AIR QUALITY TECHNICAL MEMORANDUM

SR 408 Westbound Capacity Improvements from I-4 to Goldenrod Road Project Development and Environment Study

Central Florida Expressway Authority



CFX Project No.: 408-175 Contract No.: 001844

September 2023

Introduction

In September 2022, Central Florida Expressway Authority (CFX) began a Project Development and Environment (PD&E) Study of State Road (SR) 408 from Interstate 4 (I-4) to Goldenrod Road in the City of Orlando and Orange County. The study is evaluating a proposed widening along the westbound lanes from I-4 to Goldenrod Road to enhance safety and travel time reliability approaching downtown Orlando from the east. This Technical Memorandum is to document the air quality analysis findings.

Study Description

The study area runs along the westbound lanes of SR 408 from the I-4 interchange to Bumby Avenue and from Semoran Boulevard to Goldenrod Road. Currently, westbound SR 408 within these limits is generally four lanes. The study will analyze roadway capacity improvements within the study limits.

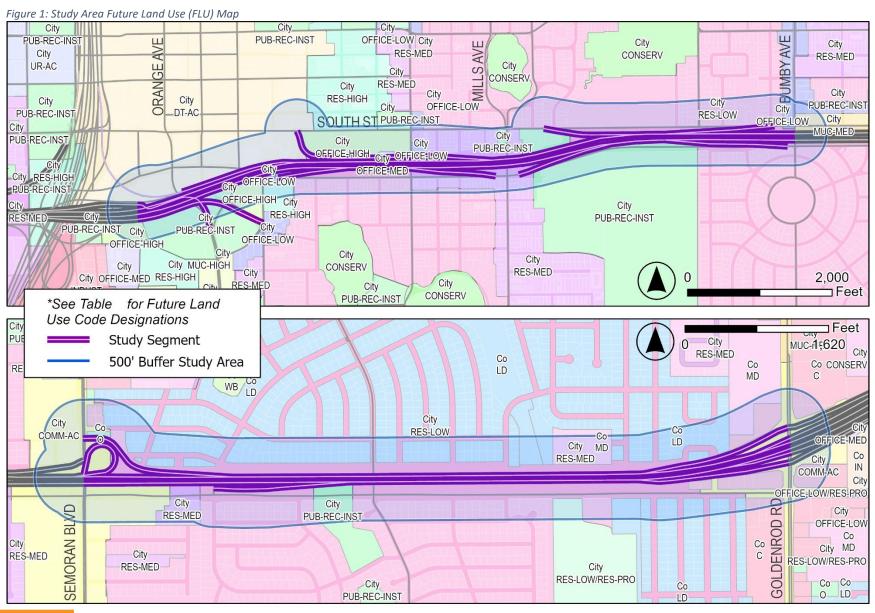
General Existing Conditions and Land Uses of the Project Area

The project area, as defined within the PD&E Study, is the location where alternative concepts for a westbound widening on SR 408 may occur. For consistency in studying the existing and anticipated conditions of the area surrounding the PD&E Study Area, a 500-foot buffer beyond existing right of way is used.

The project area from I-4 to Bumby Ave falls entirely within the Orlando City limits. The project area from Semoran Blvd to Goldenrod Rd includes areas within the City limits to the west of Semoran Blvd and south of the existing right of way, west of Cosmos Dr. The rest of the study area around Semoran Blvd to Goldenrod Rd is located in unincorporated Orange County.

The area surrounding the corridor is fully-developed. Land Use in this area has historically been residential in nature, featuring smaller parcels with single-family homes or lower-density multifamily units. The western part of the I-4 to Bumby Ave segment is located partially within the Downtown Orlando Central Business District, and the study area includes hotels, offices, multifamily housing, and a performing arts facility. **Figure 1** shows the Future Land Use (FLU) designations of the area per the City of Orlando and Orange County. **Table 1** lists the codes and corresponding FLU designations.





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Table 1:Future Land Uses Within Study Area

FLU Code	Jurisdiction	Future Land Use (FLU) Designation
COMM-AC	City of Orlando	Commercial Activity Center
CONSERV		Conservation Area
DT-AC		Downtown Activity Center
INDUST		Industrial
MUC-MED		Mixed Use Corridor Medium Intensity
OFFICE-LOW		Office Low Intensity
OFFICE-HIGH		Office High Intensity
PUB-REC-INST		Public/Recreational & Institutional
RES-LOW		Residential Low Intensity
RES-LOW/RES-PRO		Residential Low Intensity/Resource Protection Overlay
RES-MED		Residential Medium Intensity
RES-HIGH		Residential High Intensity
UR-AC		Urban Reserve
LD	Orange County	Low Density Residential
MD		Medium Density Residential
0		Office
WB		Water Body

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

- Florida Department of Transportation. "Air Quality", Part 2, Chapter 19. Project Development and Environment Manual, Florida Department of Transportation, Tallahassee, July 1, 2020.
- Chapter 62-204, F.S., Air Pollution Control General Provisions.
 https://www.flrules.org/gateway/ChapterHome.asp?Chapter=62-204
- EPA, 1998. NOx, How Nitrogen Oxides Affect the Way We Live and Breathe. EPA 456/F98-005.
- EPA, 2016. The Green Book Nonattainment Areas for Criteria Pollutants. https://www.epa.gov/green-book
- EPA, 2014. National Emissions Inventory. https://epa.gov/air-emissionsinventories/nationalemissions-inventory-nei
- FDOT, CO FDOT Florida 2012 User's Guide and Screening Model. http://www.dot.state.fl.us/emo/software/software.shtm
- EPA, 2011 National Air Toxics Assessment Results. https://www.epa.gov/national-air-toxicsassessment/2011-nata-assessmentresults
- FHWA, Advisory T6640.8A, Guidance for Preparing and Processing Environmental and Section 4(F) Documents, October 30, 1987; available from the FHWA Environmental Guidebook. https://www.environment.fhwa.dot.gov/projdev/impta6640.asp
- FHWA, Updated Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents. https://www.fhwa.dot.gov/environment/air quality/air toxics/policy and guidance/msat/
- FHWA, A Methodology for Evaluating Mobile Source Air Toxic Emissions Among Transportation Project Alternatives.
- https://www.fhwa.dot.gov/environment/air quality/air toxics/research and analysis/mobile source air toxics/msatemissions.cfm
- Memorandum of Understanding Between FHWA and FDOT Concerning the State of Florida's Participation in the Surface Transportation Project Delivery Program Pursuant to
- 23 U.S.C. 327, December 14, 2016. http://www.fdot.gov/environment/pubs/Executed-FDOT-
- NEPA-Assignment-MOU2016-1214.pdf

