

City of Flagstaff Pedestrian Bicycle FULTS Master Plans



DRAFT Working Paper 2 Resources and literature

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Introduction

This working paper is intended to provide a list of basic resources available to assist in the preparation of pedestrian, bicycle, and trails master plans.

There is considerable information available on walking and biking facilities and accommodation. This resource list is not intended to be exhaustive or comprehensive. Rather, it is limited to those documents and resources that are especially useful, most comprehensive, or represent the definitive or industry-standard guide. Most of the resources are of a general nature and the list does not include documents that cover specific topics, like crosswalks or separated bikeways.

Organizations and websites

These websites connect to entities that are leading advocates and clearinghouses for information on bicycle and pedestrian plans, facilities, and programs. They serve as a representation of the resources that are available.

Walking and biking

Federal Highway Administration Bicycle and Pedestrian Program

Agency Federal Highways Administration

Summary The Bicycle & Pedestrian Program of the Federal Highway Administration's Office of Human Environment promotes bicycle and pedestrian transportation use, safety, and accessibility. The site offers information about federal funding spent in each state on bicycle and pedestrian projects, federal funding sources, legislation and guidance about accessible design.

Pedestrian and Bicycle Information Center

Agency University of North Carolina Highway Safety Research Center

Summary PBIC works to support safe walking and bicycling as a viable means of transportation and physical activity by providing technical assistance and collecting/generating current information and research on bicycling and walking. The organization maintains several websites, including pedbikeinfo.org, a national clearinghouse of pedestrian and bicycle information

National Center for Bicycling and Walking

Agency Project for Public Spaces

Summary The NCBW is a program of the Project for Public Spaces that was founded to assist communities in becoming more walkable and bikeable. They provide support for individual advocates, work with government agencies to develop and implement policies and projects, and collaborate with partners on transportation, environmental advocacy and public health programs.

National Center for Safe Routes to Schools

Agency University of North Carolina Highway Safety Research Center

Summary The National Center for Safe Routes to School provides assistance to states and communities in enabling and encouraging children to safely walk and bicycle to school, and serves as the information clearinghouse for the federal Safe Routes to School program.

Walk Friendly Communities

Agency Pedestrian and Bicycle Information Center

Summary Walk Friendly Communities is a national recognition program developed to encourage towns and cities across the U.S. to establish or recommit to a high priority for supporting safer walking environments. The website includes a fairly extensive **resource page**, generally organized around the five E's (education, encouragement, engineering, enforcement, and evaluation) to help communities become more walkable.

Bicycle Friendly America

Agency League of American Bicyclists

Summary The Bicycle Friendly America program provides assistance and recognition for communities, state, universities, and businesses that are working to make bicycling a real transportation and recreation option for everyone. Like the Walk Friendly Communities, Bicycle Friendly America has very comprehensive **resources page** that covers numerous topics and is organized around the five E's.

Trails

American Trails

Agency American Trails

Summary American Trails is a national, non-profit organization working on behalf of all trail interests, including hiking, bicycling, mountain biking, horseback riding, water trails, snowshoeing, cross country skiing, trail motorcycling, ATVs, snowmobiling and four wheeling. American Trails **online library** has hundreds of articles, studies, and resources on every aspect of trails and greenways.

Rails to Trails

Agency Rails-to-Trails Conservancy

Summary This organization provides resources for communities looking to improve trail policies, facilities, and connectivity. Rails to Trails' **resource library** offers technical trail building information, policy advocacy materials and support, trails promotional ideas, mapping and GIS resources, planning and management advice

Planning process and inspiration

The following resources provide guidance for the evaluation and improvement of pedestrian, bicycle and trails facilities and programs through the planning process. Each focuses on specific strategies and best practices from an advocacy perspective in facilitating local planning mechanisms.

How to Develop a Pedestrian Safety Plan

Agency Federal Highway Administration

Year FMPO region

Summary Provides detailed guidance state and local agencies to develop a Pedestrian Safety Action Plan, which improves pedestrian safety through street redesign, engineering countermeasures, and other safety treatments and programs.

A Resident's Guide for Creating Safer Communities for Walking and Biking

Agency Federal Highway Administration

Year 2009

Summary Comprehensive guide intended to help residents, parents, community association members, and other citizens get involved in making their community safer for pedestrians and bicyclists. The document includes facts, ideas, and resources to help residents learn about traffic problems that affect pedestrians and bicyclists and to find ways to help address these problems.

Giving Cities Legs: Ideas and Inspirations from Walk Friendly Communities

Agency Walk Friendly Communities

Year 2012

Summary This document identifies the projects and programs instituted by communities across the country in working towards more walkable communities.

