

Village of New Lenox

**Bicycle/Pedestrian Facility
Master Plan**



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Village of New Lenox

BICYCLE/PEDESTRIAN FACILITY MASTER PLAN

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INTRODUCTION

Purpose

The Village of New Lenox, like many south suburban communities, is seeing unprecedented growth within its incorporated limits and outlying areas. As growth and development progress, it is important that recreational amenities and alternative modes of transportation become integral components of the community. The purpose of the New Lenox Bikeway Master Plan is to serve as a guide for the planning, prioritization, and implementation of biking and pedestrian facilities in and about the community for the foreseeable future.

Background

In 1998 the Village prepared a community-wide greenway and open space plan. One of the recommendations in this plan was to develop more detailed plans regarding trail linkages. The Intermodal Transportation Efficiency Act of 1991 (ISTEA) marked a significant shift in the focus of the federal transportation policy to provide increased funding opportunities for bicycle and pedestrian modes of travel. Similarly, State funding opportunities for trails has also increased in recent years, as well as the number of area regional trails being planned and developed by Forest Preserve Districts, Park Districts, and Villages. Some of the more notable trails being planned or developed in the area include:

- Old Plank Road Trail
- Wauponsee Glacial Trail
- Grand Illinois Trail
- I&M Canal Trail
- DuPage River Trail
- Joliet City and Iron Works Trail
- Hickory Creek Junction Trail
- Pilcher Park Loop Trail

Open space and trails are often viewed as indicators of the quality of life offered or provided by communities. People want to live in areas where their families can enjoy riding their bikes or walking to locations for work or play. According to a Nationwide Personal Transportation

Study, bicycling produces multiple benefits, both for individuals and their community, and there is a great potential to increase the number of trips taken by bicycle. Approximately sixty percent of all daily trips are less than five miles, fifty percent are less than three miles, and twenty-five percent are less than one mile – well within the range of an average cyclist. As New Lenox continues to grow and provide public open spaces and attractions, its potential to make biking and hiking attractive travel options increases. Providing New Lenox with transportation “choices” allows citizens to make decisions regarding the “livability” of their community.

The potential for increasing use of bicycles is dependent on taking a more comprehensive approach to developing and retrofitting public roadways. The integration of bicycle facilities extends beyond the needs of just the bicyclist. Bicycle facilities can simultaneously benefit the motorist by enhancing the safety and attractiveness of the roadway. For example, roads with wide paved shoulders have been shown to reduce automobile accidents and decrease road degradation, thus lowering maintenance costs.

A community-wide trail system also provides economic benefits to the community. The creation of trails and greenways can have a positive effect on the value of properties adjacent to and near a proposed trail. Preferences for trails and open space are growing. Large subdivision developments in Wisconsin recently forewent the development of golf courses in favor of open space and trails based on the results of surveys. Overall, trails and greenways make for healthier lifestyles, lower air pollution, traffic congestion, and energy consumption. Multiple-use pathways generate more “recreation hours” per dollar invested than any other type of recreation facility. The many regional trails being developed in the area demonstrate the strong demand for these opportunities, among many participants, for many purposes.

Community Vision

Increased development and interest in bicycling within the community place emphasis on creating a more bicycle/pedestrian – friendly community. To this end, Village officials and staff began working on a plan to provide safe, convenient, and fun travel choices throughout the community and surrounding areas. As a start to the process the Village established the following community “vision” to guide the planning process, as well as its implementation:

Make New Lenox a community where people have the opportunity to travel, by bicycle and walking, to a variety of recreational, commercial and employment locations.

Plan Intent

This Bikeway Master Plan is intended to be used by the public, Village Officials, and staff as a guide for the planning and implementation of trails and support facilities into the foreseeable future. It introduces the basic issues in bicycle planning, and applies these concepts to the physical environment within the Village and surrounding planning area. The plan also provides information and recommendations for improvements. This plan is intended as a “start” for the community. As time progresses, and conditions change, this plan too, should be reviewed and updated.

PLANNING PROCESS

Study Approach

Development of the New Lenox Bikeway Master Plan involved the completion of several key phases. These included:

- Inventory of Existing Facilities and Resource Constraints/Opportunities
- Analysis of System Network and Design Issues
- Plan Formulation, and
- Implementation Policies and Recommendations

Inventory of Existing Facilities and Resource Constraints/Opportunities

Existing trails within and adjacent to the Village's incorporated limits were identified and cataloged as to type and condition. Next, existing sites that are considered destinations or potential destinations were identified and mapped. Additionally, areas within the Village were noted that potentially reflects opportunities for connections or constraints to such.

Analysis of System Network and Design Treatments

Research and discussions with various agencies supported the development of typical design treatments that are often utilized to implement trail plans. This included an assessment of off-road trails and the community road network in general. Inventory data collected in the first phase were analyzed and mapped to support a spatial assessment of the suitability of sites and areas to be used to connect to existing destinations. This phase also included the establishment of goals and policies to guide overall trail development and expansion.

Plan Formulation

Results of the previous phases were used to develop a bikeway plan for the Village. The plan graphically portrays the existing and potential trails and linkages and open space corridors. The plan section also provides general guidelines for each basic network segment.

Implementation Policies and Priorities

The final phase of the master planning effort involved targeting for development proposed trail segments identified in the plan formulation phase. A summary of recommendations, and a proposed targeted project list with preliminary planning costs conclude the Plan.

Coordination

This plan has been developed with consultation and coordination from a number of agencies, including the Village of New Lenox, City of Joliet, Joliet Park District, New Lenox Park District, Will County Forest Preserve District, Will County Department of Highways, and the Chicagoland Bicycle Federation.

Considerable policy support exists to justify this and other related trail efforts. Village policy, as stated in the current Comprehensive Plan and the Open Space and Greenway Plan calls for creation of a “comprehensive pedestrian/bicycle system through environmental corridors and utility corridors and, as necessary, adjacent to arterial and collector roads”. The Open Space and Greenway Plan noted many of the routes that this Plan includes. The entire trail system will take years to develop, and requires the cooperation of several public and private entities.

It is anticipated that this plan will serve as a catalyst for greater coordination between the Village and State agencies relevant to funding opportunities for identified projects.

Public Input

The New Lenox Bikeway Plan involved a number of meetings and workshops throughout the study process. These are summarized below:

Date	Public Input Process
November 19, 2001	Workshop Meeting, Plan Commission, Village Board, Staff, Overview of Principles.
December 4, 2001	Meeting, Staff – Inventory Review
January 4, 2002	Meeting, Staff – Inventory Review, Issues, Constraints
January 10, 2002	Meeting, Staff, School District, Park District, - Issues
January 22, 2002	Workshop Meeting, Plan Commission, Village Board, Staff, - Goals, Objectives, Opportunities, Constraints.
March 26, 2002	Meeting, Staff – Inventory, priorities.
April 29, 2002	Workshop Meeting, Plan Commission, Village Board, Staff – Review Draft Plan.
June 3, 2002	Public Hearing, Final Draft.

