

I-85/I-385 Interchange Improvement Project

“Re-Evaluation”

6. DESCRIPTION OF CURRENT PROJECT/DESIGN CHANGES

The SCDOT is evaluating design changes to the previously approved I-85/I-385 interchange project, and therefore is completing a Re-Evaluation of the approved EA to ensure NEPA compliance. Specifically, these design changes include the complete replacement of three additional bridges within the project area, along with the rehabilitation of two bridges. The replacement and rehabilitation of these bridges will not impact the overall efficiency or functional operation of the interchange, and therefore are not directly warranted to meet the purpose and need. However, there are numerous design exceptions required to retain the existing structures along with the need for replacement to accommodate reasonably foreseeable future projects (i.e. I-85 widening). The proposed bridge replacements can be achieved more efficiently and cost effectively during the reconstruction of the interchange. The bridge replacements and rehabilitation will not require any additional new right-of-way, with all structures and construction activities located within the previously evaluated project area.

The following is a detailed description of the proposed replacements:

I-85 NB to I-385 NB Ramp Bridge over I-85 (Ramp 3A): This bridge would not be widened or replaced under the currently approved preferred alternative. However, the SCDOT proposes full replacement of this structure. The existing bridge has a width of 33.3’ and a length of 299.2’ and is comprised of 5 spans; the bridge will be approximately 35 years old in 2015. Based on the current interchange design, the locations of the existing bridge columns and foundations are constricting the space available for the proposed ramps, resulting in shoulder width design exceptions for Ramps 1 and 4A. Additionally, the shoulder widths provided by the existing bridge do not meet current design standards, resulting in a bridge width design exception for Ramp 3A. In order to accommodate the future widening of I-85 to 8 lanes in the vicinity of Ramp 3A, the bridge will have to be replaced.

The proposed replacement bridge is a two-span bridge, 41.3’ wide by 356’ long. This configuration will accommodate the future 8-lane widening of I-85, provide the desired lane and shoulder widths for Ramp 3A, and eliminate the design exceptions associated with the ramps passing beneath the bridge. The cost is estimated to be \$4.5 million for the bridge replacement and associated roadway work.

I-385 NB Bridge over I-85: This bridge would be widened under the currently approved preferred alternative. However, the SCDOT proposes full replacement of this structure. The existing bridge has a width of 50.8’ and a length of 665.3’ and is comprised of 7 spans; the bridge will be approximately 35 years old in 2015. The existing bridge width is insufficient to provide the desired shoulder widths and auxiliary lane proposed by the current interchange design. The locations of the existing bridge columns are constricting the space available for a proposed ramp beneath the bridge, resulting in a shoulder

width design exception for Ramp 4A. Even if the bridge is widened at this time, the bridge will have to be replaced in the future to accommodate the 8-lane widening of I-85.

The proposed replacement bridge is a four-span bridge, 71.3' wide by 565' long. This configuration will accommodate the future 8-lane widening of I-85, provide the desired shoulder widths and auxiliary lane on the bridge, and eliminate the design exception associated with the ramp passing beneath the bridge. The cost is estimated to be \$11 million for the bridge replacement and associated roadway work.

I-385 SB Bridge over I-85: This bridge would not be widened or replaced under the currently approved preferred alternative. However, the SCDOT proposes full replacement of this structure. The existing bridge has a width of 50.8' and a length of 620.1' and is comprised of 8 spans; the bridge will be approximately 35 years old in 2015. The existing bridge width is insufficient to provide the desired shoulder widths, resulting in a bridge width design exception for I-385 SB. Additionally, the locations of the existing bridge columns are constricting the space available for a proposed ramp beneath the bridge, resulting in a shoulder width design exception for Ramp 4A. In order to accommodate the future widening of I-85 to 8 lanes, the bridge will have to be replaced.

The proposed replacement bridge is a five-span bridge, 61.3' wide by 547' long. This configuration will accommodate the future 8-lane widening of I-85, provide the desired shoulder widths on the bridge, and eliminate the design exception associated with the ramp passing beneath the bridge. The cost is estimated to be \$10 million for the bridge replacement and associated roadway work.

I-385 NB Bridge over Garlington Road and Railroad: This bridge would not be widened or replaced under the currently approved preferred alternative. However, the SCDOT proposed rehabilitation of the existing structure to include, but not limited to full depth patching; concrete paving; and bearing rehabilitation. The rehabilitation would improve the existing bridge structure and extend the life of the bridge.

I-385 SB Bridge over Garlington Road and Railroad: This bridge would be widened under the currently approved preferred alternative. However, the SCDOT proposed rehabilitation of the existing structure to include, but not limited to full depth patching; concrete paving; and bearing rehabilitation. The rehabilitation would improve the existing bridge structure and minimize potential design exceptions for I-385 SB.

REASONABLE AVAILABILITY OF FUNDING

The approved Environmental Assessment documents that the proposed project is listed in the current South Carolina State Transportation Improvement Program (STIP), which includes information about federally funded projects for the 2010-2015 timeframe. The STIP currently documents an estimated funding cost of approximately \$245 Million.¹ The total cost of the approved preferred alternative is estimated at \$245 Million. Therefore, it was determined that there is a reasonable availability of funding to construct the proposed project.

