



# DRAFT BICYCLE AND PEDESTRIAN PLAN CONCEPTS

## Introduction

Bicycling and walking are two of the oldest, simplest and most efficient forms of transportation available. All transportation trips involve walking at some point, and bicycling is becoming increasingly more popular in the United States.

One-third of all Iowans cannot drive motor vehicles and are therefore dependent on other forms of transportation, such as bicycling and walking.

Bicycling and walking need to be recognized as legitimate modes of transportation because they are essential, but often overlooked, elements in a more balanced intermodal transportation system. Both bicycling and walking provide many benefits to Iowans in the areas of health and fitness, the economy, tourism and the environment. The purpose of this plan is to serve as a guide for the department to provide safe, adequate and accessible transportation routes for bicyclists and pedestrians.

## Key Concept #1 - Three Trail Priority Levels

Iowa's existing bicycle system totals more than 113,000 miles and is made up of all off-road trails and all roadways where bicycles can legally travel. However, in order for the department to most effectively invest its limited resources in a bicycle trail system, a smaller, more focused system needed to be established.

The term "trail" is defined as both on-road and off-road facilities which generally include:

Through an evaluation process, three trail priority levels were identified:

- Level 1 – Trails of Statewide Significance
- Level 2 – Trails of Regional Significance

- low-volume primary, county, and municipal roadways;
- paved shoulders;
- bicycle lanes; and
- separated off-road trails.

- Level 3 – Trails of Local Significance

Five trails were identified as Level 1 – Trails of Statewide Significance. They include national trails, those over 100 miles in length, or those that serve significant tourist attractions. These trails provide a high level of connectivity with other major trails in Iowa and, in some cases, trails in other states.

Level 2 – Trails of Regional Significance connect to a trail of statewide significance or are part of an existing or programmed trail network of at least 25 miles in length. These trails result in significant economic impacts to the state by providing for longer rides and attracting more out-of-state visitors.

Level 3 – Trails of Local Significance include trails that do not meet the criteria for statewide or regional trails. Although these trails do not connect to larger trail networks or the trails of statewide significance, they are important for providing a better quality of life and improved transportation system to many Iowa communities.

## Development of Regional and Local Trails

This plan focuses on development of Level 1 trails. Regional and local trails are not specifically identified in this plan but will continue to be developed and funded through various grant programs. The specific designation of any trail into these levels will be identified when grant application funding is sought.

## Analysis of Level 1 – Trails of Statewide Significance

The Level 1 – Trails of Statewide Significance include:

- American Discovery Trail;
- Mississippi River Trail;
- Central Iowa Loop;
- Iowa Great Lakes Connection; and
- Lewis and Clark Trail.

Figure 1 shows these five trails. The focus of the Bicycle and Pedestrian Plan will be on Level 1 – Trails of Statewide Significance.

Completing the five Level 1 – Trails of Statewide Significance will be one of the department's primary goals during the next 20 years.

## **Types of Improvements**

Development of these trail corridors will involve improving primary highways and county roads, constructing off-road trails, and, in some cases, merely signing low-volume primary highways and county roads without making infrastructure improvements.

## **Responsible Jurisdictions**

Each of the five trail corridors was evaluated to determine whether the trail would likely fall within a primary highway or county road corridor, or be located on a separated off-road trail. Figure 2 shows the jurisdictions (state, county or off-road) proposed to be responsible for development of the various segments of the Level 1 – Trails of Statewide Significance. The specific trail location, type of improvement, and responsible jurisdiction will be determined at the time of project development.

Figure 1

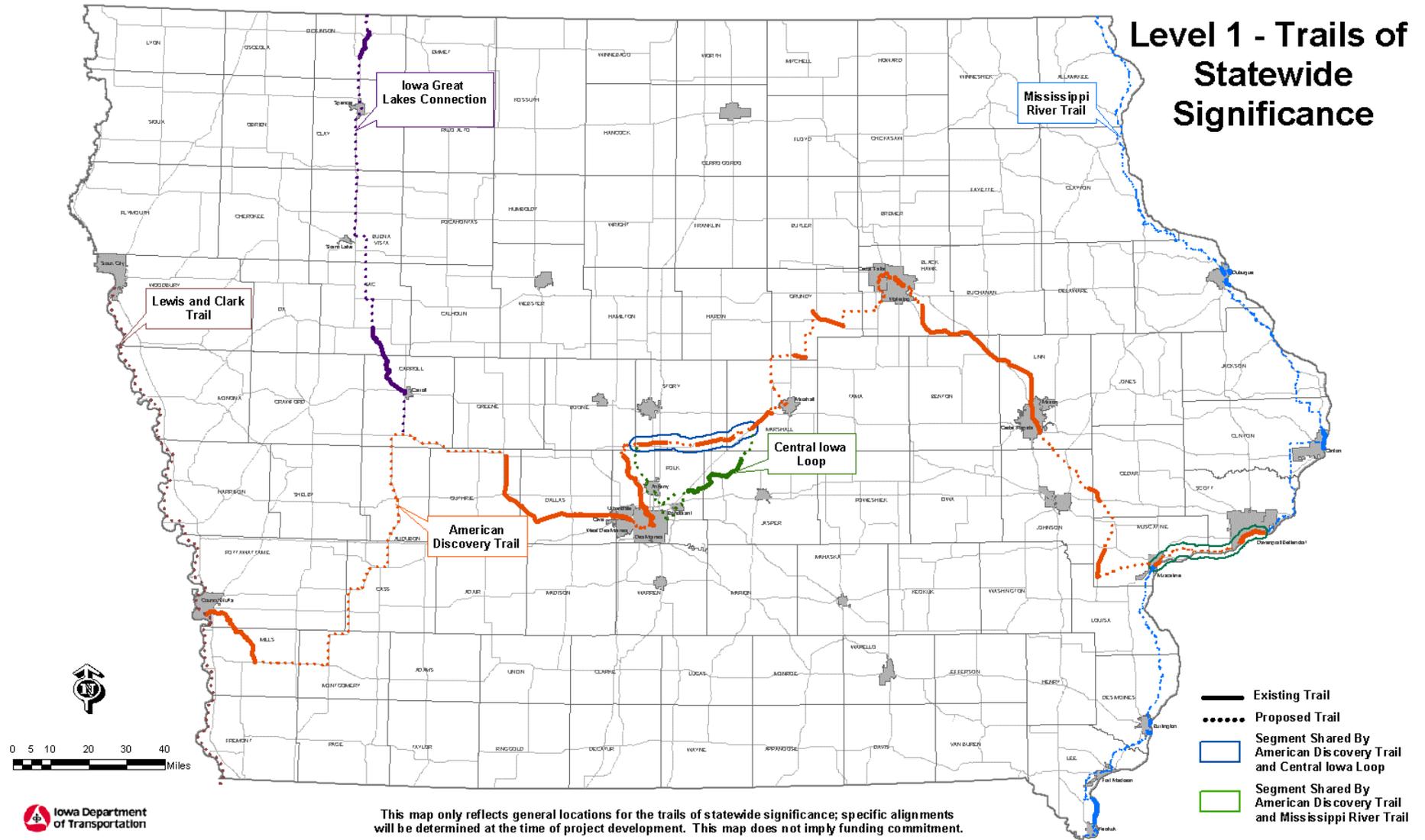


Figure 2

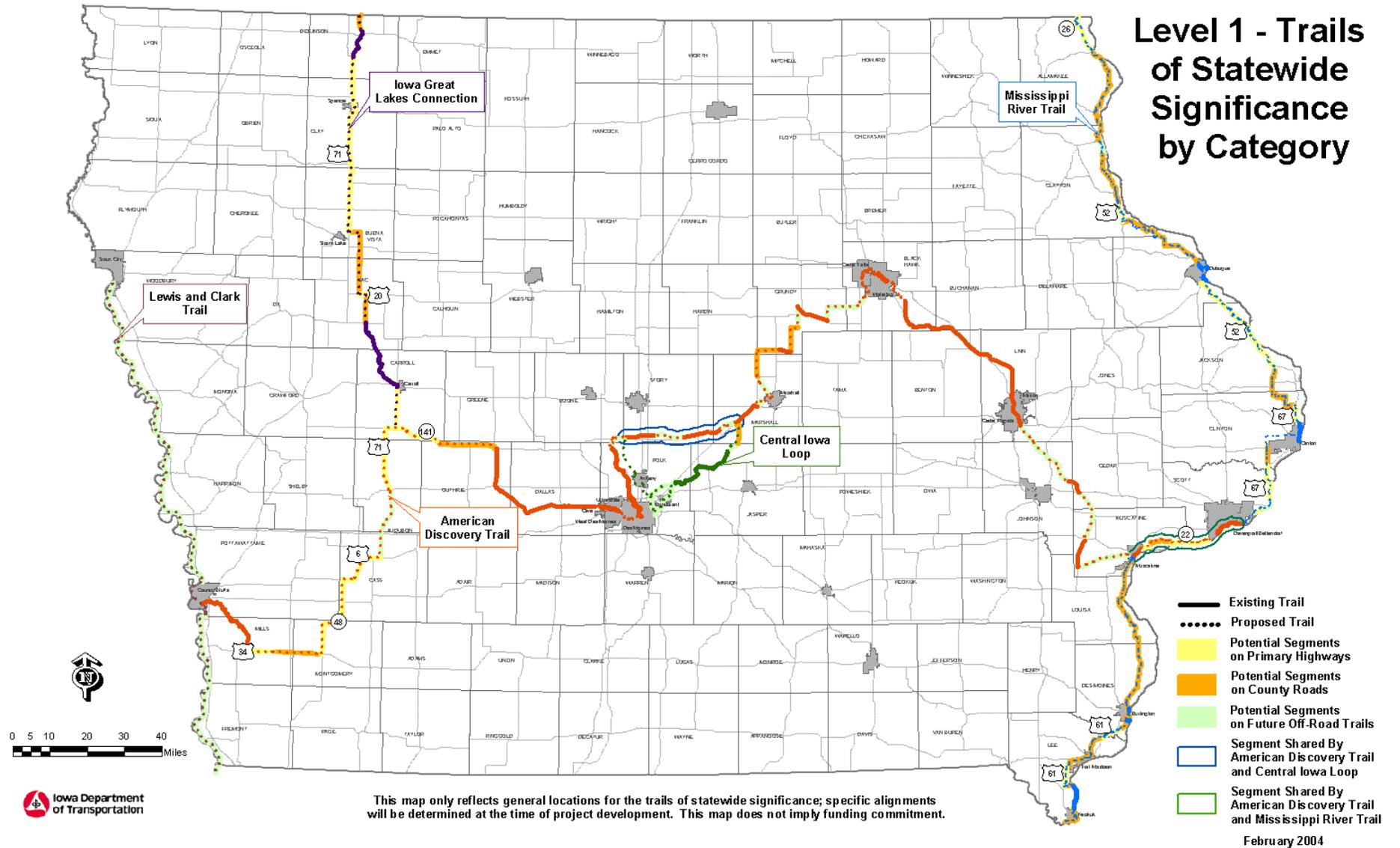


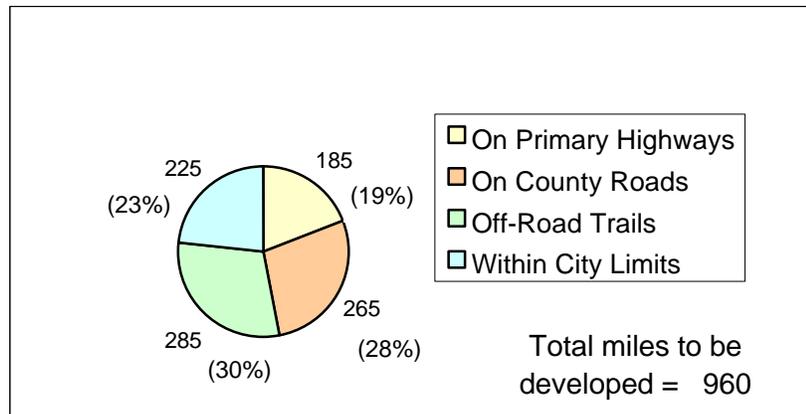
Table 1 summarizes the estimated mileages for each of the Level 1 trails as shown on Figure 2. The number of miles proposed within city limits is also shown in the table; these miles could potentially be located on primary highways, county roads or city streets.

**Table 1**  
**Mileage Summary for Level 1 – Trails of Statewide Significance**

	Miles Completed	Estimated Mileage To Be Developed					Total Miles
		Primary Highways	County Roads	Off-Road Trails	Within Cities	Total	
American Discovery Trail	170	70	65	90	105	330	500
Mississippi River Trail	20	75	155	15	70	315	335
Central Iowa Loop	40	0	5	40	25	70	110
Iowa Great Lakes Connection	30	40	40	0	15	95	125
Lewis and Clark Trail	0	0	0	140	10	150	150
<b>Total</b>	<b>260</b>	<b>185</b>	<b>265</b>	<b>285</b>	<b>225</b>	<b>960</b>	<b>1,220</b>



**Figure 3**  
**Estimated Mileage To Be Developed**



## Key Concept #2 – Accommodating Bicycles on Primary Highways

The department's Iowa Bicycle and Pedestrian Accommodation Guidance was adopted by the Transportation Commission in 1999 and provides direction for