

I-290 | Eisenhower Expressway

From west of Mannheim Road to Racine Avenue

Record of Decision

June 2017

**Record of Decision on the
Interstate 290 (I-290) Eisenhower Expressway Project
in Cook County, Illinois
by the
Federal Highway Administration**

Table of Contents

1.0	BACKGROUND	1
2.0	DECISION.....	2
3.0	DESCRIPTION OF THE SELECTED ALTERNATIVE.....	3
4.0	PURPOSE AND NEED	5
5.0	ALTERNATIVES CONSIDERED.....	6
5.1	Development and Evaluation of Alternatives	6
5.2	Alternatives Considered in Detail	8
6.0	BASIS FOR SELECTING ALTERNATIVE HOT 3+ & EXP & HCT	11
6.1	Summary of Selected Alternative Evaluation.....	11
6.1.1	Social/Economic Impacts.....	12
6.1.2	Special Lands	14
6.1.3	Historic Properties	15
6.1.4	Visual Resources.....	15
6.1.5	Air Quality	16
6.1.6	Special Waste/Hazardous Waste Impacts.....	17
6.1.7	Natural Resources Impacts	17
6.1.8	Traffic Noise Impacts.....	17
6.1.9	Stakeholder and Agency Input.....	17
6.2	Conclusion	19
7.0	MEASURES TO MINIMIZE HARM.....	20
8.0	APPROVAL.....	20

List of Figures

Figure 1.	Selected Alternative	3
Figure 2.	Convertible Expressway Section – Initial and Ultimate Configuration	4
Figure 3.	Alternatives Carried Forward in the FEIS.....	10
Figure 4.	Selected Alternative Travel Time Improvement.....	19

List of Tables

Table 1.	Distinguishing Socioeconomic Impacts.....	13
Table 2.	Traffic Noise and Air Quality Impacts	16

**Record of Decision on the
Interstate 290 (I-290) Eisenhower Expressway Project
in Cook County, Illinois
by the
Federal Highway Administration**

1.0 Background

The Eisenhower Expressway (I-290), originally constructed as the Congress Expressway, was one of the first multimodal facilities in the United States. Opened to traffic in sections beginning in the mid to late 1950s, this facility was designed and constructed according to early standards that were newly created for the interstate highway system.

During the original construction of the Eisenhower Expressway, the Chicago Transit Authority (CTA) Garfield Park rapid transit branch was removed and replaced with what is now known as the Blue Line Forest Park Branch. This heavy rail transit line was constructed parallel to the Eisenhower Expressway, running along the south side of the roadway or in the median. As part of the construction of the Eisenhower Expressway, the freight railroad owned by Baltimore & Ohio Chicago Terminal Railroad, which ran at-grade along the current alignment of the Expressway, was grade-separated and relocated adjacent to the south side of the CTA tracks, sharing the same “cut” with the CTA and the expressway from east of DesPlaines Avenue to Central Avenue. This freight rail line is now owned and operated by CSX Transportation. This section of rail is part of CSX’s Altenheim Subdivision and includes the right-of-way for three tracks, including two continuous tracks and a third intermittent track. A portion of the former Chicago, Aurora and Elgin electric interurban railway was also relocated at Forest Park as part of the original expressway construction, but passenger service on that line was discontinued in 1957.

West of Mannheim Road and east of Austin Boulevard, I-290 has four lanes in each direction. Between Mannheim Road and Austin Boulevard, I-290 has three lanes in each direction. This reduction in lanes and reduced capacity has been a long-standing source of safety, operational, and capacity concerns.

Since its original construction, I-290 has undergone periodic resurfacing and maintenance throughout the corridor. In 2001, the Hillside Interchange Reconstruction Project, located on the west end of the Study Area, was completed. This project was a spot improvement that addressed weaving and access to the Mannheim Road Interchange, and in doing so, addressed safety and operations at I-88’s connection with I-290 and improved connections with Mannheim Road. While weaving conflicts on eastbound I-290 were removed by the addition of the eastbound collector-distributor roadway, the project did not address capacity needs along the I-290 mainline. In 2010, 27 miles of I-290 from Thorndale Avenue to I-90/I-94 were resurfaced and 37 bridges were repaired.

In 2012, the Illinois Department of Transportation (IDOT) initiated a Phase I preliminary engineering study for the I-90/I-94 and I-290 Jane Byrne Interchange, whose western study limits extend to Racine Avenue on I-290. This improvement project includes widening of the northbound-to-westbound ramp from I-90/94 to I-290 and the eastbound-to-northbound ramp from I-290 to I-90/I-94 from one to two lanes, as well as multimodal transportation system improvements, including wider sidewalks and improved access to public transit.

The I-290 Eisenhower Expressway is identified as a fiscally constrained major capital project in the region's metropolitan transportation plan adopted by the Metropolitan Planning Organization (MPO) Policy Committee, which is the designated MPO for the northeast Illinois region.

2.0 Decision

This Record of Decision (ROD) is the official decision document that concludes the National Environmental Policy Act (NEPA) process. Through this ROD, FHWA grants the state of Illinois approval to proceed with final design, completion of acquisition of needed right-of-way, and construction of the I-290 Project. This ROD is executed in conformance with the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 CFR Part 1500) as well as Federal Highway Administration's (FHWA's) own regulations (23 CFR Parts 771 and 774). This ROD documents FHWA's compliance with NEPA and identifies additional requirements that must be met to proceed with the project. The decision is based on analyses contained in the Draft Environmental Impact Statement, issued December 30, 2016, and the comments of federal agencies, members of the public, and elected officials.

This ROD approves HOT 3+ & EXP & HCT, as described in Section 3.0 of this ROD and Section 5.0 of the Final Environmental Impact Statement (FEIS), as the Selected Alternative. It was selected following the evaluation of four mainline build alternatives in addition to the No Build Alternative and was identified as the Preferred Alternative in the DEIS, located generally within the existing I-290 right-of-way. Several key factors were taken into consideration for the alternatives evaluation, including socioeconomic and environmental impacts, travel performance, and stakeholder and agency input.

