Village of Hoffman Estates

Comprehensive Bicycle Plan

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Acknowledgements

This document could not have been completed without the assistance and guidance of many people and groups. The Hoffman Estates Village President and Board of Trustees provided the direction and impetus to begin this process. Assistance was received from members of the League of Illinois Bicyclists and the Active Transportation Alliance. Coordination with adjacent agencies proved very helpful including the Village of Schaumburg and the Schaumburg Bikeways Committee, the City of Elgin, Kane County, Village of Streamwood, City of Palatine, and the Hoffman Estates Park District. Staff from the Northwest Municipal Conference and participants on its Bicycle and Pedestrian Committee exchanged experiences that were beneficial to the development of the plan. Finally, input provided by all who attended open house meetings or reviewed documents is appreciated. Sincere thanks are expressed to all who have assisted in the creation of the Comprehensive Bicycle Plan.

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Executive Summary

The Comprehensive Bicycle Plan provides the tools to make the Village of Hoffman Estates bicycle friendly. The plan presents design makers with the 5 E's of bicycle planning (**E**ngineering, **E**ncouragement, **E**ducation, **E**nforcement, and **E**valuation). A main component is engineering new facilities to connect with those existing in and around the Village. There are over 26 miles of existing trails throughout the Forest Preserves and Parks. This plan provides the links to get people to these trails on bike, without the need to drive to them. The Plan and Map include over 50 miles of potential on-street and 15 miles off street bicycle facilities that when completed will allow every resident to bike from their house to any destination in the Village and connect with the existing facilities in neighboring communities. There are also seven potential Interstate 90 bicycle and pedestrian crossings in and around the Village. These crossings can be very expensive, but are critical to a more fully interconnected network as Interstate 90 bisects the Village and is a barrier for bicycles and pedestrians.

There are two distinct types of bicycle facilities; on-street and off-street. On-street are those where the bicycle travels with traffic within the street pavement area. The three types of on-street facilities, in the order of their preference are bicycle lanes, shared lane markings (sharrows), and bicycle routes. Bicycle lanes are designated using striping and signage, designating a 5 feet of pavement space, free of parked or moving vehicles, for bicycles. Shared lane markings (sharrows) provide a wider travel lane for both vehicles and bikes. Bike routes are designated with signage alone and are typically considered where there is not enough room to designate bike lanes or shared lanes. Off-street facilities are segregated from traffic either parallel to a roadway (side path) or on their own independent right of way (trail). The facility component of the Comprehensive Bicycle Plan includes all of these types.

The selection of the correct bicycle facility is important and there are many choice points. The plan has utilized the Bicycle Level of Service (BLOS) methodology to quantify the compatibility of a street for bicycles. It considers the width, speed, traffic volume, pavement condition, and other variables to calculate a score that suggests how comfortable a street is for a bicyclist. The score ranges from A to F, with A being the most comfortable. Typically, streets with a score of C or better can be considered for an on-street facility designation. There are also techniques to increase a BLOS such as providing a bicycle lane where none exists. The second choice point is whether to install an on-street or off-street facility. For streets where a desirable BLOS cannot be obtained, a side path or trail should be considered. A commonly held convention is that a side path is always safer than an on-street facility, but this has been proven false. The frequency of driveways and intersections, visibility of bicycles on the side path, and physical design parameters, among others, all must be analyzed and compared with an on-street alternative.

As bicycle facilities are only one piece of being bicycle friendly, the plan also outlines encouragement, education, enforcement, and evaluation opportunities. A network of bicycle facilities is only as good as it is visible and known. It is important to let residents know of the health and quality of life benefits of bicycling. There are many opportunities to spread information about bicycling such as providing maps, organizing rides, distributing educational materials, providing bicycle amenities, and many more outlined in Chapter 6. As pieces of the plan are implemented it will also be important to evaluate what is working well and where there is room for improvement.

The Village Board created a Bicycle and Pedestrian Advisory Committee (BPAC) to help implement the plan. This group of residents and agency representatives will provide guidance on the priorities for facilities and programs moving forward by making recommendations to the Village Board. This document includes a large quantity of improvements that may take ten years or more to complete. The good news is the Village does not need all the funds to complete the plan as there are opportunities to leverage Village resources for outside funds. There are also many low or no cost programs that can benefit bicyclists sooner until funds are found for the larger scale projects.

Introduction

Background and General Goals

Figure 1. Photo from Open House

The Village of Hoffman Estates Village Board directed the Village staff to begin development of its first comprehensive bicycle plan in 2008. Input received during the update to the Village Comprehensive Plan highlighted a desire to improve conditions, connections, and opportunities for pedestrian and bicycle travel. With these as general guiding principles, Village staff worked on technical details of a bicycle facility plan and bicycle program elements that together will result in a complementary and multidisciplinary approach to the new bicycle plan. The plan was created in-house with some technical oversight and review provided by the League of Illinois Bicyclists and the Active Transportation Alliance. Local and regional agencies were also consulted in the course of the plan's development. Representatives from a number of Village departments and divisions including Police, Health and Human Services, Planning, Public Works, and Transportation and Engineering collaborated to draft the document. Open house meetings and web-based information were used to solicit public review and comment. Presentations to the Village Board also defined the focus and components of the plan.

Demographic Geography and Challenges

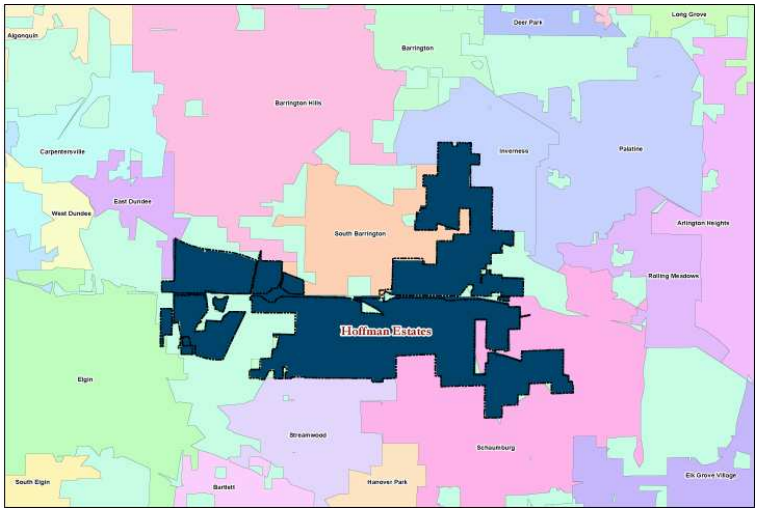

Figure 2. Hoffman Estates Surrounding Communities

With a population of 52,250, the Village encompasses a total of approximately 22.1 square miles. Cook County Forest Preserves account for over one third of the Village area, about 4,000 acres in total. These are great natural spaces and a unique amenity for the Village. The preserves geographically spread the Village boundaries in all directions. They provide a significant portion of the existing bicycle paths in the Village. As recreational destinations, connecting the Forest Preserves with one another as well as the surrounding neighborhoods is a primary goal. The Jane Addams Tollway (I-90) runs east west through the Village. A number of major State and County regional arterial highways are located within its municipal boundaries. Although these roadways are important for regional travel service, they do present challenges for pedestrians and bicyclists to find a way to cross them. Even with traffic signals at major intersections, there are options for improving the walking and cycling environment along these thoroughfares. As part of the bicycle plan, a goal is to connect residents with these trails on bike, without the need to drive to the Forest Preserves.

Bicycling Benefits

The creation and implementation of the Village's comprehensive bicycle plan will yield benefits to improve the quality of life and livability of neighborhoods. The benefits that derive from a comprehensive bicycle plan are many and varied. Aside from the more obvious health and recreational benefits, a system of bicycle facilities helps to increase connectivity among neighborhoods and to adjacent communities. A well-connected network can encourage short distance trips by bicycle rather than driving. Some may also see the bicycle facilities as a commute

option to and from work or school. This will also benefit the segment of the population who bicycle by necessity because they are not able or cannot afford to drive a car. Beyond the physical elements of the plan, a number of program initiatives offer benefits to the community. Bicycle plan elements include safety programs on proper riding techniques and equipment. Encouragement programs create an interest or incentive to participate in bicycle events with a goal of making bicycle use more prevalent for daily activities. The plan also contains an evaluation component to measure performance and effectiveness of the plan's implementation. This information is useful for assisting in future decision making.

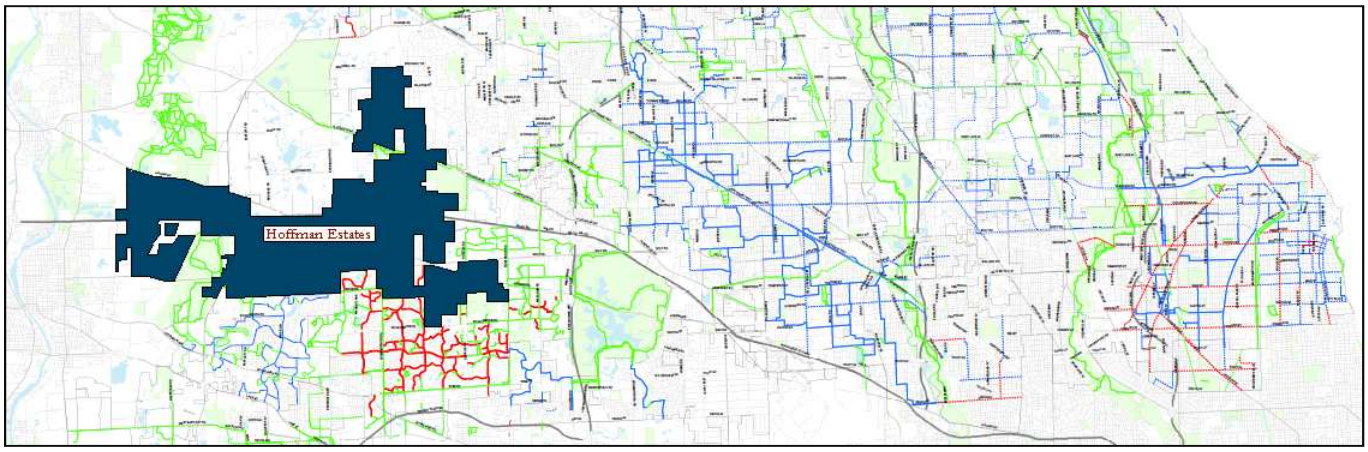

Figure 3. Northwest Municipal Conference Bicycle Map with Hoffman Estates Highlighted

Bicycle Plan Elements

The Village's comprehensive approach to the bicycle assessment includes policy goals, facility plans, educational / enforcement / encouragement programs, and an evaluation component. The plan recognizes that these elements will require time to implement. Major infrastructure projects are expensive and require substantial amounts of time for planning and design. Some physical parts of the plan, such as bicycle routes and lanes, may be implemented in a shorter period. Bicycle facility maps, brochures, safety guidelines, and other promotional materials are expected to be produced through the plan's development and evolution. Program elements such as encouragement and safety can be introduced in phases as well. Ultimately, the implementation of the bicycle plan components will depend on available funding, staff resources, competing needs within the Village, grant opportunities, and cooperation from other agencies. The concept of the plan's phasing is to keep making improvements and changes as the occasions arise to create a bicycle facility and program that will serve the Village for years to come. The plan is also intended to be dynamic and adaptable to incorporate new ideas over time.

Public Participation

Public review and input was essential for the initial efforts to create the plan and will remain an integral strategy as the plan evolves in the future. Through open house meetings and web-based information, these formats allowed direct input from the public on goals and facility needs. The open house meetings conducted in 2009 featured an opportunity for attendees to view the basics of the comprehensive bicycle plan. Displays depicting the goals of the plan, the different types of bicycle facilities, potential locations where a bicycle path could cross the Jane Addams Tollway, locations of possible on-street and off-street bicycle facilities as well as bicycle safety and health benefits were available for review. Active participation by attendees allowed input on a variety of issues ranging from goals to facility needs. The Village strives to be inclusive in the development, management, and implementation of the comprehensive bicycle plan components.

Chapter 1: Planning Process

In the development of the Comprehensive Bicycle Plan, public involvement was a critical component. The Village took this opportunity to reach out to adjacent communities, make contacts with bicycle advocacy groups, research existing bicycle plan documents, and present draft components to the public for comment and direction. This chapter presents each of those components along with a project timeline.

Coordination with Other Agencies

During the development of the facility plan, numerous contacts were made with neighboring communities, bicycle clubs, bicycle advocacy organizations, and regional planning agencies. The Bicycle and Pedestrian Advisory Committee (BPAC) was formed in late 2009 with one of its primary tasks to assist in the development of the facility plan. Village departments including Health and Human Services, Public Works, and Police provided input during the evolution of the plan. The following plans and agencies were consulted during the development of the facility plan.

- Various Hoffman Estates Departments
- Hoffman Estates Park District
- Northwest Municipal Conference
- Chicagoland Metropolitan Agency for Planning
- Forest Preserve District of Cook County
- Active Transportation Alliance
- League of Illinois Bicyclists
- Village of Schaumburg
- Schaumburg Bikeways Advisory Committee
- City of Elgin
- Village of Streamwood
- Village of Palatine
- Kane County

Public Open House Meetings

Three open house meetings were held for the public to review the components of the comprehensive bicycle plan. A separate opportunity to receive input on the Village's bicycle planning occurred at Sears Holdings as a part of its Earth Day event in 2009. All aspects of the plan were included ranging from goals, to input on facility needs, and Tollway crossings.

Figure 4. Open House Comment Station

Project Timeline

June 2007 Village Comprehensive Plan — Trail Connections, I-90 Crossings, and bike planning identified as goals

February 2008 Village Board — Village Board directed staff to investigate potential bicycle facility improvements

February to October 2008 Draft Plan Production — Village Staff mapped existing facilities, met with neighboring communities, and created a draft map

November 2008 Village Board — Board direction to proceed with comprehensive bicycle plan development

November 2008 to May 2009 Draft Plan Production — Further municipal agency meetings and refinement of the plan

May 2009 Public Review of Plan — Public Open House Meetings to Identify Priorities

May to Fall 2009 Revise Draft Plan — Revise and Finalize Plan based on public input

Winter 2009/10 Spring 2010 Bicycle and Pedestrian Advisory Committee — Presentation and Review of Plan for approval by BPAC

February 2010 LIB and ATA Review — Review and critique of plan by bicycle advocacy groups: League of Illinois Bicyclists and Active Transportation Alliance

March 2010 Village Plan Commission — Presentation and Review of Plan for approval by Village Commissions

May 2010 Village Board — Presentation and Review of Plan for approval by Village Board

Information related to health benefits, Police Department safety and educational programs, and information from regional bicycle agencies were made available. Participants were offered active roles in defining goals, prioritizing potential Tollway crossing locations by indicating preferences on exhibits and maps. They also were given an opportunity to identify places they currently bike, where they like to travel by bike, and areas where they feel bicycling is difficult. This information was tabulated and summarized. This feedback helped to formulate and refine goals of the program. It also confirmed many components of the proposed facility plan. Information from these meetings can be found in the Appendix B. Information was also posted on the Village website for viewing and comment. An email address was created specifically for bicycle planning questions and articles appeared in the *Citizen* Newsletter.

Figure 5. Example Bike Map with Comment Dots

Consistency with Other Planning Documents

The development of the plan and selection of facility types also relied on a variety of other bicycle plan documents produced in the region. This approach not only is good planning practice but also can be helpful when demonstrating the regional role of certain bicycle facilities in grant applications. The Village also serves on some of the committees responsible for creating the documents below. These plans and documents include those listed below, the State of Illinois' Complete Streets legislation and plans by the Forest Preserve of Cook County for existing and potential future paths.

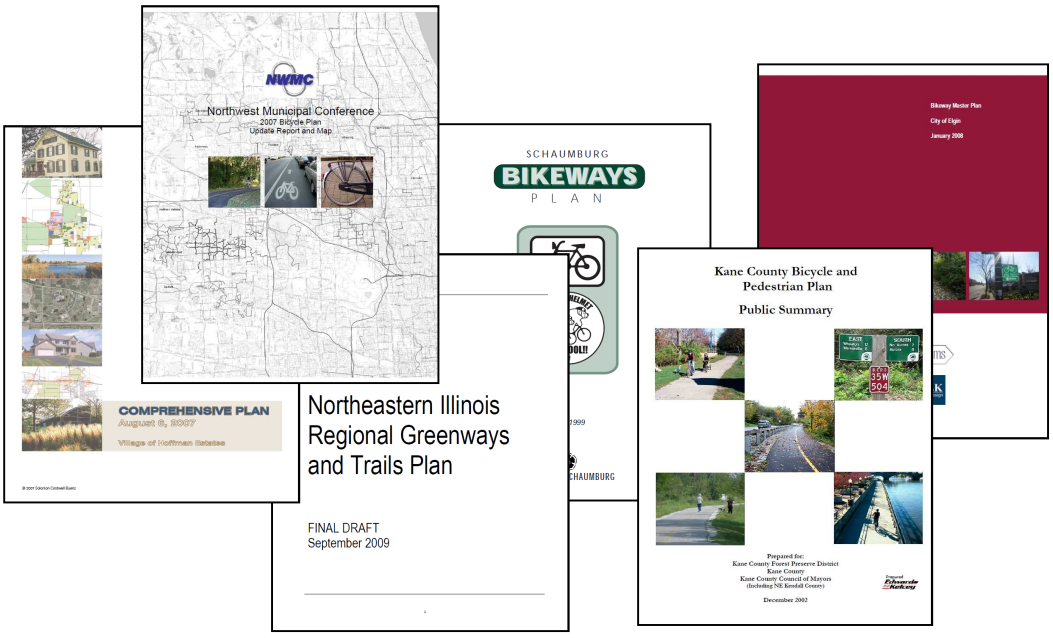

Figure 6. Reference Bicycle Planning Documents (from left to right; Village Comprehensive Plan, Northwest Municipal Conference Bicycle Plan, Chicagoland Metropolitan Agency for Planning Greenways and Trails Plan, Schaumburg Bikeways Plan, Kane County Bicycle and Pedestrian Plan, Elgin Bicycle Plan)

Chapter 2: Goals of the Plan

This chapter outlines the goals of the Plan. The general guiding principles are to make all parts of the Village more accessible for pedestrians and bicyclists; create a phased facility plan; establish an implementation approach for facilities; encourage bicycle use; provide educational materials on bicycle safety and enforcement; and evaluate the performance of the plan's implementation. These are the general policy goals developed initially by Village staff and modified following public open house meetings. More specific goals are listed below.

Provide Bicycle and Pedestrian Crossings of Tollway

A major challenge to pedestrian and bicycle movement is how and where to cross the Jane Addams Tollway (I-90). The plan will include a component to construct a crossing or crossings to improve connectivity. Such projects are considered as a long term goal due to the cost of design and construction, need for grant funding, complexity of design, timing to take advantage of construction projects on the Tollway, and coordination with other agencies. Attendees at the public meetings on the bicycle plan identified Tollway crossings most frequently as a goal for the plan.

Provide Connections to and between the Forest Preserves

The existing system of bicycle paths in the Forest Preserves constitutes a great amenity for bicyclists. It is the foundation for a significant part of future bicycle facility plan. Providing connections to these existing facilities will enrich the regional system. Connections to Forest Preserves were the second most often listed goal at the open house meetings.

Improve the Village Bicycle Network

A principal goal of this plan is to improve the Village bicycle network. This can be accomplished by adding bicycle facilities, such as bicycle paths, lanes, and routes throughout the Village. Such facilities should be desirably within ¼ mile of all residents. As these physical components are put into place emphasis should be placed on connecting links to the on-street and off-street bicycle accommodations in neighboring communities. This is important to establishing both a local and regional network. Also under the broad goal of improving the bicycle network is a desire to modify signalized intersection crossings to be more accommodating to bicyclists and pedestrians. Connections to neighborhoods and adjacent communities and improving traffic signals for bicycles and pedestrians were both frequently mentioned goals during the open house meetings.

Provide Bicycle Amenities

In addition to on and off-street bicycle facilities, bicycle amenities are important to encourage people to bike to area destinations. By providing short term and longer term covered bicycle parking, shelters, rest areas, showers, information kiosks, and other amenities it will be easier for people to know where to bike to shop, work, and for recreation. These amenities to some degree should be provided at all logical bicycle destinations.

Accomplish the Five "E"s

The plan will use a comprehensive approach that encompasses the five "E"s traditionally found in successful and highly regarded bicycle plans elsewhere in the country: Engineering, Education, Encouragement, Enforcement, and Evaluation. Integrating initiatives in these areas will ensure that the Village implements not only physical improvements (asphalt, paint, signs), but also provides the programs, brochures, and other products to encourage bicycling and promote safe practices through education outreach. It is imperative that each of the five E's are equally incorporated throughout the program. If one element is lacking or diminished, it will be difficult to sustain a successful bicycle program. The five E's are discussed in greater detail in Chapter 6 of this plan. Education, promotion of bicycling, and awareness programs for both motorists as well as bicyclists were among the more frequently mentioned goals at the open house meetings.

Bicycle Friendly Community Designation

The Village should seek to obtain a designation as a Bicycle Friendly Community through the League of American Bicyclists (LAB). The League considers certain factors before granting Bicycle Friendly Community Status. The primary elements include: the physical facilities available for bicyclists (trails, lanes, parking, etc.) and how well the community implements the five "E's" of a good bicycle program (engineering, encouragement, education, enforcement, and evaluation). This multi-disciplinary nature of the Village bicycle plan and its implementation to further improve biking are important considerations for the League.

As of January 2010, only three communities in Illinois have obtained this designation: Chicago, Naperville, and Schaumburg. The designation should be a long term goal as implementation of the planned facilities and programs is required in order to be considered. This designation will not only be a source of pride for the community, but it could help in obtaining grant funding for construction of bicycle facilities.

"Go Green" with Biking

Communities around the world are evaluating their impact on the natural environment and "going green." Hoffman Estates could reduce its carbon footprint by lowering its net vehicle miles traveled (VMT) through offering options for biking as a practical mode of travel for all local trips. Since all forms of automotive and locomotive transportation account for one-third of CO_2 greenhouse gas emissions in the United States, encouraging biking for all local trips instead of driving a car is an essential component of any realistic local plan to help with air quality. Biking is not only healthy for the individual biker; it is also healthy for the environment, which in turn is healthy for all people. During the open house meetings, encouraging the use of bicycles as a form of transportation for commuting was one of the more commonly identified goals of the plan as was a desire to create "green options."

A complementary environmental benefit of more biking and fewer VMT is reduced wear and tear on local roadways, which not only saves taxpayer dollars but also reduces further carbon emissions from frequent construction activity.

Biking as a Healthy Activity

The Village of Hoffman Estates embraces bicycling in continuing to grow as a healthy and active community. To contend with growing public health concerns including obesity and air quality, increasing the amount of bicycle activity and bicycle travel remains one of the most effective ways to achieve personal health and air quality benefits.

Engage Bicycle and Pedestrian Advisory Committee

The advisory committee consists of volunteer residents, bicycling enthusiasts, local elected officials, and representatives from various local agencies. This group interacts with an appointed staff liaison on the development and maintenance of Village bicycle facilities and programs. The Village Board approved the creation of a Bicycle and Pedestrian Advisory Committee in July 2009.

The Advisory Committee should:

- Assist in the review, assessment, and creation of a comprehensive bicycle plan.
- Advocate for programs within the Village and other agencies to encourage bicycle use for commuting and recreation.
- Promote access and mobility in the Village and connectivity to neighboring communities.
- Promote bicycle programs with the Village Police Department, Park District, and School Districts to enhance safety, education, and encouragement efforts.
- Work with the Village Capital Improvements Board to identify potential bicycle programs for consideration by the Village Board.
- Review and advocate for subdivision code changes to consider the inclusion of bicycle and pedestrian amenities with road design and site development projects.
- Work with other area advisory committees in neighboring communities.

Implement the Plan Cost-Effectively

The Village should implement the plan using the most cost-effective solutions available. In order to do this, the Village will pursue grants from federal, state, and transportation organizations, as well as collaborate with other local agencies to achieve the bicycle plan's objectives over time. The Village Capital Improvements Board will initially review most bicycle projects and then make recommendations to the Village Board. Projected costs for this program are discussed in detail in Chapter 6 of this plan. There may also be economies achieved through the inclusion of bicycle facility improvements within the scope of other larger projects completed by the Village or other agencies. Bicycle facilities should be considered as part of any street reconstruction or resurfacing project. Facilities can be included for a minimal expense. Participants at the open house meetings noted a desire for a funding commitment by the Village to bicycle facilities and programs in conjunction with the pursuit of grant programs to implement these elements of the plan.

Preserve Parking and Traffic Flow

On-street parking and traffic flow is not expected to be adversely affected through the implementation of this plan. In general, the installation of bike routes and bike lanes should not require large scale elimination of on-street parking. The balance between accommodating vehicular traffic demands with the needs of non-motorized users will be evaluated on a case by case basis in situations where on-street parking may be affected. Bicycle routes are generally easier to implement based on the typical width and on-street parking regulations of Village streets. Local streets typically allow parking only on one side of the street and the remaining pavement width is not sufficient to stripe bicycle lanes, and the volume and speed of traffic on these streets do not indicate a need to designate bicycle lanes. As a result, on-street parking can be maintained with the street designated as a bicycle route. Bicycle lanes are considered in the facility plan on streets where on-street parking is already prohibited and the physical space exists to mark a bicycle lane.

Chapter 3: Types of Bicycle Facilities

Introduction

Just as the characteristics of vehicles and drivers are critical factors for proper road design to accommodate the "design" user, the type of bicycle riders and their space requirements are important to assess designs for bicycle facilities. Bicycle rider characteristics cover a broader range of potential types of user than is typically assumed for vehicle drivers. It is recognized that the age, experience, and comfort level of bicyclists influence decisions on which type of bicycle facility or accommodation should be used for a particular set of circumstances. The physical conditions of the street and the characteristics of the vehicular traffic flow on that street are significant factors in evaluating the suitability of that particular street for bicycle travel. The selection and design of any on-street or off-street facility should take in account the following guidelines and characteristics.

The Village plan includes several different types of bicycle facilities. The main groups are categorized into on and off-street facilities. There are some streets within the Village where either type may be appropriate, depending on the surrounding characteristics of the road, vehicle traffic flow, and adjacent land use. Within these broad type categories is another layer of particular kinds of facilities. On-street facilities generally should be given a higher implementation priority because they are significantly less expensive to implement. However, the more expensive off-street facilities may be more attractive for funding assistance and achieve a measurable benefit compared to the on-street bicycle options.

Guiding Principles of Design and Facility Selection

The inputs or variables that dictate bicycle facility design dimensions and applicability derive from the different types and abilities of bicyclists and the physical space required for comfortable cycling. Knowing the requirements of both a "design bicyclist" class and a "design bicycle" will determine the parameters needed for accommodation. In addition, the characteristics of the street and traffic flow itself must be considered. It is possible to reach different recommendations for the same "design bicyclist." For example, it is possible to construct an on-street bicycle route on one road and an off-street bicycle path on another road based solely on the different physical and operating characteristics of the two streets. The Village used a tool known as Bicycle Level of Service to assist in this evaluation. The methodology behind this technique is discussed later. This chapter addresses the general applicability of the different types of bicycle facilities and their design dimensions.

The primary references for the design and designation of bicycle facilities are found in the following publications. The information from these documents and others is presented in an abbreviated and condensed form here. More detailed discussion can be found in these publications. These documents are updated from time to time so it is important to verify that the most current version is used. In addition, any new publications that address bicycle planning, design, and operation should also be considered for local implementation. The following page lists the five documents most typically used in bicycle facility design.

- *Guide for Development of Bicycle Facilities*, American Association of State Highway and Transportation Officials, 1999. Provide guidance for dimensions and types of bicycle facilities. The release of a new version is expected in 2010.

- *Manual on Uniform Traffic Control Devices*, Federal Highway Administration, 2009. Provides guidance for signing and striping of bicycle facilities.

- CMAP BIS: All existing facilities have been identified and geospatially referenced using the Chicagoland Metropolitan Agency for Planning (CMAP) Bicycle Information System standardized framework.

- IDOT Bureau of Design and Environments Manual (Chapter 17) and the Bureau of Local Roads Manual (Chapter 42). If projects are federally funded, these manuals should be consulted as a basis for design. More applicable and recent bicycle design publications may also be used to propose solutions that differ from the IDOT guidelines.

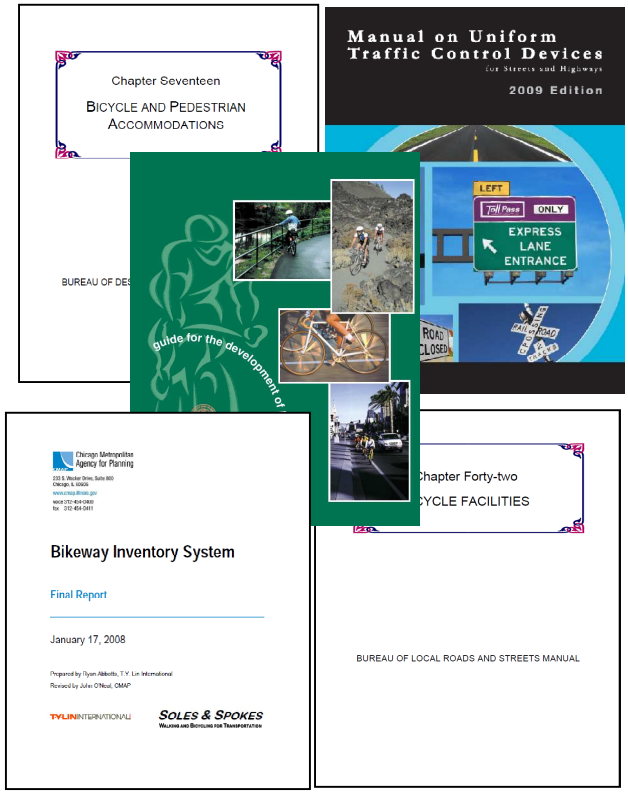

Figure 7. Bicycle Facility Design Reference Materials

Design Bicycle

A typical bicyclist requires a space of at least 40 inches (3.33 feet) in width to operate. A dimension of 48 inches (4 feet) is assumed as the minimum width for any facility for the exclusive or designated use by bicyclists such as bicycle lanes or shared lanes. A width of 5 feet is typically more desirable. The width dimension is used in evaluating the space for on-street accommodations and the design of off-street facilities. The design height of a bicyclist is assumed to be a minimum of 100 inches (8.33 feet). This dimension is important when considering tree and shrub maintenance or other overhead restrictions.

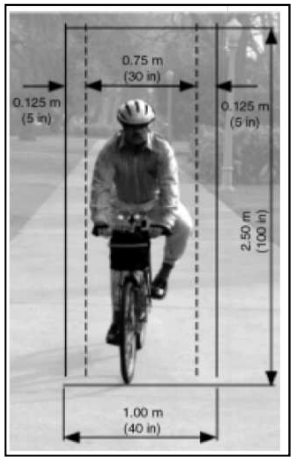

Figure 8. Bicyclist Dimensions
(AASHTO Bicycle Guidelines)

Design Bicyclist

The ability and comfort level of bicyclists vary considerably. Experienced riders will ride on streets with higher speeds and higher volumes even if there are no specific bicycle accommodations. These streets are generally less comfortable and providing additional space would be beneficial. Most adult riders are less confident, choosing roads with more comfortable space, lower volumes and speeds or off-street bicycle paths or trails. Children may have adequate bicycling handling skills but do not possess the ability or skill to operate in traffic as an adult would. The following table describes the three categories of riders:

Rider Skill Level	Characteristics	Preference
Advanced or Experienced	Use bicycle as they would a vehicle. They are comfortable riding with vehicle traffic in most situations. Will ride for longer distances.	Convenience, direct access to destinations, and speed of the trip are their primary considerations. Typically prefer to ride on street with traffic instead of a parallel path.
Basic or Adult	Describes teenagers to casual adult bicycle riders. Will take shorter trips in place of a car, but are more likely to ride for recreation.	Prefer to avoid high speed and high volume streets. They prefer neighborhood streets or paths and look for designated bicycle lanes on the busier streets.
Children or Novice	Younger children do not yet have the experience to negotiate traffic on roadways and need to be instructed on proper bicycle behavior. Riders should be accompanied by a responsible adult.	Younger children on neighborhood sidewalk to play, older children accompanied with adults on local streets and shared-use paths for longer neighborhood area trips.

Figure 9. Bicyclist Rider Characteristics Summary Table Street

On-Street Facilities

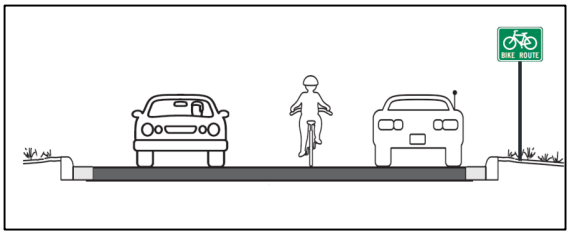

Figure 10. Perspective View of a Bike Route on a Local Street

Generally, there are two categories of bicycle facilities; on-street and off-street. Within these two classifications are subcategories as explained below. On-street facilities designate bicycle use through striping and signage. While all roads should be designed to permit every type of user, designated on-street bicycle facilities alert drivers to the presence of bicycles. The facilities also provide bicyclists with an identified network of bike-friendly streets to travel between logical destinations. Properly designed on-street facilities provide adequate space for bicycles while retaining space for moving, turning, and parked vehicles. There are many external benefits to designating streets as bicycle facilities such as traffic calming through delineation of each user's space on the road. In Illinois, bicyclists are permitted users of streets unless otherwise prohibited by regulation. Bicycle facility designation on a street considers the bicyclist as an intended user. The majority of Village local streets are compatible with on-street bicycle use under a shared road concept. In the instances where no bicycle facility is specifically designated, the bicyclist is a permitted user and shares the street with other users such as moving traffic and parked vehicles. The decision to designate a road as a bicycle facility changes the user status of bicyclists from permitted to intended.

When considering on-street bicycle facilities, it is important to understand space and maneuvering requirements for the vehicles most likely to use those streets. Travel lanes can vary in width from 10 to 12 feet while parking lanes may range from six to 8 feet wide. These dimensions are adequate for passenger cars and single unit trucks. On most local streets, there are no lane markings for vehicles or parallel parking areas. Local streets are typically 26 feet wide measured from the face of curb on each side of the street. Parked vehicles are assumed to use the gutter so when parking is allowed on one side of the street, this leaves about 18 to 20 feet of pavement for other users. Since local streets rarely have sustained periods when vehicles are moving in both directions, sufficient space is available for vehicles and bicycles to share this space. Even collector streets in the Village typically do not have centerline markings. These streets are typically 36 feet between the faces of curbs on each side, leaving ample room for two-way traffic, bicycles, and parking on both sides. Most streets do not experience very high parking occupancies on-street. This parking lane or area is also a space where bicyclists can travel.

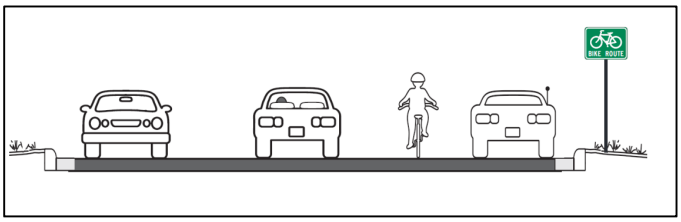

Figure 11. Perspective View of a Bike Route on a Collector Street

Another consideration for evaluating on-street bicycle use is the overall pavement condition and its features. For a street to accommodate on-street bicycle use the portions where bicyclists are most likely to ride need to be kept in appropriate condition. The edges of pavement, joint between the pavement and gutter, loose materials on the street, the drainage inlet location and type are all factors that need to be checked periodically. Proper construction and maintenance of these areas are important when on-street bicycle use is considered.

Bike Route

Figure 12. Bike Route Sign

Bike routes are designated by green and white "Bike Route" signs along the road. Bicyclists share the road with other vehicles, and aside from the bike route signs, there are no other traffic controls for bicyclists used. Bike routes are typically considered where there is not enough room to designate bike lanes or in cases where there is not a need to specifically identify a space for bicyclists, for example, due to low traffic volumes. One option to complement bike routes is to stripe the parking lane on either side of the road. This application could be especially useful on Village collector streets that are wide, with parking permitted on both sides, but where on-street parking is not frequent. The bicyclist can ride in the parking lane when there are no vehicles parked and pass along the left side of any parked cars when present.


Figure 13. Bike Route in Naperville (Local Street Example)


Figure 14.. Bike Route in Naperville (Collector Street Example)

Bicycle Facility Destination and Way finding Signs (The Three "D"s)

Destination signs are very valuable to supplement any type of bicycle facility. These are similar to guide signs seen on highways to inform users of turns and travel distances to reach destinations and points of interest. Way finding signs are installed at intersections or decision points along the facilities where bicyclists travel. They are helpful to direct users to popular or common destinations as well as to inform bicyclists of other routes, lanes, or paths that intersect with one another. Destinations listed on these signs can be either inside or outside the Village. The type of installation used by the City of Chicago is a good example of this type of application that can serve as a model for the Village.

Figure 13. Chicago Bicycle Destination Signs

Regardless of the type of bicycle facility, guide signs should be installed at periodic intervals (roughly every quarter mile) to inform users of **D**estinations, **D**irections, and **D**istances (the three "D"s). The *Manual on Uniform Traffic Control Devices* provides guidance on the design of bicycle signs. Typically, the bicycle guide signs can either be supplemented with direction and distances or combination signs with all 3 "D"s can be installed. Letter height on the signs for destinations and mileages can be smaller than standard highway sizes. Drivers of motor vehicles may also benefit from guidance information provided along their path. This information informs users of intersecting routes, destinations that can be reached at junctions, and travel distances to reach them. Bicyclists can benefit as much if not more from this same guidance information along designated bike facilities.

Bike Lane

Figure 14. Bike Lane Sign

A Bicycle (Bike) Lane is an on-street facility that designates a portion of the road for bicycles only. They can be installed on streets with and without on street parking. Bike lanes are identified by longitudinal white pavement stripe(s) on the road supplemented by black and white "Bike Lane" signs and white pavement marking symbols. Bike lanes are a minimum of four feet wide from the edge of pavement, five feet wide from guardrail, or parking lane. They are designated for both directions of travel; one on each side of the road. The minimum widths for combinations of travel, bicycle, and parking lanes should be 10', 5', and 7' respectively. If there is additional space, widen the parking lane first and then apportion the remaining space equally to the three types of lanes. Design criteria for bike lanes also include other features such as types of on-street parking and inlet grate design. Parking is not permitted within the marked bike lanes. If on-street parking is allowed, the bike lane is located to left of the parked vehicles, away from the curb. The area of the bike lane should be swept more frequently to prevent the buildup of debris. Some communities have painted the entire bike lane (or areas of turning conflict for bicycles) a solid green color. At the time of the Village's bicycle plan development, this is not currently an accepted technique but it could be investigated with future phases of the plan for locations where special extra emphasis is desired.

Where a bicycle lane is provided on the approach to an intersection where a right turn lane is present, there are options available for how to treat the bicycle lane. If there is not room at the intersection for all the moving lanes and the bicycle lane, the bicycle lane can end upstream (ahead) of the beginning of the right turn lane. A shared lane warning sign can be used in this case. If pavement space if sufficient, the bicycle lane is located to the left of the right turn lane so the bicyclist travelling straight through the intersection is not pinched against the curb by right turn traffic.

Figure 15. Bike Lane on Walnut Lane in Schaumburg, IL

Figure 18. Bike Lane on Church St in Evanston, IL

Figure 19. Bike Lane on Lambert Rd in Glen Ellyn, IL

If parking is to be permitted in conjunction with bike lanes, longitudinal stripes should be provided on both sides of the bicycle lane; one to separate the moving vehicles and bicycles and the other between bicycles and parked vehicles. Adequate space must be provided for both the bike and parking lanes to allow for "door" space. The most common conflict between parked vehicles and bikes occur when car doors are opened.

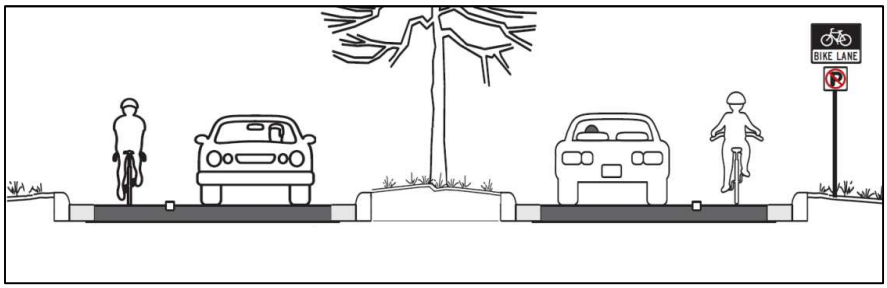

Figure 20. Perspective View of a Bike Lane on a Boulevard Street

While there is none currently in the Village, if angle on-street parking is provided adjacent to a bike lane, back in angle parking is preferred. Head in and perpendicular parking should be discouraged.

Bicycle Shared Lanes Markings (Sharrows)

Figure 21. Shared Lane Sign

A "Sharrow" or shared lane marking is an arrow-like design painted on a roadway. These markings are generally used where the road is too narrow to accommodate a striped bicycle lane. These route markings promote driver awareness of the bicycle's presence on road and help position cyclists away from parked cars. Sharrows are applicable on streets not wide enough for a full bike lane, but which are preferred routes for bicycles, have relatively high bicycle and vehicle use, and have higher levels of on-street parking utilization. The shared lane pavement marking is a new treatment in the 2009 MUTCD. The City of Chicago uses these markings on some streets. The Shared Lane sign should also be used to supplement the sharrows. The shared lane marking should be placed 4' from the face of curb typically. If there is on street parking, the marking should be 11' from the face of curb, outside of the striped parking lane.


Figure 22. Bike Sharrow on Milwaukee Ave, Chicago, IL

The shared lane pavement marking is believed to have significant potential for application to streets where adequate width does not exist to stripe a bicycle lane without removing on-street parking. Where used, the marking is placed outside the parking lane to suggest to bicyclists a position on the street that is not immediately adjacent to parked vehicles. It is important to understand this is not a bike lane marking which designates a specific dimensioned space to be used by bicyclists. Sharrows are only used if a road is not wide enough for a bike lane. The shared lane marking gives more general guidance to bicyclists and motorists on the bikes' position within the road.

On-Street Facility Evaluation using Bicycle Level of Service

Evaluating a street's overall compatibility as a bicycle facility helps to make an informed decision on whether to designate a facility. It is important to pair each street with its proper bike designation. When choosing an on-street facility type, the number of through lanes and parking regulations help to select facilities that are compatible with their surroundings. Parking is important for neighborhoods and should be retained wherever possible. If physically possible, bike lanes are the preferred on-street facility especially where traffic conditions suggest the bicyclists and motorists would benefit from specifically designating the bicycle space. Some streets, like the local Village streets, are suitable for on-street use without the need for bicycle lanes. There are also some streets where on-street facilities should be discouraged, due to their higher speeds, presence of truck traffic, and other factors.

To ascertain the street's comfort level for bicyclists and the compatibility of roads for on-street facilities, the Village used the Bicycle Level of Service (BLOS) method. The BLOS method was developed through research by Sprinkle Consultants under a Transportation Research Board (TRB) study. The method has been applied by many other agencies, such as the Federal Highway Administration (FHWA), the League of Illinois Bicyclists (LIB), IDOT, and Kane County. The BLOS method uses a mathematical regression equation to measure the relative comfort or compatibility of a street for use by bicyclists. The street's physical and operating characteristics are considered in the BLOS assessment.

A number of different physical and operating characteristics are considered in the BLOS. These include the vehicular traffic volume, presence of trucks, posted speed limit, pavement condition, width of the street, presence of on-street parking, widths of shoulder or marked on-street parking areas, and number of lanes. Further evaluation of each

candidate street is required as not all criteria important to bicyclists are included in the BLOS, such as drainage inlet type and visibility, and frequency of driveways or intersections.

Level of Service	BLOS Score
A	≤ 1.5
B	> 1.5 and ≤ 2.5
C	> 2.5 and ≤ 3.5
D	> 3.5 and ≤ 4.5
E	> 4.5 and ≤ 5.5
F	> 5.5

Figure 23. BLOS Categories

The BLOS classifies streets into compatibility categories of A through F, similar to a grading scale. Streets with a LOS A have a high level of compatibility for bicyclists of nearly all abilities. LOS F indicates that the street is not compatible under the prevailing physical and operating conditions. As a relative comparison, a "typical" rider would view a street with a LOS A as more accommodating than a street with LOS B. As a design practice, on-street facilities should be limited to A, B, or possibly C is some circumstances. The design BLOS value of C may be more applicable for expert riders as they are more tolerant of and accustom to traffic. They may be willing to travel on streets with a BLOS of D or lower; design for expert bicyclists should be at least considered on all roads. The method is applied for the evaluation of on-street bicycle use regardless of how a facility may be designated (shared use, bicycle route, or bicycle lane). Please see the Appendix for Hoffman Estates' BLOS data.

The results of the BLOS evaluation found only a few locations where the street and traffic characteristics would not be compatible for on-street bicycle use under current conditions. For each of these locations, there could be a range of solutions that will increase the level of comfort for bicyclists. In some locations, reconstructing the street to improve the pavement surface condition would improve the BLOS. For other streets, techniques such as "road diets" would be necessary to improve the BLOS. A road diet is a design technique where the roadway width is reallocated to provide space for bike lanes, along with center turn lanes, additional parkway, and sidewalks but the overall street width is generally not increased. Road diets are a component of the context sensitive design and solutions philosophy where roadways are designed for all users in the context of their surroundings. Road diets are a good solution for locations where adequate vehicular level of service can be maintained after reducing the number of through vehicle lanes. This "extra" pavement space can be redistributed for turn lanes and / or bicycle facilities.

The table to the right and map on the next page show the results of existing BLOS on streets under Village jurisdiction. A large majority (66.1%) of streets segments already meet the design BLOS of A or B without any physical changes. In Chapter 5, the proposed on-street facilities are grouped into two categories "Ready to Go" and "Significant Change." These two terms are related to acquiring a minimum BLOS value. The following examples shows how reconstructing Bode Road and installing bicycle lanes can increase the BLOS and make the street more comfortable for bicyclist. By reconstructing the road to improve pavement condition and providing a bicycle lane, the BLOS is improved from a D to a B. This can be done without expanding the road.

Existing Bicycle Level of Service	Number of Streets Segments	Percentage of Streets Segments
A	4	3.4%
B	74	62.7%
C	34	28.8%
D	4	3.4%
E	2	1.7%
F	0	0.0%
Total	118	100%

Figure 24. Bicycle Level of Service Summary Table

Bode Road (Gannon Drive to Bode Circle East)

Existing BLOS: 3.56 (D)	Proposed BLOS: 2.02 (B)
Pavement Condition: 3, Fair	Pavement Condition: 5, Very Good
Number of Travel Lanes per direction: 2	Number of Travel Lanes per direction: 1
Travel Lane Width: 11	Travel Lane Width: 11
Bicycle Lane: No	Bicycle Lane: Yes (5' wide)

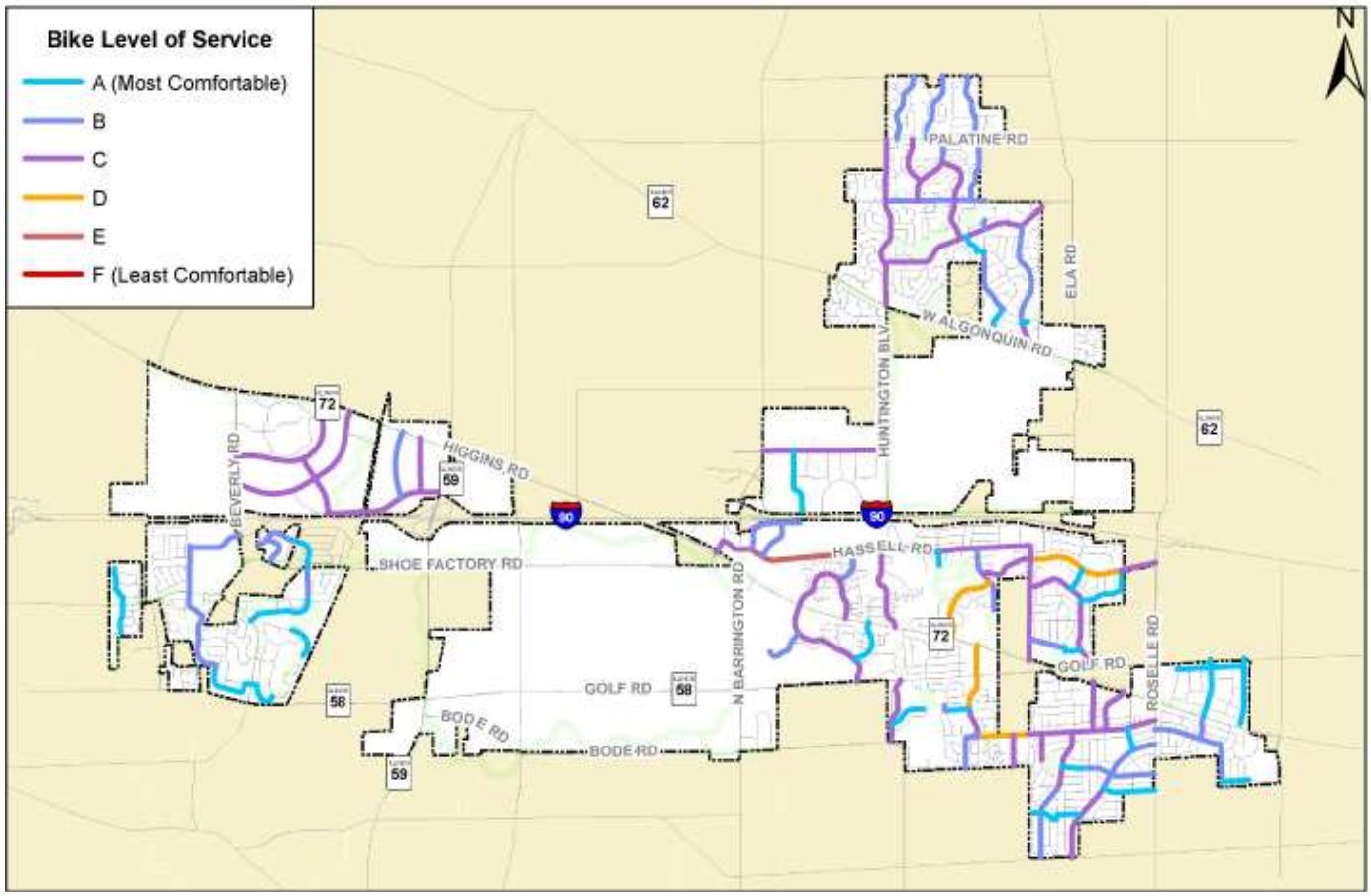

Figure 25. Existing Bicycle Level of Service Map

The BLOS method is applicable only to on-street facilities. As noted elsewhere, additional factors are considered before designating an on-street bicycle facility.

Off-Street Facilities

Off-street facilities, also known as bike paths or multi-use paths are physically separated from the road. They can be parallel and close to the road in some cases and completely independent of the road alignment in other cases. Design criteria are specified for width of the path, grade, curvature, clearance distance, visibility, traffic controls, etc. They are typically designed for bi-directional travel, whereas on-street facilities are not. The standard width for a path should be 10' wide, constructed of asphalt or concrete, with a 1-2' grass or gravel shoulder and clear recovery space on either side.

Signage and striping may be supplemental to the path and is strongly recommended at intersections with vehicular roadways. The facilities are intended for all non-motorized types of travel including bikes, pedestrians, skateboards, rollerblades, wheel chairs, etc. As for on-street facilities, the AASHTO and MUTCD guidelines should be referenced for the design and traffic controls used for off-street facilities. Off-street facilities are significantly more expensive than on-street because they are constructed independent of the existing street. They should only be installed where on-street facilities are infeasible, where all types of intersections and crossings are relatively few,

where the level of bicycle use is reasonably high, and where property is available for their construction and maintenance.

While a typical sidewalk is not designed to be an official part of a designated bicycle system, it is understood that some bicyclists will choose to use them on occasion and under certain circumstances. Sidewalks are attractive for novice and younger bicycle riders who may not be skilled enough for biking on the street. To encourage non-driving trips such as walking, a complete and connected sidewalk system is a very desirable goal. Sidewalks however should not be considered an official component of the larger designated bicycle network unless all physical bicycle design criteria are met. This does not prevent a sidewalk's use by especially the younger bicyclists. However, riding on a sidewalk has a number of issues in common with a bicycle side path, discussed in a section below. Users must be aware of conflicts at driveways and intersections, possibly limited visibility, the width and surface condition of the sidewalk, etc. As a design goal, sidewalks should be provided to the maximum extent feasible along both sides of all roads.

The off-street facilities are broken into two types of categories described below, which are differentiated by their location in relation to roadways.

Trails

Multi-use trails are the preferred type of off-street facility for bicyclists. They are located within the public right of way, other public space, or on a public easement. They are completely separated from vehicular traffic. Trails do not have to follow the same alignment as adjacent roads. The only locations on trails where bicyclists would have conflicts with vehicles are at the street crossings. The path systems in the Forest Preserves in Hoffman Estates are examples of trails. Trails can be constructed of asphalt, concrete, gravel or stone depending on their intended user. Most paths in this plan are asphalt and available for all bicyclists. In some instances, gravel or stone paths can be built for mountain bicycles, such as the trail at Pine Park.

Figure 26. Poplar Creek Bike Trail Photo, Hoffman Estates

Side Paths

Side paths are typically located within an existing roadway right of way and are parallel to the road, similar to a sidewalk. A side path application can be appropriate where space is limited to provide more separation and where the number of driveways and intersections that would be crossed is low. Side paths are an important component to all facility plans, but are not appropriate everywhere. A commonly held convention is that a side path is always safer than an on-street facility, but this has been proven false. As opposed to trails, side paths by their design can have significantly more conflict points between users of the path and vehicles due to the increased frequency of roadway crossings and driveways. A majority of car-bike crashes occur at intersections, not where a bike is hit from behind by a car. There are also added complexities because side path users travelling in the opposite direction as drivers on the parallel road are less likely to be seen by turning vehicles at intersections. Side path users may also have an incorrect sense of security since they are not sharing the street with vehicles. Where a side path crosses a driveway it is important for all users to understand who has the right of way to travel, many time bikes incorrectly assume they have the right of way.

Figure 27. Paul Douglas Side Path Photo

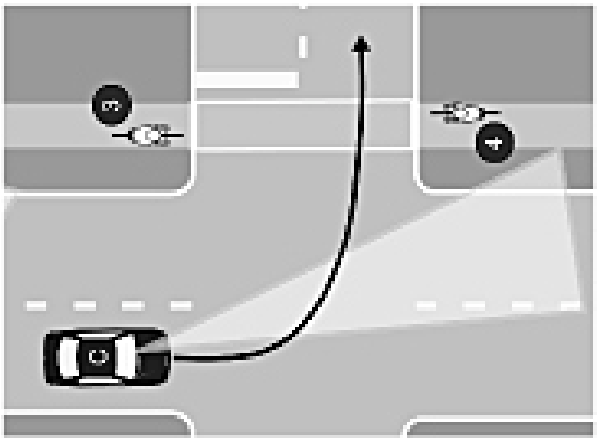

Figure 28. Left Turn Side Path Conflicts (LIB)

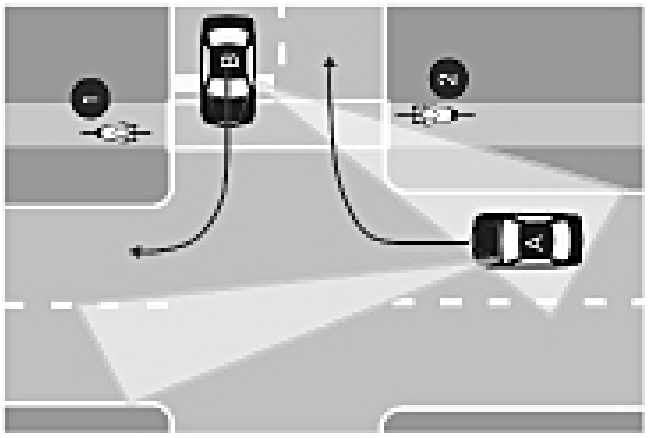

Figure 29. Right Turn Side Path Conflicts (LIB)

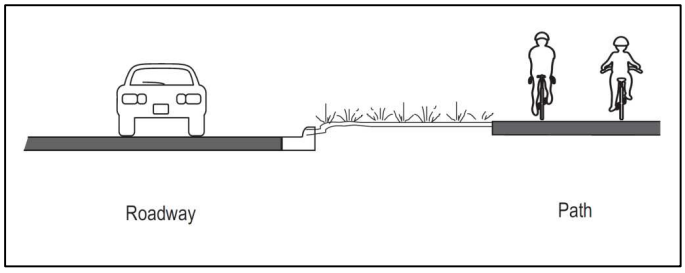

Figure 30. Perspective View of a Side path

If a side path is determined to be the proper bicycle facility for a corridor, it is important to understand all the intricacies of the design, especially at intersections. The same applies to trails that intersect with streets. The roadway right of way must also be wide enough to accommodate the entire path cross section, including recovery space on either side of the path. There must be adequate separation between the path and the roadway to accommodate all roadway signage, lighting, trees, etc. This can mean the parkway must be quite wide, wider than most Village rights of way. Traffic volumes are not a direct factor because the bike traffic is physically separated from the vehicle traffic. The frequency of driveway and intersection crossings must be considered. Side paths are well suited to corridors adjacent to higher volume arterial roads where on street facilities are not possible. These roads typically have fewer intersections, little to no driveways, and better access control. These principles apply to new construction of side paths, expansion of existing sidewalk to a side path, and bicycle use on sidewalks.

There are documented design techniques that will reduce, but not eliminate, many of the inherent issues of side paths, such as installing jogs at intersections to slow bicycle travel that also brings the path closer to the intersection where bikes are more likely to be seen. Selecting corridors where driveways are minimal or not present is also preferred. There are additional signage and striping changes that can be installed on the adjacent roadways to alert drivers of the side path crossing.

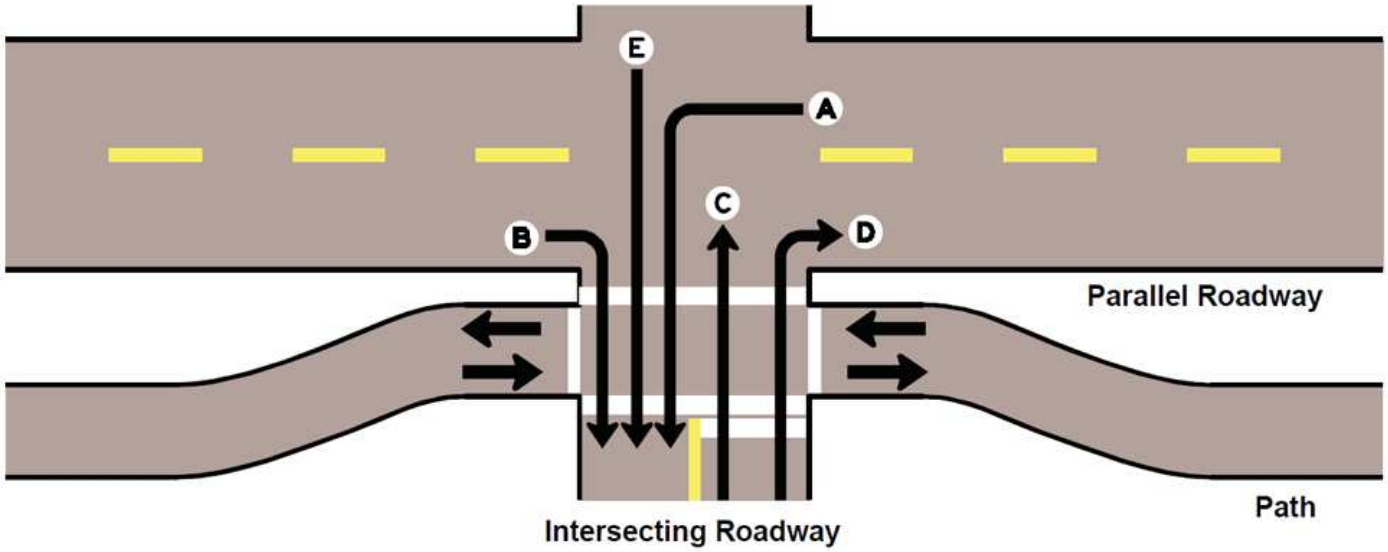

Figure 22. Example of Adjacent Path Intersection

Figure 31. Recommended Side path Intersection Crossing Design and Conflict Movement Paths (AASHTO)

Chapter 4: Existing Facilities

The Village currently has over 26 miles of existing off-street bicycle paths. There are currently no marked bicycle routes or bike lanes within the Village. The Village, Park District, and Forest Preserve currently maintain the off-street paths. There is a large regional network of existing facilities surrounding the Village including three of the Village's neighbors; Schaumburg, Streamwood and Elgin. In time, the Village plan would expand the existing facilities throughout the community and connect to surrounding municipal and regional bike systems. A solid understanding of existing facilities will expedite the process of prioritizing new projects. As you can see in the summary table to the right, residents currently enjoy riding on existing paths and on neighborhood streets. All existing facilities are also shown on the Comprehensive Bicycle Map. The existing Village bike facilities and surrounding facilities as well as physical barriers to bicycling are described below.

Like to Ride	Responses
Forest Preserve Trails	29
Around the Neighborhood	25
Park District Trails	15
To Work	10
To Shop	9
Other	6
To School	2

Figure 32. Open House Like to Ride Input Summary Table

Bicycle Facilities in the Village

Figure 33. Shoe Factory Rd Bike Trail

All existing designated bike facilities within the Village are off-street paths along arterials, through the Forest Preserves, and Village parks. The Poplar Creek and Paul Douglas Forest Preserves trails provide a continuous loop for recreational travel, along with good corridors to connect the three distinct geographic areas of the Village. The portions of these paths within the Forest Preserve boundaries are maintained by the Forest Preserve. There are also side path trails along Shoe Factory Road and Algonquin Road that provide east / west travel through the west and north portions of the Village. The Shoe Factory Road trail is not continuous, with several gaps. These side paths are maintained by the Village within its municipal boundaries. The Hoffman Estates Park District maintains a large network of local park trails for local recreational biking in neighborhood and regional parks. Private paths also exist in the Village, which are not included in the map. Such facilities are generally accessible from surrounding public streets and they would therefore benefit indirectly from this plan.

Surrounding Facilities

In addition to the bicycle paths located in the Village, there is an extensive network of bicycle facilities located in many neighboring communities and throughout the entire Chicagoland region. To encourage bicycle travel, it is important to make the network as seamless as possible between communities. Throughout the development of this document, Village staff met with all neighboring communities and regional agencies to ascertain locations for existing facilities outside the Village as well as to identify plans for local and regional routes along corridors through Hoffman Estates. The Villages of Schaumburg and Streamwood both maintain an on- and off-street network that

provides logical connection points to Hoffman Estates along many of the Village's south and east municipal borders. There are also locations where a bicycle corridor will cross in and out of each of the individual Villages.

The City of Elgin has recently adopted a Bicycle Plan with proposed corridors that would extend south and west from the western area of the Village. East Dundee is also working on bicycle planning and has identified a future connection into the Kane County system along Higgins Road. The Fox River Trail system to the west is a great bicycle amenity; a connection leading to this system is a goal of the Village plan. Both Palatine and Inverness have expressed an interest improving bicycle facilities within and between municipalities that will provide opportunities for regional corridors in the northern section of the Village.

Beyond the municipal level, there are existing regional plans that have identified logical long distance corridors. Most notably, the 2007 Northwest Municipal Conference (NWMC) Bicycle Plan identified Higgins Road as a logical east / west corridor. NWMC also provides an opportunity to work directly with other municipalities on bicycle planning in the northwest suburbs of Cook County to encourage sub-regional planning. The Chicagoland Metropolitan Agency for Planning (CMAP) has also created a Regional Greenways and Trials Plan for the seven county region.

Figure 34. Forest Preserve Trail Sign

The Forest Preserve District of Cook County (FPDCC) maintains many existing bicycle paths beyond Hoffman Estates, including the popular Busse Woods Trail east of the Village. These trails provide great recreational opportunities along with off-street corridors that can be incorporated into larger projects.

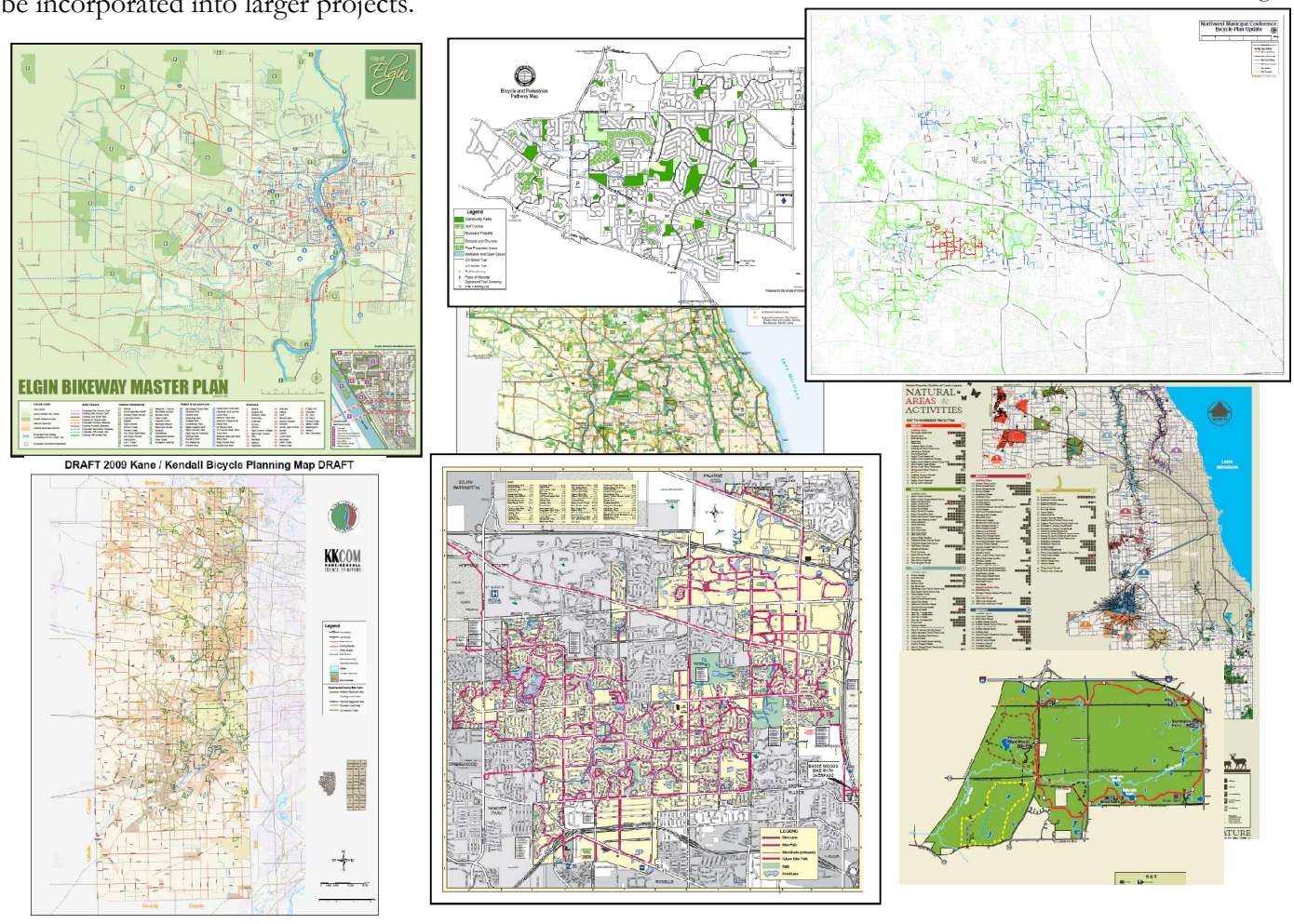

Figure 35. Local and Regional Bicycle Facility Maps (left to right and up to down; Elgin, Kane and Kendall County, Streamwood, Chicagoland Metropolitan Agency for Planning, Schaumburg, Northwest Municipal Conference, and two Cook County Forest Preserve)

Barriers to System Connectivity

The major highways that serve and cross through Hoffman Estates provide convenient vehicle access to nearby suburbs in the region, but also create barriers for bicyclists and pedestrians. Interstate 90 (the Jane Addams Memorial Tollway) is a major barrier to bicycle and pedestrian movement in the network. Currently no sidewalks or paths cross over or under the Tollway in or near Hoffman Estates. The major arterial roadways (e.g. Higgins Road, Golf Road, Sutton Road, and Roselle Road) carry high volumes of traffic, which makes at-grade crossing difficult and on-street biking prohibitive. The corridors are also maintained by outside jurisdictions that require added coordination for any new bicycle projects. There can be opportunities to improve arterial crossings at traffic signal controlled intersections. Overpass and underpass structures are options for getting across the Tollway. Redesign of interchange configurations and bridges can also be a means to improve connectivity. These are longer term projects but once implemented will be a significant service to bicyclists and pedestrians.

Common Destinations

As part of the Open House meetings, participants were asked to provide input on locations where they currently bike as well as destinations to which they would like to bike but find difficult. These destinations have been included on the proposed bicycle facilities map. Locations and destinations include:

- Forest Preserve Trails – Identified as the most common destination. The Village has six Forest Preserves within the Village at less than a 5 mile bike ride away. Many of these Preserves have loop bicycle trails. While the paths themselves within the Forest Preserves are well used, participants identified difficulty reaching them from the surrounding area.

- Park District Facilities – Identified as the second most common destination. The Hoffman Estates Park District maintains many multi-use paths, along with other amenities, all within a short bicycle ride from every resident. Connections between neighborhoods and the Park District facilities will improve accessibility.

- Schools, Neighborhood Shopping, Libraries, and Municipal Facilities – There are community services provided at the destinations in addition to their main functions. Sports leagues may use school district property, for example, outside of the normal school day. Shopping centers may host special events of interest to residents that would be attractive as a bicycle trip.

- Transit Stations – There are existing and proposed transit stations that are logical destinations for bicycles. Both bicycling and transit are "greener" forms of transportation where links should be encouraged. Existing Metra stations are located in Palatine, Schaumburg, and Barrington. The Northwest Transportation Center in Schaumburg is a hub where a number of bus transfers are available. The proposed STAR Line along the median of the Jane Addams Tollway includes plans for stations near Barrington Road and in Prairie Stone. A station near Roselle Road in Schaumburg is also envisioned. Bicycle connections to these future transit stations will provide an option for alternate modes of travel. For the envisioned Barrington Road station, expected to be in the median of the Tollway, bicycle connections from the north and south afford an opportunity to create a Tollway crossing too. Bicycle parking facilities should be provided at existing and future transit stations.

Chapter 5: Proposed Bicycle Facility Plan

The Hoffman Estates Bicycle Facility Plan is designed to support a wide range of users. While there are currently a number of bicycle facilities in the Village, expanding and connecting the bicycle network and diversifying the types of facilities are necessary improvements. The following chapter describes the proposed bicycle facility routes, lanes, and paths, bicycle amenities, and designs for pedestrian use of bicycle facilities. Chapter 6 contains the components of the comprehensive bicycle plan that address educational programs, enforcement, encouragement initiatives, and evaluations of system performance.

The recommended on-street and off-street facilities were developed based on input from community meetings, the results of the BLOS evaluation for on-street candidates, an assessment of field conditions, and a review of other planning documents. On-street facilities were then evaluated further to determine whether the proposed designation should be a bicycle lane, a shared use facility, or a bicycle route.

Proposed On-Street Facilities

The Bicycle Plan lists over 50 miles of potential on-street bicycle facilities. Each street was evaluated using the BLOS to determine its compatibility for bicyclists. Based on the inputs for the BLOS and engineering judgment, there are two main groups into which the Village streets can be categorized:

- **"Ready to Go" On Street Projects:** There are 44.5 miles of streets that are acceptable for bicycles today and do not require any geometric or pavement changes to the street. They have a good pavement rating, and a higher (better) BLOS (C or above) without any changes. The Village could proceed with signing and / or striping to designate the streets for bicycles. These improvements would be relatively low cost and can be implemented within a shorter time period with minimal design. On some streets, striping will also improve the BLOS score.

- **"Significant Change" On Street Projects:** There are 6 miles of streets where a geometric or pavement change is recommended prior to designating the streets for bicycles. Many of these streets have poor edge conditions, with deteriorated pavement and settlement; these streets are in need of reconstruction.

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  There are also other streets where the current lane configuration could be re-distributed to provide dedicated space for bicycles. The changes listed can improve the BLOS to a B in most cases and a C in others.

The major determining factor for choosing the appropriate on-street facilities is the width and balancing adequate space for driving lanes, bicycles, and parked vehicles. The following three on street facilities are presented in order consistent with the hierarchy of preference. The minimum space required for a bicycle lane is 15', combining the travel lane and bicycle lane. If there is only 14', the shared lane marking may be used. On streets with a combined width less than 14' (typical to most Village streets), a bicycle route is recommended.

- **Bicycle Lane:**
The general preference for on-street facilities is a bicycle lane because it provides a designated space only for bicycles. However, for a bicycle lane to be functional, it cannot overlap with space for parked vehicles. While most streets in the Village do not allow enough space for striped bicycle lanes, there are about 5 miles of streets with the potential for bicycle lanes. Some of these streets do not require any changes, such as Huntington Boulevard, Volid Drive, and Moon Lake Boulevard that are all divided roadways. Other streets would require a redistribution of the street width, such as going from two through travel lanes in each direction to one travel lane in each direction, a center turn lane and bicycle lanes on either side. An example street, which would be a candidate for this type of treatment, is Bode Road near Salem Drive.

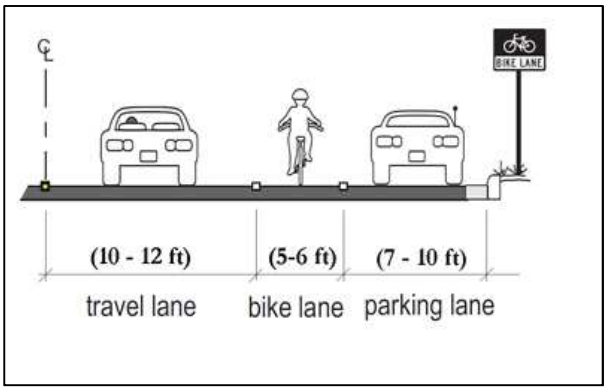


Figure 36. Typical Bicycle Lane Dimensions

- **Shared Lane Marking:**
If there is not enough space to accommodate a striped bicycle lane, the next treatment to consider would be shared lane (sharrow) symbols on the pavement. The symbols provide a preferred location for bicycles to travel, helping to remind bicyclists of their position with respect to parked vehicles and to remind drivers of the possible presence of bicycles. An example candidate street would be Bode Road from Western Street to Roselle Road, where the pavement width is 44' from face of curb. The shared lane marking should be placed 4' from the face of curb typically. If there is on street parking, the marking should be 11' from the face of curb, outside of the significantly occupied parking lane.

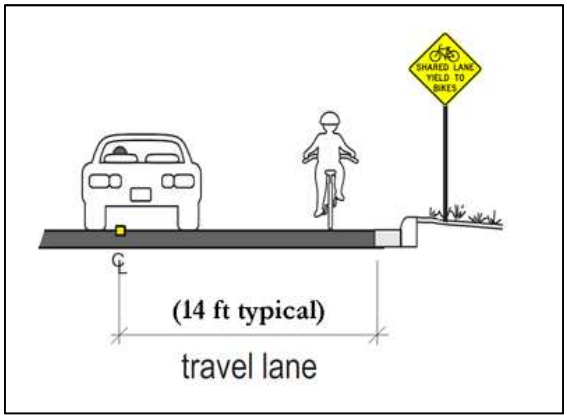


Figure 37. Typical Shared Lane Dimensions

- **Bicycle Route:**
On most local streets, there is not enough room to dedicate space solely for bicycles so a solution where they share the space with vehicles is recommended. Even without specially designated space for bicycles, travelling on-street is appropriate and preferred for most bicyclists. Most of the potential on-street bicycle facilities in the Village fit this scenario, totaling over 45 miles. Examples of candidates would be a typical collector street with parking on both sides or a local street with parking on one side.

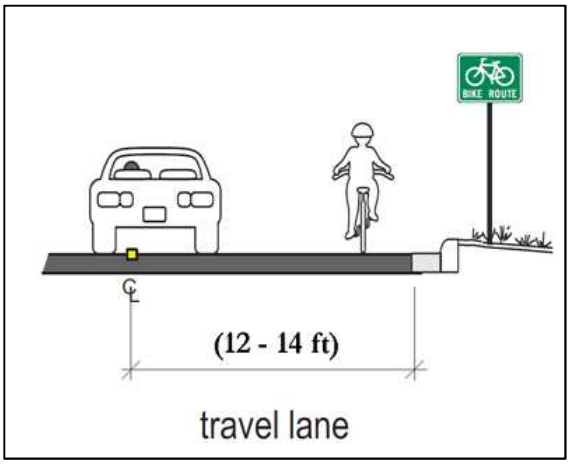


Figure 38. Typical Bicycle Route Dimensions

Complete Streets / Context Sensitive Solutions / Road Diets

As per the **Public Act 095-0665**, the State of Illinois has directed State transportation agencies to ensure the design of all State routes during rehabilitation include all users including vehicles, bikes, pedestrians and transit. The full text of the public act is provided on the following page. The principle is one of equal consideration and accommodation for drivers and non-motorized users when designing new roads or rebuilding existing facilities. Pedestrians and bicyclists should be provided opportunities to travel along routes and to cross at designated locations in a similar way as vehicle movement is facilitated. Where full accommodations cannot be provided to all users, alternative means to provide access along and across roads, especially major thoroughfares, should be explored. For bicycles and pedestrians this generally means including an option for on-street bicycle facilities, sidewalk, and / or off-street bicycle paths, where appropriate, for travel along a route. Design features at street crossings such as detectable warnings, advance warning signs, pedestrian traffic signal control, refuge crossing islands, and other treatments need to be evaluated for inclusion with road projects. The final design of any road project should balance the needs of all users. An option for the Village is to adopt a local complete streets ordinance echoing or exceeding the content of the state law.

In other cases, it may be possible to better use the existing pavement width by reallocating how it is used. Detailed roadway capacity analyses and review of suitability for on-street bicycle travel must be conducted. If adequate space is available from curb to curb, on-street bicycle use may be accomplished by a combination of narrowing vehicle travel lanes, reducing the number of through lanes, introducing median left turn lanes, and /or allowing on-street parking. Context sensitive design is a design approach and philosophy that gives explicit consideration to the roadway and its surrounding environment rather than applying a one-size-fits-all solution. If bicycle travel on-street can be accomplished in an area where there is a demand for such use while at the same time maintaining a reasonable quality of operation for vehicle traffic, then the street space may be redefined to serve vehicle and bicycle traffic.

Public Act 095-0665

SB0314 Enrolled LRB095 09575 LCT 29775 b

AN ACT concerning roads.

Be it enacted by the People of the State of Illinois, represented in the General Assembly:

Section 5. The Illinois Highway Code is amended by adding Section 4-220 as follows:

(605 ILCS 5/4-220 new)

Sec. 4-220. Bicycle and pedestrian ways.

(a) Bicycle and pedestrian ways shall be given full consideration in the planning and development of transportation facilities, including the incorporation of such ways into State plans and programs.

(b) In or within one mile of an urban area, bicycle and pedestrian ways shall be established in conjunction with the construction, reconstruction, or other change of any State transportation facility except:

(1) in pavement resurfacing projects that do not widen the existing traveled way or do not provide stabilized shoulders; or

(2) where approved by the Secretary of Transportation based upon documented safety issues, excessive cost or absence of need.

(c) Bicycle and pedestrian ways may be included in pavement resurfacing projects when local support is evident or bicycling and walking accommodations can be added within the overall scope of the original roadwork.

(d) The Department shall establish design and construction standards for bicycle and pedestrian ways. Beginning July 1, 2007, this Section shall apply to planning and training purposes only. Beginning July 1, 2008, this Section shall apply to construction projects.

Section 99. Effective date. This Act takes effect July 1, 2007.

Effective Date: 10/10/2007

Figure 39. Example Road Diet Photo from Davenport, IA

Road diets are one method to accomplish the goals of complete streets without the need to widen the pavement. The existing pavement width is reallocated from vehicles to bicycles and pedestrians. Because the conditions are different on each street, as opposed to requiring the same design everywhere, the designer should take the approach to maximize the space for all users. Roadway designs for these types of streets should focus on fewer and / or narrower travel lanes, allowing spaces for bicycle lanes, on-street parking, and sidewalks. If there is additional space above minimum values, it should be provided in the parking lane first and then evenly spread among traffic lanes, bicycle facilities, and parking lanes. As with other discussions of context sensitivity, road diets are not an appropriate alternative for every street. However, the feasibility of alternatives to provide for all types of road users should be investigated where conditions suggest that options may exist. One additional positive outcome from road diets are the potential safety and vehicle speed benefits. Some studies have shown a reduction in the number of all crashes and reduction in vehicle speeds with road diets.

A typical opportunity for a road diet in Hoffman Estates is converting a four lane road to a three lane road with a center turn lane and bicycle lanes. This solution may be appropriate for roadways with an ADT of approximately 12,000 or less, which is the case on a few streets in the Village where this concept can be applied, such as Hassell Road, Bode Road, Huntington Boulevard, and Gannon Drive. Detailed traffic analyses of such an option must be evaluated carefully on each street as the ADT threshold is only a general estimate. Performance is dependent on variables such as the frequency of driveways, number of turning vehicles, peak hour operations, and amount of truck traffic. The exhibits below show how adding bicycle lanes can be accomplished without widening the road. The figure on the left shows a "before" image of a roadway with two vehicles lanes in each direction. The figure on the right shows the same width road with space reallocated for bicycles. This solution is also less expensive alternative to building a parallel path because it does not require an expansion of the existing road or sidewalk.

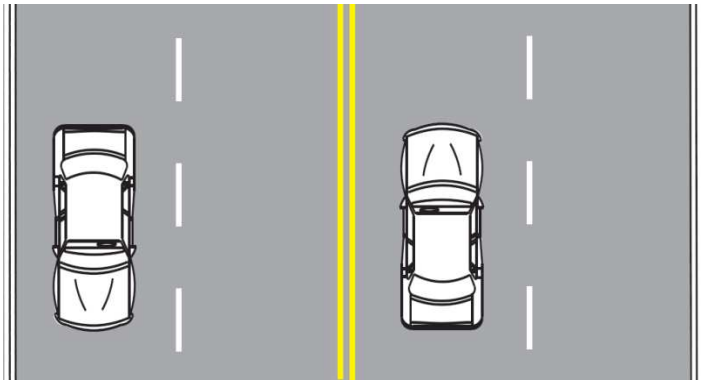


Figure 16. Perspective view before road diet

Both Streets in the before and after are the exact same width and are capable of handling very similar amounts of traffic

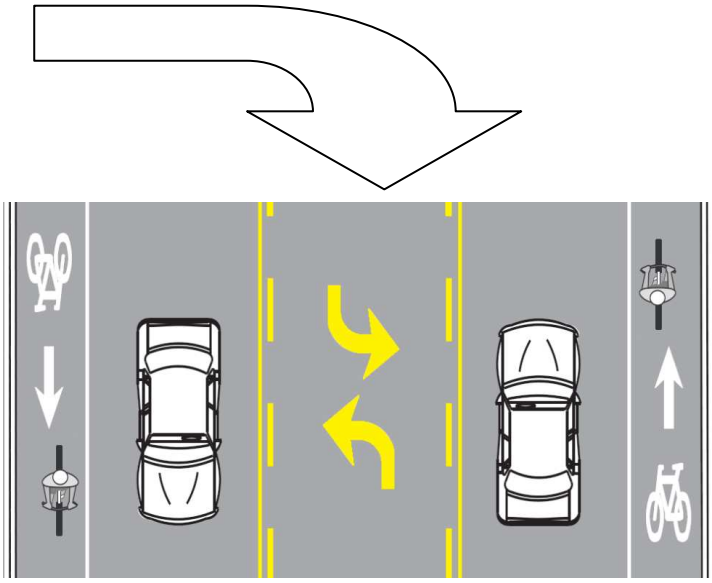


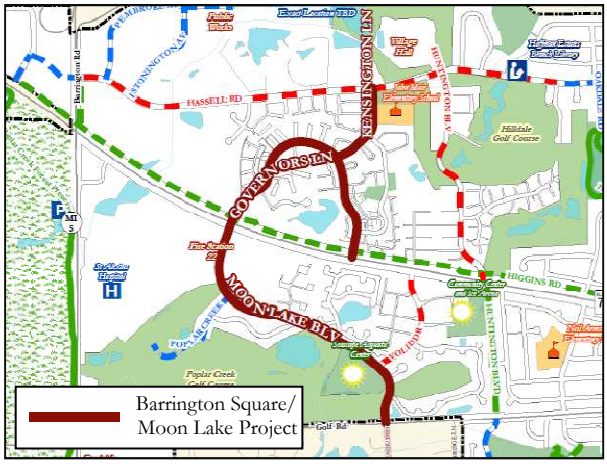
Figure 41. Perspective view after road diet

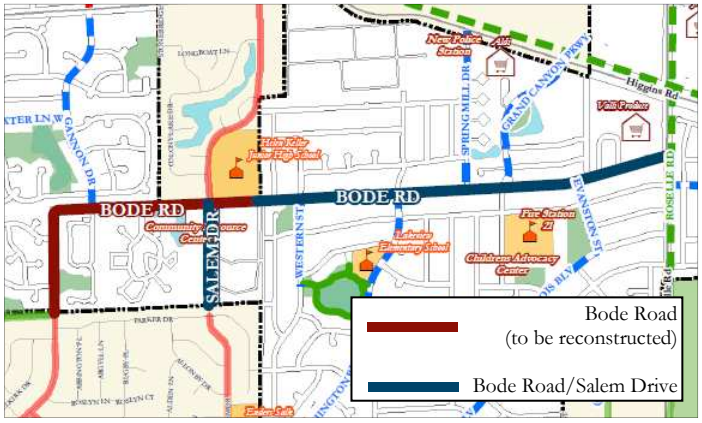
On-Street "Ready to Go" Bicycle Projects:

The "Ready to Go" projects will provide the greatest number of bicycle facility miles at the lowest cost to the Village within the shortest period. They also can be implemented by simply installing signs and striping, without any additional work. The "Ready to Go" label does not imply that funds are currently available to implement these changes. Rather it describes a lower level of modifications necessary in order to implement the change. These projects will compete for general Village funds along with all other needs considered on an annual basis. Each of the projects listed below includes multiple streets with bike lanes and routes bundled together. The projects have been created based on analysis for good candidates and prioritized based on input throughout the preparation of the bicycle plan. Each can be implemented on its own or grouped together to create a larger project. Phasing should consider how each individual component fits as part of a larger system. Preliminary costs (2010 dollars) for each project are included. The list of potential projects is provided in alphabetical order, with no priority assigned or implied.

Barrington Square / Moon Lake Drive ($15,000)

Project provides a north / south connection between Golf Road and Hassell Road using Moon Lake Boulevard, Governors Lane, and Kensington Lane. Bike routes could be applied on Governors and Kensington, with bicycle lanes on Moon Lake. Would connect to existing bicycle lanes on Walnut Lane south of Golf Road in Schaumburg. Provide bicycle facilities to a large population of residential properties, the Barrington Square Mall, and the Seascape Aquatic Center.



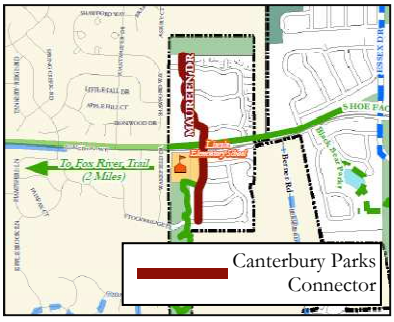


Bode Road / Salem Drive ($6,000 to $13,000)

Bicycle lanes and routes (possibly sharrows) on Bode Road and Salem Drive to connect with existing Schaumburg facilities. The project could include the section of **Bode Road to be reconstructed**, which would total $13,000 or could be done separately. The existing BLOS for the section to be reconstructed is a D and bicycle lanes would improve the score to a B. This would provide a seamless east / west connection between Barrington Road and Roselle Road when completed.

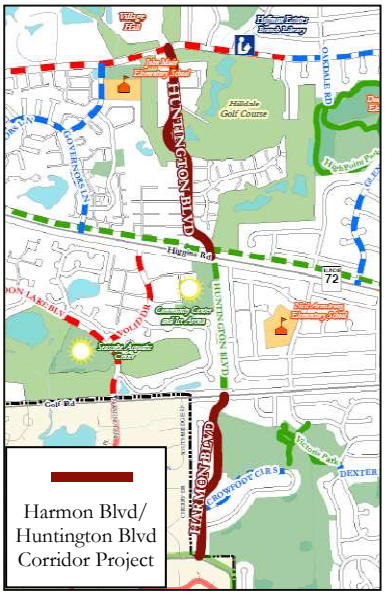
Canterbury Parks Connector ($2,000)

Bicycle routes on Maureen Drive to connect the existing and proposed parks in Canterbury Fields and Canterbury Farms. The routes would also intersect the existing Shoe Factory Road bicycle path in the middle. The crossing at Shoe Factory is via the signal at Maureen Drive. Pedestrian and bicycle upgrades at the signal should be evaluated with this project.



Grand Canyon Parkway ($1,500)

Grand Canyon Parkway from Bode Road to Higgins Road could be designated as a Bicycle Route. It may make sense to bundle this work with a larger project, especially if the Higgins Road sidewalk is expanded to a bike path.

