# **B** Street

By Abbey, Ella, Kanon, Gaelen, Rashid, Simonas

#### **OBJECTIVES**

#### Recommend

- Paved Sidewalks
- Bike trail
- 3. Bioswale
- 4. Ample crosswalks and signage

experience, safety, and connectivity

Aligns with the Pierce County Comprehensive Plan and the Transportation Improvement Program. Improve pedestrian



Bus Stop

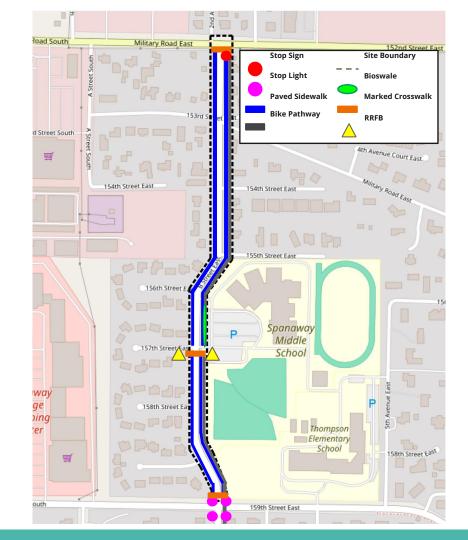
\_ . \_ Project Site

SF Residential



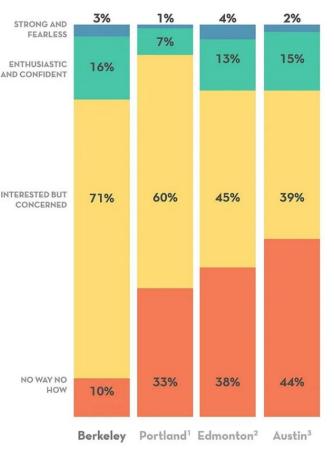
#### **Added Features**

- + 2 Crosswalks
- + 1 Pair Rapid Flashing Beacons
- + Paved Sidewalk
- + Bioswale
- + Bike Pathway



#### Who are we building for?

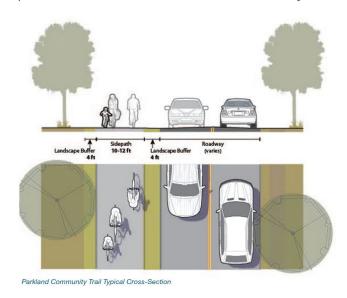
- Interested but concerned rider group makes up the majority; Would only bicycle with protected bicycle lanes.
- Goal is to encourage all users and new users.
- Building with kids in mind especially.

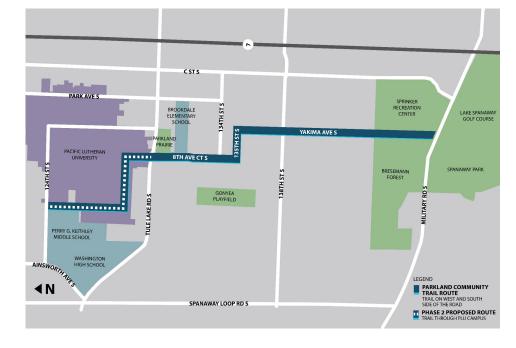


(Alta, 2017)

#### **Parkland Community Trail Proposed Route**

 Trail connects Parkland neighborhoods to three County parks, four schools, Pacific Lutheran University





#### **Bike Lanes**

- 42.8% fewer crashes with bike lanes present(Younes et al, 2024).
- Bike lanes with dilators 29% reduction in maximum speed through intersections.
  - o 21% Reduction in average speeds when turning right.
  - 8% reduction in speed when traveling straight through intersections(Younes et al, 2024).
- Removal of cars most effective to increase perceived safety(Olsson, 2023).
- Women have higher preference for separating from automobiles(Alred et al, 2016).
- No significant differences in ethnicity were reported(Branion-Calles et al, 2019).

## **Burying Cable Lines**

- Enhanced reliability
- Better defense against lighting, storms, ice, snow storms.
- Removing the cluttered look





#### **Local Examples of Complete Street Renovations**

S Columbian Way Before and After





#### **Local Examples of Complete Street Renovations**

N 130th St. Before and After

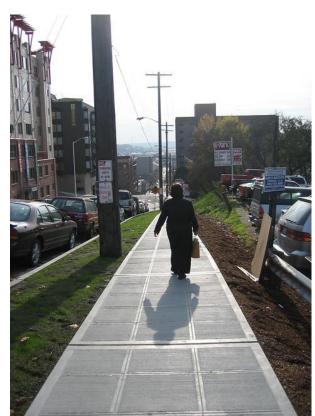




**Local Examples of Complete Street Renovations** 

6th ave S. Before and After





### **Pierce County's Vision Zero Action Plan**

- On April 29th, 2025 Pierce County adopted a plan seeking to eliminate traffic deaths and serious injuries on county roadways by 2035