¹ *STIP Fiscal Year 2010-2015 TIP.* <http://www.scdot.org/inside/stip/shtml>. Assessed December 14, 2011.

The additional cost associated with the proposed bridge replacements and rehabilitation is estimated at \$26 million, which could potentially increase the total project cost to \$270 million. As such, additional funds are being allocated to the project and the SCDOT is currently in the process of updating the STIP funding to a project total of \$270 million. The project is also being developed and constructed through a "Design-Build" process to allow potential design and construction strategies that will result in greater efficiencies that ultimately reduce projects costs.

In summary, the increased STIP budget and/or the design-build process provides a reasonable availability of funding for additional improvements to the I-85/I-385 Interchange Improvement project, including the three proposed bridge replacements.



ENVIRONMENTAL RE-EVALUATION FORM
FHWA South Carolina

State File # 23.03811 Fed Project # IM23(009) PIN 38111_RD01 Route I-85/I-385 County Greenville

Project Name/Description
I-85/I-385 Interchange Improvement Project: The SCDOT proposes to re-construct the existing I-85/I-385 interchange to improve the operational efficiency of the interchange to accommodate existing and projected traffic volumes.

1. DOCUMENT TYPE: [] EIS [X] EA [] CE
A. Other Actions Associated with the Project:
[] Section 4(f) Evaluation
[X] Section 106 Compliance
[X] Wetland Finding/Section 404 Compliance
[X] T & E Species Biological Assessment
[] None

2. FHWA DOCUMENT APPROVAL DATE: EA-9/18/2012; FONSI-2/4/2014

3. DATE(S) OF PRIOR RE-EVALUATIONS: NA

4. PROJECT DEVELOPMENT STAGE:
[] Final Design
[] ROW
[] Construction
[X] Other, Specify Design-Build Selection

5. HAS DESIGN OR ROW CHANGED SINCE THE LAST APPROVAL?: (if "NO" then Go To Item 7) [X] YES [] NO

6. DESCRIPTION OF CURRENT PROJECT/DESIGN CHANGES:
See attached.

7. HAVE THERE BEEN SIGNIFICANT CHANGES IN THE AFFECTED ENVIRONMENT OR HAVE THE ENVIRONMENTAL STUDIES BEEN UPDATED SINCE THE LAST PROJECT APPROVAL?: (If "NO" to both Items 5 and 7, Go To Item 10)

YES NO

8. APPROVED DOCUMENT(S) RE-EVALUATION:

A. REVIEW OF EFFECTS: (Complete this section if "YES" to either Item 5 or Item 7)

SOCIAL ENVIRONMENT

CHANGE

REMARKS

1. Land Use	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
2. Community	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
3. Relocations	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
4. Churches/Institutions	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
5. Title VI/E.O. 12898	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
6. Economic	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
7. Controversy	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
8. Other; Specify	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	

NATURAL ENVIRONMENT

CHANGE

REMARKS

1. Wetlands	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
2. Water Quality	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
3. Wild/Scenic Rivers	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
4. Farmland	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
5. T & E Species	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	No changes to species listing
6. Floodplains	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
7. Other; Specify	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	

PHYSICAL ENVIRONMENT

CHANGE

REMARKS

1. Noise	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
2. Air Quality	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
3. Energy/Mineral Resources	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
4. Construction/Utilities	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
5. UST's	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
6. Hazardous Waste Sites	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
7. Other; Specify	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	

Environmental Re-evaluation Form:

CULTURAL ENVIRONMENT	CHANGE	REMARKS
1. Historic Sites	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input type="text"/>
2. Archaeological Resources	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input type="text"/>
7. Other; Specify	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input type="text"/>

PERMITS	CHANGE	REMARKS
1. U.S. Coast Guard	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input type="text"/>
2. Forest Service/USACE/USFWS Land	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input type="text"/>
3. Section 404	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input type="text"/>
4. Other; Specify	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="text"/>
Have the required permits been obtained?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
If "YES" what is the expiration date?	<input type="text"/>	
*If permits have expired, permits will need updated and attached to re-evaluation.		

9. NEED FOR PUBLIC INVOLVMENT:

A public hearing/public information meeting was held for the project on:

There have been no changes in project design or environmental effects which would require a public hearing [or additional public hearing if one has already been held] or public information meeting.

The change(s) in project design and/or effects require(s) an additional public hearing/public information meeting. The meeting is scheduled for:

10. FINDINGS/CONCLUSIONS:

Based on the analysis contained in this re-evaluation, it has been determined that the change in project design and/or environmental effects would not significantly alter the conclusions reached in the approved environmental document and/or previous re-evaluation(s).

There have been no changes in the design/ROW of this project nor have there been changes in project effects or the affected environment. Therefore, the conclusions reached in the approved environmental document and/or previous re-evaluation(s) remain valid.

Prepared By: Date:

Concurred (FHWA): Date: