DuPage Area Transit Plan Update

September 20, 2011

Prepared for: **County of DuPage**

Prepared by: AECOM

TABLE OF CONTENTS

Executive Summary **ES-1**

1.0 Plan Objectives and Focus **1-1**

2.0 Existing Transit Service and Demand in DuPage County **2-1**

2.1 Existing/Baseline Network 2-1
2.1.1 Commuter Rail Service 2-1
2.1.2 Fixed Route Bus Service 2-1
2.1.3 Demand Response Service 2-4
2.2 Recent Service Changes 2-8
2.2.1 New and/or Enhanced Services 2-8
2.2.2 Eliminated and/or Reduced Services 2-14
2.3 Ridership Trends 2-17
2.3.1 Metra Rail Ridership 2-18
2.3.2 Pace Bus Ridership 2-18
2.4 Technical Market Assessment Findings 2-20
2.4.1 Congruency Analysis 2-20
2.4.2 Demographic Analysis 2-32
2.4.3 Overview of Travel Patterns 2-41
2.4.4 Mismatches and Unmet Service Needs 2-51
2.5 Stakeholder and Public Input 2-52
2.5.1 Strategies for Public Outreach and Information Sharing 2-52
2.5.2 Online Survey Results 2-55

3.0 Near-Term Transit Options and Opportunities **3-1**

3.1 Conceptual Near-Term Scenario 3-1
3.2 Near-Term Transit Services 3-4
3.2.1 Commuter Rail 3-4
3.2.2 Arterial Bus Rapid Transit (ART) http://www.pacebus.com/sub/vision2020/brt_video.asp 3-5
3.2.3 Express Bus 3-7
3.2.4 Local Circulators 3-8
3.2.5 ADA Paratransit and Dial-a-Ride 3-9
3.2.6 Multimodal Stations, etc. 3-10
3.3 Transit Supportive System Features and Amenities 3-11
3.3.1 Integration with Regional Transit Services 3-11
3.3.2 Transit Centers and Stations 3-11
3.3.3 Transit Stops 3-12
3.3.4 Park-and-Ride 3-13
3.3.5 Pedestrian Facilities/Environment 3-14
3.3.6 System Information 3-14
3.3.7 Fares 3-15
3.3.8 Safety/Security 3-16
3.3.9 Marketing 3-16
3.3.10 Transit Supportive Land Use 3-17
3.4 Conceptual Near-Term Order-of-Magnitude Cost and Ridership Estimates 3-18

4.0 Long-Range Transit Projects **4-1**

4.1 Overview and Context 4-2
4.2 Inventory and Status of Projects 4-4
4.2.1 Elgin-O'Hare West Bypass (EO-WB) 4-4
4.2.2 Commuter Rail 4-5
4.2.3 High Speed Corridor 4-6
4.2.4 Arterial Bus Rapid Transit (ART) http://www.pacebus.com/sub/vision2020/brt_video.asp 4-7
4.2.5 Express Bus 4-8
4.3 Additional Studies 4-10

5.0 Implementation, Funding and Key Challenges **5-1**

5.1 Funding for Transit Operations 5-1
5.2 Funding for Transit Capital Investments 5-1
5.3 Funding Sources 5-2
5.3.1 Federal Funding 5-2
5.3.2 State and Local Funding 5-3
5.4 Key Challenges 5-3
5.4.1 Sustainable Services 5-3
5.4.2 Multi-Modal Planning 5-4
5.4.3 Transit-Land Use Connections 5-4
5.4.4 Improving the Transit Experience 5-5
5.4.5 Continued Evaluation of Transit Performance 5-6
5.4.6 Building a Long-Term Vision 5-6

Appendices

Appendix A: Demand Responsive Service Breakdown A-1
Appendix B: Metra Ridership A-2
Appendix C: Pace Ridership A-3
Appendix D: Population Growth A-5
Appendix E: Employment Growth A-6
Appendix F: Worker Flow A-7
Appendix G: US Census Journey to Work A-8
Appendix H: Changes in Travel Times A-10
Appendix I: Density vs Transit Use A-11

TABLE OF TABLES

Table 2-1: Pace Service Descriptions 2-2
Table 2-2: Metra Rail and Pace Bus Ridership 2-17
Table 2-3: Route Spacing Guide 2-20
Table 2-4: Population by Township for 1990, 2000 and 2008 2-33
Table 2-5: Population Growth by Township for 2000 and 2008 2-33
Table 2-6: Median Household Income by Township for 2000 and 2008 2-36
Table 2-7: Population below Poverty Level by Township for 2000 and 2008 2-37
Table 2-8: Automobile Availability 2-37
Table 3-1: Proposed Near-Term Transit Projects 3-3
Table 3-2: Near-Term Project Cost and Ridership Projections 3-18
Table 4-1: Proposed Long-Range Transit Projects 4-3
Table A-1: Municipally-Funded Demand Responsive Services A-1
Table B-1: Metra Rail Ridership by Line A-2
Table C-1: Pace Bus Ridership by Route A-3
Table D-1: Projected Municipal Growth 2000 – 2030 ..... A-5
Table E-1: Projected Employment Growth 2000 – 2030 ..... A-6
Table F-1: DuPage County Worker Flow A-7
Table G-1: 2008 Journey to Work Mode Split A-8
Table G-2: 1990, 2000, and 2008 Proportion of Commuters Who Used Public Transportation A-9

TABLE OF FIGURES

Figure 2-1: Existing DuPage County Transit Network 2-3
Figure 2-2: Municipally-Funded Demand Responsive Services 2-6
Figure 2-3: Municipally-Funded Subsidized Taxi Services 2-7
Figure 2-4: New and/or Enhanced Routes 2-9
Figure 2-5: Route Spacing Guide 2-21
Figure 2-6: Transit Score by Census Block 2-23
Figure 2-7: Coverage 2-25
Figure 2-8: Congruency 2-26
Figure 2-9: Congruency - Weekday Peak 2-29
Figure 2-10: Congruency Analysis - Off-Peak Service 2-30
Figure 2-11: DuPage County Townships 2-32
Figure 2-12: 2000 – 2008 Population Growth by Township 2-34
Figure 2-13: 2000 – 2008 Population Growth by Municipality 2-35
Figure 2-14: 2000 – 2030 Projected Population Growth by Municipality 2-39
Figure 2-15: 2000 – 2030 Projected Employment Growth by Municipality 2-40
Figure 2-16: Worker Flow - DuPage County Residents 2-43
Figure 2-17: Worker Flow - DuPage County Employees 2-44
Figure 2-18: Combined Workers and Residents Commuting by Transit 2-49
Figure 2-19: Public Meeting Announcement 2-54
Figure 2-20: Respondent Age 2-55
Figure 2-21: Transit Meeting Need 2-55
Figure 2-22: Change in Transit Service 2-56
Figure 2-23: Frequency of Transit Use 2-56
Figure 2-24: Types of Trips 2-57
Figure 2-25: Type of Service Used 2-57
Figure 2-26: Changes to Transit Service 2-58
Figure 2-27: Service Attributes 2-59
Figure 3-1: Proposed Near-Term Transit Projects 3-2
Figure 4-1: Proposed Long-Range Transit Projects 4-2
Figure I-1: Population Density A-11
Figure I-2: Residents Commuting by Transit A-12
Figure I-3: Employment Density A-13
Figure I-4: Workers Commuting by Transit A-14

EXECUTIVE SUMMARY

In 2002, the DuPage Mayors and Managers Conference (DMMC), representing the 36 cities and villages within DuPage County, approved the *DuPage Area Transit Plan*. This plan developed a comprehensive public transit network for DuPage County and established short-term, medium-term, and long-term implementation goals through the year 2020. In 2008, the *DuPage Area Transit Plan Update* was commissioned to evaluate the progress of the plan and provide further guidance for the future. Due to federal, state and local funding constraints following the 2008 recession as well as a policy shift away from new service implementation and toward obtaining a state of good repair, The *DuPage Area Transit Plan Update* is focused on the evaluation of existing transit service in DuPage County and near-term improvements that are already under way. Long-term projects are recognized but are not evaluated due to likely funding constraints - evaluation is thus deferred to the individual project studies.

The *DuPage Area Transit Plan Update* was made possible due to the participation and input of the following organizations:

- The County of DuPage
- The DuPage Mayors & Managers Conference
- Pace Suburban Bus Service
- Metra
- The Regional Transportation Authority of Northeastern Illinois

Transit Network Overview

The transit network in DuPage County includes 26 stations on three commuter rail lines and more than 60 bus routes. Commuter rail service is provided by Metra, which operates one of the three rail lines serving the county (the Milwaukee District – West Line), while the other two are operated by BNSF Railway and Union Pacific Railroad under contract with Metra. Fixed route bus service in the county is provided by Pace Bus, with operations provided either directly by Pace or contracted.

In addition to bus routes and commuter rail lines, DuPage County is also host to a variety of demand response services – transit service that does not operate on a fixed route or schedule, but instead operates based on customer requests. Demand response services are used in low-density areas to provide connectivity to fixed route and rail services, as well as to provide mobility to low-income, disabled, and elderly residents and those with no other transit access. These services are provided by Pace (mostly operated by Veolia Transportation) with ADA complementary paratransit available throughout much of the county, as well as numerous dial-a-ride services funded by local jurisdictions, some of which are available to the general public (part of the Ride DuPage program).

Ridership Change and New Services Implemented Since 2002

Overall, ridership on Metra's rail network increased between 2002 and 2009 by 8 percent, from approximately 76.8 million to 83.1 million annual trips. Meanwhile, ridership in Pace's bus services increased by approximately one percent, from 34.8 million trips in 2002 to 35.1 million trips in 2009. A number of new services were implemented in DuPage County following the completion of the *DuPage Area Transit Plan* in 2002. These new services were in response to a combination of factors, including the *DuPage Area Transit Plan* and North Central DuPage Initiative, Pace's Fox Valley/Southwest DuPage Restructuring Initiative, and Pace's own plans to develop an ART and Suburban Express Bus network. These new services included:

- *DuPage Area Transit Plan* services including the new Route 714 and expanded routes 711, 715, and 747. The *North Central DuPage Initiative* also included eliminating 653, 706, 707, 711, 712, and 713, and realigning 654 and 657. Eliminated routes were generally covered by the new services.

- The *Fox Valley/Southwest DuPage Initiative* included the re-alignment of Routes 530 and 535. Route 530, operating between Naperville and Aurora, was extended to western Aurora, absorbing Route 526, and streamlined between Aurora and Naperville. Formerly alternating trips operated to Naperville; now all trips serve Naperville. Route 535 was added connecting the Route 59 Metra Rail station, the improved Route 530, and the Fox Valley shopping area.

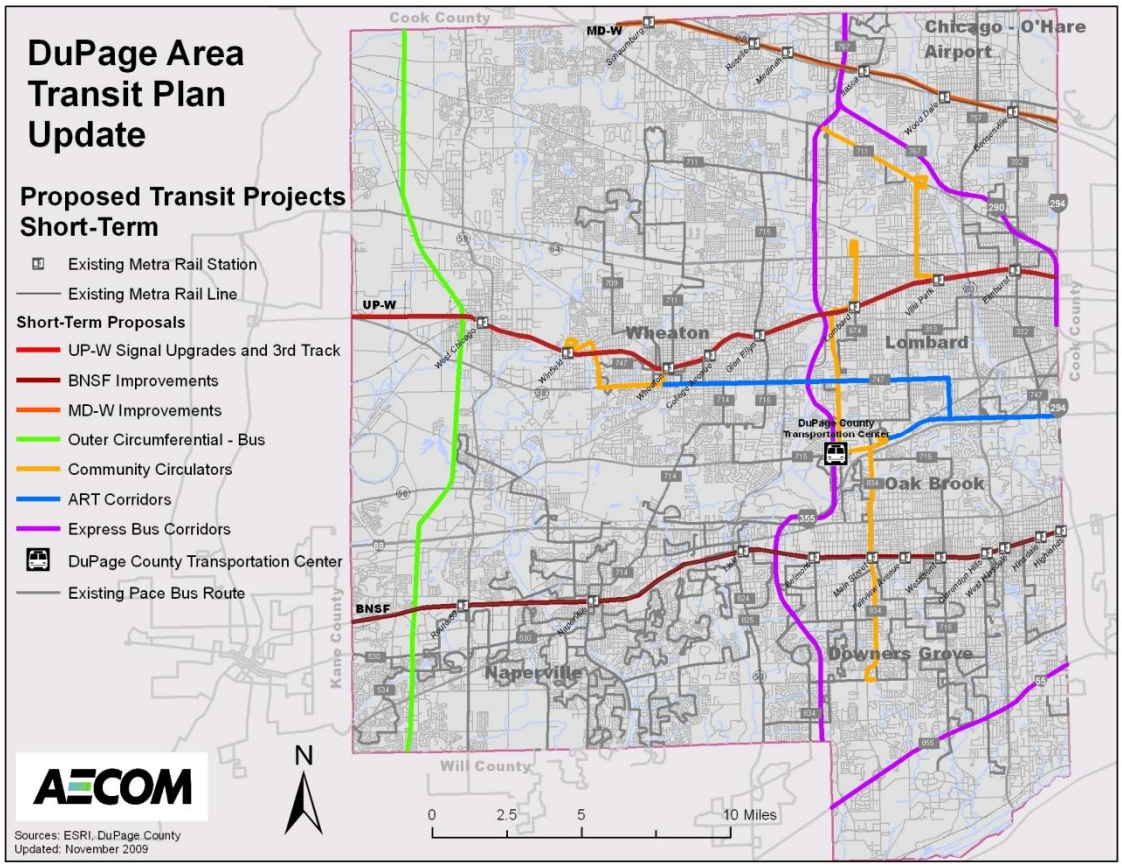
Demographic Change

DuPage County is growing in terms of both residents and employment, and is projected to continue growing through 2030 and beyond. Located 14 miles west of the Chicago Loop, DuPage County is home to over 916,000 residents (2010 US Census) and 632,000 jobs (2008 estimate). The 333 square-mile county has an average density of 2,750 persons per square mile (2010 US Census). The most populous township in DuPage County in all years was Downers Grove, followed by York, showing generally larger populations along the southeastern edge of the county. The northwestern townships of Wayne and Winfield have remained the least populous. Population densities were greatest in York, Lisle, and Milton Townships, representing the southeastern and central portions of the county (Downers Grove ranks fourth), and the least in Wayne and Winfield.

Near-Term Transit Proposals

Near-term proposals for transit service in DuPage County are defined in the *DuPage Area Transit Plan Update* as those for the period spanning 2011 through 2016. Given the tight fiscal constraints faced by the RTA at present, near-term expansion is limited to those projects already underway for the county. These projects include signal upgrades and installation of a third track on a portion of the Union Pacific-West Line, which will allow for passenger service upgrades; as well as development of a few Arterial Bus Rapid Transit (ART) routes, express bus corridors, and community circulators over the next five years. In the near-term, proposals include those projects already underway; funding limitations preclude the likelihood of implementing additional new services beyond those listed here.

Proposed Near-Term Transit Projects



Projects include:

- Upgrades to UP-W service – Addition of a third track from Geneva to West Chicago and from Melrose Park to River Forest, signal upgrades from Geneva to River Forest and upgrade and grade separation of the A-2 crossing in Chicago between the UP-W Line and the MD-N, MD-W, NCS and Amtrak services.
  http://metraconnects.metrarail.com/upw.php

- Cermak ART – Arterial Bus Rapid Transit along 22nd Street/Cermak Road and Butterfield Road from the 54th Street/Cermak Road CTA Pink Line station to I-355. http://www.rtams.org/rtams/rtpProject.jsp?id=6
- IL-38 ART (Roosevelt Road) – Current bus service (Route 747) operates between Wheaton and the CTA Blue Line in Forest Park. Improvements have been made along the eastern portion of the route on Roosevelt Road with additional incremental improvements scheduled for the corridor including service to the new Elmhurst Memorial Hospital.
- I-355 Corridor, Elgin-O'Hare Corridor and South Suburbs-O'Hare – Express bus service between Bolingbrook and Schaumburg via I-355, express bus service between Elgin and O'Hare International Airport via I-90, and express bus service between Joliet and O'Hare International Airport via I-355. http://www.elginohare-westbypass.org
- I-55 Bus on Shoulder Demonstration – Priority treatment for express bus service along I-55, including DuPage County segment from I-355 to County Line Road.
- I-90 Jane Addams Memorial Tollway – Corridor improvements are planned and coordinated with Illinois Tollway Managed lanes/widening project beginning in 2012. A base level of express bus service improvements will operate during the construction period with service expansion coordinated with the completion of the project. CMAQ corridor expansion project funded pending 2012-16 program approval for park-and-ride facilities, transit advantage improvements, express bus and local distribution serving the Randall Rd and Rosemont markets.
- Community circulators in Addison, Downers Grove, Lombard and Wheaton as proposed in the 2002 *DuPage Area Transit Plan*. http://www.getaroundduPage.org/
- DuPage County Transportation Center at I-88/I-355. http://www.pacebus.com

In addition to simply providing service, numerous other features and amenities contribute to the smooth operation of a transit system as well as the overall passenger experience. These features were covered in the 2002 *DuPage Area Transit Plan* and include:

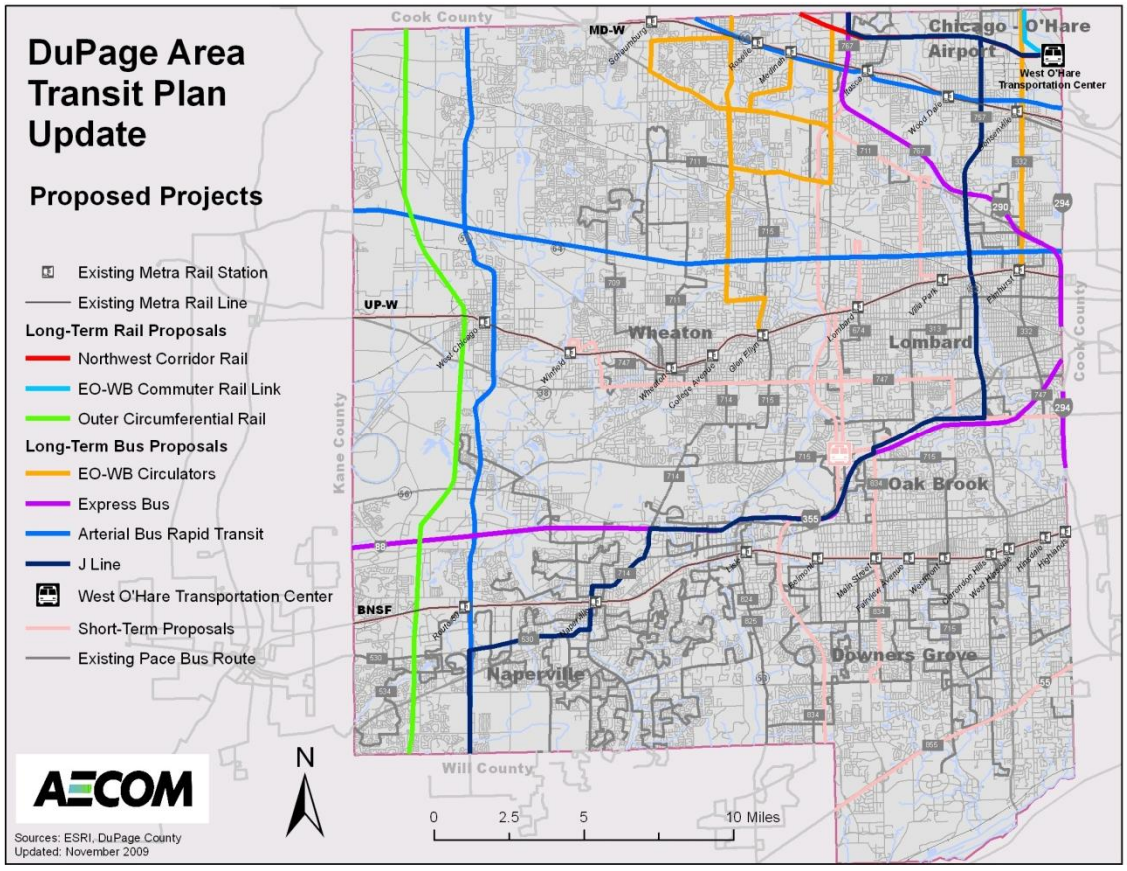
- Integration with regional transit services
- Transit centers and stations
- Transit stops
- Park-and-ride
- Pedestrian facilities/environment
- System information
- Fares
- Safety/security
- Marketing
- Transit supportive land use

Long-Term Transit Proposals

Long-range proposals for transit service in DuPage County are defined as those projects planned for the years 2016 through 2030. Given the fiscal constraints at the federal, state and local levels expansion of transit service in DuPage is likely to be limited to those projects already underway. Thus all proposals included in this document are already in the works through RTA- or IDOT-sponsored projects across the region. These projects include development of commuter rail corridors (STAR Line), the high speed line ("J" Line) proposed in the 2002 *DuPage Area Transit* Plan, several Arterial Bus Rapid Transit (ART) routes, express bus corridors, and several facilities in conjunction with the Elgin O'Hare-West Bypass project.

As these projects are already underway and are planned for the long-range, it is not possible to predict capital or operating costs or determine ridership projects for individual studies – as each study progresses, changes to the scope of proposals contribute to constant changes in cost or ridership projections. Therefore, this document does not include details on potential costs (capital or operating) or ridership. To obtain the latest information available for specific projects, it is best to consult the individual project websites, the RTA's website (www.rtachicago.com), or RTAMS (www.rtams.org). Where available, links to project websites have been provided in the following sections.

Proposed Long-Range Transit Projects



In the long-term, proposals are somewhat more expansive than in the near-term; however, funding limitations continue to provide fiscal constraints on what may or may not be implemented. Long-term proposals include:

- Elgin-O'Hare West Bypass (EO-WB)
  - EO-WB Transit Link – Transit link (mode to be determined) between the above STAR Line and a new intermodal West O'Hare transit terminal. Commuter rail service linking the proposed STAR line or bus service linking the "J" Line (see below) are both transit options for this corridor. http://www.elginohare-westbypass.org
  - EO-WB Circulators - Circulators connecting the proposed West O'Hare multimodal station with nearby portions of DuPage County. This will be coordinated with airport expansion plans. http://www.elginohare-westbypass.org
  - EO-WB Multimodal Station - A new multimodal station at Chicago-O'Hare International Airport (West O'Hare), to be coordinated with airport expansion plans. http://www.elginohare-westbypass.org
- STAR Line – Commuter rail service expansion including the Northwest Corridor (roughly along I-90), Inner Circumferential Rail (between Midway and O'Hare Airports) and Outer Circumferential Rail (via the Elgin, Joliet and Eastern Railway, parallel to the IL-59 corridor in DuPage County). http://metraconnects.metrarail.com/star.php
- "J" Line – The centerpiece of the 2002 *DuPage Area Transit Plan*, this enhanced bus service would connect Schaumburg and a new intermodal station at West O'Hare with Oak Brook and Naperville. Specific routing to be determined. http://www.rtams.org/rtams/rtpProject.jsp?id=7
- IL-19 ART (Irving Park Road), IL-64 ART (North Avenue) and IL-59 ART – Long-term ART service along IL-19 (Irving Park Road), IL-64 (North Avenue), and IL-59 in western DuPage. http://www.pacebus.com/sub/vision2020/brt_video.asp
- I-290 Corridor - Includes numerous express bus routes such as West Cook-Istasca/Addison, West Cook-Elk Grove/Wood Dale, and Northwest Corridor-Forest Park via Schaumburg, Itasca and Hillside. http://www.eisenhowerexpressway.com/
- Joliet-Schaumburg, Joliet-Naperville and Sugar Grove-Lake Cook Road - Express bus service connecting Joliet (Will County) with Schaumburg (Cook Count) via DuPage County, express bus service connecting Joliet (Will County) with Naperville, and express bus service connecting Sugar Grove (Kane County) with the Lake Cook Road corridor along the Lake/Cook County line via DuPage County.

Funding Challenges

One of the largest obstacles to the expansion of transit service is funding – this hurdle has been further exacerbated by the economic crisis beginning in 2008. In order to keep transit service affordable, passenger fares generally only cover a small portion of the cost of operating transit service. Additional funding is required to build and maintain transit facilities and equipment (capital expenses), as well as for the daily operation of transit service (operating expenses).

This section provides a brief overview of revenue sources for funding transit operations and capital projects, as well as an overview of likely challenges. Implementation plans are not included in the *DuPage Area Plan Update* as each individual project listed in the near-term and long-term projects sections has its own plan, to be determined on a project-by-project basis.

Federal funding is primarily used for capital expenditures. Conventional federal funding assistance for new major investment in transit fixed-guideway capital projects is through the Federal Transit Administration's (FTA's) New Starts program. Since the late 1990s, the federal government's level of assistance in new capital projects has typically been 50 percent of the total cost, with the remaining 50 percent of funding originating at the state or local level. In recent years, the United States Congress has appropriated around $2 billion per year to the new starts program, yet applications for funding assistance have consistently exceeded this amount, leading to a highly competitive process for funding awards. The Small Starts program includes funding requests of less than $75 million (total project cost under $250 million) that encompass corridor improvements and non-fixed guideway bus transit projects.

The current legislation authorizing federal transportation funding, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), expired in late 2009 and has been extended through special acts of Congress. Although a need for transportation infrastructure spending beyond recent levels has been widely acknowledged, both for expansions to the transportation system and for maintenance of existing facilities, no new ideas for development of additional funding sources to meet these needs have been advanced to a public policy level. Current transportation funding through motor fuel taxes and special Congressional appropriations from the general fund have maintained this base level of funding commitment from SAFETEA-LU, though they have not generally been applied to new funding levels beyond that.

While the New Starts program is likely to remain the primary mode of federal transit funding into the foreseeable future, it is clear that demand for its fund exceeds availability and that local transit agencies wishing to utilize this funding assistance must demonstrate that transit benefits, especially relative to cost, reflect a mix of ridership-generating land uses and operational characteristics.

Even if New Starts/Small Starts funding is secured, additional funding sources must be identified to fulfill the "local match" (the percentage generally required by federal funding sources from the local project proponents). Throughout the country and the Chicago region, local government budgets are challenged and funding for transit system construction and/or operations is unlikely. The current climate of federal transportation funding has pointed to an increased need for state and local governments to assume greater responsibility in securing funding for transit projects. In addition to capital funding from New Starts/Small Starts, a dedicated source of operating funds is critical to the long-term success of any new service. The best way to sustain funding for transit at the local level is to establish a dedicated funding

source that provides a reliable source of annual revenues to support transit operations and capital costs. Establishing revenue sources on the front end, by a legislative body or by the voters, can provide funding dedicated for transit without being subject to the same kind of discretion associated with general fund revenues. This approach reduces the annual burden placed on local governments to find funding for public transportation and minimizes the uncertainty for public transit customer, operators and the business community looking to invest along fixed transit routes.

1.0 PLAN OBJECTIVES AND FOCUS

DuPage County, Illinois is a suburban county in the Chicago Metropolitan Area. Located 14 miles west of the Chicago Loop, DuPage County is home to over 916,000 residents (2010 US Census) and 632,000 jobs (2008 estimate). The 333 square-mile county, which has an average density of 2,750 persons per square mile (2010 US Census), is served by a public transportation (transit) network that includes three commuter rail lines with 26 stations operated by Metra, over 60 bus routes operated by Pace Suburban Bus, and several general public as well as senior/disabled demand-responsive bus and van services.

In 2002, the DuPage Mayors and Managers Conference (DMMC), representing the 36 cities and villages within DuPage County, approved the *DuPage Area Transit Plan*. This plan developed a comprehensive public transit network for DuPage County and established short-term, medium-term, and long-term implementation goals through the year 2020. While the existing transit system focuses heavily on the Burlington Northern Santa Fe (BNSF) rail corridor in the southern part of the county as well as the Wheaton area in the central part of the county, the proposed network covered the entire county and included flex routes or demand-responsive services where travel demand is light, improving mobility in currently un-served or under-served areas.

The *DuPage Area Transit Plan Update* seeks to evaluate the progress that has been made in implementing the 2002 plan, and to update and modify recommendations as necessary based on changes in population, employment, and mobility since 2002, as well as to provide a realistic timeline for the implementation of recommendations. A number of studies have been undertaken over the past several years, such as the *Cook-DuPage Corridor Study* and the *Moving Beyond Congestion* study. The Transit Plan Update thus seeks to encompass recommendations made not only in the original *DuPage Area Transit Plan*, but in each of these other studies as well.

The *DuPage Area Transit Plan Update* is the culmination of a process that actively involved the citizens of the DuPage County area, the communities of the DuPage Mayors and Managers Conference (DMMC), DuPage County Board members and staff, regional transit providers and Conference staff. An inventory and update of available data was undertaken in *Technical Memorandum #1: Data Review and Update* 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, *Technical Memorandum #2: Aggregate Market Assessment*. Together, these pieces combined with input from the community and transit providers led to the development of options and opportunities for transit service that are presented in this document.

This plan is focused on the evaluation of existing transit service in DuPage County and near-term improvements that are already under way due to federal, state and local funding constraints as well as a policy shift toward obtaining a state of good repair, rather than the

implementation of new services. Long-term projects are recognized but are not evaluated due to likely funding constraints - evaluation is thus deferred to the individual project studies.

2.0 EXISTING TRANSIT SERVICE AND DEMAND IN DUPAGE COUNTY

This section summarizes the findings of the first phases of the *DuPage Area Transit Plan Update*, including the technical market assessment (*Technical Memorandum #2: Aggregate Market Assessment*), stakeholder and public input, and recent service changes transit network (summarizing and updating *Technical Memorandum #1: Data Review and Update*). Finally, a summary of the existing transit network provides the baseline from which short- and long-term recommendations are drawn in later sections of this plan.

2.1 Existing/Baseline Network

The transit network in DuPage County includes 26 stations on three commuter rail lines and more than 60 bus routes. Commuter rail service is provided by Metra, which operates one of the three rail lines serving the county (the Milwaukee District – West Line), while the other two are operated by BNSF Railway and Union Pacific Railroad under contract with Metra. Fixed route bus service in the county is provided by Pace Bus, with operations provided either directly by Pace or contracted.

In addition to bus routes and commuter rail lines, DuPage County is also host to a variety of demand response services – transit service that does not operate on a fixed route or schedule, but instead operates based on customer requests. Demand response services are used in low-density areas to provide connectivity to fixed route and rail services, as well as to provide mobility to low-income, disabled, and elderly residents and those with no other transit access. These services are provided by Pace (mostly operated by Veolia Transportation) with ADA complementary paratransit available throughout much of the county, as well as numerous dial-a-ride services funded by local jurisdictions, some of which are available to the general public (part of the Ride DuPage program).

2.1.1 Commuter Rail Service

Metra service connects DuPage County with Union Station (Milwaukee District West Line and BNSF Railway and the Ogilvie Transportation Center (Union Pacific West Line) in Chicago's West Loop neighborhood. Service operates seven days per week on each line, from approximately 4:30 AM to 2:00 AM depending on the day of the week and direction of service. A combination of local and express services allow frequencies as often as every 15 minutes at some stations during the peak periods; trains generally run approximately once per hour off-peak and every two hours on weekends. Most stations are served throughout the day.

2.1.2 Fixed Route Bus Service

Pace offers a variety of bus services in DuPage County, including express service, long-haul routes, feeder services, community service routes, and vanpool/ridesharing services. The type of service provided depends largely on the time of day and day of week. Pace uses several

different route classifications for routes operated within DuPage County. These include CTA Connector routes, which connect to either CTA bus or rapid transit service within Cook County, Suburban Link routes, which provide connections between suburban communities, Intra-Community routes, which serve satellite cities, and Commuter Service routes, which provide local circulation and feed Metra Rail stations and are often funded and operated by local municipalities. See Table 2-1 (following page) for a description of Pace services.

Bus service is heavily oriented to the weekday peak periods, shuttling residents of the county to Metra Rail stations where they continue their trips inbound towards Chicago. Peak period coverage is particularly extensive in Naperville, Lisle and Downers Grove, where parking at rail stations is limited and many routes are municipally funded. Aside from several CTA Connector routes in the northeastern portion of the county (which connect to CTA Rapid Transit lines at Forest Park, 54th/Cermak, Rosemont, or Oak Park), off-peak and suburb-to-suburb bus service is limited.

Table 2-1: Pace Service Descriptions

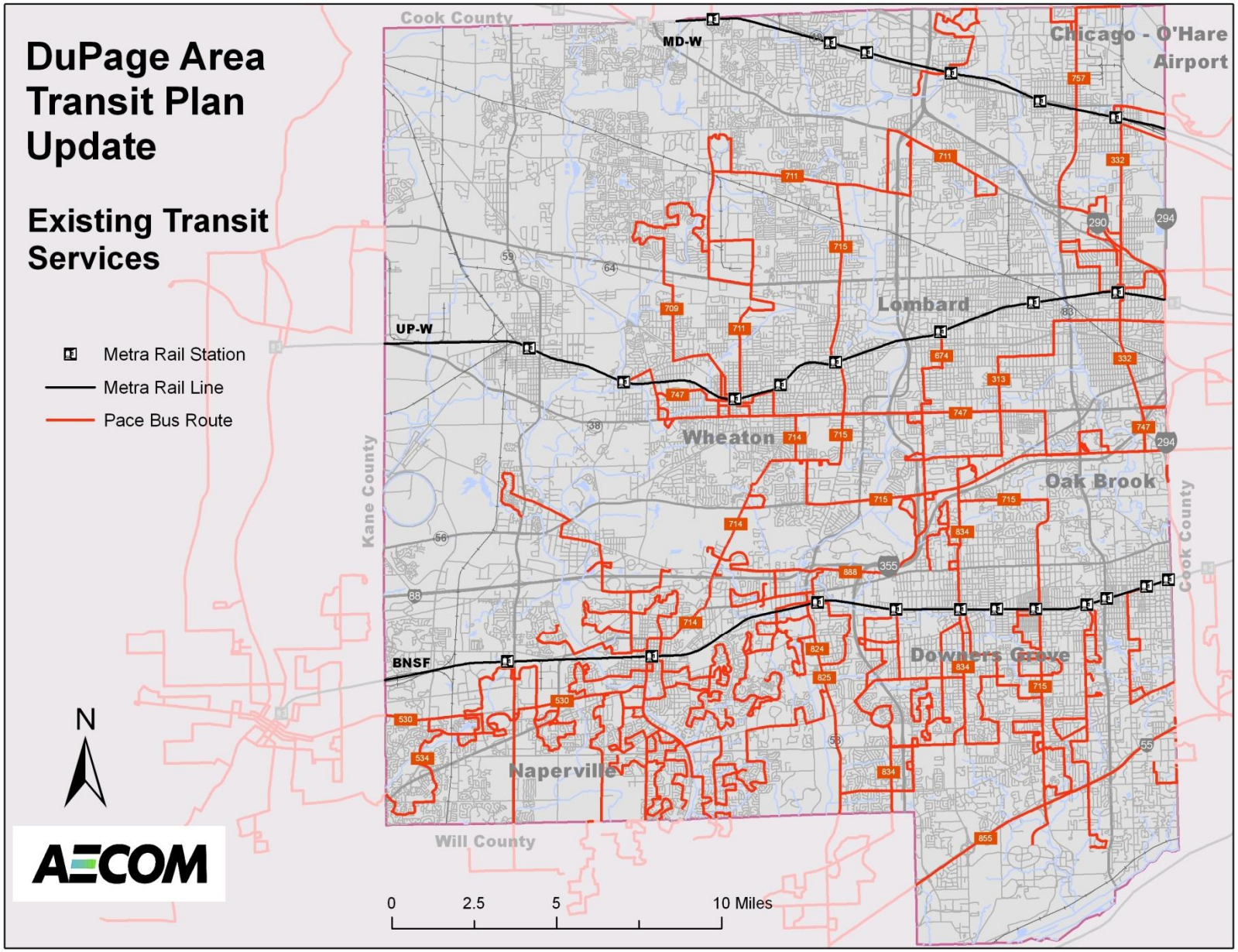
Service Type	Description	Days and Hours of Operation	
CTA Connector	Routes that connect to CTA bus or rapid transit service within Cook County	Weekdays Saturday Sunday	AM Peak Midday PM Peak Evening
Express	Provides highway service between parts of DuPage County and CTA bus or rapid transit service within Cook County	Weekdays	AM Peak PM Peak
Suburban Link	Routes that provide service between suburban communities	Weekdays Saturday	AM Peak Midday PM Peak Evening
Commuter Service	Provides feeder service between residential areas and Metra Rail stations within the boundaries of a local jurisdiction	Weekdays	AM Peak PM Peak
Community Service	Allows communities flexibility to determine bus routes for areas that need transit service, including service to residential areas, Metra Rail stations, and shopping centers that may or may not be within the limits of one town	Weekdays	AM Peak PM Peak
ADA Paratransit and Dial-a-Ride	Provides service for seniors and people with disabilities	During regular operation hours (Some dial-a-ride services are available 24 hours a day, 7 days a week)	
Express services to popular destinations	Pace provides express bus services to popular destinations[1]	Various	Various

*Some locales offer dial-a-ride services 24 hours a day for all days of the week.

