# Federal Highway Administration Bicycle and Pedestrian Planning, Program, and Project Development

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## Introduction

The purpose of this guidance is to identify references to certain Federal legislation, as well as other relevant guidance and reference materials, related to bicycling and walking safety and accommodation. The Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 enacted significant changes to Federal transportation policy and programs that expanded consideration of and eligibility for bicycling and walking. The Transportation Equity Act for the 21st Century (TEA-21) of 1998 and the Safe Accountable, Flexible, Efficient Transportation Equity Act: a Legacy for Users (SAFETEA-LU) of 2005 continued these provisions. The Moving Ahead for Progress in the 21st Century Act (MAP-21) of 2012 enacted program changes and continued broad consideration and eligibility for bicycling and walking. The Fixing America's Surface Transportation (FAST) Act of 2015 allowed for additional design flexibility for projects that benefit pedestrians and bicyclists. The statutory provisions affecting bicycling and walking are codified in titles 23 and 49 of the United States Code (U.S.C.). This guidance describes the range of opportunities to improve conditions for bicycling and walking, consistent with Department of Transportation goals for a safe, comfortable, equitable, and integrated multimodal transportation network infrastructure that serves all ages and abilities.

# **Bicycle and Pedestrian Policy**

Improving safety and infrastructure for bicycling and walking creates an integrated, intermodal transportation system that provides travelers with a real choice of transportation modes. Bicyclists and pedestrians have the same origins and destinations as other transportation system users. It is important for all users to have safe and convenient access to airports, ports, ferry services, transit stations and stops, and other intermodal facilities as well as access to jobs, education, health care, and other essential services. Transportation professionals should plan, design, construct, and maintain transportation facilities for all users, including bicyclists and pedestrians.

Almost every transportation improvement is an opportunity to enhance the safety and convenience of walking and bicycling. Bicycle and pedestrian needs must be given "due consideration" under Federal surface transportation law (23 U.S.C. 217(g)(1)). This consideration should include, at a minimum, a presumption that bicyclists and pedestrians,

including persons with disabilities, will be accommodated in the design of new and improved transportation facilities. In the planning, design, and operation of transportation facilities, bicyclists and pedestrians should be included as a matter of routine, and the decision to not accommodate them should be the exception rather than the rule. New construction and alterations of pedestrian facilities must be consistent with requirements of the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act of 1973.

Relevant circumstances should be present before denying bicycle and pedestrian access either by prohibition or by designing highways that are incompatible with safe, convenient walking and bicycling (23 U.S.C. 217(g)(1)). Even where circumstances are exceptional, and bicycle use and walking are either prohibited or made incompatible, States, Metropolitan Planning Organizations (MPOs), and local governments should ensure that highway projects do not make bicycle and pedestrian access along a corridor more difficult or impossible (23 U.S.C. 109(m) and 217(g)). For example, there may be ways to provide alternate routes on parallel surface streets that are safe and convenient, or to provide shuttle bus service on major bridge crossings.

States, MPOs, and local officials should consider how to incorporate the needs of bicyclists and pedestrians, and the transportation networks, into emergency preparedness, response, and evacuation plans. Bicycle and pedestrian networks can provide access to facilitate emergency response and evacuation.

At the Federal level, the Federal Highway Administration (FHWA) works with the National Highway Traffic Safety Administration (NHTSA), the Federal Transit Administration (FTA), the Federal Railroad Administration (FRA), and other agencies to implement the bicycle and pedestrian provisions of Federal surface transportation law. State and local agencies are expected to work cooperatively with transportation providers, user groups, and the public to develop plans, programs, and projects that reflect this vision.

## **Selected Legislation**

There are several key provisions of Federal surface transportation law relating to planning requirements and building connected networks of bicycle and pedestrian facilities. The list below is not exhaustive; other sections of law support bicycle and pedestrian safety and mobility.

## **Planning**

Information on the transportation planning process is available in <u>The Transportation Planning Process</u>: Key Issues: A Briefing Book for Transportation Decisionmakers, Officials, and Staff. The following list has statutory and regulatory citations relating to the transportation planning and bicycle and pedestrian programs and projects.

