Comments: (6-25-21, Internal)
I met with Eric, Missy, Sarah, and I discussed the following 695 spec modifications:

1. Consistency is needed between how the product types are named in 695 and 997.
2. When the APL is referenced for products that are not in 997, the spec and correct product type name needs to be included.
3. Identified some products that will not be furnished by the contractor.

I have included the Comments on the attached document.

695-2.3 Notification: Notify the Engineer 10 days prior to beginning work in the area of the TMS to coordinate the removal of existing TMS equipment. A TMS Inspector must be onsite during TMS installation. Notify the Engineer 10 days prior to installation of the TMS to coordinate the scheduling of a TMS Inspector.

695-2.4 Poles for Cabinets, Non-Intrusive Sensors and Solar Panels:
- 695-2.4.1 Requirements: Meet the requirements of Section 646 for aluminum poles.

695-2.4.2 Installation: Use cabinets that meet the requirements of Section 676 and are listed on the Department’s Approved Product List (APL). Install cabinets in accordance with Section 676. Install the weather head and ground the pole in accordance with Section 620 and Standard Plans, Index 695-001.

695-2.5.1 General: Secure all warranties provided by the equipment manufacturer for the specific equipment included in the Contract. Ensure that all warranties are fully transferable from the Contractor to the Department. Transfer warranties upon final acceptance in accordance with 5-11. Document all warranties and warranty transfer submitted to the Engineer. The Engineer will submit warranty forms received from the Contractor to the TMS Manager.

695-3.2.1 Installation: Install sensors in accordance with the requirements of this Section and Standard Plans, Index 695-001. Ensure axle sensors are installed in the roadway and secured using an adhesive bonding material listed on the APL.

695-3.3 Non-Intrusive Vehicle Sensors (Off Roadway):
- 695-3.3.1 General: Install wireless (radar or microwave) vehicle sensors on a pole as shown in the Plans. Use vehicle detection systems that meet the requirements of Section 997 and are listed on the Department’s Approved Product List (APL).

695-4.2 Materials:
- 695-4.2.1 General: Use a vehicle speed classification unit listed on the Department’s APL meeting the requirements of 997 and compatible with the other components installed at the TMS. Ensure that the vehicle speed classification unit and equipment cables are compatible and constructed in accordance with the Standard Plans.

695-4.2.2 Vehicle Speed Classification Unit Requirements: Provide an electronics unit that outputs data compatible with the Department’s polling computer system or furnish a software module that converts the data into a format compatible with the Department’s polling computer system.

695-4.2.3 Cables and Connectors: Furnish all cables and connectors for a complete and functional installation of each electronics unit in accordance with Standard Plans, Index 695-001.
- 695-4.2.3.1 Ensure that the cables are properly terminated for the prescribed use without further modification by the Department.
695-5 Weigh-In-Motion Electronic Sensor

- 695-5.1 General: Install Traffic Monitoring System (TMS) Weigh-In-Motion Electronic Sensor in accordance with the Plan, Index 695-001, and meet the requirements of Section 997.
- 695-5.2 Materials: Use Weigh-In-Motion Electronic Sensors that meet the requirements of Section 997 and are listed on the Department’s Approved Products List (APL).
- Use bonding agents listed on the APL, which are compatible with the Weigh-In-Motion sensor being installed.
- 695-5.3 Installation Requirements
  - 695-5.3.1 General: The installer must have a valid certification from the manufacturer for installation the Weigh-In-Motion Electronic Sensors.
  - 695-5.4 Bonding Plate: Install two weigh pads adjacent to each other or in each wheel path in a staggered array to cover a 12-foot lane in the roadway. Connect the weigh pads to an interface processor.

- 695-5.5 Piezoelectric Weigh-In-Motion Axle Sensor: Install piezoelectric sensors in concrete or asphaltic concrete roadways. Install two 6-foot piezoelectric sensors in (Class I) in each lane in the lane, in a staggered array in accordance with Standard Plans, Index 695-001. Place the leading Piezoelectric Weigh-In-Motion sensor (Class I) on the right side edge of the driving lane perpendicular to the flow of the traffic, covering half of the lane width (6 feet). Place the trailing Piezoelectric Weigh-In-Motion Sensor (Class I) on the left side edge of the driving lane (6 feet). Orient all lead-in cables and connectors toward the nearest pull box, beyond the outside travel lanes. Ensure that the end of the sensor element or channel is centered on the lane stripe.
  - 695-5.5.1 Piezoelectric Weigh-In-Motion Axle Sensor (Class I): by saving a slot into the pavement perpendicular to the flow of traffic, equal to the length of the sensor plus 4 inches, by 3 inches wide, and by 1 inch deep. Saw a 1 inch wide by 2 inch deep cable run slot from the end of the sensor slot to the edge of the pavement shoulder.
  - 695-5.5.2 suspend the sensor within the slot with ties. Prepare and apply bonding agent in accordance with the sensor manufacturer instructions, ensuring that there are no voids around the sensor. Ensure that the bonding agent is fully cured and ready for traffic within four hours of application. Remove the ties after the bonding agent has cured.
  - 695-5.5.3 Route the sensor lead-in cables to the pull box and through the conduit to the traffic monitoring site cabinet. Mark the sensor lead-in cables at the pull boxes and at the point of termination within the traffic monitoring site cabinet with an indelible marker, numbering the lanes as specified in the Plans and in accordance with the Standard Plans, Index 695-001.

695-7 Inductive Loop Assembly

- 695-7.1 General: Install TMS inductive loop assembly at the locations shown in the Plans meeting the requirements of this specification. Ensure that all materials furnished, assembled, or installed are new products.
- 695-7.2 Materials: Furnish and install inductive loop assembly components listed on the Department’s APL that are compatible with the other components installed at the location.
  - 695-7.2.1 Loop Wire: Use loop wire in accordance with Standard Plans, Index 695-001.
  - 695-7.2.2 Shielded Lead-In Cable: Use shielded lead-in cable in accordance with the pull box located adjacent to the roadway.
  - 695-7.3.4 Loop Sealant: Use loop sealant in accordance with Section 660. Prepare and apply the sealant in accordance with the manufacturer’s instructions. Remove excess sealant from the roadway surface. Ensure that the loop sealant has cured completely before allowing vehicular traffic to travel over the sealant.

695-8 Site-Cabinet

- 695-8.1 General: Install Type III, IV or V TMS cabinets in accordance with Section 676 and Standard Plans, Index 695-001.
- 695-8.2 Materials:
Response:

Ashley Anderson  
(850) 414-4184  
ashley.anderson@dot.state.fl.us

Comments: (7-1-21, Industry)  
Consider changing the Method of Measurement to say: "The contract unit price for each [...]"

Response: