

Carolina Crossroads I-20/26/126 Corridor Improvement Project Phasing Plan

Lexington and Richland Counties, South Carolina

October 1, 2019

Carolina Crossroads Project Phasing Plan

General Information

In early 2019, the South Carolina Department of Transportation (SCDOT) issued a Request for Qualifications (RFQ) to solicit Statements of Qualifications (SOQs) from entities interested in contracting to serve as the Design-Build Team for the estimated \$1.3 billion Carolina Crossroads I-20/26/126 Corridor Improvement Project (the project). SCDOT only received one proposal in response to this solicitation, which was deemed insufficient to establish adequate competition.

Industry outreach was performed to better understand the reasons for the lack of interest in a single construction phase design-build project. Based on the feedback received, SCDOT has decided to break the project into multiple construction phases to make the project more attractive in terms of risk and to broaden the pool of contractors interested in pursuing smaller segments rather than one large project.

Even though a phased approach is now proposed, the entire project is fully funded and remains the top interstate priority for SCDOT.

Disclaimer

This document does not represent a commitment to issue a Request for Qualifications (“RFQ”) or a Request for Proposals (“RFP”) in the future, or a commitment that a subsequent procurement, if any, will follow any delivery approach described herein.

Risk Allocation Strategies

The following strategies represent ways that SCDOT is working to move the project forward and reduce risks in all phases.

Right of Way Acquisition Plan

During the industry outreach meetings and interviews, it was made clear that delays and cost associated with right of way acquisitions was not a risk that design-build teams wanted to accept. SCDOT has determined that it will take on the responsibility of acquiring the right of way necessary to construct the Selected Alternative (SA).

The project team, in coordination with the SCDOT Right of Way Office, developed a priority-based acquisition strategy taking into account tracts anticipated to be included in the first construction phases or those expected to be complex and require longer timeframes.

SCDOT intends to acquire all right of way and relocate all displacees prior to NTP for each individual phase.

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Environmental Permitting Plan

With the phased approach to constructing the project, the original plan to have the design-build contractor be responsible for obtaining the USACE 404 Individual Permit is not feasible. SCDOT is now assuming the responsibility for obtaining approval of a Provisional Individual Permit (anticipated for approval by the end of 2020), and the contractor for each design-build (DB) phase will be responsible for obtaining approval of a permit modification. SCDOT will obtain modification approvals for design-bid-build (DBB) segments.

SCDOT is also developing a compensatory mitigation plan that will cover the wetland and stream impacts for the SA. SCDOT will be responsible for property acquisition and all preservation and restoration activities associated with the approved mitigation plan.

Utility Management Plan

SCDOT recognizes that relocation of complex utilities can present major risk within a project. As a result, SCDOT has coordinated with utility companies to encourage cooperation and coordination. Many utilities have agreed (in concept) to go “in-contract” with their utility relocations, meaning that the design and relocation of utilities would be included in DB contracts and the relocation of utilities would be included in DBB contracts. SCDOT will continue working with these entities on Memoranda of Agreement to finalize the terms in an effort to streamline coordination and reduce schedule risk for the project.

Another element that is expected to positively affect utility schedule risk is the recent passage of the Utility Bill (SC Code of Laws 57-5-880) which requires SCDOT to fund relocation of certain water and sewer utilities. Should the utility owner fail to meet project contract requirements and construction schedule, the utility owner will have to bear all relocation costs.

Project Phases

The project will be divided into five separate phases using the SA as the basis. The SA was identified in the Final Environmental Impact Statement/Record of Decision. The general limits for the phases were established by first verifying that each phase would provide incremental operational improvements that could be opened to the public and effectively operated in accordance with FHWA guidance. Second, a general scope of work and estimated cost for each phase was established to assess whether sufficient competition would be anticipated for the individual phases. Lastly, the right of way acquisition and utility lead times required for each phase were estimated to help establish a phasing order. The five phases of the project are proposed to be constructed in the order listed below.

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1	Colonial Life Boulevard at I-126 Interchange (Colonial Life)
2	Broad River Road at I-20 Interchange (Broad River)
3	System Interchanges at I-20/26 and I-26/126 including St. Andrews Road at I-26 and Bush River Road at I-20 Interchanges (System Interchanges)
4	Harbison Boulevard at I-26 Interchange and Frontage Road Relocation (Harbison/Frontage Roads)
5	I-26 Widening West of St. Andrews Road (I-26 Widening)

A detailed description of each phase follows and a map outlining the phases is in Appendix A.

Phase 1 - Colonial Life Boulevard at I-126 Interchange

OBJECTIVES/SCOPE

The general objective of this phase of work is to reconstruct the Colonial Life Boulevard interchange as a fully directional interchange and accomplish a portion of the I-126 operational improvements. Project components constructed under this phase will be:

- Reconstruct Colonial Life Boulevard Interchange with I-126 that provides access in all four directions
- Braid I-126 WB ramp to I-26 EB with ramp from Colonial Life to I-26 WB
- New ramp from I-26 WB to I-126 EB and Colonial Life Boulevard
- Relocate I-126 as necessary to construct EB ramp to Colonial Life Boulevard
- Construct temporary ramp from existing I-26 WB Bush River Road exit to the outside of I-26 under the Bush River Road Bridge
- Relocate Lawand Drive and Morninghill Drive frontage roads to accommodate I-126 mainline and ramp improvements
- Colonial Life Boulevard and Bush River Road Intersection Improvements (signal timing and re-striping)
- Close I-26/Bush River Road interchange
- Extend and widen I-26 EB exit ramp to US 378

TIE-IN STRATEGIES

East End (I-126)

Westbound work will begin at/near the existing Colonial Life Boulevard exit ramp gore and the existing wall along the ramp will be a constraint. In the eastbound direction, a four-lane section will be constructed through the new interchange area and the new eastbound on ramp from I-26 and Colonial Life Boulevard will merge into the outside lane as shown in the SA design.

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West End (I-126)

In the eastbound direction along I-126, work will begin approximately where the ramp taper for the new Colonial Life Boulevard interchange ramp ties to existing. In the westbound direction along I-126, the relocation will tie near the existing flyover to I-26 EB.

