Puget Sound Regional Council

Bicycle and Pedestrian Advisory Committee Agenda

Date: Tuesday, January 10, 2023 from 10:00 a.m.-12:00 p.m.
Online Meeting Only: Use Zoom Connection Information Provided Below

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1. **Welcome and Introductions (10:00)**

2. **Action: Approval of Meeting Summary – November 8, 2022* (10:05)**

3. **Discussion: Getting to Know Committee Members (10:10)**

   The committee will receive short presentations from new non-voting members, Brian Watson, BicycleTeacher, and Dr. Jocelyn Enabulele, Roni Lifeworks, on the current work of their organizations related to active transportation.

4. **Discussion: Update on Committee Outreach and Engagement (10:35)**

   PSRC staff will provide an update on its ongoing outreach meetings with committee members. This will include highlights from the information gathered on active transportation planning in the region, and feedback on PSRC bicycle and pedestrian work program and committee engagement ideas. Staff will also review comments received on holding some meetings in a hybrid format in 2023.

   Members who have not yet met with staff and are interested in setting up their outreach meeting in January 2023 can sign up at this link. **Please select ONLY ONE option.**

5. **Discussion: Bicycle and Pedestrian Facility Inventory Update* (10:50)**

   PSRC staff will present the draft bicycle and pedestrian facility typology, updated based on feedback received at the November and previous committee meetings. The committee will review and provide feedback on the draft categories and definitions, as shown in the attached memorandum. The committee will also begin discussing other potential changes to the scope and other criteria used for the regional active transportation facility inventory, set to be updated in 2023.

6. **Discussion: Bicycle and Pedestrian Work Program Update (11:35)**

   PSRC staff will provide brief updates on other current and upcoming work plan items related to active transportation, including an update on the draft repackaged Active Transportation Plan.

7. **Roundtable: Announcements of Bicycle/Pedestrian Activities (11:45)**

   Committee members provide brief updates on local/regional events and other items of interest. Members can also comment on state/federal regulations and other issues impacting bicycle and pedestrian planning in the region.

8. **Next Meeting: March 14, 2023: 10:00 a.m. – 12:00 p.m.**
   a. Updated bicycle and pedestrian facility typology (potential action item)
   b. Review draft repackaged Active Transportation Plan
   c. BPAC member outreach update and how feedback incorporated into upcoming work

9. **Adjourn (12:00 p.m.)**

* Supporting materials attached

For more information, contact Sarah Gutschow at (206) 587-4822 or sgutschow@psrc.org

Zoom Participation Options:

To join audio/video conference:
https://psrc-org.zoom.us/j/98693082325?pwd=UXhUekZiU0ZiUUt2Vy9DWDR4Nmx3QT09

To join via cellphone (1-touch dial):
One tap mobile
8884754499,,98693082325#,,,,,,0#,,148131# US Toll-free
8335480276,,98693082325#,,,,,,0#,,148131# US Toll-free

To join via phone:
888 475 4499 US Toll-free
833 548 0276 US Toll-free
Meeting ID: 986 9308 2325
Passcode: 148131

Other Formats:

- Sign language and communication material in alternate formats can be arranged given sufficient notice by calling (206) 464-7090 or TTY Relay 711.
- العربية | Arabic, 中文 | Chinese, Deutsch | German, Français | French, 한국어 | Korean, Русский | Russian, Español | Spanish, Tagalog, Tiếng việt | Vietnamese, visit https://www.psrc.org/contact-center/language-assistance

Puget Sound Regional Council

Bicycle and Pedestrian Advisory Committee Meeting Summary

Date: November 8, 2022
Location: Online/Remote Only

Welcome and Introductions

Eric Goodman, Chair (Community Transit), welcomed everyone at 10:00 a.m. Eric then took a roll call and confirmed the members and alternates present. Sarah Gutschow, PSRC, introduced the new PSRC Assistant Planner, Nick Johnson.

Approval of Meeting Summary

The summary for the September 13, 2022 BPAC meeting was approved.

Discussion: Non-voting Membership Update

Sarah provided an update on the recently concluded non-voting membership approval process and newly confirmed non-voting members. The committee took action at the September meeting to confirm the non-voting members that were endorsed to represent each county. Prior to the November meeting, the committee then took action via vote-by-email to confirm the two At Large non-voting members and the non-voting members representing the state/region. The new non-voting members introduced themselves and provided brief overviews of their organizations and current work.

