

## I-290 Corridor Characteristics

The Eisenhower Expressway (I-290) transportation corridor was one of the first multi-modal facilities constructed in the United States. First opened to traffic in the mid to late 1950's, this facility was designed and constructed according to early standards that were newly created for the interstate highway system and transit facilities, and it has remained almost entirely unchanged since its construction over 50 years ago.



I-290 is a gateway between the Chicago central business district and northwest Cook & DuPage Counties, and connects to the Reagan Memorial

Tollway (I-88) and the Tri-State Tollway (I-294) on the west, and I-90/94 (Kennedy and Dan Ryan Expressways) on the east. The I-290 Phase I study area is centered along I-290 in Cook County, extending approximately 7.5 miles from west of Mannheim Road (US 12/20/45) to east of Cicero Avenue (IL Route 50). The study corridor is a very mature, urban environment that includes eight urban municipalities: Chicago, Bellwood, Broadview, Forest Park, Hillside, Maywood, Oak Park, and Westchester. Through much of the study area, rail transit and freight railroad lie adjacent to I-290, with commercial and residential properties, cemeteries, and parks, bordering the existing expressway.

### Other Characteristics:

- » 32 bridges and 11 interchanges are in the study area.
- » I-290 is bordered by three large cemeteries that flank each side of the corridor.
- » Multiple freight rail and commuter rapid transit tracks cross over I-290.
- » Two waterway crossings are within the study area, Addison Creek and the DesPlaines River.
- » There are three non-motorized multi-use facilities along I-290- Illinois Prairie Path, DesPlaines River Trail, and a path through Columbus Park.

Socioeconomic and Land Use



Corridor Travel Patterns



Public Transportation



### Existing Transportation System Performance Report Findings— Study Reaches Key Milestone

In August 2010, the I-290 study team completed the Existing Transportation System Performance (ETSP) Report, a comprehensive evaluation of existing transportation conditions, needs and deficiencies in the study area – both those that exist today as well as those that are anticipated to exist in the future without any major improvements in the study area. This technical analysis included an evaluation of **socioeconomic features and land uses, corridor travel patterns, public transportation, roadways, freight railroads, and pedestrian and bicycle facilities.**



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# Stakeholder Input

The technical analysis of how transportation performs in the study area was complemented by stakeholder input on their perceptions of the transportation problems. Information from and perceptions of travelers, residents, area officials, transportation agencies, and other stakeholders offered at nearly 30 one-on-one stakeholder briefings, six Corridor Advisory Group Meetings, and a public meeting supplemented the technical analysis for the corridor and region.

Using break out groups, post-it notes on study area maps, and comments, a number of key study issues were identified. These issues included congestion/traffic, deficient transit, multimodal needs, safety, pedestrian and bicycle accommodation, economic development, environmental impacts and sustainability, land use compatibility, and funding/cost.

### STAKEHOLDER GOALS FOR THE STUDY INCLUDED:

- ✓ Improve mobility (capacity and efficiency).
- ✓ Improve safety for motorists, transit users, bicyclists, and pedestrians.
- ✓ Coordinate with planned land uses and area developments.
- ✓ Facilitate economic growth.
- ✓ Minimize impacts to the surrounding environment.



## Existing Transportation System Performance Report Findings: STUDY REACHES KEY MILESTONE

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By understanding the existing conditions and problems of the corridor and how they affect the region, solutions can be developed that can address the deficiencies and enhance the overall transportation performance in this region. The report concludes a one-year effort and identifies a number of existing transportation system problems in the study area. The transportation system within the I-290 study area is a critical component of the overall Chicago regional transportation network.

### Key findings of the ETSP report include:

- The I-290 pavement base and bridges have age and condition deficiencies, having been in place over 50 years and reached their expected service life without a major rehabilitation. There are also age and condition deficiencies for the adjacent CTA Blue Line facilities which were built at the same time. Drainage facilities are also inadequate for major storm events.

