1. Introduction

1.1 Background

The Elgin O'Hare–West Bypass (EO-WB) study was undertaken to address the transportation needs in northeast DuPage and northwest Cook counties as cited in regional transportation plans published since the 1960s. Strategies for new or expanded transportation corridors and public transportation linkages in the area have been studied since that time, and recommendations have been made for improving transportation mobility and reliability in a major regional and national transportation hub.

Highway transportation planning has long focused on providing improved travel mobility and reliability in the area. The Elgin–O'Hare corridor was first introduced as a proposed east-west highway facility in 1967 to connect growing communities in western DuPage County and Kane County with Cook County and Chicago to the east. Construction of the first phase of the Elgin O'Hare Expressway between Hanover Park and Itasca was completed in 1993, with an eastern terminus adjacent to the Thorndale Avenue corridor. The Illinois State Toll Highway Authority first studied the O'Hare Bypass concept in 1987. The object of the bypass concept was to relieve congestion and to distribute traffic more effectively along the interstate system. More recently, a proposal for western access to O'Hare International Airport was adopted as part of the O'Hare International Future Airport Layout Plan.

Through the years, the rapidly growing travel and mobility demand in the region has been outpacing the capacity of the region's transportation infrastructure, resulting in transportation facilities characterized by congestion, traffic delays, and increased frequency of incidents. These conditions, coupled with the unique multimodal constraints and opportunities in the area, underscore the need for a comprehensive and innovative transportation planning solution.

In 2005, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users was signed into law. The Act authorizes federal surface transportation programs. It includes $140 million in earmarked funding to initiate project development for the EO-WB project. As a result, a unique opportunity now exists to develop a comprehensive, multimodal transportation system solution. A coordinated planning effort, packaged in a single National Environmental Policy Act document, provides a foundation for implementing reliable and convenient transportation, to improve the quality of life for surrounding communities, and to sustain the region's economic health and growth in the coming decades.

1.2 Purpose of Report

This report describes the characteristics and performance of the transportation system in northeast DuPage and northwest Cook counties (Exhibit 1-1), both today (2007) and in the design year established for the project (2030). It serves as an important early step in the EO-WB study. The findings published in this report will be used to identify and prioritize problems, to develop the project purpose and need statement, and to guide the development of effective and innovative transportation solutions.

1.3 Transportation System Study Approach

The logical starting point for a study of this type is a firm understanding of the characteristics, demand levels, and performance of existing transportation facilities. This Transportation System Performance Report presents an inventory of highways, public transportation, freight movement, and nonmotorized modes. The quality of service on each mode has been defined to help identify constraints and performance issues. The appraisal of existing conditions is an important element in developing the project purpose and need statement. Also, the findings set forth in this report will be the basis for comparing and evaluating the relative benefits of the transportation system alternatives that will be considered as part of the EO-WB study.

As with any study of infrastructure performance and needs, it is important to understand the performance of the transportation system, both today and in the future. The approach for this project considers the performance of the existing transportation system with current travel demand, and also of the No-Action Alternative (baseline system) with projected travel demand. The No-Action Alternative represents the expected future configuration of the transportation system without the EO-WB facilities. It consists of major projects included in the adopted 2030 Regional Transportation Plan (RTP), as well as other projects in the study area identified in agency transportation improvement programs. Travel forecasts for the No-Action Alternative were developed using a travel demand model derived from the travel forecasting process used by the Chicago Metropolitan Agency for Planning (CMAP). Travel performance findings for the No-Action Alternative will support the development of the project purpose and need and serve as a benchmark for evaluating the relative transportation benefits of transportation system build alternatives.

1.4 Study Area

The study area (shown in Exhibit 1-1 and in greater detail in Exhibit 1-2) generally is bounded by I-90 (the Jane Addams Tollway, formerly the Northwest Tollway) to the north, the Eisenhower Expressway (I-290) to the south and west, and the Tri-State Tollway (I-294) to the east. The transportation system alternatives to be considered for the project will be limited to the study area.

CMAP is responsible for transportation planning for the seven-county metropolitan area, which includes the City of Chicago. The EO-WB study will consider the regional impacts of the improvements being considered by this study, but it will be particularly concerned with a smaller study area, within which the primary effects of such improvements will be realized.