For more information, contact Sarah Gutschow at sgutschow@psrc.org.

Discussion: BPAC Committee Outreach and Engagement

Sarah provided information on plans to conduct outreach meetings over the next few months with organizations represented on the BPAC. The outreach would be used to better understand each organization's bicycle and pedestrian planning work, and to help inform the regional active transportation planning work program and continued engagement through the BPAC and other work at PSRC. She said PSRC staff would send out further information after the meeting on how committee members could sign up for an outreach meeting.

The committee provided some preliminary feedback on how to better engage members and ensure full participation, such as better clarifying the role and purpose of the committee.

Gil Cerise, PSRC, then reviewed information provided in the memo in the agenda packet regarding the purpose and composition of transportation committees at PSRC. He also mentioned that there would be an opportunity to hold some meetings in a hybrid format in 2023 and asked the committee for feedback via an interactive survey. Results from the survey and other feedback received would be reviewed at the next committee meeting.

For more information, contact Sarah Gutschow at sgutschow@psrc.org.

Discussion: Bicycle and Pedestrian Work Program Update

Sarah provided an update on current and upcoming work plan items related to active transportation, as part of the implementation of the Regional Transportation Plan (RTP). These included the repackaged Active Transportation Plan (ATP), bicycle and pedestrian facility inventory updates, updates to transit access guidance and resources, and research on the ADA transition plans in the region. Committee members asked questions about what would be included in the repackaged ATP. They also suggested that the ADA transition plan research could be used to inform other active transportation work program items.

She then provided an update on related work program items arising from the RTP, including regional performance measures and targets, regional safety planning, support for emerging transportation technologies, and incorporating equity considerations into all PSRC work products and programs. Committee members requested further information and updates on the RTP Performance Dashboard project.

The presentation is available on the PSRC website here.

The full adopted RTP and related information can be viewed on the PSRC website.

For more information, contact Sarah Gutschow at sgutschow@psrc.org.

Discussion: Bicycle and Pedestrian Facility Inventory Update

Sarah reviewed the current regional bicycle and pedestrian facility inventory and shared information on preparations for updating the inventory in 2023, including opportunities to review and provide comments on the data collection methodology and criteria at upcoming meetings. Committee members requested that future meetings feature extended opportunities for discussing potential updates to the methodology and criteria.

Nick shared information on work PSRC had been doing to review potential options for revising the current bicycle and pedestrian facility type definitions, as described in the agenda packet memo. The committee then took an interactive survey to provide feedback on potential options for revising the current definitions. Members also suggested that the updated facility typology could be based on multiple sources rather than a single source. They also requested that the regional typology be kept up to date, as some of the potential sources were currently being updated.

Sarah said that staff would begin updating the facility typology based on the results of the feedback received to-date, and provide a draft for review at the next meeting. The presentation is available on the PSRC website here

For more information, contact Sarah Gutschow at sgutschow@psrc.org.'

Roundtable: Announcements of Bicycle/Pedestrian Activities

During the roundtable, the committee received updates and announcements from the following members and guests:

- Robert Foxworthy, King County Parks
- Eric Goodman, Community Transit
- Liz Kaster, City of Tacoma
- Larry Leveen, ForeverGreen Trails
- Thomas Noyes, WSDOT

Additionally, committee members suggested that future meetings could set aside some time to discuss federal and state laws that impact local bicycling and pedestrian planning and projects.

Adjourn

The meeting adjourned at approximately 12:00 p.m.

***Members and Alternates Present**

See attached attendance roster for the member or alternate representing each agency/jurisdiction at the meeting; additional alternates present are listed below.

