

AIR QUALITY TECHNICAL MEMORANDUM

Daniel Webster Western Beltway (SR 429) / Binion Road
Interchange Project Development and Environment Study

Central Florida Expressway Authority



CFX Project No.: 429-309

Contract No.: 001844

November 2022

Introduction

In August 2022, Central Florida Expressway Authority (CFX) began a Project Development and Environment (PD&E) Study of the State Road 429/Binion Road Interchange in the City of Apopka and Orange County. The study is evaluating a proposed half interchange (northbound on-ramp and southbound off-ramp) expressway connection from Binion Road to SR 429 to provide enhanced access and mobility to southwest Apopka. This Technical Memorandum is to document the air quality analysis findings.

Project Description

The study area runs along the vicinity of South Binion Road and Boy Scout Road at SR 429. Currently, drivers must enter and exit SR 429 by traveling approximately three miles north to just north of US 441 at the SR 429 Connector Road interchange or travel three miles south to the interchange at Ocoee Apopka Road. The 6-month study will analyze intersection improvements and access management modifications along the proposed interchange.

Study Goals

The goals of the SR 429/Binion Road Interchange PD&E Study include:

- Identify transportation mobility options and programs that could meet future demand.
- Enhance mobility of the area's growing population and economy by providing additional transportation infrastructure.
- Provide consistency with local plans and policies.
- Promote regional connectivity.

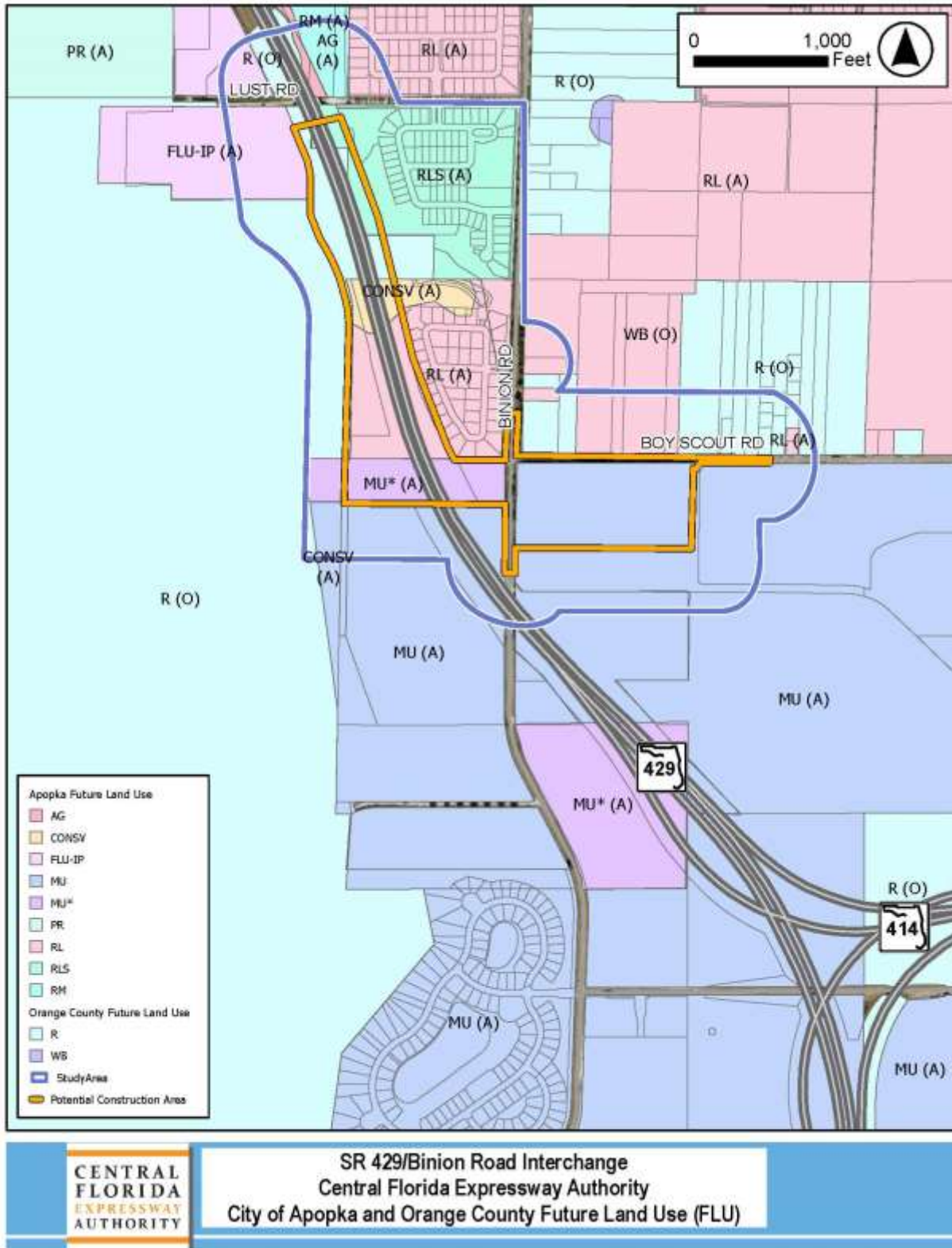
General Existing Conditions and Land Uses of the Project Area

The project area, as defined within the PD&E Study, is the location where alternative concepts for a half interchange that would provide access to SR 429 and a new intersection design at Binion Road and Boy Scout Road are being considered. For consistency in studying the existing and anticipated conditions of the area surrounding the PD&E Study Area, a half mile radius of the general existing conditions surrounding the project area are used.

The entirety of the project area falls within the Apopka City limits, except for 2 parcels at the northeast corner of the intersection of Boy Scout Road and S Binion Road. Within the surrounding area, the majority of the land falls within the City of Apopka Corporate Limits, with the remainder of the properties falling within unincorporated Orange County.

The Land Use in this area has slowly changed from primarily larger tracts of land often used for agriculture, to the development of many single-family subdivisions. The rise in population density and subsequent vehicle trips have put stress on the existing roadway network, which consists of mostly rural residential profile. The development of single-family lot subdivisions is likely to continue in the surrounding area, based on current market demand. **Figure 1** shows the Future Land Use (FLU) designations of the area per the City of Apopka and Orange County.

Figure 1: Study Area Future Land Use (FLU) Map



Analysis and Results

As part of this project study, an air quality evaluation has been performed consistent with the FDOT PD&E Manual, Part 2, Chapter 19. Based on this initial evaluation, a detailed Air Quality analysis is not needed because the project does not meet the two qualifying criteria per Section 19.2.2.1, Part 2, Chapter 19 of the PD&E Manual. It does not require an Environmental Impact Statement, and it is not expected to have community controversy regarding air quality.

This project is not expected to create adverse impacts on air quality because the project area is in attainment for all National Ambient Air Quality Standards (NAAQS) and because the project is expected to improve the Level of Service (LOS) and not change delay and congestion on all facilities within the study area.

Construction activities may cause short-term air quality impacts in the form of dust from earthwork and unpaved roads. These impacts will be minimized by adherence to applicable state regulations and to applicable FDOT Standard Specifications for Road and Bridge Construction.

References

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