

Sedona Bicycle Plan

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Table of Contents

Introduction

- Purpose
- Background
- Existing Conditions
- Needs
- Funding

Elements

- Policies
- Engineering
- Education
- Encouragement
- Evaluation and Planning
- Enforcement

Facilities

- Bicycle Routes
- Bicycle Parking
- Bicycle Access to Transit Systems
- Maintenance

Summary

INTRODUCTION

Purpose

The purpose of this plan is to improve the bicycling environment and encourage bicycle transportation in the City of Sedona. This plan is preceded by the following documents, the Sedona Community Plan (1991) and the Sedona Trails and Urban Pathways Plan (1996).

Background

Sedona has a population of approximately 11,000 and is located at the northern edge of the Verde Valley in central Arizona. The city is known for spectacular scenery and good weather. The Sedona economy has developed around tourism and home construction. Hiking and mountain biking are two of the most popular recreation activities in and around the city.

Sedona has experienced moderate growth for over a decade. This growth has placed increasing pressure on Sedona's transportation routes. The main transportation routes to Sedona are state routes (SR) 89A from the west and north and 179 from the south. These two highways also form the main transportation corridors within the city. Thus most Sedona workers use SR89A or SR179 to commute to work or for transportation during their workday. Most Sedona residents use SR89A or SR179 as their main commuting routes when conducting personal business. Also virtually all tourists use SR89A or SR179 to enter, exit, and travel within Sedona.

Existing Conditions

The automobile is the dominant transportation mode in Sedona. Currently there is no citywide bikeway system for commuters, residents, or tourists. The off-highway street system in Sedona is predominately rural in character, asphalt roadways with dirt shoulders. Sedona seeks to become a more bicycle friendly community. A bicycle friendly community is a place where people "treat cyclists fairly, promote safety by teaching the best practices of bicycle driving, and encourage cycling for transportation, health, recreation and sport." (reference: <http://www.ohiobike.org/obf-cfc.html>)

The pressures on Sedona's transportation routes described above have led the city to begin development of a public transportation system. The Sedona Roadrunner Transit began operation in October 2006. It includes a free circulator route between Uptown Sedona and Hillside shops along SR179 and a fee based commuter service between Cottonwood and Sedona.

Also an Arizona Department of Transportation (ADOT) enhancement project for SR179 began in the fall of 2006. Bike lanes are included in the SR179 project. Resolution 98-26 demonstrates Sedona's commitment to multi-modal infrastructure on the city's arterial routes. Good bicycle facility design connects destinations in a continuous network (Bicycle Facility Design, by Richard C. Moeur, P.E., L.C.I.). It is therefore equally important to include facilities and considerations for bicyclists in other improvement projects as well.

Needs

Sedona has the potential to become one of America's premier bicycle friendly communities. The city is already known for its great mountain bike trails that have been created by the USFS as

shared-use trails. A positive environmental attitude prevails throughout the city. There are organizations which work to preserve Sedona's beauty, recycle waste, reduce noise, build and maintain trails, and preserve dark night skies. The city has begun to make a presence in the area of bicycle transportation by partnering with the Verde Valley Cyclists Coalition in the development of the Sedona Bicycle Plan. More bicycle riding within a community results in energy conservation, better air quality, reduced traffic demands, and improved public health and fitness.

A bicycle friendly community is an attractive destination for new residents, tourists, and businesses. Bicycling provides another mode of transportation for all age groups within the community and can especially increase the independence among seniors and children.

The goals of this plan are to create guidelines for infrastructure within the city that will encourage people to choose bicycling as an alternative transportation mode or as a means of recreation or fitness; to create an environment free of barriers for people who choose to ride a bicycle; and to create educational opportunities for bicyclists, pedestrians, and motorists regarding all traffic laws including those practices and laws that apply to bicycles (ARS 28-3164).

Funding

Funding opportunities for bicycle facilities would come from various federal, state, and city sources.

Federal funding sources include the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). SAFETEA-LU identifies bikeways and walkways as an integral part of the nation's transportation network. SAFETEA-LU makes funds available for bikeways so communities can improve air quality, reduce energy consumption, reduce traffic congestion, and help provide lower overall transportation costs. SAFETEA-LU is the renewal of the nation's surface transportation law and increases the funding for bikeways and walkways.

State and local funding sources include the General Fund, City Parks and Recreation funding, ADOT, Governors Office for Highway Safety, and Safe Routes to School funding.

