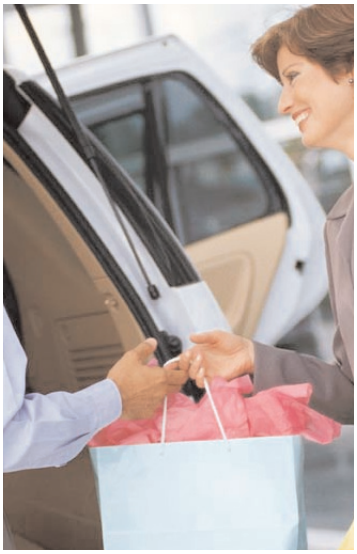


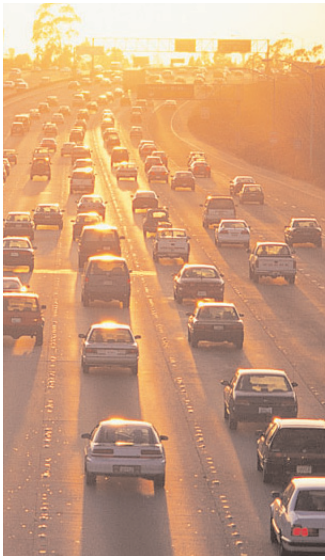

DuPage Area Transit Plan 2020

A transit plan developed by DuPage residents, and their local officials, to meet the needs of the DuPage area for the next 20 years.

DuPage Mayors and Managers Conference in cooperation with DuPage County

October 2002

The DuPage Mayors and Managers Conference

Founded in 1962, the DuPage Mayors and Managers Conference is a council of 36 cities and villages located in DuPage County, Illinois. Our primary purpose is to facilitate discussion and intergovernmental cooperation between municipal members, county, regional, state and national governmental bodies, local businesses and other organizations working on matters of interest to local government. The Conference assists its members and the region by providing research, technical assistance, educational training and leadership development opportunities. A key goal of the Conference is to improve mobility and reduce traffic congestion in DuPage.

Village of Addison
City of Aurora
Village of Bartlett
Village of Bensenville
Village of Bloomingdale
Village of Bolingbrook
Village of Burr Ridge
Village of Carol Stream
Village of Clarendon Hills
City of Darien
Village of Downers Grove
City of Elmhurst
Village of Glen Ellyn
Village of Glendale Heights
Village of Hanover Park
Village of Hinsdale
Village of Itasca
Village of Lemont
Village of Lisle
Village of Lombard
City of Naperville
Village of Oak Brook
City of Oakbrook Terrace
Village of Roselle
City of Saint Charles
Village of Schaumburg
Village of Villa Park
City of Warrenville
Village of Wayne
City of West Chicago
Village of Westmont
City of Wheaton
Village of Willowbrook
Village of Winfield
City of Wood Dale
Village of Woodridge

DuPage Mayors and Managers Conference
In Cooperation with DuPage County

DUPAGE AREA TRANSIT PLAN

A COMPREHENSIVE TRANSIT PLAN FOR DUPAGE COUNTY, ILLINOIS

October 2002

Adopted by:

DuPage County Regional Planning Commission
September 4, 2002

DuPage Mayors and Managers Conference
September 18, 2002

DuPage County Board
September 24, 2002

DUPAGE MAYORS AND MANAGERS CONFERENCE
an association of municipalities representing 1,000,000 people

1220 Oak Brook Road
Oak Brook, Illinois 60523-2203
(630) 571-0480
Fax: (630) 571-0484

Founded June 19, 1962

MEMBER MUNICIPALITIES

Addison
Aurora
Bartlett
Bensenville
Bloomingdale
Bolingbrook
Burr Ridge
Carol Stream
Clarendon Hills
Darien
Downers Grove
Elmhurst
Glendale Heights
Glen Ellyn
Hanover Park
Hinsdale
Itasca
Lemont
Lisle
Lombard
Naperville
Oak Brook
Oakbrook Terrace
Roselle
Schaumburg
St. Charles
Villa Park
Warrenville
Wayne
West Chicago
Westmont
Wheaton
Willowbrook
Winfield
Wood Dale
Woodridge

Dear Reader:

DuPage County plays a major role in the social and economic vitality of the six-county Chicago metropolitan area. More than 900,000 residents and over 40,000 businesses call the 334 square miles of DuPage County home. Comprised of many ethnic groups, races, religions, and socio-economic backgrounds, our varied lifestyles require an efficient and reliable transportation system. Our need for and reliance upon personal mobility is enormous.

The communities of DuPage County have been working together to address common concerns for over 40 years. Today, mobility is one of our most crucial concerns. We are acutely aware of the growing congestion on our roadways and foresee a resulting long-term decline in our mobility and quality of life. Constructing bigger roads cannot alone meet our long-term mobility needs. It is critical to develop other transportation options to help sustain our future mobility.

The vast majority of all trips to, from and within DuPage are made by automobile, and very little transit is available for trips that don't begin or end in the Chicago Loop. However, the majority of DuPage residents do not work in Chicago, and DuPage itself is a growing employment destination for others across northeastern Illinois. How should we evolve our transit system to better address our current and future mobility needs? That is the central question that led the DuPage Mayors and Managers Conference to develop the DuPage Area Transit Plan.

Local officials developed the DuPage Area Transit Plan with continuous input from the public. It represents a new beginning for transit services in DuPage County and offers us an opportunity to retain the quality of life that we have long enjoyed. The services that this plan envisions will be implemented in phases over the next twenty years. During that time, our assumptions and recommendations will be regularly revisited to continually ensure the suitability of the transit system as it evolves.

We thank you for your interest in this project and hope you'll join us for the ride.

Very truly yours,

William J. Mueller
President

Mark A. Baloga
Executive Director

ACKNOWLEDGEMENTS

The DuPage Mayors and Managers Conference would like to thank the many residents, businesses, social organizations and government officials who participated in this project.

We especially acknowledge the following individuals for their leadership and involvement on the Transportation Policy Committee Plus, the Conference's oversight committee for this project:

Bradford J. Townsend, Director City Manager, Wood Dale	**Michael Fortner** Mayor, West Chicago	**Vivian Lund** Mayor, Warrenville
Rae Rupp Srch President, Villa Park	**Peter Burchard** City Manager, Naperville	**Sylvia Layne** Trustee, Addison
David Fiore Trustee, Naperville	**Carol Schoengart** Intergovernmental Liaison, Wayne	

We would also like to thank the Transit Plan Advisory Committee for their assistance in reviewing technical reports and helping ensure the viability of the plan recommendations:

Nicholas Pappas and Mahender Vassandani, DuPage County
Gary Foyle and Lynnette Ciavarella, Metra
David Tomzik and John Paquet, Pace
Bill Reynolds, Regional Transportation Authority
Carmen Carruthers, Naperville
Stanley Balicki, Downers Grove,
Rick Curneal, Darien
Bradford Townsend, Wood Dale

The professional expertise of our two consultant teams: Citigate Communications, Inc. and Multisystems, Inc. (with Fish Transportation Group), and the Conference's Transportation Program Director Michelle Ryan, were essential to the success of this dynamic undertaking. Finally, we'd like to thank former Executive Director Lynn Montei for her creativity and passion for local leadership.

Special thanks to the Regional Transportation Authority (RTA) and the Illinois Department of Transportation (IDOT) who provided funding for this project.

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Executive Summary

This report presents the final results of the DuPage Area Transit Plan project. The Transit Plan is the culmination of a process that actively involved the citizens of the DuPage County area, the 36 member communities of the DuPage Mayors and Managers Conference (DMMC), DuPage County Board members and staff, regional transit providers and Conference staff. Early in the project a transit inventory was developed. There were high levels of participation in establishing transit objectives and mobility needs. This was followed by a market assessment that analyzed demographic characteristics and travel patterns in the study area. Together these pieces led to the development of some initial options and opportunities that were then taken to the public for further input and refinement. Careful evaluation of public input, projected ridership levels, cost estimates, and expected effectiveness in meeting mobility objectives guided the development of the final recommended transit system, presented in this document. This report summarizes the findings and process followed. The project started in Summer 2000 and will be completed by Fall 2002.

Approach

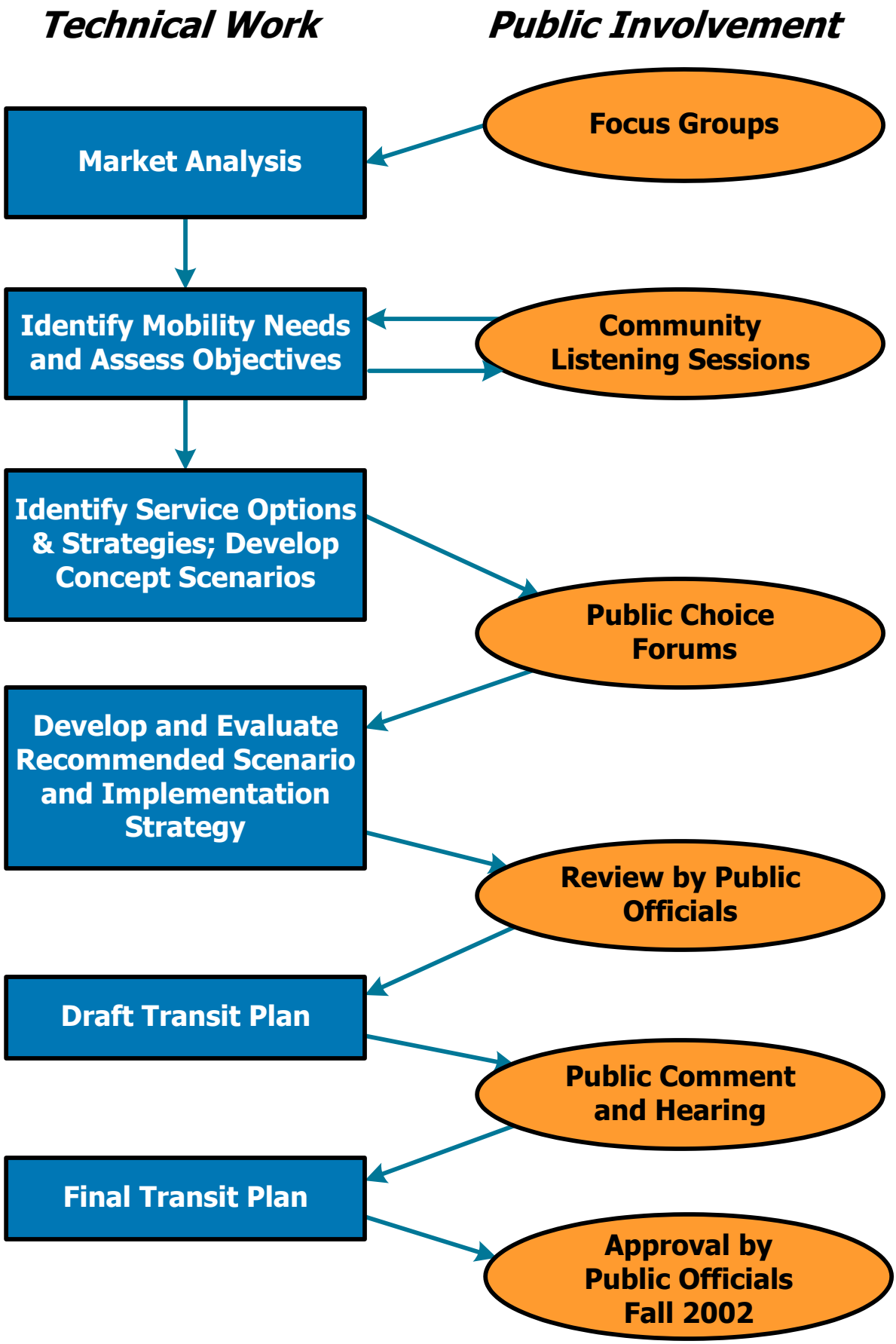
The DuPage Area Transit Plan was conducted under the leadership and active participation of local officials in the DuPage County area. The cooperation and involvement of County staff and officials as well as the region's transit providers brought together a full range of participants for thorough discussion and input into a long range vision for transit that has been established in this process.

A hallmark of this project is the high level of public participation throughout the project; DMMC strongly believes that citizen input is essential to informed decision-making in public planning initiatives. This study can be best described as 'interactive', moving back and forth between public input and the development of technical analysis. This interactive process has provided for many opportunities to refine project recommendations as it moved forward. The chart on the following page summarizes the process that was followed during the DuPage Area Transit Plan project.

The public participation process established better two-way communications between the public and its officials through a variety of means to provide technical and market research data as well as opportunities for substantive input in this plan's development. Some of these means are listed below:

Interviews with Municipal Officials – Twenty-one local leaders from thirteen communities were interviewed between May and July 2000 at the onset of the project to gain their insights on mobility and quality of life issues in the DuPage area. These interviews helped to guide the broader data collection efforts and the formulation of public outreach strategies.

Workshops for Local Government Officials – Three workshop sessions for municipal and DuPage County officials were held to educate, promote open discussion, and enhance collaborative decision-making regarding the development of the comprehensive transit plan. These workshops played a key role by helping public officials better communicate with and make informed decisions on behalf of their constituents.


Technical Work
Public Involvement
Market Analysis
Focus Groups
Identify Mobility Needs and Assess Objectives
Community Listening Sessions
Identify Service Options & Strategies; Develop Concept Scenarios
Public Choice Forums
Develop and Evaluate Recommended Scenario and Implementation Strategy
Review by Public Officials
Draft Transit Plan
Public Comment and Hearing
Final Transit Plan
Approval by Public Officials Fall 2002

DMMC Committee Meetings – The specially developed Transit Plan Advisory Committee (TPAC) and the Transportation Policy Committee Plus (which included representation from two DuPage County Board members), served as important vehicles for sharing technical and public outreach data among local officials and regional transit agencies on a regular basis.

Focus Groups – Two focus groups were organized to elicit the perspectives of a targeted group of stakeholders, including private citizens. The questions were designed to confirm assumptions previously provided by subject experts and local government officials, and to explore additional insights with respect to real and perceived mobility challenges.

Community Listening Sessions – Local officials throughout the DuPage County area hosted community sessions to hear from their constituents and area stakeholders about their concerns and visions for future transit. A total of eighteen sessions were held, hosted by officials from 29 communities and DuPage and Kane Counties.

Public Choice Forums – Public Choice Forums presented specific transit service options in an open house format for input from the general public. This input was instrumental in developing the recommended scenario and defining service attributes.

Invitations to Comment through Electronic and Published Media – A project web site, www.dupagetransitplan.com, was developed to make information about the plan development process, project status, and draft documents available to the public on an on-going basis. Citizens submitted comments on-line and via a project brochure with mail-back comment card that was developed with Pace's assistance.

Public Hearing – Two public hearings were held on July 24, 2002, during a six-week public review and comment period for the draft DuPage Area Transit Plan. The public hearings were an important step to allow any and all residents of the DuPage area a final opportunity to register their comments about the draft plan.

Project Objectives

This project was developed to address issues of mobility in the DuPage County area. The overall objectives in undertaking the DuPage Area Transit Plan project were threefold:

- To bring about an informed stakeholder group of public officials, transit providers and the traveling public
- To undertake a comprehensive analysis of potential transit services, travel markets and enhancement opportunities
- To develop sound recommendations for potentially viable transit service options that meet the needs and objectives of residents, public officials, employees and businesses in DuPage

Early in the project, DuPage Mayors and Managers Conference members developed and refined a set of six mobility objectives. These objectives met perceived needs and set out goals for any transit system that this report recommended. The mobility objectives, described below, became one of the "yardsticks" for measuring the performance of the scenarios – as important as costs and ridership. The six mobility objectives are:

- Integrate transit services with all modes of the regional transportation system

- Implement transit services to reduce or contain highway traffic congestion in select corridors, subareas or employment centers
- Develop a sustainable transportation system in the DuPage County area
- Establish and ensure an appropriate level of mobility for transportation-disadvantaged residents of the DuPage County area
- Utilize public transit to link local and regional labor markets with hard-to-fill jobs in the DuPage County area
- Utilize public transit and transit-oriented development (TOD) strategies to sustain the economic vitality of mature downtowns and regional retail/commercial centers

Within the context of the above objectives, this project maximized technical analysis with input from the public and their local officials.

Current Transit Services in the DuPage Area

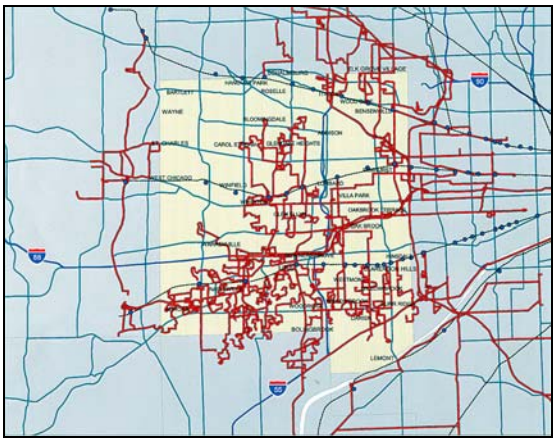
Currently, in the DuPage County area, three primary types of transit services are provided: commuter rail, general public bus service and paratransit service. Some information on each follows.

Commuter Rail: Metra runs commuter train service on three radial rail lines passing through DuPage County – the Burlington Northern/Santa Fe (BNSF), the Union Pacific West (UP-W) line and the Milwaukee District West (MD-W) line. A fourth line, the Heritage Corridor (HC), skirts the southeastern edge of the county. Nineteen million passengers use these trains annually from DuPage County to downtown Chicago and 0.2 million annually use Metra to access DuPage County. Service and schedules are heavily oriented to serving the downtown commute.

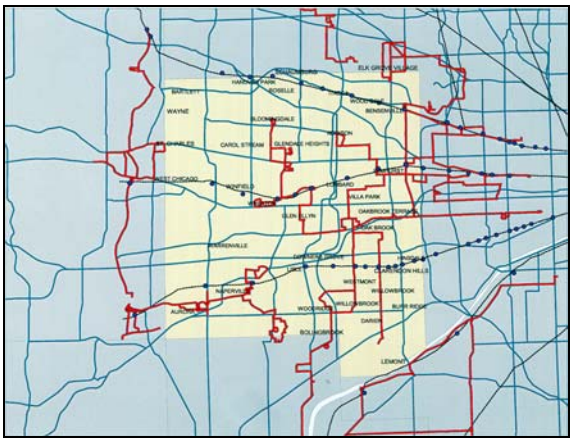
Bus Service: Bus service for the general public is provided by Pace Suburban Bus. Pace operates service on 65 routes serving DuPage County. Fifty Pace routes operate in the peak period only – most providing access from residential areas to the Metra stations, with some providing connections between Metra stations and places of work for reverse commuters. Approximately 2.6 million passengers use Pace service annually in DuPage.

Paratransit Service: Pace, DuPage County, social service agencies, townships and municipalities provide door-to-door dial-a-ride service or subsidized taxi service to DuPage elderly residents, people with disabilities or low income individuals. These services are currently in the process of moving towards a coordinated operation under the name *Ride DuPage*. Approximately 500,000 trips are provided annually.

The maps below indicate services currently available during peak and off-peak travel hours. These maps highlight the strength of the current bus system in accessing the commuter rail system for peak hour travel, compared with the very low level of transit service that is available for traveling within the DuPage County area during the off-peak hours.



Peak Period Transit Network



Off-Peak Transit Network

Recommended System – Year 2020

Services

The recommended system is designed to accomplish several things. First, a high speed corridor would be established, to connect Naperville / Aurora, the I-88 Corridor, Oak Brook, O'Hare Airport and Woodfield / Schaumburg to provide competitive inter-regional travel among key economic generators. Second, connections between local transit areas would facilitate longer distance travel within the county. Third, a system of local transit services would provide for local mobility and would also address the "last mile" need of transit passengers utilizing the high-speed corridor and/or the cross-county connectors. The recommended system would also feature connections to Kane, Will and other parts of Cook County.

The corridor, connector and circulator services are meant to work together as a system, along with Metra commuter rail, Pace feeder routes and *Ride DuPage* paratransit programs, to deliver a real alternative to the automobile in DuPage. The map on page vii shows the system that this study recommends for implementation by the year 2020.

The High-Speed Corridor

The high speed corridor, shown on the map in blue, would be a combination bus rapid transit (BRT) / express bus service operating at a reasonably high frequency (every 10 to 20 minutes). It would connect a planned transportation center at 95th Street on Metra's proposed Outer Circumferential rail corridor (along the Elgin, Joliet and Eastern [EJ&E] railroad), downtown Naperville, Metra's proposed Walnut Avenue station on the BNSF, and Oak Brook to O'Hare or the Northwest Transportation Center in Schaumburg. In the near term, it can start as an express bus, running several times per day.

The high-speed corridor would incorporate BRT characteristics
Source: John Marino, IrisbusNA@aol.com

Connector Routes

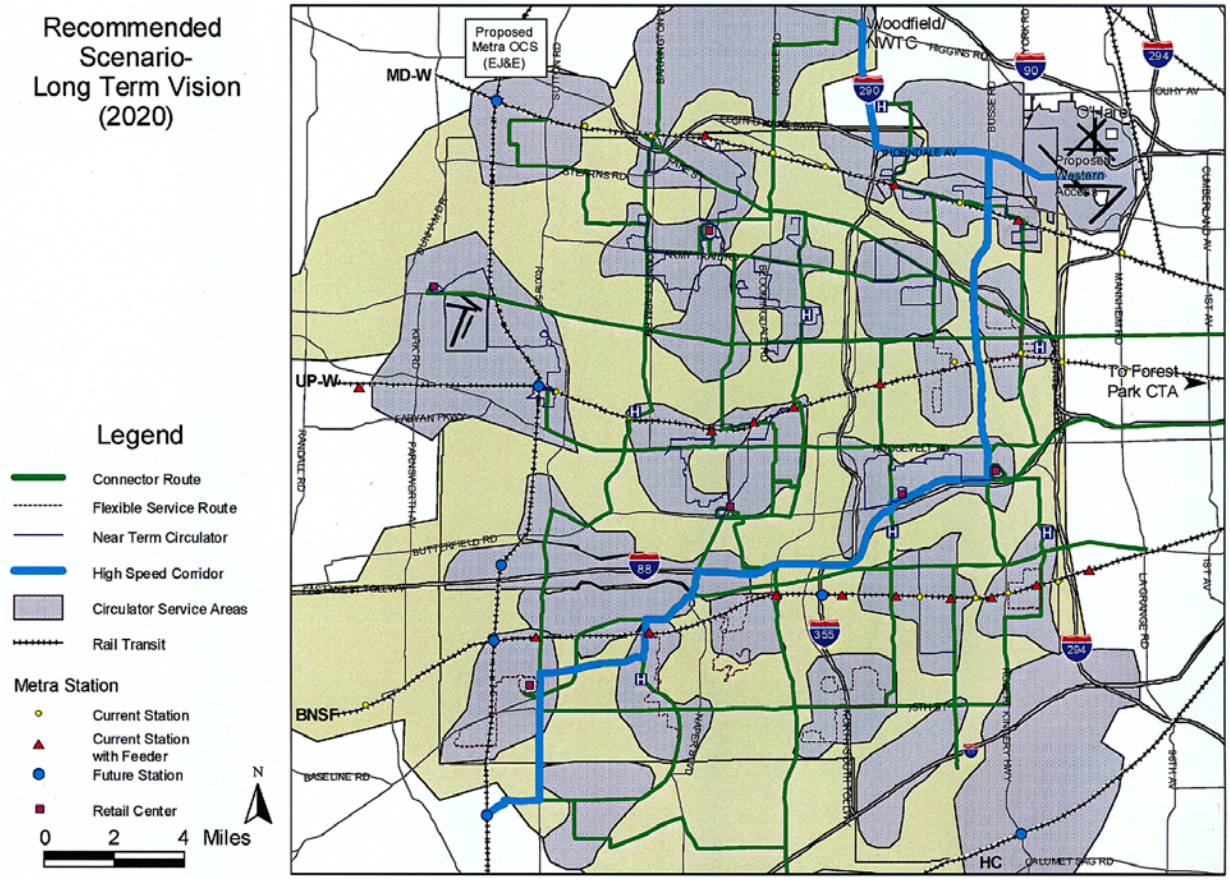
The connector routes, shown on the map in green, function in concert with Metra rail lines to provide connections between circulator areas, and to facilitate cross-county travel. In order for the connector bus routes to function effectively and efficiently, significant capital investment to improve the pedestrian and roadway environment will need to be made. Pull-out lanes, bus shelters, sidewalks and other pedestrian amenities will be critical to the overall success of these routes that are planned on high-speed, wide cross-section roadways. To implement these routes over time, they will begin as small segments connecting circulator areas and over time build towards the full network of routes shown in this map. The following list summarizes the north-south corridors and east-west corridors shown on the map.

County Farm Rd / IL 59 Corridor: *Hoffman Estates to Naperville/Aurora* Columbian Hoffman Estates Medical Center, Barrington Rd, Hanover Park Metra station, Jefferson Rd., County Farm Rd., County Complex, Central DuPage Hospital, Winfield Metra station, Winfield Rd, Cantera, Butterfield Rd, Batavia Rd (Fermi), IL 59 to Fox Valley Mall	***Lake Street Corridor*** *Hanover Park to Elmhurst* Hanover Park Metra station to York Rd, Elmhurst Memorial Hospital
Roselle/Schmale/Washington Corridor: *Schaumburg to Naperville/Aurora* Woodfield Mall / Northwest Transit Center, Roselle Rd, Roselle Metra station, Stratford Square Mall, Schmale Rd, Wheaton & College Ave. Metra stations, College of DuPage, Butterfield Rd, Naperville Rd, Ogden Ave, Naperville Washington St. Metra Station, 95th St, EJ&E 95th St Metra station	***Army Trail Corridor -*** *Bartlett to Elmhurst* Bartlett Metra station, Munger Rd., Stearns Rd, Bartlett Rd, Schick Rd, County Farm Rd., Army Trail Rd., Lake Street, to York Rd and Elmhurst Metra station
IL 53 Corridor: *Glendale Heights to Bolingbrook* From Lake Street to Glen Oaks Medical Center, Glen Ellyn Metra, College of DuPage, Danada Square, Lisle Metra station, IL 53, to Bolingbrook park-and-ride	***North Ave Corridor -*** *St. Charles to Elmhurst* Charlestowne Centre Mall in St. Charles to Elmhurst Memorial Hospital
Addison Rd / Highland Ave Corridor *- Elk Grove Village to Darien/Woodridge* Alexian Bros. Medical Center, Arlington Hts. Rd, Itasca Metra station, Addison Rd, North Ave, Lombard Rd, Lombard Metra station, Roosevelt Rd, Highland Ave, Good Samaritan Hospital, Downers Grove Metra station to 75th Street	***Roosevelt Rd Corridor*** *- West Chicago to Oak Brook* West Chicago Metra station, Roosevelt Rd, County Complex, Roosevelt Rd, Wheaton Metra station, Roosevelt Rd to Oak Brook Center Mall, Oak Brook BRT Station
Irving Park / York / IL 83 South Corridor - *Itasca to Darien/Burr Ridge* Itasca, Wood Dale and Bensenville Metra stations, York Rd, Elmhurst Metra station, Elmhurst Memorial Hospital, Oak Brook Center Mall and BRT station, Hinsdale Memorial Hospital, Hinsdale Metra station, 55th St, IL 83, to I-55 park and ride	***Ogden Ave Corridor -*** *Naperville/Aurora to LaGrange* Fox Valley Center Mall on IL 59 to Lisle to LaGrange via Ogden Ave
Kingery / Cass Ave Corridor - *Oak Brook/Oakbrook Terrace to Argonne* Oak Brook BRT station, IL 83 (Kingery Highway), Ogden Ave, Cass Ave, Westmont Metra station, 75th Street Connector station, Argonne National Laboratory	***75th Street Corridor -*** *Naperville/Aurora to Hinsdale* Fox Valley Center Mall on IL 59 to I – 55 park and ride IL 83 via 75th St to Hinsdale Metra station
	South Naperville Park and Ride Corridor - *Naperville to Bolingbrook/Pace Park and Ride* 95th / EJ&E Metra station, 104th St, Boughton Rd, Naperville Rd, 107th St to I-55/IL 53 park and ride

Community Circulators

Community circulators are the building blocks of the recommended system. Service in the circulator areas will be provided using small vehicles, and will differ based on the type(s) of areas they serve. For example, there are some areas where fixed route circulator(s) are recommended and other areas where flexible-route services are recommended, depending on demand and destinations. A flexible service follows a specific alignment, but if requested, the bus will leave the route, pick up or drop off the passenger and then return to the route where it left off. Some circulator service areas are recommended to be 100% demand-responsive, also known as general public dial-a-ride. Each local sponsor of circulator service will ultimately detail the service area and type of service to be provided within a given recommended service area.

Circulator services would likely operate with smaller, shuttle-type vehicles



System Characteristics

Many characteristics of a system define and shape its performance. Throughout the course of this project, attention was focused on describing a system that is of high quality and is user friendly. Key features are summarized below.

Integration with Regional Transit Services*:* All services (buses, circulators, high speed, trains) must be coordinated by the service providers to work as a system to make the highest level of service available for travel.

Span of Service: By the time the system is fully implemented, transit services in the DuPage area should be operating from early morning until the late evening (6:00 a.m. to 10:00 p.m., for example), as well as offering service on Saturdays.

Frequency of Service: During peak travel periods, transit routes should operate every 20 minutes and during off-peak periods, every 30 minutes, in order to make the transit service attractive to people with other mobility options.

Fares: A seamless fare system to allow passengers to pay for any transit service in the region is strongly encouraged.

System Information: Information about the system and how to use it are critical to the success of transit, especially new services. Information should be easy to understand and readily available from a wide variety of sources, including hotels, employers, municipal centers, etc.

Marketing*:* Effective and proactive marketing will be a key determinant of the recommended system's success. A consistent image for the system is important. Partnerships with communities and businesses are also critical to success.

Transit Centers and Stations: Providing convenient, pleasant and safe waiting areas for transit, especially where transferring takes place, is an important component of the recommended plan. Amenities provided at transit centers will be dependent on the level of activity and type of area.

Transit Stops: At transit stops, information about service should be available and shelters provided where demand warrants. All stations and vehicles should be accessible to all persons.

