



**Billing Code 8150-01-P**

**ARCHITECTURAL AND TRANSPORTATION BARRIERS COMPLIANCE BOARD**

**36 CFR Part 1190**

**[Docket No. ATBCB- 2013-0002]**

**RIN 3014-AA26**

**Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way; Shared Use Paths**

**AGENCY:** Architectural and Transportation Barriers Compliance Board.

**ACTION:** Supplemental notice of proposed rulemaking.

**SUMMARY:** We, the Architectural and Transportation Barriers Compliance Board (Access Board), issued an advance notice of proposed rulemaking (ANPRM) announcing our intent to develop accessibility guidelines for shared used paths. Shared use paths are multi-use paths designed primarily for use by bicyclists and pedestrians, including pedestrians with disabilities, for transportation and recreation purposes. Shared use paths are physically separated from motor vehicle traffic by an open space or barrier, and are either within the highway right-of-way or within an independent right-of-way. We noted in the ANPRM that we are considering including accessibility guidelines for shared use paths in the accessibility guidelines that we are developing for sidewalks and other pedestrian facilities in the public right-of-way. We subsequently issued a notice of proposed rulemaking (NPRM) requesting comments on proposed accessibility guidelines for pedestrian facilities in the public right-of-way. The NPRM did not include specific provisions for shared use paths. We are issuing this supplemental notice of proposed rulemaking (SNPRM) to include specific provisions for shared use paths in the proposed

accessibility guidelines for pedestrian facilities in the public right-of-way. The proposed accessibility guidelines would apply to the design, construction, and alteration of pedestrian facilities in the public right-of-way, including shared use paths, covered by the Americans with Disabilities Act and the Architectural Barriers Act, and would ensure that the facilities are readily accessible to and usable by individuals with disabilities.

**DATES:** Submit comments by [INSERT DATE 90 DAYS AFTER DATE OF PUBLICATION

IN THE FEDERAL REGISTER].

**ADDRESSES:** Submit comments by any of the following methods:

- Federal eRulemaking Portal: <http://www.regulations.gov>. Follow the instructions for submitting comments. Regulations.gov ID for this docket is ATBCB-2013-0002.
- E-mail: [docket@access-board.gov](mailto:docket@access-board.gov). Include docket number ATBCB 2013-0002 in the subject line of the message.
- Fax: 202-272-0081.
- Mail or Hand Delivery/Courier: Scott Windley, Access Board, 1331 F Street, NW., Suite 1000, Washington, DC 20004-1111.

All comments will be posted without change to <http://www.regulations.gov>, including any personal information provided.

**FOR FURTHER INFORMATION CONTACT:** Scott Windley, Access Board, 1331 F Street NW., Suite 1000, Washington, DC 20004-1111. Telephone (202) 272-0025 (voice) or (202) 272-0028 (TTY). E-mail address [row@access-board.gov](mailto:row@access-board.gov).

**SUPPLEMENTARY INFORMATION:**

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In this preamble, “we,” “us,” and “our” refer to the Architectural and Transportation Barriers Compliance Board (Access Board).

## **1. Executive Summary**

This supplemental notice of proposed rulemaking (SNPRM) proposes to include specific provisions for shared use paths in the proposed accessibility guidelines for pedestrian facilities in the public right-of-way published in the Federal Register on July 26, 2011. See 76 FR 44664 (July 26, 2011). A copy of the proposed accessibility guidelines for pedestrian facilities in the public right-of-way with the specific provisions for shared use paths proposed in the SNPRM is available on our website at:

<http://www.access-board.gov/sup.htm>.

We are required by section 502 of the Rehabilitation Act to establish and maintain accessibility guidelines for the design, construction, and alteration of facilities covered by the Americans with Disabilities Act (ADA) and the Architectural Barriers Act (ABA) to ensure that the facilities are readily accessible to and usable by individuals with disabilities. See 29 U.S.C. 792 (b) (3). The ADA covers state and local government

facilities, places of public accommodation, and commercial facilities. See 42 U.S.C. 12101 et seq. The ABA covers facilities financed with federal funds. See 42 U.S.C. 4151 et seq.

We are issuing the SNPRM in response to public comments on separate rulemakings to develop accessibility guidelines for trails and other outdoor developed areas, and for sidewalks and other pedestrian facilities in the public right-of-way. The comments noted that shared use paths are distinct from trails and sidewalks, and recommended that we develop accessibility guidelines for shared use paths. As defined in the SNPRM, shared use paths are multi-use paths designed primarily for use by bicyclists and pedestrians, including pedestrians with disabilities, for transportation and recreation purposes. Shared use paths are physically separated from motor vehicle traffic by an open space or barrier, and are either within the highway right-of-way or within an independent right-of-way.

As noted above, the SNPRM would include specific provisions for shared use paths in the proposed accessibility guidelines for pedestrian facilities in the public right-of-way. The proposed accessibility guidelines for pedestrian facilities in the public right-of-way would require pedestrian access routes to be provided within pedestrian circulation paths located in the public right-of-way, and would establish proposed technical provisions for the width, grade, cross slope, and surface of pedestrian access routes. See R204.2 and R302. Where existing pedestrian circulation paths are altered and existing physical constraints make it impracticable for the altered paths to fully comply with the proposed technical provisions, compliance would be required to the extent practicable. See R202.3.1.

The SNPRM would:

- Require the full width of a shared use path to comply with the proposed technical provisions for the grade, cross slope, and surface of pedestrian access routes (see R302.3.2);
- Permit compliance with the proposed technical provisions for the grade of pedestrian access routes to the extent practicable where physical constraints or regulatory constraints prevent full compliance (see R302.5.4 and R302.5.5);
- Prohibit objects from overhanging or protruding into any portion of a shared use path at or below 8 feet measured from the finished surface (see R210.3); and
- Require the width of curb ramps and blended transitions in shared use paths to be equal to the width of the shared use path (see R304.5.1.2).

The SNPRM is consistent with the design criteria for shared used paths in the American Association of State Highway and Transportation Officials (AASHTO) “Guide for the Development of Bicycle Facilities” (2012) (hereinafter referred to as the “AASHTO Guide”). The SNPRM is not expected to increase the cost of constructing shared use paths for state and local government jurisdictions that use the AASHTO Guide.

As discussed in the preamble to the proposed accessibility guidelines for pedestrian facilities in the public right-of-way, other federal agencies are required to adopt accessibility standards for the design, construction, and alteration of facilities covered by the ADA and ABA that are consistent with our accessibility guidelines.

When the other federal agencies adopt accessibility standards for the design, construction, and alteration of pedestrian facilities in the public right-of-way, including shared use paths, covered by the ADA and ABA, compliance with the standards is mandatory.

## **2. Background**

We are conducting separate rulemakings to develop accessibility guidelines for trails and other outdoor developed areas, and for sidewalks and other pedestrian facilities in the public right-of-way.

We issued a notice of proposed rulemaking (NPRM) requesting comments on proposed accessibility guidelines for trails and other outdoor developed areas in 2007. See 72 FR 34074 (June 20, 2007). A trail would be defined for purposes of these accessibility guidelines as a pedestrian route developed primarily for outdoor recreational purposes. A pedestrian route developed primarily to connect elements, spaces, or facilities within a site is not a trail.

We requested comments on draft accessibility guidelines for sidewalks and other pedestrian facilities in the public right-of-way in 2002 and 2005. See 67 FR 41206 (June 17, 2002); and 70 FR 70734 (November 23, 2005). These accessibility guidelines would adopt the definition of sidewalk in the Manual on Uniform Traffic Control Devices (MUTCD). The MUTCD (2009) defines a sidewalk as the portion of a street between the curb line, or the lateral line of a roadway, and the adjacent property line or on easements of private property that is paved or improved and intended for use by pedestrians.

Public comments on these rulemakings noted that shared use paths are distinct from trails and sidewalks in that they are used by bicyclists and pedestrians, including

pedestrians with disabilities, for transportation and recreation purposes. The comments recommended that we develop accessibility guidelines for shared use paths. On March 28, 2011, we issued an advance notice of proposed rulemaking (ANPRM) announcing our intent to develop accessibility guidelines for shared use paths, and requested comments on a definition and draft technical provisions for shared use paths. See 76 FR 17064 (March 28, 2011). We noted in the ANPRM that we are considering including accessibility guidelines for shared use paths in the accessibility guidelines for pedestrian facilities in the public right-of-way since state and local transportation departments are the principal entities that design and construct shared use paths, and many of the draft technical provisions for shared use paths in the ANPRM are the same as those in the draft accessibility guidelines for pedestrian facilities in the public right-of-way (e.g., curb ramps and blended transitions, and detectable warning surfaces).

On July 26, 2011, we issued a NPRM requesting comments on proposed accessibility guidelines for pedestrian facilities in the public right-of-way. See 76 FR 44664 (July 26, 2011). The NPRM did not include specific provisions for shared use paths. The comment period on the NPRM ended on November 23, 2011. The comment period was reopened on December 5, 2011 to allow additional time for the public to submit comments. See 76 FR 75844 (December 5, 2011). The additional comment period ended on February 2, 2012.

### **3. Proposed Supplements to Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way**

We are issuing this SNPRM to include specific provisions for shared use paths in the proposed accessibility guidelines for pedestrian facilities in the public right-of-way

published in the Federal Register on July 26, 2011. See 76 FR 44664 (July 26, 2011).

The proposed accessibility guidelines for pedestrian facilities in the public right-of-way will be codified as an appendix to 36 CFR part 1190. The SNPRM would supplement the following sections of the proposed accessibility guidelines for pedestrian facilities in the public right-of-way: R105.5 Defined Terms; R204 and R302 Pedestrian Access Routes; R210 Protruding Objects; R218 Doors, Doorways, and Gates; and R304 Curb Ramps and Blended Transitions. The proposed supplements to these sections are set forth below.

#### R105.5 Defined Terms.

##### Shared Use Path

The SNPRM would add a proposed definition of shared use path in R105.5 to read as follows:

Shared Use Path. A multi-use path designed primarily for use by bicyclists and pedestrians, including pedestrians with disabilities, for transportation and recreation purposes. Shared use paths are physically separated from motor vehicle traffic by an open space or barrier, and are either within the highway right-of-way or within an independent right-of-way.