PLAN FRAMEWORK

Bicycle Planning requires an understanding of bicycle planning principles and an integration of these principles with existing conditions and the land development process in general. An effective trail system allows a wide range of users to move freely from one destination to another. Design and location are critical for a trail system to attract and accommodate those who would use them. Since trail users can be pedestrians, bicyclists, or roller-bladers, the trails themselves must be able to simultaneously accommodate them. Users come in all skill levels and ages, and have different reasons to use a trail. Consequently, trails must be designed to be flexible.

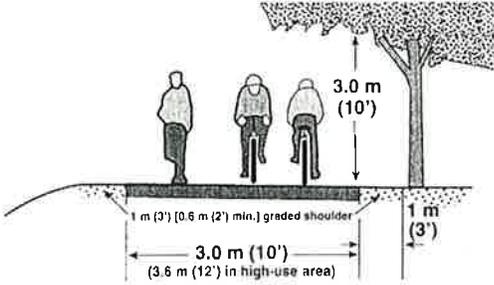
The Village recognizes the variety of transportation modes, skills and trip purposes of users. Control and design of trails, both on-road and off-road, will adhere to the most recent version of the American Association of State Highway and Transportation Officials (AASHTO) Bicycle Facility Design Standards, and to the Manual of Uniform Traffic Control and Design (MUTCD) for facility design standards.

Trail Types

Bicycle facilities take three basic forms; separate facilities, designated roadway facilities, and share public roadways. Traditionally, these trail types have been known a Class I, II, and III.

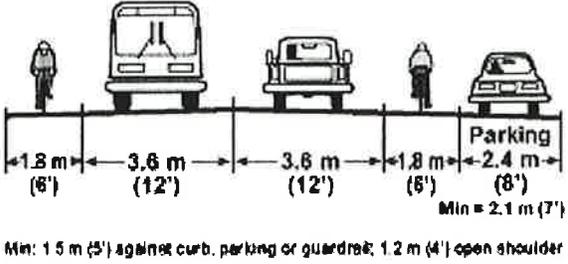
I. CLASS I MULTI-PURPOSE OFF ROAD TRAIL

A facility separate from motorized vehicular traffic; May be located within a road right-of-way, abandoned railroad grade, or an independent right-of way.



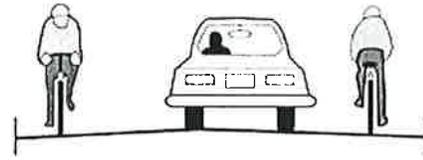
II. CLASS II BIKE LANES

A lane designated for exclusive bicycle use through the application of pavement striping and signage. Often implemented on area arterials and major collector streets.

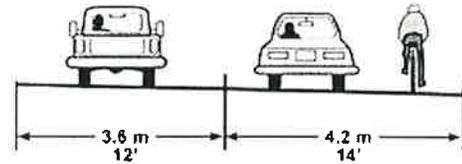


III. CLASS III SHARED ROADWAY ROUTES

Shared roadways function well on local streets, minor collectors, and low-volume rural roads. Shoulder bikeways are suitable on higher speed rural roads – minimum shoulder width should be 4 feet.



Wide outside lanes are used where shoulders or bike lanes are not possible. Wide lanes should be a minimum 14 feet wide, but less than 16 feet wide.



Existing Trails

The Village presently has few developed trails within its incorporated limits. Recent funding from the State has provided an opportunity to construct new off-road trail segments. Table 1 summarizes the status of existing trails within the community's incorporated limits.

TRAIL	DESCRIPTION	OWNERSHIP/REMARKS
Old Plank Road Trail	10 foot asphalt trail on abandoned RR ROW	Will County Forest Preserve
Illinois Hwy Bike Lane	5 foot asphalt lane each road side, approximate length ~1/4 mile.	Village
Schoolhouse Road Bike Path	10' Asphalt trail connecting Old Plank Road to an existing sidewalk.	Village
Martino School Trail	10' Asphalt trail on Nicor Gas ROW, runs from Route 30 south to Old Plank Road Trail and Illinois Highway.	Village
Crystal Cove Subdivision Trail	10' Asphalt trail looping around subdivision perimeter, connects into Martino School Trail	Village maintains Spencer Rd & Joliet Hwy sections, Home Owners Assoc. within Interior

Trail Connections and Destinations

Trail planning starts, in part, with a review of trip “generators” and trip “attractors”. Residential areas are typically regarded as trip generation areas. Destination sites or attractors vary by region, and include places of employment, recreation and public facilities. Employment destinations are beginning to receive more emphasis regarding biking. They constitute about twenty percent of all trips and are a focal point in normal transportation planning. Recreation sites are always popular destination sites, as are schools and civic centers. Finally, retail services and transit centers are locations that also receive pedestrian and bicycle usage. The following have been specifically identified as key generators for pedestrians and bicyclists:

- Schools
- Civic Centers (Public Library, Village Hall)
- Parks and Existing Regional Trails
- Employment Areas (Large Industrial Subdivisions, Business Parks)
- Retail Services (Commons area, Jewel)
- Transit Centers (Existing and Future Metra Stops)

Specific Village sites of interest include the future New Lenox Commons, Park District golf course, Nelson Road Plaza, Martino Junior High School, Haines and Oster Oakview Schools, Lincolnway High School, Nelson Prairie and Ridge Schools, and Walona Park. Many destinations in the Village can be reached on local streets. However, travel range is limited because of the many barriers to non-motorized travel. Figure one presents a summary of the community’s destination sites.

Design Treatments and Support Facilities

It has been stated that the “road network is the bicycle network”. While not entirely accurate, it does focus on the fact that significant amounts of biking activity does take place on a community’s road system, and bikeway plans need to reflect this reality.

Table 1 provides a summary of typical shared road – bicycle suitability guidelines as noted by the Chicagoland Bicycle Federation. Table 2 is a listing of some of the area roads within the New Lenox Community and their current speed limits and traffic. As can be seen from these tables, several roadways have traffic and speeds that are not conducive to “safe” biking without some form of modification.

	LOW ADT (<1250)			MEDIUM ADT (1250-5000)			HIGH ADT (>5000)		
	Lane Width			Lane Width			Lane Width		
	(<12')	(12'-13')	(14')	(<12')	(12'-13')	(14')	(<12')	(12'-13')	(14')
Low Speed (under 35 mph)	Good	Good	Good	Fair	Good	Good	Poor	Fair	Fair
Medium Speed (35 - 45 mph)	Fair	Good	Good	Poor	Fair	Fair	NR	Poor	Poor
High Speed (45 - 50 mph)	Poor	Fair	Good	NR	Poor	Fair	NR	NR	Poor
Very High Speed (>50mph)	Poor	Fair	Good	NR	NR	Poor	NR	NR	NR

* Paved shoulders or bike lanes upgrade ratings by two levels.

