



Project Number

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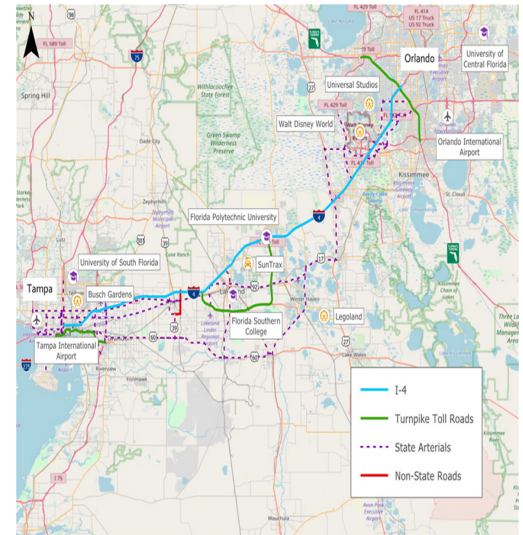
USF-CUTR I-4 FRAME Project Before Study: Data Collection and Analysis of Safety and Mobility Conditions Prior to Implementation

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Current Situation

Florida Department of Transportation (FDOT) Interstate 4 (I-4) Florida's Regional Advanced Mobility Elements (FRAME) project is of strategic importance to FDOT's Emerging Technologies and Connected Vehicle implementations and covers FDOT Districts 1,5,7 and Florida Turnpike Enterprise. The project has been let, with procurement of ITS systems underway and the deployments planned to begin in early 2024. Four universities -- University of Florida, University of South Florida, University of Central Florida, and Florida Polytechnic University -- are conducting before and after evaluations of the project. One of the biggest questions after any project implementation is, "Did it accomplish its goals?" To answer this, a benchmark of the current condition and then comparison with the post implementation conditions is needed. This fact is true for projects of all sizes and scope, whether for a minor traffic improvements project or a massive undertaking like the I-4 FRAME project.

I-4 FRAME project will deploy an advanced Integrated Corridor Management (ICM) system between Tampa and Orlando. This means installing nearly 700 roadside units along 77 miles of Interstate and over 200 miles of surrounding arterial roadways to transmit and receive data from connected vehicles.



I-4 FRAME project map.

Research Objectives

This project identified mobility challenges on the project corridor and documented how the I-4 FRAME project would address the various safety and mobility goals set out by FDOT. After the goals were established for safety and mobility, data was collected to evaluate the current conditions and set a benchmark to compare it with the data that will be collected after the project has been implemented.

Project Activities

The team from the Center for Urban Transportation Research (CUTR) at USF devised methodologies to collect before and after data for the corridor. Once the methodologies were finalized, "before" data was collected from FDOT and local data sources and analyzed with respect to 15 selected transportation systems and services from the I-4 FRAME project that USF was responsible for. The team then developed methodologies for evaluating the safety and mobility performance of the I-4 FRAME project and created a baseline that will be used to compare with the data collected after the implementation.

Additionally, the CUTR team assisted FDOT in developing a data management plan and a project evaluation plan for the I-4 FRAME project to submit to the Federal Highway Administration (FHWA).

Project Conclusions and Benefits

The findings from this phase of the project established a solid baseline by which future data can be compared. The findings will help support and evaluate the effectiveness and assess the benefits of the I-4 FRAME project deployment.

For more information, please see fdot.gov/research.