The proposed definition is based on the AASHTO Guide, which defines a shared use path as a bikeway physically separated from motor vehicle traffic by an open space or barrier, and either within the highway right-of-way or within an independent right of way. The AASHTO Guide notes that pedestrians, including pedestrians with disabilities, also use shared use paths and that they can serve transportation and recreation purposes. See AASHTO Guide, 5.1 Introduction. The U.S. Department of Transportation, Federal Highway Administration (FHWA) defines a shared use path similar to the AASHTO

Guide.<sup>1</sup> State transportation departments also define shared use paths similar to the AASHTO Guide.<sup>2</sup>

As noted in the AASHTO Guide, the primary factor that distinguishes shared use paths and sidewalks is the intended user. Shared use paths are designed for use by bicyclists and pedestrians, including pedestrians with disabilities. Sidewalks are designed for use by pedestrians, including pedestrians with disabilities, and are not intended for use by bicyclists. See AASHTO Guide, 5.2.2, Shared Use Paths Adjacent to Roadways (Sidepaths).

#### Public Right-of-Way

The SNPRM would revise the proposed definition of public right-of-way in R105.5 to read as follows:

Public Right-of-Way. Public land acquired for or dedicated to transportation purposes, or other land where there is a legally established right for use by the public for transportation purposes.

The NPRM proposed to define public right-of-way as public land or property, usually in interconnected corridors, that is acquired for or dedicated to transportation purposes. Some shared use paths may cross private land. In these situations, an easement or other legal means is used to establish a right for the public to use the portion

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<sup>1</sup> The FHWA defines a shared use path as a multi-use trail or path physically separated from motorized vehicular traffic by an open space or barrier, either within the highway right-of-way or within an independent right of way, and usable for transportation purposes. The FHWA definition of shared use path is available at:

[http://www.fhwa.dot.gov/environment/bicycle\\_pedestrian/guidance/design\\_guidance/freeways.cfm](http://www.fhwa.dot.gov/environment/bicycle_pedestrian/guidance/design_guidance/freeways.cfm).

<sup>2</sup> For example, the Washington State Department of Transportation Design Manual (July 2012) defines a shared use path as a facility physically separated from motorized vehicular traffic within the highway right-of-way or on an exclusive right-of-way with minimal cross flow by motor vehicles. The Washington State Department of Transportation Design Manual is available at:

<http://www.wsdot.wa.gov/Publications/Manuals/M22-01.htm>.

of the land that the shared use path crosses for transportation purposes. The SNPRM would revise the proposed definition of public right-of-way to include these situations.

#### R204 and R302 Pedestrian Access Routes

The SNPRM would revise these sections relating to pedestrian access routes.

#### R204.2 Pedestrian Circulation Paths

The SNPRM would revise R204.2 to read as follows:

R204.2 Pedestrian Circulation Paths. A pedestrian access route shall be provided within pedestrian circulation paths located in the public right-of-way. The pedestrian access route shall connect to accessible elements, spaces, and facilities required by this document and to accessible routes required by section 206.2.1 of appendix B to 36 CFR part 1191 or section F206.2.1 of appendix C to 36 CFR 1191 that connect building and facility entrances to public streets and sidewalks.

As proposed in the NPRM, R204.2 would require a pedestrian access route to be provided within sidewalks and other pedestrian circulation paths located in the public right-of-way. The NPRM proposed to define a pedestrian circulation path as a prepared exterior or interior surface provided for pedestrian travel in the public right-of-way. See R105.5. Sidewalks and shared use paths are types of pedestrian circulation paths. As revised by the SNPRM, the term “pedestrian circulation paths” in R204.2 includes sidewalks and shared use paths.

#### R302.3 Continuous Width

The SNPRM would revise R302.3 to read as follows:

R302.3 Continuous Width. Except as provided in R302.3.1 and R302.3.2, the continuous clear width of pedestrian access routes shall be 1.2 m (4.0 ft) minimum, exclusive of the width of the curb.

R302.3.1 Medians and Pedestrian Refuge Islands. The clear width of pedestrian access routes within medians and pedestrian refuge islands shall be 1.5 m (5.0 ft) minimum.

R302.3.2 Shared Use Paths. A pedestrian access route shall be provided for the full width of a shared use path.

As proposed in the NPRM, R302.3 would require pedestrian access routes to be 4 feet wide minimum, except R302.3.1 would require pedestrian access routes within medians and pedestrian refuge islands to be 5 feet wide minimum to allow for passing space.

The SNPRM would add a new provision at R302.3.2 that would require a pedestrian access route to be provided for the full width of a shared use path since shared use paths are typically two-directional and path users travel in each direction on the right hand side of the path, except to pass. The AASHTO Guide recommends that two-directional shared use paths should be 10 feet wide minimum. Where shared use paths are anticipated to serve a high percentage of pedestrians and high user volumes, the AASHTO Guide recommends that the paths should be 11 to 14 feet wide to enable a bicyclist to pass another path user travelling in the same direction, at the same time a path user is approaching from the opposite direction. In certain very rare circumstances, the AASHTO Guide permits the width of shared use paths to be reduced to 8 feet. See AASHTO Guide, 5.2.1 Width and Clearance.

