

Bikeway Master Plan

City of Elgin

January 2008



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I. Executive Summary

The City of Elgin has made it a priority to be a bicycle friendly community. By developing the *Bikeway Master Plan*, the City is providing a comprehensive and systematic approach to support and encourage a bicycle network throughout the City and within the region. The *Plan* supports the City's "Green Initiative" and stated goal to be a "sustainable city".

The *Plan* involves the creation and development of new on-street bicycle facilities, off-street trails, bicycle amenities, and provides guidance on implementation and funding. The *Plan* provides recommendations for all neighborhoods within the municipal boundaries of the City of Elgin, as well as, outside the City's limits within the 1.5 mile planning boundary. The boundaries of the *Plan* are roughly, IL Route 47 on the west, Interstate 90 on the north, Shales Parkway on the east, and Silver Glen Road on the south.

Needs Assessment

Elgin already has a large bicycling community of all different skill levels and interest. The presence of the Fox River Trail and the Elgin Branch of the Illinois Prairie Path makes it ideal for biking along the Fox River to points within and outside of the City. The majority of Elgin has been designed as a traditional City with streets laid out in a grid like pattern making it easier to provide a network of bikeways that provide connectivity to important destinations. Additionally, the fact that the City has already been proactive in establishing multi-use trails in new subdivisions lays a strong groundwork in promoting bicycling in all areas of City.

The skills, confidence and preferences of bicyclists vary dramatically. No single type of bicycle facility will accommodate all types of bicyclists. Each level of rider will require different types of bikeway treatments. By establishing and implementing good design practices, the City will create attractive, inviting facilities that will encourage more people of every level to bike more often.

Design Consideration

The term "bikeway" means any road, street, path, or travelway, which in some manner is specifically designated as being available to bicycle travel, regardless of whether such facilities are designated for the exclusive use of bicycles or are to be shared with other transportation modes. Four types of bikeways were reviewed and recommended for the *Bikeway Master Plan*. They are:

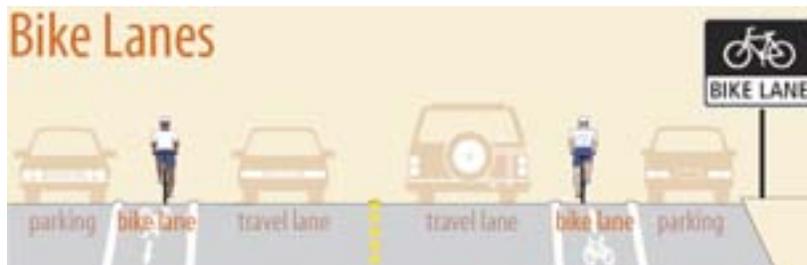
1. Signed Bike Routes
2. Bike Lanes
3. Marked Shared Lanes
4. Multi-Use Trails

Signed bike routes are specially designated shared roadways that are preferred for bicycle travel for certain recreation or transportation purposes. Bike routes are typically on streets that are not wide enough for bike lanes but are good streets for biking. Signage is provided to direct bicyclists in certain directions or to certain destinations. Cars and bicycles share the same lane.



Source: City of Chicago "Chicago Bike Map: Streets for Cycling"

Bike lanes serve the needs of all types of cyclists in urban and suburban areas, providing them with their own travel lane on the street surface. Bike lanes are usually established on streets with higher volumes of traffic. Special pavement markings and signs identify the lanes.



Source: City of Chicago "Chicago Bike Map: Streets for Cycling"

Marked shared lanes are recommended when bike lanes cannot be accommodated. Pavement designation as a shared travel lane alerts a driver as to the presence of bicyclists and to share the lane with bicyclists.



Source: City of Chicago "Chicago Bike Map: Streets for Cycling"

Multi-use trails, also called shared use paths, are paths separated from the road for bicyclists, walkers, runners, and in-line skaters. The term "sidepath" indicates a shared use path immediately paralleling the roadway. Sidepaths can also be used in combination with on-road treatments.



Source: City of Chicago "Chicago Bike Map: Streets for Cycling"

Proposed Bicycle Facility Network

By selecting a mostly grid system that allows for bikeways approximately every four blocks, the bikeway network can maintain direct access to many destinations throughout the City. The types of streets vary within the bikeway network. Major arterials were avoided if possible. Collectors and minor arterials were utilized because they provided the most direct routes to destinations. Residential streets with low traffic volumes and low speeds compose the balance of the bikeway network as these are the streets that access neighborhood services such as schools and parks.

Three different categories were developed for the *Bikeway Master Plan*: Primary Bikeways, Secondary Bikeways, and Off-Street Trails.

Primary bikeways have the following criteria:

- Primary objective is to provide a direct path of travel on minor arterials or collector streets
- Primary bikeways are “transportation” focused (rather than recreational focused)
- Each primary bikeway provides an interface with the secondary bikeways, allowing for a grid like bikeway network
- Primary bikeways should be treated with bike lanes or marked shared lanes depending on street width, traffic volumes, and traffic speed
- Sidepaths can also be proposed in addition to on-street treatments or in lieu of on-street treatments; however, it is preferable that on-street treatments be provided when a sidepath is proposed in order to accommodate all types of users
- Existing sidepaths have been noted as primary bikeways on the *Plan* map

Secondary bikeways have the following criteria:

- The main objective is to provide for circulation within and between neighborhoods in order to access neighborhood services such as schools and parks.
- Secondary bikeways are both “recreational” and transportation focused
- Each secondary bikeway provides an interface with the primary bikeways
- Secondary bikeways should be signed as bike routes
- A sidepath can be provided to accommodate children or other types of users (e.g.in-line skaters)

Off-street trails are proposed through parks, forest preserves, waterways, and along utility easements.

Implementation

As part of the *Elgin Bikeway Master Plan*, one of the implementation recommendations is for the City to adopt a “complete streets policy” so that as transportation plans are funded and improved, there is formal guidance in place. Bicycle and pedestrian enhancements should be part of all development and transportation projects including wide outer lanes, bicycle friendly drainage grates, traffic signal actuation devices, paved shoulders, and other amenities. The City should work with the Illinois Department of Transportation (IDOT) and the Kane County Division of Transportation (KDOT) to encourage bikeway improvements on state and county roads within the city limits. In addition, the City should adopt policies and make revisions to their subdivision and zoning ordinances in order to have a formal plan in place that requires bicycle facilities as part of any new development.

Encouraging bicycling is a simple way towards improving public health. With more people bicycling, communities experience reduced traffic demands, improved air quality and greater physical fitness. In addition, bicycle-friendly towns are often seen as places with a high quality of life. This can translate into increased property values, business growth and increased tourism.

Education of both bicyclists and motorists is crucial to improving real and perceived bicycling safety in Elgin. Many bicyclists are concerned about safety when riding on the streets. By providing educational programs and resources targeting both motorists and bicyclists, many residents’ concerns could be alleviated. The distribution of educational pamphlets, in-school safety lectures by law enforcement authorities, website pages, and bicycling seminars by the City, Parks and Recreation Department, and schools, can help alleviate the concerns and improve safety.

Implementation of the *Plan* can begin one route at a time. The *Plan* has recommendations for one route in each quadrant of the City (i.e. NW, NE, SW, SE) where the City can concentrate their resources in order to begin the implementation process.

There are various ways to pay for bikeway improvements. Recommendations in this *Plan* range from low-cost improvements to major capital investments. Funding can take place via local funds and programs, state funds or public-private partnerships.

II. Introduction

The City of Elgin has made it a priority to be a bicycle friendly community. By developing the *Bikeway Master Plan*, the City is providing a comprehensive and systematic approach to support and encourage a bicycle network throughout the City and within the region. The *Plan* supports the City's "Green Initiative" and stated goal to be a "sustainable city". *Plan* recommendations will be incorporated into the City's proposed Green Master Plan that will be developed in 2008.

The *Plan* involves the creation and development of new on-street bicycle facilities, off-street trails, bicycle amenities, as well as, provides guidance on implementation and funding. The *Plan* was developed from input received from the public, an Advisory Committee, and the project team. The *Plan* provides recommendations for all neighborhoods within the municipal boundaries of the City of Elgin, as well as, outside the City's limits within the 1.5 mile planning boundary. The boundaries of the *Plan* are roughly, IL Route 47 on the west, Interstate 90 on the north, Shales Parkway on the east, and Silver Glen Road on the south.

A. Plan Goals and Objectives

The following goals and objectives were established for the *Plan*.

GOAL 1: Be recognized as a "bicycle friendly community"

Objective 1:

Become certified with the League of American Bicyclists "Bicycle Friendly Community" program

GOAL 2: Promote bicycling as an alternative form of transportation

Objective 1:

Encourage bicycle and pedestrian enhancements as part of all new residential and commercial developments, roadway improvements and transportation projects

Objective 2:

Encourage the development of "end of trip facilities" such as short and long-term parking, showers and changing facilities

Objective 3:

Incorporate bicycle and pedestrian accommodations into development regulations and development review procedures

GOAL 3: Encourage and promote bicycling as a safe, convenient, and pleasurable means of travel

Objective 1:

Provide bicycle routes and pathways for all ages and skill levels

Objective 2:

Encourage safe riding by making appropriate street improvements, installing signage and pavement markings, and directing bicyclists to safe paths of travel

Objective 3:

Apply facility design techniques that limit conflicts between bicyclists, pedestrians, and motorists

GOAL 4: Provide access to all areas of the City and to the regionally coordinated network

Objective 1:

Employ the “no neighborhood should be left behind” rule when planning bikeways

Objective 2:

Allow for interconnectivity among neighborhoods

Objective 3:

Complete missing gaps in existing bikeways and street infrastructure to allow for connections between major trip generators, including the downtown, commercial areas, transit commuter stations, parks and forest preserves, the Fox River Trail and destinations outside of the City

Objective 4:

Provide access across barriers including major roadways, highways, railroads, and the Fox River

B. Plan Coordination

The planning process was guided by an Advisory Committee consisting of residents, City staff and elected officials. A list of Advisory Committee members is located in Appendix A. The committee met with the project team on a regular schedule to discuss:

- Overview of project tasks and approach
- Plans for public involvement
- Public comments collected to date
- Review of preliminary network recommendations

C. Agency Involvement

There are several agencies that will have a direct role in the coordination and implementation of this *Plan*. They include:

- City of Elgin Public Works Department
- City of Elgin Community Development Department
- City of Elgin Parks and Recreation Department
- Kane County Forest Preserve District
- Kane County Division of Transportation
- Cook County Highway Department
- Illinois Department of Transportation
- Illinois Department of Natural Resources
- Illinois Toll Highway Authority

III. Federal, State and Local Plans and Regulations

A variety of federal, state, regional and local agencies have involvement in planning, policy guidance, design and financing of bicycle facilities. There are also a variety of advocacy organizations that promote bicycling. The following describes federal, state, regional, and local programs.

A. Federal Agencies

1. Federal Highway Administration (FHWA)

To implement the non-motorized provisions of the Safe Accountable Flexible Efficient Transportation Equity Act (SAFETEA-LU), the FHWA has released policy guidance regarding bicycle and pedestrian policies. Recommended applicable policies include the following:

- Bicycle and pedestrian ways be established in new construction and reconstruction projects in all urbanized areas unless 1) prohibited by law...2) the cost of establishing bikeways or walkways would be excessively disproportionate to the need or probable use...3) where scarcity of population or other factors indicate an absence of need...
- The design and development of the transportation infrastructure shall improve conditions for bicycling and walking throughout the following additional steps: 1) the design and construction of new facilities...should anticipate likely future demand for bicycling and walking facilities and not preclude the provision of future improvements...2) address the need for bicyclists and pedestrians to cross corridors as well as travel along them... therefore, the design of intersections and interchanges shall accommodate bicyclists and pedestrians in a manner that is safe, accessible, and convenient...and 3) design of facilities for bicyclists and pedestrians should follow design guidelines and standards that are commonly used, such as AASHTO's "*Guide for the Development of Bicycle Facilities*", AASHTO's "*A Policy on Geometric Design of Highways and Streets*" and the ITE Recommended Practice "*Design and Safety of Pedestrian Facilities*".

2. American Association of State Highway and Transportation Officials (AASHTO)

The American Association of State Highway and Transportation Officials (AASHTO) is a nonprofit, nonpartisan association representing highway and transportation departments in the 50 states, the District of Columbia, and Puerto Rico. It represents all five transportation modes: air, highways, public transportation, rail, and water. Its primary goal is to foster the development, operation, and maintenance of an integrated national transportation system. AASHTO provides a resource for providing a safe bicycling environment, "*Guide for the Development of Bicycle Facilities*". The manual describes an overview of planning considerations for bicycles; a discussion of types of facility improvements and a description of factors to consider when locating a facility; provides guidelines to follow when constructing or improving roadways or highways; and provides recommendations for the operation and maintenance of bicycle facilities. The manual states that for construction of bicycle facilities, state and local construction specifications should be used.

B. State Agencies

State of Illinois

The State of Illinois has released a transportation plan entitled *Connecting Illinois: the Illinois State Transportation Plan*. The plan identifies anticipated trends, needs and issues that will affect transportation service and demand in the next 25 years. In addition, the plan sets long-range goals, priorities, and policies for developing future transportation programs with specific projects within the parameters of realistic funding resources. The policies that are related to bicycle planning include:

- Promote safe and convenient travel facilities for pedestrians and bicyclists
- Encourage programs to reduce the use of single occupant vehicles where other options are feasible and can be made available
- Evaluate all potential transportation systems and modes, singularly and in combination, to solve transportation problems
- Ensure that the design of new facilities includes evaluation of the potential for accommodating multiple modes to assure future flexibility for intermodal development
- Promote use of public transportation, railroads, carpools, vanpools, bicycles, walking, and telecommunications to reduce transportation-related energy consumption

The Illinois Department of Transportation (IDOT) establishes uniform policies and procedures for the construction of transportation facilities. The *Bureau of Design and Environmental Manual* includes standards for pedestrian and bicycle accommodations. Guidelines are detailed for sidewalk construction, on-road bicycle improvements, and separated bicycle facilities among a variety of other established roadway design standards.

IDOT also sponsors the "Safe Routes to School" (SRTS) program. This concept began in the 1970's in Odense, Denmark over concern for the City's pedestrian accident rate. The result of the initiative was to provide a number of improvements including a network of pedestrian and bicycle paths. The concept came to the United States in 1997. In August 2005, federal transportation legislation devoted \$612 million which included funds to the State of Illinois Safe Routes to School Program. This program is administered by the Illinois Department of Transportation (IDOT) to fund both infrastructure improvements to the physical environment as well as non-infrastructure improvements to enable and encourage children to walk and bicycle to school.

C. Regional Agencies

1. Kane County

Kane County has a significant network of existing regional bicycle trails and many shorter local trails, including along abandoned railroad rights-of-way and the Fox River. There are 85 miles of regional trails in Kane County including a branch of the Fox River Trail and the Illinois Prairie Path (which connects with the Fox River Trail in the City of Elgin).

Kane County has recognized walking and biking as great recreation and an alternative form of transportation, and has taken action to improve conditions for bicyclists and pedestrians. The Division of Transportation has a full-time staff member dedicated to bicycle and pedestrian planning, and bicycle and pedestrian accommodations are now incorporated into road improvements.

In August 2000, the Kane County Council of Mayors, Kane County Division of Transportation, and the Kane County Forest Preserve District initiated the *Kane County Bicycle and Pedestrian Plan*. The goals of the plan are as follows:

- Develop a regionally coordinated network of non-motorized facilities and coordinate bicycle and pedestrian facilities through sub-regional and local actions
- Improve the inter-modal efficiency of the transportation system by enhancing the connections between non-motorized and motorized modes
- Improve bicycle and pedestrian safety
- Incorporate bicycle and pedestrian elements into transportation, land use, and development planning and implementation actions on local levels

As Kane County continues to grow, proper bikeway planning is critical to ensure that developments and the roadways that serve them are as bicycle and pedestrian friendly as possible. Also, planning is needed to ensure that a system of bikeways is planned and documented to guarantee that future visions for a system are clearly recognized by all parties involved in planning and development for the region.

2. Chicago Metropolitan Agency for Planning (CMAP)

CMAP is the regional planning agency and MPO (metropolitan planning organization). A number of strategies were officially adopted as part of the *2030 Regional Transportation Plan* (RTP) that could directly affect the environment for bicycle and pedestrian travel. These strategies include coordinating transportation and land use with the recommendation that communities should offer a variety of transportation choices. The RTP also recommends pursuing several strategies oriented at bicycle and pedestrian transportation, including "Safe Routes to School", encouraging community members and government officials to work together to make streets safer for pedestrians and bicyclists. In addition, the plan encourages shared use multi-modalism, stating that improvements pursued under strategic regional transportation systems should subscribe to principles of shared use in terms of design and implementation.

A separate planning study performed by CMAP, was the *Soles and Spokes Plan*, the first pedestrian and bicycle plan for northeastern Illinois. The *Plan* recommends policies and projects to improve the safety, convenience, and frequency of walking and cycling throughout the region.

D. Local Agencies

1. Elgin Community Development Department

a. Elgin Comprehensive Plan 2005

During the Comprehensive Planning process, bicycle routes were a priority consideration as part of the Transportation Plan. The stated purpose of the Transportation Plan is to meet the current and future needs of all Elgin residents and visitors and to be equitable by being accessible to all economic segments of the City to make people's lives more convenient. The stated goal of the Transportation Plan is to:

- Protect and enhance the environment
- Conserve natural resources including energy and land
- Provide a wider and more balanced choice of accessible transportation alternatives
- Better response to the transportation needs of the majority of current and future residents

A component of the Comprehensive Plan specific to bicycle and pedestrian access is the *Bicycle and Pedestrian System Plan*. The *Bicycle and Pedestrian System Plan* has as its goal setting a framework and guidance for the development of facilities and other accommodations to enhance safe bicycling and pedestrian travel throughout the Elgin planning area. The plan offers recommendations for both physical improvements and programs aimed at improving bicycle and pedestrian facilities and safety. The conceptual routes that were introduced as part of the Comprehensive Plan as well as during the public involvement sessions called "Popcorn and Planning" and "Popcorn and Pedaling" were considered and recommendations are incorporated into this *Plan*. The *Bicycle and Pedestrian System Plan* developed as part of the Comprehensive Plan is presented in *Appendix B*. The goals and objectives expressed as part of the *Transportation Plan* of the 2005 Comprehensive Plan are displayed in *Appendix C*.

b. Elgin Subdivision Regulations

The City's Subdivision Regulations do not require bicycle paths or bicycle lanes as part of new developments. However, the regulations have a provision in the *Block Standard* that states:

1. Blocks of any length may require pathways. The use of pathways to provide pedestrian access to nearby schools, parks or other public facilities serving residents of the subdivision may reasonably be required by the City Council.
2. Blocks must fit readily into the overall plan of the subdivision and their design must evidence consideration of topographical conditions, lot planning, traffic flow and open space areas.

Pathways in number 1 above are described as:

Pedestrian pathways shall have a right-of-way width of at least 10-feet and a paved surface of at least 6-feet with appropriate landscaping and screening along side boundary lines as determined by the Planning Department.

Elgin's Community Development Department has been successful in negotiating with developers of new residential and commercial developments primarily on the west side of the City to install off-street multi-use trails to provide connections to other neighborhoods. A continuous system of trails has been provided in areas west of Randall Road.

2. Elgin Parks and Recreation Department

Elgin Parks and Recreation Master Plan 2000

In 2000, the Elgin Parks and Recreation Master Plan was developed which identifies specific action strategies as it relates to parks, trails, open space, and outdoor recreation facilities. Applicable policies to the *Bikeway Master Plan* include:

- Create a connected open space and natural habitat system that connects areas within the corporate limits to the Fox River, neighboring communities and the regional open space systems
- Connect all neighborhoods and the park system with a community-wide system of bicycle paths and routes
- Provide residents with regional bicycle and pedestrian trails and routes that connect the neighborhoods and parks to the Fox River and downtown

As part of the master planning effort, the public was surveyed and asked to rate selected amenities or categories of services relative to their importance to the quality of life in Elgin. Items such as walking and biking trails, regional bike paths, neighborhood parks, open space and natural areas were rated as most important. A map showing Parks and Recreation Department facilities is available in *Appendix D*.

3. Elgin Public Works Department

The Elgin Public Works Department is responsible for the implementation of the *Elgin Bikeway Master Plan* through the City's Capital Improvement Plan (CIP). Annual funding (\$100,000) has been programmed into the CIP for bikeway implementation, as shown in *Appendix E*.

E. Bicycle Clubs and Advocacy Organizations

1. The Illinois Prairie Path

The Illinois Prairie Path (www.ipp.org) is a not-for-profit corporation dedicated to the promotion and conservation of the Illinois Prairie Path. The Illinois Prairie Path was one of the first shared-use trails constructed on the former Chicago, Aurora and Elgin Railway. It passes through several communities in Chicago's western suburbs. One of its branches extends to the Fox River Trail in Elgin.

2. Fox Valley Bicycle and Ski Club

The Fox Valley Bicycle and Ski Club (www.fvbcs.org) started in 1968 under the name "St. Charles Bicycle Club". The club's philosophy is to "provide safe bicycling and to enjoy and respect our precious natural outdoor environment". The club meets to provide information on topics of interest to bicyclists.

3. Chicagoland Bicycle Federation

The mission of the Chicagoland Bicycle Federation (www.biketraffic.org) founded in 1985, is to improve the bicycling environment and thereby the quality of life in the region. With more than 5,000 members, they do that by promoting bicycle safety, education and facilities, and by encouraging use of the bicycle as an energy-efficient, economical and nonpolluting form of transportation and as a healthful and enjoyable form of recreation. Thirteen members are from the City of Elgin. The Chicagoland Bicycle Federation has been a partner in the preparation of the *Elgin Bikeway Master Plan*.

4. League of Illinois Bicyclists

The League of Illinois Bicyclists (LIB) (www.bikelib.org) is the statewide advocate for all Illinois bicyclists promoting bicycle access, education, and safety. LIB works with individual bicyclists and other bicycle organizations to guide local efforts, including notice of upcoming public meetings regarding road project studies, input to road designers or local officials, distributing bicycle safety information, acting as a technical resource, and promoting favorable policies and funding levels for bike facilities.

5. Illinois Trails Conservancy

The mission of the Illinois Trails Conservancy (www.illtrails.com) is to enhance the quality of life in Illinois by connecting the state's communities and country-sides with an interconnected, multi-use public trail network, and by promoting the use of trails for recreation and transportation. They are based in Capron, Illinois.

6. Pedestrian and Bicycle Information Center

The Pedestrian and Bicycle Information Center (PBIC) (www.bicyclinginfo.org) started in 1999 to improve the quality of life in communities through the increase of safe walking and bicycling as a viable means of transportation and physical activity. To support this mission, the PBIC develops and promotes information on bicycling and walking, provides expert technical assistance, and generates a network of informed individuals and organizations who can increase the exposure of ped/bike issues to the general public.