Park-and-Ride: In many locations throughout the DuPage County area, there are opportunities to provide park-and-ride lots for auto access to transit service. This is particularly important for the high-speed corridor serving more distant regional destinations.

Pedestrian Facilities / Environment: Every transit rider is a pedestrian at some point in their trip. Many comments were heard throughout this project about the need to improve the pedestrian environment in the DuPage County area.

Transit Supportive Land Use: If transit is to become a viable mobility alternative in the DuPage County area, land use and development that are supportive of transit, bicycles and pedestrian mobility must be pursued.

Safety/Security: It is recommended that a high level of safety and security be provided at stations, stops and other waiting areas, via emergency phones, closed circuit television, bright lighting, patrols, etc.

Expected Impact on Mobility

A qualitative analysis revealed that implementation of the recommended transit system will have a major impact on mobility in the DuPage County area. This table illustrates the change in performance of the mobility objectives between the current system and the recommended system (L=low, M=medium, H=high impact).

Mobility Objective	Description	Current Transit System	Recommended Transit System 2020
1	Integration with regional transportation system	L	M+
2	Impact on roadway congestion	L	M
3	Sustainable transportation system	L+	H
4	Provide mobility for transit-dependent populations	L	H
5	Connect hard-to-fill jobs with labor market	L	H
6	Sustain economic activity	L+	M+

Another way to look at the impact on mobility is to look at a comparison of current ridership to estimated ridership for the recommended system. Current bus ridership in DuPage County is approximately 2.6 million passengers annually. The estimated bus (non-rail) ridership in the recommended transit system is 7.8 million riders annually. Clearly this represents a significant increase in mobility in the DuPage County area. For the purposes of this simplified discussion, Metra commuter rail ridership is assumed to continue the steady growth that has been seen over the past decade and is not included in these numbers.

In addition, the percent of population and employment with transit access for local DuPage area trips were estimated using GIS analysis for both the current and recommended system. This chart summarizes the results.

	% of population in immediate service area	% of employment in immediate service area
Current transit system (2000)	20	31
Recommended transit system (2020)	65	74

Implementation of the Plan

Given the limited amount of local transit service available in and around DuPage County today, and the almost exclusive reliance on automobile travel for meeting current mobility needs, it will be a challenging process to develop transit as an integral part of the DuPage area's transportation system. The approach described in this plan is designed to produce a transit system in the long-term (by the year 2020) that is built in an effective and incremental way. In addition to developing transit services that meet residents' travel needs, the transit agencies and local officials must work to educate the public on how transit works and why everyone—not just

people without other mobility options— benefits from it. People must see and experience success in the early stages of implementation; otherwise, there will be little support for the larger investments needed to bring about the later stages. With careful planning, phased implementation, and marketing and information campaigns, we can build a transit system that will significantly improve mobility and support sustainable development in the future.

Throughout the course of the phased implementation, the existing transit service will be incorporated, expanded upon or restructured to become part of the recommended system. Particular elements for special coordination and consideration include feeder bus service to commuter rail stations and the Ride DuPage paratransit services. Maximum coordination and efficiencies between these services are encouraged.

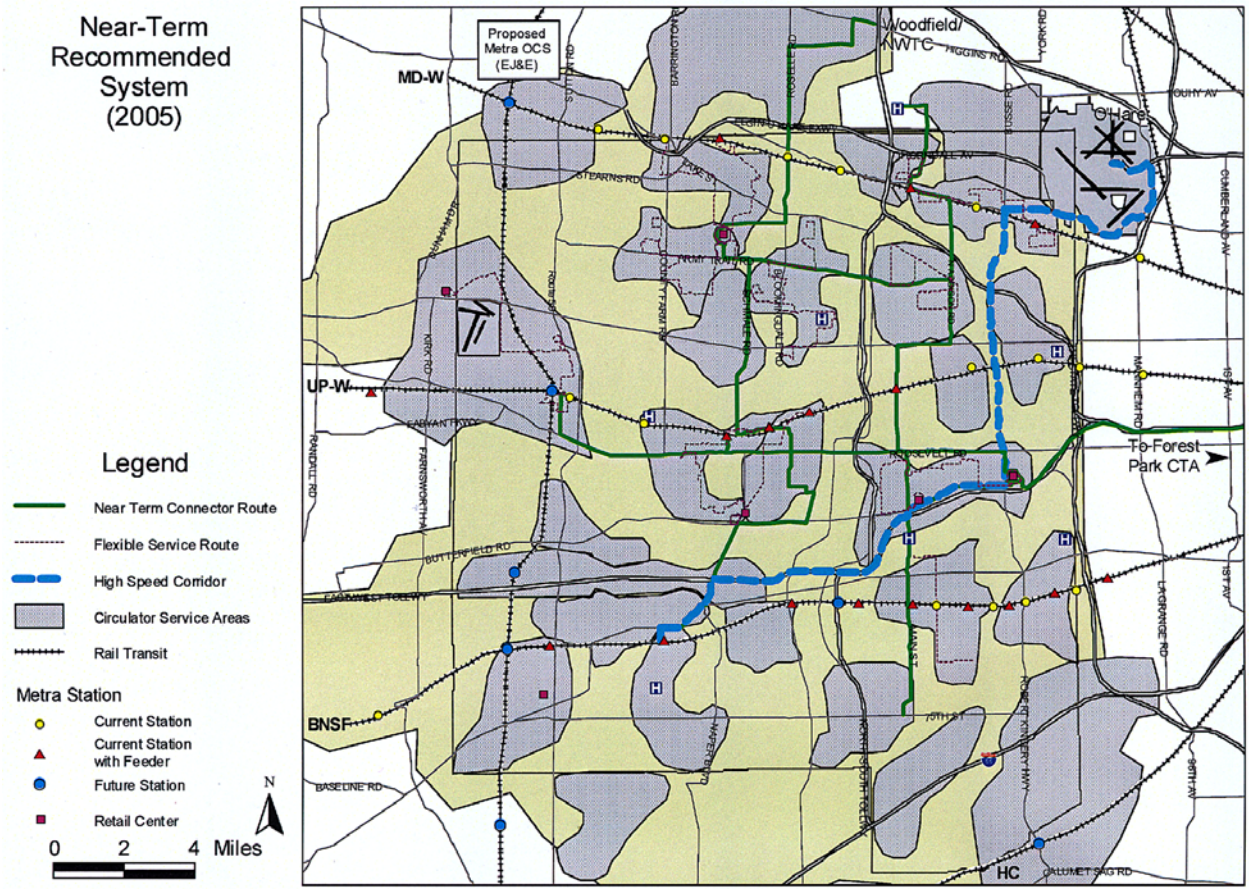
Near-Term Recommendations

Near-term recommendations are proposed to be in place by 2007 and remain in place for an additional five years until the mid-term services are implemented. The recommended near-term transit network is shown on the following page. It is presumed that existing Pace service will continue or become incorporated and expanded into the near-term recommendations.

The near-term transit network in the DuPage County area consists of the following elements:

- An O'Hare express route originating in downtown Naperville that also serves the Oak Brook area.
- Five connector (intra-county) bus routes, offering limited-stop service between local circulator areas.
- Twenty-eight circulator areas:
    - Eleven local circulator areas with either fixed routes or flexible routes.
    - Seventeen dial-a-rides. Service in these zones would be 100% demand responsive.

Local circulators should generally operate 12 hours per day every 20 or 30 minutes. In an area where work trips can be well served, service may operate from 7:00 a.m. to 7:00 p.m. In other areas, the circulator might be more appropriately targeted to a retail market operating from 9:00 a.m. to 9:00 p.m. Some areas may require fewer hours of service, while others require more.



Mid-Term Recommendations

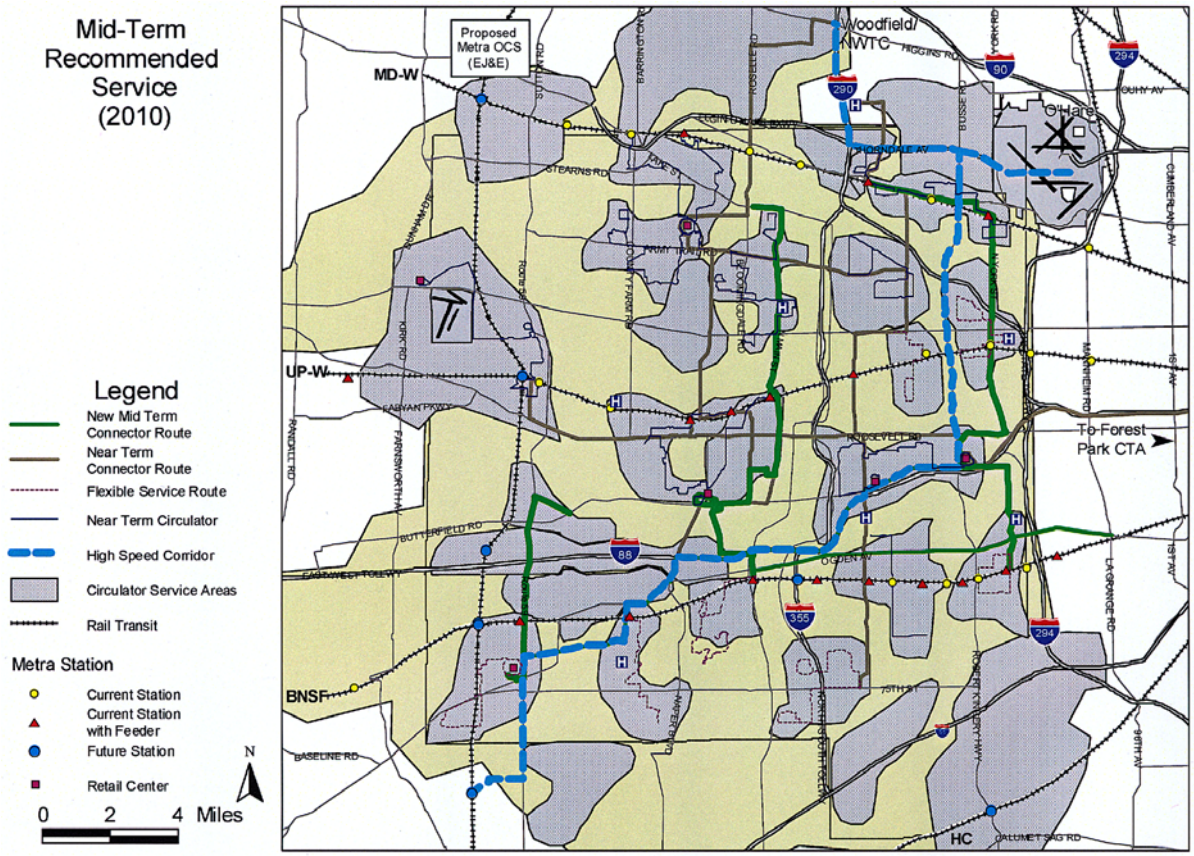
By 2012, the near-term system should have enough riders to warrant a system expansion. This expansion would include additional local circulator routes a larger connector and high speed corridor network. The following map highlights new or modified service from the near-term recommendations.

Mid-Term Services

The mid-term network would consist of the following elements:

- An expanded express high speed corridor route, extending all the way from the proposed 95th Street Station on the proposed Outer Circumferential Service to both O'Hare Airport and the Woodfield area (Northwest Transportation Center).
- Five new connector bus routes would be introduced.
- Additions and changes to circulator areas:
    - Six residential new dial-a-ride zones and four new employer-based service zones. Service in these zones would be 100% demand responsive (general public dial-a-ride).

- Eight new flexible circulator routes are added in seven circulator areas that were dial-a-ride zones in the near-term period.
- The circulator areas operating flex-route service in the near term would likely become fixed route circulators during the mid-term period, due to increasing demand.



An expansion in the number of hours of service provided in the local circulators is part of the mid-term implementation. By the year 2020, it is proposed that the long-term recommendation be fully implemented.

Costs and Funding

The following table summarizes the costs and ridership estimates by implementation time period, excluding Metra commuter rail. Costs are shown in current (2002) dollars.

Implementation Phase	Annual Operating Cost (millions)	Total Capital Cost (millions)	Annual Ridership (millions)
Short-Term Recommendations	$17.4	$31.8	1.8
Mid- Term Recommendations	$26.8	$45.5	4.0
Long-Term Recommendations	$38.1	$98.0	7.8

In the long-term, these costs represent an increase of $25.4 million in annual operating costs when compared to the estimated cost of providing current bus service in DuPage County.

Clearly the issue of funding both the operating and capital costs is a significant issue for implementation. As part of this project, a number of potential sources of funding for different parts of the project have been identified. These sources range from local municipal and business contributions and partnerships, to local transit providers, to federal sources. The pursuit of funding for transit services recommended by this plan should begin right away, particularly for the more expensive and capital-intensive services, such as the high speed corridor service.

Key Implementation Challenges

Many challenges face the implementation of any bold plan. This long-term vision for transit has been shaped by input from the public and local officials from the DuPage County area. This broad base of support will be critical in maintaining momentum for the DuPage Area Transit Plan as it moves through implementation phases. It will be very important for people to see and experience success in the early stages of implementation in order to build support for the larger investments needed to bring about the later stages.

Momentum: Implementation of the transit plan requires sustaining momentum. This will be a key factor towards successful implementation of the later phases. Support by an influential leader, or advocates, in the DuPage County area will significantly help maintain and increase momentum.

Funding: Finding sources of funding will be a key challenge. An important immediate action will be to work to assemble sources of funding to assist early implementation. The first few successes will make the next steps of implementation easier.

Improved Pedestrian / Roadway Environment: In order to have an environment where transit can be sustainable, serious consideration will need to be given to accommodating the pedestrian and transit vehicle in development and re-development. One way to overcome this challenge is to collect and share information from other areas of the country where pedestrian and transit friendly design was incorporated to the benefit of all.

Marketing and Public Information: Aggressive marketing and public information will be essential. Marketing will need to be taken to a new level to shift perceptions and create awareness among new and current transit riders. Proactive marketing and the formation of key partnerships between government and social service entities, residents, business groups, major employers and others, must also be pursued.

Immediate Actions

The first steps following the plan release are critical. Nothing will help implementation of new transit services more than being able to identify some early successes. Following are some suggested immediate steps following release of the DuPage Area Transit Plan.

The process of developing the plan provides an inherent level of activity and momentum. Nothing will help plan implementation more than being able to identify some early successes. The following list of items is meant to provide some suggested immediate steps to take following completion of the Transit Plan development project.

- Set realistic goals—identify some quick successes to build upon. These might include identifying a community or business group that is interested in expanding existing service or

commencing local circulator service. Working with them to bring projects to implementation will help build momentum.

- Work with existing providers (Pace, Metra, municipalities, townships and County) to begin discussion of potential changes to existing service, augmenting existing services, or coordination with Pace Vision 2020.
- Form key partnerships with the business community to determine their needs and resources to assist in bringing a focus to transit possibilities. Leverage employers ability to provide tax-free benefits for transit to their employees.
- Further refine the recommended alternative. Prioritize, develop specific action items to pursue in the very short-term. These may include things like exploring alternative service provision options, identifying possible funding sources, with specifics such as application timelines, matching requirements, and assembling resources to assist interested communities and businesses in developing service ideas and approaches.
- Assemble an Implementation Team – including the current providers, the RTA and others – to follow through on early action items and to develop regional support and assistance in securing funding for plan implementation.
- Commence detailed study of specific implementation of the high-speed corridor service.
- Encourage and/or facilitate Transit Oriented Development (TOD) studies among communities with exiting or planned transit centers and commuter rail stations
- Monitor the progress of the following studies to assess their impact and incorporate their findings into future implementation activities.
  - Metra Outer Circumferential Service Corridor Study
  - Northwest Corridor Study
  - Pace/Metra Bus-to-Rail Study
  - Metra Inner Circumferential Study
  - BNSF Outer Corridor Study
  - Kane County Transit Market Assessment
  - DuPage County Park-and-Ride Study
  - Naperville's Comprehensive Transportation Plan
- Monitor plan implementation and periodically update the DuPage Area Transit Plan (every three to five years) to stay abreast of current services, changing travel and land use patterns, and unforeseen needs.

The Process of Transit Plan Development

This report presents the final results of the DuPage Area Transit Plan project. The Transit Plan is the culmination of a process that actively involved the citizens of the DuPage County area, the thirty six member communities of the DuPage Mayors and Managers Conference (DMMC), DuPage County Board members and staff, regional transit providers and Conference staff. Early in the project, there were high levels of participation in establishing transit objectives, mobility needs, and challenges of the existing transit system. An inventory of transit service ('Inventory of Transit Services in the DuPage County Area') was previously undertaken to identify existing services and studies as well as to explore potential innovative transit services. This was followed by a market assessment that analyzed demographic characteristics and travel patterns in the study area. Together, these pieces led to the development of some initial options and opportunities that were then taken to the public for further input and refinement. Careful evaluation of public input, projected ridership levels, cost estimates, and expected effectiveness in meeting mobility objectives guided the development of the final recommended transit system, presented in this document. This section of the report summarizes these steps.

Purpose and Mobility Objectives

The overall objectives in undertaking the DuPage Area Transit Plan project were threefold:

1) To bring about an informed stakeholder group of public officials, transit providers and the traveling public,
2) To undertake a comprehensive analysis of potential transit services, travel markets and enhancement opportunities, and
3) To develop sound recommendations for potentially viable transit service options that meet the needs and objectives of residents, public officials, employees and businesses in the DuPage County area.

Early on in the project, the DMMC established a set of six mobility objectives that would be used to evaluate the recommended scenario against issues that are important to local officials in the DuPage County area:

1) Implement transit service to reduce or contain highway traffic congestion in select corridors, subareas or employment centers,
2) Utilize public transit to link local and regional labor markets with hard-to-fill jobs in the DuPage County area,
3) Establish and ensure an appropriate level of mobility for transportation-disadvantaged residents of the DuPage County area,
4) Integrate transit services with all modes of the regional transportation system,
5) Utilize public transit and transit-oriented development (TOD) strategies to sustain the economic vitality of mature downtowns and regional retail/commercial centers, and
6) Develop a sustainable transportation system in the DuPage County area.

Public Involvement

DMMC strongly believes that citizen input is essential to informed decision-making in public planning initiatives. A public participation plan was developed at the onset of the planning effort to outline the critical roles of local officials, stakeholder groups, transit agencies, and the general public in developing the transit plan, as well as in how the information would be integrated into the decision-making process.

There were two main objectives of the DMMC with respect to its public participation efforts:

1) Provide numerous opportunities to educate the traveling public about possible transit service options for the future and to solicit their vision of future mobility and access within the DuPage County area in the next 5 and 20 years, and

2) Provide a structured outreach process for gathering data and input from various stakeholder groups and market segments to enhance the decision-making of local government leaders.

The public participation process established better two-way communications between the public and its officials through a variety of means to provide both technical and market research data as well as opportunities for substantive input in this Plan's development.

Local appointed and elected officials acknowledged their accountability to their constituents and embraced their role in shaping the future vision of the DuPage area to ensure needed mobility and access to work, leisure activities, shopping, and other daily activities. As public officials, local government leaders value the advice, concerns, and issues that community members face when commuting and traveling throughout the region.

Local government leaders exchanged insights gained from public dialogue and their own views of mobility and quality of life in the DuPage region throughout the project at DMMC workshops and meetings, as well as at other formal and informal exchanges. The value of such insights should not be underestimated and are invaluable to a plan development process led at the local level.

Strategies of Obtaining Input from Local Officials

Interviews with Municipal Officials

Twenty-one local leaders from thirteen communities were interviewed between May and July 2000 at the onset of the project to gain their insights on mobility and quality of life issues in the DuPage area. These interviews helped to guide the broader data collection efforts and to formulate public outreach strategies.

Workshops for Local Government Officials

Three workshop sessions for municipal and DuPage County officials were held to educate, promote open discussion, and enhance collaborative decision-making regarding the development of this transit plan. The first workshop was held on June 3, 2000. Nearly all DMMC member jurisdictions were represented. This workshop helped to identify strategic areas of interest, current issues and important stakeholders for the process. The second workshop, held on September 19, 2001, provided local officials with facilitation training for community listening sessions. The third workshop, held on December 1, 2001, involved a detailed discussion of the

current transit system and regional service providers, the market for transit in the DuPage area, community listening session results, and potential system concepts. These workshops played a key role in equipping public officials to better communicate with and make informed decisions on behalf of their constituents.

DMMC Committee Meetings

The specially developed Transit Plan Advisory Committee (TPAC) and the DMMC Transportation Policy Committee, with representation from two DuPage County Board members, served as important vehicles for sharing technical and public outreach data among local officials and regional transit agencies on a regular basis. Their meetings offered government and agency representatives the opportunity to discuss and interpret project information and to discuss its incorporation into the planning process and final report. Monthly committee reports to the DMMC Board of Directors and full mayors and managers membership routinely kept all municipal leaders apprised of the project's status and findings.

Strategies for Public Outreach and Information Sharing

The following five strategies were used to obtain community perspective for the development of the DuPage Area Transit Plan:

1) Community listening sessions conducted by local government officials,
2) Focus groups composed of targeted stakeholder groups,
3) Public Choice Forums to explore preferences regarding transit service options among the general public and stakeholder groups,
4) Invitations to comment through electronic and published media, including a project web site and public circulation feedback forms, and
5) A public hearing for interested citizens to comment on the proposed plan.

Each of these strategies is briefly summarized below.

Community Listening Sessions –Local officials throughout the DuPage County area hosted community sessions to hear from their constituents and area stakeholders about their concerns and visions for future transit. A total of eighteen sessions were held, hosted by officials from 29 communities and DuPage and Kane Counties. Results are provided in the Market and Needs Assessment chapter of this report.

Focus Groups – Two focus groups were organized to elicit the perspectives of a targeted group of stakeholders, including private citizens. The questions were designed to confirm assumptions and insights previously provided by subject experts and local government officials. Two groups of ten participants were recruited for focus group sessions. Results are provided in the Market and Needs Assessment chapter of this report.

Public Choice Forums – Public Choice Forums held on December 10 and 12, 2002 at the College of DuPage presented specific transit service options in an open house format to obtain input from the general public. Approximately seventy-five participants reviewed material at a number of stations and indicated their preferences regarding service, vehicle and station attributes, as well

as operational system concepts. While not scientifically significant, this input was instrumental in developing the recommended transit scenario and defining service attributes.

Invitations to Comment through Electronic and Published Media – A project web site was developed to make information about the plan development process, project status, research findings and draft documents available to the public on an on-going basis (www.dupagetransitplan.com). Comments on any and all aspects of the project were submitted through the web site. Other outreach efforts such as paper media and local cable channels, were also pursued to spread the word about the project.

Public Hearing – The public hearing is an important and necessary step to allow any and all residents of the DuPage area a final opportunity to register their comments about the draft plan. A six week public comment period will be initiated upon approval of the DMMC to release the report. Public comments will be accepted electronically and in writing throughout the six-week time period, as well as at a public hearing/open house to be scheduled in mid-July 2002.

Market and Needs Assessment

Both public input and technical analysis were used to identify the market and needs assessment for this project. Two public input efforts were undertaken at this phase of the project:

- Focus Groups, and
- Community Listening Sessions.

The other avenue that was undertaken was a technical analysis of current transit services, demographic characteristics and travel patterns. Each of these elements is summarized below.

Public Input

Focus Groups

Two focus groups were conducted as part of the overall communications process to gather input from residents throughout the planning stages of the DuPage Area Transit Plan. The focus groups were held in early September 2001 at the College of DuPage in Glen Ellyn, Illinois.

One focus group consisted of stakeholders representing a variety of different organizations throughout the county. The rationale for composing the group in this manner was to ensure that feedback was recognized from a wide variety of people in communities throughout the study area. Thus, participants spoke on behalf of the constituents they represented – including seniors, students, businesses, hospitals and low-income workers.

The other focus group provided an opportunity to gather input from individual residents; both commuters and non-commuters.

The focus groups covered a wide array of topics:

- Current barriers to using transit
- Finding transit information
- The role of transit-related incentives
- Why people do not use transit
- Transit-related programs that require improvement
- The future
- How to enhance quality of life via transit

There were a number of similarities between the responses of the two groups. In particular, both groups expressed frustration with the unavailability of transit service in the DuPage County area. The current service was viewed as too limited in location and not frequent enough to be useful. The lack of effective marketing and information was also seen as a barrier to using transit service.

In general, the groups thought that the low usage of transit service in the DuPage area is strongly related to the limited service. Transit is not viewed as very competitive with the automobile for those who have choices.

Another issue that was frequently raised is the difficulty in traveling by foot or bicycle in the county. Likewise, the pedestrian environment was not viewed as hospitable for walking to/from bus service.

Many people had used transit service – either elsewhere in the Chicago area or in other regions. In looking to the future, the groups generally agreed that transit is a difficult sell in the DuPage County area. That said, there was a great deal of acknowledgement that mobility options will need to be developed. The options that people described ranged from light rail to various descriptions of types of services generally characterized as local circulators. The ability to customize these local services to travel needs was of interest. There was a discussion about the need to educate people about the benefits of using transit. This issue again related to the marketing and information items discussed earlier.

Focus group participants articulated that mobility issues have an impact on the quality of life in the DuPage County area and expressed concerns about the ability to continue to live in the area as they age.

Community Listening Sessions

The Community Listening Sessions (CLS) took place in October and November 2001. Eighteen sessions were held, representing 29 communities. The Community Listening Sessions were hosted and conducted by the local mayor or manager of the community. To ensure consistency, all communities in DuPage were provided a "CLS facilitation kit" that included a PowerPoint presentation to use as the basis of their session. DMMC and municipal staff recorded the discussion for each listening session.

The following is a list of municipalities that hosted or cohosted a CLS. Additionally, governmental officials from both DuPage County and Kane County participated in Community Listening Sessions. More than 270 people, representing the general public, elderly and disabled, employers and business, and public officials, participated in the sessions.

- Addison
- Bloomingdale
- Burr Ridge
- Carol Stream
- Clarendon Hills
- Darien
- Elmhurst
- Geneva
- Glen Ellyn
- Glendale Heights
- Hinsdale
- Itasca
- Lemont
- Lisle
- Lombard
- Naperville
- Oak Brook
- Oakbrook Terrace
- Roselle
- St. Charles
- Villa Park
- Warrenville
- Wayne
- West Chicago
- Wheaton
- Willowbrook
- Winfield
- Wood Dale
- Woodridge

The Community Listening Sessions had the following purposes:

- To understand mobility needs and wants,
- To identify challenges of the existing system, and
- To identify possible transit options.

The Community Listening Session format helped successfully develop specific information to use as input to the transit service design process. Many similarities were identified throughout the sessions as well. The remainder of this section summarizes the overall findings of these sessions.

People viewed transit as important for getting to work and recreational activities in DuPage for getting to/from Chicago on Friday nights and weekends. They also saw a market for transit to serve special events and malls in and around their community. Almost without exception, the people who participated in these sessions believed that there should be more bus and train service in the DuPage area and better coordination between buses and trains – more integrated service.

In looking forward, participants identified markets that are important to be served. They highlighted local mobility – to grocery stores, social activities and doctors. Compared to the limited dial-a-ride programs that some participants have experience with, a way to travel with greater flexibility in "call-ahead" time and the number of allowable rides was desired.

When asked to describe what characteristics transit service should have, people said that any service must be reliable and easy to understand. People need to have information about it so that it can be a mode of choice. Also, people felt that any service should have accessible station/bus stop facilities so that everyone – including those using wheelchairs or other mobility devices or those pushing strollers or carrying parcels – can get on and off transit vehicles easily. Benches and shelters were desired to improve the waiting portion of the trip. There was also an interest in service that was direct, or customized, to the extent possible.

Other suggestions included increasing the vanpool services that Pace currently offers; expanding the hours for Pace service; developing a system with improved coordination between bus, train and car modes; and more park-and-ride lots.

On a broader level of discussion, participants in the Community Listening Sessions were interested in the development of project concepts and visions. They acknowledged that trade-offs would have to be made and that cost issues would come into play. They also raised the issue of integration with the trails system already developing in DuPage. Participants shared a strong sense of the need to cultivate public support for using transit. A nearly universal comment was marketing transit products differently and more aggressively than is the case today.

Participants also came up with some detailed ideas. Some people wanted to see Metra lines used for east-west travel in the county with north-south transit services connect to Metra. Others saw the Elgin-O'Hare extension as a transit opportunity. Another opportunity to relieve congestion in the southeast part of the county was to develop a transit station and footbridge at IL 83/ I 55 to access Metra.

Participants in the Community Listening Sessions also had concrete ideas about how the service should be designed. They suggested that local routes should be able to both bring people to the trains and from the trains to employment sites. They also wanted to make sure that transit vehicles could carry parcels, suitcases and other baggage.

Participants also discussed the potential for transit to influence the sense of community. People saw the potential for transit transfer stations to serve as a community or social facility – a gathering place. Also, people saw the need for transit "provisions" to be included in new residential developments.

Technical Market Assessment Findings

An extensive Market Assessment Technical Memorandum was prepared for this project. The following section summarizes the findings from this memorandum.