## R302.5 Grade

The SNPRM would revise R302.5 to read as follows:

R302.5 Grade. The grade of pedestrian access routes shall comply with R302.5.

R302.5.1 Within Street or Highway Right-of-Way. Except as provided in R302.5.3, where pedestrian access routes are contained within a street or highway right-of-way, the grade of pedestrian access routes shall not exceed the general grade established for the adjacent street or highway.

R302.5.2 Not Within Street or Highway Right-of-Way. Where pedestrian access routes are not contained within a street or highway right-of-way, the grade of pedestrian access routes shall be 5 percent maximum.

R302.5.3 Within Pedestrian Street Crossings. Where pedestrian access routes are contained within a pedestrian street crossing, the grade of pedestrian access routes shall be 5 percent maximum.

R302.5.4 Physical Constraints. Where compliance with R302.5.1 or R302.5.2 is not practicable due to existing terrain or infrastructure, right-of-way availability, a notable natural feature, or similar existing physical constraints, compliance is required to the extent practicable.

R302.5.5 Regulatory Constraints. Where compliance with R302.5.1 or R302.5.2 is precluded by federal, state, or local laws the purpose of which is to preserve threatened or endangered species; the environment; or archaeological, cultural, historical, or significant natural features, compliance is required to the extent practicable.

As proposed in the NPRM, R302.5 would require the grade of pedestrian access routes contained within a street or highway right-of-way, except at pedestrian street

crossings, to not exceed the general grade established for the adjacent street or highway; and the grade of pedestrian access routes not contained within a street or highway right-of-way to be 5 percent maximum. R302.5.1 would require the grade of pedestrian access routes contained within a pedestrian street crossing to be 5 percent maximum.

The SNPRM would renumber R302.5 to include a general provision in R302.5; the specific provision for the grade of pedestrian access routes contained within a street or highway right-of-way in R302.5.1; the specific provision for the grade of pedestrian access routes not contained within a street or highway right-of-way in R302.5.2; and the specific provision for the grade of pedestrian access routes contained within a pedestrian street crossing in R302.5.3.

The SNPRM would add new provisions at R302.5.4 and R302.5.5 that would require compliance with the grade provisions in R302.5.1 or R302.5.2 to the extent practicable where compliance is not practicable due to physical constraints and where compliance is precluded by regulatory constraints. We propose to add these new provisions in response to public comments on the ANPRM, which included draft technical provisions for grade similar to those proposed in the R302.5. The comments noted that physical or regulatory constraints may prevent full compliance with the grade provisions. Physical constraints would include existing terrain or infrastructure, right-of-way availability, a notable natural feature, or similar existing physical constraints. Regulatory constraints would include federal, state, or local laws the purpose of which is to preserve threatened or endangered species; the environment; or archaeological, cultural, historical, or significant natural features.

The proposed provisions are consistent with the AASHTO Guide. The AASHTO Guide recommends that the grade of a shared use path should not exceed 5 percent; but, where the path is adjacent to a roadway with a grade that exceeds 5 percent, the grade of the path should be less than or equal to the roadway grade. The AASHTO Guide notes that grades steeper than 5 percent are undesirable because ascents are difficult for many path users, and the descents can cause some path users to exceed the speeds at which they are competent or comfortable. See AASHTO Guide, 5.2.7 Grade.

### R210 Protruding Objects

The SNPRM would revise R210 to read as follows:

R210.1 General. Protruding objects shall comply with the applicable requirements in R210.

R210.2 Pedestrian Circulation Paths Other Than Shared Use Paths. Objects along or overhanging any portion of a pedestrian circulation path other than a shared use path shall comply with R402 and shall not reduce the clear width required for pedestrian access routes.

R210.3 Shared Use Paths. Objects shall not overhang or protrude into any portion of a shared use path at or below 2.4 m (8.0 ft) measured from the finish surface.

As proposed in the NPRM, R210 would require objects along or overhanging any portion of a pedestrian circulation path to comply with the proposed technical provisions for protruding objects in R402 and to not reduce the clear width required for pedestrian access routes.

The SNPRM would renumber R210 to include a general provision in R210.1 and a specific provision for pedestrian circulation paths other than shared use paths in R210.2

that would require objects along or overhanging any portion of the path to comply with the proposed technical provisions for protruding objects in R402 and to not reduce the clear width required for pedestrian access routes, as proposed in the NPRM.

The SNPRM would add a new provision for shared use paths at R210.3 that would prohibit objects from overhanging or protruding into any portion of a shared use path at or below 8 feet measured from the finish surface.

The proposed provision for shared used paths is consistent with the AASHTO Guide. The AASHTO Guide recommends 10 feet vertical clearance along shared use paths, and 8 feet minimum vertical clearance in constrained areas. The AASHTO Guide recommends that fixed objects should not be permitted to protrude within the vertical or horizontal clearance of a shared use path. See AASHTO Guide, 5.2.1 Width and Clearance.

#### R218 Doors, Doorways, and Gates

The SNPRM would revise R218 to read as follows:

R218 Doors, Doorways, and Gates. Except for shared use paths, doors, doorways, and gates provided at pedestrian facilities shall comply with section 404 of Appendix D to 36 CFR to 36 CFR part 1191.

The SNPRM would not apply the technical provisions for doors, doorways, and gates referenced in R218 to shared use paths to avoid conflicts with the AASHTO Guide. The AASHTO Guide does not recommend the use of gates or other barriers to prevent unauthorized motor vehicle entry to shared use paths because gates and barriers create permanent obstacles to path users. The AASHTO Guide recommends alternative methods to control unauthorized motor vehicle entry to shared use paths, including

posting regulatory signs prohibiting motor vehicle entry and targeted surveillance and enforcement. Where there is a documented history of unauthorized entry by motor vehicles despite the use of alternative methods to control such entry, the need for bollards or other vertical barriers may be justified. The AASHTO Guide includes recommended designs for bollards where justified. The AASHTO Guide recommends the use of one bollard in the center of the shared use path. Where more than one bollard is used, the AASHTO Guide recommends an odd number of posts spaced at 6 feet. The AASHTO Guide does not recommend two posts since they direct opposing path users toward the middle, creating conflict and the possibility of a head-on collision. See AASHTO Guide, 5.3.5 Other Intersection Treatments.

#### R304 Curb Ramps and Blended Transitions

The SNPRM would revise R304.5.1 to read as follows:

R304.5.1 Width. The width of curb ramps and blended transitions shall comply with 304.5.1.1 or 304.5.1.2, as applicable. If provided, flared sides of curb ramp runs and blended transitions shall be located outside the width of the curb ramp run or blended transition.

R304.5.1.1 Pedestrian Circulation Paths Other Than Shared Use Paths. In pedestrian circulation paths other than shared use paths, the clear width of curb ramp runs, blended transitions, and turning spaces shall be 1.2 m (4.0 ft) minimum.

R304.5.1.2 Shared Use Paths. In shared use paths, the width of curb ramps runs and blended transitions shall be equal to the width of the shared use path.

As proposed in the NPRM, R304.5.1 would require the clear width of curb ramp runs (excluding flared sides), blended transitions, and turning spaces to be 4 feet minimum.

The SNPRM would renumber R304.5.1 to include a general provision in R304.5.1 that would clarify that if flared sides are provided at curb ramps and blended transitions, the flared sides are to be located outside the width of the curb ramp run or blended transition; and a specific provision for pedestrian circulation paths other than shared use paths in R304.5.1.1 that would require the clear width of curb ramp runs, blended transitions, and turning spaces to be 4 feet minimum, as proposed in the NPRM.

The SNPRM would add a new provision for shared use paths at R304.5.1.2 that would require the width of curb ramps runs and blended transitions to be equal to the width of the shared use path.

The proposed provision for shared used paths is consistent with the AASHTO Guide. The AASHTO Guide recommends that where curb ramps are provided on shared use paths, the curb ramps should extend the full width of the path, not including any flared sides. See AASHTO Guide, 5.3.5 Other Intersection Treatments.

#### **4. Comparison of Proposed Technical Provisions Applicable to Shared Use Paths and AASHTO Guide**

The proposed technical provisions applicable to shared used paths in the proposed accessibility guidelines for pedestrian facilities in the public right-of-way, as supplemented by the SNPRM, and the design criteria for shared use paths in the AASHTO Guide are compared in the table below.

<b>Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way</b>	<b>AASHTO Guide for the Development of Bicycle Facilities (2012)</b>
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Proposed Technical Provisions Applicable to Shared Use Paths	Chapter 5: Design of Shared Use Paths
<p><u>R302.3.2 Shared Use Paths.</u> A pedestrian access route shall be provided for the full width of a shared use path.</p>	<p><u>5.2.1 Width and Clearance</u></p> <p>The minimum paved width for a two-directional shared use path is 10 ft (3.0 m). . . . In very rare circumstances, a reduced width of 8 ft (2.4 m) may be used . . . . Wider pathways, 11 to 14 ft (3.4 to 4.2 m) are recommended in locations that are anticipated to serve a high percentage of pedestrians (30 percent or more of the total pathway volume) and higher user volumes (more than 300 total users in the peak hour).</p>
<p><u>R302.5 Grade.</u> The grade of pedestrian access routes shall comply with R302.5.</p> <p><u>R302.5.1 Within Street or Highway Right-of-Way.</u> Except as provided in R302.5.3, where pedestrian access routes are contained within a street or highway right-of-way, the grade of pedestrian access routes shall not exceed the general grade established for the adjacent street or highway.</p> <p><u>R302.5.2 Not Within Street or Highway Right-of-Way.</u> Where pedestrian access routes are not contained within a street or highway right-of-way, the grade of pedestrian access routes shall be 5 percent maximum.</p> <p><u>R302.5.3 Within Pedestrian Street Crossings.</u> Where pedestrian access routes are contained within a pedestrian street crossing, the grade of pedestrian access routes shall be 5 percent maximum.</p> <p><u>R302.5.4 Physical Constraints.</u> Where compliance with R302.5.1 or R302.5.2 is not practicable due to existing terrain or infrastructure, right-of-way availability, a notable natural feature, or similar existing physical constraints, compliance is required to the extent practicable.</p> <p><u>R302.5.5 Regulatory Constraints.</u> Where compliance with 302.5.1 or 302.5.2 is precluded by federal, state, or local laws the</p>	<p><u>5.2.7 Grade</u></p> <p>The maximum grade of a shared use path adjacent to a roadway should be 5 percent, but the grade should generally match the grade of the adjacent roadway. Where a shared use path runs along a roadway with a grade that exceeds 5 percent, the sidepath grade may exceed 5 percent but must be less than or equal to the roadway grade. Grades on shared use paths in independent rights-of-way should be kept to a minimum. Grades steeper than 5 percent are undesirable because the ascents are difficult for many path users, and the descents can cause some users to exceed the speeds at which they are competent or comfortable. . . . Grades on paths in independent rights-of-way should also be limited to 5 percent maximum.</p>

<p>purpose of which is to preserve threatened or endangered species; the environment; or archaeological, cultural, historical, or significant natural features, compliance is required to the extent practicable.</p>	
<p><u>R302.6 Cross Slope.</u> Except as provided in R302.6.1 and R302.6.2, the cross slope of pedestrian access routes shall be 2 percent maximum.</p> <p><u>R302.6.1 Pedestrian Street Crossings Without Yield or Stop Control.</u> Where pedestrian access routes are contained within pedestrian street crossings without yield or stop control, the cross slope of the pedestrian access route shall be 5 percent maximum.</p> <p><u>R302.6.2 Midblock Pedestrian Street Crossings.</u> Where pedestrian access routes are contained within midblock pedestrian street crossings, the cross slope of the pedestrian access route shall be permitted to equal the street or highway grade.</p>	<p><u>5.2.5 Cross Slope</u></p> <p>As described in the previous section, 1 percent cross slopes are recommended on shared use paths, to better accommodate people with disabilities and to provide enough slope to convey surface drainage in most situations.</p>
<p><u>R302.7 Surfaces.</u> The surfaces of pedestrian access routes and elements and spaces required to comply with R302.7 that connect to pedestrian access routes shall be firm, stable, and slip resistant and shall comply with R302.7.</p> <p><u>R302.7.1 Vertical Alignment.</u> Vertical alignment shall be generally planar within pedestrian access routes (including curb ramp runs, blended transitions, turning spaces, and gutter areas within pedestrian access routes) and surfaces at other elements and spaces required to comply with R302.7 that connect to pedestrian access routes. Grade breaks shall be flush. Where pedestrian access routes cross rails at grade, the pedestrian access route surface shall be level and flush with the top of rail at the outer edges of the rails, and the surface between the rails shall be aligned with the top of rail.</p> <p><u>R302.7.2 Vertical Surface Discontinuities.</u> Vertical surface discontinuities shall be 13 mm (0.5 in) maximum. Vertical surface discontinuities between 6.4 mm (0.25 in) and 13 mm (0.5 in) shall be beveled with a slope not steeper than 50 percent. The bevel shall be applied across the entire vertical surface discontinuity.</p>	<p><u>5.2.9 Surface Structure</u></p> <p>Hard, all-weather pavement surfaces are generally preferred over those of crushed aggregate, sand, clay, or stabilized earth. . . . Unpaved surfaces may be appropriate on rural paths, where the intended use of the path is primarily recreational, or as a temporary measure to open a path before funding is available for paving. Unpaved pathways should be constructed of materials that are firm and stable. . . . It is important to construct and maintain a smooth riding surface on shared use paths. . . . Utility covers (i.e., manholes) and bicycle-compatible drainage grates should be flush with the surface of the pavement on all sides. . . . Railroad crossings should be smooth and should be designed at an angle between 60 and 90 degrees to the direction of travel to minimize the possibility of falls.</p>

<p><u>R302.7.3 Horizontal Openings.</u> Horizontal openings in gratings and joints shall not permit passage of a sphere more than 13 mm (0.5 in) in diameter. Elongated openings in gratings shall be placed so that the long dimension is perpendicular to the dominant direction of travel.</p> <p><u>R302.7.4 Flangeway Gaps.</u> Flangeway gaps at pedestrian at-grade rail crossings shall be 64 mm (2.5 in) maximum on non-freight rail track and 75 mm (3 in) maximum on freight rail track.</p>	
<p><u>R210.3 Shared Use Paths.</u> Objects shall not overhang or protrude into any portion of a shared use path at or below 2.4 m (8.0 ft) measured from the finish surface.</p>	<p><u>5.2.1 Width and Clearance</u></p> <p>The desirable vertical clearance to obstructions is 10 ft (3.0 m). Fixed objects should not be permitted to protrude within the vertical or horizontal clearance of a shared use path. The recommended minimum vertical clearance that can be used in constrained areas is 8 ft (2.4 m).</p>
<p><u>R304.5.1.2 Shared Use Paths.</u> In shared use paths, the width of curb ramps runs and blended transitions shall be equal to the width of the shared use path.</p> <p><u>R305.1.4 Size.</u> Detectable warning surfaces shall extend 610 mm (2.0 ft) minimum in the direction of pedestrian travel. At curb ramps and blended transitions, detectable warning surfaces shall extend the full width of the ramp run (excluding any flared sides).</p>	<p><u>5.3.5 Other Intersection Treatments</u></p> <p>The opening of a shared use path at the roadway should be at least the same width as the shared use path itself. If a curb ramp is provided, the ramp should be the full width of the path, not including any flared sides if utilized. . . . Detectable warnings should be placed across the full width of the ramp.</p>

## 5. Conflicts Between Shared Path Users

Public comments submitted in response to the ANPRM expressed concern about the risk of collisions between pedestrians who are blind or have low vision and bicyclists who pass them too closely at fast speeds, and at intersections where a shared use path crosses another shared use path or a sidewalk. According to the AASHTO Guide, the 85th percentile speed for recreational bicyclists is 18 miles per hour. See AASHTO Guide, 5.2.4 Design Speed. The comments noted that bicycles are relatively quiet and

pedestrians who are blind or have low vision may not be aware when bicyclists are approaching and passing them or crossing their path at intersections. Pedestrians with other disabilities may also have limited awareness of approaching bicyclists. For example, individuals who are deaf or hard of hearing may not be aware of a bicycle approaching from behind even when riders indicate their presence audibly. Individuals with limited mobility who may be alert to bicyclists may find it difficult to move aside in time to avoid collision. The comments recommended that traffic on shared use paths be regulated and strictly enforced in order to protect pedestrians. For example, a comment stated that bicyclists should be required to always yield to pedestrians. The comments also recommended design solutions to avoid conflicts between users, including separate pathways for pedestrians and bicyclists; and detectable warning surfaces at intersections where a shared use path crosses another shared use path or a sidewalk. These design solutions are discussed below.

#### Separate Pathways for Pedestrians and Bicyclists

An organization representing individuals who are blind and have low-vision stated that “all shared use paths present an unacceptable safety risk to blind or visually impaired pedestrians unless there is a clear separation between pedestrians and other motorized and non-motorized vehicles including bicyclists.” The comments noted that path users cannot be expected to always follow the “rules of the road” and suggested that if paths cannot be physically separated that lanes for pedestrians and other users should be marked tactilely. An organization of educators and rehabilitation professionals who work with individuals who are blind suggested that blind pedestrians may have considerable difficulty maintaining the course, particularly on two-directional shared use

paths where all users are expected to travel on the right hand side of the path in each direction and bicyclists pass pedestrians and slower moving path users on their left hand side. In addition to the recommendation to physically separate pedestrians and bicyclists, the comments suggested that it may be necessary to separate the two directions of travel within each pathway, particularly on busy paths. The comments, however, acknowledged that determining what volume of users should require two-directional separation would be a challenge.

The AASHTO Guide makes a number of recommendations to minimize conflicts between pedestrians and bicyclists. These recommendations include required sight triangles to ensure that bicyclists have the needed yielding distance to avoid conflicts, and additional width around horizontal curves to allow safe distance between users. See AASHTO 5.2.8, Stopping Sight Distance. The AAHSTO Guide also recommends use of a centerline stripe within a path to provide directional separation and to indicate when passing is permitted. For paths with “extremely heavy volume”, the AASHTO Guide recommends two alternatives for segregation of pedestrians and bicyclists. The first option is to provide separate lanes within a single path; pedestrians have a bidirectional lane and bicyclists have two one-directional lanes. Such separation is not recommended unless a minimum path width of 15 feet can be provided (10 feet for bicycles and 5 feet for pedestrians). A second alternative is to physically separate user groups, particularly where the pathway volume is “extremely heavy” and where sites and settings, such as one that constricts the path width, necessitate divergent pathways. Physically separated pathways also are recommended where the origins and destinations of pedestrians and bicyclists differ. The AAHSTO Guide notes that both alternatives (lane separation and

physical separation) may not be effective unless the volume of bicycle traffic is sufficient to discourage pedestrians from encroaching into the bicycle lanes and that these solutions will not necessarily be needed for the full length of a shared use path. See AASHTO Guide, 5.2.1 Width and Clearance.

We agree with the comments that physical separation between pedestrians and other users would likely render shared use paths safer for, and more accessible to, individuals with disabilities and others. However, the AASHTO Guide does not recommend physical separation of user groups unless the traffic volume or other considerations make separate pathways necessary. The AASHTO Guide provides little guidance regarding methods for determining the point at which traffic volume or other considerations would justify separation of the pathways. In the absence of any data on which to base such a requirement, we are not proposing to require physically separated pathways for pedestrians and bicyclists. The impact of such a requirement if applied to the full length of all shared use paths would likely result in many not being constructed due to the increased costs associated with more land and the need to engineer and construct two pathways instead of one.

