

1 INTRODUCTION

1.1 Background	20
1.2 Benefits	23
1.3 Plan Process	26



1.1 BACKGROUND

1.1.1 LOCAL FRAMEWORK

The City of Urbana contracted with the Champaign County Regional Planning Commission (CCRPC) in Summer 2013 to update the city’s award-winning 2008 Urbana Bicycle Master Plan (UBMP). This plan update will help meet several Urbana City Council and Mayor Goals (see [Table 1](#) below).¹

Urbana City Council and Mayor Goals 2014-2017 Goal #5: Transportation and Connectivity	
Objective	Actions
1. Support modern transportation systems and alternate transportation modes.	<p>1B. Continue to work on bicycle master plan update.</p> <p>1C. Continue to implement the city’s complete streets ordinance.</p> <p>1E. Apply for enhanced level of Bicycle Friendly Community certification.</p> <p>1F. Adopt Vision Zero, setting as a community goal reaching zero fatalities for pedestrians, bicyclists, and drivers.</p>
2. Connect neighborhoods with businesses and recreational opportunities.	<p>2A. Work with neighborhood organizations, like the Urbana Park District, the Urbana School District, and other local agencies, to identify needs for connectivity among parks, schools, neighborhoods, and business districts.</p> <p>2C. Work to develop routes of connectivity between Aspen Court and shopping destinations along South Philo Road.</p> <p>2D. Work with IDOT to plan and build sidewalks/multiuse path connecting North Cunningham Avenue with shopping destinations north of I-74.</p>

Table 1 Selected Urbana City Council and Mayor Goals

Recommendations and implementation strategies of this plan will also help meet Urbana City Council and Mayor Goals for Public Safety, Vibrant Business Districts, and Environmental Sustainability. The 2016 UBMP also builds on goals, objectives, and ideas from the following local plans: 2005 Urbana Comprehensive Plan, 2014 Champaign County Greenways & Trails (GT) Plan, and Sustainable Choices 2040 (the long range transportation plan for Champaign-Urbana). See [Appendix 1](#) for more information.

UBMP planning and implementation represents the City’s continuing commitment to promote a safe, multi-modal transportation system within Urbana and to surrounding jurisdictions. Bicycling is intended to be safe, efficient, and a practical travel option for all residents and visitors in the city. The UBMP also recommends connections with surrounding jurisdictions in line with the GT Plan.

The study area is the City of Urbana’s municipal limits, and it includes streets but not off-street paths in the University District (see [Figure 3](#)).