considering the needs of bicycles and pedestrians during primary highway construction projects. After several years of use, some clarifications and changes to the guidance are being proposed for more consistency and ease of implementation. The proposed changes include:

- A. a method to justify further bicycle accommodation on primary highways; and
- B. guidelines to determine types of accommodations and cost sharing.

These are summarized below.

### A. A Method to Justify Further Bicycle Accommodation on Primary Highways

Not all primary highways require improvements to safely accommodate bicycles. To evaluate whether further bicycle accommodation is warranted within a primary highway corridor **proposed for improvement**, a three-step procedure has been established (see Figure 4). This procedure can also be used by metropolitan planning organizations (MPOs) and regional planning affiliations (RPAs) during the project planning phase.

The three steps are incremental (Step 1 must be approved before proceeding to Step 2; and Step 2 must be approved before proceeding to Step 3). All three steps must be approved in order for a bicycle accommodation to be justified on a primary highway. The three-step process is as follows:

#### Step 1

The department's district office will determine if any viable alternative bicycle routes are available. These are defined as either an off-road trail or a paved county road or city street that has, or is capable of providing, an acceptable bicycle accommodation. The alternative route typically should be within one mile of the primary highway being evaluated. This evaluation will involve discussions with local officials and interested parties.

If a viable alternative route is available, bicycle accommodation will not be further evaluated for the primary highway segment. If no viable alternative route exists, Step 2 will be considered.

## Step 2

The department's district office will determine if the primary highway is located within the corridor of a Level 1 – Trail of Statewide Significance (see Figure 1). If it is, go to Step 3. If not, the next part of Step 2 will be considered. The district office (in concert with the Office of Systems Planning) will determine if the planning-based or trip-generation considerations are met. If either of these are met, go to Step 3. If not, bicycle accommodation will not be further evaluated for the primary highway segment.

