**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: 670**

**Affected Pay Items: 670-5-112**

**\*Expected Cost Impact to this project: $20,000**

**\*** 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 10 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 670**

**TRAFFIC CONTROLLER ASSEMBLIES**

SECTION 670 is deleted and the following substituted:

# Description.

Furnish and install a traffic controller assembly or flashing intersection control beacon controller assembly 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 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 only controller components listed on the Department’s Approved Product List (APL).

Traffic controller assemblies and intersection control beacon controller assemblies must be permanently marked with manufacturer name or trademark, part number and serial number. Markings must be visible after installation.

Provide a traffic controller assembly consisting of a traffic controller, traffic controller accessories (including monitors, load switches, flasher, flash transfer relay, power supplies), and other equipment wired into a controller cabinet to make a complete and operational assembly. All traffic controller assemblies must provide functionality that meets or exceeds operational characteristics, including NTCIP support, as described in NEMA TS-2-2003. Provide all required materials for cabinet modifications to accommodate vehicle detection, CV, TSP, EVP, SPaT and ATSPM for existing and proposed controllers.

**670-2.1 Traffic Controller:** Meet the requirements of Section 671.

**670-2.2 Traffic Controller Accessories:** Meet the requirements of Section 678.

**670-2.3 Controller Cabinet:** Meet the requirements of Section 676.

**670-2.4 Flashing Intersection Control Beacon Controller Assembly:** A flashing intersection control beacon controller assembly must consist of a Type 3 flasher wired into a Type 1 controller cabinet to make a complete and operational assembly.

# Installation Requirements.

**670-3.1 Controller Cabinets:** Meet the requirements of Section 676. **670-3.2 Field Wiring:** Meet the requirements of Sections 632 and 676. **670-3.3 Grounding:** Meet the requirements of Sections 620 and 676.

**670-3.4 Equipment Placement:** Install all equipment in the cabinet in accordance with the manufacturer’s recommendations. Provide installation for cabinet modifications to accommodate vehicle detection, CV, TSP, EVP, SPaT and ATSPM for existing and proposed controllers.

**670-3.5 Software Modules**: Install the software key code(s), licenses and/or provide the 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.

# Method of Measurement.

The Contract unit price per assembly for traffic controller assembly or intersection control beacon controller assembly will include all labor, equipment, and miscellaneous materials necessary for a complete and accepted installation.

# Basis of Payment.

Prices and payments will be full compensation for all work specified in this Section. Payment will be made under:

Item No. 670- 4- Intersection Control Beacon Controller Assembly - per assembly.

Item No. 670- 5- Traffic Controller Assembly - per assembly.