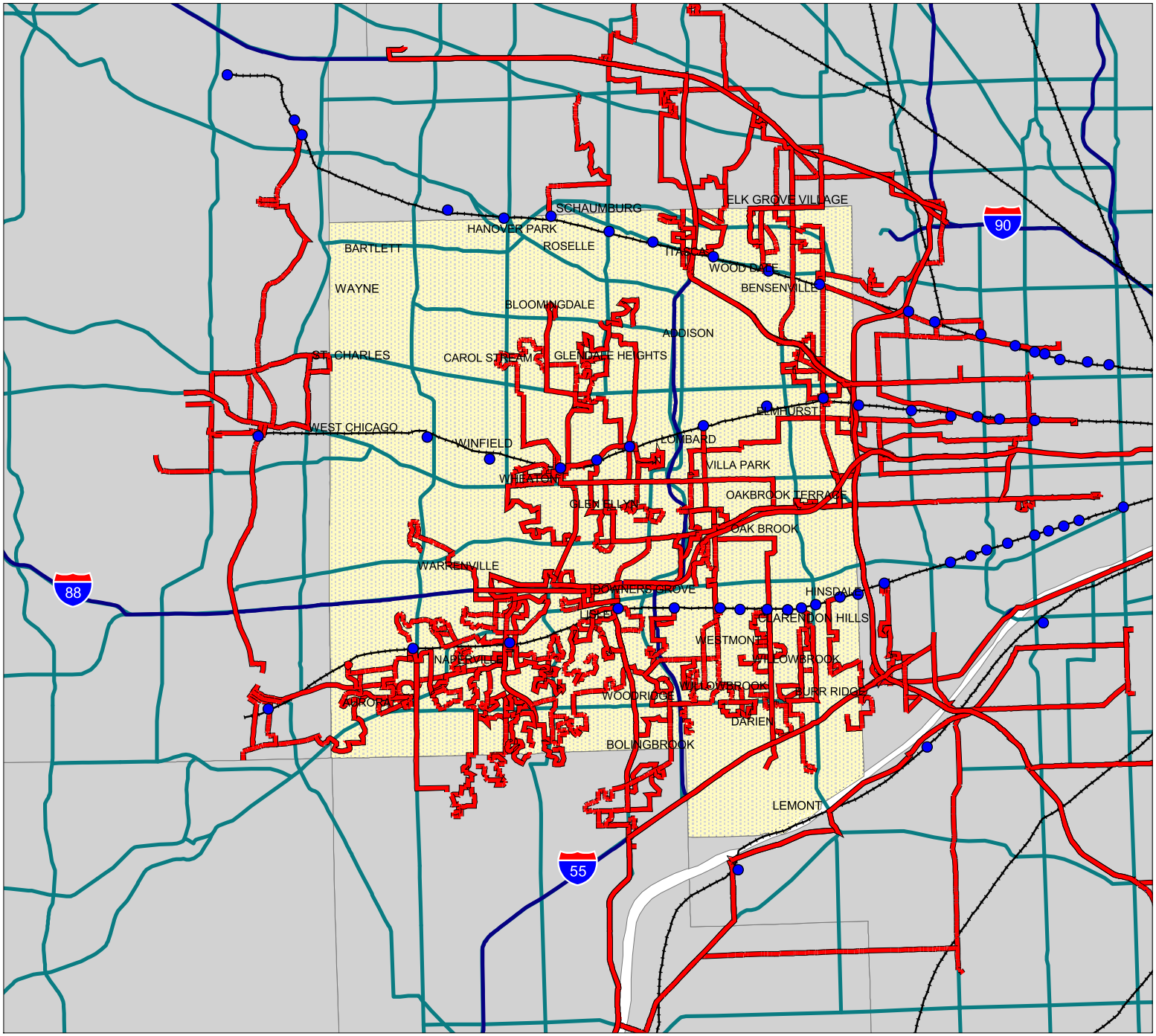
To make an assessment of the market and potential market for transit in the DuPage County area, a number of factors were studied:

- Transit network by time-of-day,
- Population and employment characteristics – transit potential index,
- Demographic analysis – general public and transit riders, and
- DuPage travel patterns – work and non-work.

Transit Network

The characteristics of the current transit network in the DuPage County area were reviewed. It was found that transit availability varies widely according to time of day or day of week. Figures 1 through 4 show the transit network in the DuPage County area for peak weekdays, off-peak weekdays, Saturdays, and Sundays, respectively. The peak-hour weekday map (Figure 1) appears to have a reasonably high level of service. Most of the fixed route service is targeted to serving Metra commuters and operates partial days. The off-peak weekday map (Figure 2) is illustrative of the service that is available for intra-DuPage travel. This is a much more limited network, and explains why there continues to be a concern among the general public about the amount of transit service in DuPage. Saturday service (Figure 3) is similar to the off-peak network; however, the frequency of buses is more limited. Finally, the Sunday route map (Figure 4) shows the extremely limited service level operating on that day.

Figure 1
Peak Period
Transit Network

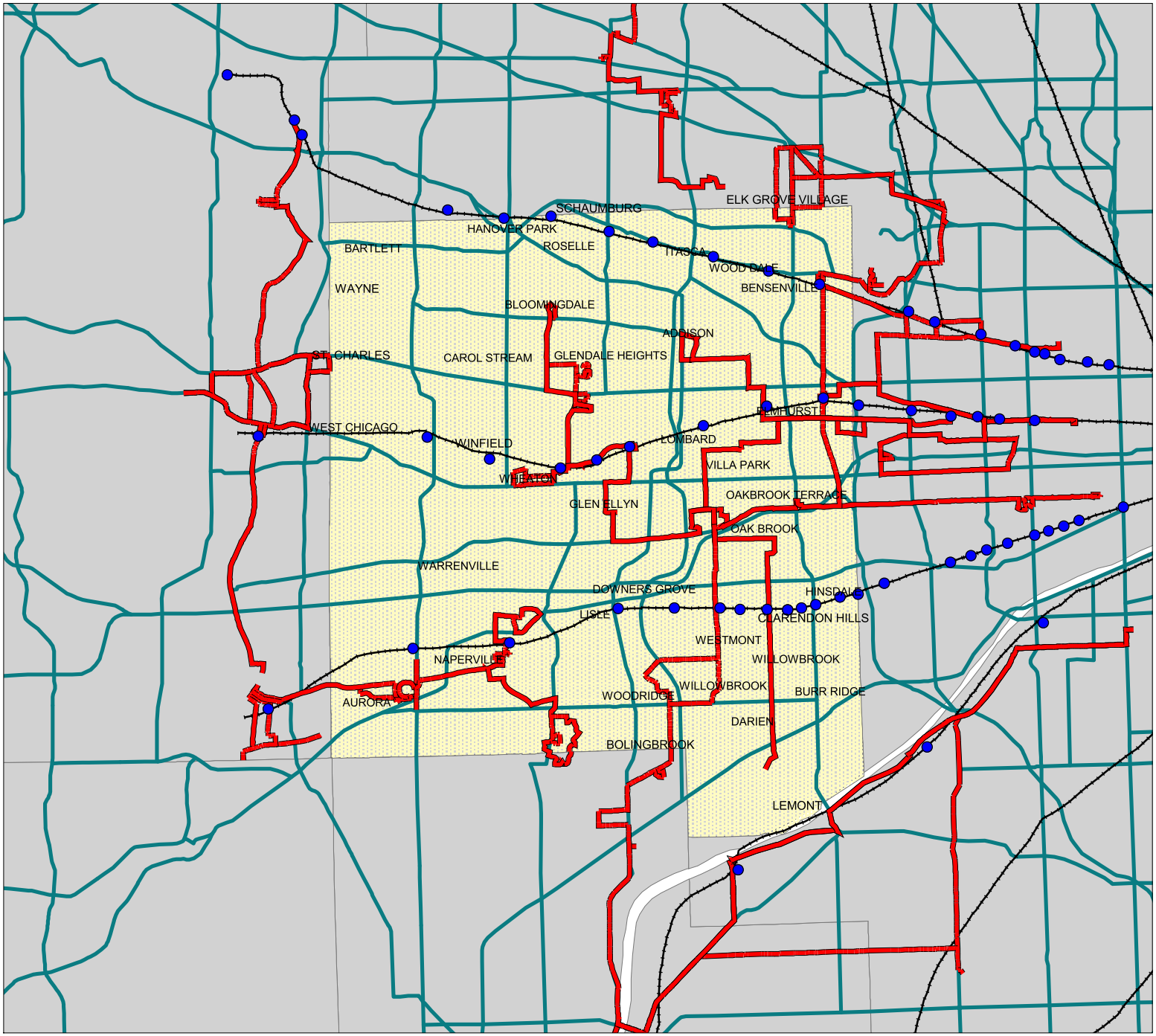


Legend

- Peak Service
- Metra Station
- Metra Line
- Major Streets

0 3 6 Miles

Figure 2
Off-Peak
Transit Network



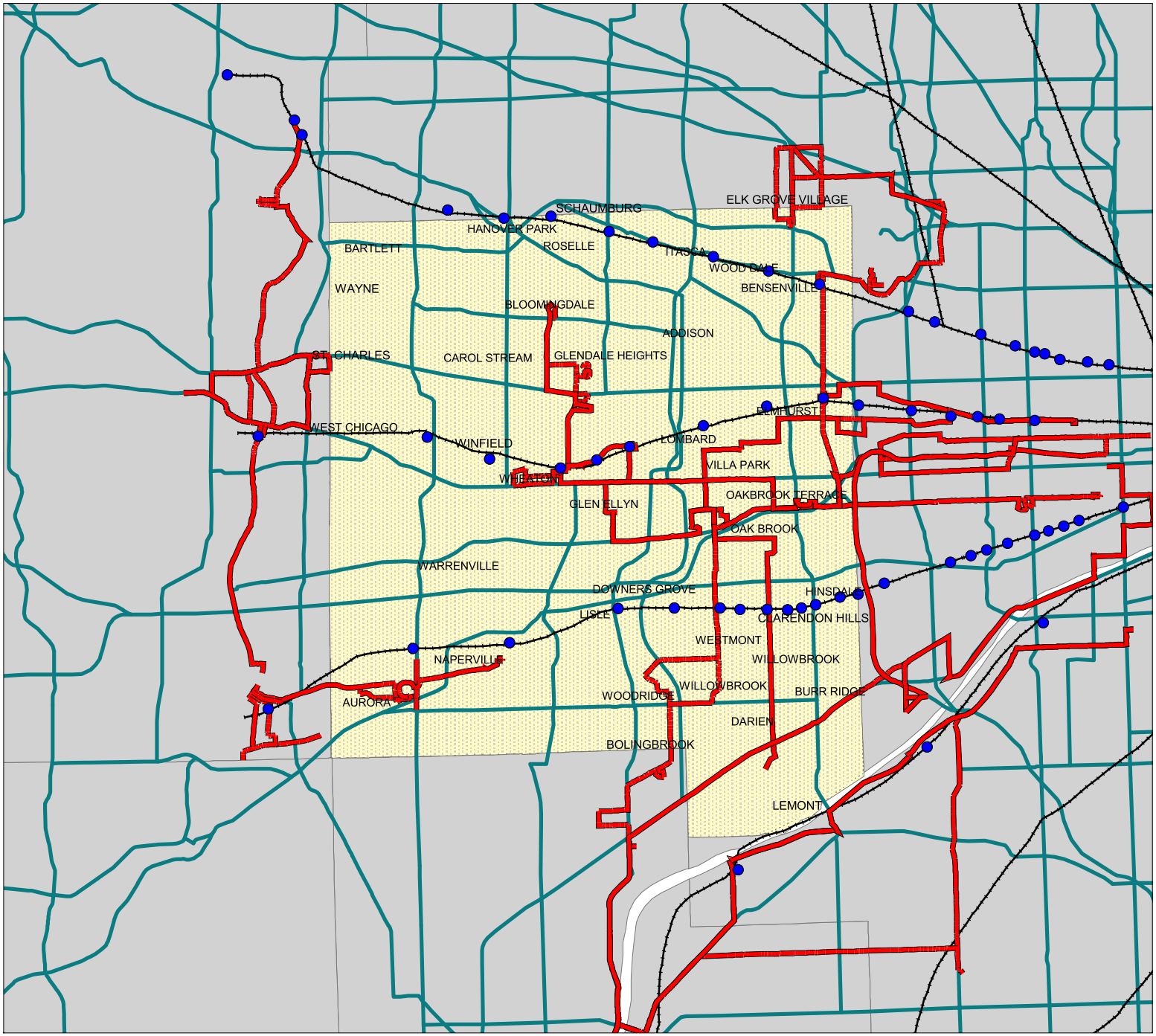
Legend

- Off-peak Service
- Metra Station
- Metra Line
- Major Streets

N

0 3 6 Miles

Figure 3
Saturday
Transit Network



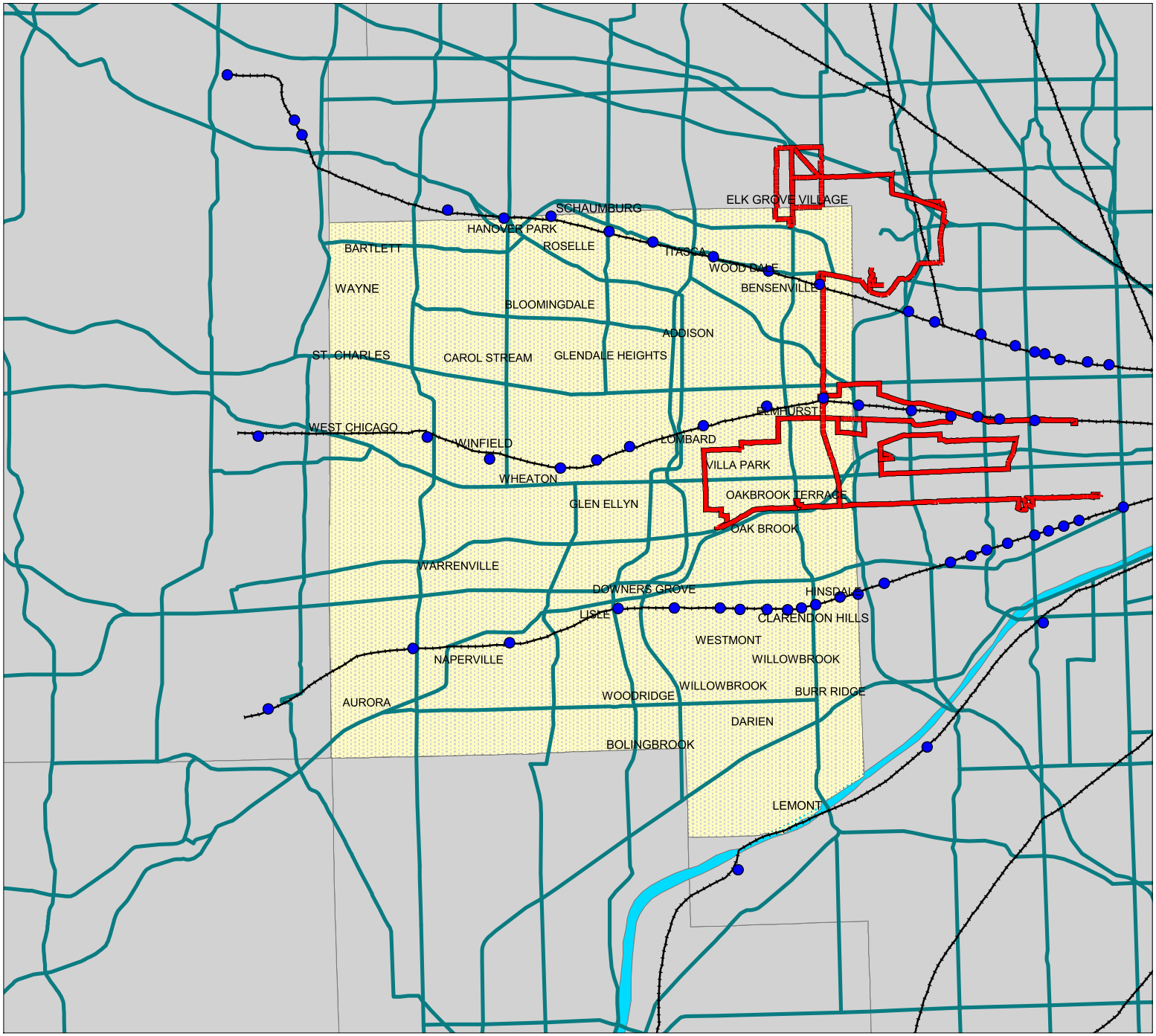
Legend

- Saturday Service
- Metra Station
- Metra Line
- Major Streets

N

0 3 6 Miles

Figure 4
Sunday
Transit Network



Legend

- Sunday Service
- Metra Station
- Metra Line
- Major Streets

N

0 3 6 Miles

Transit Potential Index

There are some "rules of thumb" that can assist in identifying areas where transit may have a reasonable chance of being successful. It should be noted that many other factors come into play but, as a starting point, population and employment densities are good indicators. The rule of thumb for population density, based on the *Transit Capacity and Quality of Service Manual* (TCQSM) (published by the Transit Cooperative Research Program, a part of the National Academies of Science, in January 1999), is that an area with three households per acre can support some level of transit service. This is equivalent to areas with ¼ acre lots. There are many parts of the DuPage County area that meet this minimum threshold. Looking ahead to the projected year 2020, there are even more areas that move into this threshold.

For employment, the *TCQSM* suggests that a level of four jobs per acre can potentially support transit services. There are many locations in DuPage County that achieve this threshold. Some of the most dense employment areas are located in the following:

- Addison
- Aurora
- Bensenville/Wood Dale
- Darien/Burr Ridge
- Glendale Heights
- I-88 Corridor
- Itasca
- Naperville
- West Chicago
- Westmont

A transit potential index was created for this analysis in a market assessment that combined household and employment statistics to a scale that identified high, medium and low transit potential. This was done for both of the years 2000 and 2020. Figure 5 displays the results of that analysis for the year 2020.

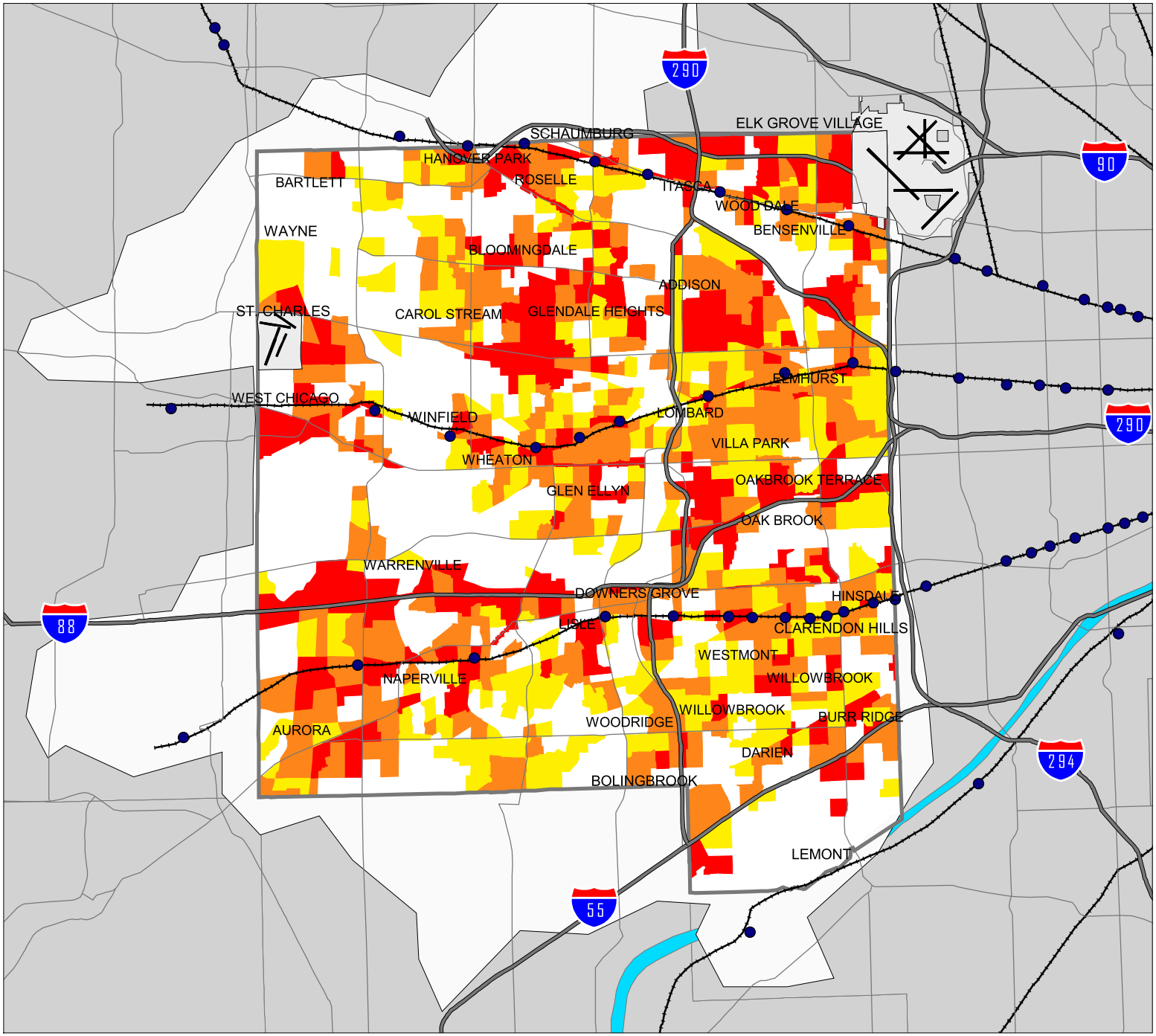
Demographic Characteristics

The population of DuPage County is currently 904,161 (2000 Census), and is expected to grow to 993,915 by 2020. The county is also a major employment center in the Chicago metropolitan region, employing 541,992 in 2000, with a forecasted employment of 779,884 in 2020. Demographic attributes such as age, income and auto availability are often looked at as indicators of potential transit use. As with the density thresholds identified in the prior section, these attributes are not predictors of transit success, merely another piece of the information that is assembled to make that assessment.

Age

When looking at age, typically the residential location of the elderly as well as pre-drivers are identified. Using data from the 2000 U.S. Census, the locations of these two populations can be plotted. This analysis indicates that the highest concentrations of elderly residents live in the eastern third of the county. While there is no specific age at which people can no longer drive, and while many people in their sixties and seventies are healthy, lead active lives, and are perfectly able to drive themselves, a growing percentage of people as they reach their seventies and eighties cannot, or should not do so.

Figure 5
2020 Transit Potential in DuPage County



Legend

Transit Potential

- Little
- Low
- Medium
- High
- Study Area
- Interstate Highway
- Major Streets
- Metra Line
- Metra Station

N

0 2 4 6 Miles

Source: DuPage County DOT

High concentrations of senior citizens are evident in a number of locations, including Elmhurst, Wood Dale, Oak Brook, Downers Grove, Burr Ridge, and Naperville. Moderate concentrations are located in a number of areas, mostly in the eastern half of the county. While some of these areas have bus service, many have no off-peak service, including the Wood Dale/Itasca area, the area near West Chicago, portions of Downers Grove, and parts of Willowbrook and Darien. The community of Bloomingdale contains several block groups with a moderate concentration of senior citizens and no off-peak bus service.

The highest concentration of youth are located in the middle third of the county. People between 10 and 17 years old may have significant mobility needs for school and after-school activities, but most can not drive. To the extent that their parents are unable to transport them, public transportation is needed to fulfill those needs from Roselle and Bloomingdale in the north to Naperville and Woodridge in the south. Many of the block groups in Wheaton have concentrations of 15% or more. As with the senior population, many of the areas with higher youth concentrations are not well served by off-peak bus service. While Wheaton and Naperville have limited off-peak service, the routes do not necessarily serve the places in which young people live. For youths living in the north-central part of the county, there is no off-peak transit service available.

Income

Data from the Illinois Department of Human Services (IDHS) provided insight into where, by census tract, recipients of state aid are living. IDHS data on the residential location of TANF, TANF medical, and food stamp assistance clients was plotted. The highest concentration of low-income clients was across the upper third of the county (Bensenville, Addison, Glendale Heights, Carol Stream) and also in south central DuPage County (Bolingbrook, Woodridge, Darien).

Auto Ownership

The U.S. Census also provided information on the percentage of households in different parts of DuPage County that do not own a vehicle. In general, auto ownership in the county appears to be high – in the majority of block groups at least 95% of households own a vehicle. This is not surprising given the development patterns in the county and the current lack of non-commuter focused transit services. Without an automobile, most DuPage area residents would not be able to go about their daily lives because of the lack of mobility options. However, there are a few block groups in which the percentage of households without a vehicle is at least 15%. These areas include portions of Naperville, Wheaton, Carol Stream, Glendale Heights, Downers Grove, Westmont and Elmhurst.

Transit Rider Characteristics

The previous section summarized the demographic characteristics of the general public. This section summarizes market research data from Pace and Metra. As can be seen in Table 1, there is a similar age distribution between Pace and Metra riders. There are, however, some very significant differences in the demographics between the two services. Pace riders have a lower income and a lower auto ownership level than Metra riders. If you look at riders destined to downtown Chicago (this would be Metra riders inbound in the morning and Pace riders of feeder bus routes), you see higher incomes and auto ownership levels than Pace and Metra riders destined for DuPage. These observations highlight the subtleties within the market for transit

Table 1: Demographic Characteristics of Pace and Metra Riders in DuPage County by Market Segment

		Pace Bus Riders		Metra Riders	
		Destined for Chicago	*Destined for DuPage County*	*Destined for Chicago*	*Destined for DuPage County*
Cars in Household	*No car*	9.7%	34.2%	0.1%	6.3%
	1 car	33.6%	36.3%	25.3%	48.1%
	2 cars	41.9%	21.6%	54.7%	33.7%
	3 or more cars	14.8%	7.8%	19.9%	11.9%
Age	*18 and under*	1.4%	2.5%	0.3%	1.7%
	19-24	4.4%	11.7%	4.3%	10.7%
	25-44	38.1%	42.8%	55.5%	49.7%
	45-64	53.5%	35.5%	38.9%	36.2%
	65 or more	2.6%	7.6%	1.0%	1.7%
Household Income	*Less than $25,000*	12.6%	37.5%	2.7%	13.4%
	$25,000 - $39,999	13.1%	20.0%	5.0%	20.4%
	$40,000 - $74,999	32.1%	23.9%	26.8%	31.8%
	$75,000 - $99,999	21.6%	6.6%	23.7%	17.8%
	$100,000 or more	20.7%	12.0%	41.8%	16.6%

services. This market level data is from the 1999 Metra On-Board Survey and 2000 Pace Customer Satisfaction Survey data.

Travel Patterns

Data on travel patterns were also examined for this analysis. In determining the opportunity areas for transit, it is important to understand the nature of overall travel. When large numbers of trips are occurring between two areas, there is a good possibility that transit can be a successful part of the mobility picture.

In order to look at travel patterns, the most recent (1990) Journey-to-Work data for DuPage County was analyzed. Although the 2000 Census was completed at the time of the analysis, the Journey-to-Work data will not be available until 2003 and could not be used. For non-work trips, CATS' Household Survey data (1993) were used to identify travel patterns. The data and travel pattern results were discussed by several project committees, along with the information that was collected through the various public outreach efforts.

The travel pattern analysis was done by selecting certain origins or destinations throughout the county and plotting the other end of the trip. Selected areas in the county were identified. Several sample maps are shown in Figures 6 through 9. They are meant to be illustrative of the analysis. A more comprehensive set of maps is included in Technical Paper #1.

Figure 6 shows work trip patterns *to* South Addison, and Figure 7 shows work trip patterns *from* Addison. In both cases, a fairly localized pattern of travel is seen from the data. Most people –

those coming into Addison to work, as well as residents of Addison – are traveling relatively short distances. This contrasts with the pattern seen in Figure 8, work trips *to* Oak Brook. In this figure, Oak Brook's characteristics as a regional attraction for work trips can be seen. This is an intuitive result and is supported through the additional sources that we have used to confirm these trip patterns. To determine work trip patterns, many of these origins and destinations were plotted and analyzed.

An example of non-work travel pattern analysis, Figure 9 represents non-work trips to Stratford Square Mall. The data represented is the percentage of trips from different areas. Similar to the Oak Brook work trips map, this figure shows the regional nature of non-work trip patterns to the mall. This type of pattern is also apparent when looking at the Oak Brook Shopping Center and Fox Valley Mall. Other shopping centers display a smaller marketshed.

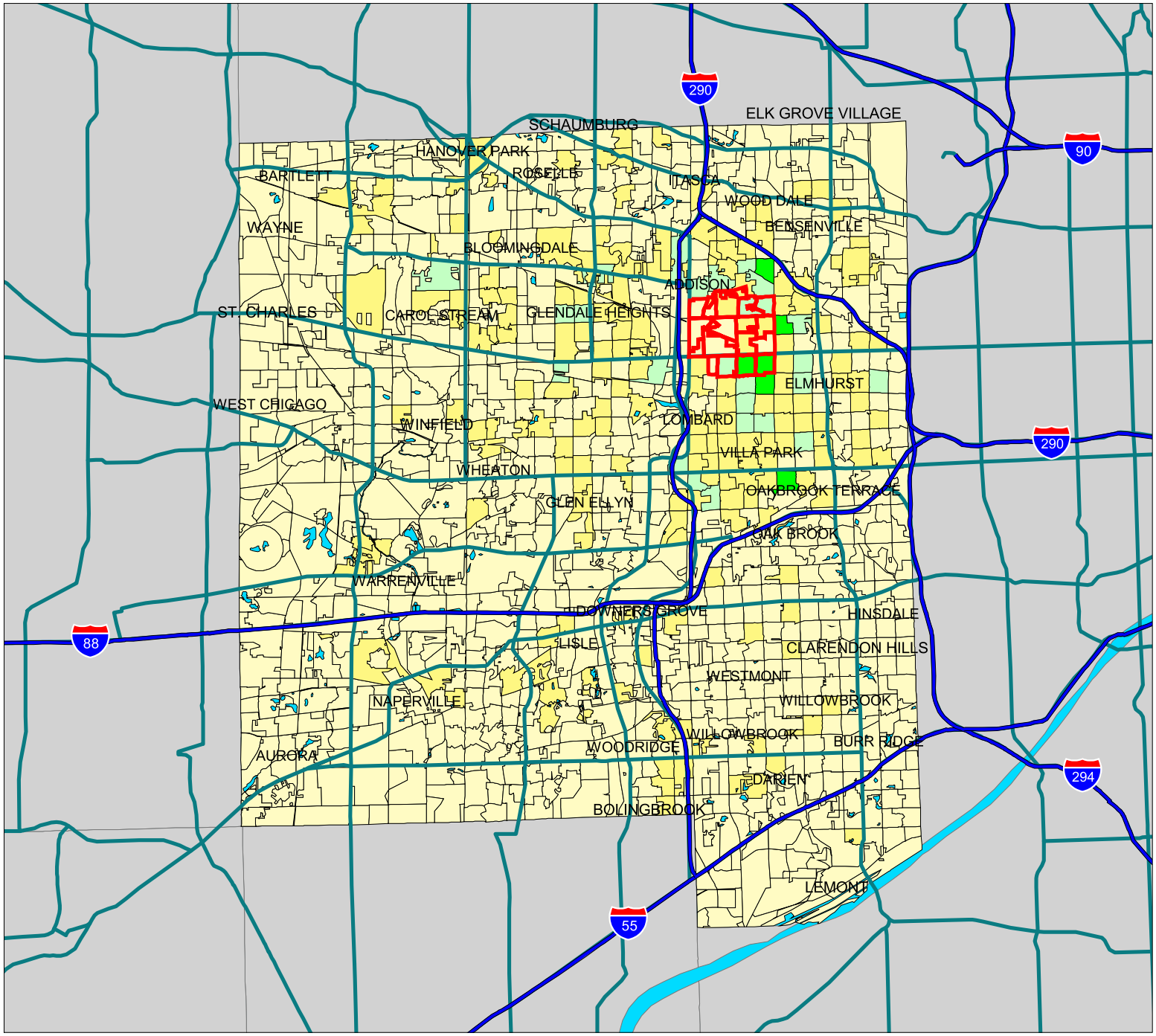
Overall Findings of the Market Assessment

The Market Assessment – including the transit potential index, the demographic analysis of riders and non-riders, and the travel pattern analysis – identifies several key findings:

- There are a number of areas of transit potential throughout DuPage County,
- Strong localized trip patterns are observed, with the exception of some regional markets such as Oak Brook and some of the other concentrations of retail activity, and
- Sustainable transit markets will be found by overlaying opportunity areas – that is, serving both a commute and discretionary markets with similar services.

