

SC 41 Interim Improvements Modifications – December 2019



Interim Improvements Update

February 2019

Charleston County Council voted to approve \$200,000 in funding from the Town of Mt. Pleasant for proposed improvements:

- Addition of a second southbound travel lane on Highway 41 from Joe Rouse Road to Highway 17
- Intersection improvements at Highway 41 and Highway 17

December 2019 - Update

The project team requests to remove the additional southbound lane from the interim improvements scope:

- Refined traffic modeling revealed that significant interim traffic relief can be achieved without construction of an additional southbound lane. A Continuous Green-T (CGT) intersection at Joe Rouse Road is more advantageous.
- The most cost-effective relief would be to focus on improvements at the intersection of Highways 41 and 17 and at Highway 41 and Joe Rouse Road.



Table 1 – Modeled Travel Times

	Harpers Ferry to Gregorie Ferry Road	Harpers Ferry to Hamlin Road
Existing	14.8 minutes	17.6 minutes
Original Interim Improvements (Southbound Lane Addition)	5.9 minutes	7.6 minutes
Proposed Interim Improvements Continuous Green-T (Intersections Only)	5.8 minutes	7.6 minutes

Table 2 – Level of Service & Delay

	Joe Rouse/SC 41		US 17/SC 41	
	LOS	Delay	LOS	Delay
Existing	E	55.2	C	30.1
Original Interim Improvements (Southbound Lane Addition)	C	20.3	B	19.7
Proposed Interim Improvements Continuous Green-T (Intersections Only)	B	15.0	B	19.1

As can be seen in Table 1 and Table 2, there are significant but similar improvements in travel times and LOS/delay between the existing conditions and either of the interim improvement options (Southbound Lane Addition or CGT).



Continuous Green-T intersection

Next Steps

- The project team recommends focusing the interim construction of the two intersections with the Continuous Green-T option, which will:
 - Reduce the projected construction cost from around \$3m to under \$1m,
 - Eliminate construction impacts to Cardinal Hill, Horlbeck Creek and Colonnade neighborhoods,
 - Significantly reduce utility relocations,
 - Eliminate the need for wetland permits and right of way acquisition, and
 - Will deliver traffic relief to the residents of Mt. Pleasant, several months sooner than previously anticipated.
- Design and permitting complete in early 2020
- Construction complete in summer 2020