Figure 2-1 (following page) shows the transit network (including Pace Bus and Metra Rail) available in DuPage County as of August 2011.

[1] For additional information, see http://www.pacebus.com/sub/espd/default.asp

Figure 2-1: Existing DuPage County Transit Network



2.1.3 Demand Response Service

In addition to bus routes and commuter rail lines, DuPage County is also host to a variety of demand response services – transit service that does not operate on a fixed route or schedule, but instead operates based on customer requests. Demand response services are used in low-density areas to provide connectivity to fixed route and rail services, as well as to provide mobility to low-income, disabled, and elderly residents and those with no other transit access. DuPage County dial-a-ride services as of December 2009 are outlined below:

- General public dial-a-ride service is provided in the Village of Addison, Village of Bensenville, City of Bloomingdale, and in Wayne and Bloomingdale Townships.
- Senior and disabled dial-a-ride service is available in Bloomingdale Township, Downers Grove Township, Milton Township, and Naperville and Lisle Townships.
- ADA Paratransit service is available in all or part of Addison, Bloomingdale, Downers Grove, Lisle, Milton, Naperville, and York Townships.

General Public and Senior/Disabled Dial-A-Ride Programs

Most townships and municipalities in DuPage County participate in one or more demand-responsive transit services. Often referred to as "dial-a-ride" (in reference to using a telephone to request service), some of these demand-responsive services are available to the general public, while most are only available to elderly and/or disabled residents. Most of these services are operated by Veolia Transportation, although Laidlaw Schaumburg operates the Bensenville service and 303 Taxi provides supplementary service to several of the programs.

Ride DuPage Program

Rather than running their own dial-a-ride program, some municipalities and organizations participate in Ride DuPage. Operated by Pace, Ride DuPage provides centralized demand-responsive service to municipalities and organizations that wish to purchase the service. Eligibility requirements and fares are set by each paying municipality, and Pace operates the service through a centralized dispatch center. This allows each participating municipality or organization to achieve greater efficiency and economies of scale by pooling resources as well as operating efficiencies by pooling ridership. It should be noted that several county departments offer the Ride DuPage service countywide through specific programs, primarily for medical appointments.

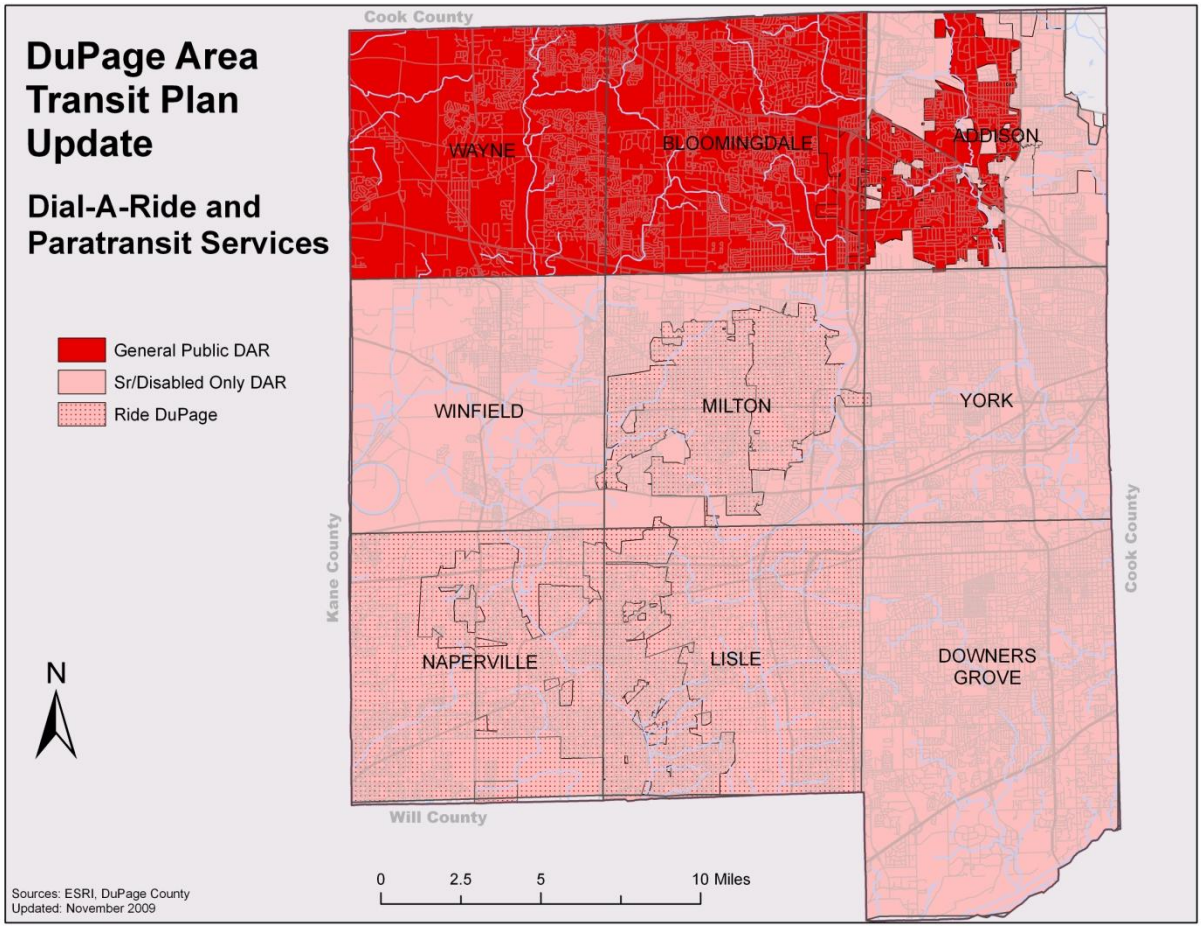
Ride DuPage began 25 years ago and is not a new program, but has gradually changed over the years as new sponsors purchase service from the program. Providing 24-hour service seven days per week, Ride DuPage incorporates regional call centers (currently DuPage and Kane County share a call center) which have central dispatching. Service is purchased by different sponsors, including organizations and municipalities, each of which may have different eligibility rules. Generally, Ride DuPage is available to senior, disabled, and low-income residents; eligible residents are those under the age of 60 with incomes up to 125 percent of

the poverty level, residents over age 60 with incomes up to 250 percent of the poverty level, and disabled residents. Naperville and Lisle Townships have been particularly active in the program, which is based on local support. While there are other human service transportation providers in DuPage County that are not affiliated with Ride DuPage, approximately 14 entities participate in the program. Major participants include the following:

- DuPage County Health Department and DuPage County Human Services – Service is provided to DuPage County and Hines Hospital Medical facilities as authorized by DuPage County Human Services.
- DuPage County Senior Services – Service is provided to any point within DuPage County, as well as to points outside the county if authorized by DuPage County Human Services.
- Village of Glen Ellyn – Service is provided within DuPage County and surrounding areas.
- Naperville/Lisle Partners (Lisle Township, Naperville Township, City of Naperville, Naperville Park District) – Service is provided within DuPage County and surrounding areas.

Figure 2-2 summarizes the municipally-funded demand responsive transit services available in DuPage County (in addition to countywide Ride DuPage service offered in conjunction with several county programs). General public dial-a-ride service is available across the northern tier of the county, including Wayne and Bloomingdale Townships, where fixed route service is limited or unavailable. Winfield Township, most of which also lacks fixed route bus service, does not provide a general public dial-a-ride service. Naperville and Lisle Townships, the Cities of Naperville and Wheaton, and the Village of Glen Ellyn all participate in Ride DuPage. The remainder of the county is covered by township or municipally-funded senior/disabled-only dial-a-ride services. For a listing of which types of municipally-funded demand responsive transit services are available in each municipality, see Appendix A.

Figure 2-2: Municipally-Funded Demand Responsive Services

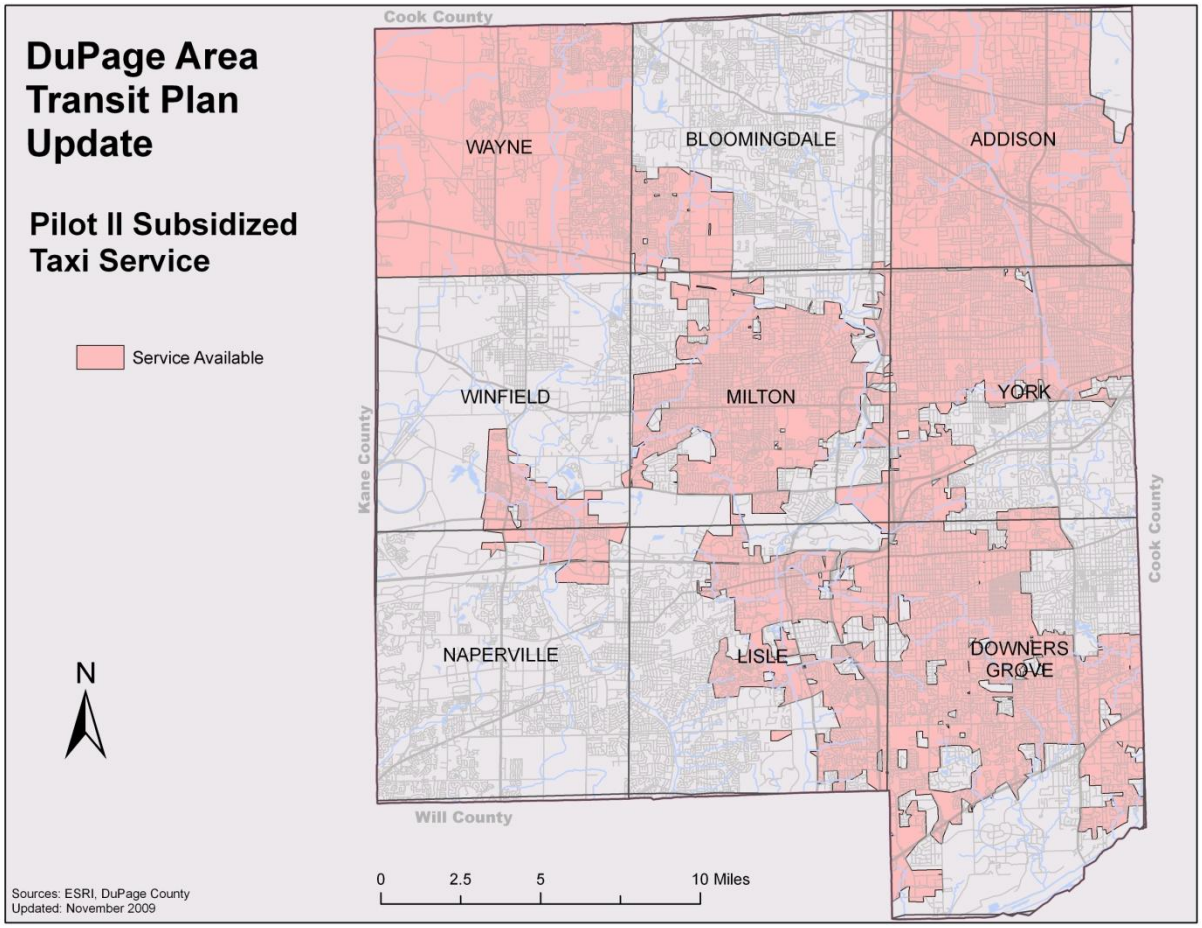


Subsidized Taxi Service

Several townships and municipalities offer subsidized taxi services in addition to or in place of dial-a-ride services. There are several separate programs, but most municipalities with subsidized taxi service participate in DuPage County's Pilot II program. Pilot II was started in 1998 by the Interagency Paratransit Coordinating Council (IAPCC), and is administered by the county. Participants purchase $5 taxi vouchers at a reduced rate (generally $2.50 per voucher), and make trip reservations directly with one of several participating taxi companies.

Figure 2-3 shows the areas served by subsidized taxi services. This service, which is available 24-hours per day, seven days per week, has seen declining support as municipalities such as Naperville and Lisle Townships have begun participation in Ride DuPage, which is also available 24-hours per day, seven days per week.

Figure 2-3: Municipally-Funded Subsidized Taxi Services



2.2 Recent Service Changes

This section details service changes from the completion of the *DuPage Area Transit Plan* in 2002 through July 2011. Since 2002, numerous services were implemented as a part of the *DuPage Area Transit Plan* and the *Fox Valley/Southwest DuPage Initiative*, generally toward the beginning of the period spanning 2002 to 2011. In addition, several routes received decreases in service or were eliminated due to low ridership or funding concerns, particularly during the latter portion of the period as the national economy suffered a recession. This section describes the implementation of new services, including a brief evaluation of the effectiveness of those services implemented in conjunction with the *DuPage Area Transit Plan*. Following is a summary of route reductions and eliminations by year.

2.2.1 New and/or Enhanced Services

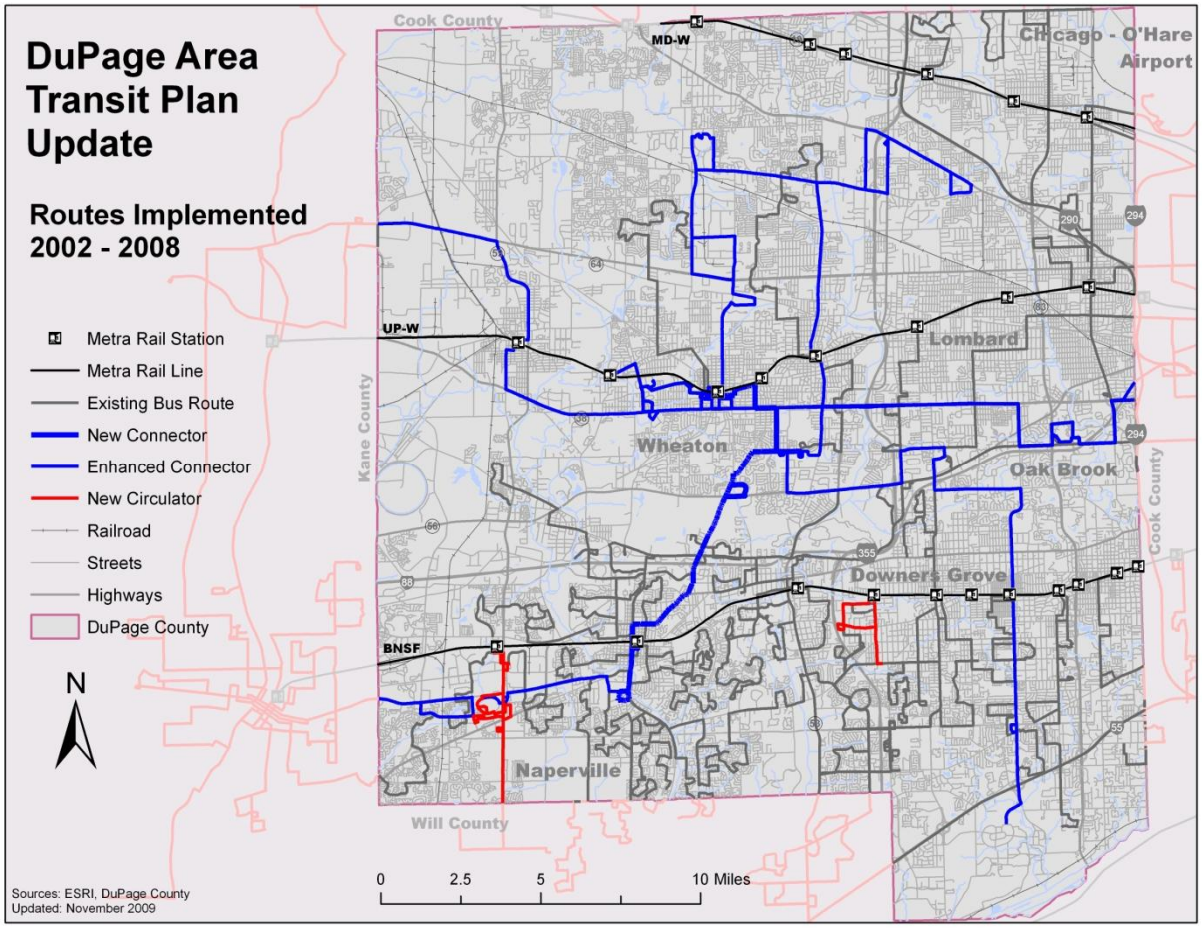
A number of new services were implemented in DuPage County following the completion of the *DuPage Area Transit Plan* in 2002. These new services were in response to a combination of factors, including the *DuPage Area Transit Plan* and *North Central DuPage Initiative*, Pace's *Fox Valley/Southwest DuPage Restructuring Initiative*, and Pace's *Vision 2020* strategic plan to develop transit corridors supporting an ART and Suburban Express Bus network. These new services included:

- *DuPage Area Transit Plan* services including the new Route 714 and expanded routes 711, 715, and 747. The *North Central DuPage Initiative* also included eliminating 653, 706, 707, 711, 712, and 713, and realigning 654 and 657. Eliminated routes were generally covered by the new services.

- The *Fox Valley/Southwest DuPage Initiative* included the re-alignment of Routes 530 and 535. Route 530, operating between Naperville and Aurora, was extended to western Aurora, absorbing Route 526, and streamlined between Aurora and Naperville. Formerly alternating trips operated to Naperville; now all trips serve Naperville. Route 535 was added connecting the Route 59 Metra Rail station, the improved Route 530, and the Fox Valley shopping area.

Figure 2-4 shows the DuPage County transit network as of November 2009, highlighting new and enhanced services.

Figure 2-4: New and/or Enhanced Routes



Implementation of 2002 Plan Elements

Of the fifteen connector routes proposed in the *DuPage Area Transit Plan*, four (or parts thereof) have been implemented. Additionally, one connector route has been implemented according to the Fox Valley/Southwest DuPage Restructuring Initiative. These routes are outlined below.

Route 530 West Galena-Westfield Shoppingtown Fox Valley Center

This route formerly operated between downtown Aurora in Kane County and the Fox Valley shopping area (Westfield Shoppingtown) in DuPage County, with alternate trips extending to downtown Naperville. This route was extended west from downtown Aurora, absorbing Route 526, and all trips now serve downtown Naperville. Timed transfers are available to the new Route 535 shuttle service operating between the Westfield Shoppingtown and Route 59 Metra Rail station. This route was a part of the Fox Valley/Southwest DuPage Restructuring Initiative, and was planned and implemented by Pace.

Route 711 Wheaton-Addison

Prior to 2008, Route 711 operated between Wheaton and the Stratford Mall. In 2008, it was extended east along Army Trail Road, Rohlwing Road, and Lake Street to Addison[2], covering Route C and part of Route A in the *DuPage Area Transit Plan*. While Saturday service was eliminated, weekday hours were extended and the frequency increased by 33 percent.

Route 714 College of DuPage-Naperville-Wheaton Connector

This new route was introduced in August 2006, covering the southern part of Route A in *DuPage Area Transit Plan*. Route 714 connects the Naperville Metra Rail station in downtown Naperville with the College of DuPage and the Wheaton Metra Rail station in downtown Wheaton. Connections are available to Routes 711, 715, and 747, the other *DuPage Area Transit Plan* connector routes.

Route 715 Central DuPage

Route 715 was restructured to eliminate duplication with the new Route 714, and much of the ridership of the former Route 715 transferred to the new route. Route 715 was extended north of Glen Ellyn to Addison and Glendale Heights, creating a new north-south corridor.[3] Implemented in June 2008, it comprises part of Route H from the *DuPage Area Transit Plan*. The southern portion of the route serves the Cass Avenue corridor, which is also a connector route proposal in the *DuPage Area Transit Plan*. There were no increases in hours of service or frequency on this route, and service north of Glen Ellyn is only available on weekdays. Connections are available to Routes 711, 714, and 747.

Route 747 DuPage Connection

[2] http://sbcglobalpwp.att.net/w/i/willvdv/sbus700.html\
[3] http://sbcglobalpwp.att.net/w/i/willvdv/sbus700.html\

This route services the Roosevelt Road Corridor from Oak Brook to West Chicago, with extensions east to the Forest Park CTA Blue Line Station and west to the Charlestowne Mall in Kane County. This route initially served the eastern portion of the corridor, east of Wheaton, but was extended west on weekdays in order to cover Route D from the *DuPage Area Transit Plan* in 2008. The new service includes the DuPage Government Center, where Route 747 has replaced Route 712 (Wheaton Shuttle), West Chicago, and the Charlestowne Mall and Walmart in St. Charles. Upgrades to the route included service beginning one hour early as well as doubled frequency.

Effectiveness of 2002 Plan Elements

Several elements of the original 2002 version of the *DuPage Area Transit Plan* have been initiated, if not fully implemented. These include studies for four circulator routes, modifications and/or extension to three line-haul routes, and the implementation of one new route. This section further describes the successes and challenges for each of these plan elements.

Route Extensions

While overall bus ridership in DuPage County declined by more than eight percent from 2002 to 2009, all routes that were altered/extended in accordance with the *DuPage Area Transit Plan* experienced ridership gains during the same period. The following routes were expanded in order to meet the intent of the plan:

- **Route 711 – Wheaton-Carol Stream-Stratford Square** was extended east from Stratford Mall to Addison. Saturday service was eliminated, but the frequency was improved and the span of service was lengthened. Route 711 carried 230 passengers on the average weekday in September 2009, representing a 42 percent increase from 2002. This route, which carried 1.04 passengers per mile in 2009 at a cost of $6.61 per passenger, fell in the top six "Suburban Link" (Pace Bus designation) routes in DuPage County for ridership growth. Additionally, Route 711 carries more passengers per hour than any other Suburban Link route in the county. Despite this seeming success, according to Pace, Route 711 has seen less activity in the new, northern section than anticipated. This route was proposed for elimination in 2010, but was ultimately not eliminated. There is a potential to restructure this route in the future in order to garner more ridership, including possible extension to the Wood Dale Metra Station.

- **Route 715 – Central DuPage** was extended north of the Glen Ellyn Metra station to Glendale Heights and Addison on weekdays. While receiving no increases in hours or frequency, ridership grew by 30 percent from 2002 to 2009, increasing from 458 to 593 riders on the average weekday. Route 715 carries 0.94 passengers per mile at a cost of $6.64 per passenger, which is the second greatest number of passengers per mile for Suburban Link routes in DuPage County. According to Pace, this route is most

productive in the Yorktown and Westmont areas, with less activity on the southern stretch of Cass Avenue. In February 2010, Saturday service was eliminated due to low ridership.

- **Route 747 – DuPage Connection** was extended on weekdays, west from its terminus at the Wheaton Metra station to the DuPage Government Center (absorbing Route 712), West Chicago, and the Charlestowne Mall. With the extension, the frequency of this route was doubled. Ridership on Route 747 increased from 552 on an average weekday to 1,007, an increase of 82 percent over the period from 2002 to 2009, and falls within the top five bus routes for ridership growth in DuPage County over that period. Overall, the route carries 0.67 passengers per mile at a cost of $6.28 per passenger, with ridership (according to Pace) concentrated on the segments from Yorktown Shopping Center to the east. In 2010, the CMAQ funds used for expansion of this route expired, and the route was truncated at the DuPage Government Center and Saturday service was cut altogether in February. Ridership west of the Government Center was generally low, as the only major generator on this segment was the Charlestowne Mall. Saturday service along the busier eastern portions of the route through Oak Brook and Oakbrook Terrace has been maintained by an extension of Route 301 on Saturdays only.

New Routes

- **Route 714 – College of DuPage-Naperville-Wheaton Connector** is the only all-new route implemented according to the *DuPage Area Transit* Plan. This route, which connects Naperville to the College of DuPage and downtown Wheaton was implemented in 2007, and carried an average of 381 passengers per weekday by September 2009. This route, which carries approximately 0.66 passengers per mile at a cost of $7.56 per passenger, was initially funded using Congestion Mitigation and Air Quality (CMAQ) funds. An excess of capacity following the implementation of this route prompted Pace to reduce service on this route shortly after implementation. Route 714 was nearly eliminated in 2010 after the CMAQ funds supporting it expired, as it still did not meet minimum productivity standards required by Pace Bus, which operates the route. Local funding from DuPage County and the Cities of Naperville and Wheaton has extended service on this route for at least one more year.

Circulator Routes

Circulators were the building blocks of the recommended system in the *DuPage Area Transit Plan*. Of the eleven fixed and flexible local circulator routes that were proposed for the near-term, four have been further studied: Addison, Lombard, Downers Grove and Wheaton. At this juncture, implementation of the Addison and Lombard circulators are pending local funding, the Wheaton circulator has been put on hold, and the Downers Grove circulator has been cancelled. Each circulator will be funded jointly by DuPage County and the local jurisdiction within which it runs. Thus far, the recent economic crisis has hurt local jurisdictions' ability to

raise revenues and no circulators have yet been implemented. However, three "shuttle" routes have been implemented since 2002, which are described below. These routes were not implemented as part of the *DuPage Area Transit Plan*, but fill specific local circulation needs.

- **Route 464 West Downers Grove** – In 2006, this route was added to the Downers Grove shuttle system connecting western Downers Grove to the Belmont Metra Rail station. This route is operated by the Village of Downers Grove.

- **Route 535 Fox Valley Shuttle** - As part of the Fox Valley/Southwest DuPage Restructuring Initiative, Route 535 was added in 2006 to connect the Route 59 Metra Rail Station to the Westfield Shoppingtown. This route connects to the realigned Route 530 with a timed transfer. Route 535 was later eliminated in February 2009 due to low ridership.

- **Route 672 95th Street Park-and-Ride Express** - Implemented in 2009, Route 672 provides non-stop express service between the Route 59 Metra Rail station in Naperville with the 95th Street Park-and-Ride in Will County. This route is not included in the *DuPage Area Transit Plan*, although it operates along a proposed segment of the "J" Line. It does, however, reflect the goal noted in *Moving Beyond Congestion* to provide express shuttles from park-and-rides to meet express Metra trains. It also provides a connection between additional parking and the busiest (and one of the fastest growing) Metra Rail station in DuPage County.

2.2.2 Eliminated and/or Reduced Services

While numerous services have been added since 2002, there have also been several cuts in bus service due to a lack of funding or lack of ridership. Pace uses four criteria in order to determine whether a route is successful. If a route fails to meet one of the four standards, it is put on a watch list. If a route fails to meet two standards, it is put under review in order to make the route more productive. If a route fails to meet three or more standards, it is put on Pace's "action list", meaning that the problems need to be addressed immediately, or the route needs to be eliminated. The four criteria are as follows:

- Minimum farebox recovery ratio of 18 percent
- Maximum subsidy per rider of $4.00
- Minimum productivity (passengers per revenue hour) of 50 percent of the system average for each category (categories include CTA Connector, Suburban Link, Intra-Community, and Commuter Service)
- Maximum cost per vehicle mile of $6.00

In addition to routes which did not meet the above criteria, service cuts have occurred in response recent funding shortfalls due to the national economic recession in 2008-2010, which resulted in decreased sales tax and real estate transfer tax (RETT) revenues. One round of service cuts was implemented on February 7, 2010, involving the elimination of several weekday routes and reduction of service on several others.

Eliminated Services

The following routes have been eliminated by Pace Bus since 2002 based upon the above criteria or due to funding shortfalls:

- Route 312 Ogden-31st (CTA Connector) (2006)
- Routes 783, 784, 787, and 788 – Naperville Community Service (2008-9)
- Route 535 Fox Valley Shuttle (2010)
- Route 637 Wood Dale – Rosemont CTA (2010)
- Route 654 South Glen Ellyn (2010)
- Route 657 Bloomingdale/Glendale Heights (2010)
- Route 767 Congress/Douglas – Prairie Stone (CTA Connector) (2010)
- Route 781 North Naperville Office Complex (2010)
- Route 1012 95th Evergreen Park – Prairie Stone (Suburban Link) (2010)

The following routes were eliminated due to restructuring:

- Route 653 Bloomington-Glendale Heights (2008) – Covered by Routes 657 and 715
- Route 706 – Wheaton Community Service (2007) – Covered by Routes 714 and 715
- Routes 707/713 – Wheaton Community Service (2007) - Covered by Routes 747, 714 and feeder routes
- Route 712 – Wheaton Community Service (2007) – Covered by Route 747
- Route 822 Belmont/Lisle – Covered by restructured Route 821

The following routes were eliminated due to other reasons:

- Routes 393/394 CTA to UPS Addison – Funding was cut by UPS (2009)
- Route 556 Elgin-UPS Palatine – Funding was cut by UPS (2009)

Reduced Services

The following routes had service reduced since 2002:

- Route 711 Wheaton–Carol Stream–Stratford Square – Saturday service eliminated (2007)
- Route 654 South Central Glen Ellyn – This feeder route was realigned and the number of trips reduced to three during the morning peak and three during the evening peak (2008)
- Route 657 West Glendale Heights-Glen Ellyn – This feeder route was realigned, extended, and the number of trips was reduced to three during the morning peak and four during the evening peak (2008)
- Routes 820, 821, 822, 824, 825, 826, 827 – These Lisle Metra Rail station feeder routes received evening service cuts in July 2009, including the last three trips of the evening cancelled on all of these routes
- Route 715 Central DuPage – Saturday service eliminated (2010)
- Route 747 DuPage Connection – Route discontinued west of the DuPage County Government Center and all Saturday service eliminated – Saturday service on the eastern portion of the route between Oak Brook and Forest Park covered by an extended Route 301 (2010)
- Route 616 The Chancellory Connection – Service reduced due to low ridership (2010)
- Route 669 Western Springs-Indian Head Park – Short-turn trip eliminated (2011)
- Route 714 College of DuPage – Naperville – Wheaton Connector – Service reduced for the summer months (June, July and August) (2011)

In addition to the above service cuts, an express route (Route 655) connecting the suburban community of Bolingbrook in Will County with the employment center of Schaumburg in Cook County via I-355, was introduced on November 30, 2009. This route included stops along the way in Itasca, Addison, and Downers Grove. Route 655 was subsequently eliminated on March

5, 2009 for several reasons, including failure to secure additional park-and-ride locations accessible to the expressway facility, implementation of proposed local connecting services, non-transit supportive land use resulting in longer travel times to serve developments and inadequate pedestrian access, resulting in low ridership.

Express bus service along I-355 has undergone an extensive market analysis—Pace has determined that markets for express service between Schaumburg and Bolingbrook do not exist at this time. It was determined that markets exist within shorter trips on I-355; however, it was also determined that numerous potential routes that appeared to have the population and employment densities to be successful would not be viable due to constraints in the built environment and a lack of pedestrian amenities.

Route Alignment Changes

Since the first memoranda of the *DuPage Area Transit Plan Update*, a few route realignments have taken place. These include:

- Route 682 Naperville-Brookdale – Route streamlined and express service added between the new St. Thomas the Apostle Park-and-Ride and the Naperville Metra Station. A second vehicle was added to this service to improve reliability (2010)
- Route 821 IL 53/83rd Street–Belmont Metra Station – adjusted so all trips follow the Janeswood loop in Woodridge (2010)
- Route 888 Tri-State Flyer – Route adjusted to improve service along Warrenville Road (2010)
- Route 828 North Lisle and Route 829 Lisle-Naperville Office Corridor – Both routes were streamlined with trips added to Route 828 and eliminated from Route 829. Service to Arboretum Village and front-door service to AT&T were cut (2011)

2.3 Ridership Trends

This section provides a high-level overview of transit ridership and productivity for Pace and Metra services operating in DuPage County. It compares average weekday ridership on each Pace Bus route and Metra rail line serving DuPage County for September 2002, when the original *DuPage Area Transit Plan* was written, and September 2009. Ridership trends can identify where service growth or decline is occurring, and where there are potential opportunities for improving service. Ridership on Metra increased between 2002 and 2009 by 8.2 percent (6.3 million riders) while ridership on Pace increased by 0.9 percent (300,000 riders). See Table 2-2 for annual ridership for both agencies in 2002 and 2009, as well as the change in ridership.

Table 2-2: Metra Rail and Pace Bus Ridership

Agency	2002 Annual Ridership	2009 Annual Ridership	Change in Ridership	% Change in Ridership
Metra	76.8 million	83.1 million	6.3 million	8.2
Pace	34.8 million	35.1 million	0.3 million	0.9

Source: RTAMS

Increased ridership on Metra, particularly in the southwest portion of the county, may reflect recent high fuel costs as well as the growing green movement as more commuters are choosing to ride the train rather than drive from the suburbs into Chicago. Pace Bus ridership, however, reflects decreases in service due to funding shortfalls, as well as an increase of vehicle ownership in DuPage County and that fewer short trips are being completed using transit. Additionally, ridership on CTA Connector routes has declined, suggesting that while DuPage County residents are increasingly using Metra Rail, they are decreasingly using CTA Rail Rapid Transit; however, this may more closely reflect a shift in demographics in the areas served by CTA Connector routes.

Following is a brief summary of ridership trends on Metra and Pace routes serving DuPage County, based on Metra and Pace ridership figures obtained from the RTA's Regional Transportation Asset Management System (RTAMS) is included in Appendix B (for Metra) and Appendix C (for Pace) of this report. Greater detail and more up-to-date ridership information is available to the public through RTAMS at www.rtams.org.

2.3.1 Metra Rail Ridership

Overall, Metra ridership on the three lines serving DuPage County increased by more than fifteen percent from September 2002 to September 2009, from 2,237,380 to 2,579,178 annual riders. Between September 2002 and September 2009, ridership on the BNSF line increased from 1,195,322 to 1,375,942 or 15.1 percent; ridership on the UP-W line increased from 524,499 to 639,721, or 22.0 percent; and ridership on the MD-W line increased from 517,559 to 563,515, or 8.9 percent. Stations with the most ridership growth include Route 59, Naperville, Lisle, Roselle, College Avenue and Medinah; Clarendon Hills, Westmont, Villa Park and Glen Ellyn experienced the heaviest ridership declines. This data is shown in Appendix B.

2.3.2 Pace Bus Ridership

While overall ridership on Pace Bus routes increased by a modest 0.9 percent, ridership on those routes serving DuPage County declined by nearly nine percent from 2002 to 2009, in part due to a steady succession of service cuts due to budget shortfalls.[4] The heaviest service cuts occurred between 2007 and 2010, including the truncation of some routes (such as 747), elimination of weekend service on some routes (such as 711 and 715), reduction in span on some routes (such as 820-827), and full elimination of others (such as Routes 637 and 654). The following ridership summary references the data shown in Appendix C of this document.

The busiest bus routes are those serving the northeastern portion of the county, including Route 223 (Elk Grove to Rosemont Station), Route 309 (Lake Street), Route 313 (St. Charles Road) and Route 322 (Cermak Road). The portion of the county served by these routes is a heavy employment center surrounding Chicago-O'Hare International Airport, and each of the routes connects to CTA services in Cook County, including CTA Rapid Transit lines. While each of the above routes carries over 1,000 riders per weekday, several routes carry more than 500 per weekday, including Route 530 which connects Aurora to Naperville via Fox Valley, Route 715 Central DuPage, Route 747 DuPage Connection, and Route 834 Joliet – Yorktown. Routes 530, 715, and 747 were all modified in response to recommendations from the *DuPage Area Transit Plan* and the *Fox Valley/Southwest DuPage Initiative*.

Ridership generally increased the greatest amount on routes that were recently modified in order to meet *DuPage Area Transit Plan* or *Fox Valley / Southwest DuPage Restructuring Initiative* objectives. These include Route 747 which increased by 455 passengers per weekday, Route 530 which increased by 261 passengers per weekday, and Route 715 which increased by 135 passengers per weekday. Also showing substantial growth were Routes 834 and 675, both of which connect Will County to Metra Rail stations (and, in the case of Route 834, shopping and employment) in DuPage County. In terms of percentage of ridership growth, the two most successful routes were Route 673 and Route 675, both of which connect park-and-ride lots to

[4] Total ridership on Pace bus routes serving DuPage County declined from 17,270 trips per average weekday in September 2002 to 15,773 trips per average weekday in September 2009, approximately 8.7 percent.

the Route 59 Metra Rail station, the busiest (and fastest growing in terms of ridership) station in the county. Following those is Route 829, which connects several employers with the Lisle Metra Rail station. Routes 747, 530, and 711, all of which were modified since 2002 according to the Transit Plan and Southwest DuPage Initiative, round out the top six in terms of percentage of growth. As of February 2010, Saturday service was eliminated on routes 715 and 747, and route 747 was truncated.

Ten routes lost more than 50 riders per day, including seven out of the 13 CTA Connector routes operating in DuPage County: Routes 322, 223, 319, 313, 391, 637 and 767. Rounding out the top ten routes for ridership loss were routes 462 and 463, Intra-Community routes serving Downers Grove, and Route 643, a Metra feeder route in Elmhurst. Six routes lost more than 50 percent of their ridership, including CTA Connector routes 391 and 767, Intra-Community Route 643 (Downers Grove), and Metra feeder routes 643 (Elmhurst) and 654 (Glen Ellyn) as well as Route 1012, a suburban express route. Of these routes, routes 637, 654, 767, and 1012 were discontinued in 2010.

2.4 Technical Market Assessment Findings

This section summarizes the findings of *Technical Memorandum #2: Aggregate Market Assessment*, including a congruency analysis, demographic analysis, and an overview of travel patterns within and to/from DuPage County. Following the analyses is a brief summary of potential mismatches and unmet service needs. As this analysis was conducted in the spring of 2010, both the analysis and maps therein reflect transit service available following Pace's February 7, 2010 service cuts.

2.4.1 Congruency Analysis

This section includes four metrics used to evaluate the general level of service provided by an existing transit system. These include the following:

- Route Spacing Guide – shows how far apart bus routes should be ideally spaced in order to maximize coverage while minimizing service duplication.
- Transit score – determines the likelihood of transit success in a given area based on several demographic factors.
- Route coverage - superimposes buffers around each route and station over the transit score map, showing areas with a high probability of transit success that are not currently served.
- Congruency – shows whether major generators in the county fall within service area buffers.
- Analysis by Time Period – shows what service is available by time of day and day of week.

Each of these metrics is discussed in further detail and presented with a map in the following sections.

Route Spacing Guide

Table 2-3 lists the recommended route spacing guide given DuPage County's population density and percentage of households without automobiles, two surrogates for income and transit dependency. This guide represents industry standards. Areas with low population density and low transit dependence given the number of cars available have lower requirements for transit service than do areas with high population density and greater transit dependence.

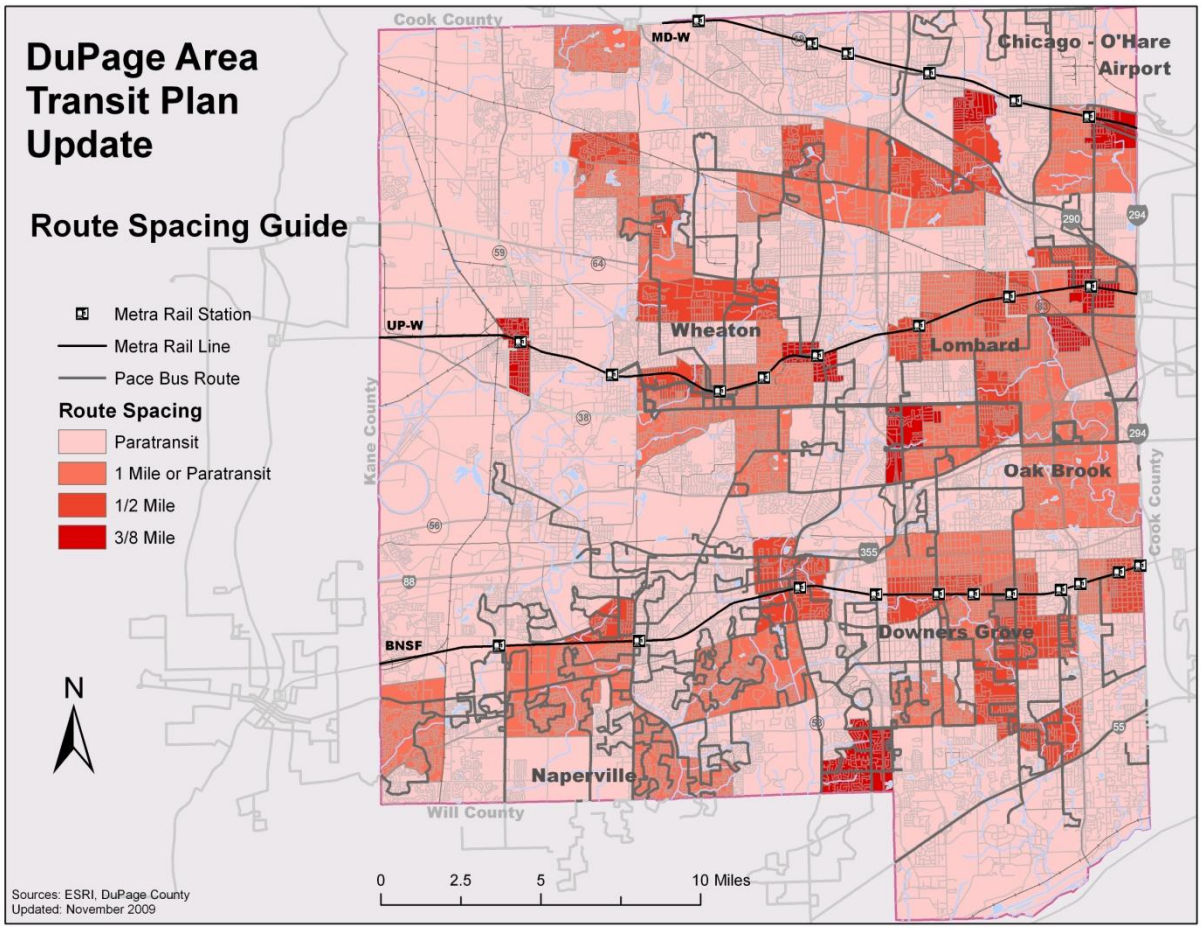
Table 2-3: Route Spacing Guide

% of Households without Automobiles	Population Density (Persons per Square Mile)			
	Over 6,400	4,500 to 6,400	2,500 to 4,449	Under 2,500
Over 15.0	¼ mile	¼ mile	3/8 mile	½ mile
10.0 to 15.0	¼ mile	3/8 mile	½ mile	1 mile or paratransit
5.0 to 9.9	3/8 mile	½ mile	1 mile or paratransit	-
Below 5.0	½ mile	1 mile or paratransit	-	-

Figure 2-5 applies these route spacing standards to DuPage County's population and Pace's route structure. Recommended route spacing generally produces a pattern of rings of increasing distance necessary between transit routes as one travels farther away from the denser portion of the metropolitan area. It should be noted that no areas in DuPage County warrant ¼ mile service spacing based on this guide.

The route coverage guide is just that – a guide. It is not an exact measurement. In some areas, the street pattern is not uniform or the trip generators are further apart than the guide indicates, and bus service in DuPage County should not conform to the guide in all areas. Service should, however, meet the intent of the guide – areas with more people and/or fewer cars available per household need more transit service than sparsely populated or relatively affluent areas. Notable exceptions occur in areas of DuPage County with large commuter populations requiring connecting bus service to Metra Rail stations. Another consideration for warranting service is concentrations of elderly and disabled populations as well as multifamily housing developments. These socioeconomic characteristics are included in the transit score analysis, which is also the base map for the coverage analysis.

Figure 2-5: Route Spacing Guide



Transit Score

The transit score map is created in order to spatially analyze several transit-oriented demographic and socioeconomic characteristics at the same time (the characteristics discussed individually in this chapter so far). The transit score is a relative measure of how successful a fixed route transit system is expected to be in a particular region. Used in conjunction with a congruency analysis of major transit generators, the transit score can be used to evaluate existing service as well as to identify areas of potential demand.

Demographic and socioeconomic information is collected from the U.S. Census Bureau for a region divided into smaller geographic units such as tracts, block groups, or blocks. Block groups were used for this analysis. Transit-oriented variables used for the analysis include:

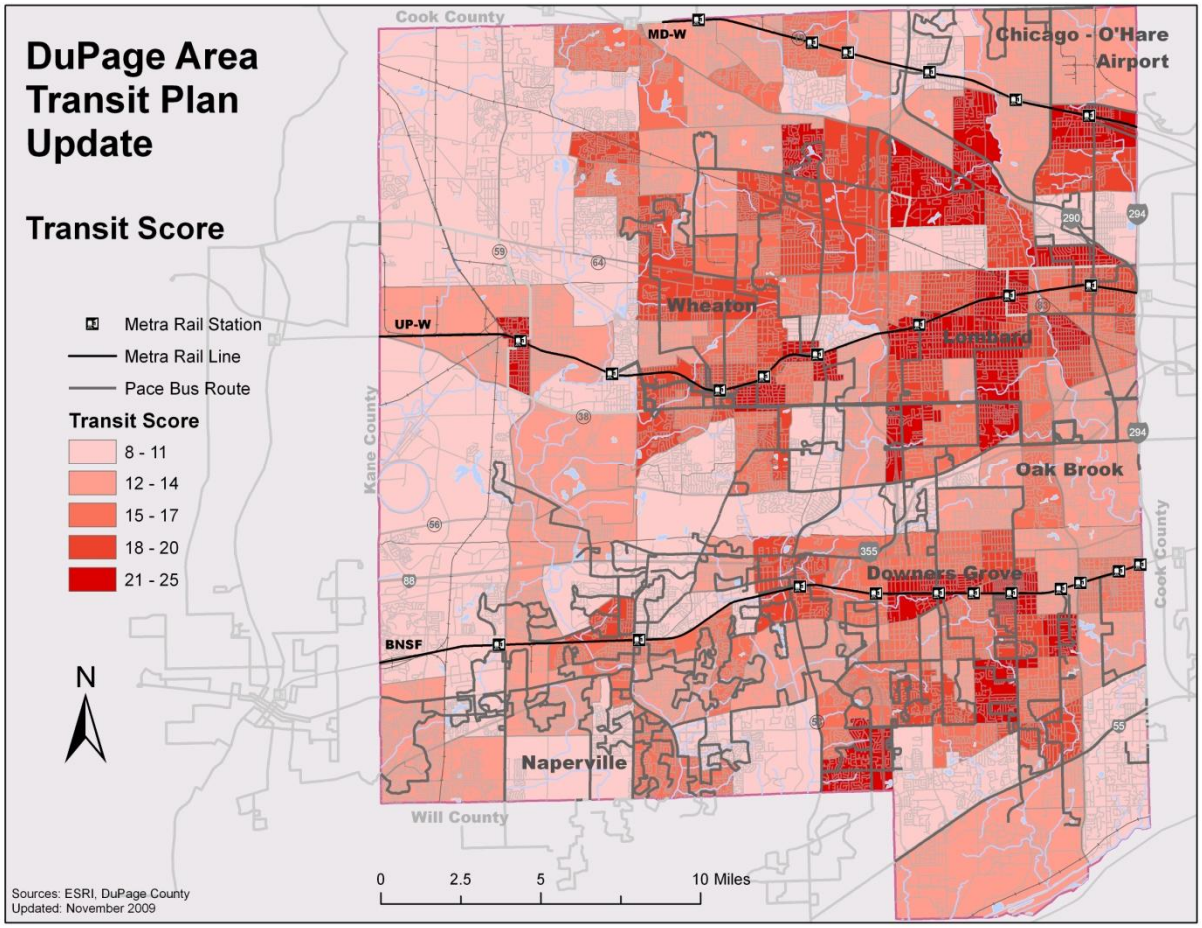
- Population density
- Density of the population under the age of 18
- Density of the population over the age of 65
- Percentage of the population with disabilities
- Median household income
- Percentage of the population living below the poverty level
- Percentage of zero-car households

Each of these variables can be correlated with transit success. Transit is most often successful in areas of high population density and in areas with high youth and senior populations. Transit is also traditionally successful in areas with low income households, high percentages of people living below the poverty level, and high percentages of households without vehicles available.

For a given region, the values for each of these variables are organized by geographic unit. For each variable, the values are arranged into categories of values using the quartile classification method of GIS analysis. For this analysis, all variables are divided into four classes. All of the values in each category (class) are then given a score between 1 and 4, where 1 is low expectation of success and 4 is high expectation of success. Then, all of the scores are added up for each variable inside a geographic unit to give a total transit score. Seven variables are evaluated, so a score close to 28 means that a geographic unit has a high expectation for transit success; a score close to 7 means that there is low expectation for transit success. Transit scores are then mapped by geographic unit and quartile classification to show where demographic and socioeconomic variables lend themselves to potential transit success.

Figure 2-6 maps transit success scores by Census block. Areas with a high potential for transit success include Oak Brook, Lombard, Villa Park, and Addison in east-central DuPage County, Glendale Heights, the Wheaton area, West Chicago, and along the BNSF railroad through Downers Grove and Lisle.

Figure 2-6: Transit Score by Census Block



The transit score map shows that in DuPage County, some areas that would typically be considered to generate more transit ridership have fewer bus routes than areas that would be considered less likely to generate service. This is due in part to the heavy focus of transit ridership in the county towards Metra Rail, a service aimed to transit trips into Chicago, rather than on local circulation. Some areas with lower median incomes and/or lower automobile availability, such as West Chicago and the Swift Road corridor in Addison, have historically received little or no transit service and thus produce little ridership. However, some of these areas have been the focus of recent efforts to expand dial-a-ride service in the county.

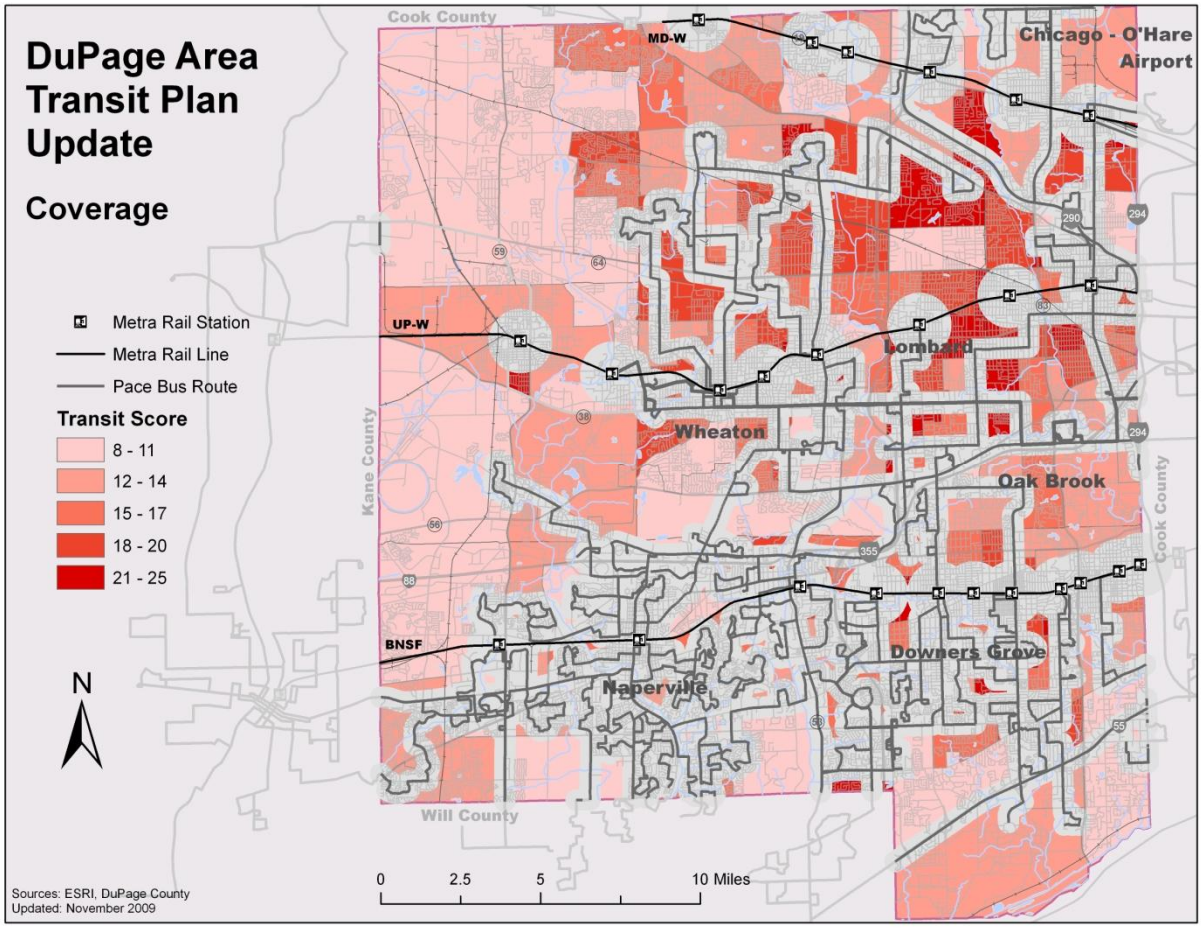
Coverage

Route coverage refers to the land area that is served by transit. For the purpose of this study, the area within ¼ mile of a Pace Bus line, or ½ mile of a Metra Rail station is considered to be served by transit, and will be referred to as the service buffer. It should be noted that these numbers are somewhat arbitrary, as some riders are willing to walk more than ¼ mile to access bus service, and many rail riders either walk further than ½ mile or drive to the rail station. On the other hand, due to the local roadway and sidewalk network, land that falls within the service buffer may be substantially further than ¼ mile from the bus route or ½ mile from the rail station in actual walking distance.

Many additional factors influence whether or not people in a given area (or traveling to that area) will use transit in addition to the existence of basic pedestrian facilities such as sidewalks and bicycle facilities. For example, low densities may limit the number of potential riders, a dangerous pedestrian environment lacking crosswalks or too near high-speed traffic may deter transit users, and cul-de-sac-style development may require unnecessarily-long walks to access residences and businesses that may be physically located near the stop, but isolated by fences, walls, or other physical barriers. CMAP's *Go To 2040* plan includes a prescription for how the region plans to encourage transit-supportive land use, including language suggesting that funding for new transit service should be focused for use in areas proactively encouraging development that is supportive of transit.

Figure 2-7 shows route coverage for all Pace Bus routes and Metra Rail stations in DuPage County. While coverage is quite robust in the southern portion of the county along the BNSF rail line, partly due to commuter shuttles operated by the Naperville, Lisle, and Downers Grove, there is substantially less coverage in the northern part of the county. Large areas of Lombard, Villa Park, Addison, Glendale Heights, and Wheaton that show a high probability of transit success in terms of transit score are unserved by either rail or bus. These areas represent potential new markets for Pace Bus service, if appropriate pedestrian and bicycle access is available and transit-supportive land use policies are in place.

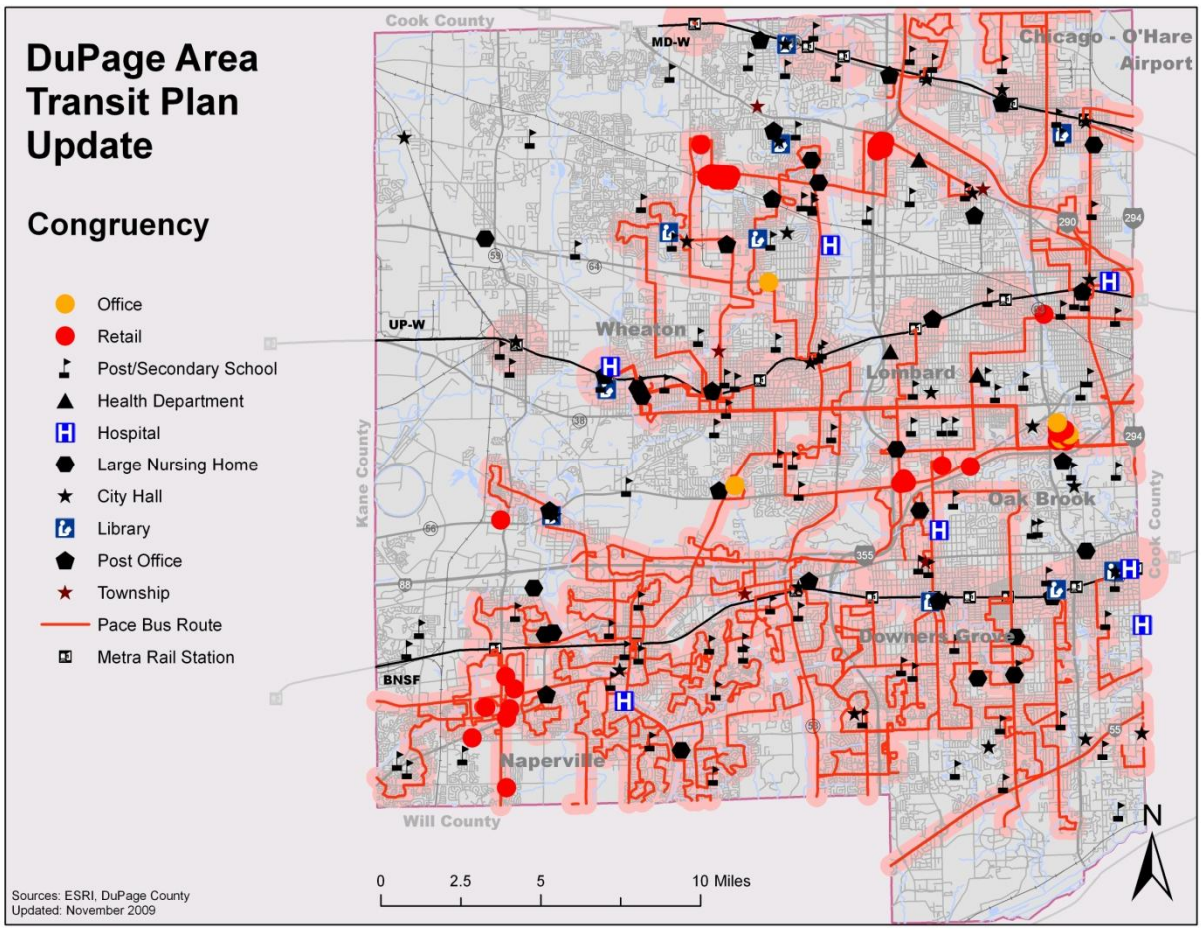
Figure 2-7: Coverage



Congruency

Congruency looks at the existing fixed route bus service in DuPage County in relation to major trip generators across the county. Major generators include hospitals, large nursing homes, secondary schools and colleges, regional shopping centers, large office complexes, government centers and libraries. While several key office complexes are included in this map, it is understood that employers are scattered throughout the county, particularly near the airport and along the I-88 corridor. Aside from a few schools and smaller government centers, bus service is available to/from most major generators in DuPage County. Figure 2-8 shows congruency for DuPage County.

Figure 2-8: Congruency



Analysis by Time Period

While the above analysis shows all available fixed route service in DuPage County, not all services are available at all times. The following analysis shows what service is available during the peak periods, off-peak periods, and on weekends. Some areas that are covered extensively during the peak periods may not be as well-served, or may not be served at all, during middays, evenings, or on weekends. Overall, while much of the county is served during the peaks and several connector routes provide moderate coverage during the midday period, available bus service is modest to non-existent during evenings and on weekends. Metra Rail operates at all stations in DuPage County at nearly all times[5], thus discussion in this section is directed mostly toward bus service.

Weekday Peak

Pace operates its most extensive network during the weekday morning and afternoon peak periods. Commuter shuttle services cover much of the residential area along Metra's BNSF Rail corridor throughout the towns of Downers Grove, Lisle, and Naperville. To a lesser extent, shuttle service is available in Wheaton, Lombard, and Villa Park feeding Metra's UP-W Rail line; however, most shuttle service in Glen Ellyn and Wheaton has been eliminated over the past decade, with most feeder service provided in this area by connector routes 747, 711, 714, and 715. Each of these connector routes was implemented or realigned in accord with the *DuPage Area Transit Plan*. It should be noted that many shuttle routes are funded – and some operated – by the local municipalities. Downers Grove operates several commuter shuttles under the branding of "Grove Commuter Shuttle". Additional local shuttles, for which funds have been set aside by the RTA, are under development, with shuttles in Addison and Lombard scheduled for implementation. These municipalities have thus far been unable to provide their portion of the funding, particularly during the current recession.

As shown in the peak period congruency map, notable areas of the county are not served by transit during even the peak periods. These areas devoid of bus service include all of West Chicago, through which Route 747 was extended as a part of the 2002 *DuPage Area Transit Plan*. Low ridership on this portion of the route coupled with budget cuts resulted in the truncation of the route and discontinuation of most service west of Wheaton. Central DuPage Hospital in Winfield is served by three daily trips in each direction, one in the morning peak and two in the afternoon peak, and none of the low-density residential areas of northwestern DuPage County (Wayne Township) are served by fixed route bus service, nor are portions of southern Wheaton or northern Aurora (along the Kane County border). Additionally, there is little service south of I-55 in Downers Grove Township. With the exception of West Chicago, much of which lies within walking distance of Metra Rail, these areas represent the least dense portions of the county, and likely would not provide adequate demand to provide regular fixed

[5] Only a few off-peak trains serve West Hinsdale and Highlands Stations.

route service. However, some of these areas may be candidates for community services that provide additional service coverage and regional connectivity to mainline bus and rail networks.

Other areas lacking in fixed route bus service include:

- **Ogden Avenue corridor between Downers Grove and Oak Brook** – this area of moderate to dense residential and employment uses is just outside of walking distance from Metra Rail and is not served by fixed route bus transit. The corridor is a strategic corridor for Pace, serving a core market connecting the western DuPage suburbs with West Cook County.

- **Elmhurst west of York Road** – this area of dense residential development is not served by fixed route bus or commuter service, despite its density, gridiron street layout, and high per-capita transit usage for work trips.

- **Lombard and Villa Park** – there is no fixed-route service available in the area between these stations or north of the UP-W line. Areas between these stations demonstrate a high residential density with a high employment density surrounding the Villa Park Metra station, in addition to boasting a population that relies heavily on transit.

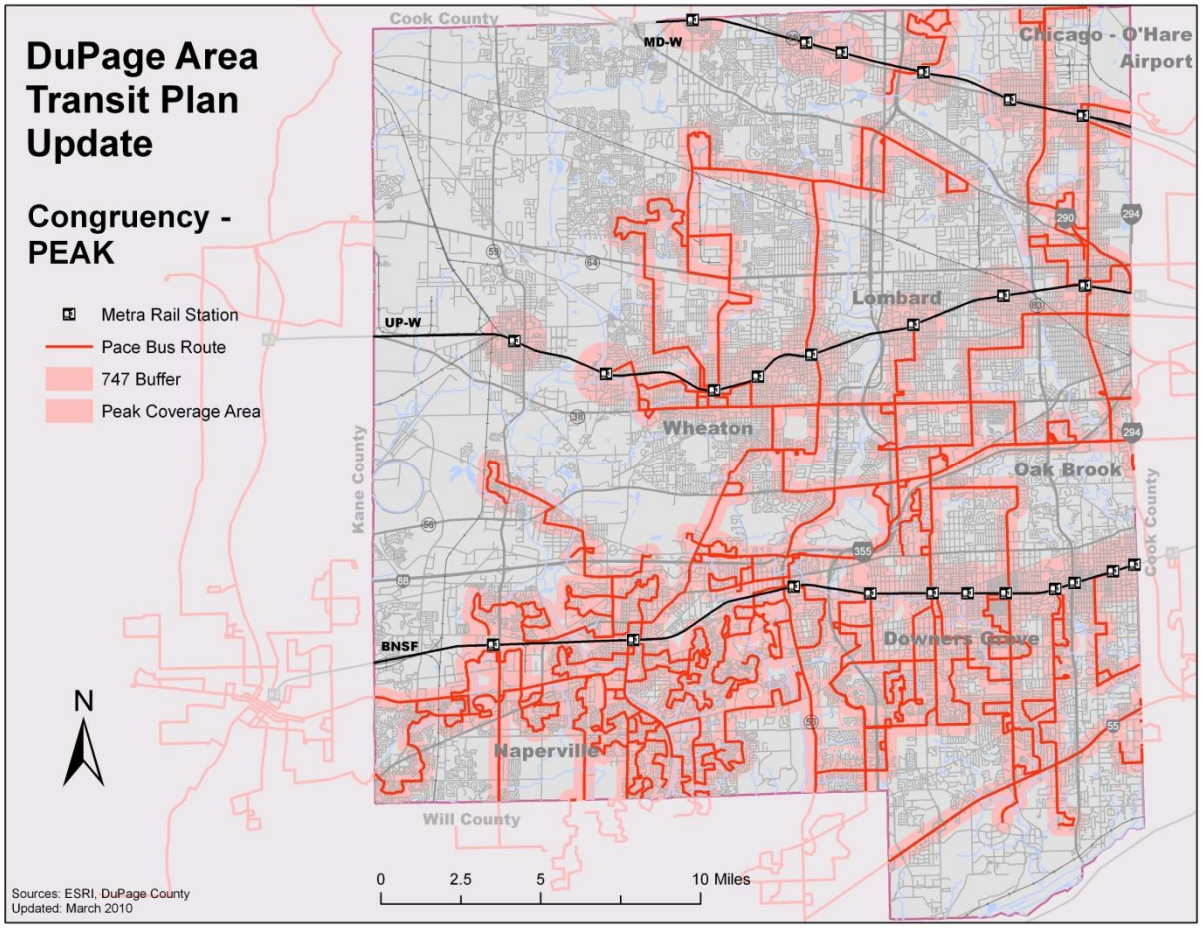
- **North Central DuPage County** – aside from Routes 711 and 715 along Army Trail Road and Lake Street into Addison, there is little fixed route bus service in north central DuPage. Metra Rail service is available on the MD-W Line at Hanover Park, Schaumburg, Roselle and Medinah, but no fixed route services or commuter bus service is available in the DuPage County portion of these communities, which include moderate to dense residential development as well as some employment east of Medinah. Additionally, large residential developments in Glendale Heights, Bloomingdale, Carol Stream, Hanover Park, and Bartlett lack transit service altogether.

- **Wood Dale Metra Station** – a dense community surrounds this station with limited access to bus service.

Identifying locations that are not currently served by transit should not imply that these areas can support regular transit service at this time. Development patterns may affect the efficiency of public transit service; bus routes, and public transportation in general, are more successful when development patterns are transit oriented. Corridors where bus routes were cut or not yet instituted may be characterized by low density development that is pushed back from the street, making efficient transit service difficult. Implementation of bus service in the areas previously mentioned and other areas may be contingent upon accompanied changes in land use planning or other local actions that would make transit service more effective.

Figure 2-9 shows service provided during the weekday peak periods.

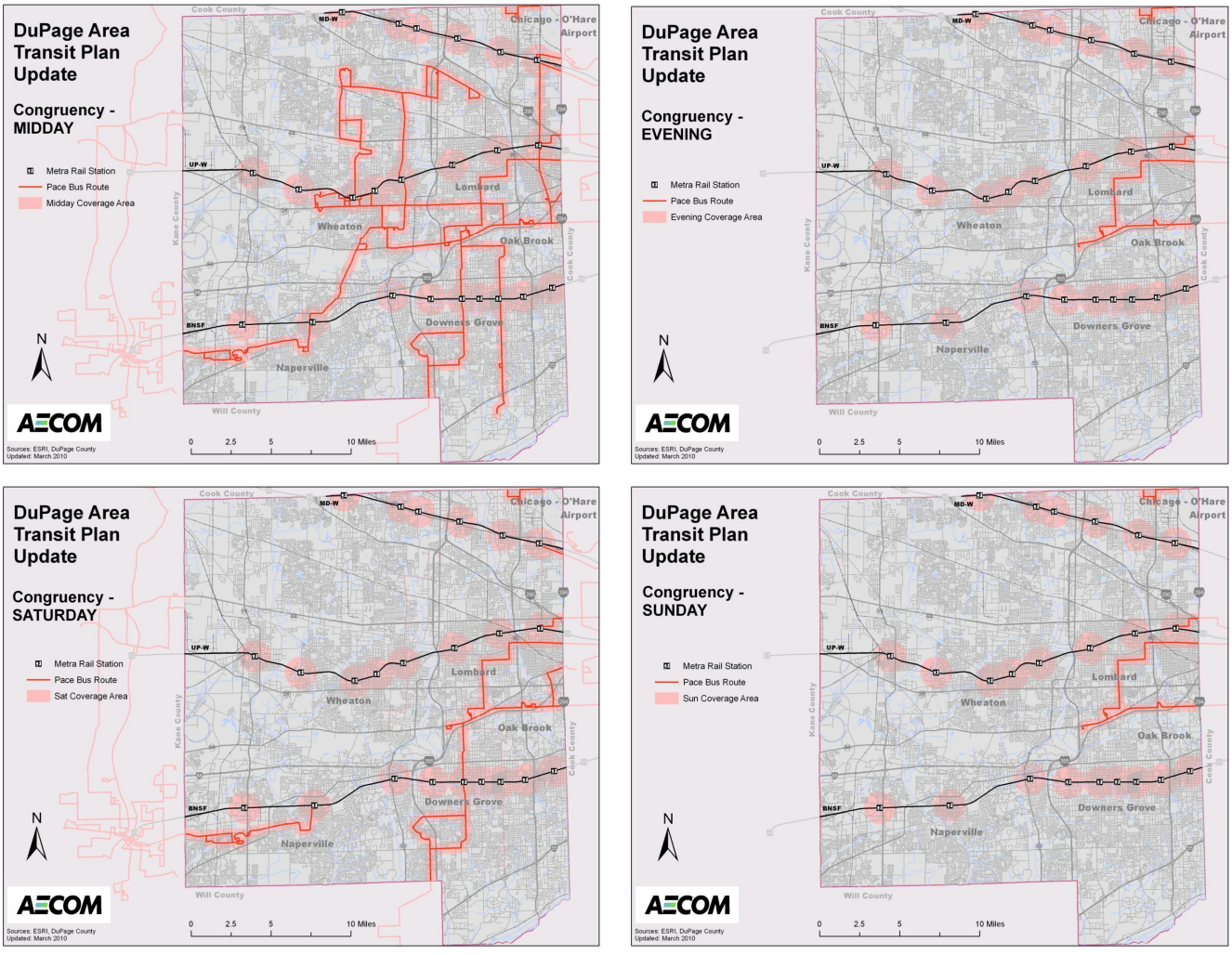
Figure 2-9: Congruency - Weekday Peak



Off-Peak and Weekend Service

While Metra service is available at nearly all stations[6] in DuPage County during the midday and evening periods, generally on one hour headways, and on weekends, generally on two-hour headways; bus service in the county is limited outside the peak periods. Figure 2-10 shows transit service provided in DuPage County during the midday and evening periods and on Saturdays and Sundays. The midday service map shows all routes operating in DuPage County at noon, while the evening service map shows all routes operating as of 10 PM on weekdays, demonstrating evening service that could not considered to be part of an extended afternoon peak period.

Figure 2-10: Congruency Analysis - Off-Peak Service



The amount of service provided during the midday period is significantly less than the amount provided during the peak periods, underscoring the peak period only, commuter nature of bus

[6] Only a few midday and evening trains stop at the West Hinsdale and Highlands Stations.

service in DuPage County. Rail service is also less frequent during this period, but is still provided at nearly all stations[7] along each of the county's three Metra Rail routes. Key generators, such as the 22nd Street/Cermak Road corridor, Elmhurst Memorial Hospital, Oakbrook Center, Yorktown Shopping Center, Advocate Good Samaritan Hospital, downtown Downers Grove, DuPage County Government Center, College of DuPage, downtown Naperville, Edward Hospital, Stratford Mall and Adventist at Glen Oaks Hospital are all accessible by fixed route bus routes. Adventist Hinsdale Hospital is neither served by Metra or Pace at this time. Much of the I-88 employment corridor is not served during the midday period, as employees in this corridor tend to commute during peak periods. Thus while service coverage is not extensive during the midday period, most major generators are served. Access to residential areas, however, is limited, as many of the residential portions of DuPage County are low-density and poorly served by fixed route service.

