



Iowa DOT

Bicycle and Pedestrian Accommodation Planning Discussion

November 14, 2017

Why consider bicyclists and pedestrians in planning and design?



Federal law: Bicycling and walking are recognized modes of transportation to be considered on all projects where use is permitted.

ISTEA

(1991-1997) Pedestrian walkways and bicycle transportation facilities to be constructed under this section shall be located and designed pursuant to an overall plan to be developed by each metropolitan planning organization and State and incorporated into their comprehensive annual long-range plans in accordance with sections 134 and 135 of this title, respectively. Such plans shall provide due consideration for safety and contiguous routes.

TEA-21 - FAST ACT

(1998-present) Bicyclists and pedestrians shall be given due consideration in the comprehensive transportation plans developed by each metropolitan planning organization and State in accordance with sections 134 and 135, respectively
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.

FHWA policy statement

(2010) The USDOT policy is to incorporate safe and convenient walking and bicycling facilities into transportation projects. Every transportation agency, including USDOT, has the responsibility to improve conditions and opportunities for walking and bicycling and to integrate walking and bicycling into their transportation systems. Because of the numerous individual and community benefits that walking and bicycling provide — including health, safety, environmental, transportation, and quality of life — transportation agencies are encouraged to go beyond minimum standards to provide safe and convenient facilities for these modes.

Why consider bicyclists and pedestrians in planning and design?



State law:

- Iowa Code Chapter 321, MOTOR VEHICLES AND LAW OF THE ROAD
 - §234.2 A person, including a peace officer, riding **a bicycle on the highway is subject to the provisions of this chapter and has all the rights and duties under this chapter applicable to the driver of a vehicle...**
- Iowa Department of Transportation
 - Created in 1974 by the 65th General Assembly, was given responsibility to promote more orderly and effective planning and funding of programs, and to achieve a **more balanced transportation system.**
 - No longer a Highway Commission but a DOT with **multimodal** responsibilities.

Users and Facility Types



- Users are made up of people of all ages and abilities
 - Varying skill levels and comfort
 - Different users prefer different facilities
- Ideal facility type depends on intended user(s) and context
 - Multi-use trail and sidepaths
 - Paved shoulders
 - Shared lanes
 - Bicycle lanes
 - Sidewalks



**Cedar Valley Trail
Cedar Falls, Iowa**

Users and Facility Types



Multi-use Trails

- Two-way facilities physically separated from motor vehicle traffic and used by pedestrians, bicyclists, and other non-motorized users.
- Cost exceeds the cost of sidewalks and on-road bikeways since they often involve right-of-way acquisition and drainage modifications.
- Must be designed with bicyclists in mind.



**Floyd River Trail
Sioux City, Iowa**

Basic design parameters

The minimum width is 10' and 8' is acceptable for short distances under physical constraint. Additional width can be provided to accommodate high volumes.

Users and Facility Types



Side Paths

- Two-way facilities physically separated from motor vehicle traffic and used by pedestrians, bicyclists, and other non-motorized users.
- Side paths are multi-use trails located within the right of way immediately adjacent and parallel to a roadway.



Basic design parameters

The minimum width is 10 feet and 8 feet is acceptable for short distances under physical constraint. Additional width can be provided to accommodate high volumes.

Users and Facility Types



Paved Shoulders

- Paved shoulders benefit all road users.
- The additional pavement width outside of the travel lanes reduces run-off-road crashes, aids maintenance, benefits oversize/ag vehicles, and provides space for bicyclists.
- Pedestrians often use paved shoulders, although they are not designed as pedestrian facilities and typically do not meet accessibility requirements.



Basic design parameters

The minimum functional width for a paved shoulder used by bicyclists is 4 feet (if rumble strips are present, from outside edge of rumble to edge of pavement).

Users and Facility Types



Shared Lanes

- Where traffic volumes and speeds are low, many bicyclists can comfortably share lanes with motor vehicles.
- In rural areas, no treatments are usually needed, although wayfinding signage is beneficial.
- On urban streets, shared lanes usually include shared lane markings (“sharrows”) to indicate preferred bicyclist lane positioning, act as wayfinding aids, and alert drivers to a presence of bicyclists.



Basic design parameters

In rural areas, shared lanes should have traffic volumes below 1,500 ADT. In urban areas, shared lanes should be on streets with posted speed limits of 35 MPH or less.

Users and Facility Types



Bike Lanes

- Designated for exclusive use by bicyclists through pavement markings and signs.
- Bike lanes are on both sides of a street, but can also be applied on one-way streets.
- Buffers can be placed between the bike lane and travel lane and/or parking to provide additional physical separation.



Basic design parameters

Typically 5 feet wide and have a minimum width of 4 feet not including the gutter.

Users and Facility Types

Sidewalks

- A pedestrian walkway located within public right-of-way, typically adjacent to property lines.
- Sidewalks provide physical separation between vehicles and pedestrians and are the most common pedestrian facility type.



Basic design parameters

Standard width for a sidewalk is 5 feet with 4 feet permitted to avoid obstructions. Sidewalks should be wider near schools, transit stops, downtowns, main streets, and anywhere else higher volumes of foot traffic occurs.