Figure 6
Work Trips
To South Addison

County of Origin	
DuPage:	8,770
Grundy:	0
Kane:	533
Kendall:	46
Lake:	300
McHenry:	217
Will:	528
Cook:	4,848



Legend

Number of Work Trips

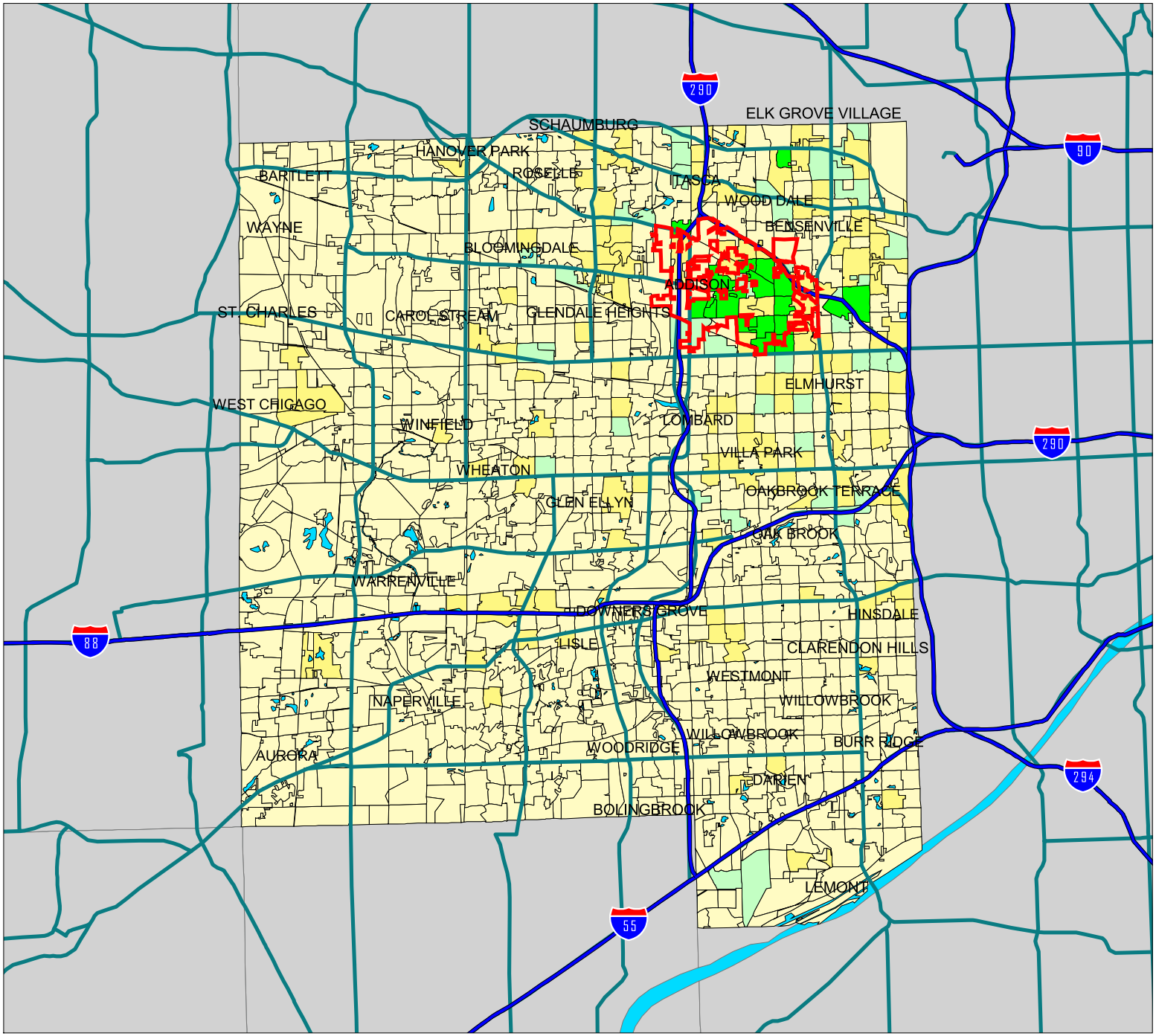
- Less than 10
- 10 - 50
- 50 - 100
- 100 or more
- Employment Zone
- Interstate Highway
- Major Streets

N

0 2 4 6 Miles

Figure 7
Work Trips
From Addison

Destination County	
DuPage:	11,262
Kane:	280
Kendall:	0
Lake:	231
McHenry:	8
Will:	18
Cook:	7,325
Chigago CBD:	474



Legend

Number of Work Trips

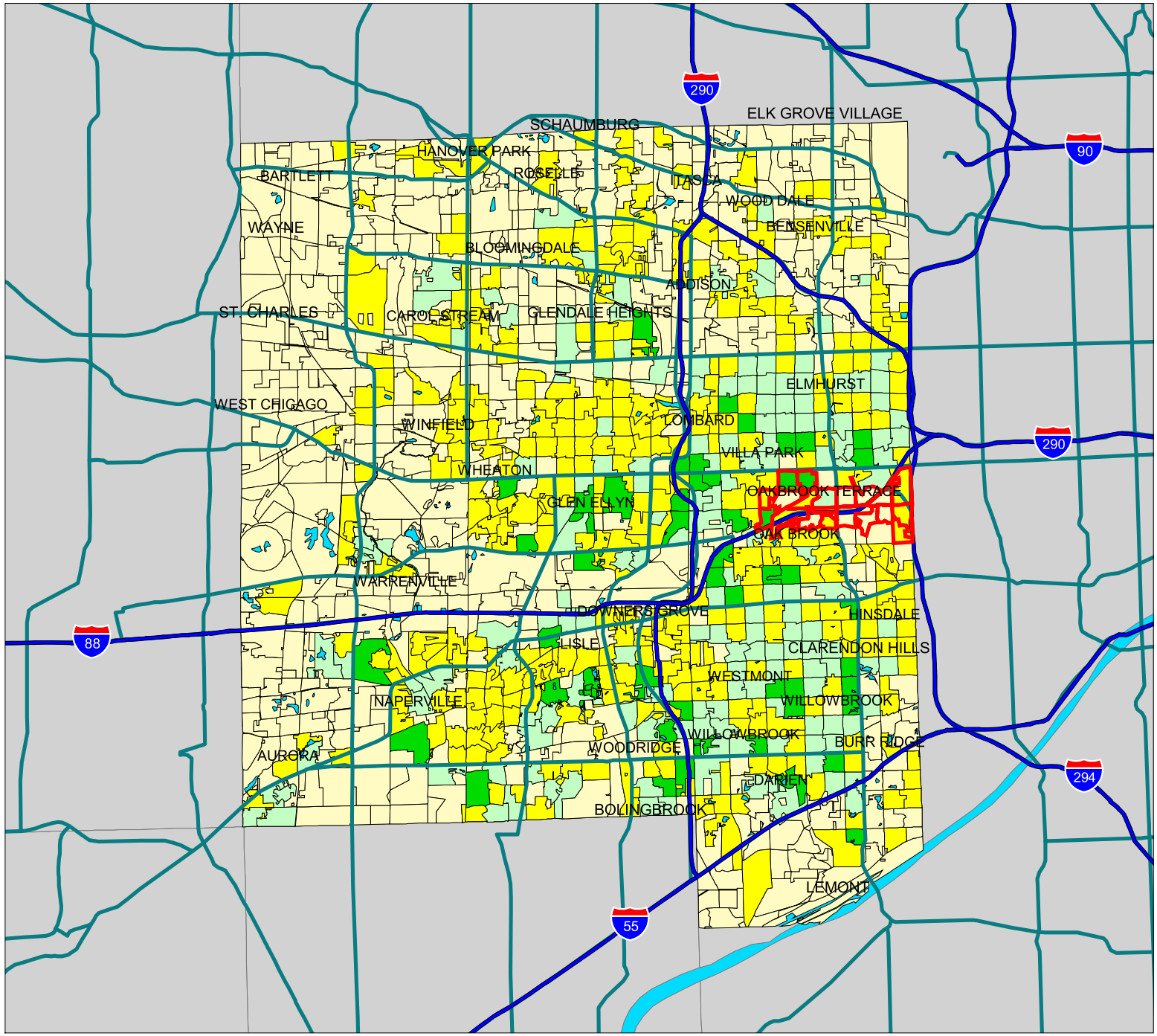
- Less than 10
- 10 - 50
- 50 - 100
- 100 or more
- Addison
- Interstate Highway
- Major Streets

N

0 2 4 6 Miles

Figure 8
Work Trips
To Oak Brook

County of Origin	
DuPage:	18,879
Grundy:	23
Kane:	1,071
Kendall:	128
Lake:	673
McHenry:	168
Will:	2,181
Cook:	15,601



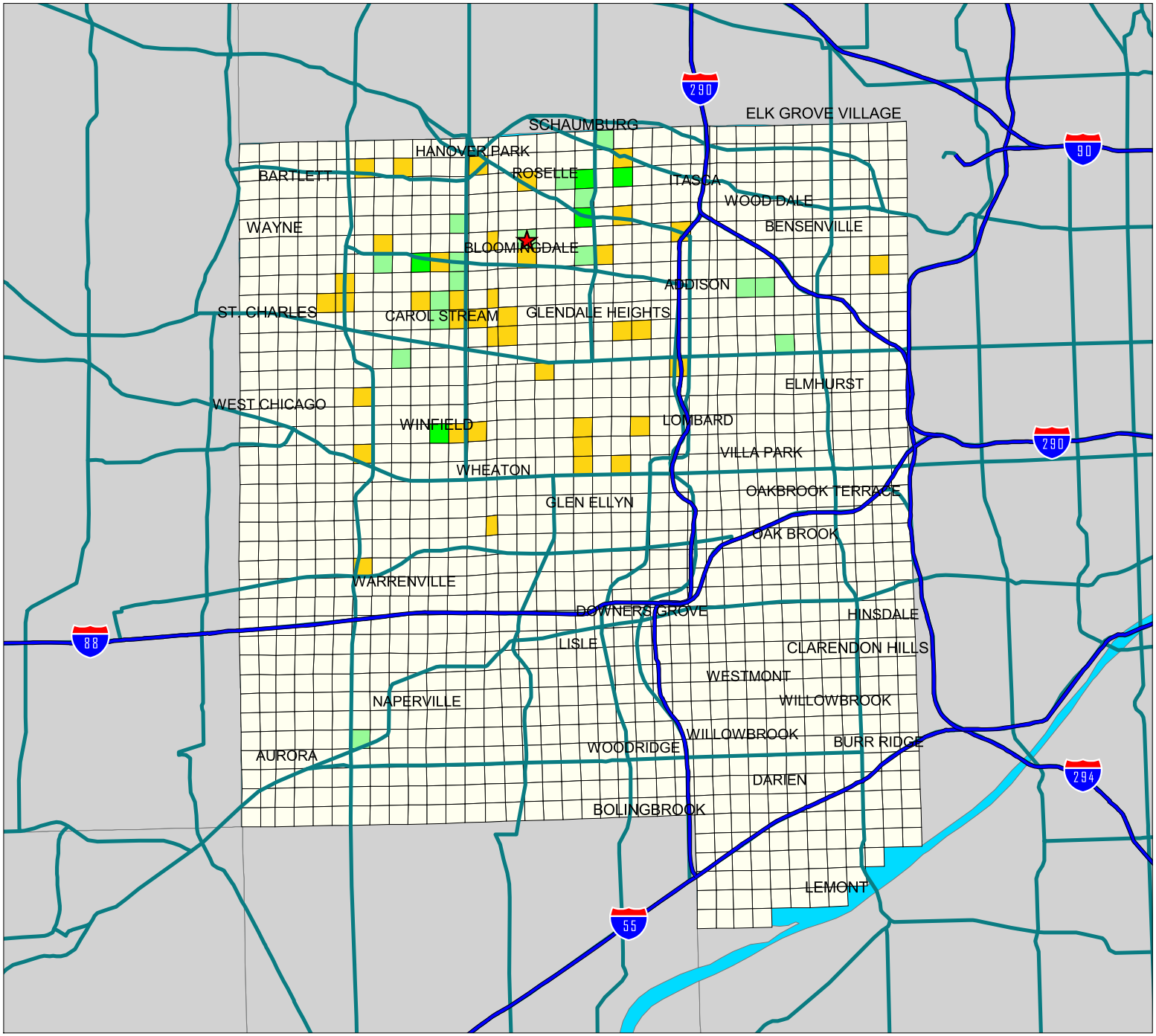
Legend

Number of Work Trips

- Less than 10
- 10 - 50
- 50 - 100
- 100 or more
- Employment Zone
- Interstate Highway
- Major Streets

0 2 4 6 Miles

Figure 9
Trips to
Stratford Square Mall



Legend

Percent of Trips

- No Trips
- .5 - 1
- 1 - 2
- 2 - 3
- 3 or more
- Interstate Highway
- Major Streets

N

0 2 4 6 Miles

Conceptual Transit Options and Opportunities

The next step in the study process was to identify transit opportunities and options. The purpose of this step was to develop alternative conceptual scenarios and collect input from the general public about which scenario – or elements of the scenario – was preferable and why. This would help guide the development of a recommended scenario, that would be further developed from a conceptual level to a planning level of detail.

Two separate conceptual scenarios were developed, reflecting alternative ways of improving mobility in the DuPage County area. Both scenarios were based on the findings of the market assessment paper and the Community Listening Sessions, but addressed those findings using somewhat different methods.

The first scenario comprised a number of local circulator services in the higher density portions of the county, as well as some new north-south connections between selected village centers. The second scenario was conceived of as a more integrated system, with the development of four hubs in the county – one at Lisle, one at Wheaton/Glen Ellyn, one at Itasca, and one at Oak Brook. These hubs serve as focal points for locally oriented routes in the north central, southwestern, northeastern, and eastern parts of the county, respectively, and are also connected to each other to facilitate movement between all areas in the county. Both scenarios also include new service to three important destinations outside of the county: Woodfield Mall in Schaumburg, O'Hare Airport, and the Forest Park CTA station. Passenger service on the Outer Circumferential Study Corridor (EJ & E) and a new Metra station on the Metra Heritage Corridor in Southeastern DuPage were also illustrated for public input.

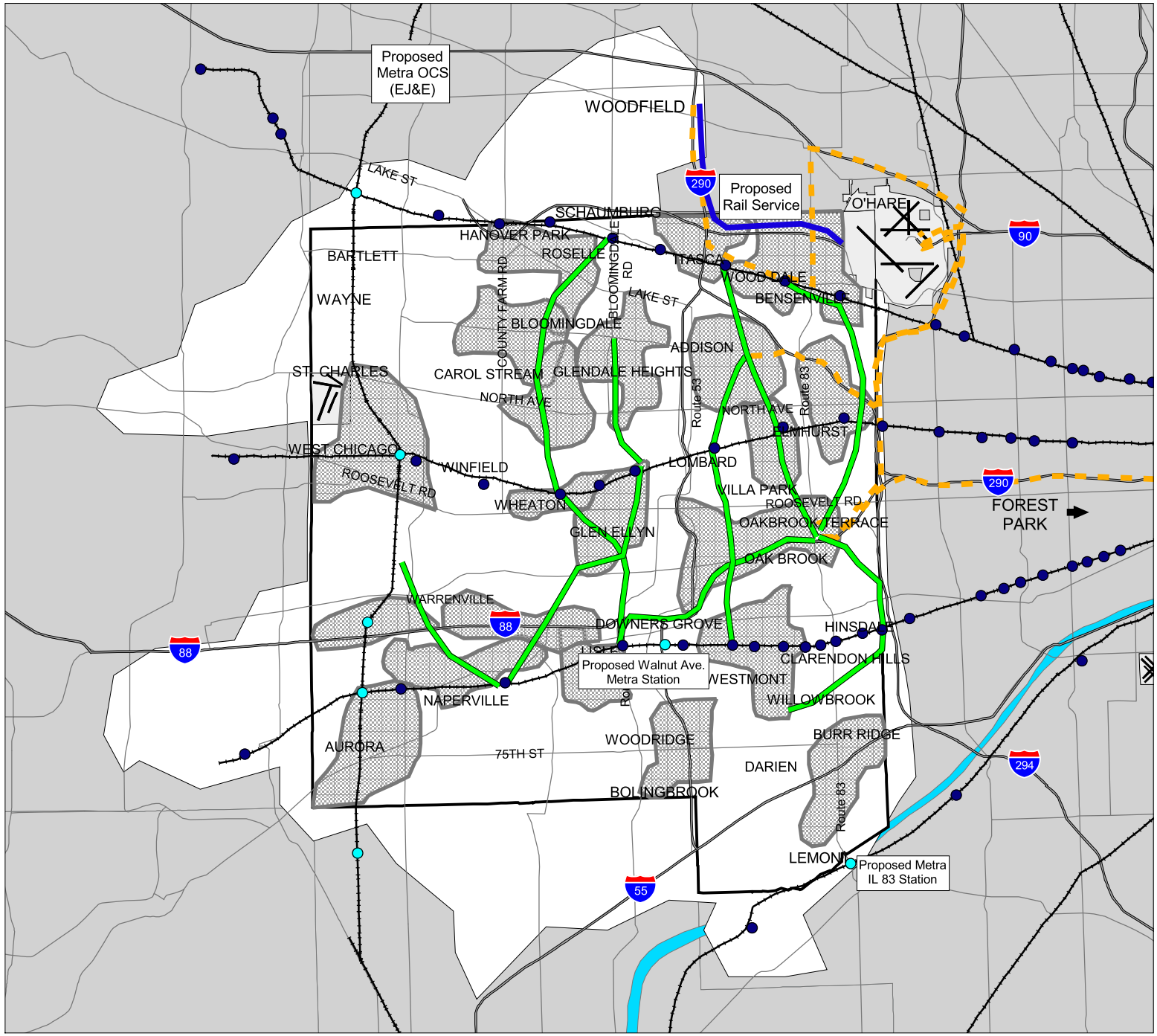
Preliminary Scenario Development

The development of the two scenarios drew upon the market assessment findings – looking at the different analysis areas and determining the potential need and market for transit service. Communities that rated high in terms of transit need (i.e., contained areas of particularly high residential or employment density, one or more transit-dependency indicators, and little or no current transit service) were given priority consideration in the development of the scenarios. These market factors strongly influenced the development of transit scenarios.

Conceptual Scenario 1: Local Circulators and Regional Connections

Figure 10 depicts the first of two conceptual scenarios. Scenario One has three layers of transit service: local circulator services, intra-county connections, and connections to major destinations outside DuPage County. Circulator services were assumed to: be operated with small vehicles (30 feet or less in length), run all day and into the early evening, and have a minimum frequency of every 20 minutes. Such services would be oriented toward neighborhoods and meant to connect residential areas to community downtowns, shopping areas and other important traffic generators. The intra-county connections and connections to outside the county were assumed to be operated by larger vehicles that more closely resemble those used in regular Pace service and operate at a frequency of approximately every 30 minutes. The third layer of service would consist of express connections to important destinations outside the county, including the Woodfield area of Schaumburg, O'Hare Airport and the CTA station at Forest Park. While these three layers could be operated in a coordinated way to ease travel to and from various parts of the county, the overall concept of this scenario was to serve the market of dispersed travel patterns.

Figure 10
Conceptual Scenario 1
Local Circulators
and
Regional Connectors



Legend

- Circulators
- Connectors
- Connectors to Other Regional Destinations
- Metra Line
- Current Metra Station
- Proposed Metra Station
- Major Streets
- Interstate Highway
- Ride DuPage Service Area
- Study Area

0 2 4 Miles

N

Conceptual Scenario Two: Hub Scenario

While Conceptual Scenario One was mainly oriented to serving local travel needs and improving links within the county, Conceptual Scenario Two created a more integrated system to enhance the ability to take longer distance trips in the county. To achieve an integrated system for DuPage County, four transit hubs were defined, to focus service on one part of the county. Linking these hubs to each other would tie the system together. Conceptual Scenario Two is shown in Figure 11.

In the concept development process, hubs were considered in several communities throughout the county. They were chosen based on their locations and access to major roads, in order to facilitate express links between the hubs. Oak Brook, Lisle/Naperville, Wheaton/Glen Ellyn, and Itasca were identified as hubs.

A series of service zones were designed around each of these hubs. These zones were intended to depict an area that would be covered by one or more local routes, which would provide a one-seat ride to the nearest hub. One way for these routes to operate would be to run local within the service zone and then express or limited stop to reach the hub. The lines connecting the shaded areas to the hubs were meant to convey in a schematic way the express or limited-stop segment. The zones were color-coded to correspond to the hubs they serve. It was envisioned that local services could overlap, providing connections to both hubs, and offering a link between the two hubs via timed transfers or interlined routes.

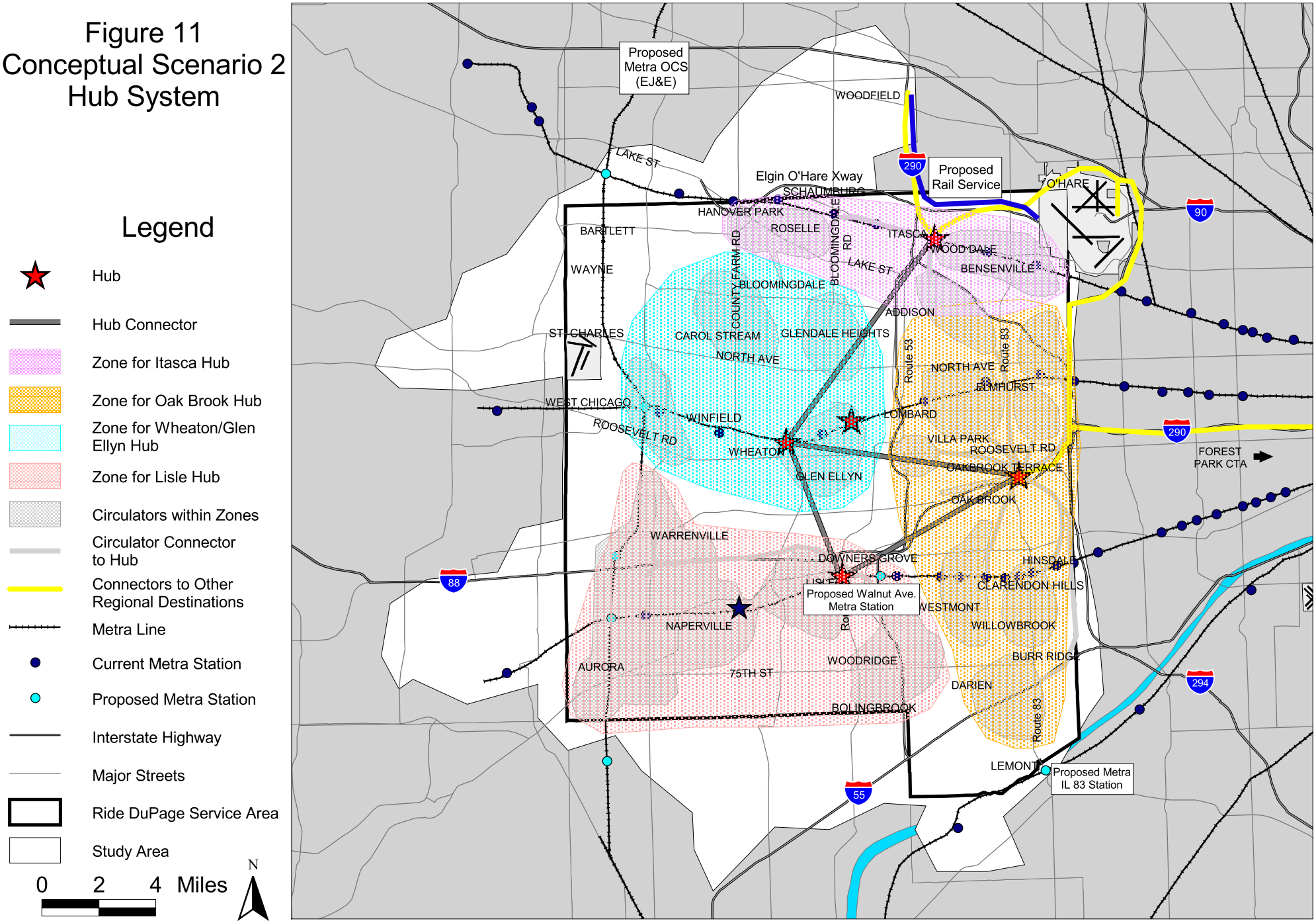
Links between the hubs are shown schematically as thicker gray lines. It was envisioned that these links would be operated as express or limited-stop routes to provide the fastest possible service between the hubs. In the Oak Brook area, a shuttle service between Oak Brook and Yorktown Mall is depicted as a narrow service zone.

The connections to destinations outside DuPage County are very similar in this scenario to those in Scenario One. The primary difference is that the hub at Itasca would offer a location to terminate the routes connecting to Woodfield and O'Hare.

Other Service Assumptions

In the two conceptual scenarios described above, some mention has been made of the span and frequency of service needed to make these proposed scenarios attractive. Based on the findings of the *Transit Capacity and Quality of Service Manual,* few choice riders would be attracted to a service that runs less frequently than every 15 or 20 minutes. Ideally, such services would run at least every 15 minutes all day, but the cost of doing so would be enormously expensive. Rather, a more typical level of service that would still be relatively attractive was assumed, offering 15-minute service during peak periods and 30-minute service during the midday and evening.

Figure 11
Conceptual Scenario 2
Hub System



Local circulator services are most attractive with small vehicles that run in neighborhoods in an unobtrusive way. Small vehicles are also less intimidating for children and senior citizens and may thus draw riders who might otherwise be resistant to riding transit. The connector services or hub connections could be operated with a wide range of vehicles – from regular size (35 to 40 feet) buses to bus rapid transit vehicles to light rail vehicles. For the purposes of soliciting input and additional information from the general public and local officials, the full range of service types was left open. Based on the results of this input, vehicle assumptions were later developed and included in the cost and ridership estimation phase.

Information about the routes, bus stop or station facilities, marketing, and fares are all important determinants of the ultimate success of new services in the DuPage County area and will be addressed in subsequent parts of this report.

Preliminary Scenario Cost and Ridership Estimates

To calculate cost and ridership, it was necessary to estimate the amount of service that would be in place in each conceptual scenario and make a number of assumptions as to the operating speed, span of service, frequency of service, productivity, and unit capital and operating costs.

Assumptions for each of the following service characteristics were made and used in the estimation of the conceptual scenario costs and ridership:

Operating Speed – The average speed of the bus, based on the type of service it is providing and the type of roadway it is operating on.

Span of Service – How many hours of peak service and off-peak service will be provided by each type of service.

Frequency of Service – How often transit service will operate during the peak and off-peak periods.

Operating Costs – All of the factors listed above combine to determine the overall number of hours of each type of service that would be operated. A unit cost per hour (in this case $54) is used to determine overall operating costs.

Capital Costs – The cost of vehicles, the estimated replacement cycle, transit centers and costs associated with fixed guideways.

Productivity – The number of passengers per hour by type of service is the essential element in the estimation of ridership.

Considering all the factors listed above, rough-level estimates of annual operating costs, total capital costs and annual ridership were estimated and are shown in Table 2. Note that for Conceptual Scenario One, the north-south connectors were estimated two ways: all routes as traditional bus service, and three of the eight routes as bus rapid transit (BRT) service.

In Scenario Two, the hub connectors were cost estimated in three different ways; (1) traditional all bus, (2) BRT and (3) light rail (LRT).

Scenario One requires approximately 100 small buses and 70 standard buses. Scenario Two requires 150 small buses and 50 standard buses.

Table 2: Cost and Ridership Estimates for Conceptual Scenarios

Scenario	Element	Annual Operating Cost (millions)	Capital Cost (millions)	Annual Ridership (millions)
1	Total with no BRT	$34.3	$33.6	5.6
1	Total with BRT	$38.0	$130.1	5.9
2	Total with all regular bus	$41.2	$40.4	6.0
2	Total with BRT	$42.6	$188.6	6.7
2	Total with LRT	$62.7	$1,736.0	7.5

Public Choice Forums

The two conceptual scenarios were brought to the public for a second round of public input. The format of the Public Choice Forum was designed to provide an interactive approach to learning about the project results to date as well as soliciting specific feedback.

While prior public outreach had been focused at a very local level, this second round was most appropriately focused at the regional level. Two Public Choice Forums were held at the College of DuPage on December 10 and 12, 2001. The Forums were conducted in an "open house" style, where people could come and go based on their own schedule and then proceed at their own pace. The forums were designed to offer participants an opportunity to go on a "Transit Excursion." A series of "stations" were set up, each with specific materials to review. As participants worked their way through the "Transit Excursion", they learned about the project's background, localized travel, cross county travel, destinations outside DuPage, stations and transfers, market assessment and the conceptual scenarios. Participants were provided with information on possible details of the system including marketing, public information, station/ stop amenities, and different vehicle and service types.

Once participants reviewed all the materials, they were given a set of "fare tickets" and asked to return through the exhibits and vote with their tickets for the options they liked the best. The purpose of this was to get an idea of public preferences towards modal options and conceptual system scenarios. Four different types of tickets were supplied to participants based on a self selected group with which they most associate themselves: general public, local officials, elderly/ disabled, and business.

