



## 2. VISION AND GOALS



## Choosing our path

Bicycling and walking are important elements of Iowa's transportation system and are also recreational activities enjoyed by millions each year. They are healthy activities that require relatively low levels of investment per mile of accommodation, yet are major contributors to economic development and tourism across the state.

This chapter describes the vision for the future of walking and bicycling in Iowa, outlines seven goals designed to help achieve this vision, and summarizes the stakeholder input that shaped the development of this plan.

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## 2.1 Vision for the future

### Where we are today

In many ways, Iowa excels as a state for walking and bicycling. Its scenic landscapes, vibrant communities, and engaged citizens support opportunities for expanding mobility for non-motorized users. However, most bicyclists and pedestrians regularly experience inadequate accommodations, lack of bikeway or trail connectivity, and are stressed when using many of Iowa's streets and roads.

### Where we want to be

The vision for this plan is that the state as a whole, including all citizens and all governmental agencies, will adopt walking and bicycling as valid forms of transportation—a position that is supported by current state code<sup>1</sup> and federal policy<sup>2</sup>. This requires changing the mindset that bicycling and walking are only recreational activities and encouraging more people (all genders, ages, cultures, and abilities) to engage in these activities.

Iowa's streets and roads must be made safer, less stressful, and more civil in order to encourage more people to walk and bicycle. This includes educating bicyclists on how to safely share the road and increasing motorists' awareness of the rights of bicyclists to use most roads in Iowa. It also means ensuring streets and roads effectively serve all transportation users, including motorists, freight, transit, bicyclists, and pedestrians. The end goal is to make more of the state of Iowa accessible by bicycle and by foot while eliminating bicycle and pedestrian-related injuries and fatalities, in keeping with the Iowa DOT's zero-fatality goal.

### How we can get there

Historically, the provision of accommodations for bicycling and walking has not been mainstreamed into the planning and design processes of the Iowa DOT and most MPOs, RPAs, counties, and municipalities. Accommodations were only provided if specifically requested and, in most cases, funded by a local jurisdiction or if space for bicycling was provided by default (e.g., an unused parking lane or a paved shoulder wide enough to accommodate bicycling). When such requests were made, there was a great

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1 Iowa Code § 321.234 states "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..."

2 FHWA's Accommodating Bicycle and Pedestrian Travel: A Recommended Approach policy (also known as the "mainstreaming policy") and the USDOT Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations.

level of uncertainty regarding whether accommodations were warranted or compatible and, if so, how they should be designed. The results were inconsistency in planning and designing accommodations from one part of the state to another and a common perception that accommodating bicycling and walking was not central to the Iowa DOT's mission.

Achieving the vision for this Plan is dependent on the Iowa DOT, county engineering departments, MPOs and RPAs, and cities making the provision of safe and comfortable accommodations for walking and biking a regular part of roadway design—a concept also known as **mainstreaming**. Improved coordination and shared procedures between these agencies is crucial, as is reframing the approach to funding infrastructure projects. Furthermore, new funding sources and approaches—such as funding bikeways and sidewalks as small yet meaningful parts of larger projects—will be used in order to bridge the gap between current infrastructure and future needs. Changes to Iowa DOT's project development process are outlined in Chapter 3: Program Review and Recommendations and a funding strategy is described in Chapter 7: Funding Strategy.

Finally, bicycle and pedestrian accommodations need to be provided and designed in a context-sensitive manner relative to site-specific factors. In other words, with few exceptions (such as interstate highways and highly-constrained environments) all streets and roads in Iowa will accommodate all expected users. The manner in which the accommodation is provided (paved shoulders, shared roadways, bike lanes, sidepaths, sidewalks, etc.) will depend on traffic volume, motor vehicle speed, pavement width, and other relative factors. Guidance for appropriate accommodations is provided in Chapter 4: Infrastructure Analysis and Recommendations.

### Taking action

With this Plan and the accompanying Complete Streets Policy, Iowa DOT is adopting a new perspective on walking and bicycling as essential modes of transportation, receiving due consideration of needs. This means embracing a Complete Streets approach to considering bicycling and walking needs as part of every road or street project in which Iowa DOT is involved (and encouraging counties and cities to do the same) while providing appropriate, context-sensitive accommodations where needed. This approach is supported by the Federal Highway Administration (FHWA), which—through multiple iterative policy statements—in fact mandates that bicycle and pedestrian mobility needs to be considered and included in every project, with few exceptions.