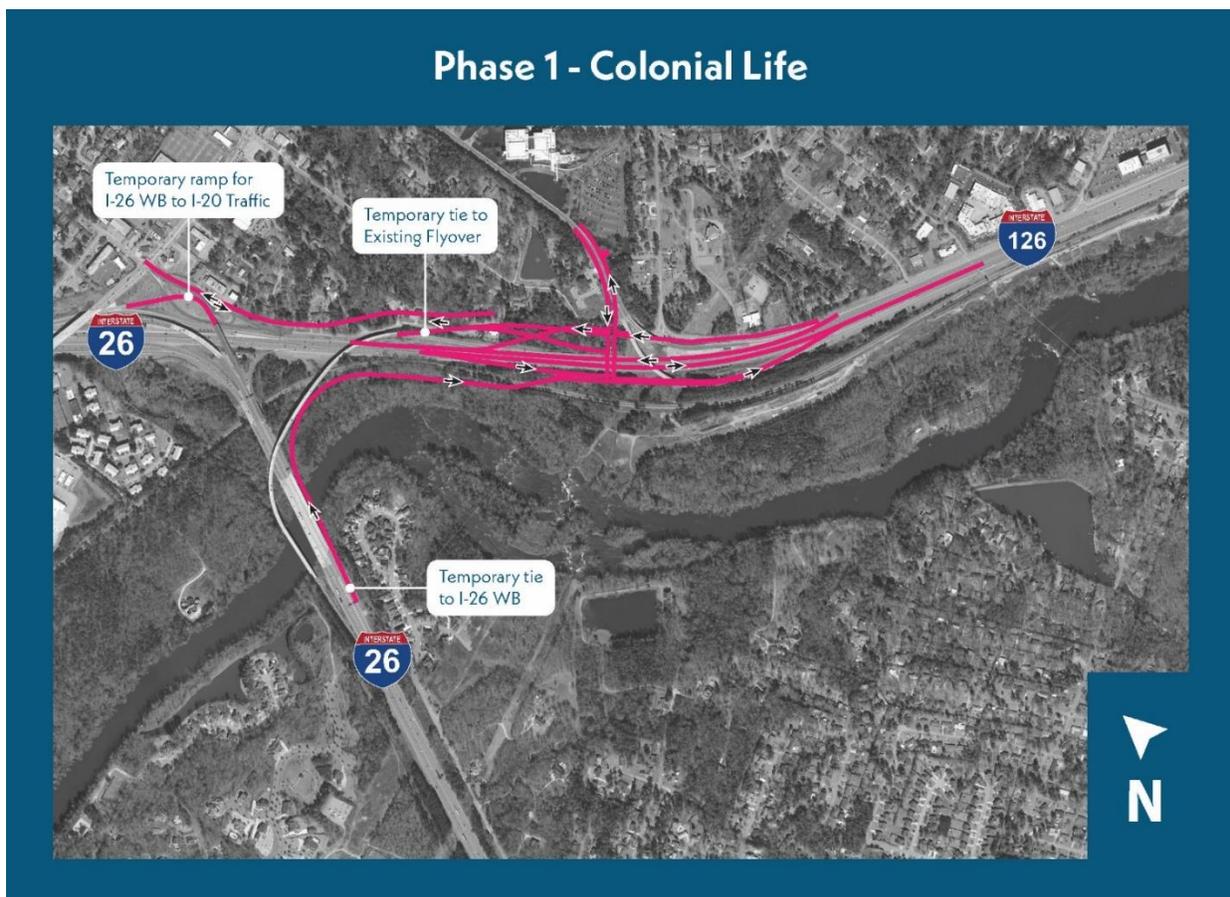
The I-126 WB on-ramp from Colonial Life Boulevard will tie in as necessary to achieve appropriate clearances under the flyover to I-26 EB. The ramp from I-126 WB to I-26 EB will be tied with the ramp from Colonial Life past the braid and these ramps will need to tie in before the existing flyover bridge.

East End (I-26)

Along I-26 WB, the work will tie to existing I-26 just east of the Saluda River bridge in order to achieve the necessary offset for the new ramp to facilitate construction of an independent bridge across the Saluda River, which will connect with the curved ramp to I-126 EB and Colonial Life Boulevard.

Colonial Life Boulevard

Colonial Life Boulevard will tie to existing just north of the new interchange. It is anticipated that the intersection of Colonial Life Boulevard and Bush River Road will be improved to include striping and signal timing adjustments as part of the project.



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DELIVERY METHOD

Design-Build

ESTIMATED CONSTRUCTION COST

\$100 – \$140 million

Phase 2 - Broad River Road at I-20 Interchange

OBJECTIVES / SCOPE

The general objective of this phase of work will be to reconstruct the I-20/Broad River Road interchange and complete a portion of the I-20 widening. Project components constructed under this phase will be:

- Reconstruct Broad River Road interchange with I-20
- New I-20 WB exit to I-26 on the Broad River side of the interchange
- Braid I-20 WB ramp traffic to I-26 with I-20 WB on ramp from Broad River Road
- Widen both directions of I-20 between the Broad River Road interchange and the Broad River bridge as depicted in the SA design
- Noise barrier wall along I-20 EB as depicted in the SA design
- I-20 WB widening and I-26 exit ramp along I-20 WB between Broad River Road Interchange and I-26
- Relocate Garner Lane to provide access from Longcreek Drive and eliminate intersection with ramp
- Relocate Gale Drive

TIE IN STRATEGIES

East End (I-20)

Tie in I-20 widening at the roadway/approach slab interface at the west end of the I-20 bridge over the Broad River as depicted in the SA design.

West End (I-20)

Along I-20 EB, retain the existing exit to Broad River Road and provide a temporary tie from existing ramp to new ramp. I-20 EB widening to be carried under Broad River Road bridge and end between bridge and existing eastbound exit to Broad River Road.

Along I-20 WB, construct I-20 widening and the I-26 ramp to near the system interchange. Provide temporary tie from new I-26 exit ramp to the existing exit to I-26 WB.

Broad River Road

Project will tie to the existing five-lane section along Broad River Road on each side of the interchange as quickly as the lane development, acceleration/deceleration, and storage requirements for the interchange will allow. Control of access along Broad River Road will be established per project requirements.

Phase 2 - Broad River



DELIVERY METHOD

Design-Build

ESTIMATED CONSTRUCTION COST

\$70 - \$100 million

Phase 3 - System Interchanges at I-20/26 and I-26/126 including St. Andrews Road at I-26 and Bush River Road at I-20 Interchanges

OBJECTIVES/SCOPE

The general objective of this phase of work is to completely reconstruct the system interchange of I-26 and I-20, complete the reconstruction of the I-26/I-126 system interchange, reconstruct the I-26/St. Andrews Road

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interchange, reconstruct the I-20/Bush River Road interchange, complete the widening of I-20 west of the I-26 interchange and widen I-26 from just west of St. Andrews Road to the US-378 interchange. Project components constructed under this phase will be:

- Reconstruct the I-26/I-20 System Interchange
- Complete the reconstruction of the I-26/I-126 System Interchange
- Reconstruct St. Andrews Road interchange with I-26
- Reconstruct Bush river Road interchange with I-20
- Interchange improvements to include the following ramp reconfigurations:
 - Locate I-26 EB exit to I-20 west of St. Andrews Road and braid with on ramp from St. Andrews Road
 - Convert I-26 EB exit to I-126 EB to a right-hand exit
 - Braid I-26 WB exit to St. Andrews Road with ramp traffic to I-26 WB from I-20
 - Locate I-26 WB combined exit to I-20 and I-126 EB south of the Saluda River Bridge
 - Create combined exit from I-20 EB for traffic going to Bush River Road, I-26/I-126, and Broad River Road.
 - I-20 EB C-D between Bush River Road and Broad River Road interchanges
 - Tie I-26/I-20 interchange to I-20 WB exit ramp constructed in Phase 2
 - Braid I-20 WB exit to Bush River Road with I-20 on-ramp from I-26
- Widening of approximately 4 miles of I-26 as depicted in the SA design
 - Replace bridge over Saluda River
 - Replace bridge over CSX RR
- Widening of approximately 3 miles of I-20 as depicted in the SA design
 - Replace bridge over Saluda River
 - Replace bridge over CSX RR
 - Noise barrier wall along I-20 EB
- Relocation of the following roads to facilitate interstate widening and interchange improvements:
 - Jamil Road
 - Fernandina Road
 - Burning Tree Road
 - Browning Road
 - Berryhill Road
 - Browning Road
 - Woodland Hills Road
 - Zimalcrest/Rockland Road
- Eliminate Berryhill Road/Bush River Road intersection - Cul-de-sec Berryhill Road and provide connection from Berryhill Road across I-20 to bring traffic to Bush River Road at the Rockland Road intersection.

TIE IN STRATEGIES

East End (I-26)

All I-26 work on the east side of the project will end as depicted in the SA design near the US-378 Interchange.

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West End (I-26)

Along I-26 EB, truncate widening in the vicinity of Tram Road just before the development of the seventh lane for the approach to the I-26 and St. Andrews Road interchanges. Create interim transition from existing 3 lane section to new interchange ramps using pavement markings.

