

Alternative Pedestrian Walkways

Cut Sheet Draft

22.Feb.18

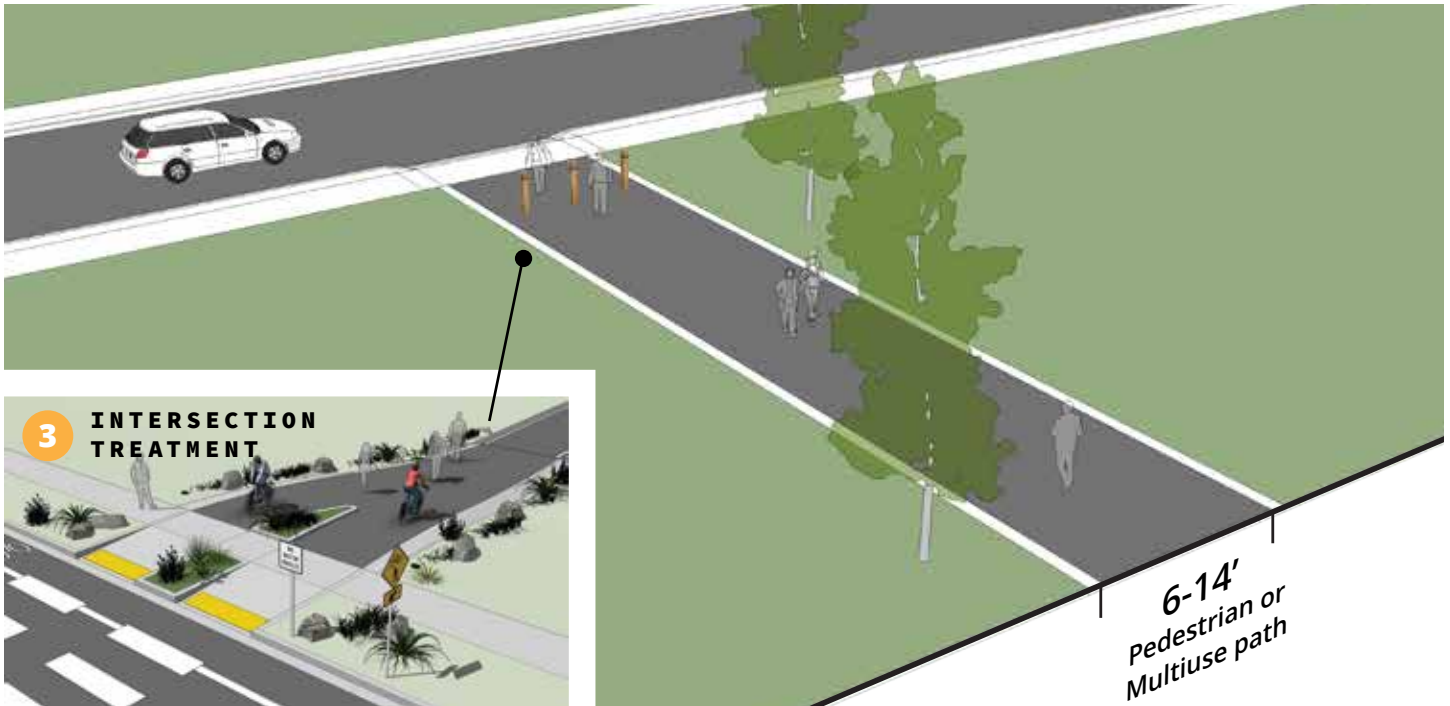


Contextual information for Alternative Pedestrian Walkways

Alternative street type	Roadway classification	Max daily vehicles	Max posted speed	Safe Routes Applicability	Traffic calming may be required	Unit cost
Pedestrian or Shared Use Path	N/A	N/A	N/A	Yes		
Shared local street	Local	500	15 mph	with 15 mph design speed	Yes	
Advisory Shoulder	Local	3000	25 mph	500 daily vehicles, local streets only	Yes	
Safer Shoulder	Local, Collector, Arterial	3000	25 mph	500 daily vehicles	Yes	
Separated Walkway	Local, Collector, Arterial	N/A	N/A	w/posted speed of 20 mph		
Walkway, one side	Local, Collector, Arterial	N/A*	25 mph	w/posted speed of 20 mph	Yes	

*Must meet marked crosswalk spacing guidelines.

Pedestrian or Shared Use Path



This illustration depicts a 6-14 ft wide pedestrian or shared-use path.

DESCRIPTION

A Pedestrian or Shared Use Path is on right-of-way independent from motorized vehicular traffic. At narrow widths, these paths are appropriate for pedestrian-only use. Where more width is available, the connection may be designed for bicycle and pedestrian use.

APPLICATION

Roadway classification	N/A
Max vehicle volume	N/A
Max posted speed	N/A
Safe Routes applicability	Yes
Traffic calming may be required	N/A
Unit cost (\$ per mile)	

ACCESSIBILITY

A pedestrian and bicycle connection is intended for use by pedestrians and must meet accessibility guidelines for walkways. The surface must be stable, firm and slip resistant, meet clear width requirements, with minimal cross slope. Running slope may follow that of the right-of-way corridor, but should be less than 5% where possible.

KEY DESIGN ELEMENTS

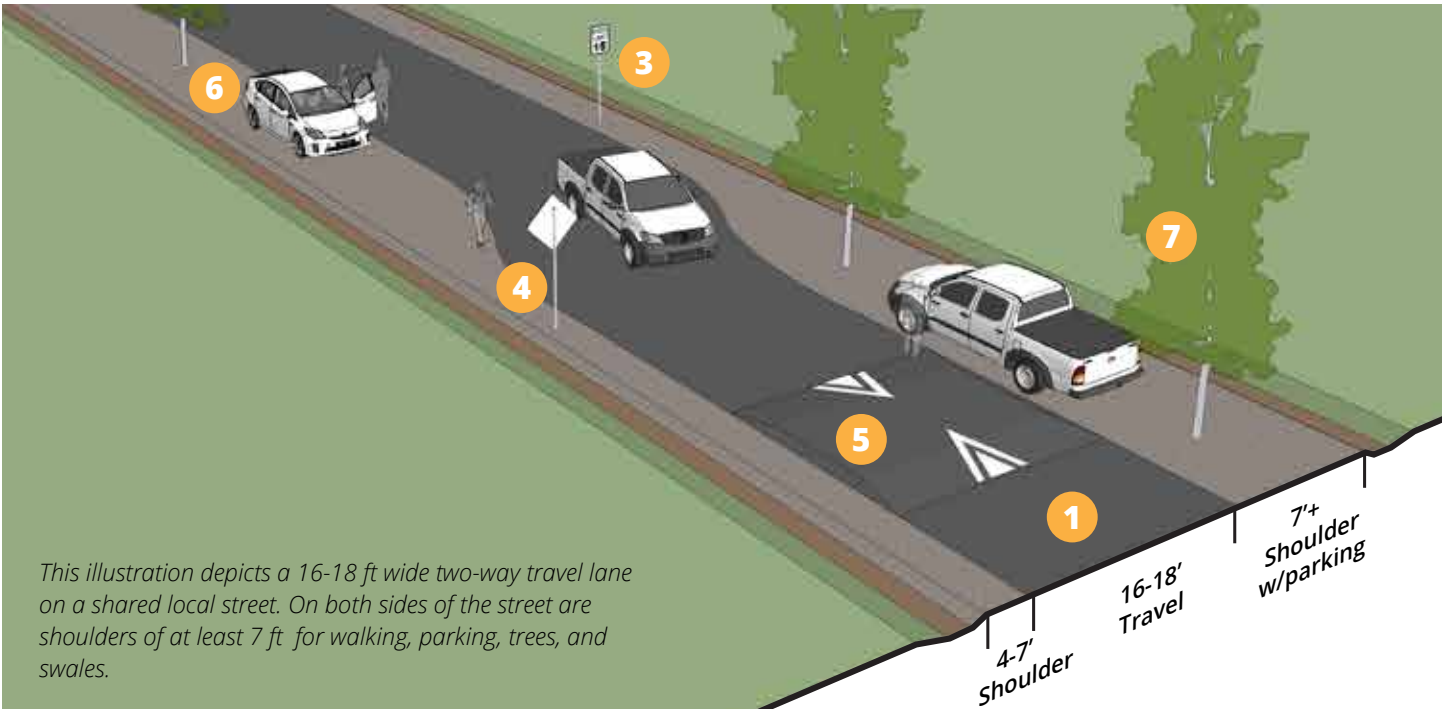
- 1 A pedestrian-only connection should be designed to support side-by-side walking:
 - 10 ft width preferred;
 - 6 ft width minimum;
- 2 When intended for use by bicyclists, increased width is required:
 - 14 ft width preferred;
 - 10 ft width minimum.

OPTIONAL DESIGN ELEMENTS

- 3 Pay special attention to roadway crossings, including assignment of user priority, crossing enhancements and geometric design to create appropriate behavior.
- 4 Lighting may be recommended along transportation pathways, for safety and security.
- 5 In areas of steep slopes and topographical constraints, a staircase may be appropriate to establish a pedestrian connection.

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Shared Local Street



This illustration depicts a 16-18 ft wide two-way travel lane on a shared local street. On both sides of the street are shoulders of at least 7 ft for walking, parking, trees, and swales.

DESCRIPTION

A Shared Local Street is designed to serve pedestrians, bicyclists, and motor vehicle traffic in a shared slow-speed travel area. On very low-volume and low-speed streets, pedestrians and bicyclists are comfortable using the roadway with the occasional vehicle.

APPLICATION

Roadway classification	Local
Max vehicle volume	500 vehicles per day
Max posted speed	15 mph
Safe Routes applicability	with 15 mph design speed
Traffic calming may be required	Yes
Unit cost (\$ per mile)	

Defined as a "Narrow Residential Roadway" by ORS 801.368.

ACCESSIBILITY

Shared Local Streets are intended for use by pedestrians, and must meet accessibility guidelines. The surface must be stable, firm and slip resistant, meet clear width requirements, with minimal cross slope. Running slope may follow that of the right-of-way corridor, but should be less than 5% where possible.

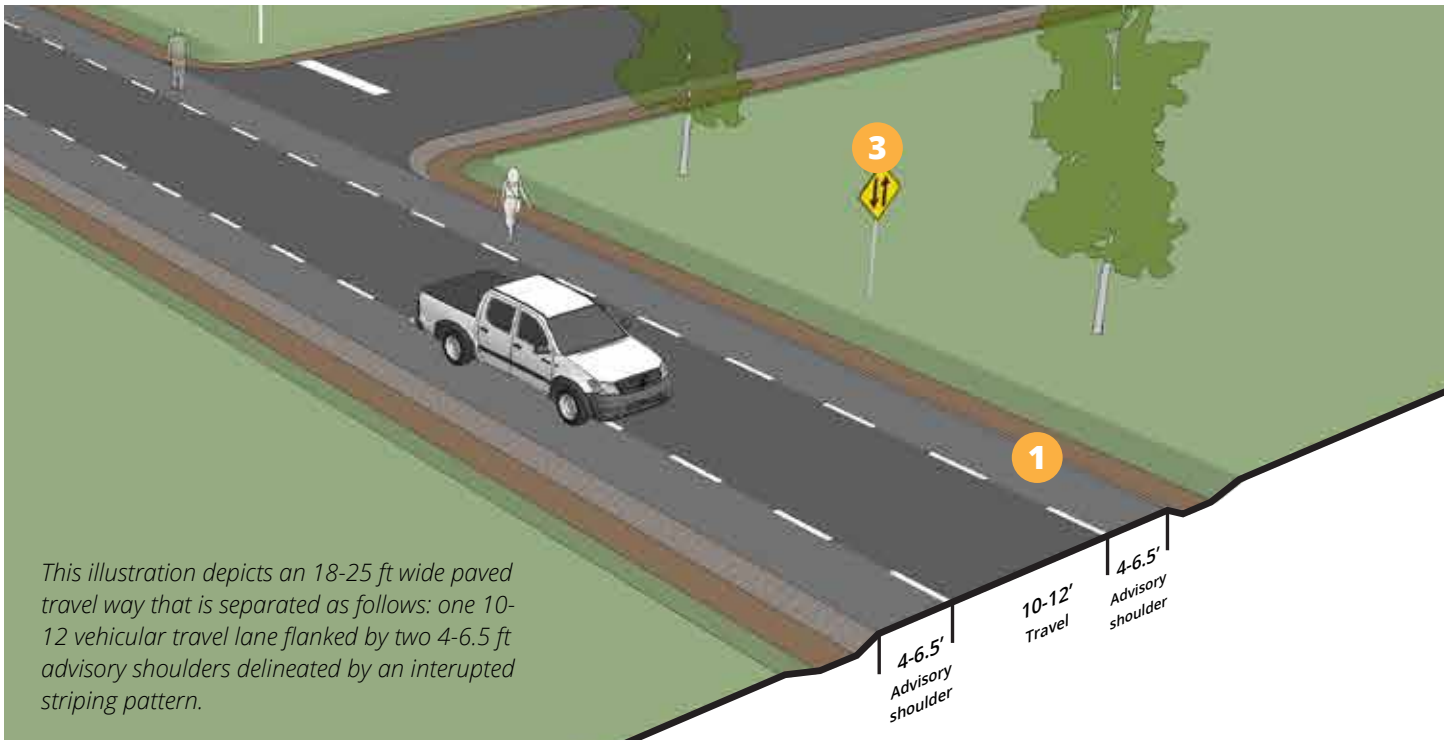
KEY DESIGN ELEMENTS

- 1 Total paved roadway area may vary from 16 ft to 18 ft.
 - 18 ft width maximum;
 - 16 ft width minimum.
- 2 No markings should be used to delineate travel lanes.
- 3 15 MPH speed limit must be posted.
- 4 Signs must be posted indicating shared street conditions. A PEDESTRIAN (W11-2) warning sign with ON ROADWAY legend plaque.
- 5 Traffic calming may be required to create slow operating conditions.

OPTIONAL DESIGN ELEMENTS

- 6 Parking is optional, and may be provided on-street or on an unpaved shoulder area.
- 7 Trees may be planted within the shoulder area at regular intervals to visually and physically narrow the corridor, add to the aesthetic environment, and encourage slow speeds.

Advisory Shoulder



This illustration depicts an 18-25 ft wide paved travel way that is separated as follows: one 10-12 vehicular travel lane flanked by two 4-6.5 ft advisory shoulders delineated by an interrupted striping pattern.

DESCRIPTION

An Advisory Shoulder creates usable space for pedestrians and bicyclists on a roadway that is otherwise too narrow to accommodate separate facilities. The shoulder is delineated by broken white pavement markings. Motorists may only enter the shoulder when no pedestrians or bicyclists are present and must overtake these users with caution due to potential oncoming traffic.

APPLICATION

Roadway classification	Local
Max vehicle volume	3000 vehicles per day
Max posted speed	25 mph
Safe Routes applicability	500 vehicles per day, residential streets only
Traffic calming may be required	Yes
Unit cost (\$ per mile)	

Advisory Shoulder striping is experimental at this time, and may require participation in the FHWA Request to Experiment process (MUTCD 2009, Sec. 1A.10).

*Broken line markings indicate permissive conditions (FHWA MUTCD Sec. 3A.06)

KEY DESIGN ELEMENTS

- 1 Use a broken lane line to delineate the advisory shoulder*.
- 2 In general, do not mark a center line on the roadway. Short sections may be marked with a center line to separate opposing traffic flows at specific locations, such as around curves, over hills, and on approaches to controlled crossings. At these locations widen the paved roadway surface to provided a dedicated shoulder space.

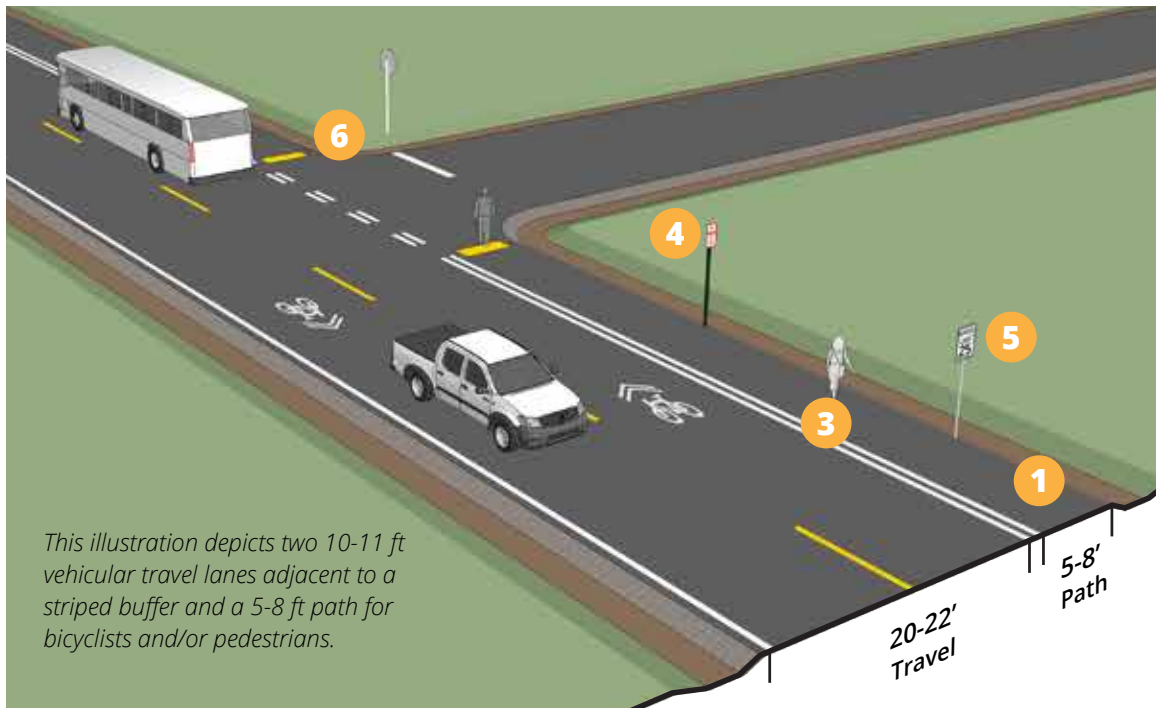
OPTIONAL DESIGN ELEMENTS

- 3 Use an unmodified Two-Way Traffic warning sign (W6-3) to clarify two-way operation of the road.
- 4 Create contrast between the shoulder and the roadway using integral-dyed asphalt or other colored pavement.
- 5 Periodically use traffic calming measures that protect and give priority to pedestrians and bicyclists.

ACCESSIBILITY

When advisory shoulders are intended for use by pedestrians, they must meet accessibility guidelines.

Safer Shoulders



This illustration depicts two 10-11 ft vehicular travel lanes adjacent to a striped buffer and a 5-8 ft path for bicyclists and/or pedestrians.

2 SHOULDER OPTIONS



DESCRIPTION

Safer Shoulders are paved roadway shoulders, delineated with lane striping, intended to provide interim or temporary pedestrian accommodation on roadways lacking sidewalks. They are not intended to be a permanent alternative to sidewalks and will often fill short gaps between other higher quality facilities.

APPLICATION

Roadway classification	Local, Collector, Arterial
Max vehicle volume	3000 vehicles per day
Max posted speed	25 mph
Safe Routes applicability	500 vehicles per day
Traffic calming may be required	Yes
Unit cost (\$ per mile)	

ACCESSIBILITY

A Safer Shoulder is an on-roadway facility intended for use by pedestrians and must meet accessibility guidelines for walkways*. Any deficiencies in meeting ADA guidelines during implementation as a restriping project should be identified in the ADA transition plan and be corrected in the next resurfacing. Pedestrian lanes are an interim facility; a full sidewalk construction should be planned for future implementation.

*Pedestrian access route requirements: The route shall provide a minimum 4 ft width; The surface shall be firm, stable and slip resistant; The running slope shall not exceed the general grade established for the adjacent street or highway; The cross slope shall be 2 percent maximum. Where such modifications are not possible or appropriate within the scope of the project, [exception report/request] must be filed.

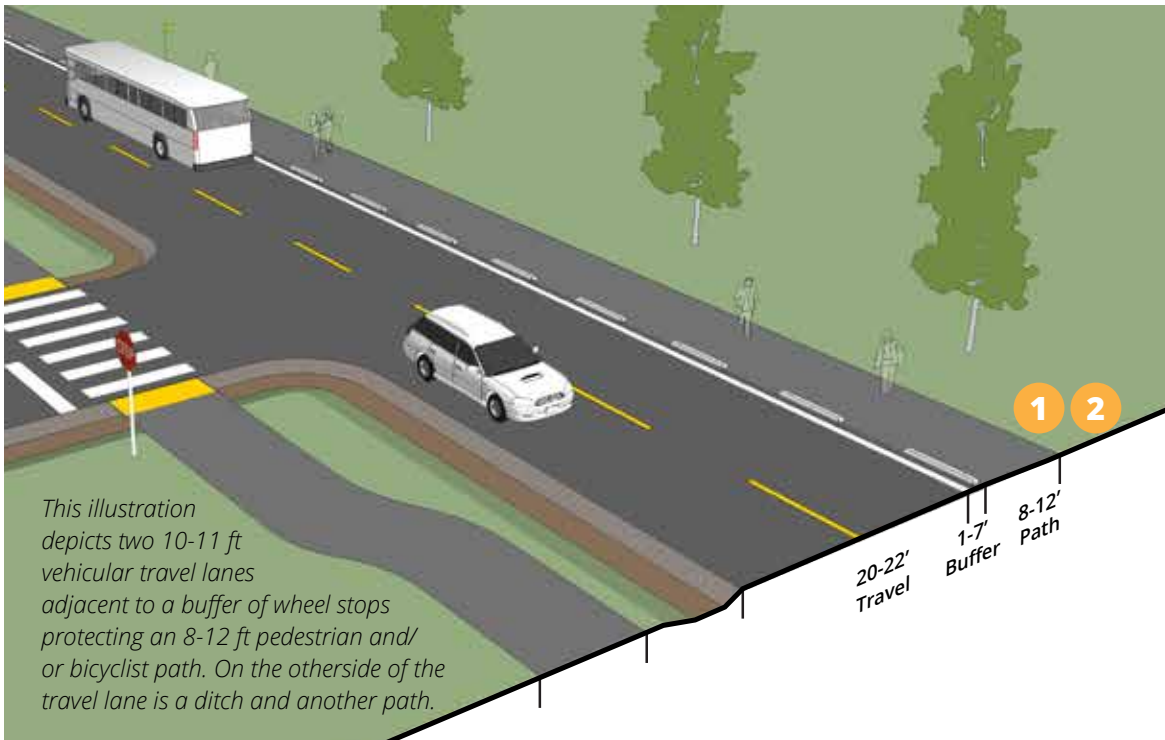
KEY DESIGN ELEMENTS

- 1 Safer Shoulders should be designed to support side-by-side walking within the lane. Because of the lack of physical separation, additional width beyond this should be included for comfort.
 - 8 ft width preferred;
 - 5 ft width minimum.
- 2 When intended for use by bicyclists, safer shoulders should have increased width and marked to distinguish user zones:
 - 8 ft wide, and marked to distinguish user treads;
 - a 10 ft width is preferred.
- 3 Mark a double white line between travel lanes and shoulder walkway. Where extra space is available, mark as buffer separation.
- 4 Prohibit vehicles from parking on Safer Shoulder (e.g. R8-1 No Parking sign).

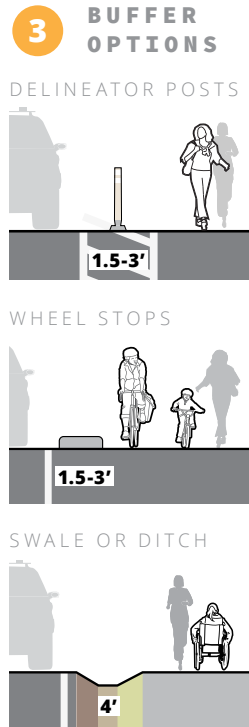
OPTIONAL DESIGN ELEMENTS

- 5 Provide traffic calming elements when speed and volume thresholds are not met e.g. posted speed reductions, removing center lines, narrowing travel lanes.
- 6 Tactile warning surface indicators may be used to indicate intersection crossing areas.

Separated Walkway



This illustration depicts two 10-11 ft vehicular travel lanes adjacent to a buffer of wheel stops protecting an 8-12 ft pedestrian and/or bicyclist path. On the otherside of the travel lane is a ditch and another path.



DESCRIPTION

A Separated Walkway provides a physically separated pedestrian space on both sides of the road.

APPLICATION

Roadway classification	Local, Collector, Arterial
Max vehicle volume	N/A
Max posted speed	N/A
Safe Routes applicability	w/posted speed of 20 mph
Traffic calming may be required	Not required
Unit cost (\$ per mile)	

This facility is not appropriate in areas classified as Pedestrian Districts. This facility must meet the City's crossing spacing standard of a crossing every 800 ft.

ACCESSIBILITY

A Separated Walkway is an on-roadway facility intended for use by pedestrians and must meet accessibility guidelines for walkways.

KEY DESIGN ELEMENTS

- 1** The Separated Walkway should be designed to support side-by-side walking:
 - 8 ft minimum width preferred;
 - 6 ft minimum width;
- 2** When intended for use by bicyclists, increased width is required:
 - 12 ft minimum width preferred;
 - 10 ft minimum width;
- 3** A wide variety of separation methods exist, depending on right-of-way width, drainage, and cost.
 - Physical elements such as parking wheel stops, delineator posts, or traffic separators may establish physical separation within a space of 1-3 ft.
 - Unpaved separation, such as a gravel shoulder, vegetated shoulder, or stormwater facilities may provide separation within 4 to 7 ft or greater

OPTIONAL DESIGN ELEMENTS

- 4** On-street parking may be provided in the roadway, adjacent to or integrated with the physical separation.

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