Roll C	all Numb	er			Agenda Item Number		
					· 60		
Date	May	23, 2011					
·					Y OF DES MOINES BICYLE AND TRAIL MASTER PLAN		
ecreational	l trail netwo	k and on D	ecembe	er 17, 200	the future of its on-street bicycle facilities and off-street multi-u7, by Roll Call No. 07-2388, the City Council adopted "Goals to Macreation of a Bicycle and Trail Master Plan fulfills one of these goals."		
Planning +		for the pro	vision (		. 09-556, City Council approved a proposal and agreement with Alta ional consulting services for the development of a Bicycle and Trails		
of bicycling		-street netw	ork, inc		ions were held to assess interest and concerns regarding incorporation e public's perceived obstacles to bicycling and opportunities for		
	EAS, in Jan lity network		wo add	itional pu	blic input sessions were held to present the draft plan and the propose		
					network map contained within the Bicycle and Trail Master Plan ster plan map; and		
					eenways Advisory Committee unanimously recommended approval the 2020 Community Character Plan; and		
					ty Committee unanimously recommended approval of the Bicycle an unity Character Plan;		
					e City Council of the City of Des Moines, Iowa, that the City of Des e City clerk's Office, is hereby received and filed.		
((	Council Con	nmunicatio	n No. 1	1-314)	MOVED by to receive and file.		
AP	PROVED A	S TO FOR	M:		49		
COUNCIL A	CTION YEA	AS NAYS	PASS	ABSENT	CERTIFICATE		
COWNIE					I, DIANE RAUH, City Clerk of said City hereby certify that at a meeting of the City Council of		
COLEMAN			<u> </u>				
GRIESS			-	<u> </u>	said City of Des Moines, held on the above date, among other proceedings the above was adopted.		
MAHAFFEY	v	*	<u> </u>				
IN WITNESS WHEREOF, I have hereur					IN WITNESS WHEREOF, I have hereunto set my		
MOORE			1		hand and affixed my seal the day and year first above written.		
TOTAL			1 .		above wiltten.		
MOTION CARRI	<u> </u>	*		PPROVED			

. City Clerk

## **Executive Summary**

Des Moines has the potential to become one of the nation's top bicycling communities. The city's extensive trail network, grid street pattern, and decent weather (during most times of the year) make it a good place to travel via bicycle.

The bicycle is an important solution as Des Moines takes local action on reaching energy independence, improving public health, and attracting businesses. The Bicycle and Trail Master Plan suggests real solutions that work with current technology and that can be implemented quickly.

The Bicycle and Trail Master Plan represents a tremendous opportunity to build on existing efforts completed to date, while also exploring new opportunities. Connecting the city's excellent recreational trail facilities with a network of complete streets, based on the guidelines in this plan and supported by recently adopted Complete Streets Policy, will integrate bicycling into the transportation network. The Bicycle and Trail Master Plan also incorporates components from local and regional plans, including potential transit and trail extensions identified in the Des Moines Area Metropolitan Planning Organization (DMAMPO) Long-Range Transportation Plan. This plan also recommends bicycle/trail user needs such as bike parking, wayfinding signage, and streetscape elements.

With the foundation of a potentially fantastic system in place, the City seeks to make bicycling an integral mode of the transportation system. The Des Moines Bicycle and Trail Master Plan presents a twenty-year vision of a fully-developed bicycle system throughout the city, serving residents, commuters, children, and visitors alike. The bicycle and trail networks will connect neighborhoods, schools, public facilities, business districts, and environmental features.