1. <http://urbanaininois.us/council-goals>

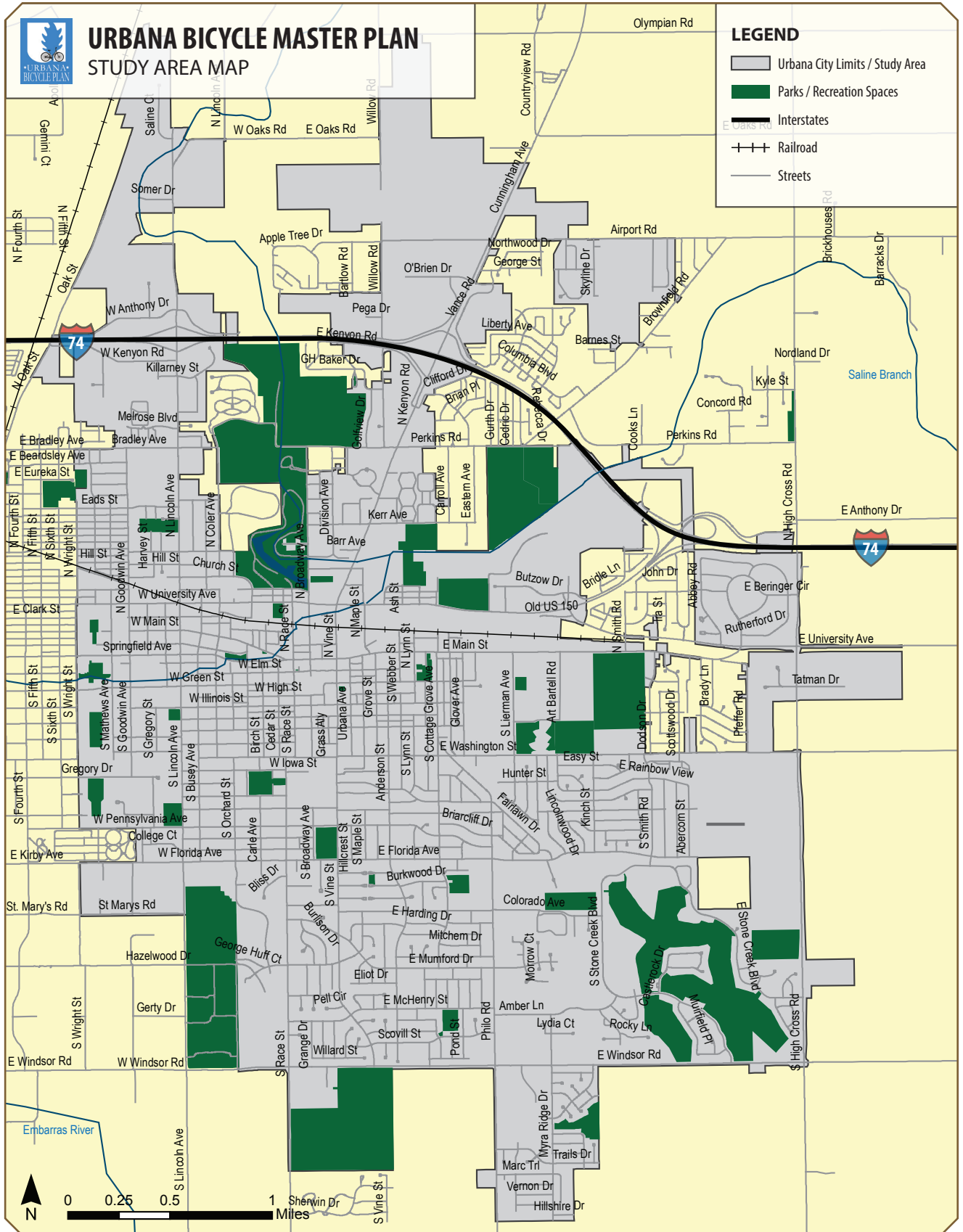


Figure 3 UBMP Study Area: City of Urbana municipal limits

1.1.2 NATIONAL FRAMEWORK

Bicycling has seen a resurgence in the United States in the last decade. In 2010, the United States Department of Transportation (US DOT) released a policy statement on bicycle and pedestrian accomodation (see Figure 4).

In 2012, the Initiative for Bicycle and Pedestrian Innovation at Portland State University in Oregon and Alta Planning+Design released *Creating Walkable + Bikeable Communities: A user guide to developing pedestrian and bicycle master plans*. This document outlines the evolution of federal policy related to bicycling and walking since the 1970s (see Figure 5). While nationwide support for bicycling has increased, federal funding for this mode was reduced in the 2012 federal transportation bill "Moving Ahead for Progress in the 21st Century (MAP-21)" in the wake of economic recession.

Federal and state governments try to keep up with the growing demand for bicycle project funding and innovation. Where they cannot meet demand, local agencies and coalitions like the National Association of City Transportation Officials (NACTO), universities, private planning firms, and advocacy organizations have stepped up to keep the momentum moving forward. A lot of forces are at work to improve bicycling across the United States.

2010 POLICY STATEMENT ON BICYCLE AND PEDESTRIAN ACCOMMODATION

"Every transportation agency, including [Federal] DOT, 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."

