

Appendix A
Synopses of Prior & On-Going Studies

Synopsis of Report
2020 Transportation Plan
Prepared by *Bucher, Willis & Ratliff*
July 1996

The Kane County 2020 Transportation Plan was prepared to indicate the transportation infrastructure needs to support future land development. The Plan identifies Transportation Control Measures (TCMs) that can be useful in achieving planning objectives, identifies long-range transportation needs and recommends feasible strategies which address these needs.

The 2020 Plan presents a transportation mission statement, plan goals and objectives developed through meetings with the public, and with County and Regional public officials.

A major effort undertaken during the study was to collect and analyze data that describes the current transportation system. This phase of the study included functional classification of roadways, assembly of traffic and accident data, and analyses of traffic capacity and high accident locations.

A transportation model of the Kane County transportation system was developed specifically for this study by the Chicago Area Transportation Study (CATS). After the model was tested and calibrated by CATS against existing traffic counts, 2020 forecasts of population and employment growth prepared by the Kane County Development Department were used to generate 2020 traffic forecasts.

Forecast traffic was first assigned to the existing transportation system augmented by projects already committed for implementation. The results indicated that the existing plus committed transportation facilities were not sufficient to support future land use development in Kane County and adjacent counties.

Projects and strategies to reduce long term traffic congestion were identified based on future traffic congestion levels obtained from the transportation model, development patterns, commuting trends, right-of-way opportunities and physical corridor constraints. Three types of improvements were studied:

- Transportation Control Measures (TCM)
- Transit Alternatives
- Highway/Roadway Construction

Recommended transportation strategies and projects were developed to satisfy projected future demand. However, even after the additional strategies and projects were tested, congestion was predicted to continue on small segments of north-south routes and on Fox River bridge crossings. The plan suggests that this remaining congestion be addressed by additional capacity projects, higher use of public transportation or the acceptance of congestion.

The plan presents policy recommendations for each of the following transportation elements;

- Land Use and Transportation
- Highway Transportation – Administrative, Access and Right-of-Way
- Highway Transportation – Maintenance
- Highway Transportation – Capacity and Safety Improvements
- Transportation Control Measures
- Bicycle and Pedestrian

In the area of public transit, the plan supports and encourages commuter rail system extensions, new express transit service, increased fixed route system service and countywide paratransit service.

Estimated capital cost of roadway improvements (\$ million) is as follows:

Committed Projects	\$74.1
County/Township	\$98.1
Municipal System	\$63.2
State/US System	\$347.6
Freeway	\$116.4
Fox River Bridge Study	\$29.5
SRA Projects	<u>\$72.5</u>
TOTAL Roadway	\$801.4

Six transportation revenue scenarios were estimated providing a range of resources between \$247 million and \$510 million over a 25-year planning period. Pace and Metra public transit systems are funded separately, primarily from transit fares and sales tax assessed within the RTA region.

KANE COUNTY LONG RANGE TRANSPORTATION PLAN

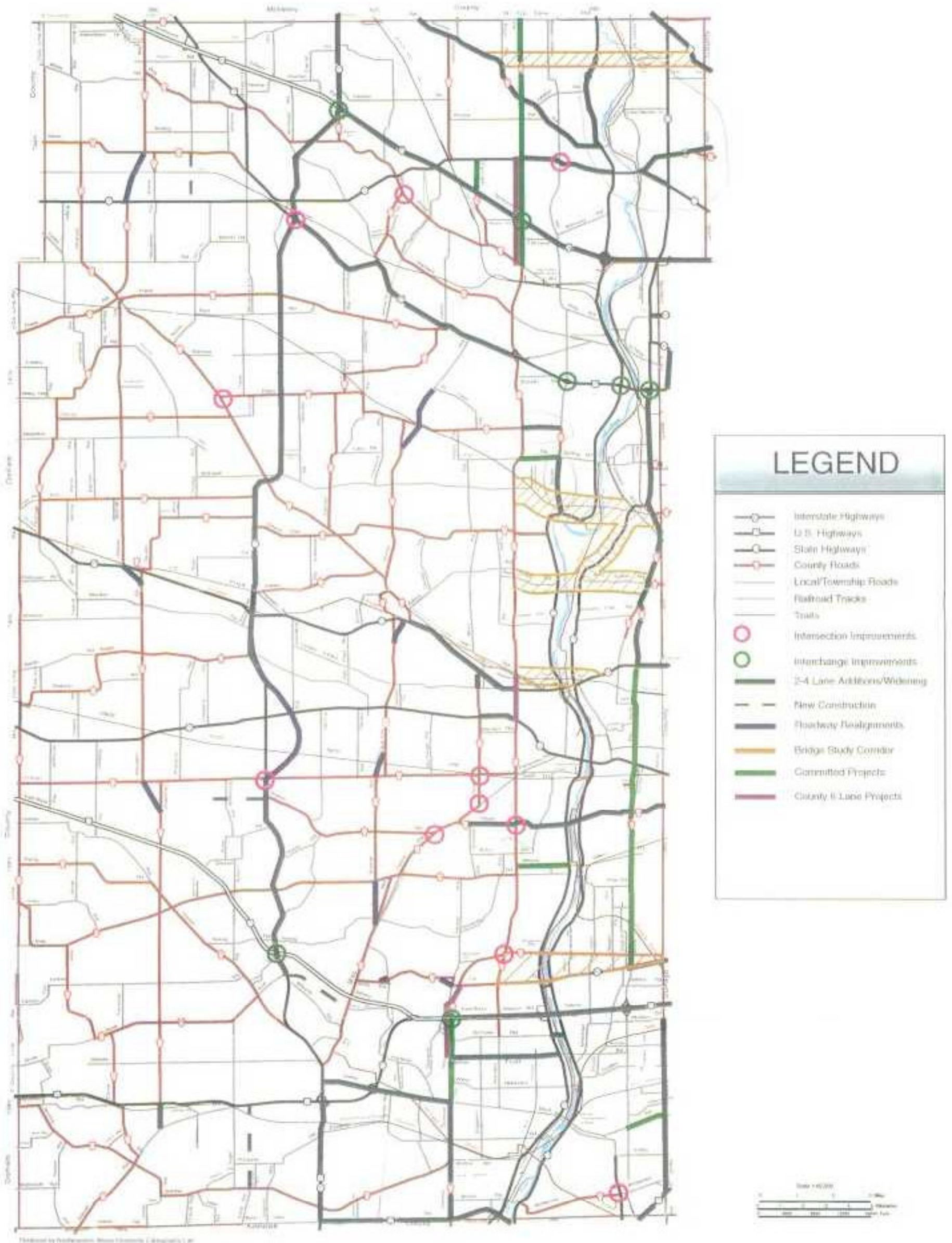


FIGURE 6-3 RECOMMENDED FUTURE HIGHWAY ELEMENT

KANE COUNTY LONG RANGE TRANSPORTATION PLAN

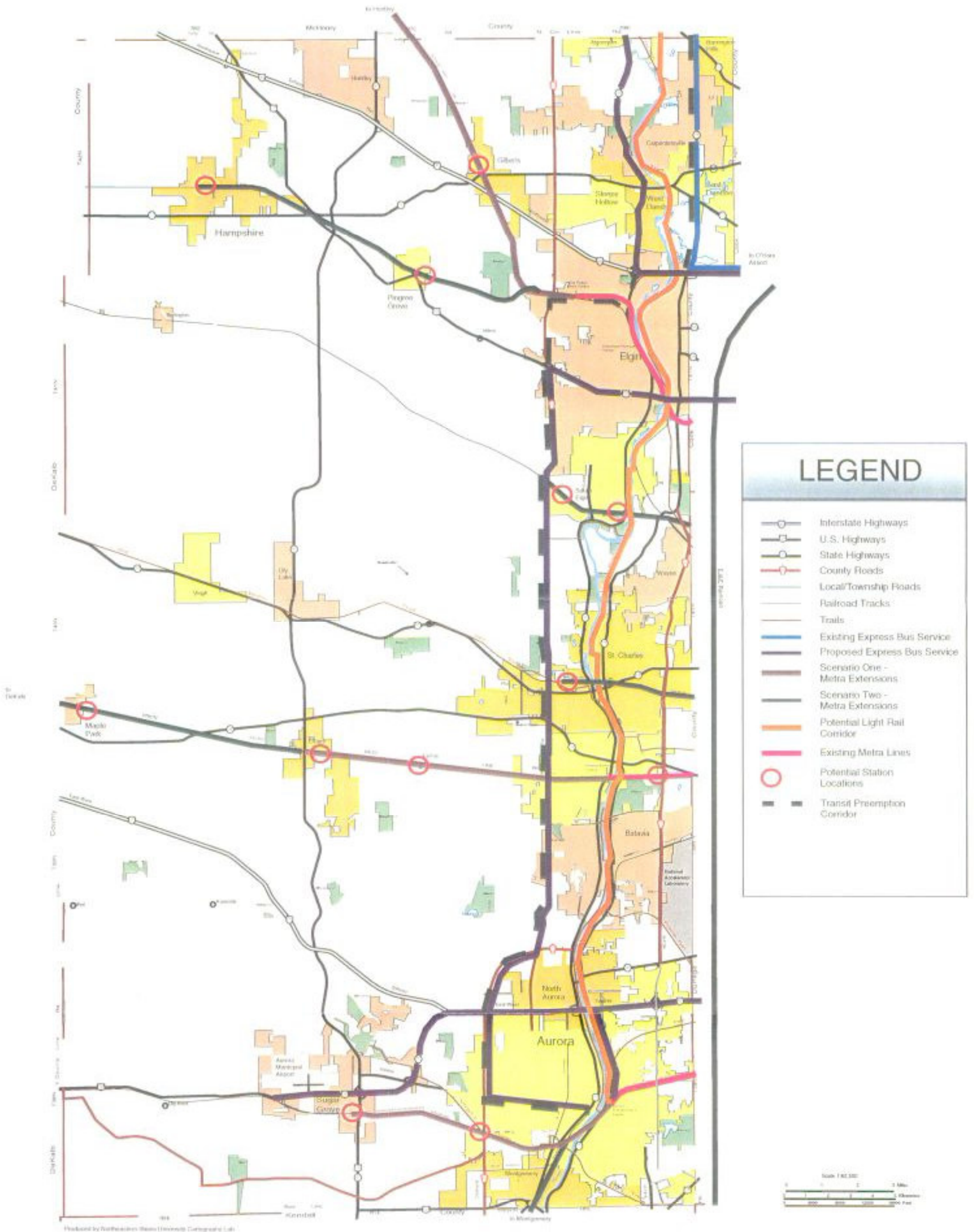


FIGURE 6-4 TRANSIT ELEMENT

KANE COUNTY LONG RANGE TRANSPORTATION PLAN

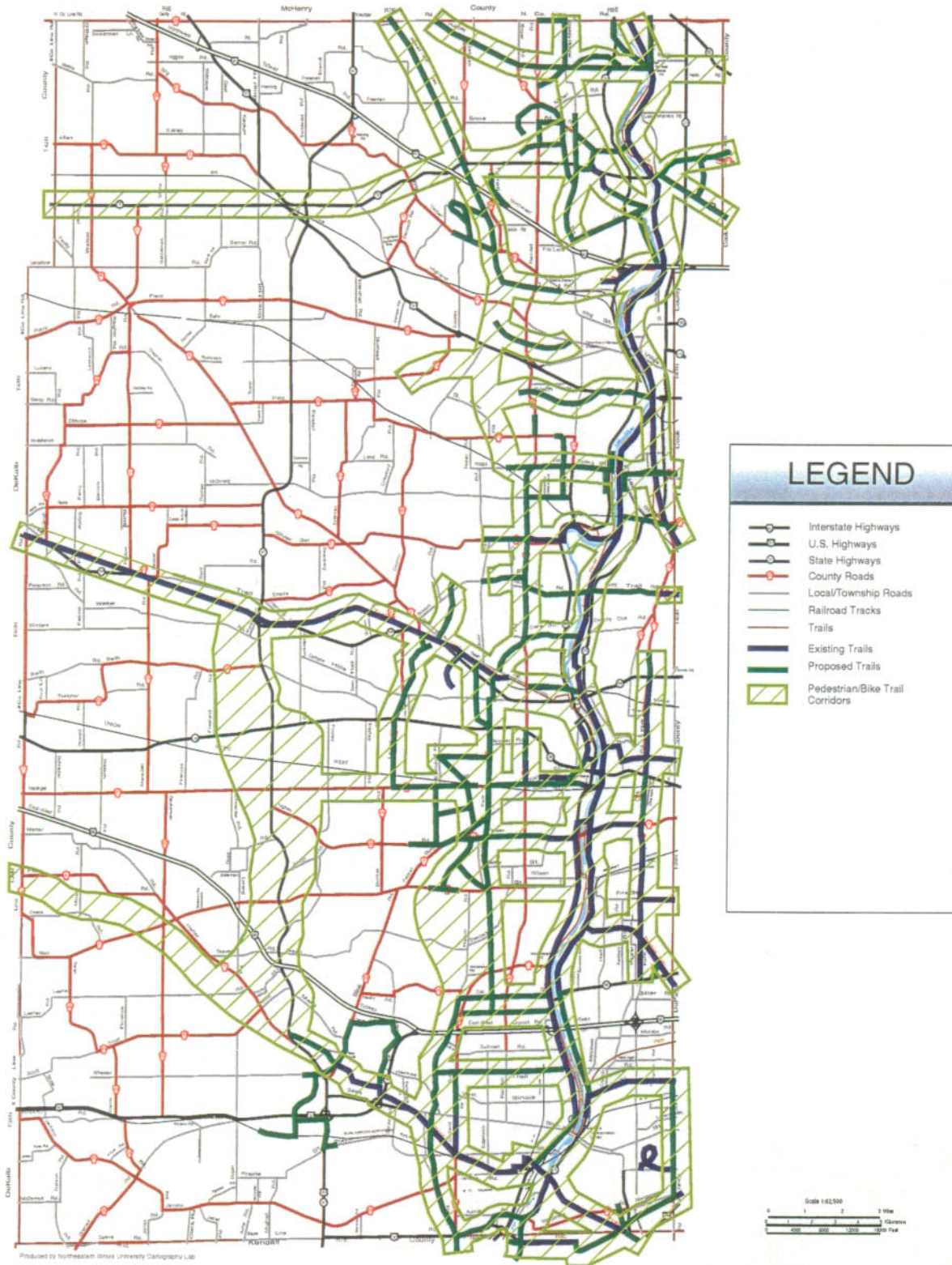


FIGURE 6-5 BICYCLE / PEDESTRIAN SYSTEM

Synopsis of Report

Outer Circumferential Commuter Rail Feasibility Study

Prepared by *T.Y. Lin International Bascor*

April 1999

This study was initiated by Metra to examine the feasibility of an Outer Circumferential Commuter Rail Service (OCS) along the Elgin, Joliet and Eastern Railway (EJ&E) corridor. In contrast to Metra's suburb-to-downtown Chicago market, this rail line would most likely serve suburb-to-suburb market, as well as some of the traditional downtown Chicago market via transfer to existing Metra lines. The purpose of the study was to determine if commuter rail service is physically and operationally feasible along the rail line, and the likely cost of such service.

Existing Conditions

This section of the report documents physical and operating characteristics of the potential route. In general, there were no "fatal flaws" revealed which would preclude commuter service from being implemented along the EJ&E Railway.

Future Plans

Communities in the study corridor provided input regarding future development plans and concepts, in particular noting any interest in transit-oriented developments and how the new service could be an important component of each community's plans for the future. Ridership potential was assessed based on existing and future population and employment trends along the EJ&E Corridor (six miles in width). Although the rail line, itself, is not located in Kane County, the six-mile wide corridor spills over into Kane County along the county's eastern border.

Based on the data currently available, it would appear that there is some potential for OCS to be viable.

Potential Operations

Two types of stations (park-and-ride and transfer-only) were noted. This section of the report outlines the possibilities, including how an OCS commuter might utilize transfer stations and the associated implications of such transfers on Metra's existing lines.

Capital Improvements

Estimates are presented of capital expenditures utilizing either conventional or diesel multiple unit (DMU) rolling stock. Estimated capital costs of the entire potential EJ&E/OCS route vary, depending upon different operating scenarios and their resultant physical plant requirements, as type of rolling stock. The cost estimate to operate with DMUs in each

scenario is \$33 million higher than with conventional rolling stock due to expected higher equipment costs.

Using conventional equipment, the comparative cost estimate ranges from \$605 million to \$1,314 million. Using DMUs, the comparable costs would be \$638 million and \$1,347 million.

Recommendations

Based on results of this study, further analysis of the entire EJ&E Railway corridor as a potential OCS route is recommended. Specific areas recommended for further study are:

- Major Investment Study
- Service Segments (phased implementation)
- Rail Facilities (required maintenance facilities)
- Rolling Stock
- Commuter Transfers (feasibility of providing for transfers)
- Interline Operation
- Vanpool and Feeder Bus Services
- Land Use Planning
- Environmental Impacts
- Ridership Projections
- Regional Benefits

Synopsis of Report

West Suburban Commuter Rail Feasibility Study

Prepared by *T.Y. Lin International Bascor*

June 2000

Metra, the Commuter Rail Division of the Regional Transportation Authority (RTA), initiated this feasibility study to determine whether it could run a viable commuter rail service from Burlington (in Kane County) to Chicago using Illinois Central (IC) tracks and portions of existing Metra routes. This study broadly evaluates the line's physical and operational feasibility, and estimates order-of-magnitude costs for potentially providing commuter rail service along the study corridor. There are no estimates of commuter railroad patronage.

The study examined four alignment options, each of which would follow the present IC route and serve the same stations in Kane County. Kane County officials expressed their support for a West Suburban Service and a desire for commercial development around existing and potential commuter rail stations. The three suggested stations in Kane County would be Burlington, Plato Center and South Elgin. Part of this plan suggests that potential commuter station sites be situated in existing or planned communities and downtowns.

Burlington: The Village expressed their desire for a commuter rail station if the West Suburban Service is implemented. They identified Burlington Township's renovated railroad depot as an ideal potential station site. The depot currently houses Burlington Township's offices.

Burlington Township: The Township also gave their support for commuter rail service on the IC and suggested several potential station sites outside of the Village of Burlington. They believe that these sites would allow drivers from Genoa, Kingston and Kirkland to bypass Burlington and thus alleviate local road congestion. They did not suggest using their current offices in Burlington for a station.

Plato Township: Township officials stated that they would like a commuter rail station southeast of the Bowes Road/IC crossing if the West Suburban Service is implemented.

South Elgin: Village officials expressed their desire for a commuter rail station southwest of the Hopps Road/IC crossing if the West Suburban Service is implemented. They also met with Metra and conceptually planned a neo-traditional town center around the potential station site.

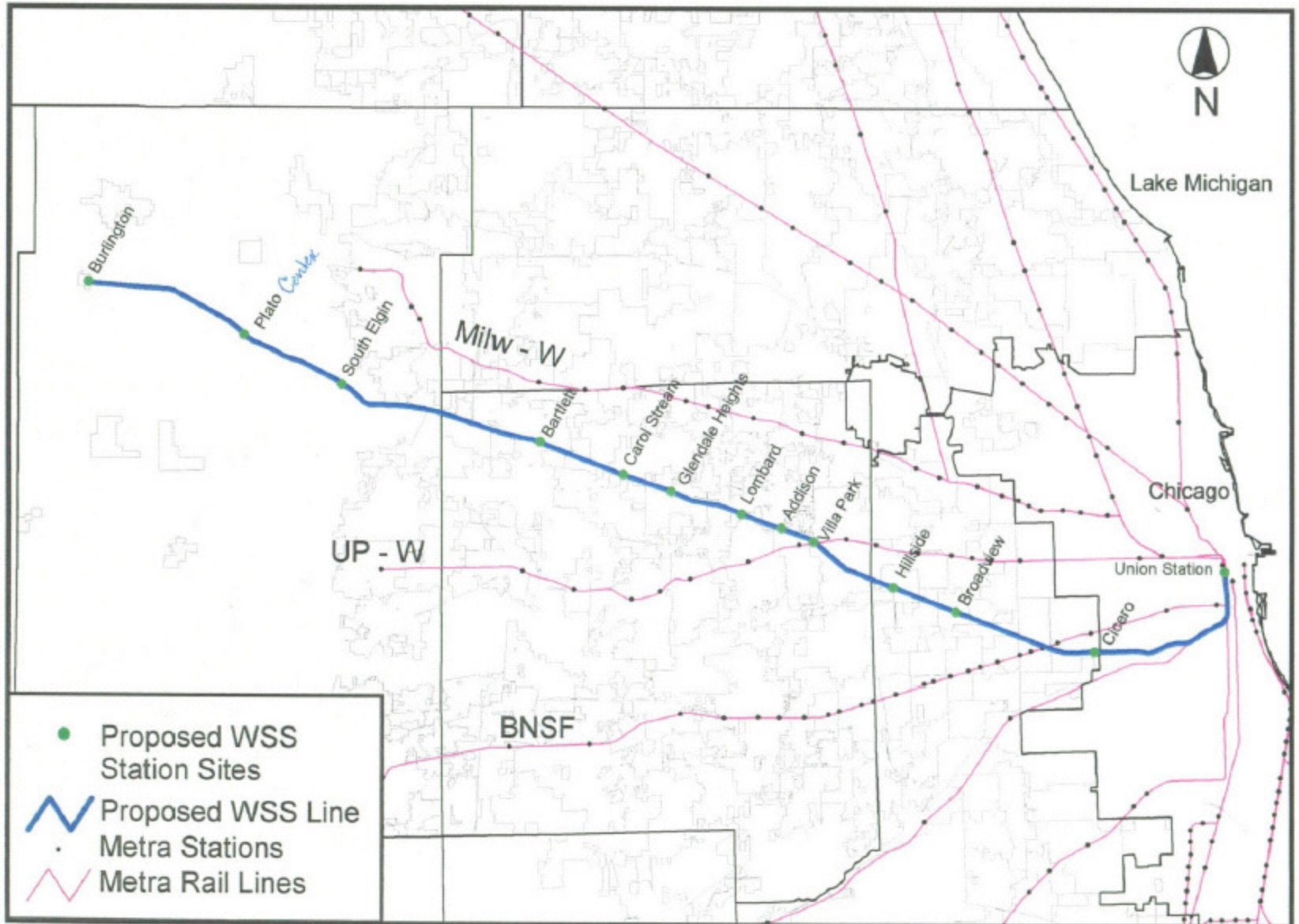
Elgin and St. Charles Townships: Officials from both townships offered their support for a West Suburban Service to help reduce worsening roadway congestion caused by Kane County's westward development.

Based on this report's summary evaluations, the study recommends that no further analysis of the West Suburban Service be pursued at this time (2000). The author's make the following qualifying statement.

"The recommendation is qualified since it is based only on this study's findings and does not account for any 'unknowns' that may emerge in the future that would necessitate reevaluating this corridor for potential service. Furthermore, this study's results cannot and should not be construed as indicating that further study of a potential West Suburban Service, or some derivative thereof, could not be reconsidered at a later date."

Metra concludes that, given the significant and potential obstacles, no further study of the potential West Suburban Service should be pursued, unless either some significant circumstances along the corridor change or alternative solutions are found to address the issues raised in this study.

Figure 3: Potential Station Sites



Synopsis of Report

Pace Vision 2020—Moving into the Future

Prepared by *Pace*

July 2002

Pace's Vision 2020 represents a blueprint for the future is to provide efficient suburban mobility, and describes how Pace intends to achieve this objective.

Effectively providing suburban mobility means providing access to widely distributed trip origins and destinations while providing a time-competitive, long-distance line-haul service between suburban centers. *This includes an evaluation of the present fixed-route structure, the creation of community-based services, the implementation of line-haul routes , and the development of transportation centers and other passenger facilities.*

The plan will offer express routes on major roadways that will connect with smaller, community-based services at regional and community transportation centers. Along with the ability to move quickly throughout the region, the plan envisions a network of service that will get people to their specific destinations—workplaces, homes, entertainment or community events.

It calls for a network of new services, infrastructure improvements, and a decrease in travel times. Although challenging, this plan will bring Pace into the future, making viable public transportation available to the entire region.

By providing fast and convenient transit services throughout Pace's suburban service area, this plan is expected to substantially improve mobility for all segments of the suburban population, assist communities in their pursuit of improved quality of life, and promote regional smart growth goals.

Synopsis of Report

Kane County Transit Opportunity Assessment Study

Prepared by *Land Strategies, Inc., Okrent Associates, Schlickman & Associates, UIC-Urban Transportation Center*

October 2002

This report “defines niche markets for transit use in the urban, suburban and rural environment, typically dominated by the automobile.”

The county is divided into *Transit Areas* and *Transit Corridors*. The transit areas are similar to the Planning Partnership Areas (PPAs) defined in earlier studies. The corridors selected for study are *Randall/Orchard Road* and *Kirk Road*.

There is an extensive discussion of land use and travel characteristics as well as public transportation services already available in Kane County. The relationship of Pace fixed bus routes to the combined population and employment density pattern in the County is set forth as a method of measuring bus system coverage. The report also describes current Pace and CATS paratransit, vanpool and ridesharing programs.

Potential Metra commuter rail service extensions are described in the following (County) priority groupings:

High Priority:

- MD-W Extension to Huntley or Marengo (UP Belvidere Subdivision)
- Union Pacific West Line Extension to Elburn
- BSNF Extension to Kendall County

Mid-Priority

- MD-W Extension to Hampshire
- Union Pacific St. Charles Branch
- BNSF Extension to Sugar Grove
- Outer Circumferential Service (EJ&E)

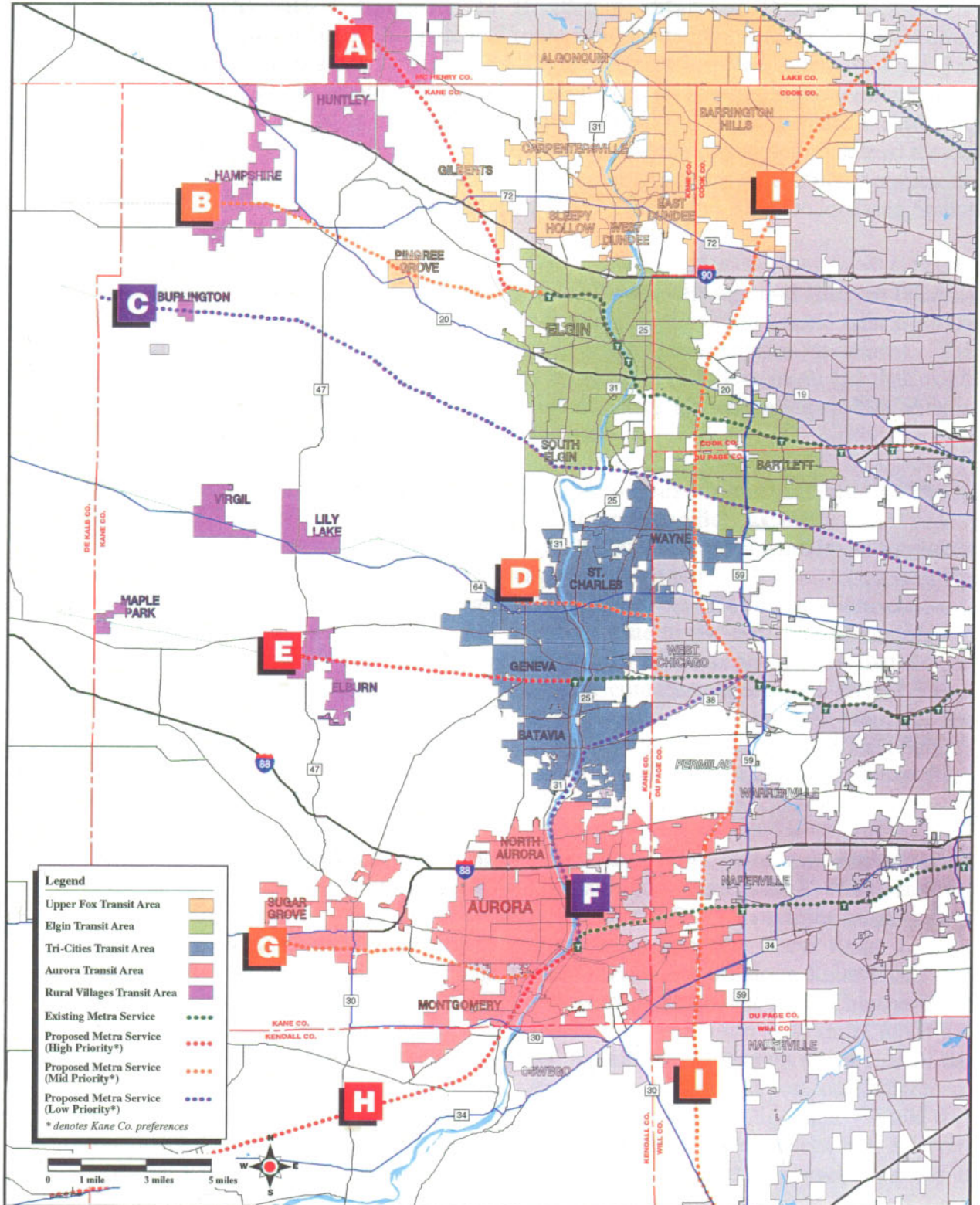
Low Priority

- West Suburban Commuter Rail Service
- BNSF Extension between Aurora and West Chicago

Transit Supportive Programs (Employer Sponsored Programs and Transportation Management Associations (TMAs)) are discussed as is Transit Supportive Land Planning.