1.5 Related Studies and Reports

Studies and reports related to transportation initiatives in the study area were gathered from transportation providers in the early stages of EO-WB project. Those documents either defined specific capital improvements to be implemented over a specific period of time, or proposed potential future improvements. The background information in those documents shed light on transportation issues in the area, and helped to guide some of the detailed travel performance analyses reported herein. The documents also assisted in defining the configuration of the 2030 No-Action Alternative. The 2030 RTP and associated Transportation Improvement Program (TIP) from CMAP were central to the development of the No-Action Alternative, with full consideration of the other documents listed below.

- **Cook County 2006–2010 Highway Transportation Plan—** The 2006–2010 Highway Transportation Plan was intended as a long-range planning tool. It strives to meet the demands of the motoring public while continuing to pursue Cook County's goal of sustaining the highest level of safety. The plan includes projects that address safety, preservation of the existing system, and capacity improvements. Capacity improvement projects identified in the plan are viewed as committed projects, and as such were included in the 2030 No-Action Alternative following consultation with Cook County officials.

- **Cook-DuPage Corridor Study—The** RTA is leading this joint RTA-IDOT (Illinois Department of Transportation) study to develop a multimodal plan for a 30-square-mile area centered on the I-88 and I-290 corridors and bounded by IL-50 to the east, the Kane/DuPage county line to the west, Metra's Milwaukee District–West (MDW) to the north, and the Burlington Northern Santa Fe line to the south. The study's three phases include a travel market analysis (completed December 2005), an options and feasibility analysis, and an alternatives analysis. The plan addresses a series of transit and highway proposals such as high occupancy vehicle lanes on I-290; adding lanes on I-88; extending CTA's Blue Line Congress Branch to DuPage County; an Ogden Avenue (Chicago) transitway; rapid bus transit in several locations including along Cermak Road, the DuPage "J" line, and Inner Circumferential rail service between O'Hare International and Midway airports. The study is still in under way.

- **DuPage County Comprehensive Road Improvement Plan—** The County plan identifies roadway improvements required to meet future transportation needs for a 10-year period. It examines travel growth, development, land use trends, and existing and future roadway deficiencies. A program of capital improvements is expected for the period FY 2005 to 2014 on the basis of anticipated revenue sources and funding levels.

- **DuPage Area Transit Plan—** This plan, developed by the DuPage Mayors and Managers Conference, recommends short-, mid- and long-term improvements for all modes of public transportation (bus, rail, dial-a-ride) serving the county. The horizon year is 2020. Major recommendations, designed to improve mobility throughout the county, include establishing a high speed corridor with service every 10 to 20 minutes from Naperville/Aurora to O'Hare International Airport and Woodfield/Schaumburg (the DuPage County "J" line); developing 13 connector routes that complement the Metra system and connect major activity centers; and implementing community circulators that

operate either as fixed route or flexible route services. The plan identifies six mobility objectives, three of which are pertinent to this study (integration with the regional transportation system; impact on roadway congestion; and connecting hard-to-fill jobs with the labor market) and concludes that the plan would change transit system performance from low impact to medium or high impact. If implemented, the plan would also increase the percentage of population in transit's immediate service area from 20 to 65, and the percentage of jobs in the immediate service area from 31 to 74.

- **West O'Hare Corridor Economic Development Study—** DuPage County initiated planning efforts for a long-term economic development vision in anticipation of future transportation improvements within the EO-WB study area. The West O'Hare Corridor Economic Development Study was structured to develop a long-term vision (through 2030) of the West O'Hare Corridor. The study focused specifically on transportation infrastructure, economic impacts, and land use. The study was conducted with community and stakeholder outreach between DuPage County and DuPage communities in the area of O'Hare International Airport to create a vision for future development based on factual characteristics of the area combined with realistic market potential. This was done through a series of visioning workshops. The project consists of three stages:
  - **State of the Area Assessment—** Review of the transportation infrastructure (existing and planned), overview of economic development trends, and assessment of past and forecast impacts to land use in the West O'Hare corridor.
  - **Opportunities Analysis—** Evaluation of opportunities from potential land use changes because of changes in access and economic stimulus of western access to O'Hare International Airport.
  - **Visioning and Implementation—** Preparation of a development plan for the corridor west of O'Hare International Airport that has stakeholder support and can be a factor for local communities to consider as part of land use planning.