## Step 3

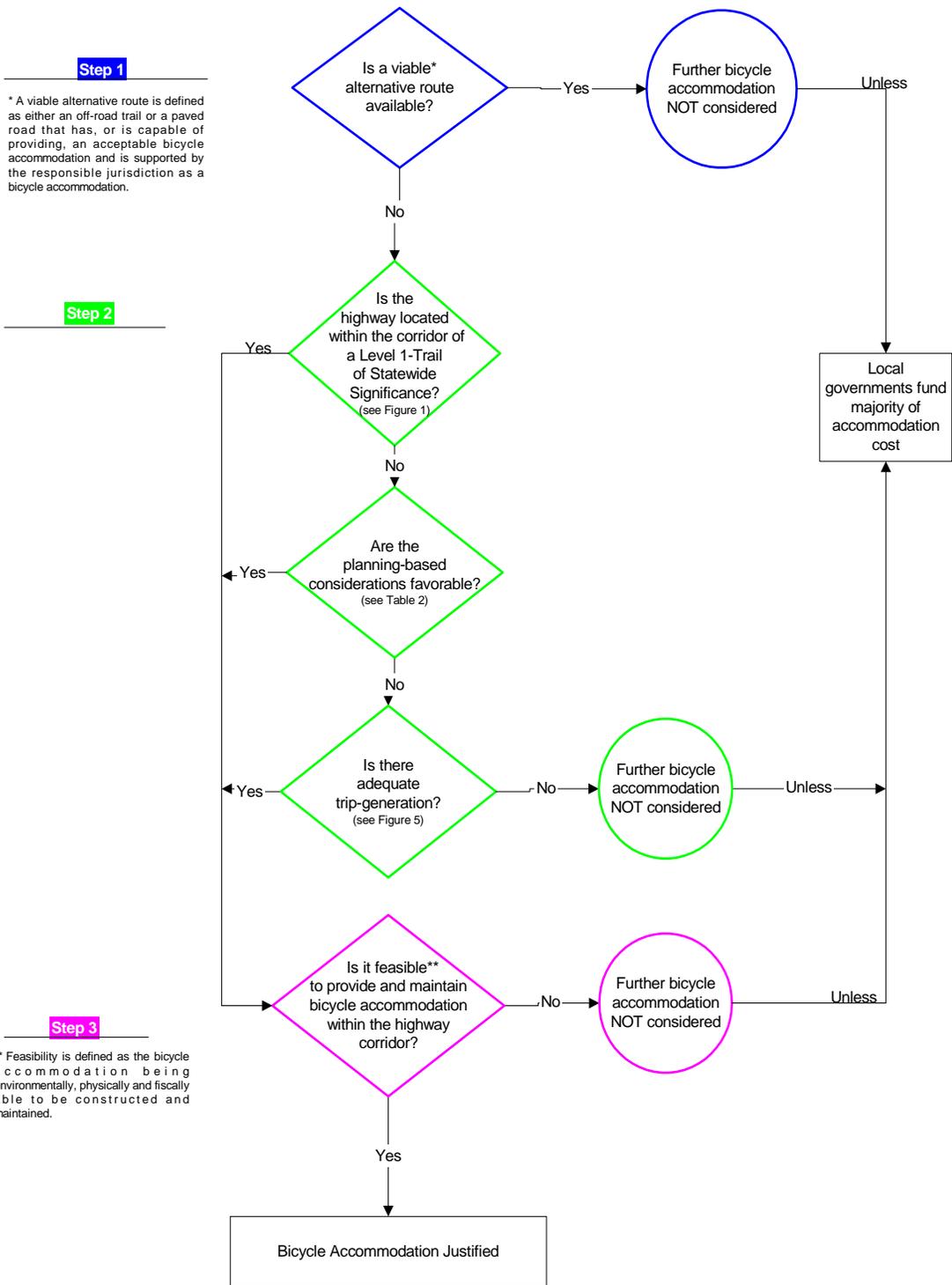
The department's district office (in concert with the offices of Design, Bridges and Structures, and Systems Planning) will determine if it is feasible to provide bicycle accommodation within the primary highway corridor. Feasibility is defined as the bicycle accommodation being environmentally, physically and fiscally able to be constructed and maintained.