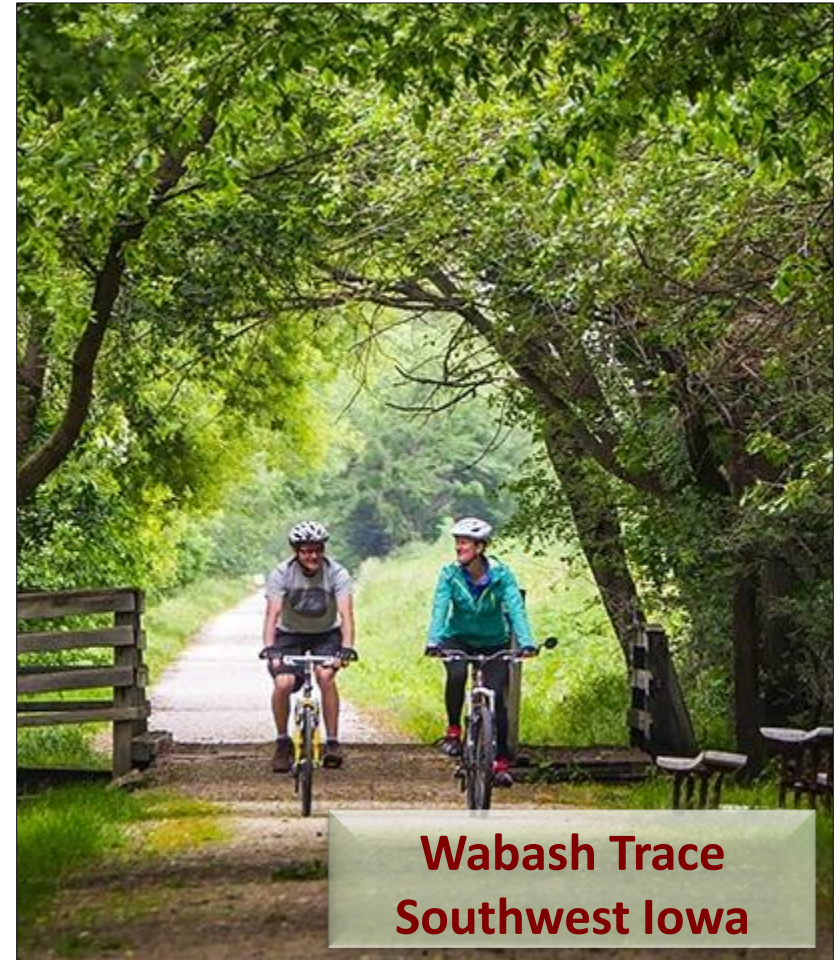
Purpose of the Plan



The Bicycle and Pedestrian Plan will:

- serve as the **primary guide for Iowa DOT** decision-making regarding **bicycle and pedestrian programs and facilities**;
- help achieve a **better level of coordination** within the Iowa DOT;
- and **provide continuity for all levels** of bicycle and pedestrian mobility through **regional, county, and city** plans and programs.

All three objectives were identified by stakeholders as significant needs.



Scope of the Plan



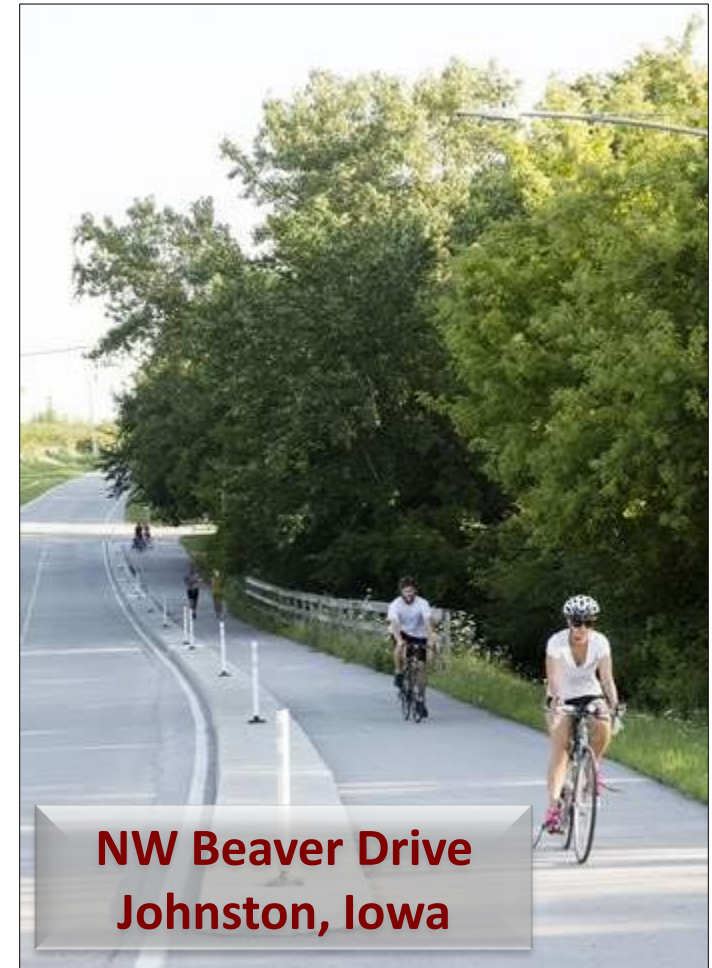
1. Stakeholder Input & Public Participation
2. Existing Conditions Assessment
3. Bicycle & Pedestrian Facility Recommendations
4. Funding & Implementation Strategies



Why proceed with developing a bicycle and pedestrian plan?



1. Iowa DOT has an obligation to consider bicycle and pedestrian accommodations with all of our projects.
2. Accommodation success stories exist throughout the state.
3. In spite of success stories, a statewide plan is necessary to:
 - provide a guide for Iowa DOT decision-making;
 - Improve project-level coordination;
 - and provide continuity for all levels of bicycle and pedestrian mobility.



What's next?



- **Ongoing:** Internal discussions regarding accommodation policy and paved shoulders
- **November-December:** Additional meetings with Policy and Technical Committees
- **January:** Commission workshop discussion
- **January-February:** Draft Plan out for 45-day public comment and final Plan preparation
- **March-April:** Plan completion and Commission presentation
- Plan implementation



Ames, Iowa