** Modified from Chicagoland Bicycle Federation, 2000

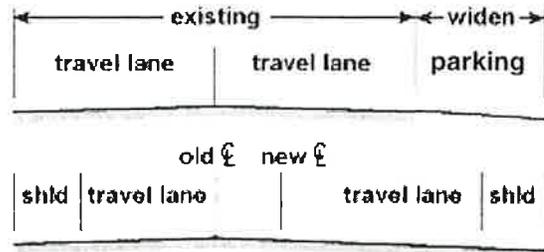
Table 3. AREA ROADS

Category	Road	Speed	ADT
Interstate	I-80, I-355	65 mph	>40,000-75,000
SRA	U.S. Rte 30, Bruce Rd.	30-45 mph	24,000-56,000
Major Arterial	U.S. Rte 30 (west of I-80) U.S. Rte 6, U.S. Rte 52	30-55 mph	12,500-29,000
Arterial	Laraway	30-45 mph	5,000-10,000
	Gougar		4,000-7,000
	Cedar		5,000-13,000
	Ill Hwy/W. Spencer		4,000+
	Francis		2800-6,000
	Schoolhouse/Schmuhl		2,000-3,000
	Delaney, Baker Rds		500+
Collectors	Nelson	25-35 mph	--
	Spencer		1,300
	Parker		5,100
	Haven Ave.		1,800
	Joliet Hwy		--
	Marley		2,000
	Clinton, Kankakee		--
Local Streets	Numerous	25-30 mph	< 1,000

A number of measures exist, which help a municipality provide relatively safe access for both motorists and bicyclists. Several of the more prevalent treatments are summarized below.

A. CLASS II AND III BIKEWAYS – RESTRIPE FOR BIKE LANES

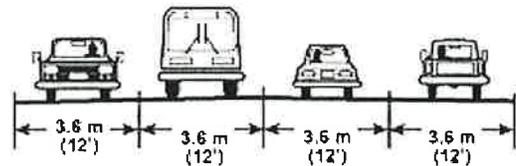
Restriping to provide bike lanes on both sides of an existing road. Example, South Cedar Road.



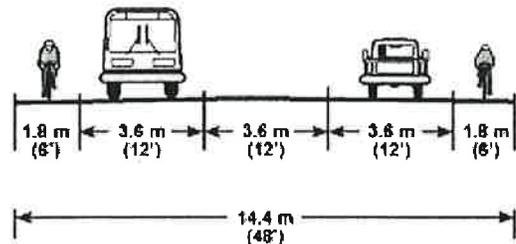
B. TRAVEL LANE REDUCTION, RESTRIPE FOR BIKE LANES

Travel lanes are reduced from four lanes to two through lanes plus a turn lane. Adding bike lanes and a dedicated turn lane can often improve traffic flow. Potential locations include Nelson, Schoolhouse Roads.

BEFORE:



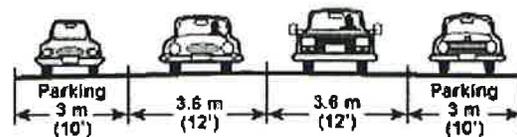
AFTER:



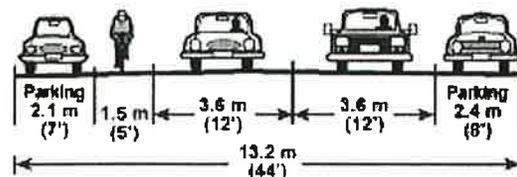
C. BIKE LANES WITH PARKING

Parking can be narrowed to 7 feet and travel lanes reduced to 12 feet to provide minimum 5 foot bike lanes. Parking may also be eliminated on one side to provide added space. Potential use – Nelson Road near Jackson Branch Creek Park.

BEFORE:



AFTER:

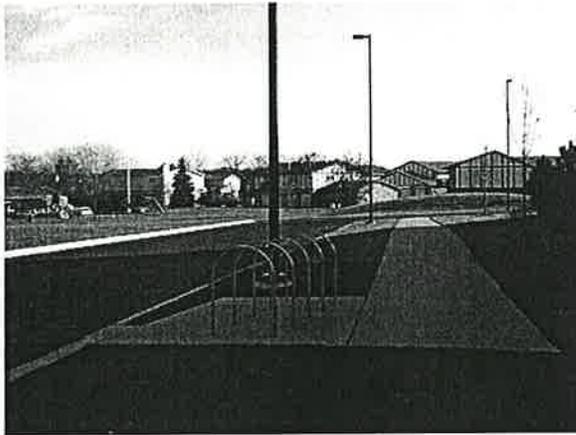


D. PARKING

Parking support is an important support component of any bicycle plan. This includes locations for vehicular parking to access off-road trails, as well as the addition of bicycle parking facilities at various locations throughout the community.

Bike Parking Facilities

Few bike racks exist within the entire community, and most of those are the old “bar” design that is now obsolete as they are known as “tire benders”. Preferred designs include the “inverted U” and the “ribbon rack”. The existing Metra station has a few bike lockers, which allow users increased security. It is not known how much use these receive. Bike parking facilities should be increased at various commercial, public and business establishments as the community and the trail system continues to grow.



Example of inverted “U” bike rack, located at the new village library, and wave racks.



Table 4. INVENTORY OF EXISTING BICYCLE PARKING FACILITIES WITHIN THE COMMUNITY			
LOCATIONS	TYPE/REMARKS	LOCATIONS	TYPE/REMARKS
GENERAL		PARKS	
Existing Metra Station	- 1 old wire rack, 6 bike lockers (3 set facility)	Windemere	- 1 3-loop wave rack
Old Library	- 1 old wire rack	Schoolhouse Manor	- 1 5-loop wave rack
Jewel Store	-2 old wire racks		
New Library	- 5 inverted “U” racks		
SCHOOLS			
Bentley School	- 1 old wire rack		
Martino School	- 1 old wire rack		
Haines School	- 1 old wire rack		
Nelson Schools	- 2 old wire racks		

Opportunities and Constraints

An effective bikeway master plan takes advantage of an area's opportunities while overcoming many of the region's constraints. New Lenox has excellent opportunities as a result of having yet large areas of undeveloped land within its planning boundaries. Additionally, there are many utility easements that can be utilized, and several existing trail developments that provide excellent linkage opportunities. Important opportunities also exist through the subdivision development process. By making bikeways a condition of approval of the subdivision, bikeways can be added along key corridors. Routes that are identified as part of the Bikeway Master Plan can be noted during the site plan review process, and can be coordinated with other planned facilities. Finally, the Village's proposed "New Lenox Commons" will provide opportunities for connections as it develops.

While many opportunities exist within the Village's planning area, unfortunately there are several constraints as well. These include:

- I-80
- Route 30, Hickory Creek, and Rock Island Railroad
- EJ&E and Metra SW Railroads
- Laraway Road and Jackson Creek
- General Access to "Downtown" (Access along Route 30)
- Bridge Crossings (Vine, Cedar, Francis, Gougar Roads)
- Inadequate Road Widths (In older parts of the community)

As noted earlier, New Lenox's current trail system is not well developed. Many non-motorized traffic-generating areas are isolated from the trail system that does exist. Many residents currently drive to a location near the Old Plank Trail and park their cars before using the facility. The Village Hall and Lions Park are two of the better known access points to the Trail.