Weekday evening service was determined by which routes operate on weekdays at 10 PM, and thus demonstrate evening service that could not be considered to be part of an extended afternoon peak period. Aside from Metra Rail Service, which operates until approximately midnight, transit service in DuPage County is extremely limited in the evening, mirroring that provided on Sunday. Four routes operate during this period, including Route 223 at the far northeast corner of the county and Route 309, which connects the Austin CTA Rapid Transit Station and Lake Street corridor in Cook County to the Elmhurst Metra Rail Station. Additionally, Routes 313 and 322 connect the Austin CTA Green Line Station and 54th/Cermak CTA Pink Line Station to Oakbrook Center and Yorktown Shopping Center via St. Charles Road and Cermak Road, respectively.

In addition to Metra Rail service bus service is on Saturdays to the 22nd Street/Cermak Road corridor, Oakbrook Center and Yorktown Shopping Center, Good Samaritan Hospital and the Main Street (Downers Grove) corridor, Elmhurst Memorial Hospital, and the corridor connecting downtown Naperville to downtown Aurora, including Westfield Shoppingtown Fox Valley. As of February 2010, service is no longer available to downtown Wheaton or along Roosevelt Road, to Cass Avenue, to the College of DuPage, to Glen Oaks Hospital, along Swift Road, or to the shopping area along Lake Street in Addison/Itasca. With the elimination of Saturday service on Route 715, no weekend bus service is provided to the College of DuPage, which offers many classes for enrolled and continuing education students on Saturdays and a few on Sundays.[8]

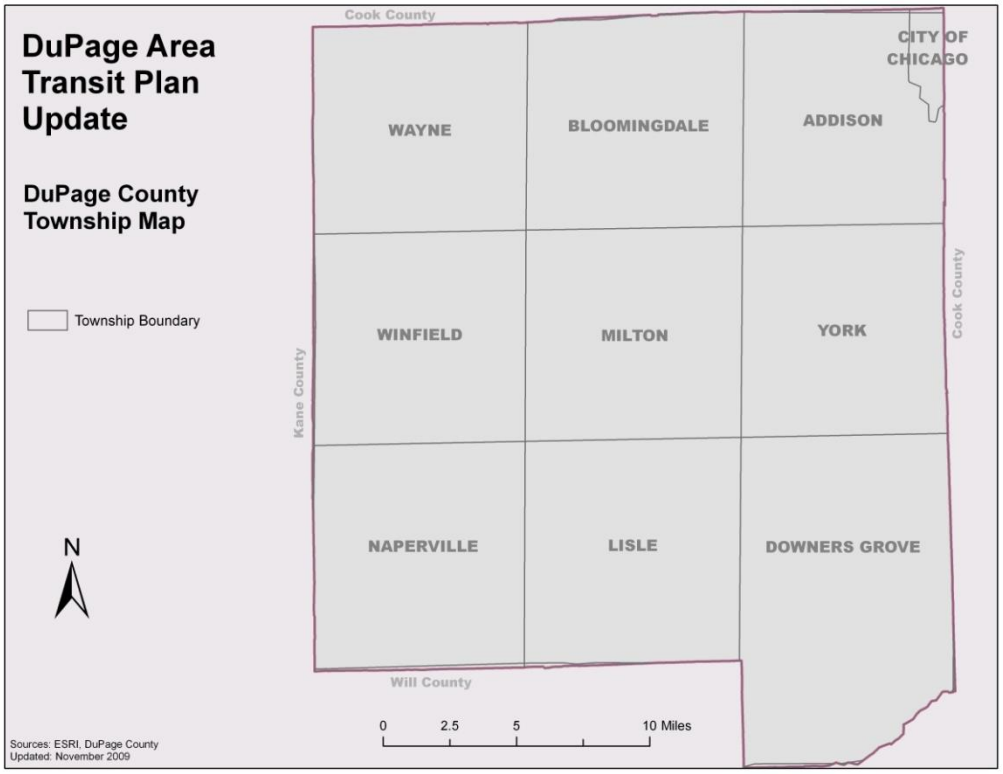
Sunday service in DuPage County is identical to weekday evening service: Metra Rail serves all stations except Highlands and West Hinsdale, but bus service is extremely limited.

[7] Only a few midday and evening trains stop at the West Hinsdale and Highlands Stations.
[8] College of DuPage, Academics, Search for Classes, Fall 2010. http://home.cod.edu/academics. Accessed November 2010.

2.4.2 Demographic Analysis

This section summarizes trends in population and employment, income and automobile availability and land use in DuPage County. Data in this section is based on the 1990 and 2000 US Censuses, as well as the 2008 American Community Survey (ACS). The ACS included data for eight of the nine townships in DuPage County – no data were available for the least populous, Winfield Township, or for the small portion of the City of Chicago within DuPage County that encompasses the Chicago-O'Hare International Airport. The 1990 Census data are included to show population trends, particularly useful since growth slowed significantly from 2000 to 2008. Otherwise, 2000 Census data is compared to 2008 American Community Survey data in order to show changes since the original *DuPage Area Transit Plan* in 2002. For reference purposes, Figure 2-11 below shows the location of each township in DuPage County.

Figure 2-11: DuPage County Townships



Population

DuPage County is growing in terms of both residents and employment, and is projected to continue growing through 2030 and beyond. This section details population growth in the county over the period from 1990 to 2008. From 1990 to 2008, DuPage County grew by approximately 150,000 residents, or 19 percent. Table 2-4 shows population and population density by township for 1990, 2000 and 2008. The most populous township in DuPage County in all years was Downers Grove, followed by York, showing generally larger populations along

the southeastern edge of the county. The northwestern townships of Wayne and Winfield have remained the least populous. Population densities were greatest in York, Lisle, and Milton Townships, representing the southeastern and central portions of the county (Downers Grove ranks fourth), and the least in Wayne and Winfield.

Table 2-4: Population by Township for 1990, 2000 and 2008

Township	1990 Census		2000 Census		2008 Estimate	
	Population	Density (pop/mi^2)	Population	Density (pop/mi^2)	Population	Density (pop/mi^2)
Addison	82,727	2,560	88,900	2,755	90,149	2,841
Bloomingdale	96,050	2,720	111,709	3,165	111,411	3,156
City of Chicago	0	0	2	1	715	319
Downers Grove	137,862	2,724	148,110	2,948	148,978	3,006
Lisle	108,452	3,030	117,604	3,286	123,904	3,507
Milton	108,148	3,079	118,616	3,389	117,051	3,344
Naperville	49,533	1,396	85,736	2,430	95,435	2,734
Wayne	40,379	1,108	63,776	1,753	68,307	1,928
Winfield	37,969	1,068	45,155	1,270	47,851	1,375
York	120,546	3,394	124,553	3,508	126,727	3,614
TOTAL	781,666	2,337	904,161	2,710	930,528	2,841

Sources: 1990 US Census; 2000 US Census; 2008 American Community Survey

Population change and density change are shown for 1990 to 2000 (2000 Census) and 2000 to 2008 (2008 American Community Survey) for each township in Table 2-5. Both population increases and density increases have been the greatest in Naperville and Wayne Townships, representing rapid growth in the southwestern portion of the county (Naperville, Aurora, Fox Valley areas). Population growth has been the least along the eastern edge of the county in Addison, York, and Downers Grove. Additionally, Bloomingdale and Milton Townships in the central portion of the county showed growth from 1990 to 2000, but population decreases from 2000 to 2008. Countywide, growth slowed significantly after 2000 (from 15.7 percent for the 1990s to 2.9 percent for the 2000s).

Table 2-5: Population Growth by Township for 2000 and 2008

Township	1990-2000 Census			2000-2008 Census Estimate		
	Population Growth (n)	Population Growth (%)	Increase in Density (%)	Population Growth (n)	Population Growth (%)	Increase in Density (%)
Addison	6,173	7.5%	7.6%	1,249	1.4%	3.1%
Bloomingdale	15,659	16.3%	16.4%	-298	-0.3%	-0.3%
City of Chicago	2	N/A	N/A	713	N/A	N/A
Downers Grove	10,248	7.4%	8.2%	868	0.6%	2.0%
Lisle	9,152	8.4%	8.4%	6,300	5.4%	6.7%
Milton	10,468	9.7%	10.1%	-1,565	-1.3%	-1.3%
Naperville	36,203	73.1%	74.1%	9,699	11.3%	12.5%
Wayne	23,397	57.9%	58.2%	4,531	7.1%	10.0%
Winfield	7,186	18.9%	18.9%	2,696	6.0%	8.3%
York	4,007	3.3%	3.4%	2,174	1.7%	3.0%
TOTAL	122,495	15.7%	16.0%	26,367	2.9%	4.8%

Sources: 1990 US Census; 2000 US Census; 2008 American Community Survey

Figure 2-12 shows population growth by township for the period of 2000 to 2008. During this time, the population of DuPage County grew by 26,367 individuals, from a total of 904,161 to 930,528 residents. The highest rate of growth has occurred in the western and southwestern townships, with Naperville Township showing 11.3 percent growth from 2000 to 2008. The eastern townships have experienced slower rates of growth, while the north central townships have declined in population slightly.

Figure 2-12: 2000 – 2008 Population Growth by Township

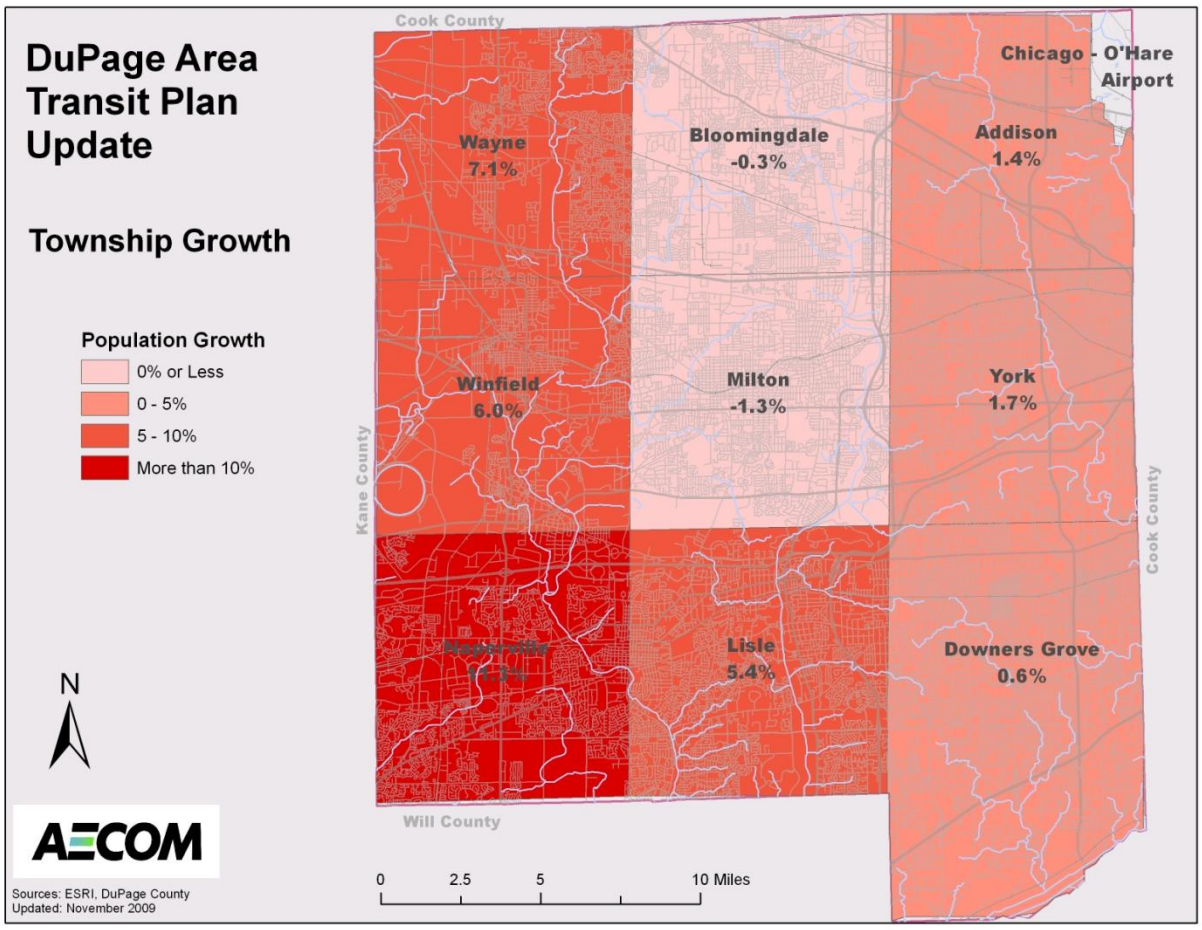
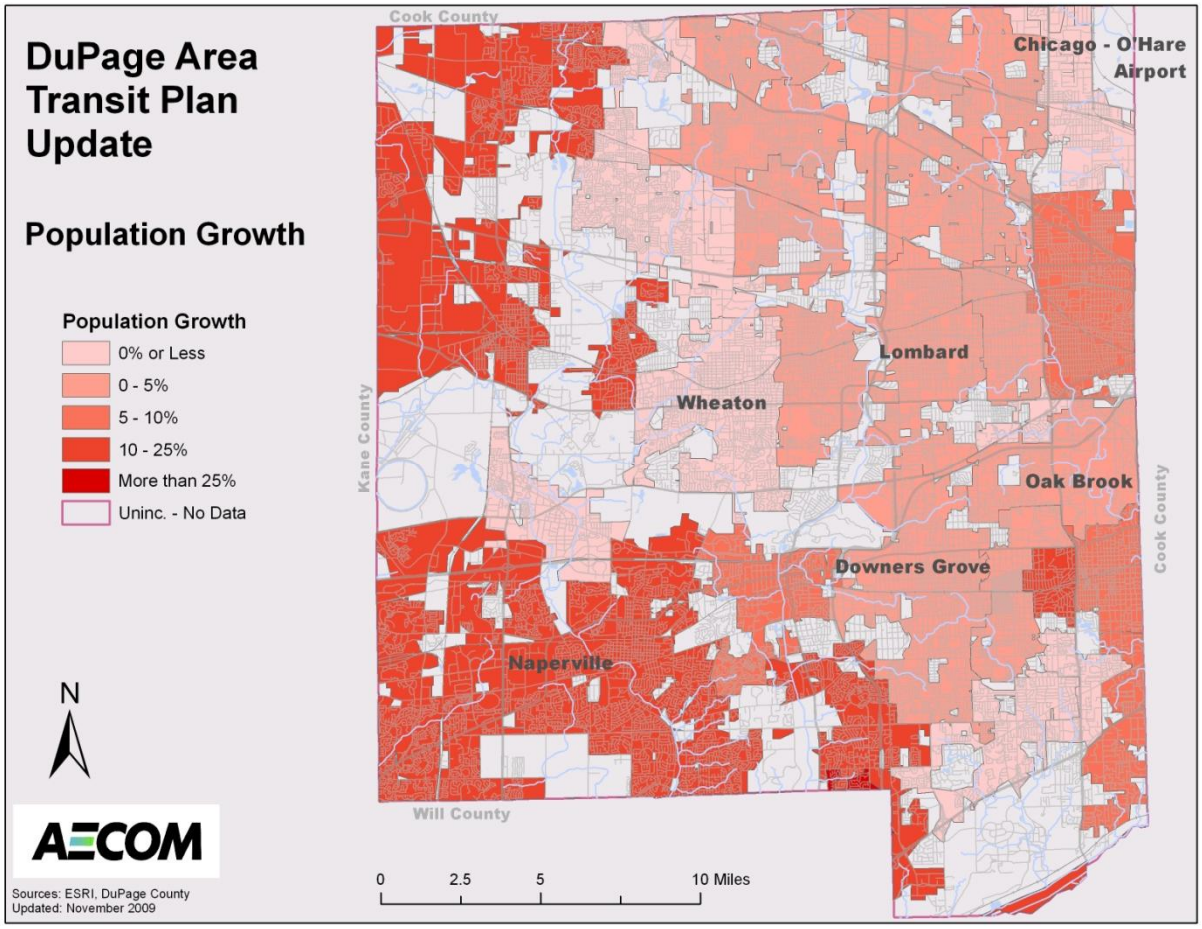


Figure 2-13 shows population growth by municipality from 2000 to 2008. It should be noted that this data does not include the unincorporated areas of DuPage County that are not part of a city, town, or village. Reflecting the population growth rates of the townships in which they belong, municipalities along the western and southwestern edges of the county have experience the greatest rates of population growth, particularly Aurora (20.1 percent), Bartlett (15.0 percent), Winfield (14.5 percent), West Chicago (12.7 percent), and Naperville (11.5 percent), among others. Towns and villages along the eastern and northeastern portions of the county generally also experienced growth, but to a lesser degree, including Elmhurst (7.6 percent), Lombard (1.3 percent), and Downers Grove (1.1 percent). The north central and

southeastern corners of the county actually declined slightly, including Warrenville (-2.5 percent), Willowbrook (-2.5 percent), Darien (-2.1 percent), Wheaton (-1.7 percent), and Carol Stream (-1.1 percent).

Figure 2-13: 2000 – 2008 Population Growth by Municipality



Employment and Unemployment

According to *Moving Beyond Congestion*, the Chicago region added 257,000 commuters from 1990 to 2000, two thirds of which were within the suburban counties surrounding Cook. DuPage County is estimated to have added an additional 18,640 jobs from 2000 to 2007, bringing the total number of jobs within the county from 649,989 to 668,629. By 2030, the Northeastern Illinois Planning Commission (NIPC, now a part of CMAP) estimates that there will be 830,394 jobs located within DuPage County, representing a growth rate of 27.8 percent over 2000 employment levels. Figure 2-24 shows projected employment growth rates, as predicted by the NIPC, for DuPage County municipalities (again excluding the unincorporated portions of the county). Cities, towns and villages along the western edge and southwestern portion of the county are projected to experience the most growth in employment, while growth is expected

to be more modest in the eastern and northeaster portions of the county. This closely reflects projections for residential growth.

The central portion of DuPage County, as defined in the *Cook-DuPage Corridor Study*, is the economic engine for the county with nearly 750,000 jobs. Employment is most dense throughout the I-88 corridor and surrounding O'Hare. Forty-five percent of the corridor's jobs are in the communications, transportation, and utility sectors, while nearly 40 percent are in service industries.

Overall unemployment in DuPage County increased by 5.0 percentage points, from 3.3 percent in 2000 to 8.3 percent in 2010. These unemployment rates reflect the recession affecting the entire country in the late 2000s, but are still generally lower than in surrounding counties – unemployment increased by 5.9 percentage points for the Chicago-Joliet-Naperville-IL-IN-WI MSA (Chicagoland region), from 4.3 percent in 2000 to 10.2 percent in 2010.

Income and Automobile Availability

This section discusses income and automobile availability, two factors that are used to determine transit need and potential. It should be noted that data for Winfield Township, which is the least populous in the county (west central), was not available in the American Community Survey and has been left out of this section. Table 2-6 shows median household income for each township in both 2000 and 2008, as well as 2008 income in 2000 dollars. Countywide, median incomes increased by $10,000 per household over the eight-year period. However, median incomes in constant year dollars actually decreased in every township in the county. Median incomes were the highest in the central and western parts of the county (Wayne, Naperville and Milton Townships) and the lowest in the northeastern portion of the county (Addison, Bloomingdale and York Townships), although the lowest (Addison) was still $62,200 per household, which is not particularly low.

Table 2-6: Median Household Income by Township for 2000 and 2008

Township	2000 Median Income	2008 Median Income	2008 Median Income (In 2000 Dollars)
Addison	$58,123	$62,200	$49,748
Bloomingdale	$63,065	$69,306	$55,431
Downers Grove	$69,345	$79,297	$63,422
Lisle	$72,432	$78,444	$62,740
Milton	$71,067	$80,636	$64,493
Naperville	$74,436	$84,089	$67,255
Wayne	$80,942	$96,965	$77,553
Winfield	$65,861	N/A	N/A
York	$63,084	$74,430	$59,529
TOTAL	$67,887	$77,033	$61,611

Sources: 2000 US Census; 2008 American Community Survey; Bureau of Labor Statistics

Table 2-7 shows the proportion of individuals below the poverty level by township for 2000 and 2008. The townships with the highest proportion of individuals living below the poverty level can be found in the northeastern part of the county, in Addison and Bloomingdale Townships. On the other hand, Wayne Township, located in the northwestern corner of the county, had the smallest proportion of residents living below the poverty level. With the exception of Wayne Township, the proportion of residents below the poverty level increased in every township.

Table 2-7: Population below Poverty Level by Township for 2000 and 2008

Township	2000 Poverty Level		2008 Poverty Level	
	Number	Percent	Number	Percent
Addison	5,267	6.0%	8,091	8.9%
Bloomingdale	4,767	4.3%	8,046	7.7%
Downers Grove	4,279	2.9%	6,097	4.1%
Lisle	3,421	3.0%	8,377	7.0%
Milton	4,260	3.7%	6,554	5.5%
Naperville	2,203	2.6%	3,188	3.4%
Wayne	1,483	2.3%	1,045	1.6%
Winfield	2,205	4.9%	N/A	N/A
York	4,278	3.5%	6,669	5.4%
TOTAL	32,163	3.6%	52,131	5.7%

Sources: 2000 US Census; 2008 American Community Survey

Table 2-8 shows automobile availability for each township for 2000 and 2008. Generally, vehicle ownership has increased, with the proportion of households with zero cars decreasing from 4.4 percent in 2000 to 2.0 percent in 2008. In addition, proportion of households with only one car has decreased by 13 percentage points, while the proportion with two or more cars has increased by 15.4 percentage points, showing a significant increase in automobile ownership throughout the county.

Table 2-8: Automobile Availability

Township	Zero Cars		1 Car		2 or More Cars	
	2000	2008	2000	2008	2000	2008
Addison	5.1%	2.8%	30.5%	18.0%	64.4%	79.2%
Bloomingdale	4.2%	1.4%	28.7%	19.5%	67.0%	79.1%
Downers Grove	4.8%	0.9%	31.8%	17.8%	63.4%	81.3%
Lisle	3.9%	2.9%	29.8%	16.4%	66.3%	80.7%
Milton	4.2%	3.7%	31.3%	18.7%	64.6%	77.6%
Naperville	3.1%	1.8%	31.6%	24.5%	65.2%	73.7%
Wayne	2.1%	1.3%	16.4%	8.8%	81.5%	89.9%
Winfield	2.9%	N/A	28.3%	N/A	68.8%	N/A
York	6.4%	1.8%	33.0%	13.3%	60.5%	84.9%
TOTAL	4.4%	2.0%	30.0%	17.0%	65.6%	81.0%

Sources: 2000 US Census; 2008 American Community Survey

Land Use

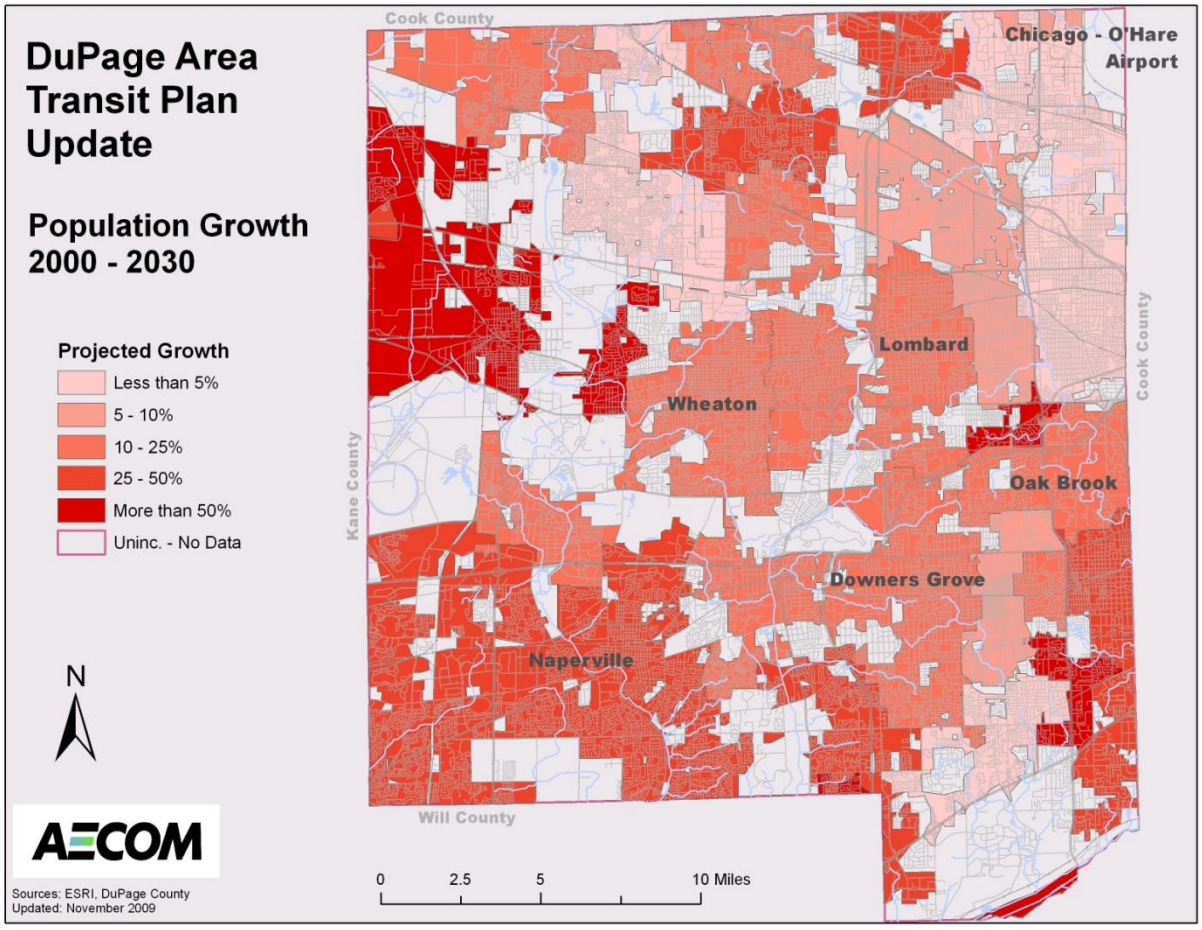
Land use characteristics have a big effect on transit use and success. Development patterns may be transit unfriendly, particularly low density residential areas that do not provide easy connections to arterial streets, and commercial and retail areas that are set back from the street. These types of developments require either indirect bus route paths that reduce the efficiency of the route or a long walk for passengers to access bus routes, potentially through dangerous parking lots and/or along streets without sidewalks or street lighting. Many areas in DuPage County have been developed in this fashion and are extremely difficult to serve effectively with transit. Furthermore, the impacts of transit unfriendly land use decisions are directly related to increased operating costs, caused by longer travel times and reduced productivity of the service. A lack of accessibility to transit stops results in reduced service coverage (fewer people who live close to a transit stop are actually within walking distance), which means less ridership and a decreased frequency of service.

Improved land use planning is an important tool to promote transit as an option. Area studies, such as *Go To 2040* and *DuPage County Land Use Assumptions 2010-2030*, recommend that new development and redeveloped areas be transit oriented, specifically calling for dense, mixed-use developments along transit routes and around transit nodes. In addition, Pace is currently involved in completing the *Pace Development Guidelines* project, which will seek to address many of these topics. While the *DuPage Area Transit Plan Update* project does not provide specific recommendations for land use planning, developers, local government, and transit service providers must coordinate to ensure transit access and service, especially for low income housing, senior housing, and other projects geared toward communities that are more transit dependent.

Future Trends

DuPage County has grown steadily over the past few decades, and is projected to continue growing through the year 2030, even though the pace of growth has slowed since 2000. Figure 2-14 shows projected rates of population growth by municipality for 2000 – 2030, as cited in the *DuPage County Land Use Assumptions* from the NIPC's 2030 forecasts. This data is only for municipalities and does not include the unincorporated portions of the county. The highest rates of growth are generally projected for southern and western municipalities with lower growth rates for the central and northeastern areas; however, this pattern is less distinct than with the 2000 to 2008 growth figures. The highest rates of growth are projected for Wayne (122.5 percent), Willow Springs (97.2 percent), Oakbrook Terrace (93.4 percent), West Chicago (77.4 percent), Winfield (74.8 percent), Willowbrook (62.5 percent) and Burr Ridge (39.3 percent). Bensenville and Hanover Park are projected to decline. For a full listing of population projections by municipality, see Appendix D.

Figure 2-14: 2000 – 2030 Projected Population Growth by Municipality

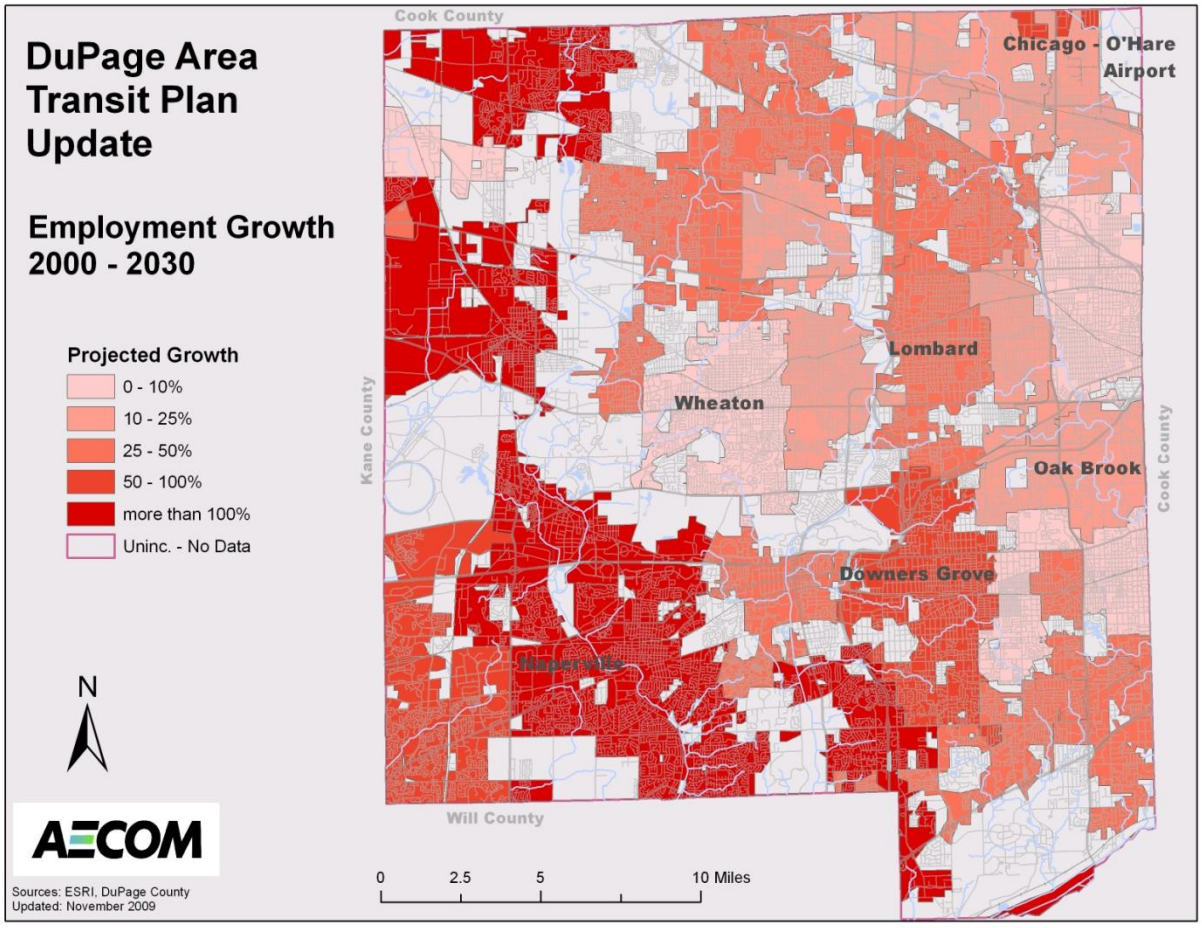


In addition to population growth, DuPage County is projected to experience growth in employment over the next few decades. The *Cook-DuPage Corridor Study* points to NIPC employment projections highlighting rapid growth in jobs in the far western portion of the county, as well as consistent growth county-wide, from 2000 to 2030. Overall, employment in the corridor is expected to increase by 20 percent in the 30-year timeframe, outpacing population growth and solidifying the heart of DuPage County as a net importer of workers. Importantly, employment is expected to grow even in areas where population is projected to decline.

It should be noted that these numbers do not fully reflect employment growth in DuPage County: not only does this data not include the unincorporated portion of the county, but many of these municipalities span multiple counties and thus not all jobs included will be located in DuPage. Municipalities expected to experience the greatest job growth percentage-wise include: West Chicago (215.5 percent), Woodridge (151.9 percent), Warrenville (143.5 percent), Lemont (141.8 percent), and Naperville (126.5 percent). Municipalities expected to experience the greatest growth in number of jobs include: Naperville (83,722 additional jobs, split with Will

County), Aurora (43,534 additional jobs, split with Kane County), Elk Grove Village (36,853 additional jobs, split with Cook County), Schaumburg (23,541 additional jobs, mostly in Cook County), West Chicago (24,800 additional jobs) and Downers Grove (20,925 additional jobs). For a full listing of employment projections by municipality, see Appendix E.

Figure 2-15: 2000 – 2030 Projected Employment Growth by Municipality



Source: *DuPage County Land Use Assumptions*

2.4.3 Overview of Travel Patterns

This section describes how travel patterns and the roadway network have changed since the *DuPage Area Transit Plan* was released in 2002, as well as future plans for roadway improvements. Included is journey to work data showing the proportion of commuters who use public transportation versus other modes. Overall travel patterns can be summarized as falling into two major groups: journey to work or commuter trips, and non-commute trips. Commuter trips can be further broken down into the traditional (suburb-to-city center) commutes, reverse (city-to-suburb) commutes, and intersuburban (suburb-to-suburb) commutes. This section focuses on commuting patterns, for which data is available via the United States Census (2000) *Census Transportation Planning Package* (CTPP). Although a growing transit market in the Chicago region, there is little data regarding non-commute trips, thus these are mentioned only briefly.

According to the *Cook-DuPage Corridor Study* more than one million new home-to-work trip origins will be added in the Chicago region from 2000 to 2030. Additionally, over the same period, daily home-based non-work trips will increase by nearly 1.1 million and daily non-home-based trips will increase by 1.7 million, representing 27 percent and 32 percent growth, respectively. Over 100,000 of these new work trip origins will be located within DuPage County, as will 130,000 additional work trip destinations. Much of this growth will be concentrated in the western portion of DuPage County, where growth rates will exceed 30 percent.

Moving Beyond Congestion provides a similar regional view. It projects 28 percent growth in total daily person trips over the period from 2000 to 2030, which is an increase of 6 million trips each day (from 22.9 million to 29.3 million trips). Specifically, the study projects work trips to grow from 2.7 million to 3.5 million over the same period, with the largest area of growth in central Chicago, with 100,000 additional trips. The highest growth corridors according to *Moving Beyond Congestion* will include the north-south corridor in western DuPage County (Route 59), and the east-west corridor following the BNSF and UP-W rail lines and I-88 across DuPage County.

