**MODIFIED SPECIAL PROVISION APPROVAL REQUEST**

(REV 1-19)

**Date: 2/6/2019 District: 5 Type: Project Specific**

**Letting Month: April, 2019 FPID Number: 440900-1&2-52-01**

**Requested by: Dale W. Cody, PE Office/Phone: (407) 644-1898**

**Specification being modified: 671**

**Affected Pay Items: 671-2-11**

**\*Expected Cost Impact to this project: $48,000**

**\*** Give an estimate of dollar impact (added cost or cost savings) to the project if this Modified Special Provision is used in lieu of the corresponding statewide implemented specification.

**Project Description**: I-75 Florida’s Regional Advanced Mobility Elements (FRAME). This project will add additional technology along I-75 and signalized intersections located parallel to I-75 in Sumter and Marion Counties in order to provide Connected Vehicle (CV) functionality as well as signal data optimization within this region of District 5.

**Background Data:** The project includes the installation of roadside units (RSUs) that include Dedicated Short-Range Communications (DSRC) radios. The installation of RSUs will allow for the transmission of Signal Phase and Timing (SPAT) data, CV emergency vehicle preemption (EVP), and CV transit signal priority (TSP) applications. Information for the new controllers should be provided by the contractor into FDOT District Five’s Automated Traffic Signal Performance Measures (ATSPM) website. Within the project limits there are currently 24 signalized intersections maintained by the City of Ocala. Currently, Ocala has Naztec ATC controllers. This controller contains software modules required for CV and TSP applications. In order to utilize these software modules, they will need to be unlocked in each controller with a key code provided by Trafficware.

**\*Name and PE Number of PE signing and sealing the Modified Special Provision:**

**\*** Project Specific Modifications to the Standard Specifications or Workbook Specifications must be signed and sealed by the Professional Engineer responsible for this Special Provision under the following statement and kept in the Project Files maintained in the District.

**PE Name: Dale W. Cody, PE PE Number: 53995**

***I hereby certify that this Specification was prepared under my responsible charge, and that it has been reviewed in accordance with procedures adopted and implemented by the Florida Department of Transportation.***

The official record of this Special Provision is the electronically signed and sealed under Rule 61G15-23.004, F.A.C.

Professional Engineer: Dale W. Cody

Date: 2/6/2019

Fla. License No.: 53995

Firm Name: Metric Engineering, Inc.

Firm Address: 525 Technology Park, Suite 153

City, State, Zipcode: Lake Mary, Florida 32746

Certificate of Authorization: 2294

Pages: 1-2

**SECTION 671 TRAFFIC CONTROLLERS**

SECTION 671 is deleted and the following substituted:

# Description.

Furnish and install a traffic controller unit as shown in the Plans. Meet the requirements of Section 603. Procure and install the software key code(s), licenses and/or firmware required to unlock the Connected Vehicle (CV) modules, the Transit Signal Priority (TSP) modules as well as any other features for the Traffic Controller Assemblies in order to ensure full functionality for all vehicle detection, Emergency Vehicle Preemption (EVP), TSP, CV, Signal Phase and Timing (SPaT) and Automated Traffic Signal Performance Measures (ATSPM) applications for existing and proposed controllers.

# Materials.

Use traffic controllers listed on the Department’s Approved Product List (APL). Ensure equipment is permanently marked with the manufacturer’s name or trademark, part number, and serial number.

Controllers must meet the following applicable industry standards: NEMA TS2 Controller NEMA TS-2-2003

Model 170 Controller CALTRANS TEES, 2009

Model 2070 Controller ..........................................................

.......................... CALTRANS TEES, 2009 ERRATA No. 2

Note: All controllers must meet AASHTO/ITE/NEMA ATC 5201, v06.25.

All controllers must provide functionality that meets or exceeds operational characteristics, including NTCIP support, as described in NEMA TS-2-2016.

Install the software key code(s), licenses and/or firmware required to unlock the Connected Vehicle modules, the Transit Signal Priority modules as well as any other features for the Traffic Controller Assemblies in order to ensure full functionality for all EVP, TSP, CV, SPaT and ATSPM applications for existing and proposed controllers.

Provide all required materials, licenses and installation for cabinet modifications to accommodate vehicle detection, CV, TSP, EVP, SPaT and ATSPM for existing and proposed controllers.

Ensure that the controller and MMU are 100% compatible with the maintaining agencies ATMS system.

If shown in the Plans, new installations must include controllers that will:

* + 1. Deactivate the dimming circuit of LED street lighting, as shown in the Plans, during pedestrian activations. Pedestrian detector diagnostics must be activated when this feature is used.
		2. Capture all mandatory event-based data elements listed in supplemental requirement SR-671-2, Supplemental Traffic Controller High Resolution Data Logging Requirements, as published on the Department’s State Traffic Engineering and Operations Office website at the following URL:

<http://www.fdot.gov/traffic/Traf_Sys/Product-Specifications.shtm>.

* + 1. Provide and make Management Information Bases (MIBs) available for Traffic Signal Controller Broadcast Messages (TSCBM) to local agencies and FDOT that are compatible with Society of Automotive Engineer (SAE) J2735 201603.
		2. Support programming of destination Internet Protocol (IP) addresses via controller front panel for interface with Dedicated Short-Range Communication (DSRC) Roadside Units (RSU), also called Vehicle to Infrastructure (V2I) Hubs.

# Method of Measurement.

No separate payment will be made for the controller; payment is included with the Traffic Controller Assembly. Prices and payments will be full compensation for all work specified in this Section.