GUIDE TO Municipal Bicycle and Pedestrian PLANNING

by the League of Illinois Bicyclists

Does your municipality have a bicycle and pedestrian plan yet?

Bicycle and pedestrian plans can be part of a comprehensive plan, or can stand on their own. The League of Illinois Bicyclists, a statewide non-profit bicycle organization, provides this guide to assist your town in developing a bicycle and pedestrian plan. We have been a resource for many Illinois communities, and we are available to help your town as well.

Why should you develop a bicycle and pedestrian plan?

- ***Quality of life:*** Bicycle improvements are popular with residents, improving a town's quality of life and attractiveness as a place to live.
- ***Economic development:*** Bicycling can be used as an economic development tool that attracts tourism, new business, and young families.
- ***Health benefits:*** Promoting bicycling and walking improves the health of your community through increased physical activity as well as decreased air pollution and traffic congestion.
- ***Environmental awareness:*** A bicycle and pedestrian plan shows that your community is environmentally aware and committed to providing alternative forms of transportation.
- ***Meeting many transporation needs:*** Accommodating biking and walking helps meet the transportation needs for residents who do not drive, including children and teens, some seniors, individuals with certain disabilities, and those who cannot afford cars.
- ***Enhanced cycling and walking:*** Bicycle and pedestrian planning is a good way to better accommodate the many residents who choose to cycle or walk for transportation and recreation.

Approximately 57 million United States residents (27% of people age 16 and older) rode a bicycle in the summer of 2002, according to a survey conducted that year.

While 52% of bicycle travel in the United States is recreational, 43% is travel to destinations. Also, the majority of bicycling takes places on roads.

Almost half of the respondents to a 2003 Gallup poll said they are very or somewhat dissatisfied with how their communities are designed for bicycling.

What are the products of bicycle and pedestrian planning?

A bicycle and pedestrian plan lists a range of improvements for cycling and walking throughout town, including infrastructure, education, encouragement, and enforcement of relevant laws. A plan assesses current conditions, outlines a vision for the future, and guides implementation by prioritizing improvements and recommending specific policies.

The Bicycle Network: Bike planning includes off-road trails for recreation – and much more! A good goal is to create a grid of interconnected bicycle-friendly streets and off-road trails, with spacing of 1/2 to 1 mile between segments. For each network segment, a plan should specify the appropriate on-road or off-road treatment depending on land use, roadway geometry, and traffic. See pages 11 to 13 for information on bikeway types and selection guidelines.

Pedestrian Network: A plan might have a pedestrian component specifying missing sidewalks to retrofit, intersections and other crossings to improve, and design standards to revise. Priority is given to areas of high pedestrian activity within 1/4 to 1/2 mile of commercial areas, major employers, transit stops, schools, and public facilities.


The Bicycle Network
Bicycle Parking
Bicycle Friendly Community designation
Pedestrian Network
The products of bicycle and pedestrian planning
Safe Routes to School
Education of bicyclists and motorists
Implementation
Encouragement
Enforcement

A sidewalk development ordinance may use the Federal Highway Administration's "Guidelines for New Sidewalk Installation" to specify sidewalk requirements as a function of land use and road classification.

Education of bicyclists and motorists: Education is a crucial component of a bicycle and pedestrian plan. A lack of training results in many cyclists afraid to bike on even quiet roads. Many motorists are not aware of laws and methods to share the road safely with bicyclists and pedestrians.

Encouragement: A municipal bike map encourages residents and visitors to travel around town by bike. A map is an ideal place to provide safety tips to bicyclists as well. Municipal events, such as Bike to Work Day (or Week or Month) and International Walk to School Day, are good opportunities to encourage walking and cycling while distributing educational materials.

Enforcement: Enforcement of relevant laws helps keep bicycling safe. Local police can play an important role in enforcement and education of both bicyclists and motorists. A plan can call for community training sessions, such as Safe Roads for Bicycling enforcement seminars. Material distribution, including bicycle law cards and warning citation pamphlets, can lead to action that reduces common crash types. Pedestrian resources are also available.

Bicycle Parking: Providing bike parking, such as racks and lockers, encourages bike use and reduces theft. Several towns have adopted a development ordinance requiring bike parking.

Bicycle Friendly Community designation: The League of American Bicyclists offers this national recognition program for towns making significant progress in the areas above. Reaching BFC status is a common goal of plan implementation efforts.

Safe Routes to School: A federal grant program, administered by the Illinois Department of Transportation, funds infrastructure projects to improve walking and biking conditions near school. Also eligible are related educational and promotional programs.

Implementation: A plan should list specific steps to ensure progress after adoption. Examples include a dedicated implementation budget, a strategy for state and federal grants, and opportunistic implementation as part of development, road projects, or other capital projects. Most importantly, an implementation team should be officially named, consisting of designated staff and an advisory committee including residents.