Mainstreaming bicycling and walking requires several shifts in the practices and approaches of all agencies engaging in street and road projects in Iowa, including:

- Measuring current conditions and identifying the factors that determine ease of use for bicyclists and pedestrians (see Chapter 4);
- Establishing a toolbox of facility types, including guidance as to which is appropriate for various situations (see Chapter 4);
- Adopting policies and practices that codify and explain the mainstreaming of bicycling and walking (see Chapters 3, 6, and 7);
- Rewriting manuals to incorporate current best practices and educating planners and engineers accordingly;
- Reconsidering funding streams to fund accommodations from the same source as the larger roadway project (see Chapter 7); and
- Increasing coordination between Iowa DOT's Central Office and District Offices, as well as between Iowa DOT and MPOs, RPAs, counties, and municipalities (see Chapter 3).

Mainstreaming bicycling and walking infrastructure development will not only increase mobility for these modes, but is the most economical way to provide accommodations.



## 2.2 Goals

A small set of clear, easy-to-remember goals were developed based on input from a Policy Advisory Committee and a Technical Advisory Committee (described later in this chapter) to simplify the vision and the steps needed to achieve it. These goals shaped the development of the Plan and should continue to influence programs, investments, and other actions related to bicycling and walking into the future.

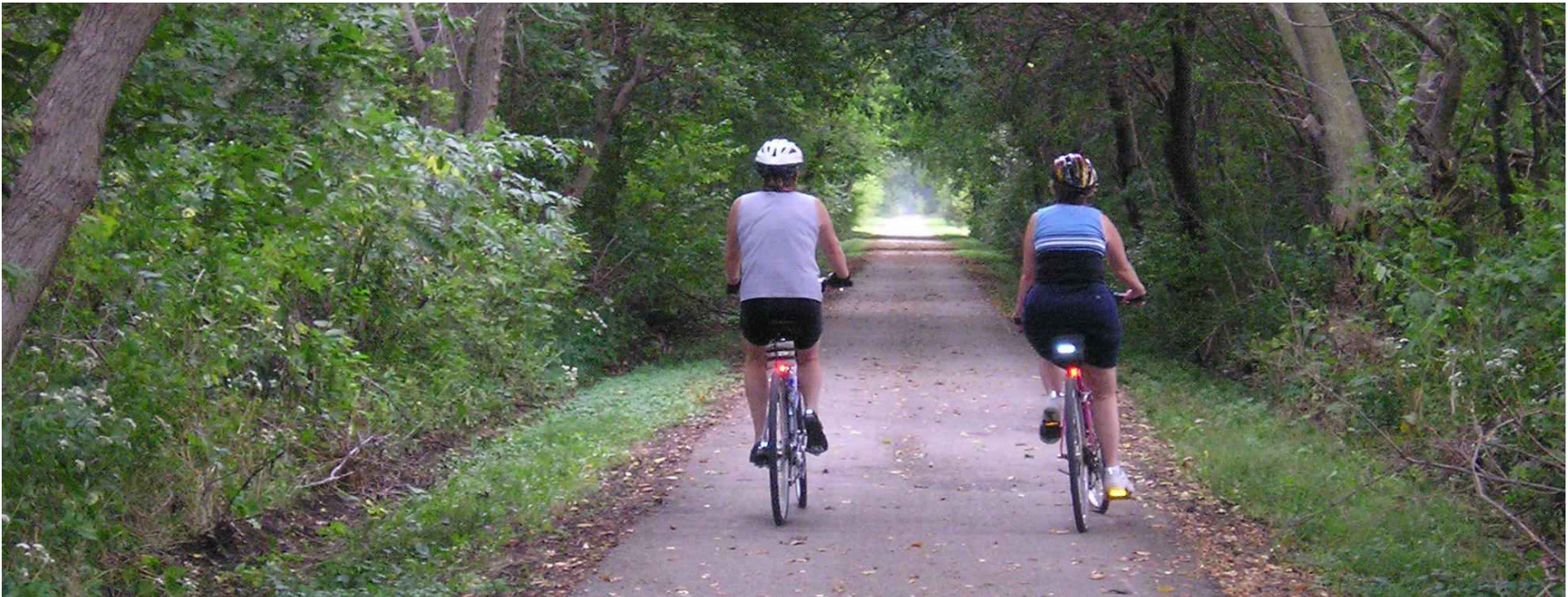
1. **Valid** – Ensure that policy makers, roadway designers and planners, law enforcement officials, motorists, bicyclists, and pedestrians recognize that bicycling and walking are valid modes of transportation.
2. **Safe** – Improve the safety and friendliness of Iowa’s roads and trails to accommodate on-road bikeways and sidewalks, reduce crashes, and eliminate fatalities.
3. **Coordinated** – Improve coordination between the Iowa DOT Central Office, each Iowa DOT District, regional agencies, and local partners to streamline maintenance and the implementation of programs, policies, and infrastructure projects, and to increase consistency.
4. **Connected** – Enact policies and develop infrastructure to create an interconnected network of on-road bikeways, sidewalks, multi-use trails, and end-of-trip facilities that uses the appropriate facility type to connect people to their destinations.
5. **Funded** – Increase the overall level of funding for bicycle and pedestrian infrastructure and programs, explore the flexibility of funding sources, and maximize the efficiency of funding to bridge the gap between what is needed and what is available.
6. **Well-Designed** – Establish guidelines for the design of on-road bikeways, sidewalks, and multi-use trails to ensure they are comfortable, sustainable, convenient, and consistent.
7. **Healthy** – Promote opportunities for active and sustainable lifestyles that include walking and bicycling on a daily basis.