- "Bicyclists and pedestrians shall be given due consideration in the comprehensive transportation plans developed by each metropolitan planning organization and State..." (23 U.S.C. 217(g)(1)).
- The long-range metropolitan and statewide transportation plans, and the Metropolitan and Statewide Transportation Improvement Programs must "provide for the development and integrated management and operation of transportation systems and facilities (including accessible pedestrian walkways, bicycle transportation facilities, and intermodal facilities...)

- that will function as an intermodal transportation system..." (23 U.S.C. 134(c)(2) and 135(a)(2)).
- The process for developing long-range statewide and metropolitan transportation plans and transportation improvement programs shall provide for consideration of "all modes of transportation." (23 U.S.C. 134(c)(3) and 135(a)(3)).
- The scope of the metropolitan and statewide planning processes shall provide for consideration of projects and strategies that will increase the safety and security for motorized and nonmotorized users (23 U.S.C. 134(h)(1) and 135(d)(1)) and that will ensure that the transportation planning process is being carried out in accordance with all applicable requirements of the Americans with Disabilities Act (ADA) of 1990 (42 U.S.C. 12101 et seq.) and 49 CFR parts 27, 37, and 38. (23 CFR 450.220(a)(6), 450.336(a)(7)).
- The long-range metropolitan transportation plans are to include "an identification of transportation facilities (including major roadways, transit, multimodal and intermodal facilities, nonmotorized transportation facilities, and intermodal connectors) that should function as an integrated metropolitan transportation system." (23 U.S.C. 134(i)(2)).
- The long-range statewide transportation plans are to provide "for the development and implementation of the intermodal transportation system." (23 U.S.C. 135(f)(1)).
- Metropolitan areas and States must include "representatives of users of pedestrian walkways and bicycle transportation facilities" among "interested parties" with whom metropolitan areas and States provide a reasonable opportunity to comment during the development of the long-range metropolitan and statewide transportation plans. (23 U.S.C. 134(i)(6)(A) and 135 (f)(3)(A)).
- Metropolitan areas must include "investments in pedestrian walkways and bicycle transportation facilities" in the publication of annual listings of projects. (23 U.S.C. 134(j)(7)(B)).
- Bicycle and pedestrian projects of a similar nature may be grouped together for the purposes of funding without each project having to be approved individually. (23 U.S.C. 134(j)(3)(B)(ii) and 135(g)(5)(C)(ii)).

## **Connectivity**

The following list has statutory and regulatory citations focusing on network connectivity related to bicycle and pedestrian programs and projects.

- "Bicycle transportation facilities and pedestrian walkways shall be considered, where appropriate, in conjunction with all new construction and reconstruction of transportation facilities, except where bicycle and pedestrian use are not permitted." (23 U.S.C. 217(g)(1)).
- "Transportation plans and projects shall provide due consideration for safety and contiguous routes for bicyclists and pedestrians." (23 U.S.C. 217(g)(2)).
- "In any case where a highway bridge deck being replaced or rehabilitated with Federal financial participation is located on a highway on which bicycles are permitted to operate at each end of such bridge, and the Secretary determines that the safe accommodation of bicycles can be provided at reasonable cost as part of such replacement or rehabilitation, then such bridge shall be so replaced or rehabilitated as to provide such safe accommodations." (23 U.S.C. 217(e)).
- "A design for new construction, reconstruction, resurfacing (except for maintenance resurfacing), restoration, or rehabilitation of a highway on the National Highway System

(other than a highway also on the Interstate System) shall consider, in addition to the criteria described in subsection (a)—