Transit recommendations are made based on a comprehensive system of transit opportunities required to provide transportation options for the citizens. These options can be realized by requiring government agencies and employers to cooperate with CATS and Pace in their carpool and vanpool efforts; encouraging and supporting communities to adopt land use planning policies to support walking, biking and transit; and establishing a comprehensive county-wide system of transit opportunities. This would include establishing Transit Hubs, Transit Centers, and park'n'ride lots strategically placed throughout the county to support the multi-modal transit system that includes walkers, bicyclists, taxi service, carpool, vanpool, a variety of bus service, light rail and commuter rail.

EXHIBIT 13 – EXISTING AND PROPOSED METRA SERVICE



Source: Northeastern Illinois Planning Commission's Digital Map of the Region, NIPC, Chicago, Version 1.0, May 1999/METRA

Synopsis of Report

Kane/Kendall Commuter Rail Extension Feasibility Study

Phase One and Phase Two

Prepared by *Parsons Brinckerhoff*

August, 2001 and August, 2002

Phase One of the study was to determine the feasibility of extending the existing Metra-BNSF commuter rail line through Kane County and into Kendall County. Two alternatives were defined and evaluated:

- A. Oswego Alternative: Extending the service from a stop at the current Aurora Transportation Center (ATC) to additional stops at Montgomery and Oswego, a total of 6.0 miles.
- B. Plano Alternative: Extending the Alternative A service further to stops at Yorkville and the Amtrak station in Plano, an additional 8.4 miles.

The study concluded that the extension of commuter service would be feasible. The study found, however, that expected daily ridership west of Oswego fell sharply. In fact, the ridership projections for the Yorkville and Plano stations were only one-quarter or less of what had been estimated for the Oswego Station. Beyond Plano the drop was even more significant.

The project would provide for the restoration of a 3.2-mile third mainline track between the Aurora ATC and Aurora Junction. This trackage was removed approximately 30 years ago, though the full right-of-way and bridges associated with it are still in place.

For this preliminary assessment, the financial feasibility is evaluated by a cost effectiveness index (CEI) for the proposed extension. The proposed extension would be in the intermediate range of projects in terms of cost effectiveness, but the means of determining relative rankings in being re-evaluated by the FTA.

Phase Two is a refinement and expansion of the feasibility study developed in Phase One. Only the "Minimum Operable Segment" (MOS) was carried forward from Phase One for further work in this phase. The MOS would extend commuter rail service from a stop at the Aurora ATC to additional stops at U.S. 30 and Orchard Road, a total of 6.0 miles.

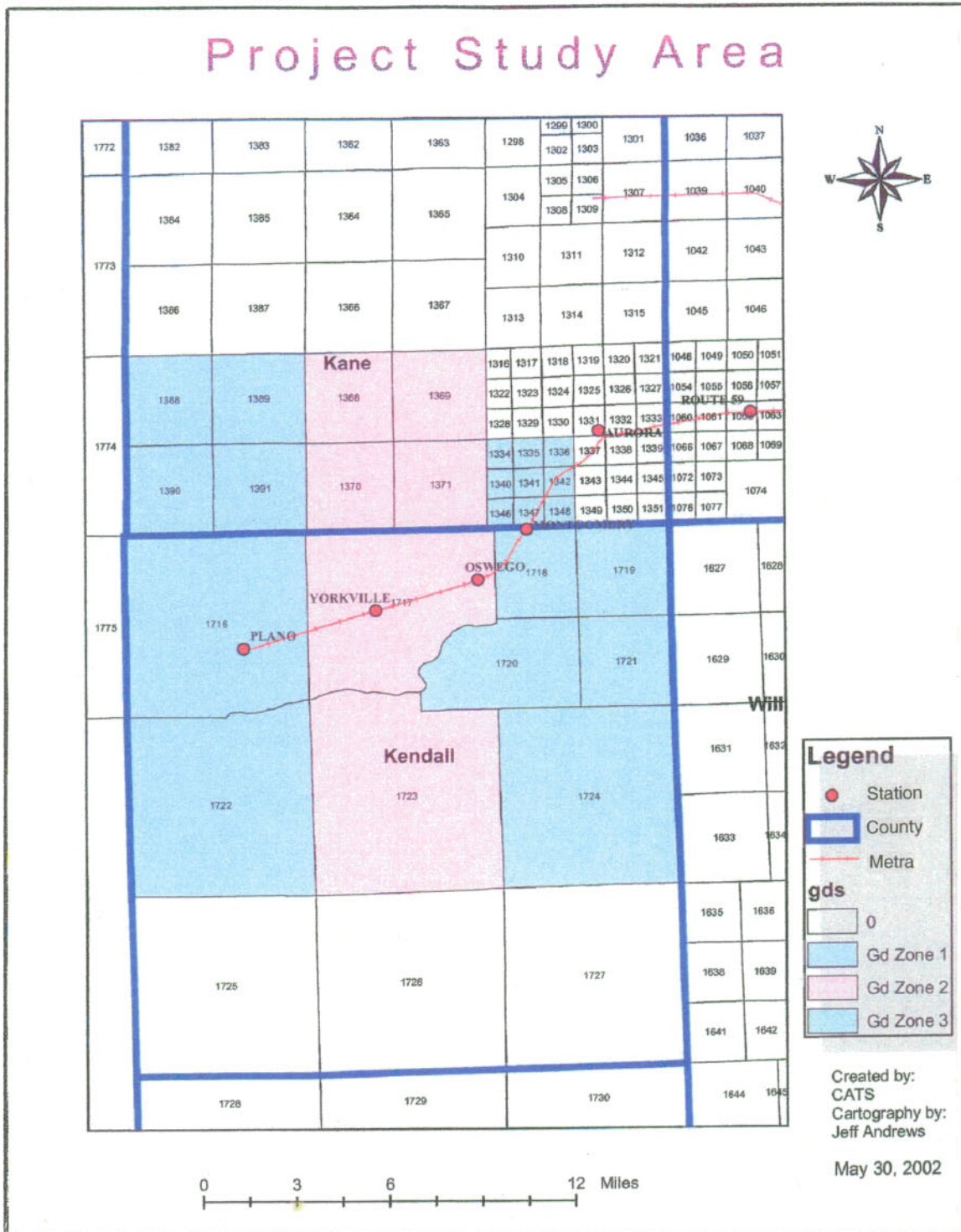
The Phase One Feasibility Study used a sketch planning approach for developing initial ridership forecasts. For Phase Two, the Chicago Area Transportation Study (CATS) developed ridership forecasts based on updated 2020 population and employment forecasts for Kendall County. These processes produced quite different results! The Phase Two ridership forecast is about double what was projected in Phase One. This difference is

largely due to the fact that the Phase Two effort made use of the CATS regional travel demand model as well as refined population and employment forecasts.

The only change to the Phase One recommended MOS improvements is the addition of a 0.6-mile extension to the north end of the Aurora siding on the BNSF line to Savanna. However, the Phase Two refinements resulted in an approximate 40% increase in the MOS estimated capital cost when compared to the Phase One results. (\$95.6 million vs. \$56.6 million.) But, even with the substantial change in cost, the MOS would have a lower cost per mile than other comparable projects in the Chicago metropolitan area (the UP-West and SouthWest Service).

The study concludes that “by all measures, the KKCR MOS extension continues to appear to be a feasible project, and one that should proceed into the next phase of study. The CEI for the MOS extension would be in the range of intermediate cost effectiveness as specified by the FTA.

Figure 7.1



Source: Chicago Area Transportation Study

Synopsis of Report

Kane County Bicycle and Pedestrian Plan

Prepared by *Edwards and Kelcey*

December, 2002

Kane County recently produced the *2020 Kane County Transportation Plan*. While this plan contains a bicycle and pedestrian component, it does not contain specific recommendations to increase infrastructure in a systematic method.

Some communities and park districts within Kane County have developed bicycle and pedestrian plans. However, there is no single plan that synthesizes local or park plans and creates a regional bikeway network. The broad objectives of the *Kane County Bicycle and Pedestrian Plan* are to collect all previous bicycle and pedestrian planning studies, comprehensively identify all existing, proposed, and conceptual bikeways, and strategically plan for bikeway projects to create a countywide network. This network will improve public safety, encourage alternative modes of transportation, and increase recreational opportunities in the county.

Goals of the Plan

Goals, objectives and policies related to bikeways and pedestrian facilities are re-stated in the Goals and Objectives section (Section 3) of the 2030 Plan.

Existing Conditions

Only 7 of the 30 communities in Kane County Council of Mayors area have a bicycle plan. However, 19 of 30 communities have bike elements incorporated into their park district plans.

The inventory revealed that Kane County has an extensive trail system along abandoned railroad rights-of-way (rail-trails) and the Fox River. To a much lesser extent, there are on-street facilities, such as paved shoulders and curb lanes, used by experienced cyclists.

Selected roads in the study area were subjected to a Bicycle Level of Service (BLOS) analysis. The BLOS can be used to assess how a roadway improvement will impact bicyclists and ensure a basic level of service is incorporated into roadway design.

Best Practice Policy Recommendations

The Kane County Bicycle and Pedestrian Plan describes “best practice” policies, procedures, and programs that promote bicycle and pedestrian travel and safety.

Bicycle and Pedestrian Facility Design Recommendations

This plan recognizes that no single type of bicycle facility accommodates all types of bicyclists and therefore recommends design standards for various types of facilities. The plan describes design guidelines extracted from leading technical sources.

The public generally recognizes pedestrian facilities to be limited to sidewalks, however, they encompass a much broader scope of services and facilities. They include, but are not limited to, traffic control devices, curb ramps, grade separations (overpasses and underpasses), crosswalks, and traffic calming features intended to encourage pedestrian travel.

The plan contains design recommendations for pedestrian facilities. It also investigates various design options to reduce conflict and improve safety both at intersections and mid-block crossing locations.

Way-Finding

Way-finding design and placement standards are recommended in the plan to create a countywide way-finding strategy.

Bikeway Policy Recommendations

The average length of a bicycle trip is two miles. Many short trips within Kane County can be diverted from automobiles if a community is designed to make bicycle trips just as easy and convenient as automobile trips.

The first strategy is the construction of physical improvements to the bikeway and sidewalk network to connect people with popular destinations and origins. The second strategy is to have municipalities adopt policies and programs to encourage the development of bicycle and pedestrian facilities during roadway design and construction and to encourage bikeway connectivity to the existing trail system.

Physical Regional Bikeway Considerations

The objectives of physical improvements are to link bicycle and pedestrian destinations, increase pedestrian and bicyclist safety, improve trail network connectivity, support multimodal transportation, eliminate barriers that prevent bicycle trips, and develop future bikeway corridors. The physical considerations are divided into three types: bikeways that complete gaps in services, the development of new, conceptual bikeway corridors, and on-street improvements to improve the Bicycle Level of Service.

Funding Information

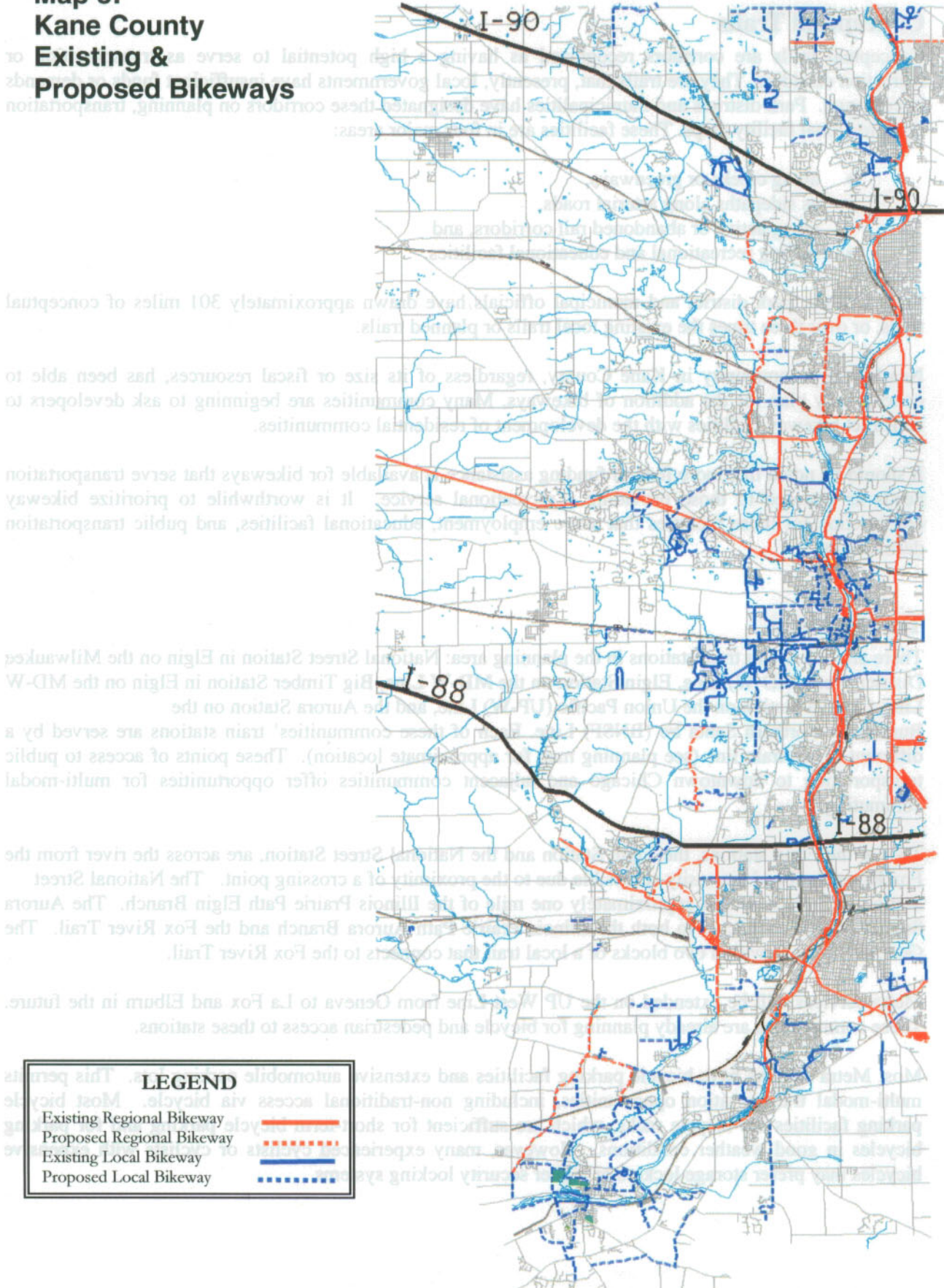
The plan lists numerous programs that offer funding assistance.