## 2.3 Plan development

The major elements of the Bicycle and Pedestrian Long Range Plan development process included:

1. Assessing existing conditions, including bicycle compatibility for rural roads and analyzing crash data;
2. Analyzing current policies and practices, including project scoping and funding;
3. Recommending new policies and modifications to existing policies;
4. Recommending processes and guidelines for planning and designing infrastructure;
5. Establishing a new planning framework for the Statewide Trails Vision;
6. Assessing a path for the establishment or completion of national trails (American Discovery Trail, Mississippi River Trail, and Lewis and Clark Trail) and US Bicycle Routes that pass through Iowa;
7. Recommending an implementation and funding approach; and
8. Developing performance measures.





## 2.4 Stakeholder involvement

The development of this plan was directly guided by the involvement of various stakeholders, both internal and external to Iowa DOT. The most significant period of stakeholder involvement occurred early in the project, during which fifteen meetings were held to gather input. The outreach was organized such that meetings were held in each of the six Iowa DOT Districts and were coordinated through their District Planners. There were generally three types of meetings held in each District: District Staff meetings, Metropolitan Planning Organization (MPO) and Regional Planning Affiliation (RPA) staff meetings, and public input meetings. In a few cases, the District and MPO/RPA meetings were combined to accommodate travel and schedule conflicts. Over the course of the development of this plan, more than 40 stakeholder meetings were held.

### Advisory Committees

Two advisory committees were active throughout the development of this plan and helped determine and shape the plan's goals and policy direction. Each committee met eight times over the course of the development of this plan in order to review analysis findings, policy recommendations, and priorities. The committees were composed as such:

#### Policy Advisory Committee (PAC)

- American Public Works Association, Iowa Chapter
- City engineer/disabled community representative
- County engineer representative
- Iowa Bicycle Coalition
- Iowa Department of Natural Resources
- Iowa Department of Public Health
- Iowa Natural Heritage Foundation
- Metropolitan Planning Organization representative
- Regional Planning Affiliation representative

#### Technical Advisory Committee (TAC)

- Iowa DOT Office of Bridges & Structures
- Iowa DOT Office of Design
- Iowa DOT Office of Location & Environment
- Iowa DOT Office of Systems Planning
- Iowa DOT Office of Traffic & Safety
- Planners and Engineers from Iowa DOT Districts

### District outreach

In addition to involving representatives from District Offices on the TAC, meetings were held with each of the six District Offices early in the project. At about half of these meetings, the majority of the District Office attended and provided input; for the other meetings, a smaller group consisting of the District Engineer, District Planner, and two or three other staff members provided input. Receiving input from District Office staff was critically important toward the development of the Long-Range Plan because of the critical role they play in project development, design, and planning. Each District Office provides guidance for project development to municipalities, counties, MPOs, and RPAs. They also often oversee the funding requirements of local projects utilizing Federal Aid.

