

# 3 LITERATURE, PEER CITY & MODEL CITY REVIEWS

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CCRPC conducted an extensive review of local and state documents related to bicycle planning, as well as best practices of peer and model cities. The number of reviewed documents and types of cities analyzed are listed below:

**Local & State Documents**

- 5 City of Urbana documents
- 20 Related Area documents

**Peer & Model City Reviews**

- 3 Big Ten Peer Cities
- 2 Peer Midwest Cities
- 2 Large Midwest Cities
- 5 Model U.S. Cities

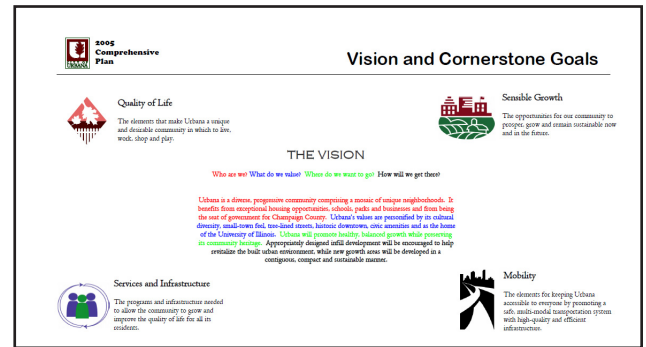
**3.1 CITY OF URBANA LITERATURE REVIEW**

**3.1.1 URBANA COMPREHENSIVE PLAN (2005, UPDATED 2006)**

Urbana’s 2005 Comprehensive Plan presents the City of Urbana’s vision for its future. It discusses improving its transportation and recreation system. It incorporates the Greenways & Trails Plan’s greenways and trails maps to show and acknowledge the existing and planned trail and greenway projects.

**Key Points**

- Urbana’s 2005 Comprehensive Plan provides a general vision and guidance on improving its transportation and recreation system while acknowledging county-level existing and planned greenways and trails projects.

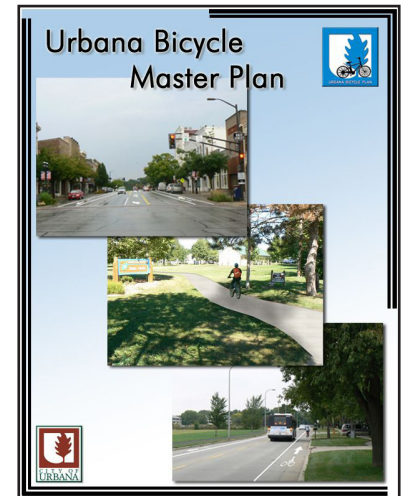


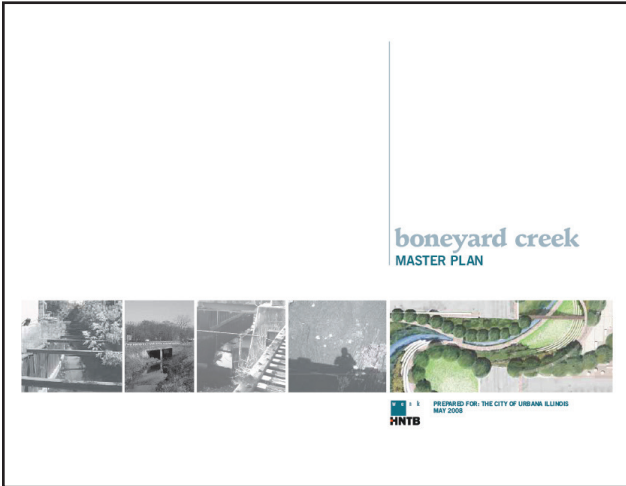
**3.1.2 URBANA BICYCLE MASTER PLAN (UBMP) (2008)**

This is a major plan that the City of Urbana undertook to implement bicycle facilities to promote bicycle use for transportation and recreation. Existing bicycle facilities were identified in 2007 by updating the Greenways & Trails Plan inventory. Two public workshops were held during this plan process to collect ideas and suggestions from the public on where to install bicycle facilities. The UBMP introduced a variety of bicycle facilities and design standards and comprehensively provided recommendations where bicycle improvements are needed in the City of Urbana. As part of the methodology to propose specific infrastructure recommendations, a Bicycle Level of Service (BLOS) analysis was conducted. Finally, the plan provided an implementation timeline for these recommendations and identified potential funding sources to realize these recommendations.

**Key Points**

- Community members are vital stakeholders in identifying room for improvement in the community, including bicycle infrastructure.
- Bicycle Level of Service (BLOS) is a useful indicator and resource to determine what site-specific recommendations to implement.



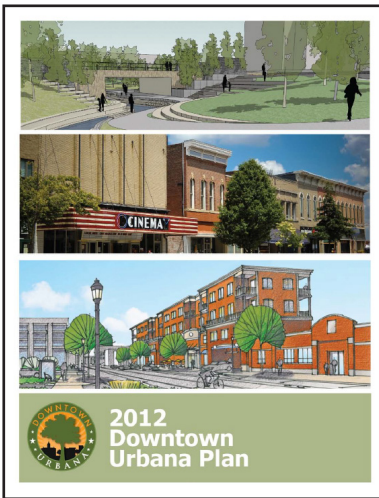


### 3.1.3 BONEYARD CREEK MASTER PLAN (2008)

This master plan aims to retrofit the currently channelized Boneyard Creek in the City of Urbana into an attractive social space rather than a barrier to pedestrian and bicycle circulation. It provides a summary of proposed retrofits and a phasing plan in implementing the retrofits. Boneyard Creek is expected to become not only a recreational space for people, but an extensive pedestrian and bicycle corridor that would improve connectivity to and from Downtown Urbana.

#### Key Points

- The Boneyard Creek is being renovated into a vibrant recreational destination and a bicycle corridor.



### 3.1.4 URBANA DOWNTOWN PLAN (2012)

This is an update of the 2002 Downtown Strategic Plan. The Urbana Downtown Plan recognizes and identifies the changes that have occurred to Downtown Urbana since then and its relation to the regional context. The plan highlights opportunities that Downtown Urbana should utilize in order to continue to become a destination and a regional market. One of the goals of the 2012 Urbana Downtown Plan is to improve mobility and reduce Downtown Urbana’s environmental impact. The City is working to achieve this goal by implementing road diets (i.e. removing travel lanes from a roadway and utilizing the space for other uses and travel modes)<sup>4</sup> on several roads in Downtown Urbana to allow the installation of additional bike lanes (e.g. Main Street, Race Street, Broadway Avenue). These improvements will better connect Downtown Urbana to other Urbana neighborhoods.

#### Key Points

- This plan acknowledges that expanding the bicycle network in Downtown Urbana makes it easier for people to travel to/from Downtown Urbana.
- At some locations, road diets are needed to create space for bike lanes to be installed.



### 3.1.5 CITY OF URBANA CAPITAL IMPROVEMENT PLAN (CIP) (2016)

The Capital Improvement Plan (CIP) is updated annually. It outlines the funding policies for various types of capital improvement programs and maintenance projects. It also uses its budgetary process to direct implementation of these programs and projects. It describes the CIP’s changes in revenues and expenditures. It notes that several types of projects, including pedestrian and bicycle, have significant cumulative impacts towards the CIP’s expenditures. Despite this, several projects that enhance pedestrian and bicycle facilities are incorporated into the CIP.

#### Key Points

- Pedestrian and bicycle projects may have significant cumulative expenditures in the Capital Improvement Program (CIP), but some of them are incorporated into the CIP nevertheless.

4. Rosales, J., Road Diet Handbook: Setting Trends for Livable Streets, Institute of Transportation Engineers, Washington DC, 2006.

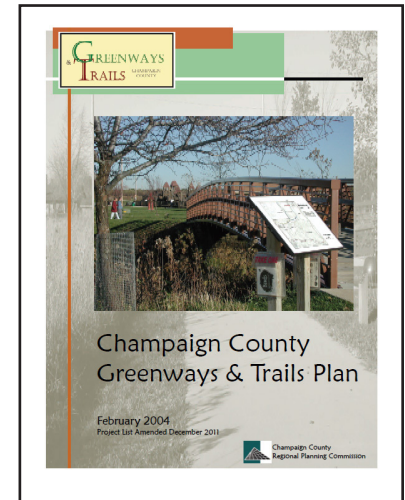
## 3.2 RELATED AREA PLANNING DOCUMENTS LITERATURE REVIEW

### 3.2.1 CHAMPAIGN COUNTY GREENWAYS & TRAILS (GT) PLAN (2004, AMENDED 2011)

This plan continues Champaign County's efforts since the 1930s to promote interagency cooperation in order to implement the best possible county-wide trail system for its residents. The trails system incorporates bicycling as one of the means to utilize the trails. Conversely, the trails provide a basis to install more on- and off-street bicycle facilities throughout Champaign County. The GT Plan identifies existing facilities and proposed projects, as well as some potential funding sources, and criteria to prioritize projects that demonstrates a fair and coordinated approach to implementing a county-wide trails and greenway system. This plan was adopted as an element of the Urbana Comprehensive Plan.

#### Key Points

- A county-wide greenways and trails system provides an overall framework for the City of Urbana and other municipalities within Champaign County to implement its on- and off-street bicycle facilities.
- This system also ensures that Champaign and Urbana's greenways, trails, and bicycle network are connected.