Figure 4 US DOT 2010 Policy Statement on Bicycle and Pedestrian Accommodation (Credit: Creating Walkable + Bikeable Communities)

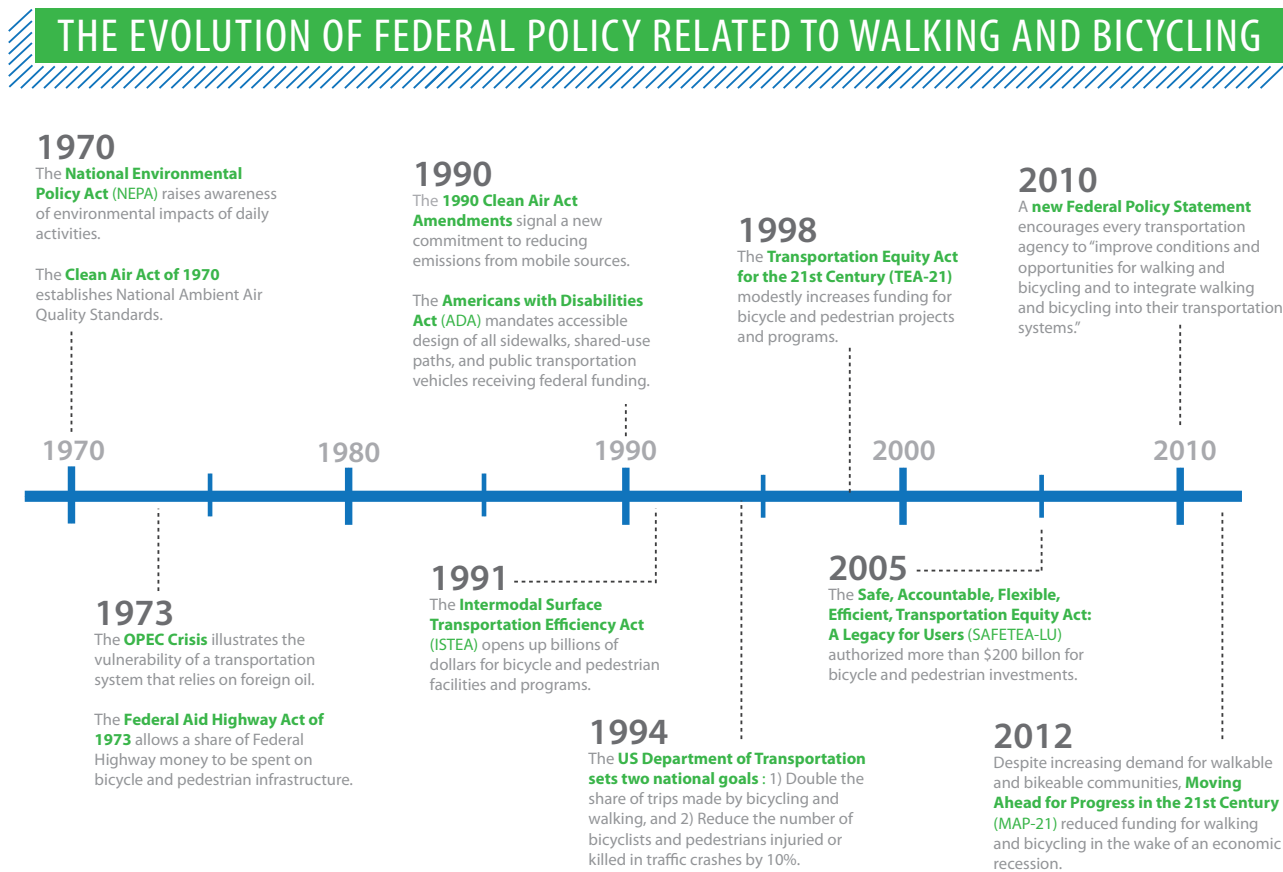


Figure 5 The Evolution of Federal Policy Related to Walking and Bicycling (Credit: Creating Walkable + Bikeable Communities)

1.2 BENEFITS

The National Cooperative Highway Research Program (NCHRP) Report 552: *Guidelines for Analysis of Investments in Bicycle Facilities*, lists some of the benefits that users and the community get out of bicycling (see Figure 6).