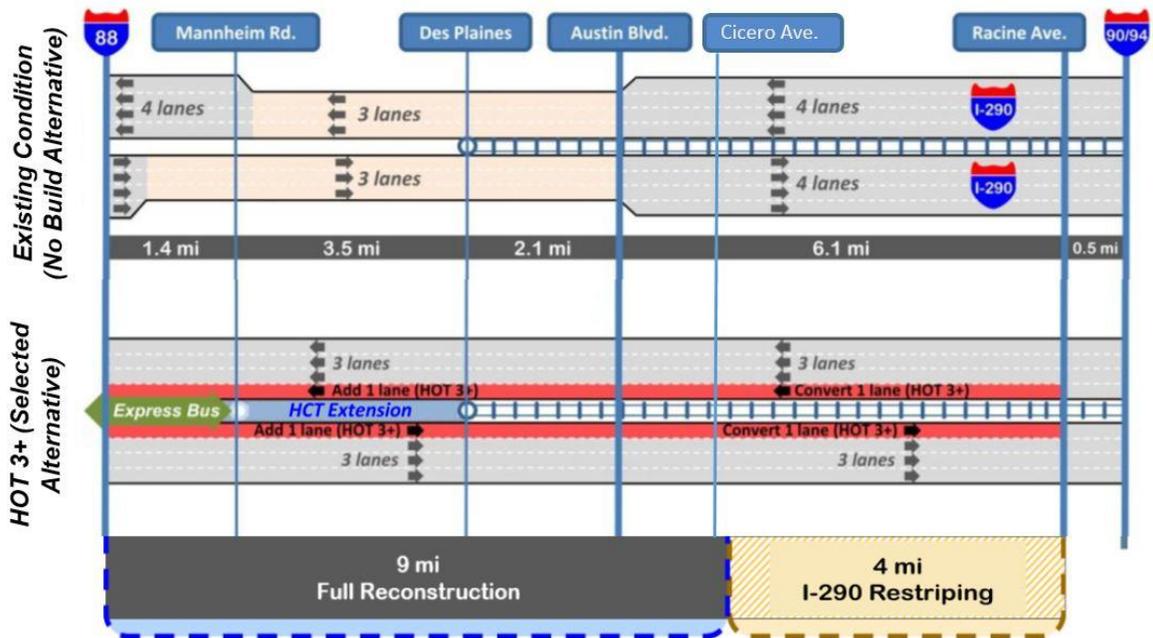
The Selected Alternative is an approximately 13-mile long, east-west oriented, eight-lane divided limited-access roadway with a western terminus west of Mannheim Road in Hillside, and an eastern terminus at Racine Avenue in Chicago. FHWA, in cooperation with IDOT, determined that the Selected Alternative accomplishes the project Purpose and Need as identified in Section 1.0 of the FEIS, has lower overall socioeconomic and environmental impacts as compared to the other three build alternatives evaluated, and incorporates stakeholder input.

In the event of any differences in wording, the ROD takes precedence over the FEIS.

3.0 Description of the Selected Alternative

The Selected Alternative is **HOT 3+ & EXP & HCT**. This alternative consists of adding one High Occupancy Toll (HOT) 3+ (three or more occupants per vehicle or transit vehicle required for non-tolled use, or one/two occupants per vehicle paying a toll) lane in each direction to I-290 between 25th Avenue and Austin Boulevard. The Selected Alternative also includes conversion of one existing general purpose lane in each direction from Austin Boulevard to west of Racine Avenue to HOT 3+ use, and provisions for express bus service (EXP) and high capacity transit (HCT), which includes a heavy rail or bus rapid transit extension. Figure 1 shows the configuration of the Selected Alternative as compared to the No Build Alternative.

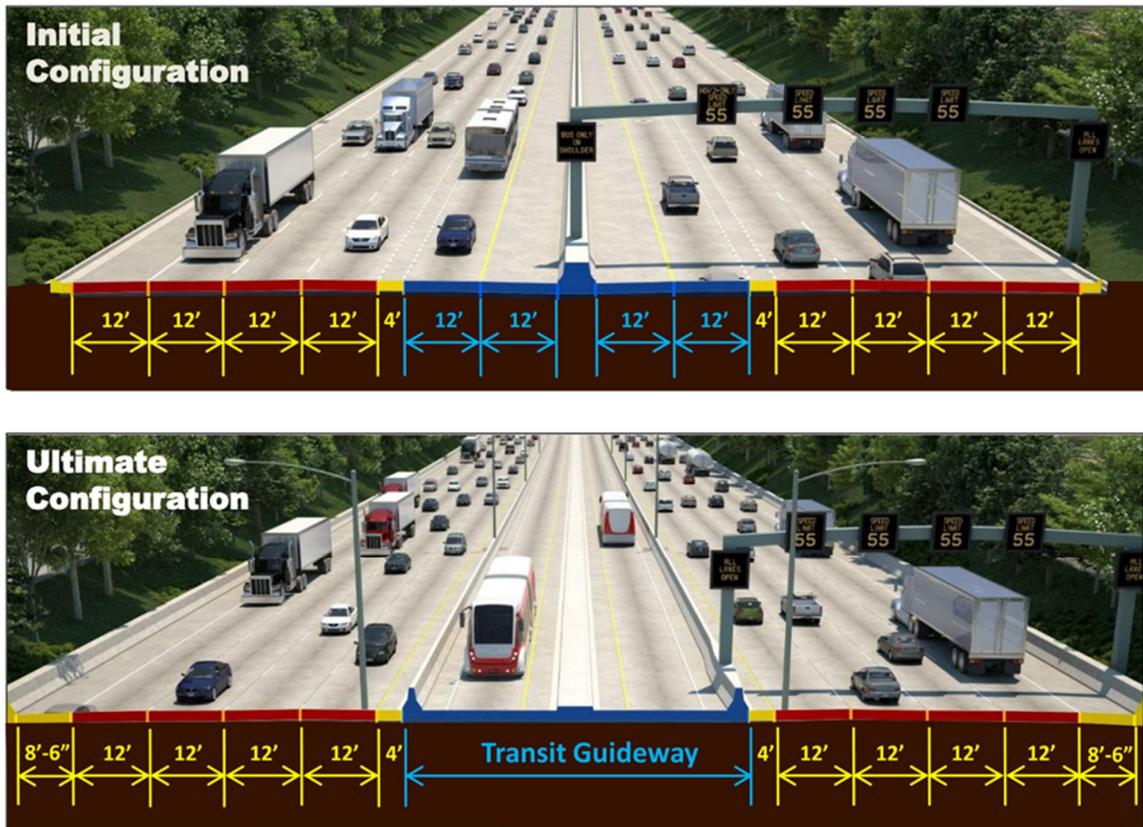
Figure 1. Selected Alternative



The 9-mile section from west of Mannheim Road to east of Cicero Avenue will require full reconstruction of the existing I-290 mainline pavement to address the purpose and need and to accommodate additional lanes. All existing interchanges and overhead highway and railroad bridges would be reconstructed, with the exception of the Mannheim Road interchange and Westchester Boulevard bridge which would remain in their current configuration. Existing bridges over Addison Creek and the Des Plaines River would be reconstructed, and an additional HOT 3+ travel lane in each direction would be constructed between east of Mannheim Road and Austin Boulevard. A new east-west shared-use path running parallel to I-290 is proposed from DesPlaines Avenue to Austin Boulevard, and improved pedestrian and bicycle accommodations are included in the reconstructed overhead highway bridges as well as reconstructed bicycle and pedestrian crossings at Home and Lavergne avenues.

Provisions are included in the I-290 median for initial accommodation of express bus service in the inside HOT 3+ lanes, and future conversion of the median space to accommodate a high capacity transit extension from DesPlaines Avenue to Mannheim Road (Figure 2). Improved connections to public transit, including station access and bus connections to the CTA Blue Line are included. Cross-road bridge clearances over the CSX Railroad between Circle Avenue and Austin Boulevard shall be improved to a minimum 21-feet 9-inches. A total of 5.972 acres of new right-of-way (ownership) and permanent easement is required for the improvements, comprised of acquisitions of property near 25th, 1st, DesPlaines, Circle, and Harlem avenues, as well as obtaining a 10-foot-wide strip of right-of-way from the CTA from west of Circle Avenue to east of Austin Boulevard; otherwise, the proposed improvements are contained within existing public highway rights-of-way.

Figure 2. Convertible Expressway Section – Initial and Ultimate Configuration



In the 4-mile section from Austin Boulevard to Racine Avenue, one lane in each direction would be converted from general purpose use to HOT 3+ use. Reconstruction of the 8-lane section is required from Austin Boulevard to east of Cicero Avenue. From east of Cicero Avenue to Racine Avenue, no physical alteration of the expressway is proposed other than the pavement marking and signage needed to accommodate the HOT 3+ use. Separate projects, independent of the I-290 Selected Alternative, will

address the overhead highway bridges from east of Cicero Avenue to Racine Avenue, and are not included in this ROD.

In the 13-mile Project Corridor, 46 out of 63 eligible noise barriers are likely to be built. These 46 barriers were found to be reasonable, feasible and were approved by a majority of benefitted receptor stakeholders in the viewpoints solicitation process for noise abatement. See Section 7.0, Measures to Minimize Harm, for further information on consideration of noise barriers.

4.0 Purpose and Need

Five principal needs or need points were identified through technical analysis and through stakeholder and public input.

Regional and Local Travel: This need point addresses the identified need to improve mobility, or the movement of people and goods, within the region and the Study Area. Current daily traffic volumes far exceed the existing ideal capacity in the corridor, which negatively affect local and regional travel.

Access to Employment: Traffic congestion on I-290 and the major arterial roads in the Study Area, and the inability to adequately accommodate additional traffic, limit the effectiveness of these transportation facilities to serve local and regional employment areas. These conditions affect the traditional commute (i.e., travelers heading inbound to Chicago during the morning peak period and outbound from Chicago in the evening) and the reverse commute (travelers heading outbound in the morning peak period and inbound in the evening peak), along with other commuter travel markets that utilize this corridor. Traffic congestion on I-290 and parallel routes also negatively impacts bus transit travel times and reliability, the ability to make modal connections, and access to transit by automobile.

Safety for All Users: Within the western part of the Study Area from I-294 to Kostner Avenue (including the six-lane section between 25th Avenue and Austin Boulevard), I-290 experiences crash rates that are 24 to 70 percent higher than comparable Chicago area freeways. Crashes in the eight-lane section from Kostner Avenue to Racine Avenue in the eastern part of the Study Area were also higher than other comparable freeways, but 21 percent lower than the western section of I-290. High crash rate locations were primarily associated with the mainline capacity bottleneck locations and the left-hand ramps at Austin Boulevard and Harlem Avenue.

Modal Connections and Opportunities: Use of the existing transit facilities within the Study Area is higher than for the region as a whole; however, these transit facilities do not operate at full capacity, and facility deficiencies in the corridor inhibit access to transit facilities and hamper optimum provision of transit services. Pedestrian and bicycle access is also constrained within the Study Area. Several opportunities for improving transit facilities and services in the Study Area were identified, and the I-290

Study has been coordinated with the transit agencies for the purpose of accommodating future transit improvements within the footprint of this proposed project.

Transportation Facility Deficiencies: The existing facility was designed and constructed in the 1950s according to the design standards at the time. Since then, design standards have evolved to provide optimal safety and operational configurations. The existing pavement and bridges are now more than 50 years old, exceeding their typical service life (i.e., approximately 30 years for pavement and 50 years for bridges) and is in need of modernization. Several facility deficiencies have been identified related to: 1) pavement and structure conditions; 2) design features; 3) pedestrian, bicycle, and transit facilities; and 4) the existing drainage system and pavement flooding.

5.0 Alternatives Considered

5.1 Development and Evaluation of Alternatives

The development and evaluation of the alternatives was an iterative process guided by extensive stakeholder involvement as described in Section 4.0 of the FEIS, combined with technical analysis and environmental impact avoidance/minimization efforts using field surveyed resource data and impact modeling. The alternatives development and evaluation process in Section 2.0 of the FEIS concluded with the identification of a range of alternatives to be considered (including a No Build Alternative). The process leading up to the selection of the FEIS alternatives consisted of three rounds of identification, evaluation, and refinement that initially considered a wide range of suggested alternatives, evaluated single mode alternatives, and then assembled and evaluated combination mode alternatives that resulted in the selection of four build alternatives carried forward for further refinement and analysis in Section 3.0 of the FEIS. These steps are summarized here:

Initial Range of Stakeholder Suggestions: Suggestions for alternatives for the I-290 Study were actively solicited from project stakeholders and the public through public meetings, Corridor Advisory Group/Task Force (CAG/TF) meetings, stakeholder meetings, and public comments. A total of 570 suggestions were submitted regarding alternatives.

Round 1 – Single Mode Alternatives Identification and Evaluation: After condensing the 570 alternatives into 33 concept categories, they were prescreened to identify “single mode” alternative concepts to be evaluated independently in Round 1. 21 single mode transit, highway, and arterial alternatives were developed and evaluated in Round 1: eleven I-290 expressway alternatives, nine transit alternatives, and one arterial highway widening alternative. The arterial highway widening alternative was fatally flawed due to limited available right-of-way and potential impacts. The remaining 20 alternatives were evaluated with respect to a range of transportation performance criteria. It was determined that the expressway alternatives provide the best overall performance and stand-alone transit alternatives did not improve I-290 performance, but have other

benefits. The Round 1 results were used to inform the next round of alternatives development.

Round 2 – Combination Mode Alternatives Identification and Evaluation: Based on the results of the Round 1 single mode alternative evaluation, ten combination mode alternatives were assembled for evaluation in Round 2. The approach was to test the overall performance of the expressway modes in combination with additional benefits of transit modes. The Round 2 alternatives tested included two transit modes, Express Bus service (EXP) or a combination EXP and High Capacity Transit (HCT) extension to Mannheim Road, in combination with the following expressway modes: General Purpose (GP) Lanes (all lanes non-tolled GP lanes); High Occupancy Vehicle (HOV) 2+ (one HOV lane and three GP lanes in each direction); Toll (all lanes tolled); High Occupancy Toll (HOT) 3+ (one HOT lane and three GP lanes in each direction); and an expressway alternative that paired Toll Lanes and HOT 3+. During the evaluation of the initial ten combination mode alternatives, the CAG identified two additional combination mode alternatives that combined transit and expressway management strategies, but without a lane addition in the existing six-lane section of I-290, for a total of 12 combination mode alternatives evaluated in Round 2.

The alternatives were scored against the project purpose and need two ways, using “rank” scoring (where each need point category contributes equally to the overall score) and “ratio” scoring (weighting for each measure based on the relative performance differences between the alternatives). Based on the results of the Round 2 evaluation, the top four performing alternatives were further developed and refined in Round 3, and were considered in detail in the FEIS (Section 5.2).

Round 3 – Further Definition and Refinement of Build Alternatives: Based on the results of the Round 2 evaluation, the Study Area was formally extended in Round 3 to include an additional 4 miles east to Racine Avenue (Section 2.5.1 of the FEIS) to connect to the improvements being constructed at the Jane Byrne Interchange. Interchange type and expressway access studies were layered in with the further design refinement and detailed performance and environmental evaluation of alternatives in Round 3. The Round 3 evaluation introduced environmental and cost factors, and included both rank and ratio scoring.

Full reconstruction of the expressway from west of Mannheim Road to east of Cicero Avenue is required to accommodate mainline capacity and interchange improvements. Based on condition assessment and operational analysis of the build alternatives, no new expressway reconstruction or capacity improvements were identified for the eight-lane section between east of Cicero Avenue and Racine Avenue; at most, only a restriping and appropriate signage of the eight-lane section is required to implement a build alternative. As such, reconstruction of the eight-lane section east of Cicero Avenue is not proposed; however, the condition of the overhead bridges in this section is being addressed as part of a separate study.

Other Refinements and Considerations: Based on the safety and right-of-way, and in consideration of CTA’s Blue Line Forest Park Branch Feasibility/Vision Study findings, the proposed expressway design was configured to utilize a 10-foot strip of available CTA Blue Line right-of-way (between Circle Avenue and Austin Boulevard) to provide wider shoulders for improved expressway safety performance in this area. Improved freight railroad clearance over the CSX Railroad, to a minimum of 21-feet 9-inches, was achieved via reduced cross-road bridge depths and minor track lowering. Intelligent Transportation System components were recommended to facilitate lane management and to further improve safety.

CTA Blue Line Vision Study: The CTA Blue Line Forest Park Branch Feasibility/Vision Study was initiated in 2013 by the CTA, and was performed in parallel with the I-290 EIS Study. Results of the Blue Line Vision Study were incorporated into the I-290 EIS. It is noted that the Vision Study is not an Environmental Impact Statement, nor is it part of a federal project development process. The findings of the Vision Study include the need for reconstruction of the entire Forest Park Branch. Other key recommendations include:

- Maintain existing entrance locations;
- Remove stations closed in 1970s;
- Improve infrastructure to a state of good repair;
- No third track or express service;
- Improve the terminal site at Forest Park;
- Maintain existing service; and
- Work with IDOT on Project Corridor improvements through design, construction, and funding.

In the short term, CTA would continue to perform interim work to address slow zones and other maintenance items.

5.2 Alternatives Considered in Detail

Four build alternatives evaluated in the FEIS included:

- **GP & EXP & HCT** (also referred to herein as GP Lane), consisting of adding one general purpose lane¹ in each direction between 25th Avenue and Austin Boulevard, and includes provisions for Express Bus (EXP) and High Capacity Transit (HCT);
- **HOV 2+ & EXP & HCT** (also referred to herein as HOV 2+), consisting of adding one High Occupancy Vehicle (HOV) 2+ (two or more occupants required for use) lane in

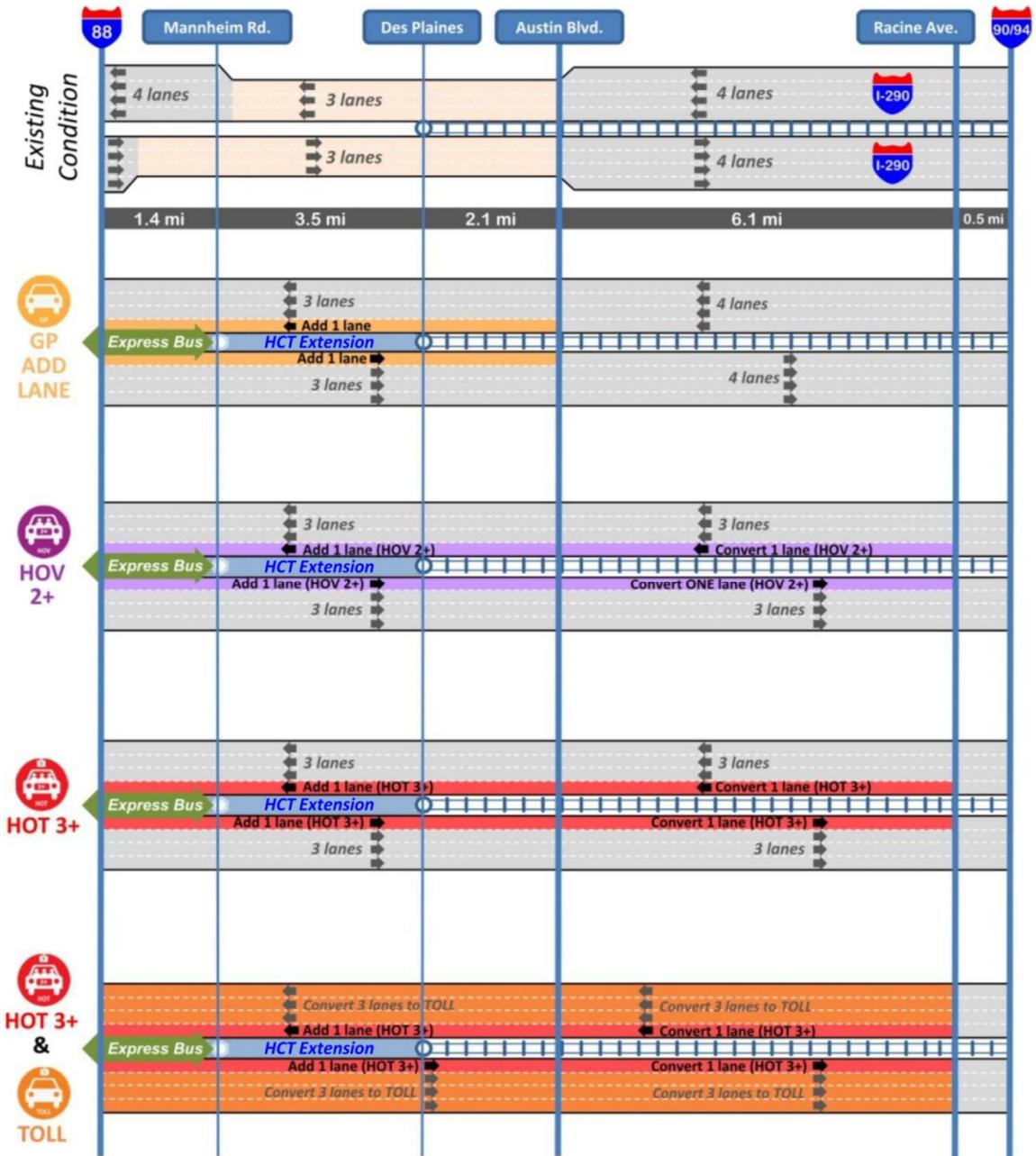
¹ “General purpose lanes (also referred to as “mixed-use” or “mixed-flow” lanes) are those where use is allowed by all vehicles (except certain small motorized vehicles, bicycles, and pedestrians on limited-access highways), without restriction on number of occupants or imposition of a toll. All lanes on I-290 are currently general purpose.