ELEMENTS

Policies

The guiding policy of this plan will be to promote bicycling as a viable transportation alternative to automobiles, and to describe the facilities and procedures necessary to provide safe bicycle access throughout the city.

This policy will be implemented as follows:

1. Provide bicycle lanes along major transportation corridors throughout the city.
2. Develop a network of bike routes to link neighborhoods and commercial areas throughout the city.
3. Include bicycles in the design of intersections and traffic control devices.
4. Develop and enforce bicycle parking standards.

5. Enforce traffic laws for bicyclists and motorists.
6. Provide bicycle facility public information and conduct bicycle safety education programs.
7. Require bikeway policy compliance for new development.

Engineering

Bike Lanes- A bike lane is a portion of a roadway which has been designated by striping, signing, and pavement markings for the preferential or exclusive use of bicyclists. Bike lanes should be created along main commuter corridors and, when feasible, along arterial and collector streets. Properly designed bike lanes greatly reduce the number of bicycle/automobile conflicts since both vehicles are placed in separate and predictable locations.

Shared Roadways - A shared roadway is a roadway which is open to both bicycle and motor vehicle travel and is signed accordingly. This may be an existing roadway, street with wide curb lanes, or road with paved shoulders. Shared roadways could be used in areas where bike lanes are not possible.

Bikeways and Bicycle Routes - A bikeway is a generic term for any road, street, path, or way which in some manner is specifically designed for bicycle travel, regardless of whether such facilities are designated for the exclusive use of bicycles or are to be shared with other transportation modes. Bicycle routes comprise a combination of various types of bikeways and are used to create transportation links throughout the city. Bicycle routes should be designated by appropriate directional and informational route markers.

Traffic Calming and Control - Traffic calming refers to the practice of designing streets to reduce vehicle speeds and ensure drivers are more careful. Traffic calming and control options include narrowing the roadway, diverting non-local drivers away from local streets, changing pavement surfaces, installing speed humps, constructing roundabouts and medians, and putting up stops signs. These features should be used, where feasible, to make streets safer for pedestrians, bicyclists, and motorists.

Appropriate bicycle facilities should be included as a part of major new construction and major reconstruction projects. Evaluate and consider the impacts to bicyclists when striping roadways and performing construction, reconstruction, and pavement preservation.

Special design attention should be given to intersections and roundabouts. The majority of bike/car accidents occur at intersections and driveways.

Education

Educating bicyclists and motorists is a key element to improving bicycle safety. Bicycle crash data shows that a majority of bike/car collisions involve improper action on the part of the bicyclist, motorist, or both. Education programs should focus on safety areas where crash data indicates a high incidence of bike/car collisions. Education programs should be directed toward adults as well as children. Education may be part of the enforcement effort, with diversion programs versus fines, for errant bicyclists and motorists.

Educate all road users to share the road and interact safely. Road design and education programs will combine to increase the confidence of bicyclists.

Establish information programs to promote bicycling as a viable mode of transportation with many possibilities. This could be accomplished with roadway signage, bicycle route maps, public relations campaigns, newspaper and radio advertising, and rides with city officials.

Develop programs to encourage bicycle use in communities where significant segments of the population do not drive (e.g. through Safe Routes to Schools programs) and where short trips are most common.

Encouragement

Help sponsor bicycle events such as the Sedona Century Bike Tour. Increase bicycle awareness through articles in the local newspaper. Place advertisements in the local newspaper and on local radio stations to promote bicycling and bike safety.

Encourage the restaurant, lodging, and retail industries to support bicycle facilities. Bicycling can play a role in tourism and economic development. Bicycle tourists can make a significant contribution to businesses and the city in terms of increased revenue and reduced motor vehicle traffic.

Organize or support a Bike to Work Day or other promotional events during National Bike Month. According to the League of American Bicyclists, "May is National Bike Month," In a fifty year-old tradition, communities across the nation take this time to promote and celebrate the bicycle as a viable form of transportation, fun and fitness.

Make the city a model employer by encouraging bicycle use among employees. A lack of facilities discourages bicycle commuters. Provide bike parking for city employees, showers and lockers, and establish a city bicycle fleet. Allow city employees who commute to work by bike to use a city vehicle during the day when their job dictates the need for a motor vehicle.

Evaluation and Planning

Make a yearly inventory of existing bicycle facilities and strive to increase totals by a reasonable percentage each year. Adopt a target level of bicycle use (e.g. percent of trips) and safety to be achieved within a specific timeframe, and improve data collection necessary to monitor progress.

Review bicycle crash data to identify problem areas. Meet with engineers, police, and public works personnel to correct problems identified from bicycle crash data.

Enforcement

Bicycles are treated by law as vehicles in all 50 states. Bicyclists are granted all of the rights and are subject to all of the duties applicable to the driver of a vehicle (ARS 28-812). If bicyclists want the all the rights of motorists, they must accept the responsibilities as well.

The police should enforce the right of way laws as they pertain to all vehicles. Bicyclists and motorists who fail to yield the right of way or fail to safely share roadway space in violation of

(ARS 28-735) or other relevant statutes concerning bicycle travel should be cited. Enforcement of the traffic laws will make a difference in the attitudes and behavior of bicyclists and motorists and thus improve the safety and comfort of all road users. Education may be part of the enforcement effort, with diversion programs versus fines, for errant bicyclists and motorists.

Ensure all city policies, plans, codes, and programs are updated and implemented to take advantage of every opportunity to create a more bicycle-friendly community.

FACILITIES

Streets are designed for vehicles and sidewalks are designed for pedestrians. Because every study ever conducted on the subject indicates that accident rates of sidewalk bicyclists are higher than those of vehicular bicyclists, use of bicycles on sidewalks is discouraged. As bike lanes and improved facilities are built, streets will become safer and bicyclists will be encouraged to move off of the sidewalks.

Bicycle Routes

The quantity of bicycle routes in the city should steadily increase over time as the cycling population grows.

The factors for selecting the location of bicycle routes should include rider safety, convenience, and volume. Safety issues would include the quantity of motor vehicles along the route, the posted speed limit, the road shoulder width, and the frequency of parked cars. Convenience criteria would include the number of destination points served by the route, the number of traffic control devices along the route, the surface of the road, and the amount of debris typically found along the route. Rider volume consideration means placing bicycle routes along corridors with the highest bicycle volume.

Bicycle Parking

The city should provide adequate bicycle parking at public locations. The quantity of bicycle parking is dependent on the nature of the land use, proximity to bike routes, and other factors that may affect bicycle parking. Bicycle parking should be located in such a way to promote its use. Bike racks should be visible and near the main entrance to the bicyclist's destination. Bike racks should be located to minimize hazards and conflicts with motor vehicles and pedestrians.

To prevent damage to bicycles, the rack should support the bike with at least two contact points (e.g. inverted "U" racks). Bicycle racks must be conducive for use with u-locks and other common locking devices. If the land use supports nighttime activity, then the bicycle parking should be illuminated at night. Bicycle parking should be sheltered if feasible. Bike lockers should be considered at commuter locations.

The amount of bicycle parking is usage dependent and provision should be made to increase facilities as usage rises. A modest amount of bike parking at dispersed locations is preferable to a few high capacity facilities.

Bicycle Access to Transit Systems

Promote intermodal travel between public transport and bicycles. This can be accomplished by putting bike racks on buses, improving bicycle parking at transit stops, and improving access to public transport vehicles.

Maintenance

Maintaining bike facilities is a critical part of keeping the bicycle environment safe. Motor vehicle traffic tends to push debris to the right edge of the road, so bikeways should be swept at regular intervals. Vegetation protruding beyond the roadway edge forces bikers to veer more into the traffic lane, so trimming and mowing needs to occur more frequently. Potholes and cracks represent a greater hazard to bicyclists than to motorists, so maintenance crews will need to pay increased attention to the surface on the right side of the roadway.

In general, bikeways are a part of the existing street system. Thus much of the bikeway maintenance would be accomplished during the regular sweeping, striping, resurfacing, or resigning of a street.

SUMMARY

Because Arizona law treats bicycles as vehicles, any bicyclist who chooses may use any of Sedona's roadways as transportation facilities. This is not at issue.

The issue is how our streets are perceived by the bicycling and motoring public: bicycle friendly or not? To a large extent, this dictates who will choose to adopt the bicycle as a form of transit, and how safely and efficiently they will operate within the traffic system.

Through implementation of this plan, Sedona's environment and infrastructure will become safer and encourage more commuters to choose human power over the automobile. Everyone benefits by reduced dependency on fossil fuels, cleaner air, improved health and fitness, reduced traffic congestion and a greater sense of well-being. [11/06/06]