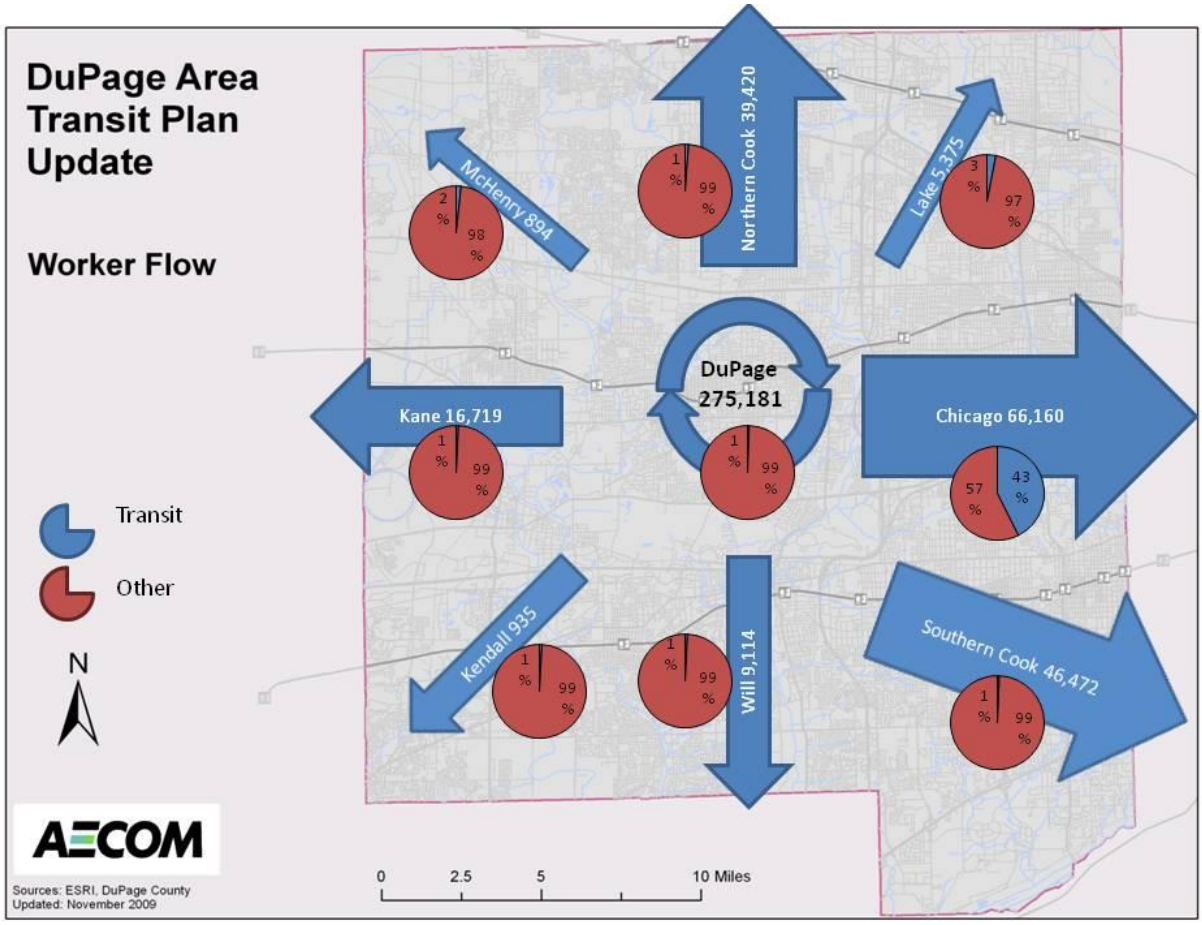
While this study takes into account data included in the *Cook-DuPage Corridor Study* and *Moving Beyond Congestion*, it uses data acquired independently from the CTPP focusing specifically on travel to and from DuPage County. Data from the *Cook-DuPage Corridor Study* is somewhat limited in applicability for this particular analysis as it leaves out all of DuPage County north of the MD-W Line and south of the BNSF Line, and is focused on a larger area including part of Cook County. Additionally, worker flow data does not include cross-county commutes for which trips neither start nor end in DuPage County, as these do not represent transit demand for service in the county.

East-West cross-county trips would be made primarily on Metra Rail and Arterial Bus Rapid Transit, and would not affect transit service to/from the county. North-south cross-county trips would be made either on the proposed STAR Line (in the far western portion of the county) or suburban link bus service. The difficulty in implementing and maintaining cross-county transit travel in the north-south direction is demonstrated by Pace Bus Route 655 service, which connected Bolingbrook in Will County to Schaumburg in Cook County and was eliminated due to the failure to secure viable park-and-ride locations accessible to the expressway facility, implementation of proposed local connecting services, non-transit supportive land use resulting in longer travel times to serve developments and inadequate pedestrian access resulting in low ridership.

County-to-County Worker Flow

The US Census generally records commuting patterns in terms of town-to-town or county-to-county movements. Figure 2-16 shows commuting patterns from DuPage County to surrounding counties in northeastern Illinois. Neighboring Cook County is divided into three distinct sections: City of Chicago, northern Cook County (for the purposes of this section, refers to all townships north of the DuPage County/Cook County line/Devon Avenue and east to Lake Michigan excluding the City of Chicago) and southern Cook County (for the purposes of this section, refers to all townships south of the northern DuPage County/Cook County line/Devon Avenue - excluding the City of Chicago). Cook County was divided into these sections in order to show the different mode split for transit between those commuting to the central city of Chicago, those accessing the western and southern suburbs (many of which can be accessed via Metra Rail from DuPage County without traveling to Downtown Chicago to transfer) and the northern suburbs (which are more difficult to reach from DuPage County via transit).

Figure 2-16: Worker Flow - DuPage County Residents

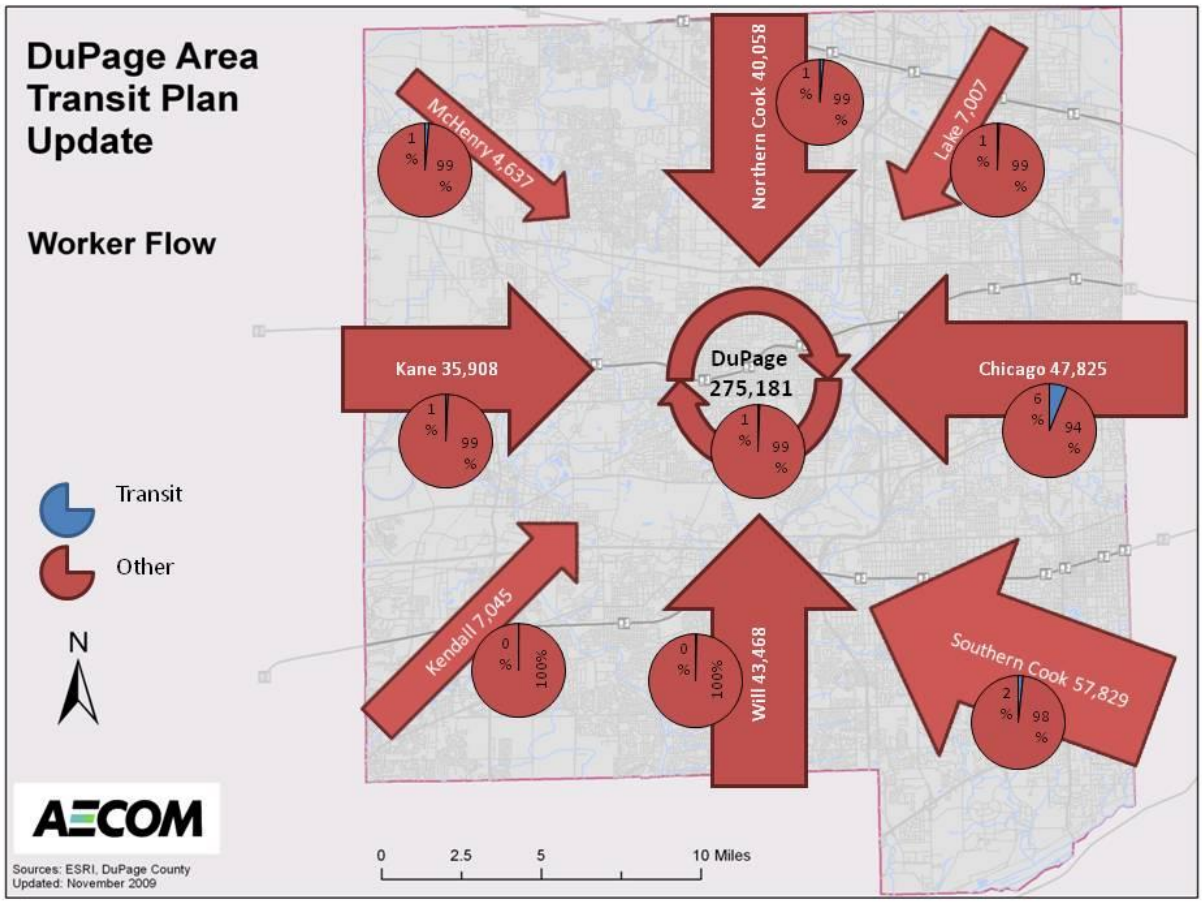


Source: *2000 Census Transportation Planning Package*

According to the figure above, the largest group of commuters (275,181) from DuPage County travel to work locations within the county. The largest group working outside the county, comprising 66,160 individuals, travel to jobs in the City of Chicago. Substantial groups also commute to southern Cook County (46,472) and northern Cook County (39,420). Fewer individuals travel to jobs in the other surrounding counties. The only commuter group traveling from residences in DuPage County that shows a substantial transit mode share is the commuter segment traveling to work in the City of Chicago – 43 percent of these commuters travel to work using transit. Otherwise, three percent of commuters to Lake County travel by transit, two percent of commuters to McHenry County use transit, and one percent of commuters to all other locations use transit.

Figure 2-17 below shows worker flow into DuPage County from surrounding counties.

Figure 2-17: Worker Flow - DuPage County Employees



Source: *2000 Census Transportation Planning Package*

The figure above reflects DuPage County's role as an employment center for the region. With the exception of the City of Chicago, more people commute into DuPage County from each of the surrounding jurisdictions than out of DuPage County. The largest group commutes in from southern Cook County (57,829), followed by the City of Chicago (47,825), Will County (43,468), northern Cook County (40,058), and Kane County (35,908). Fewer, but still significant numbers, of people commute from Kendall, Lake, and McHenry Counties. Again, the largest group commuting to jobs within DuPage County also resides within DuPage County (275,181). In contrast to those commuting into Chicago, only six percent of individuals commuting from the City of Chicago to DuPage County do so by transit. This likely reflects difficulties in the "last mile" of the commute – commuters likely encounter difficulty in getting from the Metra Rail station to their employment location, as well as limited reverse-peak schedules on Metra Rail lines, particularly for travel between certain stations. Also, two percent of commuters from southern Cook County used transit for their commutes. Otherwise, one percent of fewer commuters from within DuPage County and other surrounding counties used transit for their commutes. See Appendix F for a summary table of the mode split of workers commuting into

and out of DuPage County (which was shown in Figures 2-16 and 2-17 above). See Appendix G for further detail on US Census data regarding journey to work.

Trip Types

The following sections describe each of the major travel patterns in DuPage County, including traditional, reverse, and intersuburban commutes as well as non-commute trips. See Appendix H for a discussion of changes in travel times due to regional growth.

Traditional Commute

The traditional commute marks the largest group of DuPage residents traveling out of DuPage County for employment. Of the approximately 66,000 individuals commuting from DuPage County to the City of Chicago, 43 percent commute using transit, the largest group of individuals using transit who commute either from or to DuPage County. This proportionately large transit usage reflects that this is the type of trip that is best served by transit in DuPage County – three commuter rail lines with multiple stations served by park-and-ride lots and commuter services connect the county to downtown Chicago. Much of the county's transit service, particularly the commuter service, either only operates during peak periods or operates most frequently during peak periods, as it is generally geared toward individuals with a traditional commute. The largest groups of workers commuting to Chicago by transit are clustered along Metra's BNSF Line, including 12.1 percent of employed residents of Naperville Township, 8.2 percent of employed residents of Downers Grove Township, and 7.7 percent of employed residents of Lisle Township.

Over the past decade, ridership on Pace bus has declined – including those routes serving CTA Rapid Transit stations – while ridership on Metra has increased – largely in part due to service cuts resulting in reduced hours and miles of service provided. Still, the traditional commute continues to represent the market with the greatest transit share, heavily influenced by the limited availability and comparatively high price of parking in the Chicago core. This market is expected to grow over the years up through 2030 as the number of jobs in the Chicago core continues to grow. This growth is not limited to the immediate downtown Loop and Financial District neighborhoods, but also employment expansion in neighborhoods such as the North Loop, South Loop and Medical Center.

Reverse Commute

The reverse commute, for the purpose of this study, represents those individuals who live in the City of Chicago and commute to DuPage County for work. This could also include those individuals living in suburban Cook County (south of Devon Avenue), from which a transit trip to DuPage County would either require travel into downtown Chicago, then a connection to travel from downtown to DuPage County or would require an outbound trip along routes leaving Chicago toward DuPage County. This group is comprised of a large number of individuals, with 47,825 commuting to DuPage County from the City of Chicago and an

additional 57,829 commuting to DuPage County from the southern portion of Cook County (south of Devon Avenue).

As compared to the traditional commute, transit use for reverse-commuters is low, with only six percent of commuters from the City of Chicago using transit and only two percent of commuters from southern Cook County using transit. This is likely due to several factors:

- Transit services (particularly commuter rail) are generally geared toward the traditional commute, with service operating much more frequently in the traditional commute direction than in the reverse commute direction.

- Commuters can reach DuPage County from Chicago and southern Cook County using Metra Rail, but transit options are limited for reaching employment locations after arriving in DuPage County. Pace shuttle services are generally oriented toward connecting DuPage County residents to Metra Stations rather than serving employers.

- Prevailing local area land uses do not conform to characteristically pedestrian and transit friendly environments. Low density development removed from arterials and surrounded by large parking lots, rather than more dense and mixed use developments that are adjacent to arterial streets and transit, promote automobile use and are difficult to effectively serve with public transportation.

- Parking is abundant and inexpensive (or free) at most DuPage County employment locations, thus encouraging individuals to drive to work. Parking is much more limited and costly in central Chicago, encouraging those with a traditional commute to use transit instead.

- Some area employers, such as Office Max, provide their own shuttles to and from Metra Rail stations for their employees.[9]

Regardless of the above, the reverse commute market is growing for both Metra and Pace. According to *Moving Beyond Congestion*, the proportion of City of Chicago residents commuting to the suburbs increased from 24 percent to 30 percent over the period from 1990 to 2000. In the same period, reverse commuting from suburban Cook County to suburban employment outside of Cook County increased from 14 percent to 18 percent. Overall, the rate of increase for reverse commuting was 1.75 times that of traditional commuting. According to Pace Bus, one key market is bringing people from Cook County to DuPage County for service

[9] Wronski, Richard. In the Chicago Tribune at http://articles.chicagotribune.com/2010-02-07/news/chi-100206-pace-cuts-story_1_homewood-metra-pace-routes-pace-service-cuts/2Pace Route Cuts Force Riders to Scramble. Accessed November 2010

jobs; however, many people commuting from elsewhere to DuPage County find that the "last mile" from the train station to place of work is often not served by transit.

Intersuburban Commute

A rapidly growing type of work trip is the intersuburban, or suburb-to-suburb commute. As shown in Figures 2-26 and 2-27, more than 275,000 DuPage County residents commute to employment sites within DuPage County, rather than into Chicago. Additionally, a large number of DuPage Residents commute to jobs in suburban Cook County (39,420 in northern Cook County and 46,472 in southern Cook County) and nearly 17,000 DuPage residents commute to jobs in Kane County. Similarly, large numbers of employees commute into DuPage County from suburban Cook County (97,887), Will County (43,468), and Kane County (35,908), with other significant numbers commuting to DuPage from Kendall, Lake, and McHenry Counties. While this market is substantially larger than the traditional commute market, the proportion of commuters using transit services is much smaller, averaging a mere one percent.

As demand for this type of trip increases, transit services will have to adapt in order to serve them. Within DuPage County, Pace Bus has traditionally been heavily aimed toward shuttling suburbanites to Metra Rail stations to reach jobs in central Chicago, and has not provided services connecting suburban hubs. However, this type of trip is often difficult to serve, as bus service is often not fast enough to compete with the private automobile, and demand is generally too small or too dispersed for rail service to be viable. Currently, there are many proposals for both bus and rail transit services for this market, including the connector routes and the J Line from the *DuPage Area Transit Plan*, the STAR Line (particularly the Outer Circumferential segment), and numerous Arterial Rapid Transit (ART) and Bus Rapid Transit (BRT) corridors recommended by Pace, RTA, and other organizations.

Non-Commute Trips

While a majority of transit trips are made to work or school, according to *Moving Beyond Congestion*, recent ridership growth has been focused in the off-peak and during non-traditional commuter periods. Over the past decade, 85 percent of CTA ridership growth has occurred outside the weekday peak periods, and 100 percent of ridership growth on CTA buses has occurred outside the peaks. Metra and Pace have experienced growth that has been concentrated outside the peak periods as well as in the reverse commute. The increased demand for non-commute trips could reflect rising gas prices, increasing unemployment and stagnant wages (transit is generally more affordable than driving), as well as an increasing "green" mentality.

Non-commute trips also may demand a different type of service – riders during the off-peak may be more likely to travel to shopping and entertainment districts, such as Oakbrook Center and Chicago's Near North Side, or make shorter trips between residential areas, local shopping centers, or to other residential areas to visit friends or relatives. For example, community

shuttle services during the off-peak may serve riders traveling from one part of a community to another, rather than to the nearest Metra Rail station as is common during the peaks.

Day Laborer Vans

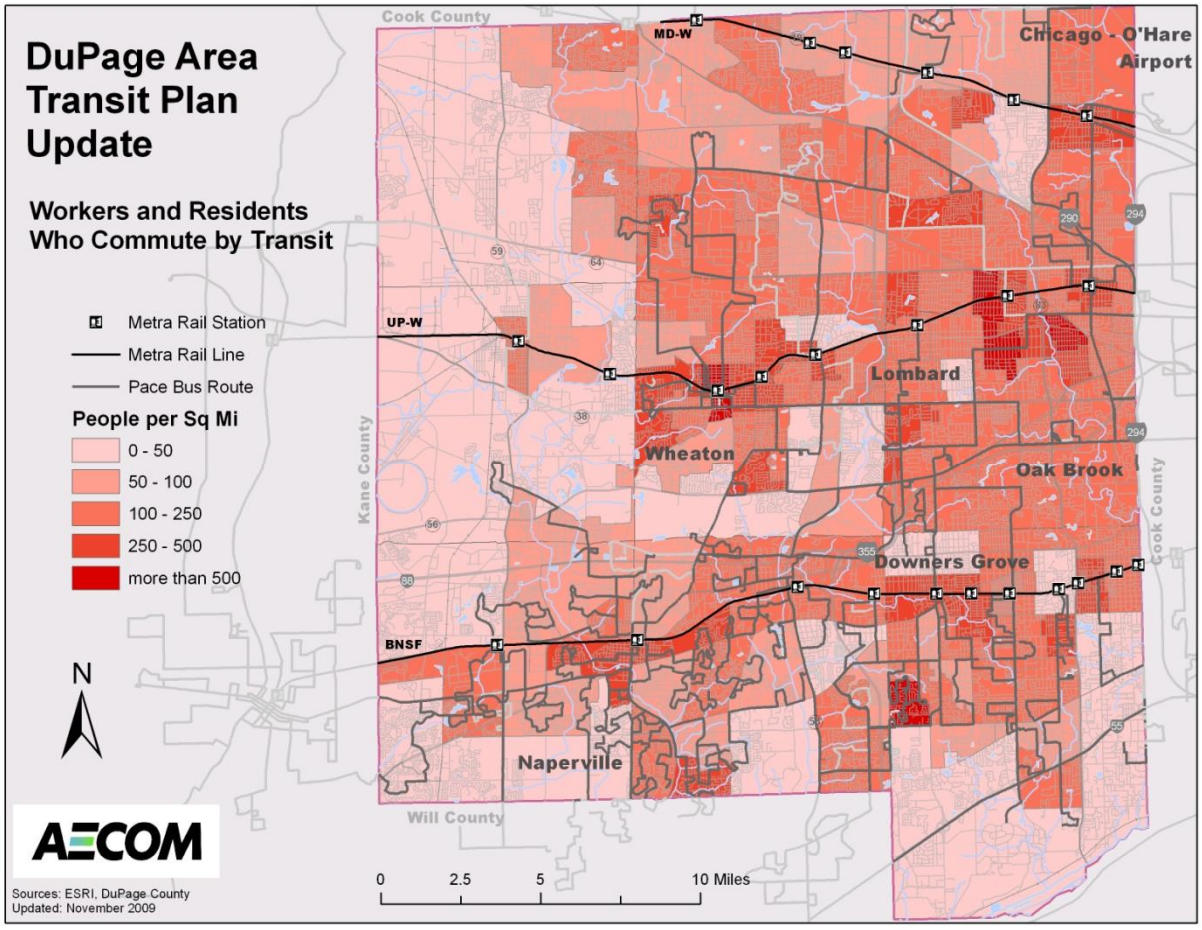
An additional commuter market that must be considered is that of day laborers – generally immigrant workers who seek out "under-the-table" employment on a short-term basis. According to Pace, there is currently a market for day labor "shuttle" vans in the Aurora and West Chicago areas of DuPage County. These vans are run by employers and are unregulated, often charging as little as $1 for fares at the beginning of the week, then leveraging their monopoly status to charge workers as much as $10 by the end of the week.

Travel Patterns

This section describes travel patterns in DuPage County based on data from the 2000 U.S. Census (mode split is not available in the 2008 American Community Survey) and as described in previous studies such as *Moving Beyond Congestion* and the *Cook DuPage Corridor Study*. A summary of key transit travel markets is shown below. Further information, including maps showing residential density and transit use, as well as employment density and employee transit use, are included in Appendix I.

Figure 2-18 is a summary map of workers and residents in DuPage County that commute by transit – it represents all origins and destinations for work trips made on public transit with one or both ends in DuPage County. The map shows the density (people per square mile) of county residents who commute by transit combined with the density (people per square mile) of people employed within the county who commute using transit. Thus Census tracts shaded in a darker red represent areas with a large number of residents and/or employees who commute using transit. These areas can be referred to as areas with a greater demand for existing transit service.

Figure 2-18: Combined Workers and Residents Commuting by Transit



The following areas can be identified as having a high demand for transit:

- **Metra BNSF Line Corridor –** The three townships in this corridor, Naperville, Downers Grove, and Lisle, have the top three greatest proportions of residents who commute by transit in DuPage County (out of all nine townships), with 12.1, 8.2 and 7.7 percent of employed residents commuting by transit, respectively, well above the 6.5 percent average for DuPage County. Frequent service along Metra's BNSF Line as well as a dense network of commuter shuttles provide both residents and employees within the corridor easy access to transit, particularly during the peak periods. This high availability of transit no doubt contributes to the high transit usage along this corridor, even as these towns represent some of the highest average incomes and lowest poverty rates in the county, meaning that many transit riders here are "choice riders".

- **Wheaton –** Outside of the BNSF corridor, Wheaton is the portion of the county with the greatest number of commuter shuttles (although several of these have been replaced by fixed route services as part of the *DuPage Area Transit Plan*). The DuPage County government is also located in Wheaton, and is accessible by bus or from Metra's Wheaton Station via Pace Route 747. Milton Township's population density, ranked third for DuPage County townships with more than 3,300 residents per square mile, coupled with a dense downtown, grid street network and generally narrow streets, contribute to the ability to provide regular fixed-route transit service.

- **York Township –** This township, containing some of the older residential neighborhoods in the area, has the highest density of residents of any township in DuPage County with more than 3,600 residents per square mile. It is also home to the dense employment corridor along 22nd Street/Cermak Road and Butterfield Road in Oak Brook and Lombard. This is the only part of the county with regular bus service operating seven days per week and during the evening period.

- **Northeastern DuPage County –** This section of the county includes both residential and employment areas, with light industrial employment particularly surrounding the Chicago-O'Hare Airport complex. Fixed route bus service is provided by Pace near the eastern edge of the county, connecting to CTA Rapid Transit routes in Cook County, but limited service is available otherwise. Routes 711 and 715 were recently extended along Army Trail Road and Lake Street to serve a portion of this area. Most Metra Stations (along the MD-W Line) in this area are not served by commuter shuttles.

2.4.4 Mismatches and Unmet Service Needs

This section describes where there may currently be an oversupply of service (mismatch) or undersupply of service (unmet service need) given the existing Pace Bus and Metra Rail transit network in DuPage County, based on the information provided in sections one and two of this chapter. This list is not intended to recommend service implementation or reduction, but is intended to note locations that may merit a closer look in the future.

Mismatches

- Demand response services in the county are provided through numerous overlapping municipal programs. These services could be streamlined through greater participation in the Ride DuPage program, which would also take advantage of a central dispatch center and economy of scale.
- Subsidized taxi services are often provided in the same locations as demand responsive service. Subsidized taxi service should be provided only when other services are not available.
- Transit access to residential areas of the county is extremely limited, leaving few options for most residents wishing to use transit service outside of the peak periods. This is cited as a growing market for transit in the region.
- Little evening transit service is available, with the exception of Metra Rail and a few bus routes along the eastern border of the county. Off-peak transit trips represent a growing market segment in the region.
- Addison and Wood Dale currently rely on general public demand-responsive service for local circulation. As both towns are compact and dense, these needs may be better served by local circulators.
- Falling ridership on some commuter service routes may be due to lack of bus service flexibility, limited service coverage, service frequency, readily available and inexpensive parking at Metra stations, and increased availability of ownership by DuPage County residents.

Unmet Service Needs

- Lack of local circulation in Lombard and Villa Park
- No service along the Ogden Avenue corridor between Downers Grove and Oak Brook
- No service in the dense area of Elmhurst west of York Road
- No bus connections to Metra Rail stations in the north-central part of the county
- Limited bus service in the dense community surrounding the Wood Dale Metra Station
- Limited bus service to Central DuPage Hospital in Winfield
- No midday transit service to Adventist Hinsdale Hospital
- No transit service to the College of DuPage on weekends
- No bus service in central DuPage County on weekends

2.5 Stakeholder and Public Input

DMMC strongly believes that citizen input is essential to informed decision-making in public planning initiatives. A public participation plan guided the input of local officials, transit agencies, and the public in developing the transit plan, as well as in how the information would be integrated into the decision-making process. Additionally, community outreach is essential to determine if goals, objectives and priorities have changed from 2002.

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

1) Provide 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 to 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 establishes 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. Public Outreach strategies are described below, followed by the results of a survey conducted by the county.

2.5.1 Strategies for Public Outreach and Information Sharing

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

1) Two Technical Advisory Committee (TAC) meetings
2) Two public meetings
3) Internet and email

These strategies are briefly summarized below.

Two Technical Advisory Committee (TAC) Meetings

The prior study had a Transit Plan Advisory Committee and Transportation Policy Committee providing guidance on the work products and process, and for sharing the work progress with others in the community. For the purposes of this study, it was recommended to combine these entities into one committee. Two meetings were held, one following completion of each technical memorandum.

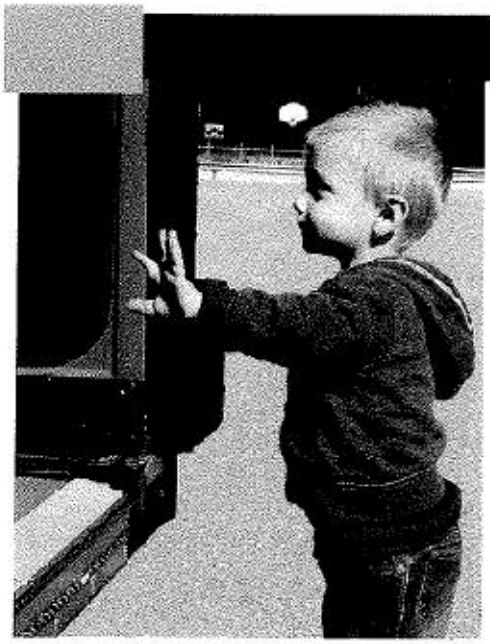
Two Public Meetings

It was recommended to combine the prior efforts of the Community Listening sessions and Public Choice Forums into general public meetings for this update effort. These meetings included DuPage County staff and representatives from Pace, Metra and the RTA and were open to community leaders and residents. Meetings were held on November 8, 2010 at the College of DuPage and November 10, 2010 at Stratford Square Mall. Both meetings were well-publicized – see flyer in Figure 2-19. At each session, PowerPoint presentations were given highlighting the original, 2002 *DuPage Area Transit Plan*, reasons for updating that plan and challenges facing the region moving forward. The meetings were open to comments and questions. Attendees were also encouraged to complete a survey, found on the *DuPage Area Transit Plan* website, the results of which are included in the following section.

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 aspect of the project could be submitted through the web site. A link was also provided from the website directing people to complete a survey regarding public transportation in DuPage County. Other outreach efforts such as paper media and local cable channels were also pursued to spread the word about the project.

Figure 2-19: Public Meeting Announcement



DuPage Area Transit Plan

Take me to 2020, please!

The residents of DuPage County developed the **DuPage Area Transit Plan** in 2002. The Transit Plan outlined a vision for a new, integrated transit system to meet our future mobility needs.

DuPage has changed since 2002. So have you. Let's make sure that the Transit Plan still reflects who we are today and where we want to be in 2020.

Please share your transit choices at one of two public meetings, or visit **www.dupagetransitplan.com** to learn more about the plan update process and how you can help shape the future of DuPage County!

The future of transit. Your choice. Your voice.

PUBLIC MEETINGS

Public meetings to update the official transit plan for DuPage County

Monday, November 8
6:00 PM - 8:00 PM

College of DuPage
Student Resource Center
Room 1544
425 Fawell Blvd.
Glen Ellyn, IL

Wednesday, November 10
2:00 PM - 4:00 PM

Stratford Square Mall
Upper Level
Near Carson Pirie Scott
152 Stratford Square
Bloomingdale, IL

Can't attend or need more information? Visit **www.dupagetransitplan.com** to learn more about the Transit Plan Update and participate by survey between November 8 and November 22.

Plan to attend either of the above two open house public meetings for approximately 30 minutes to:

- Learn about the DuPage Area Transit Plan
- Find out what has been accomplished and how DuPage County has evolved since 2002
- Help update the Transit Plan by sharing your opinions

The DuPage Area Transit Plan Update is sponsored by DuPage County, in cooperation with the DuPage Mayors and Managers Conference. Funding is provided by the Regional Transportation Authority and DuPage County.

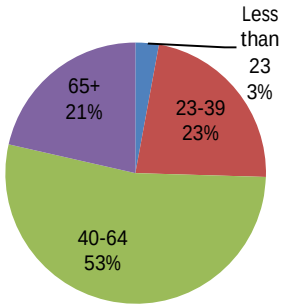
2.5.2 Online Survey Results

An online survey was conducted by the county via Survey Monkey in conjunction with the public meetings during fall-winter 2010 in order to facilitate public input on transit preferences and priorities. The results of that survey are presented below.

Respondent Demographics

Over 400 respondents completed the survey – the maximum number to answer any particular question was 424, answering the question regarding age. Respondents are broken down by age below:

Figure 2-20: Respondent Age

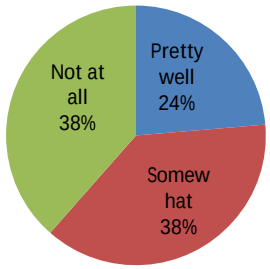


The respondent group was 55 percent male and 45 percent female, with more than half of all respondents falling into the 40-64 age bracket. Of respondents who live in DuPage County, the most well-represented jurisdictions were Carol Stream (96), Wheaton (72) and Woodridge (54). Of respondents who worked in DuPage County, Wheaton had the most representation (40).

Transit Meeting Need

When asked whether transit currently meets their needs or desire to take it, out of 326 respondents, 62 percent considered current transit service to match their needs or desire to take it “pretty well” or “somewhat”. Thirty-eight percent felt transit did not meet their needs.

Figure 2-21: Transit Meeting Need

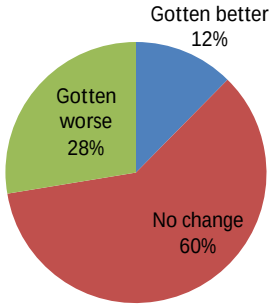


When asked what would better meet respondents' needs, frequent responses included a desire for a greater frequency of trips or longer span of service, as well as better coordination with Metra schedules. Others cited a desire for better connections to necessary destinations such as shopping and medical facilities or to locations that are currently served, as well as a desire for improved north-south connections.

Change in Service

When asked whether transit service in DuPage County has changed in the past three years, a majority of respondents stated that it has not changed. Twelve percent cited improvements, while 28 percent thought it had gotten worse.

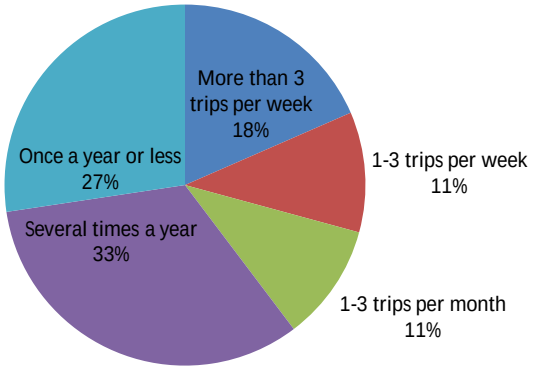
Figure 2-22: Change in Transit Service



Frequency of Transit Use

Most respondents (60 percent) stated that they only used transit once per year or less, or several times per year. Eighteen percent cited using transit more than three times per week.

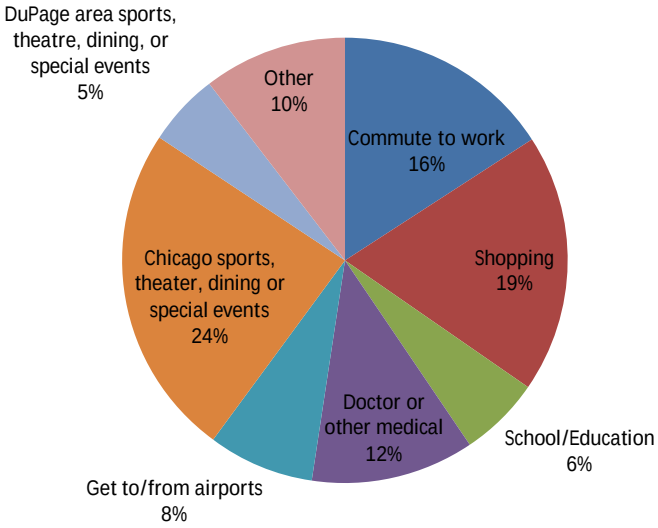
Figure 2-23: Frequency of Transit Use



Types of Trips

Respondents were asked what types of trips they take most often on transit. The most frequently cited reasons were to attend sports/theater/special events (24 percent), for shopping (19 percent), or to commute to work (16 percent).

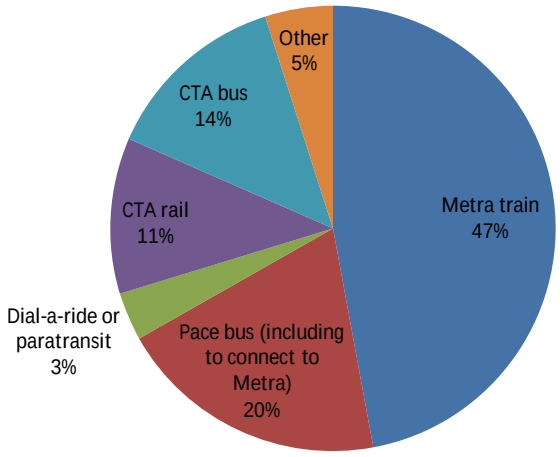
Figure 2-24: Types of Trips



Type of Service Used

When asked what type of transit they usually use, nearly half of respondents cited Metra rail as the most frequent. This was followed by Pace bus service, then CTA bus and rail services. The "other" category primarily comprised those who used community outreach buses.

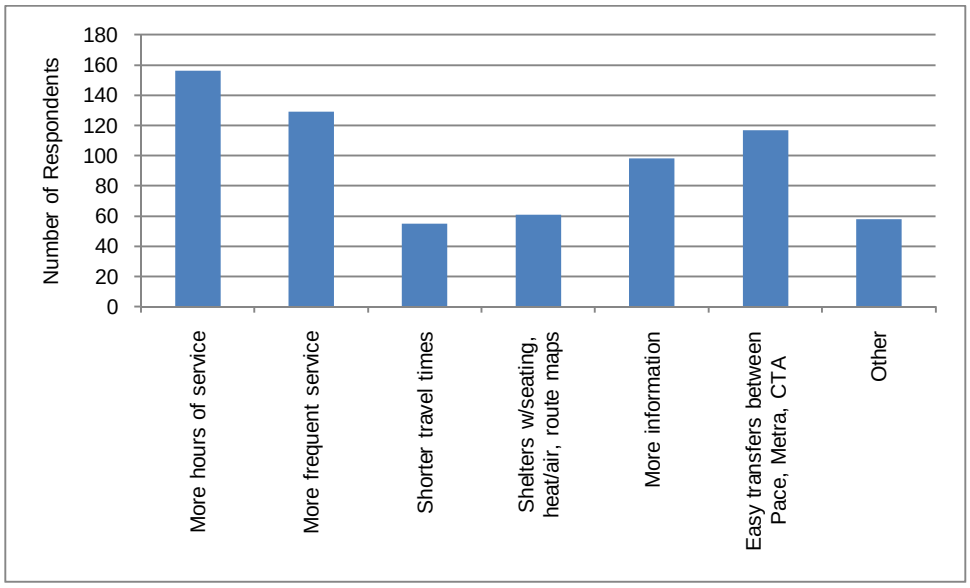
Figure 2-25: Type of Service Used



Changes to Transit Service

Respondents were asked: "What two changes would most likely increase your use of transit?" The most common responses were more hours of service and more frequency of service.

Figure 2-26: Changes to Transit Service



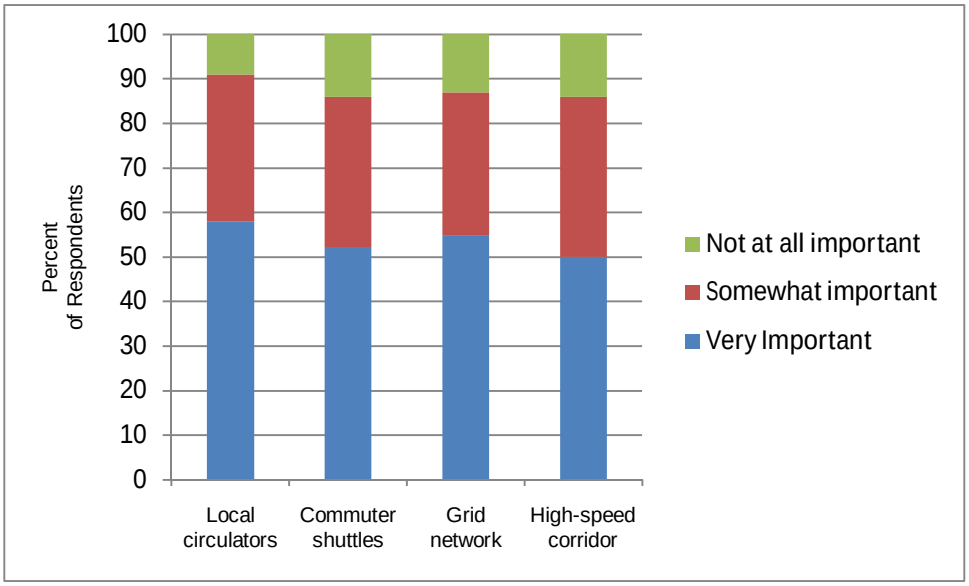
Service Attributes

Respondents were asked how important several service attributes were in the future of transit in DuPage. These service attributes comprised the four main service types proposed in the 2002 *DuPage Area Transit Plan*, including the following:

- Local circulators that provide all day mobility to healthcare, colleges, major shopping centers, Metra stations, and other destinations within your community
- Commuter shuttles connecting Metra Stations and workplaces, and/or connecting neighborhoods and Metra stations during the rush hour period
- A grid network of all day bus service that links communities and circulators across DuPage
- A new high speed transit corridor (bus rapid transit or light rail) with fast, direct service between Aurora, Naperville, Yorktown, Oak Brook, O'Hare Airport, and Schaumburg

All four service attributes were ranked as "very important" by more than half of all respondents. Local circulators were rated as slightly more important, followed by a grid network, commuter shuttles, and then a high-speed corridor.

Figure 2-27: Service Attributes



Other Comments

Respondents were asked if they had any other comments, opinions or ideas about transit that they would like to share. Some responses included:

- Several complements on the service, particularly regarding Pace and paratransit
- A few comments regarding fares being too high
- A request for Saturday service to be reinstated on routes where it was eliminated
- A comment that subsidized taxis are pricier and paratransit is preferred
- A request for service on Orchard Road in Wheaton
- A comment that the service is “irrelevant” and the buses are always empty
- A comment that the bus does not go where it is needed
- A comment that transit is most useful when traveling to/from downtown Chicago
- A respondent stated he/she would use the bus more if the service was improved
- A request to re-design the system bus network in DuPage

3.0 NEAR-TERM TRANSIT OPTIONS AND OPPORTUNITIES

This section describes near-term proposals for transit service in DuPage County, which is defined as the period spanning 2011 through 2016. Given the tight fiscal constraints faced by the RTA at present, near-term expansion is limited to those projects already underway for the county. These projects include signal upgrades and installation of a third track on a portion of the Union Pacific-West Line, which will allow for passenger service upgrades; as well as development of a few Arterial Bus Rapid Transit (ART) routes, express bus corridors, and community circulators over the next five years.

3.1 Conceptual Near-Term Scenario

In the near-term, proposals include those projects already underway; funding limitations preclude the likelihood of implementing additional new services beyond those listed here. Figure 3-1 shows those projects likely to be implemented in the next five years (through 2016). Table 3-1 briefly describes each project and the likelihood of implementation, which was determined by surveying each service board on whether completion was likely, moderately likely, or unlikely. Further detail regarding each project is provided in the following section.

Figure 3-1: Proposed Near-Term Transit Projects

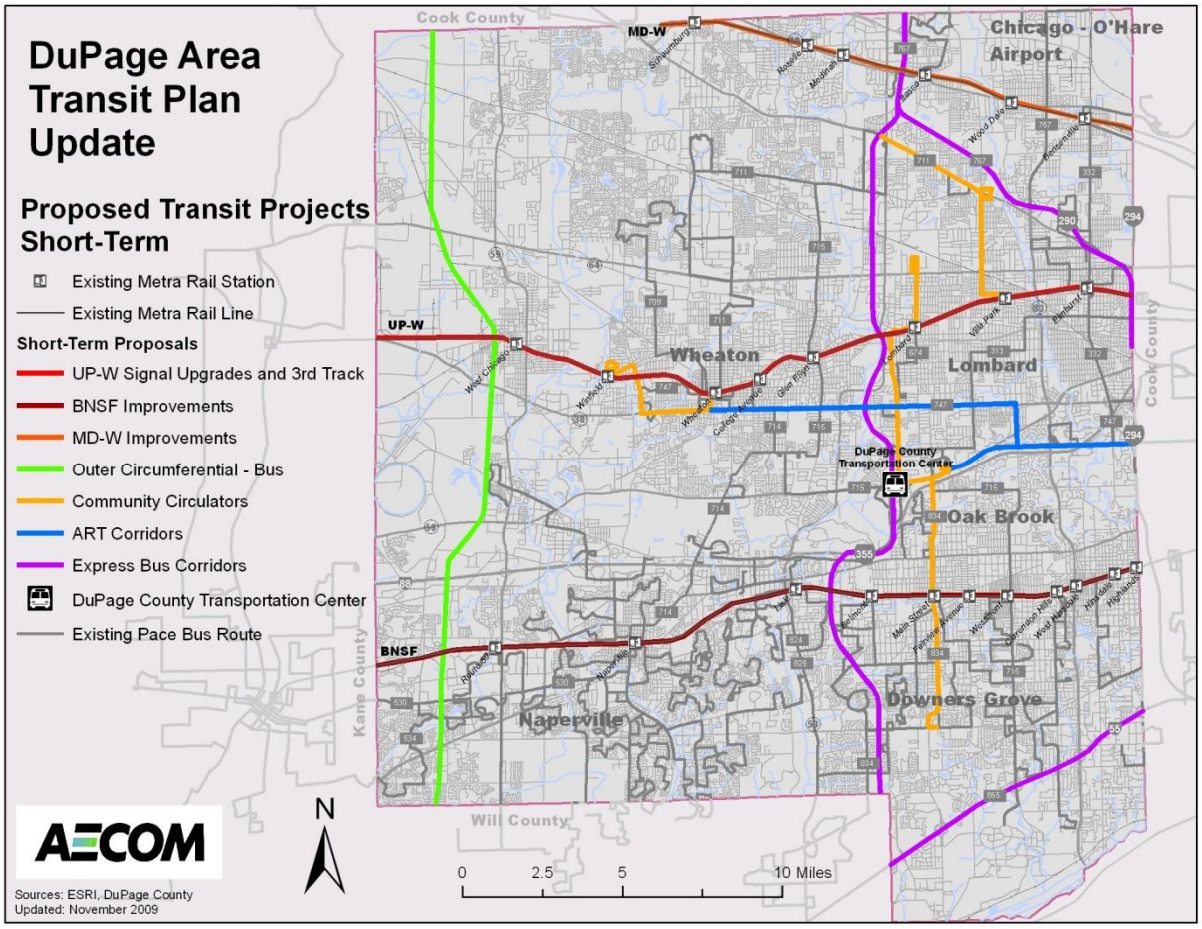


Table 3-1: Proposed Near-Term Transit Projects

Project	Details	Likelihood of Implementation
Commuter Rail Corridors		
UP-W – Metra/Union Pacific Public-Private Partnership	Station safety enhancements, new crossovers, signal system upgrades from Geneva to River Forest and two new segments of third track (from Geneva to West Chicago and from Melrose Park to River Forest).	High
UP-W – Proposed New Starts Project	Signal system upgrades from River Forest to downtown Chicago, purchase of new rolling stock, added station parking capacity, and upgrade and/or grade separation of the A-2 crossing in Chicago.	High
UP-W – CREATE Project B2	New segment of third track, from Elmhurst to Melrose Park.	High
BNSF Improvements	Track and signal improvements will maintain and improve the reliability of service on the BNSF Line.	High
MD-W Improvements	Track and signal improvements will maintain and improve the reliability of service on the MD-W Line.	High
Arterial Bus Rapid Transit (ART) Corridors		
Cermak ART	Arterial Bus Rapid Transit along 22nd Street/Cermak Road and Butterfield Road from the 54th Street/Cermak Road CTA Pink Line station to I-355.	High
IL-38 ART (Roosevelt Road)	Current bus service (Route 747) operates between Wheaton and the CTA Blue Line in Forest Park. Improvements have been made along the eastern portion of the route on Roosevelt Road with additional incremental improvements scheduled including TSP, improved coordination with connecting services and scheduling improvements for the corridor.	High
Express Bus Corridors		
I-355 Corridor	Express bus service between Bolingbrook and Schaumburg via I-355.	High
Elgin-O'Hare Corridor	Express bus service between Elgin and O'Hare International Airport via I-90.	High
South Suburbs – Rosemont – I-90 Corridor	Express bus service between 95th Street/I-294, Rosemont, I-90 corridor. .	High
I-55 Bus on Shoulder Demonstration	Priority treatment for express bus service along I-55, including DuPage County segment from I-355 to County Line Road.	High
I-90 Corridor	Expanded bus service, local distribution service.	High
Community Circulators		
Addison Circulator	Community circulator service in Addison proposed in the original plan awaiting local commitment.	Moderate
Downers Grove Circulator	Community circulator service in Downers Grove proposed in the original plan awaiting local commitment.	Moderate
Lombard Circulator	Community circulator service in Lombard proposed in the original plan awaiting local commitment.	Moderate
Wheaton Circulator	Community circulator service in Wheaton proposed in the original plan awaiting local commitment.	Moderate
Multimodal Stations, etc.		
DuPage County Transportation Center	Transportation center at I-88 and I-355	High

3.2 Near-Term Transit Services

In the near-term, proposals are constrained to those already planned for implementation over the next five years, from 2011 to 2016. These proposals include infrastructure upgrades and subsequent commuter rail service upgrades along Metra's UP-W Line, Arterial Bus Rapid Transit along Cermak Road, express bus service along I-355 and improved express service along I-55, and implementation of several community circulators proposed in the original *DuPage Area Transit Plan Update*. This section provides additional detail on each proposed service.

3.2.1 Commuter Rail

- **UP-W Improvements**
  Metra/Union Pacific Railroad UP-W Public-Private Partnership
  http://www.metraupwest.com/
  Proposed UP-W Upgrade New Starts Project
  http://metraconnects.metrarail.com/upw.php
  Chicago Region Environmental and Transportation Efficiency (CREATE) Project B2
  http://www.createprogram.org/factsheets/B2.pdf
- **BNSF Improvements**
  http://www.rtams.org/rtams/capitalProjectsByTitle.jsp?title=bnsf&agencyID=3&assetCategoryID=0&assetCategoryID=1&assetCategoryID=2&assetCategoryID=3&assetCategoryID=4&assetCategoryID=5&assetCategoryID=6&assetCategoryID=7&assetCategoryID=8
- **MD-W Improvements**[10]
  http://www.rtams.org/rtams/capitalProjectsByTitle.jsp?title=MWD&agencyID=3&assetCategoryID=0&assetCategoryID=1&assetCategoryID=2&assetCategoryID=3&assetCategoryID=4&assetCategoryID=5&assetCategoryID=6&assetCategoryID=7&assetCategoryID=8

The most heavily used transit in DuPage County is commuter rail, accounting for nearly twice as many trips as bus service in the county. Several improvements to commuter rail service are proposed for DuPage County including upgrades along both the UP-W and BNSF lines.

UP-W Improvements

The Union Pacific-West service (UP-W) is operated by Union Pacific Railroad under contract with Metra, and connects Chicago's Ogilvie Transportation Center with Elburn (a recent extension from Geneva), serving the DuPage County communities of Elmhurst, Villa Park, Lombard, Glen Ellyn, Wheaton, Winfield, and West Chicago. A set of three projects have been proposed to improve safety, reliability, and service in the UP-W corridor. All three projects must be completed before schedule changes—allowing for increased speeds and improved express and reverse commute service—can take place. Improved service on the UP-W Line will help attract riders from the nearby BNSF Railway Line (Metra's busiest route) reducing overcrowding.

Metra/Union Pacific Railroad Public-Private Partnership

Metra and the Union Pacific Railroad will split the cost of a number of upgrades to the line, including station safety enhancements, new crossovers, signal system upgrades from Geneva to

[10] Note that some projects in the linked list are partially or solely on the MD-N Line.

River Forest, and two new segments of third track (from Geneva to West Chicago and from Melrose Park to River Forest).

Proposed New Starts Project

Metra is seeking funding for additional improvements, including signal system upgrades from River Forest to downtown Chicago, purchase of new rolling stock, added station parking capacity, and upgrade and/or grade separation of the A-2 crossing in Chicago, from the federal New Starts program.

Chicago Region Environmental and Transportation Efficiency (CREATE) Program Project B2

Another new segment of third track, from Elmhurst to Melrose Park, is proposed to be added as part of CREATE, a set of projects designed to improve the Chicago area's rail network.

BNSF Improvements

Track and signal improvements are proposed by the Metra Service Board to maintain and improve the reliability of service along the BNSF Railway Line, Metra's busiest service. This line is currently operated by BNSF under contract with Metra. Additional work, such as grade separation at Belmont Road and station and platform upgrades, has also been included in the RTA's 2011-2015 Capital Program.

MD-W Line Improvements

Signal, track, crossing, and bridge improvements are proposed by Metra to maintain and improve the reliability of service on the MD-W Line.

3.2.2 Arterial Bus Rapid Transit (ART) http://www.pacebus.com/sub/vision2020/brt_video.asp

- **Cermak ART** http://www.rtachicago.com/initiatives/bus-rapid-transit.html
- **IL-38 ART (Roosevelt Road)**

In response to DuPage County's moderate-density, suburban nature, a large proportion of proposals for transit in the county are centered on Bus Rapid Transit (BRT) and Arterial Bus Rapid Transit (ART) networks. These two modes generally require less capital investment than the development of new passenger rail networks, and the greater flexibility inherent to these modes can be well-suited to lower-density development. This section describes one key proposal from the *DuPage Area Transit Plan,* as well as a series of proposed routes that would form part of Pace Bus's proposed ART network.

Cermak ART

Both *Moving Beyond Congestion* and the Regional Transportation Authority's Capital Plan describe the Pace Arterial Rapid Transit Network for the Region (PARTNER), a plan for a comprehensive network of ART routes serving the Chicago suburbs, to be developed over the long term. This network will ultimately include over 300 miles of service and will include

Transit Signal Priority (TSP) in each corridor, stations and transfer facilities, and increased frequency. The ART network is designed to enhance regional connectivity in moderate and low-density areas, such as suburban DuPage County. ART Extension Express Buses will provide additional service along arterial routes but at a lower frequency – sometimes operating primarily during the peak periods – and with wider station spacing than the rest of the ART network.

The third corridor proposed in this network (the first in DuPage County) is the Cermak Road/22nd Street corridor, extending from the 54th/Cermak CTA Pink Line station in Cicero along Cermak Road/22nd Street to Oak Brook, then along Butterfield Road to the Yorktown Mall and the I-355/Butterfield corporate area. In the long term, this route is planned to connect with the proposed "J" Line (see long-term recommendations) in Oak Brook, which would allow continued travel north (along IL-83) to Schaumburg or west to Naperville. The Cermak ART will provide improved east-west connectivity between employment and residential centers in DuPage County and Western Cook County such as Oak Brook, Oakbrook Terrace, Lombard and Wheaton in DuPage and Cicero, Berwyn, North Riverside and Westchester in Cook County, as well as the City of Chicago via connection to the CTA Pink Line. Elements of the project include new infrastructure, such as queue jump lanes, transit stations, new vehicles to operate the service, service branding and ITS technologies including expanding Transit Signal Priority (TSP) throughout the corridor and real-time passenger information.

Pace considers the Cermak ART to be a priority project, for which they show a high commitment. The corridor is currently under a design/engineering contract for TSP. An alternatives analysis for the Federal Transit Administration's Small Starts program is in development.

IL-38 ART (Roosevelt Road)

Route 747, which operates along Roosevelt Road between the CTA Blue Line in Forest Park and DuPage County Government Center in Wheaton, was upgraded as a part of the 2002 *DuPage Area Transit Plan.* Improved service has been introduced along the eastern portion of the route along Roosevelt Road serving the new Elmhurst Memorial Hospital. Currently the western portion of the route is being studied under a Transit Signal Priority (TSP) design/engineering contract. Additional incremental service improvements are possible along this route as a result of the West Cook Market Analysis study.

3.2.3 Express Bus

- **I-355 Corridor**
- **Elgin – O'Hare Corridor, Northwest Corridor, South Suburbs – O'Hare**
  http://www.elginohare-westbypass.org
- **I-55 Bus on Shoulder Demonstration**
  http://www.rtachicago.com/initiatives/bus-rapid-transit.html
- **I-90 Corridor**

In addition to the Arterial Bus Rapid Transit network described above, Pace also proposes the development of a Suburban Express Bus Network, which will complement the ART system providing additional point-to-point connectivity between suburban park-and-rides and major destinations. The express buses will operate less frequently than the ART routes, mostly during peak hours and in the peak direction, and will stop only at major activity centers. These routes will operate along most major highway corridors, serving park-and-ride lots (some of which exist today) along the route, and would operate in proposed High Occupancy Toll (HOT) lanes where available, such as along I-355. Proposed near-term corridors in this network are described below.

I-355 Corridor

A study was recently conducted to examine land use and travel patterns as well as the potential for transit service in the I-355 corridor. Service was initiated in this corridor previously with Route 655, an express route that operated between Pace's Bolingbrook Park-and-Ride at I-55 and Illinois Route 53 and Pace's Northwest Transportation Center in Schaumburg, and was suspended on March 5, 2010. The route was discontinued for several reasons including failure to secure park-and-ride locations accessible to the expressway facility, lack of implementation of proposed local connecting services, non-transit supportive land use resulting in longer travel times to serve developments and inadequate pedestrian access, resulting in low ridership.

Initial findings from the study showed that future transit service may be suitable for multiple north-south arterials in the northern section of the corridor between Palatine/Arlington Heights and Lisle/Downers Grove, connecting Metra Rail stations and providing service to residential and commercial areas between stations that presently lack service. Final recommendations of the study are currently undergoing evaluation for service, infrastructure and land use coordination.

I-55 Bus on Shoulder Demonstration

Scheduled to begin during Fall 2011, Pace's I-55 Bus on Shoulder Demonstration will allow transit buses along the Stevenson Expressway (I-55) to drive along the roadway shoulders during certain conditions in order to reduce travel times and improve reliability of buses traveling along I-55. Initially, two routes will benefit from this demonstration: Pace Bus Routes 755 and 855, both of which connect park-and-ride lots in Plainfield, Bolingbrook and Burr Ridge with central Chicago. The 6-mile stretch of I-55 that crosses DuPage County (from I-355 to County Line Road) is one of several segments slated for bus on shoulder operations. While

Routes 755 and 855 do not currently serve DuPage County, they do serve park-and-ride locations near the DuPage/Will County line and represent an opportunity for the growth of bus service in this corridor to include residents and employees of southern DuPage County. Pace is pursuing an additional park-and-ride location within southern DuPage County and increased frequencies within this corridor.

I-90 Corridor

Corridor improvements are planned and coordinated with Illinois Tollway Managed lanes/widening project beginning in 2012. A base level of express bus service improvements will operate during the construction period with service expansion coordinated with the completion of the project. CMAQ corridor expansion project funded pending 2012-16 program approval for park-and-ride facilities, transit advantage improvements, express bus and local distribution serving the Randall Rd and Rosemont markets.

Elgin O'Hare – West Bypass (EO-WB)

The Elgin O'Hare – West Bypass (EO-WB) study, led by the Illinois Department of Transportation (IDOT), was begun in 2007 and continues today. The EO-WB is an intermodal transportation study covering northeast DuPage County and northwest Cook County with the goal of addressing congestion and other transportation issues in the region. This study has potential impacts on numerous studies in the long-term, including the I-355 Arterial Rapid Transit (or Bus Rapid Transit), "J" Line (along IL-83), and STAR Line proposals (Northwest Corridor, Inner and Outer Circumferential routes). In the near-term, priorities that have received a high commitment level from the Service Boards include express bus service in the Elgin-O'Hare corridor, the Northwest Corridor (via I-90) and between the south suburbs and O'Hare (pending funding). This project will impact several of the above proposed services.

3.2.4 Local Circulators

- **Downers Grove, Lombard, Wheaton and Addison Circulators**
  http://www.getaroundddupage.org/

Currently, fixed-route circulators play a key role in connecting residential portions of DuPage County with Metra Rail stations and fixed route bus service. The *DuPage Area Transit Plan*, as developed in 2002, proposed community circulators as the building blocks of the county's transit system. Service in the circulator areas would be provided using small vehicles, and would differ in type based on local land use patterns – fixed-route circulators were recommended for some areas, while flexible-route or demand-responsive services were recommended for lower-density environments. A flexible service would follow 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. Fully demand-responsive services, often referred to as general public dial-a-ride, would operate according to passenger requests rather than following a specific route. Each local sponsor of circulator service – generally the town or

township within which operates - would detail the service area and type of service to be provided.

In response to the above proposal, the *DuPage Area Local Circulator Study* was launched by DMMC to provide more explicit recommendations for fulfilling the "Circulator Areas" portion of the plan. The first phase of the Circulator Study included a market analysis, which determined what communities should be studied for local demand-responsive, flexible-route, or fixed-route circulators. The study examined each of the areas and determines possible routes. Four of the circulator areas were further developed in service specification reports, including Addison, Downers Grove, Lombard, and Wheaton. This first phase of this study, the Market Analysis, was completed in 2006; four service specification reports were completed as of December 2009. As of August 2011, each service is awaiting local commitment to funding. DuPage County has budgeted $1 million for this project from the 0.25 cent sales tax that the county collects.

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.

3.2.5 ADA Paratransit and Dial-a-Ride

- **Ride DuPage** http://www.dupageco.org/ridedupage/

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. Additionally, general public dial-a-ride services are available in some portions of the county with limited access to fixed route transit. In low-density areas that are not conducive to fixed route services, or in areas with no established travel patterns, dial-a-ride services can provide mobility to potential riders who would not otherwise have access to transit service. Historically, these demand-responsive services have operated independently of one another, each with 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 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.

Ride DuPage, a cooperative effort between DuPage County, Pace, and the Inter Agency Paratransit Coordinating Council (IAPCC), was developed in order to coordinate these numerous demand-responsive services. This program, based on a simple "hourglass design," funnels all

trip requests for participating programs into a centralized scheduling center. The scheduling center consolidates and coordinates trips based on their times, locations and passenger needs, and doles them out to a network of transportation providers. Benefits of the coordinated system 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. In order to streamline demand-responsive transit service in the county, increased participation in Ride DuPage is recommended rather than the continued reliance on disparate and overlapping demand-responsive services across the county. Currently, IAPCC membership comprises municipal, township, county and state government agencies; human service organizations; and consumers. Pace funds the program's computer and telecommunications hardware and software while DuPage County funds the day-to-day operations of the centralized dispatch center. Program sponsors and riders cover the direct costs of the transportation services provided.

3.2.6 Multimodal Stations, etc.

- **DuPage County Transportation Center** http://www.pacebus.com

A transportation center is planned to be located near the interchange of I-88 and I-355.

3.3 Transit Supportive System Features and Amenities

In addition to simply providing service, numerous other features and amenities contribute to the smooth operation of a transit system as well as the overall passenger experience. This section provides an overview of features and amenities that should be considered when implementing a new service or designing a new station.

3.3.1 Integration with Regional Transit Services

Existing and proposed routes in DuPage County comprise only 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. More specific details regarding information, fares and physical facilities are addressed under those specific topics.

3.3.2 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.

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

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 are many 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.

3.3.3 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.

Pace has existing agreements with municipalities—and is always seeking agreements with additional municipalities—for the installation of shelters. Municipalities that choose to allow advertising in shelters share the revenue generated by those advertisements. The municipality can pick the style of ad shelter it wants installed. Municipalities that decline advertising can still request new shelters, and Pace is able to provide a non-ad shelter at no cost to the municipality. Installation of any new shelter—whether ad or non-ad—is done at locations agreed upon by the municipality and the relevant jurisdiction.

3.3.4 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. Park-and-ride lots are especially useful to connect regional services for traveling longer distances, such as commuter rail, regional bus or express bus. 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.

3.3.5 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 and accessible paths to transit stops
- Waiting pads
- 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.

One of the key concerns in DuPage County is that regarding the pedestrian-friendliness of development patterns. Lack of pedestrian access extends beyond whether sidewalks are present near stops to issues including physical barriers (such as fences and private property), cul-de-sac development that does not provide easy access to bus stops on arterial roadways, and dangerous pedestrian conditions such as high speed traffic and a lack of crosswalks. In addition to sidewalks and bicycle facilities in stop areas, a safe environment and convenient, safe crosswalks and traffic-calming devices where appropriate, need to be provided for passengers to feel comfortable using transit service.

3.3.6 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.

3.3.7 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. Since the 2002 *DuPage Area Transit Plan* was developed, the Chicago Card has been implemented on all CTA rail and bus routes as well as on Pace buses, allowing a single stored-value card to be used for trips on both the CTA and PACE systems. New transit cards are purchased at vending machines or online, and value can be added to an existing transit card either at a vending machine (or online for Chicago Card Plus). The Chicago Card is not valid for use on Metra; however, a Link-Up Sticker can be added to a monthly Metra pass for connecting travel on Pace and CTA buses (CTA usage restricted to morning and afternoon rush hours), or a Metra/Pace BusPlus sticker may be purchased that includes travel on all Pace buses.

A July 2011 mandate by Governor Pat Quinn will require all Chicago-area transit providers (including the CTA, Pace *and* Metra) to implement a single fare card that is valid on all services provided by all three service boards by January 1, 2015. A similar card, the Clipper, has been adopted in San Francisco, valid on buses, streetcars, cable cars, light rail lines, subways, ferries and commuter rail services there – a total of seven different transit agencies participate in the program. The new fare system may incorporate such technology as credit cards or cell phones.[11] In addition to the new fare card, the bill requires the RTA to develop a policy to reduce the cost of transfers on all public transit services.[12]

[11] Wronski, Richard. In the Chicago Tribune at http://articles.chicagotribune.com/2011-07-10/news/ct-met-universal-fare-20110710_1_fare-card-cta-s-chicago-card-transit-agencies Chicago can look west for transit card model. Accessed August 2011

[12] Wronski, Richard. In the Chicago Tribune at http://articles.chicagotribune.com/2011-07-07/news/chi-quinn-signs-bill-calling-for-a-universal-transit-fare-card-20110707_1_fare-card-metra-fares-chicago-card Quinn signs bill calling for a universal transit fare card. Accessed August 2011

3.3.8 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.

3.3.9 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.

3.3.10 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 and transit-supportive land use. The principles of TOD establish a framework for urban centers and neighborhoods along transit corridors to achieve a greater sense of community, mobility, economic growth, identity and diversity. At the most basic level, TOD brings together a mix of transit, retail/commercial, residential, office/employment 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 transit station locations (one-fourth mile from bus stops), which is about a three- to five-minute walk in well-designed TODs. A pedestrian-friendly environment as described in previous sections is essential for successful TOD. Wide sidewalks, human-scaled lighting, compact development, narrow streets and a mix of uses nearby all help to achieve this objective.

A transit center or station (generally bus rapid transit, rail rapid transit or commuter rail) creates the ideal opportunity for TOD. Traditionally, the permanence of a fixed rapid transit corridor provides more confidence for private investment in the area surrounding the transit station, versus a traditional bus route. 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, commuter service, passenger rail service, bicycle accessibility and storage, auto accessibility, and a pedestrian-friendly environment.

3.4 Conceptual Near-Term Order-of-Magnitude Cost and Ridership Estimates

This section summarizes cost and ridership estimates for each of the short-term transit projects. Information was garnered from the most up-to-date available materials regarding each project, generally from project websites (included in Section 3.2 above). Table 3.2 below provides an overview of the projected capital and operating costs and ridership estimates corresponding with each project outlined in Sections 3.1 and 3.2. Further information as to costs or ridership estimates is available in materials regarding individual projects, such as project reports or websites. This information is likely to change as each project progresses, as major adjustments in scope are possible for each.

As systems face greater financial constraints, an increased focus must be placed on maintaining existing, core services to ensure mobility for current transit users. A diligent focus on the effectiveness and efficiency of the existing network will position each agency and service for growth and expansion when funding levels permit such initiatives in the future. Conversely, service reductions enacted to meet short-term funding constraints must be carefully considered so as not to compromise the overall functionality of the transit network and mobility of its users.

Table 3-2: Near-Term Project Cost and Ridership Projections

Project	Estimated Completion	Estimated Capital Cost	Estimated Operating Cost	Estimated Ridership
UP-W – Metra/Union Pacific Public-Private Partnership	By 2014	$110 million	In development	In development
UP-W – Proposed New Starts Project	By 2017	$328 million (2010 dollars)	Improvements to reliability would encourage increased ridership and allow the schedule to grow from 59 to up to 80 trains per weekday (a 25 percent increase in service).	More than 25,000 passengers use the UP-W line each day. Projections with service upgrades and continued population growth show 36,200-47,800 passengers per weekday by 2020.
UP-W – CREATE Program	By 2013	$90 million	In development	In development
Cermak ART	By 2016	$1,250,000 earmark included in SAFETEA-LU; $1,248,000 included in capital plan for TSP and $350,000 for alternatives analysis.	No change in operating cost unless additional service is added to accommodate ridership growth. In 2009, Pace fixed route service cost $100.91 per vehicle revenue hour (NTD).	Current ridership on Route 322 (Cermak Road) is: Weekday – 2,134 Saturday – 1,172 Sunday – 635 Improved service may encourage ridership increases.
IL-38 ART	In development	In development	In development	In development
I-355 Corridor	In development	In development	In development	In development

Elgin-O'Hare Corridor	In development	In development	In development	In development
South Suburbs-Rosemont-I-90 Corridor	In development	In development	In development	In development
I-55 Bus on Shoulder Demonstration	Fall 2011	$950,000 for two-year demonstration, funded by federal CMAQ funds.	No change in operating cost unless additional service is added to accommodate ridership growth. In 2009, Pace fixed route service cost $100.91 per vehicle revenue hour (NTD).	Current daily ridership in the corridor is: Route 755 – 36 Route 855 – 266 Faster service may encourage increases.
I-90 Corridor	In development	In development	In development	In development
Addison Circulator	When local funding is secured	$540,000 – $840,000 depending on chosen alternative (2009 est.)	$485,000 – $900,000 per year, depending on alternative (2011 est.)	41,000 – 75,000 trips per year, depending on alternative
Downers Grove Circulator	When local funding is secured	$760,000 – $2,275,000 depending on chosen alternative (2009 est.)	$445,000 – $1,660,000 per year, depending on alternative (2011 est.)	53,000 – 160,000 trips per year, depending on alternative
Lombard Circulator	When local funding is secured	$845,000 – $1,310,000 depending on chosen alternative (2009 est.)	$690,000 – $1,810,000 per year, depending on alternative (2011 est.)	49,000 – 86,000 trips per year, depending on alternative
Wheaton Circulator	When local funding is secured	$500,000 – $725, 000, depending on chosen alternative (2009 est.)	$200,000 – $475,000 per year, depending on alternative (2011 est.)	38,000 – 59,000 trips per year, depending on alternative
DuPage County Transportation Center	In development	$500,000 earmarked in Pace's 2010 Budget	In development	In development

4.0 LONG-RANGE TRANSIT PROJECTS

This section describes long-range proposals for transit service in DuPage County, including projects planned for the years 2016 through 2030. It is organized as follows: overview of planned long-range projects, inventory and status of those projects, and additional studies. Given the fiscal constraints at the federal, state and local levels expansion of transit service in DuPage is likely to be limited to those projects already underway. Thus all proposals included in this document are already in the works through RTA- or IDOT-sponsored projects across the region. These projects include development of commuter rail corridors (STAR Line), the high speed line ("J" Line) proposed in the 2002 *DuPage Area Transit* Plan, several Arterial Bus Rapid Transit (ART) routes, express bus corridors, and several facilities in conjunction with the Elgin O'Hare-West Bypass project.

As these projects are already underway and are planned for the long-range, it is not possible to predict capital or operating costs or determine ridership projects for individual studies – as each study progresses, changes to the scope of proposals contribute to constant changes in cost or ridership projections. Therefore, this document does not include details on potential costs (capital or operating) or ridership. To obtain the latest information available for specific projects, it is best to consult the individual project websites, the RTA's website (www.rtachicago.com), or RTAMS (www.rtams.org). Where available, links to project websites have been provided in the following sections.

Following transit proposals, additional studies are summarized that have taken place recently or are underway regarding public transportation in Chicagoland. As with specific transit project proposals above, websites have been provided as available where further information can be found regarding each project.

4.1 Overview and Context

In the long-term, proposals are somewhat more expansive than in the near-term; however, funding limitations continue to provide fiscal constraints on what may or may not be implemented. Figure 4-1 shows those projects likely to be implemented in the long-term (2016-2030). Table 4-1 briefly describes each project and the likelihood of implementation. Likelihood was determined by surveying the appropriate (Metra for rail, Pace for bus) service board on whether completion was likely, moderately likely, or unlikely. Further detail regarding each project is provided in the following section.

