

INTERCHANGE OPERATIONAL ANALYSIS REPORT (IOAR) EASTBOUND NW 138 STREET TO SOUTHBOUND I-75 ON-RAMP

Per FDOT's *January 2018 version of the Interchange Access Request User's Guide (IARUG)*¹, the roadway improvements listed above fall under a Non-Interchange Access Request (Non-IAR), with the exception of the addition of the acceleration lane on the Eastbound NW 138 Street to Southbound I-75 On-ramp (Ramp 87075601). Although this proposed alteration will not change the existing interchange configuration or travel patterns, any access point modification that results in "*the addition of a lane to an existing on-ramp while maintaining existing lanes at gore point*" requires an Interchange Operational Analysis Report (IOAR). This IOAR is being prepared in accordance with the IARUG guidance to document the traffic and safety analysis of the proposed minor modification to the Eastbound NW 138 Street On-ramp to I-75; namely, the replacement of the yield condition with an acceleration lane for the Hialeah Gardens Boulevard northbound right-turn movement.

1.2 PURPOSE AND NEED FOR THE PROJECT

The main purpose of this project is to improve safety conditions at the existing northbound right-turn yield condition at the Eastbound NW 138 Street to Southbound I-75 On-ramp, while maintaining operational functionality. This IOAR documents the safety, operational, and engineering (SO&E) acceptability of adding an acceleration lane on the Eastbound NW 138 Street to Southbound I-75 On-ramp. Replacing the existing yield condition with an acceleration lane is anticipated to improve safety and operations for traffic entering the on-ramp from northbound Hialeah Gardens Boulevard.

Numerous crashes have been reported at the northbound yield at the entrance to Eastbound NW 138 Street to Southbound I-75 On-ramp, indicating an unsafe condition. Crash data extracted from FDOT's Crash Analysis Reporting System (CARS) revealed 52 crashes had occurred on this ramp between 2012 and 2016, of which the most predominate types of crashes were rear-end and sideswipe. About 95% of the rear-end crashes occurred at the gore of the northbound channelized right-turn lane from Hialeah Gardens Boulevard to the NW 138 Street On-ramp. An additional 11 rear-end crashes were also reported in Signal 4 Analytics for the years 2017 through 2019. The considerable number of rear-end crashes at this location were mainly attributed to careless/negligent driving and high traffic volumes.

The ramp modification will provide a smoother transition allowing vehicles to accelerate before entering the through traffic lanes on the ramp, as opposed to the abrupt yield condition that currently exists, thereby improving operations and safety conditions at this location.

1.3 PROJECT LOCATION

The interchange of I-75 and NW 138 Street/Hialeah Gardens Boulevard is located within the City of Hialeah and Town of Miami Lakes in northwestern Miami-Dade County. The interchange is located at the southern end of I-75, just prior to its terminus at the Palmetto Expressway (SR 826). The subject on-ramp is one of four (4) ramps that comprise the interchange as shown in Figure 1-1.

¹ January 2018 version of the *Interchange Access Request User's Guide (IARUG)* was the active edition of the publication when this report was initiated.