- (A) the constructed and natural environment of the area;
- (B) the environmental, scenic, aesthetic, historic, community, and preservation impacts of the activity; and
  - (C) access for other modes of transportation." (23 U.S.C. 109(c)).
- o FHWA interprets this provision to include consideration of community impacts and safety and access for pedestrians and bicyclists.
- "The Secretary shall not, as a condition precedent to his approval under section 106 of this title, require any State to acquire title to, or control of, any marginal land along the proposed highway in addition to that reasonably necessary for road surfaces, median strips, bikeways, pedestrian walkways, gutters, ditches, and side slopes, and of sufficient width to provide service roads for adjacent property to permit safe access at controlled locations in order to expedite traffic, promote safety, and minimize roadside parking." (23 U.S.C. 109(f)).
  - FHWA interprets this provision to include bikeways and pedestrian walkways as reasonably necessary parts of highway projects.
- "The Secretary shall not approve any project or take any regulatory action under this title that will result in the severance of an existing major route or have significant adverse impact on the safety for nonmotorized transportation traffic and light motorcycles, unless such project or regulatory action provides for a reasonable alternate route or such a route exists." (23 U.S.C. 109(m)).
  - o FHWA interprets this requirement to include providing appropriate replacement detour accommodations in the event of permanent or temporary closures.
- Once a transportation project is constructed using Federal-aid funds, the State DOT or other recipient must maintain it (23 U.S.C. 116).
- Repair to damaged bicycle and pedestrian transportation facilities within the right-of-way of a Federal-aid highway or Federal Land transportation facility eligible for emergency relief funding should be considered in the same manner as other surface transportation facilities (23 U.S.C. 125).

# **Integrating Bicycle and Pedestrian Projects**

There are many simple and cost-effective ways to integrate nonmotorized users into the design and operation of the transportation system by including bicycle and pedestrian accommodation as part of larger programs and projects.

#### Project examples include:

- Building sidewalks and trails as a part of new or reconstructed highways, and including sidewalks and bicycle facilities with new or reconstructed bridges and tunnels.
- Installing Proven Safety Countermeasures, such as pedestrian crossing islands, pedestrian hybrid beacons, and leading pedestrian interval signals.
- Integrating recreational trails into transportation networks, where appropriate.
- Providing paved shoulders on new and reconstructed roads for pavement integrity and motorist safety as well as providing bicyclists a place to ride.
- Purchasing transit vehicles that have bicycle racks and/or hooks already installed.
- Restriping roads, either as stand-alone projects or after resurfacing or reconstruction projects, to create marked crosswalks or on-street bike lanes.

The broad eligibility of bicycle and pedestrian facilities for Federal surface transportation programs means that additional improvements such as these are appropriate as part of larger transportation projects, except on highway facilities where bicycle and pedestrian travel is prohibited. One exception affects the Federal Lands Transportation Program: the appropriate Federal land management agency shall prohibit the use of bicycles on each federally owned road that has a speed limit of 30 miles per hour or greater and an adjacent paved path for use by bicycles within 100 yards of the road unless the Secretary determines that the bicycle level of service on that roadway is rated B or higher (23 U.S.C. 203(d)). The FHWA has several documents on its Bicycle and Pedestrian Resources webpage to provide information about incorporating bicycle and pedestrian facilities into highway projects. See also the Design Resources section.

In addition, planners, designers, and other decisionmakers might consider:

- How connected vehicle technologies may affect pedestrians, bicyclists, and other nonmotorized users within the highway right-of-way and how these technologies may affect access to transit services.
- How to consider transportation and recreation planning to connect and integrate transportation and recreation infrastructure to work together seamlessly.

## **Funding Eligibility**

Federal surface transportation law provides flexibility to States and MPOs to fund bicycle and pedestrian improvements from a wide variety of programs. Bicycle transportation facilities and pedestrian walkways are eligible under nearly all Federal-aid and Federal lands highway programs. Specific program requirements must be met, and eligibility must be determined on a case-by-case basis. When considering ways to improve conditions for bicycling and walking, States and MPOs are encouraged to:

- Integrate bicycle and pedestrian improvements into larger projects, as described above.
- Consider all Federal-aid highway programs as potential funding sources. The table
   <u>Pedestrian and Bicycle Funding Opportunities: US Department of Transportation, Federal
   Transit, and Highway, and Safety Funds, indicates potential eligibility for bicycle and
   pedestrian projects under several DOT funding programs. Note that Federal programs have
   specific requirements for projects, and eligibility must be determined on a case-by-case basis.
  </u>
- See FHWA's A Guide To Federal-Aid Programs And Projects.
- Explore State, local, and private funding sources, including public-private partnerships.

**Bicycle and pedestrian coordinator positions:** A State bicycle and pedestrian coordinator position at each State DOT must be funded if the State receives Surface Transportation Block Grant Program (STBG) or Congestion Mitigation and Air Quality Improvement Program (CMAQ) funding (23 U.S.C. 217(d)). Many States refer to this position as an Active Transportation Coordinator. State and local Safe Routes to School coordinator positions are eligible as Safe Routes to School projects under the STBG program (23 U.S.C. 133(b)(6) and (15)) and the TA Set-Aside (23 U.S.C. 133(h)), which authorize projects eligible under SAFETEA-LU Section 1404. For more information, see:

- Memorandum on the Designation of Bicycle and Pedestrian Coordinators within State DOTs. Attachments to this memo list the typical duties and qualities for the position.
- State Bicycle and Pedestrian Coordinator contacts
- FHWA Bicycle and Pedestrian Coordinator contacts

Motorized Vehicle Use: In general, under Section 217(h), motorized vehicles are not permitted on nonmotorized trails and pedestrian walkways funded under Title 23. Exceptions to this general rule exist for maintenance vehicles; motorized wheelchairs; when State or local regulations permit; snowmobiles; electric bicycles (weighing under 100 pounds and a top speed of less than 20 miles per hour); "and such other circumstances as the Secretary deems appropriate" (except the RTP which specifically provides funds for motorized trails). In 2008, FHWA developed a Framework for Considering Motorized Use on Nonmotorized Trails and Pedestrian Walkways to provide guidance on when an exception may be granted under the "other circumstances" provision. If a project agreement specifies a nonmotorized trail or pedestrian walkway, then Section 217(h) applies.

**Nonconstruction activities:** Nonconstruction projects include any project not involving physical construction, such as safety education materials. Nonconstruction bicycle projects are eligible for <u>STBG</u> and <u>CMAQ</u> funding (23 U.S.C. 217(a)). State and Community Highway Safety Grant Program funds (<u>Section 402</u>) are to be used exclusively for nonconstruction activities (23 U.S.C. 402).

**Projects on local roads:** Bicycle and pedestrian projects may be funded under <u>STBG</u>, <u>TA Set-Aside</u>, <u>RTP</u>, and <u>CMAQ</u> regardless of whether they are on or along Federal-aid highways (23 U.S.C. 133(c)(2), 133(b)(4) through (11), 133(h), and 149). Highway Safety Improvement Program (<u>HSIP</u>) funds may be spent on highway safety improvement projects on "any public highway or publicly owned bicycle or pedestrian pathway or trail." (23 U.S.C. 148(e)).

**Transportation Purpose:** Section 217(i) of title 23 requires that bicycle facilities "be principally for transportation, rather than recreation, purposes." However, the FAST Act revised sections 133(b)(6) and 133(h) to authorize "recreational trails projects" as eligible activities under the <u>STBG</u> program. Section 217(i) continues to apply to bicycle facilities using other Federal-aid funds (e.g., National Highway Performance Program (NHPP), HSIP, CMAQ).

# **Federal Share and Matching Requirements**

The Federal share for bicycle and pedestrian projects funded under a Federal-aid highway program is the same as for any other projects funded under the program. The standard Federal share under the Federal-aid highway program is generally 80 percent of the cost of the activity or project funded, with a 20 percent State or local match (80/20 rule) (23 U.S.C. 120(b)). See the <u>FAST Act Fact Sheet on Federal Share</u>.

There are, however, exceptions to the general 80/20 rule for programs that fund bicycle and pedestrian projects. The examples provided below are for illustrative purposes only. To determine whether a project qualifies for increased Federal share, consult with the FHWA Division Office or the Office of the Chief Financial Officer for additional information.