Anticipated Results

The Kane County Bicycle and Pedestrian Plan is intended to be endorsed by the KCCOM as a single body, in the hope that bicycle planning will become “institutionalized.”

The expanding bikeway network allows the use of bicycles as a safe transportation option. Also, a safer environment with connections between origins and destinations encourages walking for short errands and improves access to transit. Bicycles and walking are considered integral parts of the transportation system and can be used in place of automobiles to meet air quality improvement goals. Bicycle and Pedestrian facilities have many positive effects on the community; they are environmentally sound, reduce congestion and associated air pollution, and provide health benefits.

Map 3: Kane County Existing & Proposed Bikeways



LEGEND	
Existing Regional Bikeway	—————
Proposed Regional Bikeway	- - - - -
Existing Local Bikeway	—————
Proposed Local Bikeway	- - - - -



Synopsis of Report
Paratransit Coordination Study
Prepared by *Multisystems*
January 10, 2003

This project was undertaken to learn about the paratransit needs in Kane County and to develop recommended approaches to coordinate the existing services to best meet those needs.

To identify these issues, qualitative and quantitative analysis was conducted. Discussions with key stakeholders, a focus group meeting with users, and discussions with providers took place. A detailed survey of providers was conducted and analyzed.

Existing Services

A significant amount of paratransit service is currently provided in the county. Information supplied by the 16 organizations interviewed indicate that \$1.6 million is spent annually to operate or purchase approximately 178,000 one-way passenger trips for elderly or disabled residents of Kane County. Some other features of present services are:

- Cost per passenger trip varies widely among agencies, ranging from a low of \$0.50 (Village of Algonquin) to a high of \$26.35 for Pace's ADA paratransit service.
- The number of vehicles owned and/or operated by the ten providers that reported information about their fleet totals 94.
- Major client groups include seniors, individuals with developmental disabilities or mental illness, and patients or residents of specific facilities.
- Transportation services are available primarily on weekdays, during typical business hours.
- There are a number of times during the day on weekdays when these providers have available capacity that could be used to provide other compatible trips.

Unmet Needs

Unmet transportation needs that were identified through the analysis of existing services and discussions with users and stakeholders included:

- Service in developing sections of the county such as Montgomery and the Randall Road corridor, and in the area west of Randall Road.
- Service between Kane County communities and locations in DuPage and Cook Counties such as Naperville and Schaumburg.

- Service during evening hours and on weekends in all communities, and service beyond mid-afternoon in some areas.

The lack of transportation options in certain areas and during off-peak hours especially affects paratransit users' ability to make work trips.

Key Findings

Key findings of the study were as follows:

- There is a gap between what transit and paratransit services are available and what people are aware of.
- There are areas of the County without any paratransit services, especially the six townships in the southwest part of the County.
- Where paratransit services are available, the hours are often too short or there is not enough service to be able to get a ride when needed.
- County and municipal borders defining services are not always consistent with the travel needs of residents.

Range of Alternative Strategies

After a review of the demographic characteristics of Kane County communities, existing transportation services, and comments from stakeholders and paratransit users, several alternative strategies for improving coordination among the county's paratransit services were developed. The recommendations represent a range – or a continuum – of options. In effect, the range represents a “blueprint” of potential coordination efforts that could be implemented over time. The range of recommended alternatives includes the following:

- Establishment of a Kane County Paratransit Coordinating Council
- Development of a Coordinated Marketing Program
- Implementation of a User-Side Taxi Subsidy Program
- Eastern Kane Regional Dial-A-Ride Service

Potential Coordination Strategies

Based on all of the information gathered in the project, a set of potential coordination strategies was formulated.

- A consolidated Dial-A-Ride program serving eastern Kane County, operated by Pace and a service contractor, or perhaps by a local Dial-A-Ride provider.
- Provision of feeder service to fixed routes by Dial-A-Ride operators.
- Provision of local ADA trips by Dial-A-Ride operators.
- Reciprocal arrangements among Dial-A-Ride operators to accept each others' customers, institute similar fare policies, require the same amount of advance notice for trip reservations, and arrange passenger transfers between services.

- A taxi subsidy program operating in eastern Kane County based on the DuPage County model, to provide service in currently unserved areas and on off-peak times such as nights and weekends.

Additionally, there are potential actions that would increase the usefulness of transit and paratransit services in the county regardless of whether other coordination strategies are implemented. These include a county-wide transportation information and marketing campaign, and the provision of centralized driver training and possibly vehicle maintenance services, offered by Pace.

Synopsis of Report

Kane County Transportation Planning Area Study

Existing Transportation Conditions and Forecasts of Future Travel Demand

Prepared by *CH2M HILL*

May 2001

The purpose of this report was to bring together the background data and forecasts that will guide development of transportation recommendations in Kane County.

There are (in 2001) roughly 550 miles of highway (excluding local roads) in Kane County of which 307 miles County highways. Public transportation in Kane County is provided by Metra and Pace, operating divisions of the Regional Transportation Authority (RTA). There are six bike trails in the county, and there are also bicycle or pedestrian accommodation on some of the county-maintained roads.

The traffic model was developed and calibrated in 2000 by the Kane County Division of Transportation with assistance from CH2M HILL. The work closely followed that done by CATS in 1996 for the *Kane Country Sub-Area Study (2020 Transportation Plan)*. Examination of present travel desires showed the heaviest concentration of travel is in a north/south direction in the eastern portion of the county. In general, travel demand in Kane County drops off considerably toward the western parts of the County.

Three categories of performance were used to analyze performance of the Kane County transportation system;

- Traffic service measures –expressed as vehicle miles of travel (VMT), vehicle hours of travel (VHT), and vehicle hours of delay (VHD).
- Congestion measures –expressed as level of service (LOS)
- Traffic safety measures – expressed as the number of highway crashes and the resulting injuries and fatalities compared with the number that might be expected to occur considering traffic volume and type of highway.

In the base year, principal arterials carried approximately 70 percent of traffic and experienced 90 percent of delay on county highways, but made up only 25 percent of the county system. Also, only 6-7 percent of the county highways were rated as “congested”, all in the easternmost portion of the county. In terms of traffic safety, 15 of the 307 miles of county highway exhibited crash experience that was classified in the “actual greatly exceeds expected” category.

The proportion of trips made by rail or bus in Kane County declined between 1989 and 1999, but the overall number of rides increased by over 29,000. In 1990, only approximately 2.8 percent of total work trips made by Kane County residents were made using rail or bus.

Committed highway projects include toll plaza improvements and lane additions to U.S. 30, Orchard Road and Randall Road. The committed improvements will increase the lane miles on County highways by 17 miles. Major committed public transit improvements include additional parking at the Aurora station, extension of the UP West commuter line to Elburn with new stations at Elburn and La Fox. There are also plans for new bicycle and pedestrian facilities.

Travel forecasts to the year 2020 were developed based on projections of population and employment growth provided by NIPC. The data predict an overall increase in county population from approximately 317,000 in 1990 to 552,000 in 2020. Households are projected to increase from 107,000 to 199,000, and employment from 174,000 to 211,000 over the same time period. The largest growth in population is projected for the Gilberts and Huntley areas. Large growth in employment is forecast to occur in northern Kane County, mainly concentrated in the areas near US 20 and I-90.

A growth factor was applied to the 1997 ADT counts to find the projected 2020 ADTs. The areas with the largest change are projected to be in Sugar Grove, West Geneva/West Batavia, Elgin, and the Gilberts/Huntley area. The pattern of travel growth magnifies existing travel desires, the most significant travel of which would be in the north/south direction in the eastern portion of the County along the Fox River.

The travel forecast indicated that daily VMT in Kane County would grow by 93 percent. The increase in VHT and VDT over the same period would be 105 percent and 750 percent, respectively. For all highways, 56 percent of the route miles and 61 percent of the lane-miles are forecast to be congested in 2020. For county roads alone, 41 percent of the route miles and 47 percent of the lane miles would be congested. Congestion is expected to spread west into the critical growth area of the county. While only about one-quarter of Kane County experienced congestion in 1996, that area would expand to cover three-quarters of the county in 2020.

The next step in the planning process will be to identify and prioritize planning areas. Kane County has been separated into eight Planning Partnership Areas (PPA). The Upper Fox PPA and the Greater Elgin PPA, both located in the northeast corner of the county, would experience highest system usage. Three of the PPAs, Upper Fox, Greater Elgin, and Tri-cities, along the Fox River Valley, would be the most critical with regard to congestion. Overall, Greater Elgin is the only PPA in the immediate need category for all performance measures incorporated into the analysis.

Synopsis of Report

Kane County Transportation Planning Area Study

Delineation and Prioritization of Planning Areas

Prepared by *CH2M HILL*

July 2001

This report describes the process used and the findings to delineate and prioritize areas designated for further study in Kane County. A five-step process to define the planning areas. The steps were:

- 1) Analysis of Planning Partnership Areas (PPA's),
- 2) Layering of performance measures,
- 3) Delineation of transportation planning districts
- 4) Prioritization of districts, and
- 5) Selection of planning areas

At the county level, performance was evaluated by PPA to classify the relative priority of transportation need of each area. This assessment served as a guide to identifying locations of concern, but was not sufficient to delineate and prioritize the planning areas. Therefore, a more detailed assessment was made by bounding the areas of influence of the individual performance measures and then layering each of the measures to highlight concentrations of performance issues. Areas that had a clustering of performance problems were delineated to define the planning areas and then compared to one another to prioritize the order of study. Those areas classified as having immediate needs would be studied first and those areas designated to have longer term needs would be studied at a later date.

Performance of the existing and future transportation system was described using measures of traffic service, congestion and safety. Vehicle miles of travel (VMT) per lane mile and vehicle hours of travel (VHT) per lane mile are traffic service measures that describe system usage. Other performance measures - vehicle hours of delay (VHD) per lane mile, change in speed from 1996 to 2020, and percentage of roadways that are congested -- show the levels of congestion and performance of each PPA. Safety, was considered at the county level, but not by PPA.

The individual performance measures were summarized independently by areas of poor performance. This was done for six performance measures capturing the existing conditions, future conditions, and changes in performance between the base year and forecast year.

Areas where each individual performance measure exhibited poor performance were then layered together. When two independent layers overlapped the overlapping area darkened. The darkest areas in Kane County would be those areas with the highest concentration of poorly performing roadways.

The primary areas of concern in the Kane County Planning Area Study are those areas where rapid development is expected to occur. To identify these growth areas another layering was accomplished highlighting only **future** performance measures and changes in performance between existing and future.

Once the areas of poor performance had been identified through the PPA and layering techniques, delineation could be made of areas warranting further study. First, the layering graphic describing future poorly performing areas was overlaid with the PPA boundaries. An initial determination was made of areas with a high concentration of poor performance. The next step was to identify the deficient roadways within each of the problem areas and approximate the travel shed of each such transportation facility. Travel sheds were helpful in identifying nearby roads that would serve as an alternate to a poorly performing facility. The travel shed or combination of travel sheds were then combined to create a transportation planning district (TPD).

Once the TPD's had been defined, they were prioritized into three needs based categories: Immediate, Near-Term, and Long-Term. This was done ranking each district as to need for planning, presence of current deficiencies needing improvement, and anticipated population and employment growth. The priority assigned earlier to the PPA(s) in which the TPD is located was also included in the ranking.

The end result of this planing effort will be the development of improvement plans for up to four selected developing areas having projected future deficiencies. Areas with existing deficiencies that are already built out will not be incorporated into this analysis because the study is aimed at staying ahead of development and define the secondary road network. This can only be done in areas where development is yet to occur. The four planning areas to be designated may be a hybrid of the original eleven TPDs and include those TPDs where future development is expected to have the greatest impact.

Synopsis of Report

West Upper Fox Planning Area
Transportation Improvement Plan

Prepared by *CH2M HILL*

August 2002

In October 2000, the Kane County Division of Transportation and CH2M HILL began a planning study to develop a recommended set of transportation improvements for areas within the County. The project consists of two phases; first, a countywide assessment of existing and future conditions, and then a more detailed study of transportation issues within a designated planning area.

Previous 2020 travel forecasts for Kane County were based on population and employment projections by the Northeastern Illinois Planning Commission (NIPC). It was found that employment growth was fully represented in the NIPC forecast, but that residential growth was underestimated. In adjusting the Kane County travel forecasting model, 3,460 households were added in the West Upper Fox area, creating an increase in population of approximately 9,600 over the prior estimate.

Projected traffic increases in the West Upper Fox area would be among the greatest in Kane County. Performance of transportation facilities in the West Upper Fox area under future conditions (2020) was measured to identify roadways that would operate poorly. Considering all roadways including the tollway, 88 percent of lane-miles would be congested.

Two basic strategies were explored to improve transportation service in the West Upper Fox area. One strategy, referred to as the *arterial-based strategy*, would rely primarily on arterial improvements to upgrade transportation service. The second strategy, referred to as the *collector-based strategy*, would rely primarily on a collector roadway network to distribute local trips in the area.

Two arterial-based plans were created for the West Upper Fox area, one without modification of the Illinois Tollway (I-90), and another assuming tollway revisions.

The plan founded on the assumption that I-90 (tollway) would not be modified involves widening of Huntley Road, Randall Road, Galligan Road and IL 72. Three secondary road projects were also added to complete the plan. The number of local trips on arterial roads would not be reduced, but the arterials would be made more attractive for all types of trips. Total cost of the improvements for the arterial-based plan without I-90 improvements would be approximately \$125 million.

The other arterial-based plan assumes that I-90 will be widened to six lanes between Randall Road and IL 47, and that a new interchange will be added at IL 72. This plan also includes widening of Galligan Road, Randall Road, and Huntley Road as well as the three secondary road projects incorporated into the other plan. This plan would result in a sizable reduction in

delay experienced by motorists, but the proportion of congested lane miles would remain unchanged. As with the other arterial-based plan, the improvements would not be effective in decreasing arterial road usage by local trips. Total cost of the improvements would be approximately \$140 million.