At these meetings, staff were asked a number of questions, such as “What type of guidance would be most helpful regarding bicycle and pedestrian accommodations” and “What is the process for and challenges associated with securing project funding?” The input from each District was slightly unique, but several themes were universal.

District Office staff identified the need for Policy considerations related to:

- The need for better local planning efforts and the communication and timing of requests for accommodations from Local Public Agencies;
- When to accommodate and how accommodations are funded;
- The responsibility and level of required maintenance; and
- The need for a more substantial funding mechanism for construction and maintenance.

District Office staff identified the need for Guidance considerations related to:

- The selection of accommodation type; and
- The design of facility elements (e.g., width, signage, markings, etc.)





## Metropolitan Planning Organization (MPO) and Regional Planning Affiliation (RPA) Staff

MPOs and RPAs are multi-jurisdictional organizations tasked with regional transportation planning, including transportation for bicyclists and pedestrians. They are involved with—or are at least knowledgeable of—most federal and state-funded transportation projects that occur within their region. They also play a role in allocating federal funds and applying for state grant funds for bicycle and pedestrian projects, most notably funds from the Surface Transportation Block Grant-Transportation Alternatives Program (STBG-TA). The STBG-TA program replaces the Transportation Alternatives Program (TAP), which itself combined the Transportation Enhancements (TE), Safe Routes to School (SRTS), and Recreational Trails Program (RTP). The questions asked at these meetings with MPO and RPA staff were similar to those asked at District Office meetings.

The discussions largely revolved around funding strategies, which vary greatly between the MPOs and RPAs. With flexibility inherent in the current federal transportation legislation (FAST Act), each MPO and RPA has been able to evaluate needs in the manner they choose and direct funding where deemed appropriate. In some regions, under the previous transportation act (MAP-21), the flexible Transportation Alternatives Program (TAP) money was used as originally intended for funding bicycle and pedestrian facilities. In other regions, a portion of TAP funds have been “flexed,” or added, to Surface Transportation Program<sup>3</sup> (STP) funds for roadway and bridge improvements. Yet in other areas, STP funds have been used in conjunction with TAP money to make significant bicycle and pedestrian facility development possible. In this way, it seems that giving the MPOs and RPAs authority over where funds are directed is valued by those organizations toward meeting their most critical needs.

However, concern was expressed by some RPA representatives, mostly in very rural areas, that the funding they receive is not sufficient for the completion of even very minor projects. Some of these RPAs are trying to overcome this challenge by accumulating money over multiple years, yet this situation remains discouraging for these jurisdictions. This practice also limits buying power due to continued inflation in construction costs.

Just as funding strategies vary, so does the level of planning from region to region. In speaking with MPOs/RPAs, it was determined that in some cases local public agencies have no bicycle and pedestrian facility plans. In others, the plans that are available may be decades old or contain only very vague priorities. Other areas have current plans that are updated on a regular basis and prove to be valuable as roadway improvements are implemented. The inconsistency of local (and regional in some cases) planning for bicycling and walking necessitates increased coordination and support between the Iowa DOT, MPOs/RPAs, counties, and municipalities.

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<sup>3</sup> STP was the MAP-21 predecessor of the FAST Act’s Surface Transportation Block Grant (STBG) program. See Chapter 1: Introduction and Context and Chapter 7: Funding Strategy.



## 2.5 Public input

Six public meetings—one in each Iowa DOT District—were held and were very well attended by bicycling advocates, trail supporters, elected and appointed officials from local communities, and interested citizens. Since these meetings occurred early in the planning process, only a brief presentation explaining the timeline and goals of the project was given. The true focus of the meeting was to learn from the public what they think is being done well, what they think can be done better, and how the plans goals should be achieved.

In order to gain this type of input, topical exhibits focusing on education, encouragement, enforcement, and engineering were displayed and participants were asked to write comments on one half of each exhibit to indicate what is done well in Iowa and on the other half write ideas as to what could be done better. Another set of exhibits presented the draft goals of the Long-Range Plan and participants were invited to write ideas as to how to achieve each goal. Table 2.1 and Table 2.2 provide a summary of the input received.