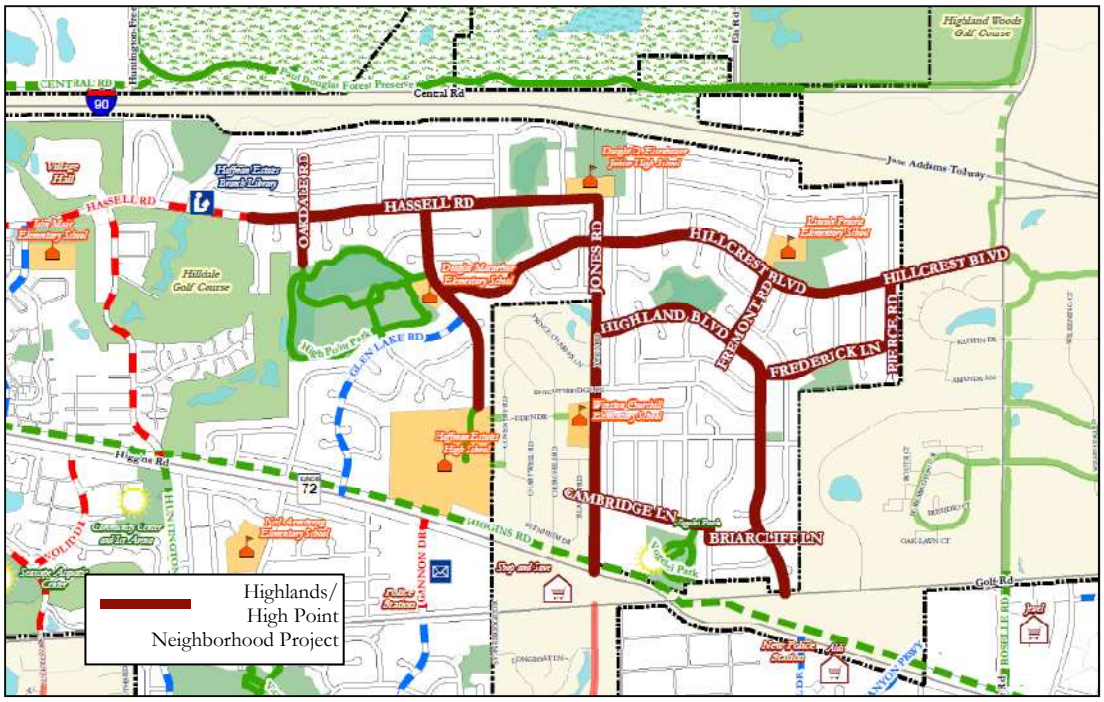


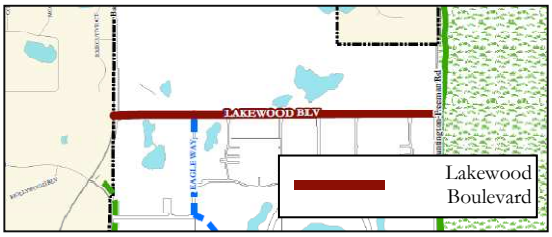
Harmon Blvd / Huntington Blvd Corridor Project ($10,000)

Provide a north / south connection between Bode Road and Hassell Road, when included with the Huntington Right of Way Bicycle Path project (see separate listing in the proposed bicycle paths section). Bicycle Routes are proposed on Harmon Blvd and Bicycle Lanes are proposed on Huntington Blvd. The bicycle lanes on Huntington Blvd will improve the BLOS from C to B. The project would pass multifamily residential uses, the Park District Community Center, and would connect with the Village Hall

Highlands / High Point Neighborhood Project ($30,000)

A larger project throughout both neighborhoods that is anchored by east / west bicycle routes on Hassell Road and Hillcrest Blvd and a north / south bicycle lane and route on Jones Road to connect with existing Schaumburg facilities. Secondary routes are provided throughout the neighborhood to connect with Schools and Parks. It would include some roads with a BLOS of C. On Jones Road the BLOS can be improved to B by adding bicycle lanes. Also, because Hillcrest is a busier road, a parallel alternate route along Frederick Lane is proposed for novice bicyclist use.



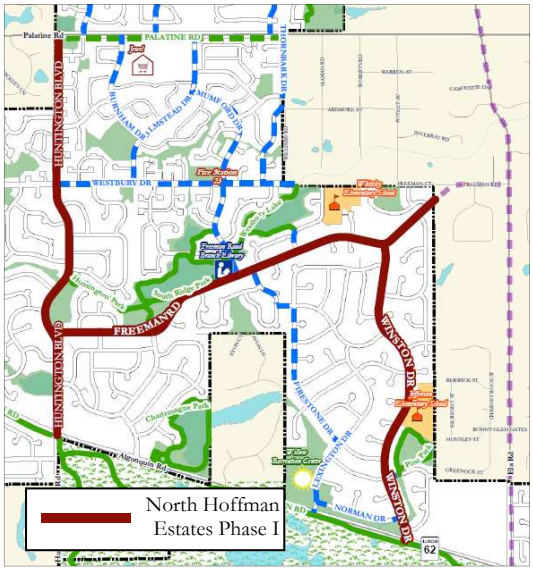


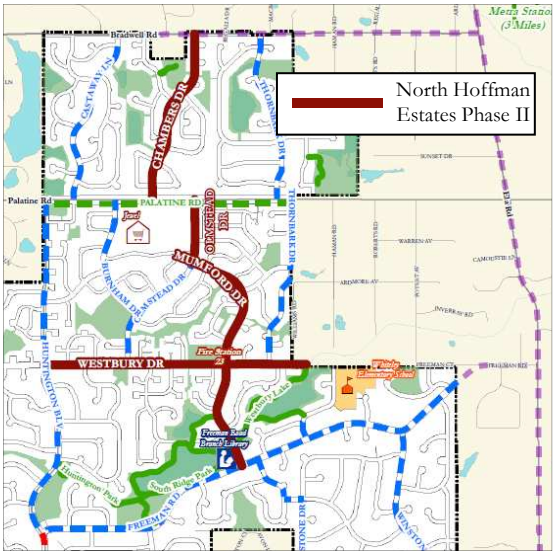
Lakewood Blvd ($3,500)

A bicycle route on Lakewood Boulevard would connect the business and retail along the street with the Paul Douglas Forest Preserve Trail. An option is to re-stripe the road with a wider outside lane, providing a marginal increase in the BLOS score. A connection to Tennis Club Lane in South Barrington is also provided. A link to Barrington Road also provides for a future option should facilities develop on Barrington Road itself. Pedestrian and Bicycle improvements at the signal should also be evaluated with this project.

North Hoffman Estates Phase I ($20,000)

On-street facilities on Huntington Boulevard, Freeman Road, and Winston Drive to provide the primary spine connection for residential neighborhoods to the Algonquin Road and Paul Douglas Forest Preserve bicycle trails. The project could also include bicycle lanes on Huntington Boulevard between Algonquin Road and Freeman Road by reducing the through lanes to one in each direction with a center left turn lane, improving the BLOS from C to B. The facilities could be expanded into Inverness if a facility on Ela Road is proposed.



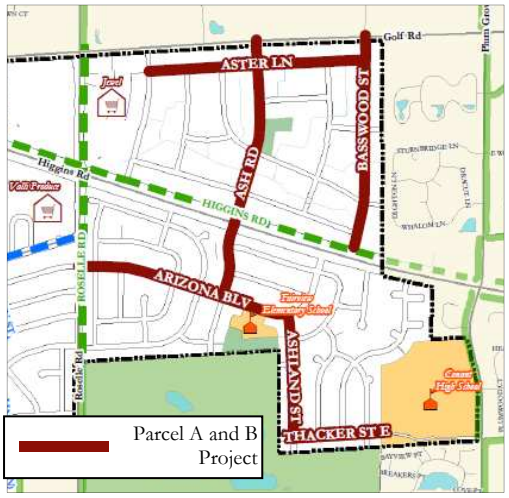


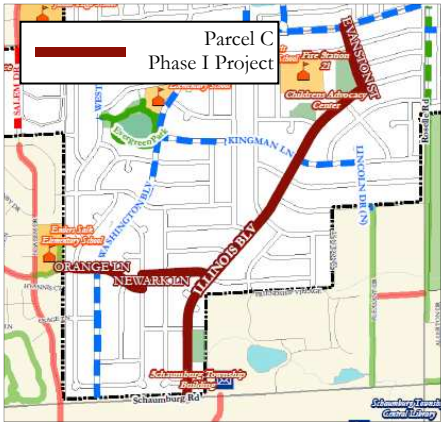
North Hoffman Estates Phase II ($10,000)

Bicycle routes on Mumford Drive, Westbury Drive, Olmstead Drive, and Chambers Drive to expand the network and complement the North Hoffman Estates Phase I projects, expanding the connectivity throughout northern Hoffman Estates and to the Algonquin Road bicycle path.

Parcels A and B Project ($12,000)

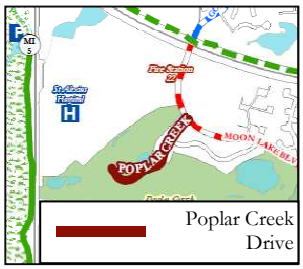
Bicycle Routes throughout both neighborhoods to provide north / south movements to traffic signals at Basswood and Golf Roads as well as on Higgins Road and Ash Road. A connection to the Higgins Road bicycle path and the network in Schaumburg to the east would be established. Connections to Conant High School, Roselle Road, and Hoffman Plaza Shopping Center are also proposed to provide east / west connectivity.





Parcel C Phase I Project ($12,000)

The majority of the project would be a bicycle route on Illinois Boulevard from Schaumburg Road to Roselle Road. East / west connections are proposed to link the existing Schaumburg facilities on Salem Drive and Lincoln Street. A connection on Evanston Street to Bode Road is also provided to gain access to the Bode Road and Roselle Road traffic signal.



Poplar Creek Drive ($500)

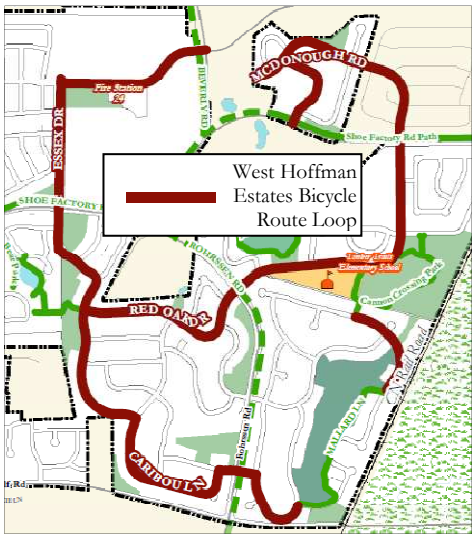
A bicycle route on Poplar Creek Drive would connect the multifamily residential units to the Moon Lake Boulevard facility. The route also provides a connection to the golf course.

Prairie Stone Business Park ($13,000)

Bicycle routes on Hoffman Boulevard, Pratum Avenue, Prairie Stone Parkway, and Old Sutton Road to connect the business park with the area's retail use. This project would also link well with the CN I-90 Underpass, where a connection to the residential to the south could be made One option is to re-stripe the travel lanes with a wider outside lane, which would provide a marginal increase in the BLOS score.

Victoria Park Connectors ($7,500)

Bicycle routes on local streets east and west of Victoria Park. The routes would provide a designated east / west route using the existing paths in Victoria Park to connect the neighborhoods.



West Hoffman Estates Bicycle Route Loop ($25,000)

A partial loop in western Hoffman Estates would connect a majority of the residential uses with one another. Links to the area parks and schools using existing paths on Mallard Lane and in Cannon Crossing Park would be created. The loop intersects the existing bicycle path on Shoe Factory Road at two locations. McDonough Road, Red Oak Drive, and Essex Drive provide an alternate to Shoe Factory Road until the missing section of the path is completed. McDonough Road from Rohrssen Road to Shoe Factory Road can be a bicycle lane. As future development occurs, the missing pieces of the loop could be completed.

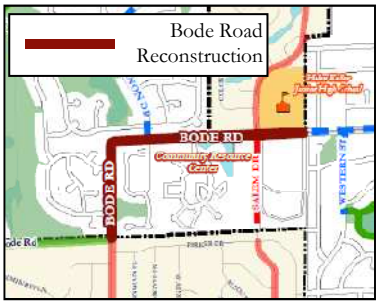
On-Street "Significant Change" Projects

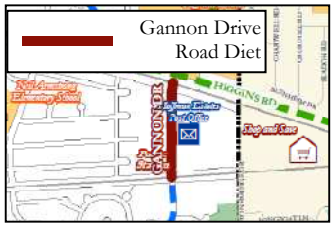
All of these projects will require a larger scope for design and construction than the "Ready to Go" Projects. These projects do not necessarily have bicycle accommodation as the primary focus. Each will cost more money compared to the "Ready to Go" options to construct and will require a longer design timeline. This challenge also presents an opportunity to incorporate bicycle improvements within the scope of other projects. With some projects, there is also a need for full roadway reconstruction to address poor pavement conditions. For some reconstruction or resurfacing treatments, a portion of the roadway space can be redistributed from vehicles to bicycles. This change can also make a project more attractive to federal and state grant programs, allowing a project to be completed using fewer Village funds.

Some of the projects are bundled with other streets where no changes need to be made. This is done intentionally to not lead a bicyclist into an area that is less bicycle friendly. The following list of potential projects is provided in alphabetical order, with no priority assigned or implied. At the time of this document's preparation, two of the projects are currently in the design phase and are competing for federal grant monies. These road funds are known as Surface Transportation Program (STP), a part of the federal transportation legislation. It should also be noted at the time this document was prepared that reauthorization of the federal legislation was being debated. Once the new federal authorization is approved, details of how it will apply to bicycle facilities and programs will be available.

Bode Road Reconstruction (Seeking STP Funds)

The section of Bode Road from Braintree Drive to Bode Circle East where the pavement condition has deteriorated and the edge condition is not ideal for bicycles. As part of the reconstruction of Bode Road, the through lanes could be reduced from two to one to allow space for bicycle lanes in each direction, increasing the BLOS score from D to B. Along the east / west section, there is also room for a center turn lane. Parking is already restricted within the project limits.



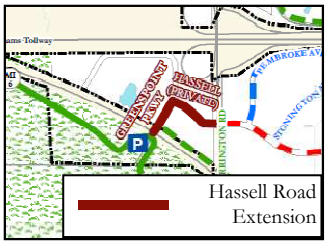


Gannon Drive Road Diet

Depending on a thorough capacity analysis, Gannon Drive could potentially be reduced from two travel lanes in each direction to one lane with a center turn lane. This would allow space for bicycle lanes since on-street parking is prohibited. The BLOS would be improved from D to B with the addition of the bike lanes. The project would complete a north / south link on Gannon Drive from Bode Road to Hoffman Estates High School.

Glen Lake Road Reconstruction

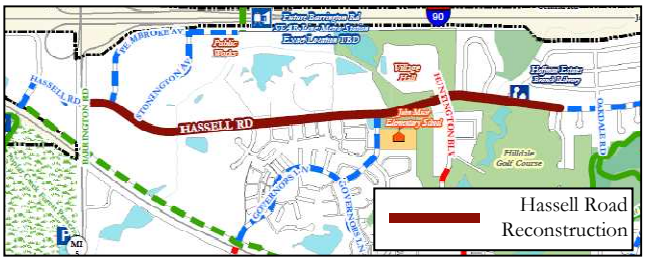
The pavement condition on Glen Lake Road from Higgins Road to Chippendale Road has deteriorated and the edge has severe settlement. Prior to designating the section as a bicycle route, the street must be reconstructed. This will improve the BLOS from D to B. Access to the High Point Park and MacArthur School via Chippendale Road would be provided.



Hassell Road Extension

On street bicycle facilities west of Barrington Road, on the private road opposite Hassell Road would connect facilities to the east with the Poplar Creek Forest Preserve at Greenspoint Parkway and Higgins Road. This project would require cooperation with the area businesses who maintain this section of road and possible geometric changes to the road to provide more space for bicycles. See next project on Hassell Road reconstruction.

Hassell Road Reconstruction (Seeking STP Funds)



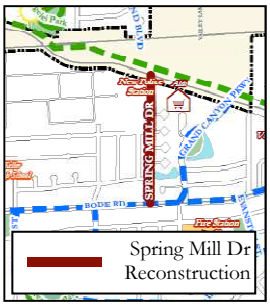
Hassell Road from Barrington Road to Fairway Court is in poor condition, with edge failure, and needs to be reconstructed. As part of the reconstruction, bicycle facilities should be incorporated to help provide a continuous east / west connection from Roselle Road to Barrington Road through this part of the Village. Bicycle lanes can be incorporated throughout the entire project section by reducing the number of travel lanes to one in each direction, with either a center turn lane or parking lanes on either side of the road. While parking is permitted the entire length, there is a notable drop in on-street parking demand west of Blackberry Lane where the center turn lane could be installed. Near the Hassell Road / Barrington Road intersection, it will be important to maintain minimal vehicle delays while improving the east / west crossing for pedestrians and bicycles. The capacity of this intersection and the Hassell Road segment will need to be evaluated more fully to determine feasibility. Reconstruction with on-street bicycle lanes would improve the BLOS from E to B. Modifications to the traffic signal at Hassell Road and Barrington Road should be included with development of bicycle facilities.

Huntington Boulevard Road Diet

Huntington Boulevard from Algonquin Road to Freeman Road is currently two lanes in each direction with a center turn lane on the southern end. The cross section could be reconfigured to provide one through lane in each direction with a continuous center turn lane to provide space for bicycle lanes (improving BLOS from C to B). This is a major connection to the Algonquin Road and Paul Douglas Forest Preserve bicycle paths, along with a concentration of retail. Modifications to the traffic signal at Huntington Boulevard and Algonquin Road should be included with development of bicycle facilities.

Parcel C Phase II Project

This project will fill in the remainder of the network through the Parcel C neighborhood, complementing other projects in the area. The main east / west spine of the project is Kingman Lane, which has a poor pavement condition and edge failure which require reconstruction (improving BLOS from C to A). This project would also provide direct connections to Lakeview School and the paths at Evergreen Park.

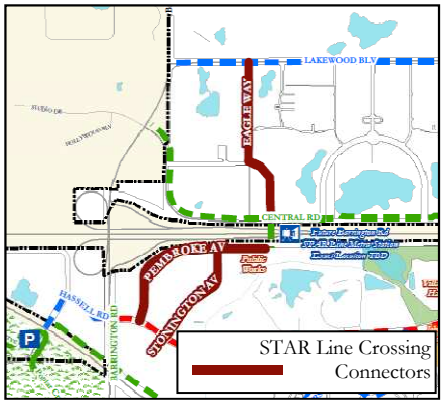


Spring Mill Drive Reconstruction

Provide a north / south connection between Bode Road and Higgins Road in the eastern portion of the Village. It would connect with retail, residential, and the Village Police Station. The pavement on Spring Mill Drive south of Oak Tree Court is currently in poor condition and needs to be reconstructed (improves from low to high C). There may be an opportunity to redesign the eastern edge of the street with the project to provide space for sharrows or bicycle lanes further improving the BLOS score.

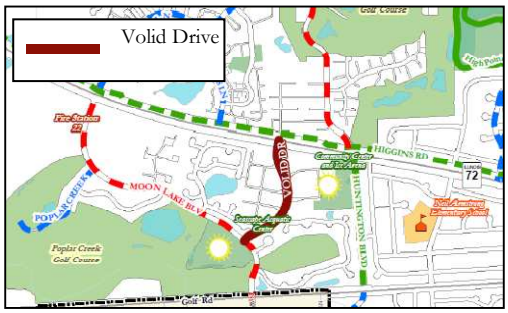
STAR Line Crossing Connectors

The location of a STAR Line station along I-90 east of Barrington Road is one of three potential spots indentified in the Village Comprehensive Plan. North / south connector streets on either side of the Tollway should be designated as bicycle facilities if a crossing of I-90 is constructed for a STAR Line station at this location. Eagle Way could be extended from its current terminus to Central Road possibly through development of the vacant parcel.



Volid Drive Reconstruction

Volid Drive is a divided road with sufficient room for bicycle lanes in either direction. The pavement must be reconstructed prior to designation as a bicycle facility as the pavement is in very poor condition. By adding bicycle lanes and reconstructing the pavement, the BLOS will improve from C to A. There are also missing sections of sidewalk that should be filled in when the road is rebuilt.

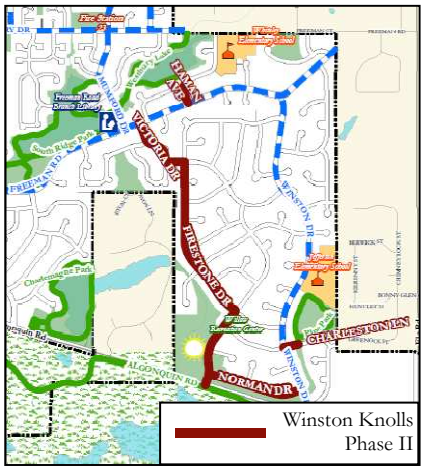


Westbury / Palatine Connectors

Additional north / south bicycle facilities in the north part of Hoffman Estates could complement other projects and connect the northernmost areas of the Village with Westbury Drive. The section of Olmstead Drive in the center of the area must be reconstructed prior to being designated as a bicycle route as the pavement is in very poor condition (improving BLOS from C to A).

Winston Knolls Phase II

Provide a secondary north / south connection between Mumford Drive and Algonquin Road through the Winston Knolls subdivision. This link would connect the neighborhood with the Park District facility and the Algonquin Road bicycle path. Norman Drive on the southern end of the project is in poor condition and must be reconstructed prior to being designated as a bicycle route (improve BLOS from C to B).



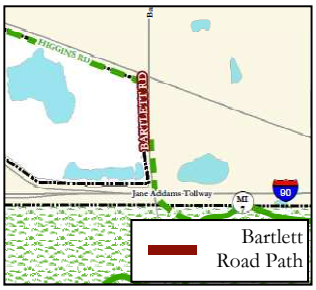
Proposed Bicycle Paths

There are several locations where off-street bicycle paths could be considered. These are sometimes called "side paths" and typically used where traffic volumes, heavy vehicle percentage, speed and similar factors are high. Chapter 3 describes existing off-street paths in the Village. Due to the high proportion of low-traffic residential streets, the Village does not propose to construct many bicycle paths, unless it is an appropriate location and is determined to be undesirable for on-street bicycle traffic. The cost, design and operational issues related to bicycle paths noted in Chapter 3 should be considered when evaluating the applicability of a path to a particular location.

There are approximately 15 miles of potential future bicycle paths including:

Barrington Road Path

Improve the existing sidewalk to a 10' path to connect the Higgins Road corridor with Hassell Road. This is a parallel option with the Hassell Road extension project to Greenspoint Parkway and can be done in place of or in addition to this other project. The construction of a full interchange at Barrington Road may also provide an opportunity for incorporation of a path (see Tollway crossings section on page 44).



Bartlett Road Path

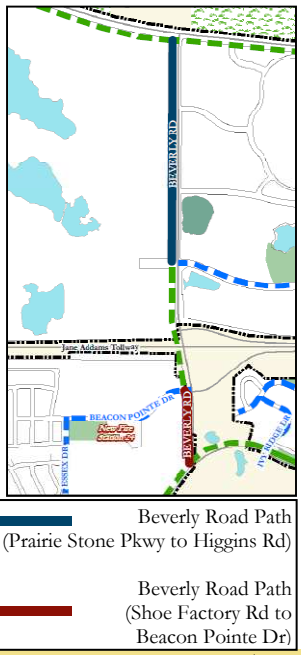
This would be a completely new segment of path from Interstate 90 to Higgins Road then connecting into the Poplar Creek Forest Preserve. This segment is recommended to be constructed on both the west and east sides of the road, with a crossing mid block preferably at a defined and signalized intersection. There are no current well defined plans for the undeveloped parcel on the west side of Bartlett Road. As these plans progress, the bicycle path should be included as a component. The path should cross at some point to the east side of the road to align with the existing path south of Interstate 90 in the Poplar Creek Forest Preserve.

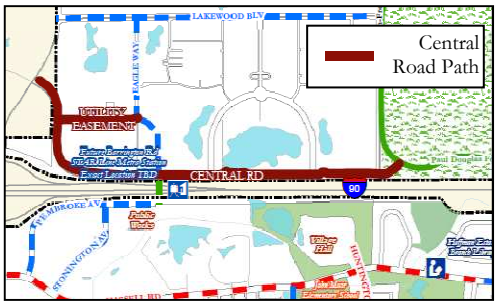
Beverly Road Path

There are two sections of path proposed south and north of Interstate 90 along the west side of Beverly Road.

Prairie Stone Parkway to Higgins Road The northern section is from Prairie Stone Parkway to Higgins Road. This would be a completely new path along the frontage of an undeveloped parcel. This path would connect the Prairie Stone Business Park with a future path along Higgins Road and a potential Interstate 90 crossing at Beverly Road. Crossings of Beverly Road would occur at intersections with the primary location at the signalized intersection of Prairie Stone Parkway.

Shoe Factory Road to Beacon Pointe Drive The southern section from Shoe Factory Road to Beacon Pointe Drive is along the frontage to an undeveloped parcel, currently under review for development. At the time this plan was written, there were plans to install this segment of bicycle path. The section from Beacon Pointe Drive to Prairie Stone Parkway is discussed in the Tollway Crossings section of this plan.





Central Road Path

This segment is located from Barrington Road to Huntington Boulevard / Freeman Road to continue the existing path in the Paul Douglas Forest Preserve along Central Road to the west. This would be a completely new path along the north side of the road to connect the area businesses with the Paul Douglas Path. Toward the west, along the Claire's frontage, the parkway width is narrow without much room for a path; an alternate route would be to install a bicycle connection along an extended Eagle Way corridor and a bicycle path along the existing watermain utility access road between Siemens and Claire's. The path should provide a connection toward the movie theatres at Barrington Road. The path would also provide a logical connection for an I-90 crossing between Barrington Road and Huntington Boulevard. Coordination with the potential STAR Line station should occur.

Higgins Road (IL-72) Path (Multiple Sections)

Higgins Road is a primary east / west arterial that could provide bicyclists a continuous route to travel from the Fox River Trail in West Dundee to the City of Chicago if completed. There are already sections installed and it has been identified as the logical east / west regional corridor in the Northwest Municipal Conference Bicycle Plan Update, 2007. The following sections represent individual segments of the Higgins Road path through the Village, starting from west to east. This path would also connect the Spring Creek, Poplar Creek, and Busse Woods Forest Preserves. One goal of this corridor is to take advantage of the existing paths in the Poplar Creek Forest Preserve; deviating from Higgins Road at Bartlett Road and reconnecting at Shoe Factory Road.

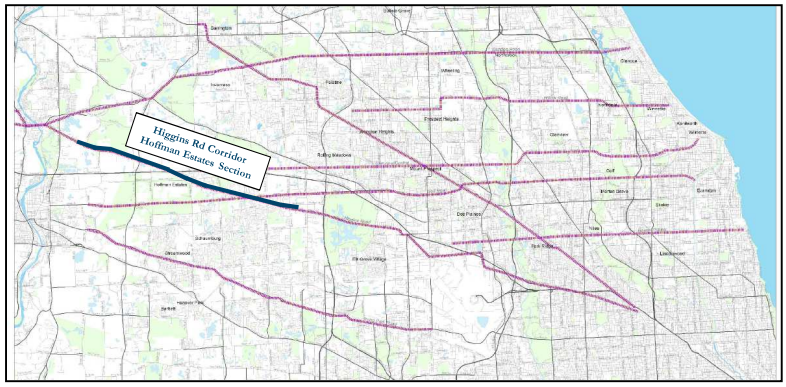


Figure 42. NWMC Regional Corridors - Higgins Rd Highlighted

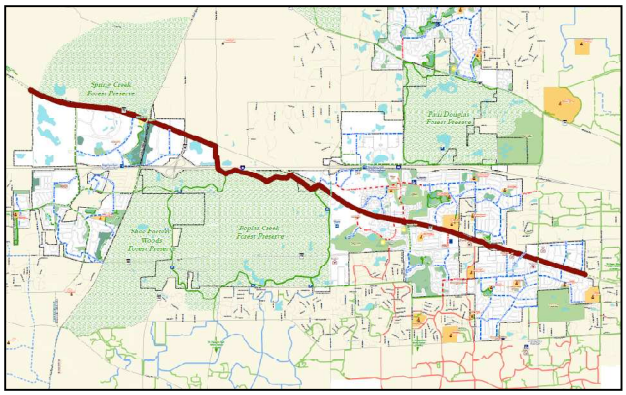
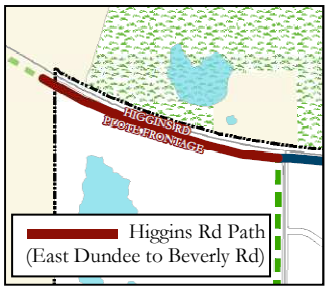


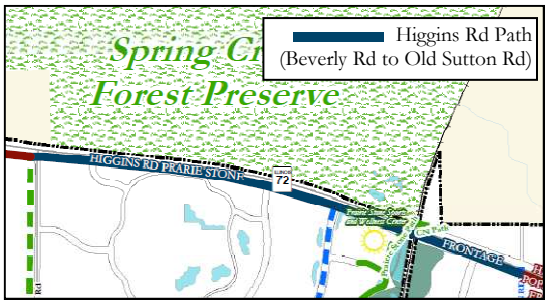
Figure 43. Hoffman Estates Plan - Higgins Rd Highlighted

Higgins Road Path:

East Dundee to Beverly Road

Section of new path along the north side of the undeveloped Plote property from the western corporate limits to Beverly Road. There are also plans for a bicycle path along the west side of Beverly Road that should be coordinated with this segment. There have been plans in the past to develop this parcel. The installation of this section is recommended concurrent with any development negotiations.