Bike racks should be in highly visible locations near buildings' main entrances. Select racks that support the bike frame and allow both frame and wheel to be locked.

What are the steps in developing a bicycle and pedestrian plan?

Select a steering committee of key municipal staff and officials plus local cyclists, at least. Decide on either a bike plan or a combined bicycle and pedestrian plan. Define the overall goals and the scope of work using the list on pages 4 to 7 as a guide. Determine whether consultant help is needed. If so, determine a budget.

Define a set of guidelines for the bike network that meet established standards as well as your community's realities. Consider a target audience of casual adult cyclists, while addressing the needs of those who are more advanced and those who are less traffic-tolerant, including children. Use the information on pages 11 to 13 as guidelines in determining bikeway type. Justify recommendations using quantifiable planning tools such as the Bicycle Level of Service, since cyclists' comfort level varies so much by individual.

Gain support and produce a better plan by involving local cyclists and other residents. Kick off the plan with a public brainstorming session, asking each attendee to mark a map with routes that should be studied for the bike network. Seek other input on priority locations for sidewalk retrofits, bike parking, spot improvements, and programs.

The League of Illinois Bicyclists provides bike planning help ranging from a few "pro bono" hours, to contractual assistance on an hourly basis, to development of entire plans. We can also recommend other top bike/ped consulting firms and organizations in Illinois.

"Low-hanging fruit" refers to relatively inexpensive projects such as striping bike lanes, installing some bike racks, or filling a small sidewalk gap by a school. Choose projects that are important to the network and/or high public priorities.

Analyze the routes, emphasizing network connections within town and with neighboring towns' plans. Be sure to serve all notable destinations in town, in addition to those attracting more bike travel such as parks, schools, and transit. Field check and collect data for each segment of the network. Determine the most appropriate on-road or off-road bikeway type for each. In addition to road corridors, investigate trail possibilities on separate easements or rights-of-way. Also field check for sidewalks, bike parking, and other bike and pedestrian infrastructure.

If a Safe Routes to School component is included, survey school officials, parents, and students before studying and prioritizing possible improvements.

Assess existing education, encouragement, and enforcement efforts. Gather details on available resources and outline their use in town, partnering with relevant agencies and others.

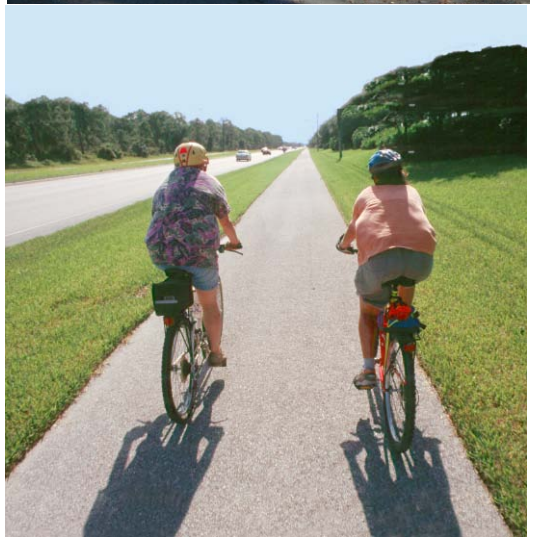
Work with the steering committee throughout. Present the draft plan to the public. Adopt as either a section or an addendum of the town's comprehensive plan. Develop momentum and public support for plan implementation by selecting the "low-hanging fruit" directly after adoption. Schedule implementation for steady progress on easier projects. Time the bigger projects based on grant cycles, development, road projects, and other opportunities. Evaluate progress with measurable goals.

What are the types of bikeways and when should each be used?

Trails: Multi-use trails or "bike paths" are off-road bikeways. They work best when away from roads, on other rights-of-way such as old railroad beds (rails-to-trails) or along active railroads, rivers, or utility easements. In some towns, a trail acts as the spine for the bikeway network.

Sidepath trails: Sidepaths are trails alongside a road, basically widened sidewalks. These are good choices for busy, faster roads without many crossings. Many believe sidepaths are always safer than on-road bicycling. Surprisingly, this is not the case where there are many side streets, residential driveways, and commercial entrances – especially for cyclists riding against the flow of traffic. Intersection conflicts can be reduced with good design. However, sidepaths remain poor choices where crossings are frequent, such as neighborhoods and lower speed roads in grid pattern street networks (often, the older parts of town).

On-road bikeways and serving the less traffic-tolerant, including children: Crashes in which bicyclists get hit from behind are relatively rare, especially in urban areas, as most crashes with cars occur at intersections. On lower-speed roads with many intersections and entrances, on-street bikeways are actually safer than sidepaths because they increase visibility of cyclists to motorists and reduce



questions about right-of-way. Established standards prescribe a menu of on-road options depending on traffic, parking conditions, and available width. Following these standards should address the minimal (but often exaggerated) liability concerns of on-road bikeway designation.

A street with on-road bikeway designation should also have sidewalks. Sidewalks are generally adequate for kids but should not be marked as a bikeway. The least traffic-tolerant adults may opt for a sidewalk instead of an on-road bikeway, but it would be a mistake for this to be the reason to choose a sidepath where inappropriate.

Bike Lanes: These are roadway spaces exclusively for bicyclists, at least 5 feet wide (including gutter pan) on each side of the road with stripes, Bike Lane signage, and pavement markings. Cyclists travel one-way with the flow of traffic. Results include more predictable movements by both cars and bikes, better traffic behavior from cyclists, big increases in bike usage with lower car-bike crash rates, and decreased car-car crashes, too – possibly from a traffic calming effect. Parking is not permitted in designated bike lanes, but parking may be placed on the outside of them. Bike lanes are most appropriate on lower speed urban arterial and collector streets.

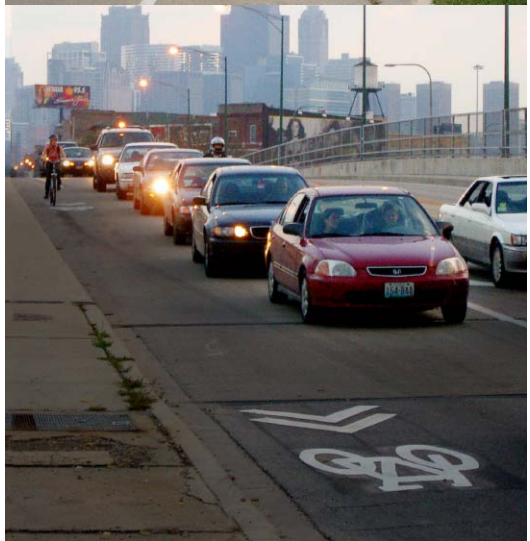
Bike Routes: Some roads may be designated by signage as preferred bike routes, because of particular advantages to using these routes. These "signed shared roadways" may be appropriate where there is not enough room or less of a need for dedicated bike lanes. A Bike Route may be an unstriped street, a road with paved shoulders, or a street with combined bike/parking lanes.

Combined Bike/Parking Areas: Some residential streets with wide lane widths permit on-street parking, but parked cars are rare except for special occasions. While these may be opportunities for dedicated bike lanes, removal of parking on even one side may be politically infeasible.

Another option is to stripe 7-8 feet (including the gutter pan) areas on both sides, for the occasional parked car and for use by bikes. Sign the road as a Bike Route only, with no bike lane signage or pavement markings. Cyclists in these spaces pass parked cars just as they do on road shoulders and unstriped roads. Benefits include increased cyclist comfort, fewer parked cars being hit, and decreased traffic speeds.

Shared Lane pavement markings ("Sharrows"): Federal guidelines for traffic markings will include the Shared Lane marking in 2009, to guide proper bicycle positioning on lower-speed streets without bike lanes. Where there is occupied on-street parallel parking, these help reduce crashes with doors opening on parked cars.

Wide outside curb lanes: By Illinois law, cars must pass cyclists with at least three feet clearance. This may require moving into the next lane for lane widths of 12 feet or less. A wide curb lane of 14 feet permits passing within the same lane. However, this treatment is considered inadequate for less skillful cyclists and for medium-to-high speed roads.



Chicago has an extensive bike plan they are working on implementing. See this exemplary plan at bike2015plan.org.

The League of Illinois Bicyclists has helped several municipalities create bicycle plans. An example is Batavia, Illinois. The Batavia plan is available in PDF form at bikelib.org/batavia.

Resources

Websites There are several websites that can give you more information on bicycle and pedestrian planning:

- bikelib.org (League of Illinois Bicyclists)
- bicyclinginfo.org (Pedestrian and Bicycle Information Center)
- walkinginfo.org (Pedestrian and Bicycle Information Center)
- transportation.org (American Association of State Highway and Transportation Officials (AASHTO) design guidelines for both bicycle and pedestrian facilities.)
- bicyclefriendlycommunity.org

What grant sources can help pay for implementation? There are some key sources for funding. The League of Illinois Bicyclists has helped municipalities identify possible funding sources and strategize which funds are most appropriate for their particular bicycle and pedestrian projects. Common funding sources include:

- Illinois Transportation Enhancements Program (ITEP)
- Illinois State Bike Grant Program
- Congestion Mitigation and Air Quality Program
- Recreational Trails Program
- Safe Routes to School Program

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