***Alternates, Interested Parties, and PSRC Staff Present**

Brianne Blackburn, Pierce County; Peter Dane, King County Parks; Sofia Gulaid, Toole Design; Herb Munson; John Selby

PSRC: Monica Adkins, Gil Cerise, Sarah Gutschow, Nick Johnson

**All attendees were present via remote participation.*

BPAC Attendance Roster (Members and Alternates represented)

Date: November 8, 2022 10:00am - 12:00pm

Jurisdiction		Name
King County		
County (2)	x	John Vander Sluis (Roads)
	x	Robert Foxworthy (Parks)
		Jennifer Knauer (Roads) (Alt.)
		Peter Dane (Parks) (Alt.)
Metro City: Seattle (1)		VACANT
		VACANT (Alt.)
Metro City: Bellevue (1)		Matthew Diemer
		Franz Loewenherz (Alt.)
Other Cities/Towns (6)	x	Tobin Bennett-Gold (Kenmore)
	x	Doug McIntyre (Sammamish)
	x	Kimberly Scrivner (Kirkland)
	x	Erik Preston (Kent)
	x	James Webb (Auburn)
		VACANT
		VACANT (Alt.)
		VACANT (Alt.)
		VACANT (Alt.)
		VACANT (Alt.)
		VACANT (Alt.)
Kitsap County		
County (1)		David Forte (Public Works)
	x	*Melissa Mohr (Public Works) (Alt.)*
Metro City: Bremerton (1)		Chris Dimmitt
		Vicki Grover (Alt.)
Other Cities/Towns (1)		Chris Wierzbicki (Bainbridge Island)
		Anthony Burgess (Poulsbo) (Alt.)
Pierce County		
County (1)	x	Shawn Phelps (Public Works)
		Brianne Blackburn (Parks) (Alt.)
Metro City: Tacoma (1)	x	Liz Kaster
		Jennifer Kammerzell (Alt.)
Other Cities/Towns (2)		Jack Ecklund (University Place)
	x	Steve Friddle (Fife)
		Michael Kosa (Sumner) (Alt.)
	x	*Jeremy Metzler (Edgewood) (Alt.)*

Jurisdiction		Name
Snohomish County		
County (1)	x	Aaron Lee (Public Works)
		VACANT (Alt.)
Metro City: Everett (1)	x	Christina Curtis
		Richard Tarry (Alt.)
Other Cities/Towns (2)	x	Jesse Hannahs (Marysville)
		VACANT
		VACANT (Alt.)
		VACANT (Alt.)
Other Agency Representation		
State		
Urban Mobility/Access or Multimodal Planning (1)	x	Thomas Noyes (WSDOT, Vice Chair)
		VACANT (Alt.)
NW and Olympic Regions (1)		VACANT
		VACANT (Alt.)
Transit		
Regional Transit - ST (1)		VACANT
		Janine Sawyer (Alt.)
Local Transit (2)		Malva Slachowitz (King County Metro)
	x	Eric Goodman (Community Transit, Chair)
		Justin Resnick (WSF) (Alt.)
		VACANT (Alt.)
Public Health		
Public Health (2)	x	Jennifer Halverson-Kuehn (Tacoma-Pierce County Health Department)
		Megan Moore (Kitsap Public Health District)
		Keri Moore (Snohomish Health District) (Alt.)
	x	*Richard Gelb (Public Health Seattle/King County) (Alt.)*
Tribes		
Muckleshoot Tribal Cncl (1)		VACANT
		VACANT (Alt.)
Puyallup Tribe (1)		Robert Barandon
		VACANT (Alt.)
Suquamish Tribe (1)		VACANT
		VACANT (Alt.)
NON-VOTING		
King County (1)	x	Dr. Jocelyn Enabulele (Roni LifeWorks)
Kitsap County (1)	x	Brian Watson (BicycleTeacher)
Pierce County (1)	x	Larry Leveen (ForeverGreen Trails)
Snohomish County (1)	x	Kristin Kinnamon (Sharing Wheels Comm. Bike Shop/BIKES Club of Snohomish County)
State/Region (1)	x	Vicky Clarke (Cascade Bicycle Club)
At-Large (2)	x	Phillip Miller (UW Transportation Services)
		Don Willott (North Kitsap Trails Association)

as of 10/2022

Puget Sound Regional Council

Memorandum

Date: **January 10, 2022**

To: Bicycle and Pedestrian Advisory Committee

From: Sarah Gutschow, Senior Planner

Subject: **Bicycle and Pedestrian Facility Typology Update**

In Brief

PSRC staff are preparing to update the regional bicycle and pedestrian facility inventory, last updated in 2020. As part of this, staff have been working with the Bicycle and Pedestrian Advisory Committee (BPAC) to update the current bicycle and pedestrian facility typology.

In response to committee feedback, staff have been working to update the typology based on combined standards from the National Association of City Transportation Officials (NACTO), American Association of State Highway and Transportation Officials (AASHTO) and Federal Highway Administration (FHWA). The following sections provide detailed background information on the update process. The draft updated facility typology is shown in **Attachment A**.

At the January 10th BPAC meeting, the committee will be asked to review and provide feedback on the draft typology.

Bicycle and Pedestrian Facility Typology

PSRC currently uses a bicycle and pedestrian facility typology that was originally produced in consultation with the BPAC as part of the 2014 Active Transportation Plan (ATP), an appendix to the Regional Transportation Plan adopted in 2014. The typology was subsequently updated in 2018. The typology categorizes and defines pedestrian, bicycle and shared use facilities and other related roadway treatments.

In 2020, PSRC completed a comprehensive regional inventory of both bicycle and pedestrian facilities for the Regional Transportation Plan adopted in 2022. The inventory includes data on facilities on arterials and regional shared use paths in separate rights-of way, using the facility type definitions from the 2018 typology. More information about

the current inventory can be found in the RTP Appendix A: Transportation System Inventory (see pages 16-29) here. A more detailed version of the facility typology can be found on the PSRC website here.

As part of the implementation of the newly adopted RTP, PSRC is planning to update the regional bicycle and pedestrian facility inventory in 2023. In preparation for this update, staff has been working with the BPAC to gather feedback and update the current facility typology.

In addition to being used for the regional inventory, the typology was also intended to help guide local bicycle and pedestrian planning and ensure more consistent data collection across the region. At the January meeting, the committee will be asked for feedback on the primary purpose(s) of the typology, which will help clarify how it can best be applied and what should be included in the updated version.

BPAC Feedback on Facility Typology

At previous meetings, the BPAC discussed the facility typology and took a survey to provide input on ways it could be improved as part of the next inventory update. PSRC staff also asked the BPAC for general feedback on how the typology could be applied in regional and local planning efforts.

Committee members suggested basing the regional definitions on national and/or state design guidance. Members also proposed creating separate tables for facility types and conflict treatments, such as intersection improvements. Some members suggested grouping facility types broadly, which would be helpful for regional-scale mapping and analysis, while others thought providing specific facility definitions would be more useful for guidance and educational purposes. Additionally, members suggested including visual illustrations and local examples for each facility type and treatment in the typology.

Based on this feedback, PSRC staff has reviewed several different national and state design guidance resources. At its November 2022 meeting, BPAC members took a survey to provide input on their preferred guidance resource(s) for updating the facility typology, as well as the most important factors to consider when picking a resource. From this input, PSRC staff learned:

- Members identified “quality of definitions” as the most important factor for consideration when choosing a resource. The next most important factors were “public availability” and “ease of use”.
- For updating the facility typology, a majority of committee members preferred using design guidance resources from the NACTO or Washington State Department of Transportation (WSDOT), followed by AASHTO.

- Members emphasized that the typology could use multiple design guidance resources, rather than being based on a single source, as some resources were more useful for certain facility type definitions and contexts.
- Members requested that the typology be kept up to date with national and state guidance, as some resources are already in the process of being updated.

From this input, PSRC staff drafted an updated facility typology using combined guidance from NACTO, AASHTO and the FHWA. NACTO guidance was chosen as the primary source based on the results of the November 2022 survey and because it features clear definitions and helpful visual illustrations for each facility type. For shared use facility types, staff used definitions from AASHTO's *Guide for the Development of Bicycle Facilities* and FHWA's *Small Town and Rural Design Guide*, as these resources provide useful information on design standards for shared use facilities, particularly in rural contexts.

The table in Attachment A shows the draft updated typology. Each facility and treatment type includes a definition, image, purpose, notes for implementation, and whether the type is included in the current inventory. PSRC staff will also be asking the committee to provide information on local examples for each facility type to add to the table. Generally, conflict treatments are incorporated into the typology for informational purposes but are not included in the facility inventory. To better mirror categorizations and definitions in the guidance resources, staff added some new facility and treatment types (highlighted in green) to the draft typology.