each direction between 25th Avenue and Austin Boulevard, conversion of one existing general purpose lane in each direction east of Austin Boulevard to HOV use, and provisions for EXP and HCT;

- **HOT 3+ & EXP & HCT** (also referred to herein as HOT 3+), consisting of adding one High Occupancy Toll lane (HOT) 3+ (free for vehicle with three or more occupants, or one/two occupants per vehicle paying a toll) in each direction between 25th Avenue and Austin Boulevard, conversion of one existing general purpose lane in each direction east of Austin Boulevard to HOT 3+ use, and provisions for EXP and HCT;
- **HOT 3+ & TOLL & EXP & HCT** (also referred to herein as HOT 3+ & TOLL), consisting of adding one HOT 3+ lane in each direction between 25th Avenue and Austin Boulevard, conversion of one existing general purpose lane in each direction and east of Austin Boulevard to HOT 3+ use, conversion of the remaining general purpose lanes to toll lanes (users of these lanes paying a toll), and provisions for EXP and HCT; and
- The **No Build Alternative** was also carried forward to provide a baseline of comparison of travel benefits, as well as environmental impacts. This alternative consisted of planned improvements to existing roadway and transit facilities in the Study Area that are expected to be constructed by the design year (2040) with the exclusion of major improvements to I-290 or the CTA Forest Park Branch. The transportation conditions assumed to exist under the No Build Alternative included the existing transportation network plus major capital projects (excluding major capital projects in the Study Area) currently in the metropolitan planning organization's 2040 fiscally constrained metropolitan transportation plan referenced in Section 1.1 of the FEIS. The environmental conditions that would exist under the No Build Alternative were generally consistent with the existing conditions as described in Section 3.0 of the FEIS, except to the extent that those existing conditions would be affected by other actions (e.g., other transportation or development projects) as described in Section 3.15 of the FEIS. The No Build Alternative would not satisfy the project's Purpose and Need.

Figure 3 shows a concept for each of the four build alternatives, along with the existing condition (No Build Alternative).

Figure 3. Alternatives Carried Forward in the FEIS



6.0 Basis for Selecting Alternative HOT 3+ & EXP & HCT

6.1 Summary of Selected Alternative Evaluation

The four build alternatives have identical footprints. Therefore, they are very similar to one another; the differences between the alternatives are related to travel performance and social and economic and environmental impacts due to the manner in which traffic would be managed, and the differences in traffic volumes and patterns resulting from this management. Given that the project is located in a developed urban setting, the proposed improvements are almost entirely contained within existing I-290 right-of-way. The only exceptions are 3.322 acres of additional right-of-way (ownership) and permanent easement required at five interchanges or cross-roads proposed for reconstruction and 2.650 acres of right-of-way (ownership) for a 10-foot-wide strip of right-of-way from the CTA Blue Line. The build alternatives result in no residential or commercial displacements. In addition, the Austin Boulevard and Harlem Avenue interchange ramps would retain their current cross-road connection locations centered over the expressway (although converted to right hand on- and off-ramps) in response to community concerns.

All four build alternative improve safety for motorists and pedestrians. Primary safety improvements include elimination of the expressway lane drops (westbound at Austin Boulevard and eastbound at 25th Avenue), which will help reduce congestion related rear-end and side-swipe crashes that are prevalent with lane drops. As stated previously, the left-hand ramps at the Austin Boulevard and Harlem Avenue interchanges are proposed to be converted to conventional right-hand ramp exits and entrances, which are consistent with driver expectations and with all other ramps in the corridor. The interchanges and cross roads would also be designed to modern standards, including improved truck turning radii, improved vehicle storage, wider sidewalks, additional crosswalks, Americans with Disabilities Act (ADA) accommodations, pedestrian plaza areas, modern pedestrian countdown signals, and pedestrian refuge islands in between the ramps at the Austin Boulevard and Harlem Avenue interchanges.

All four build alternatives improve access to transit and non-motorized travel. This includes wider sidewalks on all cross bridges in the Reconstruction Section, including additional width for sidewalks serving CTA Blue Line stations. Increased pedestrian plaza space at CTA Blue Line station entrances to provide space for bicycle parking, bus passengers, and bus passenger shelters. Relocation of some bus stops will provide shorter and more convenient connections, and access to CTA Blue Line stations in the nine-mile reconstructed section of I-290 would be entirely ADA accessible, which is currently not the case in much of the corridor.

With regard to environmental resources, the four build alternatives have no impacts to wetlands, wildlife, and agricultural resources. The four build alternatives each result in the same 12.94 acre-feet net decrease in floodplain fill volume, and water quality standards would continue to be met. There would be no direct use of adjacent Section 4(f) resources required by the build alternatives except for a *de minimis* impact to 0.031 acre of public parkland in the Village of Forest Park and a temporary use of 0.137 acre of parkland in the Village of Forest Park. There is a Section 4(f) exception under 23 CFR 774.13(g) of 2.74 acres for enhancements at Columbus Park. There are no distinguishing differences between the build alternatives with respect to potential uses of Section 4(f) resources.

Environmentally Preferred Alternative: In an overall evaluation of build alternatives to determine which causes the least damage to the biological and physical environment, the HOT 3+ Alternative is identified as the environmentally preferred alternative. Since the biological and physical impacts are identical among the four build alternatives in most areas of interest examined in the FEIS, there is little distinction on which to base preference of one build alternative over another for environmental reasons. However, identification of HOT 3+ as the environmentally preferred alternative is based on the following factors as compared to the other three build alternatives:

- The HOT 3+ Alternative provides the best overall improvements in air quality; and
- The HOT 3+ Alternative provides the best overall travel performance with respect to environmental justice (EJ) communities. The HOT 3+ lane provides additional travel choices (car-pooling), diverts traffic off arterials within EJ communities, and provides a reliable travel option for transit users.

Each of the four build alternatives would satisfy the Project Purpose and Need. However, the level of overall travel performance and the economic benefits vary between each of these alternatives. Since the physical footprint on the land by each of the build alternatives is primarily confined within the existing I-290 right-of-way and is the same for the four build alternatives, environmental mitigation would be identical for each of the alternatives.