National Survey of Bicyclist and Pedestrian Attitudes and Behavior

Agency National Highway Traffic Safety Administration

Year 2013

Summary This report presents the findings of the 2012 National Survey of Bicyclist and Pedestrian Attitudes and Behaviors. More than 7,500 individuals completed the survey, which covers a wide variety of walking and biking topics such as the extent to which respondents walk and bicycle, attitudes and perceptions about bicycling and pedestrian activities, and demographic and typological descriptions of bicyclists and pedestrians.

Creating a Road Map for Producing and Implementing a Bicycle Master Plan

Agency National Center for Bicycling and Walking

Year 2009

Summary The document serves a guide for communities who are interested in creating a Bicycle Master Plan – a plan for developing bicycle infrastructure with emphasis on promoting bicycling as a viable transportation option and fostering a practical, safe, and enjoyable environment for cycling.

Design guidelines

Guide for the Development of Bicycle Facilities

Agency American Association of State Highway and Transportation Officials (AASHTO)

Year 2012

Summary The definitive resource for best practices in designing and building bicycle facilities, the fourth edition of the Guide is the result of years of nationwide research and extensive coordination with a variety of stakeholders. Includes a comprehensive and detailed coverage of bicycle planning, on-road facilities, shared use paths, bicycle parking, and maintenance and operations. The document is available in print only; it is not available as an on-line resource.

Guide for the Planning, Design, and Operation of Pedestrian Facilities

Agency American Association of State Highway and Transportation Officials (AASHTO)

Year 2004

Summary The companion guide to AASHTO's Bicycle Guide is somewhat dated but still relevant.

Urban Bikeway Design Guide

Agency National Association of City Transportation Officials (NACTO),

Year 2014

Summary An on-line compilation of state-of-the-practice bicycle treatments and facilities. The guide covers basic facilities, but also highlights innovative facilities and newer treatments for urban streets and complex situations where creative solutions are needed. Three levels of guidance are provided for each treatment: design elements that are required, those that are recommended, and elements that are optional. This document is thorough and comprehensive and includes useful and informative graphics and images for each treatment.

Federal Highways Administration has posted [information regarding the MUTCD approval status](#) for all bicycle facilities covered in the guide.

Urban Street Design Guide

Agency National Association of City Transportation Officials (NACTO),

Year 2014

Summary NACTO's on-line compendium of treatments and facilities, principles and practices to create streets where people can safely walk, bicycle, drive, take transit, and socialize. Structured like the Urban Bikeways Guide, with three levels of guidance (critical, recommended, and

optional) and lots of helpful images and graphics.

In 2014, FHWA issued **clarifying information** about FHWA's support for design flexibility and the status of the Guide.

Manual on Uniform Traffic Control Devices

Agency Federal Highway Administration (FHWA)

Year 2009

Summary MUTCD is a compilation of national standards for all traffic control devices, including road markings, highway signs, and traffic signals, that is used nationwide to install and maintain traffic control devices on all public streets, highways, and bikeways. All traffic control devices in the United States must conform to MUTCD standards.

Part 9 of the MUTCD covers traffic control for on-street bicycle facilities and shared use pathways.

Increasing Physical Activity through Community Design: A Guide for Public Health Practitioners and Livable Community Advocates

Agency National Center for Bicycling and Walking

Year 2010

Summary The guide refers to an active community environment, or ACE, where walking and bicycling are normal parts of daily life. Poor community design affects the health of the entire community; the guide urges community leaders, local planners, and transportation and environmental agency officials to strive to implement an active community environment.

Designing Walkable Urban Thoroughfares: A Context Sensitive Approach

Agency Institute of Transportation Engineers

Year 2010

Summary The report, created in partnership between the Institute of Transportation Engineers and the Congress for New Urbanism, provides guidance for practitioners and policy makers on how streets in major urban areas can be designed and improved to support walkable and bikeable communities through compact development, mixed land uses, and appropriate design and facilities.

Accessibility

Accessibility standards for sidewalks and other features in the public right-of-way are found in the Americans with Disabilities Act Accessibility Guidelines (ADAAG), which are developed and maintained by the **U.S. Access Board**. The Access Board's first version of ADAAG came out in 1991, and the guidelines have been amended and supplemented in the years since. ADAAG were adopted as enforceable standards by the U.S. Department of Transportation (DOT) in 2006 and by the Department of Justice (DOJ) in 2010 (with an effective date of 2012).

ADAAG were created primarily for buildings and building sites; as a result there are only a few provisions regarding public sidewalks and pedestrian facilities in the right-of-way. Guidance is provided for a few basic elements like running slopes, cross slopes, obstructions, curb ramps, detectable warning strips, and crossing islands.

To more adequately address sidewalks and other facilities in the right-of-way, the Access Board began developing Public Rights-of-Way Accessibility Guidelines (PROWAG) in the late 1990's. The draft includes more robust guidance for pedestrian facilities, and cover pedestrian access to sidewalks and streets, including crosswalks, curb ramps, street furnishings, pedestrian signals, shared use paths, parking, and other components of public rights-of-way.