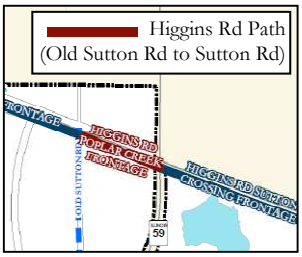


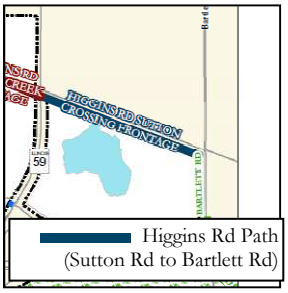
Higgins Road Path: Beverly Road to Old Sutton Road

This would be a completely new section of path. The Prairie Stone Business Park has many internal bicycle destinations for work and shopping. Connections to the internal network of the business park would be ideal. The path would need to cross the Canadian National Railroad tracks, east of Prairie Stone Parkway.

Higgins Road Path:
Old Sutton Road to Sutton Road (IL-59)

There is existing sidewalk along the shopping center frontage in this segment. The sidewalk could be expanded to a 10' side path. There are also plans for bicycle connection across Higgins Road to connect a conceptual mixed use development on the northwest corner of the Old Sutton Road and Higgins Road intersection.





Higgins Road Path:
Sutton Road (IL-59) to Bartlett Road

Section of completely new path along the frontage of this undeveloped parcel. The Village has reviewed plans for this parcel in the past. As the plans evolve and come to fruition, this section of path should be included with any negotiations. The path would deviate from Higgins Road along this frontage to allow for a crossing of I-90 at Bartlett Road and a connection into the Paul Douglas Forest Preserve.

Higgins Road Path:
Shoe Factory Road to Huntington Boulevard

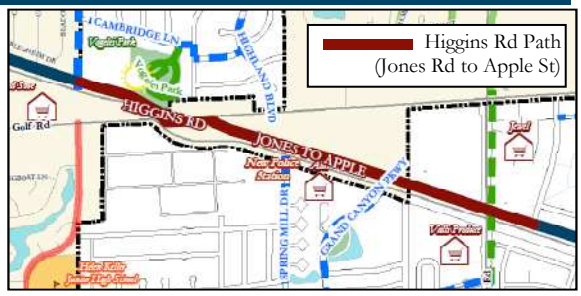
There is existing continuous sidewalk along the north side of Higgins Road through this section. The sidewalk could be expanded to a 10' path to accommodate bicycle travel. This segment would connect the central section of the Village with the Poplar Creek Forest Preserve.

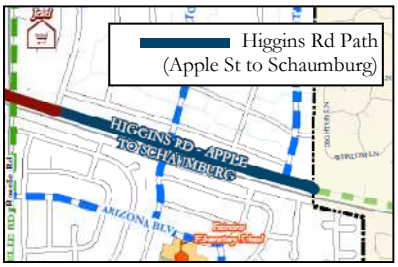
Higgins Road Path: Huntington Boulevard to Jones Road

There is existing continuous sidewalk along the north side of Higgins Road through this section. There is a small portion of the segment located in the Village of Schaumburg, just west of Jones Road. This would connect many north / south on-street corridors in the central section of the Village along with Hoffman High School. The sidewalk would be expanded to a 10' path.

Higgins Road Path: Jones Road to Apple Street

There is sidewalk on the north side of Higgins Road that is predominantly continuous. At the time this plan was drafted, the Village was working on a project to install sidewalk in these missing gaps. The majority of this section is located in the Village of Schaumburg.



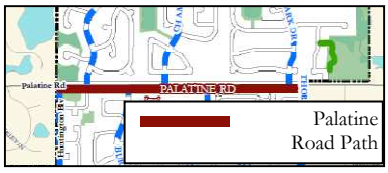


Higgins Road Path: Apple Street to Village of Schaumburg

This is a new segment of bicycle path along the north side of Higgins Road to connect existing sidewalk on the west and east. At the time this plan is being written, the Village is finalizing the design of this section of bicycle path. There are also plans for the Village of Schaumburg to upgrade the sidewalk to a path to the east and install other missing sections of bicycle path.

Huntington Boulevard Right of Way

Building a path in the Huntington Boulevard right of way between Golf and Higgins Roads would establish a link to other bicycle facilities to the north and south. This project should be combined with the Harmon Boulevard / Huntington Boulevard Corridor On-Street project. Please note map is flipped, north is to the right.

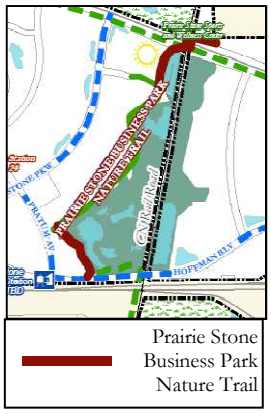


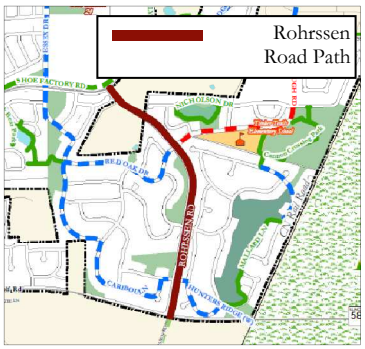
Palatine Road Path

There is existing sidewalk in this east / west section from Huntington Boulevard to Thornbark Drive. This path would provide a connection between the northern north / south corridors and the retail at the corner of Chambers and Palatine Roads, where there is an existing traffic signal for pedestrian and bicycle crossings of Palatine Road. At the time this plan was approved, there were also plans for a proposed traffic signal at Huntington Boulevard and Palatine Road.

Prairie Stone Business Park Nature Trail

There is an existing limestone screenings nature trail through the core of the business park. There are plans to extend the path north and south to the limits of the business park and connect with the Forest Preserves and Bicycle Paths. There are plans for a small north / south section to be installed concurrent with development east of Pratum Road to extend the path to Hoffman Boulevard. The exact location of the northern path and its crossing of Higgins Road (and potentially the Canadian National Railroad) need to be determined.



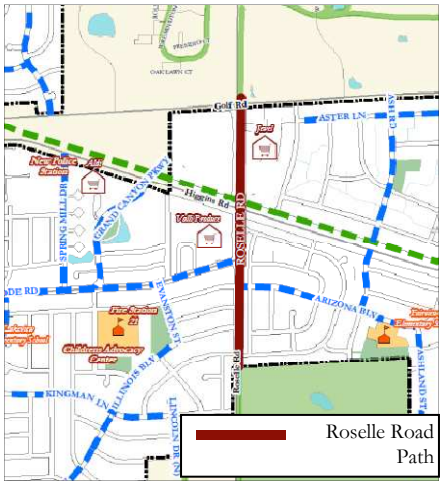


Rohrssen Road Path

This segment could be bicycle path along the east side of Rohrssen Road or bicycle lanes on widened shoulders from Golf Road to Shoe Factory Road. There is an existing section of sidewalk in the middle of this link. This segment also is partially under the jurisdiction of Hanover Township. As parcels along the segment are developed, pedestrian accommodations should be installed to complete the network and connect the adjacent neighborhoods to the future Shoe Factory Road Bicycle Path.

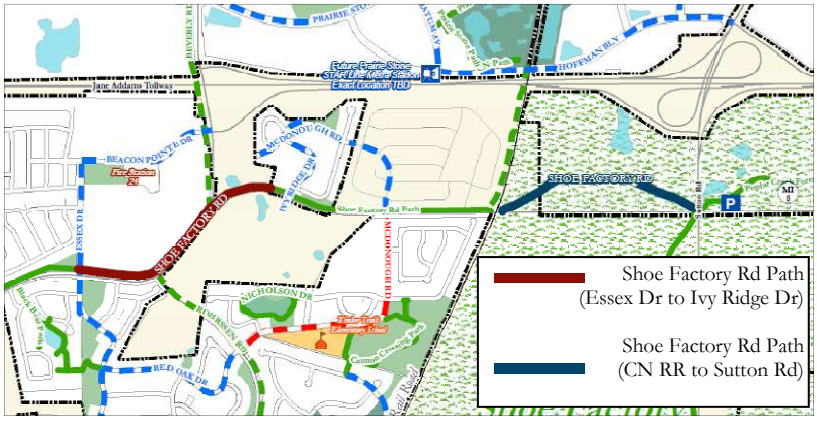
Roselle Road Path

There is existing sidewalk in this segment from Bradley Lane to Golf Road. There are also existing bicycle paths in the Village of Schaumburg north and south of Hoffman Estates. This project would install a bicycle facility (currently envisioned as a path) parallel to Roselle Road. The Roselle Road right of way is very tight through this section and installation parallel to the road may be difficult. There may be opportunities to deviate the path through adjacent land uses concurrent with redevelopment projects should they occur.



Shoe Factory Road Path

There is a significant length of path along Shoe Factory Road from the Elgin border to Higgins Road. Currently, there are two gaps. The completion of this corridor should be one primary goal of the bicycle plan. Once complete this would link to Elgin and the Fox River Path to the west and to the Poplar Creek Forest Preserve path systems to the east.



One is from **Essex Drive to Ivy Ridge Drive.** This gap should be completed concurrent with the Shoe Factory Road / Beverly Road Project, funded by the developers of the adjacent parcel and the Cook County Highway Department.

The second gap is an existing gravel trail from the **Canadian National Railroad tracks to Sutton Road (IL-59)** and includes a missing link crossing the railroad tracks. The second gap located in the Shoe Factory Woods Forest Preserve should be upgraded from gravel to asphalt.

Proposed Interstate 90 Crossings

Figure 44. I-290 Overpass Bicycle Bridge

One of the most important goals of the bicycle plan, based on input from the Open House Meetings, is safe and regular access across Interstate 90 for pedestrians and bicycles. This is, however, the most expensive and difficult component of the bicycle plan to implement. Based on recent similar projects, a typical pedestrian bridge can cost $4 million dollars to design and install. Bridges are inherently expensive to construct and Tollway crossings must be coordinated with many agencies. The Village should continue to work with other agencies to provide accommodations at all crossings, or as many as feasible, throughout the Village. As part of the Open House Meetings, residents were presented with the seven Tollway crossings in and around the Village. Five geographic locations are included with the plan based on analysis of potential crossing locations and input from those meetings. The most frequently mentioned location based on input from the open house meetings is a crossing near Barrington Road and Huntington Boulevard **(highlighted in blue below)**.

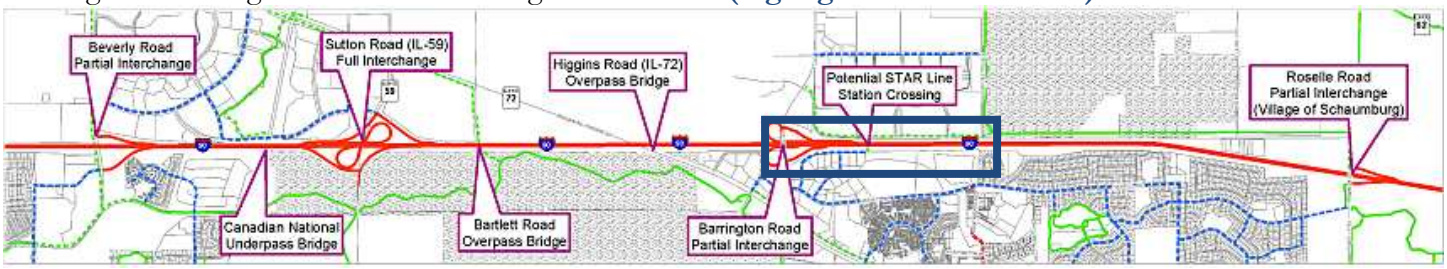


Figure 45. I-90 Crossings Exhibit from Open House Meetings

Interchange Crossing Hierarchy for Pedestrians and Bicycles

The ability for pedestrians to safely cross I-90 is important. How exactly to ensure their safety is a critical aspect of site location selection and design. The Complete Streets legislation requires projects to accommodate all users. This means when an existing interchange or bridge is rebuilt, it must ensure bikes and pedestrians are part of the design process. It is important to understand that the type and design of a crossing is as critical as providing bicycle and pedestrian access across the Tollway. There are four types of Interstate crossings where pedestrian and bicycle accommodations could be added, which are not all created equal. To maximize safety and comfort, the Village should explore locations segregated from traffic first. The following list represents the four types of crossings, in order of preference.

- **Grade Separated Crossings**: Pedestrian and bicycles are completely segregated from all vehicular traffic, eliminating conflict points and creating a comfortable environment to cross. The crossing facility, such as a bike and pedestrian bridge or underpass exists exclusively for the use of non-motorized users.

- **Roadway Bridge Crossings:** Pedestrians and bicycles facilities are incorporated into an existing vehicular bridge where no ramps exist. Because there is no access to the Interstate, bicycles and pedestrians are not exposed to any entering or exiting traffic. Depending on the context of the road, crossing designs for bicycles can either be on-street facilities or parallel paths.

- **Partial Interchange Crossings**: Interstate ramp traffic is typically limited to one side of the bridge. On-street facilities are possible, but should be discouraged because bicycles must cross vehicle ramp movements. Parallel paths, segregated from traffic are possible and should be explored for these locations.

- **Full Interchange Crossings**: Interchange designs with free flowing ramp movements, such as a cloverleaf with loop ramps, are particularly difficult for bicyclists and pedestrians crossings. The exhibit on the right shows the number and location of conflict points with interchange ramps. Bicycles and pedestrians must cross multiple vehicle paths destined or from the interstate, where drivers are at free flow speeds. As with other elements of transportation design, consideration must be given to both vehicle flow and non-motorized traffic. The design ultimately selected may be a compromise in serving both vehicle capacity needs and those of bicyclists and pedestrians.

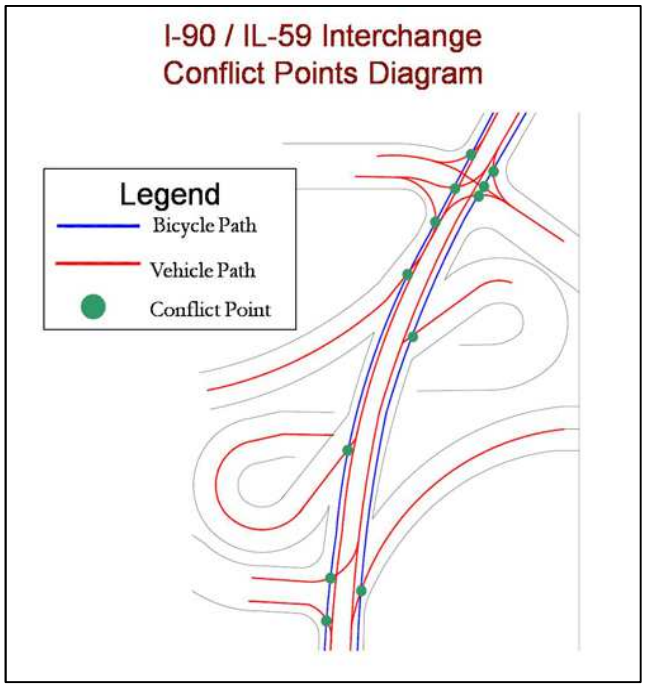
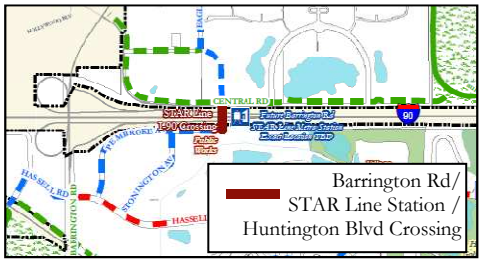


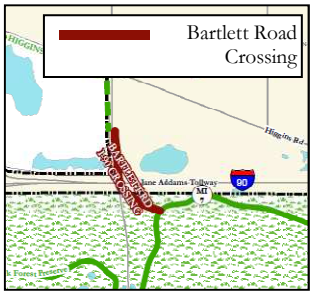
Figure 46. I-90 / IL-59 Interchange Exhibit

Barrington Road / STAR Line Station / Huntington Boulevard Vicinity Crossing

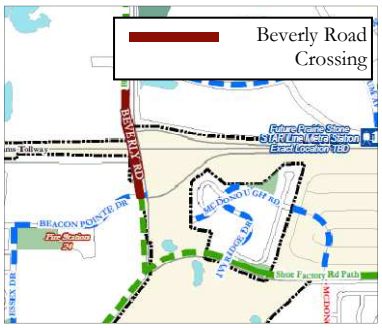


Based on the input from the Bicycle Plan Open House, there is a great desire to cross Interstate 90 between Barrington Road and Huntington Boulevard. This location is also envisioned to be a STAR Line rapid transit station. A crossing at the Barrington Road interchange is not as desirable because of the numerous conflict points of entering and exiting traffic from I-90. As this plan was written, there were plans to convert this location to a full interchange and provide access to and from the west, which could add more conflict points for bicycles aiming to cross. During development of full interchange plans, attention will be given to facilitating bicyclists to the greatest degree possible. A crossing at Huntington Boulevard would provide great north / south connectivity through the Village, but would require land acquisition or easement on the golf course property. A crossing somewhere between the two roads is recommended to provide a solution that solves most goals; proximity to the existing paths, reflecting desire lines for bicyclists, segregation from interchange ramp traffic, and the option for a multi-modal connection to the STAR Line station. If a pedestrian / bicycle crossing is installed prior to the STAR Line, allowing it to be retrofitted to serve the STAR Line is important.

Bartlett Road Crossing



This would be the only over crossing of Interstate 90 not located at an interchange, thus eliminating conflict points with entering and exiting traffic. This would also be the crossing point of I-90 for the Higgins Road corridor and would link it with the existing path in the Poplar Creek Forest Preserve. A path along the east side of the bridge is preferred and should be installed if the bridge is reconstructed. There is not currently sufficient width to install a path on the bridge.



Beverly Road Crossing

The Beverly Road partial interchange has ramps to and from the east. There are conceptual drawings for a future full interchange with a westbound entrance ramp on the west side of Beverly Road. The eastbound exit ramp would go under the bridge and intersect Beverly Road opposite Beacon Pointe Drive with a clover leaf design. Based on the travel paths at the interchange, a path along the west side of the bridge is recommended, separated from the roadway by a barrier wall. There is currently sufficient space to convert the west shoulder to a two-way bicycle path. Bicycle paths leading up to the bridge would need to be installed from Beacon Pointe Drive to Prairie Stone Parkway, where no current sidewalk or path exists.

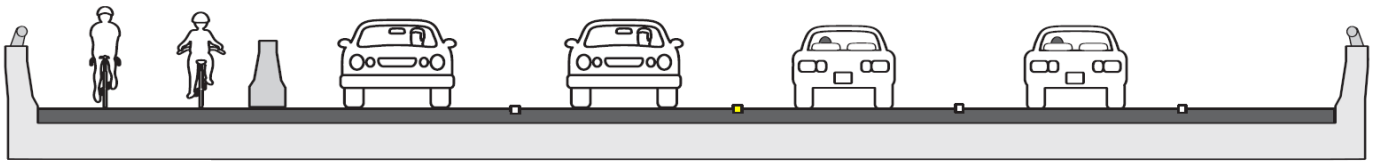
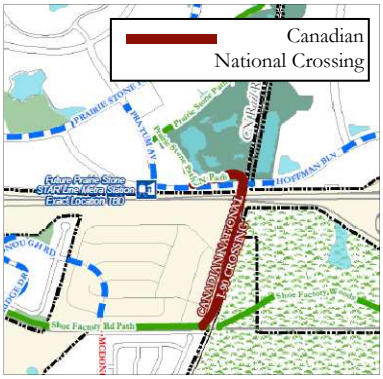


Figure 47. Concept Design for Beverly Road Crossings of Interstate 90

Canadian National / I-90 Underpass Path

This would provide the only underpass crossing of Interstate 90 in the Village, along the west side of the Canadian National (CN) Railroad right of way. The path would be a new segment of bicycle path along an existing utility gravel access road to connect the existing path on Shoe Factory Road with the Prairie Stone Business Park Nature Trail and on-street facilities. The path would need to be located within the CN right of way directly beneath Interstate 90, where it could be cut or benched into the existing side slope under the bridge.



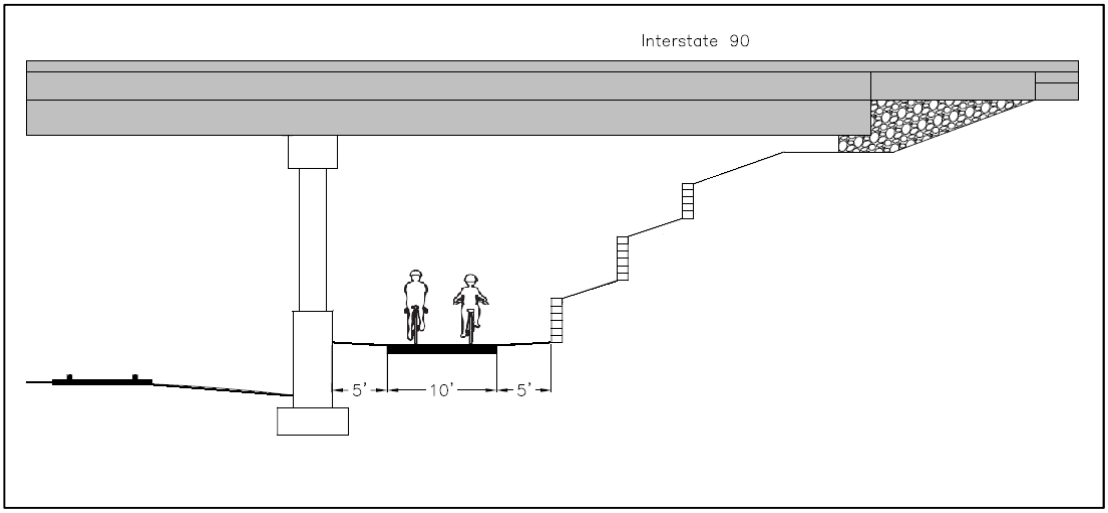


Figure 48. Concept Design for CN Underpass of Interstate 90

Roselle Road Crossing (Village of Schaumburg)

The Roselle Road crossing is not actually located within the Village of Hoffman Estates. It is located directly east of the corporate limits, in the Village of Schaumburg. The crossing however does connect the Villages' sections north and south of Interstate 90, along with regional corridors to the east. The partial interchange has ramps to and from the east. There are also existing paths south and north of the bridge on the west side of Roselle Road. The preferred design for the crossing is a bicycle path along the west side of the bridge, separated from traffic by a barrier wall. The paths north and south of the bridge would also need to be extended to tie in. There is also a small section of path northwest of Central Road and Roselle Road that should be installed to link with the existing bicycle path located northwest in the Paul Douglas Forest Preserve.

Intersection / Traffic Signal Improvements for Bicycles and Pedestrians

Figure 49. Example of a Crossing without Pedestrian Accommodations

A significant obstacle to bicyclists is crossing major arterials at signalized intersections that are designed for vehicles. One goal of the bicycle plan is to improve safety and accessibility for both pedestrians and bicycles at intersections, specifically traffic signals. This same goal is echoed in the Village Comprehensive Plan. As vehicles are allowed full mobility at signals, pedestrians and bicyclists should be afforded the same accommodations. Providing pedestrian and bicycle accommodations at intersections is the intent of the Illinois Complete Streets Law. The following section outlines design treatments that can improve the pedestrian and bicycle environment at an intersection and also existing intersections where the treatments should be applied.

Sidewalk and Bicycle Path

Sidewalk and / or bicycle path should be provided on both sides of all Village streets as a goal. There are certain locations where this may not be recommended or feasible. Pedestrians are expected and sidewalk should be provided throughout a large majority of the Village. Most of the streets already have sidewalk on both sides, with some on at least one side. Missing gaps should be filled in as projects are designed. The location of pedestrian crossings at intersection should be in front of stop bars, where pedestrians and bicycles are most visible. Curb depressions also must comply with accessibility requirements for slope and truncated dome detectable warnings.

Crosswalk Markings

Crosswalk markings help to inform pedestrians of desired crossing locations and inform drivers of the presence of pedestrians. There are many different striping treatments that can be used. The minimum requirement is to provide two 6" white lines in the direction of pedestrian travel. There are alternate striping patterns, shown in the exhibit to the right such as diagonal stripes and bars that are more visible to drivers. An engineering study should be conducted prior to installing crosswalk markings to determine which striping is most appropriate for a specific location.

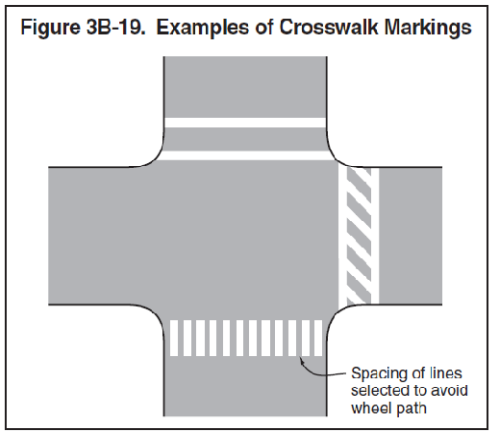


Figure 50. Crosswalk Examples from MUTCD

Pedestrian Heads and Push Buttons

Figure 51. Countdown Ped Head at Basswood and Golf

Pedestrian heads and push buttons should be provided on all corners of a signalized intersection, as is reasonable. Wherever a sidewalk or bike path leads up to an intersection they are important because they provide pedestrians with guidance on adequate crossing times. At the time this plan was written, there were currently 62 traffic signals in and around the Village. Of those 62 signals only 18 provide full movement on all four legs for pedestrians. One goal of the plan is to ensure pedestrians have access to cross all legs of intersections. The location of the push buttons should be close enough to the sidewalk or path so a person does not need to dismount their bike and people in wheelchairs must be able to push the button. Pedestrian heads should be equipped with countdowns timers, shown on the picture to the right. The countdown display alerts pedestrians to how much time they have to get across the intersection. This is very important for someone crossing a large road, where a pedestrian needs more time to safely cross.

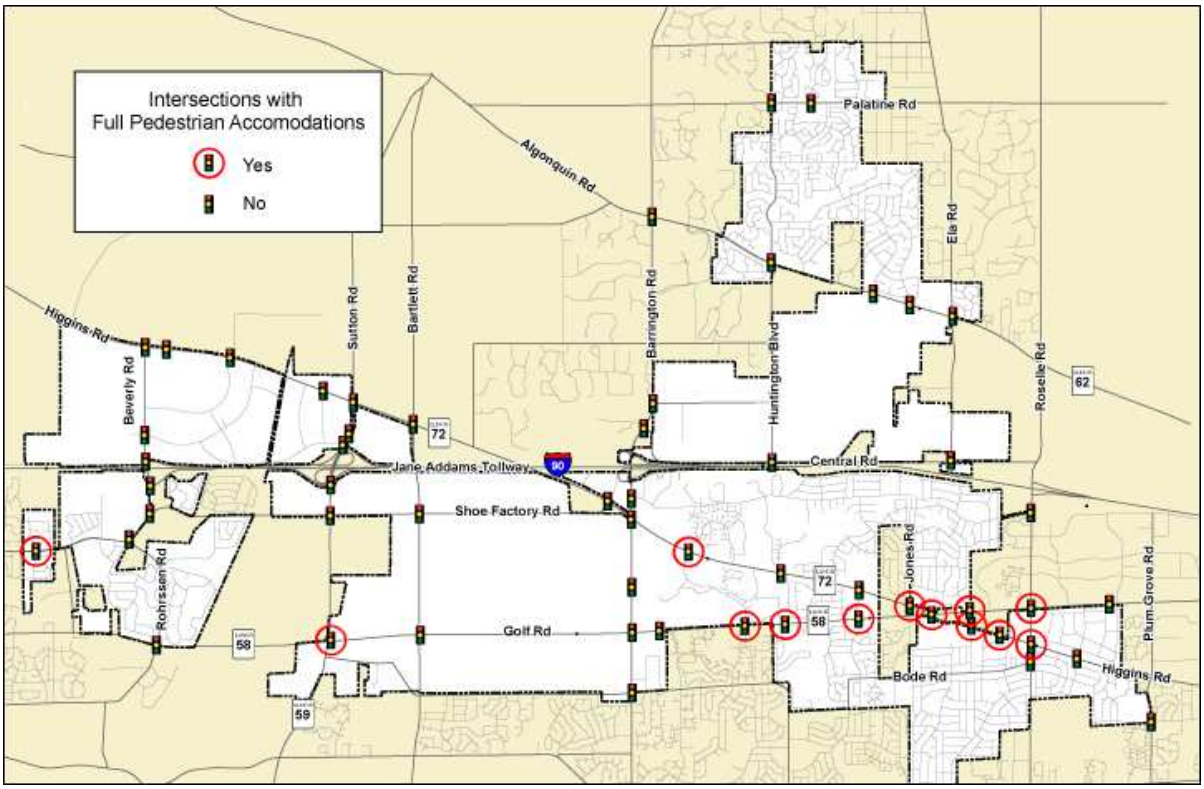


Figure 52. Pedestrian Accommodations at Traffic Signals

Geometric Changes

Generally, geometric changes to intersection design can also improve safety and access by decreasing crossing distances, using smaller corner radii to slow traffic as it turns, and providing refuge islands to reduce exposure for pedestrians. The costs for these improvements can vary and each location will have its own set of design challenges. One design control element that can make intersections larger is the design vehicle. By using a smaller design vehicle that is still compatible with the intersection and area's function, corner and median radii can be reduced, shortening the crossing distance for pedestrians and slowing the turning speed for vehicles. Design vehicle is the largest size car or truck expected to routinely use an intersection or street.

Center median and channelizing refuge islands

At larger intersections, typical to State and County routes, which need to accommodate larger trucks, refuge islands can help to break up the crossing distance for pedestrians. They can reduce crossing distances and exposure for pedestrians. Refuge islands should have sidewalk cut through with truncated dome detectable warnings. The preferred design is to keep the sidewalk at grade with the road, as opposed to ramping it up and down. The minimum width for a refuge area should be 6', to provide space for a bike or a person pushing a stroller. The exhibit on the right shows a channelizing island recently installed at the Beverly Road and Prairie Stone Parkway intersection as an example. The median was also extended for a future north / south pedestrian crossing.