6.1.1 Social/Economic Impacts

The Project Corridor traverses highly developed areas of the Chicago metropolitan region and is almost fully built-out with little unused, underdeveloped urban land. The predominant racial groups in the Project Corridor are Black at 58.1 percent of the total population, Whites at 29.8 percent, and 9.7 percent of the population that consider themselves Hispanic or Latino. Median household incomes for all core communities are higher than the poverty guidelines. Westchester and Elmhurst had the lowest percentages of persons living below the poverty line, while communities with the highest percentages below poverty were generally found on the eastern portion of the corridor. Chicago has the highest percentage of persons below the poverty line at 21.4 percent.

Year 2040 No Build and Build socio-economic forecasts were prepared as part of the I-290 Study based on the change in highway and transit accessibility. The I-290 Study

Area population and employment forecasts for the No Build versus Build Scenario indicate a less than one percent change due to the existing built-out urban conditions in the Study Area and that the proposed project reflects improvements to an existing facility that already provides accessibility to the Study Area. As shown in Table 1, all of the build alternatives would result in long-term benefits from improved access to and from I-290 and annual productivity savings in 2040 that would range from \$86 to \$152 Million.² The build alternatives would not change land use patterns and comply with local and regional comprehensive plans. All existing access points to I-290 would be maintained. 5.972 acres of right-of-way (ownership) and permanent easement would be required, although there would be no resulting displacements of residences or businesses.

Table 1. Distinguishing Socioeconomic Impacts

Resource	Analysis Level	No Build Alternative	Build Alternatives			
			GP Lane	HOV 2+	HOT 3+	HOT 3+ & TOLL
Traffic diversion to local roads (VMT)	Quantitative	--	-24,560	+6,944	-8,853	+147,834
Average change in travel time to job destinations from the 2040 No Build Alternative, EJ Communities	Quantitative	--	-1 to -3 minutes	0 to -9 minutes	-1 to -10 minutes	-1 to -9 minutes
Average change in travel time to job destinations from the 2040 No Build Alternative, non-EJ Communities	Quantitative	--	-2 minutes	-2 to -5 minutes	-2 to -5 minutes	-4 to -6 minutes
Construction-related jobs created ¹	Quantitative	--	18,904	18,904	18,980	18,980
Productivity (based on travel time savings)	Quantitative	--	+\$1.6 B	+\$1.6 B	+\$2.7 B	+\$2.9 B

¹ NCHRP 08-36, Task 103 - Mining Recovery Act Data for Opportunities to Improve the State of Practice for Overall Economic Impact Analysis of Transportation Investments, Cambridge Systematics & Economic Development Research Group, 2012. 10.55 jobs/\$1M construction cost in 2010 adjusted to 9.82 jobs/\$1M construction cost for 2015 using CPI. 2015 cost estimates used as basis for estimating direct construction jobs.

² Productivity savings is travel time savings multiplied by the time value of money. Assumes \$24 per hour value of time per the NCHRP Report 456 Guidebook for Assessing the Social and Economic Effects of Transportation Projects.

Environmental Justice: No substantial differences in transportation access were found with any of the build alternatives with respect to EJ communities, as compared to non-EJ communities, and all build alternatives had benefits in job accessibility and non-motorized and transit access for EJ communities that were similar to non-EJ communities. Of the build alternatives, the HOT 3+ & TOLL Alternative impacted the 2040 arterial traffic more than the No Build Alternative, while the other three build alternatives showed more positive effects. Environmental effects, such as those related to air, noise, and social and economic resources (including construction impacts), were similar for EJ and non-EJ communities, and no residences or businesses in either EJ or non-EJ communities are proposed to be displaced by any of the build alternatives. Public involvement was encouraged by the participation of representatives of EJ communities in the project's Corridor Advisory Group (CAG) study group, as well as traditional and nontraditional means of engaging the public in participation at public and community meetings. Though there would be impacts (i.e., noise and construction impacts in particular) to EJ and non-EJ communities along the Study Area, upon implementation of the planned mitigation, as described in Section 7.0 and the FEIS, and coordinated with each community, the impacts would not be disproportionately high and adverse to EJ communities.

6.1.2 Special Lands

The proposed project would require small areas of new right-of-way from two parks in the Village of Forest Park to accommodate pedestrian and bicycle access improvements requested by the Village and the temporary use of a third park during construction. The proposed improvements would occur as follows:

- Veterans Park (at 631 Circle Avenue): 0.027 acre (temporary)/0.018 acre (permanent) to provide for a wider, 12-foot wide sidewalk and a new on-street 6-foot wide bicycle lane along Circle Avenue, and a new sidewalk on the park's western boundary to connect the park with the proposed shared-use path (requested by the Village).
- The Dog Park (at 632 Circle Avenue): 0.020 acre (temporary)/0.013 acre (permanent) to provide for a wider, 10-foot wide sidewalk along Circle Avenue and a new on-street 6-foot wide bicycle lane (requested by the Village).
- Park District of Forest Park (Recreational Center-Roos property): 0.091 acre (temporary) to provide work space for installing a 5-foot wide sidewalk on the west side of Circle Avenue south of I-290.

As stated in Section 3.12.3 of the FEIS, FHWA has issued a *de minimis* impact finding for Veterans Park, the Dog Park, and the Roos Property based on the minimization measures proposed and written concurrence from the Officials with Jurisdiction (OWJs) that there is not an adverse effect to the features, attributes, and activities that make the properties eligible for 4(f) protection. The project would not adversely impact the long-term use, function, or development of these parks.

At Columbus Park, the project proposes to improve bicycle and pedestrian access at the southwest corner of Columbus Park near Austin Boulevard by completing a trail

connection between the proposed east-west shared-use path extending from west of Austin Boulevard to the existing Columbus Park trail situated along its southern edge. This access improvement would involve a Section 4(f) exception of approximately 1.03 acres in the southwestern corner of the park to allow construction of a 450-foot long shared-use path. Ultimately, this connection would effectively extend direct access to the Illinois Prairie Path into the City of Chicago, and in combination with the proposed shared-use trail, would provide an additional 2.5 miles of continuous nonmotorized access between DesPlaines Avenue and Central Avenue. Landscape enhancements would also be undertaken along the eastern half of the park's southern boundary involving a Section 4(f) exception of 1.71 acres. The Chicago Park District and SHPO concurred that these improvements meet the requirements for Section 4(f) exception under 23 CFR 774.13(g).

6.1.3 Historic Properties

FHWA's Section 106 effect finding considered that the Preferred Alternative would have no effect to six historic properties and no adverse effect to 17 historic properties in the Area of Potential Effects (APE). No direct physical impacts to 22 of the 23 historic properties would occur as a result of the Preferred Alternative because the proposed improvements generally fit within existing right-of-way, outside of National Register of Historic Places (NRHP) boundaries. As described above, project activity at the request of the Chicago Park District is proposed within the National Historic Landmark (NHL) boundary of Columbus Park, but the Section 4(f) exception and proposed improvements would have no adverse effect to the property. Additionally, no indirect effects to historic properties would occur because traffic noise and visual project components would not adversely diminish their integrity or alter the characteristics qualifying these properties for the NRHP. SHPO concurred with the Section 106 finding of no adverse effect on May 25, 2017. Therefore, FHWA made an overall project finding of no adverse effect.