Beneficiary					
To the User (direct)			To the Community (indirect)		
Mobility	Health	Safety	Reduced Auto Use	Livability	Fiscal
-enhanced conditions -shorter travel distance	-increased physical activity -decreased health care costs	-decreased crashes -increased comfort	-decreased congestion -reduced pollution	-proximity to recreational amenities -increased open space	-increased economic activity

Figure 6 Bicycling Benefits to Users & Communities (Credit: NCHRP 552)

1.2.1 USER BENEFITS

Bicycling attracts a variety of users, who have different reasons for utilizing this mode of transport:

- **Recreation:** Bicycling is a popular activity as a moderate-level form of exercise that is within many people’s physical capabilities.
- **Active Transportation:** For short and local trips throughout town, bicycling is a suitable active mode of transportation.
- **Transportation Necessity:** Besides those who bicycle by choice, there are residents who depend on bicycling as a transportation necessity, including children, many teenagers, and some workers.

The Victoria Transport Policy Institute (VTPI) released the updated report *Evaluating Active Transport Benefits and Costs* in 2014. Table 2 further discusses the many factors that affect walking and cycling travel demand.

Expanding on the user benefits listed in Figure 6 from NCHRP Report 552:

- **Mobility:** With a total area of 11.9 square miles, Urbana is a small city, which makes short trips of 1-2 miles feasible and attractive.
- **Health:** The U.S. Department of Health and Human Services recommends that adults (age 18-64) get at least 30 minutes of moderate-intensity aerobic physical activity 5 days a week, and children get at least 60 minutes of physical activity daily.² Bicycling can help people meet those recommendations.

- **Safety:** In 2014, Momentum Magazine published an infographic and article that shows that bicycling is not much more dangerous than driving or walking, bike infrastructure and low traffic streets make bicycling safer, and that bicycling injury rates are low compared to common sports (see Figure 7). Bicyclists are vulnerable road users, and planning for increased infrastructure can improve safety.

1.2.2 COMMUNITY BENEFITS

Besides the Urbana City Council and Mayor Goals discussed in Section 1.1.1, bicycling can provide communitywide benefits of reducing automobile use, improving livability, and providing fiscal benefits listed in Figure 6. Further, VTPI lists the benefits and costs of active transportation, especially as they relate to reduced automobile use and livability (see Table 3). While projects have to be evaluated on an individual basis, Table 3 lists more potential benefits of active transportation than potential costs.

A bike friendly city is associated with a high quality of life and a sense of community. Urbana achieved a Bronze Level Bicycle Friendly Community (BFC) designation in 2010, and a Gold Level BFC designation in 2014. These designations are awarded by the League of American Bicyclists (LAB), who created an infographic showing the building blocks of a bicycle friendly community (see Figure 8). This analysis of the “5 E’s” of bicycling shows the standards most likely needed to achieve and maintain a particular BFC status. For more information on LAB’s recommendations to improving Urbana’s BFC status, see Section 7.6.

2. U.S. Department of Agriculture and U.S. Department of Health and Human Services. *Dietary Guidelines for Americans, 2010*. 7th Edition, Washington, DC: U.S. Government Printing Office, December 2010.