- For States with significant Federal land holdings, a <u>sliding scale</u> of up to 95 percent Federal funding is determined according to the percentage of Federal land holdings in the State (23 U.S.C. 120(b)).
- For the <u>HSIP</u>, the Federal share is generally 90 percent or the application of <u>sliding scale</u> per 23 USC 120(b), whichever is higher.
- The Federal share may be 100 percent with eligible funds for certain safety improvements such as traffic control signalization, pavement marking, or installation of traffic signs or traffic lights (23 U.S.C. 120(c)(1)). Examples include pedestrian and bicyclist-focused countermeasures such as <u>leading pedestrian intervals</u>, <u>pedestrian hybrid beacons</u>, crosswalks, in-street pedestrian signs, and pedestrian lighting.
- The Federal share of a project incorporating innovations described in 23 U.S.C. 120(c)(3) may be increased by up to 5 percent if funded by the NHPP, STBG Program, or Metropolitan Planning Program. The FAST Act added specific mention of innovative engineering or design approaches and project delivery methods as activities eligible for this increased Federal share (see 23 U.S.C. 120(c)(3)(B)). Examples include pedestrian and bicyclist-focused projects under the <a href="Every Day Counts">Every Day Counts</a> (EDC) initiatives such as Safe Transportation for Every Pedestrian (<a href="STEP">STEP</a>) or <a href="Value Capture">Value Capture</a>.
- The Federal share of the cost of a project carried out under the Federal lands transportation program or the tribal transportation program shall be 100 percent (23 U.S.C. 201(b)(7)).
- There are flexibilities for the Federal share for bicycle and pedestrian projects using RTP funds. Individual RTP projects may exceed the 80 percent (or sliding scale) Federal share provided the State program does not exceed the State's Federal share for all projects in a given year (23 U.S.C. 206(f)(5)).
- A State can meet its and local match for Federal-aid highway projects through donations of funds, materials, services, or right-of-way (23 U.S.C. 323). In-kind contributions such as volunteer labor, land donations, and services may count towards matching share provided that a reasonable cash value can be attributed to the donated time, resource, or service. Also see <u>Federal-Aid Guidance Non-Federal Matching Requirements</u> (May 15, 2019), including soft match and documentation provisions.

See guidance for each specific funding program for more information on Federal share requirements.

# **Project Development**

Bicycling, walking, and enhancing accessibility embody several of the policy goals of Federal surface transportation law (23 U.S.C. 101(b)(3)). These modes quietly, cleanly, efficiently, and effectively serve local transportation needs and enhance quality of life, providing access to jobs, education, health care, and other essential services. They are also critical to ensuring that people can get to and from transit services.

Federal policy also supports expedited project delivery (23 U.S.C. 101(b)(4)). The FHWA provides maximum opportunities for States to accelerate the approval and implementation of bicycle and pedestrian projects and programs. States and MPOs can use accelerated project delivery measures and take any additional steps they can to speed up the implementation of projects that improve conditions for bicycling and walking.

FHWA-funded pedestrian and bicycle projects as well as larger Federal-aid and Federal Lands highway projects, and multimodal projects that include pedestrian and bicycle elements are subject to environmental review and approval under FHWA's National Environmental Policy Act (NEPA) implementing regulations in 23 CFR part 771. When NEPA reviews are required, bicycle and pedestrian project sponsors must identify, and should minimize or avoid, any environmental impacts the proposed projects may have on various environmental resources. Federal-aid and Federal Lands highway projects, such as bicycle lane marking, bicycle parking installation, crosswalk striping, pedestrian crossing islands, pedestrian hybrid beacons, leading pedestrian intervals, and traffic signal operations to benefit bicycle and pedestrian safety and mobility typically qualify for a Categorical Exclusion under FHWA's NEPA implementing regulations in 23 CFR 771.117 and FTA's corresponding regulations in 23 CFR 771.118.

Bicycle and pedestrian facility project sponsors should work closely with their State DOTs and FHWA division staff to identify specific requirements for environmental review and documentation. The FHWA recognizes that building standalone bicycle and pedestrian facilities is an action that does not typically result in significant impacts on the environment, and thus it is explicitly identified as a category of action (categorical exclusion) not normally requiring extensive documentation (instead relying on a checklist for possible impacts) or a lengthy approval process (23 CFR 771.117(c)(3)).