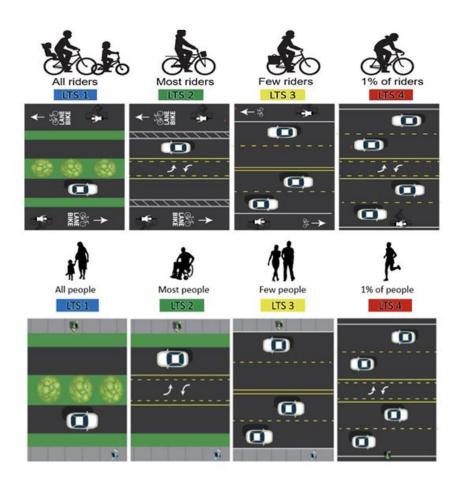
- Plan was funded by a Federal Safe Roads and Streets for All (SS4A) grant

- "Founded on the belief that traffic deaths and serious injuries are unacceptable and preventable" (Pierce County 2025)

 Aiming for widespread infrastructural improvements to roadways with High Level of Traffic Stress (LTS)

# **Level of Traffic Stress**

Level of Traffic Stress	Description
1	Suitable for all ages and abilities; children could walk or bike here independently. Separated and/or barrier-protected.
2	Comfortable for most adults, including most adults experiencing disabilities. Some separation, no barrier.
3	Tolerable for enthusiastic and/or confident adults. Little space, no separation.
4	Only used by highly confident people, or those with no alternative. No dedicated space, no separation

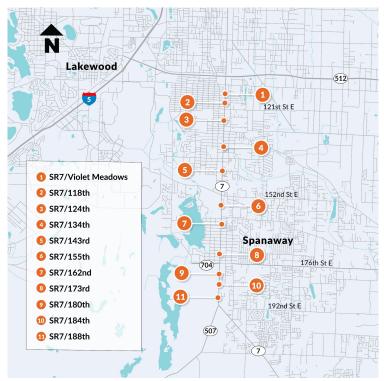


### **Recent Projects Aligning with Vision Zero**

 Two weeks ago, Pierce County made 10 intersections along SR7 safer by implementing button-activated traffic lights for those walking and rolling

 \$8.8 million project made possible by a grant through WSDOT Pedestrian and Bicyclist Program (PBP) + direct legislative funding

- SR7 had LTS4; Goal was to at least reduce to LTS2



Pierce County, 2025

### **Future Projects Aligning with Vision Zero**



32,110 linear feet (~6.08 miles) of sidewalk



216 curb ramps



76 crosswalks



20 miles of paved shoulder



1.2 miles of bike lanes

- Pierce County has an assortment of relevant projects planned for 2026, shown on the left

 The 2027-2029 PBP call for funding will open in early 2026; Vision Zero plan sets framework and eases projects surrounding active transportation

 Federal funding competitive, but the groundwork is mostly done in Pierce County's favor

#### **Final Recommendations**

Apply to WSDOT PBP project funding or USDOT SS4A project funding for...

- 1. Paved Sidewalks
- 2. Bike lanes
- 3. Bioswale
- 4. Ample crosswalks and signage

For the sake of improving connecting kids safely to their schools and creating a low LTS roadway for all pedestrians along B St. E

#### \*SS4A funding preferred because it better fits this specific context

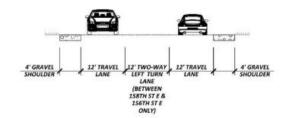
B St. E = a corridor-scale multi-modal transportation project focusing on improving safety in an equity-priority community

# **B Street Proposed Renovations**

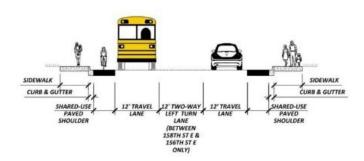
By paving the shoulders in the school zones, students and residents will be encouraged to use more active modes of travel.

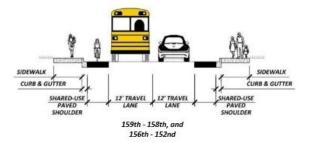
Extending sidewalk coverage has a similar effect, creating a safer environment for pedestrians.

The paved shoulders also better allow emergency vehicle access.