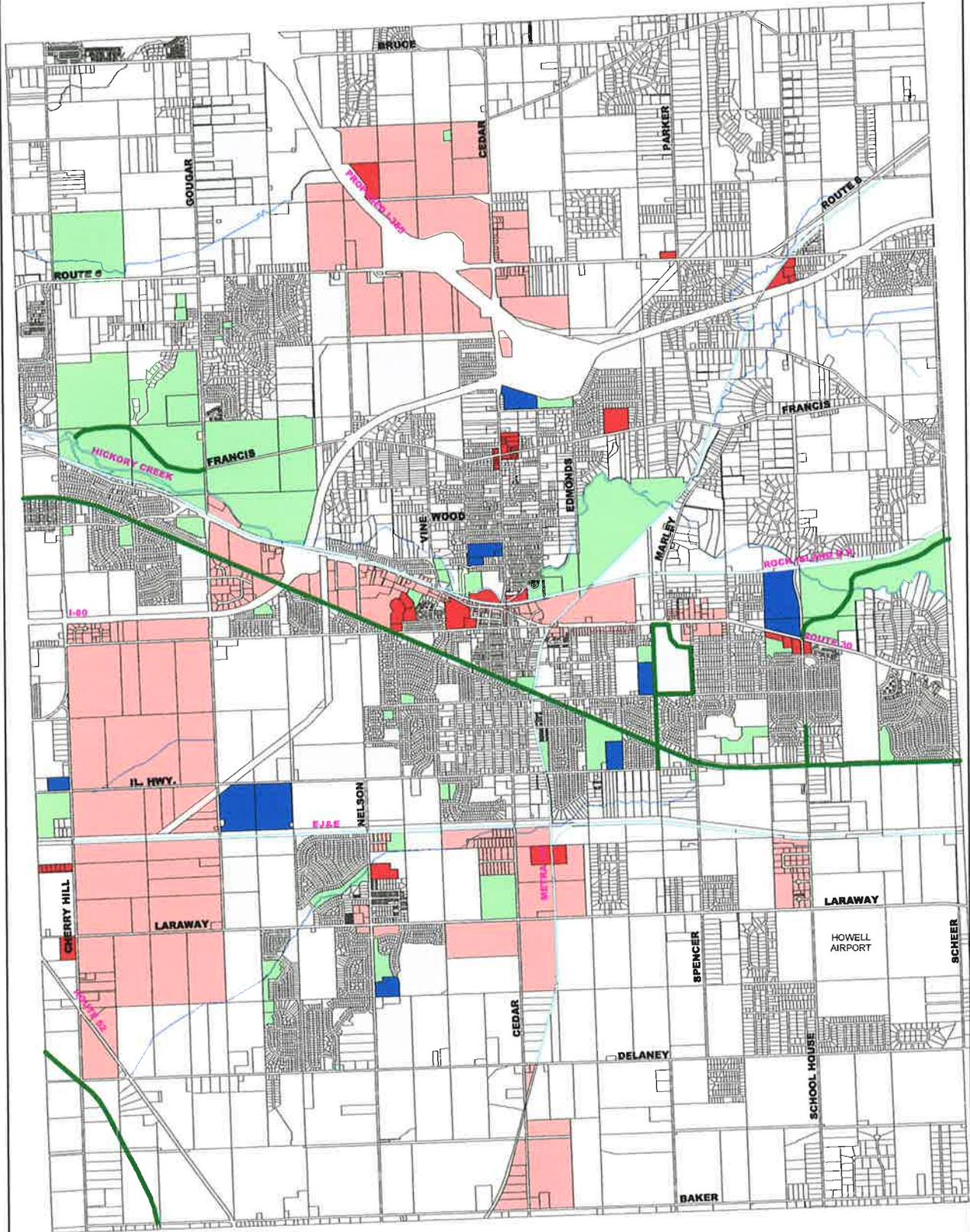
The southwest subdivisions of the Village and older residential areas north of U.S. 30 are two examples of isolated neighborhoods with no direct access to developed trails. Residents on the southwest side must ride busy roads, cross the EJ&E railroad tracks, and travel on Illinois Highway, a narrow and busy road to gain access to the Old Plank Trail. Similarly, residents north of U.S. 30 are surrounded by barriers to bicycle and pedestrian traffic. Marley, Francis, Gougar, and Cedar Roads, and U.S. 30 are high traffic roadways with fast travel speeds. Bicyclists and pedestrians must cross one or more of these roads to reach many of the destinations identified in this Plan.

Interstate 80 presents a significant barrier to access to the north. Only a few crossing locations exist, and these, currently, are not bicycle or pedestrian "friendly". Similarly, Route 30, Hickory Creek and the Rock Island Railroad present barriers in the central portion of the study area. Part of Route 30 has been widened recently, and there are plans to continue this widening east. Crossing or paralleling Route 30 with a trail is difficult due to the volume of traffic and limited right-of-way width in many areas. Additionally, as property along Route 30

develops commercially, side exits will become a problem for any future off-road trail. The stretch of Route 30 from Schoolhouse Road west to Vine Street should be examined in greater detail to identify feasible options for connecting bicycle and pedestrian traffic.

Constraints are shown in Figure 2, and discussed in more detail in chapter 5.

BICYCLE & PEDESTRIAN FACILITIES PLAN



LEGEND

- Commercial / Industrial
- Parks / Open Space
- Public / Semi-Public
- School
- Existing Trail

**VILLAGE OF NEW LENOX
COMMUNITY
"DESTINATION" AREAS**

0.5 0 0.5 1 Miles



Figure 1

PRIORITIES, GOALS AND POLICIES

General Planning Priorities

The following priorities were summarized from the first workshop meeting relevant to connecting destination areas:

- First: Connect to existing and planned trails, such as the existing Old Plank Road Trail and Planned Waupanseé Glacial Trail.
- Second: Connect to existing and future Metra Stations.
- Third: Connect to commercial/industrial areas, and potential places of employment.
- Fourth: Connect to schools and parks.

Goals and Policies

During planning meetings a number of goals, strategies and policies were identified to help guide the planning and implementation of the plan. These are as follows:

1. **Trail Network Planning**
 - a. Develop a network of bicycle/walking paths that will connect to community features and regional trails.
 - b. Strengthen the open space/greenway corridor network with new off-road trail linkages.
 - c. Create a system of loop trails to service community neighborhoods.
 - d. Create a trail network that allows connection to it within one mile from village neighborhoods and other trip generators.
 - e. Create safe crossing designs at key road and rail crossings.
 - f. Enhance bicycle/pedestrian connections with public transportation locations.
 - g. Promote use of floodplain and stream corridors for trail connections.
 - h. Identify and construct key gaps in the sidewalk network.

2. Land Development Process

- a. Require subdivisions abutting existing or planned trails, or within ½ mile to develop connections.
- b. Main collector roads within new subdivisions should consider space for bike lanes if off-road trail connections are not provided.
- c. All new and renovated bridge construction projects should consider pedestrian access design.
- d. New subdivisions should consider providing adequate public use easements for trail connections such as between cul-de-sacs.
- e. Consider establishing major storm drainage easements also as public use easements to allow flexibility for future connections.
- f. Consider bicycle and pedestrian access whenever new arterial and collector road projects are planned, including safe intersection designs when the road crosses planned trail networks.

3. Facilities

- a. New business, commercial, and industrial developments should consider providing bike parking facilities.
- b. Bike racks should be placed within 50 feet of entrances.
- c. Use uniform signage and marking standards for all trails.
- d. Consider designing signage unique to the village for major trail connections.
- e. Coordinate with public and private entities to provide vehicular parking locations for trail access.

4. Management, Maintenance, Education

- a. Include designated trails within the Village's capital improvements program.
- b. Publicize trails and trail parking access locations.
- c. Identify and include specific bicycle and pedestrian improvements in intergovernmental agreements for transportation plans utilizing state and federal funding.
- d. Establish a bicycle advisory committee composed of public officials and private citizens.
- e. Promote the use of impact fees, grants, and private donations or partnerships to fund trail projects.
- f. Annually review the status of trails and update the budget appropriately.

These goals and policies formed the basis for identifying plan elements and trail segments identified in figure 2, and discussed in the next chapter.

THE BIKEWAY PLAN

Overview of the Plan

As a result of the study process and public workshop meetings, a plan was developed to help achieve goals and provide the framework for a community-wide bikeway system. The plan has been categorized into three network components, which closely follow geographical and land use constraints. Figure 2 displays the overall plan. Trail components have been color coded to indicate the different trail types. Solid lines represent existing or currently planned trails, and dashed lines represent proposed trails. Trail paths and linkages are conceptual and do not necessarily represent the exact alignment a trail may actually take.

The proposed system would connect as many neighborhoods to destinations in the community as possible. Connections to the Old Plank Road Trail and the planned Wauponsee Glacial Trail will provide access to other communities and regional trails as well. Most of the trails proposed would occupy separate rights-of-way from the road system. This arrangement meets the needs of the widest variety of users and is suitable for all skill levels. The plan does not consider sidewalks for integration into a multi-user trail system, although their value for pedestrian activity is recognized. Sidewalks may be considered, if they meet width standards, which is currently a minimum of 8 feet.

The plan reflects current land use conditions. The central network has less off-road trails due to its “built-out” nature; the north and south networks have greater numbers of off-road trail possibilities as a result of undeveloped lands. The greater difference between these two segments is in timing – currently more development is occurring in the south, which may be a reflection of the uncertainty associated with the proposed I-355 Corridor in the north.

North Network

A. NORTH SEGMENT (north of I-80)

Projects

- Coordinate with County to improve shoulders on Francis Road from Gougar Road east to ComEd ROW. Additionally, coordinate with Joliet Park District regarding trail connection to Pilcher Park.
- Coordinate with County, State and Forest Preserve District regarding trail access along Gougar Road to connect Pilcher Park with Old Plank Trail. Discuss bridge modification with County to allow for bikeway rather than “typical” sidewalk design.

- Coordinate with IDOT regarding future Cedar Road/I-80 Bridge Improvements to include adequate width for bike routes; and shoulder widening along Cedar to Francis Road.
- “Build out” other trails as area development proceeds.

Critical Areas/Features

The following are items/issues that need to be resolved before some route locations can be completed. Numbers preceding the text refer to locations shown on Figure 2.

- ◆ 1. Francis Road/I-80 Bridge has inadequate width for safe crossing; significant reconstruction would be required.
- ◆ 2. Cedar Road/I-80 Bridge currently has narrow sidewalks that limit bike access. These may be removed to allow marginally adequate bike crossing.
- ◆ 3. Gougar Road/Hickory Creek Bridge is currently planned for reconstruction. The current design includes two 12 foot lanes and two six foot shoulders which will include sidewalks. Coordination with the County to eliminate the sidewalks and add signs for bike lanes is recommended.
- ◆ 4. Vine Street Bridge currently has 4’ sidewalks with curbing on each side. Future improvements will need to eliminate the curbing to make it safer for biking.
- ◆ 5. Cedar Road/Route 30 Crossing – New bridge should include design provisions to accommodate bike lanes.
- ◆ 8. Vine Street/Route 30 Crossing and Route 30 Access. Vine Street will require a multipath crossing of the Rock Island Railroad, pavement marking and signage to cross Route 30.

Central Network

B. CENTRAL SEGMENT (between I-80 and EJ&E Railroad)

Projects

- Coordinate with IDOT and Rock Island Railroad regarding crossings at Vine Street and Cedar Road.
- Coordinate with New Lenox Park District to develop the trail connection along the edge of the Sanctuary Golf Course to Haines Park.
- Coordinate with appropriate agencies/owners to develop the east-west connection from Vine Street to the New Lenox Commons.

Critical Areas/Features

- ◆ 5,8. Review solutions to the east-west “gap” between Cedar Road and Vine Street. Currently, narrow sidewalks exist on the south side of Route

30, but existing structures limit opportunity to widen this for bicycle use. Similar limitations exist on the north side of Route 30.

- ◆ 5. Coordinate Cedar Road-Hickory Creek Bridge design to include appropriate bike access.
- ◆ 6. New Metra Station at the EJ&E and Metra SW Railroad intersection is key to linking the bikeway routes in this area. A bridge crossing of the EJ&E is likely to be needed to continue trail access along the ComEd ROW to the south.

South Network

C. SOUTH SEGMENT (south of EJ&E Railroad)

Projects

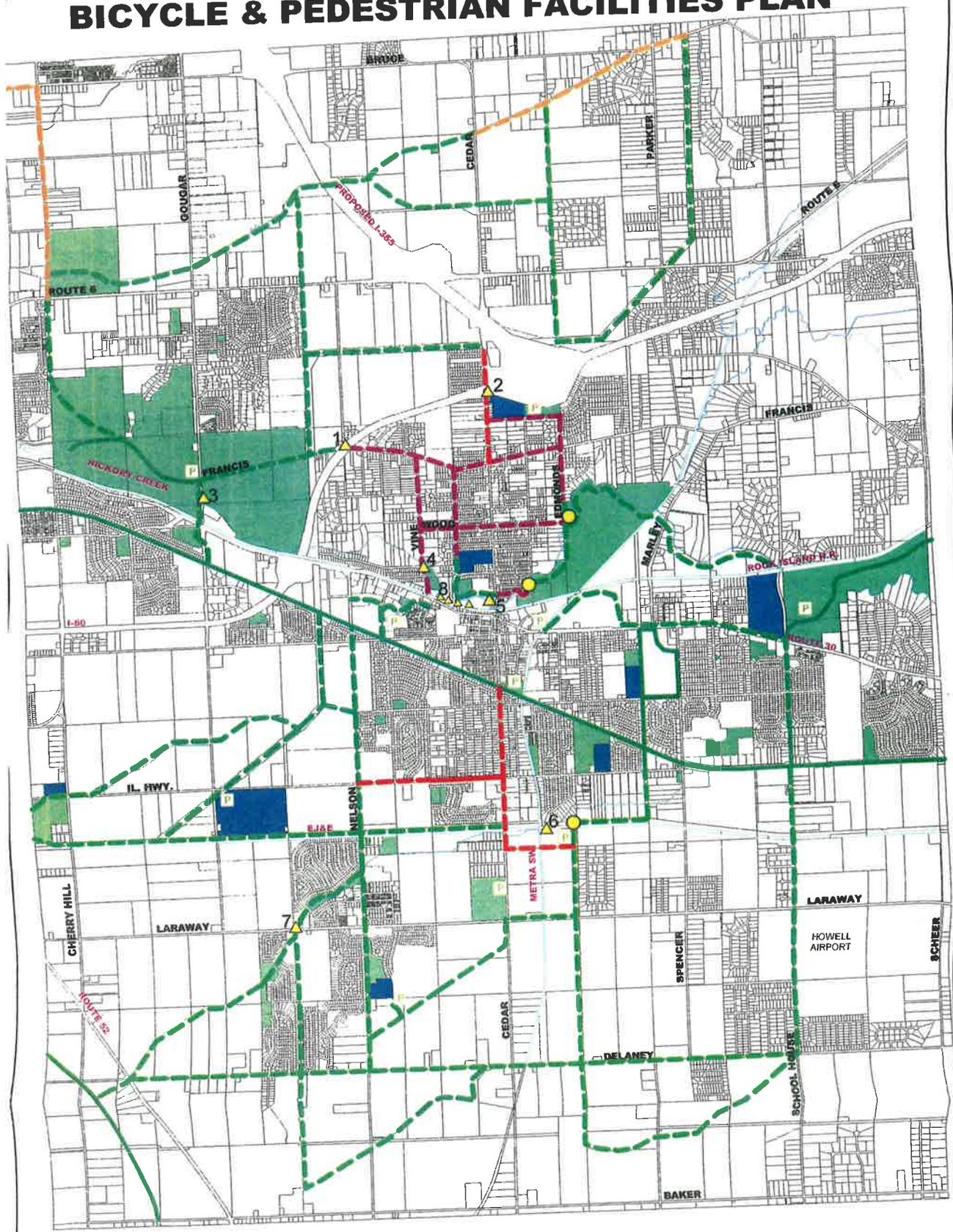
- Develop off-road trail adjacent to Nelson Road
- Develop the Jackson Branch Creek Multi-purpose Trail.
- Coordinate with Townships regarding shoulder development along Delaney Road.
- “Build out” other trails as area development proceeds.

