

Purpose and Need

I-75 (SR 93) is a limited access interstate freeway and is part of the Florida Strategic Intermodal System (SIS). SR 50 (US 98) is a four-lane divided arterial that connects I-75 to Brooksville, to the west, and Ridge Manor, to the east. West of I-75, SR 50 is also part of the SIS. *Exhibit 1* shows the interchange location map, and *Exhibit 2* shows an aerial photograph of the existing interchange.

I-75 is a vital link in the local and regional transportation network and serves as a critical evacuation route for the state. As a major north-south corridor through Pasco and Hernando County, I-75 links the Tampa Bay region with the remainder of the state and the nation supporting commerce, trade, and tourism. As part of the SIS, I-75 is included in the Regional Long Range Transportation Plan (LRTP).

The Florida Department of Transportation (FDOT) recently awarded a design-build contract for widening of I-75 (SR 93) and reconstruction of the I-75/SR 50 (US 98) interchange in Hernando County. The original June 2007 Project Development and Environmental (PD&E) study preferred alternative was a conventional diamond interchange with a free-flow flyover from northbound I-75 to westbound SR 50. The PD&E preferred alternative was revised in the May 2011 Traffic Technical Memorandum – Interchange Operational Analysis Report (TTM) to a single point diamond interchange. Under the design-build contract, the single point diamond interchange will be constructed. The northbound I-75 to WB SR 50 flyover will be constructed at a future date, under a separate contract.

The PD&E and the May 2011 TTM projected traffic volumes to a design year of 2030 using Tampa Bay Regional Planning Model (TBRPM) version 5.1. The updated design year for this project is 2040 with the projected traffic from TBRPM version 8.1.1, in which the Metropolitan Planning Organization (MPO) reduced its original land use forecasts for the latest version of the LRTP.

The May 2011 TTM showed northbound and southbound exit ramps with single-lane unsignalized right turn movements. The current design-build concept presents northbound and southbound exit ramps with signalized dual-right turn movements.

This Interchange Operational Analysis Report (IOAR) Reevaluation is presented as an addendum to the May 2011 TTM. The purpose of this reevaluation is to discuss the future traffic needs due to revised traffic projections, and to discuss a design-build proposed change for the northbound and southbound exit ramp right-turn movements.

Existing Conditions

The existing I-75/SR 50 interchange is a conventional tight urban diamond with entrance ramps in the northeast and southwest quadrants, and exit ramps in the southeast and northwest quadrants. I-75 is a four-lane divided limited access freeway, and SR 50 is a four-lane divided arterial. The interchange operates under a four-phase signal operation plan (SOP).

The existing interchange configuration and proximity to adjacent intersections does not allow either exit ramp right turn movement to operate as a free-flow movement during peak hour conditions. The northbound exit ramp is located 700 feet to the west of the SR 50/Bronson Boulevard signalized intersection, and the southbound exit ramp is located 500 feet east of the SR 50/La Rose Road intersection. The receiving lane for each exit ramp right turn movement quickly becomes a dedicated right turn only lane for the adjacent intersections. For vehicles exiting I-75 to continue eastbound or westbound on SR 50, or for vehicles already traveling on SR 50 wishing to turn right at each