

6.0 Proposed Alternatives

Two Alternatives have been developed and analyzed for the I-75 at Fletcher Avenue IOAR, a No Build and Build Alternative. Both Alternatives are described in further detail below.

6.1 No Build Alternative

The No Build Alternative generally consists of maintaining the existing year (2021) lane geometry and traffic control features along I-75 and on Fletcher Avenue at the I-75 ramp terminal intersections. The benefit of the No Build Alternative is that there are no additional costs or social, environmental, or physical impacts associated with maintaining the existing lane geometry and traffic control. However, it is anticipated that any existing operational and safety deficiency would be further exacerbated with increasing levels of future traffic demand. As such, the purpose and the need for the project may not be met with the No Build Alternative unless improvements are made to the I-75 at Fletcher Avenue interchange. The lane geometry for the No Build Alternative is assumed to be unchanged from the existing lane geometry, shown previously in **Figure 3**.

6.2 Build Alternative

FDOT District Seven is proposing modifications to the I-75 at Fletcher Avenue interchange that will alleviate existing traffic congestion and improve safety. The Build Alternative consists of modifying the lane geometry and traffic control of the I-75 at Fletcher Avenue interchange as follows:

- Adding a traffic signal at the Fletcher Avenue at southbound I-75 ramp terminal intersection to mitigate the frequency of left turn crashes from westbound Fletcher Avenue to southbound I-75. All existing lane geometry would remain the same as the No Build Alternative with the addition of the traffic signal;
- Extending the storage length for the westbound Fletcher Avenue left turn lane onto southbound I-75. With the signalization of the southbound I-75 ramp terminal intersection, the vehicle queue length for the westbound left turn lane is expected to increase, thereby requiring extended storage length for the movement; and
- Coordination of the southbound and northbound I-75 ramp terminal intersections with the Fletcher Avenue at Morris Bridge Road/Hidden River Parkway signal. The Morris Bridge Road/Hidden River Parkway signal is already part of a coordinated system along Fletcher Avenue, to the west. With the addition of the southbound I-75 ramp terminal signal between Morris Bridge Road/Hidden River Parkway and the northbound I-75 ramp terminal, the signal spacing becomes less than $\frac{1}{4}$ of a mile. Therefore, coordination of the I-75 ramp terminal intersections is recommended to allow for better platooning of vehicles along Fletcher Avenue to/from I-75.

Because the I-75 PD&E Study assumes that the express lanes will not be constructed until 2045, existing lane geometry on I-75 is assumed for the Build Alternative. **Figure 16** provides a graphical depiction of the lane geometry assumed for the Build Alternative. A conceptual roadway design plan and cost estimates for the Build Alternative can be found in **Appendix G**. The estimated cost for construction of the Build Alternative is \$840,334.63.

Interchange Operational Analysis Report (IOAR)



Figure 16: Build Alternative Lane Geometry and Traffic Control