### Public input meeting locations and attendance figures

- District 1 – Des Moines - 61
- District 2 – Mason City - 45
- District 3 – Sioux City - 22
- District 4 – Atlantic - 41
- District 5 – Fairfield - 10
- District 6 – Cedar Rapids - 48

**787 total comments were received**

### The “5 Es” of bicycle and pedestrian transportation

The “5 Es” are commonly referred to as a comprehensive way to consider the various factors that impact walking and biking.

**Education** efforts typically focus on teaching all transportation users (drivers, bicyclists, and pedestrians) how to safely interact and follow the rules of the road.

**Encouragement** activities focus on increasing biking and walking through fun and interesting activities. Encouragement efforts seek to demonstrate that biking and walking are valid modes of transportation.





**Enforcement** activities focus on enforcing the rules of the road for all users (motorists, bicyclists, and pedestrians). Enforcement also prioritizes having links between the law enforcement community and the biking community.

**Engineering** refers to the planning, design, and prioritization of physical infrastructure, such as multi-use trails, paved shoulders, and pedestrian safety improvements.

**Evaluation and planning** efforts seek to quantify the impact of the other “Es.” This category was not used for the open house exercise, because it was assumed that the majority of participants would lack adequate information to comment on the evaluation and planning activities occurring in Iowa.



**Table 2.1: Summarized public input meeting comments – Four of the “5 Es”**

	What is done well in Iowa?	What could be done better?
 <b>Education</b>	<ul style="list-style-type: none"> <li>• RIDE RIGHT education materials (Des Moines Register)</li> <li>• Walking school bus program</li> <li>• Bike rodeos</li> <li>• Bike map</li> <li>• This meeting</li> </ul>	<ul style="list-style-type: none"> <li>• Better driver education – bike passing</li> <li>• Youth education – school programs</li> <li>• Share the road</li> <li>• Engineer training</li> <li>• Public service announcements</li> <li>• Education of legislators</li> </ul>
 <b>Encouragement</b>	<ul style="list-style-type: none"> <li>• Bike map</li> <li>• Organized rides</li> <li>• Iowa Bicycle Coalition efforts</li> <li>• Increase in accommodation (trails and bike lanes)</li> </ul>	<ul style="list-style-type: none"> <li>• Need a “World Capital of Trails” annual event</li> <li>• Promote strategies to businesses to encourage bicycling by employees</li> <li>• Transportation centers with lockers, showers, and vending (tubes)</li> <li>• Promote safe bicycling loops</li> <li>• Tax credits for bicycling to work</li> <li>• Bike share programs in more cities</li> </ul>
 <b>Enforcement</b>	<ul style="list-style-type: none"> <li>• Passing rule</li> <li>• Law enforcement support during RAGBRAI</li> <li>• Cops on bikes</li> </ul>	<ul style="list-style-type: none"> <li>• Tough enforcement/fines for motorists that hit bikers/walkers</li> <li>• Enforced stops</li> <li>• Adopting Utah/Idaho stops (bicyclists treat red lights as stop signs and stop signs as yield signs)</li> <li>• Cyclists obeying traffic laws</li> <li>• Headlights and taillights required</li> </ul>
 <b>Engineering</b>	<ul style="list-style-type: none"> <li>• Specific trail projects and networks</li> <li>• New bike lanes</li> <li>• Road diets</li> <li>• City implemented bike plans</li> </ul>	<ul style="list-style-type: none"> <li>• More communication on upcoming projects so accommodations can be proposed</li> <li>• Consider accommodations as integral parts of projects</li> <li>• Connect towns – more connectivity</li> <li>• Design for people, not only for cars</li> <li>• Many specific improvements/connections noted</li> <li>• Many specific design standards recommended</li> </ul>

**Table 2.2: Summarized public input meeting comments – Plan goals**

Draft Goals	Comments
<p><b>Valid</b></p> <p>Ensure that policy makers, roadway designers and planners, law enforcement officials, motorists, bicyclists, and pedestrians recognize that bicycling and walking are valid modes of transportation.</p>	<ul style="list-style-type: none"> <li>• Study the economic impact of trails</li> <li>• Add bicycling to driver’s education</li> <li>• Allow use of eminent domain to complete routes</li> <li>• Add trails to the DOT 5-year plan</li> <li>• Study the health benefit of increased bicycle and pedestrian accommodation</li> <li>• Get policy makers on bikes</li> <li>• Adopt complete streets policies statewide</li> </ul>
<p><b>Safe</b></p> <p>Improve the safety and friendliness of Iowa’s roads and trails to accommodate on-road bikeways and sidewalks, reduce crashes, and eliminate fatalities.</p>	<ul style="list-style-type: none"> <li>• Wider paved shoulders on rural roads</li> <li>• Increased signage toward shared use or full lane use</li> <li>• Adjust rumble strips to have gaps and provide buffer between bicyclists and vehicles</li> <li>• Add driver’s test questions about interactions with bicycles and pedestrians</li> <li>• Revise the hierarchy from fastest to smallest - pedestrians and bicyclists first</li> <li>• Higher maintenance for bike facilities, lighting</li> </ul>
<p><b>Coordinated</b></p> <p>Improve coordination between Iowa DOT Central Office, each DOT District, regional agencies and local partners to streamline maintenance and the implementation of programs, policies, and infrastructure projects and increase consistency.</p>	<ul style="list-style-type: none"> <li>• Consistent design standards</li> <li>• Cooperation between DOT, Conservation Boards, and trail groups</li> <li>• DOT take a larger role in coordinating town to town connections</li> <li>• Improvement in regional trail plans</li> <li>• State Bicycle Advisory Commission</li> <li>• Include non-cyclists on committees</li> <li>• Web page / map to show connection status</li> </ul>



Draft Goals	Comments
<p><b>Connected</b></p> <p>Enact policies and develop infrastructure to create an interconnected network of on-road bikeways, sidewalks, multi-use trails, and end-of-trip facilities that uses the appropriate facility type (bike lane, shared road, paved shoulder, etc.) to connect people to where they want to go.</p>	<ul style="list-style-type: none"> <li>• Numerous specific improvements</li> <li>• More grade separations for bicycles/pedestrians</li> <li>• Connect discontinuous sidewalks</li> <li>• Continuous bike lanes</li> <li>• DOT should help coordinate where trails go between communities</li> <li>• Connect cities as a priority</li> <li>• Connect employment to retail</li> </ul>
<p><b>Funded</b></p> <p>Increase the overall level of funding for bicycle and pedestrian infrastructure and programs, explore the flexibility of funding sources, and maximize the efficiency of funding to bridge the gap between what is needed and what is available.</p>	<ul style="list-style-type: none"> <li>• Funding for maintenance</li> <li>• Mandate 3% of all state and federal transportation funding for bicyclists/pedestrians</li> <li>• Bike registration</li> <li>• Take the Transportation Alternatives Program (TAP) back to the State level</li> <li>• State needs to fund priority trails</li> <li>• Establish Iowa's Water &amp; Land Legacy funding</li> <li>• Include trails in Iowa DOT 5-yr plan</li> <li>• Increase gas tax with % to bicycles/pedestrians</li> </ul>
<p><b>Well-Designed</b></p> <p>Establish guidelines for the design of on-road bikeways, sidewalks, and multi-use trails to ensure they are comfortable, sustainable, convenient, and consistent.</p>	<ul style="list-style-type: none"> <li>• Add connections to existing trails for better mobility</li> <li>• Sharrows are not enough</li> <li>• Larger buffers between bikes and vehicles at higher speeds</li> <li>• Wider paved shoulders for 3-wheeled and trailers</li> <li>• Appropriate railings on bridges</li> <li>• Consider capacity in trail design, and amount of pedestrian traffic</li> </ul>
<p><b>Healthy</b></p> <p>Promote opportunities for active and sustainable lifestyles that include walking and bicycling on a daily basis.</p>	<ul style="list-style-type: none"> <li>• Encourage businesses to promote wellness programs, with incentives for bicycling to work</li> <li>• Tax breaks for bike commuting</li> <li>• Combine with Healthiest State Initiative</li> <li>• More trails and bike lanes to promote healthy lifestyle</li> </ul>