Executive Summary

ES-1 Introduction

The Illinois Department of Transportation (IDOT), in cooperation with the Federal Highway Administration (FHWA) has completed a Supplemental Draft Environmental Impact Statement (SDEIS) for a proposed transportation project designed to improve US Route 34 (US 34) in Henderson County, Illinois from west of Carman Road near Gulfport, Illinois (IL) to just east of Township Road (TR) 111. This SDEIS is supplemental to the Final Environmental Impact Statement (2003 FEIS) which identified a Preferred Alternative for the proposed US 34 project from Carman Road to Monmouth, IL and received a Record of Decision (2003 ROD) on August 18, 2003. Since the ROD was signed, major changes have occurred in state requirements regarding construction in floodplains, and the floodplain boundaries near the US 34 Preferred Alternative between Carman Road and Gulfport also changed.

When the 2003 ROD was signed, the regulatory Mississippi River 100-year floodplain did not extend onto the landward side of the Henderson County Drainage District (HCDD) Number 1 and Number 2 levee systems. Specifically, the only areas mapped as 100-year floodplains on the landward side of the levee systems were those associated with local tributaries and ponds.

In 2006, the Governor of the State of Illinois issued Executive Order 2006-05 (EO 2006-05), *Construction Activities in Special Flood Hazard Areas* (Appendix B), which defines a Special Flood Hazard Area as *"an area subject to inundation by the base or 100-year frequency flood and shown as such on the most current Flood Insurance Rate Map published by Federal Emergency Management Agency."*

It also refers to a 'Critical Facility' which is defined as follows: *"Critical Facility means any facility that is critical to the health and welfare of the population and, if flooded, would create an added dimension to the disaster. Damage to these critical facilities can impact the delivery of vital services, can cause greater damage to the other sectors of the community, or can put special populations at risk. The determination of Critical Facility will be made by each agency."*

EO 2006-05 requires that “all new Critical Facilities shall be located outside of the floodplain. Where this is not practicable, Critical Facilities shall be developed with the lowest floor elevation equal to or greater than the 500-year frequency flood elevation or structurally dry flood-proofed to at least the 500-year frequency flood elevation." IDOT determined that US 34 is a critical facility as defined in EO 2006-05; therefore, US 34 requires compliance with EO 2006-05. Also, federal Executive Order 11988 *"Floodplain Management"* requires federal agencies to avoid to the extent possible the long-term and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative. Therefore, other alternatives must be evaluated to determine if there is a practicable alternative to the six miles of selected US 34 alignment currently in the 100-year floodplain. If impacts cannot be avoided, measures must be developed to minimize the impacts and restore and preserve the floodplain, as appropriate.

On June 18, 2010, the Federal Emergency Management Agency (FEMA) de-accredited the HCDD Number 1 and Number 2 levee systems. De-accreditation means that FEMA cannot

recognize the levee system as providing adequate flood protection to the area on the landward side of the levee system. The de-accreditation decision was based on a determination by FEMA that the levees no longer met the requirements of the Code of Federal Regulations, Title 44, Section 65.10 (44 CFR 65.10), which describes the requirements for levee accreditation. An accreditation determination typically includes a review of various technical data including system design, physical condition, operation procedures, and maintenance plan information.

The result of the de-accreditation is reflected on the current regulatory floodplain mapping for Henderson County. The significance of the de-accreditation, as it relates to the proposed US 34 project, is that approximately 6.0 miles of the selected US 34 alignment, as identified in the 2003 FEIS and 2003 ROD, are now in a Special Flood Hazard Area protected by EO 2006-05. As a result of levee de-accreditation, the existing conditions as stated in the 2003 FEIS have changed for the portion of the proposed US 34 alignment within the Mississippi River floodplain. Since the de-accreditation of the levee systems has no impacts to approximately 22 miles of the proposed alignment east of and outside the Mississippi River floodplain, only the portion directly affected by the de-accreditation will be studied in this SDEIS. Due to these changes in condition, and in accordance with 23 CFR 771.130(e), an SDEIS in the area of this regulatory floodplain change has been prepared.

The proposed action in the 2003 FEIS and 2003 ROD would provide a continuous 24.85 mile, four-lane link between the freeway at Gulfport to the interchange located at US 34/67 near Monmouth. The project website is https://idot.illinois.gov/projects/US-34-Expansion-Gulfport-to-Biggsville.html. As discussed further in this document, this SDEIS specifically addresses only a 6-mile section of the entire 24.85-mile project.

ES-2 Purpose and Need

The proposed action is to provide an improved transportation facility for local and through traffic in Henderson and Warren counties to address the needs of system capacity, system continuity, and travel safety. The proposed US 34 improvement would provide an improved transportation facility with an appropriate connection to the four-lane facility east of Gulfport in the vicinity of Carman Road and extend 25 miles to the east connecting to an existing four-lane facility in the Monmouth area, and continue an additional five miles on the existing four-lane facility to the intersection of Illinois Route 164 (IL 164) east of Monmouth. This section is the final section being studied for improvements of US 34 between I-74 near Galesburg, Illinois and Ottumwa, Iowa (approximately 80 miles west of Gulfport).

ES-3 Alternatives Considered

The alternatives produced by this study were the result of an extensive public and agency coordination process, combined with environmental and technical analyses. The study alternatives were developed in such a way to meet the project's Purpose and Need. The alternatives developed address traffic safety, system continuity, and system capacity while minimizing impacts to environmental resources, commercial/residential displacements, and disruption to agricultural land uses.

Several transportation alternatives were considered in order to meet the future transportation needs for the project. Specifically, the following transportation alternatives were considered:

- No-Build Alternative, and
- Build Alternatives, partially or entirely on new alignment.

For this project, the upgrade of existing alignment is not a suitable alternative to meet the Purpose and Need as an upgrade would not meet the requirements of EO 2006-05. With the No-Build Alternative, no improvements would be made to the existing roadways in the study area, and only routine maintenance would continue. The No-Build Alternative would not meet the Purpose and Need as it would not address the issues of system continuity, and it would not correct geometric deficiencies; therefore, it would not address safety and capacity needs. This alternative, however, was retained for further study to comply with the requirements of the National Environmental Policy Act (NEPA) and to be used as a basis of comparison to the Build Alternatives.

ES-3.1 Preliminary Corridors

The project employed a logical, phased approach to identify potential alignments within the study area. Six preliminary build alternatives were developed for the study (identified as Alternatives 1 through 6) and were either partially on the existing US 34 alignment or entirely on new alignment. The typical section being proposed for this project is a four-lane expressway separated by a 50-foot grass median. Four of the Alternatives, 1, 3, 5 and 6, used existing US 34 as a frontage road between Carman Road and the vicinity of County Highway (CH) 15, known locally as Lock and Dam Road. Alternatives 1, 2, 3 and 6 were all parallel to and north of existing US 34, whereas Alternative 5 was parallel to and south of existing US 34. Alternative 4 did not follow along US 34.

ES-3.2 Preliminary Corridor Evaluation and Alternatives Retained for Further Evaluation

The study team conducted a screening of the preliminary build alternatives within the project termini. Initially, the screening process evaluated how well each preliminary build alternative addressed the Purpose and Need, which they were all determined to do. The preliminary alternatives were then assessed against each other and the No-Build Alternative based on screening criteria that considered engineering features, traffic, socioeconomic, and environmental factors.

The evaluation process resulted in the selection of three Alternatives to Carry Forward for further study.

- Alternative 2
- Alternative 5
- Alternative 6

ES-3.3 Alternatives to Carry Forward Evaluation and Preferred Alternative

Prior to the analysis of the alternatives carried forward, right-of-way requirements for the alignments were refined, making it more apparent where impacts to certain features such as residences and farming operations could or could not be minimized or avoided. Detailed field investigations by the Illinois Natural History Survey and the Illinois State Archaeological Survey were performed to provide additional information for this evaluation phase. This evaluation was

performed for the purposes of establishing a recognized Preferred Alternative. Evaluation criteria were grouped into three general categories for use in the detailed evaluation: (1) Traffic and Transportation (which considered factors contributing to constructability); (2) Socioeconomics, Land Use, Natural Resources and Cultural Resources; and (3) Agriculture. The alternatives were then evaluated against the additional criteria for the purposes of establishing a Preferred Alternative.

The study team concluded that Alternative 2 provides the most feasible and prudent alternative for an improvement to US 34 in the study area, and was therefore, identified as the Preferred Alternative. Alternative 2 is an 8.7-mile, four-lane expressway divided by a 50-foot grass median. It extends from west of Carman Road to east of Illinois 164 and includes interchanges at these locations. This roadway would be elevated between 10 and 17 feet above the 500-year flood elevation in the Mississippi River floodplain for approximately 4.7 miles where the existing US 34 roadway will be utilized as a frontage road. The horizontal location of this Alternative 2 is similar to the alternative that was proposed in the 2003 FEIS. However, the vertical location is elevated in the Mississippi River floodplain as opposed to being on existing grade as described in the 2003 FEIS.

ES-4 Summary of Environmental Impacts

Construction of the Preferred Alternative would result in impacts to several resources – socioeconomic, land use, agriculture, natural resources, streams, wetlands, floodplains, and visual. A summary of impacts by alternative is shown in Table ES-1.

The construction of the Preferred Alternative would result in the displacement of five residences and one commercial business. Relocation assistance services would be available to all displaced residents. Community services and facilities would not be impacted, however minor impacts to the Henderson County tax base would occur as a result of property acquisition. The direct, indirect, and induced economic impacts of the project in the form of jobs and income is expected to offset public sector losses.

A total of 25 farm parcels would be affected by the Preferred Alternative. Of these, six farm operations would be severed, and eight center pivot irrigation operations would be impacted.

