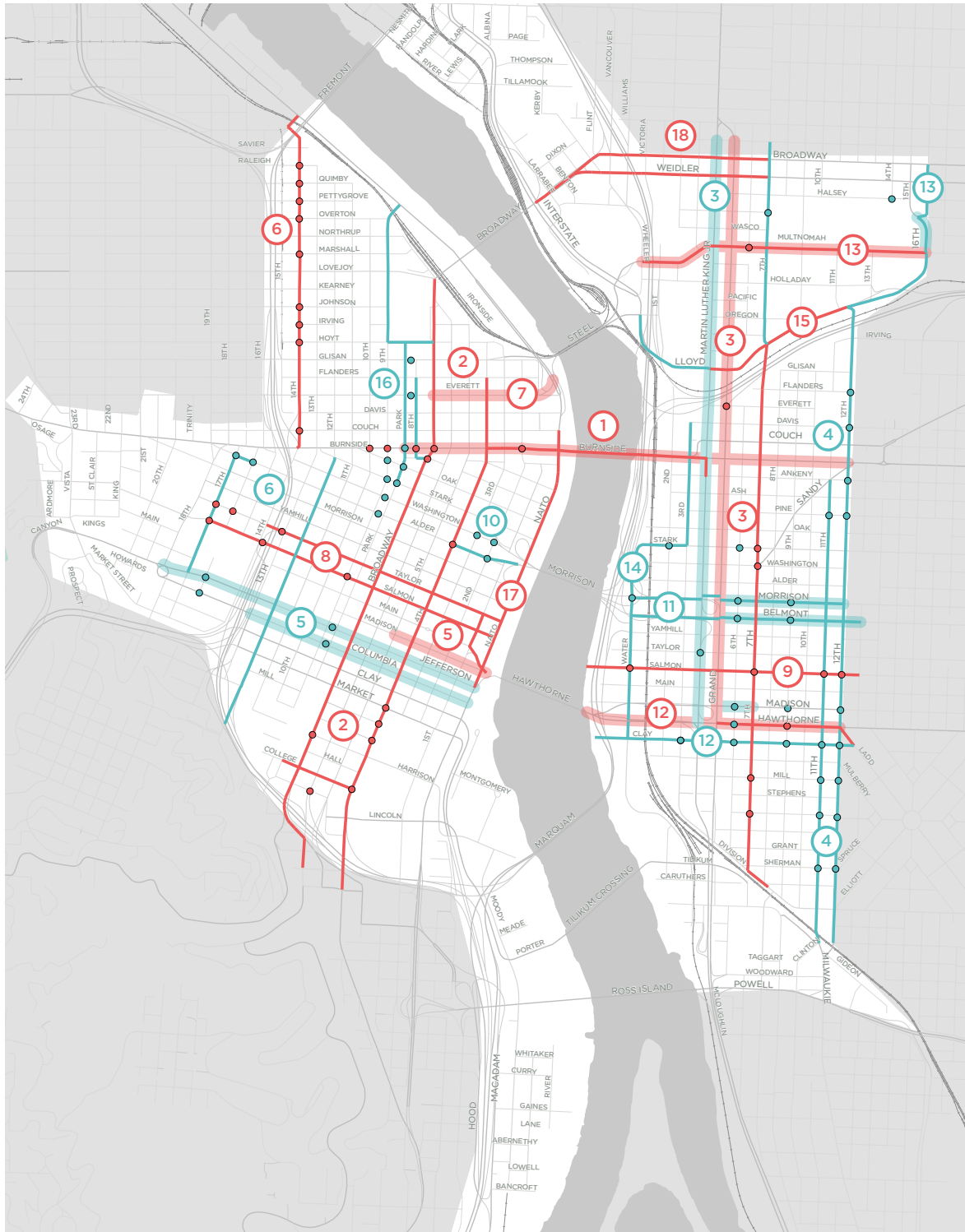


**HIGH COST**





# Project phasing



## PROJECT PHASING CENTRAL CITY IN MOTION

#  
Project Numbers. Refer to the Central City in Motion Final Report for more information.

### Phase One: 1 - 5 Years



- Project Elements**
- Pedestrian Crossing Improvement Project Locations
  - Low-Stress Bikeway Project Locations
  - Enhanced Transit Corridor Project Locations

### Phase Two: 6 - 10 Years



Data provided by the City of Portland and Metro. Map produced October 2018.