Their votes are summarized and shown in Table 3. Approximately 75 people voted over the course of the two Public Choice Forums. A close examination of the voting results identified some apparently mixed messages. People indicated that they liked the ability to access more locations, even if the service was less direct. They also rated Conceptual Scenario One more highly. This scenario presented use of existing Metra passenger rail for east-west travel and new north/south connector bus services. Looking further into the voting, reviewing the research and all public input gathered to-date, it was determined that features of both scenarios were important and that a third scenario needed to be developed to move forward as the recommended scenario.

Table 3: Public Choice Forum Results

Getting Around Your Community

			By Self-Selected Grouping			
Community Transit - How important?	Total	Percent	General Public	Local Officials	Elderly & Disabled	Business
Very	50	67.6%	29	9	10	2
Somewhat	20	27.0%	12	5	2	1
Not at all	4	5.4%	4	0	0	1
	74	100.0%	45	14	12	4
Preferred Community Transit Vehicle Type						
Shuttle	40	56.3%	26	6	4	4
Trolley	14	19.7%	14	4	0	1
Van	17	23.9%	5	4	8	0
	71	100.0%	45	14	12	5
Preferred Community Transit System						
Fixed Route/Fixed Stop	30	39.0%	22	4	2	2
Fixed Route/Fixed Stop w/ Deviation	31	40.3%	17	7	4	3
Dial-a-Ride	16	20.8%	6	3	7	0
	77	100.0%	45	14	13	5

Getting Around DuPage

			By Self-Selected Grouping			
Preferred Vehicle Type	Total	Percent	General Public	Local Officials	Elderly & Disabled	Business
Bus Rapid Transit (BRT)	46	56.8%	25	8	9	4
Express Bus	15	18.5%	12	1	2	0
Light Rail Transit	15	18.5%	6	5	3	1
Heavy Rail	5	6.2%	4	1	0	0
	81	100.0%	47	15	14	5

Getting To/From Places Outside DuPage

			By Self-Selected Grouping			
Most important Destination	Total	Percent	General Public	Local Officials	Elderly & Disabled	Business
Downtown Chicago	43	53.8%	24	6	10	3
Airports	28	35.0%	17	7	2	2
Woodfield Mall	5	6.3%	3	1	1	0
Additional Locations:	4	5.0%				
	80	100.0%	44	14	13	5

Stations and Transfers

			By Self-Selected Grouping			
Most Important Station Features (Pick 3 of 4)	Total	Percent	General Public	Local Officials	Elderly & Disabled	Business
Bathrooms	75	NA	43	14	14	4
Heat & Air Conditioning	73		45	11	13	4
Center of Activity	53		28	10	12	3
Vending Machines	23		14	4	1	4
Most Important Transfer Features (Pick 3 of 7)						
Real Time Info	50		30	11	4	5
Universal Fare Card	43		24	9	7	3
Transit Info before Leaving Home/Work	38		23	7	5	3
Free Transfers	31		21	3	7	0
Easy Access	31		15	2	11	3
Electronic Debit Card	26		19	3	3	1
Posted Map Dispenser	22		14	5	2	1
Preferred End of Station & Transfer Spectrum						
Transit Access to More Places; Indirect	57	78.1%	37	10	8	2
Direct Service; Access to Fewer Places	16	21.9%	9	4	3	0
	73	100.0%	46	14	11	2

Concept Scenarios

			By Self-Selected Grouping			
Which Concept Scenario Holds More Appeal?	Total	Percent	General Public	Local Officials	Elderly & Disabled	Business
Scenario 1 (N-S corridors & Metra E-W)	53	71.6%	32	10	6	5
Scenario 2 (Hub System)	21	28.4%	13	3	5	0

Outcome: The Recommended Scenario

Through the Public Choice Forums and the DuPage Mayors and Managers Conference committees, extensive discussions and consensus building took place. There were features of both conceptual scenarios that were beneficial, yet neither provided the opportunity for the cross-county travel – echoing the I-88 corridor – needed from a transit plan. To address this, a third scenario was developed that eventually became the recommended scenario. The recommended scenario is depicted in Figure 12. The key features of the recommended scenario are summarized below. The next chapter in the report provides detail on each component of the system.

The High-Speed Corridor

The High Speed Corridor is envisioned in the long-term to be a combination express bus/BRT service operating at a reasonably high frequency. It would connect a proposed transportation center at 95th Street and the EJ&E, downtown Naperville, the proposed Walnut Avenue station, and Oak Brook to O'Hare or the Northwest Transportation Center in Schaumburg. In the near term, it can potentially start as an express bus, running several times per day.

Connector Routes

The thirteen recommended bus connector routes are shown in Figure 12 in green, and they function in concert with the Metra rail lines to provide connections between the circulator areas, as well as facilitate cross-county travel. In order for the connector bus routes to function effectively and efficiently, significant capital investments to improve the pedestrian environment will need to be made. Until it is possible to create improvements such as pull-out lanes and improve the pedestrian amenities to make it safe for potential riders, these routes will have limited success. Implementation phasing is likely to suggest beginning these routes as express segments that connect circulator areas and over time building towards the full network of routes.

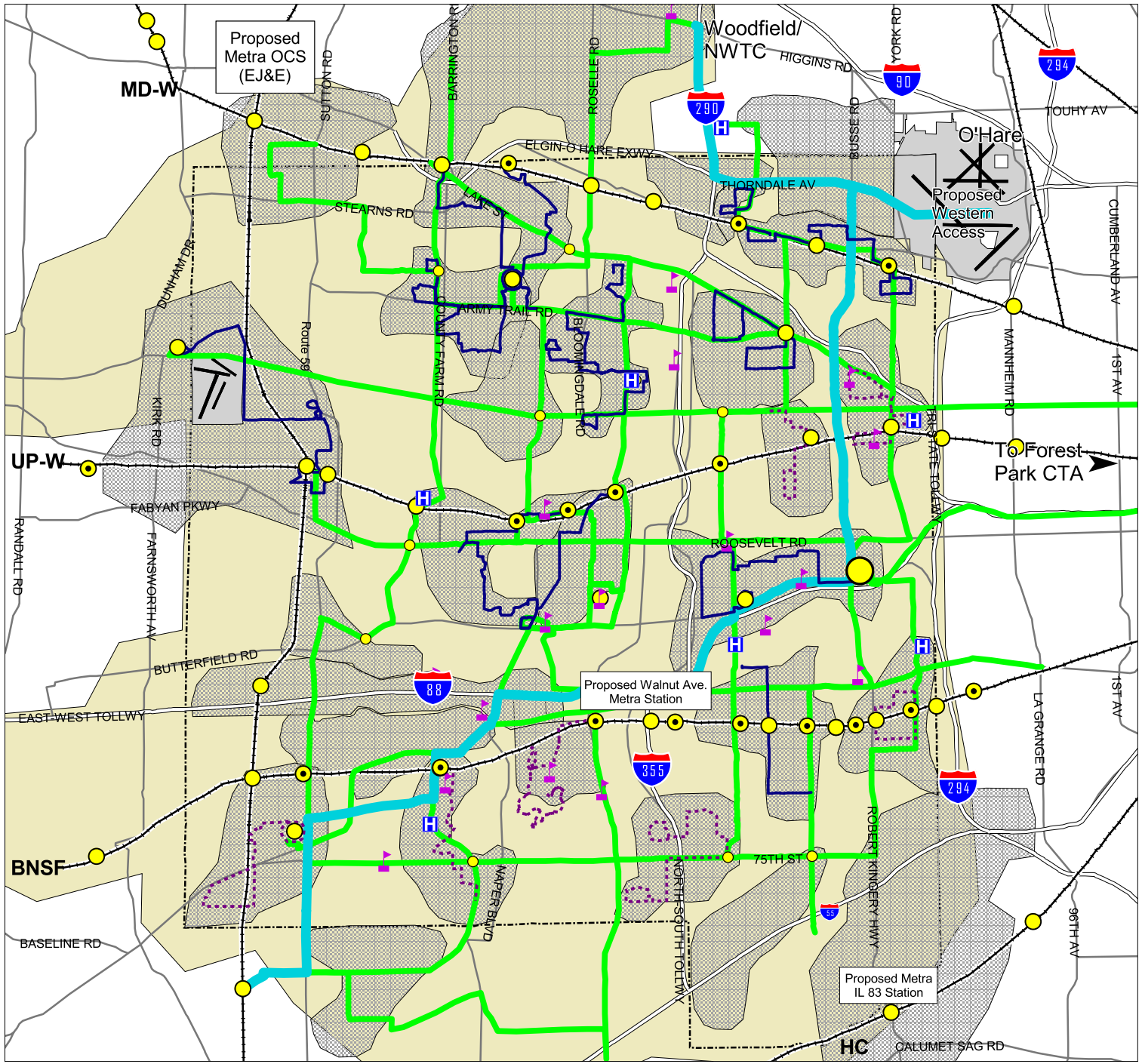
Community Circulators

Community circulators are the building blocks of the system. Several levels of circulators will be identified. They will differ based on the types of areas they will serve. For example, there will be some areas where fixed route circulator(s) will be recommended. In other areas, flexible-route services are recommended. A flexible service follows a specific alignment, but if requested, the bus will leave the route, pick up or drop off the passenger and then return to the route where it left off. There are other areas where an employer-based circulator system may be recommended. Some areas will be best served by demand-response services.

Connection from Oak Brook to Forest Park CTA Station

A more frequent bus connection between the Forest Park CTA station and a transportation center at Oak Brook is recommended to enhance regional access to major DuPage employment and retail centers.

Figure 12
Recommended Scenario- Long Term Vision (2020)



Recommended Long-Range Transit System

Overview

The recommended long-term scenario is composed of three layers of transit service: (1) a primary high-speed service corridor, (2) a system of intra-county bus and rail corridors, and (3) local circulator services. A handful of these routes extend beyond the study area to connect major destinations and labor pools. Figure 12 on the previous page illustrates this proposed transit system.

Following the description of the system components, this chapter describes the system's components, summarizes the costs and ridership estimates and assesses how well the recommended system performs compared to the mobility objectives established at the outset of the project by the DuPage Mayors and Managers Conference.

Transit Services and Infratructure

This section provides a detailed description of each layer of service that makes up the recommended system. The system described here is recommended to be in place in the year 2020. A subsequent chapter of this report (Implementation) discusses the phasing recommended to reach this vision.

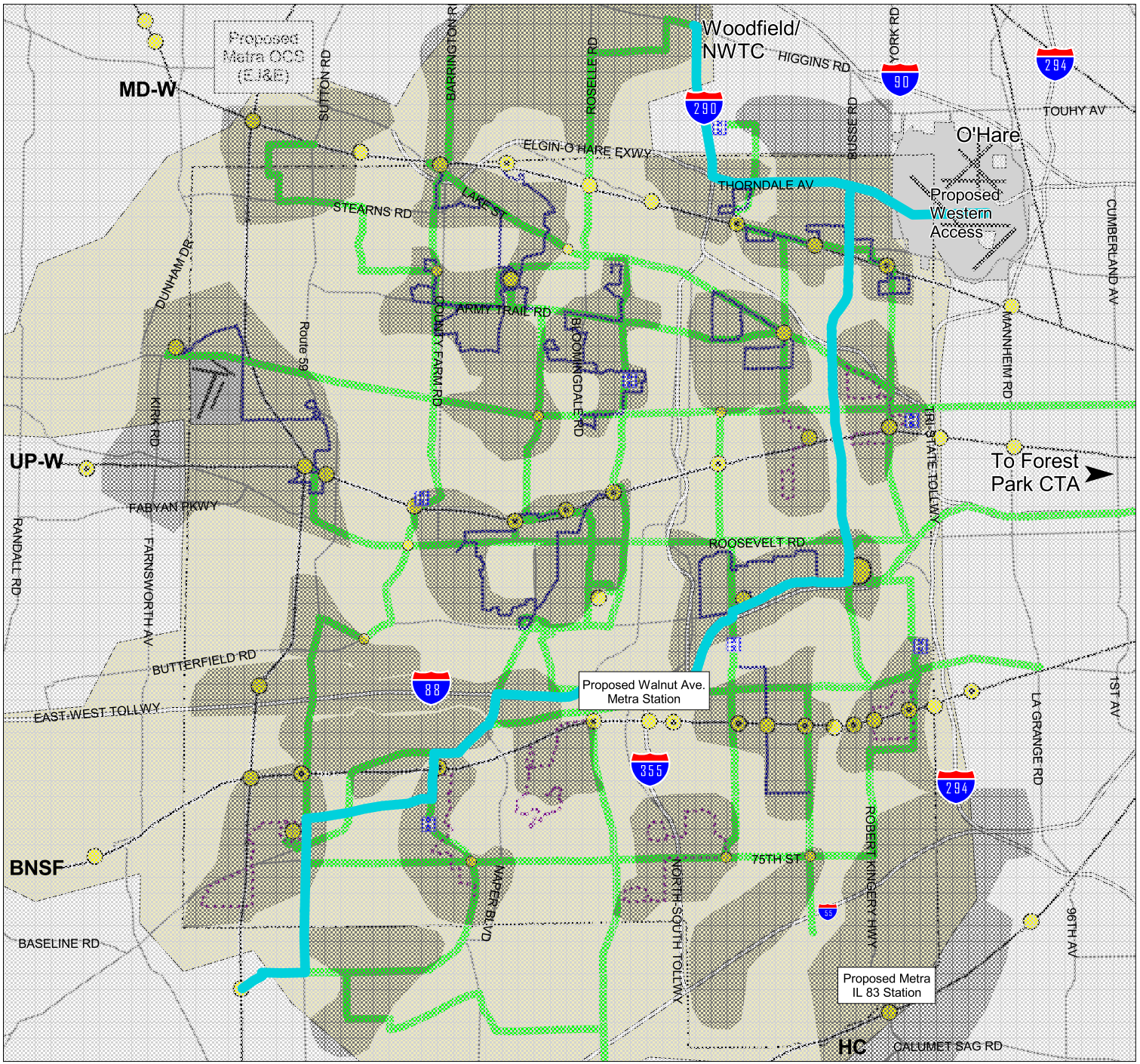
High-Speed Corridor

Description of Service

The High Speed Connector would incorporate BRT characteristics
Source: John Marino, IrisbusNA@aol.com

The most readily identifiable layer of service is the high speed corridor. The shape of this corridor forms a "J" from O'Hare to Oak Brook to Naperville/Aurora, and a "cap" stretching from Schaumburg to O'Hare. This corridor is highlighted in Figure 13. More specifically, this high-speed corridor provides an important connection between the major regional traffic generators/destinations of O'Hare International Airport and the Woodfield section of Schaumburg—with DuPage County's largest concentration of employment and retail activity (Oak Brook)—and the most populous part of the study area (Naperville/Aurora with a combined population of over 250,000). In the long-term, the High Speed Corridor would provide a one-seat ride from Metra's proposed 95th Street Station on the Elgin, Joliet, and Eastern (EJ&E) Railroad in Will County to O'Hare International Airport and the Northwest Transportation Center at Woodfield in Schaumburg, with an estimated eight stops in between. Specific alignments will be the subject of future studies, but for planning purposes, travel across the I-88 corridor to Route 83 and north is proposed.

Figure 13
High Speed Corridor
(2020)



Legend

- High Speed Corridor

Connectors

- Connector Bus Routes
- Rail Connector & Commuter Service

Circulators

- Circulator Service Areas (demand responsive)
- Flexible Circulator Route
- Fixed Circulator Route

Transit Centers

- Local Centers
- Community Centers
- Community Centers with Feeder Service
- Regional Center
- Hospitals

The high-speed corridor would incorporate characteristics such as signal priority and queue jumpers at intersections.
Source: Lane Transit District & Newlands and Associates

Access to O'Hare via a proposed western access road and a northward extension to Woodfield and the Northwest Transportation Center is recommended.

This high-speed corridor is envisioned to incorporate BRT characteristics, to allow for improved travel times. These treatments could include traffic signal priority, queue jumpers at intersections, enhanced passenger facilities at major stops, real-time travel information, and possibly exclusive lanes or rights-of-way where feasible. BRT also encompasses a number of other elements designed to create a distinct image for the service within the larger transit system. Future studies are needed to determine feasibility, alignment (if there is to be fixed guideway) and other characteristics of the service.

Service on the High Speed Corridor would operate every 10 minutes, with alternating buses going to Woodfield and O'Hare (20-minute intervals to each destination). In off-peak periods, the trunk segment of the "J" route would operate every 15 minutes, with 30-minute intervals on the branches to Woodfield and O'Hare.

A variety of speeds were assumed for the High Speed Corridor ranging from 20 to 22 MPH during peak periods and 28 to 32 MPH in off-peak periods. The potential BRT segment between Oak Brook and Wood Dale was assumed to operate 25% faster than regular bus service.

Stations

Nine station stops are recommended along the high-speed corridor, with major park-and-ride facilities and transit connections to the line. The southwestern-most end of the line is planned to be at the proposed 95th Street/EJ&E station in southwestern Naperville. The two northernmost termini are O'Hare Airport and Woodfield/Northwest Transportation Center. Intermediate stops are assumed for Fox Valley Mall, downtown Naperville, the I-88 corridor, the proposed Walnut Avenue Metra station in Lisle/Downers Grove, Yorktown Mall, and Oak Brook Shopping Center.

BRT stations would function much like train stations.
Source: John Marino, IrisbusNA@aol.com

One of the key features of BRT is station areas that appear and function much like train stations. Fare payment is expected to be handled at the station to speed boarding times, and raised platforms will allow the passengers to step directly into the vehicle without climbing stairs.

Locations for stations, park-and-ride lots, and transfer locations with local circulators and connector services are essential companions to the BRT stations. Other amenities appropriate to the level of service and the number of users of the station are described in the chapter titled Transit Supportive System Features and Amenities.

Service Hours

Peak-period service (service every 10 minutes) would operate from 6:00 a.m. to 9:00 a.m. and from 4:00 p.m. to 6:00 p.m. On weekdays, off-peak service (every 15 minutes) would operate from 9:00 a.m. to 4:00 p.m. and from 6:00 p.m. to 10:00 p.m. Saturday service would operate from 8:00 a.m. to 10:00 p.m.

Projected Ridership

To estimate ridership on the high-speed service, assumptions regarding service productivity were made. The portion of the High-Speed Corridor without BRT treatments was assumed to have a productivity of 15 passengers per vehicle revenue hour during peak periods and 10 passengers per vehicle revenue hour during off-peak periods and on Saturdays. The segments of the line with BRT treatment were estimated to attract 40% more riders than regular bus service in the same corridor, based on the BRT experience in Los Angeles.

Ridership ranging from 1.2 million to 1.7 million annual passenger trips was estimated for the high-speed corridor. The higher level of ridership assumes BRT right-of-way and other traffic priority treatments for the Route 83 portion of the corridor. The lower level of ridership assumes express bus characteristics for the entire corridor.

Estimated Cost

Estimated costs include both estimated capital and operating costs. Capital costs for the high-speed corridor development vary significantly based on the assumptions made. The biggest cost element is right-of-way improvements for BRT (including exclusive lanes, signal priority, etc.). They were assumed to cost $3 million per mile, based on planned projects in the Washington (DC) area. The cost of vehicles is an additional capital expense. Regular 35 to 40 foot low-floor buses are assumed to be used for the High-Speed Corridor, which were assumed to cost $300,000 in current dollars and would have an expected life span of 12 years.

On the operating cost side, $54 per vehicle revenue hour of service (in 2002 dollars), based on information that Pace provided, was used to calculate the operating costs of this service.

The annual operating expense for the corridor is estimated to be $5.1 to $5.2 million dollars. Due to the increased speed of BRT, the operating costs (and anticipated ridership) are slightly lower than if the corridor operated as an express bus route.

With BRT, the capital cost is estimated at $33 million dollars for the entire corridor. The capital cost, however, varies significantly. Without BRT characteristics, the capital cost of the high-speed corridor is estimated at $9.3 million.

Connectors

Description of Service

The next layer of service is composed of connector routes. These include high-frequency, intra-county bus routes and enhanced Metra rail service. Figure 14 depicts the recommended north-south and east-west corridors, and a short route connecting the southern part of Naperville to the Pace park-and-ride in Bolingbrook. These routes would provide mobility options for longer trips within the county, as well as connections to local circulator areas, Metra rail stations and the high-speed corridor. The intra-county bus routes would run primarily on arterial roadways and would have limited stops. This layer also includes regional passenger rail service on the EJ&E and operational enhancement of existing Metra rail lines to meet reverse and intersuburban travel needs. Connections to the CTA system at Forest Park are also highlighted.

Connector routes would operate using standard size, low-floor vehicles.

These routes would be operated using standard size buses, 35 to 40 feet in length, preferably with low floors to facilitate passenger entry and exit. Service on the connector routes would operate every 20 minutes during the peak periods and every 30 minutes during the off-peak periods. For connector routes, speeds of 17 to 20 MPH would be used for peak-period service, and speeds of 23 to 27 MPH would be used for off-peak service.

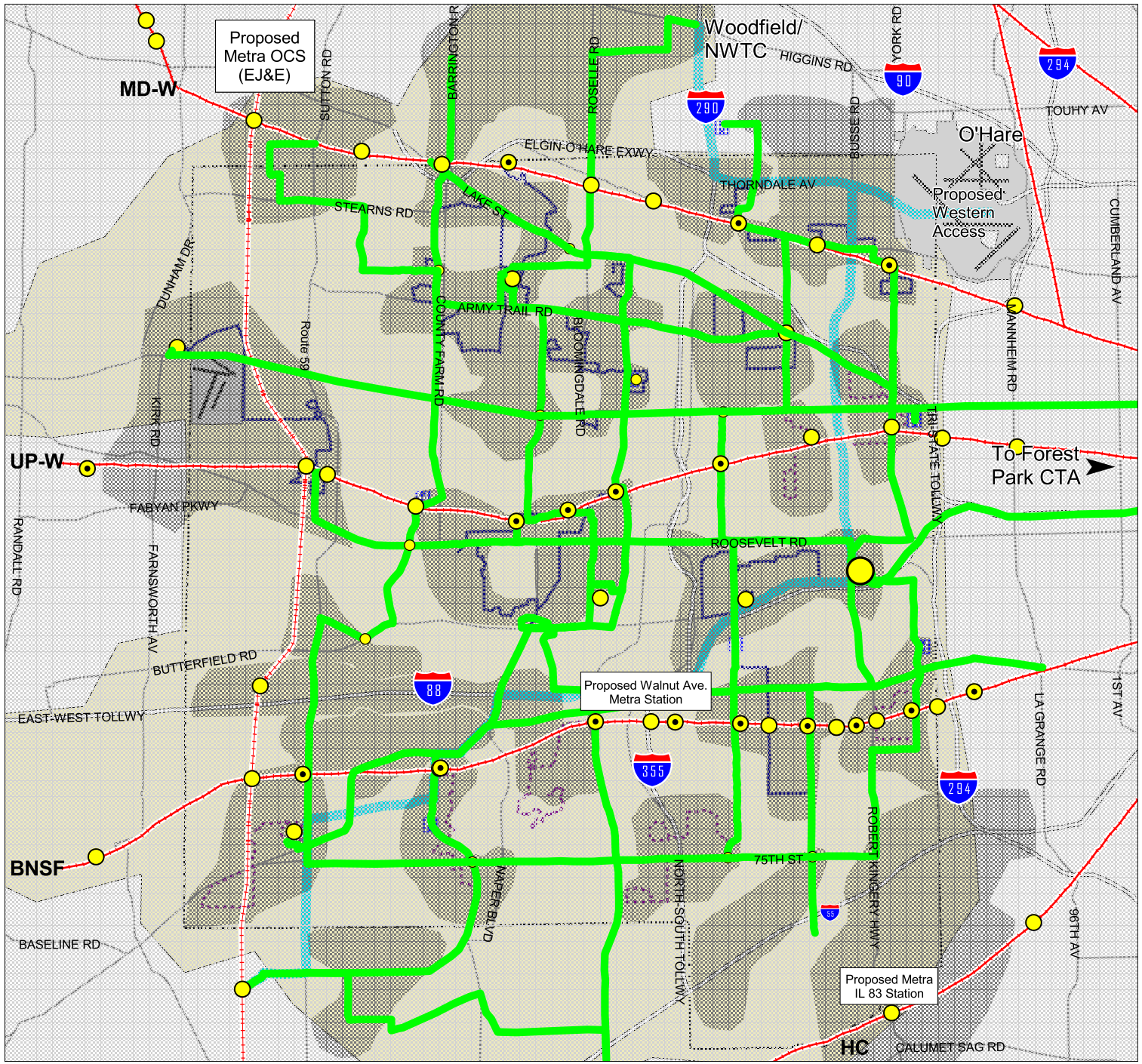
The following list describes the corridors and key locations served by the recommended connector routes.

County Farm Rd / IL 59 Corridor:
Hoffman Estates to Naperville/Aurora
Columbian Hoffman Estates Medical Center, Barrington Rd, Hanover Park MD-W Metra Station, Jefferson Rd., County Farm Rd., DuPage County Complex, Central DuPage Hospital, Winfield UP-W Metra Station, Winfield Rd, Cantera, Butterfield Rd, Batavia Rd (Fermi), IL 59 to Fox Valley Mall

Roselle Rd/ Schmale Rd./ Washington Street Corridor:
Schaumburg to Naperville/Aurora EJ&E Metra Station
Woodfield Northwest Transit Center, Roselle Rd, Roselle MD-W Metra Station, Stratford Square Mall, Schmale Rd, Wheaton and College Ave. UP–W Metra Stations, College of DuPage, Butterfield Rd, Naperville Rd, Ogden Ave, Naperville Washington St. BNSF Metra Station, 95th St, to the proposed EJ&E 95th St Metra Station.

IL 53 Corridor:
Glendale Heights to Bolingbrook
From proposed Lake Street connector station to Glen Oaks Medical Center, Glen Ellyn UP-W Metra Station, College of DuPage, Danada Square, Lisle BNSF Metra Station, IL 53, to Bolingbrook park-and-ride.

Figure 14
Connector Service
(2020)



Legend

- High Speed Corridor

Connectors

- Connector Bus Routes
- Rail Connector & Commuter Service

Circulators

- Circulator Service Areas (demand responsive)
- Flexible Circulator Route
- Fixed Circulator Route

Transit Centers

- Local Centers
- Community Centers
- Community Centers with Feeder Service
- Regional Center
- Hospitals

N

0 2 4 Miles

Addison Rd / Highland Ave Corridor
Elk Grove Village to Darien/Woodridge
Alexian Bros. Medical Center, Arlington Hts. Rd, Itasca MD-W Metra Station, Addison Rd, North Ave, Main Street - Lombard, Lombard UP-W Metra Station, Roosevelt Rd, Highland Ave, Good Samaritan Hospital, Downers Grove BNSF Metra Station to proposed 75th Street connector station

Irving Park Rd / York Rd / IL 83 South Corridor
Itasca to Darien/Burr Ridge
Itasca MD-W Metra Station, Wood Dale MD-W Metra Station to Bensenville MD-W Metra Station, York Rd, Elmhurst UP-W Metra Station, Elmhurst Memorial Hospital, Oak Brook Center Mall and proposed BRT station, Hinsdale Memorial Hospital, Hinsdale BNSF Metra Station, 55th St, IL 83, to I-55 park and ride

Kingery / Cass Ave Corridor
Oak Brook/Oakbrook Terrace to Argonne
Oak Brook BRT station, IL 83 (Kingery Highway), Ogden Ave, Cass Ave, Westmont BNSF Metra station, proposed 75th Street connector station, Argonne National Laboratory)

Lake Street Corridor
Hanover Park to Elmhurst
Hanover Park MD-W Metra Station to York Rd, Elmhurst Memorial Hospital

Army Trail Corridor
Bartlett to Elmhurst
Bartlett MD-W Station, Munger Rd, Stearns Rd, Bartlett Rd, Schick Rd, County Farm Rd, Army Trail Rd, Lake Street, to York Rd and Elmhurst UP-W Metra Station

North Ave Corridor
St. Charles to Elmhurst
Charlestowne Centre Mall in St. Charles to Elmhurst Memorial Hospital

Roosevelt Rd Corridor
West Chicago to Oak Brook
West Chicago UP-W Metra Station, Roosevelt Rd, DuPage County Government Complex on County Farm Rd, Roosevelt Rd, Wheaton UP-W Metra Station, Roosevelt Rd to Oak Brook Center Mall, proposed Oak Brook BRT Station

Ogden Ave Corridor
Naperville/Aurora to LaGrange
Fox Valley Center Mall on IL 59 to Lisle to LaGrange via Ogden Ave

75th Street Corridor
Naperville/Aurora to Hinsdale
Fox Valley Center Mall on IL 59 to I-55 park and ride, IL 83 via 75th St, Hinsdale BNSF Metra station.

South Naperville Park and Ride Corridor
Naperville to Bolingbrook/Pace Park and Ride
Proposed EJ&E 95th St Metra Station, 104th St, Boughton Rd, Naperville Rd, 107th St to I-55/IL 53 park and ride

Implementing successful service on the arterial roads in the DuPage County area is going to require additional investment to make them more conducive to local transit services with numerous stops, due to the volume and speed of traffic. Shoulders, pull-out lanes, and pedestrian crosswalks would make these roads much safer for pedestrians and transit users, and could be designed to reduce the disruption of traffic flow caused by passengers getting on and off the bus. It will be important for these changes to take place prior to full implementation of the connector service.

Shelters and Transfer Facilities

Shelters and transfer facilities will be provided along connector routes. In particular, a sheltered waiting area will be provided where local circulator services and/or connector routes meet. The volume of passengers will affect the level of amenities provided at each transfer location; however, at a minimum, a shelter is recommended to protect waiting passengers from the elements. Benches are also recommended. Schedule and frequency information should also be provided, taking advantage of real-time technologies. Nicely designed and passenger-friendly shelters are encouraged in other locations along connector routes, although fewer amenities are recommended.

Shelters and transfer facilities will be provided along connector routes.

Service Hours

Peak-period service (every 20 minutes) would operate from 6:00 a.m. to 9:00 a.m. and from 4:00 p.m. to 6:00 p.m. On weekdays, off-peak service (every 30 minutes) would operate from 9:00 a.m. to 4:00 p.m. and from 6:00 p.m. to 10:00 p.m. Saturday service would operate from 8:00 a.m. to 7:00 p.m.