#### EXISTING B ST E





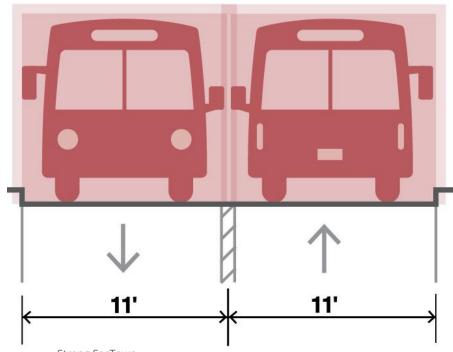
#### PROPOSED B ST E

SAFE ROUTES TO SCHOOL - B STREET EAST 152ND ST E TO 159TH ST E<sub>Pierce County</sub>, 2025

#### **Lane Width**

According to the Pierce County Council, two and three-lane roadways, lane widths must be 12-feet wide.

While a minimum of 11-feet is generally necessary for buses, 12-feet drastically improves safety.



Strong SacTown https://www.strongsactown.org/2024/06/13/lane-widths-and-why-they-matter/

#### **Shoulders**

Shoulders shall be provided consistent with the requirements of the County Engineer and the roadway cross-sections shown in the Standard Drawings.

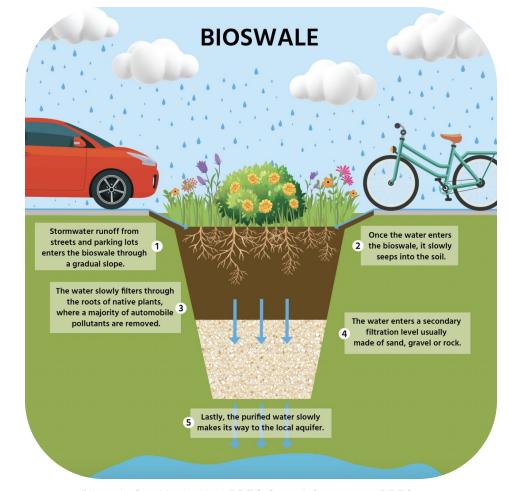
Shoulders provide the following advantages:

- Space for vehicles to make emergency stops away from the traveled way.
- Enhanced safety, roadway capacity, and sight distance.
- Lateral clearance from signs, ditches, above-ground utilities, and potential roadside obstacles.
- Structural support for the pavement and storm water is discharged farther from the traveled way.
- Improved maintenance operations.
- Space for pedestrian and bicycle use.
- Space for occasional encroachment of vehicles, such as mail delivery vehicles.

# Recommended Addition: Bioswale

#### What is a bioswale?

- Slows runoff
- Filters pollutants
  - Litter, household waste, pet waste, auto waste, yard waste, pesticides, fertilizers
- Clean water reintroduced to aquifer or diverted



Bioswale Graphic. (n.d.). In BREC Green Infrastructure. BREC. https://www.brec.org/green-infrastructure

#### **Bioswale for B-Street**

What would we need to do to make it a functioning bioswale?

- ✓ Graded channel
- Soil
- Vegetation
- Drainage pipe
- ☐ Inlets



B Street. Abbey Cobleigh (2025)

#### **Bioswale for B-Street**



**Proposed Planting List** 

#### Bioswale

- Alnus rubra
- Acer circinatum
- Cornus sericea (red-osier dogwood)
- Five finger ferns (likes moisture), western swordfern, native rushes & sedges.
- Mahonia nervosa
- Salix spp.



Mahonia nervosa. (Weebly, n.d.)



Acer Circinatum. (John Grimshaw., n.d.)



Cornus sericea. (John Grimshaw., n.d.)

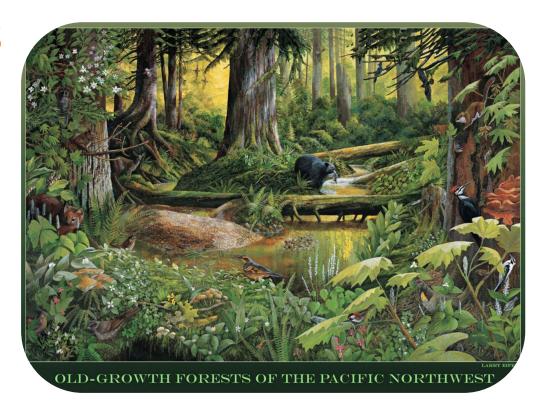


Alnus rubra. (Weebly, n.d.)

Five finger fern. (Walter Siegmund, n.d.)

#### **Benefits of Native Plants**

- Adapted to the local climate
- Require less water and maintenance
- Provide essential food and shelter for native wildlife



Larry Eifert, 2013

#### **CROSSWALK**



(<u>Carmanah</u>.com)

- Rectangular rapid flashing beacons near the schools.
- Our design contains two cross walks.