At the January 10th BPAC meeting, PSRC staff will be asking the committee for feedback on the draft bicycle and pedestrian facility typology. Committee members are asked to provide input on the following questions:

- Does the draft facility typology appropriately capture all relevant bicycle and pedestrian facility types and treatments? Are there any types that should be added or removed from the typology?
- Are there any other "notes for implementation" that could be added on how these facility types and treatments should be applied in the PSRC regional context?
- What are some local examples for each facility type and treatment to include in the typology?
- Do you have any other suggested improvements to the draft typology?

Next Steps

After the January meeting, PSRC staff will incorporate feedback received from BPAC members into the draft typology. PSRC staff will also potentially consult with other relevant committees for input on the draft typology prior to BPAC action.

The committee will then review the updated draft at its March 14th meeting. At that time, the committee will decide whether to take action to recommend the updated typology for PSRC use.

For more information, please contact Sarah Gutschow at sgutschow@psrc.org or 206-587-4822.

Attachment A: Draft Bicycle and Pedestrian Facility Typology

Attachment A: DRAFT Bicycle and Pedestrian Facility Typology

Type[1]	Image	Definition	Purpose	Notes for Implementation	In PSRC Inventory
Street Design Elements					
Sidewalks		The sidewalk is an accessible pathway that runs parallel to the street. The sidewalk should have an absolute minimum cross-section of 5 feet, exclusive of other amenities and large enough for two people walking side by side. *Sidewalk Zones* have four components: 1. Frontage Zone 2. Pedestrian Through Zone 3. Street Furniture/Curb Zone 4. Enhancement/Buffer Zone	The sidewalk ensures that pedestrians have a safe and adequate place to walk. As conduits for pedestrian movement and access, they enhance connectivity and promote walking. Safe, accessible, and well-maintained sidewalks are a fundamental and necessary investment for cities, and have been found to enhance general public health and maximize social capital.	• Sidewalks should be 5–7 feet wide in residential settings and 8–12 feet wide in downtown or commercial areas. • Sidewalk design should go beyond the bare minimum in both width and amenities. Pedestrians and businesses thrive where sidewalks have been designed at an appropriate scale, with sufficient lighting, shade, and street-level activity.	✓
Curb Extensions		Curb extensions visually and physically narrow the roadway, creating safer and shorter crossings for pedestrians while increasing the available space for street furniture, benches, plantings, and street trees. Curb extension is an umbrella term that encompasses several different treatments and applications, including Gateways, Pinchpoints, Bus Bulbs and Chicanes.	Curb extensions serve as a visual cue to drivers that they are entering a neighborhood street or area.	1. Gateways, or *Bulb-outs*, are curb extensions installed at the entrance to a residential or low-speed street. 2. Pinchpoints, or C*hokers*, are applied midblock to slow traffic speeds and add public space. 3. Bus Bulbs are curb extensions that align the bus stop with the parking lane. 4. Chicanes are offset curb extensions that slow traffic speeds considerably.	

[1] Unless otherwise noted, all referenced definitions can be found in NACTO's *Urban Bikeway Design Guide* or *Urban Street Design Guide.*

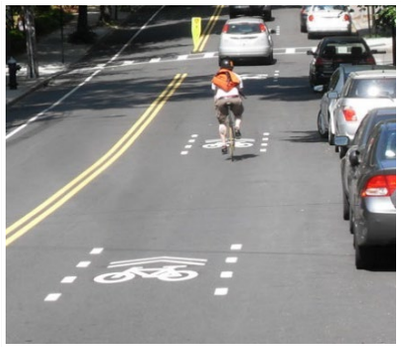
Type[1]	Image	Definition	Purpose	Notes for Implementation	In PSRC Inventory
Vertical Speed Control Elements		Vertical speed control elements manage traffic speeds and reinforce pedestrian-friendly, safe speeds through grade separation treatments. These include Speed Humps, Speed Tables, and Speed Cushions.	Vertical speed control has been shown to slow traffic speeds, creating a safer and more attractive environment.	• Streets with speed limits of 30 mph and under are good candidates for vertical speed control. • Vertical speed control elements should be applied where the target speed of the roadway cannot be achieved with conventional traffic calming elements. • Vertical speed control elements are most effectively implemented at a neighborhood level, rather than by request on a single street.	
Intersection Design Elements					
Crosswalks and Crossings		Crosswalks should be applied where pedestrian traffic is anticipated and encouraged. Where vehicle speeds and volumes are high and pedestrian access is expected at regular intervals, signalized crossings preserve a safe walking environment. Where anticipated pedestrian traffic is low or intermittent, or where vehicle volumes are lower and pedestrian crossings shorter, designers may consider the use of unsignalized crossing treatments such as medians, hybrid or rapid flash beacons, or raised crossings.	Safe and frequent crosswalks support a walkable urban environment. While application of crosswalk markings alone is not a viable safety measure in all situations, crosswalks benefit and guide pedestrians.	• On streets with higher volume (>3000 ADT), higher speeds (>20 mph), or more lanes (2+), crosswalks should be the norm at intersections. • At schools, parks, plazas, senior centers, transit stops, hospitals, campuses, and major public buildings, marked crosswalks may be beneficial regardless of traffic conditions.	