## Recommended projects for implementation

### 1-5 Year Project Recommendations

Projects are not listed in priority order

#	NAME/DESCRIPTION	APPROXIMATE COST	PRIMARY ELEMENTS		
			Transit Priority	Safer Crossings	Low-stress Bikeways
1	Burnside (from W 10th to E 12th)	\$5.5M	x	x	x
2	Broadway (from SW Grant to Broadway Bridge) 4th Avenue (from SW Caruthers to NW Flanders) , and SW College	\$6.6M		x	x
3	NE/SE 7th Avenue (from Sullivan's Span to Division)	\$4.5M		x	x
3	Grand	\$900K	x	x	
5	SW Madison (from SW 5th to SW 1st)	\$170K	x		
6	NW 14th (from Burnside to Front)	\$530K		x	x
7	NW Everett (from Broadway to Steel Bridge)	\$1M	x		
8	SW Salmon/SW Taylor/SW 1st	\$3.9M		x	x
9	SE Salmon	\$490K		x	x
12	SE Hawthorne (from viaduct to 12th)	\$1.2M	x	x	x
13	NE Multnomah	\$3.8M	x	x	x
15	NE Lloyd (from MLK to 12th)	\$740K		x	x
16	Pedestrian crossings of Burnside	\$870K		x	
17	Naito	\$4M			x
18	NE Broadway/Weidler (phase I)	\$1.5M		x	x
<b>TOTAL 1-5 YEAR PROGRAM COST</b>		<b>\$35.7M</b>			

### 6-10 Year Project Recommendations

Projects are not listed in priority order

#	NAME/DESCRIPTION	APPROXIMATE COST	PRIMARY ELEMENTS		
			Transit Priority	Safer Crossings	Low-stress Bikeways
3	MLK	\$910K	x	x	
3	NE 7th Avenue (from Lloyd to Broadway)	\$410K		x	x
3	SE 6th Avenue pedestrian crossing improvements	\$1.5M		x	
4	SE 11th (from Clinton to Sandy) and SE /NE 12th (from Clinton to Lloyd)	\$7.4M		x	x
5	SW Jefferson/Columbia	\$3M	x	x	
6	SW 17th, 12th, and 14th pedestrian and signal improvements	\$2.5M		x	x
7	NW Everett (signalize northbound Naito to Steel Bridge ramp, eastside signal and BAT lane at Rose Quarter)	\$3.1M	x	x	
10	SW Alder	\$1.3M		x	x
11	SE Belmont/Morrison	\$3.1M	x	x	x
12	SE Madison	\$1.9M	x		
12	SE Clay	\$1.2M		x	x
13	NE 16th	\$211K	x	x	x
14	SE Water/Stark/3rd	\$2.6M		x	x
15	NE Lloyd: Rose Quarter to MLK	\$190K			x
16	Hoyt and Park and 9th	\$3.5M		x	x
18	NE Broadway/Weidler (phase II)	\$3.7M		x	x
<b>TOTAL 6-10 YEAR PROGRAM COST</b>		<b>\$36.5M</b>			

With the help of thousands of Portlanders, and after eighteen months of extensive study, outreach, and engagement, *Central City in Motion* identifies the transportation investments our Central City needs to grow and thrive.

Hundreds of potential projects have been analyzed and narrowed to 18. These 18 projects have been prioritized with the most critical investments recommended for implementation over the next 5 years.

**These projects will result in:**

- Restoration of connectivity between downtown and Old Town by providing safe pedestrian crossings of West Burnside, while benefitting thousands of commuters with a dedicated bus lane across the Burnside Bridge;
- Faster and more reliable commutes for bus riders crossing the Steel and Hawthorne Bridges, particularly at rush hour, with dedicated bus lanes approaching both of these critical Willamette River crossings;
- Direct connections by bike to thousands of jobs, cultural and education opportunities in Portland's downtown by providing a signature north/south bikeway on Broadway and 4th Avenue;
- Connection between the fast-growing Lloyd District and Central Eastside neighborhoods, with protected bikeways on Lloyd Blvd and 7th Avenue that meet at the future Sullivan's Crossing Bridge;
- The collection of valuable performance data about innovative concepts identified by stakeholders, such as shared freight and transit lanes on Grand Avenue or dynamic use of the curb zone for loading, parking, or ridesharing depending on the time of day.

Portland's streets are constantly evolving. As the number of jobs increase and more people live in our Central City, our streets must do more. The investments in *Central City in Motion* do just that, ensuring all Portlanders can get around reliably, today and tomorrow.







# Acknowledgements

## Sounding Board

**Jillian Detweiler**

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OHSU

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**Portland Commission on Disability**

**Portland Freight Advisory Committee**

**Portland Pedestrian Advisory Committee**

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To review and download supporting documents  
and *Central City In Motion* report appendices, please visit  
[portlandoregon.gov/transportation/ccim](http://portlandoregon.gov/transportation/ccim)