Key provisions to keep in mind for FHWA projects include:

- Section 4(f): It is possible that a bicycle and pedestrian project could involve a park, recreation area, wildlife or waterfowl refuge, or historic site, and be required to undergo a Section 4(f) evaluation (FHWA Memo, May 23, 1977). See Section 4(f) Policy Paper, Part II, Section 15. Exceptions to Section 4(f) approval are provided in 23 CFR 774.13(f) and (g) for projects involving "certain trails, paths, bikeways, and sidewalks," and for "transportation enhancement activities, transportation alternatives projects and mitigation activities," under certain conditions.
- Transportation conformity requirements: Stand-alone bicycle and pedestrian facilities are exempt from transportation conformity requirements. However, bicycle and pedestrian projects that are elements of larger transportation projects may be subject to transportation conformity as part of a larger project.
- Eligible Emergency Relief Projects: Categorical exclusions are available for certain emergency repairs arising from certain natural disasters or catastrophic failures from an external cause (23 CFR 771.117(c)(9)).
- Procurement: Some projects not located within highway right-of-way may be procured using State procedures and do not need to follow Federal procurement procedures. See
   <u>Procurement Memo</u>. However, STBG (including TA Set-Aside, but excluding the RTP set-aside) projects must be treated as projects on Federal-aid highways (23 U.S.C. 133(i)).
- Nondiscrimination: Title VI of the Civil Rights Act (42 U.S.C. 2000) ensures that no person shall be subject to discrimination based on race, color, or national origin under any program or activity that receives Federal financial assistance. Title VI applies to bicycle and pedestrian projects of a State or local DOT recipient of Federal financial assistance even if the project is funded solely with the recipient's own funds. The Civil Rights Restoration Act of 1987 clarifies that "any program or activity" means "all the operations of" the State or local government department or agency that receives Federal financial assistance.

- Accessibility: Compliance with the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act: The primary purpose of FHWA's accessibility program is to ensure that pedestrians with disabilities have an equal opportunity to use the public rights-of-way in the transportation system. FHWA's regulatory responsibilities under Title II of the ADA and Section 504 of the Rehabilitation Act of 1973 (Section 504) include oversight of State and local entities and recipients of Federal funds that are responsible for roadways and pedestrian facilities to ensure that they do not discriminate on the basis of disability in any highway transportation program, activity, service, or benefit they provide to the public. See the U.S. Department of Justice's ADA Title II regulations at 28 CFR part 35 and DOT's Section 504 regulations at 49 CFR part 27.
- Youth Service and Conservation Corps: MAP-21 Section 1524 authorizes States and MPOs to sole source contracts and cooperative agreements to qualified youth service or conservation corps for appropriate bicycle and pedestrian projects. See the <a href="MAP-21 Section 1524">MAP-21 Section 1524</a> Questions and Answers and Youth Workforce Development Resources.

## **Design Resources**

Under 23 U.S.C. 109(c), States must use design standards that FHWA has incorporated by reference in 23 CFR part 625 when developing projects on the National Highway System (NHS). Under 23 U.S.C. 109(o), States establish their own design standards for projects not on the NHS. A locality may use a different roadway design publication than the State (with State approval), if the roadway is owned by the locality, the roadway is not on the Interstate System, the locality is the direct recipient of Federal funds for the project, the publication is recognized by FHWA and adopted by the locality, and the design complies with all other applicable Federal laws (FAST Act § 1404(b)). See <a href="https://www.fhwa.dot.gov/design/standards/161006qa.cfm">https://www.fhwa.dot.gov/design/standards/161006qa.cfm</a> for more information.

The FHWA encourages States and MPOs to adopt design standards for Federal surface transportation projects that provide for the safe and adequate accommodation (as determined by the State) of all users of the surface transportation network, including motorized and nonmotorized users in all stages of project planning, development, and operation. [FAST Act § 1442]

The FHWA supports taking a flexible approach to bicycle and pedestrian facility design as described in the memo on <u>Bicycle and Pedestrian Facility Design Flexibility</u>. The following list of references provide useful information for design decisions.

### Standards: Publications incorporated by reference in the Code of Federal Regulations

- <u>Manual on Uniform Traffic Control Devices</u> (MUTCD), FHWA (required national standard for all traffic control devices installed on any street, highway, or bicycle trail open to public travel).
- <u>A Policy on Geometric Design of Highways and Streets, 6<sup>th</sup> Edition, 2011</u>, AASHTO (required geometric design standard for NHS highways).

## Guidance: Major national publications that provide advice on policy or technical design issues

• <u>Designing Walkable Urban Thoroughfares: A Context Sensitive Approach</u>, March 2010, Institute of Transportation Engineers (ITE) and Congress for the New Urbanism.