Type[1]	Image	Definition	Purpose	Notes for Implementation	In PSRC Inventory
Leading Pedestrian Interval		A Leading Pedestrian Interval (LPI) typically gives pedestrians a 3–7 second head start when entering an intersection with a corresponding green signal in the same direction of travel.	LPIs enhance the visibility of pedestrians in the intersection and reinforce their right-of-way over turning vehicles, especially in locations with a history of conflict.	• LPIs are typically applied where both pedestrian volumes and turning volumes are high enough to warrant an additional dedicated interval for pedestrian-only traffic.	
Bicycle Signals		Bicycle signals and beacons facilitate bicyclist crossings of roadways. Bicycle signals are traditional three lens signal heads with green-yellow and red bicycle stenciled lenses that can be employed at standard signalized intersections and Hybrid Signal crossings. Flashing amber warning beacons are utilized at unsignalized intersection crossings. Push buttons, signage, and pavement markings may be used to highlight these facilities for both bicyclists and motorists.	Bicycle signals make crossing intersections safer for bicyclists by clarifying when to enter an intersection and by restricting conflicting vehicle movements.	• Determining which type of signal or beacon to use for a particular intersection depends on a variety of factors. These include speed limits, average daily traffic (ADT), anticipated bicycle crossing traffic, and the configuration of planned or existing bicycle facilities.	

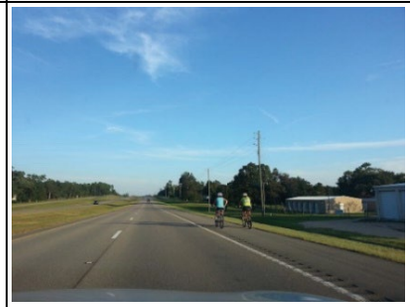
Type[1]	Image	Definition	Purpose	Notes for Implementation	In PSRC Inventory
Bicycle Facilities					
Conventional Bike Lanes		A conventional bike lane is defined as a portion of the roadway that has been designated by striping, signage, and pavement markings for the preferential or exclusive use of bicyclists.	Bike lanes enable bicyclists to ride at their preferred speed without interference from prevailing traffic conditions. Bike lanes also facilitate predictable behavior and movements between bicyclists and motorists.	• Bike lanes are most helpful on streets with ≥ 3,000 motor vehicle average daily traffic. • Bike lanes are most helpful on streets with a posted speed ≥ 25 mph and/or streets with high transit vehicle volumes.	✓
Buffered Bike Lanes		Buffered bike lanes are conventional bicycle lanes paired with a designated buffer space separating the bicycle lane from the adjacent motor vehicle travel lane and/or parking lane.	Buffered bike lanes provide greater distance between motor vehicles and bicyclists than conventional bike lanes and appeal to a wider cross-section of bicycle users.	• These are typically applied anywhere a standard bike lane is being considered or on streets with extra width. • The buffer shall be marked with 2 solid white lines. If at or wider than 3 feet, these should have interior diagonal cross hatching or chevron markings.	✓
Contra-Flow Bike Lanes		Contra-flow bicycle lanes are bicycle lanes designed to allow bicyclists to ride in the opposite direction of motor vehicle traffic. They convert a one-way traffic street into a two-way street: one direction for motor vehicles and bikes, and the other for bikes only. Contra-flow lanes are separated with yellow center lane striping.	Contra-flow bike lanes provide connectivity and access to bicyclists traveling in both directions while reducing wrong-way and sidewalk riding.	• These are most typically applied on streets where large numbers of bicyclists are already riding the wrong way or on corridors where alternate routes require excessive out-of-direction travel. • Contra-flow lanes work best on low-speed, low volume streets.	✓

