

## 1 INTRODUCTION

### 1.1 Background

The Florida Department of Transportation (FDOT), District 4 recently developed an Interchange Master Plan (IMP) for Broward County to address the traffic and safety issues at the 16 interchanges along Interstate 95 (I-95) within the County. The primary objectives of the IMP were to assess the existing and potential future deficiencies and identify short-term and long-term improvements prioritized for phased implementation. The I-95 Interchange at Sunrise Boulevard (SR-838) was one of the 16 interchanges studied in the IMP. An Interchange Concept Development Report (ICDR) was prepared to evaluate the specific issues associated with the current configuration and a Concept Plan was developed to improve the traffic operations at the interchange. The ICDR also recommended a Project Development and Environment (PD&E) study for the interchange. However, due to the potential impact of the Woodlawn Cemetery located on the Southeast quadrant of the interchange, the PD&E project was divided into two parts. The east side of the interchange would be included in the I-95/Broward Boulevard interchange PD&E study, and the west side of the interchange would advance directly to the design phase since the improvements identified in the ICDR did not require a PD&E study. The objective of the study is to provide the design team with recommended design concepts to improve the operation of the I-95 southbound ramps and the ramp terminal on the west side of the interchange.

### 1.2 Purpose and Need

The purpose for preparing the Interchange Operational Analysis Report (IOAR) is to document the traffic analysis performed for the west side of the I-95/Sunrise Boulevard interchange with more recent data, and seek approval of the southbound ramp terminal ultimate 2040 modifications supporting the design project (FM # 433514-1). The project has been programmed by FDOT into the work program based on the improvements identified in the ICDR.

According to the ICDR, the I-95/Sunrise interchange currently operates at Level of Service (LOS) D or better for all freeway segments except for the southbound weaving segment between I-95 SB On-Ramp from Sunrise Blvd to I-95 SB Off-Ramp to Broward Blvd south of the interchange, which operates at LOS F during both the AM and PM peak periods.

All intersections on Sunrise Blvd near the interchange, including the I-95 SB Off-Ramp Terminal, I-95 NB Off-Ramp Terminal, NW 16th Ave, and NW 24th Ave as a whole operate at LOS D or better. There is no spillback to the I-95 mainline through lanes from either the SB Off-Ramp or the NB Off-Ramp. However, the analysis and field observations reveal significant delays in certain movements. This is particularly true for southbound left- and right-turns from I-95 SB Off-Ramps to West Sunrise Blvd where the individual vehicles experience significant delays in both AM and PM peak periods. With the growing traffic in the area, the conditions will continue to deteriorate through year 2040. The delays for southbound left-turns and right-turns are expected to double in

2040. Both the southbound right-turn and left-turn movements will operate at LOS F, and improvements will be needed to address the operational deficiencies.

### 1.3 Project Location

The I-95/Sunrise Blvd (Roadway Segment 86110000) Interchange is located at milepost 11.303 of I-95 (Roadway Segment 86070000) on the west edge of the Fort Lauderdale city limits. It is approximately 2.16 miles south of the I - 95/Oakland Park Blvd (SR-816) (Roadway Segment 86090000) interchange and 1.02 mile north of the I - 95/Broward Blvd (SR-842) (Roadway Segment 86006000) interchange. The South Florida Rail Corridor (SFRC)/CSX Railroad runs parallel to I-95 on the west side of I-95. The Sunrise Blvd Interchange is currently a partial cloverleaf interchange with a loop ramp for westbound exit traffic. The signalized intersections on Sunrise Boulevard immediately adjacent to I-95 include NW 24th Avenue on the west and NW 16th Avenue on the east. The study interchange within the context of the surrounding roadway network is shown in **Figure 1-1**.

### 1.4 Project Area of Influence

Since the focus of the study is on the southbound ramps at the Sunrise interchange, the Area of Influence (AOI) will be limited to the Sunrise interchange and its surrounding areas. As shown in **Figure 1-2**, the AOI includes I-95 mainline extending north to the on- and off-ramp gore points of the Oakland Park Boulevard Interchange and south to the on- and off-ramp gore points the Broward Boulevard Interchange. On Sunrise Boulevard, the AOI extends to NW 15th Ave to the east and NW 24th Ave to the west covering the following five (5) signalized intersections:

- NW 24th Avenue
- SB off-ramp terminal
- NB off-ramp terminal
- NW 16th Avenue
- NW 15th Avenue