The comments suggested that enhanced signage and warnings, including audible signs and tactile pavement markings would improve the ability of blind pedestrians to remain within their lanes. In Great Britain, tactile pavement markings are used to indicate bicycle and pedestrian lanes. A ladder pattern is used to indicate the start and end of the pedestrian lane; a tramline pattern is used to indicate the start and end of the bicycle lane; and a tactile dividing line is used to indicate the separation between the

lanes.<sup>3</sup> At least one U.S. manufacturer makes tactile pavement markings for shared use paths. We request comments on whether tactile pavement markings have been used on any shared use paths in the U.S. and the experience with such markings. We also request comments on other design solutions to reduce potential conflicts between pedestrians who are blind or have low vision and bicyclists. Comments should include factors that would make such solutions necessary.

We are considering including an advisory section in the final accessibility guidelines on separate pathways for pedestrians and bicyclists. Advisory sections are not mandatory requirements but provide guidance for entities who want to exceed the minimum requirements for accessible design. We request comments on information to include in the advisory section.

#### Detectable Warning Surfaces at Shared Use Path Intersections

Detectable warning surfaces consist of small truncated domes that are integral to a walking surface and that are detectable underfoot. The proposed accessibility guidelines for pedestrian facilities in the public right-of-way would require the use of detectable warning surfaces to indicate the boundary between a pedestrian route and a vehicular route where there is a curb ramp or blended transition; and the boundary of passenger boarding platforms at transit stops for buses and rail vehicles and at passenger boarding and alighting areas at sidewalk or street level transit stops for rail vehicles. See R208 and R305.

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<sup>3</sup> Department of Transport, “Tactile Markings for Segregated Shared Use by Cyclists and Pedestrians” [available at: <http://www.ukroads.org/webfiles/TAL%204-90%20Tactile%20Markings%20for%20Segregated%20Shared%20Use.pdf>]; Department for Transport, “Guidance on the Use of Tactile Paving Surfaces,” Chapter 5 - Segregated Shared Cycle Track/Footway Surface and Central Delineator Strip [available at: <http://www.dft.gov.uk/publications/guidance-on-the-use-of-tactile-paving-surfaces/>]; and Department of Transport, “Shared Use Routes for Pedestrians and Cyclists,” Chapter 6 - General Design Considerations, 6.18 and 6.19 [available at: <http://assets.dft.gov.uk/publications/ltn-01-12/shared-use-routes-for-pedestrians-and-cyclists.pdf>].

Because pedestrians who are blind would not be aware of bicyclists approaching from the left or right hand side at intersections, we are considering including a requirement in the final accessibility guidelines to provide detectable warning surfaces where a shared use path intersects another shared use path or a sidewalk to indicate the boundaries where bicyclists may be crossing the intersection. The edge of the detectable warning surface would be installed between 6 inches minimum and 12 inches maximum from the edge of the intersecting segments of the shared use paths and sidewalks. The detectable warning surface would extend 2 feet minimum in the direction of pedestrian travel and the full width of the intersecting segments. We request comments on this issue.

## **6. Regulatory Analyses**

We prepared a preliminary regulatory assessment discussing the cost and benefits of the proposed accessibility guidelines for pedestrian facilities in the public right-of-way and an initial regulatory flexibility analysis of the impacts on small governmental jurisdictions with a population of less than 50,000 when the NPRM was issued. These regulatory analyses are available on our website at: <http://www.access-board.gov/provac/>.

There is no database available on the number of shared use paths in the United States. AASHTO surveyed five state transportation departments when preparing comments on the ANPRM. The responding departments reported approximately 1,500 to 3,000 miles of existing shared use paths in their states. The Alliance for Biking and Walking surveyed more than 50 large cities about their bicycle and pedestrian facilities.<sup>4</sup>

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<sup>4</sup> Alliance for Biking and Walking, “Bicycling and Walking in the United States 2012 Benchmarking Report.”

The average number of miles of existing shared use paths per city was 70 miles, and ranged from 3.1 miles in Milwaukee to 328 miles in New York City. The cities used federal funds to construct many of the shared use paths.

As discussed above, the proposed technical provisions applicable to shared use paths are consistent with the AASHTO Guide. State and local government entities that design and construct shared use paths generally use the AASHTO Guide. The SNPRM is not expected to increase the costs of constructing shared use paths for state and local government entities that use the AASHTO Guide.

We request comments on the following to assess the impacts of the SNPRM:

- The extent to which the AASHTO Guide, or other design guides and standards are used for shared use paths.
- Whether any of the proposed provisions applicable to shared use paths would result in additional costs for design work, materials, earthmoving, retaining structures, or other items compared to construction practices or design guides and standards currently used? Commenters are encouraged to identify the specific provisions that would result in additional costs and estimate the additional costs on a per mile basis to the extent possible.
- Whether any of the proposed provisions applicable to shared use paths would result in any additional costs, such as maintenance and operational costs, compared to current practices? Commenters are encouraged to identify the specific provisions that would result in additional costs and estimate the additional costs on a per mile basis to the extent possible.

- What are the benefits of the proposed provisions applicable to shared use paths?

**List of Subjects in 36 CFR Part 1190**

Buildings and facilities, Civil rights, Individuals with disabilities, Transportation.

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Susan Brita,

Chair.

[FR Doc. 2013-03298 Filed 02/12/2013 at 8:45 am; Publication Date: 02/13/2013]