Projected Ridership

To estimate ridership for the recommended connector services, assumptions regarding the productivity of the service were made. The connector routes were assumed to have a productivity of 15 passengers per vehicle revenue hour during peak periods and 10 passengers per vehicle revenue hour during off-peak periods and on Saturdays.

Based on the other service characteristics, the projected ridership on the connector service at the 20-year mark of this plan is 3.7 million riders.

Estimated Costs

The estimated capital cost of the connector service is $21.5 million, which includes both capital and operating costs. Capital costs for connector service are primarily associated with the cost of vehicles. Regular 35- to 40-foot low-floor buses are recommended for connector service. These

buses were assumed to cost $300,000 in current dollars and would have an expected life span of 12 years.

The annual operating expense for connector service is estimated at $16.4 million in year 2002 dollars. On the operating cost side, $54 per vehicle revenue hour of service (in 2002 dollars), based on information that Pace provided, was used to calculate the on-going operating costs of the service on the connector routes.

Local Circulators

Description of Service

Localized services emerged through the market assessment and public input phase as a primary piece of mobility needed in the DuPage County area. Circulator services, oriented toward neighborhoods, employment areas, and community destinations, are meant to connect residential areas to village downtowns, shopping areas, employment and health centers, and other important local destinations. Some of these services highlighted in Figure 15 would be operated as local fixed routes, others as flexible routes, and still others as dial-a-ride demand responsive services, depending on the nature of the area served.

Circulator services would likely operate with smaller, shuttle-type vehicles.

Some circulators are expected to operate as general public dial-a-ride services. Dial-a-ride services allow passengers to share a ride while going to their destination, given a request in advance. This request could be as short as one hour.

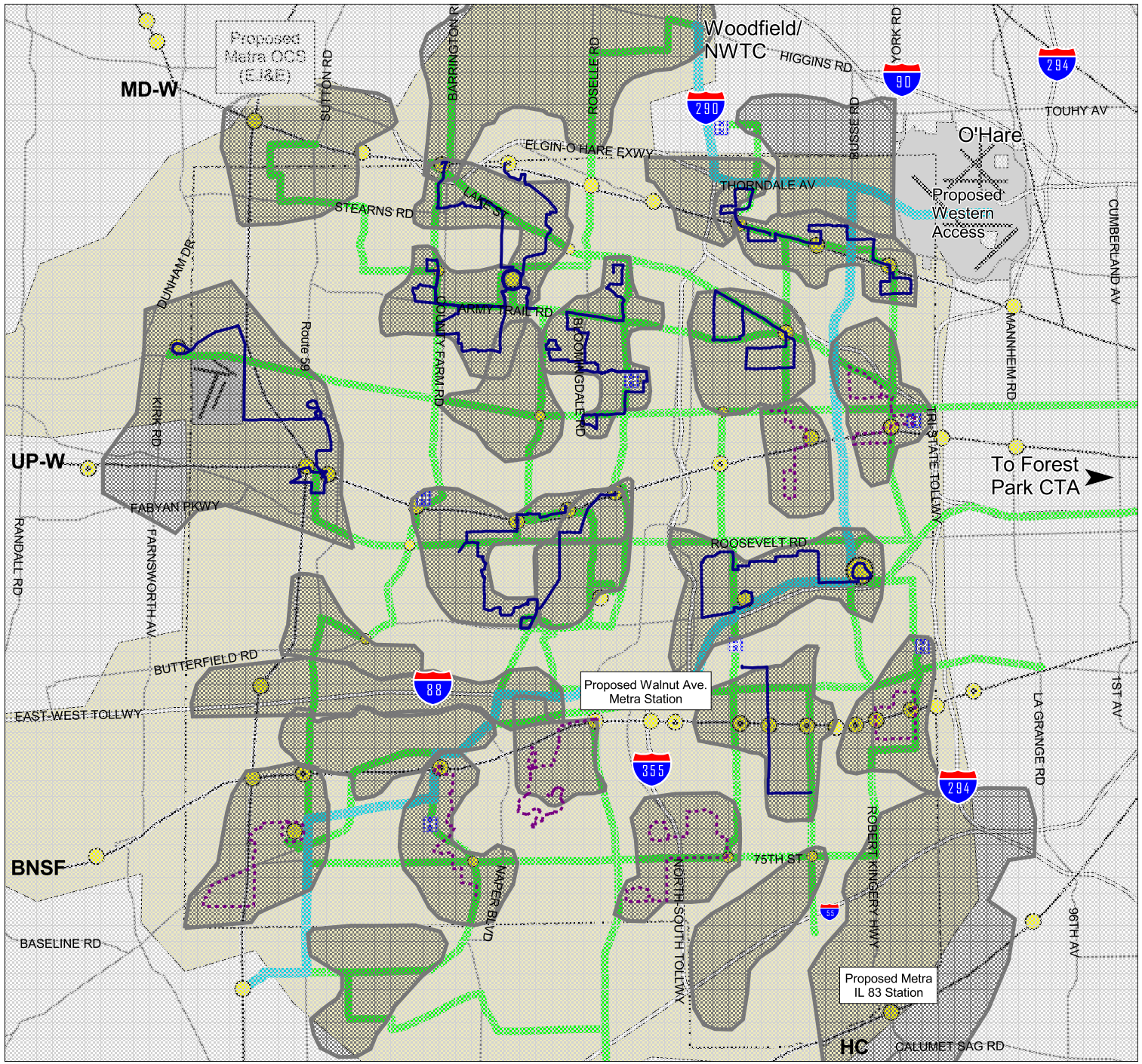
Other local circulators will operate as flexibly routed services. This generally means that a fixed route is identified, but with a call to a dispatcher, the small bus will leave the route to pick up or drop off a passenger near his/her home or destination. The bus will then return to the location on the route where it left. Typically, there is a small premium fare charged for a route deviation.

This type of service allows for a known path and schedule for the vehicle, yet provides a higher level of coverage in the area. It works well when there is no more than a few route deviations per trip. At higher levels of deviation, this type of service is not functional and fixed routes should be considered.

The third type of service that can be provided in a local circulator area is fixed route service. A set route and schedule is run, connecting key origins and destinations.

The circulator services would be operated with small vehicles (30 feet or less in length) for high maneuverability and relatively light ridership. Likely vehicle types include minibus, trolleys or vans. The services would generally be offered all day and into the early evening, with a service frequency of at least every 20 minutes during peak periods and every 30 minutes during off-peak periods.

Figure 15
Local Circulators
(2020)



Legend

- High Speed Corridor

Connectors

- Connector Bus Routes
- Rail Connector & Commuter Service

Circulators

- Circulator Service Areas (demand responsive)
- Flexible Circulator Route
- Fixed Circulator Route

Transit Centers

- Local Centers
- Community Centers
- Community Centers with Feeder Service
- Regional Center
- Hospitals

N

0 2 4 Miles

In the long term, all of the circulator areas, regardless of whether they have fixed, flexible or dial-a-ride service, would be linked to the connector bus routes. For circulators, average speeds of between 15 and 18 MPH were used.

Community and Employer-Based Circulators

Circulator service areas would need to be defined locally and organized by establishing partnerships of local governments, local employers or other groups that benefit from the services. The particular combination of groups behind the formation of service would vary based on interest and opportunity. To the extent that a local circulator transit service can capitalize on several overlapping markets, it will be more successful.

Employer-based circulators could provide service in areas with a concentration of businesses.

Several areas with a concentration of businesses have been identified. They include the industrial sections of Elk Grove Village and Itasca, Carol Stream, Addison, Wood Dale and the I-88 corridor through Aurora, Naperville, and Lisle. Transit service for these areas could help some potential employees who do not have cars available to reach jobs. They could also help employees take care of errands and go out to lunch without having to drive. Given the abundance of free parking, it is essential that these employment-based services are developed and supported by employers in these areas. Cooperative efforts to design a service that would be of use to their employees and a commitment to actively market the service will be important ingredients to success. Other possibilities for these services would be to offer connections to nearby Metra stations, shopping centers or municipal offices.

In many other areas, local businesses should be included in the service area, but the focus of the service would be the major shopping areas in the community, the local schools, the library, senior center or recreation facility, medical centers, hospitals, colleges and municipal buildings.

Pick-Up Points and Transfer Shelters

The important feature of local circulators is their convenience. This should hold true for pick-up points and transfer locations. The pick-up/drop-off locations should be as close to the entry of buildings that are on the route as possible, rather than out on the street. Waiting areas should be located where it is convenient and where there are other activities occurring, if possible. Transfer shelters are discussed in the section on connector services.

Service Hours

Peak-period service (every 20 minutes) would operate from 6:00 a.m. to 9:00 a.m. and from 4:00 p.m. to 6:00 p.m. On weekdays, off-peak service (every 30 minutes) would operate from 9:00 a.m. to 4:00 p.m. and from 6:00 p.m. to 10:00 p.m. Saturday service would operate from 8:00 a.m. to 7:00 p.m.

Projected Ridership

Ridership on the local circulators is estimated to reach 2.1 million rides annually. This estimate was developed based on assumed productivities (trips per hour of service) for each of the three kinds of circulator services. Dial-a-ride service was assumed to attract between 2 and 3 passengers per vehicle revenue hour. Flexible service was assumed to attract between 5 and 8 passengers per vehicle revenue hour. Fixed- route circulators were assumed to attract between 8 and 11 passengers per vehicle revenue hour. Peak-period productivity was assumed to be at the upper end of each range, and off-peak productivity was at the lower end of each range.

Estimated Costs

The overall capital cost for the local circulator service is estimated at $17.3 million (in year 2002 dollars). The primary capital cost for the local circulators is the vehicles. Depending on the type of circulator service, the vehicle type will differ. Circulators would use a variety of small vehicles. Dial-a-ride service would use enhanced vans equipped with wheelchair lifts. Such vehicles have a useful life of four to five years and cost approximately $50,000. For the flexible and fixed route circulators, small, low-floor transit buses would be used. These were assumed to cost $225,000, with an expected life span of 12 years.

Total operating cost for the local circulator services is estimated at $13.8 million annually, based on year 2002 dollars. Operating costs for all fixed route and flexible route services were estimated using an operating cost of $54 per vehicle revenue hour, based on information that Pace provided. For dial-a-ride service, a cost of $32 per hour was used, based on typical rates in similar areas around the country.

Transit Centers

An integral part of this plan is the establishment of a series of designated transit centers throughout the DuPage County area to support and enhance the travel experience of transit users. Approximately 30 transit centers are proposed throughout the study area, including existing and proposed Metra stations. This section describes the transit center concept.

Description

Transit centers vary in their configuration, size and amenities provided, depending on the function they play in the transportation network. Transit centers vary from major, multi-purpose structures (similar to the Northwest Transportation Center in Woodfield) in major locations to large bus stops and passenger rail stations with some amenities.

The types of features to consider having at transit centers include:

- Park-and ride lots
- Shelter
- Route and schedule information
- Climate control
- Washrooms
- Newspapers / vending machines

Similar to the Pace Vision 2020 Plan, three levels of transit centers have been identified in the DuPage Area Transit Plan: regional, community and local. Proposed regional transit centers generally serve more than one mode of transit and include a park-and-ride. Proposed community and local transit centers may or may not include a designated park-and-ride, and could serve

instead as a transfer facility and as a community-gathering place. Metra stations fall into all three categories of transit centers, depending on their size, function and amenities.

Many transit centers will be attractive bus stops with basic passenger amenities

A regional transportation center is strategically proposed for Oak Brook, where the high speed corridor, several connectors and community circulators would come together in immediate proximity to a high concentration of employment, a major retail/entertainment center and expressways. Park-and-ride facilities would be provided at this location. Climate control and washrooms may also be present at this type of a center.

A second level of transit center, a community transit center, is proposed in areas where a broader market than transit riders can be identified, yet of a much smaller scale than the proposed Oak Brook center. They would be located in places where the transit center could be integrated into a community's downtown or major activity center, or might be located at a major generator such as Stratford Square or the College of DuPage. These centers may have additional amenities such as coffee shops or other convenience amenities. These enhanced amenities will be supportable when the center is located in an area where others besides the transit patron can use and support them.

Local transit centers would be basic but attractive bus stops and passenger rail stations with amenities such as route and schedule information, and possibly newspaper vending machines. These centers have been identified as places where waiting or transferring between circulators, connector routes or commuter rail take place. Depending on the location and function, there may be some limited park-and-ride provided.

Locations

Figure 16 displays a map with symbols for the three different types of transit centers that are proposed. These locations have been coordinated with the proposed locations in the Pace Vision 2020 Plan. Many locations are common to the two plans. In other cases, slight differences in the connector route locations dictate alternate locations.

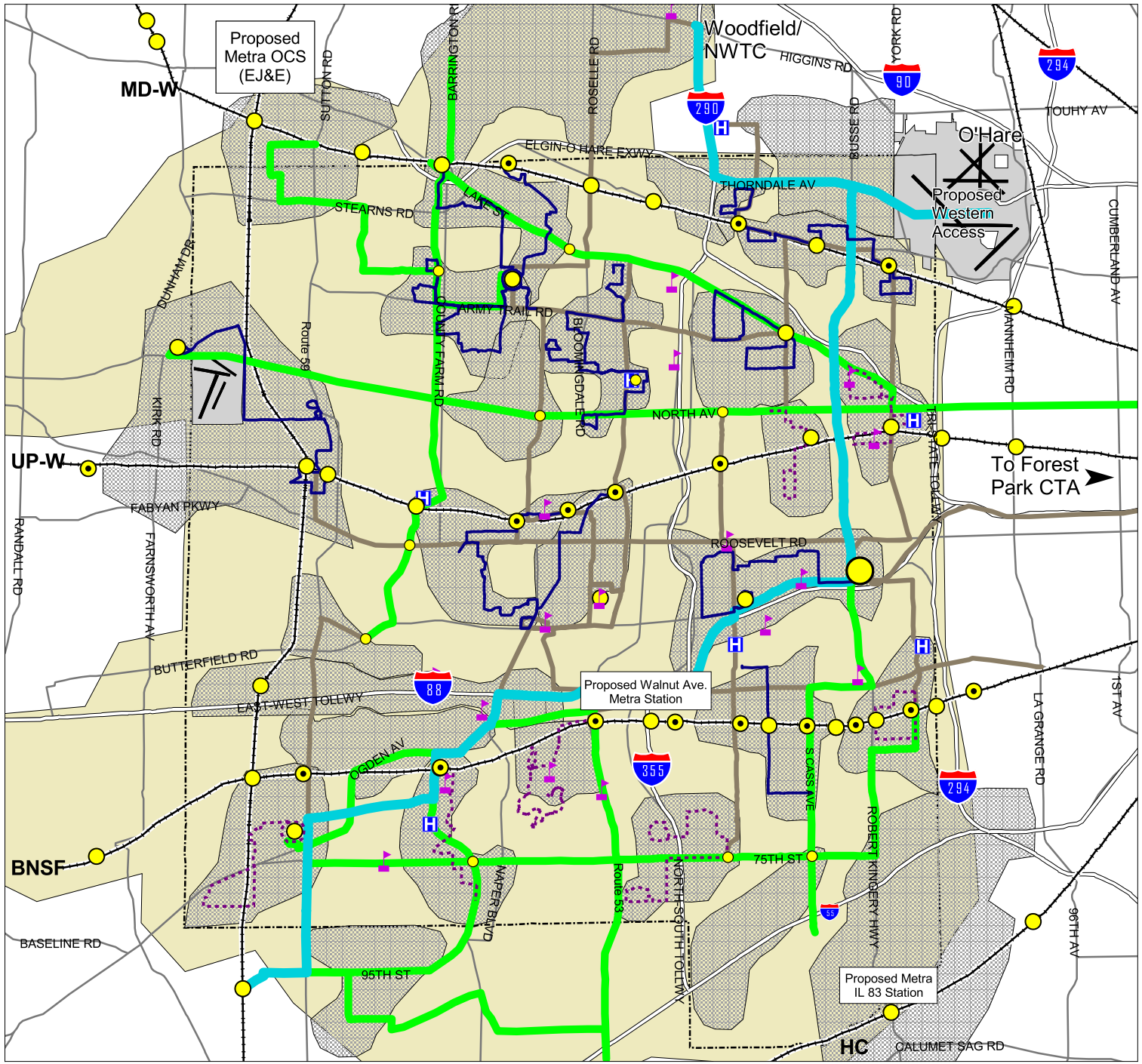
Costs

The capital cost associated with transit centers in the long-term recommended system is $15 million (in 2002 dollars).

Paratransit (Ride DuPage)

DuPage County currently has a number of paratransit services that are available to elderly and individuals with disabilities. There are upwards of 40 different groups that provide paratransit services in DuPage County, ranging from human service providers to municipalities, townships, Pace and the County. Historically, these paratransit services have operated independently of one another. Each service establishes its own eligibility criteria, fare policies, service areas, reservation procedures, and days and hours of operation. These inconsistencies coupled with the large number of services available result in a confusing array of choices and restrictions for potential consumers. Furthermore, individuals may often be unaware of the services for which

Figure 16
Transit Centers



Legend

- High Speed Corridor

Connectors

- Connector Bus Routes
- Rail Connector & Commuter Service

Circulators

- Circulator Service Areas (demand responsive)
- Flexible Circulator Route
- Fixed Circulator Route

Transit Centers

- Local Centers
- Community Centers
- Community Centers with Feeder Service
- Regional Center
- Hospitals
- College/University

N

0 2 4 Miles

they qualify. Some of these services are required by law, others are provided so mobility will be available to residents without access or ability to use a car.

Over the past several years, many of these paratransit providers have been working together to develop a system of coordinated service, known as the *Ride DuPage* initiative. This program, based on a simple "hourglass design," will funnel all trip requests for participating paratransit programs into a centralized scheduling center. The scheduling center will then consolidate and coordinate trips based on their times, locations and passenger needs, and dole them out to a network of transportation providers. Benefits of the coordinated system will include (1) a more efficient use of the county's existing transportation resources, (2) a single point of contact for riders, (3) standardized service and performance measures, (4) universal ID cards and fare payment mechanisms, and (5) accurate and comprehensive data on the unmet transportation needs in the county.

Ride DuPage is a cooperative effort between DuPage County, Pace, and the Inter Agency Paratransit Coordinating Council (IAPCC). IAPCC membership comprises municipal, township, county, and state government agencies; human service organizations; and consumers. Pace will be providing funding for the project's computer and telecommunications hardware and software. DuPage County will provide the funding for the day-to-day operations of the centralized dispatch center. Program sponsors, and their riders, will cover the direct costs of the transportation services provided. Once its operation has been established, *Ride DuPage* will conduct outreach to employers, health care providers, civic organizations, and any other potential new sponsors seeking to subsidize transportation for a particular population.

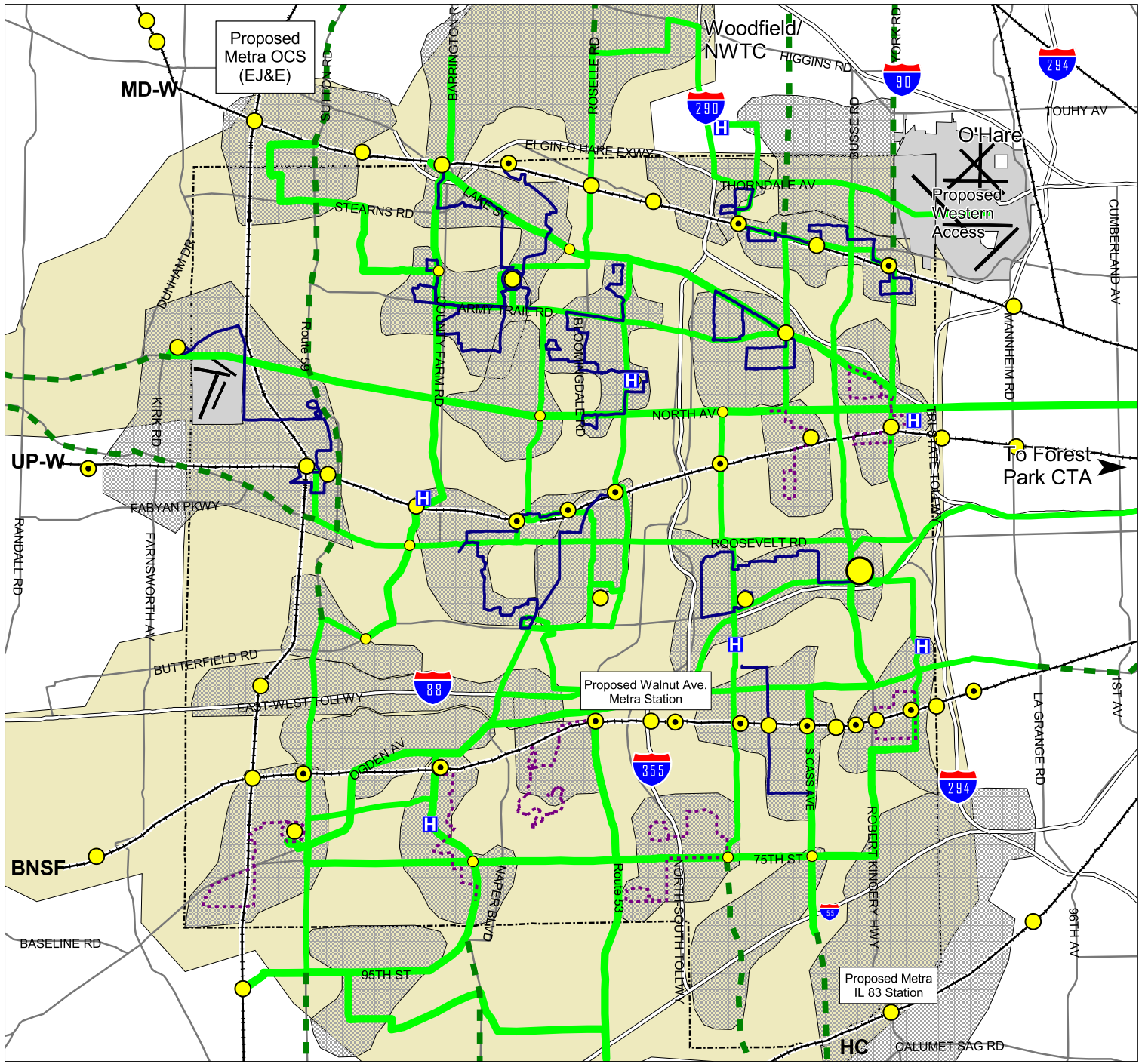
Coordination between general public services being focused on in this project and *Ride DuPage's* efforts must be explored and capitalized upon. There may be some areas where *Ride DuPage* can lessen its focus. There may be other areas where *Ride DuPage* could become the provider of general public dial-a-ride services described in this plan. At this time, the specifics of how the systems could work together cannot be determined, but as both projects of these progress, the residents of DuPage will benefit from close coordination between the two.

Potential Corridors of the Future

Planning for the future of transit in DuPage County should be an ongoing process. This plan provides recommendations to pursue between now and the year 2020. It is important, however, to keep in mind the future beyond the timeframe of this plan. The goal of this plan was to create a system of local and sub-regional transit service for the DuPage County area. Regional connections to the Woodfield area, O'Hare Airport and Cook County to the east are recommended. Continued growth in the southern and northwestern parts of DuPage County, as well as in northwestern Cook and Will counties suggest that future plans will need to increasingly focus on providing transit services to those markets.

The 'corridors of the future' depicted in Figure 17, show connector corridors to be considered and planned for in the longer term future. Coordination with the jurisdictions in areas adjacent to DuPage County is encouraged to prepare for the possibility of transit in the future. Many of these corridors are consistent with and supplement the expressway based services, proposed in Pace's Vision 2020 Plan.

Figure 17
Corridors of the Future



Legend

- High Speed Corridor

Connectors

- Connector Bus Routes
- Corridors of the Future
- Rail Connector & Commuter Service

Circulators

- Circulator Service Areas (demand responsive)
- Flexible Circulator Route
- Fixed Circulator Route

Transit Centers

- Local Centers
- Community Centers
- Community Centers with Feeder Service
- Regional Center
- Hospitals

N

0 2 4 Miles

Transit Supportive System Features and Amenities

Up to this point, this report has focused on where the service will go and what type of service it will be. This section endeavors to provide a qualitative description of many of the other features and amenities that are essential to developing a high-quality, user-friendly and successful transit service.

Integration with Regional Transit Services

The recommended scenario will be one component of an overall regional transit system, and should be integrated and coordinated with the regional system. Integration and coordination should occur on several levels: service, information, fares, and physical facilities. Service coordination includes connections to other transit providers such as Metra, Pace, and services under *Ride DuPage.* Where possible, schedules should be coordinated, such as bus service connecting to commuter rail service. This minimizes wait times, positively impacting transit ridership. Additionally, transit services in the DuPage County area must be readily identifiable as part of the regional system. The RTA's logo is the symbol of the regional system, and should be included on vehicles, schedules/maps, and other information. The RTA is currently involved in an extensive series of regional coordination studies (physical, information, service, fares). Findings and recommendations from these studies will be helpful in implementing the DuPage Area Transit Plan and for incorporation into any future plan updates. More specific details regarding information, fares and physical facilities are addressed under those specific topics.

Transit Centers and Stations

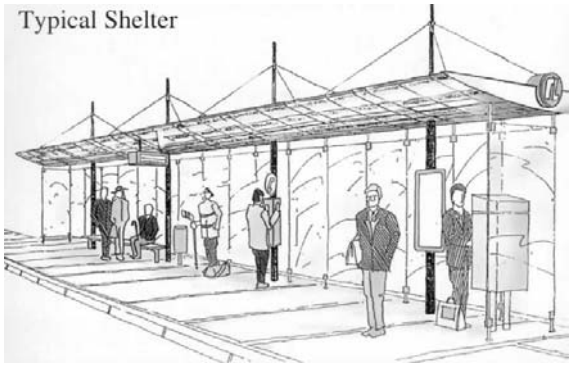
A transit center or station provides a physical hub or focal point where passengers can originate their trip or transfer between different services. In suburban areas, common locations for transit centers include the following:

- Major regional shopping centers
- Major office complexes
- Major mixed use activity centers
- Suburban central business districts
- Existing and planned park and ride facilities

The size and function of these facilities can range from a simple passenger waiting area to a full-scale transit-oriented development. However, a transit center or station should be able to accommodate various services and modes, such as local circulators, regional buses, express buses, paratransit, bicycles and possible connections to commuter rail. Some facilities may include park-and-ride or kiss-and-ride (drop-off) locations. Station sizes, amenities and types of services for making connections will vary across the county depending on the nature of the services and number of passengers at that center. Figure 16 shows locations for the different types of transfer centers/stations in this plan.

Considerations for the location of such facilities include the following:

- Schedules/route configurations
- Minimum interference between transit operations and general traffic flow
- Pedestrian flow and safety
- Pedestrian linkages/walking distances
- Functional design



Stations should include a number of amenities for passengers.
Source: Glen Leicesster, TransLink

A key design issue, relating back to the coordination and integration of services, is that transit stations should be easily identifiable and have some common design elements. This is important given that the recommended scenario is built upon local circulator service connecting to transit stations.

In addition to items such as design and location, there is a host of other passenger amenity issues to consider when planning a stop, center or station. Metra has done extensive research on the types of commuter amenities that are recommended to be located in the nearby vicinity of a train station. These include convenience items such as a place to purchase coffee/snacks, newspapers, dry cleaning, groceries, oil change and other similar activities. It is recommended that other transit centers are located in areas where there is other activity, such as in a downtown area or at an active shopping center. This gives the transit passenger something to do while waiting, and brings an additional market to the retail area. Other recommended amenities include kiss-and-ride areas, close proximity to rest rooms, and waiting areas, vehicles and stations with climate control.

At all places where a person waits for transit, there should be clear and easily understood information about the service and connections. Real-time information is strongly encouraged, where and as soon as feasible.

Transit Stops

Transit stops are an important part of the pedestrian environment and a key functional element of the transit system. The design and location of transit stops should place pedestrian safety and convenience first, since all riders are pedestrians at some point in their transit trip. Consistency of placement is desirable (i.e., far side or near side of an intersection), although traffic conditions, space constraints and adjacent land uses can affect the specific location. Other considerations in the placement of transit stops include the following:

- Traffic volumes, turning movements and flows
- Pedestrian linkages
- Right-of-way
- Sight distance
- Ridership
- Neighborhood impacts
- Shoulders for bus pull outs

In terms of design, transit stops should provide a safe and comfortable waiting area for transit service, and they should be readily identifiable yet closely integrated within the surrounding area. Route and schedule information should be posted at all marked transit stops.

Park-and-Ride

Park-and-ride facilities provide access to transit services to those who drive to transit stops and stations. In DuPage County, the largest park-and-ride lots are located at select Metra stations.

Improving the pedestrian environment also improves the accessibility of transit.

Park-and-ride lots are especially useful to connect regional services for traveling longer distances, such as commuter rail, regional bus or express bus. Transit stations serving only local circulator service would need very little space for park-and-ride, but should make sure that bike access to the station is supported. Park-and-ride lots work well with a system that is evolving, as future accommodations, amenities and/or services can be added over time as ridership grows. Along with the physical parking lot, other amenities may be included, such as shelters, route and schedule information, newspaper stands and vending machines.

In some cases, new park-and-ride facilities may not need to be constructed. Existing resources, such as vacant or underutilized parking facilities, could be tapped to provide park-and-ride lots for transit under joint-use agreements.

Pedestrian Facilities/Environment

Creating an environment that is continuously comfortable and inviting for pedestrians has a positive impact on transit ridership. Since most transit users begin their trips as a pedestrian, it is critical to provide a more comfortable, safe and efficient environment for pedestrians. Supporting facilities that are recommended for improving pedestrian access include the following:

- Continuous sidewalk access
- Bus shelters
- Bus benches
- Landscaping/streetscapes
- Signage
- Crosswalks
- Pedestrian bridges
- Intersection improvements

Pedestrian facilities will vary within the context of the surrounding environment. For example, facilities along arterial roadways will be focused on connectivity between land uses and transit service, while facilities at the site level, such as activity centers, will be focused on more internal circulation.

In DuPage, some issues raised during this project related to the pedestrian friendliness of development patterns. To a significant extent, actions to improve people's ability to walk, cross streets and comfortably wait will affect the ability of any transit service to become a true mobility partner in the DuPage County area.