Critical Areas/Features

- ◆ 6. Metra SW and EJ&E Railroads present considerable constraints to trail linkages. It may be possible to provide access under the Metra SW Bridge crossing of the EJ&E, but would likely require extensive hydrology studies due to Jackson Branch Creek, and approval, by the Railroad Companies, for trails to be placed in close proximity to rail lines. An additional constraint, but more resolvable, is a bridge crossing of the EJ&E railroad to gain access to the south and the new proposed Metra station.
- ◆ 7. Carefully consider an on-grade crossing of Laraway Road as part of the Jackson Branch Creek trail connection. This location would require coordination with the County and may require flashing lights. Adequate head room does not exist to route the trail within the existing box culvert and under Laraway Road. However, future road improvements to Laraway Road may provide an opportunity to assess the feasibility of raising the road profile at this location, thus creating additional clearance for a pedestrian “underpass”.

Although it is not the intent of this plan to provide a bike path or lane to each and every part of the Village, it is intended to provide a safe, efficient network system that would allow access to each area of the Village. Those constraints identified above and shown in Figure 2 will either need to be resolved or alternate routes will need to be identified to complete these connections.

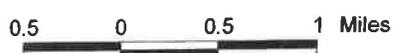
BICYCLE & PEDESTRIAN FACILITIES PLAN



LEGEND:

Existing/Planned	Proposed	School
	Off-road Trail	
	On-road Shared Route	
	On-road Bike Lane	
	On-road Shoulder Route	
		Parks / Open Space
		Key Constraint Areas
		Potential Bridge Locations
		Bike Parking Locations

VILLAGE OF NEW LENOX EXISTING/PLANNED AND PROPOSED TRAILS



RUETTIGER, TONELLI & ASSOCIATES, INC.
PROJECT NUMBER 2001-1022



Figure 2

PLAN IMPLEMENTATION

Targeted Trail Development Projects

Once the plan components and goals were established, individual projects were reviewed to identify which would provide the greatest benefit to the community. For purposes of prioritization, projects were classified into two general categories:

- Targeted Projects - Projects that help complete key linkages, and are highly “feasible” in terms of being constructed, and
- Long-Term - Remaining projects that are too difficult to target or define at this time and/or are dependent on private development occurring first.

The following projects have been identified and are meant to be used as a guide. Locations of these proposed projects are approximate and can be modified to adjust to existing and future conditions. The first eight projects are identified because they help complete strategic linkages. These are also projects that are likely to have much of their construction costs funded by the Village. These and other projects can be implemented as funding or other resources become available.

Targeted Projects

A. Schoolhouse Road Connection

This is an off-road asphalt trail connecting an existing trail segment in the south to the Forest Preserve District’s trail head north of Route 30. This segment must contend with an existing concrete sidewalk and site utilities. Coordination between IDOT, Will County Forest Preserve District and the Village will be required for the U.S. Route 30 crossing. The Village will be responsible for the maintenance of this segment.



B. Cedar Road Bike Lane

This project proposes to restripe the Cedar Road segment from Illinois Highway to the Old Plank Road Trail. Space currently exists on the stretch of Cedar to allow for two striped bike lanes approximately four to five feet in width. Implementation of this project will require the Village to eliminate parking in this road stretch.



C. Illinois Highway Bike Lane Addition

Illinois Highway presently has existing bike lanes that run approximately one-half mile from Wildwood Drive to Cedar Road. This project would continue the bike lanes to the west, which would allow for future connection to an off-road trail along Nelson Road.



D. South Segment Easement Trail

Part of this project is being implemented through the subdivision development process. This 10' off-road trail will connect to Nelson Road and ultimately northward to the new Metra station. It also will link Nelson Prairie and Nelson Ridge Schools and park sites. This trail is expected to be funded largely by developers and maintained by homeowner's associations.



E. Nelson Road South

Nelson Road is a major north-south commuter way for residents. Bike lanes were initially identified for this road as adequate width appears to exist. However, since this would require removal of parking, and for reasons of concern for safety, it was decided to establish this route as an off-road trail. Adequate space appears to exist to implement this. This segment would connect Delaney Road to Stonebridge Park in the north. The trail will require coordination with Will County regarding sign and pavement marking relative to crossing Laraway Road. The Village would maintain this trail.



F. Stonebridge Park to STP2

This project is an off-road 10' asphalt trail proposed to run through Stonebridge Park to Country View Park and by the Village's Sewage Treatment Plant. This trail segment is the start of a longer linkage connecting to the planned Wauponsee Glacial Trail to the southwest. The trail will require coordination with Will County regarding sign and pavement marking, and possibly flashing lights relative to crossing Laraway Road. A possible alternative design for the Laraway crossing is to work with the County to raise the road profile and create an "underpass". Currently, the existing box culvert passing Jackson Branch Creek is not tall enough to pass bicyclists and pedestrians. This option would be more expensive to construct, but would provide a safer, uninterrupted trail connection. It is anticipated that the Village would maintain this trail in cooperation with the New Lenox Park District.



G. Pilcher Park to Old Plank Road Trail

This connection provides a key connection to linking the “south with the north”. It is proposed as a 10’ off-road asphalt trail, however, it will require an on-road crossing of the bridge on Gougar Road and Route 30. Implementation will require coordination with the IDOT, County, Will County Forest Preserve District and the Joliet Park District, as well as with the Rock Island Railroad. This project may provide an opportunity for the different organizations to “partner”, similar to what was done for part of the Old Plank Road Trail Project.