Factors	Impacts on Active Travel
Age	Young people tend to have high rates of walking and cycling. Some older people have high rates of walking for transportation and exercise.
Physical Ability	Some people with impairments rely on walking and cycling, and may require facilities with suitable design features, such as ramps for walkers and wheelchairs.
Income and Education	Many lower-income people tend to rely on active modes for transportation. Bicycle commuting is popular among higher income professionals.
Dogs	Daily walking trips tend to be higher in households that own dogs.
Vehicles and Drivers Licenses	People who do not have a car or driver's license tend to rely on walking and cycling for transportation.
Travel Costs	Walking and cycling tend to increase with the cost of driving (parking fees, fuel taxes, road tolls, etc.)
Facilities	Walking and cycling activity tend to increase where there are good facilities (sidewalks, crosswalks, paths, bikeracks, etc.)
Roadway Conditions	Walking and cycling tend to increase in areas with narrower roads and lower vehicle traffic speeds.
Trip Length	Walking and cycling are most common for shorter (less than 2-mile) trips.
Land Use	Walking and cycling tend to increase in areas with compact and mixed development where more common destinations are within walking distances.
Promotion	Walking and cycling activity may be increased with campaigns that promote these activities for health and environmental improvement sake.
Public Support	Cycling rates tend to increase where communities consider it socially acceptable.

Table 2 Factors Affecting Walking and Cycling Travel Demand (Credit: Victoria Transport Policy Institute)

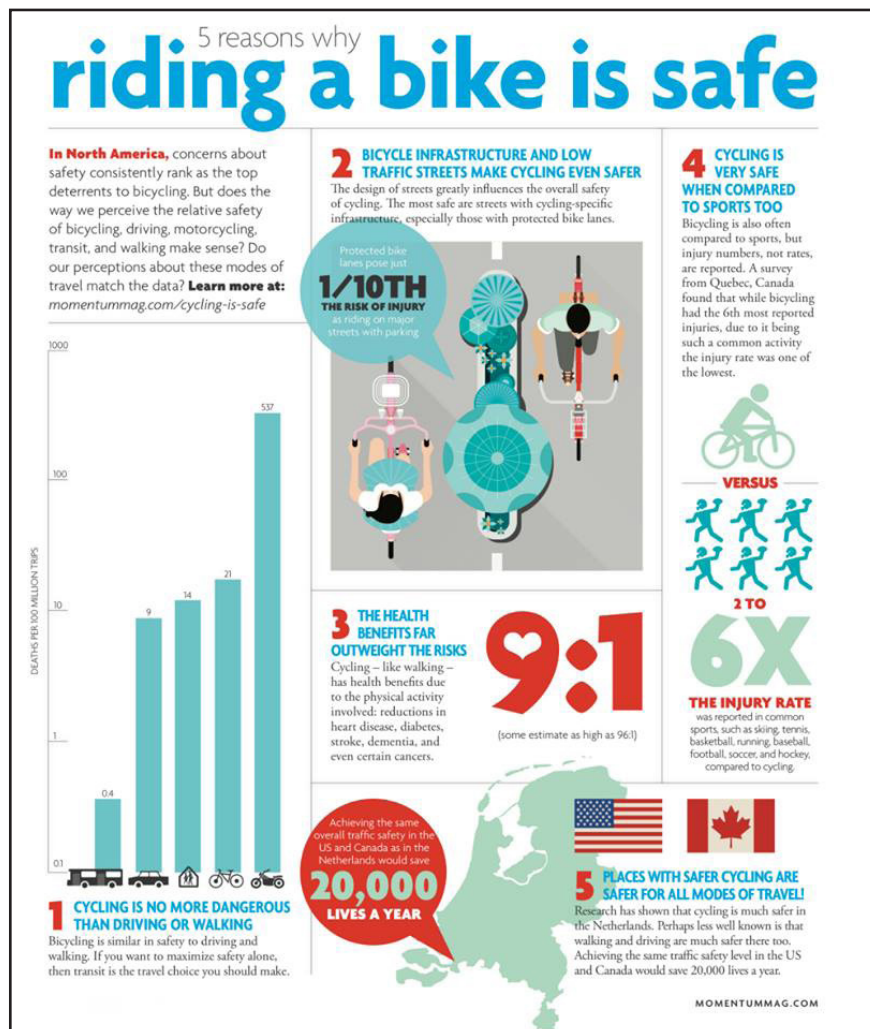


Figure 7 5 Reasons Why Riding A Bike Is Safe (Credit: Momentum Magazine, <http://momentummag.com/is-cycling-safe/>)

	Improved Active Travel Conditions	Increased Active Transport Activity	Reduced Automobile Travel	More Compact Communities
Potential Benefits	<ul style="list-style-type: none"> Improved user convenience and comfort Improved accessibility for non-drivers, which supports equity objectives Option value Supports related industries (e.g., retail and tourism) Increased security 	<ul style="list-style-type: none"> User enjoyment Improved public fitness and health Increased community cohesion (positive interactions among neighbors due to more people walking on local streets) which tends to increase local security 	<ul style="list-style-type: none"> Reduced traffic congestion Road and parking facility cost savings Consumer savings Reduced chauffeuring burdens Increased traffic safety Energy conservation Pollution reductions Economic development 	<ul style="list-style-type: none"> Improved accessibility, particularly for non-drivers Transport cost savings Reduced sprawl costs Openspace preservation More livable communities Higher property values Improved security
Potential Costs	<ul style="list-style-type: none"> Facility costs Lower traffic speeds 	<ul style="list-style-type: none"> Equipment costs (shoes, bikes, etc.) Increased crash risk 	<ul style="list-style-type: none"> Slower travel 	<ul style="list-style-type: none"> Increases in some development costs

Table 3 Active Transportation Benefits and Costs (Credit: Victoria Transport Policy Institute)

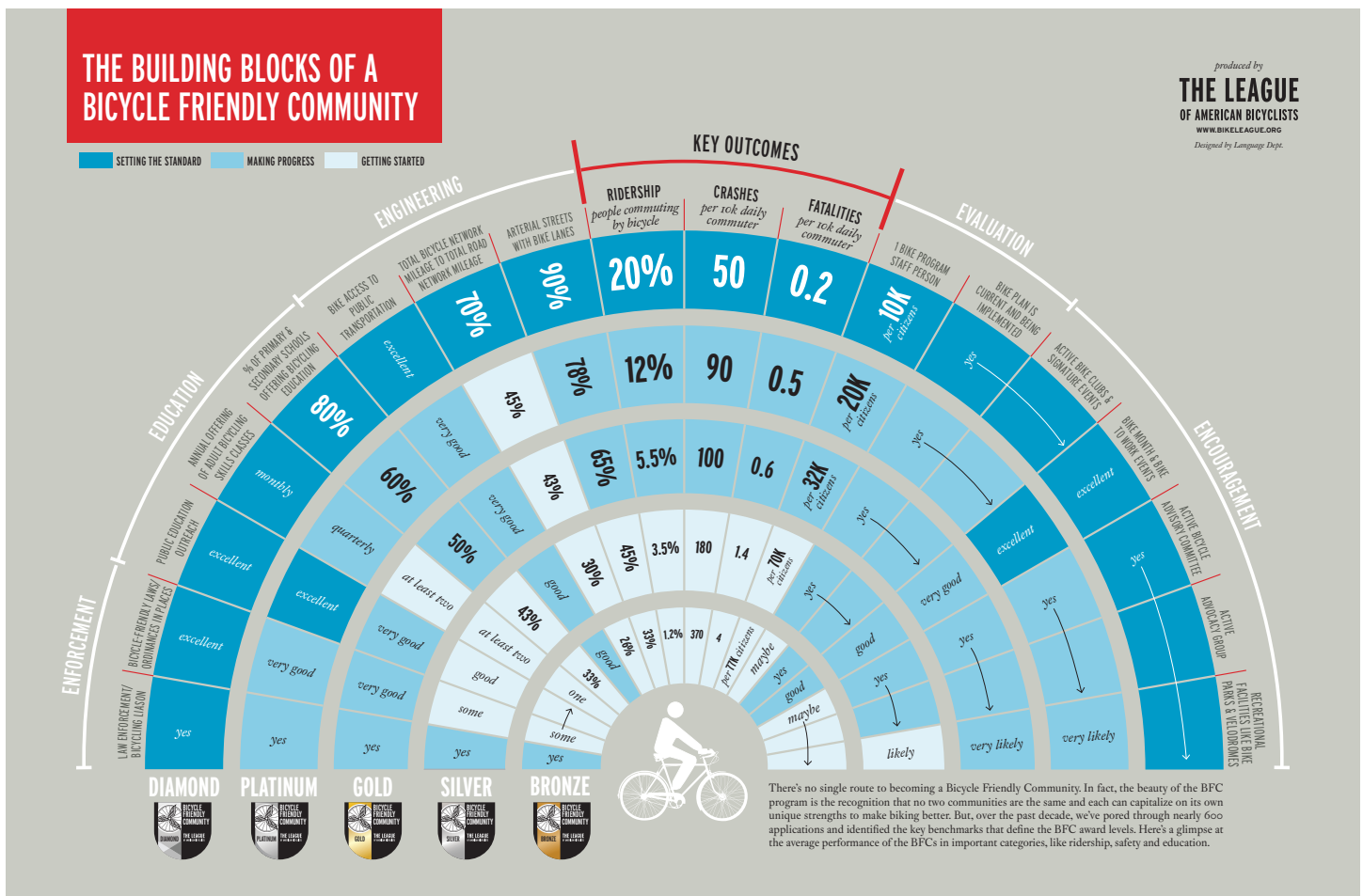


Figure 8 The Building Blocks of a Bicycle Friendly Community (Credit: League of American Bicyclists (LAB))

1.3 PLAN PROCESS

The 2008 UBMP recommended updating this plan every five years. The plan update began in Summer 2013, with a unique opportunity to collaborate with the Urbana Park District. Building on the UBMP and GT Plan, the Urbana Park District contracted with CCRPC to create a Trails Master Plan (UTMP) for its agency. CCRPC combined efforts for the UBMP and UTMP to collect public input and create recommendations.

The UBMP steering committee was reconvened, adding representatives from the Urbana Police Department, Champaign County Bikes (CCB), and the Champaign-Urbana Public Health District (CUPHD) to the list of participating departments/agencies interested in and affected by bicycling in Urbana. This committee guided CCRPC staff in plan development and decision-making.

CCRPC also consulted with the Illinois Department of Transportation (IDOT) District 5 bicycle coordinator regarding plan recommendations.

1.3.1 INPUTS

Many factors were collected and analyzed to update this plan's recommendations.

Chapters 1 and 2 look at the history and trends of bicycling in the United States and Urbana to underscore the need to continue improving bicycling in Urbana. Chapter 2 also identifies major destinations, in order to see what is being served by bikeways and what still needs to be accessible by bike.

Chapter 3 contains a review of literature, peer cities, and model cities. This is intended to inform the City of Urbana of what bicycle improvements and initiatives other cities are implementing.

Chapter 4 expands on the guidelines used to select bikeway recommendations, keeping the target audience of this plan as the "Basic" casual adult cyclist, or the "Interested but Concerned" cyclist that makes up 60% of the population.³ Guidelines for "Enthusiastic and Confident" cyclists are also included.

Chapter 5 updates information on facility types to reflect the latest national and regional standards, including the Champaign County Greenways & Trails (GT) Design Guidelines, 2009 Manual on Uniform Traffic Control Devices (MUTCD), 2012 American Association of State Highway and Transportation Officials (AASHTO) Bike Guide, and NACTO Urban Bikeway Design Guide.

Chapter 6 updates the inventory of current bicycle facilities. CCRPC and City of Urbana staff gathered existing bike parking information. CCRPC staff also performed bicycle counts and analyzed the latest bicycle crashes. These are major components in establishing a baseline review of Urbana's current bicycle network.

Chapter 7 discusses the public input gathered on preferred routes, bicycling issues, and recommendations. In Summer 2013, CCRPC adapted the Mineta Transportation Institute's "Pedestrian and Bicycle Survey (PABS)," and distributed it to Urbana residents. This was done to identify residents' transportation choices for work, school, recreation, and other purposes. The Urbana PABS also asked residents about their preferences for park trails, such as trail type and length, to inform the UTMP.