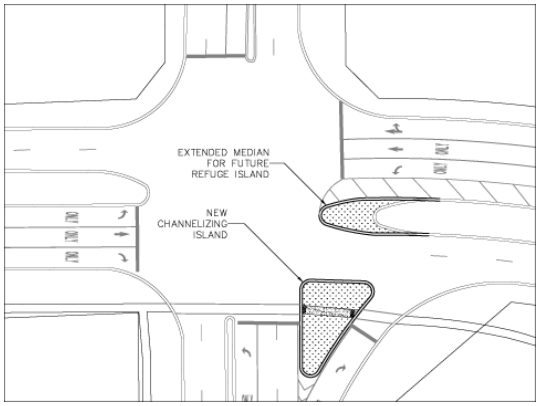


Figure 53. Beverly Rd and Prairie Stone Pkwy Intersection: Channelizing and median islands

Bicycle Actuation

Wherever an on-street facility intersects a traffic signal, bicycle actuation is an important consideration. With many signals, the signal does not change to the side street unless the detection (actuation) recognizes a vehicle is present. Because bicycles are also not as large as cars and of different materials, the typical detectors cannot register their presence. It is possible to install detector loops specifically for bicycles if space for them is designated on the pavement, which will register a call to change the light. Another option is to attempt to tune the existing detector amplifiers to register the presence of bicycles. Detection is a bicycle friendly solution as a rider doesn't need to dismount, climb the curb and push a pedestrian button to activate a change in the traffic signal. Where bicycle detection is used, the pavement markings shown should be used to position a bicycle to register their presence. Signs that explain where a cyclist should place their bike should also be installed at the intersection.

Figure 54. Bike Detector Loop Symbol

Candidate Intersection Improvements

As part of the bicycle plan process, many intersections were mentioned for improvement. While the recommended treatments described above should be applied to all locations, the following list is presented as priorities (in no particular order). These improvements should be considered as funds and project opportunities permit. The improvements listed at each intersection are general in nature. As the specific design of any intersection is advanced, additional areas for improvement should be investigated. A complete pedestrian crossing would include sidewalk stubs, pedestrian heads, push buttons, and crosswalk markings on both sides of a street. It may also include refuge islands as space allows.

Algonquin Road and Huntington Boulevard

Provide a pedestrian crossing on the east leg and bicycle actuation on the north and south legs.

Algonquin Road and Lexington Drive

Algonquin Road and Lexington Drive – Provide a north / south bicycle and pedestrian crossing. The guardrail on the south side of the road currently prohibits a crossing. With the proximity of the Park District building and Forest Preserve trail, there is a natural desire to cross at this location. The guardrail and adjacent access would need to be re-designed with IDOT concurrence to permit a crossing.

Algonquin Road and Winston Drive
Provide a pedestrian crossing of the west leg and bicycle actuation on the north leg.

Barrington Road and Bode Road
Provide pedestrian crossings of the south, east, and west legs. This is one of the main entrances to the Poplar Creek Forest Preserve from the east.

Barrington Road and Golf Road
Provide pedestrian crossings of the south and north legs. This is a potential entrance to the Poplar Creek Forest Preserve from the east.

Barrington Road and St. Alexius Entrance
Provide pedestrian crossings of the south and north legs. This is another potential entrance to the Poplar Creek Forest Preserve from the east.

Barrington Road and Hassell Road
Provide pedestrian crossings of the north, east, and west legs. Provide bicycle actuation of the east and potentially the west leg. Modify stop bar location for northbound traffic on Barrington Road to improve visibility of pedestrians in the crosswalk.

Higgins Road and Huntington Boulevard
Provide a pedestrian crossing of the east leg and bicycle actuation on the north and south legs of the intersection.

Higgins Road and Barrington Road
Investigate installing median refuge islands. Pedestrian crossings of the south and west leg could be provided to enhance the crossing of the intersection however there is not anything to connect with currently in the Forest Preserve.

Huntington Boulevard and Central Road
Provide pedestrian crossings of the north leg for access to the Paul Douglas Forest Preserve.

Palatine Road and Huntington Boulevard
Provide pedestrian crossing of the east leg with a proposed traffic signal. Provide bicycle actuation of the south leg.

Palatine Road and Chambers Drive
Complete the pedestrian crossings of the north and south legs with pedestrian heads and push buttons. Provide bicycle actuation on the north and south legs.

Roselle Road and Bode Road
Provide a pedestrian crossing of the north leg and bicycle actuation on the west leg. There is a slight jog in the east / west bicycle corridor from Bode Road to Arizona Boulevard. Eventually, the sidewalk on the east side of Roselle Road should be widened to a bicycle path. Directional signage should be provided to direct bicycles between the two streets.

Roselle Road and Hillcrest Boulevard
Provide pedestrian crossings of north, east, and west legs. Provide bicycle actuation on the west leg. The intersection is rather large and has room for channelizing and possibly median refuge islands.

Future Considerations for new and emerging designs

As this plan was written, there were many other bicycle facility designs still under review and development by other localities. The Village plan also recognizes that new techniques, treatments, and trends will emerge over time for bicycle and pedestrian facilities. Some of these may be applicable to existing conditions in the Village while others may be appropriate for future planning. These concepts can be brought to the Bicycle and Pedestrian Advisory Committee and Village Board for review when they have been sufficiently researched and tested. Some examples are provided below in an effort to provide some insight into possible future enhancements to benefit bicyclists and pedestrians. Compliance with applicable State and Federal criteria should be checked prior to considering new features or elements.

- Bicycle boulevards: Oak Park, IL, Berkeley, CA, and Louisville, KY have included bicycle boulevards with their plans. The concept is a system of bicycle friendly local streets to maximize bicycle connectivity and ease and by doing so; vehicles are given a lower priority.
- Colored pavement in bicycle lanes: Chicago, IL is experimenting with the treatment. Cities in Europe have used the technique. The lane can either be completely painted a different color or just at intersections.
- Bicycle Boxes at Intersections: Gives priority to bicycles at intersections by providing a defined space for bicycles ahead of the stop bar for vehicles.
- Raised Bicycle Lanes: The bicycle lane is pavement slightly higher than vehicle lanes, providing a defined edge.
- HAWK (**H**igh intensity **A**ctivated Cross**W**al**K)** / Pedestrian actuated signals: The HAWK uses a standard traffic signal display for the main street with pedestrian heads for the crossing movement along with supplemental pedestrian signing. The device is pushbutton actuated by a pedestrian or bicyclist. After pressing the button, the signal goes from a blank display to flashing yellow to solid yellow to solid red. The pedestrian walk signal then is displayed which also has the countdown timer feature. The City of Tucson found a very high level of motorist compliance (yielding to pedestrians in crosswalk) with a HAWK traffic signal.

Figure 55. HAWK Signal Example Photo
(Saferoutesinfo.org)

Chapter 6: Encourage, Educate, Enforce, Evaluate

The Five "E"s concept developed by the League of American Bicyclists is a means to evaluate how friendly communities are to bicyclists. To be a comprehensive document, a bike plan must focus on more issues than solely installing on-and-off-street facilities; the Engineering portion of the Five "E"s of bicycle planning. The remaining Four E's of bicycle planning are Encouragement, Education, Enforcement, and Evaluation. This chapter focuses on strategies and options for the Village's plan to encourage, educate, enforce, and evaluate bicycle programs throughout the community. Each of the categories help to strengthen the network of facilities by encouraging people to bicycle more, educating on and enforcing proper riding etiquette and safety, and evaluating what portions of the plan work well and where there is room for improvement. The end result is a dynamic plan that makes Hoffman Estates a great place to bike. Additional programs are expected to develop as the Village bicycle plan evolves and will be considered for implementation as needed. It is important to strive toward achieving all Five "E"s to fulfill the designation of a Bicycle Friendly Community.

Many of the programs listed below are easy and inexpensive to implement and can be done sooner than some of the more costly facility improvements. There is a network of potential partners able to help implement many of the strategies such as other municipalities, park districts, school districts, bicycle advocacy groups, bicycle clubs and shops, and others. Other Village commissions and committees can also be good partners for promoting the benefits of bicycling such as the Environmental, Fourth of July, Green Initiatives, Plan, and Youth Commissions. Advocacy groups also have already created many educational / informative materials that can simply be distributed.

Encouragement

Bicycle encouragement programs can be described as those that develop awareness of and provide information for bicyclists in the community. The list below expands on that base to provide additional options. All of these programs have been administered throughout the region and country. Each can be researched further on its own merits, as this is meant to be more of a starting point to create interest in each of the programs.

Rider Information

- Create a bicycle facilities map for use by the public. The map should show existing facilities or recommended corridors for bicycling in and around the community.
- Provide information kiosks with maps and brochures at logical destinations.

Bicycle Amenities

- Provide / require bicycle parking.
- Provide bicycle shelters / sheltered parking at popular destinations.
- Provide showers and lockers at bicycle destinations.
- Possible changes to Village development requirements and process.
- Maintain a public fleet of bicycle / tricycles for Village employees.

Figure 56. Bike Parking Picture and Sign

Bicycle Activities

- Organize a Village bicycle day - can be linked with bike to work week or Village event.
- Organize a Village bicycle ride. Can be done with a larger Village event / other communities / should include Village staff and officials in the ride.
- Promote bike to work week / commuter challenges.

Advertise Benefits of Bicycling

- Use Village Communications outlets to advertise bicycling such as the Citizen, Cable TV, the website, and Village events. Advertisements can be public service announcements, newsletter articles, website postings, and other publications to promote bicycling activities.
- Create brochures on benefits of bicycling.
- Utilize existing communication outlets with other agencies in the Village to advertise bicycling such as the Park District, the Chamber of Commerce, Schools, Bicycle Shops and Clubs.
- Encourage employers to support bicycle commuting to work.
- Hold a bike-friendly business award program.
- Work with School Districts to promote walking and biking to school.
- Advertise health benefits of bicycling.
- Designate Village bicycle ambassador to attend community events promoting cycling and safety.
- Promote bicycling as a form of transportation / bicycle commuting.
- Promote bicycling as a green form of transportation.
- Promote commuter challenges / shop by bicycle discounts


Free bike helmets

The Hoffman Estates Police Department offers free bike helmets to families who cannot afford to purchase them. Anyone interested in obtaining helmets should contact the Community Relations Section at 847-781-2830. Many sizes are available, but quantities are limited. Also, all bicycles should be registered with the Police Department. This service is also free.

Figure 57. Bike Helmet Citizen Article

Education

Bicycle education programs can be described as those that develop awareness of and provide information for bicyclists in the community. A list of potential programs in provided below. Safety programs are typically geared towards children, as it is described below, adults and motorists should also be included. The Village Police Department has a solid history of achieving many of these activities.

- Hold a bicycle rodeo / safety assembly / bike safety week to teach students proper riding habits.
- Distribute bicycle helmets.
- Educate riders on proper helmet positioning / fitting.
- Educate users on proper riding practices.
- Distribute Bike Safety Kits to area businesses.
- Provide bicycle training materials for children and adults / with driver's education curriculum
- Promote bicycle awareness to motorists / Drive with Care Campaign
- Conduct safety assemblies.
- Create and distribute bicycle education materials.
- Promote a Bicycling Ambassador Program

Figure 58. Bike Safety Educational Materials

Education Audiences

Children, adults, and motorists are distinct stakeholder groups to whom education efforts should be directed. The most efficient training opportunities for each demographic are specified below.

Children

Skills such as learning to ride by the rules, looking for traffic and using hand signals need to be learned. Bicycle education programs should start as early as children learn to ride, and should be modified for children of different age groups.

Currently, wearing a bicycle helmet is not required by law for any age. The Village may consider a Village ordinance requiring the use of a bicycle helmet for children. Over twenty states have a state law requiring children to wear bicycle helmets and the majority of states have municipalities with local ordinances requiring children to wear bicycle helmets.

Adults

Bicycle education programs developed for the adult cyclist need to emphasize bicyclists' rights and responsibilities on the road and techniques for sharing the road with motorists. In addition, publicizing typical behaviors that cause accidents help bicyclists avoid common crashes. Most unsafe bicycle riding occurs simply because the violator does not know the laws. Educate riders on how to ride on a sidewalk. Inform them of risks and potential dangers with driveway conflicts and poor visibility.

Educating non-English-speaking cyclists poses an additional barrier. Translating widely used bicycle maps or education documents to reach a larger number of residents is one form of outreach. It is often difficult to get adults to attend classes but community and promotional events such as bike rides and bike fairs are useful in attracting adults and families in more recreational surroundings. They also provide another opportunity to enhance bicycle education and encourage motorists to share the road. One technique to teach adults is to provide bicycle "rules of the road" with other literature such as the bicycle map. Most adult cyclists are also motorists therefore they may also be reached by the programs discussed in the next section.

Motorists

Motorists are generally the most difficult group to connect with bicycle education. Some bicycle education efforts are distributed during driver education courses, driver licensing exams, and traffic schools for violators. But these events typically occur once every few years and are not exceptionally effective in altering driving behavior. Bicycling awareness is not the typical focus of these programs either.

Public awareness campaigns are most useful for educating motorists on how to share the road with bicyclists, while at the same time reminding bicyclists of their rights and responsibilities. The Village may develop the following in addition to other measures: media campaigns, community events, and family activities to raise awareness regarding bicycle/motorist safety.

The Village should support the expansion of driver's education training to include other modes of transportation and stress rules of the road for drivers in reference to bike safety.

The Village may periodically distribute information on sharing the road with bicyclists in its utility bills, citizen newsletter, or website. In addition, parents who attend bicycle education events with their children may learn something themselves about bicycle/motorist safety.

Enforcement

Figure 59. Bike Police Unit Photo

Enforcement of bike facility use by cyclists, motorists and pedestrians is an important component of a successful bicycle program. Police officers must enforce the Illinois Vehicle Code for all users of the road. Enforcement should be viewed as an integral part of the bicycle education program and as the most effective way to reduce the frequency of bicycle/automobile crashes. Many drivers and bicyclists are simply unaware of the expectations they must meet while riding on a shared use facility. In addition, once a street is designated for bicycle use, riders are considered in a different light. Bicyclists are technically permitted to use any surface street unless otherwise marked to prohibit such use. Facilities that are currently designated for bicycle use are those where bicyclists are included as "intended" users of that street; on planned facilities not yet built or designated for bicycle use and on any street not currently designated, bicyclists remain "permitted" users. In all cases, the enforcement of bicycle safety, proper equipment, and driving behaviors will be implemented. The Village currently has nine officers trained for bicycle enforcement; these individuals could be well suited to address unsafe bicycling practices and code violations committed by bicyclists. In the future, the Village could opt to introduce a bicycle officer into their patrol beats during certain times of the year depending on staffing, budget, and other department responsibilities.

Bicycle Violations Tickets / Warnings Protocol

In other communities, citations have been replaced with education opportunities. A protocol could be developed to determine what violations would be eligible for warnings and reasonable levels of punishment. In order for Hoffman Estates' bicycle traffic enforcement program to work effectively, officers should be educated on how best to approach an offender and what violations should be designated for enforcement. Enforcement in this context applies to both motorists and bicyclists. Depending on the particular circumstance, an officer may choose from a variety of actions in response to a need for intervention. Such variables include the rider's age, action for which there was a concern on the part of the officer, action of the driver, context of where some type of violation occurred, etc. While the goal is to continually improve understanding, performance, and compliance with regulations, there will be some occasions for a written violation to be issued. Each such interaction, regardless of age, experience, bicyclist or driver, is an opportunity for education too. When taken as a whole, the Five E's often times blend across strict boundaries. It is not as important to correctly categorize each action into a category, but rather to ensure that a comprehensive approach is used consistently to promote proper understanding of bicycling in the community.

Evaluation

As the plan will evolve over time, periodic evaluation of level of use, performance, maintenance costs, etc. should be performed. This knowledge will improve future decision making related to bicycle planning. As part of the development of the bicycle plan, pre and post level of use counts should be conducted whenever a facility is proposed. A few examples of measuring the effectiveness of the bicycle plan are provided below.

- Monitor bicycle crashes and provide guidance on safety improvements
- Conduct bicycle counts before and after facilities are installed.
- Establish a protocol for bicyclists to document "close calls."
- Bicycle / Pedestrian Task Force should conduct periodic evaluations of the bicycle plan implementation.
- Number of miles of facilities implemented and percentage of total system improvements implemented.
- Relative indices of bicycle facilities by type compared to neighbor communities.
- Number of educational programs conducted and number of participants by age and target group
- Requests for bicycle information.
- Number and types of activities supported by Bicycle and Pedestrian Advisory Committee.
- Compare amount of bicycling recorded by users for commuting and recreation.
- Surveys of satisfaction levels with bicycle planning and implementation.
- Measures of the number of communities and groups participating in Village bicycle activities.
- Evaluate locations for safety improvements.
- Review new improvements to ensure safety.
- Evaluate changes in pavement conditions, traffic flow, and other inputs into the BLOS scores.

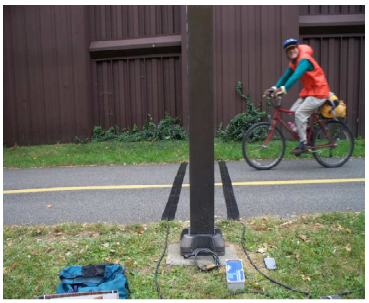


Figure 60. Bike Tube Counters

Chapter 7: Plan Phasing and Costs

Implementation of the program and facility plan will require time and in some cases significant costs. As programs can be little to no cost, they can be implemented much sooner than trails and paths. Options for funding assistance will be explored and pursued where attractive proposals can be prepared. This chapter addresses the approach used to evaluate and introduce bicycle facilities over time. It is understood that while there is a desire to move quickly toward implementation, Village resources are very limited and all needs must be considered comprehensively. Implementation of more expensive projects will likely only be achievable through grants. Even the less expensive projects will have to compete against all Village needs in times when funds for capital improvements are extremely scarce. However, the plan presents some information on phasing and implementation to achieve the goals. The following presents general information on typical project costs and the implementation process.

Construction and Maintenance Costs

The estimated cost for signing a bicycle route per mile is about $2,500 to $3,500 in 2010 dollars. This cost uses estimates provided by Public Works and includes bike route signs, destination signs, the sign post, fabrication, and installation times. The cost for signing and marking a bicycle lane per mile is about $8,500 to $9,500 in 2010 dollars. In addition to the items noted for bike routes, the cost estimates include the painted bicycle lane and related striping. The majority of this cost is due to striping the edge line that delineates the bike lane. These costs would need to be increased if any existing striping needs to be eliminated to install a new bicycle lane. The cost to construct an off-street path will vary widely depending on the conditions encountered. The cost to construct bicycle path per mile is about $800,000 in 2010 dollars, excluding any right of way acquisition, major utility conflicts, significant grading modifications, large bridge expanses, etc. These figures do not include any costs for right of way acquisition or construction or permanent easements required to install facilities.

Based on the draft Bicycle Facility Plan, all of the on-street facilities could be implemented for about $175,000 in 2010 dollars. This cost does not include reconstruction and reconfiguration for the "Significant Change" projects. This includes the cost of signing and striping. Some additional review needs to occur with respect to other pavement and physical conditions before proceeding, so the cost could be higher in some cases. There may be opportunities to secure grants to install the on-street facilities further lowering the cost to the Village. The off-street facilities come at a much higher cost and require a longer time to implement. Some off-street facilities will involve very costly structures crossing the Tollway, others will likely need some modification to bridges, while others will be simpler to construct such as locations where sidewalk already exists and the construction would only require adding 5 feet parallel to the sidewalk. In general all the off-street facilities are in locations within the public right of way so property acquisition is not a cost issue. Some will require approval by other agencies that have road jurisdiction. It should costs about $10 million to install all of the off-street facilities included in the draft plan. Most, if not all of these will be contingent on receiving funding from federal or state programs. Additional information is included in the Financial Impact section. The design and construction inspection needed for implementation of these projects is planned to be done in-house, saving funds for implementation.

Maintenance of any new bicycle facilities will also be critical and needs to be a factor when deciding to install or designate a new facility. Routine street maintenance should be heightened to include such things as more frequent street sweepings and pothole fillings. It may be wise to advertise a "hotline for potholes" where bicyclists can alert the Village to any pavement deficiencies. Other maintenance issues include more robust construction plans along bicycle corridors to ensure utility work zones are accessible for bicycles to cross. While most bicycle riding is done during the warmer times of the year, snow removal will be important for on and off street facilities to allow those who choose or are required to bike during colder months the ability to do so. While most of these maintenance

issues are currently being handled in some capacity by the Village Public Works Department, sufficient funds will need to be provided to maintain the system at a higher level. It should be noted that the BLOS for any street will fall as the pavement condition worsens with the normal aging of a street. The BLOS scores should be updated as pavement conditions significantly change.

Use of Village Staff time vs. Project Outsourcing

To implement any portion of the plan, the question will be whether we should take advantage of Village staff time or hire an outside consultant, contractor, or vendor. Undoubtedly, both will be an integral part to fulfilling the plan. Each has its own benefits and limitations. Village staff time is less expensive, but will take longer to implement. Time will need to be balanced with existing duties, such as the sign crew could install bicycle signs. However, the existing duties of the crew will need to be understood such as routine sign replacement, sign knockdowns, and other public works duties. Outside help will be able to complete projects more quickly, with a higher cost for labor.

Funding Opportunities / Sources

One goal of the bicycle plan is to fund projects in a cost effective manner. This can be done by choosing projects that are relatively less expensive, like an on-street vs. an off-street project. Also, this can be achieved through leveraging Village funds and labor to secure outside grant money. The following lists opportunities to fund projects without requiring full commitment of Village Capital or General Funds.

Grant Programs

There are many public and private grants available to the Village for a variety of different bicycle projects. It will be important for the Village to leverage its own funds to implement as many projects as possible. The grant funds can be used for a wide variety of bicycle-related expenses; such as education, enforcement, and encouragement campaigns, design, construction and land acquisition for installation of bicycle paths, and striping and signage for on street routes and lanes. To utilize grant money, the Village should prioritize local bicycle funds for required local matching funds which are typically 20-30%; Village funds should be prioritized for local matches. A list of established bicycle grant programs is provided below. The Police Department has been able to secure grants for bicycle programs in the past through public and private groups such as the Rotary Club. These and any new grants created or discovered, should be evaluated based on their merits.

1. **Congestion Mitigation and Air Quality (CMAQ) Improvement Program**
   CMAQ is an annual grant program implemented by the Chicagoland Metropolitan Agency for Planning (CMAP) through the federal transportation bill. CMAQ has been a component of the federal transportation legislation since the early 1990's. Funds must be appropriated for used by the States and the federal legislation is typically revised every six years. The federal funds provided through CMAQ typically cover 80% of project costs. Projects must demonstrate a reduction in congestion or an improvement in air quality. Bicycle improvements can be standalone or incorporated into a larger transportation project. The Village has been very successful in applying for and receiving CMAQ funds in the past.

2. **Illinois Transportation Enhancement Program (ITEP)**
   ITEP is an annual grant program implemented by IDOT through the federal transportation bill. Similar to CMAQ, the Enhancement program has been in existence for some time. Federal funds can provide for 80% of project costs. Projects must provide amenities for the public that enhance the transportation network. The list of eligible projects is very long, but specific to certain projects. The application and

selection process for Enhancement funds is very competitive since the pool of funds is relatively small compared to other federal programs for transportation improvements.

3. **Illinois DNR Recreational Trails Program (RTP)**
   RTP is an annual grant program implemented by the Illinois Department of Natural Resources. Funds are provided for 50% of project costs, up to a maximum of $200,000 per project. Bicycle projects funded through the program are limited to bicycle trails. The trails must be open to the public for perpetuity, typically located on public property. Similar to the federal funds, money must be appropriated by the State to pay for projects selected through RTP.

4. **Surface Transportation Program Funds (STP)**
   STP funds are another component of the federal transportation legislation. The monies are distributed to states and then to local planning agencies. For Hoffman Estates, STP funds are allocated through a competitive application process through the Northwest Municipal Conference (NWMC). Calls for new project normally occur once or twice per year depending on funding levels. Like other federal programs, the amount available in a given year is based on the appropriation level from the federal government. There are two options for incorporating bicycle and pedestrian improvements using STP funds. The first is as an independent project such as a bicycle path. A certain portion of the annual appropriation level may be set aside for bicycle projects. The other option is to incorporate a change for bicyclists or pedestrians as part of the scope of a larger project oriented toward roads. A bicycle path extension, filling in a missing sidewalk gap, or a new bicycle facility might be included with a roadway widening or reconstruction proposal. STP project applications can earn extra points for amenities such as bicycle or pedestrian enhancements which can make a proposal more attractive for funding through NWMC.

5. **Safe Routes to Schools (SRTS)**
   SRTS is an annual grant program administered by IDOT. This is another component of the federal transportation legislation that was added more recently than the CMAQ and Enhancement programs. Projects that are selected for SRTS are covered 100% by federal funds. Eligible projects can be infrastructure such as bicycle or pedestrian improvements. Other options include Encouragement, Education, Enforcement, and Evaluation programs. Combinations of these are typically submitted for consideration by the State. An overall school travel plan must first be developed and approved by the State. Then applications for individual components of the local school plan can be submitted when there is a call for projects from the State. This is another extremely competitive funding program. To be successful, close coordination and cooperation from schools and districts is needed. Documentation of the process used to identify needs, develop travel plan components, and evaluation of the implementation of the projects is a major pat of SRTS.

6. **Highway Safety Improvement Program (HSIP)**
   HSIP is an annual grant program administered by IDOT. The program allocates funds to projects where a solution is proposed to correct a documented history of fatal or serious injury crashes. These funds are available for all transportation projects, including bicycle and pedestrian improvements. Funds are allocated at a 90% level, with a 10% local match. They are available for all phases of engineering, construction and implementation. In addition to facility improvements, police enforcement and safety education are both eligible projects. This funding source is less competitive than others are, but is very focused in scope. Projects must demonstrate a benefit / cost ratio greater than 1 for an improvement. The cost of the project must be less than the savings from fewer crashes.

7. **Grade Crossing Protection Fund (GCPF)**
   The GCPF is an annual grant program is administered by the Illinois Commerce Commission (ICC) and appropriated by IDOT. The GCPF was created by the General Assembly to assist local jurisdictions (counties, townships and municipalities) in paying for safety improvements at highway-railroad crossings on local roads and streets. Pedestrian / bicycle grade separations are an eligible project, in addition to a host of other highway-railroad crossing improvements. Funds are typically allocated at 60% for grade separations and 85% for warning devices. The GCPF is only available for local projects; there is a separate source of funds available for the state route system.

8. **Energy Efficiency Grants**
   From time to time, agencies such as the United States Department of Energy (DOE), the U.S. or Illinois Environmental Protection Agency (EPA) have offered grants to improve energy efficiency. This may be an opportunity to implement some bicycle infrastructure projects or encouragement programs. The funding level ranges with each program, but can be up to 100% funding. As the eligible projects span a much broader spectrum than just those with a bicycle or pedestrian focus, the Village must prioritize among all potential projects in deciding which to submit for this type of program.

Incorporate Bicycle Improvement with Larger Projects

Bicycle improvements are often much less expensive to construct than traditional roadway improvements. They can also be incorporated fairly easily into the typical roadway plan preparation process. The two main avenues to rebuild Village maintained roads are through (1) the Annual Village Street Rehabilitation Project and (2) the Surface Transportation Program (STP) discussed previously. Both provide a great opportunity to expand the on-street bicycle network at a relatively low cost. The surface layer of asphalt is already going to be replaced with a resurfacing or reconstruction project; therefore, it is a great chance to incorporate striping at a minimal incremental cost. If the project scope includes street reconstruction, it also provides an opportunity to greatly improve the ride quality for the benefit of bicyclists. There is also an opportunity to reallocate the street space from vehicles to bicycles, using design practices such as Complete Streets, Context Sensitive Solutions, or Road Diets.

State Allocated Village Funds

The Village also has the ability to use other potential revenue sources to fund bicycle improvements as follows:

1. **Motor Fuel Tax (MFT)**
   The Village receives an annual source of funds from the State in the form of Motor Fuel Tax. The funds are dispensed to all communities based on population to be used for transportation projects. Typically the Village has used these funds for road rehabilitation work and traffic signal energy and maintenance. The funds can be used for bicycle projects, but there is a limited amount of funds because the allotment does not cover the baseline of road work required in the Village each year to maintain the road network. Past MFT projects have included sidewalk improvements as part of the Village's annual Street Rehabilitation Project.

2. **Community Development Block Grants (CDBG)**
   In 2006, the United States Department of Housing and Urban Development (HUD) identified the Village of Hoffman Estates as a Community Development Block Grant (CDBG) entitlement community. Each year, the Village receives funds from HUD for low-to-moderate income neighborhoods to provide housing, expand economic opportunities, and create a suitable living environment. Under specific circumstances, bicycle and pedestrian projects can use CDBG funds as long as they are located in the eligible geographic

areas and are included in the five year improvement plan. The Village, in partnership with HUD, uses census data to determine Village areas eligible for assistance. A number of other initiatives are eligible for funding through CDBG so priorities must be set in selecting projects since the total potential need exceeds available funding.

Private Sector Involvement

There are opportunities to implement bicycle projects and programs through the private sector as well. The most common involvement is to install bicycle and pedestrian facilities concurrent with a site development. All developments in the Village require sidewalk along street frontage, so it may possible to expand the sidewalk into a bicycle path if appropriate for the surrounding physical and operating characteristics. In other cases the developer may provide a bicycle path with the development if it already part of the Village's comprehensive bicycle facility plan. Bike racks and other amenities can also be included with development. The same opportunities exist to incorporate bicycle amenities with the redevelopment of a property. In some of the older areas of the Village, redevelopment has and will continue to occur. With newer building layouts, it may be possible to improve the bicycle and pedestrian network. Finally, it may be possible to have the private sector sponsor programs or projects, such as a bike to work challenge or the local share of a grant application. This may be a good option for Interstate 90 crossings as they provide a benefit to many businesses and some businesses may be willing to financially assist to get the project completed.