6.1.4 Visual Resources

In those sections to be reconstructed along the Project Corridor, an effort will be made to create a consistent corridor aesthetic. While the final design is yet to be completed, the general appearance of walls, noise barriers, bridge piers, and fencing is anticipated to include the textures and forms illustrated in FEIS Section 3.13.4.

The quality and character of the existing viewsheds of the Project Corridor as viewed from the adjacent land uses is a result of the original I-290 construction. Since that time, the density and quality of existing vegetation affects the ability to view one side of the corridor from the other where the right-of-way is wider and the vegetation is densest. The primary visual consequence of the build scenarios as viewed from outside the corridor would be the loss of this vegetation and the potential placement of noise barriers. To mitigate for this loss, the retaining walls and other structures would be located such that the maximum amount of green space is created between the new retaining walls and the adjacent off-corridor land uses. Where space permits, landscape plantings would be installed to restore the lost vegetation and to soften the appearance of the noise barriers, as described in FEIS Section 3.13.5.2.

6.1.5 Air Quality

Air quality analysis of the four build alternatives included pollutant burden analysis, Mobile Source Air Toxics (MSATs), and greenhouse gas (GHG) emissions. Overall, the build alternatives are expected to show minor changes (generally less than one percent better or worse) in regional pollutants, GHG emissions, and MSATs compared to the No Build Alternative, and no local impacts are currently identified. Of the four build alternatives, the HOT 3+ Alternative provided the best overall air quality benefits, with reductions in all of the air quality measures evaluated. It is noted that the differences in air quality effects of the build alternatives, while having slight differences, were not sufficiently distinguishable to be used in the scoring used to evaluate these alternatives in the FEIS.

Table 2 includes a summarization of the differing air quality impacts of the build alternatives.

Table 2. Traffic Noise and Air Quality Impacts

Resource	Unit of Measure	No Build Alternative	Build Alternatives			
			GP Add Lane	HOV 2+	HOT 3+	HOT 3+ & TOLL
Traffic Noise						
Receptors approaching, meeting or exceeding noise abatement criteria	Each	227	230	228	229	220
Pollutant Burden (annual burden – tons)¹						
VOC (Hydrocarbon)	Tons	1,270	+0.10%	-0.01%	-0.14%	-0.02%
NO _x	Quantitative	2,776	+0.21%	-0.12%	-0.07%	-0.60%
CO	Quantitative	23,708	+0.73%	-0.51%	-0.34%	-0.35%
PM ₁₀	Quantitative	1,813	-0.06%	-0.03%	-0.31%	-0.43%
PM _{2.5}	Quantitative	326	+0.09%	-0.13%	-0.30%	-0.50%
Greenhouse Gas Emissions (annual burden – million tons)¹						
CO _{2e}	Quantitative	10.517	+0.24%	+0.03%	-0.01%	-0.10%
MSAT (annual tons)¹						
Acrolein	Quantitative	1.17	-0.08%	-0.07%	-0.17%	-0.62%
Benzene	Quantitative	16.55	+0.30%	-0.04%	-0.08%	+0.05%
1,3 Butadiene	Quantitative	0.07	-0.20%	-0.08%	-0.20%	-0.83%
Diesel PM	Quantitative	50.24	+0.10%	-0.13%	-0.16%	-1.11%
Formaldehyde	Quantitative	25.90	-0.07%	-0.07%	-0.17%	-0.60%
Naphthalene	Quantitative	2.19	-0.02%	-0.06%	-0.16%	-0.53%

¹ Provided as sensitivity test for informational purposes; not intended for Selected Alternative selection. Figures in green represent decreased impacts and figures in red represent increased impacts, as compared to the No Build Alternative.

6.1.6 Special Waste/Hazardous Waste Impacts

The Illinois State Geological Survey (ISGS) Preliminary Environmental Site Assessment (PESA) reports identified numerous recognized environmental condition (REC) sites, all of which have the potential for soil or groundwater contamination and could potentially pose a risk to construction activities. Thirteen (13) REC sites were identified as being within or directly adjacent to the proposed right-of-way acquisitions. These REC sites may require further evaluation including testing (preliminary site investigation [PSI]). The determination whether further assessment is necessary will be evaluated as the proposed project progresses and detailed design becomes available. The decision generally depends on the nature of the REC, its proximity to the planned construction activities, and its potential impact to the proposed project. There is no differentiation in special waste/hazardous waste impacts between the build alternatives.

6.1.7 Natural Resources Impacts

The build alternatives are located predominantly in developed areas associated with existing roadways. No impacts to forest preserves or state-designated lands are proposed, and all of the four build alternatives would result in the same impacts to habitat. Overall, project-related impacts to wildlife associated with the build alternatives would be minimal, and would be identical among these alternatives.

6.1.8 Traffic Noise Impacts

Under existing conditions, 220 of the 288 noise receptors identified currently approach or exceed the Noise Abatement Criteria (NAC).³

For 2040 conditions, the slight difference in traffic noise impacts among the build alternatives correlates to their traffic volume differences. The GP Lane Alternative had the greatest amount of traffic noise impacts among the four build alternatives (230 receptors above the NAC), followed by the HOT 3+ Alternative (229) the HOV 2+ Alternative (228), and the No Build Alternative (227). The HOT 3+ & TOLL Alternative was found to have the least amount of traffic noise impacts among the build alternatives (220), and this alternative also has the lowest projected traffic volumes of the four build alternatives. It is noted that the differences in noise impacts of the build alternatives were used in the scoring used to evaluate these alternatives in the FEIS. Table 2 includes a summarization of the differing noise impacts of the build alternatives.

6.1.9 Stakeholder and Agency Input

IDOT's Context Sensitive Solutions (CSS) process was implemented as part of the Environmental Impact Statement (EIS) study beginning with project scoping and development of the project and was effective in guiding the project toward consensus on a preferred alternative. The CSS process for the EIS was initiated in October 2009 with the initial assembly of the project CAG. The CAG consisted of representatives from each

³ Per IDOT policy, traffic noise impacts are identified only for the future build condition, not for the existing or future No Build condition. Comparisons of the existing and future No Build noise levels to the NAC are for comparison purposes only.

corridor community, transportation agencies, and interest groups and was open to the general public. Twenty-two (22) meetings were held with this group during the NEPA process and at study milestones. The CAG participants played a key role in the identification, development, and refinement of build alternatives, including recommendation of a preferred alternative.