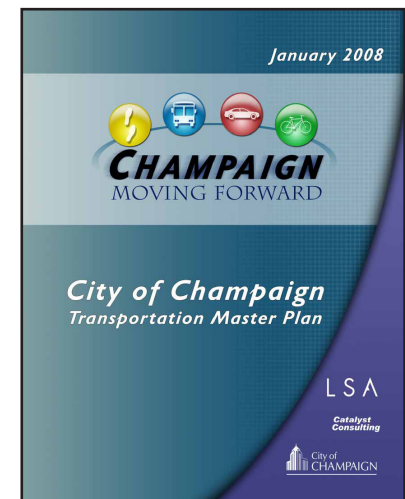


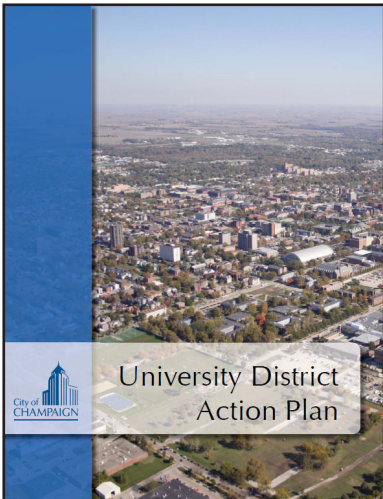
### 3.2.2 CHAMPAIGN MOVING FORWARD (2008)

The City of Champaign created this transportation master plan in 2008 and subsequently adopted it as an element of its comprehensive plan. This plan discusses bicycling and other transportation modes, presents a bike network vision map, and discusses the importance of creating an interconnected bicycle network with the City of Urbana.

#### Key Points

- Champaign Moving Forward is Champaign's transportation master plan that emphasizes the importance of having a bicycle network and being connected with the bicycle network in the City of Urbana.
- This plan is incorporated into Champaign's comprehensive plan, meaning the City formally acknowledges this plan's contents.



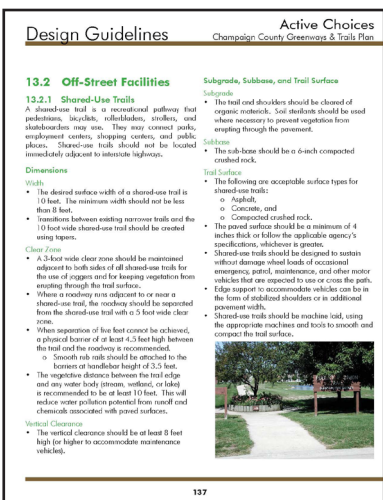


### 3.2.3 UNIVERSITY DISTRICT ACTION PLAN (2008)

The City of Champaign created the University District Action Plan in 2008 for the University of Illinois area, which includes the Central Quad area bounded by Wright Street, University Avenue, Goodwin Avenue, and Pennsylvania Avenue in Urbana. One of the main elements of this plan is the various strategies it presents to improve bicycle facilities and ridership levels to promote a multi-modal transportation network in the University District. The strategies presented are consistent with elements listed in Champaign Moving Forward.

#### Key Points

- This plan is consistent with Champaign Moving Forward, and it advocates bicycling to promote a multi-modal transportation system within the University District.

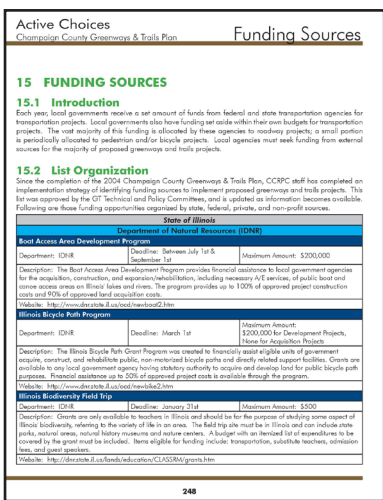


### 3.2.4 CHAMPAIGN COUNTY GREENWAYS & TRAILS (GT) DESIGN GUIDELINES, LOGOS, AND SIGNAGE (2008, AMENDED 2014)

This was created as a standalone document in 2008, and incorporated into the Active Choices Greenways & Trails Plan in 2014. This document provides a set of detailed design guidelines for greenways, trails, and bicycling facilities. This is to address the need for a standardized design across Champaign County jurisdictions, to promote a well-maintained and user-friendly greenways and trails system. The design guidelines include information for both off-street and on-street bicycle facilities.

#### Key Points

- Countywide design guidelines for greenways, trails, and bicycle facilities (including on- and off-street bicycle facilities) are needed to ensure these systems are standardized and user-friendly across the county.



### 3.2.5 CHAMPAIGN COUNTY GREENWAYS AND TRAILS (GT) FUNDING SOURCES LIST (2008, AMENDED 2014)

This was created as a standalone document in 2008, and incorporated into the Active Choices Greenways & Trails Plan in 2014. This document compiles various potential sources of funding as a resource for GT member agencies to implement specific trail and greenway projects. This document assists the City of Urbana and adjacent jurisdictions in identifying what funding sources can implement trail and greenway projects identified in the GT Plan and Urbana Bicycle Master Plan.

#### Key Points

- The City of Urbana can refer to this document to identify potential funding sources to implement greenway and trail projects that were identified in the GT Plan and UBMP.



### 3.2.6 ST. MARY’S ROAD CORRIDOR STUDY (2008)

This study identifies St. Mary’s Road as an important transportation corridor in the University District of Urbana-Champaign due to its close proximity to multiple athletic facilities and the University of Illinois Research Park. This study examined current conditions along St. Mary’s Road, and proposed recommendations to maintain its viability as a transportation corridor in the future. Recommendations include building a sidepath on the Urbana segment and west to Fourth Street in Champaign to improve the safety of bicyclists and pedestrians when traveling along this corridor.

#### Key Points

- St. Mary’s Road is an important transportation corridor, and this study recommended sidepath installation on the Urbana segment, in addition to some segments in Champaign, to improve pedestrians and bicyclists’ safety.

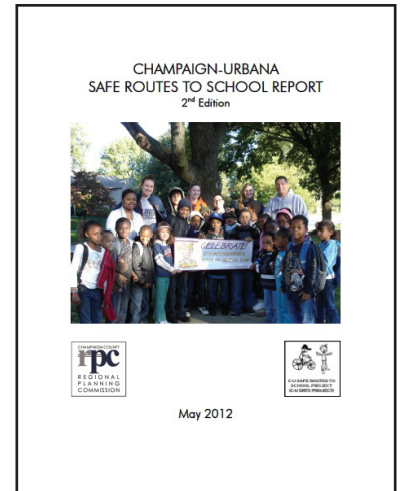


### 3.2.7 CHAMPAIGN-URBANA SAFE ROUTES TO SCHOOL (SRTS) REPORT (2009, UPDATED 2012)

One purpose of this report was to identify what obstacles students and parents face when walking or biking to and from schools. The Champaign-Urbana Safe Routes to School (C-U SRTS) Project utilized this report to show the community the pedestrian and bicycle safety hazards when walking or biking to schools. Survey responses from parents and students showed that improving the roads, lighting, sidewalks, and bicycle infrastructure; in addition to improving driving behaviors, can encourage and enable safer walking and biking to and from schools.

#### Key Points

- This report, as part of the Champaign-Urbana Safe Routes to School Project, identifies pedestrian and bicycle hazards when walking or biking to schools.
- Survey response from the community demonstrates that improving driving behavior, road conditions, lighting, sidewalks, and bicycle infrastructure can enable safer walking and biking to and from schools.

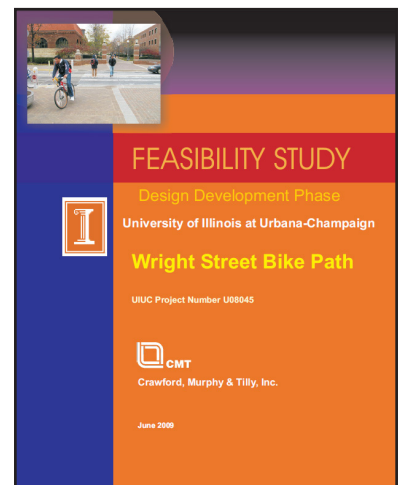


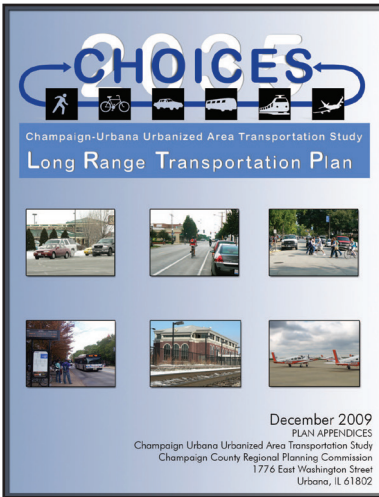
### 3.2.8 WRIGHT STREET BIKE PATH FEASIBILITY STUDY (2009)

A feasibility study was done for the University of Illinois to evaluate the feasibility of bike lane installation to implement a ‘complete street’ on Wright Street (between White Street and Armory Avenue). The study presents two alternatives. One is a full retrofit of Wright Street without preserving the existing facilities’ features. The other is making the essential improvements with respect to the original facilities. This study discusses what factors and associated costs are involved in implementing the two alternatives. This document establishes a comprehensive overview on how Champaign, Urbana, and the University can retrofit Wright Street into a safe transportation corridor for all modes of transportation.