If it is determined that bicycle accommodation is feasible, the accommodation is justified. If it is determined that it is not feasible to provide accommodation within the highway corridor, bicycle accommodation will not be further evaluated for the primary highway until the constraints are overcome.

Note: If any of the three steps indicates a bicycle accommodation is not justified, an improvement could still be constructed on the primary highway if it is physically feasible and local governments are willing to fund the majority of the accommodation cost.

# Figure 4

## Decision-Making Process for Bicycle Accommodation on Primary Highways



**Planning-Based Considerations** (for use in Step 2)

Table 2 includes the planning-based questions that should be addressed to evaluate the need for further bicycle accommodation on a specific highway improvement project.

**Table 2**  
**Planning-Based Considerations**

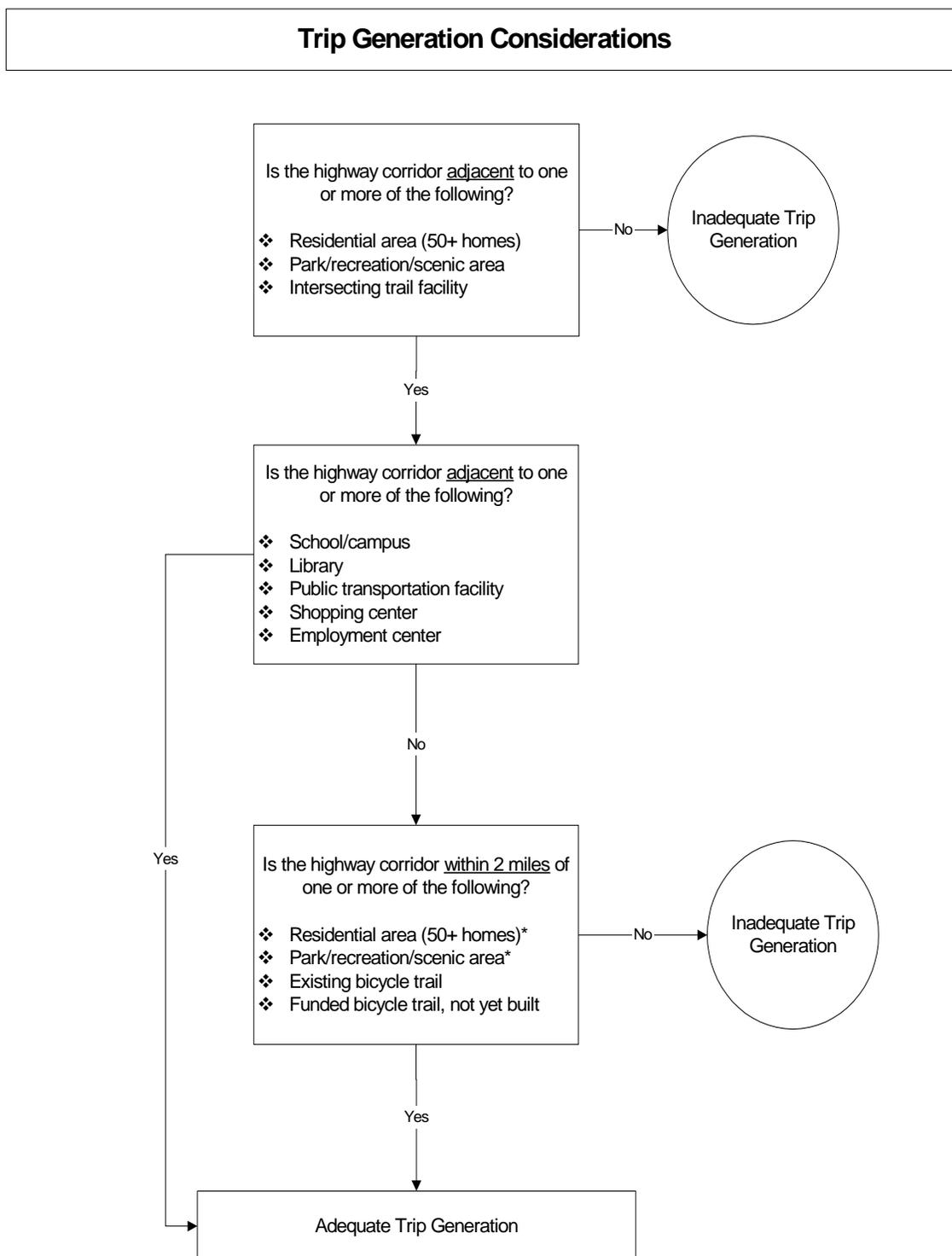
Does the highway facility:		
	YES	NO
provide primary access to a park, recreational area or other significant destination?		
provide unique access across a natural or man-made barrier (e.g., bridges over rivers, railroads, or over/under access-controlled facilities)?		
provide a connection in an otherwise continuous bicycle facility?		
resolve any safety concerns on existing bicycle facilities?		
appear in a long-range plan as an improvement that includes bicycle accommodation?		

**Trip Generation Considerations** (for use in Step 2)

In addition to planning-based information, bicycle trip generation should be evaluated to justify further bicycle accommodation.

The projected level of daily bicycle use along a highway corridor is primarily dependent upon the proximity of trip generators. The corridor area should be evaluated to determine if sufficient trip generators are present which would result in a significant number of bicycle trips. The following process serves as a basis for determining if adequate trip generation would occur.

Figure 5



\*These facilities are IN ADDITION TO those addressed in the first box.

## B. Guidelines to Determine Types of Accommodations and Cost Sharing

Table 3 shows the types of bicycle accommodations in various situations and also where there would be a need for cost sharing to fund the accommodation.

**Table 3**  
**Guidelines for Bicycle Accommodations**  
**Within Primary Highway Corridors**

	Primary Highways Within Corridors of Level 1 – Trails Of Statewide Significance		Other Primary Highways			
	Where An Alternative Road Or Off-Road Trail Is Not Viable		Which Meet Bicycle Accommodation Guidance		Which Do Not Meet Bicycle Accommodation Guidance	
	Rural	Urban	Rural	Urban	Rural	Urban
<b>New Construction and Reconstruction</b>	Paved shoulder or separated trail <i>(DOT funding)</i>	Bicycle lane <i>(DOT funding)</i>	Paved shoulder or separated trail <i>(DOT and/or local funding)</i>	Bicycle lane <i>(DOT and/or local funding)</i>	Paved shoulder or separated trail <i>(Local funding)</i>	Bicycle lane <i>(Local funding)</i>
<b>Preservation</b>	Paved shoulder <i>(DOT funding)</i>	Bicycle lane <i>(DOT funding)</i>	Paved shoulder <i>(DOT and/or local funding)</i>	Bicycle lane <i>(DOT and/or local funding)</i>	Paved shoulder or separated trail <i>(Local funding)</i>	Bicycle lane <i>(Local funding)</i>

### Next Steps

#### 1. Evaluate and incorporate public input

After receiving public comments on the key plan concepts, the department will evaluate the input and incorporate appropriate changes.

#### 2. Estimate costs to complete Level 1 - Trails of Statewide Significance

Since the focus of the department will be to complete Level 1 - Trails of Statewide Significance, cost estimates will be developed for the five Level 1 trails. These costs will be preliminary estimates for general planning purposes.

### **3. Develop plan strategies**

Lastly, the department will identify specific strategies for implementing the plan. A draft plan will be made available for public review and comment prior to final adoption by the Iowa Transportation Commission.