In addition to a communitywide workshop, CCRPC staff hosted multiple neighborhood workshops. At all public meetings, attendees were asked to indicate their trip origin and destinations and whether they travel by walking or biking. This was important in analyzing Urbana residents' travel behaviors. A second communitywide workshop was held for residents to prioritize the UBMP and UTMP recommendations.

Chapter 8 shows the opportunities and constraints analysis conducted by CCRPC. Recent planning and implementation efforts that will effect this plan's recommendations were incorporated into this analysis.

Chapter 9 updates the UBMP goals and objectives to meet the U.S. Federal Highway Administration's (FHWA) model of creating "SMART" objectives, and creating performance measures to evaluate the progress of each objective. "SMART" stands for:

- **S**pecific
- **M**easurable
- **A**greed
- **R**ealistic
- **T**ime-bound

Chapter 10 updates the Urbana Bicycle Level of Service (BLOS) database, to analyze how implemented facilities are functioning, and to analyze new recommendations. BLOS continued to be used in this plan as the standard for quantifying the "bike-friendliness" of a roadway, or the perceived comfort level of bicyclists on a roadway.

3. Portland Bureau of Transportation.

1.3.2 OUTCOMES

Creating Walkable + Bikeable Communities outlines several outcomes that should come from a bicycle plan (see Figure 7).



OUTCOMES OF A TYPICAL PLANNING PROCESS

No two active transportation master plans will be exactly alike, but most plans strive to achieve some combination of the following outcomes:

- A bikeway network, bicycle parking, and/or pedestrian network
- Policies that support walking and/or bicycling
- Education of bicyclists, pedestrians, and motorists
- Encouragement programs
- Enforcement programs
- Evaluation and monitoring programs
- Design guidelines and/or engineering standards that recognize the needs of bicyclists and/or pedestrians
- Increased public and financial support for walking and/or bicycling
- Increased levels of walking and/or bicycling for transportation and recreation

Figure 9 Outcomes of a Typical Planning Process
(Credit: Creating Walkable + Bikeable Communities)

Bullets #1-6 are addressed in Chapter 11: Recommendations.

Bullet #7, “design guidelines and/or engineering standards that recognize the needs of bicyclists,” is addressed in Chapter 5: Facility Types.

The “increased public support for walking and/or bicycling” in Bullet #8 is addressed in Chapter 7: Public Input.

The “increased financial support for walking and/or bicycling” in Bullet #8 is addressed in Chapter 12: Implementation.

Bullet #9, “increased levels of walking and/or bicycling for transportation and recreation” is addressed in Chapter 6: Existing Conditions Inventory, and Chapter 11: Recommendations.

Information outlined in Section 1.3.1 and Figure 9 helped CCRPC staff update the UBMP recommendations and implementation strategies.

Chapter 11 lists infrastructure recommendations by concept, corridor, and point. Updated and new photo renderings of existing streets and paths are included to provide a better understanding of particular recommendations. Wayfinding signage for bike routes and trails are a major updated recommendation. A small investment in sign installation by the City of Urbana could see a major increase in bicycling, as distance signage will inform people about how close they are to destinations and intersecting bikeways.

Recommendations for bike-activated stoplights, drainage grates, and bike parking are also included in Chapter 11. Non-infrastructure recommendations for education, encouragement, enforcement, and evaluation are updated and expanded. Finally, recommendations to update the Urbana Zoning Ordinance based on best practices are given to improve bike parking installation by land use.

Chapter 12 updates relevant funding sources from the GT Plan in order to implement recommendations. It also provides cost estimates and outlines agencies responsible for implementing this plan’s recommendations.

The City of Urbana has many tasks to do and partners to coordinate with to retain its Gold Bicycle Friendly Community status, and even to advance to a Platinum Bicycle Friendly Community, but this plan aims to assist with that as much as possible.