

Section 3.6 (continued)

a U.S. bike route system that connects mapped routes across the country. One such route, U.S. Bike Route 35, passes through Southwest Michigan and the TwinCATS area. For more information, see <http://www.swmpc.org/usbr35.asp>.

- The Indiana-Michigan River Valley Trail is the product of an ongoing partnership between federal, state, county, and local officials to link destinations in southern Berrien County to northern Indiana via non-motorized trail. For more information, see <http://www.swmpc.org/inmitrail.asp>.
- The Harbor Country Hike and Bike Plan was adopted in 2010 to coordinate the non-motorized facilities in Chikaming Township, the City of New Buffalo, New Buffalo Township, Three Oaks Township, Grand Beach, and the Village of Three Oaks. For the full plan, see http://www.lapinc.net/hchbplan/vision_plan.pdf.
- The Friends of the McCoy Creek Trail is a group founded in 2004 that acts in a planning capacity to develop a trail network in Buchanan along McCoy Creek.

Section 4: Design Resources

Design Guidance

There are a number of resources that communities can turn to for guidance in selecting and implementing the best possible walking and biking facilities. These resources come from a number of sources: the Federal Department of Transportation (DOT) and its subsidiary groups, the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA); prominent transportation associations, such as the Institute of Transportation Engineers (ITE) and the American Association of State Highway and Transportation Officials (AASHTO); numerous state and local transportation agencies, such as the Maryland State Highway Administration and the Washington State Department of Transportation; and other groups, including consultancies such as Parsons Brinckerhoff and other professional associates such as the National Association of City Transportation Officials (NACTO).

Below, an abbreviated list of potential design resources is given, starting with the official guidelines that are most central to accepted transportation practice, and moving on to a number of other sources that may be useful in diagnosing and addressing a variety of obstacles to walking and biking.

Americans with Disabilities Act (ADA) Guidelines

While there are numerous factors that go into designing appropriate non-motorized facilities, it is important that such facilities at a minimum conform to the basic requirements set out in ADA guidelines. The most recent set of ADA guidelines adopted by the federal DOT (available online at <http://www.access-board.gov/ada-aba/ada-standards-dot.cfm>) became effective in 2006. In dealing specifically with public paths, these guidelines address required path widths, curb ramp design, and connection to other transportation facilities such as bus stops.

In addition to DOT's current ADA guidelines, the Federal Access Board has also drafted a set of accessibility guidelines specifically for pedestrian

facilities with road rights-of-way (available online at <http://www.access-board.gov/prowac/nprm.htm>). These draft guidelines contain more detailed specifications for design elements such as street crossing, pedestrian islands, pedestrian signs and signals, and street furniture.

AASHTO and ITE Guidebooks

A series of AASHTO and ITE guidebooks are the most frequently cited sources of non-motorized roadway design standards. AASHTO has design guides specific to both bicycle and pedestrian facilities: *The AASHTO Guide for the Development of Bicycle Facilities* (1999) and *The AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities* (2004). The guides address the process of facility selection, as well as the minimum and desired design features of a variety of facility types. These features include such aspects as width, slope, surface quality, signs and markings, and design speeds. Neither guide is available in free electronic format, but both can be purchased from the AASHTO bookstore (<https://bookstore.transportation.org/>). Additionally, AASHTO has issued a draft version of a new *Guide for the Planning, Design, and Operation of Bicycle Facilities*, which is available for free online (<http://design.transportation.org/Documents/DraftBikeGuideFeb2010.pdf>)

Similarly to AASHTO, ITE has published separate guides for pedestrian (*Design and Safety of Pedestrian Facilities: An ITE Recommended Practice* (1998)) and bicycle (*Innovative Bicycle Treatments: An ITE Informational Report* (2002)) facilities, both of which are available for purchase online (<http://www.ite.org/emodules/scriptcontent/Orders/index.cfm>). The pedestrian guide discusses a wide range of facilities and offers specific recommendations for implementation in a variety of settings. The bicycle guide contains similar content, though it focuses instead on discussing the various advantages and disadvantages of different bicycle facilities without offering concrete recommendations for specific contexts.

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DOT Guides and Selection Tools

In addition to the above guides, the federal DOT has released a number of non-motorized facility selection and design tools. The primary two tools are both from FHWA: *PEDSAFE: Pedestrian Guide and Countermeasure Selection System* (2004) and *BIKESAFE: Bicycle Countermeasure Selection System* (2006). Both guides are available in physical copy free of charge and can be ordered online: http://safety.fhwa.dot.gov/ped_bike/ped_bike_order/. Additionally, both guides can be accessed online at <http://www.walkinginfo.org/pedsafe/> and <http://www.bicyclinginfo.org/bikesafe/>, respectively. The guides contain a detail listing of non-motorized design measures, organized by purpose, and with a summary of use considerations and rough cost estimates. The guides also contain over 70 case studies of various measures as they have actually been implemented. Additionally, the online versions of the guides also feature automated selection tools, in which users specify general road-way conditions and desired outcomes, the selection tool produces a list of candidate design measures.

Finally, both FHWA and FTA have published guidelines for facilitating pedestrian linkages to transit. In FTA's *Improving Pedestrian Access to Transit* (1998, <http://safety.fhwa.dot.gov/saferjourney/library/pdf/fta.pdf>) and FHWA's *Pedestrian Safety Guide for Transit Agencies* (2008, http://www.walkinginfo.org/training/collateral/resources/transit_guide.pdf), the specific design and logistics considerations for allowing pedestrians to easily access busses and trains are considered.

Other Non-Motorized Facility Guides

While the above ADA, AASHTO, ITE, and DOT guidelines, guidebooks, and selection tools are detailed and comprehensive in their treatment of walking and biking facilities, a number of other design guides offer complimentary information. These guides are too numerous to list in full here, but a number of useful lists exist online. The National Complete Streets Coalition compiles one such list. On their Resources webpage <http://www.completestreets.org/complete-streets-fundamentals/resources/>, they provide links to several dozen non-motorized guides from states, municipalities, metropolitan planning organizations, and private organizations. This resources page is also a useful location for finding examples of non-motorized policies at various levels of government, reports on non-motorized trends and conditions, as well as basic information on the relevance of non-motorized travel.

Finally, FHWA has a bicycle and pedestrian guidance webpage in which they provide links to official memoranda on non-motorized design issues, as well official responses they have given to design process inquiries. The page can be found at <http://www.fhwa.dot.gov/environment/bikeped/guidance.htm>