Appendix A - Bicycle Level of Service

Bicycle Level of Service Calculations

Using the League of Illinois Bicyclists' method for rating on-street compatibility for bicycle use, individual street segments in the Village were evaluated. A rating of A to F is determined based on an analysis of physical and operating characteristics of the street. The ratings reflect grades or Level of Service for on street bicycle use from the best, "A" to the worst, "F". The formula and input variables along with these ratings are listed below.

$$Bicycle\ LOS = a_1(Vol_{15}/L_n) + a_2 SP_t(1 + 10.38HV)^2 + a_3(1/PR_5)^2 + a_4(W_e)^2 + C$$

$Vol_{15} = Volume\ of\ directional\ vehicular\ traffic\ in\ 15\ minute\ time\ period$

$$Vol_{15} = (ADT \times D \times K_d)/(4 \times PHF)$$

$ADT = Average\ Daily\ Traffic$
$D = Directional\ Factor\ (0.565)$
$K_d = Peak\ to\ Daily\ Factor\ (0.091)$
$PHF = Peak\ Hour\ Factor\ (0.92)$

$L_n = Total\ Number\ of\ Through\ Lanes$

$SP_t = Effective\ Speed\ Limit$

$$SP_t = 1.1199 \ln(SP_p - 20) + 0.8103$$

$SP_p = Posted\ Speed\ Limit,$
$for\ 20\ MPH\ streets, 25\ MPH\ was\ used\ in\ the\ formula\ because\ 20\ MPH\ is\ outside\ of\ the\ range.$

$HV = Percentage\ of\ Heavy\ Vehicles$

$PR_5 = Five\ Point\ Pavement\ Surface\ Condition\ Rating\ (5\ is\ the\ highest)$

$W_e = Effective\ Width$

$W_e = W_v - (10 \times \%OSPA)\ if\ W_l = 0$
$W_e = W_v + W_l(1 - 2 \times \%OSPA)\ if\ W_l > 0\ and\ W_{ps} = 0$
$W_e = W_v + W_l - 2(10 \times \%OSPA)\ if\ W_l > 0\ and\ W_{ps} > 0$

$W_v = Effective\ width\ of\ outside\ laneof\ travel$
$W_l = Width\ of\ paving\ between\ outside\ lane\ stripe\ and\ the\ edge\ of\ pavement$
$W_{ps} = Width\ of\ pavement\ striped\ for\ on - street\ parking$
$OSPA = Percentage\ of\ segment\ occupied\ with\ on - street\ parking$

$a_1 = 0.507 \quad a_2 = 0.199 \quad a_3 = 7.066 \quad a_4 = -0.005 \quad C = 0.760$

Bicycle Level of Service (continued)

STREET	BEGIN	END	LN	SPP	SPT	HV	PR5	VOL15	WE	WL	WPS	WV	OSPA	BLOS	LOS
Angouleme Ln	Rohrssen Rd	Hunters Ridge W	1	20	2.61	0.01	5	7	11.0	0.0	0.0	12.0	0.1	2.06	B
Angouleme Ln	Bison Ln	Rohrssen Rd	1	20	2.61	0.01	5	7	11.0	0.0	0.0	12.0	0.1	2.06	B
Arizona Blv	Roselle Rd	Higgins Rd	1	25	2.61	0.01	5	14	16.0	0.0	0.0	17.0	0.1	1.73	B
Ash Rd	Batavia Ln	Higgins Rd	1	20	2.61	0.01	5	18	11.0	0.0	0.0	12.0	0.1	2.54	C
Ash Rd	Higgins Rd	Golf Rd	1	20	2.61	0.01	4	18	17.5	0.0	0.0	18.5	0.1	1.77	B
Ashland St	Arizona Blvd	End Of The St	1	20	2.61	0.01	5	13	11.0	0.0	0.0	12.0	0.1	2.35	B
Aster Ln	Apple St	Basswood St	1	20	2.61	0.01	5	7	8.0	0.0	0.0	12.0	0.1	2.34	B
Basswood St	Higgins Rd	Golf Rd	1	20	2.61	0.01	5	7	10.0	0.0	0.0	11.0	0.1	2.16	B
Beacon Pointe Dr	Essex Dr	Beverly Rd	2	30	3.39	0.01	5	17	12.0	0.0	0.0	12.0	0	2.22	B
Bode Rd	Gannon Dr	Bode Cir (Private)	2	25	2.61	0.01	3	91	10.5	0.0	0.0	10.5	0	3.56	D
Bode Rd	Braintree Rd	Gannon Dr	1	25	2.61	0.01	4	91	17.0	0.0	0.0	17.0	0	2.68	C
Bode Rd	Bode Cir (Private)	Roselle Rd	1	25	2.61	0.01	5	98	24.1	9.0	0.0	21.0	0.33	1.11	A
Briarcliff Ln	Highland Blvd	Gentry Rd	1	20	2.61	0.01	5	6	11.0	0.0	0.0	12.0	0.1	1.97	B
Burnham Dr	Palatine Rd	Olmstead Dr	1	25	2.61	0.05	4	25	16.0	0.0	0.0	17.0	0.1	2.76	C
Cambridge Ln	Gentry Rd	Cooper Rd	1	20	2.61	0.01	5	15	11.0	0.0	0.0	12.0	0.1	2.46	B
Cambridge Ln	Cooper Rd	Jones Rd	1	20	2.61	0.01	5	15	11.0	0.0	0.0	12.0	0.1	2.46	B
Caribou Ln	Angouleme Ln	Bison Ln (N)	1	20	2.61	0.01	5	7	11.0	0.0	0.0	12.0	0.1	2.06	B
Castaway Ln	Bradwell Rd	Palatine Rd	1	25	2.61	0.01	5	31	16.0	0.0	0.0	17.0	0.1	2.13	B
Chambers Dr	Bradwell Rd	Palatine Rd	1	25	2.61	0.01	4	13	16.0	0.0	0.0	17.0	0.1	1.84	B
Charleston Ln	Winston Dr	Pine Park	1	20	2.61	0.01	5	4	11.0	0.0	0.0	12.0	0.1	1.80	B
Chippendale Rd	Hassell Rd	End Of The St	1	20	2.61	0.01	4	22	16.0	0.0	0.0	17.0	0.1	2.13	B
Crowfoot Cir S	Harmon Blvd	Harmon Blvd	1	20	2.61	0.01	5	7	11.0	0.0	0.0	12.0	0.1	2.06	B
Dexter Ln W	Gannon Dr	Dovington Dr	1	20	2.61	0.01	4	7	11.0	0.0	0.0	12.0	0.1	2.22	B
Dovington Dr N	Darlington Cir	Chatsworth Ln	1	20	2.61	0.01	4	11	11.0	0.0	0.0	12.0	0.1	2.45	B
Eagle Way	Lakewood Blvd	End Of The St	1	25	2.61	0.02	4	11	17.0	0.0	0.0	17.0	0	1.74	B
Eagle Way	Central Rd	Eagle Way	1	25	2.61	0.02	5	11	17.0	0.0	0.0	17.0	0	1.58	B
Essex Dr	Shoe Factory Rd	Caribou Ln	2	25	2.61	0.01	5	11	12.0	0.0	0.0	12.0	0	1.83	B
Essex Dr	Shoe Factory Rd	Beacon Pointe Dr	2	25	2.61	0.01	5	17	12.0	0.0	0.0	12.0	0	2.03	B
Evanston St	Illinois Blvd.	Bode Rd	1	20	2.61	0.01	5	7	11.0	0.0	0.0	12.0	0.1	2.06	B
Firestone Dr	Winston Dr	Winston Dr	1	20	2.61	0.01	5	15	11.0	0.0	0.0	12.0	0.1	2.46	B
Forbs Ave	Marriott Driveway	Higgins Rd	2	35	3.84	0.01	5	14	12.0	0.0	0.0	12.0	0	2.24	B
Forbs Ave	Hoffman Blvd	Marriott Driveway	2	35	3.84	0.01	5	14	12.0	0.0	0.0	12.0	0	2.24	B
Frederick Ln	Highland Blvd	End Of The St	1	20	2.61	0.01	4	7	11.0	0.0	0.0	12.0	0.1	2.22	B
Freeman Rd	Huntington Blvd	Park Ln	1	25	2.61	0.01	4	42	14.0	0.0	0.0	15.0	0.1	2.75	C
Fremont Rd	Highland Blvd	Hillcrest Blvd	1	20	2.61	0.01	5	7	11.0	0.0	0.0	12.0	0.1	2.06	B
Gannon Dr	Dexter Ln (W)	Bode Rd	1	25	2.61	0.01	5	42	16.0	0.0	0.0	17.0	0.1	2.29	B
Gannon Dr	Golf Rd	Dexter Ln (W)	1	25	2.61	0.05	5	91	16.0	0.0	0.0	17.0	0.1	3.25	C
Gannon Dr	Golf Rd	Higgins Rd	2	30	3.39	0.05	5	94	12.0	0.0	0.0	12.0	0	3.83	D
Gentry Rd	Durham Ln	End Of St	1	20	2.61	0.01	5	9	11.0	0.0	0.0	12.0	0.1	2.21	B
Glen Lake Rd	Chippendale Rd	Higgins Rd	1	25	2.61	0.01	2	34	16.0	0.0	0.0	17.0	0.1	3.66	D
Governors Ln	Kensignton Ln	Higgins Rd	1	20	2.61	0.01	5	43	14.5	0.0	0.0	17.0	0.25	2.54	C
Governors Ln	Higgins Rd	Kensington Ln	1	20	2.61	0.01	5	50	9.5	0.0	0.0	17.0	0.75	3.21	C
Grand Canyon Pkwy	Higgins Rd	Bode Rd	1	30	3.39	0.01	5	28	16.0	0.0	0.0	17.0	0.1	2.27	B
Greenspoint Parkway	Higgins Rd	Higgins Rd	2	30	3.39	0.01	3	56	12.0	0.0	0.0	12.0	0	3.34	C
Haman Av	Freeman Rd	Westbury Dr	1	20	2.61	0.01	5	11	11.0	0.0	0.0	12.0	0.1	2.29	B
Harmon Blv	Bode Rd	Golf Rd	1	25	2.61	0.01	4	35	16.0	0.0	0.0	17.0	0.1	2.36	B
Harrison Ln	Firestone Dr	Victoria Dr	1	20	2.61	0.01	4	7	11.0	0.0	0.0	12.0	0.1	2.22	B
Hassell Rd	Greenspoint Pkwy	Barrington Rd	1	25	2.61	0.02	4	56	11.0	0.0	0.0	11.0	0	3.39	C
Hassell Rd	Rosedale Ln	Fairway Ct	1	25	2.61	0.01	5	66	16.0	0.0	0.0	17.0	0.1	2.52	C
Hassell Rd	Huntington Blvd	Blackberry	2	30	3.39	0.01	2	112	11.0	0.0	0.0	11.0	0	4.78	E
Hassell Rd	Blackberry	Barrington Rd	2	30	3.39	0.02	2	140	11.0	0.0	0.0	11.0	0	5.06	E
Hassell Rd	Fairway Ct	Huntington Blvd	1	25	2.61	0.01	5	66	14.0	0.0	0.0	15.0	0.1	2.82	C
Highland Blvd	Golf Rd	Jones Rd	1	25	2.61	0.01	4	42	16.0	0.0	0.0	17.0	0.1	2.45	B

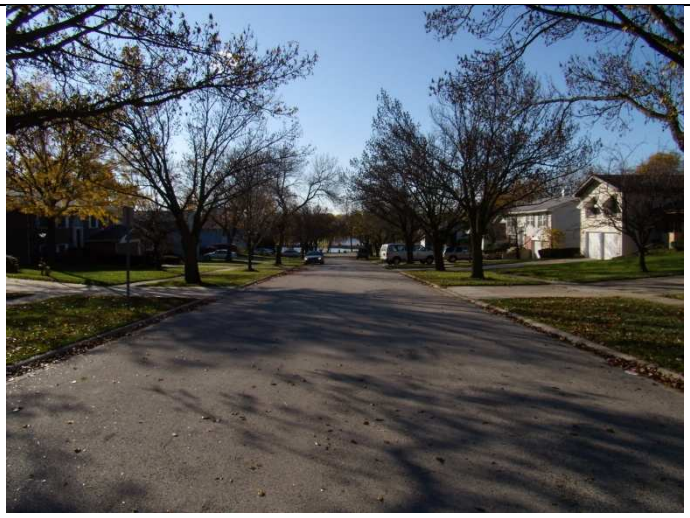
Bicycle Level of Service (continued)

STREET	BEGIN	END	LN	SPP	SPT	HV	PR5	VOL15	WE	WL	WPS	WV	OSPA	BLOS	LOS
Hillcrest Blvd	Chippendale Rd	Jones Rd	1	20	2.61	0.01	5	64	16.0	0.0	0.0	17.0	0.1	2.51	C
Hillcrest Blvd	Pierce Rd	Roselle Rd	1	25	2.61	0.01	4	110	17.0	0.0	0.0	17.0	0	2.77	C
Hillcrest Blvd	Ida Rd	Pierce	1	25	2.61	0.01	4	110	19.0	6.0	0.0	17.0	0.33	2.41	B
Hillcrest Blvd	Jones Rd	Ida Rd	1	25	2.61	0.01	5	82	17.0	6.0	0.0	17.0	0.5	2.47	B
Hoffman Blvd	Prairie Stone Pkwy	Sutton Rd	2	35	3.84	0.01	4	98	12.0	0.0	0.0	12.0	0	3.39	C
Hunters Ridge (W)	Fox Path Ln	Hunters Ridge E	1	20	2.61	0.01	5	6	11.0	0.0	0.0	12.0	0.1	1.94	B
Huntington Blv	Palatine Rd	Westbury Dr	1	25	2.61	0.01	5	48	16.0	0.0	0.0	17.0	0.1	2.35	B
Huntington Blv	Hassell Rd	Higgins Rd	1	30	3.39	0.01	4	70	18.0	0.0	0.0	18.0	0	2.56	C
Huntington Blvd	Algonquin Rd	Freeman Rd	2	25	2.61	0.01	4	112	12.0	0.0	0.0	12.0	0	3.15	C
Huntington Blvd	Freeman Rd	Westbury Dr	1	25	2.61	0.01	4	81	16.0	0.0	0.0	17.0	0.1	2.78	C
Illinois Blv	Roselle Rd	Thacker Rd	1	25	2.61	0.01	5	25	16.0	0.0	0.0	17.0	0.1	2.03	B
Illinois Blv	Schaumburg	Thacker	1	25	2.61	0.01	4	37	16.0	0.0	0.0	17.0	0.1	2.39	B
Ivy Ridge Dr	Shoe Factory Rd	Mcdonough Dr	1	20	2.61	0.01	5	11	11.0	0.0	0.0	12.0	0.1	2.29	B
Jones Rd	Highland Blvd	Higgins Rd	1	30	3.39	0.01	5	122	15.0	0.0	0.0	15.0	0	3.18	C
Jones Rd	Rosedale Ln	Highland Blvd	1	30	3.39	0.01	4	122	15.0	0.0	0.0	15.0	0	3.33	C
Kensington Ln	Hassell Rd	Governors Ln	1	20	2.61	0.01	5	35	16.0	0.0	0.0	17.0	0.1	2.20	B
Kingman Ln	Washington Blvd	Morton St	1	20	2.61	0.01	5	8	11.0	0.0	0.0	12.0	0.1	2.10	B
Kingman Ln	Morton St	Roselle Rd	1	20	2.61	0.01	2	2	11.0	0.0	0.0	12.0	0.1	2.93	C
Lakewood Blv	Huntington Blvd	Eagle Way	2	35	3.84	0.01	5	26	12.0	0.0	0.0	12.0	0	2.55	C
Lakewood Blv	Eagle Way	Barrington Rd	2	35	3.84	0.01	5	37	12.0	0.0	0.0	12.0	0	2.73	C
Lexington Dr	Harrison Ln	Algonquin Rd	1	20	2.61	0.01	4	7	11.0	0.0	0.0	12.0	0.1	2.22	B
Lincoln Dr (N)	Thacker St	Kingman Ln	1	20	2.61	0.01	5	3	8.0	0.0	0.0	12.0	0.1	1.99	B
Mallard Ln	1405 Mallard Ln	End Of The St	1	20	2.61	0.01	5	2	11.0	0.0	0.0	12.0	0.1	1.45	A
Maureen Dr	Shoe Factory Rd	Canterbury Ln	1	20	2.61	0.01	5	7	11.0	0.0	0.0	12.0	0.1	2.06	B
Maureen Dr	Russell Dr	Shoe Factory Rd	1	20	2.61	0.01	5	7	11.0	0.0	0.0	12.0	0.1	2.06	B
Mcdonough Dr	Shoe Factory Rd	Colchester Av	1	20	2.61	0.01	4	11	16.0	0.0	0.0	17.0	0.1	1.78	B
Mcdonough Rd	Shotkoski Dr	End Of The Street	1	30	3.39	0.01	5	11	16.0	0.0	0.0	17.0	0.1	1.81	B
Mcdonough Rd	Rohrssen Rd	Nicholson	1	30	3.39	0.01	5	25	17.0	0.0	0.0	17.0	0	2.05	B
Mcdonough Rd	Nicholson	Shoe Factory Rd	1	30	3.39	0.01	4	25	17.0	0.0	0.0	17.0	0	2.21	B
Moon Lake Blvd	Golf Rd	Higgins Rd	1	25	2.61	0.01	5	105	17.0	0.0	0.0	17.0	0	2.59	C
Mumford Dr	Westbury Dr	Freeman Rd	1	25	2.61	0.01	5	36	16.0	0.0	0.0	17.0	0.1	2.22	B
Mumford Dr	Olmstead Dr	Westbury Dr	1	25	2.61	0.01	4	38	16.0	0.0	0.0	17.0	0.1	2.40	B
Newark Ln	Pleasant St	Newton St	1	20	2.61	0.01	4	7	11.0	0.0	0.0	12.0	0.1	2.22	B
Norman Dr	Winston Dr	Lexington Dr	1	20	2.61	0.01	2	4	11.0	0.0	0.0	12.0	0.1	3.28	C
Oakdale Rd	Hassell Rd	End Of The St	1	20	2.61	0.01	5	1	11.0	0.0	0.0	12.0	0.1	1.24	A
Old Sutton Rd	Higgins Rd	Hoffman Blvd	1	35	3.84	0.03	5	14	12.0	0.0	0.0	12.0	0	2.97	C
Olmstead Dr	Mumford Dr	Palatine Rd	1	25	2.61	0.01	4	15	16.0	0.0	0.0	17.0	0.1	1.94	B
Olmstead Dr	Westbury Dr	Mumford Dr	1	25	2.61	0.01	2	15	16.0	0.0	0.0	17.0	0.1	3.27	C
Orange Ln	Pleasant St	Westview St	1	20	2.61	0.01	4	7	11.0	0.0	0.0	12.0	0.1	2.22	B
Pembroke Av	End Of The St	Hassell Rd	1	30	3.39	0.05	5	11	16.0	0.0	0.0	17.0	0.1	2.54	C
Pierce Rd	Frederick Ln	Hillcrest Blvd	1	20	2.61	0.01	4	7	11.0	0.0	0.0	12.0	0.1	2.22	B
Pleasant St	Washington Blvd	Newark Ln	1	20	2.61	0.01	5	7	11.0	0.0	0.0	12.0	0.1	2.06	B
Poplar Creek	Moon Lake Blvd	End Of The Street	1	25	2.61	0.01	5	17	16.0	0.0	0.0	17.0	0.1	1.83	B
Prairie Stone Pkw	Higgins Rd	Beverly Rd	2	35	3.84	0.01	4	63	12.0	0.0	0.0	12.0	0	3.16	C
Pratum Av	Trillum Blvd	Prairie Stone Pkw	2	35	3.84	0.01	5	42	12.0	0.0	0.0	12.0	0	2.80	C
Pratum Av	Prairie Stone Pkwy	Hoffman Blvd	2	35	3.84	0.01	4	42	12.0	0.0	0.0	12.0	0	2.96	C
Red Oak Dr	Essex Dr	Caribou Ln	1	20	2.61	0.01	5	7	11.0	0.0	0.0	12.0	0.1	2.06	B
Red Oak Dr	Caribou Ln	Rohrssen Rd	1	20	2.61	0.01	5	7	11.0	0.0	0.0	12.0	0.1	2.41	B
Salem Dr	Mid Block	Bode Rd	1	25	2.61	0.01	5	109	20.0	3.0	0.0	17.0	0	2.05	B
Spring Mill Dr	Higgins Rd	Bode Rd	1	25	2.61	0.01	3	32	12.0	0.0	0.0	12.0	0	3.22	C
Stonington Av	Hassell Rd	Pembroke Ave	1	25	2.61	0.05	4	11	13.0	0.0	0.0	17.0	0.4	2.78	C
Thacker St E	End Of The St	End Of The St	1	20	2.61	0.01	5	13	16.0	0.0	0.0	17.0	0.1	1.68	B
Thacker St W	Illinois Blvd	Lincoln St	1	20	2.61	0.01	4	7	16.0	0.0	0.0	17.0	0.1	1.54	B

Bicycle Level of Service (continued)

STREET	BEGIN	END	LN	SPP	SPT	HV	PR5	VOL15	WE	WL	WPS	WV	OSPA	BLOS	LOS
Thacker St W	Lincoln St	Roselle Rd	1	20	2.61	0.01	5	7	16.0	0.0	0.0	17.0	0.1	1.38	A
Thornbark Dr	Palatine Rd	Bradwell Rd	1	25	2.61	0.01	4	14	16.0	0.0	0.0	17.0	0.1	1.89	B
Thornbark Dr	Westbury Dr	Palatine Rd	1	25	2.61	0.01	4	25	16.0	0.0	0.0	17.0	0.1	2.19	B
Trillium Blv	Beverly Rd	Higgins Rd	2	35	3.84	0.01	5	88	12.0	0.0	0.0	12.0	0	3.17	C
Victoria Dr N	Freeman Rd	New Britton	1	20	2.61	0.01	5	7	11.0	0.0	0.0	12.0	0.1	2.06	B
Volid Dr	Moon Lake Blvd	Higgins Rd	1	30	3.39	0.01	2	18	20.0	0.0	0.0	20.0	0	2.82	C
Washington Blv	Schaumburg Rd	Milton Ln	1	25	2.61	0.01	5	28	16.0	0.0	0.0	17.0	0.1	2.08	B
Washington Blv	Milton Ln	Bode Rd	1	25	2.61	0.01	4	28	16.0	0.0	0.0	17.0	0.1	2.24	B
Westbury Dr	Huntington Blvd	Haman Ave	1	25	2.61	0.01	5	26	16.0	0.0	0.0	17.0	0.1	2.04	B
Western St	Flagstaff Ln	Maple Ln	1	20	2.61	0.01	2	12	11.0	0.0	0.0	12.0	0.1	3.81	D
Winston Dr	Charleston Ln	Freeman Rd	1	25	2.61	0.01	5	24	16.0	0.0	0.0	17.0	0.1	2.02	B
Winston Dr	Algonquin Rd	Charleston Ln	1	25	2.61	0.01	4	35	16.0	0.0	0.0	17.0	0.1	2.36	B

Bicycle Level of Service Sample Photos



Existing Bicycle LOS A: Oakdale Road

Existing Bicycle LOS B: Arizona Boulevard

Existing Bicycle LOS B: Mallard Lane

Existing Bicycle LOS C: Hillcrest Blvd

Existing Bicycle LOS D: Bode Road

Existing Bicycle LOS E: Hassell Road

Appendix B – Bicycle Plan Open House Meetings

Bicycle Open House meetings were held in 2009. Background information on Village goals regarding bicycling, facility types, and programs was presented. Opportunities for input from participants on needs were afforded attendees. Copies of the individual station display boards are included in Appendix B along with summaries of input from the meetings.

Open House Stations

Village of Hoffman Estates
Comprehensive Bicycle Plan Open House

Station 1: Welcome and Introduction

•Thank you for coming to the open house. You are helping the Village to identify priorities for bicycling in Hoffman Estates.

•Please sign in and get a comment sheet. Please use the comment sheet to provide input on the information presented.

•As you move around the room, you will be asked to provide input at stations where you see **ACTIVITY**.

•You will also see stickers that you will use to **vote** for aspects of the plan.

•We are here to answer your questions.

Bicycle Plan Structure

The draft bicycle plan is a comprehensive document for making biking in Hoffman Estates **great**. The plan is structured into five sections, each represented by a station. The sections are:

•**Bicycle Plan Goals** – Sets the framework for priorities

•**Types of Facilities** – Identifies characteristics of **on and off street** bicycle facilities

•**Bicycle Plan Map** – Identifies **existing** facilities along with potential **future** paths, routes, lanes, and Interstate 90 crossings.

•**The "Bicycle Four E's"** – Bicycle **E**ducation, **E**ncouragement, **E**nforcement, and **E**valuation.

•**Implementation** – Project timelines, costs, and **funding opportunities**

Project Timeline

www.hoffmanestates.org/transportation
bikes@hoffmanestates.org

Village of Hoffman Estates
Comprehensive Bicycle Plan Open House

Station 2: Goals of the Plan

ACTIVITY

•What is important to you to make biking great in Hoffman Estates?

•How do you want the Village to use the plan to accomplish those goals?

•Please pick up one set of 6 green stickers. Place use the stickers to vote for goals most important to you.

•You can place multiple stickers next to one goal or spread them out amongst many.

•If you would like to add a goal to the list, please write it on the paper below or on your comment sheet.

What is Important to You?	Place Stickers Here	What is Important to You?	Place Stickers Here
Facilitate recreational bicycle use		Dedicate Village funds for bicycle improvements annually	
Encourage short neighborhood trips by bike		Pursue outside funding sources for bike improvements	
Promote biking to school		Promote bicycling as "green" sustainable transportation	
Promote commuting to work by bicycle		Promote bike helmet use / other safe riding practices	
Provide connections to Forest Preserve trails		Conduct safety town, bicycle rodeo education events	
Connect to neighboring communities		Preserve existing on-street parking and traffic flow	
Improve bicycle crossings at traffic signals		Promote motorist awareness of bicycles & vice versa	
Provide bicycle crossings of Interstate 90		Promote bicycling as a healthy activity	
Produce and distribute bicycle facilities maps		Pursue Bicycle Friendly Community Designation	

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Comprehensive Bicycle Plan Open House

Station 3: Types of Facilities – Bike Routes

Bike Routes are designated by "Bike Route" signs, which identify the road as a shared facility for bicycles and vehicles. The Bike shares the roadway with moving and parked vehicles. Current on-street parking regulations can remain the same.

The draft bicycle plan includes **45 miles** of potential **Bike Routes**.


Collector Road Bike Route Example

Village Local Road Bike Route Example
Parking permitted on one side


Collector Road Bike Route Example

Supplemental signs with **destinations** and **distances** may also be used. At intersections, turn **arrows** for the bike route are provided to inform cyclists how to stay on the route.


Local Road Bike Route Example


Local Road Bike Route Example

Village Collector Road Bike Route Example
Parking permitted on both sides

Bike routes are the least expensive bicycle facility to implement. Approximate Cost: $3,000 per mile

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Station 4: Types of Facilities – Bike Lanes

Bike Lanes are identified by longitudinal white pavement stripes on the road and may be supplemented by signing and pavement marking symbols.

Village Boulevard Street Bike Lane Example

Most Village streets are not wide enough to accommodate Bike Lanes. The draft plan includes up to **3 miles** of potential **Bike Lanes**. Approximate Cost: $9,000 per mile


Collector Road Bike Lane Example

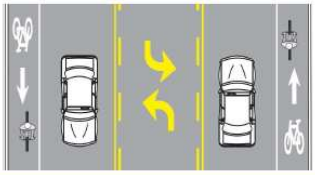

Village Boulevard Street
Potential Bike Lane Candidate


Three Lane Street with Bike Lanes Example

Bike lanes are typically 5' wide excluding the gutter and are designated on each side of the road. Bicyclists share the same road as vehicles but the striped bike lane identifies the space for use by cyclists. There are design criteria which specify width, presence of parking, and other features. Parking is not permitted in marked bike lanes.


Collector Road Bike Lane Example
Parking permitted on one side

Three Lane Street with Bike Lanes



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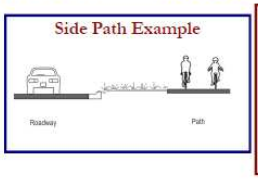
Comprehensive Bicycle Plan Open House

Station 5: Types of Facilities – Bike Paths

Bike Paths are physically separated from the road. **Bike Trails** are on completely separate alignments, such as in Forest Preserve while **Side Paths** are parallel to the road like Shoe Factory or Algonquin Roads. They are typically bidirectional whereas bike lanes and routes are not.

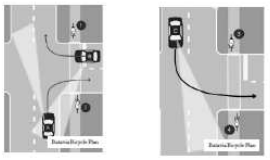


There are currently **27 miles** of bike paths in the Village. The draft plan includes up to **15 more miles**. Of the **15, 5 miles** are currently programmed for installation. A bike path is the most expensive bicycle facility to install. Approximate Cost: $800,000 per mile

Side Path Discussion Points

While side paths have their place in any bicycle plan, they must be located where appropriate. If there are frequent driveways, bicyclists are exposed to more conflict points where an on-street facility may be a better choice.

Side Path Intersection Visibility Diagram



Note how the "counter flow" bicyclists are not within drivers field of vision

Side Path Intersection Conflict Point Diagram

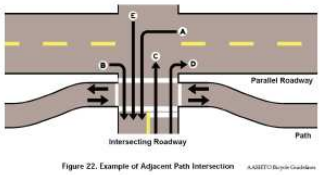


Figure 22. Example of Adjacent Path Intersection AASHTO Bicycle Guidelines

Side path crossings at intersections have a high number of conflict points between bicycle and vehicle paths.

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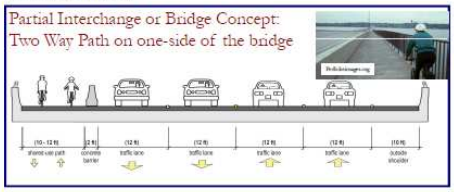
Comprehensive Bicycle Plan Open House

Station 6: Interstate 90 Crossings

Providing **bicycle and pedestrian crossings** of I-90 is a vital part of the plan, but they bring many obstacles such as cost, coordination with other agencies, and design issues with interchanges. Each one of the seven I-90 bridges in Hoffman Estates has its own unique characteristics.