- Guide for the Development of Bicycle Facilities, 2012, AASHTO. Update expected 2019-2020.
- Guide for the Planning, Design, and Operation of Pedestrian Facilities, 2004, AASHTO. *Note:* AASHTO is updating this document, expected 2019-2020.
- <u>Highway Capacity Manual</u>, 2010, Transportation Research Board.
- <u>Highway Safety Manual</u>, AASHTO (links to multiple resources).
- Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations, March 2010, DOT.
- <u>Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way, 2011 U.S.</u>
   Access Board
- Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way; Shared Use Paths (Supplemental Notice), 2013, U.S. Access Board.
- Roadside Design Guide, 4<sup>th</sup> Edition, 2011, AASHTO.
- Urban Street Design Guide, October 2013, NACTO.

# Information: Publications and other resources providing education and knowledge on specific topics

- Accessible Shared Streets: Notable Practices and Considerations for Accommodating Pedestrians with Vision Disabilities, October 2017, FHWA.
- Achieving Multimodal Networks: Applying Design Flexibility and Reducing Conflicts, August 2016, FHWA.
- A Guide for Maintaining Pedestrian Facilities for Enhanced Safety, October 2013, FHWA.
- Bicycle and Pedestrian Design Guidance, FHWA (links to multiple resources).
- Bicycle and Pedestrian Facility Design Flexibility, FHWA, August 20, 2013
- Bicycle and Pedestrian Funding, Design, and Environmental Review: Addressing Common Misconceptions, August 2015, DOT and FHWA.
- Bike Network Mapping Idea Book, June 2016, FHWA.
- BIKESAFE, 2014, FHWA.
- Bike Share Station Siting Guide, 2016, NACTO.
- Bikeway Selection Guide, 2019, FHWA.
- <u>Case Studies in Delivering Safe, Comfortable and Connected Pedestrian and Bicycle Networks</u>, December 2015, FHWA.
- <u>Case Studies in Realizing Co-Benefits of Multimodal Roadway Design and Gray and Green Infrastructure</u>, March 2018, FHWA.
- Context Sensitive Solutions, FHWA (links to multiple resources).
- DOT Pedestrian and Bicyclist Road Safety Assessments, October 2015, DOT.
- Guidebook for Developing Pedestrian and Bicycle Performance Measures, March 2016, FHWA.
- Guidebook for Measuring Multimodal Network Connectivity, February 2018, FHWA.
- Handbook for Designing Roadways for the Aging Population, June 2014, FHWA.
- <u>Incorporating On-Road Bicycle Networks into Resurfacing Projects</u>, December 2015, FHWA.
- Information: Design Standards and Section 1404 of the FAST Act, FHWA, October 6, 2016
- Memorandum on the Designation of Bicycle and Pedestrian Coordinators within State DOTs, January 17, 1992, FHWA

- Noteworthy Local Policies That Support Safe and Complete Pedestrian and Bicycle Networks, November 2016, FHWA.
- <u>Pedestrian and Bicycle Information Center</u>, FHWA-supported (links to multiple resources).
- **PEDSAFE**, 2013, FHWA.
- Pedestrian and Bicycle Funding Opportunities, May 2018, FHWA.
- Performance Based Practical Design Webpage, FHWA (links to multiple resources).
- Pursuing Equity in Pedestrian and Bicycle Planning, April 2016, FHWA.
- Proven Safety Countermeasures, FHWA (links to multiple resources).
- Questions & Answers about Design Flexibility for Pedestrian and Bicycle Facilities, FHWA, July 25, 2014
- Rails-with-Trails: Lessons Learned, August 2002, FHWA, FRA. A <u>new report</u> is expected Fall 2019.
- Road Diet Informational Guide, November 2014, FHWA.
- Separated Bike Lanes Planning and Design Guide, May 2015, FHWA.
- Small Town and Rural Multimodal Networks, December 2016, FHWA
- Strategies for Accelerating Multimodal Project Delivery, October 2018, FHWA.
- Transit Street Design Guide, April 2016, NACTO.
- <u>United States Department of Transportation Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations, March 11, 2010, DOT</u>
- Urban Bikeway Design Guide, March 2014, NACTO.
- Urban Street Geometric Design Handbook, December 2008, ITE.