The Bicycle and Trail Master Plan is an element of the Des Moines 2020 Community Character Plan. As such, the recommendations herein serve as a policy guide for consideration of future land use and development proposals as well as Capital Improvement Plan expenditures. Implementation of individual projects or facilities in this plan may be subject to City Council and any board or commission that they may refer it to, and/or appropriate department level approval. This determination will be made based on each project's standard approval process. Minor modifications are acceptable, without a formal amendment to the 2020 Community Character Plan, due to circumstances such as, but not limited to, engineering practicality, resident concerns, land use changes, or other unforeseen circumstances. For example, if the map included herein calls for a bicycle lane, and upon engineering design or review it becomes apparent that shared lane marking are more appropriate, then such modification may be made upon City staff review and recommendation, without Plan and Zoning Commission review. Any major modifications to the Plan, however, shall be reviewed in accordance with procedures in place for amendments to the 2020 Community Character Plan. In all cases, modifications to this plan must continue to promote the overall goal to integrate bicycling as an integral mode of the transportation system.

When the spirits are low, when the day appears dark, when work becomes monotonous, when hope hardly seems worth having, just mount a bicycle and go out for a spin down the road, without thought on anything but the ride you are taking.

- Arthur Conan Doyle



Walking and bicycling are safe and healthy modes of transportation and recreation, which contribute to quality of life.



#### Goal 1: Implement the Des Moines Bicycle and Trail Master Plan.

**Objective 1-1:** Complete the proposed top-priority projects identified in the Des Moines Bicycle and Trail Master Plan in the next five years.

**Objective 1-2:** Complete the proposed projects within the next 20 years.

#### Goal 2: Increase the number of people bicycling for transportation and recreation.

**Objective 2-1:** Increase the mode share of trips made by bicycling in the city of Des Moines to five percent of all trips in ten years.

**Objective 2-2:** Increase the number of bikeway system users by five percent per year as measured through annual count data.

## Goal 3: Improve bicyclist safety.

**Objective 3-1:** Reduce the number of bicyclist injuries and fatalities by ten percent, and strive for crash rates no higher than regional crash rates. (1.68 crashes per thousand people in Polk County, compared to 1.55 crashes per thousand in Central lowa).

### Goal 4 (Green Goal): Make bicycling a major focus of Des Moines' efforts to reach energy independence.

**Objective 4-1:** As climate change becomes a major issue in the national media, local communities are realizing that non-motorized transportation can play a significant role in reducing energy use and dependence on fossil fuels. "Carbon Neutral" planning has become one of the tools for documenting pollution reductions.

## **Funding Sources**

Funding for plan implementation will come from a range of sources, primarily integrating proposed improvements with planned roadway construction. The phasing of the plan allows for implementation as resources become available. Other key funding elements are described as follows:

Federal Transportation Funding and Grant Programs. The reauthorization of the federal SAFETEA-LU transportation legislation will provide significant opportunities for implementing the Des Moines Bicycle and Trail Master Plan.

Iowa State Recreational Trails Program. The State Recreational Trails Program has \$1 to \$2 million of funding for public recreational trails. Proposed projects must be part of a statewide, regional, area-wide, or local trail plan.

Active Transportation Initiatives. Several private nonprofits and healthcare providers offer funding for bicycle and trail projects. One example is the Wellmark Foundation, which funds projects through its 'Healthy Communities: Supporting a Culture of Wellness & Prevention' program.

Transit Related Projects. Bicycle routes and shared-use paths can be incorporated into transit projects, as bikeways can share right-of-way with several types of transit vehicles.

Local Funding Sources. Additional funding can come from system development charges, local bond measures, urban renewal funds, and public/private partnerships.

In order to successfully implement the plan, partnerships between residents, public agencies, the private sector, and non-profit organizations are essential.

# Implementation Strategies

The Des Moines Bicycle and Trail Master Plan provides the long-term vision of a community-wide bikeway network usable by all residents for all trip types. The following strategies and action items help guide Des Moines toward the vision identified in the plan.

Strategy 1: Strategically Pursue Infrastructure Projects. Staff should pursue capital improvements funding or grant funding for short-term bicycle and trail improvements first. If grant requirements or construction in conjunction with another roadway project makes construction of a lower priority project possible, then the community should pursue funding sources for that project regardless of priority.

Strategy 2: Regularly Revisit Project Prioritization. The prioritized project list should be reviewed every fiscal year, with new projects added, completed projects removed, and the priorities revised as conditions change.