N. New Lenox Commons Loop Trails

This project was moved up in significance due to the importance of the New Lenox Commons to the Community, as a whole. These trails are expected to be constructed as part of the land development process as the Commons area builds out. Currently, they are proposed as off-road trails. One segment running east would follow an existing sanitary and water line easement. This grassed easement is used now informally by bicyclists cutting across the various commercial developments fronting Route 30. The Village would be responsible for implementing this trail segment. Other segments may be maintained by the Village, or by the appropriate land owners.



H. Cedar Road to New Metra Station

This trail is tied to the development of the new Metra station proposed for the area. After the Metra station is developed, or in conjunction with its construction, this project proposes to continue the development of bike lanes along Cedar Road and into the Metra Station. This will allow direct connection from the Old Plank Road Trail to the transit center. Development will need to address a rail crossing and coordination with Metra regarding access to its Station and parking. Additionally, road intersection modifications and signalization sensitive to bicyclists may be installed at key locations. This may include radius and curb changes, striping, signs, and demand-actuated signals. In some cases, island refuges may be

warranted. Engineering judgment during detailed design should be used to determine which features are most appropriate for the situation.

I. Utility Easement Trail to New Metra Station

Project I is a relatively long trail proposed as an off-road 10' multipurpose trail. For most of its length, it follows existing electric and gas utility row easements. The trail is a strategic connector, linking access from the southwest to Lincolnway High School athletic fields, the New Metra Station, and the Old Plank Road Trail. This trail will require a bridge to cross Jackson Branch Creek and the EJ&E railroad and a crossing of the Metra SW railroad and Laraway Road. Part of the trail is likely to be funded by developers. Coordination with various railroad and utility companies, and County agencies is required. Maintenance is anticipated to be a combination of Village and homeowners associations.



J. STP2 to Wauponsee Glacial Trail

This project will be largely development driven and therefore may move up in priority or be extended. However, it is a key linkage to the Wauponsee regional trail system and thus important to try and establish. The trail would be an off-road 10' asphalt multipurpose trail extending the same type of trail constructed to the STP2 as one of the short-term projects. Coordination will be required with the County regarding crossing Route 52 and with the Will County Forest Preserve District regarding connection to Wauponsee Glacial Trail. The Village may also coordinate this trail connection with the Village of Manhattan, since part of it is within their planning jurisdiction. Funding may be in part from developers through the subdivision development process. Maintenance will be through homeowner's associations and between the Village and Manhattan.

K. Nelson Road North

This project will be developer driven. It will be a 10' asphalt off-road trail paralleling Nelson Road when it is completed. The trail will connect the Nelson Road south segment at Stonebridge Park to the Old Plank Road Trail. Pavement and signage will be required where the trail will cross Haven Avenue. Coordination with the EJ&E Railroad for a crossing will also be necessary. It is anticipated that much of this trail will be financed by the development process. Maintenance is anticipated to be by the Village.



L. Old Plank to Nelson Road via ComEd ROW

This off-road 10' paved trail will follow in the ComEd ROW, cross Haven Avenue, and tie into the Nelson Road trail noted as "K". This trail will be tied largely to the development process and funded by developers. A small stretch from Haven Avenue north to the Old Plank Road Trail would be developed by the Village. This development could possibly serve as an alternative to constructing part of the Nelson Road trail, since they both run close to each other. Since this trail is somewhat redundant, the decision to construct it may depend on the timing of the surrounding development, and whether or not the Nelson Road Trail (Project K) is constructed.



M. Edmonds Road to Haines Park

This project is a viable and important link for future connections to areas in the north. Scenically, it would be a very pleasant trail, but also a challenging one to construct due to topographic and resource constraints. Construction will require two bridges crossing Hickory Creek. The trail will share the road after the bridge crossings. In the south, the trail will cross Cedar Road and become an off-road trail at that point to connect to Haines Park. The project will require coordination between the Village and the Park District regarding both construction and maintenance.



Figure 3 graphically illustrates the recommended trail development projects. Table 5 summarizes the targeted projects, and includes a planning level cost summary.

Recommendations

The New Lenox Bikeway Master Plan presented herein proposes an integrated network system that includes multi-use paths, bike lanes, shared roadways, and signed and unsigned roadways. The Plan and targeted projects emphasize off-road trail systems for safety reasons, and the fact that they serve the widest range of trail users.

This Plan serves as a guide for the development of bicycling and pedestrian related facilities. It is important to keep in mind that while several trails may have key roles in completing desirable linkages, they may not be able to be completed for some time due to land use and economic constraints. Conversely, other trail segments, not currently listed on the targeted project list may be implemented prior to the targeted routes due to the timing of development within the Village. This Plan recognizes that the timing of development in the Village will strongly influence the completion of the proposed trail network. This is especially true regarding the North Area network and its relation to the I-355 road corridor.

The following recommendations will help in achieving a successful plan implementation and the Village's community vision:

1. Establish an Advisory Committee.

This committee will periodically review the plan against current development activity and monitor the overall success of goals and objectives. Members of the committee should include citizens at large, Park District representatives, Will County Forest Preserve District representatives, and local bicycle groups. This committee should take the lead for updating the plan.

2. Establish Strong Links to the Subdivision Development Process.

As proposals for new development and redevelopment come into the Village, it is important that accommodation of bicycles be addressed in the planning and design of these projects. Policies and ordinances should be reviewed to ensure that appropriate facilities and standards and standards, consistent with the Plan, are provided.

3. Establish a Maintenance Program

A maintenance program is needed to provide for safe, smooth, and clean bicycle facilities. Such a program may include specifics such as sweeping, surface repair, pavement overlays, landscape restoration, sign and pavement marking repairs.

4. Promote a Public Involvement/Outreach Program.

An important part of a successful bikeway plan is public knowledge of the plan itself, and education regarding safe biking practices. The Village could establish a channel of communication for receiving public comments and ideas for change or improvements to the Plan. This might take the form of brochures and questionnaires, informal meetings, etc.

5. Pursue Funding Opportunities.

The Village should continue to pursue state and federal grant opportunities regarding development of trails and bikeway support facilities. Several grants that are often used for such activities include:

- Intermodal Surface Transportation Enhancement Activities (ISTEA, 80/20 match),
- Congestion Mitigation and Air Quality Program (CMAQ),
- Open Space and Land Acquisition Development (OSLAD, 50/50 match),
- Illinois Trails Grant Program,
- Illinois Bicycle Path Grant Program,

These recommendations are based on the best information available at this time. Additional development may provide more trail opportunities or alter ones currently identified in this Plan. Recommendations and guidelines in this Plan are meant to serve as a guide for development of a community-wide system that connects key destinations and resolves constraint issues. Successful implementation will depend not only upon funding, but also upon building partnerships with other community interests.

This Plan is meant to be reviewed and updated as necessary to keep up with growth in the Village and surrounding areas. As noted previously, the status of trails and budgets for construction and upkeep should be reviewed annually. Opportunities for completing projects should be pursued diligently.

