

1 Introduction

The Florida Department of Transportation (FDOT) District Five has prepared this Interchange Operational Analysis Report (IOAR) for the I-95 and SR 442 (Indian River Boulevard) interchange for installing a traffic signal at the I-95 southbound ramp terminal intersection. The signalization of the I-95 southbound ramp terminal addresses the anticipated queueing and existing delay issues along the southbound exit ramp. This improvement is a low-cost, short-term improvement that requires no Right-Of-Way (ROW) acquisition. The signalization project is currently under design and subsequent phases will be funded under the FDOT District Five Traffic Operations Pushbutton contract. The construction letting date is scheduled for January 2021 with an anticipated construction start date approximately two months from the letting date.

The I-95 and SR 442 interchange is located in the City of Edgewater, Volusia County, Florida, approximately 4.8 miles south of the I-95 at SR 44 interchange and approximately 12.9 miles north of I-95 at CR 5A (Stuckway Road/Deering Parkway) interchange. The project location is illustrated in **Figure 1-1**. The I-95 and SR 442 diamond interchange provides connections to the City of Edgewater and the East Central Regional Rail Trail.

A new interchange is being proposed at I-95 at Maytown Road (Developer funded) which is located approximately 8.5 miles to the south of the existing I-95 at SR 442 interchange. This is currently in the early planning stages with the Project Development and Environment (PD&E) study of the proposed interchange currently in Fiscal Year 2023 of the FDOT Work Program.

1.1 Purpose and Need

The purpose of the signalization project is to improve traffic flow and reduce queuing from the I-95 southbound ramp terminal intersection. Currently, the heavy southbound left-turn movement at the I-95 southbound ramps and SR 442 intersection is controlled by a stop sign and experiences long delays (Level of Service (LOS) E), with the queue occasionally extending upstream into the I-95 mainline during the PM peak hours. The existing deficiencies are expected to be exacerbated with the increase in traffic in future due to the planned developments – “Farmton Development of Regional Impact (DRI), Restoration DRI and Deering Creek Community Center District” to the west of the interstate. A safety review revealed that there are a relatively low number of crashes experienced and reported at this interchange in existing conditions; however, the increase in traffic volumes is expected to introduce more conflicts at the interchange in the future.