IV. Needs Assessment

A. Bicycling In Elgin

Elgin already has a large bicycling community of all different skill levels and interest. The presence of the Fox River Trail and the Elgin Branch of the Illinois Prairie Path makes it ideal for biking along the Fox River to points within and outside of the City. The fact that the majority of Elgin has been designed as a traditional City with streets laid out in a grid like pattern makes it easier to provide a network of bikeways that provide connectivity to important destinations. Additionally, the fact that the City has already been proactive in establishing multi-use trails in new subdivisions lays a strong groundwork in promoting bicycling in all areas of City.

Casual observation indicates that the bicycle is used for enjoyment rather than a means to get to work. However, 69 residents (16 years of age and older) reported in the 2000 Census that they used a bicycle as their primary means to travel to work. Not counted in this census figure are the additional number of residents who utilize their bicycle on one leg of their commute to work, i.e. to ride to one of the three Metra stations in town before boarding a commuter train to downtown Chicago.

B. Types of Users

The skills, confidence and preferences of bicyclists vary dramatically. Some riders are confident riding anywhere and can negotiate busy and high speed roads that have few, if any, special accommodations for bicyclists. Others are more comfortable riding in a designated space for bicyclists or in a shared-use path away from motor vehicle traffic. Children may be confident but have not yet developed the traffic sense and experience of an everyday adult rider.¹

A 1994 report by the Federal Highway Administration used the following general categories of bicycle user types (A, B, and C) to assist highway designers in determining the impact of different facility types and roadway conditions on bicyclists:

- **A** – Advanced or experienced riders are riding for convenience and speed and want direct access to destinations with a minimum of detour or delay. They are typically comfortable riding with motor vehicle traffic.
- **B** – Basic or less confident adult riders may also be using their bicycles for transportation purposes but prefer riding on neighborhood streets and shared use paths, and prefer designated facilities such as bike lanes or wide shoulder lanes on busier streets.
- **C** – Children are best accommodated on residential streets with low motor vehicle speeds, linked with shared use paths, and not encouraging them to ride in the travel lane of major arterials.

Planners and engineers should recognize that the choice of roadway design will affect the level of use, the types of user that can be expected to use any given road, and the level of access and mobility that is afforded bicyclists. Facilities for bicyclists should be planned to provide continuity and consistency for all users.

¹ "Guide for the Development of Bicycle Facilities", American Association of State Highway and Transportation Officials, 1999

C. Public Input

Several public involvement opportunities took place to identify needs for the *Bikeway Master Plan*. During the planning phase for the 2005 Comprehensive Plan, public input related to transportation needs was received as part of the “Popcorn and Planning” and “Popcorn and Pedaling” public involvement sessions. More recently, a public meeting was held at The Centre on April 26, 2007.

Input from the “Popcorn and Planning” and “Popcorn and Pedaling” meetings resulted in a series of maps of proposed bicycle routes. These maps were then presented at the April 26, 2007 public meeting for review. Comments and revisions were incorporated into the *Bikeway Master Plan* map. Input received from each of these meetings are presented in the *Appendix F*.



April 26, 2007 Public Meeting

D. Crash Data

The Illinois Department of Transportation is the designated administrator of “crash data” for the State of Illinois. The State of Illinois has developed a crash report form, SR 1050, to be used in reporting and classifying crashes by emergency personnel. ²

“Crashes” reported in this *Plan* are categorized to be: single vehicle crashes when a motor vehicle’s first damage is with someone or something other than another motor vehicle (i.e. either a “pedacycle” or a “pedestrian”). Data is not available on crashes involving only bicycles or bicycle-pedestrian crashes.

SR 1050 utilizes an injury classification system coded as “K, A, B, C, and O” which is defined as follows:

- K – Fatal** – A fatal crash is a traffic crash in which at least one person dies within 30 days of the crash.
- A – Incapacitating Injury** – Any injury, other than a fatal injury which prevents the injured person from walking, driving, or normally continuing the activities he/she was capable of performing before the injury occurred. Inclusions: severe lacerations, broken/distorted limbs, skull injuries, chest injuries and abdominal injuries.
- B – Non-incapacitating Injury** - Any injury, other than a fatal or incapacity injury, which is evident to observers at the scene of the crash. Inclusions: lumps on the head, abrasions, bruises, and minor lacerations.
- C – Reported, not evident** – Any injury reported or claimed which is not listed above. Inclusions: momentary unconsciousness, claims of injuries not evident, limping, complaints of pain, nausea and hysteria.
- O – No Indication of Injury**

² *State of Illinois Crash Report Form SR 1050*

Table 1 identifies the number of crashes and types of injuries for a five year period in the City of Elgin. Exhibit 1 displays the locations of each of these crashes for the year 2005. Locations for crashes from the years 2001-2004 are not available.

**TABLE 1
BICYCLE AND PEDESTRIAN CRASH DATA FOR ELGIN (2001-2005)**

YEAR	2001	2002	2003	2004	2005
Total Annual Bicycle-Vehicle Crashes	25	20	18	15	26
K - Total deaths	0	0	0	0	0
A- Total incapacitating injuries	2	2	2	4	4
B - Total non-incapacitating injuries	18	17	13	9	21
C - Total reported, not evident	1	3	3	3	1
O - No indication of injury	4	0	0	0	0
Total Injuries*	21	22	18	16	26
Total Annual Pedestrian-Vehicle Crashes	27	32	43	27	34
K- Total deaths	1	1	1	0	2
A- Total incapacitating injuries	5	3	10	8	3
B- Total non-incapacitating injuries	17	21	25	15	22
C - Total reported, not evident	3	4	8	6	10
O - No indication of injury	0	0	0	0	0
Total Injuries*	26	29	44	29	37

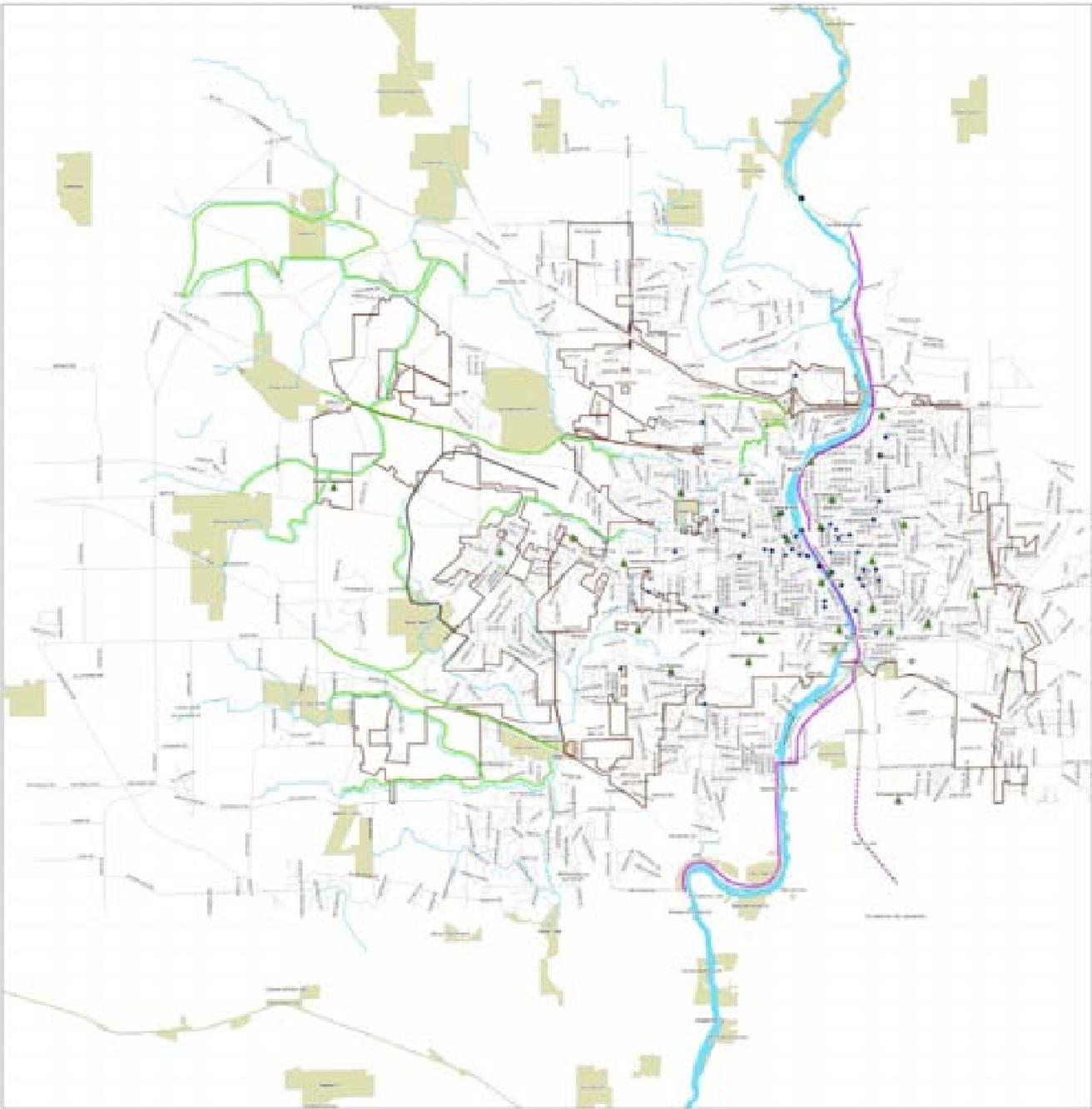
*Occasionally there is more than one type of injury per crash reported

Source: Illinois Department of Transportation

The 2005 data was utilized to determine if there are any locations in Elgin which are more prone to crashes for bicyclists or pedestrians. The result of this analysis indicates that all reported crashes were located in various locations on both the west side and the east side of the Fox River suggesting that there is no one location that is necessarily more dangerous than others for bicyclists. (An exception to this may be Highland Avenue where there were three crashes reported).

However, there are methods and approaches to follow in order to improve bicycle safety. Countermeasures to prevent additional accidents along these streets and potential bikeways can include physical changes to the bicycle/pedestrian environment (engineered and constructed solutions), or education programs aimed at a particular audience that may be susceptible to certain crash types. An off road bikeway system (i.e. a multi-use trail) along busier roads to be used by less experienced riders could also help alleviate vehicle-bicycle conflicts.

**EXHIBIT 1
BICYCLE AND PEDESTRIAN CRASH LOCATIONS - 2005**



Legend

- | | | |
|--|---|--|
| <ul style="list-style-type: none">  Proposed Foot Bridge Connection to Fox River Trail  Proposed Overpass/Underpass  Proposed Mid-County Trail  City Limit | <ul style="list-style-type: none">  Existing Fox River Trail (Grand Illinois Trail)  Existing IL Prairie Path  Proposed Primary Bikeway  Proposed Secondary Bikeway | <ul style="list-style-type: none">  Existing Off-Street Trail  Proposed Off-Street Trail  Forest Preserve  Parks  Locations of Crashes |
|--|---|--|

V. Design Considerations

A. Introduction

No single type of bicycle facility will accommodate all types of bicyclists. Each level of rider will require different types of bikeway treatments. By establishing and implementing good design practices, the City will create attractive, inviting facilities that will encourage more people of every level to bike more often. The bikeway network will also provide bicyclists information directing them to key destinations throughout the City.

B. Design Criteria

The proposed planning and design of the *Elgin Bikeway Master Plan* should follow the industry standards and accepted design practices in the State of Illinois. These standards and guidelines can be found in the following manuals

- *Guide for the Development of Bicycle Facilities*, AASHTO, August 1999
- *Policies and Procedures for Local Bicycle Facilities*, IDOT, December 1997
- *Policies and Procedures for Accommodating Bicycle Travel in Highway Improvements*, IDOT, August 1995
- *Federal Aid Procedures for Local Highway Improvements*, IDOT, 1984
- *Manual of Uniform Traffic Control Devices (MUCTD)*, FHWA, Millennium Editions

C. Types of Bikeways

The term "bikeway" means any road, street, path, or travelway, which in some manner is specifically designated as being available to bicycle travel, regardless of whether such facilities are designated for the exclusive use of bicycles or are to be shared with other transportation modes. Four types of bikeway designs were reviewed and recommended for the *Bikeway Master Plan*. They are:

1. Signed Bike Routes
1. Bike Lanes
2. Marked Shared Lanes
3. Multi-Use Trails

The design criteria and treatment for each of these applications are displayed below.

1. Signed Bike Routes



Source: City of Chicago "Chicago Bike Map: Streets for Cycling"

Signed bike routes are specially designated shared roadways that are preferred for bicycle travel for certain recreation or transportation purposes. Bike routes are typically on streets that are not wide enough for bike lanes but are good streets for biking. Signage is provided to direct bicyclists in certain directions or to certain destinations. Cars and bicycles share the same lane.

Design Criteria

The signing of shared roadways indicates to bicyclists that there are particular advantages to using these routes compared to alternate routes. This means the responsible agencies have taken action to identify that these routes are suitable as shared routes and will be maintained. Routes should be considered for signing (without other treatments) only if some of the following criteria are met:

- The roadway is low traffic/low speed (up to 30 m.p.h.)
- The route provides a linkage to other bicycle facilities, such as bike lanes and multi-use paths.
- The road is a common route for bicyclists through a high-demand corridor.
- The route extends along local neighborhood streets and collectors that lead to internal neighborhood destinations, such as parks or schools.
- Street parking has been removed or restricted in areas of critical width to provide improved safety.
- Surface imperfections have been corrected (e.g., utility covers have been adjusted to grade, bicycle-proof drainage grates have been installed, potholes have been filled, etc.).
- Maintenance of the route is at a higher standard than that of other comparable streets (e.g., more frequent street sweeping).
- The street provides wider curb lanes than other parallel roads.

Design Treatment

- Bike route signs with optional directional information leading to points of interest or other bikeways
- Bicycle-safety drainage grates
- Smooth pavement, free of potholes
- Timing of signals system to allow safe bicycle crossing
- Placement of traffic signal bicycle detectors



2. Bike Lanes



Source: City of Chicago "Chicago Bike Map: Streets for Cycling"

Bike lanes serve the needs of all types of cyclists in urban and suburban areas, providing them with their own travel lane on the street surface. Bike lanes are usually established on streets with higher volumes of traffic. Special pavement markings and signs identify the lanes. Note that in the case, of county roadways, Kane County Division of Transportation prefers to provide additional width in the right hand lane and/or improved right hand shoulders in lieu of bike lanes. Design guidelines for wider lanes are provided in IDOT BDE Procedure Memorandum 95-21 "Policies and Procedures for Accommodating Bicycle Travel in Highway Improvements".

While bike lanes are desired in many urban locations, designers face the reality that most urban streets are surrounded by built-up environments and are already constrained by large volumes of automobile traffic. The needs of cyclists can be accommodated by retrofitting bike lanes onto many existing urban roadways. Where existing widths do not allow full standards to be used, it may be possible to modify portions of the roadway to accommodate bike lanes. These modifications include reducing the width of the inside traffic lane, reducing the median width especially with the removal of raised-curb medians, removal of parking possibly in conjunction with providing off-street parking, and reducing the number of traffic lanes.



Design Criteria

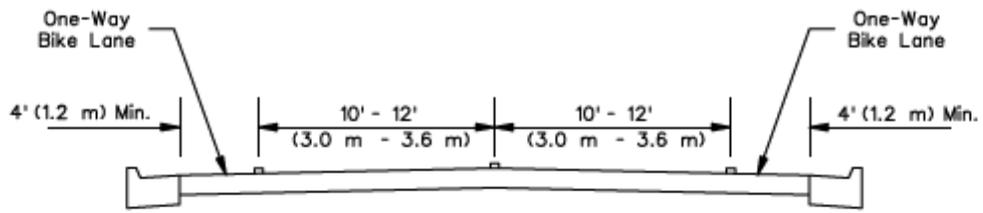
Bike lanes can be incorporated into a roadway when it is desirable to delineate available road space for preferential use by bicyclists and motorists, and to provide for more predictable movements by each. Bike lane markings can increase a bicyclist's confidence that motorists will not stray into their path of travel.

- Typically applied to minor arterial and collector streets
- The roadways have moderate traffic volumes and moderate speeds (25 – 35 m.p.h.)
- The roadways serve as through routes and provide access to destinations
- The roadways are preferred routes for bicyclists as they offer a combination of direct access and desirable traffic characteristics

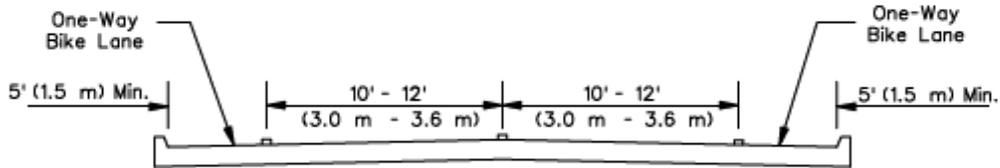
Design Treatment

- Always implemented as one-way facilities on either side of a street
- Signs and pavement stencils indicate direction of travel (i.e. on the right, with traffic)
- Curbed street without parking: minimum lane width of 4 feet adjacent to curb and gutter, not including the width of the gutter flag; must be a minimum of 3 feet of rideable surface to the left of the gutter pan
- Curbed street with parking: minimum lane width of 5 feet; located between parking lane and through traffic lane
- Pavement markings should follow standards set in the Manual on Uniform Traffic Control Devices (MUCTD) and the 1999 AASHTO Guide for the Development of Bicycle Facilities.

The following are minimum cross section requirements. Note that wider bike lanes are recommended on streets with higher motor vehicle speeds and traffic volumes, or where pedestrian traffic in the bike lane is anticipated. Width measurements are taken from the curb face to the bicycle lane stripe.

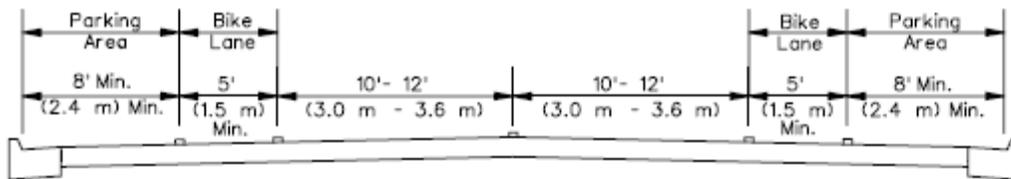


TWO-LANE CURB AND GUTTER SECTION



TWO-LANE MONOLITHIC CURB SECTION

**MINIMUM CROSS SECTIONS FOR CURBED STREETS WITHOUT PARKING
(Marked Bicycle Lanes)**



TWO-LANE SECTION WITH SEPARATE
BICYCLE LANE AND CURB PARKING
(Marked Bicycle Lanes)

**MINIMUM CROSS SECTION FOR CURBED STREETS WITH PARKING
(Marked Bicycle Lanes)**

3. Marked Shared Lanes



Source: City of Chicago "Chicago Bike Map: Streets for Cycling"

Since bicyclists are legally able to use most roadways, these roads are technically classified as "shared roadways". However, most shared roadways have no provisions for bicycle travel and are, therefore, perceived as unsafe by many bicyclists. There are some design measures that can be taken to ensure that shared roadways accommodate bicyclists safely and efficiently.

Design Criteria

Pavement designation as a shared travel lane alerts a driver as to the presence of bicyclists. Similar to bike lanes, marked shared lanes can increase a bicyclist's confidence in motorists not straying into their path of travel.

- Typically established on streets that are too narrow for bike lanes.
- The roadways have moderate traffic volumes and moderate speeds (20 – 30 m.p.h.)
- The roadways serve as through routes and provide access to destinations
- The roads are preferred routes for bicyclists as they offer a combination of direct access and desirable traffic characteristics

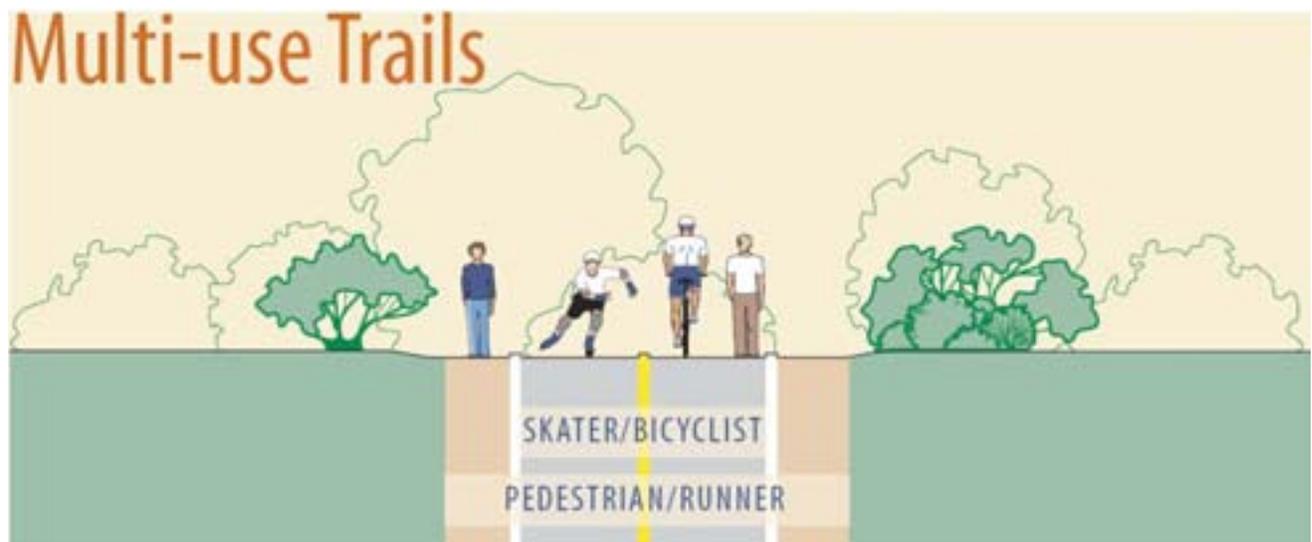


Design Treatment

- Special pavement markings and signage encourage cars to share the lane with bicyclists.
- A wide curb lane may be provided where there is inadequate width to provide bike lanes or shoulder bikeways. Wide curb lanes can often be installed by narrowing inner lanes on a multi-lane arterial, thereby re-allocating roadway space so that the outside (curb) lanes are wider.
- To be effective, a wide lane must be at least 14-foot wide, but less than 16-foot wide. Usable width is normally measured from the curb face to the center of the lane stripe, but adjustments need to be made for drainage grates, parking, and the ridge between the pavement and gutter. Widths greater than 16-foot encourage the undesirable operation of two motor vehicles in one lane. In this situation, a bike lane or shoulder bikeway should be striped.