Type[1]	Image	Definition	Purpose	Notes for Implementation	In PSRC Inventory
Left-Side Bike Lanes		Left-side bike lanes are conventional bike lanes placed on the left side of one-way streets or two-way median-divided streets.	Left-side bike lanes offer advantages along streets with heavy delivery or transit use, frequent parking turnover on the right side, or other potential conflicts that could be associated with right-side bicycle lanes. The reduced frequency of right-side door openings lowers dooring risk.	• These are best applied on streets with high parking turnover, rush hour parking restrictions, high volumes of right turn movements by motor vehicles, or a significant number of left-turning bicyclists. • These lanes are typically applied on one-way or median-divided streets with frequent transit or freight-related stops.	✓
Protected Bike Lanes (One-Way)		Protected bike lanes are physically separated from motor traffic and distinct from the sidewalk. They provide space that is intended to be exclusively or primarily used for bicycles and are separated from motor vehicle travel lanes, parking lanes, and sidewalks. Protection can come in the form of raised medians, on-street parking, bollards, or grade separation. Protected bike lanes are also known as *Cycle Tracks*, *Separated Bikeways*, *and On-Street Bike Paths*.	By separating bicyclists from motor traffic, cycle tracks can offer a higher level of security than bike lanes and are attractive to a wider spectrum of the public.	• Protected bike lanes are most helpful on streets with parking lanes, high levels of bicyclist stress, and/or high volumes of bicycle travel • *These are considered "All Ages and Abilities" facilities.*	✓
Protected Bike Lanes (Two-Way)		Two-way protected bike lanes are physically separated bike lanes that allow bicycle movement in both directions on one side of the road.	These protected bike lanes are more attractive to a wide range of bicyclists at all levels and ages. By dedicating and protecting space for bicyclists, two-way protected bike lanes improve perceived comfort and safety while eliminating the risk of dooring.	• These are best applied on streets with few conflicts such as driveways or cross-streets or where there is not enough space for one-way protected bike lanes on both sides of the street. • They may also be desirable where there is a need for contra-flow bike lanes. • *These are considered "All Ages and Abilities" facilities.*	✓

Type[1]	Image	Definition	Purpose	Notes for Implementation	In PSRC Inventory
Raised Bike Lanes		Raised bike lanes are bicycle facilities that are vertically separated from motor vehicle traffic. Many are paired with a furnishing zone between the cycle track and motor vehicle travel lane and/or pedestrian area. A raised bike lane may allow for one-way or two-way travel by bicyclists.	Raised bike lanes can offer an additional level of protection from motor vehicles and improve bicyclist comfort.	• These can visually reduce the width of the street when provided adjacent to a travel lane • With new roadway construction, a raised cycle track can be less expensive to construct than a wide or buffered bicycle lane • *These are considered "All Ages and Abilities" facilities.*	✓
Bicycle Boulevards		Bicycle boulevards, or *Neighborhood Greenways*, are streets with low motorized traffic volumes and speeds, designated and designed to give bicycle travel priority. These streets can be enhanced using a range of design treatments tailored to existing conditions and desired outcomes. These are also known as *Neighborhood Greenways* in the Puget Sound region and the wider Pacific Northwest.	Bicycle boulevards discourage through trips by motor vehicles and create safe, convenient bicycle crossings of busy arterial streets.	• A bicycle boulevard should be considered where local streets offer a continuous route along low-traffic streets and should follow a desire line for bicyclists. • Bicycle boulevards should meet strict targets of fewer than 3,000 motor vehicles per day (1,500 preferred) and a speed of no more than 25 mph. • *These can be considered an "All Ages and Abilities" facility when vehicle volumes and speeds are low.*	✓