- Major parallel arterials in the study area (North Avenue, Lake Street, Madison Street, Roosevelt Road, and Cermak Road) operate at very congested conditions. Due to traffic congestion on I-290 and major arterial roads in the study area, accessibility to the study area and regional jobs is constrained.

- I-290 generally carries between 188,000 and 210,000 vehicles per day on the six and eight lane freeway sections, respectively.

- I-290 experiences congested conditions (Level of Service D or worse) for up to 17 hours each weekday for both eastbound and westbound lanes.

- During the morning and afternoon peak hours, virtually the entire length of I-290 is congested in the study area, resulting in reduced travel speeds and delay.

- Seven out of eleven I-290 interchanges in the study area have failing movements due to heavy traffic volumes, inadequate turn lane storage, and deficient geometry that reduce overall operational efficiency at the intersections.

- I-290 experienced crash rates 34% to 61% higher than other similar freeways in the Chicago area (radial routes serving as a link between the central business district and the suburbs).



- Between 2006 and 2008, a total of 4,559 accidents occurred on I-290 in the study area. 64% of these accidents were rear-end crashes, 20% were side-swipe crashes, and 11% were fixed object crashes.

- The highest crash frequencies on I-290 in the eastbound direction occurred from west of 25th Avenue to 1st Avenue, and from Des Plaines Avenue to Harlem Avenue, and in the westbound direction, from Laramie Avenue to Austin Boulevard, and East Avenue to CSX RR overpass.

- Severe crashes (including fatalities or incapacitating injuries) occurred primarily between the uncongested time period between 11 PM and 6 AM, when travel speeds tend to be higher. Severe crash types included a mixture of fixed object, sideswipe, rear-end and pedestrian crashes. Driving Under the Influence (DUI) was an identified factor in 21% of the severe crashes.

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## Stakeholder and Technical Team Identify TRANSPORTATION NEEDS AND DEFICIENCIES

The technical analysis findings and stakeholder input indicate that all modes of transportation were found to have deficiencies that negatively affect performance and do not serve regional or local mobility needs.

| Transportation Needs                                 | Stakeholder Problem Statement   | Technical Analysis Findings   |
|--|---|---|
| <p>» Improve Local and Regional Travel</p>           | <ul style="list-style-type: none"> <li>• Capacity constraints and congestion limit the multi-modal corridor's ability to serve growth and reverse commute markets.</li> <li>• Lengthy transit travel times.</li> <li>• Traffic congestion on Eisenhower Expressway and arterial roads.</li> <li>• Improved access to jobs is needed.</li> </ul> | <ul style="list-style-type: none"> <li>• I-290 is congested approximately 17 hours per day during peak hours.</li> <li>• Interchange Intersections have inadequate capacity and storage.</li> <li>• Crossroads and arterials, frontage roads operate inefficiently because of traffic volume diversions.</li> <li>• Bus Transit: Slow bus travel times, multiple transfers, varying service hours &amp; frequencies.</li> </ul>   |
| <p>» Improve Safety for All Users</p>                | <ul style="list-style-type: none"> <li>• Limited and poor bicycle accommodations.</li> <li>• Improve safety of pedestrian and bicycle facilities.</li> <li>• Improve roadway safety.</li> </ul>   | <ul style="list-style-type: none"> <li>• Over the past three years I-290 corridor has experienced over 5 crashes per day. This crash rate is higher than comparable regional facilities.</li> <li>• ADA non-compliant ramps and sidewalks and unsuitable bicycle facilities.</li> <li>• Crash "hot spots" – near Mannheim East Bound, Austin and Harlem West Bound.</li> <li>• Stop-and-go conditions, congestion, and existing designs contribute to crashes.</li> </ul> |
| <p>» Improve Modal Connections and Opportunities</p> | <ul style="list-style-type: none"> <li>• Lack of reverse commute transit options &amp; access.</li> <li>• Improved connectivity and accessibility for pedestrians and bicyclists.</li> </ul>  | <ul style="list-style-type: none"> <li>• Lack of reverse commute transit options and connections to employment centers.</li> <li>• Problematic intermodal connections. (Pace/CTA/Metra).</li> <li>• Accessibility problems at transit stops.</li> </ul>   |
| <p>» Improve Facility Condition and Design</p>       | <ul style="list-style-type: none"> <li>• Poor Infrastructure condition.</li> <li>• Improve physical community cohesion.</li> </ul>  | <ul style="list-style-type: none"> <li>• I-290 pavement and bridges nearing end of useful life.</li> <li>• Substandard I-290 shoulders, ramps, intersections, bridge clearances and design.</li> <li>• Inadequate storm sewer system serving I-290, CTA and CSX; obsolete pump station.</li> </ul>  |



## Key findings of the ETSP report:

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- The lane reductions at 25th Avenue and Austin Blvd., the inconsistent right and left hand exit and entrance ramp arrangements between successive interchanges, close ramp spacing, and short exit and entrance ramp acceleration or deceleration lanes contribute to the higher crash rates and traffic congestion.
- The study area has a well developed and utilized public transportation system, particularly east of Harlem Avenue. This system best serves the “traditional commute” pattern from the western suburbs into the Chicago Central Business District. However the “reverse commute” pattern to the more dispersed employment centers of the western counties is not well served.
- Within the I-290 study area, public transit carries 21% of all home to work travel in 2010, compared to 12% for the Chicago region overall. The total number of home to work trips (all modes) is projected to increase by 16% by 2030 in the Chicago region overall, but only by 3% within the I-290 study area. The share of work trips using public transit is projected to remain relatively unchanged from 2010 to 2030, both in the I-290 study area and the Chicago region overall.
- Transit performance deficiencies are attributable to the challenges with coordination and convenience of transfers between different systems and modes, speed of service, and lack of usable connections to employment centers. Bus service is also directly impacted by arterial congestion.
- The pedestrian environment for CTA Blue Line rail station access is poor. For the five CTA Blue Line stations in the study area, up to 67% of total weekday station entries involve pedestrian access trips. Three of the existing CTA Blue Line stations, Harlem, Austin and Cicero, are located in the intersections of congested I-290 interchanges. The existing pedestrian access trips often involve longer walking distances with pedestrian/vehicle conflicts.



- The CSX Altenheim Subdivision is a freight railroad line that parallels I-290 through much of the study area; it is a lightly used line that has deficiencies relating to vertical clearances, grades and drainage where it co-exists next to I-290 and the CTA Blue Line.
- Many of the existing bicycle and pedestrian facilities in the study area are substandard and inadequate for safe and efficient use, including numerous conflict areas with motorized vehicles. Only 2 out of 21 crossings meet standards.



The full ETSP report is available on the project website at [www.eisenhowerexpressway.com](http://www.eisenhowerexpressway.com).

# NEXT STEPS

*Purpose and Need and the Identification of Initial Alternatives to Address the Transportation Needs and Deficiencies*

Over the past year, IDOT’s focus has been on examining the study area’s existing transportation system and travel patterns. This comprehensive study has analyzed the existing and future transportation characteristics and performance in an area that is experiencing the demands of growing regional development and increased congestion.

The study team has been working hard gathering information and communicating with stakeholders. Over 30 meetings have been held with municipalities and counties to discuss their project goals including Corridor Advisory and Task Force Groups consisting of a variety of stakeholders and engaging hundreds of residents, business owners, as well as facility users through the project website, letters, and public meetings.

Understanding the corridor’s transportation needs and deficiencies is an important first step in working towards identifying a solution (or solutions) that can address those needs. The findings from the ETSP and stakeholder input will be used to craft a transportation purpose and need statement, and will help guide the identification and evaluation of solutions (alternatives) to address the transportation needs and deficiencies of the I-290 corridor.