Partial Interchange or Bridge Concept:
Two Way Path on one-side of the bridge

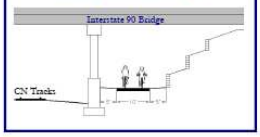


STAR Line

The **Metra STAR Line** rail transit project provides a unique multi-modal opportunity for the Village. Coordinating a bicycle crossing with the **Barrington Road Station** would provide a separated crossing from traffic and encourage biking and walking to transit.

STAR Line map

Canadian National Underpass
Bicycle Path Concept

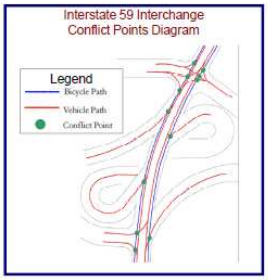


Bicycle and pedestrian crossings of **interchanges are difficult** because of high speeds and conflict points at ramps. Bikers also must look back behind them to view vehicles entering free flow on ramps.

Concept I-90 station design

Bike Bridge Example

Interstate 59 Interchange
Conflict Points Diagram



ACTIVITY

- Please pick up a set of 2 yellow stickers
- Place the stickers along I-90 map on the table below where you would like to see a crossing constructed. Please use the boxes for defined crossing locations.
- You can place both stickers at different crossings or at one crossing.
- Please write any additional comments on the space provided on your comment sheet.

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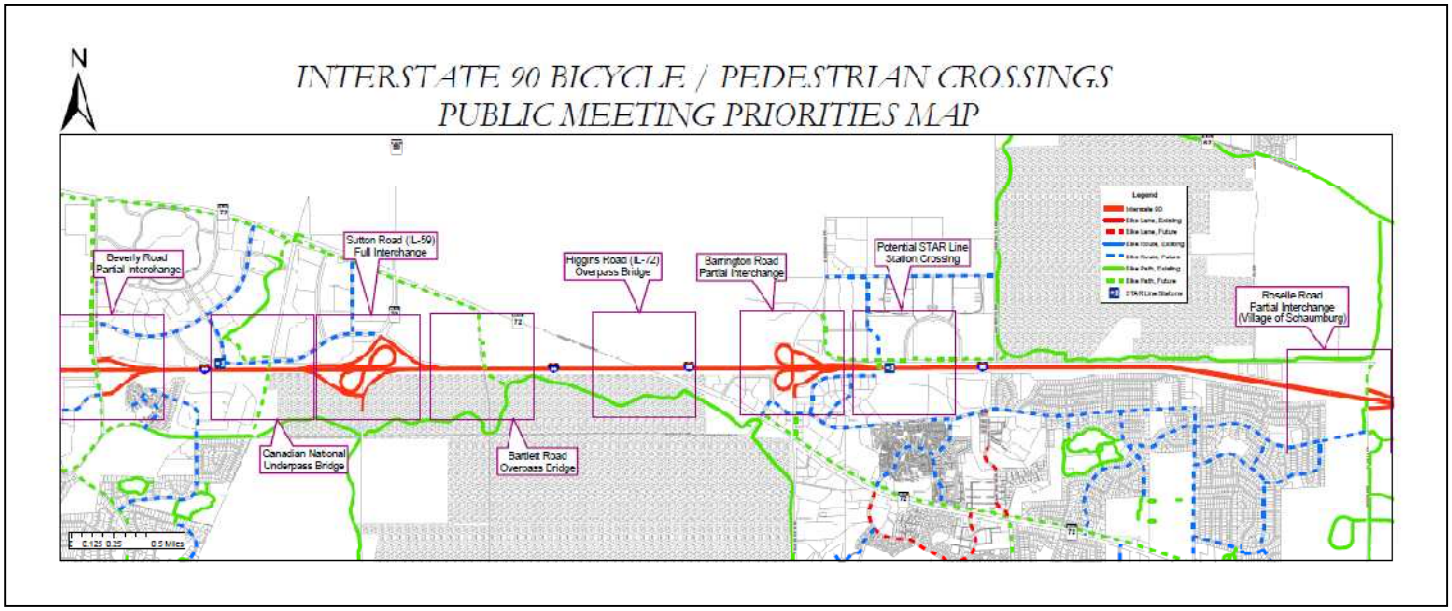

Village of Hoffman Estates
Comprehensive Bicycle Plan Open House

Station 7: Draft Bicycle Map

To your right, there are four aerial maps showing the **Draft Bicycle Map**. The Village has created the bikeways to connect with existing facilities using criteria for bicycle facilities. The map includes both **on and off street bikeways**. Using a measure called the **Bicycle Level of Service (BLOS)**, we evaluated existing transportation corridors with their compatible facility type. The BLOS uses street characteristics such as speed, width, parking, and pavement condition to determine the compatibility of a street for bicycles. Off street facilities were added where street was not compatible for bicycles.

Legend

Schools	Bike Lane, Existing
Libraries	Bike Lane, Future
Park District Facilities	Bike Route, Existing
Trail Parking	Bike Route, Future
Grocery Stores	Bike Path, Existing
STAR Line Stations	Bike Path, Future
Municipal Boundary	Rail Road

ACTIVITY

- Please Pick up a set of stickers.
- There are four maps to your right for comment (Regional, North, Central, and West).
- Place the Yellow Stickers at locations you would like bike facilities installed.
- Place the Blue Stickers at locations where you currently or would like to bike.
- Place the Red Stickers at places that are difficult to bike or cross.
- You may place multiple stickers on one location or spread them out between many.
- Please write any additional information on the space provided on the comment sheet.

REMEMBER
Your comments will help set priorities for implementing bicycle projects if funding becomes available!

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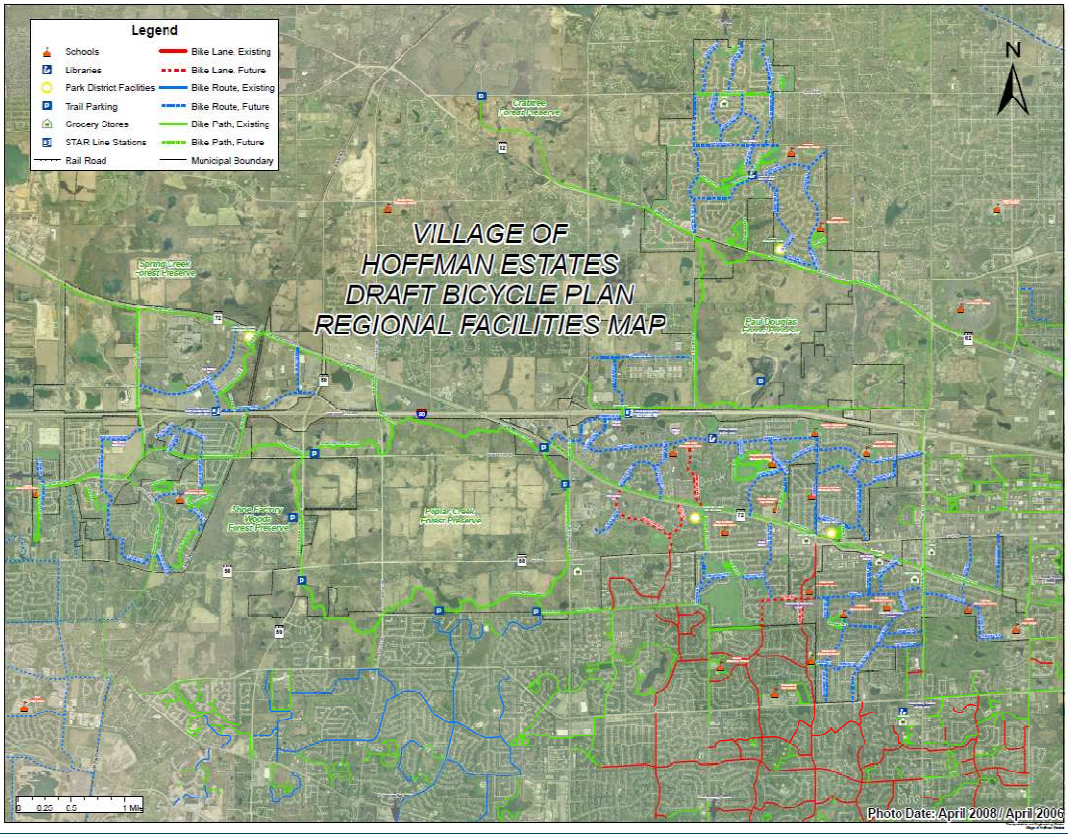

Village of Hoffman Estates
Comprehensive Bicycle Plan Open House

Station 8: The "Four E's" of Bicycle Planning

To ensure the bicycle plan is a **comprehensive** document, it is important to include other aspects of bicycle planning in addition to on and off street facilities. The lists below include present Village programs and examples of ones that could be included in the Comprehensive Bicycle Plan.

"E"ducation

- Bicycle Helmet Distribution / Education
- Bike Safety Kit Distribution to area Businesses
- Provide bicycle training materials for children and adults
- Bicycle awareness to motorists
- Conduct safety assemblies

"E"ncouragement

- Advertise health benefits of bicycling
- Create a Bicycle Facilities map for use by the public
- Encourage employers to support bicycle commuting to work
- Work with School Districts to Promote Walking and Biking to School
- Hold a Bicycle Rodeo
- Organize a Village Bicycle Ride
- Provide / Require Bicycle Parking
- Provide Showers at Bicycle Destinations

"E"valuation

- Monitor bicycle crashes and provide guidance on safety improvements
- Conduct bicycle counts before and after facilities are installed
- Establish a protocol for bicyclists to document "close calls"
- Bicycle / Pedestrian Task Force

"E"nforcement

- Ensure safe riding habits for bicycle
- Monitor motorist behaviors toward bicycles
- Develop a protocol for issuance of tickets and / or warnings toward violators

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Village of Hoffman Estates
Comprehensive Bicycle Plan Open House

Station 9: Bicycle Project Implementation

Funding Opportunities

With limited Village funds, it will be necessary to seek outside funding to implement the bicycle plan. Fortunately, there are many opportunities to **leverage** Village resources and think **creatively** to get more projects completed. For instance, the production of this document is being completed by Village staff as opposed to hiring a consultant to **save funds**. The list below provides a sample of some funding opportunities.

- Apply for **Grants** – Village provides local match
- Include bicycle improvements with a **larger projects**, such as a road or bridge reconstruction
- Explore **Public / Private** partnerships
- Install facilities with **development** – At private cost
- Work with other communities on **joint** projects

Implementation Process

Depending on the bicycle project, the design process can be lengthy. The list below is provided as an example of typical steps required to implement a bicycle project.

- **Evaluate** the **merits** of a project – with the help of this meeting
- Select appropriate **funding sources**
- Submit **grant application** – There is usually an annual call for projects
- **Review and approval** of grant application – Usually 6-9 months
- **Coordination** with other agencies
- **Phase I** documents – Environmental, Alignment Review (3-12 months)
- **Phase II** documents – Survey and Engineering Design (3–12 months)
- **Award of contract** – Select lowest qualified bidding company
- **Construction** – (3 to 6 months)
- Post Implementation **Evaluation** – Review design and use of the project

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Village of Hoffman Estates
Comprehensive Bicycle Plan Open House

Station 10: Thanks for Coming!

- Drop off comment sheet
- Please remember to take the *Next Steps / Take Home Flyer*
- If you think of any other comments after the meeting, please email them to bikes@hoffmanestates.org by May 31, 2009.
- Check the website for updates on the plan (www.hoffmanestates.org/transportation)

Bicycle Plan Next Steps:

- **Complete Public Meetings and Comments**
- **Assemble Comments and Finalize Bicycle Plan** – Village Staff will revise plan documents based on input
- **LIB and ATA Review of Bicycle Plan** – The Village will have two Bicycle Professional Organizations review the plan materials, the League of Illinois Bicyclists (LIB) and Active Transportation Alliance (ATA)
- **Bicycle Plan Presentation to Plan Commission and Capital Improvements Board** – For Review and Recommendation
- **Bicycle Plan Presentation to the Village Board** –Review and Final Approval

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Sample Open House Comment Card

Village of Hoffman Estates Comprehensive Bicycle Plan - Comment Sheet

Station 2: Goals of the Plan *(write any additional goals or comments below)*

Stations 3 – 5: Bicycle Facilities *(optional)*

Station 6: Interstate 90 Crossings *(please describe both crossing locations and any additional comments below)*

- Crossing #1:
- Crossing #2:

Additional Comments

Station 7: Draft Bicycle Plan *(please describe each facility marked on the map and any additional comments below)*

- Install Facilities #1:
- Install Facilities #2:
- Install Facilities #3:
- Install Facilities #4:
- Like to Bike #1:
- Like to Bike #2:
- Like to Bike #3:
- Like to Bike #4:
- Difficult to Bike #1:
- Difficult to Bike #2:
- Difficult to Bike #3:
- Difficult to Bike #4:

Additional Comments:

Station 8 - 11: Four E's, Implementation, Bike Advocacy Groups, Next Steps *(optional)*

(OVER)

How many bicycle users are in your household?

☐1 ☐2 ☐3 ☐4 ☐5

What are the ability levels of the bicycle users in your household? *(check all that apply)*

☐Beginner ☐Recreational ☐Expert

What are the ages of the bicycle users in your household? *(check all that apply)*

☐<18 ☐18 – 30 ☐30 – 40 ☐40 – 50 >50

Where do you like to ride your bike?

☐Forest Preserve Trails ☐To School ☐To Shop ☐To Work
☐Around the Neighborhood ☐Park District Trails ☐Other

Please tell us more about where you like to ride_____

Please feel free to write additional comments_____

Name *(optional)*_____

Email Address *(optional)*_____

Address *(optional, can give closest intersection)*_____

Phone *(Optional)*_____

Would you like to be included on our email list? ☐Yes ☐No

Open House Summaries

Station 2: Goals Summary Table

Goals	Lincoln School (5/7/09 Meeting)	Jefferson School (5/9/09 Meeting)	Village Hall (5/14/09 Meeting)	Total
Facilitate recreational bicycle use	9	3	2	14
Encourage short neighborhood trips by bike	3	2	3	8
Promote biking to school	5	2	3	10
Promote commuting to work by bicycle	1	7	5	13
Provide connections to Forest Preserve trails	17	18	14	49
Connect to neighboring communities	5	13	13	31
Improve bicycle crossings at traffic signals	2	6	5	13
Provide bicycle crossings of Interstate 90	7	24	27	58
Produce and distribute bicycle facilities maps	0	3	1	4
Dedicate Village funds for bicycle improvements annually	7	4	6	17
Pursue outside funding sources for bike improvements	2	5	1	8
Promote bicycling as "green" sustainable transportation	3	4	4	11
Promote bike helmet use / other safe riding practices	3	5	1	9
Conduct safety town, bicycle rodeo education events	2	2	0	4
Preserve existing on-street parking and traffic flow	2	0	0	2
Promote motorist awareness of bicycles & vice versa	1	7	4	12
Promote bicycling as a healthy activity	5	2	5	12
Pursue Bicycle Friendly Community Designation	3	2	2	7

Additional Goals Identified at Open House Meetings:

Work with state for bike activated traffic signals or crosswalk signals on both sides of crossings of state highways		1		1
Link the Hoffman Estates plan with the Village of Inverness (once Inverness has a plan and pathway)		3		3
Need sidewalk crossings over Roselle Rd and I-94; Cross walk over Barrington Rd; I-94 cannot access paths north of tollway. Any other crossings too. Need more stores etc. Investigate how and what Chicago is doing.sidewalks in Hoffman Estates to access		8		8
Promote going to shopping center		1		1
Link Hoffman Estates plan with Schaumburg plan		1		1
My interest is in seeing Hoffman Estates Village government devote personnel and funds laboriously promote cycling. Only when the governing bodies are transportation will the public take it seriouslyheavily invested in bicycling as a valid mode of transportation			7	7
I see bicycling as an important form of alternative transportation, not just recreational using the bike as a part of lifestyle			0	0
Would like to see retailers, apartments, etc. have to consider bicyclists in providing safe ingress and bike racks			0	0
Bike tie ups at stores			2	2

Station 2 Comments
Bike activated traffic signals and / or cross walk signals on both sides of state highway intersections.
Promote bicycle registration w / HEPD. Link Inverness to Hoffman Estates, Barrington & South Barrington via an Inverness bike path.
Get paths implemented existing trails connected
Link to Schaumburg bike paths.
Good goals
I think it is great.
Hook communities up with commercial areas.
Recreational use, safety.
I love the direction of the Village.
I am very impressed with the scope and benefits of the plan! Great job! It makes me proud to live in Hoffman Estates.
I think the plans are great. I think the I-90 crossing is the largest priority due to safety.
Get me safely to Busse Woods.
I think it is a wonderful plan. Promoting bicycling in Hoffman Estates for families and future events.
Connect all parts of the Village together. Connect neighborhoods to commercial and industrial areas. Connect neighborhoods to other neighborhoods and schools. Connect to neighboring towns.
Use bicycling as a way to promote nature. Go to towns
Signs, signs and more signs. Signs for bicyclists permitted. Signs saying "Share the Road".
I am glad plans are in the works. I did not know about the goals or planning.
Link trails / paths in Hoffman Estates with surrounding communities (Schaumburg, etc)

Station 6: Interchange Locations Summary Table

Interchange Crossing Location	Lincoln School (5/7/09 Meeting)	Jefferson School (5/9/09 Meeting)	Village Hall (5/14/09 Meeting)	Comments via Emails	Total
Beverly Road Partial Interchange	0	0	0		0
Canadian National Underpass Bridge	4	6	1		11
Sutton Road (IL-59) Full Interchange	1	0	1		2
Bartlett Road Overpass Bridge	2	3	1	1	7
Higgins Road (IL-72) Overpass Bridge	1	0	0		1
Barrington Road Partial Interchange	2	0	6	5	13
Potential STAR Line Station Crossing	8	12	10	3	33
Roselle Road Partial Interchange (Village of Schaumburg)	0	9	13	7	29

Additional Crossing Locations:

Huntington and Central Vicinity	0	15	0		15
Eisenhower School Vicinity	0	1	0		1

Station 6 Additional Comments
I-90 crossing would be awesome so that Paul Douglas Path would then be linked to Poplar Creek Path
The section Rohrssen between Golf & Shoe Factory and Shoe Factory proper between Beacon Pointe to McDonough Road is very fast and dangerous to ride bikes on. We would love some proper off path - very fast 40-50 mph. Golf Rd through Forest also very fast
Would like a published signed path out to Fox River Trail.
Any crossing would be a huge plus. Roselle Rd seems the safest of the partial crossings
The Barrinton Rd crossing to me seems to be a logical central location that can be accessed by many. Traffice in this area for cyclists seems to remian consistantly high due to the popularity of the paths here.
The one that is most likely to be funded would be choice #1. Except the Bartlett Rd one. It is relatively safe.
Building a route that goes over the highway would be nice however extremely expensive. An overpass over the highway from here to the Village that connects to the existing bike system. (Paul Douglas)
If a 3rd I-90 crossing were possible I would suggest Huntington Blvd.
I 90 Crossings
Would like to commute to AT&T

Station 7: Plan Summary Tables

Likes to Bike Summary Table

Aggregate Project	Location	Lincoln School (5/7/09 Meeting)	Jefferson School (5/9/09 Meeting)	Village Hall (5/14/09 Meeting)	Total
Forest Preserve	Poplar Creek Bicycle Path	9	8	10	27
	Paul Douglas Bicycle Path	10	8	8	26
	Shoe Factory Woods Path (Gravel)	2			2
	Shoe Factory Woods Off Trail	2		1	3
HE Park District	South Ridge / Westbury Lake Paths	2	1		3
	Pine Park		1		1
	High Point Park			1	1
VOS System	Pennview Lane (On Street)	2			2
	Abrahamsen Park Path		1		1
	Prairie Park Path			1	1
I 90 Crossings	STAR Line Crossing		1		1
	Barrington Rd			1	1
	Roselle Rd			3	3
Bike Paths	Shoe Factory Rd	2		1	3
	Bode Rd		4		4
	Algonquin Rd		5		5
Village Streets - West	Beverly Rd	1			1
	Hoffman Blvd	1			1
	Rohrssen Rd	1			1
	Prairie Stone Pkwy		1		1
	Higgins Rd (at Old Sutton Rd)			1	1
Village Streets - Central	Hassell Rd	1		1	2
	Volid Dr	1			1
	Lakewood Blvd		1		1
	Moon Lake Blvd		1		1
	Parcel C Streets		2		2
	Grand Canyon Pkwy			1	1
	Hillcrest Blvd			1	1
	Bode Rd			1	1
	Central Rd (at AT&T)			1	1
Village Streets - North	Cottonwood Trail	2			2
	Palatine Rd		1		1
	Ela Rd		10		10
	Roselle Rd (North of Algonquin)		2		2
	Bradwell Rd		2		2
	Huntington Blvd		1	1	2
	Treaty Lane (into Inverness)		2		2
	Mundhank			1	1
Schools	Fairview School	1			1
	Fremd High School		2		2
Shopping	Poplar Creek Crossing	1		2	3
Random	Huntington Blvd ROW	1			1

Install Facilities Summary Table

Aggregate Project	Location	Lincoln School (5/7/09 Meeting)	Jefferson School (5/9/09 Meeting)	Village Hall (5/14/09 Meeting)	Total
Forest Preserve	Poplar Creek Trail at Golf Rd			1	1
	Poplar Creek Trail at IL 59			1	1
	Paul Douglas Connection to Roselle Rd		1		1
	Spring Creek Forest Preserve	1			1
	Shoe Factory Woods Off Trail	2			2
	Bode Rd / Barrington Rd Intersection			1	1
HE Park District	South Ridge / Westbury Lake Paths	2			2
VOS System	Knightsbridge Subdivision	1			1
	Random VOS Paths		3		3
I 90 Crossings	STAR Line Crossing	1		3	4
	Barrington Rd			4	4
	Roselle Rd			4	4
	Higgins Rd			1	1
	Bartlett Rd		1		1
	Huntington Blvd	1			1
	CN Crossing	1	6		7
	Eisenhower School (Jones Rd)		1		1
Bike Paths	Shoe Factory Rd Gap (Beacon Pointe)	3	6		9
	Rohrssen Rd	2			2
	Algonquin Rd (w/o Crabtree Forest Preserve)			3	3
	Central Rd (DNR Application)			1	1
	Congdon Ave (Elgin)		1		1
	Higgins Rd (Sutton Crossing)	1			1
	Higgins Rd (Prairie Stone and West)		6	1	7
	Higgins Rd (Barrington to Roselle)		1	3	4
	Higgins Rd CMAQ		2	1	3
	Palatine Rd		2	1	3
	Roselle Rd		2		2
	Golf Rd (between Rohrssen and IL - 59)	1			1
Village Streets - West	Pratum Ave		1		1
	Hoffman Blvd (Including 1 near IL - 59)	2		1	3
	Essex Dr	1			1
Village Streets - Centra	Illinois Blvd	1			1
	Bode Rd			1	1
	Moon Lake Blvd			1	1
Village Streets - North	Lexington Dr	1			1
	Freeman Rd		1		1
	Bradwell Rd		2		2
	Huntington Blvd	2			2
North Streets Outside	Palatine Rd (at Ela Rd)		1		1
	Ela Rd		16		16
	Mundhank		1		1
Schools	Fairview School	1			1
	St Peter School (VOS)	3			3
Shopping	Hoffman Village	1			1
Village Buildings	Village Hall	2			2
	Police Station	2			2
	Childrens Advocacy Center	1			1
Random	South Barrington	2			2

Difficult to Bike Summary Table

Aggregate Project	Location	Lincoln School (5/7/09 Meeting)	Jefferson School (5/9/09 Meeting)	Village Hall (5/14/09 Meeting)	Total
Forest Preserve	Poplar Creek Traffic Signals		10	2	12
	Paul Douglas	4	5		9
	Paul Douglas at Huntington		2		2
	Paul Douglas at Lexington		2		2
	Paul Douglas at Winston		3		3
	Paul Douglas at Ela		3		3
	Paul Douglas at Ela (Central Rd)		1		1
	Paul Douglas (Algonquin & Roselle)	5	5		10
	Paul Douglas Connection to Roselle Rd		1		1
	Shoe Factory Woods Path (Gravel)		1		1
	Shoe Factory Woods Off Trail	2			2
HE / VOS Park District	Huntington Park	1			1
	VOS PD at Bode and Springinsguth		1		1
I 90 Crossings	Barrington Rd		2	11	13
	Roselle Rd	2	5	3	10
	Higgins Rd			2	2
	Huntington Blvd		1		1
	CN Crossing	1			1
Bike Paths	Shoe Factory Rd Gap (Beacon Pointe)	2			2
	Shoe Factory Rd / CN Crossing	1		1	2
	Rohrssen Rd	2			2
	Algonquin Rd (VOS)		2		2
	Central Rd (DNR Application)	3			3
	Higgins Rd (Sutton Crossing)	1	1		2
	Higgins Rd (Barrington to Roselle)		1		1
	Roselle Rd	4	4	1	9
	Golf Rd (between Rohrssen and IL - 59)	1			1
Village Streets - West	Pratum Ave	1			1
	Hoffman Blvd	1			1
Village Streets - Central	Bode Rd			1	1
	Hassell Rd Extension (Private)			1	1
	Pie Neighborhood			1	1
Village Streets - North	Winston Dr	1			1
	Freeman Rd	1			1
North Streets Outside Village	Mundhank			2	2
Schools	Elgin High School	1			1
	Barbara Rose School	1			1
	Harper Community College	1			1
Shopping	Golf and Roselle Area			3	3
Village Buildings	Police Station	2			2
Businesses	Siemens	1			1
Intersections	Hoffman and IL 59			1	1
	Higgins and IL 59			1	1
	Higgins and Barrington			1	1
	Higgins and Roselle			3	3
	Basswood and Golf			1	1
	Higgins and Jones / Golf and Salem			2	2
Apartment Complex	Highland Crossing			1	1

Station 7 Additional Comments
My biggest priorities are for crossings of I-90 and a way to activate signals at state and county roads on a bicycle without crossing to the wrong side of the road
This has caused a dangerous condition. Many people are detouring on Huntington. Speed limit is 45, 2 lane road is narrow. Perfect scenario for a tragedy.
Look at ways to connect to the Fox River Trail either in East Dundee or Elgin
Connections to other communities bike paths
Emergency phone
We are very excited about the prospects of your improvements and attention to our suggestions
Thank you for the helpful and informative open house and thanks to everyone involved.
Having the I-90 crossing at Barrington Rd is my priority. The group I ride with I would get the most use and ease from this.
Better access to the Paul Douglas system from the western part of the Village.

Stations 8 through 11 comments
Bike License Stickers
What about LL Bean in Arboretum for resource.
I do not understand why more cyclists don't wear helmets or use or wear reflective devices.
People need Education on Bike Etiquette! And safe night riding
More emphasis on bike etiquette - announcing "on your left". More emphasis on night riding - must use light
Add an additional bathroom facility at the field (last Sunday morning there were more than 60 cars with multiple persons per car. At times there was a line for the single porta-potta facility), also-perhaps up by Huntington Blvd. and Algonquin Road, and

Number of Users in your family	Responses
1	9
2	6
3	4
4	10
5	2
6	1

Level of Users	Responses
Beginner	7
Expert	17
Recreational	22

Age of Users	Responses
<18	12
18-30	7
30-40	3
40-50	15
>50	19

Like to Ride	Responses
Forest Preserve Trails	29
Around the Neighborhood	25
Park District Trails	15
To Work	10
To Shop	9
Other	6
To School	2

Like to Ride Comments
I ride mainly on lower traffic roads to commute and shop.
Garage sales!
Poplar Creek F.P. PATH
Paul Douglas, Fox River, Poplar Creek, local roads
Anywhere there aren't a lot of cars.
Local Parks, Barrington Hills
On paths
I am 2 miles from the Fox River trails which is where I usually bike.
I am enjoying the new path at the Paul Douglas Forest Preserve.
Everywhere it is safe.
We go off road and sometimes we go on paved road.
Poplar Crossing (Target Mall). Streamwood, Shoe Factory Woods.
Along rivers - through Forest Preserves - Connect to Fox Valley Trails through Elgin
Off paved roads in the Forest Preserve.
Trails
Prairie Path, Fox River, Lake County Path
Through town to Busse / Douglas / Poplar Creek
Anywhere possible as long as the route is not too dangerous (crossings).
Designated paved side trails.
Although this is beyond the scope of this project I have a need to bike to Palatine through Inverness. I have a need to bike to Golf and Roselle Roads, but I can't do so safely.
I like to bicycle any and everywhere in Schaumburg where I live.
Everywhere
Would like to see links to Forest Preserve trails, too far and no safe route to work, the park district trails are too short
Anywhere
North Hoffman to AT&T Center

Additional Comments
I have been asked by Jack Tatooles, Mayor of Inverness, to establish a Bicycle Planning Committee for the Village of Inverness. Your presentation was extremely helpful to me and your message very comprehensive. Thank you for all your hard work! P.S. I'
Already is on the email list
I would like to see pedestrian / bicycle facilities on Bradwell. Also, connectivity to adjacent communities ia a great goal. Has there been discussion with other Village?
I would really like to see the far west end connected to the rest of Hoffman Estates and the Forest Preserve Trails.
I also like to use the paths to roller blade. It would be nice to have more designated areas for residents to ride safely.
Motorists need to be more aware of people bicycling and walking
Leader & Membership Director / Schaumburg Bicycle Club
Big Supporter of Bikes under 90
Encourage the Cook County Forest Preserve to asphalt the soft gravel and rail from Shoe Factory Road and Route 59 to the CN tracks. Main the western portion of the trail. Develop and build a pedestrian / bicycle crossing at Shoe Factory and CN Tracks
I bicycle Hoffman Estates streets and roads at least twice a week. Please dedicate efforts (????? and funds) toward public educational marketing. Educate motorists, bicyclists are common place on our streets - That motorists should expect to see them.
I wish there were more bike "loops" where you don't have to stop and cross major intersection but can keep riding without stopping. I am handicapped and it takes the fun out of riding to have to continually stop, get off, navigate traffic, and then get b
I strongly believe that we need to develop mass transit and like trails so that no family needs more than 1 car. Therefore, shopping and schools and bus and train stops need to be accessible. Financing - Tax 2nd and 3rd cars to the hilt
Would like to see a route to downtown Chicago or atleast to Cumberland "L" stop
I 90 Crossings
I 90 Crossings