  The study was not intended to supersede local land use policies, plans, zoning regulations, or development authority. Rather, it was meant to stimulate discussion at the local and regional level in anticipation of broad economic, capital, socioeconomic, and environmental effects related to the O'Hare Modernization Program (OMP).
- **IDOT Highway Improvement Program—** The FY 2008–2013 Transportation Highway Improvement Program identifies committed highway improvement projects based upon funding availability and system improvement priorities. IDOT's goal is to maintain state bridges at the current acceptable condition, while striving to keep the roadway system in a reasonably safe condition. Maintaining the system of roads and bridges under state jurisdiction is the priority, with most funds allocated to projects that improve the condition of Illinois roads and bridges. Effort is being made to meet or exceed the bridge system condition goal and to keep roadways safe and well-maintained. IDOT has identified four vital elements for the state highway system, with roadway safety the supreme goal. These elements consist of system maintenance, bridge maintenance, congestion mitigation, and system expansion.

  Capacity or access improvement projects identified in the IDOT FY 2008–2013 Proposed Highway Improvement Program are viewed as committed projects. Those projects, as

well as capacity or access improvement projects anticipated to be funded and built between 2014 and 2030, were included in the No-Action Alternative.

- **Illinois State Toll Highway Authority Long-Range Plan—** The Illinois Tollway (ISTHA) is a crucial part of northern Illinois transportation network that sustains the vitality of the region. ISTHA has developed a comprehensive, long-range plan for modernizing and rebuilding the 274-mile tollway system to create a more efficient transportation system for its customers. The 10-year, $5.3 billion Open Roads for a Faster Future plan and the updated ISTHA Congestion Relief Program catalogue the Tollway's capital needs, with emphasis on reducing congestion and improving service for more than 1.3 million customers daily. When completed, the program will provide access to jobs and renewed foundation for economic growth for local communities. The program incorporates strategies, improvements and new technologies to manage congestion, reduce travel times, and guide future ISTHA operations and maintenance. There are five major areas of need: infrastructure improvements, congestion relief, meeting needs of growing communities, enhancing local economies, and implementing cutting-edge initiatives.

  Capacity or access improvement projects identified in ISTHA's Congestion Relief Program are viewed as committed projects. These projects as well as capacity or access improvements expected to be funded and built between 2016 through 2030 were included in the 2030 No-Action Alternative following consultation with ISTHA officials.

- **Metra STAR Line Feasibility Study—** The STAR Line Feasibility Study arose from two previous studies: the Northwest Corridor Transit Feasibility Study, and the Outer Circumferential Commuter Rail Feasibility Study. It addresses the feasibility of the proposed Metra STAR Line, a commuter rail line that would connect several Metra lines, linking municipalities near Joliet to Aurora, north to Elgin and Hoffman Estates, east to Schaumburg and Arlington Heights and terminating at O'Hare International Airport/Rosemont. The STAR Line corridor from O'Hare to Joliet is included in the 2030 RTP. The segment of the STAR line in the study area (Hoffman Estates to O'Hare Airport) is included in the 2030 No-Action Alternative.

- **Pace Bus System Vision 2020 Plan—** The Vision 2020 Plan recommends a network of new services, infrastructure improvements, and a decrease in travel times. Although challenging, the plan will bring Pace into the future, making public transportation more widely available to the region's suburbs.

  There is a demand for transit services that connect locations in the City of Chicago to widely distributed suburban growth areas, and there is also demand for services that connect suburbs to suburbs. Pace's success depends on how effectively it serves these changing travel needs. As a result, Pace must enhance its transit services to meet the needs of suburban economic development and travel markets.

  Enhanced mobility requires services that are cost and time-competitive with the automobile and that contribute to the community development objectives of each county and municipality. One objective is to provide the "last mile" of service that makes public transportation available to most of the region. In developing services to enhance mobility, Pace will analyze its markets, future land uses and population trends, and

respond to market opportunities by adjusting its routes and services. Proposed service expansion projects are identified in Pace's Vision 2020: Blueprint for the Future. These service expansion projects are discussed in the 2030 RTP, but they are not included among the fiscally constrained projects in the adopted 2030 RTP, and therefore are not part of the No-Action Alternative. Rather, these projects will be considered with the transportation system build alternatives.

- **Chicago Metropolitan Agency for Planning 2030 RTP—** The RTP identifies emerging transportation challenges in the region, presents possible solutions, and provides a guide for long-term transportation investments in the region. Recommended projects in the 2030 RTP represent a financially attainable regional transportation infrastructure system based upon projected federal, state, and local funding resources for sustaining the regions highway, transit, and nonmotorized transportation system.