#### Key Points

- This feasibility study presents alternatives to install bike lanes on Wright Street (between White Street and Armory Avenue).
- The study also discusses the alternatives’ costs and implementation strategies and how Champaign, Urbana, and the University of Illinois can turn Wright Street into a multi-modal transportation corridor.





### 3.2.9 CHOICES 2035: LONG RANGE TRANSPORTATION PLAN (LRTP) (2009)

This is a federally-mandated plan that administers federal and state funding to various transportation projects in the Champaign-Urbana metropolitan planning area. This plan recognizes that bicycling has become a more viable choice of transportation over time, and the metropolitan planning area needs a well-connected and efficient bicycle network. In addition to providing greater bicycle parking facilities, improving safety and education about bicycling is crucial to ensuring bicycling is safe in the Urbana-Champaign area. Bike sharing projects may be a viable option in the long-term to incentivize people to bike.

#### Key Points

- The federally-mandated Long Range Transportation Plan recognizes the need for an efficient and well-connected bicycle network.
- Improving bicycle parking, safety, and education are needed to ensure bicycling is a safe mode of transport in Urbana-Champaign.

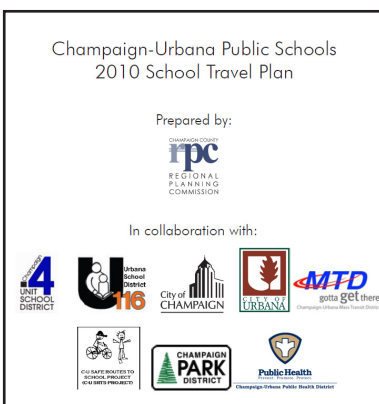


### 3.2.10 UNIVERSITY AVENUE CORRIDOR STUDY (2010)

This study examines the University Avenue corridor between Downtown Urbana and Downtown Champaign, and provides recommendations to improve it into a safe, accessible, and multi-modal corridor. The recommendations cover a variety of topics, including: land use, redevelopment, streetscape improvement, and transportation. This study further discusses how the different factors are interrelated and can be improved to increase bicycle and pedestrian activity and safety along and across the University Avenue corridor.

#### Key Points

- This study proposes recommendations to improve University Avenue into a safe and accessible multi-modal corridor, especially with regard to crossings.
- The recommendations are based on various factors, such as: land use, redevelopment, streetscaping, and transportation, and they are interrelated. Improving them can increase pedestrian and bicycle activity on University Avenue.



### 3.2.11 CHAMPAIGN-URBANA SCHOOL TRAVEL PLAN (2010)

This plan was updated to apply for Safe Routes to School (SRTS) grant funding through the Illinois Department of Transportation (IDOT). CCRPC compiled information from local governmental agencies and school districts, including the City of Urbana, Urbana Park District, and Urbana School District. The plan takes a comprehensive approach to analyzing what the community is currently doing to enable and encourage students to bike and walk to school, and how it plans to continue those efforts.

#### Key Points

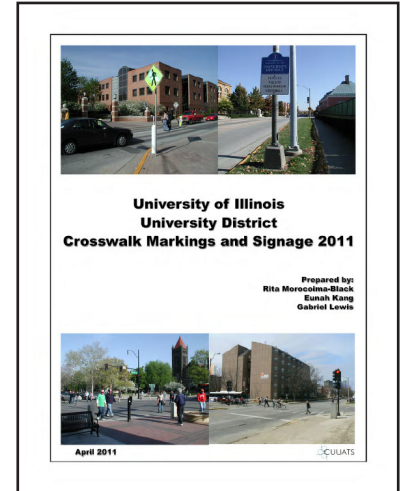
- This plan comprehensively analyzed what the community is doing to enable and encourage students to bike and walk to schools and what it can do to continue these efforts.

### 3.2.12 UNIVERSITY DISTRICT CROSSWALK (UDC) MARKINGS & SIGNAGE (2011)

This document provides a comprehensive list of markings and signage recommendations for the Campus Area Transportation Study (CATS) Zones, which include bike crossings. The markings and signage’s design guidelines/ recommendations established here will be utilized to design roads that are more accommodating to all modes of transportation.

#### Key Points

- This document is essentially a design guideline manual for road marking and signage for the Campus Area Transportation Study (CATS) Zones in order to make the roads within CATS more accommodating to all modes of travel.

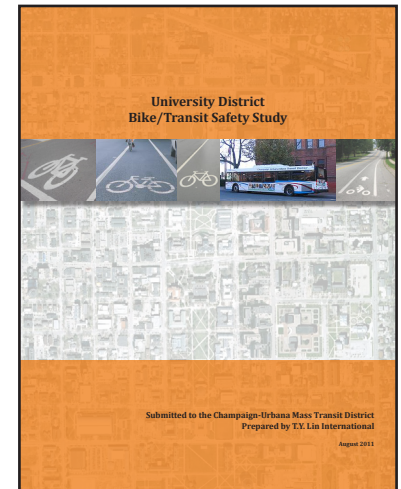


### 3.2.13 UNIVERSITY DISTRICT BIKE/TRANSIT SAFETY STUDY (2011)

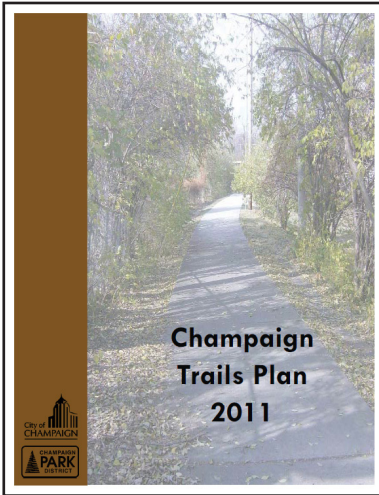
The Champaign-Urbana Mass Transit District (CUMTD) financed this study to analyze safety issues between bicycles and buses on University District corridors and intersections. This study’s results are meant to complement the University of Illinois Campus Bicycle Plan. This study aims to improve the University of Illinois’ transportation network to better accommodate non-motorized modes of transportation and reduce modal conflicts. It discusses the importance of retrofitting the existing transportation infrastructure to reduce modal conflicts and improve the university’s accessibility via non-motorized modes of transport for users within and from outside of the campus.

#### Key Points

- This study discusses how the University of Illinois can improve and retrofit its transportation network to better accommodate non-motorized modes of transportation for users within and outside of the campus.







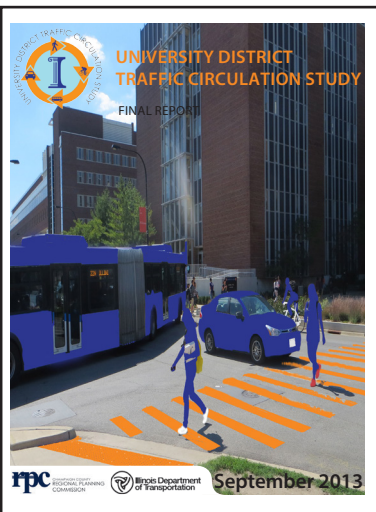
### 3.2.14 CHAMPAIGN TRAILS PLAN (2011)

The City of Champaign and the Champaign Park District jointly composed this plan to provide a vision for the city’s future trails system. It envisions that the trails system will serve as a cohesive network of off-street recreational facilities. This builds upon the visions from the Champaign Park District Strategic Plan 2005-2015 and Comprehensive Park and Open Space Plan 2008 for a comprehensive path and trail system in Champaign. Though this plan emphasizes more on recreational use rather than promoting bicycling, this was created in close coordination with Champaign’s transportation plan, Champaign Moving Forward, to ensure the trail system connects well to the City of Champaign’s on-street bicycle network. The Champaign Trails Plan’s elements were incorporated into Champaign’s comprehensive plan, Champaign Tomorrow 2011. Finally, many proposed design guidelines of plan recommendations were based on the Champaign County Greenways & Trails Design Guidelines.

This plan recommends bikeways and trails connecting Champaign and Urbana that would require coordination between local governments. The planned connections between the two cities are the Lower Boneyard Trail, Wabash Railtrail, and Olympian Drive Multi-Use Trail.

#### Key Points

- This plan lays the foundation for a cohesive network of off-street recreational trail facilities that would connect to Champaign’s on-street bicycle facilities.
- Bicycle and trail design must follow the design guidelines from the GT Plan.
- Champaign and Urbana need to coordinate to have their bicycle and trail facilities connect with each other.



### 3.2.15 UNIVERSITY DISTRICT TRAFFIC CIRCULATION STUDY (UDTCS) (2013)

This study extensively analyzes the University of Illinois at Urbana-Champaign’s (UIUC) current transportation conditions for all modes of transportation. It presents and discusses recommendations in the short-, medium-, and long-term that UIUC, the City of Urbana, the City of Champaign, CUMTD, and other various organizations should implement. These recommendations are aimed at allowing UIUC to have a better transportation system that is safe and efficient for all types of users.

#### Key Points

- This study extensively studies the University of Illinois at Urbana-Champaign’s current transportation network and conditions.
- It provides recommendations with different timeframes to stakeholders to implement in order to improve the transportation system’s safety and efficiency for all users.

### 3.2.16 ILLINOIS BIKE TRANSPORTATION PLAN (2014)

The Illinois Bike Transportation Plan is the first statewide bike plan in Illinois. It is the non-motorized chapter of the 2012 Illinois State Transportation Plan, a long-range plan that created the state's pathway to a multi-modal future. This plan will allow the Illinois Department of Transportation (IDOT) to systematically integrate transportation alternatives into existing state operations. The Illinois Bike Plan is built upon five foundational principles: access, choices, connectivity, safety, and collaboration.

#### Key Points

- This first ever statewide bike plan will help IDOT integrate bicycling into state operations.
- The five foundational principles of this plan are access, choices, connectivity, safety, and collaboration.



### 3.2.17 UNIVERSITY OF ILLINOIS CAMPUS BICYCLE PLAN (2014)

This document was written to provide concrete steps for the University of Illinois at Urbana-Champaign to improve its safety, sustainability, and health by becoming a more bicycle-friendly university. Identified projects, with implementation steps, are shown to achieve the goals. The projects also include programs that educate and encourage people to bike and be more aware of traffic safety issues. Furthermore, the plan recommends updating its bicycle code, which has not been updated since 1989, to allow the university to better enforce traffic regulations for bicyclists. It also resembles the Illinois Drivers' Code, and should be a bicyclist based code instead of a motorist based code.

#### Key Points

- This document provides recommendations, including education and encouragement programs, with implementation strategies to make the University of Illinois at Urbana-Champaign a more bicycle-friendly community.
- One of the recommendations is to update the 1989 Bicycle Code, which acts like the Illinois Drivers' Code. This will allow the University to better enforce traffic regulations for bicyclists.

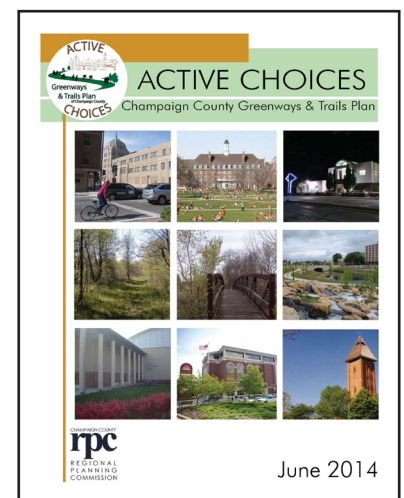


### 3.2.18 ACTIVE CHOICES: CHAMPAIGN COUNTY GREENWAYS & TRAILS PLAN (2014)

This is an update to the 2004 Champaign County Greenways & Trails (GT) Plan. This plan examines the greenways and trails' conditions in Champaign County and presents the benefits of implementing them. Various goals and objectives, based on different themes, are identified to guide how the county will continue to expand its greenways and trails system. This document also incorporates and updates the design guidelines (see Section 3.2.4) for elements that would be present in greenways and trails, which include bike lanes and other facilities. In the end, the county's bicycle network would be an integral part of the greenways and trails system.

#### Key Points

- This document is an update to the GT Plan, and it provides goals and objectives based on different themes to guide the continuing expansion of Champaign County's greenway and trails system.
- The bicycle network is an integral part of the county-wide greenway and trails system.





### 3.2.19 SUSTAINABLE CHOICES 2040: LONG RANGE TRANSPORTATION PLAN (LRTP) (2014)

*Sustainable Choices 2040* is the long range transportation plan (LRTP) that guides the evolution of the transportation system in the Champaign-Urbana urbanized area over a 25-year planning horizon. This is a federally-mandated document, updated every five years, that administers federal and state funding to various projects in the Champaign-Urbana metropolitan planning area. The plan strives to use the existing infrastructure to optimize mobility while promoting a multi-modal transportation network that encourages environmental sensitivity, accessibility, and economic development to enhance quality of life for all users.

*Sustainable Choices 2040* is built on six overarching pillars: safety and security, resilient economy, multimodal connectivity, accessibility and affordability, healthy neighborhoods, and balanced development. This plan promotes active modes of transportation through SMART objectives and performance measures that reinforce recommendations from the 2008 UBMP, Choices 2035 LRTP, and the 2014 GT Plan.

#### Key Points

- This Long Range Transportation Plan update strengthens goals, objectives, and recommendations for bicycling.



### 3.2.20 TRANSPORTATION IMPROVEMENT PROGRAM (TIP) (2016)

This document introduces the Transportation Improvement Program’s (TIP) purpose and process. Transportation projects to be eligible for federal funding must be listed in the TIP. Bicycle and pedestrian projects do not have an annual federal funding allocation. However, these projects are typically part of a larger roadway project, and/or have received grant funding. All bicycle projects receiving federal funding are listed in the TIP, and the City of Urbana typically lists its local bicycle projects in the TIP.

#### Key Points

- Transportation projects must be listed in the Transportation Improvement Program in order to be eligible to receive federal funding.
- Bicycle and pedestrian projects are listed in the TIP when they are part of a larger roadway project, receive federal grant funding, or local agencies include them.

### 3.3 BIG TEN CITIES PEER REVIEW

Sections 3.3 through 3.6 discuss the bicycle plans, award status, paid staff, and other efforts in peer and model cities. Each section includes a table with the following information:

1. **Population**
2. **Bicycle Friendly status**
  - a. *Bicycle Friendly Community (where applicable)*
  - b. *Bicycle Friendly University (where applicable)*
3. **Dedicated bicycle planning staff**
  - a. *City, County, and/or University*
4. **Dedicated bicycle planning committee(s)**
  - a. *City and/or University*

For comparison, [Table 9](#) lists this information for Urbana.

| Population  | Dedicated bicycle planning staff  |
|---|---|
| 41,250 (Census 2010)  | <b>City of Urbana</b> <ul style="list-style-type: none"> <li>• No single dedicated full-time staff member</li> </ul> <b>University of Illinois</b> <ul style="list-style-type: none"> <li>• No single dedicated full-time staff member</li> </ul> |
| Bicycle Friendly Status   | Dedicated bicycle planning committee  |
| <b>City of Urbana</b> <ul style="list-style-type: none"> <li>• GOLD</li> </ul> <b>University of Illinois</b> <ul style="list-style-type: none"> <li>• BRONZE</li> </ul> | <b>City of Urbana</b> <ul style="list-style-type: none"> <li>• Bicycle &amp; Pedestrian Advisory Committee (BPAC)</li> </ul>  |

**Table 9** Urbana bike information

For information on the Urbana Bicycle Master Plan, please see [Section 3.1.2](#).

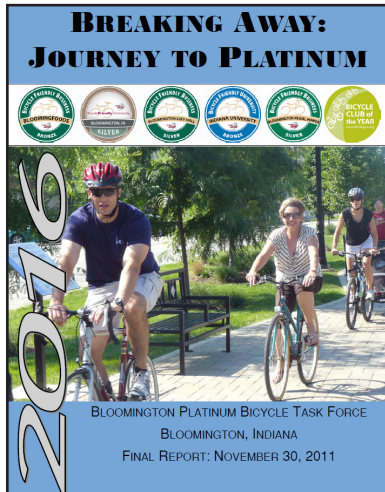
[Appendix 2](#) lists selected awardees of the League of American Bicyclists' (LAB) Bicycle Friendly America (BFA) program. This program's awards include Bicycle Friendly Community (BFC), Bicycle Friendly University (BFU), Bicycle Friendly Business (BFB), and Bicycle Friendly State. [Appendix 2](#) highlights the Illinois and Big Ten BFCs and BFUs, the BFBs in Urbana, Illinois' Bicycle Friendly State report card, and Urbana's 2015 site visit BFC report card.





Just as Urbana is home to the University of Illinois, the following case studies highlight substantial bicycle planning efforts in cities home to other Big Ten universities: Bloomington, IN (Indiana University); Ann Arbor, MI (University of Michigan); and Madison, WI (University of Wisconsin).

**3.3.1 BLOOMINGTON, IN: BREAKING AWAY: JOURNEY TO PLATINUM (2011)**



| Population   | Dedicated bicycle planning staff  |
|--|---|
| 80,405 (Census 2010)   | <b>City of Bloomington</b> <ul style="list-style-type: none"> <li>Bicycle and Pedestrian Coordinator, housed in Planning &amp; Transportation Department, which also staffs the Bloomington/Monroe County Metropolitan Planning Organization (MPO)</li> </ul>   |
| Bicycle Friendly Status  | Dedicated bicycle planning committee  |
| <b>City of Bloomington</b> <ul style="list-style-type: none"> <li>GOLD</li> </ul> <b>Indiana University</b> <ul style="list-style-type: none"> <li>BRONZE</li> </ul> | <b>City of Bloomington</b> <ul style="list-style-type: none"> <li>Bicycle and Pedestrian Safety Commission (BPSC): A citizen commission responsible for developing safety programs; serving as a public forum for bicycle and pedestrian safety; encouraging a host of safe bicycling, walking, and running events; and reporting and recommending to the Mayor, City Council, and Department of Public Works regarding bicycle and pedestrian safety issues. Meets twice a month (one working meeting, one official meeting).</li> </ul> |

**Table 10** Bloomington, IN bike information

In 2003, Bloomington, Indiana was awarded the Bronze Bicycle Friendly Community (BFC) Award from the League of American Bicyclists (LAB). The city continued to progress and was awarded the Silver BFC Award in 2010, and the Gold BFC Award in 2014. The most recent bicycle plan, *Breaking Away: Journey to Platinum*, represents the city’s continued commitment to improve its bicycle facilities and aim in obtaining a Platinum Award by 2016. The plan discusses how improving and having a solid bicycle infrastructure system could advance Bloomington’s core values of equality, health, environment, sustainability, and general quality of life. Various issues regarding these values, such as obesity (related to the value of health) and greenhouse gas emissions (related to the value of environment), have been addressed.