4. Multi-Use Trails



Source: City of Chicago "Chicago Bike Map: Streets for Cycling"

Multi-use trails, also called shared use paths, are paths separated from the road for bicyclists, walkers, runners, and in-line skaters. The term "sidepath" indicates a shared use path immediately paralleling the roadway.³ Sidepaths can also be used in combination with on-road treatments recommended for primary and secondary bikeways, e.g. in areas of planned developments. A "sidepath suitability index" is provided later in the chapter to determine when sidepaths are appropriate.

Design Criteria

Multi-use trails can be provided parallel to the road in lieu of a sidewalk or provided away from roadways within parks, forest preserves, along abandoned railroad rights-of-ways, within utility easements, and along creeks. They are also provided as part of planned developments.

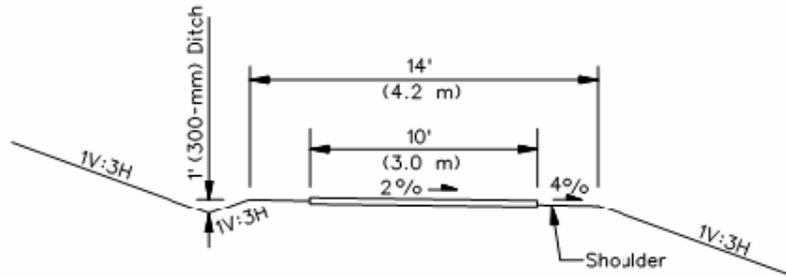
- They typically serve corridors not served by streets and highways.
- They can be parallel to roadways with high traffic volumes (35 - 45 m.p.h.)
- They should offer an opportunity not provided by the road system, such as a recreational purpose.
- They could be used to close gaps in bicycle travel caused by construction of cul-de-sacs, railroads and freeways.
- Multi-use trail needs to be designed to be used by others, such as pedestrians, joggers, dog walkers, skate boarders, in-line skaters, etc.



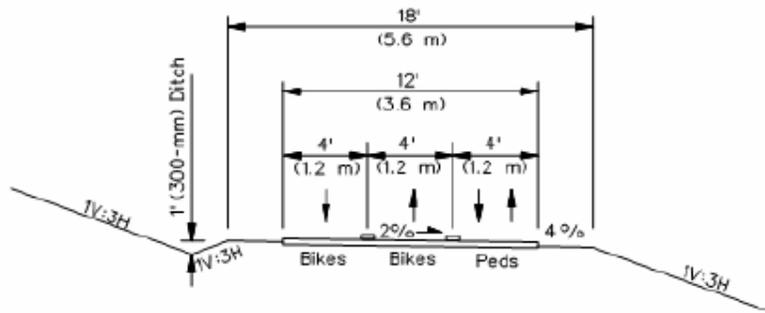
³ A note on sidepaths: When two-way shared paths are located immediately adjacent to a roadway, some operational problems are likely to occur. When the path ends, bicyclists going against traffic will tend to continue to travel on the wrong side of the street. Likewise bicyclists approaching a shared use path often travel on the wrong side of the street in getting to the path. Wrong-way travel by bicyclists is a major cause of bicycle/automobile crashes and should be discouraged at every opportunity. At intersections, motorists entering or crossing the path may not notice the bicyclist or anticipate the speed of the bicyclist. In addition, many bicyclists will use the roadway instead of the shared use path because they have found the roadway to be more convenient. A solution is to have a wide separation between a shared use path and the adjacent roadway to identify that the path functions as an independent facility for bicyclists and others. When this is not possible, and the distance between the edge of the shoulder and the shared use path is less than five feet, a suitable physical barrier is recommended.

Design Treatment

The following are typical cross-sections for multi-use trails.



TYPICAL SHARED USE PATH FOR AVERAGE SHARED USE



TYPICAL SHARED USE PATH FOR SUBSTANTIAL SHARED USE
(More Than 300 Users in Peak Hour, Striping is Optional)

TYPICAL CROSS SECTIONS FOR TWO-WAY, SHARED-USE BICYCLE PATHS

Table 1 shows the appropriate trail width based on anticipated volume and direction of travel.

**Table 1
Multi-Use Trail Width Dimensions**

Anticipated Volume	One Way	Two Way
<100 Users per Peak Hour	5 feet	8 feet
100-300 Users per Peak Hour	6 feet	10 feet
>300 Users per Peak Hours	7 feet	12 feet

Source: "Chapter 42, Bicycle Facilities", IDOT Bureau of Local Roads and Streets

Notes:

- It should be recognized that one-way bicycle trails will be used as two-way facilities.
- Provide a minimum of 2 feet wide graded turf or gravel area to both sides of the pavement
- Provide a minimum 3 feet to maximum of 6 feet clear area from the edge of trail to allow for signs, trees, poles, walls, fences, guardrails and other lateral obstructions

Surface materials for multi-used trails vary. Table 2 provides the advantages and disadvantages to the four treatment possibilities.

**Table 2
Surface Materials for Multi-Use Trails**

Surface Material	Advantages	Disadvantages
Crushed Aggregate	Soft but firm surface; natural material, moderate cost, rough surface; would not accommodate all users (e.g. in-line skaters)	Surface can rut or erode from heavy rainfall; regular maintenance needed to keep consistent surface; not for slopes >3.0%
Bituminous Surface Treatment (i.e. oil and chip)	Inexpensive to apply; more stable surface, durable; would accommodate all types of users	Potential of oil bleeding to surface in hot weather
Asphalt	Hard surface; would accommodate all types of users; all weather - does not erode; low maintenance	Higher installation costs and more costly to repair; freeze/thaw can crack surface
Concrete	Hardest surface; would accommodate all types of users; lowest maintenance; best for cold weather and wet conditions	High installation costs and costly to repair; not a natural looking surface

Source: "Chapter 42, Bicycle Facilities", IDOT Bureau of Local Roads and Streets

Sidepath Suitability Index

The League of Illinois Bicyclists has created a “sidepath suitability index” to help determine when it is appropriate to install sidepaths. The suitability index uses an algorithm to:

- Rate existing sidepaths
- Determine whether a new sidepath would be an appropriate option for accommodating bikes
- Suggest safety improvements for existing or planned sidepaths

The factors considered are: intersection traffic, continuity, curb cuts, pedestrian use, crosswalks, and path/road separation at intersections. Refer to the League of Illinois Bicyclists’ website <http://bikelib.org/roads/blos/sidepathinfo.htm> and to information presented in *Appendix G*.

D. Design Application

There is still considerable debate over the appropriate choice of a bicycle facility type in any given set of circumstances. There are no hard and fast rules or warrants that apply across the board. Engineering judgement and planning skills will always remain as the critical decision tools to determine whether a striped bike lane is most important, for example, or whether the bicyclist will be better served by a sidepath.

Table 3 provides additional guidance when determining what design treatment is most applicable. At a minimum, all bikeways should be signed as a bike route. Pavement markings and bike lanes are recommended wherever there is an opportunity on streets with higher traffic volumes. Multi-use trails are recommended where new development allows or within parks and forest preserves.

Table 3
Recommended Design Treatment by Street Type

Roadway Type	Recommended Bikeway Treatment
Interstates, Expressways	No bicycling permitted
Regionally Significant Arterial Streets	Wide curb lanes or paved shoulders
Minor Arterial and Collector Streets	Marked bike lanes, pavement markings, and/or multi-use trails
Local Neighborhood Streets	Signed as a bike route
Parks and Forest Preserves, Utility Easements, Rail Corridors, Waterways	Multi-use trails

Table 4 ties in the design treatments recommended in Table 3 above with Average Daily Traffic (ADT) and posted speed limit. The matrix serves as an additional guide, or a rule of thumb, to be augmented by field work as needed.

The facility matrix, color coded in yellow, orange and red, is based on a synthesis of best practices from New Jersey, Minnesota, and Florida Departments of Transportation. The chart was created to suggest design and/or type of bike facility based on assumed, and in some cases, tested levels of comfort (i.e. perceived safety) given a combination of two sets of parameters:

Set 1: How fast cars zip past (+ differential leads to bad feelings w/ modest increases)

Set 2: How often cars zip past (AADT is not consistent at all times of day)

The “85 percent rule” has been added to the matrix to determine the differential between vehicle and bike speed. The “85 percent rule” is a design practice utilized by traffic engineers to establish speed limits. The speed limit should be set to the speed that separates the bottom 85% of vehicle speeds from the top 15%. The 85th percentile is slightly greater than a speed that is one standard deviation above the mean of a normal distribution.

**Table 4
Bikeway Facility Matrix**

Posted Speed Limit	10mph	15mph	20mph	25mph	30mph	35mph	40mph	45mph
85th% Vehicle Speed	15mph	20mph	25mph	30mph	35mph	40mph	45mph	50mph
85th% Bicycle Speed	10mph	10mph	12mph	12mph	12mph	12mph	12mph	12mph
Bike/Vehicle Speed Differential	5	10	13	18	23	28	33	38
ADT:								
0-1200	N	N	W	W	W	B	S	S
1,200-8,000	N	W	W	B	B	B	S	S
8,000-24,000	N	W	B	B	B	S	S	S
>24,000	N	B	B	B	S	S	S	S

Definitions

- N No Facility Needed
- W Wide Curb Lane Recommended
- B Bike Lane Recommended
- S Sidepath/Buffered Lane Recommended

Notes:

1. Consideration should be given to pedestrian volume threshold for increased separation between bikes and pedestrians
2. When roadway has multiple intersections and destinations, separated lanes/sidepaths should be provided on both sides of road

Results: There are four types of recommended facility types shown in the matrix. The facility type is based on roadway speeds combined with average daily traffic (ADT). A vehicle and bike speed differential is applied to each of the roadway speeds to determine an appropriate design application.

Roadway Speed - 10 to 15 mph: Mostly no facility is needed (5 of 8 cells); in two situations a wide curb lane is recommended and in one situation, a bike lane is recommended due to high ADTs.

Roadway Speed - 20 to 25 mph: Mostly bike lanes are needed (5 of 8 cells); in three situations, wide curb lanes are recommended due to lower ADTs.

Roadway Speed - 30 to 35 mph: A mix of facilities are recommended. In one situation a wide curb lane is recommended, in four situations bike lanes are recommended and in three situations, sidepaths are recommended.

Roadway Speed- 40 to 45 mph: For roadways with high speeds, sidepaths are always recommended.

E. Roadway Signage, Pavement Markings, and Traffic Signals

1. Roadway Signage

Route signing for the Elgin bikeway network should generally follow the *2003 Manual of Uniform Traffic Control Devices (MUTCD)* and local ordinances. Refer to the MUTCD for appropriate signage to install.

In brief, all bike routes should be signed with a variation of the standard white-on-green sign. The recommended sign would feature the standard bicycle symbol followed by the name of the route (where appropriate) and an arrow showing the direction of travel. These signs should be used at the beginning of each route and repeated at two to three block intervals, as well as at any location where the route jogs or changes direction.



Photo reproduced by permission of Public Works, 1000 Lakeshore Blvd., Elgin, IL 60120

Bicycle lanes should be designated with the standard black on white bicycle lane sign. The signs should be located at the beginning of every block where the bike lane is present.



2. Pavement Markings

General guidance on pavement marking is also provided in the MUTCD. Pavement markings should accomplish two things: channel bikeway users to cross at a clearly defined location and provide a clear message to motorists that this particular section of the road must be shared with other users. A bike lane should be delineated from the motor vehicle travel lanes with a solid 6-inch white line. An 8-inch line width may be used for added distinction. If on-street parking is present, a second 4-inch white line can be placed between the parking and bike lane to discourage motorists from using the combined bike lane/parking lane as a through travel lane.

For the bikeway users, a clear message must be presented in a location where it will be seen by that user. Traditional treatments have included the bicycle crossing sign, the pedestrian crossing sign, and the pedestrian crosswalk lines.

3. Signal Activation

At signalized intersections, the timing of the traffic signal cycle as well as the method of detecting the presence of bicyclists should be considered. Bicycles have difficulty activating demand-actuated traffic signals as the location of the pavement detector is difficult to find. Pedestrian push-button actuation, if present, is often inconveniently located for on-road bikes. Therefore, pavement markings (MUTCD-approved Bicycle Detector Pavement Marking) together with a Bicycle Signal Actuation Sign can locate the appropriate place for the bicyclist to stop to actuate the signal. Quadruple loop detectors can also be installed as they are more sensitive to bicycles. Traffic signals can also be modified to provide an adequate clearance interval for bicyclists who are crossing at the end of the green.



VI. Existing Conditions

A. Regional Bikeways

The following regional multi-use trails provide connections to the City of Elgin.

1. Fox River Trail

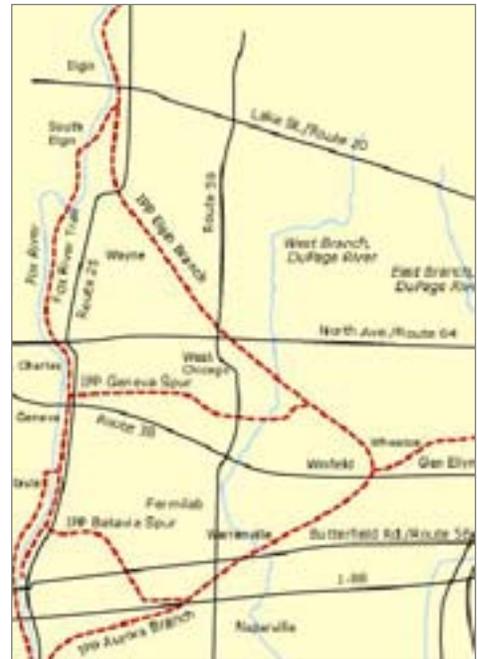
The Fox River Trail is a 35-mile trail that runs along the Fox River. It begins in the City of Crystal Lake in McHenry County and travels southward to its southern terminus in the Village of Oswego in Kendall County. The trail is located on the east side of the river through Elgin. It offers direct connections to branches of the Illinois Prairie Path as described below. The Fox River Trail is part of the Grand Illinois Trail.



Fox River Trail

2. Illinois Prairie Path – Elgin Branch

The Illinois Prairie Path was one of the first shared-use trails constructed on the former Chicago, Aurora and Elgin Railway. It passes through several communities in Chicago's western suburbs. The "main stem" of the Illinois Prairie Path begins in Maywood, IL and extends 15 miles to Wheaton, IL where it divides into two branches: the Elgin Branch and the Aurora Branch. The Elgin Branch travels northwest until it terminates at the Fox River Trail in the southern part of Elgin, a distance of 16 miles.



Illinois Prairie Path – Elgin Branch

3. Grand Illinois Trail

The Fox River Trail and the Illinois Prairie Path are both part of the Grand Illinois Trail (GIT). The Grand Illinois Trail is a proposed 475-mile loop trail from Lake Michigan to the Mississippi River. Over 250 miles of the trail are in place, and 40 more miles are planned. The GIT is a partnership with the Illinois Department of Natural Resources and three regional coalitions that seek to link existing trails, develop new trails, and establish on-road connections. It hugs historic canals, offers views of the scenic Chicago lakefront, parallels the Rock and Fox Rivers, and includes one of America's first rails to trails projects.

B. Kane County Bikeways

The Kane and Northern Kendall Counties Bicycle Map (2007) is shown in *Appendix H*. The map is published by the Kane County Division of Transportation, Forest Preserve District of Kane County, Kane/Kendall Council of Mayors, and local park districts. The map outlines existing as well as proposed regional and local trails. The map uses the Bicycle Level of Service (BLOS) methodology to rate key roads in the county. BLOS is a nationally recognized measure of the perceived "comfort level" of a range of experienced adult bicyclists sharing a roadway with traffic. Key factors include traffic speed, daily traffic volume, surface conditions, lane width, and the presence of on-road bike lanes or paved shoulders. Scores range from "A" (most comfortable for cyclists) to "F" (least comfortable). As a new policy for Kane County, any new or reconstructed roads should be designed with a minimum BLOS rating of grade "C" to accommodate more experienced and confident bicyclists. Other roads providing access to significant destinations should be designed to meet a BLOS rating of "B" to serve a broader range of cyclists.

In addition, the Kane County 2030 Transportation Plan and the 2030 Land Resource Management Plan highlight goals and objectives for bicycling throughout Kane County. Existing and proposed bikeways and trails from these resources have been incorporated into the *Elgin Bikeway Master Plan*.

C. Elgin Multi-Use Trails

There are a few multi-use trails or sidepaths within the City of Elgin. All are paved trails separated from the road for bicyclists, walkers, runners and in-line skaters.

1. Congdon Avenue, Indian Drive to Maureen Drive

A 10-foot multi-use trail (sidepath) is provided on the north side of Congdon Avenue, between Indian Drive and the City limits at Maureen Drive. The trail connects with the multi-use trail along Shoe Factory Road in the Village of Hoffman Estates.



Congdon Avenue east of Indian Drive

2. Elgin Sports Complex

A multi-use trail is provided within the Elgin Sports Complex. The trail parallels Sports Way Drive through the complex.



Sports Way Drive

3. West Elgin

As new residential developments are built, the City has required developers to construct multi-use trails to provide connections to other subdivisions and neighborhoods. Multi-use trails (sidepaths) exist in a variety of locations, primarily west of Randall Road, including along sections of Bowes Road and Nesler Road.

D. Bicycle Parking Facilities

Bicycle parking facilities are provided in various areas of the City including Metra stations, in front of municipal facilities including The Centre, the Gail Borden Public Library, City Hall; within parks; at Elgin Community College; at elementary and high schools; and along the Fox River.



Elgin Big Timber Metra Station

VII. Proposed Bicycle Facility Network

A. Building a Network

The intent of this *Plan* is to put in place a cycling network that meets the defined goals and objectives by providing an alternative method of transportation for all ages and skill levels to points throughout and beyond the City of Elgin. The objective of the *Plan* is to provide improved mobility for cyclists while managing the impacts and conflicts with pedestrians and motor vehicles. The *Plan* links bicycle and pedestrian destinations, encourages bikeway usage, supports multi-modal transportation and breaks down the barriers which prevent bicycle trips. The bikeway network consists mainly of on-street bikeways to best serve preferred destinations and meet Elgin's range of recreation and transportation cycling needs. The *Plan* examines both on-road and off-road opportunities through a variety of infrastructure improvements and bikeway facility types intended to serve multiple users. This *Plan* proposes more than 260 miles of new on-street and off-street corridors.

The initial public involvement workshops as part of the 2005 Elgin Comprehensive Plan provided a strong foundation for the *Bikeway Master Plan*. The workshops provided recommended routes for each neighborhood of the City. These recommended routes were reviewed and enhanced by the public at a meeting held on April 26, 2007. In addition, routes were reviewed, field checked and revised as necessary by the project team and Advisory Committee.

B. Plan Background

By selecting a mostly grid system that allows for bikeways approximately every four blocks, the bikeway network can maintain direct access to many destinations throughout the City. The types of streets vary within the network. Major arterials were avoided when possible. Collectors and minor arterials were utilized because they provided the most direct routes to destinations. Residential streets with low traffic volumes and low speeds compose the balance of the bikeway network as these are the streets that access neighborhood services such as schools and parks.

In reviewing viable routes and corridors the following criteria were considered:

- Existing conditions
- Safety conditions
- Public input
- Purpose
- Origin-destination locations
- Continuity
- Interface with existing regional bikeways

C. Recommended Bikeways

Recommended bikeways have been classified as either “primary” or “secondary” and are noted on the *Bikeway Master Plan* (Exhibit 2). The differences between a primary versus a secondary bikeway are described below. In addition, the *Plan* recommends some off-street trails along waterways and utility easements, and through parks and forest preserves.

1. Primary Bikeways

Primary bikeways meet the following criteria:

- Primary objective is to provide a direct path of travel on minor arterials or collector streets
- Primary bikeways are “transportation” focused (rather than recreational focused)
- Each primary bikeway provides an interface with the secondary bikeways, allowing for a grid like bikeway network
- The bikeway can either be on-street or a sidepath parallel to the street
- Primary bikeways should be treated with bike lanes or marked shared lanes depending on street width, traffic volumes, and traffic speeds
- Sidepaths can also be proposed in addition to on-street treatments or in lieu of on-street treatments; however, it is preferable that on-street treatments be provided when a sidepath is proposed in order to accommodate all types of users
- Existing sidepaths have been noted as primary bikeways on the *Plan* map

2. Secondary Bikeways

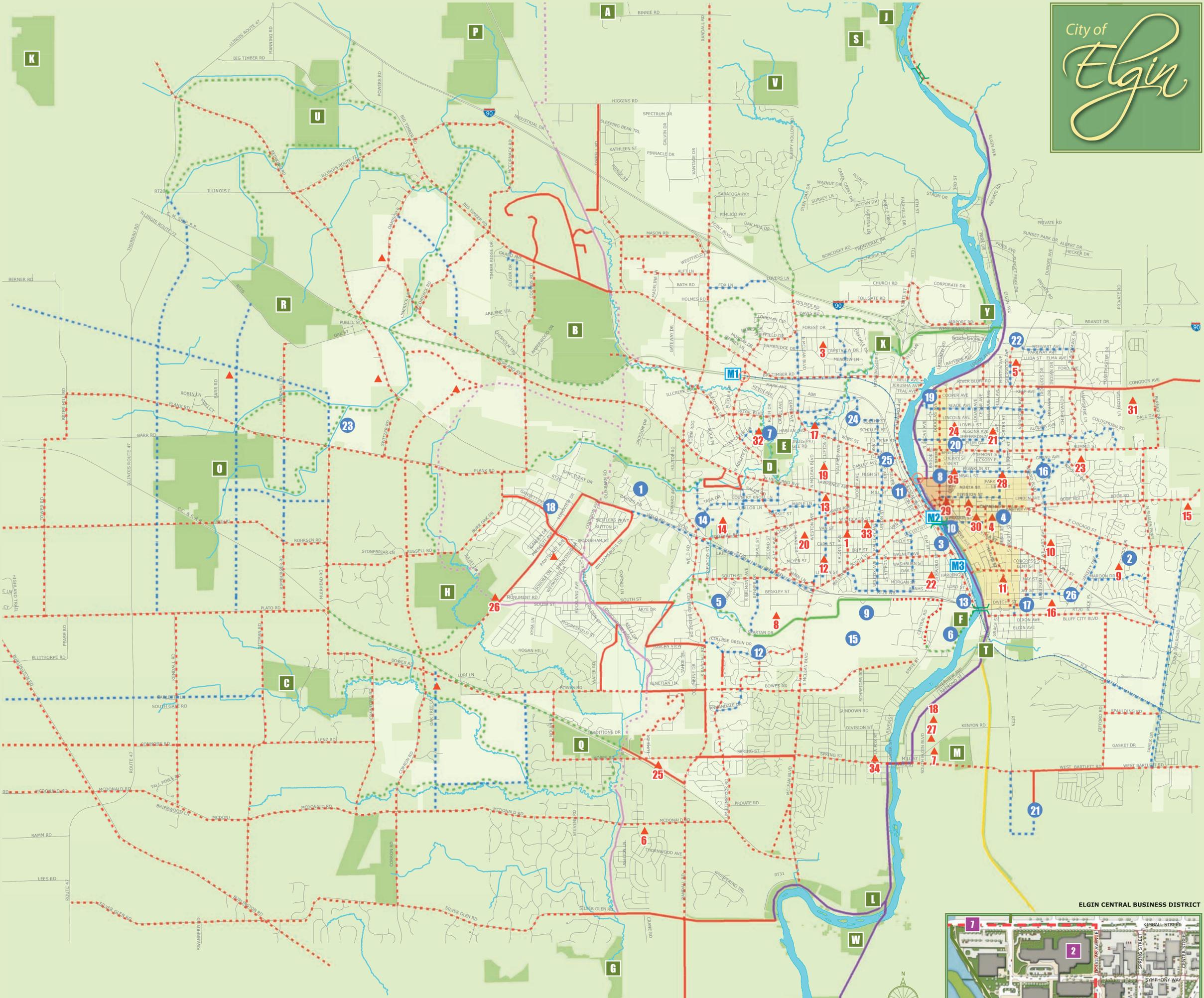
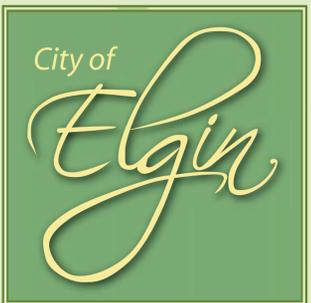
Secondary bikeways meet the following criteria:

- The main objective is to provide for circulation within and between neighborhoods in order to access neighborhood services such as schools and parks
- Secondary bikeways are both “recreational” and transportation focused
- Each secondary bikeway provides an interface with the primary bikeways
- Secondary bikeways should be signed as bike routes
- A sidepath can be provided to accommodate children or other types of users (e.g. in-line skaters)

3. Off-Street Trails

The *Plan* proposes off-street trails through parks, forest preserves, waterways, and along utility easements. The recommended trail locations are described below.

