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1.2 Project Location

Located in northwest Seminole County, Florida, Wekiva Parkway (SR 429)/I-4 interchange lies within unincorporated Seminole County and the City of Sanford. The project is located to the west of the Orlando Sanford International Airport and north of the City of Lake Mary. See **Figure 1-2** for the project location map.

1.3 Purpose and Need Statement

The purpose and need for the Wekiva Parkway/I-4 Interchange is consistent with the 2012 Wekiva Parkway (SR 429) / SR 46 Realignment FONSI FM#238275-1 and FM#240200-1. This EA document was re-evaluated and used to approve the advertisement for the project with no changes to the purpose and need statement.

The purpose of the proposed Wekiva Parkway (SR 429)/I-4 interchange is to complete the Western Beltway around Orlando metropolitan area.

The need for the project (as listed in the Wekiva Parkway FONSI) is based on the following factors:

Regional System Linkage – The major highways within the Orlando Metropolitan region currently consist of I-4 (SR 400), Florida's Turnpike, SR 408 (East-West Expressway), SR 528 (Beachline), SR 417 (Eastern Beltway) and completed portions of SR 429 (Western Beltway), all of which are heavily traveled SIS facilities. The Wekiva Parkway (SR 429)/I-4 interchange is the missing link in the completion of the Western Beltway from I-4 in Osceola County to I-4 in Seminole County. Once completed, the Western Beltway (SR 429) will provide another north-south facility and help to alleviate traffic the existing regional transportation network.

Capacity – SR 46 is currently a two-lane, undivided roadway from Mount Dora in Lake County to Orange Boulevard in Seminole County. The section from Orange Boulevard to I-4 (SR 400) is a four-lane, divided roadway. The most recent LOS data from FDOT shows that SR 46 is over capacity from CR 437 in Lake County to Orange Boulevard/CR 431 in Seminole County. Several new subdivisions within and adjacent to the study area are currently in various stages of planning and construction, and will add to the demand on the area roadways. The Wekiva Parkway (SR 429) is expected to address the increased travel demands, both locally and regionally.

Safety – Many of the study area roadways are two-lane local and arterial roads that do not meet the current design standards for safety and capacity. In 2004, 20 people died on SR 46 through Lake and Seminole Counties. Eleven of the 20 fatalities on SR 46 occurred within the Wekiva Parkway study area, with seven in Lake County and four in Seminole County. On a per mile basis, the section of SR 46 through Lake County is the most dangerous roadway in Central Florida, according to an Orlando Sentinel analysis of 2004 state and federal crash data. The section of SR 46 through Seminole County is the region's second most dangerous segment of roadway.

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Wekiva Parkway (SR 429) and the widened and realigned sections of SR 46 would be designed and constructed in accordance with all current standards and would be available to those regional motorists desiring to bypass local traffic. A modern facility, coupled with the opportunity for segregation of trip types, would help to minimize the potential for traffic incidents and fatalities.

1.4 Alternatives

As part of this IMR and per Table 4-1 of the FDOT Interchange Analysis Request User Guide (IARUG), the RFP Concept shall be used as the basis for comparison when evaluating the new concept developed as ATC #32 during the Technical Proposal Phase. As required per the RFP and FDOT IARUG, the new concept shall perform equal to or better than the RFP Concept and satisfy the FHWA policy points (**Section 8.0**). The RFP concept for Wekiva Parkway (Section 8) is based on the RFP Reference Document 02 Concept Plans. The following alternatives were analyzed for this IMR:

- <u>RFP Concept</u> The interchange concept represented in the RFP is shown in **Figure 1-3**.
- <u>ATC #32</u> The modified "Wekiva Parkway" alternative proposed by Lane Construction/DRMP during the Design-Build process will serve as the Proposed Design-Build Alternative and is shown in **Figure 1-4**.

The differences between the RFP Concept and the ATC #32 are shown in **Appendix A**.

Per the FDOT IARUG Table 3-2 Considered Alternatives, the Transportation Systems Management & Operations (TSM&O) alternative does not apply when determined by the Interchange Review Coordinator (IRC). This was discussed at the February 14, 2019 District IRC meeting and it was decided it is not necessary for this project.