System Information

A comprehensive and integrated transit system must provide coordinated transit information. In addition to the specific route and schedule information, other useful information on transfer locations, station locations or other services should also be provided. Information should be available from a variety of sources and a variety of mediums, such as signage, routes, schedules, web sites, the RTA's Travel Information Center, and new mediums that can provide real-time information such as "active" transit signs, kiosks, or wireless communications. Real-time information provides the waiting and connecting transit user with information such as expected wait time, arrival time or time of connecting services.

A comprehensive and integrated transit system must provide coordinated transit information.
Source: Maunsell, Ltd.

Fares

A fare system that is easily understandable to the transit user has a positive impact on transit ridership and efficiency. Components of the fare system include the actual fare charged, fare instruments and fare collection technology. With convenience and ease of use being critical elements, a fare medium such as a universal fare card or "smart card" is becoming increasingly popular. The CTA has recently begun using electronic fare cards, which are also accepted on Pace buses. New transit cards are purchased at vending machines, and value can be added to an existing transit card. The use of "smart cards," which can have the ability to function as a debit card or credit card, are currently under study by the CTA, and are used in other areas. Fare coordination is the topic of an RTA study soon to get underway, the findings of which should be incorporated in a future update of the DuPage Area Transit Plan.

The recommended long-range scenario includes several types of services. A common or shared fare instrument, as well as easy transfers, are important to assure coordination between all services.

Safety/Security

Passenger safety is a high priority for transit operators. Insuring the safety of passengers is crucial in attracting and keeping transit users. Of particular importance are transit stations, where many customers wait. Key elements in addressing safety and security may include the following:

- Location of facility
- Adequate lighting
- Vandal-resistant materials
- Clean facilities
- Emergency phones
- Public address system
- Closed-circuit TV
- Alarms
- Patrols
- Public programs such as community relations, safety education, public relations

It is recommended that the highest level of safety and security as is practical be provided at stations, stops and other waiting areas.

Marketing

Providing clear and useful information about the system is key to attracting and assisting riders. This information must be user friendly and customer focused. Additionally, there should be a consistent image for all informational materials, advertising and promotion efforts, and bus stop identification. Marketing efforts must reinforce the concept that a "family" of transit services is available to serve different needs. Marketing and promotional efforts should include partnerships with destinations such as shopping centers, universities and major employment locations. The places where information about the system is available, such as web sites, the RTA Travel Information Center, or locations for route and schedule information or to purchase fare cards, should be publicized. Partnerships should be developed with employers to take advantage of employee benefit programs, such as RTA transit checks. For new service implementation, strategic marketing will require extensive cooperation and coordination with other organizations.

Transit Supportive Land Use

The concept of development around transit stations addresses issues such as mix of land uses, densities, design, pedestrian friendliness, and zoning to promote an environment supportive of transit. This concept has commonly been referred to as transit-oriented development (TOD), but has also been referred to as transit-focused development, development-oriented transit, and transit supportive land use. The principles of TOD establish a framework for urban centers and neighborhoods to achieve a greater sense of community, mobility, economic growth, identity and diversity. At the most basic level, TOD brings together transit, retail, residential and civic uses in a way that benefits all these uses. In the right quantities and arrangement, TOD can help increase the vitality and activity of an area, reduce sprawl, and encourage investment, while also increasing transit use.

Generally, TOD focuses on one-half mile around station locations, which is about a three- to five-minute walk in well-designed TODs. A pedestrian-friendly environment is essential for a successful TOD. Ample sidewalks, human-scaled lighting, compact development, narrow streets, interesting retail displays and a mix of uses nearby all help to achieve this objective.

A transit center or station creates the ideal opportunity for TOD. Traditionally, the permanence of rail transit provides more confidence for private investment in an area. In addition to the main transit stop, other supporting transportation elements are necessary to create a truly intermodal transportation hub, such as local circulator and connecting bus service, feeder bus service, passenger rail service, bicycle accessibility and storage, auto accessibility, and a pedestrian-friendly environment.

Implementation

Phasing of the Plan

Given the limited amount of local transit service available in and around DuPage County today, and the almost exclusive reliance on automobile travel for meeting current mobility needs, it will be a challenging process to develop transit as an integral part of the DuPage area's transportation system. The approach described in this plan is designed to produce a transit system in the long-term that is built in an effective and incremental way. In addition to developing transit services that meet residents' travel needs, the transit agencies and local officials must work to educate the public on how transit works and why everyone—not just people without other mobility options—can benefit from it. People must see and experience success in the early stages of implementation; otherwise, there will be little support for the larger investments needed to bring about the later stages. With careful planning, phased implementation, marketing and information campaigns, the county can build a transit system that will significantly improve mobility and support sustainable development in the future.

Throughout this course of phased implementation, the existing transit service will be incorporated, expanded or restructured to become part of the recommended system. Particular elements to be considered throughout include feeder bus service to commuter rail stations and Ride DuPage paratransit services. Maximum coordination between these services are encouraged.

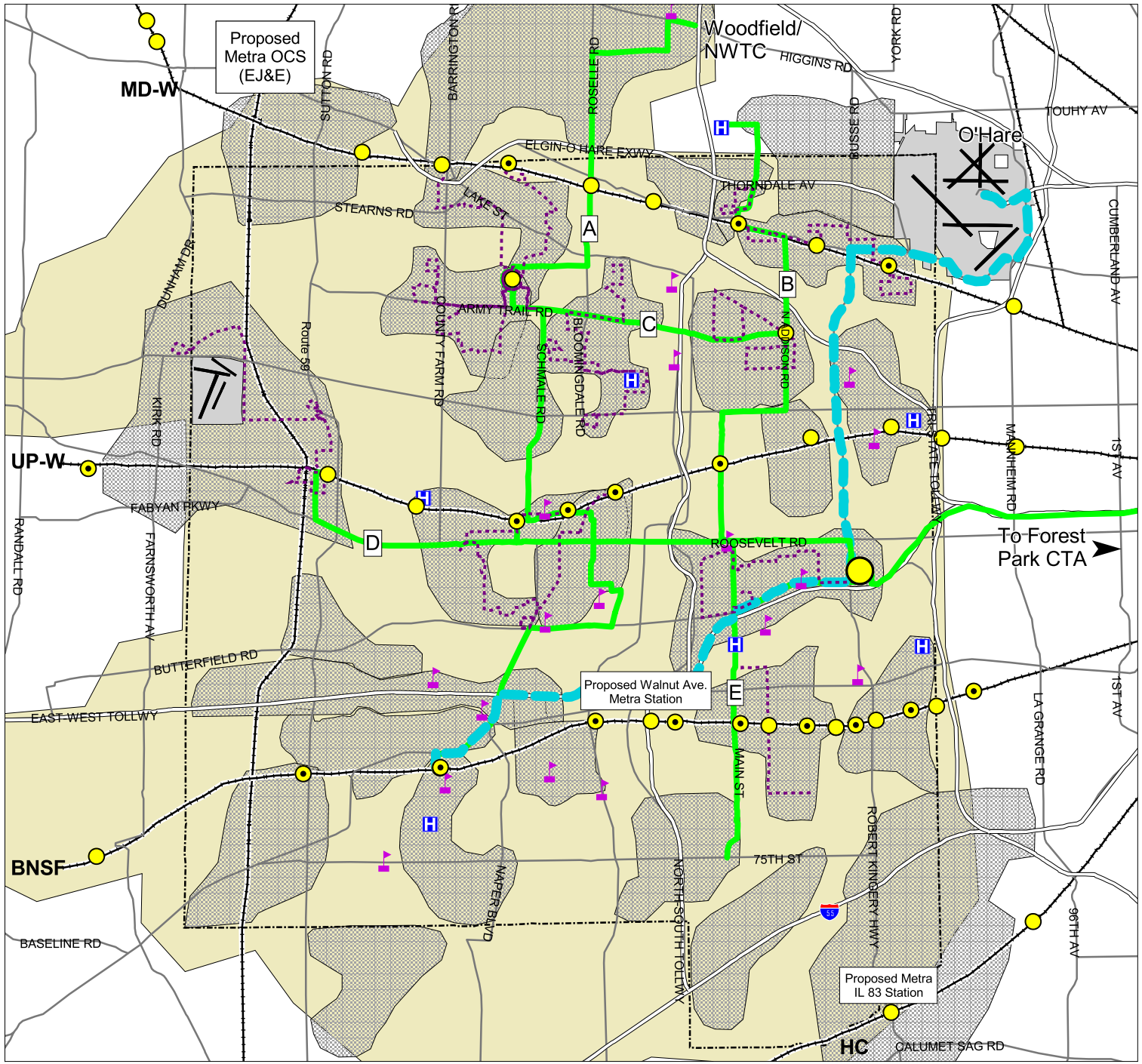
In this section of the report, two interim snapshots of the system are developed to help visualize the process of moving from the current system to the long-term system envisioned by this project. The near-term recommendation is planned to be in place in 2007. These services will remain in place until mid term recommendations are implemented in 2012. Long-term recommendations will be fully implemented in 2020. A brief description of the services in place, including a description of the changes from the previous time frame, costs and ridership, are discussed for the near-term, mid-term and long-term. Additional detail is available through technical documents prepared during the project.

Near-Term Recommendations

This section of the paper describes transit services that could be introduced in the **near-term** period (the next three to five years) and have a reasonable chance of attracting the target level of ridership with proper information, extensive marketing and the development of partnerships. It is anticipated that this system would then remain in place for an additional five years until the mid-term services are implemented.

The recommended near-term transit network is shown in Figure 18. Note that the recommended near-term transit scenario does not show any existing Pace services. It is presumed that existing Pace service will continue or become incorporated and expanded into the near-term recommendations.

Figure 18
Near-Term Recommended System (2007)



Legend

- High Speed Corridor

Connectors

- Connector Bus Routes
- Rail Connector & Commuter Service

Circulators

- Circulator Service Areas (demand responsive)
- Flexible Circulator Route

Transit Centers

- Local Centers
- Community Centers
- Community Centers with Feeder Service
- Regional Center
- Hospitals
- College/University

Near-Term Services

The near-term transit network in the DuPage County area would consist of the following elements:

- An O'Hare express route originating in downtown Naperville that also serves the Oak Brook area and potentially a few other possible points.
- Five connector (intra-county) bus routes, three of which operate north-south, and two of which operate east-west. These routes would offer limited-stop service connecting the circulator areas.
- Twenty-eight circulator areas:
    - Eleven local circulator areas with fifteen routes that could be either fixed or flexible. For costing purposes they are assumed to be flexible routes for the near-term period.
    - Seventeen dial-a-ride circulator areas (thirteen residential dial-a-ride zones and four employer-based service zones.) Service in these zones would be 100% demand responsive.

Circulators will likely run 12 hours per day from 7:00 a.m. to 7:00 p.m. in areas where they can effectively access work places. In other areas, where circulators might be more appropriately targeted to retail markets, circulators can operate from 9:00 a.m. to 9:00 p.m. The particular nature of an area will determine the appropriate type of service. Some areas may require fewer hours of service, while others may require more. It is assumed that many of the near-term routes would be oriented toward non-work trips because it is often easier to get people to try using transit for non-work trips than for work trips. In certain locations, however, the circulators will be able to do a fair job of providing access to job sites. Eleven hours of service on Saturdays is recommended for the near term, with service operating from 8:00 a.m. through 7:00 p.m. as an example. For the purposes of cost estimation, three hours of peak service is assumed, with trips every 20 minutes. During the rest of the span, vehicles would operate every 30 minutes.

The following list highlights the communities where services are recommended for near-term implementation. In general, the near-term recommendations correspond to places where current conditions, travel patterns and other characteristics indicate transit potential.

Near-Term High Speed Corridor

In the near-term, only the portion of the route between downtown Naperville and the airport is recommended for implementation. This service would run as an express airport shuttle, with potential stops at the proposed Walnut Avenue Metra station and at Oak Brook Shopping Center.

In this time period, planning studies to determine the feasibility, alignment and other characteristics of the high-speed corridor service should be undertaken.

Near-Term Connector Routes

It is recommended that the long-term connector network be implemented in three phases. Determining the order in which different pieces of the connector should be implemented is primarily based on two factors:

1) The specific connections between local circulators, and

2) The connectivity of the network as a whole.

Since the local circulators will be implemented in phases, it makes the most sense to connect local circulators that will be phased in at the same time or have already been phased in and had time to mature. The connectivity of the network as a whole is also important because any segment that is implemented at a given time should be connected to the network in order to assure continuity of the system.

Figure 18 illustrates the recommended near-term connector bus system in DuPage County. The near-term routes, lettered from A to E, are described in the following paragraphs. The relationship of these routes to existing Pace service is also described.

Route A between Schaumburg/Woodfield and Naperville: This north-south route will begin at the Northwest Transportation Center in Schaumburg and end at the Naperville Metra Station, with stops at Schaumburg Town Square, the Roselle Metra Station, Stratford Square Mall, Northland Mall Shopping Center, Wheaton Metra Station, College Ave. Metra Station, the College of DuPage, Danada Square, and Ogden Mall. The route will connect the Roselle/Hanover Park, Bloomingdale, Glendale Heights, Wheaton, and Glen Ellyn circulators and will then run down to Naperville. It is recommended that Pace Route 711 be converted into this route by extending the service, increasing the frequency and making some alignment adjustments.

Route B between Alexian Brothers Medical Center (Elk Grove Village) and Oak Brook Shopping Center: Stops on this route would include the Itasca Metra Station, Georgetown Square Shopping Center, Green Meadow Shopping Center, North Park Shopping Mall, the Lombard Metra Station, Lombard Pines Shopping Center, and Yorktown Shopping Center. This route will connect with circulators in Wood Dale/Bensenville, Addison and Oak Brook, thus providing connections to the Oak Brook Shopping Center for people living in the northeastern part of the county.

Route C between Bloomingdale and Addison: This route is the first phase of a recommended long-term east-west route serving Army Trail Road. In the near-term, only the portion extending from Stratford Square to Addison would be implemented, thus connecting Routes A and B as well as the Roselle/Hanover Park, Bloomingdale, and Addison circulators.

Route D between West Chicago, Oak Brook / Oakbrook Terrace and Forest Park CTA Station: This long inter-county route runs almost the full width of DuPage along Roosevelt Road, extending into Cook County to reach the Forest Park Station on the CTA Blue Line. The route starts at the West Chicago Metra Station and would stop at such locations as the Wheaton Metra Station, Main Street in Glen Ellyn, South Main Street in Lombard, and Oak Brook Shopping Center. This route will connect West Chicago with Wheaton, Glen Ellyn and Oak Brook/Oakbrook Terrace, as well as the CTA. Currently, the eastern portion of this route is served by Pace Route 747, which begins at the Wheaton Metra Station and runs to the Forest Park CTA Station along Roosevelt Road. Increasing the off-peak frequency and extending the service to West Chicago would change the current route to the proposed route.

Route E between Woodridge and Oak Brook Shopping Center: In the near term, Route E will provide service from Woodridge to Downers Grove (Fairview Ave. Metra Station), through Westmont (connecting with the circulator there), to Oak Brook Shopping Center. In the long-

term, this route will be combined with Route B to form a complete north-south connection. Pace's Route 834 can be included into this route with some route changes and increases in frequency.

Near-Term Circulator Areas with Fixed or Flexible Routes

In general, these areas were selected based on their transit-supportive population and employment densities. Also, the demographics of the communities or portions of the communities suggest that transit may be an important mobility option. In addition, key activity centers such as shopping centers, colleges and hospitals are present in many of the areas selected for near-term implementation of circulators.

It is recommended that these areas be served by flexibly routed services. This means that a route would be identified, but the vehicle would respond to calls for service off of the route and then return to the route where it left off.

The following areas are recommended to have flexible services in the near-term:

- Addison
- Bloomingdale
- Glen Ellyn
- Glendale Heights
- Itasca
- Oak Brook / Oakbrook Terrace
- Roselle / Hanover Park
- West Chicago
- Westmont / Downers Grove
- Wheaton
- Wood Dale / Bensenville

Near-Term Dial-a-Ride Circulator Areas

In the near-term, the following areas are recommended for dial-a-ride service.

- Aurora-Fox Valley
- Bartlett
- Burr Ridge
- Carol Stream
- Darien
- Elk Grove Village employment areas
- Elmhurst
- Hinsdale
- Itasca employment area
- Lisle
- Northern Naperville
- Naperville – Washington St.
- Naperville – I-88 Corridor
- Southern Naperville – Will County
- Villa Park
- Warrenville
- Woodridge

Near-Term Costs

Using cost estimates similar to those used in the long-term scenario, operating and capital costs for the near-term recommended services were developed. The near-term plan would require 58 small buses (for local circulator service), 40 vans (for dial-a-ride local circulator service) and 41 standard sized buses (for connector services and the early stages of the high speed corridor's implementation). All of the vehicles could be located in one facility; however, it may be more economical to base the vehicles from two separate locations. There are currently no public

transit maintenance facilities in the county. However, Pace has maintenance facilities for DuPage County in its current capital program.

It is assumed that eight transit centers would be built in the near-term period to support the near-term circulator and connector routes. Some of these would consist of enhancements to existing Metra station facilities.

Costs are summarized in Table 4 below. A total capital cost for implementation of this phase is $31.8 million. The annual operating cost is estimated to be $17.4 million.

Table 4: Near-Term Cost and Ridership Estimates (2002 Dollars)

Element	Annual Operating Cost (millions)	Total Capital Cost (millions)	Annual Ridership (millions)
High Speed Corridor (express bus to O'Hare and Woodfield)	$0.9	$2.2	0.2
Connector routes	4.1	10.5	0.6
Flexible-route circulators	8.3	13.1	0.7
Dial-a-ride circulator service (residential and employer-based)	4.1	2.0	0.3
Transit centers	n/a	4.0	n/a
Total	**$17.4**	**$31.8**	**1.8**

Projected Near-Term Ridership

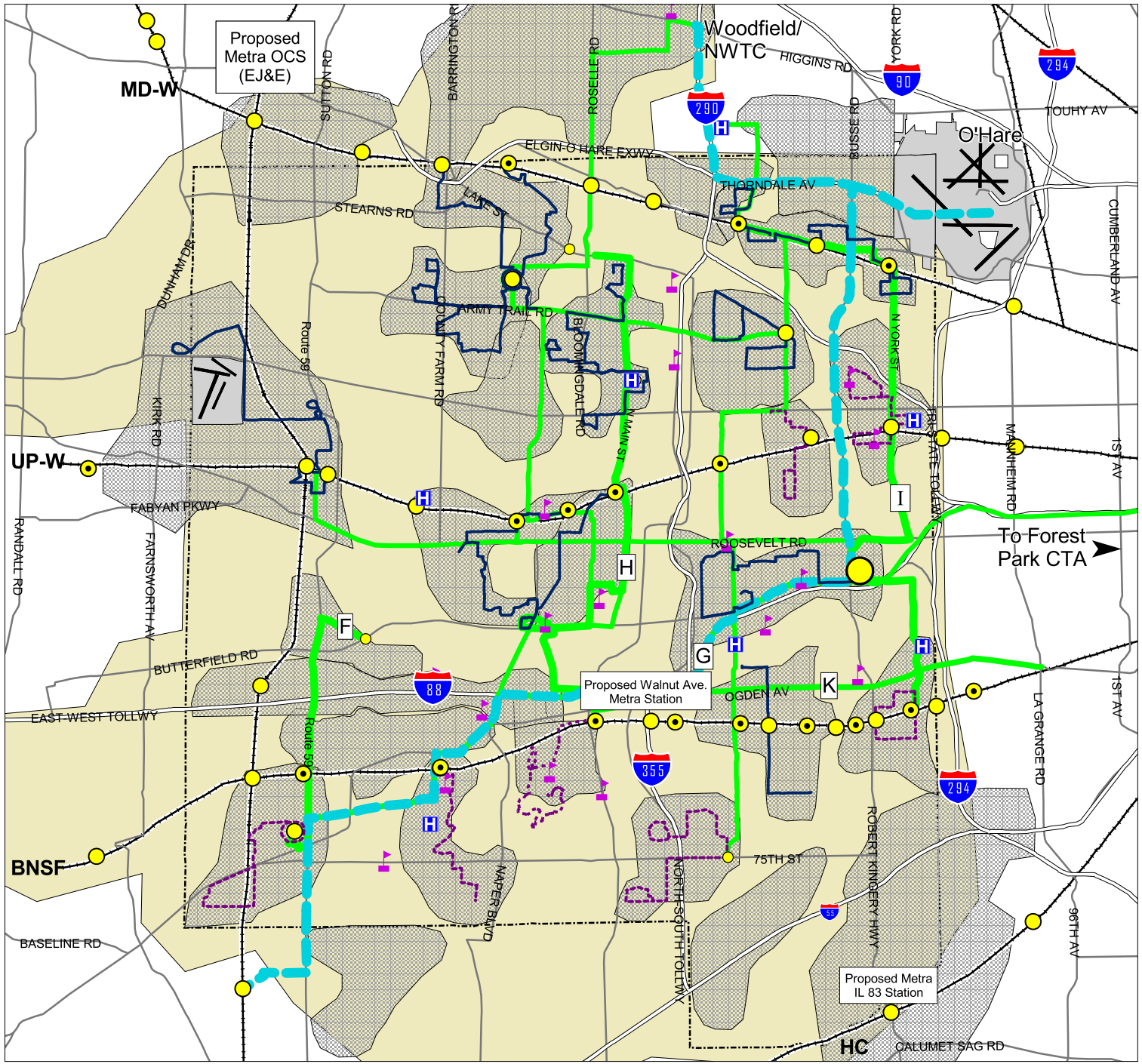
Ridership on these routes is estimated using assumptions as to the productivity (passengers per hour) for each type of service. In the near term, slightly lower productivities were assumed than in the long-term system. Near-term peak-period productivity for circulator routes was assumed to be 7 passengers per hour, and off-peak productivity was assumed to be 4 passengers per hour. For the near-term connector routes, peak productivity was assumed to be 10 passengers per hour, and off-peak productivity was assumed to be 7 passengers per hour

A total ridership estimate of 1.8 million passengers per year is estimated for the service that is recommended for near-term implementation. The ridership by service type can be seen in the Table 4 above.

Mid-Term Recommendations

Once the recommended near-term system is in place and operating for a few years (up to the year 2012), gradually building up its base of riders, it is then recommended that the system be expanded to include additional circulator routes and more of the connector network as shown in Figure 19. The map highlights new or modified service from the near-term recommendations. A number of the zones that had dial-a-ride service in the near-term would transition into a flexible-route circulator. Service in the High Speed Corridor would also expand with extensions of the express service to the north and southwest, and with an overlay of connector-type service on the central portion of the corridor.

Figure 19
Mid-Term Recommended Service (2012)



Legend

- High Speed Corridor

Connectors

- Connector Bus Routes
- Rail Connector & Commuter Service

Circulators

- Circulator Service Areas (demand responsive)
- Flexible Circulator Route
- Fixed Circulator Route

Transit Centers

- Local Centers
- Community Centers
- Community Centers with Feeder Service
- Regional Center
- Hospitals
- College/University

N

0 2 4 Miles

Mid-Term Services

The mid-term network would consist of the following elements:

- An expanded express bus route (High Speed Corridor), extending all the way from the proposed 95th Street Station on the EJ&E to both O'Hare Airport and the Woodfield area (Northwest Transportation Center).
- Five new connector bus routes, three of which operate north-south, and two of which operate east-west. These routes would expand upon the near-term network of five connector bus routes.
- Additions and changes to circulator areas:
    - Six residential new dial-a-ride zones and four new employer-based service zones. Service in these zones would be 100% demand responsive (general public dial-a-ride).
    - Eight new flexible circulator routes are added in seven circulator areas that were dial-a-ride zones in the near-term period.
    - The circulator areas operating flex-route service in the near term would likely become fixed route circulators during the mid-term period, due to increasing demand.

The span of service for the mid-term system would be between that for the near-term system and that for the long-term scenario. For the new circulators, the same logic as described above in the near-term section would apply to determine whether a route is targeted toward work trips or non-work trips. The routes that had been implemented in the near-term, however, would see an expanded span of service, operating from 6:00 a.m. to 10:00 p.m. with five hours of peak service. The frequency of service would remain the same, with vehicles operated every 20 minutes in the peak periods and every 30 minutes in off-peak periods.

Mid-Term High Speed Corridor

In the mid- term, the airport express shuttle would be extended to the proposed 95th Street EJ&E Transfer Station, which would allow far greater park-and-ride access than is possible in downtown Naperville. Express service to the Woodfield area (Northwest Transportation Center) would also commence in the mid-term period. As mentioned above, the connector Route G is proposed to cover the main east-west portion of the route during this time period. The level of service on that connector route (which is lower than the proposed long-term level of service in the corridor) will help build ridership in the corridor.

Mid-Term Connector Routes

The mid-term connector system is expanded from the near-term system, with a priority placed on connections between new mid-term circulator routes and the existing connector system. The mid-term connector routes, lettered from F to K on Figure 19, are described in the following paragraphs.

Route F between Warrenville and Fox Valley Mall: This route is a portion of the western most north-south connector route in the long-term scenario. In the mid-term, only the southern portion of this connector route, from Warrenville to Aurora, is recommended. It would begin at Warrenville City Hall and run northwest through Warrenville turning south on Route 59 and

continuing to the Fox Valley Shopping Center. In the mid-term, Warrenville and the northern part of Naperville are expected to have dial-a-ride service, but these services can still serve as feeders to Route F.

Route G between Aurora and Oak Brook Shopping Center: Route G is a portion of the high-speed corridor ("J" route) between the Fox Valley Shopping Center in Aurora and Oak Brook Shopping Center. The route will connect the Aurora, Naperville, and Lisle circulators with each other and with Oak Brook Shopping Center. Route G also intersects with a number of connector routes, including Route F, Route H, Route B, and Route I, thus forming a connector between these routes. It could also potentially serve the new Metra station at Walnut Avenue on the Burlington Northern Santa Fe. This route would serve the same corridor as the "J" route, but would be superimposed on the "J" express service that would operate in the mid-term period. In the long-term scenario, this Route G would be absorbed into the "J" route.

Route H between Glendale Heights and Lisle: This route is part of a longer north-south route in the long-term scenario that would eventually run as far south as the Bolingbrook park-and-ride. The portion recommended for implementation in the mid-term period would offer connections between the Glendale Heights circulators, Glen Ellyn, College of DuPage, Danada Square, and the Lisle Metra Station.

Route I between Itasca and Hinsdale: In the mid- term, the local circulators in Elmhurst and Hinsdale will begin operation. Route I will connect these areas with the existing connector system and will also run north through Wood Dale to Itasca. The route begins at the Itasca Metra station in the north and stops at the Elmhurst Metra Station and Oak Brook Shopping Center (where it connects with Routes B, G, and E) on its way to the Hinsdale Metra station. This route is similar to Pace Route 332. It is recommended that Pace Route 332 be re-routed and upgraded to serve as Route I between Oak Brook Shopping Center and Itasca in the mid-term.

Route K between Lisle and LaGrange: In the long- term, this east-west route will run the entire length of Route 34 through DuPage County. However, in the mid-term, only the portion of this route between the Lisle Metra station and LaGrange in Cook County is recommended. Lisle residents will be able to access this route via the dial-a-ride service recommended for that area in the mid- term.

Mid-Term Circulator Areas

In general, these areas were selected based on their transit supportive population and employment densities that are favorable for transit. Also, the demographics of the communities or portions of the communities suggest that transit may be an important mobility option. Growth in previously introduced near-term service is expected to allow some circulator areas to move to a higher level of service (from dial-a-ride to flexibly routed service or from flex service to fixed route service).

The following circulator areas shift from dial-a-ride service in the near-term to flexibly routed services in the mid-term:

- Aurora – Fox Valley
- Elmhurst
- Villa Park
- Hinsdale
- Lisle
- Woodridge
- Naperville – Washington Street Corridor

All of the circulator areas that had flexibly routed service in the near-term are assumed to have fixed route service in the mid-term. Dial-a-ride service remains in all other circulator areas.

Mid-Term Costs

Using similar assumptions as in previous time periods, annual operating costs and capital costs were estimated for the mid-term recommendations as shown in Table 5 below. The mid-term service is assumed to begin in 2011 and operate in the recommended configuration to about 2016. After that time, the long-term period would begin and the rest of the network would be filled in gradually.

The capital costs of the mid-term system are estimated to be $45.5 million in 2002 dollars, an increase of $13.7 million over the near-term system. The incremental capital costs can be seen in the table below.

The annual operating costs of the mid-term system are estimated to be $26.8 million in 2002 dollars, an increase of $9.4 million annually for the near-term system.

Some additional transit centers would be desirable for the mid-term period; their cost is shown in the table. Beyond the eight transit centers recommended for the near-term, an additional 10 or so new or upgraded transit centers (upgrades would be appropriate at existing Metra stations) would be needed to support the proposed mid-term route network.

The total capital cost for each service type reflects a cost that would be incurred in the mid-term period. During the mid-term period, all vehicles purchased for near-term service would need to be replaced. Therefore, to operate the mid-term network, new buses must be purchased for the new services and replacement buses must be purchased to continue operation of the services begun in the near-term period.

Table 5: Mid-Term Cost and Ridership Estimates (2002 Dollars)

Element	Annual Operating Cost (millions)	Total Capital Cost (millions)	Annual Ridership (millions)
High speed corridor (Express bus to O'Hare and the Woodfield area)	$2.0	$4.9	0.3
New connector routes	3.5	6.6	0.5
Near-term connector routes	5.5	10.5	1.0
New fixed and flexible route circulators	3.5	6.3	0.3
Dial-a-ride circulator service (residential and employer-based services)	2.8	1.2	0.3
Near-term circulators	9.5	11.0	1.6
Transit centers	n/a	5.0	n/a
Total	**$26.8**	**$45.5**	**4.0**

Costs for bus maintenance facilities were not included in the above table. For these mid-term recommendations and for the replacement of near-term vehicles, 77 small buses, 23 vans (small

buses and vans for local circulator services), and 78 full-size buses (for connector routes and high speed corridor service) would be required. Two facilities would be needed to maintain and store these vehicles efficiently. If two facilities had already been built during the near-term period, no significant additional cost for garages would be incurred in the mid-term period.