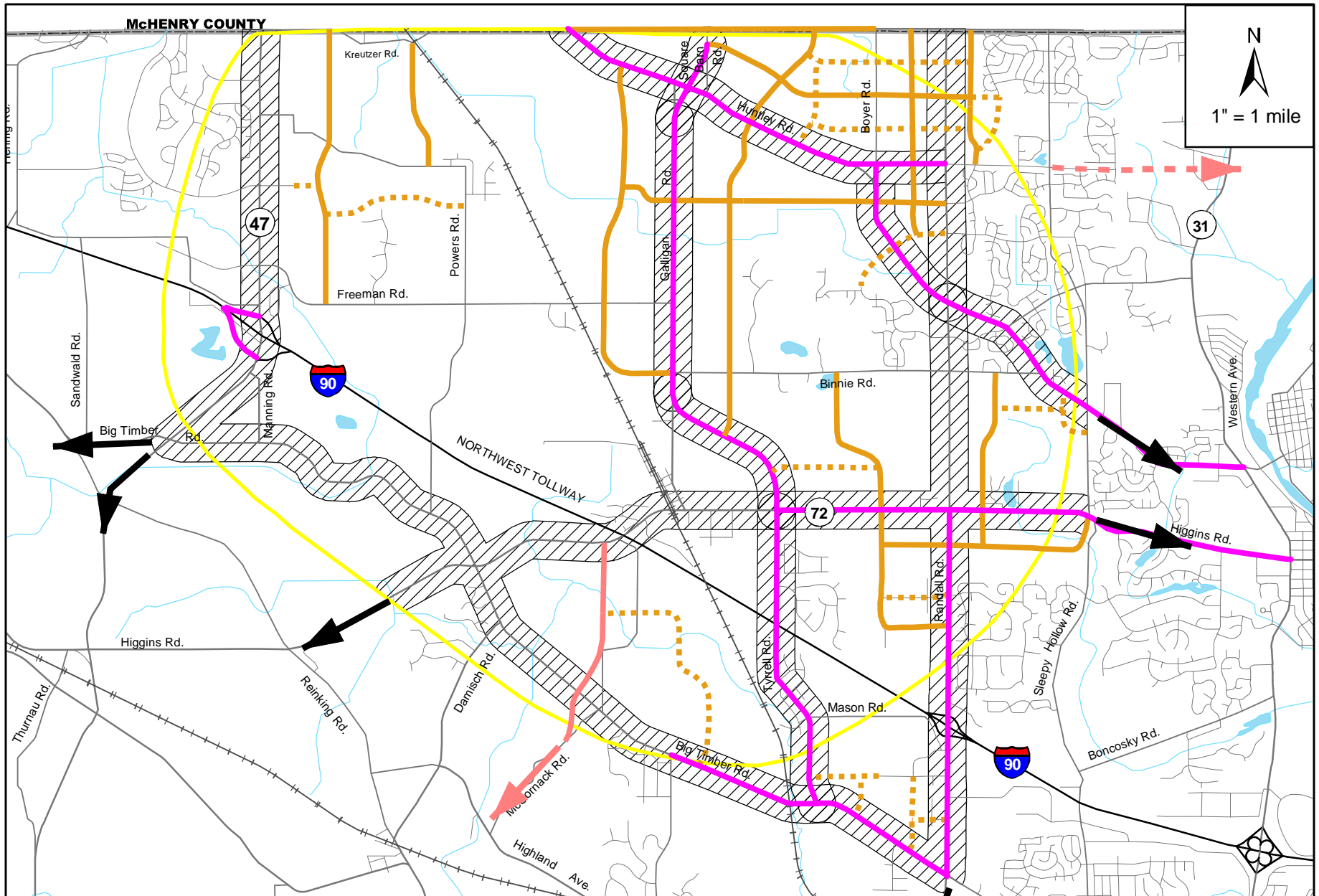
In contrast to the arterial-based strategies, a collector road plan would attempt to accommodate as much of the travel demand as possible on a system of parallel collector roads rather than arterials. The collectors would be effective in removing local traffic from the arterial roads, thereby providing for enhanced mobility on the arterials. Collector roads also would provide safe access to abutting residential areas and would help to control access onto the arterials.

With the collector-based plan, delay would be reduced and congestion would be lessened to approximately the same extent as with arterial-based plan (without tollway improvements). The proposed collector-based plan would also assist in establishing roads to connect future developments, and may even be partially constructed by the developers. Estimated cost of implementing the collector-based transportation plan would be approximately \$160 million.

Either the arterial-based or collector-based strategies would ease congestion on arterial highways in the West Upper Fox area. Both strategies also would be effective in accomplishing the project objectives. The arterial-based plans, especially the plan which includes tollway enhancements, would improve regional connectivity, but would do little to improve local circulation. The collector-based strategy would provide local connectivity, but would not substantially benefit longer regional trips. Each of the plans would also improve transportation service to new developments.

The recommended plan for the West Upper Fox area would improvements to both the collector and arterial systems to create a complete roadway network. The cost of the improvements would be distributed among the county and municipal agencies as well as to future development creating a joint effort to improve transportation performance. Transit and pedestrian/bike trail improvements are also planned for the area. Additionally, the recommended plan would incorporate access management. The plan would recognize the importance of regional connectivity by incorporating improvements that are more regional in scope.

The estimated cost for the recommended transportation improvements would be approximately \$290 million. This includes \$160 million for development of the collector road and \$130 million to reconstruct the arterials. The cost estimate excludes the cost of the regional connectors, transit improvements, and bike/pedestrian facilities.



N
1" = 1 mile



- Arterials
- Major Collectors
- Minor Collectors
- Corridor Management
- North/South Arterial
- Long Meadow Parkway
- West Upper Fox Boundary

**West Upper Fox Planning Areas
Recommended Roadway Plan**

Figure 17
Kane County Transportation Planning Area Study

Synopsis of Report

Elgin Far West Planning Area
Transportation Improvement Plan

Prepared by *CH2M HILL*

January 2003

The Elgin Far West Area is bounded by Randall Road on the east, Muirhead Road on the west, Highland Road on the north, and McDonald Road on the south. The Elgin Far West Area is expected to grow rapidly over the next ten to twenty years with full build out expected by approximately 2020. New developments are expected to add 11,000 households, 2.8 million square feet of commercial floor space, and 2.3 million square feet of industrial land uses. The ultimate build out of proposed developments by 2020 would add approximately 17,600 weekday PM peak hour trips to the area's roadways. The City of Elgin expects eleven of the proposed developments to be completed or partially completed by the year 2010 adding 4,900 new households and 1.7 million square feet of new commercial development, and generating approximately 8,200 additional vehicle trips in the PM peak hour on a weekday.

The general transportation planning process used in the Elgin Far West area was similar to that developed and used earlier in the West Aurora Planning Area. The analysis method combined background traffic with site generated traffic from planned developments for two future time periods -- 2010, and 2020. The traffic from each of the developments was traced through the network, so that the impact of improvements could be apportioned back to the developer based on its relative impact on the roadway system. The analysis for 2020 would represent the ultimate plan, while the 2010 analysis would serve as an aid in prioritizing improvements.

The plan development phase of the study consisted of three stages. First, an operational analysis was conducted of present traffic demand on the existing roadway network. The intent of this analysis was to establish how much of the cost of roadway and intersection improvements would be attributable to existing deficiencies. This was followed by analysis and plan development assuming conditions expected in 2010. This analysis would indicate the level of improvement needed for an "interim plan." In addition, the 2010 recommended improvements would reflect the highest priority needs for the public agencies to consider in implementing transportation improvements as development occurs. Finally, the 2020 analysis would serve as the "ultimate plan." The ultimate plan would recommend a list of improvements needed to address the projected extensive growth in population and employment in the Elgin Far West Area.

Proposed improvements for both 2010 and 2020 were developed using a stepwise process. The intent of this process was to evaluate performance of the improvements at each step thereby assessing the extent of capacity enhancement needed to obtain an adequate level of service (LOS E) during the PM peak hour.

Future traffic demand incorporates background traffic with site generated traffic. Growing the existing traffic to projected 2010 and 2020 volumes produced background traffic. The City of Elgin provided information regarding areas planned for future development. Forecasted trips generated by each development for the years 2010 and 2020 were calculated and assigned to the study area roadway network.

2010 Interim Plan

Assignment of 2010 traffic to the existing roadway system showed that almost one-half of the study area intersections would operate at LOS F.

The first step in the plan development process was to incorporate the new collector roads into the traffic network. The new collector roads would serve a dual function of providing mobility as well as access to abutting land uses. Also included in approximately 16-route-miles of new roads is the Corron Road extension, which would improve system operational performance by redistributing some of the traffic from the existing arterial system. This redistribution of traffic would translate into operational performance improvements.

Three intersections along U.S. 20 (Weld Drive, Nesler Road and Coombs Road) would meet the warrants for signalization by 2010. Two other intersections on Corrin Road (Bowes Road and McDonald Road) would be improved to all-way stop controlled. Operations of each of these intersections would be improved to LOS E or better.

Following the investigation of intersection control improvements, each of the remaining intersections still operating at LOS F were evaluated to determine the effect of improving intersection geometry. Geometric improvements would include the addition of turn lanes, and/or modification of signal timing and phasing to maximize performance. The costs of improving existing intersection deficiencies have been excluded from the cost estimates used in the allocation.

It was evident from the prior steps in the plan development process that improving intersection control and geometrics would yield some benefits, but widening of some existing roads still would be needed to manage the significant increase in traffic volumes. The interim plan was augmented, therefore, by widening of Randall Road to six-lanes between Highland Avenue and Hopps Road.

Overall the 2010 network would consist of:

- 15.9 route miles of new roadways (collector roadways and the Corron Road extension),
- Three intersections with improved signals and geometric modifications,
- Two intersections converted to all-way stop control with further geometric improvements,
- Seven intersections with only geometric improvements, and
- 7.4 new lanes miles of widening to existing roadways.

2020 Ultimate Plan

The process used in developing the 2020 ultimate plan was generally the same as that utilized for the 2010 plan.

The process began with assignment of forecasted 2020 traffic to the existing roadway network and then to the existing network augmented, as described earlier, with new collector roads and the Corron Road extension. Then, 2010 interim improvements were analyzed with 2020 traffic. Next, a determination was made of which existing stop-controlled intersections operating at LOS F might benefit from improved intersection control, and then each of the remaining intersections operating at LOS F was evaluated to determine the affect of improving intersection geometry. The final set of improvements incorporated into the 2020 plan would consist of widening existing roads.

The proposed improvements incorporated into the 2020 transportation plan include those described earlier for the 2010 interim plan along with signalization and geometric improvement of 11 intersections, all-way stop control at one intersection, further geometric improvements to 15 intersections, and widening of 7.7 lane-miles of roadway. With implementation of these projects, there would be just five intersections in the study area still operating at LOS F:

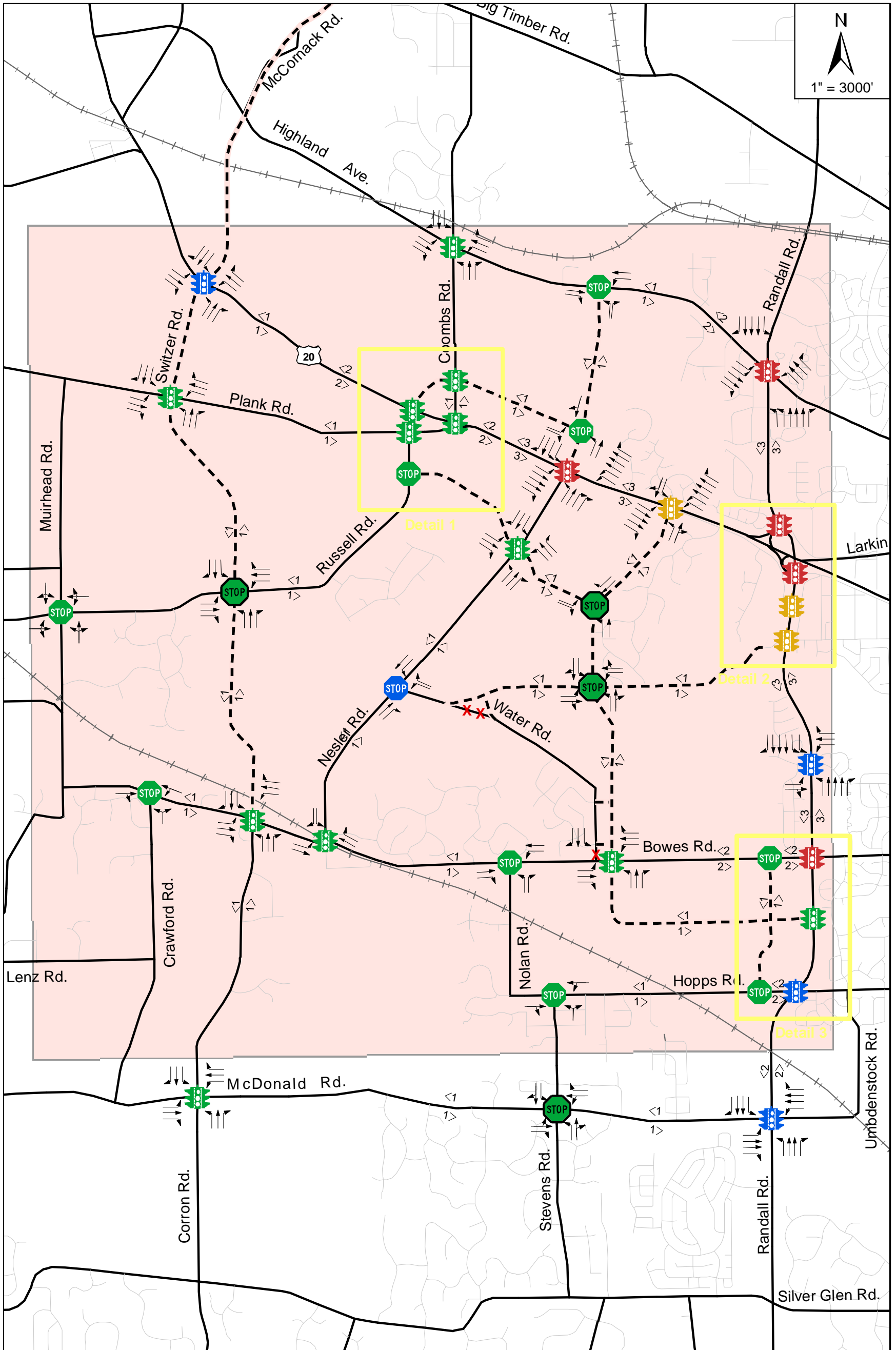
Total cost of all projects included in the 2020 transportation improvement plan for the Elgin Far West Area would amount to approximately \$143 million at 2001 price levels.

One objective of this project was to establish a means of determining the cost of roadway improvements required to accommodate traffic generated by each proposed land development. A method was developed, therefore, to allocate attributable project implementation costs to proposed land developments in the Elgin Far West area.

Costs were allocated by first determining the percentage of total traffic generated by each development at a particular location and applying this percentage to the total project improvement cost for that location in order to determine how much of the total cost would be attributable to each development. The costs attributable to each development were then summed for all locations to arrive at the total estimated cost by development.