Figure 4-1: Proposed Long-Range Transit Projects

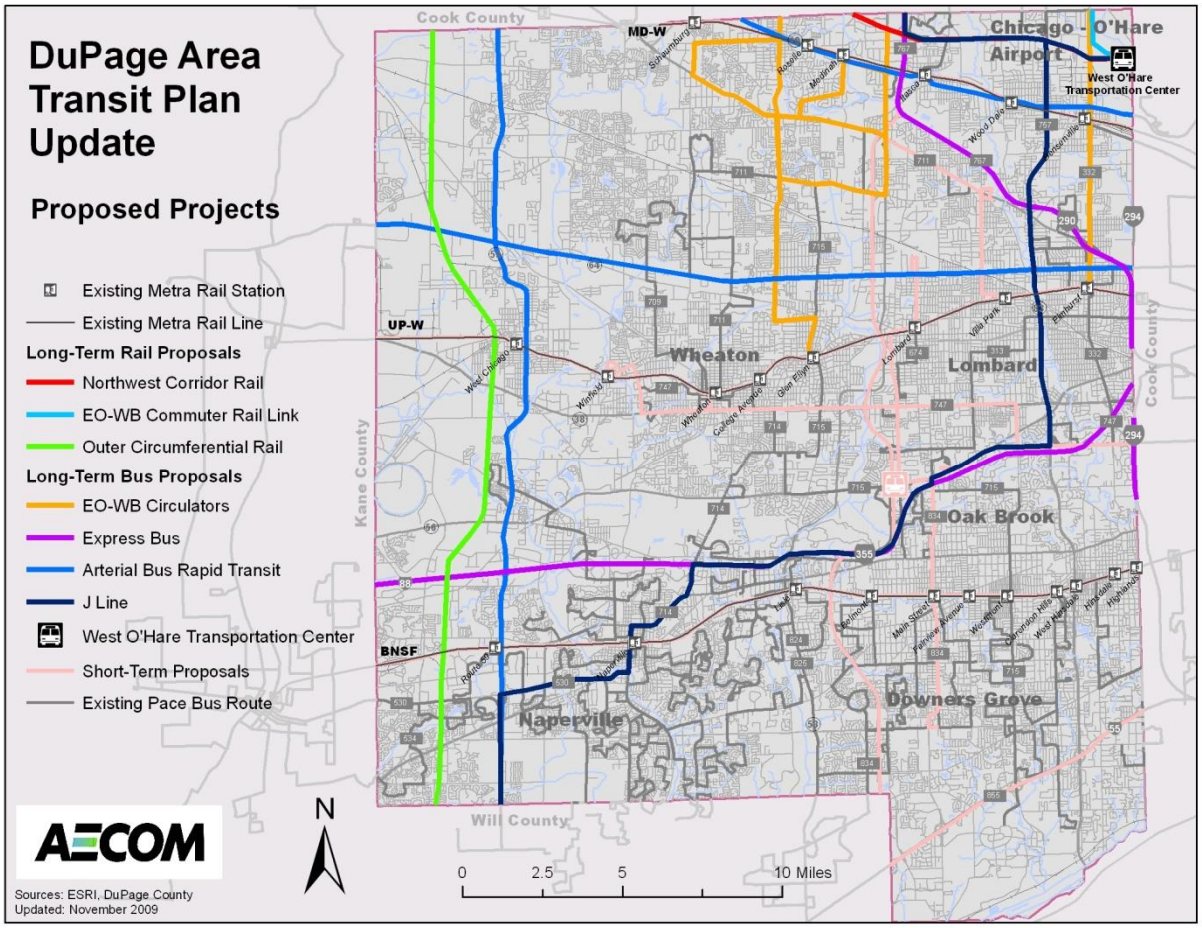


Table 4-1: Proposed Long-Range Transit Projects

Project	Details	Likelihood of Implementation
Elgin-O'Hare West Bypass		
EO-WB Transit Link	Transit link between the above STAR Line and a new intermodal West O'Hare transit terminal. This may be commuter rail service (connecting with the STAR Line) or bus service (connecting with the "J" Line") – mode is to be determined.	Moderate
EO-WB Circulators	Circulators connecting the proposed West O'Hare multimodal station with nearby portions of DuPage County. This will be coordinated with airport expansion plans.	Moderate
EO-WB Multimodal Station	A new multimodal station at Chicago-O'Hare International Airport (West O'Hare), to be coordinated with airport expansion plans.	Moderate
Commuter Rail Corridors		
STAR Line	Commuter rail service expansion including the Northwest Corridor (roughly along I-90), Inner Circumferential Rail (between Midway and O'Hare Airports) and Outer Circumferential Rail (via the Elgin, Joliet and Eastern Railway, parallel to the IL-59 corridor in DuPage County).	Moderate
High Speed Corridor		
"J" Line	The centerpiece of the 2002 *DuPage Area Transit Plan*, this enhanced bus service would connect Schaumburg and a new intermodal station at West O'Hare with Oak Brook and Naperville. Specific routing to be determined.	High
Arterial Bus Rapid Transit (ART) Corridors		
IL-19 ART (Irving Park Road)	Long-term ART service along IL-19 (Irving Park Road).	Moderate
IL-64 ART (North Avenue)	Long-term ART service along IL-64 (North Avenue).	Moderate
IL-59 ART	Long-term ART service along IL-59 in western DuPage.	Moderate
Express Bus Corridors		
I-290 Corridor	Includes numerous express bus routes such as West Cook-Istasca/Addison, West Cook-Elk Grove/Wood Dale, and Northwest Corridor-Forest Park via Schaumburg, Itasca and Hillside.	High
Joliet-Schaumburg	Express bus service connecting Joliet (Will County) with Schaumburg (Cook Count) via DuPage County.	Moderate
Joliet-Naperville	Express bus service connecting Joliet (Will County) with Naperville.	Moderate
Sugar Grove-Lake Cook Road	Express bus service connecting Sugar Grove (Kane County) with the Lake Cook Road corridor along the Lake/Cook County line via DuPage County.	Moderate

4.2 Inventory and Status of Projects

Long-range proposals include those that are likely to be implemented between 2016 and 2030. These proposals include the "J" Line as proposed in the original *DuPage Area Transit Plan Update*, as well as expanded commuter rail service (STAR Line and connection to the proposed West O'Hare multimodal station) and additional ART and express bus corridors. This section provides additional detail on each proposed service.

4.2.1 Elgin-O'Hare West Bypass (EO-WB)

- **EO-WB Transit Link**
- **EO-WB Circulators**
- **EO-WB Multimodal Station**

http://www.elginohare-westbypass.org

Transit Link

This study, led by the Illinois Department of Transportation (IDOT), was begun in 2007 and continues today. The EO-WB is an intermodal transportation study covering northeast DuPage County and northwest Cook County with the goal of addressing congestion and other transportation issues in the region. The study has potential impacts on the I-355 Arterial Rapid Transit (or Bus Rapid Transit), "J" Line (along IL-83), and STAR Line proposals. Transit service is planned to share the right-of-way of the new EO-WB roadway. A commuter rail link and/or "J" Line extension has been proposed to connect a new West O'Hare intermodal transportation center with the STAR Line, providing an alternate terminus for the route. The transit mode that will operate in the EO-WB ROW remains to be determined.

Circulators

The Elgin O'Hare West Bypass intermodal transportation study, as mentioned under commuter rail proposals above, seeks to address congestion and other transportation issues in northeastern DuPage County and northwestern Cook County, the areas surrounding the Chicago-O'Hare International Airport. As a part of this study, community circulators and shuttles are being proposed to promote passenger circulation through the region. These include:

- York Road Shuttle from the UP-W Line at Elmhurst to the UP-NW Line at Mt. Prospect.
- Roselle Road Shuttle from Palatine to the UP-W Line at Glen Ellyn.
- Community circulators connecting the proposed West O'Hare multimodal station with the surrounding community.

Multimodal Station

A new multimodal station is also included in the EO-WB project, connecting the proposed commuter rail link, the proposed "J" Line, proposed ART routes, proposed and existing express bus routes and proposed community circulators. Additionally, the study includes a long-range proposal to extend the CTA Blue Line from its current terminal at O'Hare Station to the West

O'Hare intermodal station. Space in the EO-WB median is also being left for a transit mode to-be-determined.

4.2.2 Commuter Rail

- **STAR Line** http://metraconnects.metrarail.com/star.php

Northwest Corridor, Inner and Outer Circumferential Railroads and the STAR Line

Several studies have enumerated potential new commuter rail corridors in Chicago's western and northwestern suburbs, beginning with the initial *Northwest Corridor Market Analysis Study* in 1998 with feasibility studies completed in 1999 (Northwest Corridor) and 2003 (STAR Line). One of the proposed alternatives to grow from these studies, the STAR Line (Suburban Transit Access Route) is a commuter rail corridor that would connect suburban communities in Chicago's west and northwest suburbs. Initially, this route would run from Joliet in Will County, north through Naperville and West Chicago in DuPage County to Hoffman Estates in Cook County, then east to Chicago-O'Hare International Airport. Future extensions would continue south and east from Joliet, north from Hoffman Estates, and south from Chicago-O'Hare International Airport to Chicago-Midway Airport. The 2003 *STAR Line Feasibility Study* estimated that 5.1 million daily vehicle trips occur within five miles of the initial phase of the STAR Line, and that 70 percent of these trips include both origins and destination within the corridor. The STAR Line remains within the alternatives analysis planning process.

The STAR Line is actually comprised of three corridors or "segments":

- Inner Circumferential Segment (ICS) connecting Midway and O'Hare airports.
- Northwest Corridor Segment (NWCS) following Interstate 90 (Northwest Tollway) from O'Hare to Kane County.
- Outer Circumferential Segment (OCS) generally following the Illinois 59 corridor from western Cook County through DuPage County to Joliet along the Elgin, Joliet & Eastern Railway.

The Northwest Corridor and Outer Circumferential Segments would be built during Phase 1 of the project; the Inner Circumferential Segment would be built during a future phase. Additionally. Future STAR Line extensions could continue into Lake, Will, and Kane Counties. Project planning for the STAR Line has been proposed to be completed in the medium-term for the initial phases, including the segment of the NWCS from O'Hare west to Hoffman Estates and the segment of the OCS along the Canadian National/Elgin, Joliet and Eastern Railway from Hoffman Estates south to Joliet. The remainder of the planning is proposed to be completed in the long-term. The alternatives analysis, which includes additional study regarding appropriate mode choices for each corridor, is underway for the Outer Circumferential and Northwest Corridor Segments. The initial phases are proposed to be funded using discretionary federal grants; funding sources for the remainder of the project have not been named.

4.2.3 High Speed Corridor

- **"J" Line** http://www.rtams.org/rtams/rtpProject.jsp?id=7

The 2002 *DuPage Area Transit Plan* proposed a "high speed corridor", referred to as the "J" Line. The "J" Line is initially proposed as an express route providing a high-speed link between Schaumburg and Chicago-O'Hare International Airport on the north, through Oak Brook with a stop at Oak Brook Center, on to Naperville and Aurora with a stop connecting to the Outer Circumferential rail line (if built). The route would use priority lanes and TSP technology, eventually running on a busway for part of the route. Over time, the route would be expanded south from Naperville to the 95th Street Park-and-Ride along the EJ&E railroad in Will County, as well as branch northwest from the main line near Schaumburg to Woodfield (Northwest Transportation Center) in Cook County. Thus the route would begin as an express bus route and gradually be expanded into Bus Rapid Transit (BRT).

As of August 2011, Pace shows a high level of commitment to implementing service within these markets. Coordination is in progress with CMAP to model potential alignment corridors in order to develop an alternatives analysis, which would be conducted by Pace in conjunction with DuPage County to identify items such as purpose and need, corridor alignment, service and operating characteristics, station and right-of-way locations, land use coordination, funding requirements and an implementation plan. The route is also identified in the Elgin O'Hare-West Bypass study, which will influence its alignment around the Chicago-O'Hare International Airport. Currently, no direct service exists within the travel markets the "J" Line would serve and a base level of service implementation would be required to develop the markets. No funding has yet been identified to implement the service.

4.2.4 **Arterial Bus Rapid Transit (ART)** http://www.pacebus.com/sub/vision2020/brt_video.asp

- **IL-19 ART (Irving Park Road)**
- **IL-64 ART (North Avenue)**
- **IL-59 ART**

The PACE Arterial Rapid Transit (ART) Study 2009 identified 24 transit corridors in the region that could be conducive for bus service enhancements. The preliminary corridors identified for ART service were evaluated and narrowed down based on criteria such as ridership, potential ridership, area land uses, probable community support, and the ability to institute transit technology and infrastructure in each corridor. Possible elements of ART service include new fare collection machinery, enhanced bus stops and shelters, transit signal priority, special marketing and branding, an improved right of way for buses, as well as frequent service all day. New buses may or may not be incorporated into the recommended ART elements.

The service will debut on the Milwaukee Avenue corridor between the Jefferson Park Transit Center and Golf Road, with estimated capital costs of $13.5 to $22 million (in 2009 dollars), or $18 to $28 million if new buses are purchased, and an additional $1.3 million in annual operating expenses. In the near-term scenario, ART corridors were included for 22nd Street/Cermak Road and for IL-38 (Roosevelt Road). In the long-term, several additional corridors have been identified for implementation.

IL-19 ART (Irving Park Road)

Arterial Bus Rapid Transit service is proposed for the IL-19 (Irving Park Road) corridor, connecting the Chicago-O'Hare International Airport with Elgin in Kane County via the Irving Park Road corridor. This corridor traverses the northeastern corner of DuPage County.

IL 64 ART (North Avenue)

This route would provide ART service along North Avenue, a corridor that according to Pace currently lacks frequency and represents a real demand for additional service. Identified as a long-term ART extension service in the ART Study, potential incremental service improvements could be implemented in the corridor as a result of the West Cook Market Analysis study.

IL-59 ART

This route would connect Joliet in Will County with communities in Lake County and western Cook County via Illinois 59, serving the Fox Valley Area and West Chicago in DuPage County. The IL-59 corridor is parallel to the Elgin, Joliet & Easter Railway that is proposed for use as the Outer Circumferential Railway, and provides an alternative to that segment of the STAR Line.

4.2.5 Express Bus

- **I-290 Corridor (including I-88 and I-290 express buses and West Cook-Itasca/Addison, West Cook-Elk Grove/Wood Dale, Northwest Corridor-Forest Park via Schaumburg, Itasca, Hillside)** http://www.eisenhowerexpressway.com/
- **Joliet-Schaumburg**
- **Joliet-Naperville**
- **Sugar Grove-Lake Cook Road**

As in the near-term, numerous routes are proposed as part of the development of a Suburban Express Bus Network to complement the ART system. These routes will provide additional point-to-point connectivity between suburban park-and-rides and major destinations, operating less frequently than the ART routes, mostly during peak hours and in the peak direction, stopping primarily at major activity centers. A large portion of the proposed express bus routes also were included in or originate from the *Cook DuPage Corridor Study* and the *I-290 Phase I Study*, both of which are described below.

From 2004 through 2008, the Regional Transportation Authority (RTA) and Illinois Department of Transportation (IDOT) sought to complete the *Cook-DuPage Corridor Study*. This study looked at transportation options in western Cook County and in DuPage County, in an area bounded by Metra's Milwaukee District – West (MD-W) Line on the north, Metra's Burlington Northern Santa Fe (BNSF) Line on the south, Cicero Avenue on the east, and the Kane/DuPage County line on the west. This region, encompassing the center of the Chicago suburbs west of the loop, is home to approximately one million residents and 750,000 jobs.[13]

Continued job and population growth in DuPage County has led to increased congestion on the Eisenhower Expressway (I-290) and the East-West Tollway (I-88). In response to this, the study included a multi-modal analysis and provided recommendations for increasing mobility and access to employment in the area. Proposals include expanded east-west transit service in the I-290 corridor, which would connect to the proposed "J" Line providing rapid bus service north to O'Hare and Schaumburg, as well as west to Naperville and Aurora. Additionally, the proposal includes other enhanced bus and rail transit routes that would feed this expanded service, including service along the I-355 corridor and the new "Inner Circumferential Rail Service", a part of the proposed STAR Line that would connect Chicago - O'Hare and Chicago - Midway Airports via the Indiana Harbor Belt railroad tracks. Additional east-west services proposed to relieve congestion along the corridor include the Ogden Avenue Transitway and Cermak Road ART proposals, as well as an extension of the Elgin-O'Hare Expressway east to the airport (EO-WB study).[14]

[13] Cook-DuPage Corridor Study and www.rtams.org.
[14] Hilkevitch, Jon and Richard Wronski. "RTA to explore corridor project: Blue Line would extend to DuPage", *Chicago Tribune*, February 22, 2008. http://archives.chicagotribune.com/2008/feb/22/news/chi-corridor_22feb22, accessed November 13, 2009.

A transit alternatives analysis is underway to refine and evaluate the recommended projects presented in earlier phases of the *Cook-DuPage Corridor Study*. Additionally, IDOT has initiated the Eisenhower Expressway (I-290) Preliminary Engineering and Environmental Study, which will look at transportation needs in seven miles of the I-290 corridor, between Mannheim Road and Cicero Avenue. This study includes an Environmental Impact Statement and will incorporate an extensive public involvement process. Both the Cook-DuPage Corridor Alternatives Analysis and IDOT's I-290 Preliminary Engineering and Environmental Study will impact the previous recommendations for I-290 corridor transit services and mode selection.

Pending results of the IDOT study, improved transit access on I-290 will benefit routes entering Forest Park Terminal that serve corridors to Schaumburg, Oak Brook, and western Cook County. Express bus routes impacted by the study include those operating along I-88 and I-290; proposed routes include West Cook-Itasca/Addison, West Cook-Elk Grove/Wood Dale, and Northwest Corridor-Forest Park via Schaumburg, Itasca and Hillside. Proposals include:

- West suburban Cook County and Itasca/Addison
- West suburban Cook County and Elk Grove/Wood Dale
- Sugar Grove and Lake Cook Road serving the I-88 corridor
- Northwest Corridor to Forest Park via Schaumburg, Itasca and Hillside
- Elgin-O'Hare corridor, including connections to routes along I-355, I-290 and IL-83
- I-290 between Forest Park and Schaumburg
- Between Joliet and Schaumburg
- Between Joliet and Naperville
- I-88 and I-290 from Sugar Grove in Kane County to Forest Park in Cook County

4.3 Additional Studies

Numerous transportation studies have been undertaken in the northeast Illinois region since the *DuPage Area Transit Plan* was developed in 2002. Some studies focused on transit while others have looked at overall mobility; some studies focused on one city or county while others looked at the region as a whole. In the following paragraphs are brief summaries of the key studies and plans that outline public transit initiatives in DuPage County. Each of the following studies may have a profound impact on transit in DuPage County. Many of the key routes proposed in each study will, if implemented, contribute to the basic framework of transit service in the county. This section includes studies from which specific recommendations are not described in the near-term or long-range proposals discussed in this *DuPage Area Transit Plan Update*.

Go To 2040 Regional Framework Plan (CMAP, 2010)

http://www.cmap.illinois.gov/2040

Completed in October 2010 by the Chicago Metropolitan Agency for Planning (CMAP), which was created in 2005 to integrate land use and transportation planning in the seven-county Chicago region, *Go To 2040* is the region's first integrated land use and transportation plan. The purpose of the plan is to "build on the region's assets, identify its shortcomings, and recommend actions that will help enhance and sustain the region's economic vitality and global competitiveness." This plan was designed with a significant public involvement component, where stakeholders from elected officials, planners, advocates, and residents of the region focused on such topics as mobility, accessibility, transportation management, and the environment. *Go To 2040* focuses on regional transportation concerns and provides strategic and capital recommendations designed to accommodate current and projected growth in the region.

DuPage County Land Use Assumptions 2010 – 2030 (DuPage County, 2009)

http://www.dupageco.org/edp/

In 2009 the DuPage County Economic Development and Planning Department produced this document, which is required by law in order to assess the traffic impacts of new development. This document focuses on population, housing and employment estimates and provides existing land use and vacancy information as well as 10-year and 20-year estimates. This document will be used to establish needs for the *Comprehensive Road Improvement Plan*.

Moving Beyond Congestion (RTA, 2007)

http://www.movingbeyondcongestion.org/

Completed in 2007 by the RTA, *Moving Beyond Congestion* is a regional strategic transportation plan for northeast Illinois that sought to argue for funding for public transportation at a time of impending budget cuts. Due to operating costs increasing more rapidly than the taxes which were dedicated towards supporting them, recent operating deficits have forced the region to use money from the capital budget to cover operating expenses. This

has resulted in delays to much needed maintenance and construction, without which passengers may be faced with delays and service interruptions due to a deteriorating system.

This report promoted short-term (5-year) and long-term (30-year) capital plans for all three RTA Service Boards, including Pace, CTA, and Metra, as well as additional dedicated operating funding for each agency. It defended transit as necessary in order to maintain the competitiveness of the Chicago region, mitigate worsening congestion on the region's roadways, and promote environmentally-friendly modes of transportation. *Moving Beyond Congestion* laid out a specific strategic plan and coordinated budgeting program including $7.3 billion to maintain the existing system, $1.1 billion to enhance the services that are currently provided, and $2.0 billion to expand the system and provide new services. Key projects such as the STAR Line, Cermak Road ART, improvements to existing commuter rail lines, additional ART routes, and those from the 2002 *DuPage Area Transit Plan* such as the J-Line, were accounted for in the report.

Fox Valley/Southwest DuPage Initiative (Pace, 2005)

http://www.pacebus.com/sub/initiatives/fox_dupage/dfv_default.asp

This study, focused on improving mobility in the fast-growing Aurora-Naperville areas, was completed by Pace in 2005. The study sought to analyze existing services in the area and identify unmet transit needs in order to develop an "appropriate service concept" for the region. Recommendations follow along with the *DuPage Area Transit Plan* concept, including demand-responsive service zones, local circulator routes, and feeder routes. In response to this study, Route 530 was created to function as a connector route between Aurora and Naperville, serving the Fox Valley Mall in between. Additionally, an express connection (Route 672) was created between the 95th Street Park-and-Ride in Will County and the Route 59 Metra Station.

Park-and-Ride Study (DuPage County, 2003)

This study, as with the Circulator Study, further examined one of the key components of the 2002 *DuPage Area Transit Plan*: the development of additional park-and-ride facilities. Overall, seven potential park-and-ride locations were identified within Aurora, Naperville, Woodridge, Willowbrook, and Glen Ellyn. Locations were determined based on demographic analysis and Metra ridership and station parking data. Each site is located within an existing retail development, seeking to both link retail and commuter trips as well as in response to common expenses and difficulties in using the parking lots of places of worship, which has frequently been done in the past. These sites were identified in 2003 with the goal of implementing two of them on a trial basis; none of these proposed park-and-rides are in use today.

Pace/Metra Bus-to-Rail Study (Pace, 2003)

Completed in 2003, the Bus-to-Rail Study examined the bus-to-commuter rail market in the Chicago region, and compared other similar markets nationwide. The study looked at successful and unsuccessful commuter bus services, including some which had been eliminated

by Pace due to poor performance. It established planning principles for use in designing and improving existing, planned and future bus services near Metra stations. These principles, determined critical for successful commuter bus service, included designing bus service to meet all express trains, identifying an appropriate balance between parking fees and round-trip bus fares, making station specific bus/train information available, involving the public/communities/commuters in the development of services and proactively marketing the services. It was determined that if one or more of the principles was not met for a particular feeder route, the route had a much lower likelihood of success.

Naperville Comprehensive Transportation Plan (City of Naperville, 2002)

http://www.naperville.il.us/napervilledowntown2030.aspx

In addition to other regional and county-wide plans, the City of Naperville created its own Transportation Plan, which includes fourteen components, such as congestion mitigation, truck routing, intelligent transportation systems, and coordinated roadway improvement. One such component is transit, in which the city proposes policies that support transit within the framework of the *DuPage Area Transit Plan*. City policies outlined in the report include: serving key community destinations, encouraging transit-friendly land-use patterns, encouraging transit-friendly development, and supporting regional efforts to address transit needs. This plan was completed in 2002 by the City of Naperville.

5.0 IMPLEMENTATION, FUNDING AND KEY CHALLENGES

One of the largest obstacles to the expansion of transit service is funding – this hurdle has been further exacerbated by the economic crisis beginning in 2008. In order to keep transit service affordable, passenger fares generally only cover a small portion of the cost of operating transit service. Regionally, the projected RTA's system-generated revenue recovery ratio for 2011 is nearly 54 percent. Additional funding is required to build and maintain transit facilities and equipment (capital expenses), as well as for the daily operation of transit service (operating expenses). This section provides a brief overview of revenue sources for funding transit operations and capital projects, as well as an overview of likely challenges. Implementation plans are not included in this section as each individual project listed in the near-term and long-term projects sections has its own plan, to be determined on a project-by-project basis.

5.1 Funding for Transit Operations

Daily transit operation requires a steady inflow of funds in addition to revenues from passenger fares. Some of the sources of funding for transit operations include:

- RTA and service boards (Pace and Metra)
- Job Access and Reverse Commute (JARC) funds (FTA funds administered by the RTA)
- Congestion Mitigation and Air Quality (CMAQ) federal funds
- Employers or groups of employers (UPS, East-West Corporate Corridor)
- Illinois Department of Public Transportation
- Local municipalities and townships
- DuPage County

Some of these sources may be used for long-term transit operation; however, some sources, such as CMAQ, only provide start-up funding for which a replacement must be found in order to continue operating the service. For example, it is not advised to implement a new service with CMAQ funding without first identifying a long-term revenue source. One of the more common steady sources of funding to support a base level of transit service in the community may be a dedicated tax. Even dedicated taxes must be used carefully, as the recession beginning in 2008 has shown that even dedicated taxes can fall short of projected or necessary revenue generation, particularly during an economic downturn.

5.2 Funding for Transit Capital Investments

While operating transit service requires consistent funding over time, capital projects (such as construction of transit facilities or purchase of equipment) tend to consist of larger, one-time costs that can often be paid for or offset through government grant or bond programs. Funding for capital investments has some different potential sources including:

- Pace / RTA / Metra
- FTA New Starts and Small Starts
- FTA TIGER and TIGGER grants (American Recovery and Reinvestment Act)
- Federal transportation earmarks
- Illinois Department of Transportation
- Local bonds
- Congestion Mitigation and Air Quality (CMAQ) Federal Funds
- Surface Transportation Program Funds

Federal funding sources for capital programs often require the local community to pay a share of the total cost, sometimes as low as 20 percent. The DuPage Mayors and Managers Conference aids in coordinating the funding process through CMAP for DuPage County capital projects seeking federal funding.

5.3 Funding Sources

This section provides further detail on federal, state and local funding sources to support both capital and operating revenue needs.

5.3.1 Federal Funding

Federal funding is primarily used for capital expenditures. Conventional federal funding assistance for new major investment in transit fixed-guideway capital projects is through the Federal Transit Administration's New Starts program. Since the late 1990s, the federal government's level of assistance in new capital projects has typically been 50 percent of the total cost, with the remaining 50 percent of funding originating at the state or local level. In recent years, the United States Congress has appropriated around $2 billion per year to the new starts program, yet applications for funding assistance have consistently exceeded this amount, leading to a highly competitive process for funding awards. The Small Starts program includes funding requests of less than $75 million (total project cost under $250 million) that encompass corridor improvements and non-fixed guideway bus transit projects.

The current legislation authorizing federal transportation funding, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), expired in late 2009 and has been extended through special acts of Congress. Although a need for transportation infrastructure spending beyond recent levels has been widely acknowledged, both for expansions to the transportation system and for maintenance of existing facilities, no new ideas for development of additional funding sources to meet these needs have been advanced to a public policy level. Current transportation funding through motor fuel taxes and special Congressional appropriations from the general fund have maintained this base level of funding commitment from SAFETEA-LU, though they have not generally been applied to new funding levels beyond that.

While the New Starts program is likely to remain the primary mode of federal transit funding into the foreseeable future, it is clear that demand for its fund exceeds availability and that local transit agencies wishing to utilize this funding assistance must demonstrate that transit benefits, especially relative to cost, reflect a mix of ridership-generating land uses and operational characteristics. Additionally, funding is available for smaller transit projects through programs begun under the American Recovery and Reinvestment Act, including Transportation Investment Generating Economic Recovery (TIGER) grants and Transit Investment for Greenhouse Gas and Energy Reduction (TIGGER) grants.

5.3.2 State and Local Funding

Throughout the country and the Chicago region, local government budgets are challenged and increased funding for transit system construction and/or operations is unlikely. The current climate of federal transportation funding has pointed to an increased need for state and local governments to assume greater responsibility in securing funding for transit projects.

The current RTA sales tax is the largest source of transit funding in the region. This revenue source, however, has been negatively impacted by the economic recession over the past three years due to a reduction of consumer spending. Additionally, the poor economy has delayed payment from the State of Illinois for transit. As a result, to date the Service Boards have used capital funds and made other concessions to avoid fare increases and severe service reductions. The economic outlook is uncertain at best, so the focus on state of good repair and maintenance of service (rather than expansion projects), will likely continue for the foreseeable future. In addition to the RTA's sales tax, local sources such as tax increment financing (TIF) can be used for capital investments, such as access improvements, station buildings, etc.

5.4 Key Challenges

Given the almost exclusive reliance on automobile travel for meeting current mobility needs in and around DuPage County, it is a challenging and expensive process to continue to develop transit as an integral part of the DuPage area's transportation system. 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 in a predominantly auto-centric environment.

5.4.1 Sustainable Services

Successful implementation of transit plans in DuPage County will need to include a sustainable financial strategy combined with a commensurate service plan. Funding will likely continue to be constrained at the federal, state and local level and as a result, the RTA and the Service Boards will need to continue to be fiscally prudent in regard to addressing the highest priorities of the transit networks.

In the near term, this will likely result in a concentrated effort to continue providing the existing services to the extent possible and to keep the existing capital assets (e.g., buses, trains, stations, tracks, maintenance facilities, etc.) in reliable working condition. Some relatively modest new facilities and services noted in the report will likely be implemented in the near term.

Because of the ongoing funding challenges, state and local governments are now turning to the private sector for assistance by forming Public-Private Partnerships (PPPs). The defining element of a PPP is that the public sponsor of infrastructure projects engages the private sector to a greater degree in the performance of certain functions previously handled by the public sector. This can range from contracted maintenance services to full financing, development, operations, and preservation. PPP initiatives include a wide variety of project financing and delivery approaches to access capital markets, implement new technology, and expedite project delivery, operations, and maintenance in a more cost-effective manner. While this is a fairly new approach in this region, it is gaining more and more interest and will likely play a larger role in project delivery in the future.

5.4.2 Multi-Modal Planning

Highway and arterial roadway planning require a multi-modal approach looking beyond basic automobile capacity. An integrated approach to transit infrastructure and amenities in key corridors will ensure not only a greater effectiveness of the transit services provided in those corridors, but also a more cohesive and sustainable result in development patterns. A variety of approaches are evident in the plans referenced throughout this study, including HOV and bus lanes on highways, as well as new bus-on-shoulder initiatives to support better transit efficiency using existing lane space.

At the local level, complete streets planning approaches seek to maximize available roadway space for all users: transit, drivers, cyclists, and pedestrians. When roadway infrastructure is designed from the ground up with all users in mind, a more effective, safe, and pleasant environment is created to accommodate the mobility needs of DuPage County residents, commuters, and visitors. Livability principles are increasingly playing a role as criteria for federal funding.

5.4.3 Transit-Land Use Connections

Other challenges include incorporating transit and pedestrian friendly design into roadway design as well as land use and local zoning codes. In order to better integrate transit service with existing development in DuPage County, it is recommended that the county support transit-friendly policy and planning efforts.

Too often, transit service is forced to function in a reactionary rather than proactive manner, catching up to uncoordinated and localized development plans. Placing transit at the table

during the land use planning and zoning policy process ensures more effective synergies between the development patterns in the county and the mobility networks available to connect the dots. Transit-friendly policies include land use and zoning, parking, pedestrian access, financing, etc., such as:

- Land use and zoning – Supporting mixed-use and higher-density uses at key nodes such as near Metra stations or along major transit corridors.

- Pedestrian access – Providing pedestrian infrastructure and linkages between neighborhoods and transit stops along arterial roadways. For example, many people reside within ½ mile of a transit stop, but due to fences, cul-de-sacs, a lack of sidewalks or other physical barriers, cannot easily reach the stop.

- Parking – Supporting policies that reduce minimum setback requirements and encourage locating parking on the sides of buildings away from the street. This allowing the building to be closer to roadways, sidewalks, and transit stops, promoting transit use and a safer pedestrian environment. Shared parking arrangements can also allow greater flexibility and reduce minimum parking requirements (for example, using church parking lots, generally empty on weekdays, as park-and-ride lots for commuters).

It is often difficult to convince government bodies and developers to incorporate transit into design if they do not believe 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 highlight effective examples within DuPage County as well as 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 should be taken to a new level to shift perceptions and create awareness. Proactive marketing and the formation of key partnerships must also be pursued.

Support transit-oriented development (TOD) initiatives and opportunities. New development should be situated near transit stops with denser, mixed use development closest to the stop and lower density development located farther away to strengthen nodes and maximize connectivity. Commensurate transit service should be provided to ensure that those living in transit-oriented development communities can benefit. Infill development is encouraged around rail stations and discouraged away from major arterials and transit hubs in an effort to strengthen existing nodes and mitigate sprawl.

5.4.4 Improving the Transit Experience

Maintenance of transit facilities (e.g., bus stops) and a continued focus on the transit user's day-to-day experience plays a considerable role in the encouragement or discouragement of

transit use. Maintaining clean bus stops, providing sidewalks and pedestrian access to these stops (i.e., rather than unpaved pedestrian waiting areas that discourage or prohibit ADA access), and placing the same emphasis on snow and debris removal for stops and sidewalks as is placed on roadways all represent fundamental approaches to improving the transit experience in DuPage County and the region. Additionally, the inclusion of transit service information such as maps and schedules at stops/stations, provision of clear way-finding signage and assurance of well-lit, safe environments for transit users all encourage transit ridership.

5.4.5 Continued Evaluation of Transit Performance

For transit to thrive and grow, its performance must be seen as cost-effective and productive. Continuous monitoring and evaluation of the performance of existing transit service in the county, and a demonstrated ability to make adjustments as needed, will ensure it is operating where it is most needed and most highly utilized. It is important for DuPage County and transit service providers to work collaboratively to ensure effective service standards are used for evaluating performance, and that any new services being recommended and implemented will perform according to expectations (i.e., meet the standards).

5.4.6 Building a Long-Term Vision

Funding constraints point to the need to tailor short-range transit development to where it is most needed, at times even cutting service to ensure system-wide viability. However, it is important to not lose sight of where long-term growth is occurring and where transit may be needed in the future. In addition to guiding development toward areas that are well-served by transit, transit routes need to be adjusted to serve development, as not all new development can occur adjacent to an existing bus route or rail station.

Priorities should be identified for where new services are needed so that resources can be allocated as they become available. For example, while the creation of new north-south transit connections within DuPage County has, for the most part, been left out of the *DuPage County Transit Plan Update*, the likely need for such service has been identified and the provision of this type of service should continue to be evaluated.

As this plan demonstrates, revisiting future goals and continuing to advance long-range projects into the project development process can ensure they are ready to advance when the available funding and planning priorities align. DuPage County's continued efforts to tie transit development to land use, livability initiatives, and a holistic approach to growth and mobility throughout the county will pay dividends in the future. Prudent investment in an efficient transit system now and the continuation of planning for future needs will position the county and region for successful growth in the years to come.

APPENDICES

APPENDIX A: DEMAND RESPONSIVE SERVICE BREAKDOWN

Table A-1: Municipally-Funded Demand Responsive Services

Sub-County Government	General Public Dial-A-Ride	Senior and Disabled Only Dial-A-Ride	Ride DuPage	Subsidized Taxi Service	IAPCC Member
County-Wide Programs					
DuPage County Paratransit (Health Dept, Human Services)			X		
DuPage County Senior Transportation Grant			X		
Veterans Medical Transportation			X		
DuPage County Transportation to Work Program			X	X	
DuPage County Health Department Teen Parent Services				X	
Townships					
Addison Township		X		X	X
Bloomingdale Township	X				X
Downers Grove Township		X			X
Lisle Township			X		X
Milton Township		X			
Naperville Township			X		X
Wayne Township	X			X	X
Winfield Township		X			
York Township		X			X
Municipality					
Addison	X				X
Bensonville		X			X
Bloomingdale					X
Burr Ridge				X	X
Carol Stream				X	X
Darien				X	X
Downers Grove				X	X
Elmhurst				X	X
Glen Ellyn			X	X	X
Glendale Heights					X
Hinsdale					X
Itasca					X
Lisle				X	X
Lombard				X	X
Naperville			X		X
Villa Park				X	X
Warrenville				X	X
Westmont				X	
Wheaton			X	X	X
Willowbrook				X	X
Wood Dale	X				X
Woodridge				X	X

Sources: *Transportation Resources* from DuPage County Human Services website

APPENDIX B: METRA RIDERSHIP

Table B-1: Metra Rail Ridership by Line

Route	September 2002 Ridership	September 2009 Ridership	Change in Ridership	% Change in Ridership
Burlington Northern Santa Fe	1,195,322	1,375,942	180,620	15.1
Union Pacific West Line	524,499	639,721	115,222	22.0
Milwaukee District West Line	517,559	563,515	45,956	8.9
Total – All DuPage Lines	2,237,380	2,579,178	341,798	15.3

Source: RTAMS

APPENDIX C: PACE RIDERSHIP

Table C-1: Pace Bus Ridership by Route

Route	September 2002 Ridership	September 2009 Ridership	Change in Ridership	% Change in Ridership
223 Elk Grove Rosemont Station	2,177	1,467	-710	-32.6%
309 Lake Street	967	1,035	68	7.0%
312 Ogden - 31st	117	N/A	N/A	N/A
313 St Charles Rd	1,530	1,376	-154	-10.1%
319 Grand Ave	761	564	-197	-25.9%
322 Cermak Rd	3,280	2,315	-965	-29.4%
332 River-York Rds	527	479	-48	-9.1%
391 Near West Suburbs / UPS	212	100	-112	-52.8%
393/394 Melrose Park-Addison UPS	20	N/A	N/A	N/A
461 North Downers Grove	54	42	-12	-22.2%
462 Southwest Downers Grove	197	106	-91	-46.2%
463 Southeast Downers Grove	202	97	-105	-52.0%
464 West Downers Grove	N/A	62	N/A	N/A
530 Westfield Shoppingtown Fox Valley Ctr. -	561	822	261	46.5%
534 Fox Valley Villages / Route 59 Metra Stat	49	59	10	20.4%
535 Fox Valley Shuttle	N/A	52	N/A	N/A
554 Elgin - Streamwood - Schaumburg	100	141	41	41.0%
556 Elgin-UPS Palatine	16	N/A	N/A	N/A
616 The Chancellory Connection	207	237	30	14.5%
637 Wood Dale Rosemont CTA	177	94	-83	-46.9%
643 Northwest Elmhurst	83	30	-53	-63.9%
653 Bloomington - Glendale Heights	75	N/A	N/A	N/A
654 South Central Glen Ellyn	39	17	-22	-56.4%
657 West Glendale Heights - Glen Ellyn	101	56	-45	-44.6%
661 Southwest Westmont Feeder	47	38	-9	-19.1%
662 South Central Westmont Feeder	115	92	-23	-20.0%
663 Darien - Clarendon Hills	83	47	-36	-43.4%
664 Willowbrook - Clarendon Hills	107	74	-33	-30.8%
665 Darein - Westmont	74	50	-24	-32.4%
668 Burr Ridge - Hinsdale Feeder	46	42	-4	-8.7%
672 95th Street Park-n-Ride Express	N/A	154	N/A	N/A
673 Fort Hill Express	56	127	71	126.8%
674 Southwest Lombard	70	65	-5	-7.1%
675 Route 59 Express	55	165	110	200.0%
676 Cress Creek	102	87	-15	-14.7%
677 Naperville West Glens	49	57	8	16.3%
678 Naperville Carriage Hill	97	102	5	5.2%
680 Naperville - Knoch Knolls	83	113	30	36.1%
681 Naperville - Saybrook	57	41	-16	-28.1%
682 Naperville - Brookdale	83	61	-22	-26.5%
683 Naperville - Ashbury	99	83	-16	-16.2%
684 Naperville - Maplebrook	77	81	4	5.2%
685 Naperville - West Winds Estates	80	68	-12	-15.0%
686 Naperville - Old Farm	78	80	2	2.6%
687 Naperville - Farmstead	80	66	-14	-17.5%
688 Naperville -Huntington	69	63	-6	-8.7%
689 Naperville - Hobson Village	50	56	6	12.0%
706 College Ave - Southeast Wheaton Feeder	30	N/A	N/A	N/A
707 Southwest Wheaton - Naperville	27	N/A	N/A	N/A
709 Carol Stream - North Wheaton	60	54	-6	-10.0%

711 Wheaton - Carol Stream - Stratford Square	162	230	68	42.0%
712 Wheaton Shuttle	103	N/A	N/A	N/A
713 Wehaton - Naperville	7	N/A	N/A	N/A
714 College of DuPage-Naperville-Wheaton Con	N/A	381	N/A	N/A
715 Central DuPage	458	593	135	29.5%
747 DuPage Connection	552	1,007	455	82.4%
757 Northwest Connection	162	169	7	4.3%
767 Congress/Douglas Prairie Stone Connection	117	42	-75	-64.1%
781 North Naperville Office Complexes	39	25	-14	-35.9%
783 Naperville Evening Service	36	N/A	N/A	N/A
784 Lisle Evening Service	40	N/A	N/A	N/A
787 Southeast Naperville	87	N/A	N/A	N/A
788 North Naperville	5	N/A	N/A	N/A
801 Elgin Geneva	221	223	2	0.9%
820 University Heights - Lisle	66	62	-4	-6.1%
821 Woodridge - Belmont Feeder	78	62	-16	-20.5%
822 Woodridge - Lisle Feeder	105	72	-33	-31.4%
824 East Bolingbrook - Lisle Feeder	203	157	-46	-22.7%
825 Central Bolingbrook - Lisle Feeder	129	129	0	0.0%
826 South Lisle	87	64	-23	-26.4%
827 Green Trails - Steeple Run	107	113	6	5.6%
828 North Lisle	88	75	-13	-14.8%
829 Lisle - Naperville Office Corridor	32	61	29	90.6%
834 Joliet - Yorktown	612	730	118	19.3%
855 I-55 Flyer	266	287	21	7.9%
877 South Suburban Oakbrook Limited	147	154	7	4.8%
888 Tri-State Flyer	71	95	24	33.8%
1012 95th Evergreen Park - Prairie Stone	64	25	-39	-60.9%
Total – All DuPage Routes	17,270	15,773	-1,497	-8.7%

Source: RTAMS

APPENDIX D: POPULATION GROWTH

Table D-1: Projected Municipal Growth 2000 – 2030

Municipality	2000 Population	2008 Population	2000-08 Percent Change	2030 Projection	2000-30 Percent Change
Addison	35,914	36,917	2.8%	38,561	7.4%
Aurora	142,990	171,782	20.1%	190,167	33.0%
Bartlett	36,706	42,209	15.0%	45,573	24.2%
Batavia	23,866	27,502	15.2%	31,402	31.6%
Bensenville	20,703	20,138	-2.7%	19,048	-8.0%
Berkeley	5,245	4,913	-6.3%	5,126	-2.3%
Bloomingdale	21,675	21,848	0.8%	28,818	33.0%
Bolingbrook	56,321	70,823	25.8%	84,733	50.5%
Burr Ridge	10,408	11,398	9.5%	14,500	39.3%
Carol Stream	40,438	40,004	-1.1%	41,604	2.9%
Clarendon Hills	7,610	8,582	12.8%	8,782	15.4%
Darien	22,860	22,370	-2.1%	23,717	3.8%
Downers Grove	48,724	49,250	1.1%	60,153	23.5%
Elgin	94,487	106,330	12.5%	167,375	77.1%
Elk Grove Village	34,727	33,320	-4.1%	36,948	6.4%
Elmhurst	42,762	46,013	7.6%	43,752	2.3%
Glen Ellyn	26,999	27,142	0.5%	32,291	19.6%
Glendale Heights	31,765	31,847	0.3%	35,059	10.4%
Hanover Park	38,278	36,777	-3.9%	37,705	-1.5%
Hinsdale	17,349	18,439	6.3%	22,000	26.8%
Itasca	8,302	8,617	3.8%	10,706	29.0%
Lemont	13,098	16,176	23.5%	30,209	130.6%
Lisle	21,182	23,135	9.2%	26,097	23.2%
Lombard	42,322	42,890	1.3%	50,618	19.6%
Naperville	128,358	143,117	11.5%	168,096	31.0%
Northlake	11,878	11,462	-3.5%	10,951	-7.8%
Oak Brook	8,702	8,803	1.2%	9,613	10.5%
Oakbrook Terrace	2,300	2,221	-3.4%	4,447	93.4%
Roselle	23,115	23,209	0.4%	26,784	15.9%
Schaumburg	75,386	71,716	-4.9%	83,284	10.5%
St. Charles	27,896	32,829	17.7%	36,671	31.5%
Villa Park	22,075	22,198	0.6%	23,210	5.1%
Warrenville	13,363	13,033	-2.5%	15,007	12.3%
Wayne	2,137	2,394	12.0%	4,754	122.5%
West Chicago	23,469	26,454	12.7%	41,632	77.4%
Westmont	24,554	24,979	1.7%	27,000	10.0%
Wheaton	55,416	54,465	-1.7%	61,960	11.8%
Willow Springs	5,027	5,898	17.3%	9,913	97.2%
Willowbrook	8,967	8,739	-2.5%	14,567	62.5%
Winfield	8,718	9,984	14.5%	15,242	74.8%
Wood Dale	13,535	13,855	2.4%	13,869	2.5%
Woodridge	30,934	34,130	10.3%	42,889	38.7%

Source: *DuPage County Land Use Assumptions*

APPENDIX E: EMPLOYMENT GROWTH

Table E-1: Projected Employment Growth 2000 – 2030

Municipality	2000 Employment	2030 Projection	Change in Employment	Municipality	2000 Employment	2030 Projection	Change in Employment
Addison	33,415	42,024	25.8%	Lemont	2,844	6,876	141.87%
Aurora	63,143	106,677	69.0%	Lisle	23,850	30,561	28.1%
Bartlett	3,520	7,467	112.1%	Lombard	26,846	36,914	37.5%
Batavia	15,409	24,557	59.4%	Naperville	66,209	149,931	126.5%
Bensenville	28,903	31,862	10.2%	Northlake	10,934	13,622	24.6%
Berkeley	2,287	2,299	0.5%	Oak Brook	58,745	66,738	13.6%
Bloomingdale	14,432	19,345	34.0%	Oakbrook Terrace	11,311	12,697	12.3%
Bolingbrook	14,432	19,345	34.0%	Roselle	8,862	11,876	34.0%
Burr Ridge	13,391	17,662	31.9%	Schaumburg	87,688	111,229	26.9%
Carol Stream	19,902	25,582	28.5%	St. Charles	24,895	34,294	37.8%
Clarendon Hills	2,083	2,898	39.1%	Villa Park	12,279	15,281	24.5%
Darien	8,701	11,035	26.8%	Warrenville	5,162	12,567	143.5%
Downers Grove	38,534	59,459	54.3%	Wayne	61	67	9.8%
Elgin	54,020	90,030	66.7%	West Chicago	11,508	36,308	215.5%
Elk Grove Village	61,121	97,974	60.3%	Westmont	12,958	13,370	3.2%
Elmhurst	41,429	41,572	0.4%	Wheaton	27,289	28,131	3.1%
Glen Ellyn	9,527	10,609	11.4%	Willow Springs	1,143	1,988	73.9%
Glendale Heights	12,164	13,584	11.7%	Willowbrook	7,514	9,794	30.3%
Hanover Park	7,921	10,866	37.2%	Winfield	4,666	6,658	42.7%
Hinsdale	13,304	13,396	0.7%	Wood Dale	24,897	29,273	17.6%
Itasca	31,374	37,210	18.6%	Woodridge	9,329	23,501	151.9%

Source: *DuPage County Land Use Assumptions*

APPENDIX F: WORKER FLOW

Table F-1: DuPage County Worker Flow

	Total	Drove Alone	Carpooled	Transit	Bus (% of Transit)	Rail (% of Transit)	Other	Worked at Home
From DuPage County								
City of Chicago	66,160	51.6%	5.0%	42.6%	1.1%	98.9%	0.7%	0.0%
Cook County	152,052	74.4%	5.9%	19.1%	1.6%	98.4%	0.5%	0.0%
Cook County (except City of Chicago)	85,892	91.9%	6.5%	0.9%	19.3%	80.7%	0.4%	0.0%
Northern Cook County	39,420	90.7%	7.4%	1.2%	15.2%	84.8%	0.4%	0.0%
Southern Cook County	46,472	92.8%	5.8%	0.6%	25.6%	74.4%	0.5%	0.0%
Kane County	16,719	88.8%	9.3%	0.8%	0.0%	100.0%	1.0%	0.0%
Kendall County	935	91.7%	5.2%	0.9%	0.0%	100.0%	1.5%	0.0%
Lake County	5,375	90.4%	5.7%	3.0%	4.9%	95.1%	0.6%	0.0%
McHenry County	894	90.5%	5.4%	1.7%	100.0%	0.0%	2.2%	0.0%
Will County	9114	91.8%	6.4%	0.8%	48.0%	52.1%	0.8%	0.0%
DuPage County	275,181	81.8%	8.3%	0.5%	43.1%	56.9%	3.3%	6.0%
To DuPage County								
City of Chicago	47,825	71.6%	20.0%	6.2%	57.7%	42.3%	2.1%	0.0%
Cook County	145,712	82.8%	12.5%	3.1%	53.1%	46.9%	1.2%	0.0%
Cook County (except City of Chicago)	97,887	88.3%	8.8%	1.6%	44.4%	55.7%	0.8%	0.0%
Northern Cook County	40,058	87.6%	9.5%	1.5%	31.2%	68.8%	1.0%	0.0%
Southern Cook County	57,829	88.8%	8.4%	1.7%	52.3%	47.7%	0.7%	0.0%
Kane County	35,908	86.8%	11.4%	0.8%	60.8%	39.2%	0.8%	0.0%
Kendall County	7,045	91.7%	8.1%	0.1%	0.0%	100.0%	0.0%	0.0%
Lake County	7,007	91.1%	7.5%	0.7%	17.4%	82.6%	0.7%	0.0%
McHenry County	4,637	87.9%	9.8%	1.4%	15.6%	84.4%	1.2%	0.0%
Will County	43,468	91.2%	8.0%	0.3%	52.1%	47.9%	0.3%	0.0%
DuPage County	275,181	81.8%	8.3%	0.5%	43.1%	56.9%	3.3%	6.0%

Source: *2000 Census Transportation Planning Package*

APPENDIX G: US CENSUS JOURNEY TO WORK

As in the previous section, US Census data was used to show the journey to work mode split for each township in DuPage County, demonstrating the proportion of commuters who used public transportation versus the proportion who drove alone or carpooled. Census data was used for 1990 and 2000, while American Community Survey data for 2008 shows estimated changes since the 2000 Census. Census data for 1990 was included in this section in order to show changes since the original 2002 plan, which used data from 1990.

Table E-1 below shows the proportion of commuters in each township in DuPage County who commuted by public transportation versus carpooled or drove alone. The greatest proportion of public transportation use was in Naperville Township, where 12.1 percent of the population commuted by public transportation. This is particularly notable, since Naperville Township had the second highest median income in DuPage County (out of nine townships) and fewer than two percent of households did not have a car available. This implies that there is a large proportion of choice riders in Naperville. Additionally, the top two Metra Rail stations in the county in terms of ridership, Route 59 and Naperville, are both located in Naperville Township. Combined, roughly 27 percent of DuPage County Metra Rail riders board at one of these two stations. The townships with the next-highest proportions of rail users, Downers Grove (8.2 percent) and Lisle (7.7 percent) are also located along the BNSF Line serving the southern tier of the county, and also contain Metra Rail Stations among the top four in the county for ridership. The township with the smallest proportion of transit riders is Addison Township, located at the northeastern corner of the county.

Table G-1: 2008 Journey to Work Mode Split

Township	Drove Alone (%)	Carpooled (%)	Public Transportation (%)
Addison	81.6%	10.4%	2.9%
Bloomingdale	81.7%	9.0%	3.6%
Downers Grove	76.7%	6.3%	8.2%
Lisle	75.2%	9.2%	7.7%
Milton	73.9%	9.1%	6.5%
Naperville	75.5%	5.0%	12.1%
Wayne	76.6%	11.0%	4.0%
Winfield	75.9%	13.3%	5.1%
York	79.3%	5.3%	5.8%
TOTAL	77.3%	8.2%	6.5%

Source: 2008 American Community Survey

Table E-2 shows the change in the proportion of commuters in each township who used public transportation rather than other modes. Overall, a smaller proportion of commuters in each township uses transit except in Naperville Township, which has outpaced three other townships in transit use over the past 18 years, as well as Winfield Township (central DuPage County). Addison and Bloomingdale Townships show the lowest proportion of transit riders in 1990,

2000, and 2008 – this is particularly notable since those two townships have the lowest median incomes and highest poverty rates in DuPage County.

Table G-2: 1990, 2000, and 2008 Proportion of Commuters Who Used Public Transportation

Township	1990 Transit Share	2000 Transit Share	2008 Transit Share
Addison	4.4%	3.6%	2.9%
Bloomingdale	4.1%	4.1%	3.6%
Downers Grove	9.3%	9.1%	8.2%
Lisle	8.2%	8.0%	7.7%
Milton	8.4%	8.2%	6.5%
Naperville	7.8%	9.0%	12.1%
Wayne	6.1%	5.0%	4.0%
Winfield	4.5%	4.2%	5.1%
York	6.2%	6.1%	5.8%
TOTAL	6.9%	6.7%	6.5%

Sources: 1990 US Census; 2000 US Census; 2008 American Community Survey

While the proportion of commuters using public transportation has declined since 1990, the number of commuters using transit has increased: from 29,302 in 1990, to 31,243 in 2000, and 32,644 in 2008 (excluding those who commute by taxicab). This may imply that new residents of DuPage County are commuting predominately by car, and thus the overall population is increasing at a greater rate than transit users.

The mode split in DuPage County is somewhat atypical. Naperville, which has very few zero car households, high median incomes, and a low transit success score, has by far the greatest proportion of riders using transit. Meanwhile, Addison and Bloomingdale have more moderate incomes and greater poverty levels, but far lower transit usage. This may be due in part to higher ridership on the commuter rail lines, attracted by frequent peak-period express service. However, commuter rail fares are more expensive than bus fares, suggesting that transit riders in DuPage County tend to be choice riders with higher incomes.

APPENDIX H: CHANGES IN TRAVEL TIMES

As the Chicago region grows, the increase in travel demand outpaces growth in transportation infrastructure. According to *Moving Beyond Congestion*, travel delays due to congestion increased by 5.5 times over the twenty-year period from 1987 to 2007. Peak period travel within the Chicago region takes approximately 57 percent longer than making the same trips when roadways are not congested. According to the Texas Transportation Institute, as of 2007, average annual delays per traveler in the Chicago region reached 58 hours, costing $1,000 per traveler. With 4.4 million peak-period travelers, this means a significant cost to the region's economy. In a Federal Transit Administration Working Paper on Transit Benefits (also cited in *Moving Beyond Congestion*), it was estimated that by 2030, almost the entire region, except for outlying areas, will be congested. This congestion will be particularly acute in the Fox River Valley and Naperville areas.

Increased congestion can have positive benefits for transit. When roadways are clogged and travel times increase, drivers may consider other alternatives to driving. If transit can provide a faster alternative, drivers may switch modes and take transit instead. This mode switch, however, only takes place if transit travel times are faster than driving times – thus rail modes and bus service operating in separated "transitways" or with other types of priority treatments may lure drivers away from their cars. Buses and streetcars operating in mixed traffic experience the same delays as drivers, and are not likely to be substituted for the private automobile. Thus, in order to compete with the automobile, priority treatments and/or physically separated right-of-ways are required for transit.

Commuting patterns reflect a preference for fixed-guideway transit services in a congested environment. According to *Moving Beyond Congestion*, while from 1990 to 2000 the proportion of people driving alone to work increased by the greatest amount, rail services garnered enough new passengers to maintain its modal share. Additionally, the proportion of commuters using rail services as opposed to bus service, which would be negatively impacted by increased congestion, increased as well. In 1990, approximately half of work-trips made by transit were completed by bus and half by rail; by 2000, 60 percent of transit commutes were made by rail and only 40 percent by bus, demonstrating a shift from bus to rail. Transit work trips overall grew in the suburban counties from 1990 to 2000, including both bus and rail; however, transit remains a very small share of the rapidly growing suburban travel market.

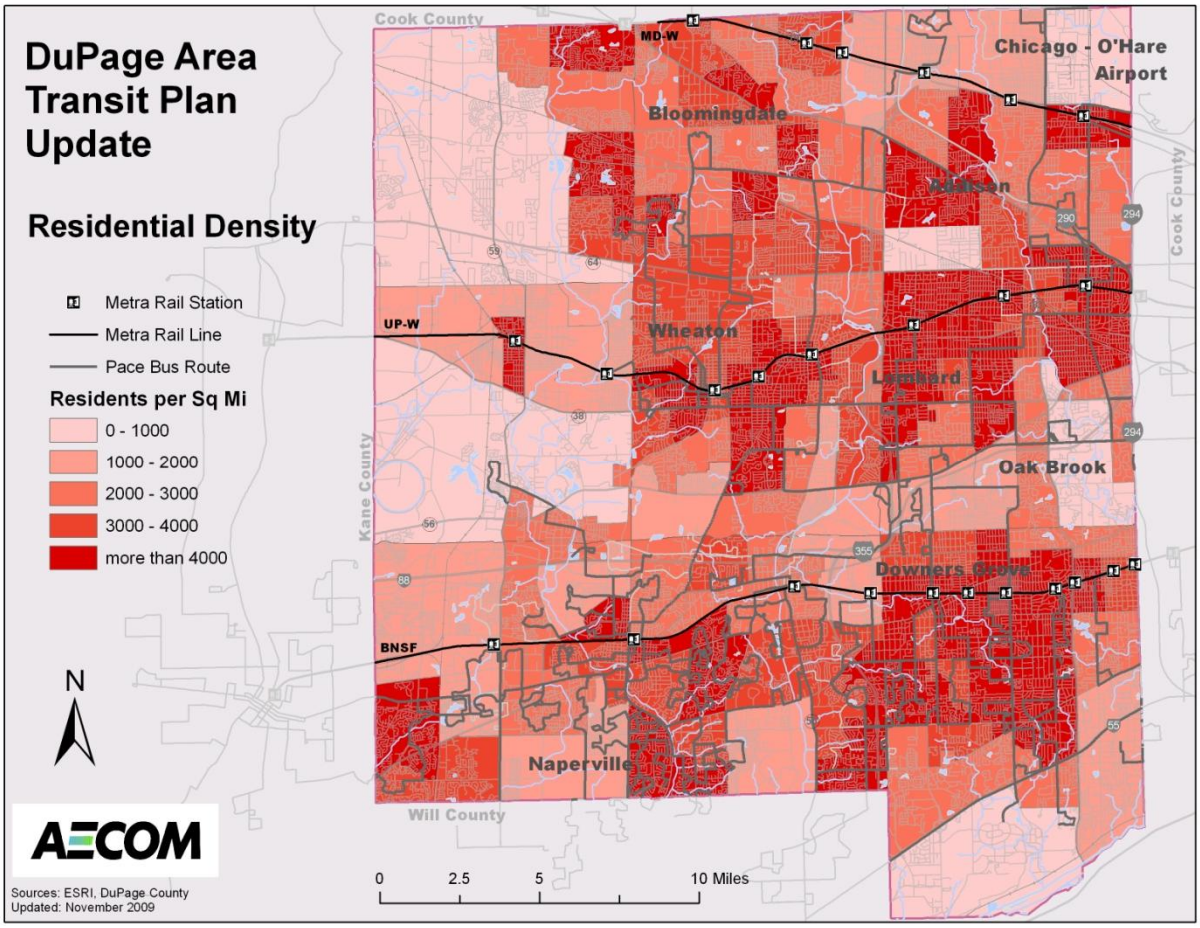
APPENDIX I: DENSITY VS TRANSIT USE

The next sections specifically show overall densities of residences and employees (potential demand), densities or residents and employees who commute by transit (existing demand), proportions of residents and employees who commute using transit ("transit culture").

Residents

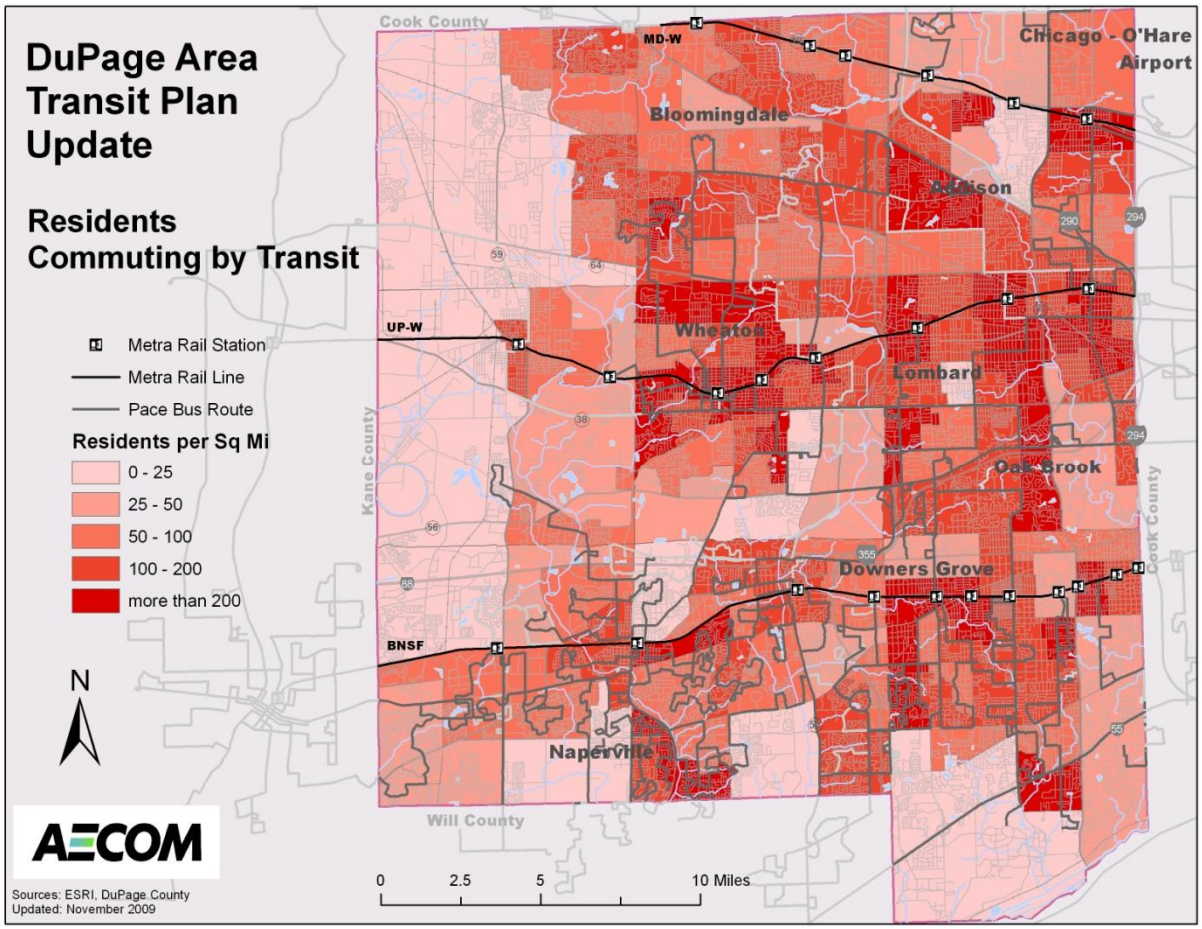
Figure I-1 shows the density of DuPage County residents overlaid with existing transit service. High densities generally follow the BNSF and UP-W Rail Line corridors, as well as a few areas along the northern tier of the county. High-density communities generally following the south side of Metra's BNSF Line are overall well-served by a combination of fixed route local and commuter bus service. Bus service in towns along Metra's UP-W Line varies, with Elmhurst and Wheaton well-served by fixed route and commuter buses, and Lombard receiving less service; while West Chicago is not served by fixed route buses, the dense core generally falls within walking distance of Metra. Several areas across the northern tier of the county have high densities of residents – some of these are served by Pace and/or Metra (Bensenville, part of Addison, part of Bloomingdale), but many are not (large portions of Carol Stream, Bartlett, Glendale Heights, Roselle).

Figure I-1: Population Density



The density of residents (in number of people per square mile) who commute to work using transit is shown in Figure I-2. Generally speaking, more people commute to work using transit in places where more transit service is provided, particularly along the BNSF and UP-W Line corridors and in Bensenville, where significant commuter bus and commuter rail service is available. However, there is also a significant density of transit riders in western Addison Township, Bloomingdale Township, and eastern Wayne Township, in areas with limited or no bus transit service. This suggests that a large number of commuters drive to nearby Metra Rail stations on the MD-W Line (or use local dial-a-ride services), where they continue their commutes by rail.

Figure I-2: Residents Commuting by Transit



Workers

This section focuses on individuals employed within DuPage County who commute using transit. These individuals may commute from homes in DuPage County or from other surrounding counties. While the previous "residents" section represented the origins of work trips, this section represents destinations. As for the previous section on residents' commuting habits, employment data used in this section is based on the 2000 U.S. Census, as commuter data was unavailable at the block group level in the 2008 American Community Survey.

Figure I-3 shows where jobs are located within DuPage County. Jobs are concentrated along the rail lines in Hinsdale, Downers Grove, Lisle, Naperville-Aurora, Elmhurst, Villa Park, Glen Ellyn, Wheaton, West Chicago, Bensenville and Medinah. Additional employment concentrations exist at the College of DuPage, Yorktown Shopping Center, around Oakbrook Center and along Roosevelt Road and 22nd Street, in northern Wheaton and in southern Addison.

Figure I-3: Employment Density

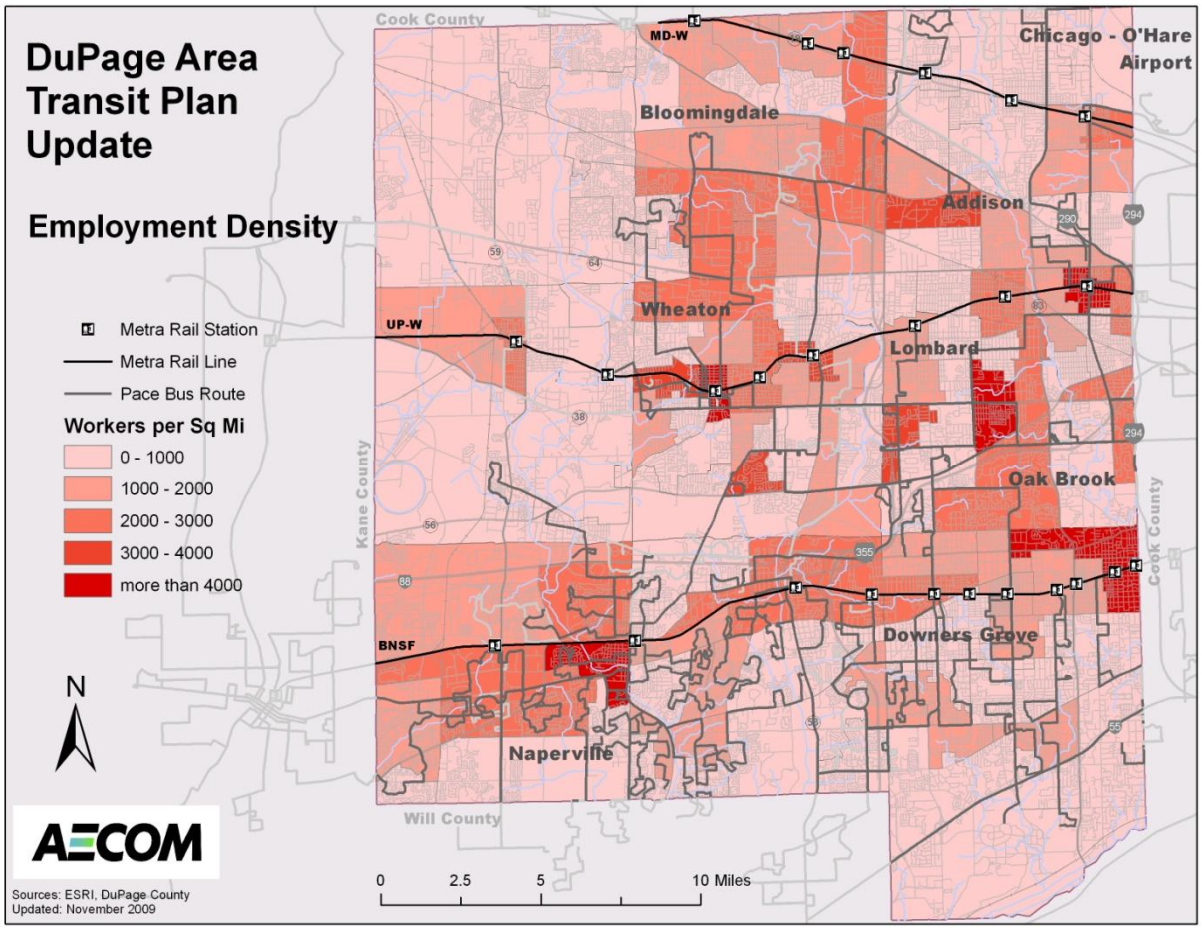
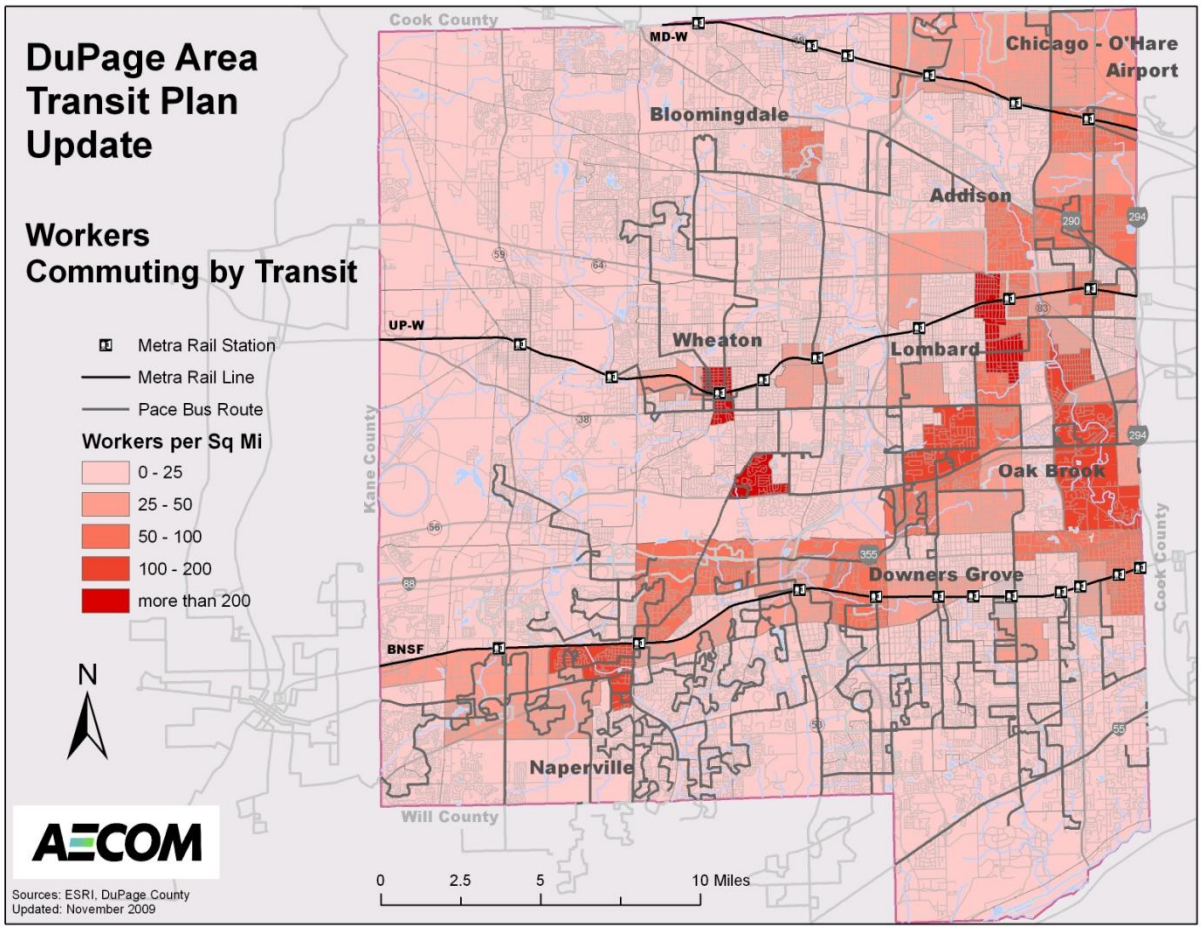


Figure I-4 shows the density of workers per square mile who commute by transit. As expected, areas with a high number of workers arriving by transit tend to follow the rail lines, with particular concentrations near the Naperville, Belmont, Wheaton, Villa Park, Elmhurst, and Bensenville Stations. Additionally, large numbers of employees arrive by transit to the areas surrounding Yorktown Shopping Center and Oakbrook Center and along 22nd Street/Cermak Road, where fixed route bus service is available on a frequent basis, seven days per week. Additionally, a significant number of people arrive at work at the College of DuPage using transit, and in a section of Bloomingdale near the intersection of Glen Ellyn Road and Army Trail Road.

Figure I-4: Workers Commuting by Transit



DuPage County
421 N. County Farm Road
Wheaton, Illinois 60187