Projected Mid-Term Ridership

Ridership for the mid-term system is estimated at four million passengers per year. This represents an increase of 2.2 million annual passengers over the system that was in place in the near-term. The ridership related to each segment of service can be seen in the table above.

For new mid-term routes, peak productivity for circulators was assumed to be seven passengers per hour, and off-peak productivity was assumed to be four passengers per hour. For the mid-term connector routes, peak productivity was assumed to be 10 passengers per hour, and off-peak productivity was assumed to be seven passengers per hour. For routes that were implemented in the near-term period, the productivities for the long-term scenario were used.

Long-Term Recommendations

Long-Term Services

In this section, the incremental system changes between the mid-term recommendations and the long-term system are highlighted. The full description of the long-term recommended system is found earlier in the report. Unlike the other interim sections, this section will only focus on the services added between the mid-term and the long-term.

Long-Term High-Speed Corridor

Significant changes in the high-speed corridor take place between the mid-term and the long-term. It is in this time frame that the "J" corridor, which has been implemented as an express bus operation, truly functions as a high-speed corridor. Determinations as to the alignment, type of service, and frequency of service will have been made and implementation will be underway. Connections between southwest DuPage County and both O'Hare Airport and the Woodfield area will be possible using a service operating on an exclusive right-of-way (for part of its distance) under BRT-like characteristics. The exact characteristics of this service will have been determined through study over the intervening years.

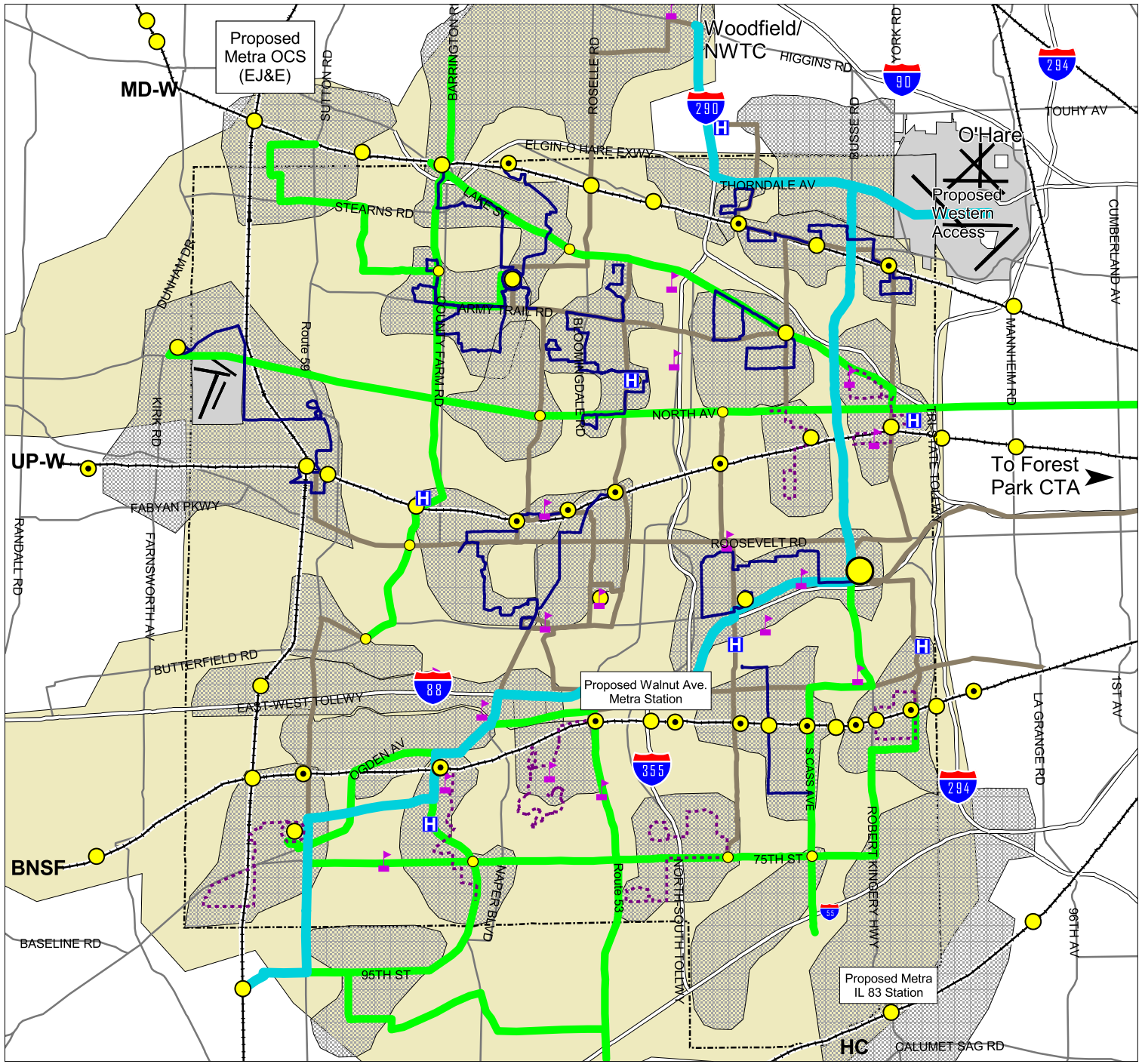
Long-Term Connectors

The connector system is completed in the long-term time frame. Figure 20 highlights the additional pieces of the connector system that are proposed for service by the year 2020.

Long-Term Circulator Areas

There are no changes proposed in the circulator areas between the mid-term and the long-term recommendations.

Figure 20 Long-Term Recommended Service (2020)



Legend

- High Speed Corridor

Connectors

- Connector Bus Routes
- Rail Connector & Commuter Service

Circulators

- Circulator Service Areas (demand responsive)
- Flexible Circulator Route
- Fixed Circulator Route

Transit Centers

- Local Centers
- Community Centers
- Community Centers with Feeder Service
- Regional Center

- Hospitals
- College/University

Dial-a-ride areas are proposed to remain in the following areas due to the nature of the development:

- Bartlett
- Burr Ridge
- Carol Stream
- Darien
- Elk Grove employment area
- Itasca employment area
- Naperville – I-88 Corridor
- North Naperville
- South Naperville – Will County
- Warrenville

Long-Term Cost Increment

Table 6, below, shows the long-term recommendation costs by component. The total capital cost, assuming that the high-speed corridor includes BRT characteristics, is $98 million (in 2002 dollars). This represents an increase of $52.5 million from the mid-term recommendations.

The total capital cost consists of a significant increase in the number of buses as well as BRT infrastructure costs. Under the long-term scenario, 77 small buses, 23 vans, and 136 full-size buses would be required. At least two facilities would be needed to garage and maintain these vehicles. Costs for bus maintenance facilities are not included.

Table 6: Long-Term Cost and Ridership Estimates (in 2002 Dollars)

Element	Annual Operating Cost (millions)	Total Capital Cost (millions)	Annual Ridership (millions)
High Speed Corridor (with BRT)	$5.1	$33.0	1.7
High Speed Corridor (with no BRT)	5.2	9.3	1.2
Connector routes	16.4	31.5	3.7
Fixed and flexible route circulators	13.8	17.3	2.1
Dial-a-ride circulator service (residential and employer-based)	2.8	1.2	0.3
Transit centers	n/a	15.0	n/a
Total with no BRT	**$38.2**	**$74.3**	**7.3**
Total with BRT	**$38.1**	**$98.0**	**7.8**

Operating costs are estimated at $38.1 million annually (in 2002 dollars). This is an $11.3 million annual increase over the mid-term recommendations.

Estimated Long-Term Ridership

The table above shows an estimated ridership of 7.3 to 7.8 million trips annually, depending on the presence of the BRT. This is an increase of 3.8 million trips annually when compared to the mid-term system.

The capital costs shown in Table 6 for each of the service types reflect the purchase price of sufficient vehicles to operate the recommended service. Since vehicles need to be replaced over time, the capital costs would be repeated if the long-term scenario is operated for a number of years. Using the assumed life spans of the various types of vehicles described above, the average

annual capital expenditure to support the service over the long-term would be in the range of $5 million.

Mobility Objective Assessment

Mobility objectives were established prior to the initiation of this study. The purpose of developing these mobility objectives was to provide a way to evaluate the recommended scenario against issues that are important to the DuPage Mayors and Managers Conference. The use of mobility objectives provide one tool for evaluating the impact or effectiveness of transit alternatives prepared as part of the DuPage County Transit Plan. In the evaluation of mobility objectives, the *effectiveness* of existing transit service and the recommended long-term future transit alternative were addressed.

It is important to note that base travel conditions will not change between the existing transit system and the recommended long-term scenario. Items such as travel patterns, the existing location of employment and population concentrations, and the location of major generators will not be altered in the short term by virtue of the proposed transit scenario. Given the limited amount of existing transit service available in and around DuPage County today, a comprehensive transit system will take years to develop and evolve. However, if transit is to be a true mobility option in the DuPage County area, transit must be carefully planned and implementation begun.

Table 7: Overall Assessment of Mobility Objectives

Objective	Description	Base Condition	Recommended Long-Term Scenario
1	Impact on roadway congestion	L	M
2	Connect hard-to-fill jobs with labor market	L	H
3	Serve transit-dependent populations	L	H
4	Integration with regional transportation system	L	M+
5	Sustain economic activity	L+	M+
6	Sustainable transportation system	L+	H

Table 7 presents a summary of the ranking for each performance measure, comparing the recommended long-term scenario to existing conditions. Given the limited amount of transit provided in the DuPage County area now, the base conditions all rank fairly low for each of the mobility objectives. By comparison, the recommended long-term scenario, fully implemented, ranks significantly higher. The highest rankings are achieved for mobility objectives in which transit is the primary variable. In areas such as congestion mitigation (objective 1) and enhancing economic activity (objective 5), transit is an important variable, but only one of many key variables affecting that objective. The approach, as designed, is to develop transit an as integral part of the DuPage area's transportation system, but in an effective and incremental way. With careful planning, the recommended long-term scenario can significantly enhance mobility, and be sustainable over time.

Qualitative rankings of the performance of each mobility objective for a particular transit network was produced. A ranking of "L" indicates low performance towards satisfying the objective. A ranking of "M" communicates that there is an impact of the transit scenario on the mobility objective. A "H" ranking indicates that the transit scenario has a major impact on that particular mobility objective.

Each mobility objective is discussed below. In the Mobility Objectives report, a more detailed discussion of each item is provided. A summary of each mobility objective is provided in this section.

Objective 1: Implement Transit Service to Reduce or Contain Highway Traffic Congestion in Select Corridors, Subareas or Employment Centers

It is generally recognized that congestion is a result of a number of factors:

- Population growth
- Employment growth
- Auto ownership
- Growth in vehicle miles traveled (VMT)
- Limited roadway capacity
- Limited mode choice

VMT and auto ownership continue to increase, along with population and employment – both regionwide and in DuPage County. 2020 forecasts for DuPage County project continued growth, which will continue to negatively impact mobility under the existing transportation system.

Limited mode choice is only one factor contributing to congestion. Without changes in the other factors, transit itself cannot significantly impact the level of congestion countywide. This is particularly true as the county has developed in a more transit "unfriendly" environment: wide major arterial roadways with higher speeds, limited sidewalks or other pedestrian facilities, and limited opportunities for transit to operate safely in mixed traffic. Improved mode choice can have a more direct impact on the goal of enhanced mobility than on congestion. That said, it is true that increased transit services can, in the long- term, have an impact on congestion. The level of impact will rely not only on improved transit service, but also on its context and importance within the region, including development decisions and policies that create an environment where non-auto modes can participate.

Nearly all circulator service areas have segments of major arterials that the DuPage County Department of Transportation considers deficient. While it is envisioned that the circulator routes would travel through residential areas, these routes will connect to major community travel generators, requiring some portion of the routes to travel along congested corridors or intersections. Additionally, the proposed connector routes will travel primarily along arterials, of which many are congested corridors and intersections. If the recommended transit scenario is implemented along with roadway improvements that enhance transit service, such as signal priority or "queue" jumping opportunities, a positive impact on congestion may be seen.

What is important, however, is that a thoughtfully implemented systemwide approach will develop a transit "mindset" within the county that could, in the long term, challenge existing congested areas and mitigate the impact of future traffic growth.

Overall Impact

High-Speed Corridor: Long-term, high-speed corridor service, supported by circulator connecting services, will have the greatest impact on congestion by removing vehicles from the I-88 corridor.

Connector Service: Working in conjunction with local circulator service, the connector services can have a positive impact on arterial roads, especially if transit-supportive improvements are addressed.

Circulator Service: These services can have a positive impact on localized congestion levels, especially in major employment locations during peak periods. They can also have a positive impact on constrained parking areas, such as shopping centers or downtowns.

Objective 2: Utilize Public Transit to Link Local and Regional Labor Markets with Hard-to-Fill Jobs in the DuPage County Area

In evaluating this mobility objective, a number of employment sectors were examined, current locations for these sectors were identified, and the impact of the proposed system on these employers was assessed. The following employment sectors were considered in this analysis:

- Local retail
- Regional retail
- Employer-based services
- Hospital/medical
- Office/manufacturing

These areas were evaluated to determine if the recommended system could provide access within DuPage as well as connect DuPage labor markets with labor pools outside the county.

Overall Impact

High-Speed Corridor: By strengthening and increasing frequency of service to external labor pools, mobility is enhanced throughout the county. This service can improve access to major regional employment centers such as O'Hare Airport or greater Oak Brook and the East-West corridor.

Connector Service: In conjunction with established local circulators, connector routes can play the greatest role in linking hard-to-fill jobs with labor markets, especially in the hospital/medical and manufacturing sectors. The connector service significantly improves the connection of labor pools outside the county with jobs in the county.

Circulator Service: Circulator service can improve mobility to jobs where travel tends to be localized, such as local retail, office and medical jobs.

Objective 3: Establish and Ensure an Appropriate Level of Mobility for Transportation-Disadvantaged Residents of the DuPage County Area

Transit, as a mobility option, is not limited to any particular demographic group. It is, however, important to look specifically at some of the demographic characteristics that make transit an essential alternative, such as age, auto availability and income.

Table 8 presents the levels of transit-dependent populations for each of the proposed residential circulator service areas (employment circulator areas are not included). The implementation schedule proposed for these services was based upon the market assessment, which specifically

addressed the locations of transit-dependent populations. North-south and east-west connector routes are to be implemented to provide connections between local circulators as well as to connect the entire transit system in the county. In the long-term, all of the circulator areas, regardless of whether they have fixed, flexible, or dial-a-ride service, would be joined by connector routes.

In addition to proposed circulator services, DuPage County has a number of paratransit services that are available to the elderly and people with disabilities. Over the past several years, many of these paratransit providers have been working together to develop a system of coordinated service, known as the *Ride DuPage* initiative. The program will funnel all trip requests for participating paratransit programs into a centralized scheduling and dispatching center. This coordinated system will provide for a more efficient use of the existing transportation resources in the county. To the extent possible, *Ride DuPage* services and local circulator service should be coordinated.

Table 8: Potential Transit-Dependent Population Served

Area	***Transit Dependency*** *(see classification parameters on following page)*			
	Seniors	**Youth**	**Zero Vehicles**	**Low Income**
Addison	Medium	Low	Medium	High
Aurora – Fox Valley	Low	Low	Low	Medium
Bartlett	Low	Low	Low	Low
Bloomingdale	Low	Medium	Low	Medium
Burr Ridge	High	Low	Low	Low
Darien	Medium	Low	Medium	Medium
Elmhurst	High	Low	High	Low
Glen Ellyn	Medium	High	High	Low
Glendale Heights	Medium	Low	Medium	High
Hinsdale	High	High	High	Low
Itasca	Low	Low	Low	Low
Lisle	Medium	Medium	Medium	Low
North Naperville	Low	Low	Medium	Low
Naperville – Washington Street	High	High	High	Low
S. Naperville – Will County	Low	High	Low	Low
Oak Brook / Oakbrook Terrace	High	Low	High	Medium
Roselle / Hanover Park	Medium	High	Low	Medium
Villa Park	Medium	Low	Medium	Medium
Warrenville	Low	Medium	Low	Medium
West Chicago	Low	Low	Medium	High
Westmont / Downers Grove	High	Low	High	Low
Wheaton	High	Medium	High	Low
Wood Dale / Bensenville	High	Low	High	High
Woodridge	Low	Medium	Medium	High

*** Classification Parameters for Table 8:**

Population Group	Size of Category		
	Low	**Medium**	**High**
Seniors	<15% of population	15-25% of population	>25% of population
Youth	<15% of population	15-25% of population	>25% of population
Zero Auto	0-5% of households	5-15% of households	>15% of population
Low Income	<100 TANF clients	101-300 TANF clients	>300 TANF clients

Overall Impact

Connectors/High-Speed Corridor: Systemwide coverage with good service frequency will provide improved mobility for the transportation-disadvantaged populations as well as opportunity to connect to other services to reach destinations throughout the county.

Circulators: Circulator services will be accessible, with some being dial-a-ride, some flexible services, and some fixed routes. These can provide good access to local destinations. Additionally, *Ride DuPage* will still be in place and will be coordinated with new services.

Objective 4: Integrate Transit Services with All Modes of the Regional Transportation System

To make transit convenient and cost-effective, a high level of connectivity and coordination is needed between all types of transit services and modes. Intermodal facilities, where multiple modes such as bus, rail, Amtrak, bikes and pedestrians interact, were identified. These locations are at: downtown Elmhurst, downtown Naperville, and a transfer facility in Clarendon Hills. Two official Pace park-and-ride lots are located in the study area: Hillside and Burr Ridge. New Metra intermodal centers are currently proposed for Naperville at 95th Street and the EJ&E tracks and at Walnut Street in Lisle/Downers Grove.

The recommended transit scenario for DuPage County is composed of three layers of transit service: a high-speed corridor, a system of intra-county connectors, and local circulators. Once fully implemented in the long-term period, these services, along with Metra commuter rail services, would form an integrated, cohesive transit network connecting the many different communities within DuPage County. The connectivity of the network as a whole is important, especially since system implementation is proposed in phases. Any segment that is implemented would be connected to the existing transit service network to assure integration and continuity of the system.

Some portions of the new connector routes duplicate existing Pace service. In these cases, adjustments to the Pace service is recommended to bridge existing and recommended new transit services. In most cases, existing Pace service will be incorporated and expanded in the long-range plan.

Overall Impact

Long-Term Scenario: Service that is recommended as part of the long-term scenario will develop a "family" of transit services. Coordination with Pace and Metra services, along with the proposed transit centers, can create an integrated transportation system.

Objective 5: Utilize Public Transit and TOD Strategies to Sustain the Economic Vitality of Mature Downtowns and Regional Retail/Commercial Centers

Downtowns and suburban shopping centers could benefit from the increase in customer base that enhanced transit service could potentially generate. In DuPage County, there are five communities with sizable concentrations of retail in their downtown areas: Hinsdale, Naperville, Wheaton, Glen Ellyn, and Elmhurst. There are five major shopping malls in the county. All of these are prime candidates for the development of local circulator transit services.

Several communities have suburban downtown characteristics that could potentially benefit from Transit Oriented Development (TOD) strategies, including downtown CBDs, restaurants,

condominiums and Metra stations. Westmont, Elmhurst, Downers Grove, Lisle, Naperville, West Chicago, Roselle and Hanover Park have developed TOD plans for the area surrounding their Metra station and/or are actively pursuing development in their station area. Other communities in the DuPage area could benefit by capitalizing on existing resources through TOD planning in their central business districts.

Overall Impact

Long-Term Scenario: The recommended scenario is designed to connect to key destinations and areas of economic activity. The combination of local and intra-county services, particularly at transit centers, can have a positive impact on development and investment.

Objective 6: Develop a Sustainable Transportation System in DuPage County

Public transit must be developed in a manner that is feasible and cost-effective, particularly given DuPage County's existing pattern of low-density, suburban development. The Market Assessment report showed a number of areas in the county that have household and employment densities at about the standard industry thresholds needed to define a transit-supportive environment. Analysis for this plan showed that a number of areas with relatively high concentrations of populations which tend to be more dependent on transit service than the average person. Finally, the report showed that much of the travel in the county, for work and non-work purposes, is relatively local. All of these factors indicate that a well-planned and thoughtfully implemented system of transit services is potentially sustainable within the county.

Overall Impact

Given the limited amount of local transit service available in DuPage County today and the fact that local transit is barely relevant to the residents' daily travel, it will be a long and expensive process to make transit an integral part of the transportation system. The recommended long-term scenario has been developed in a holistic and incremental approach that allows for flexibility in design and implementation to enhance the sustainability of the service. This flexibility is crucial in the implementation of an overall system that is sustainable over time.

Net Transit System Costs and Ridership

The costs discussed to date represent the total cost of the services depicted on the maps. They do not represent the net new costs to the region for providing the transit services recommended in this plan. In this section, the net financial operating will be discussed.

Table 9: Comparison of Long Term and Current Costs and Ridership

(in millions)

	Current Bus System	Long Term Recommended System	Net Increase
Annual Operating Costs	$12.7	$38.1	$25.4
Ridership	2.6	7.8	5.2

Table 9 summarizes the increment between the current expenditure for bus service and the long term estimated annual operating costs. A similar comparison for ridership is also made. These figures do not include the operating costs or ridership associated with commuter rail operations.

Operating costs increase from $12.7 under the current system, to $38.1 million in the long term recommended system for an increase of $25.4 million. Ridership under the recommended system increases by 5.2 million annual riders.

By the long term recommended system, the current bus services in DuPage are assumed to be incorporated and expanded into the new system. As the transit plan implementation moves forward, the details of how this occurs and the specifics of the nature of each circulator area will need to be determined. This plan has been developed by looking carefully at the nature of each area in determining the type of service that is likely to make sense in the long run.

A natural question to arise is whether the DuPage County area will actually generate the ridership that is estimated. The following tables provide evidence that the overall level of service being recommended for the DuPage County area is supportable. Table 10 shows the difference between urban and suburban transit trips per capita on an annual basis.

Table 10: Urban vs. Suburban Transit Trip Rates

Metro Area	Urban Trips / Capita	Suburban Trips / Capita
Chicago	101.7	9.4
San Francisco	174.4	9.3
Philadelphia	83.4	3.5
Washington	86.5	19.5

This table shows a fairly consistent relationship in transit trips per capita across metro areas and between urban and suburban areas. The sustainable trip rate in DuPage is probably slightly lower than the average as it is further from the urban core.

Getting more specific to outer ring suburban areas, Table 11 identifies several communities and the annual per capita transit usage rates.

Table 11: Outer Ring Suburban Transit Trip Rates

Community	Annual Trips per Capita
Fairfax County, VA	5.2
Cobb County, GA	4.8
Western Contra Costa County, CA	7.4
Niles, IL	9.1
DuPage Recommended System	7.9

Fairfax County is the home of Tysons Corner, a similar area to some areas of DuPage County. The transit trip rate shown here is only for the Fairfax Connector local service and does not include trips made on the Metro regional system (comparable to the Pace system here). Cobb County, Georgia is an affluent suburban area outside of Atlanta. They have their own community bus system. Western Contra Costa County is a suburban county in the San Francisco Bay area. The Niles service referenced in this table is the 'Niles Free Bus' that provides fixed route circulation on three routes within Niles. With Niles being an inner ring suburb, we would project that DuPage services would have lower levels of ridership than a community like Niles.

The transit ridership estimated for the long term recommendation calculates to 7.9 annual transit trips per capita, a figure in the range of the outer ring suburban experience. This is based on an estimated 2020 population of 985,700. This number appears to be slightly on the high side compared to others, but it included the regional services that are not included in the other systems.

Funding

Funding the recommended plan will be a challenge requiring partnerships and a strong consensus behind the recommendations.

In this section, potential funding sources are identified for different parts of the project. Sources of funds for land use enhancements, roadway improvements to accommodate transit, transit operations, and transit capital funding will differ.

Funding for Transit Service

In the early stages of implementation, the formation of partnerships – with communities, funding agencies, employers or groups of employers – will be essential to deliver 'early successes' in plan implementation. Some of the sources of funding for transit operations, beyond passenger fares, are:

- RTA / Pace
- Job Access and Reverse Commute funds from the Federal Transit Administration
- Congestion Mitigation and Air Quality federal funds
- Employers or groups of employers (UPS, East-West Corporate Corridor)
- Illinois Department of Public Transportation
- Local municipalities / townships
- DuPage County

In some cases, these entities will be able to assist in pilot funding. In other cases, the new services will enable funds used by these organizations to be reallocated to fund this service. The expectation should be, however, that it will take unique combinations of these types of funding sources to be able to get the initial services implemented.

Longer term stability of funding sources will likely be desired. Some of these sources will provide start-up assistance prior to assumption of the costs locally at the end of a specified period. Generally, as a system matures, a more stable source of funding is sought. A dedicated

tax to support the base level of transit service in the community may be a stable solution in the longer run. However, in the process of implementation, creative assemblage of a variety of funding sources as well as taking advantage of opportunities will be the way the system implementation will begin.

Funding for Transit Capital Investments

Funding for capital investments (vehicles, the high speed corridor, communications technology) has some different potential sources:

- Pace / RTA / Metra
- Federal Transit Administration New Starts
- Federal transportation earmarks
- Illinois Department of Transportation
- Local bonds
- Congestion Mitigation and Air Quality Federal Funds
- Surface Transportation Program Funds

On the capital side, many of these sources provide funds with the need for the local community to pay a nominal share (20%) of the total cost. Some of the local match requirements are higher. Most capital costs, through the federal process, need to go through the CATS process that DuPage Mayors and Managers staff coordinates for the county.

Funding for Roadway / Pedestrian Environment Improvements

Another funding avenue to pursue is that for funding roadway improvements and enhancements in the pedestrian environment. Public input throughout this project has raised the issue of the difficult environment that someone traveling without an automobile faces. Improvements in the pedestrian environment – so that walking is a safer and a more pleasant experience – must be made for transit to be able to grow to the role in providing mobility that is envisioned by this Transit Plan. Additionally, for safe operation of transit vehicles on the connector routes, on the major arterials, accommodations for the vehicle to stop to pick up passengers must be made.

- Coordination with DuPage County roadway projects to include transit and pedestrian friendly features
- Illinois Department of Transportation – Illinois Transportation Enhancement Program
- Illinois Department of Transportation – involvement in state road projects to include transit and pedestrian friendly features
- National Main Street program – qualifying communities can access funding for infrastructure improvements
- Participate and influence other studies such as the EJ&E land use study

Key Challenges

Given the limited amount of local transit service available in and around DuPage County today, and the almost exclusive reliance on automobile travel for meeting current mobility needs, it will be a challenging and expensive process to develop transit as an integral part of the DuPage area's transportation system. The approach described in this plan is designed to produce a transit system in the long-term that is built in an effective and incremental way.

In addition to developing transit services that meet residents' travel needs, the transit agencies and local officials must work to educate the public on how transit works and why everyone—not just people without other mobility options—can benefit from it. People must see and experience success in the early stages of implementation; otherwise, there will be little support for the larger investments needed to bring about the later stages.

With careful planning, phased implementation, marketing, and information campaigns, the DuPage County area can build a transit system that will significantly improve mobility and support sustainable development in the future.

The key challenge will be to develop early momentum towards implementation. Finding funding will be difficult, and important immediate actions involve assembling sources of funding to assist the early implementation. The first few successes will make the next steps of implementation easier.

Other challenges will include incorporating transit and pedestrian friendly design into roadway design as well as land use and local zoning codes. These types of efforts are also challenging in the early stages of implementation. It is difficult to convince government bodies to approach design and problem solving in a different way, when they have seen little evidence that transit is a real player in providing mobility options in the DuPage County area to date. One way to overcome this challenge is to work to collect information from other areas of the country where pedestrian and transit friendly design was incorporated to the benefit of all.

For all of these efforts, aggressive marketing and public information will be essential. Marketing will need to be taken to a new level to shift perceptions and create awareness. Proactive marketing and the formation of key partnerships must also be pursued.

Immediate Actions for the First Five Years

The process of developing the plan provides an inherent level of activity and momentum. Nothing will help plan implementation more than being able to identify some early successes. The following list of items is meant to provide some suggested immediate steps to take following completion of the Transit Plan development project.

- Set realistic goals—identify some quick successes to build upon. These might include identifying a community or business group that is interested in expanding existing service or commencing local circulator service. Working with them to bring projects to implementation will help build momentum.
- Work with existing providers (Pace, Metra, municipalities, townships and County) to begin discussion of potential changes to existing service, augmenting existing services, or coordination with Pace Vision 2020. Develop a list of items—big and small—to pursue.
- Form key partnerships with the business community, including Oak Brook, I-88 Corridor, East-West Corporate Corridor Association and hotels to determine their needs and resources to assist in bringing a focus to transit possibilities. Leverage employers ability to provide tax-free benefits for transit to their employees.
- Further refine the recommended alternative. Prioritize, develop specific action items to pursue in the very short-term. These may include things like exploring alternative service provision options, identifying possible funding sources, with specifics such as application timelines, matching requirements, and assembling resources to assist interested communities and businesses in developing service ideas and approaches.
- Assemble an Implementation Team – including the current providers, the RTA and others – to follow through on early action items and to develop regional support and assistance in securing funding for plan implementation.
- Commence detailed study of specific implementation of the high-speed corridor service.
- Encourage and/or facilitate Transit Oriented Development (TOD) studies among communities with exiting or planned transit centers and commuter rail stations
- Monitor the progress of the following studies to assess their impact and incorporate their findings into future implementation activities.
    - Metra Outer Circumferential Service Corridor Study
    - Northwest Corridor Study
    - Pace/Metra Bus-to-Rail Study
    - Metra Inner Circumferential Study
    - BNSF Outer Corridor Study
    - Kane County Transit Market Assessment
    - DuPage County Park-and-Ride Study
    - Naperville's Comprehensive Transportation Plan

- Monitor plan implementation and periodically update the DuPage Area Transit Plan (every three to five years) to stay abreast of current services, changing travel and land use patterns, and unforeseen needs.

This document summarizes work conducted for the DuPage Mayors and Managers Conference. The DuPage Area Transit Plan document was prepared by Multisystems, Inc., under contract to the DuPage Mayors and Managers Conference. Preparation of this document was financed in part through a grant from the Regional Transportation Authority, U.S. Department of Transportation, Federal Transit Administration, under the Federal Transit Act, and the Illinois Department of Transportation, Division of Public Transportation.

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