The plan recognizes that LAB evaluates a community’s bicycle-friendliness through the “five E’s”: Engineering, Education, Encouragement, Enforcement, and Evaluation and Planning. These E’s, or elements, form an overall framework for Bloomington to work towards and achieve the Platinum Award. The plan identifies and discusses the city’s strengths and opportunities for improvement (identified by LAB) in each element. It then presents targets and actions, with lead and supporting agencies identified, to address the city’s opportunities for improvements. Finally, the plan’s implementation section refines the identified targets and actions into measurable outcomes in time. Implementing and supporting agencies, project costs, general project components and timeline are identified for all projects.

This case study demonstrates that Bloomington, IN is taking a rather bold step in progressing from a Silver (now Gold) BFC to a Platinum BFC. As the plan has identified, obtaining awards ignites community pride and strengthens its ambition to provide the best possible bicycle infrastructure.



**Key Points**

- The 5 Es (Engineering, Education, Encouragement, Enforcement, and Evaluation) provide an overarching framework for the city to plan for improving its bicycle network.
- Having an award, such as the Bicycle Friendly Community Award from the LAB, gives citizens pride and ambition to provide the best possible bicycle infrastructure.

**3.3.2 ANN ARBOR, MI: NON-MOTORIZED TRANSPORTATION PLAN (2013)**

|  |  |
|--|--|
| <b>Population</b>  | <b>Dedicated bicycle planning staff</b>  |
| 113,934 (Census 2010)  | <b>University of Michigan</b> <ul style="list-style-type: none"> <li>• Alternative Transportation Coordinator</li> </ul> |
| <b>Bicycle Friendly Status</b>   | <b>Dedicated bicycle planning committee</b>  |
| <b>City of Ann Arbor</b> <ul style="list-style-type: none"> <li>• SILVER</li> </ul> <b>University of Michigan</b> <ul style="list-style-type: none"> <li>• SILVER</li> </ul> | <b>City of Ann Arbor</b> <ul style="list-style-type: none"> <li>• Alternative Transportation Committee</li> </ul>        |

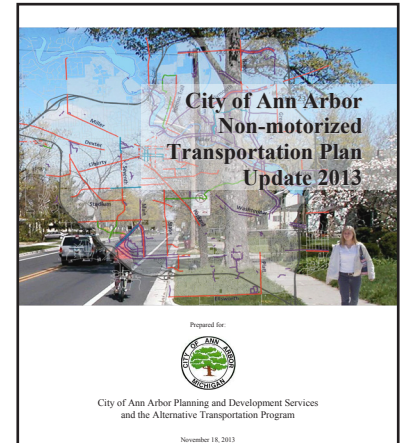
**Table 11** Ann Arbor, MI bike information

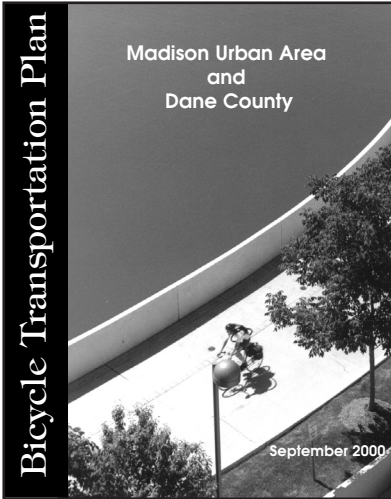
The plan was intended to provide a baseline understanding of the issues non-motorized transportation modes are currently facing and what measures, through policies, programs, and design guidelines, can be taken to improve their facilities. This document also supersedes the City’s 1992 Bicycle Plan, integrated with the City’s Transportation Update, and complements the City’s Park, Recreation and Open Space Plan and Northeast Area Plan. This document is also an update to the 2007 plan of the same name.

This plan is a synthesis of various bicycle and pedestrian planning and design guides, such as the AASHTO Guide for the Development of Bicycle Facilities and AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities, in order to provide insights on how the tools and practices presented in those documents can be applied in Ann Arbor. In addition to providing design guidelines and best practices to improve facilities for non-motorized transportation, this plan also discusses how land use, density, job accessibility, and building form could either contribute or discourage non-motorized transportation. The plan also highlights that the design considerations must be compliant with the American with Disabilities Act (ADA) Standards to ensure people with disabilities are not excluded from the facility design. Lastly, the plan discusses policy and program recommendations that Ann Arbor should consider in promoting a non-motorized transportation system. Each recommendation is given a timeframe to be implemented. The timeframes are: 1 year, 3 years, and 5 years. This is to make the recommendations realistic and achievable.

**Key Points**

- Various documents, such as the AASHTO Guide for the Development of Bicycle Facilities, are good resources to evaluate potential bicycle design improvements.
- The bicycle infrastructure and design should be ADA-compliant in order to be accessible for all types of users.
- The policy recommendations should be time-bound in order to be realistic and implementable.





### 3.3.3 MADISON, WI: BICYCLE TRANSPORTATION PLAN FOR THE MADISON URBAN AREA & DANE COUNTY (2000)

| Population  | Dedicated bicycle planning staff  |
|---|---|
| 233,209 (Census 2010)   | <p><b>City of Madison</b></p> <ul style="list-style-type: none"> <li>• Full-time Pedestrian/Bicycle Coordinator</li> <li>• Full-time Pedestrian/Bicycle Safety Coordinator (mostly works with elementary schools)</li> </ul> <p><b>University of Wisconsin</b></p> <ul style="list-style-type: none"> <li>• Full-time Pedestrian/Bicycle Coordinator</li> </ul> |
| Bicycle Friendly Status   | Dedicated bicycle planning committees   |
| <p><b>City of Madison</b></p> <ul style="list-style-type: none"> <li>• PLATINUM</li> </ul> <p><b>University of Wisconsin</b></p> <ul style="list-style-type: none"> <li>• GOLD</li> </ul> | <p><b>City of Madison</b></p> <ul style="list-style-type: none"> <li>• Pedestrian/Bicycle/Motor Vehicle Commission</li> <li>• Platinum Biking City Planning Committee</li> </ul>  |

**Table 12** Madison, WI bike information

This bicycle plan was prepared to update the 1991 Bicycle Transportation Plan for Madison and Dane County. Currently, the Madison urban area is recognized as one of the most bicycle-friendly communities in the U.S. There is strong public and institutional support for bicycling. For example, the Wisconsin Department of Transportation (WisDOT) Bureau of Transportation Safety offers classes and resources on bicycle safety. The City of Madison’s Department of Transportation employs a full-time Pedestrian/Bicycle Coordinator, who is responsible for facility and policy planning, project reviews, bicycle crash analysis, public relations, education, and coordination between multiple agencies and bicycle organizations. There is also a full-time Pedestrian/Bicycle Safety Coordinator who mostly works with elementary schools. The University of Wisconsin-Madison also employs a full-time Pedestrian/Bicycle Coordinator.

Despite the strong support for bicycling and established bicycle infrastructure, this plan acknowledges that Madison and Dane County can still make more bicycle infrastructure improvements. The plan, like that in Bloomington, IN and LaCrosse, WI, attempts to address bicycling in a comprehensive manner by addressing goals, objectives, and recommendations according to four of the Es (engineering, encouragement, education, and enforcement). To finance and implement bicycle and other transportation planning projects, the projects are scheduled and prioritized through various governmental units’ multi-year capital improvement budgets and the five-year Transportation Improvement Plan (TIP) for the Dane County Area. The plan recommends that local funding should be maximized when possible and have bicycle projects routinely be part of new developments and projects.

#### Key Points

- Strong public and institutional support is needed in fostering bicycle-friendly communities.
- Having full-time bicycle coordinators is critical in integrating bicycling in all of a city’s plans and projects.
- The capital improvement budget is a source of financing bicycle projects.
- Local funding for bicycle projects should be maximized as much as possible.

## 3.4 PEER MIDWEST CITIES REVIEW

### 3.4.1 LACROSSE, WI: BICYCLE AND PEDESTRIAN MASTER PLAN (2012)

The following highlights notable bicycle planning efforts in a city close in population to Urbana (population 41,250): LaCrosse, WI (population 51,320).

| Population  | Dedicated bicycle planning staff   |
|---|--|
| 51,320 (Census 2010)  | <p><b>City of LaCrosse</b></p> <ul style="list-style-type: none"> <li>• Safe Routes to School Coordinator</li> <li>• Bicycle/Pedestrian Coordinator (to be hired)</li> </ul> <p><b>LaCrosse County</b></p> <ul style="list-style-type: none"> <li>• Safe Routes to School Coordinator</li> <li>• Bicycle/Pedestrian Coordinator</li> </ul> |
| Bicycle Friendly Status   | Dedicated bicycle planning committee   |
| <p><b>City of LaCrosse</b></p> <ul style="list-style-type: none"> <li>• SILVER</li> </ul> | <p><b>City of LaCrosse</b></p> <ul style="list-style-type: none"> <li>• Bicycle and Pedestrian Advisory Committee: their purpose is to implement the Bicycle and Pedestrian Master Plan.</li> </ul>  |

**Table 13** LaCrosse, WI bike information

The City of LaCrosse, with a Silver Level Bicycle Friendly Community Award from the League of American Bicyclists (LAB), has become a regional center for active living. The City approved and released this plan as part of its ongoing work to promote active transportation for its residents. Thus, the city aimed to be recognized as a Gold Level bicycle and pedestrian friendly community. Similar to the bicycle plan in Bloomington, IN, LaCrosse examined its transportation network, programs, and policies using the five Es (Engineering, Education, Encouragement, Enforcement, and Evaluation). A comprehensive exhibit of tools and best practices are presented to show what elements the city may utilize to improve its transportation system. They cover unsignalized and signalized intersections, corridor improvements, and bicycle parking improvements.

Furthermore, the plan establishes benchmarks for bicyclists and pedestrians based on the five Es to specifically show what needs to be done in order to achieve the Gold Level awards. Finally, the plan identifies immediate-, short-, and long-term recommendations with estimated costs and responsible agencies. This plan also recommended the City to hire a permanent Bicycle and Pedestrian Coordinator. The case of LaCrosse seems to be similar to that in Bloomington, IN in that both acknowledge the LAB's rating system for bicycle friendly communities as a framework to promote active transportation in their cities and as a means to achieve greater local pride.

#### Key Points

- Best practices at signalized and non-signalized intersections, corridors improvements, and bicycle parking improvements are useful factors in strengthening LaCrosse's bicycle infrastructure and safety.
- In addition to being a policy framework, the 5 Es (Engineering, Education, Encouragement, Enforcement, and Evaluation) can be used as a benchmark to see what the City needs to do in order to receive a higher level Bicycle Friendly Community designation.



### 3.4.2 COLUMBIA, MO (BICYCLE PLAN IN PROGRESS)

Similar to Urbana being the home of Illinois’ flagship university (the University of Illinois), Columbia is also home to Missouri’s flagship university (the University of Missouri). Both are large universities, with student populations of 44,520 and 34,748 respectively. Although Columbia does not currently have a bicycle plan, it has made tremendous improvements in bicycle and pedestrian planning since receiving a \$22.4 million grant in 2006 from the Federal Highway Administration’s (FHWA) Non-Motorized Transportation Pilot Program.

|  |  |
|--|--|
| <b>Population</b>  | <b>Dedicated bicycle planning staff</b>  |
| 108,500 (Census 2010)  | <b>City of Columbia</b> <ul style="list-style-type: none"> <li>• Full-time Bicycle/Pedestrian Coordinator</li> </ul> |
| <b>Bicycle Friendly Status</b>   | <b>Dedicated bicycle planning committee</b>  |
| <b>City of Columbia</b> <ul style="list-style-type: none"> <li>• SILVER</li> </ul> | <b>City of Columbia</b> <ul style="list-style-type: none"> <li>• Bicycle/Pedestrian Commission</li> </ul>            |

**Table 14** Columbia, MO bike information

As part of the Non-Motorized Transportation Pilot Program, the Federal Highway Administration (FHWA) in 2006 awarded the City of Columbia a federal grant of \$22.4 million over a timeframe of four years. This grant was to assist the city in implementing the needed infrastructure for active transportation and encouraging and raising awareness among people to use active transportation. FHWA released a report in 2012 showing the progress the cities have made that are under this program. Between 2007 and 2011, the City of Columbia has experienced:

- 62.9% increase in bicycling and 46.1% increase in walking
- Addition of 100 miles of bike lanes
- 34 miles of marked bike routes implemented
- 1,165 bicycle parking spaces added

Part of the reason why Columbia was able to make this kind of progress was due to strong advocacy groups for active transportation. PedNet is an advocacy organization that promotes active transportation. Prior to the pilot program, PedNet organized a variety of programs to raise awareness and demand for active transportation. Some notable programs are:

- Walk to School Day
- Walking School Bus program – children walk to school under supervision of a trained adult volunteer
- Passport to fitness program
- Cycle-Recycle bicycle donation program for lower-income children

These programs have generated enthusiasm and strong support for greater facilities for walking and biking. Overall, PedNet was instrumental in helping the city to secure the pilot program grant from the FHWA. As PedNet focuses on bicycle education, encouragement, and support; GetAbout Columbia focuses on improving bicycle infrastructure.

Additionally, GetAbout Columbia is the city’s pilot program under the collaboration between the Department of Public Works and Department of Parks and Recreation. It is responsible for conducting engineering and design analysis for relatively large capital projects in order to identify obstacles to implementing these projects and to short-list them for final design and implementation.

In addition to City departments implementing bicycle and pedestrian facilities, the City of Columbia has a Bicycle/Pedestrian Commission. This consists of nine appointed members who have significant knowledge of street construction and maintenance, bicycle safety and infrastructure, and/or interest in pedestrian safety. This body works with the City administration in writing and preparing annual requests for grants, developing programs and methods in educating proper bicycle use, and advising the City in issues related to sidewalks, trails, and walkways. It is currently working with other City departments in developing a bicycle master plan for the City.

Overall, the Non-Motorized Transportation Pilot Program helped the City of Columbia institutionalize planning and funding for non-motorized transportation. Under City departments’ supervision, the bicycle projects and programs will continue after the program ends.

#### Key Points

- The FHWA’s Non-Motorized Transportation Pilot Program helped the City to institutionalize planning and funding for non-motorized transportation.
- Advocacy organizations can be a powerful ally in helping City departments to promote awareness and public support for bicycle and pedestrian infrastructure.
- Having a professional citizen commission for bicycle planning provides additional insights into bicycle/pedestrian planning.

## 3.5 LARGE MIDWEST CITIES REVIEW

### 3.5.1 CHICAGO, IL: STREETS FOR CYCLING PLAN 2020 (2013)

| Population  | Dedicated bicycle planning staff  |
|---|---|
| 2,695,598 (Census 2010)   | <b>City of Chicago</b> <ul style="list-style-type: none"> <li>Bicycle Program Coordinator</li> <li>Bicycle Ambassadors</li> <li>Safe Routes [to School] Ambassadors</li> </ul>                          |
| Bicycle Friendly Status   | Dedicated bicycle planning committee  |
| <b>City of Chicago</b> <ul style="list-style-type: none"> <li>SILVER</li> </ul> <b>University of Illinois at Chicago (UIC)</b> <ul style="list-style-type: none"> <li>BRONZE</li> </ul> | <b>City of Chicago</b> <ul style="list-style-type: none"> <li>Mayor’s Bicycle Advisory Council: meets quarterly to discuss past, present and upcoming bicycling related projects and issues.</li> </ul> |

**Table 15** Chicago, IL bike information

This report provides a comprehensive overview of available bicycle facilities that Chicago neighborhoods can implement to improve and expand their bicycle network. It recognizes that separation between bicycles and vehicles are needed as a road’s posted speed and traffic volume increases. The report presents and reviews different types of bicycle facilities in terms of their benefits, limitations, and under what traffic conditions and land use context these facilities are most suited to be implemented. This plan calls for implementing a hierarchy of spoke routes, crosstown bike routes, and neighborhood bike routes to provide a bicycle accommodation within 1/2 mile of every Chicagoan. This report could serve as a reference to what alternative bicycle facilities are available in updating Urbana’s bicycle network.

#### Key Points

- As traffic volume and speed increases, separation between vehicles and bicyclists becomes more necessary.
- Selecting what bicycle facility to implement depends on the surrounding land-use context and traffic conditions.







### 3.5.2 MINNEAPOLIS, MN: MINNEAPOLIS BICYCLE MASTER PLAN (MBMP) (2011)

| Population  | Dedicated bicycle planning staff   |
|---|--|
| 382,578 (Census 2010)   | <b>City of Minneapolis</b> <ul style="list-style-type: none"> <li>Bicycle Planner, housed in the Public Works Department</li> <li>Pedestrian Planner, housed in the Public Works Department</li> <li>Safe Routes for Youth &amp; Seniors Planner, housed in the Public Works Department</li> <li>Bicycle and Pedestrian Ambassadors</li> </ul> |
| Bicycle Friendly Status   | Dedicated bicycle planning committees  |
| <b>City of Minneapolis</b> <ul style="list-style-type: none"> <li>GOLD</li> </ul> <b>University of Minnesota</b> <ul style="list-style-type: none"> <li>PLATINUM</li> </ul> | <b>City of Minneapolis</b> <ul style="list-style-type: none"> <li>Bicycle Advisory Committee (BAC)</li> </ul> <b>Hennepin County</b> <ul style="list-style-type: none"> <li>Bicycle Advisory Committee (BAC)</li> </ul>  |

**Table 16** Minneapolis, MN bike information

The City of Minneapolis released the MBMP to supersede the City’s 2001 Bikeways Master Plan and the 2001 5-Year Bikeways Plan. The plan’s purpose is to introduce goals, objectives, and benchmarks to improve bicyclists’ safety, mobility, and to increase the number of bicyclists. The MBMP first examined the bicycle networks’ existing conditions in terms of its historical and policy framework, physical character, and the bicycle industry. The master plan also conducted a needs analysis based on the 5 Es (Engineering, Education, Encouragement, Enforcement, and Evaluation) the League of American Bicyclists (LAB) introduced to identify existing problems. From these, the MBMP recommends the City to achieve lower bike crashes/injuries and fatalities and reduced bike theft. It also recommends that Minneapolis should add 300 bicycle parking spaces through the City’s 50-50 cost sharing program with schools, community groups, businesses, multi-unit residential properties, and places of worship. The city’s bike sharing program (Nice Ride) needs to be expanded; its number of stations should be doubled by 2015. Finally, all residents should be within 1 mile from a trail, ½ mile from a bike lane, and ¼ mile from a signed bike route by 2020.

Furthermore, the City has a Bicycle Program that is part of the Public Works Department. It is responsible for educating the public on bicycling through the Bicycle and Pedestrian Ambassador Program, implementing new projects through the Non-Motorized Transportation Pilot Project, producing the Annual Bicycle Map, and conducting bicycle counts annually. The City also has a Bicycle Advisory Commission that advocates bicycling to city officials and residents.

#### Key Points

- Conducting a Needs Analysis can be beneficial in identifying problems and gaps within the existing bicycle network.
- Public-private partnerships, such as the City of Minneapolis’s 50-50 cost sharing program, are possible measures to increase bicycle parking in the city.
- A performance measure to evaluate a bicycle system’s level of accessibility is to establish distances all residents should be from different types of bicycle facilities.

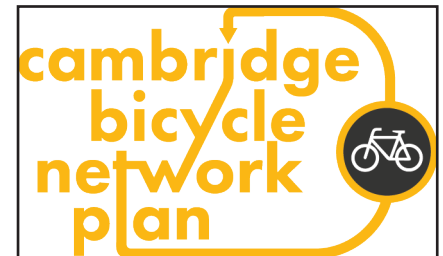
## 3.6 MODEL U.S. CITIES REVIEW

### 3.6.1 CAMBRIDGE, MA: BICYCLE NETWORK PLAN (2014 DRAFT)

| Population   | Dedicated bicycle planning staff  |
|--|---|
| 105,162 (Census 2010)  | <b>City of Cambridge</b> <ul style="list-style-type: none"> <li>Full-time Bicycle and Pedestrian Program Coordinator</li> </ul> |
| Bicycle Friendly Status  | Dedicated bicycle planning committee  |
| <b>City of Cambridge</b> <ul style="list-style-type: none"> <li>GOLD</li> </ul> <b>Harvard University</b> <ul style="list-style-type: none"> <li>GOLD</li> </ul> <b>Massachusetts Institute of Technology (MIT)</b> <ul style="list-style-type: none"> <li>SILVER</li> </ul> | <b>City of Cambridge</b> <ul style="list-style-type: none"> <li>Bicycle Committee</li> </ul>                                    |

**Table 17** Cambridge, MA bike information

The City of Cambridge drafted a Bicycle Network Plan in 2014. Public input was collected via a survey, WikiMap, paper map sessions throughout the city, and an open house. A Bicycle Level of Comfort Index, crash maps, project planning and implementation were used to create a draft Bicycle Network Priority Map and Plan. This draft Bicycle Priority Network (BPN) identifies streets and paths which provide direct connectivity between neighborhoods and key jurisdictions within Cambridge and adjacent jurisdictions.



Cambridge has long been strongly committed to promoting non-motorized modes of transportation. The city has conducted bicycle counts since Fall 2001 in the morning and afternoon peak travel hours, and concluded that on some corridors, bicycling accounts for 10-30% of all trips. Also, bicycle trips at AM and PM peak hours tripled between 2002 and 2012.

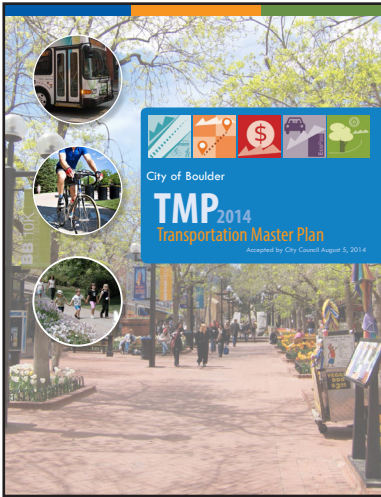
Cambridge has established policies to promote bicycling. One of them is the Cambridge Vehicle Trip Reduction Ordinance (1992). This ordinance established the Bicycle and Pedestrian Mobility Program, which is required and responsible for designing and implementing programs to encourage people to walk and bike as an alternative to traveling by single-occupancy vehicles. Another major policy is the Cambridge Growth Policy Document. One of its policies is to have the City encourage all reasonable forms of non-motorized modes of transportation. An example to achieve this is improving the city's infrastructure that promotes bicycling and walking. These policies conform to the regional- and state-level policies of promoting non-motorized transportation. Additionally, the City has a set of guidelines for developing bicycle facilities. Some of the guidelines are:

- Managing bicycle circulation so it will minimize modal conflict;
- All roadway projects should consider bicycle improvements;
- The city will support bicycle encouragement and safety programs; and
- The bicycle facilities will be built to accommodate bicycling for commuting and recreational purposes.

Bicycle parking is a major issue in Cambridge. The City's 2000 Pedestrian Plan provided recommendations on designing bicycle parking on sidewalks to minimize its disruption to pedestrians. Despite this, there is limited space on sidewalks to accommodate bicycle parking. Thus, the City selects and utilizes several on-street public parking spaces to install bicycle parking stalls. The City stores these stalls during winter months. Furthermore, the City has installed wayfinding signs to provide bicyclists a direct yet enjoyable route (mostly on bike lanes, off-street paths, and local streets) between popular bicycle destinations.

Finally, the City of Cambridge has a Bicycle Committee. The City Council formed this in 1991, and this committee is comprised of community members and staff from the City's Community Development Department; the Department of Traffic, Parking, and Transportation; the Police Department; and the Department of Public Works. They are actively interested in bicycling issues within the city. Some of their duties include:

- Review road construction plans
- Comment on bicycle-related ordinances
- Organize and participate in public events
- Create materials to encourage bicycling in the city



### 3.6.2 BOULDER, CO: TRANSPORTATION MASTER PLAN (TMP) (2014)

Similar to Urbana being the home of Illinois’ flagship university (the University of Illinois), Boulder is also home to Colorado’s flagship university (the University of Colorado).

| Population  | Dedicated bicycle planning staff   |
|---|--|
| 97,385 (Census 2010)  | <b>City of Boulder</b> <ul style="list-style-type: none"> <li>Bicycle and Pedestrian Transportation Planner/Coordinator</li> </ul> <b>Boulder County</b> <ul style="list-style-type: none"> <li>Bicycle Planner/Employee Transportation Coordinator</li> </ul> |
| Bicycle Friendly Status   | Dedicated bicycle planning committee   |
| <b>City of Boulder</b> <ul style="list-style-type: none"> <li>PLATINUM</li> </ul> | <b>City of Boulder</b> <ul style="list-style-type: none"> <li>Transportation Advisory Board</li> </ul>   |

**Table 18** Boulder, CO bike information

The City of Boulder completed its fourth update of the Transportation Master Plan (TMP) in 2014. As a Platinum Level Bicycle Friendly Community, biking in Boulder has remained one of the most effective modes of travel. The average bike trip length in Boulder is four miles, and most of Boulder residents’ trips can be done on bike.

The city is aiming to complete a grid-based network of primary and secondary bicycle corridors. Among the former is multi-modal corridors. They are vital corridors that accommodate cars, buses, bicycles, and pedestrians, and they connect with important destinations across the city and with the regional transportation system. Also, the city is aiming to add another 92 miles of bike lanes, routes, and shoulders. The new facilities will be used to fill in the missing gaps and expand the bicycle network. The city has constructed eleven pedestrian/bicycle underpasses since 1990, and it is planning to install 55 more to reduce interruptions to bicycling.

The City of Boulder is planning to work with other governmental entities, property owners, and developers to ensure that commercial, public, mixed-use, and multi-unit residential sites provide convenient and safe internal bicycle circulation. Circulation must be within the line-of-sight from site entrances and connections to other areas.

Additionally, the City recognized that federal and state funding is becoming more constrained while roadway maintenance is becoming more expensive. Over time, more funding will be directed towards maintenance rather than to enhancements. The City is planning to resurface roads, especially high-volume streets and intersections, with concrete, which has a longer life expectancy. This will help reduce long-term maintenance costs. Yet, more local funding sources are needed to implement future transportation projects. Some possibilities are:

- Increase sales tax by 2%.
- Implement a greenhouse gas emission tax of \$2.30 per metric ton of CO<sup>2</sup> equivalent.
- Implement a head tax of \$4 per employee per month.

#### Key Points

- Multi-modal corridors are essentially the city’s skeletal network for bicycling.
- Underpasses provide uninterrupted access to bicyclists through barriers, such as roads and railroads.
- Internal bicycle circulation within private properties encourages biking and expands the bicycle network.
- Maintenance costs are becoming more prevalent than enhancement costs, so roadways will be retrofitted with concrete as it has a longer life expectancy.
- Maximize local funding as much as possible.

### 3.6.3 PORTLAND, OR: PORTLAND BICYCLE PLAN 2030 (PBP) (2010)

| Population  | Dedicated bicycle planning staff  |
|---|---|
| 583,776 (Census 2010)   | <b>City of Portland</b> <ul style="list-style-type: none"> <li>• Full-time Bicycle Coordinator</li> <li>• Active Transportation Division staff</li> </ul>                                 |
| Bicycle Friendly Status   | Dedicated bicycle planning committee  |
| <b>City of Portland</b> <ul style="list-style-type: none"> <li>• PLATINUM</li> </ul> <b>Oregon Health &amp; Science University</b> <ul style="list-style-type: none"> <li>• GOLD</li> </ul> <b>Portland State University</b> <ul style="list-style-type: none"> <li>• PLATINUM</li> </ul> | <b>City of Portland</b> <ul style="list-style-type: none"> <li>• Bicycle Advisory Committee: meets monthly to review projects of interest to cyclists and discuss bike issues.</li> </ul> |

**Table 19** Portland, OR bike information

Bicycling is considered to be a fundamental pillar in Portland’s transportation system. This is evident as bicycling accounts for more than a quarter of all daily trips in Portland. Also, in 2008 the League of American Bicyclists awarded Portland the Platinum Level Bicycle Friendly Community award.

The Portland Bicycle Plan (PBP) intends to plan and design for those who are not bicycling yet and create conditions and incentives that make bicycling a more appealing mode of transport for short trips. Also, part of the PBP was an Equity Report that shows the gaps and underserved areas in the City’s bicycle network. In short, the PBP aims to expand the planned bicycle network of 630 miles to 962 miles by 2030. To achieve this, the PBP recommends that Portland implement safe, appealing, and higher capacity bikeways that would serve all types of users and buildings. The PBP also recommends promoting a dense/concentrated and cohesive bicycle network so that all Portland residents can easily access a bicycle route and go where they want to go.



Based on these strategies, the PBP recommends actions to strategically implement projects and to achieve the plan’s intention. It will be essential to amend the city’s Transportation System Plan to reflect the PBP’s new bicycle classification system and other transportation policies. Multiple funding sources are needed to increase funding for green and active transportation. Additionally, there needs to be a street design guide/manual that incorporates bicycle design guidelines. The city needs to expand its encouragement programs to further increase bicycling. This can be done through providing services and equipment, supporting behavioral change, raising awareness, and creating incentives to bike. Furthermore, it is important to build the bicycle network as much and as quickly as possible. Underserved areas must have easy access to the bicycle network and facilities.

#### Key Points

- A Gap/Needs Analysis is beneficial in identifying where the city’s bicycle network is underserving residents, which is an obstacle to an equitable transportation network.
- There needs to be a street design manual to standardize the bicycle facilities in a city.
- Portland is aiming to create a network consisting of dense and concentrated areas with bicycle facilities to allow people to bike where they want to go.



### 3.6.4 DAVIS, CA: BEYOND PLATINUM - BICYCLE ACTION PLAN (2013)

Like Urbana, Davis is a small city home to a large state university, the University of California (UC) at Davis, with a student population of 33,300.

| Population  | Dedicated bicycle planning staff   |
|---|--|
| 65,622 (Census 2010)  | <b>City of Davis</b> <ul style="list-style-type: none"> <li>Active Transportation Coordinator</li> <li>Active Transportation Specialists</li> </ul> <b>University of California at Davis</b> <ul style="list-style-type: none"> <li>Bicycle Coordinator</li> </ul> |
| Bicycle Friendly Status   | Dedicated bicycle planning committee   |
| <b>City of Davis</b> <ul style="list-style-type: none"> <li>PLATINUM</li> </ul> <b>University of California at Davis</b> <ul style="list-style-type: none"> <li>PLATINUM</li> </ul> | <b>City of Davis</b> <ul style="list-style-type: none"> <li>Bicycling, Transportation, and Street Safety Commission</li> </ul>   |

**Table 20** Davis, CA bike information

The Beyond Platinum Bicycle Action Plan is an active transportation plan that focuses on bicycling as the primary mode, and also integrates walking and transit. The City of Davis developed a bicycle plan in 2009, but this updated plan is implementation-focused and includes a package of infrastructure projects, programs, and pro-bicycle policy work in order to further improve bicycle transportation and recreation in and around Davis.

Davis is known for its aggressive planning for bicycles and a strong bicycle culture that it has had since the 1960s. In an area of about 10 square miles, the city has about 54 miles of on-street bike lanes and 55 miles of separated shared-use paths. 98% of the city’s arterial streets have bike lanes. 19% of all journey-to-work trips are by bike, and 20-25% of all trips in Davis are by bike.

The four main goals of this plan dovetail with the goals and objectives of the Davis General [Comprehensive] Plan and the Transportation Element: developing and maintaining a community of safe, confident, and comfortable cyclists; offering a complete, seamless, and integrated on and off street bikeway network accessible and comfortable to people of all of ages and abilities; integrating cycling with local and regional transit; and obtaining a Diamond Level Bicycle Friendly Community designation.

The City of Davis presents its policy overview and recommendations based on the 5 Es of Engineering, Education, Encouragement, Enforcement, and Evaluation and Planning. One key engineering recommendation is for the City to install wayfinding signage and markings to guide bicyclists through preferred corridors and to key destinations. The Ride Walk Davis program is designed to encourage everyone from young children to senior citizens to choose biking as their means of transportation, through programs like Bicycle Ambassadors and Senior Travel Training. Regarding evaluation, the City will increase collaboration with UC Davis and utilize cutting edge transportation research the university is producing to ensure that evidence-based strategies are prioritized when deciding between program and infrastructure alternatives.

This plan also presents two new Es: Equity, and Enjoyment. Recommendations to achieve equity include the City distributing free or low-cost bikes to families in need, and teaching adult bike education classes. The City recognizes that the enjoyment of bicycling is the best motivation for people to embrace it as a lifelong activity, and the plan recommends community bike rides and promoting bike tourism.

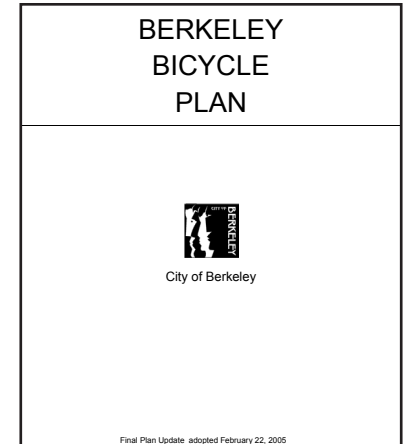
#### Key Points

- The City of Davis has aggressive policies in promoting bicycling and a strong bicycling culture.
- Installation of wayfinding signage can guide bicyclists through preferred corridors and to key destinations.
- A comprehensive encouragement program can promote bicycling to people of all ages.
- The City should take advantage of its proximity to the University to prioritize and evaluate bicycling improvements.
- The enjoyment of bicycling can be the best motivation for people to embrace it as a lifelong activity.



### 3.6.5 BERKELEY, CA: BERKELEY BICYCLE PLAN (BBP) (2005)

| Population  | Dedicated bicycle planning staff   |
|---|--|
| 112,580 (Census 2010)   | <b>City of Berkeley</b> <ul style="list-style-type: none"> <li>Bicycle &amp; Pedestrian Planner, Associate Planner housed in the Transportation Division of the Public Works Department. 50% of time is allocated to bicycling planning, 50% of time is allocated to pedestrian planning.</li> </ul> |
| Bicycle Friendly Status   | Dedicated bicycle planning committees  |
| <b>City of Berkeley</b> <ul style="list-style-type: none"> <li>No designation</li> </ul> <b>University of California</b> <ul style="list-style-type: none"> <li>SILVER</li> </ul> | <b>City of Berkeley</b> <ul style="list-style-type: none"> <li>Transportation Commission</li> </ul> <b>University of California</b> <ul style="list-style-type: none"> <li>Campus Bicycle Committee</li> </ul>   |



**Table 21** Berkeley, CA bike information

The City of Berkeley released its Bicycle Plan in 2000 with the goal of creating a model bicycle-friendly city where bicycling is an attractive, easy, safe, and convenient mode of transportation and recreation for people of all ages and abilities. The 2005 Berkeley Bicycle Plan Update is an addendum to the 2000 Berkeley Bicycle Plan, and is only meant to reaffirm the 2000 Plan as a relevant document, to update certain elements of the 2000 Plan, and to provide supplementary information to the 2000 Plan.

The BBP is a policy document that has been incorporated into Berkeley’s General [Comprehensive] Plan. The BBP covers four key elements: planning, network and facilities, education and safety, and promotion and implementation. There are limited opportunities to provide bike-only routes due to the city’s built-out nature, but there are efforts to improve and expand the existing bicycle facilities and network.

The BBP covers various methods on how to make roadways more accommodating to bicyclists. One of them is establishing a skeletal network of seven “bicycle boulevards” to encourage bicyclists who are intimidated by higher traffic volumes to try bicycling. Furthermore, the BBP aims to expand bicycle education and promotion programs. Such programs should be integrated into school curricula. Raising awareness of traffic safety to adults, bicyclists, and commuters would also improve the overall level of traffic safety. In terms of promotion, employer-based programs are identified as the most effective in incentivizing people to bike. The City of Berkeley, as a major employer, would be a model for other businesses to follow.

#### Key Points

- Bicycle boulevards help form a skeletal network for bicycling. They are dedicated biking space on roads with higher traffic volumes in order to provide safety and comfort to bicyclists biking on busier roads.
- An effective way to encourage people to bike is through employer-based programs. The City, as an employer, would be a model for other businesses to follow.