- Tyler Creek:* A proposed trail is recommended along Tyler Creek in order to connect Wing Park with Tyler Creek Forest Preserve.
- Davis Road Utility Easement:* A NIGAS utility easement parallels Davis Road and leads to Tyler Creek Forest Preserve. A proposed trail would provide a connection along this utility easement between the forest preserve and McLean Boulevard.
- Elgin Shores Forest Preserve, Continental Park and State of Illinois Property:* A trail would be provided through the forest preserve, park, and State of Illinois property. It would then connect with the existing Elgin Sports Complex trail to the west via on-street connections. To the north and east, the trail would parallel the Fox River to a proposed bridge crossing over the Fox River and to an underpass under IL Route 20.
- West Elgin:* As part of a plan by Kane County to preserve valuable open space and provide connectivity between forest preserve land, multi-use trails are proposed. These trails are often proposed along existing waterways.



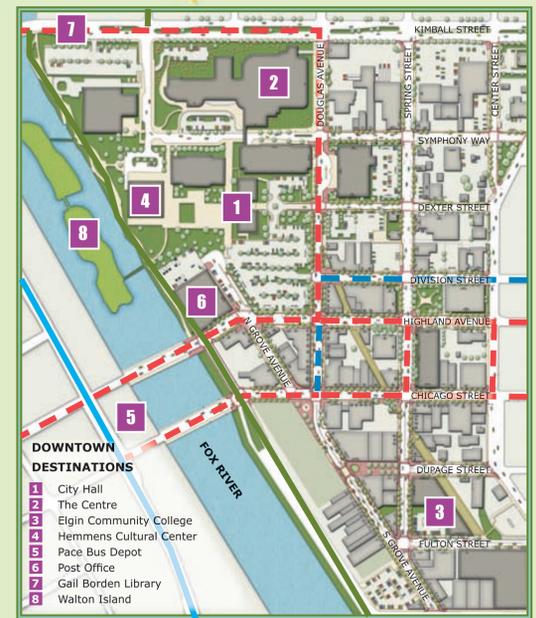
ELGIN BIKEWAY MASTER PLAN

JANUARY 2008



COLOR CODE	BIKE TRAILS	FOREST PRESERVES	PARKS & RECREATION	SCHOOLS
City Limits	Proposed Mid-County Trail	A Binnie	1 Burnridge Forest Park	1 Abbott
Land Outside City Limits	Existing Mid-County Trail	B Burnridge/Paul Wolff	2 Campus Park	2 Central Alt
Forest Preserve Area	Existing Fox River Trail	C Bowes Creek Woods	3 Central Park	3 Century Oaks
Historic Districts	Existing IL Prairie Path	D Columbus Park	4 Channing Park	4 Channing
Central Business District	Proposed Primary Bikeway	E Eagles	5 College Park	5 Coleman
Proposed Foot Bridge	Existing Primary Bikeway	F Elgin Shores	6 Continental Park	6 Corron
Connection to Fox River Trail	Proposed Secondary Bikeway	G Ferson Creek	7 Eagle Heights Park	7 Clinton
Proposed Overpass/Underpass	Proposed Off-Street Trail	H Fitchie Creek	8 Elgin Country Club	8 Elgin Comm College
	Existing Off-Street Trail	I Fox River Bluff West	9 Elgin Sports Complex	9 Elgin High School
		J Fox River Shores	10 Festival Park	10 Ellis
		K Hampshire	11 Foundry Park	11 Garfield
		L Jon J. Duerr	12 Fox Meadows	12 Gifford
		M Kenyon Farm	13 Grollich Park	13 Highland
		N Meissner - Carron	14 Hawthorn Hills Park	14 Hillcrest
		O Nyman Farm	15 Highland Golf Course	15 Hilltop
		P Otter Creek	16 Lords Park	16 Huff
		Q Pingree Grove	17 Maroon Field Park	17 Illinois Park
		R Raceway Woods	18 Shannon Playground	18 Kenyon Woods
		S Raymond Street	19 Slade Park	19 Kimball
		T Rutland	20 St Francis Park	20 Larkin High School
		U Schweitzer	21 Tri-County State Park	21 Larsen
		V Tekawitha Woods	22 Western Regional Park	22 Lowrie
		W Tyler Creek	23 Wing Park	23 Lord's Park
		X Voyagers Landing	24 Wing Street Park	24 McKinley
		Y Kenyon Farm	25 Wright Ave Park	25 Otter Creek
				26 Prairie View
				27 S Elgin HS
				28 Sheridan
				29 St. John
				30 St. Mary
				31 Timber Trails
				32 Valley Creek
				33 Washington
				34 Willart
				35 Win. Burnham

ELGIN CENTRAL BUSINESS DISTRICT



4. Kane County Bikeways

a. Mid-County Trail: The Mid-County Trail is a proposed north-south regional trail that will serve as a recreational and transportation corridor on the west side of Elgin allowing for travel between the City of Geneva on the south to the Village of Huntley on the north, a distance of approximately 25 miles. The trail utilizes some existing local trails, requires the construction of new side paths and trails, and utilizes forest preserves, parks, and greenways.

The route through Elgin parallels Randall Road approximately one mile to the west. At the point it reaches South Street, it branches off to serve the Fitchie Creek Forest Preserve. This branch then circulates back to the main stem just north of the Town of Udina.

b. Kane County Bicycle and Pedestrian Plan (December 2002): The Elgin *Plan* includes recommended bikeways as proposed in the Kane County Bicycle and Pedestrian Plan. These are incorporated into the *Plan* map recommendations.

5. Proposed Bridge Structures

There are existing physical barriers that provide hindrances to a complete bikeway network serving all parts of Elgin. Subsequently, foot bridges, underpasses (or overpasses) are recommended as part of the Plan.

a. Proposed Foot Bridges Across Fox River: Foot bridges are recommended at the following locations in order to continue bike connections from one side of the Fox River to the other:

- U.S. Route 20
- Prairie Street near Festival Park

b. Proposed Underpass Locations:

Kimball Street: There is no existing underpass (or overpass) at Kimball Street for the Fox River Trail. Subsequently, bicyclists are directed via signage off the trail, onto Kimball Street where they are then directed to cross Kimball Street at Grove Avenue, and continue along Grove Avenue to connect back with the Fox River Trail north of the city library. In order to provide a continuous multi-use trail along the Fox River north of Kimball Street, it is recommended that an underpass (or overpass) is provided at Kimball Street.



Kimball Street at Fox River Trail

U.S. Route 20 south of Hendee Street: An underpass at U.S. Route 20 on the west side of the Fox River immediately south of Hendee Street is proposed. This underpass would allow a bikeway to continue south onto the State of Illinois property and continue south and west thru Continental Park, Elgin Shores Forest Preserve and meet up with the existing multi-use trail in the Elgin Sports Complex.

North Lyle Avenue at the Metra Milwaukee District Tracks: In order to allow for a continuous north-south bikeway connection along North Lyle Avenue, as well as providing bicycle access from the south to the Metra Big Timber Road station, an underpass is recommended at the train tracks. Metra's policy restricts new at-grade crossings over the tracks and due to sight clearance restrictions an overpass is not recommended.

VIII. Bicycle Amenities

A. Bicycle Racks and Lockers

Bicycle racks are installed to provide short-term parking for cyclists. Options of bicycle racks include:

1. Loop Rack

The loop rack is practical and efficient and provides the user with a clear understanding of how to park the bicycle. Loop racks can be installed as singles or can be grouped together to form a clean and organized system for controlling parked bicycles.



2. Public Art Bike Rack

These can serve as public art in the community. Community groups or individuals could design a bicycle rack or have artwork applied to a bicycle rack. The public art component could be programmed into future installations and would make the bicycle racks another point of interest at community destinations and would encourage riders to see more of what the City of Elgin has to offer.

3. Bicycle Lockers:

Bicycle lockers encase the entire bicycle, providing security and weather protection. They are typically used for long-term parking for cyclists. An example of a location ideal for bicycle lockers would be near the Metra train stations.



B. Other Amenities

1. Shower and Changing Facilities

Some communities offer a shower and changing facility for bicyclists. The Centre could serve as a public facility that would allow cyclists to shower after a long ride. It may be possible to offer non-members a discounted day rate for use of the changing facility, shower, and lockers.

2. First Aid

Many local park facilities such as recreation field concession buildings, pools, and golf courses often have staff on hand to distribute first aid products to bicyclists. Signs directing bicyclists to first aid help would be appropriate.

3. Drinking Fountains

It is important to locate drinking fountains along designated bikeways to provide cyclists with the opportunity to replenish lost fluids and offer a means to fill water bottles.

4. Benches

Benches could be provided along the bikeway as a designated resting stop.



5. Pavilion

Pavilions can be provided in parks or along the Fox River Trail to provide cyclists temporary relief from the weather.



6. Kiosk

Kiosks can be located along the bikeways in order to provide information and maps to users of the bikeway system.

C. Bicycle Information Signage

The City of Elgin has a Wayfinding and Signage Plan⁴ in place. The Plan includes recommendations for the placement and content of bicycle signs and should be incorporated as part of signage recommendations for the *Bikeway Master Plan*.

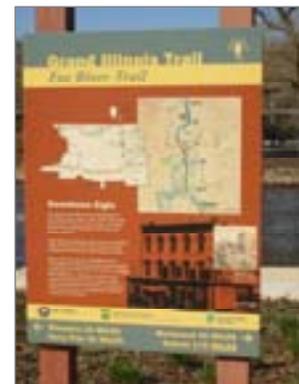
Bicycle information could be presented in a variety of formats along the bikeways, including kiosks, pavilions, and decorative signage. The following information could be contained within the signage package for use throughout the bikeway system.



- **Bikeway System Map:** Presented in *Exhibit 2*, the bikeway system map is the primary graphic to illustrate designated bicycle routes, parks, schools, and community destinations throughout the City of Elgin.

An additional option would be to design the bicycle information signage to accommodate secondary data and information in addition to the Elgin Bikeway Map. The secondary information could be provided on the back of the Elgin Bikeway Map as a permanent graphic or the data could be designed to be dynamic and allow for seasonal changes. The seasonal or temporary information could be accommodated in a lockable glass panel kiosk. Examples of secondary information could include:

- **Elgin Parks and Recreation Map:** The City of Elgin Park Facilities Map is an example of secondary information that could be presented to the public within the bikeway system. The park facility map includes the overall size of the park and specific recreational activities that are available at each park.
- **Community Events:** Another example of secondary information designed to inform the public of upcoming community events such as the FoxFireFest, Harvest Market, the summer film and concert series, and in particular, those events relating to bicycling. This information could be presented in poster form on the sign.
- **Historical References:** Historical references that provide general historical information to the land, events, and people that helped shape Elgin are interesting to provide on a sign. An example of this is located along the Fox River Trail near Walton Island.
- **Advertising:** In order to bring in revenue, designated kiosks could allow for the sale of advertising with a priority towards recreation, environmentally conscious, and health awareness advertising.



⁴ "City of Elgin Wayfinding and Signage", Carol Naughton + Associates

IX. Supportive Environments for Bicycling

A. Bicycling and a Sustainable Environment

The City is about to undertake a Green Master Plan to identify and encourage ways to preserve the City's sustainability. By developing a Bikeway Master Plan, the City is taking a big step towards their goal of sustainability by encouraging good bicycle facilities.

"Sustainability" can best be described as "meeting the needs of the present generation without compromising the ability of future generations to meet their own needs." An "unsustainable situation" occurs when the sum total of nature's resources is used up faster than they can be replenished. Theoretically, the long term result of environmental degradation would be local environments that are no longer able to sustain human populations to any degree. Reducing auto emissions and encouraging other means of transportation is one way to encourage a sustainable environment.

B. Context Sensitive Solutions

Context sensitive solutions (CSS) is defined as the planning and design of major urban thoroughfares for successful walkable communities. Successful CSS results in a collaborative, multidisciplinary, and holistic approach to transportation planning and project development. The use of established CSS principles in the project development process is resulting in community interests, users needs, and environmental issues being considered early in the development of roadway improvement projects. It is a process of balancing the competing needs of many stakeholders allowing for flexibility in the application of design controls, as well as providing guidelines, and standards to design a facility that is safe for all users regardless of the mode of travel they choose.⁵

As the City of Elgin and Kane County continue to upgrade and improve their streets and roadways, incorporating context sensitive solutions will only encourage the use of all streets for bicyclists.

C. Complete Streets Policies

On October 10, 2007 the State of Illinois adopted Senate Bill 314 requiring that bicycle and pedestrian ways be established in the planning and construction of all state transportation projects. This legislation encourages a "complete the streets" movement; i.e. a movement to fundamentally change the way most streets and roads are designed in the United States.

The benefits of complete streets are many. Complete streets improve safety for bicyclists and pedestrians, encourage walking and bicycling, help reduce congestion and improve air quality. Creating complete streets means transportation agencies must change their orientation toward building for cars and design and operate the entire right-of-way to enable safe access for all users. Places with complete streets policies are making sure that their streets and roads work for drivers, transit users, pedestrians, and bicyclists, as well as for older people, children, and people with disabilities.

Types of complete streets vary in design, but common ingredients include: sidewalks, bike lanes, crosswalks, wide shoulders, medians, bus pullouts and bus lanes, and audible pedestrian signals. Although the U.S. Department of Transportation has as its goal that all transportation projects incorporate bicycling and walking facilities, fewer than half the states follow this federal guidance.

⁵ "Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities", Institute of Transportation Engineers, 2006.

Many cities throughout the United States have adopted resolutions in support of a complete streets policy. As part of the *Elgin Bikeway Master Plan*, one of the implementation recommendations is for the City to adopt such a policy so that as transportation plans are funded and improved, there is formal guidance in place. Bicycle and pedestrian enhancements should be part of all development and transportation projects including wide outer lanes, bicycle friendly drainage grates, traffic signal actuation devices, paved shoulders, and other amenities. The City should work with the Illinois Department of Transportation (IDOT) and the Kane County Division of Transportation (KDOT) to encourage bikeway improvements on state and county roads within the city limits.

Liability associated with on-street bikeways has been a concern of municipal officials. The City of Elgin's Corporation Counsel prepared a memorandum on April 27, 2006 to address this issue. The legal opinion is presented in *Appendix I*.

Encouraging bicycling is a simple way towards improving public health. With more people bicycling, communities experience reduced traffic demands, improved air quality and greater physical fitness. In addition, bicycle-friendly towns are often seen as places with a high quality of life. This can translate into increased property values, business growth and increased tourism.

D. Bicycle Friendly Communities Award (League of American Bicyclists)

Benchmarking is an emerging practice that enables communities to rate their performance on a wide range of indicators and compare those results over time as well as against other communities. The League of American Bicyclist's Bicycle Friendly Community Awards recognizes those communities that are making efforts to become bicycle friendly. The application is a two-step process and rates the community on a wide range of topics in 5 areas; engineering, education, encouragement, enforcement and evaluation. After meeting basic criteria, a community is encouraged to complete a detailed inventory with questions ranging from the percentage of arterial streets that have bike lanes to bicycle safety programming in local schools. The application is provided in *Appendix J* and can be viewed in its entirety at: <http://www.bikeleague.org/programs/communities/>.

A committee reviews and scores the application and consults with local cyclists in the community. An award of platinum, gold, silver or bronze status is designated for two years.

E. Education

Education of both bicyclists and motorists is crucial to improving real and perceived bicycling safety in Elgin. Many bicyclists are concerned about safety when riding on the streets. By providing educational programs and resources targeting both motorists and bicyclists, many residents' concerns could be alleviated. The distribution of educational pamphlets, in-school safety lectures by law enforcement authorities, and bicycling seminars by the City, Parks and Recreation Department, and schools can help alleviate the concerns and improve safety. Bike safety materials could be distributed through the schools, at City Hall, at park facilities, and on the City's website. The following pamphlets are available for these purposes:

- *Kids on Bikes in Illinois* (www.dot.state.il.us/bikemap/kidsonbikes/cover.pdf), a free pamphlet from IDOT's Division of Traffic Safety
- League of Illinois Bicyclists' safety pamphlets available at www.bikelib.org

Motorists also need to be educated on sharing the road with bicyclists. Bicycle safety videos, such as the ones provided at www.bikelib.org/video can be shown at City sponsored events, including festivals and City Hall forums. The state and federal government can provide traffic safety grants to fund the development and implementation of safety education programs in Elgin.

F. Encouragement

By promoting Elgin as a bicycle friendly community and adopting policies and plans that support bicycling, the City will encourage a supportive bicycle riding atmosphere. City events such as the FoxFireFest bicycle race have already helped to promote the City in this manner. Other suggestions for encouraging visitors or residents to explore Elgin by bicycle include:

- Develop the *Elgin Bikeway Map* based on routes developed in the *Elgin Bikeway Master Plan*.
- Post and distribute the *Elgin Bikeway Map* at public places; e.g. City Hall, the Centre, Gail Borden Library, and Elgin Community College
- Declare a Bike to Work Day with refreshments such as coffee and bagels at work centers throughout the City
- Work with the school district to observe International Walk or Bike to School Day, the first Wednesday of each October, and to apply for the State of Illinois Safe Routes to School grants.
- Promote bicycling in City brochures, notices, newspapers, website, etc. as a way to reach important destinations such as parks, schools, and civic buildings

G. Enforcement

Both motorists and bicyclists are responsible for following the “Rules of the Road” laws while sharing the road. Police should be encouraged to stop cyclists and motorists who ignore the laws in order to educate, issue warning citations or tickets. It is recommended that the Police Department work with city staff to annually survey bicycle crashes to determine what locations suffer a disproportionate number of crashes of bicyclists, and target resources accordingly.

X. Implementation

A. Capital Improvement Plan

The City's 2007-2011 Capital Improvement Plan (see *Appendix E*) presents a variety of street resurfacing and rehabilitation projects as well as the construction of new infrastructure. It also has a budget line item of \$100,000 per year for "bikeway implementation".

It is more cost effective to include bicycle and pedestrian accommodations into a larger scale transportation project than it is to retrofit. The City should adopt a "complete streets policy" into the design of each street as it is programmed, whether or not the street is a designated bikeway. The eventual goal is to make every street in Elgin bicycle friendly.

B. Funding Sources

There are various ways to pay for bikeway improvements. Recommendations in this *Plan* range from low-cost improvements to major capital investments.

1. Local Funds and Programs

The City of Elgin has a general fund comprised of money collected from local and user taxes that are used for the day-to-day operation of the City. General funds are not restricted in their use. Local funds of this type can provide a source for bicycle and pedestrian improvements.

2. Motor Fuel Tax

Municipalities and counties annually receive an allocation of Motor Fuel Tax (MFT) funds from the State of Illinois. This tax primarily provides funding to build and maintain roads and highways. However, it can also be used to develop non-motorized transportation improvements.

3. Public-Private Partnerships

Public-private partnerships refer to contractual agreements formed between a public agency and a private sector entity that allows for greater private sector partnership in the delivery of transportation projects. The City has already utilized this tool in requiring developers of new residential developments to install multi-use trails. Additional partnerships can be formed to develop bicycle facilities, including bicycle racks and storage, and shower and restroom facilities.

4. State and Federal Programs

A variety of state and federal programs are available. These programs are listed in *Appendix K*.

C. Policies and Ordinances

Policies and ordinances should be adopted by the City of Elgin to make adequate bicycle and pedestrian accommodations as part of the standard practice for any improvement in the City. Subdivision regulations and site plan review should have official standards for including bicycle facilities in any new developments. The City's zoning code should be amended to include policies on bicycle facilities and amenities, such as the inclusion of bicycle racks and shower facilities in commercial zones.

D. Implementation Plan

The table on the following page is the recommended implementation plan for the City to follow.

E. Implementation Routes

Appendix L has recommended implementation routes for the City to initiate. One route for each quadrant of the City has been selected (i.e. NW, NE, SW, SE). A unit cost estimate has also been prepared and provided in the Appendix. The City can utilize this information to begin the implementation process.

PROJECT OR ACTION	PRIORITY OR SECONDARY ACTION	PARTICIPANTS/ INITIATORS	
COORDINATION			
Establish a Bikeway Master Plan Implementation Task Force	Priority	Public Works Department Community Development Department Parks and Recreation Department	Chamber of Commerce Residents and Property Elgin Community Network Owners Other City Staff
Hire or assign a City Bicycle Coordinator	Priority	Community Development Department	
Adopt a "complete streets policy"	Priority	City of Elgin	
Incorporate the Bikeway Master Plan into the City's 2008 Green Master Plan	Priority	City of Elgin	
Coordinate with regional and county agencies and neighboring communities on bikeway plans	Secondary	City Bicycle Coordinator	
Become a designated LAB Bicycle Friendly Community	Secondary	City of Elgin	
FUNDING			
Aggressively pursue funding for bikeway improvements and programs	Priority	City Bicycle Coordinator Bikeway Master Plan Implementation Task Force	Advocacy Groups
Maintain a five-year bicycle plan program to coincide with the City's five year CIP program; maximize opportunities to include "complete the streets" improvements into capital projects where feasible	Priority	Public Works Department Community Development Department City Bicycle Coordinator	
Continually monitor state and federal legislation to identify pending actions which could impact bikeway planning	Secondary	City Bicycle Coordinator Bikeway Master Plan Implementation Task Force	Advocacy Groups
POLICIES/PLANS			
Incorporate bikeway facilities into the subdivision street design standards	Priority	Community Development Department	Plan Commission
Incorporate consideration of bikeway facilities into development application review (e.g. zoning changes, periodic plan review)	Priority	Community Development Department Plan Commission	
Consider and implement improved signalization for bicycle traffic including improved signal actuation as well as appropriate signal phasing for bicyclists	Secondary	Public Works IDOT Kane County	
Integrate the Bikeway Master Plan into any updates of the City's Comprehensive Plan	Secondary	Community Development Department	
Integrate bicycle amenities into any capital projects at Metra and Pace transit facilities	Secondary	Community Development Department Plan Commission Public Works	Metra Pace
PROMOTION AND OUTREACH			
Organize promotional events such as bicycle commute days, bicycle races, and mass bicycle rides	Priority	City Bicycle Coordinator Employers Educators City Staff Parks and Recreation Department Law Enforcement Agencies	Advocacy Groups Residents Chamber of Commerce Elgin Community Network
Implement bicyclist and motorist safety programs	Priority	Law Enforcement Agencies Educators	
Explore the use of The Centre for shower facilities for out of town bicyclists	Secondary	City Bicycle Coordinator	

APPENDIX A – Advisory Committee

Elgin Bikeway Master Plan Advisory Committee Members

Members

John Loete	Director of Public Works
Dave Lawry	General Services Manager
Randy Reopelle	Parks and Recreation Director
Jim Bell	Parks Superintendent
Jeremy Helton	Parks and Recreation Department
Tom Armstrong	Principal Planner
Carl Missele	Elgin Community Network
David Kaptain	Elgin City Council
Kyla Jacobsen	Water Department Superintendent

Project Team

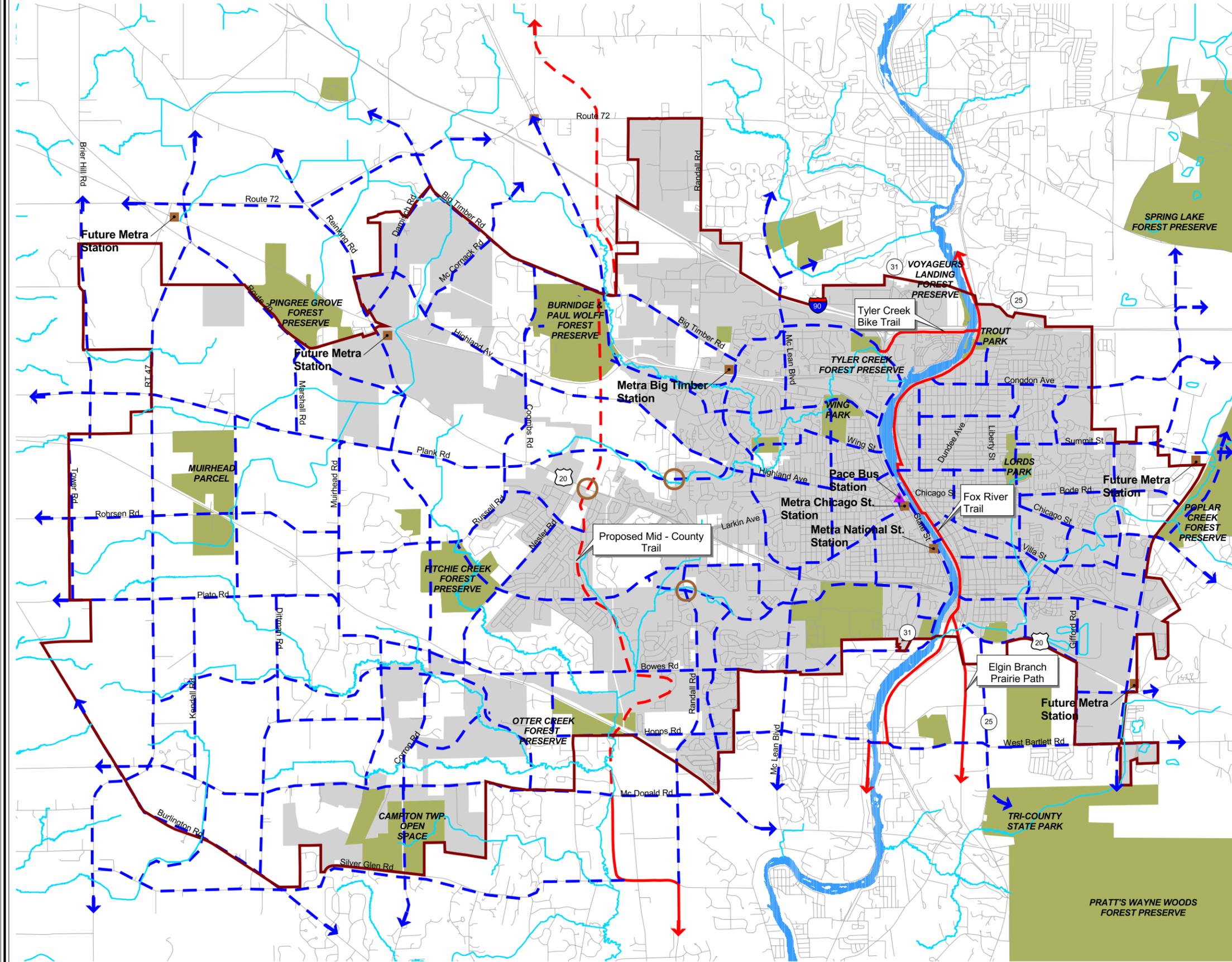
Brian Fairwood	TranSystems
Gina Trimarco	TranSystems
Nick Jackson	Chicagoland Bicycle Federation
Jeff Eichenauer	DLK Architecture, Inc.

APPENDIX B – Bicycle System Plan

Figure 5.8
Bicycle System Plan

Map Legend

-  Existing Regional/County Trails
-  Proposed Regional/County Trails
-  Local Bicycle System (Conceptual Routes)
-  Metra Commuter Rail Station
-  Pace Commuter Bus Station
-  Grade Separation
-  Streams
-  Elgin Planning Boundary
-  Park, Recreation & Open Space Site
-  Elgin Municipal Boundary
-  Fox River



City of Elgin
Comprehensive Plan
and Design Guidelines



City of Elgin
Community Development Group

APPENDIX C – Goals, Objectives, Policy Statements

Goals, Objectives , and Policy Statements

Goal T-1:	Provide a balanced, multi-modal transportation system for the City of Tyler that supports the safe and efficient movement of people and goods.
Objective T-1.1	Provide viable options for the movement of people and goods.
Policy T-1.1a	Implement strategies to manage congestion.
Policy T-1.1b	Prioritize the safety of all current and future travel modes.
Policy T-1.1c	Balance mobility and accessibility needs among travel modes.
Policy T-1.1d	Establish performance standards for all modes.
Policy T-1.1e	Encourage the development and implementation of new technologies by future central utility infrastructure systems, public transit, and private investment.
Policy T-1.1f	Support the planning and development of a balanced multi-modal transportation system that provides equal convenience and accessibility to all modes of travel.
Objective T-1.2	Design and build a strategic system that links transit and roads on the past.
Policy T-1.2a	Coordinate with State and County transportation departments to complete the Transportation System Plan.
Policy T-1.2b	Ensure that transit access offers all roadway users similar benefits to other modes of transportation and that the transit program provides for people who are beyond transit. It should evaluate the potential for bicycle and pedestrian facilities providing limited access where needed.
Policy T-1.2c	Develop and maintain a roadway network consistent with the Transportation System Plan.

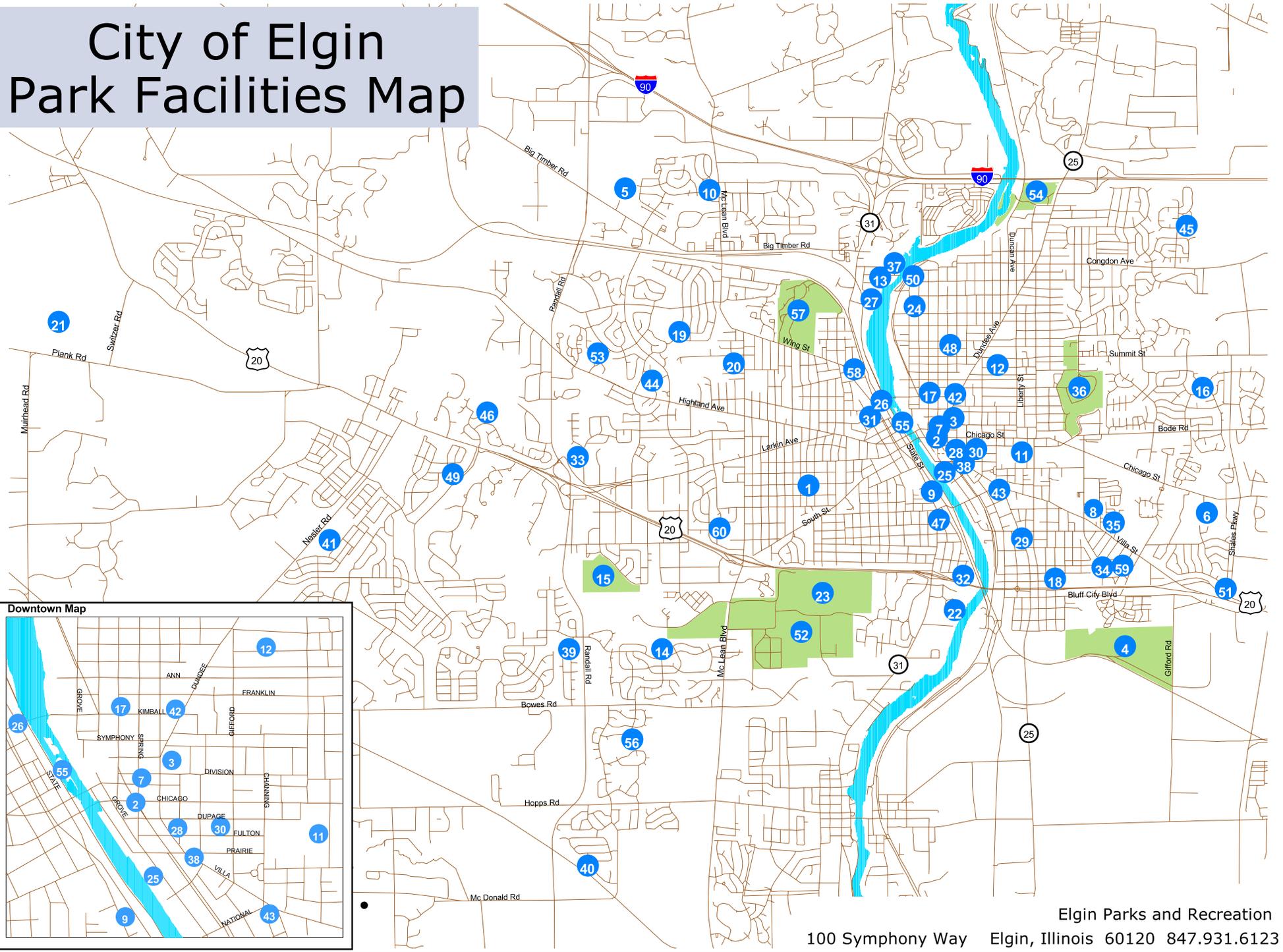
Policy T-1.21	Create the roadway network consistent with the functional classifications presented in the Transportation System Plan.	Objective T-1.6 Policy T-1.10	Create a transportation system that is accessible to all users.
Policy T-1.26	Continue ongoing street widening and improvement programs, and maintain a state of the art traffic signal network to anticipate future demands, and to provide the most efficient traffic flow.	Policy T-1.10b	Consider the needs of the person user to meet the special needs of the elderly and provide wheelchair mobility in the planning and design of the transportation system.
Objective T-1.3	Improve accessibility, availability, efficiency, and viability of public transportation systems for all users.	Policy T-1.10c	Design transportation systems to be a continuum with standards established in the Americans with Disabilities Act.
Policy T-1.34	Continue to provide a variety of paratransit services which may serve the elderly and the disabled.	Policy T-1.10e	Provide paratransit services for persons with impaired mobility. Ensure that people with disabilities are provided equal access to work, home and community destinations.
Policy T-1.30	Coordinate with PACL and MLTRA to expand paratransit services to Ughn residents.	Objective T-1.7	Ensure existing elements of the bicycle system are maintained through adequate maintenance and preservation.
Policy T-1.32	Develop bicycle facilities and on-park and off-park facilities as needed to make bicycle riding a safe, comfortable, and convenient.	Policy T-1.7a	Monitor the condition of all transportation facilities including roads, trails, bicycle and pedestrian facilities.
Policy T-1.36	Work with PACL to develop local system of bus circulation to provide better connectivity between neighborhoods and activity centers in Ughn.	Goal T-2:	Improve and implement a plan that builds on the characteristics of the community in terms of the environment and enhances the quality of life today and in the future.
Objective T-1.4	Create a comprehensive system of bicycle facilities, programs, and services.	Objective T-2.1	Establish guidelines and standards to enhance the long use transportation corridor.
Policy T-1.42	Accommodate bicyclists on street rights of way consistent with the type of street, including shared use paths, safety, and an adapted bicycle system plan.	Policy T-2.1a	Develop guidelines and regulations to promote and allow bicycle anchorage and trail, shared development and trail use.
Policy T-1.43	Develop and improve individual bikeways, trails, and shared-use paths, along with some corridors, utility corridors, and roadway rights of way to low resistance, well-maintained recreation facilities, schools, shopping and employment areas, and transit services areas adjacent to major activity centers and into neighboring jurisdictions.	Policy T-2.1b	Discourage or restrict building projects, particularly in the neighborhood of neighborhoods while maintaining pedestrian and bicycle access.
Policy T-1.44	Develop bicycle parking standards for new development and redevelopment projects.	Policy T-2.1c	Encourage the location of higher density land uses in active centers where a variety of transportation options can be provided.
Policy T-1.45	Use nationally and regionally recognized standards and guidelines for the planning, design, and construction of bicycle facilities.	Policy T-2.1d	Support the integration of transportation and land use planning processes and programs.
Objective T-1.5	Create an efficient, parking environment for pedestrians.	Policy T-2.1e	Locate greater number of on-street and off-street employment centers to reduce travel demand and to maintain air quality.
Policy T-1.5a	Adopt design standards and codes that promote to provide an environment.	Policy T-2.1f	Locate a variety of transit options close to employment centers to reduce travel demand and to maintain air quality.
Policy T-1.5b	Encourage pedestrian use and safety by providing sidewalks that are designed from roadways, along with street trees and benches where appropriate.	Policy T-2.1g	Encourage the development of new commercial areas and new land use patterns to create a more dispersed pattern of commercial development that increases transit use.
Policy T-1.5c	Develop multi-use paths along stream corridors, utility corridors, and in parks to improve recreation potential.	Policy T-2.1h	Encourage retail and redevelopment in neighborhoods adjacent to the essential goods and utility transportation infrastructure.
Policy T-1.5d	Maintain utility and service potential adjacent to stream corridors and related developments to ensure connectivity.	Policy T-2.1i	Encourage maintenance management where such areas act as buffers and create opportunities to alter the location of activity centers.

Objective T-2.2	Maintain and enhance neighborhood integrity and identity when planning, designing, and constructing transportation improvements.	Policy T-2.2a	Maintain and enhance neighborhood integrity and identity when planning, designing, and constructing transportation improvements.	Policy T-2.2a	Begin an urban planning program for the use of alternative transportation modes.
Policy T-2.2a	Provide connection between neighborhood, schools, parks, and areas of the community without using auto as mode.	Policy T-2.2b	Maintain physical barriers between neighborhoods and subdivisions, such as fences and walls.	Policy T-2.2b	Coordinate the planning for the transit and link to the suburban system with neighboring communities and jurisdictions.
Policy T-2.2c	Design new local and collector streets to reduce travel speeds and cut through traffic in neighborhoods.	Policy T-2.2d	Provide for appropriate traffic calming measures to address speeding and cut through traffic in neighborhoods.	Policy T-2.2c	Localize the long range transportation planning activities by backstopping on regional planning efforts. Coordinate transportation projects and improvements with development activities, public works, and parks, and with regional transportation and land use plans.
Objective T-2.3	Develop transportation facilities that are compatible with the surrounding requirements of the future landscape and open space.	Policy T-2.3a	Develop transportation facilities that are compatible with the surrounding requirements of the future landscape and open space.	Policy T-2.3a	Coordinate with affected entity, state and local agencies, local governments, and providers of transit services to ensure the timely provision of required equipment.
Policy T-2.3a	Establish guidelines related to the visual appearance, form, color, and transportation facilities, and to the incorporation of design features that give identity to neighborhoods and natural features.	Policy T-2.3b	Provide an open, safe, and credible process for planning and owning a transportation system that complies with federal, state, and county regulations and is responsive to the community.	Policy T-2.3b	Coordinate with neighboring municipal and other jurisdictions to ensure consistent planning and network continuity for all modes of travel.
Objective T-3.1	Improve the planning of the transportation system - ensuring plans address public values and have the flexibility to respond to changing needs.	Policy T-3.1a	Establish a Transportation Committee to ensure transportation-related research and policies in a "open public forum" and to advise the City Council in terms of Appendix A.	Policy T-3.1a	Use the Transportation Plan as the foundation for decision making in transportation related issues.
Policy T-3.1a	Maximize information on transportation projects and meetings on the City of Lynn website to	Policy T-3.1b	Formulate a transportation plan that can be funded and that reflects responsible use of public funds.	Policy T-3.1b	Provide policy direction to related urban advisory bodies and staff in transportation related issues.
Policy T-3.1c	Seek citizen input on transportation issues, plans, and programs.	Policy T-3.1d	Identify ways to obtain public input on transportation priorities in preparing the City's Capital Improvement Program.	Policy T-3.1d	Use the Transportation Plan for the following: <ul style="list-style-type: none"> Review and revise existing transportation design standards. Require new development to provide for a suite of transportation options, not an alternative. Identify museum and programs to enhance mobility for all travel modes. Provide projects in the Five-Year Capital Improvement Program that establish funding and project construction policies.
Objective T-3.2	Ensure that involve the public and policy makers in developing our transportation system.	Policy T-3.2a	Develop transportation plan that can be funded and that reflects responsible use of public funds.	Policy T-3.2a	Develop innovative and sound funding policies to implement the four sport/health/fit programs to be funded outside funding sources.
Policy T-3.2a	Develop transportation related information and educational programs to distribute to the public.	Policy T-3.2b	Establish a program of City sponsored events.	Policy T-3.2b	Coordinate the operations and maintenance of the existing transportation system as a priority to funding before investing in new infrastructure.
Policy T-3.2c	Provide adequate resources to support a transportation safety education program.	Policy T-3.2d	Coordinate with other relevant transportation projects to evaluate practices.	Policy T-3.2d	Establish funding priorities to guide the funding and ongoing day of transportation improvements.

Policy T-4.3c	Provide for ongoing funding for streets, sidewalks to long term maintenance and security action of the community's transportation facilities.
Objective T-4.3	Encourage new growth and development projects pay for their fair share of transportation infrastructure costs.
Policy T-4.3h	Address access and usability needs for all new development. Identify the cost and responsibilities for all related transportation facility improvements.
Policy T-4.3i	Coordinate future developments to "have their fair share" contributions to transportation facility improvements.
Goal T-5:	Provide the transportation system to support planned economic development and vitality.
Objective T-5.1	Support desired economic development and vitality.
Policy T-5.1a	Provide a balanced transportation system to support the economic viability of the City.
Policy T-5.1c	Provide gateway investments along transportation corridors, all the way from I-90 to Highway 100, to support economic development.
Policy T-5.1d	Provide roadway signage as needed to direct travelers and visitors to activity centers, destination sites, and parking.
Objective T-5.2	Provide for goods movement.
Policy T-5.2a	Design arterial streets to accommodate freight traffic.
Policy T-5.2b	Provide transportation infrastructure for the movement of freight and goods via air, water, truck, rail, or other modes of public or private.

APPENDIX D – Park Facilities

City of Elgin Park Facilities Map



Elgin Parks and Recreation
100 Symphony Way Elgin, Illinois 60120 847.931.6123

APPENDIX E – Capital Improvement Plan

Capital Improvement Plan: 2007-2011

	Budget 2007	Planned 2008	Planned 2009	Planned 2010	Planned 2011
Central Area III Fund:					
1 Central Area III Office Maintenance	\$1,000,000	\$1,000,000	\$1,250,000	\$1,250,000	\$1,250,000
2 Central Area III Area	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000
3 Central Area III Capital Projects	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000
4 Maintenance of Structures	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000
5 Water Street Plaza	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000
Riverfront & Riverfront Lease Funds:					
6 77 Level 1 PPH	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
7 77 Level 2	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
8 Arkansas Riverfront	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
9 Arkansas Riverfront	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
10 Arkansas Street Frontal Program	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
11 Arkwalk Signage & Lighting Project	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
12 Arkwalk Implementation	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
13 Bank of America Building	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
14 Bank of America Building	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
15 Bank of America Building	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
16 Buildings, Repairs	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
17 Business Improvement District Program	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
18 Citywide Incentive Program	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
19 Central City Historic District Program	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
20 Central City Historic District	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
21 Central City Historic District	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
22 Central City Historic District	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
23 Central City Historic District	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
24 City Council Capital Projects	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
25 City Hall Renovation	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
26 City of Little Rock City Hall	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
27 Cook County Center Allocation	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
28 Council and Sewer Separation Projects	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
29 Council Office Building Renovation	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
30 Council Office Building Renovation	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
31 Courthouse	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
32 Courthouse RHD	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
33 Document Archival Service	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
34 Downtown Business District	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
35 Downtown Building Renovation	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
36 Downtown Business District	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
37 Eagle Park Area Development	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
38 Economic Development Districts	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
39 Eagle Park Area Development	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
40 Eagle Park Area Development	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
41 Eagle Park Area Development	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
42 Eagle Park Area Development	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
43 Eagle Park Area Development	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
44 Eagle Park Area Development	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
44 Eagle Park Area Development	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
40 Eagle Park Area Development	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
47 Eagle Park	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
48 Eagle Park Allocation	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
49 Eagle Park Allocation	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
54 Eagle Park Allocation	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
52 Eagle Park Allocation	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
53 Eagle Park Allocation	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000

Capital Improvement Plan: 2007-2011

	Budget 2007	Planned 2008	Planned 2009	Planned 2010	Planned 2011
110	\$1,000,000	\$0	\$0	\$0	\$0
111	\$1,000,000	\$0	\$0	\$0	\$0
112	\$1,000,000	\$0	\$0	\$0	\$0
113	\$1,000,000	\$0	\$0	\$0	\$0
114	\$1,000,000	\$0	\$0	\$0	\$0
115	\$1,000,000	\$0	\$0	\$0	\$0
116	\$1,000,000	\$0	\$0	\$0	\$0
117	\$1,000,000	\$0	\$0	\$0	\$0
118	\$1,000,000	\$0	\$0	\$0	\$0
119	\$1,000,000	\$0	\$0	\$0	\$0
120	\$1,000,000	\$0	\$0	\$0	\$0
121	\$1,000,000	\$0	\$0	\$0	\$0
122	\$1,000,000	\$0	\$0	\$0	\$0
123	\$1,000,000	\$0	\$0	\$0	\$0
124	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
125	\$1,000,000	\$0	\$1,000,000	\$1,000,000	\$1,000,000
126	\$1,000,000	\$0	\$0	\$0	\$0
127	\$1,000,000	\$1,000,000	\$0	\$0	\$0
128	\$1,000,000	\$0	\$0	\$0	\$0
129	\$0	\$1,000,000	\$0	\$0	\$0
130	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
131	\$1,000,000	\$0	\$0	\$0	\$0
132	\$1,000,000	\$0	\$0	\$0	\$0
133	\$1,000,000	\$0	\$0	\$0	\$0

Recreation Fund:

134	\$1,000,000	\$0	\$0	\$0	\$0
135	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
136	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
137	\$1,000,000	\$0	\$0	\$0	\$0

Water Fund:

138	\$1,000,000	\$0	\$0	\$0	\$0
139	\$1,000,000	\$0	\$0	\$0	\$0
140	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$0
141	\$1,000,000	\$200,000	\$1,000,000	\$1,000,000	\$1,000,000
142	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$0
143	\$1,000,000	\$0	\$0	\$0	\$0
144	\$1,000,000	\$1,000,000	\$0	\$0	\$0
145	\$1,000,000	\$0	\$1,000,000	\$0	\$0
146	\$1,000,000	\$1,000,000	\$1,000,000	\$0	\$0
147	\$1,000,000	\$0	\$0	\$1,000,000	\$1,000,000
148	\$1,000,000	\$0	\$0	\$0	\$1,000,000
149	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
150	\$1,000,000	\$0	\$0	\$0	\$0
151	\$1,000,000	\$1,000,000	\$0	\$0	\$0
152	\$1,000,000	\$0	\$1,000,000	\$1,000,000	\$0

Sewer Fund:

153	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
154	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
155	\$1,000,000	\$0	\$0	\$0	\$0
156	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
157	\$1,000,000	\$0	\$0	\$0	\$0
158	\$1,000,000	\$0	\$0	\$0	\$0

Capital Improvement Plan: 2007-2011

	Budget 2007	Planned 2008	Planned 2009	Planned 2010	Planned 2011
259 Sewer Lateral Program	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000
600 CIP Construction Priority Program	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000

APPENDIX F – Public Involvement

Public Involvement

Input from the “Popcorn and Planning” and “Popcorn and Pedaling” Meetings (2004)

The public was asked a series of questions on transportation needs throughout the City. Points stated by subject area are as follows:

Improvement Opportunities:

- Need to improve connectivity for pedestrians and bicyclists
- Pedestrian overpass needed near U.S. Route 20 to get to parks
- Bus service/bike paths/sidewalks connecting isolated areas to the rest of town
- There currently is no connectivity to the east, past Liberty Street for pedestrian/bike
- Need for pedestrian friendly access across Dundee Avenue
- Connect neighborhoods to the Fox River Trail, schools, parks and commercial activity centers

Parking and Traffic Issues:

- Can't cross Randall Road by foot or bike; do we need an overpass over Randall?
- Forced to drive everywhere

Parks, Bike Paths:

- Challenge to link a number of the Kane County forest preserves west of Randall with the established neighborhoods and the Fox River Trail east of Randall; need to evaluate signal controlled Randall Road intersections and/or potential for grade-separated crossings at various locations
- Potential local trail systems linking the two Kane County regional trails (i.e. Mid- County Trail System and the Fox River Trail) with Wing Park
- Connection of the Burnidge/Paul Wolf Forest Preserve with the Tyler Creek Forest Preserve as well as Big Timber Metra Station, Century Oaks West Subdivision, and the Highland Glen Subdivision
- Sandy Creek Trail could connect Udina, Mid-County Trail, Randall Ridge Park, Hawthorne nature Center, Besinger property (proposed park). Valley Creek Subdivision to Eagles property (proposed park) and Eagle Heights Park.
- Trail system also planned along the west bank of the Fox River, linking the Center City with Wing Park, Judson College and the Tyler Creek Forest Preserve.

Intersection/ Street and Sidewalk Improvements:

- Put bike path, walking trail or sidewalk on Highland Avenue

Entryways/Green Space Opportunities:

- Poplar Creek, Willow Creek, Fox River, Bluff Spring Fed, Gifford Road (gravel lake), Metra corridor, U.S. Route 20 corridor

Public Involvement

Input from the Public Information Meeting(April 26, 2007)

On April 26, 2007 a public information meeting was held for the *Bikeway Master Plan*. Thirty people were in attendance. At this meeting, a presentation was made by the project team to discuss the project scope and the objective of the *Bikeway Master Plan*. The audience was then broken into four groups, based on area of the City they were most interested in (i.e. northwest, northeast, southwest, southeast), and asked to review and input into the draft *Bikeway Master Plan* map. The groups were also asked to fill out a worksheet which discussed goals, bikeway destinations, and important linkages or connections. The following is a summary of the worksheets.

Name five primary destinations that should be served by the proposed bicycle routes:

- E. Fox River Trail
- F. Downtown Elgin
- G. Metra Train Stations
- H. Illinois Prairie Path (from the west side of Elgin)
- I. Lords Park
- J. Wing Park
- K. Library
- L. City Centre
- M. Mid-County Bicycle Trail
- N. Shopping centers on south Randall Road
- O. Elgin Community College
- P. Elgin Sports Complex
- Q. Paul Wolf Forest Preserve
- R. Dairy Queen at Chicago Street/ Woodland Avenue
- S. Retail center at Larkin Avenue/Lyle Avenue
- T. Retail center at McLean Boulevard/Wing Street
- U. Poplar Creek Forest Preserve
- V. Trout Park
- W. Festival Park
- X. Channing Elementary School and Park
- Y. New park at Willard/Villa Avenues
- Z. Elgin Area Historical Society
- AA. Huff School
- BB. Ellis Middle School
- CC. Larsen Middle School
- DD. Bluff Spring Fen
- EE. Bluff City Cemetery
- FF. Clara Howard Park
- GG. Gifford Park

Identify any linkages or critical connections:

- Ramp over/under Kimball Street at Fox River Trail
- Bike Path bridge under U.S. Route 20/Fox River Trail
- Connection to far west developments
- Connection to proposed Mid-County Trail
- Improved access to Fox River Trail from west side
- Utilize NICOR easement west of Tyler Creek for path into Tyler Creek Forest Preserve/Wing Park to Tyler Creek Forest Preserve

-
- Connection/extension of Shoe Factory Road Trail (Hoffman Estates)
 - Crossing over Randall Road
 - Tunnel under U.S. Route 20
 - Connection to Tri-County State Park
 - Access to Metra/Big Timber Station from the south

Identify any significant problems or impediments:

- Kimball Street bridge at the Fox River Trail: requires bicyclist to get off path and travel down Kimball to McBride Avenue
- National Street and the Fox River crossing: National Street is very steep on the west side of the River
- Randall Road: dangerous road, busy; poses as an impediment to east-west travel
- U.S. Route 20; poses as an impediment for north south travel
- McLean Boulevard; dangerous road, busy; poses as an impediment to east-west travel
- Highland Avenue at IL Route 31; steep west of IL Route 31; sight distance hindered by viaduct

APPENDIX G – Sidepath Suitability Index

Sidepath Suitability Score

Ed Barsotti, League of Illinois Bicyclists, April 3, 2001

The following algorithm rates the suitability of a sidewalk or sidepath as a bicycle facility. (A sidepath is a trail parallel to, but separated from, a roadway). The algorithm can be used to:

- Rate existing sidepaths
- Determine whether a new sidepath would be an appropriate option for accommodating bikes
- Suggest safety improvements for existing or planned sidepaths

At present, no such nationally-accepted suitability index exists. The *AASHTO Guide for the Development of Bicycle Facilities* describes some of the problems encountered when using sidewalks or sidepaths as bicycle facilities. I have attempted to combine these and other factors into a quantified suitability score. No field testing, statistical analysis, or calibration has been done - the algorithm is only my estimation of the relative importance of key terms. It was developed for the Non-Motorized Transportation Plan of North Aurora, Illinois.

The factors considered are: intersection traffic, continuity, curb cuts, pedestrian use, crosswalks, and path/road separation at intersections. Assumed is that bicyclists will travel in both directions on the sidepaths.

1. Intersection Traffic Score.

The volume and speed of traffic - especially turning traffic - directly affect the risk of collision. Determine the intersection traffic score X from the following:

$$X = [R + (2 * A) + (4 * B)] / M * [Spd * Vol];$$

Where:

R = Number of residential intersections (driveways) on the segment,

A = Number of minor commercial intersections and streets (<1000 ADT),

B = Number of major commercial intersections and streets (>1000 ADT),

M = Length of segment in miles

Spd = Speed limit factor, for the parallel street: 30 and under = 1, 35-40 = 2, 45 and over = 3.

Vol = Traffic volume factor, parallel street: <2,000 = 1; 2,000-10,000 = 2; >10,000 = 3.

X	Points
0	0
1-40	1
41-80	2
81-120	3
121-160	4
161-200	5
201-240	6
>240	7

2. Continuity.

Discontinuities (major gaps, or sidepath ends) may force cyclists to ride through grass, etc., and enter the roadway awkwardly. Often cyclists will avoid sidepaths with these gaps. Add **4 points** if major discontinuities exist.

3. Curb cuts.

Uncut curbs compromise cyclist movement and attention at intersections. Add **3 points** if any intersections are lacking curb cuts.

4. Pedestrian use.

Sidewalks and sidepaths are used by both bicyclists and pedestrians. Insufficient width increases user conflict. (However, extra width encourages higher cyclist speeds - which becomes a problem at incorrectly-designed intersections.) Add points according to the following chart:

Low (rare) ped use		Medium (sometimes) ped use		High (often) ped use	
<= 5'	1 point	<= 5'	2 points	<= 5'	4 points;
> 5'	0 points	6-7'	1 point	6-7'	2 points
		>= 8'	0 points	>= 8'	1 point;

5. Crosswalks.

Visible crosswalks can help make motorists more aware of non-motorized traffic. Sometimes 2 parallel painted stripes are sufficient. At busier intersections, ladder crosswalks and other techniques enhance visibility. Add **2 points** if there are no crosswalks. Add **1 point** if there are some crosswalk markings, but more visibility is warranted for that intersection type. Add **0 points** for appropriately marked crossings. Take the average crossing for the segment.

6. Intersection sidepath/road separation.

AASHTO recommends that sidepaths be brought closer to the parallel road at intersections, so motorists more easily see and consider bicyclists during their approaches. The vehicular stop line should be in back of the sidepath crossing - cyclists must not weave through stopped traffic when crossing. Add **5 points** if the crossing goes through stopped traffic. Add **3 points** if the crossing is not brought "close enough" to the parallel road. Add **1 point** when the crossing is brought close to the road. (Paved shoulders and bike lane crossings - 0 points.) Again, take the average crossing for the segment.

Add together all the points for the sidepath suitability score. Ranges of suitability are:

Suitability Score	Suitability
<= 7	Most suitable
8-6	Somewhat suitable
10-11	Least suitable
>= 12	Not suitable

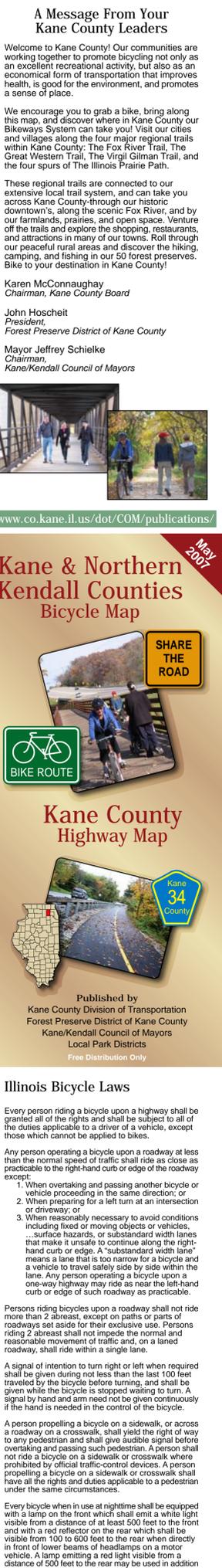
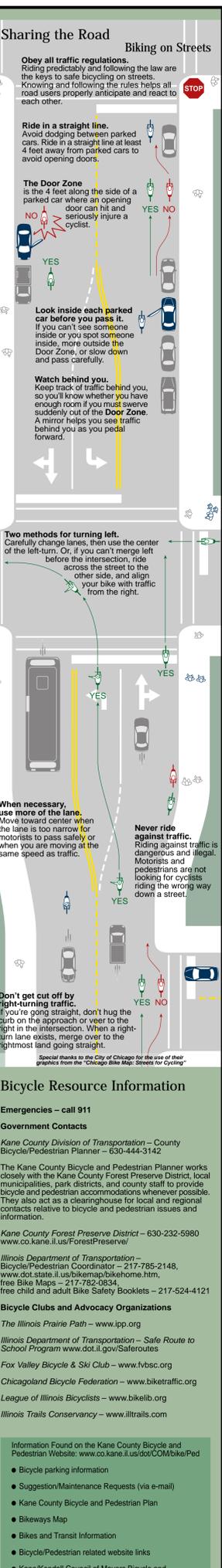
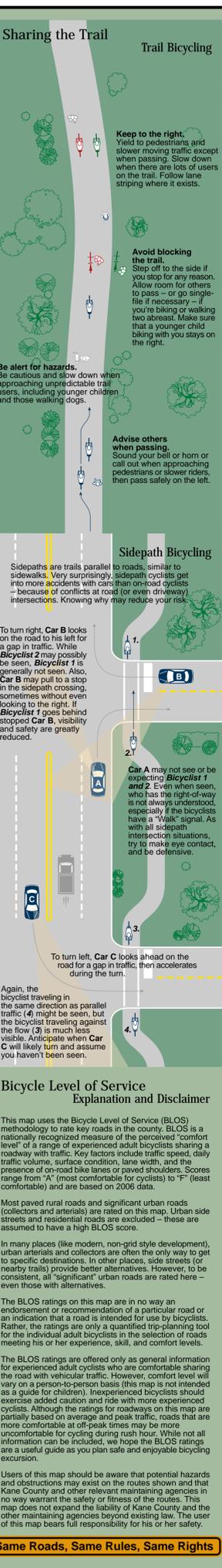
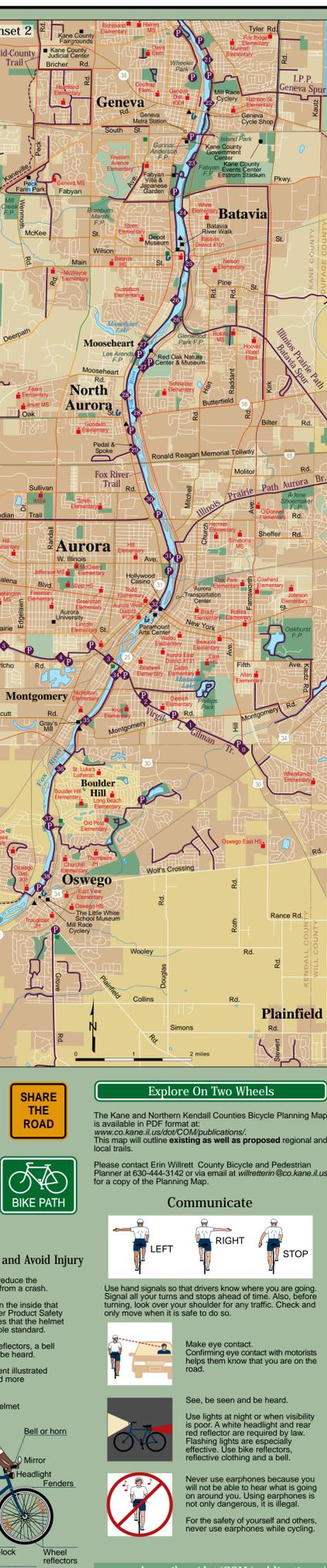
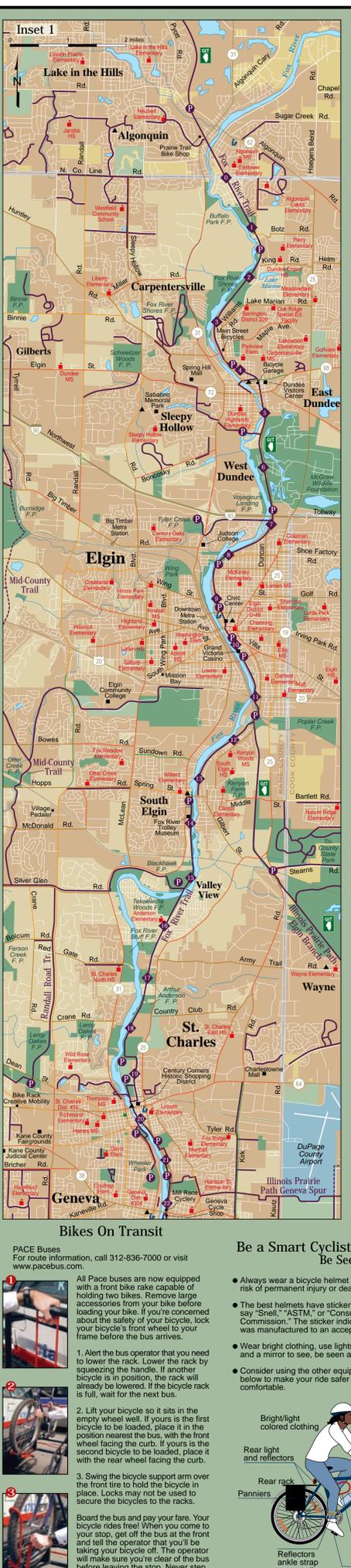
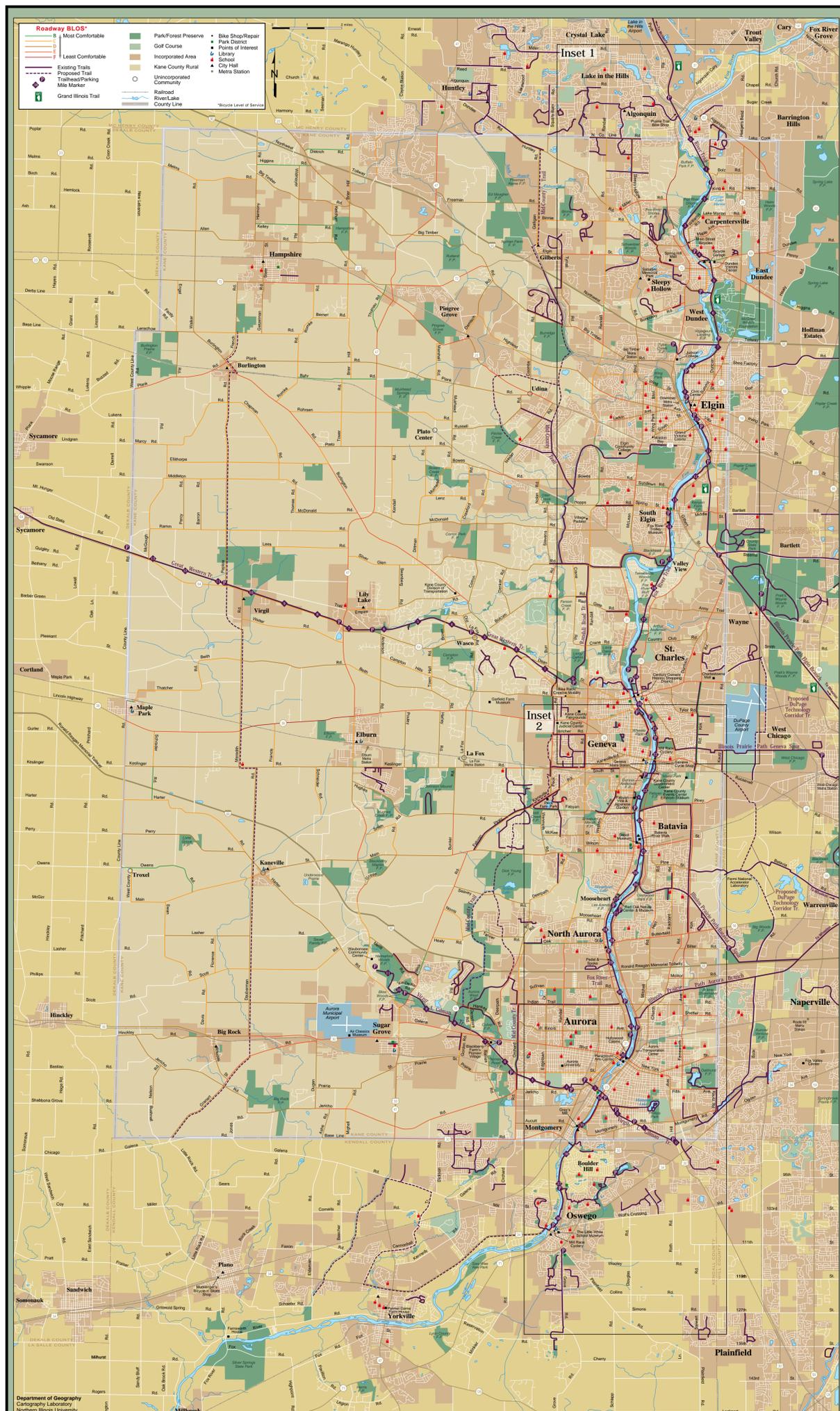
[Top of page](#)

[LIB home page](#)

Cosmetic revisions 2004-05-03

Lee Pirtle, [webmaster](#)

APPENDIX H – Kane and Kendall Counties Bicycle Map



A Message From Your Kane County Leaders

Welcome to Kane County! Our communities are working together to promote bicycling not only as an excellent recreational activity, but also as an economical form of transportation that improves health, is good for the environment, and promotes a sense of place.

We encourage you to grab a bike, bring along this map, and discover where in Kane County our Bikeways System can take you! Visit our cities and villages along the four major regional trails within Kane County: The Fox River Trail, The Great Western Trail, The Virgil Gilman Trail, and the four spurs of the Illinois Prairie Path.

These regional trails are connected to our extensive local trail system, and can take you across Kane County through our historic downtown's, along the scenic Fox River, and by our farmlands, prairies, and open space. Venture off the trails and explore the shopping, restaurants, and attractions in many of our towns. Roll through our peaceful rural areas and discover the hiking, camping, and fishing in our 50 forest preserves. Bike to your destination in Kane County!

Karen McConnaughey
Chairman, Kane County Board

John Hoschelt
President, Forest Preserve District of Kane County

Mayor Jeffrey Schielke
Chairman, Kane/Kendall Council of Mayors

www.co.kane.il.us/dot/COM/publications

Kane & Northern Kendall Counties Bicycle Map



Kane County Highway Map



Published by Kane County Division of Transportation
Forest Preserve District of Kane County
Kane/Kendall Council of Mayors
Local Park Districts
Free Distribution Only

Illinois Bicycle Laws

Every person riding a bicycle upon a highway shall be granted all of the rights and shall be subject to all of the duties applicable to a driver of a vehicle, except those which cannot be applied to bicycles.

Any person operating a bicycle upon a roadway at less than the normal speed of traffic shall ride as close as practicable to the right-hand curb or edge of the roadway except:

- When overtaking and passing another bicycle or vehicle proceeding in the same direction; or
- When preparing for a left turn at an intersection or driveway; or
- When reasonably necessary to avoid conditions including fixed or moving objects or vehicles, surface hazards, or substandard width lanes that make it unsafe to continue along the right-hand curb or edge. A "substandard width lane" means a lane that is too narrow for a bicycle and vehicle to travel side-by-side within the lane. Any person operating a bicycle upon a one-way highway may ride as near the left-hand curb or edge of such roadway as practicable.

Persons riding bicycles upon a roadway shall not ride more than 2 abreast, except on paths or parts of roadways set aside for their exclusive use. Persons riding 2 abreast shall not impede the normal and reasonable movement of traffic and, on a laned roadway, shall ride within a single lane.

A signal of intention to turn right or left when required shall be given during not less than the last 100 feet traveled by the bicycle before turning, and shall be given while the bicycle is stopped waiting to turn. A signal by hand and arm need not be given continuously if the hand is intended in the control of the bicycle.

A person propelling a bicycle on a sidewalk, or across a roadway on a crosswalk, shall yield the right of way to any pedestrian and shall give audible signal before overtaking and passing such pedestrian. A person shall not ride a bicycle on a sidewalk or crosswalk where prohibited by official traffic-control devices. A person propelling a bicycle on a sidewalk or crosswalk shall have all the rights and duties applicable to a pedestrian under the same circumstances.

Every bicycle when in use at nighttime shall be equipped with a lamp on the front which shall emit a white light visible from a distance of at least 500 feet to the front and with a red reflector on the rear which shall be visible from 100 to 600 feet to the rear when directly in front of lower beams of headlights on a motor vehicle. A lamp emitting a red light visible from a distance of 500 feet to the rear may be used in addition to the red reflector.

Sharing the Road

Obey all traffic regulations. Riding predictably and following the law are the keys to safe bicycling on streets. Knowing and following the rules helps all road users properly anticipate and react to each other.

Ride in a straight line. Avoid dodging between parked cars. Ride in a straight line at least 4 feet away from parked cars to avoid opening doors.

The Door Zone is the 4 feet along the side of a parked car where an opening door can hit and seriously injure a cyclist.

Look inside each parked car before you pass it. If you can't see someone inside or you spot someone inside, more outside the Door Zone, or slow down and pass carefully.

Watch behind you. Keep track of traffic behind you, so you know whether you have enough room if you must swerve suddenly out of the Door Zone. A mirror helps you see traffic behind you as you pedal forward.

Two methods for turning left. Carefully change lanes, then use the center of the left-turn. Or, if you can't merge left before the intersection, ride across the street to the other side, and align your bike with traffic from the right.

When necessary, use more of the lane. Move toward center when the lane is too narrow for motorists to pass safely, or when you are moving at the same speed as traffic.

Never ride against traffic. Riding against traffic is dangerous and illegal. Motorists and pedestrians are not looking for cyclists riding the wrong way down a street.

Don't get cut off by right-turning traffic. If you're going straight, don't hug the curb on the approach or veer to the right in the intersection. When a right-turn lane exists, merge over to the rightmost lane going straight.

Special thanks to the City of Chicago for the use of their graphics from the "Chicago Bike Map: Streets for Cycling"

Sharing the Trail

Keep to the right. Yield to pedestrians and slower moving traffic except when passing. Slow down when there are lots of users on the trail. Follow lane striping where it exists.

Avoid blocking the trail. Stop off to the side if you stop for any reason. Allow room for others to pass - or go single-file if necessary - if you're biking or walking two abreast. Make sure that a younger child biking with you stays on the right.

Be alert for hazards. Be cautious and slow down when approaching unpredictable trail users, including younger children and those walking dogs.

Advise others when passing. Sound your bell or horn or call out when approaching pedestrians or slower riders, then pass safely on the left.

Sidewalk Bicycling Sidewalks are trails parallel to roads, similar to sidewalks. Very surprisingly, sidewalk cyclists get into more accidents with cars than on-road cyclists - because of conflicts at road (or even driveway) intersections. Knowing why may reduce your risk.

To turn right, Car B looks on the road to the left for a gap in traffic. While Bicyclist 2 may possibly be seen, Bicyclist 1 is generally not seen. Also, Car B may pull to a stop in the sidewalk crossing, sometimes without even looking to the right. If Bicyclist 1 goes behind stopped Car B, visibility and safety are greatly reduced.

Car A may not see or be expecting Bicyclists 1 and 2. Even when seen, who has the right-of-way is not always understood, especially if the bicyclists have a "Walk" signal. As with all sidewalk intersections, try to make eye contact, and be defensive.

To turn left, Car C looks ahead on the road for a gap in traffic, then accelerates during the turn.

Again, the bicyclist traveling in the same direction as parallel traffic (4) might be seen, but the bicyclist traveling against the flow (3) is much less visible. Anticipate when Car C will likely turn and assume you haven't been seen.

Share the Road

Explore On Two Wheels

The Kane and Northern Kendall Counties Bicycle Planning Map is available in PDF format at: www.co.kane.il.us/dot/COM/publications/. This map will outline existing as well as proposed regional and local trails.

Please contact Erin Willett, County Bicycle and Pedestrian Planner at 630-444-3142 or via email at erwillett@co.kane.il.us for a copy of the Planning Map.

Communicate

Use hand signals so that drivers know where you are going. Signal all your turns and stops ahead of time. Also, before turning, look over your shoulder for any traffic. Check and only move when it is safe to do so.

Make eye contact. Confirming eye contact with motorists helps them know that you are on the road.

See, be seen and be heard. Use lights at night or when visibility is poor. A white headlight and rear reflector are required by law. Flashing lights are especially effective. Use bike reflectors, reflective clothing and a bell.

Never use earphones because you will not be able to hear what is going on around you. Using earphones is not only dangerous, it is illegal.

For the safety of yourself and others, never use earphones while cycling.

www.co.kane.il.us/dot/COM/publications/



Bicycle Level of Service

This map uses the Bicycle Level of Service (BLOS) methodology to rate key roads in the county. BLOS is a nationally recognized measure of the perceived "comfort level" of a range of experienced adult bicyclists sharing a roadway with traffic. Key factors include traffic speed, daily traffic volume, surface condition, lane width, and the presence of on-road bike lanes or paved shoulders. Scores range from "A" (most comfortable for cyclists) to "F" (least comfortable) and are based on 2006 data.

Most paved rural roads and significant urban roads (collectors and arterials) are rated on this map. Urban side streets and residential roads are excluded - these are assumed to have a high BLOS score.

In many places (like modern, non-grid style development), urban arterials and collectors are often the only way to get to specific destinations. In other places, side streets (or nearby trails) provide better alternatives. However, to be consistent, all "significant" urban roads are rated here - even those with alternatives.

The BLOS ratings on this map are in no way an endorsement or recommendation of a particular road or an indication that a road is intended for use by bicyclists. Rather, the ratings are only a quantified tool for the individual adult bicyclists in the selection of roads meeting his or her experience, skill, and comfort levels.

The BLOS ratings are offered only as general information for experienced adult cyclists who are comfortable sharing the road with vehicular traffic. However, comfort level will vary on a person-to-person basis (this map is not intended as a guide for children). Inexperienced bicyclists should exercise added caution and ride with more experienced cyclists. Although the ratings for roadways on this map are partially based on average and peak traffic, roads that are more comfortable at off-peak times may be more uncomfortable for cycling during rush hour. While not all information can be included, we hope the BLOS ratings are a useful guide as you plan safe and enjoyable bicycling excursions.

Users of this map should be aware that potential hazards and obstructions may exist on the routes shown and that Kane County and other relevant maintaining agencies in no way warrant the safety or fitness of the routes. This map does not expand the liability of Kane County and the other maintaining agencies beyond existing law. The user of this map bears full responsibility for his or her safety.

Bikes On Transit

PACE Buses
For route information, call 312-836-7000 or visit www.pacebus.com.

All PACE buses are now equipped with a front bike rack capable of holding two bikes. Remove large accessories from your bike before loading your bike. If you're concerned about the safety of your bicycle, lock your bicycle's front wheel to your frame before the bus arrives.

- Alert the bus operator that you need to lower the rack. Lower the rack by squeezing the handle. If another bicycle is in position, the rack will already be lowered. If the bicycle rack is full, wait for the next bus.
- Lift your bicycle so it sits in the empty wheel well. If yours is the first bicycle to be loaded, place it in the position nearest the bus, with the front wheel facing the curb. If yours is the second bicycle to be loaded, place it with the rear wheel facing the curb.
- Swing the bicycle support arm over the front tire to hold the bicycle in place. Locks may not be used to secure the bicycles to the racks.

Board the bus and pay your fare. Your bicycle rides free! When you come to your stop, get off the bus at the front and tell the operator that you'll be taking your bicycle off. The operator will make sure you're clear of the bus before leaving the stop. Never step into traffic.

Be a Smart Cyclist

Be Seen and Avoid Injury

- Always wear a bicycle helmet to reduce the risk of permanent injury or death from a crash.
- The best helmets have stickers on the inside that say "Snell," "ASTM," or "Consumer Product Safety Commission." The sticker indicates that the helmet was manufactured to an acceptable standard.
- Wear bright clothing, use lights, reflectors, a bell and a mirror to see, be seen and be heard.
- Consider using the other equipment illustrated below to make your ride safer and more comfortable.



Never use earphones because you will not be able to hear what is going on around you. Using earphones is not only dangerous, it is illegal.

For the safety of yourself and others, never use earphones while cycling.

www.co.kane.il.us/dot/COM/publications/

APPENDIX I – Elgin Legal Counsel Memo

Elgin Bikeway Master Plan
FINAL REPORT
City of Elgin
January, 2008

**City of Elgin****Memorandum**VIA E-MAIL

Date: April 27, 2006

To: Randy Reopelle, Parks Director

From: William A. Cogley, Corporation Counsel

Subject: Proposed Elgin Bikeway Plan

You have forwarded to me a memorandum and a map regarding a proposed Elgin Bikeway Plan. Your memorandum also refers to a narrative but I did not receive such a document. In your memorandum you state that before taking the proposed Elgin Bikeway Plan back to the city council the city manager has requested that the legal department review the plan and provide feedback regarding any legal or liability concerns.

The proposed bikeway plan that you submitted indicates that the majority of the bikeway plan is proposed to be located on public streets. These streets include, but are not limited to, portions of Congdon Avenue, Hiawatha Drive, Willard Avenue, Bent Street, Illinois Avenue, Bluff City Boulevard, Gifford Road, River Bluff Road, Kimball Street, Division Street, Channing Street, St. Charles Street, Lawrence Avenue, McClure Avenue, Wing Park Boulevard, South Edison Avenue, South Street, Lillian Street, South McLean Boulevard, Royal Boulevard and Fletcher Drive.

Liability issues with respect to the propose bikeway plan will in general relate to issues regarding the maintenance and the condition of the bikeway property. Section 10/3-102 of the Local Governmental and Governmental Employees Tort Immunity Act (745 ILCS 10/3-102) relates to the city's duty and immunity with respect to maintaining its property. Section 10/3-102 provides:

"(a) Except as otherwise provided in this Article, a local public entity has the duty to exercise ordinary care to maintain its property in a reasonably safe condition for the use in the exercise of ordinary care of people whom the entity intended and permitted to use the property in a manner in which and at such times as it was reasonably foreseeable that it would be used, and shall not be liable for injury unless it is proven that it has actual or constructive notice of the existence of such a condition that is not reasonably safe or reasonably adequate time prior to an injury to have taken measures to remedy or protect against such condition.

(b) A public entity does not have constructive notice of a condition of its property that is not reasonably safe within the meaning of Section 3-102(a) if it establishes either:

Randy Reopelle

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April 27, 2006

- (1) The existence of the condition and its character of not being reasonably safe would not have been discovered by an inspection system that was reasonably adequate considering the practicability and cost of inspection weighed against the likelihood and magnitude of the potential danger to which failure to inspect would give rise to inform the public entity whether the property was safe for the use or uses for which the public entity used or intended others to use the public property and for uses that the public entity actually knew others were making of the public property or adjacent property, or
- (2) The public entity maintained and operated such an inspection system with due care and did not discover the condition " (Emphasis Added)

Pursuant to the above quoted Section 10/3-102, the city has a duty to exercise ordinary care to maintain its property in a reasonably safe condition for the use and the exercise of ordinary care of people whom the entity intended and permitted to use the property. Bike paths such as those along the city's riverfront which are not located in the public street are clearly intended and permitted for the use of bicyclists and pedestrians. The city therefore has a duty to exercise ordinary care to maintain such bike paths in a reasonably safe condition for the use of bicyclists and pedestrians.

The law in Illinois is different with respect to use of public streets by bicyclists. The case of Boub v. Township of Wayne et al., 234 Ill. Dec. 195, 183 Ill. 2d 520, 702 N.E.2d 535 (1998), involved a bicyclist who was injured in an accident on a bridge which was part of the public right of way. The street in question contained no specific designation as being a bike path. The Illinois Supreme Court found that public streets in Illinois are intended for vehicles and without some specific designation by the local public entity in control of a public street that it also intends bicyclists to be users of the street in question bicyclists are not considered intended users of public streets. The Illinois Supreme Court dismissed the plaintiff's claim in Boub v. Township of Wayne finding that the bicyclist was not an intended user of the public street and therefore pursuant to Section 10/3-102 the local public entity in question had no duty to maintain its property in a reasonably safe condition for the use of a bicyclist.

In the event the city designates certain areas within the public streets as bikeways, bicyclists will be determined to be intended and permitted users of such areas of the public streets thereby exposing the city to liability for claims that the city has not maintained such areas in a reasonably safe condition for bicyclists. See Boub v. Township of Wayne, 702 N.E.2d at 539, citing Coe v. City of East Peoria, 201 Ill. App.3d 756, 147 Ill. Dec. 429, 529 N.E. 2d 769 (1990) wherein a municipality was held liable for injury caused when a bicyclist's tire became stuck in a sewer grate, applying Section 3-102(a) of the Tort Immunity Act, the Appellate Court having concluded that special pavement markings showed that the city intended and permitted bicyclists to travel where the accident occurred.

Pursuant to the authority of Baub v. Township of Wayne, absent a designation by the city that a public street or a portion thereof is designated for bicyclists, the city is required to maintain the condition of public streets for vehicular traffic but not to a heightened standard for bicyclists. If the city were to designate certain areas as bikeways either through pavement markings, signage or otherwise, the city would be required to maintain such areas in a safe condition not only for vehicles but also for bicyclists. As noted by the Illinois Supreme Court in Boub v. Township of Wayne, such a circumstance would "... open the door to liability for a broad range of pavement conditions, such as potholes, speed bumps, expansion joints, sewer grates and rocks and gravel, to name a few...". The Court continued " In this regard, it is appropriate to consider the potentially enormous cost both of

Randy Reopelle

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April 27, 2006

imposing liability for road defects that might injure bicyclists and of upgrading road conditions to meet the special requirements of bicyclists..." Citing Vaught v. City of West Frankfort, 166 Ill.2d at 164, 209 Ill.Dec. 667, 651 N.E. 2d 1115

Reference should also be made to a previously existing designated bike path on a public street in the City of Elgin. Prior to relocating a portion of the bike path along the abandoned railroad right of way north of Ann Street east of the Fox River, the city had designated a portion of North Grove Avenue from Kimball Street to Slade Avenue as a bike path. A bicyclist on such designated bike path fell off her bike in the bike path in the street in an area of a former railroad crossing. The bicyclist suffered serious injuries including a broken arm. The bicyclist sued the City of Elgin and the railroad alleging negligence in maintaining such area. The area in question included patched over and uneven pavement which was sufficient for vehicles but not for a bicyclist. The city and the railroad company subsequently settled such claim paying monies to the plaintiff for her injuries.

In summary, under current law absent the designation by the city that a public street or a portion thereof is designated for bicyclists, a bicyclist is not considered an intended user of city streets and the city has no duty to maintain the streets to a standard for the use of bicyclists. In the event the city designates certain areas of public streets as being intended for bicyclists, the city will need to maintain such areas to a higher standard and will be exposed to claims for allegedly failing to do so.

The issue of whether the city should proceed with designating bike paths on city streets is essentially a policy issue. The city must weigh the public benefits of the designated bikeway plan versus the additional costs of maintaining these areas to a level for bicyclists and the additional costs of the potential claims and litigation which will likely ensue due to the designation of such areas.

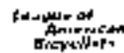
WAC

mg

cc: Olufemi Folarin (via e-mail)
Sean R. Stegall (via e-mail)
James R. Nowicki (via e-mail)
John Loete (via e-mail)
Jerry Deering (via e-mail)
Tom Armstrong (via e-mail)

APPENDIX J – Bicycle Friendly Community Application

Elgin Bikeway Master Plan
FINAL REPORT
City of Elgin
January, 2008



Bicycle **Friendly** Community

LEAGUE OF AMERICAN BICYCLISTS
1000 17th Street, N.W.
Washington, D.C. 20036
202-822-1332
www.leagueofbicyclists.org
www.bicyclerfriendly.com

The League of American Bicyclists Bicycle Friendly Communities Campaign

Thank you for your interest in becoming a designated Bicycle Friendly Community. Please complete Part I. Visit www.bicyclerfriendlycommunity.org or call 202-822-1332 for more information and resources.

APPLICATION PART I

CONTACT INFO

Name of Community	_____	_____	_____
Mayor or designated official in municipality	_____	_____	_____
Contact Name	_____		
Position	_____		
Employer	_____		
Address	_____	_____	_____
Address Line 2	_____	_____	_____
City	_____	_____	_____
State	_____		
Zip	_____	_____	_____
Phone	_____	_____	_____
Fax	_____	_____	_____
Email	_____		
Website	_____		

Directions (Questions 9-14): Please circle the choice that reflects the best answer for your community.

9. How many households are within ¼ mile of a retail or business area?

(All) (Most) (Some) (few)

10. How many neighborhoods have significant grass, flowers, and trees?

(All) (Most) (Some) (few)

11. How many neighborhoods have significant amenities such as parks, water fountains, benches, and public art?

(All) (Most) (Some) (Few)

12. How many neighborhood kids in your community would you consider a good place to raise children?

(All) (Most) (Some) (Few)

13. Do you have a Bicycle Master Plan?

(Yes) (No)

14. Do you have a written bicycle action master plan?

(Yes) (No)

Directions (Questions 15-18): Please answer the following questions on a separate sheet of paper. All answers should be typed and numbered accordingly.

15. What was your community's most significant investment for bicycling in the past year?

16. List current community activities that encourage/promote bicycling.

17. Bicycle Coordinator & Government Staff

a. List your official bicyclist/pedestrian coordinator or bicycle issues contact person or government staff.

b. What department is the bicycle coordinator located in?

c. How many hours are spent per year in this capacity?

**The League of American Bicyclists
Bicycle Friendly Communities Campaign**

www.bicyclefriendlycommunity.org

Part II is a detailed audit of the engineering, education, encouragement, enforcement, evaluation and planning efforts in your community. This comprehensive inquiry is designed to yield a holistic picture of your community's work to promote bicycling. Technical assistance for completing Part II is available at www.bicyclefriendlycommunity.org or by calling the League at 202-827-1333.

APPLICATION PART II

ENGINEERING

1. Do you have a policy that requires the accommodation of cyclists in all new road construction and reconstruction and resurfacing? Please include a copy of this legislation or policy.
2. Have you provided training for your engineers and planners on how to accommodate cyclists? Please describe. Is there a mechanism to provide training on an on-going basis?
3. How many bridges are in your community? How many are closed or inaccessible to cyclists? Of those accessible by bike, how many have shoulders, bike lanes, wide curbs, or a dedicated sidewalkway?
4. Are more bike racks or storage units at:

Schools	(All)	(Most)	(Some)	(Few)	(None)
Universities	(All)	(Most)	(Some)	(Few)	(None)
Transit stations	(All)	(Most)	(Some)	(few)	(None)
Recreation centers	(All)	(Most)	(Some)	(Few)	(None)
Government buildings	(All)	(Most)	(Some)	(Few)	(None)
Office buildings	(All)	(Most)	(Some)	(Few)	(None)
Retail centers	(All)	(Most)	(Some)	(few)	(None)
Public spaces and parks	(All)	(Most)	(Some)	(Few)	(None)
5. Are buses equipped with bike racks? (All) (Most) (Some) (Few) (None)

EDUCATION

1. How do you educate motorists to share the road with cyclists? Please describe. How many community motorists do you reach with these efforts?

(All) (Most) (Some) (Few) (None)

2. Are there other bicycle education opportunities for adults? Please describe.

3. Do you have a bicycle safety program for children in schools? How many schools participate?

(All) (Most) (Some) (Few) (None)

4. What other types of bicycle safety and education opportunities are available for children? Please describe. How many children participate?

5. Do you make bicycle safety materials available to the public? Please describe.

6. Do you have League Cycling instructors in your area? Please list active instructors.

7. Is bicycle safety education included in routine local activities (e.g. tax renewal, drivers licensing and testing, or inserts with utility bills each month)? If so, please describe.

EVALUATION & PLANNING

1. Do you have any information on the number of trips by bike in your community? Please describe.
2. How many cyclist/motor vehicle fatalities have occurred in your community in the past five years?
3. How many cyclist/motor vehicle crashes have occurred in your community in the past five years?
4. Do you have a system in place that allows bicyclists to submit ideas and concerns to public officials? Please describe.
5. Do you have a comprehensive bicycle plan? Please include a copy. When was it passed or updated? Is it funded? What percentage has been implemented?

(All) (Most) (Some) (Few) (None)

6. What improvements do you have planned for the following year?
7. How integrated is your bicycle network? Do trails, bike lanes, and bike routes connect with each other to provide seamless transportation options?
8. Have you evaluated your transportation network and prioritized bicycle improvements based on hazards and needs?
9. What are the three primary reasons your city deserves to be designated as a Bicycle-Friendly Community?
10. What are the three aspects of your community most in need of improvement in order to accommodate bicyclists?

FEEDBACK

1. How has completing this application affected your awareness of improvements which may be made for cyclists?
2. Are you planning any new projects based on your involvement with the Bicycle Friendly Community program? Please describe.
3. How do you foresee this designation affecting your community's outlook on bicycling?
4. How do you foresee this designation affecting future bicycle improvement efforts?
5. Are you aware of other communities which should be involved with this program? Please list below.

Thank you for completing this application. Please attach photos, planning documents, press clippings or anything else you think will enhance your application.

A committee will score your application and consult with local cyclists in your community. The League will then notify you about your award or a recommendation for continued improvements and reapplication.

The League recognizes newly designated Bicycle Friendly Communities with award levels of platinum, gold, silver or bronze for one year. A simple renewal form to compliment your original application can continue your designation and upgrade your designation. All applicant communities are also eligible for national awards for significant achievements and model community programs.

APPENDIX K – Funding Sources

Funding Sources

Illinois Transportation Enhancement Program (ITEP)

- 80% federal/state; 20% local; Illinois Department of Transportation (IDOT) administered
- Very high demand to supply ratio; IDOT many not fully fund a grant
- Better suited for larger bikeway projects and those requiring substantial engineering work such as grade separations
- www.dot.il.gov

Congestion Mitigation and Air Quality Program (CMAQ)

- 80% federal/state; 20% local; Chicago Metropolitan Agency for Planning (CMAP) administered annually
- Emissions reduced per cost is a key selection factor for the project; strongly correlated to population density
- www.chicagoareaplanning.org

Illinois Bicycle Path Program

- 50% state; 50% local; reimbursement grant; Illinois Department of Natural Resources (IDNR) administered annually
- \$200,000 limit for projects
- Eligible project costs include linear corridor land acquisition costs, bicycle path development, and bicycle support facilities
- www.dnr.state.il.us

Recreational Trails Program

- 80% federal/state; 20% local; IDNR administered annually
- Funding is for projects involving non-motorized trails with emphasis on other user groups (e.g. equestrian, hiking, cross-country skiing) so it is beneficial to have a project which accommodates other uses
- www.dnr.state.il.us

Land and Water Conservation Program/Open Space Lands Acquisition and Development Program

- 50% federal; IDNR administered
- Grant awards up to \$750,000 for land acquisition projects; development/renovation projects limited to \$400,000
- Funding assistance for acquisition and/or development of land for public parks and open space
- www.dnr.state.il.us

Illinois Safe Routes to School Program

- 100% federal/state; IDOT administered annually
- 70-90% for infrastructure projects within 2 miles of K-8 schools, 10-30% for education and promotion programs
- Schools, school districts, towns, non-profits eligible
- Need to prepare School Travel Plan as part of grant application
- www.dot.il.gov

Bikes Belong Coalition

- Funds projects in two categories: education and advocacy
- www.bikesbelong.org

LaSalle Bank Bicycle Grants

- Provide grants to municipalities and advocacy groups for capital and studies
- Provided City of Elgin funding for signage



APPENDIX L – Priority Bikeways for Implementation

PRIORITY BIKEWAYS FOR IMPLEMENTATION

In order to begin the implementation process, one bikeway in each quadrant of the City (i.e. NE, SE, NW SW) was selected. The following information is provided for each bikeway: route description, distance, existing conditions, recommended improvements, environmental impacts and trip attractors. A grand scale cost estimate is also provided for budgeting purposes. A table at the end of this Appendix provides a summary of this information for each priority bikeway.

Route 1- Northeast Quadrant

Kimball Street- Douglas Avenue – Congdon Avenue

Route Description

The western terminus of the route is at Kimball Street and the Fox River Trail. The eastern terminus of the route is at Congdon Avenue at the city limits.

The bikeway operates via Kimball, Douglas, Prospect, River Bluff Road, and Congdon Avenue. A sidepath exists on the north side of Congdon Avenue between Indian Drive and Maureen Drive, the city limits. At the city limits, the multi-use trail continues eastward providing access to the Shoe Factory Road Woods and the Poplar Creek Preserve in the Village of Hoffman Estates.



Distance

2.6 miles

Existing Conditions

Kimball Street is a collector street with no on-street parking. It has two 12-foot travel lanes in each direction with a 22-foot landscaped median. The median narrows down at street intersections to allow for a 12-foot turn lane. Sidewalks are present on both sides. This section of Kimball Street is within the Central Business District. The Gail Borden Public Library is located on the north side of the street and The Centre is located on the south side. Currently, the section of Kimball Street between the Fox River and Grove Avenue serves as an extension of the Fox River Trail. Bicyclists are directed off the trail onto the sidewalk on the south side of Kimball Street, east on Kimball Street to Grove Avenue, north on Grove to a point where the trail continues just north of the library. There is a traffic signal at Kimball and Grove Avenue and also at Kimball and Douglas Avenue. The speed limit is 35 mph.

Douglas Avenue is a 40-foot wide local residential street which includes two 12-foot through lanes and two 8 inch marked parking lanes. Sidewalks are present on both sides of the street. The street serves the historic residential neighborhood known as the Spring-Douglas Historic District.



Douglas Avenue at Lincoln Avenue looking north



Congdon Avenue at Indian Drive looking east

Prospect Street and River Bluff Road are both residential streets. On street parking is allowed.

Congdon Avenue between River Bluff Road and Indian Drive is a 33-foot wide, two lane collector street; on-street parking is allowed. It is designated as a county highway. Sidewalks are present on both sides of the street until Indian Drive. East of Indian Drive, a 10 foot multi-use trail (sidepath) is provided on the north side of the street. Residential land uses are present along Congdon Avenue. There is a traffic signal at Congdon Avenue and Dundee Avenue. The speed limit varies from 30 mph to 40 mph.



Congdon, west of IL Route 25

Recommended Improvements

Kimball Street:

Install bike lanes between the Fox River and Douglas Avenue. Kimball Street has two 12-foot travel lanes in each direction with a 22-foot median. Adding a 4-foot bike lane in both directions would result in a reduction of each travel lane by 2 feet.

Douglas Avenue:

Two options are proposed:

- 1) Install bike lanes. In order to accommodate bike lanes, the travel lanes would need to be reduced by 2 feet and parking would need to be restricted to one side of the street to allow for two 5-foot bike lanes.
- 2) Install marked shared lanes pavement markings. Motor vehicles would be alerted to bicyclists in the travel lanes. The existing parking lanes would act as informal bike lanes when no parked cars are present.

Prospect Street and River Bluff Road:

Sign both streets as bike routes.

Congdon Avenue:

Two options are suggested:

- 1) Given the limited street pavement width of 33 feet and the established land uses and presence of driveways along this corridor, the section of street between River Bluff Road to Indian Drive is recommended to be signed as a bike route, with bicyclists operating in the street. East of Indian Drive, no improvement is needed as an existing sidepath is present on the north side of Congdon in lieu of a sidewalk. At this location, bicyclists would need to transition from the street to the multi-use trail or from the trail to the street.
- 2) Between River Bluff Road to Indian Drive, install marked shared lanes pavement markings. Motor vehicles would be alerted to bicyclists in the travel lanes. A striped 7 or 8-foot parking lane on one side of the street would allow bicyclists to informally operate in the established parking lane in one direction, adding additional protection.

Environmental Impacts

No significant environmental impacts are anticipated

Trip Attractors

Trip attractors within one half mile from the bikeway include:

- Downtown Elgin
- The Gail Borden Public Library
- The Centre
- The Hemmens Cultural Center
- City Hall
- Fox River Trail (with connections via Jefferson Avenue, Slade Avenue, and at Cedar Avenue)
- Slade Park
- St. Francis Park
- Prairie Stone Business Park
- The Spring-Douglas Historic District
- The DC Cook Historic District
- Shoe Factory Road Woods
- Poplar Creek Preserve
- McKinley Elementary School
- Coleman Elementary School
- Timber Trails Elementary School
- Sherman Hospital

PRELIMINARY PROJECT COST ESTIMATE

Northeast Quadrant

Total Length: 2.58 miles

Existing Trail Length: 0.00 miles

Proposed On-Street Length: 2.58 miles

Proposed Bituminous Trail Length: 0.00 miles

Item	Quantity	Unit	Unit Cost	Total Cost
I. CONSTRUCTION:				
Proposed Pavement Marking	13,621	lf	\$ 9	\$122,600
Pavement Marking Removal	13,621	lf	\$ 4	\$54,500
Signage	13,621	lf	\$ 3	\$40,900
Street Improvements	13,621	lf	\$ 4	\$47,700
Signal Improvements	1	ea	\$ 20,000	\$20,000
Contingency (15%)				\$42,900
Sub-total Construction:				\$328,600
II. DESIGN ENGINEERING:				
Phase I - Preliminary			5%	\$16,000
Phase II - Final			10%	\$33,000
Sub-total design engineering				\$49,000
III. CONSTRUCTION ENGINEERING:				
			11%	\$36,000
PROJECT TOTAL:				\$414,000

Route 2 - Southeast Quadrant

Chicago Street

Route Description

The western terminus is at Chicago Street and the Fox River. The eastern terminus is at Chicago Street and the City limits. The route travels the entire length on Chicago except in a small part in the downtown. Because Chicago is one way east bound between IL Route 31 and Center, west bound riders will need to travel north on Center Street to Highland Avenue, then west on Highland to cross the Fox River.



Distance

2.9 miles

Existing Conditions

Closer to the downtown, **Chicago Street** is a four lane cross section with one through lane and one parking lane in each direction. Further east, the street becomes a three lane cross section with one through lane in each direction and a middle bi-directional turn lane.

Recommended Improvements

Chicago Street:

Install bike lanes the entire length as feasible. In cases where this may not be feasible, install marked shared lanes.

Environmental Impacts

No environmental impacts are expected.

Trip Attractors

Trip attractors within one half mile from the bikeway include:

- Downtown Elgin
- The Gail Borden Public Library
- The Centre
- The Hemmens Cultural Center
- City Hall
- Fox River Trail (with connections at Kimball Street and Highland Avenue)
- Elgin High School
- Central Alternative High School
- Fox Valley Lutheran Academy
- St. Joseph Elementary School
- St. Mary's Elementary School
- Channing Elementary School
- Garfield Elementary School
- Huff Elementary School
- Channing Park
- Lords Park
- Gifford Park
- Campus Park



Chicago Street at Grove looking east

PRELIMINARY PROJECT COST ESTIMATE

Southeast Quadrant
Total Length: 2.94 miles
Existing Trail Length: 0.00 miles
Proposed On-Street Length: 2.94 miles
Proposed Bituminous Trail Length: 0.00 miles

Item	Quantity	Unit	Unit Cost	Total Cost
I. CONSTRUCTION:				
Proposed Pavement Marking	15,500	lf	\$ 9	\$139,500
Pavement Marking Removal	15,500	lf	\$ 4	\$62,000
Signage	15,500	lf	\$ 3	\$46,500
Street Improvements	15,500	lf	\$ 4	\$54,300
Signal Improvements	5	ea	\$ 20,000	\$100,000
Contingency (15%)				\$60,300
Sub-total Construction:				\$462,600
II. DESIGN ENGINEERING:				
Phase I - Preliminary			5%	\$23,000
Phase II - Final			10%	\$46,000
Sub-total design engineering				\$69,000
III. CONSTRUCTION ENGINEERING:				
			11%	\$51,000
PROJECT TOTAL:				\$583,000

Route 3 - Northwest Quadrant

Lawrence Avenue- Crystal Avenue-Wing Street- Royal Boulevard-Burnridge Paul Wolf Forest Preserve

Route Description

The eastern start of the route is at Lawrence Avenue and IL Route 31. The western terminus is at the Burnridge Paul Wolff Forest Preserve. The route travels via Lawrence Avenue, Crystal Avenue, Wing Street, and Royal Boulevard. West of Randall Road, an off street trail is proposed along the creek to reach Burnridge Paul Wolff Forest Preserve.

Distance

4.2 miles

Existing Conditions

Lawrence Avenue between IL Route 31 and Crystal Avenue has a very steep incline.

Crystal Avenue is a residential street with on street parking on one side of the street.

Wing Street has two lanes in each direction and is a busier collector street. Parking is not allowed.

Royal Boulevard is a residential street with on-street parking; closer to Randall Road the street widens out as it winds through an industrial park. The proposed off street trail is proposed on property owned by the Harvest Bible Chapel.



Crystal Avenue at Lawrence looking north

Recommended Improvements

Lawrence Avenue:

The one block of Lawrence Avenue should be signed as a bike route

Crystal Avenue:

Crystal Avenue is a residential street with low traffic volumes; it should be signed as a bike route

Wing Street:

Wing Street is a busier, two lane arterial. Install marked shared lanes pavement markings or install bike lanes on both sides of the street depending on what the width will allow



Wing Street at Crystal Avenue looking west

Royal Boulevard:

Install bike lanes on both sides of the streets

Off Street Trail:

Install a bituminous multi-use trail along the creek connecting to the Burnridge Paul Wolff Forest Preserve

Environmental Impacts

Since there is undeveloped land west of Randall Road, there is a potential for some wetlands or other sensitive environmental lands that could be impacted by the construction of a multi-use trail.



Royal Boulevard at McLean looking west

Trip Attractors

Trip attractors within a half mile from the bikeway include:

- Downtown Elgin
- Gail Borden Library
- The Centre
- The Hemmens Cultural Center
- City Hall
- Metra/Chicago Street Commuter Rail Station
- The Fox River Trail (with connections at Highland Avenue and Chicago Avenue)
- Burnidge/Paul Wolff Forest Preserve
- Columbia Park
- Wing Park
- Kimball Middle School
- Creekside Elementary School
- Westminster Christian Elementary School
- Harvest Bible Chapel

PRELIMINARY PROJECT COST ESTIMATE

Northwest Quadrant

Total Length: 4.16 miles

Existing Trail Length: 0.00 miles

Proposed On-Street Length: 2.87 miles

Proposed Bituminous Trail Length: 1.29 miles

Item	Quantity	Unit	Unit Cost	Total Cost
I. CONSTRUCTION:				
Proposed Pavement Marking	13,034	lf	\$ 9	\$117,300
Pavement Marking Removal	13,034	lf	\$ 4	\$52,100
Signage	15,169	lf	\$ 3	\$45,500
Street Improvements	13,034	lf	\$ 4	\$45,600
Signal Improvements	3	ea	\$ 20,000	\$60,000
Bituminous Trail (10' wide)	3,411	lf	\$ 92	\$313,800
Bituminous Trail (10' wide) within floodplain	3,411	lf	\$ 115	\$392,200
Bridge Structure	2	ea	\$ 50,000	\$100,000
Contingency (15%)				\$169,000
Sub-total Construction:				\$1,295,500
II. DESIGN ENGINEERING:				
Phase I - Preliminary			5%	\$65,000
Phase II - Final			10%	\$130,000
Sub-total design engineering				\$195,000
III. CONSTRUCTION ENGINEERING:				
			11%	\$143,000
PROJECT TOTAL:				\$1,634,000

Route 4 - Southwest Quadrant

Hendee Street – Continental Park –Elgin Shores Forest Preserve- Sports Way Drive - McLean Boulevard-College Green Drive- Bowes Road

Route Description

The western terminus of the bikeway starts at Bowes Road and the city limits. The eastern terminus of the bikeway is at Hendee Street at Walnut Avenue. The bikeway travels on or through: Hendee Street, State of Illinois property, Continental Park, Elgin Shores Forest Preserve, West Road, Central Avenue, East Road, Elgin Sports Complex, McLean Boulevard, College Green Drive, Annadale Drive, and Bowes Road. A proposed underpath at U.S. Route 20 as well as a foot path connection at this location to the east side of the river and the Fox River Trail is recommended.



Distance

5.4 miles

Existing Conditions

Hendee Street is a two lane, residential street with low traffic volumes.

The State of Illinois property is largely vacant land with some facility buildings on site.

Continental Park is a city park with baseball diamonds.

Sports Way Drive provides access off of McLean Boulevard into the Elgin Sports Complex and has low traffic volumes. A multi-use trail is provided within the Elgin Sports Complex.

McLean Boulevard is a four lane arterial with a posted speed of 35 m.p.h. It has commercial uses along this section of the road. Sidewalks are present on both sides of the street except south of Spartan Drive. No parking is permitted. A stop light is at the corner of College Green and McLean Boulevard.

College Green Drive and **Annadale Drive** are residential subdivision streets with low traffic volumes. At the corner of Bowes Road and Annadale there is a stop sign.

Bowes Road is a county highway with two lanes of traffic; the speed limit is 45 m.p.h. There is a stoplight to allow for a safe crossing at Bowes Road and Randall Road to continue further west. A commercial district is at the corner of Bowes and Randall. Residential subdivisions exist along Bowes Road.



Hendee Street at Oak Street looking south



Elgin Sports Complex Trail

Recommended Improvements

Hendee Street:

Due to low traffic volumes and the residential character of Hendee Street, it is recommended that Hendee Street be signed as a bike route.

State of Illinois Property/Elgin Shores Forest Preserve/Continental Park:

A bituminous multi-use trail is proposed through this property.

West Road/Central Road/East Road:

Sign these streets as bike routes.

McLean Boulevard:

Two options are proposed:

- 1) The installation of bike lanes along sections of this roadway should be investigated. Two travel lanes are provided in each direction with left turn lanes and an approximately 2-foot striped median separating the travel lanes near the intersections. By shortening the turn lanes and reducing the center median, it may be possible to install 4-foot bike lanes on either side of the street.
- 2) Install marked shared lanes pavement markings. Motor vehicles would be alerted to bicyclists in the travel lanes.



McLean Boulevard at Spartan Drive

College Green Drive and Annandale Drive:

Due to low traffic volumes and the residential subdivision character of both streets, it is recommended that both streets be signed as bike routes.

Bowes Road:

Two options are proposed:

- 1) Install bike lanes as Bowes Road is improved and widened.
- 2) As new development is planned, the City should require the construction of sidepaths. There is an existing sidepath along Bowes Road at Reserve Drive constructed as part of a new residential development. A sidepath should be provided as well as bike lanes in order to give bicyclists an opportunity to ride on-street or off-street.

Underpass and Footbridge:

An underpass is proposed at U.S. 20. This would allow for a continuation of the bikeway onto the State of Illinois property. A footbridge to allow crossing of the Fox River is also proposed in this area.

Environmental Impacts

There is the potential for sensitive environmental lands on the State of Illinois property, the Elgin Shores Forest Preserve, and Continental Park.

Trip Attractors

The bikeway traverse residential areas, commercial areas and recreational areas. Trip attractors within one-quarter mile include:

- Metra/National Street Commuter Rail Station
- Continental Park
- Grolich Park
- Elgin Shores Forest Preserve
- Elgin Sports Complex
- The Highlands of Elgin Golf Course
- Lowrie Elementary School
- Elgin Community College

PRELIMINARY PROJECT COST ESTIMATE

Southwest Quadrant

Total Length: 6.57 miles

Existing Trail Length: 1.17 miles

Proposed On-Street Length: 4.40 miles

Proposed Bituminous Trail Length: 0.99 miles

Item	Quantity	Unit	Unit Cost	Total Cost
I. CONSTRUCTION:				
Proposed Pavement Marking	10,524	lf	\$ 9	\$94,700
Pavement Marking Removal	10,524	lf	\$ 4	\$42,100
Signage	34,673	lf	\$ 3	\$104,000
Street Improvements	23,213	lf	\$ 4	\$81,200
Signal Improvements	1	ea	\$ 20,000	\$20,000
Bituminous Trail (10' wide)	4,705	lf	\$ 92	\$432,900
Bituminous Trail (10' wide) within floodplain	523	lf	\$ 115	\$60,100
Route 20 Underpass	1	ea	\$1,500,000	\$1,500,000
Contingency (15%)				\$350,300
Sub-total Construction:				\$2,685,300
II. DESIGN ENGINEERING:				
Phase I - Preliminary			5%	\$134,000
Phase II - Final			10%	\$269,000
Sub-total design engineering				\$403,000
III. CONSTRUCTION ENGINEERING:				
			11%	\$295,000
PROJECT TOTAL:				\$3,384,000

Priority Bikeways	Street Name	Segment		Recommended Improvement		Grand Scale Cost Estimate
		From	To	Option 1	Option 2	
Northeast	Kimball Street	The Fox River	Douglas	Install Bike Lanes Reduce Travel Lanes		\$414,000
	Douglas Avenue	Kimball Street	River Bluff Road	Install Bike Lanes Restrict Parking to One Side of Street Reduce Travel Lanes	Install Marked Shared Lanes Pavement Markings	
	Congdon Avenue	River Bluff Road	Indian Drive	Sign as a Bike Route	Install Marked Shared Lanes Pavement Markings	
Southeast	Chicago Avenue	The Fox River	City Limits	Install Bike Lanes	Install Marked Shared Lanes Pavement Markings	\$583,000
Northwest	Lawrence Avenue	IL Route 31	Crystal Avenue	Sign as a Bike Route		\$1,634,000
	Crystal Avenue	Lawrence Avenue	Wing Street	Sign as a Bike Route		
	Wing Street	Crystal Avenue	Royal Boulevard	Install Bike Lanes	Install Marked Shared Lanes Pavement Markings	
	Royal Boulevard	Wing Street	Randall Road	Install Bike Lanes		
	Off Street Trail	Randall Road	Burnridge/Paul Wolff Forest Preserve	Install Bituminous Trail		
Southwest	Hendee Street	National Street	U.S. Route 20	Sign as a Bike Route Install Underpass at U.S. Route 20		\$3,384,000
	State of IL Property/Elgin Shores Forest Preserve/Continental Park	U.S. Route 20	State Street	Install Bituminous Trail		
	West Road/Central Road/East Road	State Street	Elgin Sports Complex	Sign as a Bike Route		
	McLean Boulevard	Elgin Sports Complex	College Green Drive	Install Bike Lanes Shorten Turn Lanes Reduce Center Median	Install Marked Shared Lanes Pavement Markings	
	College Green Drive	McLean Boulevard	Annadale Drive	Sign as a Bike Route		
	Annadale Drive	College Green Drive	Bowes Road	Sign as a Bike Route		
	Bowes Road	Annadale Drive	City Limits	Install Bike Lanes Install Sidepath		