Strategy 3: Integrate Bicycle Planning into Des Moines' Planning Processes. Bicycle accommodation policies should be incorporated into the day-to-day activities of planning, design, funding, construction and maintenance in Des Moines.

Strategy 4: Encourage Private Donors to Support the Bikeway/Trail System.

Corporations, institutions, foundations, individual private donors and volunteers can support development and maintenance of the bikeway system and implementation of policies and programs.

Strategy 5: Implement Education, Encouragement and Enforcement Activities. Supporting programs are critical to the success of the plan and have been prioritized based on ease of implementation, cost, and projected impact.





# The Bottom Line: Where to Start

This plan provides a list of projects and programs to make Des Moines a premier bicycling community. In total, the plan recommends 144 miles of on-street bikeways, including 63 miles of bike lanes and shared lane markings, 16.5 miles of paved shoulders, and 65 miles of bicycle boulevards/ quiet streets. Off-street recommendations include a half-mile of cycle track facilities and 116 miles of shared-use paths.

The Des Moines Bicycle and Trail Plan proposes short-, medium-, and long-term phases that allow Des Moines to implement the new projects and programs as resources and opportunities become available. To get the momentum going, the plan recommends starting with the following key projects:

Downtown Bicycle Facilities. This project utilizes several bikeway facility types to develop access to and through downtown Des Moines. Bike improvements are recommended for Crocker Street, 15th Street, Grand Avenue, Locust Street, Walnut Street, 9th Street, and 8th Street. These downtown improvements will formalize much-needed access to downtown destinations, employment centers, and retail outlets, leveraging

planned improvements such as the bike lanes on Ingersoll Avenue. The bikeways will also connect several downtown green spaces including the Pappajohn Sculpture Park and the extensive trail networks along the rivers.

Northeast Des Moines Bicycle Corridor. This project will develop a northeast-to-southwest on-street bikeway across northeastern Des Moines. Improvements would include roadway re-striping on Hubbell Avenue to provide a safer environment for drivers as well as dedicated bike lanes. Development of bike lanes on Hubbell Avenue would substantially improve connectivity for cyclists. The project connects Hubbell Avenue to downtown with bike lanes and shared lane markings on E 18th Street and Walnut Street.

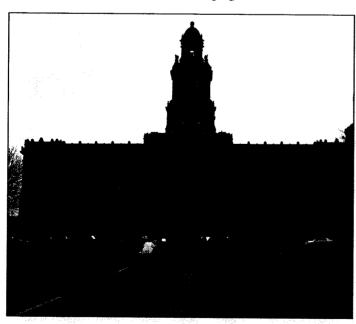
SW 14th Street Quiet Street. This project envisions a quiet street that will connect neighborhoods on the southwest side of Des Moines to the trail network along the river. It will also provide connections to the Blank Park Zoo and to the proposed Super Block at Fort Des Moines. The project will develop a trail connection from the northern end of SW 14th Street connecting to the Meredith Trail and providing local access into the trail system.

Goal 5 (Health Goal): Improve the health and physical fitness of the City of Des Moines residents.

**Objective 5-1:** Each trip by bicycle, for either transportation or recreation, results in increased physical activity and related improvements in cardiovascular fitness. The City should annually calculate the number of calories used by cyclists (based on average mileage and bicycle counts).

Goal 6 (Education, Encouragement and Enforcement Goal): Improve safety by encouraging bicyclists and motorists to share the road safely.

**Objective 6-1:** Emphasize education, encouragement and enforcement efforts that are developed in conjunction with physical infrastructure and that support use of the bicycle and trail networks.



Implementation of the Des Moines Bicycle and Trail Master Plan will require funding from a variey of sources.



Signage on the trails provides wayfinding information and ties the regional trails network together.



### Goal 7 (Economic Goal): Capitalize on the benefits of bicycling in the local economy.

**Objective 7-1:** Promote bicycling in economic development, tourism and job creation programs. Identify business benefits including employee health and quality of life.

Goal 8 (Safe Routes to Schools Goal): Continue to involve Des Moines schools in Safe Routes to Schools Programs.

**Objective 8-1:** Work with Des Moines' longstanding Safe Routes to School program to expand the Safe Routes to School program, which provides multiple youth and family benefits for health, safety, and mobility.

Goal 9 (Support Facilities Goal): Encourage and assist local businesses and agencies in Des Moines to provide appropriate bicycle support facilities.

**Objective 9-1:** The City of Des Moines will assist local businesses and agencies in developing bicycle parking and other support facility ordinances. The Pedestrian and Bicycle Information Center and the Association of Pedestrian and Bicycle Professionals provide sample bicycle parking ordinances, addressing both shortand long-term parking facilities.

Goal 10 (Quality of Service Goal): Provide a well-maintained system of bikeways. Objective 10-1: As the bikeway system is expanded over time, it requires an on-going operations and management program. Operations include safety patrols, security, activity programming, promotional efforts, education and outreach, routine litter patrol, annual safety reporting, and facilities condition management. Other responsibilities could also include an annual reporting program, assignment of staff responsibilities, interagency coordination, and the coordination of public-private partnerships.

## **Recommended Programs**

Des Moines has a unique advantage for being a bicycle friendly city: the extensive existing trail system, the presence of several bike-friendly streets, recent bikeway and trail improvements, a grid street system, and bike-activated signals at key intersections. Several associations also promote bicycling in the city: the Des Moines Bike Collective, the Des Moines Cycle Club, and the Iowa Bicycle Coalition all encourage cycling and help build a community of bicyclists. The Des Moines Bicycle and Trail Plan leverages these new and ongoing opportunities with recommendations for infrastructure, supporting programs and policies, as well as design guidelines that will encourage bicycling in the future.

The Plan calls for the following education, encouragement enforcement and evaluation initiatives:

Apply to Become a Bicycle Friendly Community (BFC). The League of American Bicyclists' BFC award program provides recognition to cities that have implemented bicycle infrastructure and programs. After the short-term improvements have been implemented, Des Moines should re-apply and be recognized for improvements that elevate the city beyond the honorable mention status the city has received in the past.

Bicycle Wayfinding Signage Plan. Placing signs throughout the city indicates to bicyclists their direction of travel, location of destinations, and the riding time/distance to those destinations. Signage increases users' comfort and accessibility to the bicycle

system and heightens awareness of the network.

Des Moines Bike/Walk Central Website.

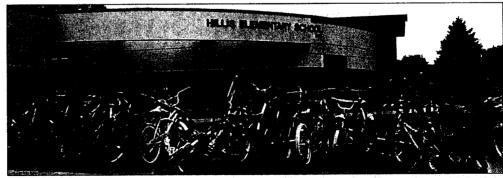
Des Moines already has numerous resources for cyclists and pedestrians, and more services and resources are planned for the future. Many cyclists or potential cyclists do not know where to turn to find out about laws, events, maps, tips, and bicycling groups. The City of Des Moines should develop a "one-stop shopping" website aimed at bicyclists and trail users.

Pilot SmartTrips Program. SmartTrips programs encourage bicycling by saturating a target geographic area with resources. SmartTrips helps reduce drive-alone trips and increase biking, walking, transit and carpool trips.

Safe Routes to School. Helping children walk and bicycle to school is good for children's health and can reduce congestion, traffic dangers, and air pollution caused by parents driving children to school. The City should establish a program that addresses engineering, education, encouragement, enforcement, and evaluation.

Citywide 'Share the Road' Campaign. A 'Share the Road' campaign should educate bicyclists and motorists about how to follow the law and treat each other with respect. The campaign should focus on positive messages that support courteous interactions.

Complete Streets. The City of Des Moines has adopted a Complete Streets policy. Complete Streets policies ensure that roadways are designed with all users in mind and will provide on-street routes for bicyclists.



Safe Routes to School and other educational programs improve safety and encourage students to walk and bicycle.