Along I-26 WB, truncate the widening to facilitate transition to existing 3 lane section once the St. Andrews Road on ramp has tied to the ultimate second outside lane.

The current goal in both directions of travel will be to “square off” the ultimate lane configuration at a point that will facilitate the interim lane configurations and minimize potential re-work. A more precise location of the ends of construction will be determined after evaluation of proposed profiles, drainage, operation and safety considerations pertaining to the interim traffic patterns that will be in place between construction phases.

East End (I-126)

The I-126 construction will tie to the work previously completed as part of Phase 1 – Colonial Life.

East End (I-20)

The I-20 construction will tie to the work previously completed as part of Phase 2 – Broad River.

West End (I-20)

All I-20 work on the west side of the project will end as depicted in the SA design near the US-378 Interchange.

St. Andrews Road

Project will tie to the existing five-lane section along St. Andrews Road on each side of the interchange as quickly as the lane development, acceleration/deceleration, and storage requirements for the interchange will allow. Control of access along Broad River Road will be established per project requirements. Side road tie-in locations along St. Andrews Road will generally be retained in the existing locations.

Bush River Road

Project will tie to the existing five-lane section along Bush River Road on each side of the interchange as quickly as the lane development, acceleration/deceleration, and storage requirements for the interchange will allow. Control of access along Bush River Road will be established per project requirements.

DELIVERY METHOD

Design-Build

ESTIMATED CONSTRUCTION COST

\$600 - \$750 million

Phase 4 - Harbison Boulevard at I-26 Interchange and Frontage Road Relocation

OBJECTIVES/SCOPE

The general objective of this phase of work is to reconstruct the I-26/Harbison Boulevard interchange and relocate the frontage roads adjacent to I-26 to facilitate the widening of I-26 in Phase 5. Project components constructed under this phase will be:

- Reconstruct Harbison Boulevard interchange with I-26
- Relocation of the following roads to facilitate I-26 widening in Phase 5:
 - Jamil Road
 - Fernandina Road
 - Saturn Parkway
 - Woodcross Drive
 - Parkridge Drive

TIE IN STRATEGIES

Harbison Boulevard

To the east, the project will tie to the existing five-lane section along Harbison Boulevard just beyond the intersection with Parkridge Drive. The intersection with Parkridge will be converted to a signalized intersection. On the west side of the interchange, a third westbound through lane will be carried to the entrance to Columbiana Center and will tie to the existing five lane section just beyond.

DELIVERY METHOD

Design-Bid-Build

ESTIMATED CONSTRUCTION COST

\$75 – 100 million

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Phase 5 - I-26 Widening West of St. Andrews Road

OBJECTIVES/SCOPE

The general objective of this phase of work is to complete the widening of I-26 west of the St. Andrews Road interchange. Project components constructed under this phase will be:

- Widening of I-26 west of the St. Andrews Road interchange as depicted in the SA design
- Reconfigure Piney Grove Road entrance and exit ramps as depicted in the SA design
- Adjust ramps at Lake Murray Boulevard and Broad River Road interchanges to tie to I-26 widening

TIE IN STRATEGIES

East End (I-26)

The I-26 construction will tie to the work previously completed as part of Phase 3 – System Interchanges.

West End (I-26)

All I-26 work on the west side of the project will end as depicted in the SA design and tie to the eastern end of the I-26 Widening (MM 85 – 101) Design-Build project that is currently under contract.

Piney Grove Road

Work on Piney Grove Road will be limited to the intersection of the I-26 ramps as depicted in the SA design.

Lake Murray Boulevard and Broad River Road Ramps

Ramp improvements at these two interchanges are anticipated to be limited to the ramps and should not extend to the crossing roads.

DELIVERY METHOD

Design-Bid-Build

ESTIMATED CONSTRUCTION COST

\$50 – 70 million

Appendix A

Phased Construction Map & Schedule

September 30, 2019

