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Table of Contents

[1.0 Introduction 4](#_Toc87568945)

[2.0 Description of Changes 4](#_Toc87568946)

List of Tables

[Table 1 ARCHITECTURE Updates 5](#_Toc159237424)

[Table 2 Architecture Maintenance Log (District 1 RITSA) 10](#_Toc159237425)

# Introduction

This Update Report for the Florida District 1 Regional ITS Architecture (RITSA) identifies the revisions incorporated into the architecture. The purpose of this District 1 RITSA Update Report is to document revisions made to the District 1 RITSA to support Stakeholder input received through Architecture Change Requests as part of the Florida Intelligent Transportation Systems (ITS) Architecture Support and Maintenance Project.

The Florida ITS Architecture Support and Maintenance Project included the initial major update of the Statewide ITS Architecture (SITSA) and seven RITSAs. Following the major update phase, periodic updates are executed to maintain the architecture content. The FDOT Architecture Team coordinates with the FDOT Project Manager or designee and each applicable District Transportation Systems Management and Operations (TSM&O) Program Engineer or designee for the RITSAs.

# Description of Changes

Seven maintenance log items were addressed in the update. Table 1 provides descriptions for each change request that was implemented in the architecture update. A log reference number is provided for each change to related it to the Architecture Maintenance Log that is provided in Appendix A. Each architecture change that is received is added to the maintenance log for tracking and disposition.

Information about stakeholders, elements, and services is provided to summarize the changes. Some architecture components such as interfaces, roles and responsibilities, functional requirements and standards are numerous and can be reviewed on the architecture website or in the Regional Architecture Development for Intelligent Transportation (RAD-IT) software tool to explore the details of each project.

Table 1 ARCHITECTURE Updates

| **Change** | **Log Ref #** | **Actions Taken / Changes Implemented** |
| --- | --- | --- |
| Stakeholder Name Change: Collier County Growth Management Division is now called “Collier County Transportation Management Services Department.” | 148 | Changed the name of the stakeholder “Collier County Growth Management Division” to “Collier County Transportation Management Services Department.” Updated the appropriate diagrams and tables. |
| Add project for Transit Signal Priority along the US-41 corridor as part of the US 41 Transit Choices Study (2021). | 149 | Added new project architecture: *US 41 Transit Signal Prioritization Pilot*.* Added Elements: CAV-ITS Map Update System, FDOT SCMS, Manatee County CAV Field Equipment, Manatee County Field Equipment, Manatee County MCAT Dispatch, Manatee County MCAT Fixed Route Transit Vehicles, Manatee-Sarasota Regional Traffic Management Center, Sarasota County CAV Field Equipment, Sarasota County Field Equipment, Sarasota County SCAT Dispatch, Sarasota County SCAT Fixed Route Transit Vehicles.
* Added Services:
	+ PT09 - Transit Signal Priority (US 41 Transit Signal Prioritization Pilot (Manatee County))
	+ PT09 - Transit Signal Priority (US 41 Transit Signal Prioritization Pilot (Sarasota County))
	+ SU04 - Map Management (US 41 Transit Signal Prioritization Pilot)
	+ SU08 - Security and Credentials Management (US 41 Transit Signal Prioritization Pilot)
* Added Interfaces.
* Added Roles and Responsibilities.
* Added Functional Requirements.
* Selected Communications Solutions.
 |
| Rename project “FDOT District 1 US 41 Connected Vehicle Deployment in Manatee County” to “*FDOT District 1 Connected Vehicle Deployment in Manatee County*.” Change Project Description to: Install Connected Vehicle RSU's and upgrade controllers if needed to ATC controllers along state roadways in Manatee County. Add D1 FDOT and the City of Bradenton as Stakeholders. | 158 | Changed the project name and its description as requested. Added FDOT D1 and the City of Bradenton Public Works Department (PWD) to the project's stakeholders. * Added Elements:
	+ FDOT D1 CAV Equipment,
	+ FDOT SWIFT Center,
	+ City of Bradenton TMC,
	+ City of Bradenton CAV Equipment.
* Renamed Service Package Instances to match the renamed project. Added FDOT D1 and Bradenton elements to the project service packages.
* Added Interfaces.
* Added Roles and Responsibilities.
* Added Functional Requirements.
* Selected Communications Solutions.
 |
| Rename project “FDOT District 1 US 41 Connected Vehicle Deployment in Sarasota County” to “*FDOT District 1 Connected Vehicle Deployment in Sarasota County*.” Change Project Description to: Install Connected Vehicle RSU's and upgrade controllers if needed to ATC controllers along state roadways in Sarasota County. Add D1 FDOT and City of Sarasota as Stakeholders. | 159 | Changed the project name and its description as requested. Added the FDOT D1 and the City of Sarasota to the project's stakeholders. * Added Elements:
	+ FDOT D1 CAV Equipment,
	+ FDOT SWIFT Center,
	+ City of Sarasota CAV Field Equipment,
	+ City of Sarasota TMC,
	+ City of Sarasota Traffic Control Equipment.
* Renamed Service Package Instances to match the renamed project. Added FDOT D1 and Sarasota elements to the project service packages.
* Added Interfaces.
* Added Roles and Responsibilities.
* Added Functional Requirements.
* Selected Communications Solutions.
 |
| Add Project FPID 452408-1 for “*FDOT Truck Parking Availability System Deployments*” to deploy Truck Parking Availability Systems along I-75, I-275, and I-4 in District 1, including the I-275 Sunshine Skyway Rest Area in Manatee County which will be constructed by D1 FDOT and operated by D7 FDOT. | 160 | Added new project architecture: FDOT District 1 Truck Parking Availability System Deployment with Planned status.* Added Elements: FDOT CV/TPAS Parking Area Equipment, FDOT CV/TPAS Parking Management System, FDOT District 1 Field Equipment, FDOT District 7 Tampa Bay SunGuide Center, FDOT I-75 Satellite Center, FDOT SWIFT Center, Florida 511, Private Sector Traveler Information Services, Private Travelers Personal Computing Devices.
* Added Services:
	+ CVO05 - Commercial Vehicle Parking (Truck Parking Availability System(TPAS))
* Added Interfaces.
* Added Roles and Responsibilities.
* Added Functional Requirements.
* Selected Communications Solutions.
 |
| Add Project FPID 449463-1 for the deployment of a Collier Countywide Connected Traveler Information System along US 41 and SR 951. The project will deploy Connected Vehicle (CV) Roadside Units (RSUs) with Bluetooth travel time detector capabilities along the referenced roadways in Collier County. The project was funded through the Technology Applications Partnerships with Local Agencies for Deploying Connected and Automated Vehicle Technologies (TAPs-LA) program. | 161 | Added new project architecture: *FDOT District 1 US 41/SR 951 CV/BT Deployment in Collier County* with Planned status.* Added Elements: CAV Authorizing Center, Commercial Vehicle, FDOT District 1 CAV Field Equipment, FDOT SCMS, FDOT SWIFT Center, Vehicles.
* Added Services:
	+ SU01 - Connected Vehicle System Monitoring and Management (FDOT District 1 US 41/SR 951 CV/BT Deployment in Collier County)
	+ SU02 - Core Authorization (FDOT District 1 US 41/SR 951 CV/BT Deployment in Collier County)
	+ SU08 - Security and Credentials Management (FDOT District 1 US 41/SR 951 CV/BT Deployment in Collier County)
	+ TM01 - Infrastructure-Based Traffic Surveillance (FDOT District 1 US 41/SR 951 CV/BT Deployment in Collier County)
	+ TM02 - Vehicle-Based Traffic Surveillance (FDOT District 1 US 41/SR 951 CV/BT Deployment in Collier County)
* Added Interfaces.
* Added Roles and Responsibilities.
* Added Functional Requirements.
* Selected Communications Solutions.
 |
| Add new project FPID: 452391-1-52-01, Districtwide Movable Bridge Project. This safety project will add Lidar Pedestrian Detection Systems to on and off system movable bridges in District One. The installation will improve the bridge tenders visibility of the pedestrian sidewalks in-between the gate arms. | 162 | Added new project architecture: “*FDOT District 1 Movable Bridge*” project architecture with Planned status.* Added Elements: FDOT District 1 Drawbridge Equipment, FDOT District 1 Drawbridge Management System, FDOT District 1 Drawbridge Pedestrian Detector, Vulnerable Road Users.
* Added Services:
	+ TM18 - Drawbridge Management (FDOT District 1 Movable Bridge)
	+ VS12 - Vulnerable Road User Safety (FDOT District 1 Movable Bridge)
* Added Interfaces.
* Added Roles and Responsibilities.
* Added Functional Requirements.
* Selected Communications Solutions.
 |
| Update FDOT D1 CV Deployment in Manatee County project. | N/A | In response to a Comment from Draft Review: Updated the owner of the element ‘City of Bradenton TMC’ that was owned by the Counties and Cities stakeholder. It was changed to the Bradenton PWD to be consistent with the field equipment. |
| Update FDOT D1 US 41/SR 951 CV/BT Deployment in Collier County project. | N/A | In response to a Comment from Draft Review: renamed the project to the Collier Countywide Connected Traveler Information System to be consistent with the project’s TAPs-LA proposal. Added the Collier County Transportation Management Services Department as a stakeholder for the project that owns an Advanced Traffic Management System and Field Equipment. Also added service package instances for SU03 Data Distribution and SU04 Map Management for the Collier Countywide project. |

Appendix A: Architecture Maintenance Log (District 1 RITSA)

The maintenance log in Table 2 provides the District 1 RITSA maintenance items considerations for the update.

Table 2 Architecture Maintenance Log (District 1 RITSA)

| **#** | **Date** | **Architecture** | **Source** | **Contact** | **Change** | **Disposition** | **Recommend Maintenance** | **Incorporated** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 148 | 6/8/2023 | D1 RITSA | Change Request Form: FDOT District 1 | Pierre Beauvoir / Collier County | Stakeholder Name Change: Collier County Growth Management Division is now called “Collier County Transportation Management Services Department.” | Update Stakeholder Name | Yes | Yes |
| 149 | 6/19/2023 | D1 RITSA | Change Request Form: Sarasota/Manatee MPO | Ryan Brown / Sarasota/Manatee MPO | Add project for Transit Signal Priority along the US-41 corridor as part of the US 41 Transit Choices Study (2021). | Added Project | Yes | Yes |
| 158 | 6/27/2023 | D1 RITSA | Change Request Form: FDOT District 1 | Belinda Thomas / FDOT District 1 | Rename project “FDOT District 1 US 41 Connected Vehicle Deployment in Manatee County” to “FDOT District 1 Connected Vehicle Deployment in Manatee County.” Change Project Description to: Install Connected Vehicle RSU's and upgrade controllers if needed to ATC controllers along state roadways in Manatee County. Add D1 FDOT and the City of Bradenton as Stakeholders. | Updated Project information and definition | Yes | Yes |
| 159 | 6/27/2023 | D1 RITSA | Change Request Form: FDOT District 1 | Belinda Thomas / FDOT District 1 | Rename project “FDOT District 1 US 41 Connected Vehicle Deployment in Sarasota County” to “FDOT District 1 Connected Vehicle Deployment in Sarasota County.” Change Project Description to: Install Connected Vehicle RSU's and upgrade controllers if needed to ATC controllers along state roadways in Sarasota County. Add D1 FDOT and Sarasota County as Stakeholders. | Updated Project information and definition | Yes | Yes |
| 160 | 6/27/2023 | D1 RITSA | Change Request Form: FDOT District 1 | Belinda Thomas / FDOT District 1 | Add Project FPID 452408-1 for “FDOT Truck Parking Availability System Deployments” to deploy Truck Parking Availability Systems along I-75, I-275, and I-4 in District 1, including the I-275 Sunshine Skyway Rest Area in Manatee County which will be constructed by D1 FDOT and operated by D7 FDOT. | Added project | Yes | Yes |
| 161 | 6/27/2023 | D1 RITSA | Change Request Form: FDOT District 1 | Belinda Thomas / FDOT District 1 | Add Project FPID 449463-1 for the deployment of a Collier Countywide Connected Traveler Information System along US 41 and SR 951. The project will deploy Connected Vehicle (CV) Roadside Units (RSUs) with Bluetooth travel time detector capabilities along the referenced roadways in Collier County. The project was funded through the Technology Applications Partnerships with Local Agencies for Deploying Connected and Automated Vehicle Technologies (TAPs-LA) program.  | Added project | Yes | Yes |
| 162 | 6/27/2023 | D1 RITSA | Change Request Form: FDOT District 1 | Cassie Lee / FDOT District 1 | Add new project FPID: 452391-1-52-01, Districtwide Movable Bridge Project. This safety project will add Lidar Pedestrian Detection Systems to on and off system movable bridges in District One. The installation will improve the bridge tenders visibility of the pedestrian sidewalks in-between the gate arms. | Add New project | Yes | Yes |