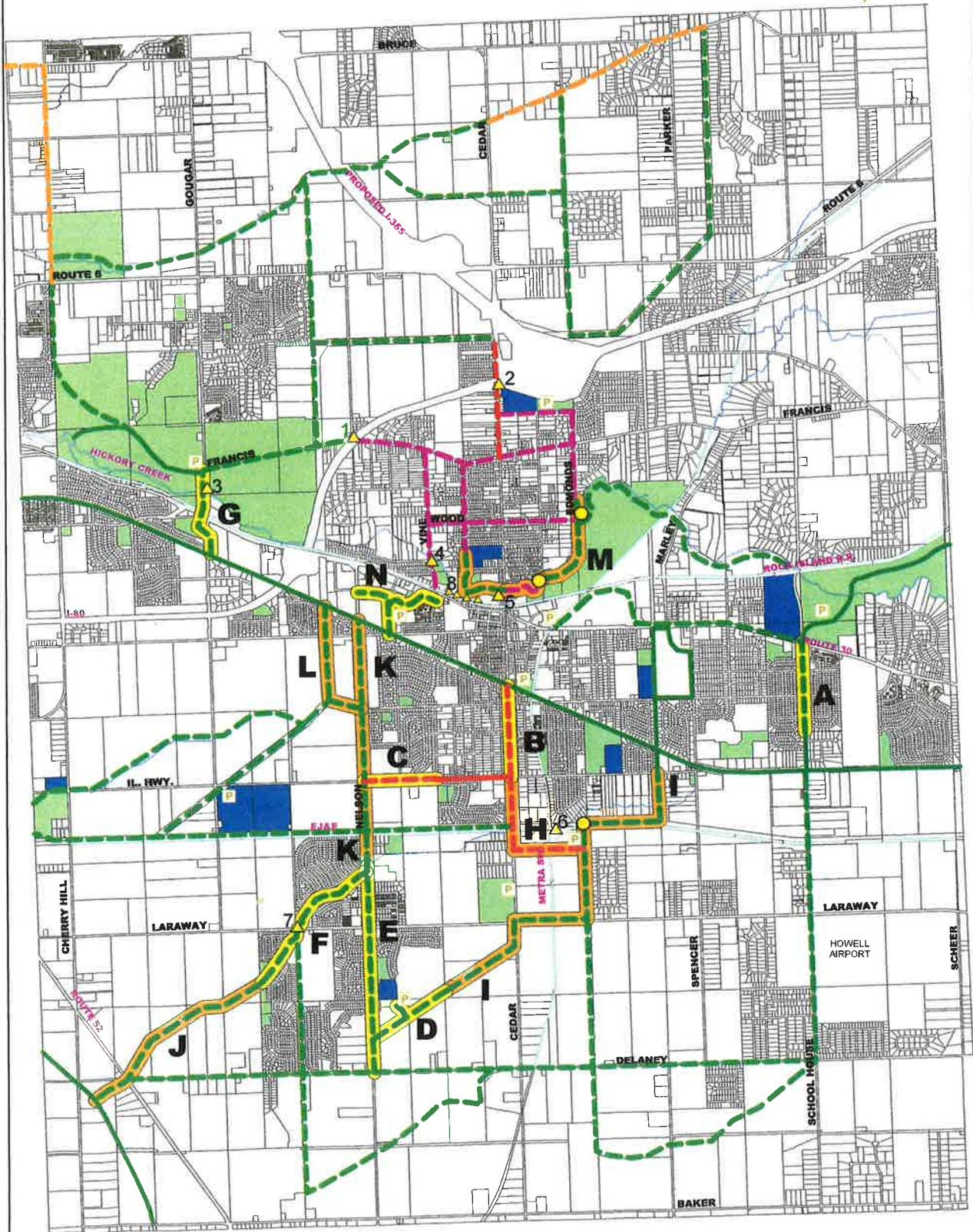
The end result will be a livable community in which people have a range of safe and convenient travel choices for work and play.

**Table 5.
TARGETED TRAIL DEVELOPMENT PLANNING LIST
NEW LENOX BIKEWAY MASTER PLAN**

	REF #	PROJECT	COMMENTS	COSTS*
	A	Schoolhouse Road Connection	Complete existing asphalt trail and connect to Forest Preserve Trail. Length ~ 3304'	\$128,000
	B	Cedar Road Bike Lanes	Restripe Cedar Rd. Between Old Plank and Ill. Highway. Length ~ 3327'	\$66,000
	C	Illinois Highway Bike Lane Addition	Continue Bike Lanes on remainder of Ill. Highway to Nelson Rd. Length ~2641'	\$53,000
	D	Off Road Trail In Easement	10' Asphalt Trail within Existing Gas Line Easement. Developer Costs. Length ~3693'	\$148,000
	E	Nelson Road South	10' Asphalt Off-Rd Trail Along Nelson Rd. Delaney Rd to Stonebridge Park. Length ~7490'	\$299,600
	F	Stonebridge Park to STP 2	10' Asphalt Off-Rd Trail Through Parks and Open Space Lands. Length ~5770'	\$231,000
	G	Pilcher Park to Old Plank Connection	10' Asphalt Off-Rd Trail Along Gougar Rd. Connects into Pilcher Park. Length ~3254'	\$140,000
	H	Cedar Road to New Metra Station	Continuation of Bike Lane Route to New Metra Station. 5' Paved marked lane each side. Length ~5129'	\$113,000
	I	Utility Easement to New Metra Station	10' Asphalt Off-Rd Trail in utility ROWs connecting Old Plank Trail & Delaney Rd to New Metra Station. Length ~15,140'	\$857,000+ (bridge)
	J	STP2 Facility to Waupoosee Glacial Trail	10' Asphalt Off-Rd Trail connecting to Regional Trail. Length ~7509'	\$300,000
	K	Nelson Road North	10' Asphalt Trail Along Nelson Rd, Old Plank Trail to Stonebridge Park. Length ~8892'	\$356,000
	L	Old Plank Rd to Nelson Rd	10' Asphalt Off-Rd Trail in ComEd ROW connecting Old Plank to Nelson Rd. Length ~ 4459'	\$178,000
	M	Edmonds Road to Haines Park	10' Asphalt Off-Rd Trail and some Shared Rd thru Park Distr. Land into Haines Prk. Length ~7338'	\$650,000+ (2Bridges)
	N	Trail Loops Connecting Proposed Commons Area	10' Asphalt Off-Rd Trails connecting Commons to retail sites and Old Plank. Length ~4518'	\$250,000

* - Costs shown are for preliminary planning purposes only, as they are based on typical cost averages and not based on design detail. Costs reflect an overall average of \$40/LF for new trail construction (2002 \$\$). This typically encompasses excavation, base, paving, restoration, misc. signing and pavement marking. It does not include acquisition costs, permits or special construction activities such as bridge installation or major signalization. Existing pavement re: bike lanes reflect an average \$20/LF.

BICYCLE & PEDESTRIAN FACILITIES PLAN



LEGEND:

Existing/Planned	Proposed	School
	Off-road Trail	Parks / Open Space
	On-road Shared Route	Key Constraint Areas
	On-road Bike Lane	Potential Bridge Locations
	On-road Shoulder Route	Bike Parking Locations

VILLAGE OF NEW LENOX RECOMMENDED TRAIL DEVELOPMENT PROJECTS



Figure 3