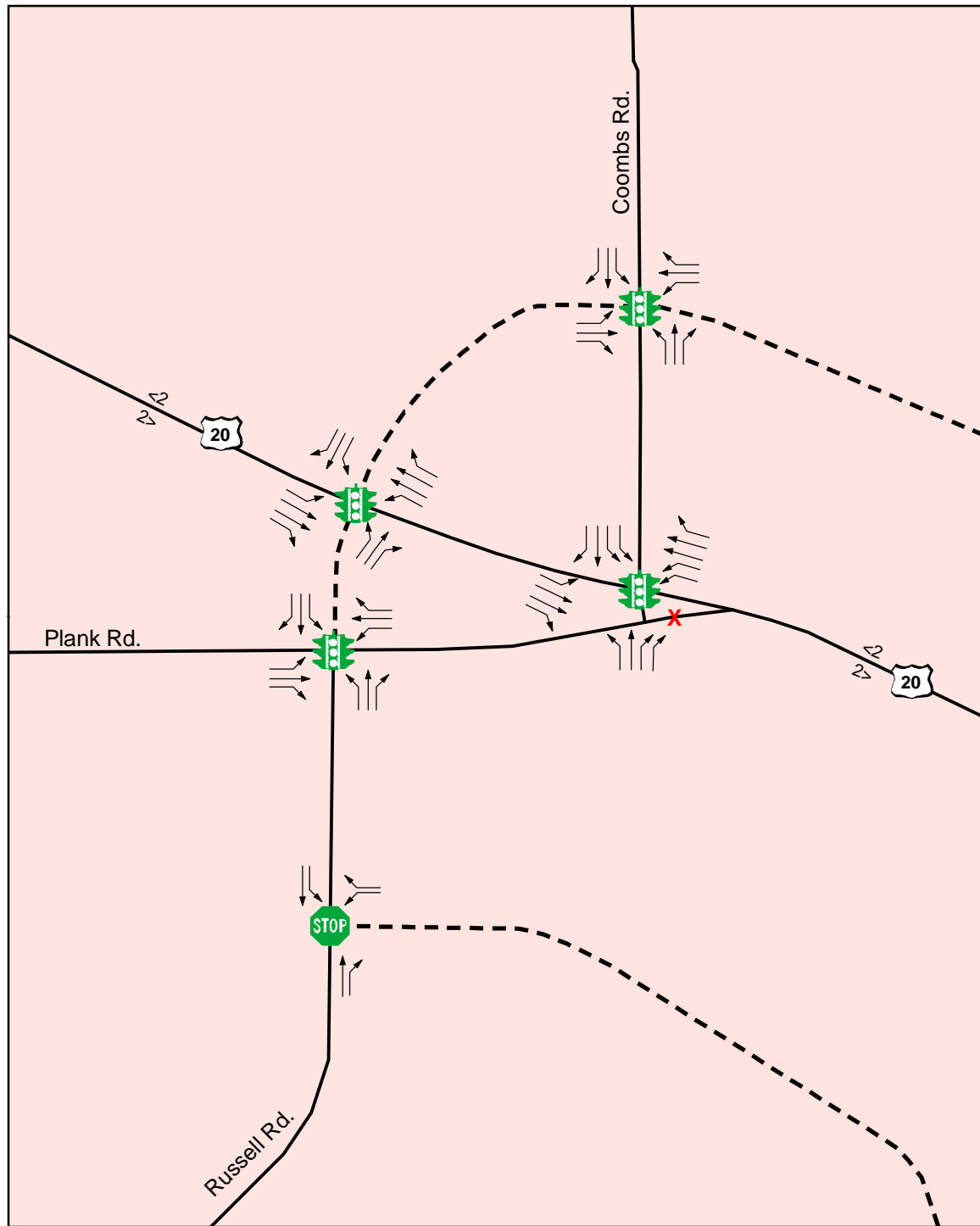
The City, County, and State would be responsible for approximately thirty six percent of the improvement cost. This is directly proportional to the volume of background traffic on the future network. If all of the remaining cost were allocated to proposed land development as described above, the average cost per residential unit would be \$6,400, and the average cost per square-foot of commercial floor area would be \$4.40.

The planning process calls for incrementally improving the network to reach an acceptable level of service. The 2020 Plan was used to determine the appropriate allocation of costs to land developments. The 2010 Interim Plan helped to identify projects that should be completed first.

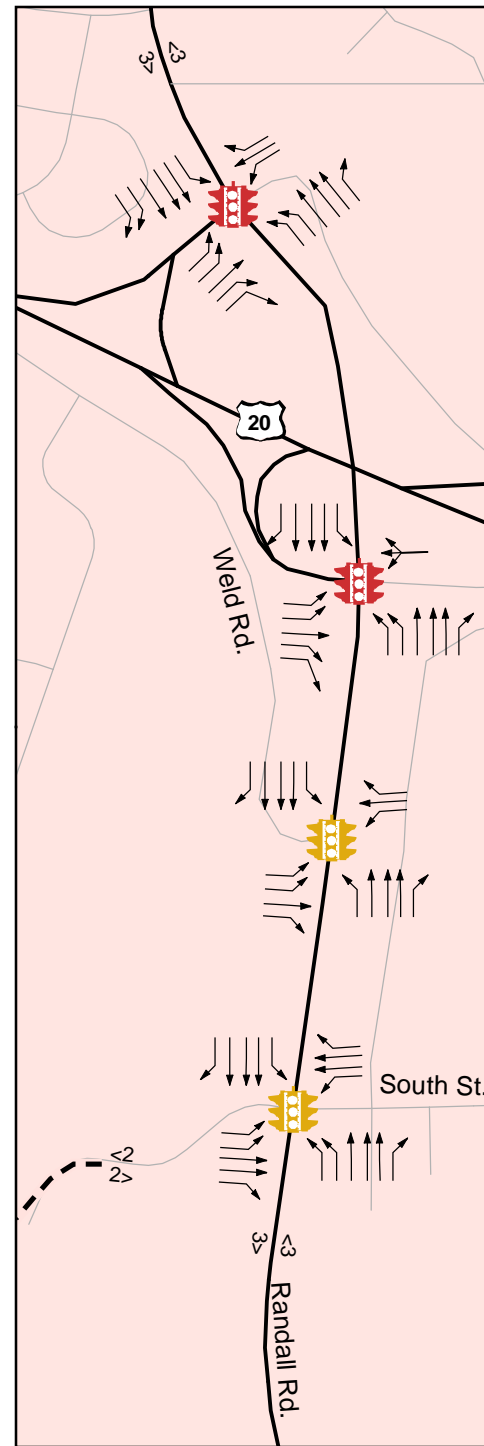


	Two-Way	All-way	Signalized	LOS	
	Stop Controlled	Stop Controlled		A, B, C	
				D	
				E	
				F	

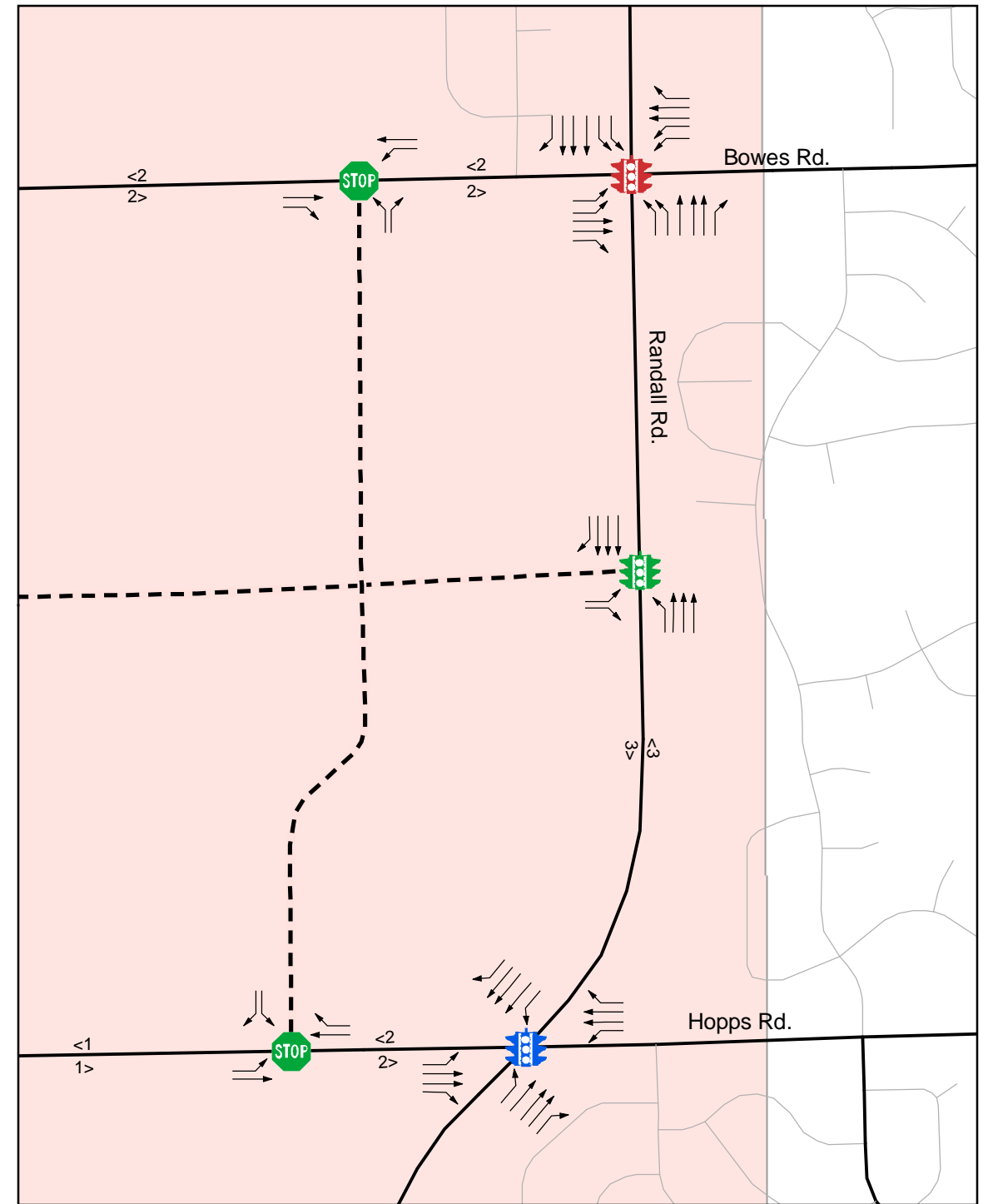
Elgin Far West Planning Area
2020 Ultimate Transportation Plan
Figure 15
 Kane County Transportation Planning Area Study



Detail 1



Detail 2



Detail 3



1" = 750'

Two-Way Stop Controlled	All-way Stop Controlled	Signalized	LOS
			A, B, C
			D
			E
			F

- Study Area
- New Roadway
- Eliminated Roadway Segments
- Intersection Approach
- Geometry
- Number of Lanes on Segment by Direction

Elgin Far West Planning Area
2020 Ultimate Transportation Plan
Detail Sheet

Figure 15A
Kane County Transportation Planning Area Study

Synopsis of Report

Sugar Grove, Aurora, Montgomery Planning Area
Transportation Improvement Plan

Prepared by CH2M HILL

November 2003

In October 2000, the Kane County Division of Transportation and CH2M HILL began a planning study to develop a recommended set of transportation improvements for areas within the County. The project consists of two phases; first, a countywide assessment of existing and future conditions, and then a more detailed study of transportation issues within a designated planning area. This report pertains to the Sugar Grove, Aurora, Montgomery (SAM) Planning Area.

Previous 2020 travel forecasts for Kane County were based on population and employment projections by the Northeastern Illinois Planning Commission (NIPC). It was found that employment growth was fully represented in the NIPC forecast, but that residential growth was underestimated. In adjusting the Kane County travel forecasting model, 8,870 households were added in the SAM area, creating an increase in population of approximately 24,600 over the prior estimate. The prior employment forecast was increased by 480 workers.

Performance of transportation facilities in the SAM area under future conditions (2020) was measured to identify roadways that would operate poorly. Considering all roadways including the tollway, 70 percent of lane-miles would be congested.

The process followed in developing a transportation plan in the SAM area was to first address a system of collector roads and then augment this with improved arterials.

The collector-based plan would improve local connectivity by adding an in-fill network to link land uses throughout the area, but the addition of collector roads alone would do little to improve the regional connectivity. Daily system-wide delay and congestion would be reduced. The proposed collector-based plan would also assist in establishing roads to connect future developments, and may even be partially constructed by the developers. The augmented collector road system would account for 54 percent of the area's lane-miles of roadway.

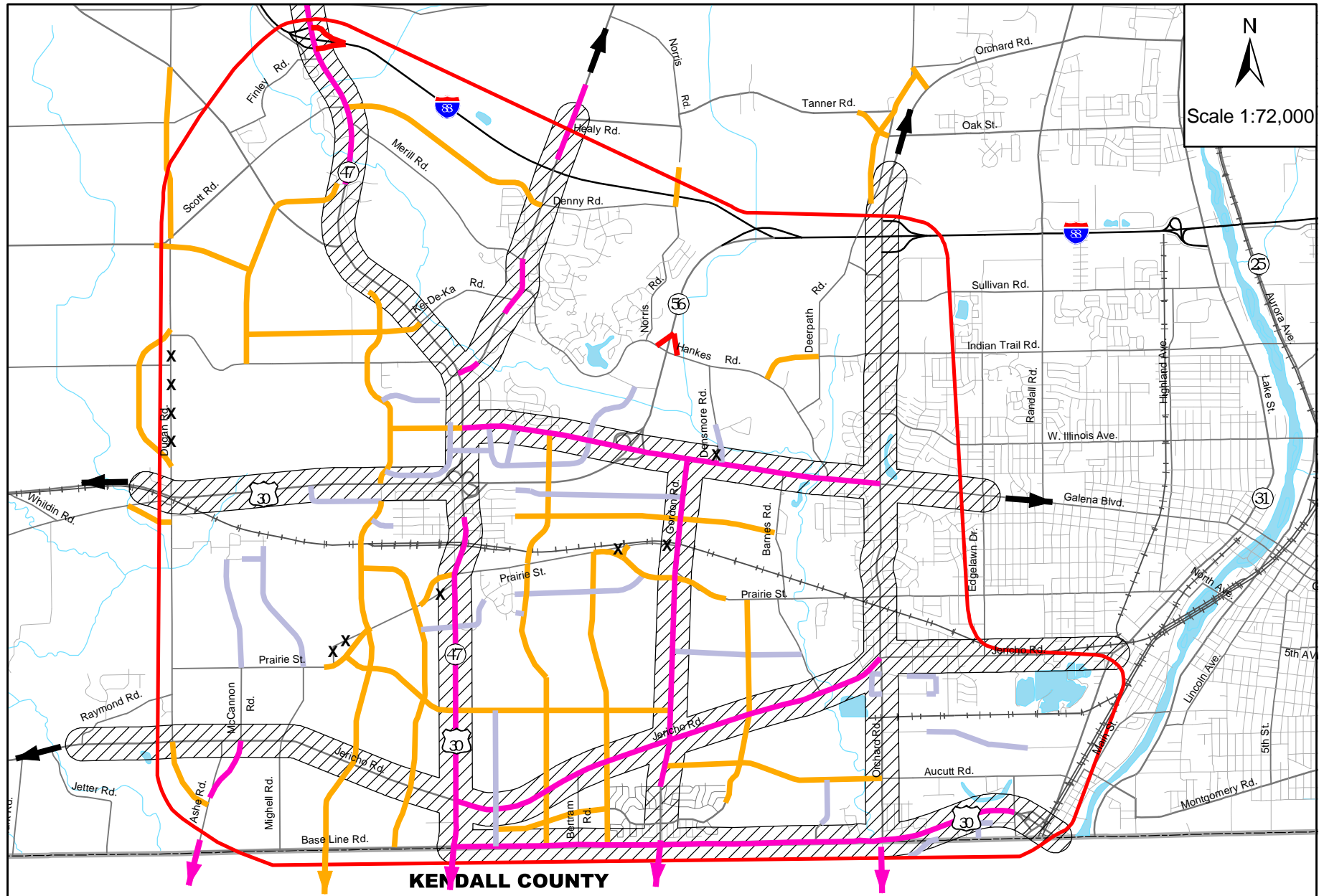
Once the collector road network had been established, modeled arterial improvements were added to create a network having sufficient capacity to meet anticipated traffic demand. The candidate roadway improvements were stratified into categories of major, secondary, or regional significance and cost estimates were determined for each of the individual improvements. The major improvements were modeled individually to determine the relative impact on the overall system performance. System performance for the alternative was then graphed against the cumulative cost of the alternative to compare the effectiveness of the improvements. The optimal performing improvement related to cost was selected as the first priority. The process was repeated by combining the remaining improvements with the one

selected previously and completing an independent assessment until the cost of adding improvements would not change the overall network performance.

The recommended plan for the SAM area would encompass a full range of transportation solutions. Improvements would be made to both the collector and arterial systems to create a complete roadway network. The cost of the improvements would be distributed among the county and municipal agencies as well as to future development, creating a joint effort to improve transportation performance. Transit and pedestrian/bike trail improvements are also planned for the area. Additionally, the recommended plan would incorporate access management.

The plan would also recognize the importance of regional connectivity by incorporating improvements with a more regional scope. The proposed Prairie Parkway was also identified as another potential regional improvement affecting the SAM area, but it was agreed with the SAM planning group that it should not be considered at this point in the planning process. When a preferred alignment of the Prairie Parkway has been selected, the SAM plan can be reevaluated to address changes in land use and traffic patterns.

Estimated total cost of the recommended transportation improvements (construction and right-of-way) in the SAM area would amount to approximately \$320 million. This includes \$150 million for development of the collector road network. Widening the arterials, as opposed to full reconstruction would save \$60 million, for a total construction cost of \$260 million. The cost estimate excludes the cost of regional connections, transit, and bike/pedestrian facilities.



KENDALL COUNTY

- SAM Boundary
 - Corridor Management
 - Improved Facilities
 - Minor Collector
 - Major Collector
 - Arterial
 - Interchange
- See Table 4 for Recommended Improvements

**SAM Planning Area
Recommended Roadway Plan**

Figure 14
Kane County Transportation Planning Area Study



Synopsis of Report
Kane County Impact Fee Study
Prepared by *CH2M HILL*
January 2004

The Kane County Impact Fee Program was a transportation study examining the impact of future development on county roads. The development of the program followed enabling IL legislation (605 ILCS 5/5 901 et seq.).

The *Road Improvement Impact Fee Law* created by the State of Illinois in 1989 cites two general goals for those agencies implementing impact fee programs in Illinois.

1. *“...the imposition of such road improvement impact fees is designed to supplement other funding sources so that the burden of paying for road improvements can be allocated in a fair and equitable manner.”*
2. *“...to promote orderly economic growth throughout the State by assuring that new development bears its fair share of the cost of meeting the demand for road improvements through the imposition of road improvement impact fees.”*

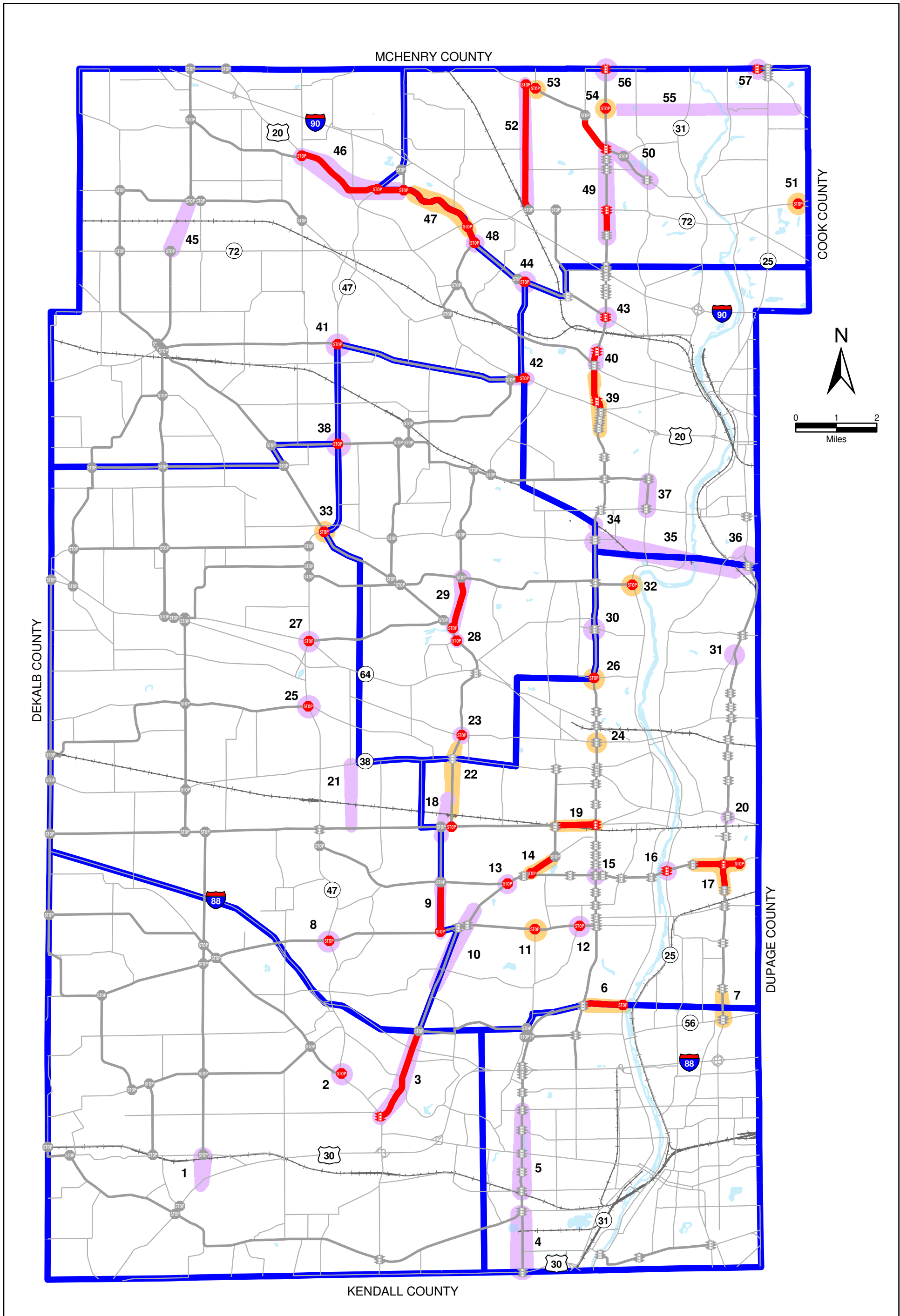
Following the impact fee program developed by Dupage County, the Kane County impact fee program uses a “needs based” approach in the determination of the fees. This approach is based on a conservative estimate of the impact each development will have on the county highways in its traffic district. The impact is estimated for various classes of land use by determining the number of vehicle trips a development will usually generate during the roadway design hour, and how far these vehicles are likely to travel over the county highway system. Under the premise that the county highway system is being fully utilized at the time in which a new development begins operating, it is the additional demand for highway capacity that is subject to impact fees. The gross fee was determined by calculating the additional lane miles that would be required to maintain a satisfactory roadway level-of-service, and by multiplying those roadway miles by the average cost of constructing one lane-mile of highway in Kane County.

A key component of the program is the Comprehensive Road Improvement Plan (CRIP). The ten-year Comprehensive Road Improvement Plan is a document required of each unit of local government wanting to implement an Impact Fee Program. The Plan’s primary function is to support the goals set forth in the legislation by establishing a rational program for collection and distribution of road improvement impact fees in Kane County based on need for additional capacity.

Another objective of the Plan is to demonstrate the methods and procedures used to establish the impact of new developments. It is a specific requirement of the Road Improvement Impact Fee legislation that the implementing agency follow a reasonable set of procedures in implementing an impact fee program. Because the CRIP is designed to pertain only to roads under the Kane County jurisdiction, recommendations for short and

long-range improvements on roads maintained solely by other agencies are not included in the project list. Although, intersections with County roads and facilities that are under the jurisdiction of State and local agencies are included in the CRIP.

The Kane County Road Improvement Impact Fee Ordinance was approved by the County Board on January 13, 2004 and fee collection commenced on April 1, 2004.



Year 2013	Signalized Intersections	Unsignalized Intersections	County Road Segments	
Acceptable LOS				Service Area Boundary
Deficient LOS				Projects
See Table 8-1 for the Road Improvement Program				Impact Fee Eligible
				Not Impact Fee Eligible

Kane County Comprehensive Road Improvement Plan
Figure 8-1
Kane County FY 2004-2013
Comprehensive Road Improvement
Plan Map

Table 8-1: Kane County FY 2004-2013 Comprehensive Road Improvement Plan

Project Number	Road	Location	Project Length (MI)	Estimated Engineering & Construction Cost (mil)	Estimated ROW Cost (mil)	Total Estimated Cost (mil)	Estimated County Portion of Cost (mil)	Type of Project	Project Year of Construction	Impact Fee Eligible	Service Area	Jurisdiction
22	La Fox Rd.	North of Keslinger Rd. to South of Campton Hills Dr.	NA	\$1.28	\$0.05	\$1.33	\$0.33	CH, SI	2004	No	Campton Hills/Tri - Cities	KC, IDOT
37	McLean Rd.	Hopps Rd. to Bowes Rd.	0.76	\$8.40	\$0.50	\$8.90	\$8.90	CH, WI	2004	Yes	Greater Elgin	KC
2004 Cost				\$9.68	\$0.55	\$10.23	\$9.23					
5	Orchard Rd.	Prairie St. to Indian Trail Rd.	1.89	\$13.21	\$0.05	\$13.26	\$13.26	CH, WI	2005	Yes	Aurora	KC
7	Kirk Rd.	IL 56 to Wind Energy Pass Rd.	NA	\$6.10	\$2.15	\$8.25	\$2.06	CH, WI	2005	No	Aurora	KC, IDOT
36	Dunham Rd.	at Stearns Rd./IL 25	NA	\$16.40	\$6.00	\$22.40	\$11.20	IN, RA	2005	Yes	Tri - Cities/Greater Elgin	KC, IDOT
21	Anderson Rd.	Extension		\$13.00	\$0.00	\$13.00	\$1.50	NR	2005	Yes	West Central	KC
24	Randall Rd.	at IL 64	NA	\$11.72	\$9.00	\$20.72	\$5.00	CH, WI	2005	No	Tri - Cities	KC, IDOT
4	Orchard Rd.	U.S. 30 to Jericho Rd.	1.3	\$17.29	\$1.20	\$18.49	\$18.49	CH, WI	2005	Yes	Aurora	KC
2005 Cost				\$77.72	\$18.40	\$96.12	\$51.51					
11	Main St.	at Nelson Lake Rd.	NA	\$0.66	\$0.04	\$0.70	\$0.70	CH, SI, RS	2006	No	Tri - Cities	KC, Local
12	Main St.	at Deerpath Rd.	NA	\$0.97	\$0.04	\$1.00	\$1.00	CH, SI, RS	2006	Yes	Tri - Cities	KC, Local
42	Plank Rd.	Russell Rd. to U.S. 20	0.35	\$0.66	\$0.07	\$0.73	\$0.24	CH, SI, RS	2006	Yes	Northwest/Campton Hills/Greater Elgin	KC, IDOT
18	Bunker Rd.	Extension		\$12.35	\$0.00	\$12.35	\$5.00	IN, RA	2006	Yes	Tri - Cities	KC
10	Bliss Rd.	Realignment to Fabyan Pkwy.		\$0.30	\$0.00	\$0.30	\$0.30	CH, RA	2006	Yes	West Central/Tri - Cities	KC
20	Kirk Rd.	at IL 38	NA	\$6.07	\$2.00	\$8.07	\$4.04	CH	2006	Yes	Tri - Cities	KC, IDOT
3	Bliss Rd.	IL 47 to Healey Rd.	2.38	\$0.82	\$0.00	\$0.82	\$0.41	CH, RS	2006	Yes	Southwest	KC, IDOT
15	Randall Rd.	at Fabyan Pkwy.	NA	\$7.25	\$0.00	\$7.25	\$2.00	CH, WI	2006	Yes	Tri - Cities	KC
2006 Cost				\$29.08	\$2.14	\$31.23	\$13.69					
30	Randall Rd.	at Red Gate Rd.	NA	\$0.75	\$0.00	\$0.75	\$0.75	CH	2007	Yes	Campton Hills/Tri - Cities	KC
19	Keslinger Rd.	Peck Rd. to Randall Rd.	1.00	\$0.50	\$0.00	\$0.50	\$0.50	CH, RS	2007	No	Tri - Cities	KC
52	Galligan Rd.	IL 72 to Huntley Rd.	3.13	\$0.44	\$0.11	\$0.55	\$0.55	CH, RS	2007	Yes	Upper Fox	KC
53	Huntley Rd.	East of Galligan Rd. to Square Barn.	1.67	\$0.66	\$0.11	\$0.77	\$0.77	CH, SI, RS	2007	No	Upper Fox	KC, Local
23	La Fox Rd.	at Campton Hills Dr.	NA	\$4.30	\$0.06	\$4.36	\$4.36	CH, RS	2007	Yes	Campton Hills	KC, Local
33	Burlington Rd.	at IL 47	NA	\$1.63	\$0.07	\$1.71	\$0.85	CH, SI, RS	2007	No	West Central/Campton Hills	KC, IDOT
48	Big Timber Rd.	at Damisch Rd.	NA	\$0.44	\$0.05	\$0.49	\$0.49	CH, RS	2007	Yes	Northwest/Upper Fox	KC
9	Bunker Rd.	Main St. to Hughes Rd.	1.22	\$0.66	\$0.08	\$0.74	\$0.74	SI, CH, RS	2007	Yes	West Central/Tri - Cities	KC
14	Kaneville Rd.	Fabyan Pkwy. To Peck Rd.	NA	\$0.30	\$0.00	\$0.30	\$0.30	CH, SI	2007	No	Tri - Cities	KC
47	Big Timber Rd.	East of Manning Rd. to West of Damisch Rd.	2.43	\$1.63	\$0.14	\$1.78	\$0.89	CH, SI, RS	2007	No	Northwest/Upper Fox	KC, IDOT
54	Randall Rd.	at Longmeadow Pkwy.	NA	\$0.26	\$0.04	\$0.30	\$0.30	CH, SI	2007	No	Upper Fox	KC
35	Stearns Rd.	Bridge Corridor		\$65.00	\$20.00	\$85.00	\$8.50	BC	2007	Yes	Tri - Cities	KC
2007 Cost				\$76.59	\$20.66	\$97.25	\$19.01					

Project Number	Road	Location	Project Length (MI)	Estimated Engineering & Construction Cost (mil)	Estimated ROW Cost (mil)	Total Estimated Cost (mil)	Estimated County Portion of Cost (mil)	Type of Project	Project Year of Construction	Impact Fee Eligible	Service Area	Jurisdiction
13	Fabyan Pkwy.	at Hughes Rd.	NA	\$0.75	\$0.18	\$0.93	\$0.93	CH, SI, RS	2008	Yes	Tri - Cities	KC
50	Huntley Rd.	Randall Rd. to Sleepy Hallow Rd.	1.31	\$3.06	\$0.25	\$3.31	\$3.31	IN, WI	2008	Yes	Upper Fox	KC
8	Main St.	at IL 47	NA	\$1.42	\$0.07	\$1.49	\$0.74	CH, RS	2008	Yes	West Central	KC, IDOT
28	Burlington Rd.	at Old LaFox Rd.	NA	\$0.66	\$0.11	\$0.77	\$0.77	CH, SI, RS	2008	Yes	Campton Hills	KC
29	Corron Rd.	Burlington Rd. to Silver Glen Rd.	1.29	\$1.49	\$0.07	\$1.56	\$1.56	CH, SI, RS	2008	Yes	Campton Hills	KC
43	Randall Rd.	at Big Timber Rd.	NA	\$0.42	\$0.04	\$0.46	\$0.46	CH	2008	Yes	Greater Elgin	KC
55	Longmeadow Pkwy.	Bridge Corridor		\$64.00	\$10.00	\$74.00	\$7.40	BC	2008	Yes	Upper Fox	KC
34	Randall Rd.	at IC RR	NA	\$16.20	\$0.20	\$16.40	\$16.40	GS	2008	Yes	Greater Elgin	KC
2008 Cost				\$87.99	\$10.92	\$98.91	\$31.57					
31	Dunham Rd.	at Kirk Rd.	NA	\$0.22	\$0.00	\$0.22	\$0.22	SI	2009-2013	Yes	Tri - Cities	KC
26	Randall Rd.	at Crane Rd.	NA	\$1.05	\$0.07	\$1.12	\$1.12	CH, RS	2009-2013	No	Campton Hills/Tri - Cities	KC, Local
1	Dauberman/Granart	Realignment		\$9.23	\$1.50	\$10.73	\$10.73	RA	2009-2013	Yes	Southwest	KC
17	Fabyan Pkwy.	Fabyan Pkwy./Kirk Rd. Area	1.80	\$0.47	\$0.14	\$0.61	\$0.61	CH	2009-2013	No	Tri - Cities	KC
6	Mooseheart Rd.	Randall Rd. to IL 31	0.99	\$0.71	\$0.06	\$0.77	\$0.26	CH, SI, RS	2009-2013	No	Aurora	KC, IDOT
16	Fabyan Pkwy.	at IL 25	NA	\$0.25	\$0.07	\$0.33	\$0.16	CH	2009-2013	Yes	Tri - Cities	KC, IDOT
32	Silver Glenn Rd.	at IL 31	NA	\$0.68	\$0.04	\$0.72	\$0.36	CH, SI, RS	2009-2013	No	Tri - Cities	KC, IDOT
27	Empire Rd.	at IL 47	NA	\$1.42	\$0.14	\$1.56	\$0.78	CH, RS	2009-2013	Yes	West Central	KC, IDOT
38	Plato Rd.	at IL 47	NA	\$1.49	\$0.14	\$1.63	\$0.82	CH, AWS, RS	2009-2013	Yes	West Central/Campton Hills/Northwest	KC, IDOT
41	Plank Rd.	at IL 47	NA	\$1.01	\$0.14	\$1.15	\$0.58	CH, SI, RS	2009-2013	Yes	Campton Hills/Northwest	KC, IDOT
40	Randall Rd.	Highland Ave. to North of Royal Blvd.	0.64	\$2.37	\$0.42	\$2.80	\$2.80	CH, RS	2009-2013	Yes	Greater Elgin	KC
39	Randall Rd.	South of South St. to South of Highland Ave.	1.4	\$38.56	\$1.12	\$39.68	\$7.94	IC, CH, WI, RS	2009-2013	No	Greater Elgin	KC, IDOT
44	Big Timber Rd.	at Coombs Rd.	NA	\$0.22	\$0.04	\$0.25	\$0.25	CH, SI	2009-2013	Yes	Northwest/Greater Elgin/Upper Fox	KC, Local
46	Big Timber Rd.	Brier Hill Rd. to Manning Rd.	3.16	\$2.87	\$0.18	\$3.05	\$1.80	CH, SI, RS	2009-2013	Yes	Northwest	KC, IDOT
49	Randall Rd.	Joy Ln. to Huntley Rd.	2.84	\$10.34	\$1.13	\$11.47	\$11.47	CH, WI, RS	2009-2013	Yes	Upper Fox	KC
56	Randall Rd.	at N. County Line Rd.	NA	\$0.25	\$0.14	\$0.40	\$0.40	CH	2009-2013	Yes	Upper Fox	KC
51	Penny Rd.	at IL 68	NA	\$0.68	\$0.04	\$0.72	\$0.24	CH, SI, RS	2009-2013	No	Upper Fox	KC, IDOT
57	Lake Cook Rd.	at Algonquin Rd.	NA	\$0.16	\$0.04	\$0.20	\$0.07	CH	2009-2013	Yes	Upper Fox	KC, IDOT
2	Harter Rd.	at IL 47	NA	\$0.09	\$0.00	\$0.09	\$0.03	CH	2009-2013	Yes	Southwest	KC, IDOT
25	Beith Rd.	at IL 47	NA	\$1.42	\$0.05	\$1.47	\$0.73	CH	2009-2013	Yes	West Central	KC, IDOT
45	French/Harmony	Realignment		\$9.70	\$1.50	\$11.20	\$11.20	RA	2009-2013	Yes	Northwest	KC
2009 - 2013 Cost				\$83.19	\$6.96	\$90.15	\$52.55					
Total				\$364.25	\$59.63	\$423.88	\$177.56				41 Impact Fee Eligible Projects	

- Notes: 1 Type of Improvement
 AWS - All-Way Stop Controlled NR - New Road
 BC - Fox River Bridge Corridor RA - Realignment
 CH - Channelization RS - Resurfacing
 GS - Grade Separation SI - Signalization
 IN - Intersection Improvements WI - Widening
 IR - Intersection Reconstruction IC - Interchange

- 2 Project 39 cost estimate assumes no additional ROW will be required for the interchange.

Synopsis of Report

Northwest Kane County Planning Area

Transportation Improvement Plan

Prepared by CH2M HILL

May 2004

In October 2000, the Kane County Division of Transportation and CH2M HILL began a planning study to develop a recommended set of transportation improvements for areas within the County. The project consists of two phases; first, a countywide assessment of existing and future conditions, and then a more detailed study of transportation issues within a designated planning area.

In May 2003, the Kane County Department of Transportation initiated a sub-area planning study of Northwest portion of the County. Several communities in this area were engaged in the planing process including, Huntley, Hampshire, Gilberts, Elgin, Pingree Grove, and Burlington. In addition, development that would be projected to occur west and north of the Kane County line was also considered. For this reason, anticipated growth in the southern part of McHenry County and the eastern portion of DeKalb County in the vicinity of the planning area was investigate. To evaluate this growth, a comparison was made of the 2030 socioeconomic forecasts by NIPC and the projected development from the local communities in the Northwest Planning Area. It was found that employment growth was fully represented in the NIPC forecast, but that residential growth was underestimated. In adjusting the Kane County travel forecasting model, 3,006 households were added in the Northwest area, creating an increase in population of approximately 8,300 over the prior estimate.

Projected traffic increases in the Northwest Planning area would be appreciable. The largest increases would occur on the I-90, IL 47, IL 72, U.S. 20, and Big Timber Road. Performance of transportation facilities in the Northwest area under future conditions (2030) was measured to identify roadways that would operate poorly. Considering all roadways including the tollway, 51 percent of lane-miles would be congested.

Two basic strategies were explored to improve transportation service in the Northwest Planning area. One strategy, referred to as the *arterial-based strategy*, would rely primarily on arterial improvements to upgrade transportation service. The second strategy, referred to as the *collector-based strategy*, would rely primarily on a collector roadway network to distribute local trips in the area.

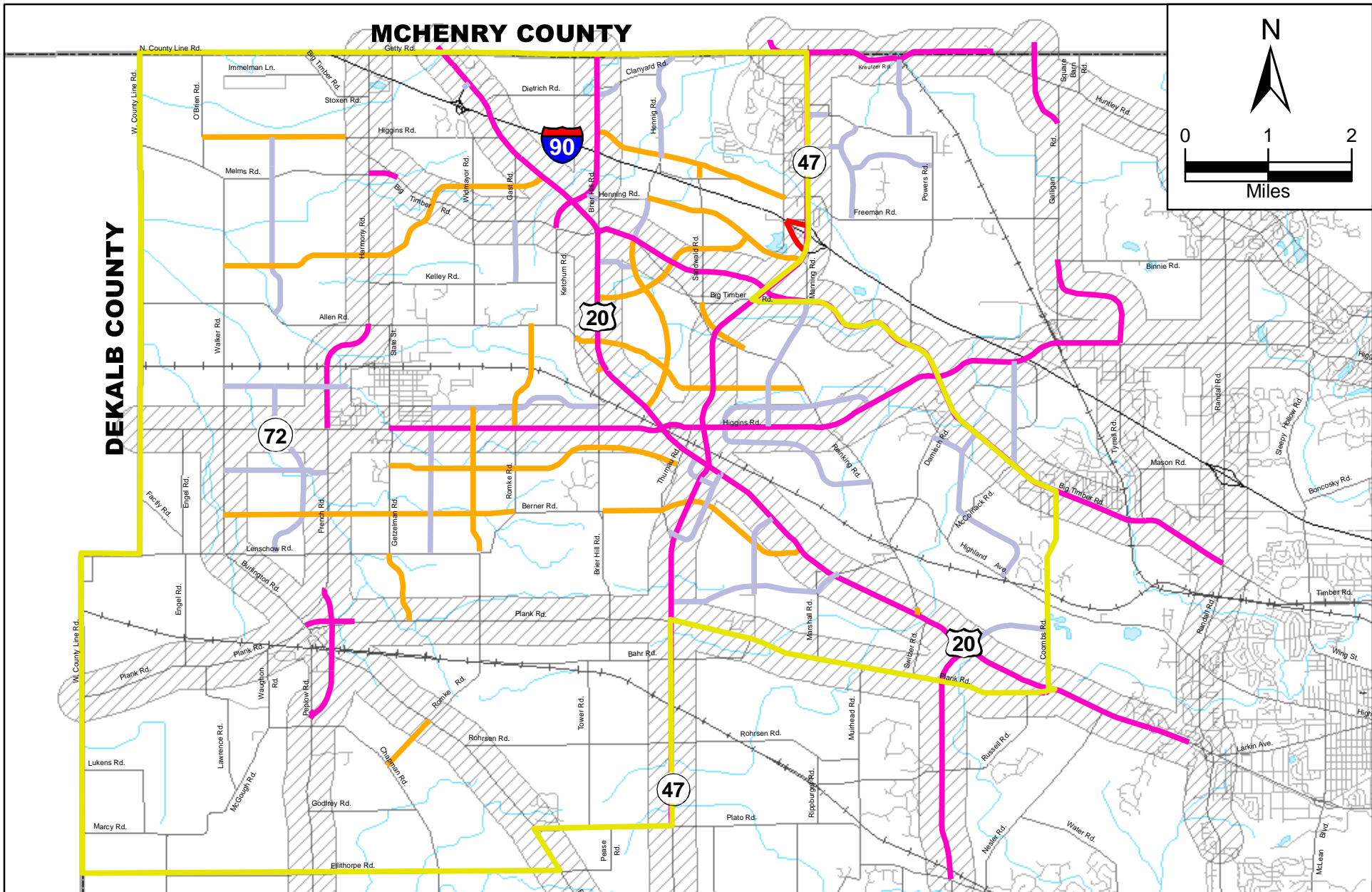
The collector roads would provide an infill street network to accommodate local traffic. The collectors would be effective in removing local traffic from the arterial roads, thereby providing for enhanced mobility on the arterials. Collector roads also would provide safe access to abutting residential areas and would help to control access onto the arterials.

Either the arterial-based or collector-based strategies would ease congestion on arterial highways in the Northwest Planning Area. Both strategies also would be effective in

accomplishing the project objectives. The arterial-based would improve regional connectivity, but would do little to improve local circulation. The collector-based strategy would provide local connectivity, but would not substantially benefit longer regional trips.

The recommended plan for the Northwest area would improve traffic performance on both the collector and arterial systems. The cost of the improvements would be distributed among the county and municipal agencies as well as future development creating a joint effort to improve transportation performance. Transit and pedestrian/bike trail improvements are also planned for the area. Additionally, the recommended plan would incorporate access management. The plan would recognize the importance of regional connectivity by incorporating improvements that are more regional in scope.

The estimated cost for the recommended transportation improvements would be approximately \$540 million. This includes \$225 million for development of the collector road and \$315 million to reconstruct the arterials. The cost estimate excludes the cost of the regional connectors, transit improvements, and bike/pedestrian facilities.



DEKALB COUNTY

MCHENRY COUNTY

- NWKC Boundary
- Corridor Management
- Arterial Improvement
- Interchange Improvement
- Major Collector Improvement
- Minor Collector Improvement

**NWKC Planning Area
Recommended Roadway Plan**



DRAFT

Figure 13
Kane County Transportation Planning Area Study