Table ES-1. Summary of Environmental Impacts of the No-Build and New Right-of-Way for the Preferred Alternative

Criterion	No-Build	Preferred Alternative
Socioeconomic/Land Use/ Natural Resources		
Number of residential displacements	0	5
Number of commercial displacements	0	1
Number of impacted noise receptors	0	0
Visual impacts	None	Minor
Impacts to forested area (acres)	0	8.8
Number of state-listed wild blue larkspur plants affected[4]	0	259
Impacts to prairie (acres)	0	0.8
Impacts to degraded sand savanna/sand woodland (acres)	0	0
Water Resources		
Area of wetlands impacted (acres)	0	4.3
Number of perennial streams crossed	0	1
Number of intermittent streams crossed	0	9
Acres of 100-year floodplain crossed	0	261.5
Acres of 500-year floodplain crossed	0	263.2
Cultural Resources		
Cultural resources		
Number of NRHP listed, NRHP eligible, or potentially NRHP eligible properties affected	0	0
Number of archeological sites affected	0	34
Number of mound groups affected	0	2
Agriculture		
Acres of productive cropland/pasture impacted	0	165.3
Acres of prime farmland/important farmland impacted	0	309.8
Number of owners affected	0	17
Farm operations		
Number of severed farm operations (by tract)	0	6
Number of skewed severances	0	6
Number of uneconomical remnants	0	10
Acreage of uneconomical remnants	0	10.3
Number of center pivot irrigation impacts	0	8
Acreage of center pivot irrigation impacts	0	44.9
Number of farm buildings displaced	0	9
Number of otherwise affected farm operations (by tract)	0	25

The Preferred Alternative will impact archaeological resources that are potentially eligible for inclusion in the National Register for Historic Places. Consultation with the Illinois State Historic Preservation Office (SHPO) and a Memorandum of Agreement (MOA) are needed to complete the archaeology investigations and resolve any adverse effects.

The clearing of forests, crops, and undeveloped land would result in long-term adverse impacts to vegetation. The Preferred Alternative would require the acquisition of land for roadway development within the Bogus Hollow Loess Hill Prairie and a prairie restoration site. IDNR recommends that final design for US 34 further avoid impacts to the Bogus Hollow Loess Hill Prairie and restoration and re-seeding if impacts cannot be avoided.

No substantial impacts to wildlife species are expected. Potential habitat for the federally listed Indiana bat and northern long-eared bat may be located within the study area. Direct impacts to bats would be avoided by clearing potential roost trees between October 1 to March 31 when bats are not present. The state-threatened wild blue larkspur is located in the study area. If complete avoidance of this plant cannot be accomplished, express written permission from the landowner to "take" listed species will be obtained by IDOT in order to comply with the Illinois Endangered Species Protection Act (IESPA).

Private water supply wells within the project area would be properly capped and abandoned, so the project would not create any new potential routes or sources for groundwater pollution.

The Preferred Alternative would affect approximately 261 acres of land within the 100-year floodplain of the Mississippi River, which would require 2.4 million cubic yards of fill material. Between 16,124 feet (3.1 miles) and 24,700 feet (4.7 miles) of the facility, depending on the alternative, would be raised embankment located within the floodplain fringe. Because the project is located entirely outside of the Mississippi River regulatory floodway, it would have no impact on floodway conveyance capacity. During flood conditions, project impacts in the study area may also include an increase in 100-year water surface elevation upstream of US 34 resulting in impacts on rates of flood flow through the floodplain fringe and rates of rise of flood levels, and increased scour potential at openings in the new embankment. The permanent loss of 4.3 acres of wetlands would occur under the Preferred Alternative. The wetlands within the project area have low vegetation quality and exist in more degraded habitats. In addition, the Preferred Alternative includes 14 stream crossings totalling 10,154.5 linear feet of impacts.

In regard to the visual environment, the Preferred Alternative would have minimal visual impact along the majority of the alignment. However, construction of the Preferred Alternative would interrupt the view of residences living near the proposed alignment in areas where the view of the highway would not be concealed by trees.

ES-5 Permits

Implementation of the build alternatives would require the following regulatory permits.

- Section 404 of the Clean Water Act from the U.S Army Corps of Engineers (USACE). This permit is expected to be an Individual Permit. The Joint Permit Application will be used for application submittal to the USACE and copies will be sent to Illinois Environmental Protection Agency (IEPA) and Illinois Department of Natural Resources Offices of Water Resources (IDNR-OWR) for their review and input.
- Section 401 of the Clean Water Act Water Quality Certification from the IEPA.
- Section 402 National Pollutant Discharge Elimination System (NPDES) Construction Permit from the IEPA. Permit coverage for the project will be obtained either under the

IEPA General Permit for Stormwater Discharges from Construction Site Activities (NPDES Permit Number ILR10) or under an individual NPDES permit.

- IDNR–OWR Permit: Construction in Floodways of Rivers, Lakes, and Streams.

ES-6 Local Concerns and Unresolved Issues

There are no known unresolved issues with respect to the range of alternatives and impacts considered in this SDEIS. Known issues have been developed and evaluated to the extent practicable based on the level of engineering detail and environmental information available at this stage of project development.