PROWAG has not been formally adopted as enforceable standards by either DOT or DOJ, although DOT has adopted the guidelines as "best practices." Links to ADAAG and PROWAG guidelines are listed below.

2006 ADA Standards for Transportation Facilities (website | PDF)

Agency Department of Transportation

Year 2006

Summary Accessibility standards adopted by the U.S. Department of Transportation, based on ADAAG. For the most part it matches the standards of the Department of Justice, but adds standards for public transportation services and facilities, including bus stops and rail stations. Sidewalk and curb ramp provisions are included in Chapter 4: Accessible Routes.

2010 ADA Standards for Accessible Design

Agency Department of Justice

Year 2010

Summary Accessibility standards adopted by the U.S. Department of Justice, based on ADAAG. Sidewalk and curb ramp provisions are included in Chapter 4: Accessible Routes. The standards were adopted in 2010, but did not become effective until 2012.

Proposed Guidelines for Pedestrian Facilities in the Public Right-of-Way (website | PDF)

Agency U.S. Access Board

Year 2011

Summary PROWAG guidelines developed by the Access Board to specifically address sidewalks and other facilities in the public right-of-way. The guidelines have not been adopted as enforceable standards, but they do serve as best practices.

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

Agency U.S. Access Board

Year 2013

Summary A supplement to PROWAG with accessibility considerations for shared-use paths. Like PROWAG, the supplement serves as best practices rather than enforceable standards.

The resources listed below provide general technical guidance for enhancing accessibility. The documents may reference provision or requirements in ADAAG or PROWAG, but are independent of adopted ADA standards. Information in these documents may not accurately reflect ADAAG standards, particularly those that predate adoption, and they may include additional guidance not found in ADAAG or PROWAG.

ADA Best Practices Tool Kit for State and Local Governments

Agency United States Department of Justice

Year 2007

Summary A technical assistance document intended to help local governments with ADA compliance in their programs, services, activities, and facilities. Also includes samples of accessibility surveys for a variety of facilities, including curb ramps.

A Checklist for Accessible Sidewalks and Street Crossings

Agency U.S. Access Board

Year Undated

Summary Easy to follow checklist that is based largely on existing ADAAG standards, but also includes several recommendations for best practices.

Accessible Sidewalks and Street Crossings: An Informational Guide

Agency Federal Highway Administration

Year 2004

Summary Detailed information on accessible considerations that goes well beyond the

Special Report: Accessible Public Rights-of-Way Planning and Design for Alterations

Agency U.S. Access Board

Year 2007

Summary A guide to best practices for enhancing accessibility when alterations are made to existing roadways. The document was produced by the U.S. Access Board committee that is responsible for PROWAG, and is based largely on provisions in PROWAG.

Exemplary plans from other communities

Fort Collins Pedestrian Plan Fort Collins Bicycle Master Plan

Agency City of Fort Collins, Colorado

Year 2011, 2014

Summary Fort Collins is a city similar to Flagstaff in many ways. Both of these plans offer useful ideas in the planning and implementation of facilities and programs.

Eugene Pedestrian and Bicycle Master Plan

Agency City of Eugene, Oregon

Year 2012

Summary The organization, provision of data and maps, and the clear connection of projects to identified needs are the strength of this plan. Additionally, the Eugene city website provides information on current projects being carried out in connection to the plan.

Philadelphia Pedestrian and Bicycle Plan

Agency City of Philadelphia, Pennsylvania

Year 2012

Summary This plan does many things well, but Philadelphia is implementing innovations in connecting multi-modal capacity to greenways and low impact design. While a much different context than Flagstaff, the Philadelphia plan acknowledges and provides solutions for retrofitting existing urban infrastructure for enhanced bike and pedestrian comfort and accessibility

Riding to 2050: The San Diego Regional Bike Plan

Agency San Diego Association of Governments (SANDAG), California

Year 2010

Summary Again, a much different context than Flagstaff, but this regional plan offers many qualities to be emulated – particularly the effort to connect bike and pedestrian facilities with access to the regional transit system.

**Pima Association of Governments Regional Pedestrian Plan
Tucson Regional Bicycle Plan**

Agency Pima Association of Governments (PAG), Arizona

Year 2014, 2009

Summary Both of these plans offer many best practices, but most importantly offer guidance in regional planning specific to the particular challenges provided by the political and funding context present in Arizona.

Bellingham Pedestrian Master Plan

Agency City of Bellingham, Washington

Year 2012

Summary Thorough and comprehensive plan from one of Flagstaff's peer communities, this document includes design guidance for a variety of facilities, programmatic recommendations, and projects to help complete the primary pedestrian network. The plan also establishes performance measures and sets targets.