Parallel to the CAG process, individual community, agency, and other stakeholder meetings were held to present information, listen to stakeholder concerns and needs, and discuss and refine ideas. The stakeholders for this project can be categorized broadly as federal and state regulatory agencies; state, county, and municipal officials; interest groups and organizations; other entities, such as utilities, public transit agencies, railroads, and businesses; and private citizens. Stakeholder identification and communication is described in more detail in Section 4.0 of the FEIS and the Stakeholder Involvement Plan.⁴

Six NEPA/404 Merger meetings were held, and more than 150 meetings were held individually with project stakeholders. A series of 10 Transit Working Group meetings were conducted to guide the overall corridor-level development of the alternatives, which included representatives from IDOT, CTA, Illinois Tollway, Pace, Metra, and RTA.

A series of three public meetings and four town hall meetings were also held throughout the project development process. These meetings were supplemented with various other speaking engagements at the request of stakeholders. Two public hearings on the I-290 DEIS were held at different locations on consecutive days (Chicago on January 25 and Maywood on January 26, 2017) to present the DEIS, to answer questions, and to receive public comments. There were 281 attendees at the two hearing locations combined, 17 attendees who participated in the question-and-answer sessions at the hearings, and a total of approximately 332 unique comments within 124 overall comments received during the DEIS comment period.

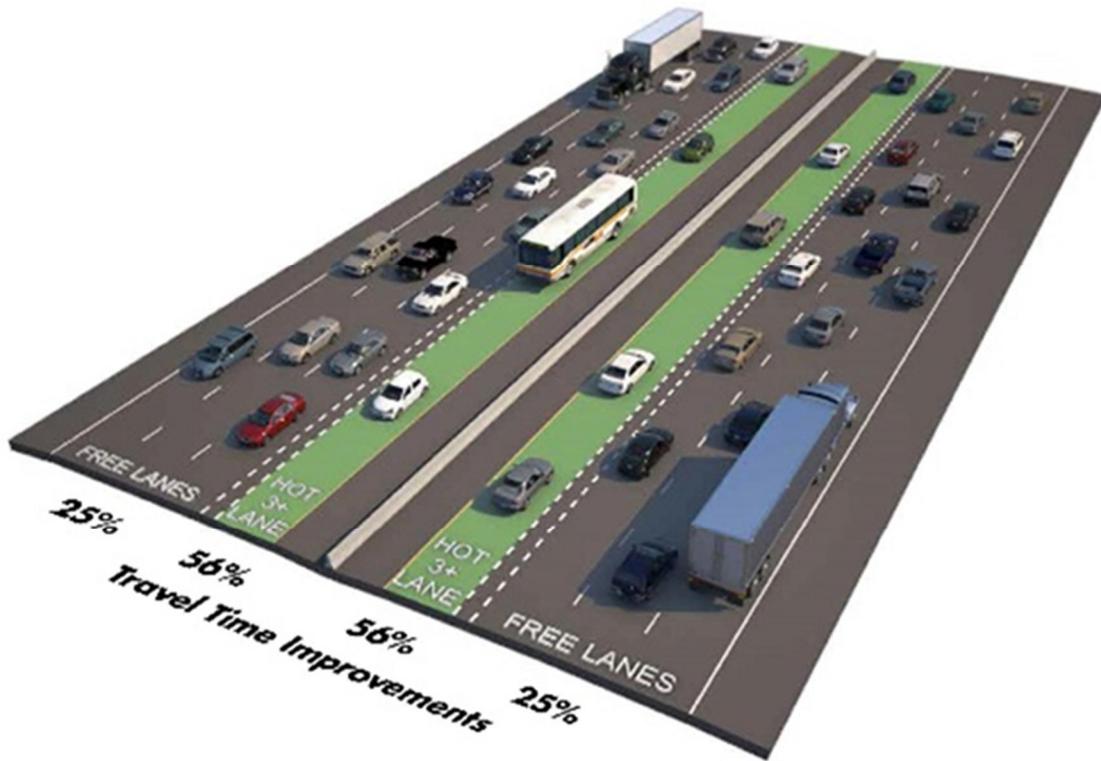
A suite of outreach tools was used to reach all stakeholders, with an emphasis on EJ communities. These tools included a project website (www.eisenhowerexpressway.com), newsletters, e-mail blasts to a 3,000-count stakeholder mailing list, billboards, content prepared for village websites, and media releases. As a result of this collective outreach and community involvement, more than 1,700 public comments were received and considered from October 2009 to April 2017. The culmination of this robust stakeholder outreach program has resulted in a project that broadly reflects community and stakeholder values in the Project Corridor.

⁴ Stakeholder Involvement Plan, Version 5 (2016)
http://www.eisenhowerexpressway.com/pdfs/i290_stakeholderinvolvementplan_v5.pdf.

6.2 Conclusion

In considering the key factors identified with respect to meeting project goals and objectives, travel performance, and social/economic and environmental impacts, the HOT 3+ Alternative provides the best balance of benefits, avoids social/economic and environmental impacts, and provides travel benefits to EJ communities. The HOT 3+ Alternative results in a 25 percent travel time savings in the GP lanes and a 56 percent travel time saving for users of the managed lane (Figure 4).

Figure 4. Selected Alternative Travel Time Improvement



7.0 Measures to Minimize Harm

Mitigation and abatement measures would be completed in accordance with the policies and procedures of FHWA and IDOT and the requirements of the appropriate federal and state resource agencies. Section 3.19 of the FEIS provides a detailed summary of mitigation commitments. Due to the limited amount of right-of-way required and that there are no displacements for any of the build alternatives, few mitigation measures are required. The primary mitigation measures identified are:

- Traffic Noise. Forty-six (46) noise walls, which would benefit 4,027 receptors, were determined reasonable and feasible after completing the viewpoints solicitation. Future coordination in the design phase may result in reopening the viewpoints solicitation process where warranted by changes in the number/location of benefited stakeholders, the benefited stakeholders' opinions, or noise wall technology. The noise barriers likely to be constructed are shown in the Section 3.0 Map Set of the FEIS.

- Tree Mitigation. Impacts to trees would be minimized with installation of construction fencing and exclusion zones to reduce compaction of roots and soil. Mitigation for trees removed would be guided by IDOT's Preservation and Replacement of Trees (IDOT, 2002) policy and Chapter 59 ("Landscape Design") of the Bureau of Design and Environment (BDE) Manual (IDOT, 2014).

A landscaping plan would be developed during the design phase that would identify areas where trees, shrubs, and grasses would be planted on highway side slopes, on back slopes, and in the median, except where clear vision needs to be maintained at highway entrances and exits, intersections, and median openings.

- Visual Resources. Mitigation for visual impacts may include implementation of context sensitive design, which involves public input, and landscape improvements for the replacement of existing landscaping, creation of new landscape areas, public input in the use of alternative materials and design of noise barriers, and installation of containerized plantings located on the cross-road overpass bridges.

8.0 Approval

Based on the analysis and evaluation contained in the FEIS and after careful consideration of all the social, economic, and environmental factors described in the FEIS with input received from other agencies, organizations, and the public, it is the decision of the FHWA to approve HOT 3+ & EXP & HCT as the Selected Alternative.