Type[1]	Image	Definition	Purpose	Notes for Implementation	In PSRC Inventory
Shared Lane Markings		Shared Lane Markings, or *Sharrows*, are road markings used to indicate a shared lane environment for bicycles and automobiles.	Among other benefits, shared lane markings reinforce the legitimacy of bicycle traffic on the street, recommend proper bicyclist positioning, and may be configured to offer directional and wayfinding guidance.	• The shared lane marking is a pavement marking with a variety of uses to support a complete bikeway network. • It is not a facility type and should not be considered a substitute for bike lanes, cycle tracks, or other separation treatments where these types of facilities are otherwise warranted or space permits.	✓
Shared Use Facilities					
Shared Use Paths[2]		Shared use paths (SUPs) are linear corridors that are physically separated from motorized vehicular traffic by an open space or barrier and either within the highway right-of-way or within an independent right-of-way. Path users are generally non-motorized and may include, but are not limited to, bicyclists; pedestrians (including walkers and people using wheelchairs); skaters; and scooter users. Typically, widths range from 10-14 ft, with 8 feet acceptable in some defined circumstances.	SUPs can serve a variety of purposes, including providing shortcuts through neighborhoods; commuting routes between residential areas and job centers or schools; and recreational opportunities. Shared use paths can also provide nonmotorized access to areas that are otherwise served only by limited-access highways.	• For PSRC mapping purposes, regional SUPs primarily provide connections between regional destinations, including growth centers and high-capacity transit stations, rather than internal circulation at destinations. • Hard, all-weather pavement surfaces are generally preferred, but unpaved surfaces may be appropriate in some circumstances. Unpaved pathways should be constructed of materials that are firm and stable. • *These are considered "All Ages and Abilities" facilities.*	✓

[2] Definitions and images for shared use facility types are sourced from the *Guide for the Development of Bicycle Facilities* (AASHTO, 2012) and the *Small Town and Rural Design Guide* (FHWA, 2016).

Type[1]	Image	Definition	Purpose	Notes for Implementation	In PSRC Inventory
Sidepaths[2]		Sidepaths are a specific type of shared use path that run adjacent to the roadway, where right-of-way and other physical constraints dictate. Sidepaths should satisfy the same design criteria as shared use paths in independent rights-of-way.	Sidepaths should be used where the adjacent roadway has relatively high-volume and high-speed motor vehicle traffic, and there are no practical alternatives for either improving the roadway or accommodating bicyclists on nearby parallel streets.	• Sidepaths can function along highways for short sections, or for longer sections where there are few street and/or driveway crossings. • The minimum recommended distance between a path and the roadway curb or edge of traveled way is 5 ft. Where the separation is less than 5 ft, a physical barrier or railing should be provided between the path and the roadway. • *These are considered "All Ages and Abilities" facilities.*	✓
Paved Shoulders[2]		Paved shoulders can be added on busier or higher-speed rural roads to improve mobility and comfort for bicyclists and reduce bicycle-related crashes. Paved shoulders should be at least 4 ft wide to accommodate bicycle travel.	Adding or improving paved shoulders can greatly improve bicyclist accommodation on roadways with higher speeds or traffic volumes, as well as benefit motorists.	• The best use of paved shoulders as bicycle facilities is on rural highways that connect town centers and other major attractors. • Additional shoulder width is desirable on roadways with high motor vehicle speeds (over 50 mph); high numbers of large vehicles; or if static obstructions exist.	✓
Advisory Shoulders[2]		Advisory shoulders create usable shoulders for bicyclists on roadways that are otherwise too narrow to accommodate one. The shoulder is delineated by pavement marking and optional pavement color. Motorists may only enter the shoulder when no bicyclists are present and must overtake these users with caution due to potential oncoming traffic. Advisory Shoulders are also known as *Edge Lane Roads* or *Advisory Bike Lanes*.	Roads with advisory shoulders accommodate low to moderate volumes of two-way motor vehicle traffic and provide a prioritized space for bicyclists with little or no widening of the paved roadway surface.	• Advisory shoulders are a new treatment type in the United States and no performance data has yet been collected to compare to the substantial body of international experience. • These function well within a rural and small town traffic and land use context.	

References

AASHTO. (2012). *Guide for the Development of Bicycle Facilities, Fourth Edition.* AASHTO. https://njdotlocalaidrc.com/perch/resources/aashto-gbf-4-2012-bicycle.pdf

FHWA. (2016). *Small Town and Rural Design Guide*. FHWA. https://ruraldesignguide.com/

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