MICHIGAN

DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION

FOR

**PEDESTRIAN COUNTER**

TVC:IJN 1 of 2 APPR:EMS:CRB:04-30-24

**a. Description.** This work consists of furnishing, installing, and calibrating with a manufacturer’s representative, a pedestrian counter in accordance with the details and at the location on the plans. The components include but are not limited to the multi-user counter, mounting hardware, power supply labor and materials, cables, licensing, and subscription fees for online software.

**b.** **Materials.** Furnish pedestrian counter materials that meet the following requirements.

1. Pedestrian Counter. Furnish an artificial intelligence neural network high-definition camera counter capable of transmitting count data through 4G long term evolution network with data aggregation by 15 minute increments. The pedestrian counter will be Ingress Protection 66 or Ingress Protection 68 rated with operating temperatures between 13 ºF and 122 ºF and power consumption of approximately 25 watts. Ensure the pedestrian counter is capable of detecting and distinguishing multiple user types including direction of travel.

A. Manufacturer. Eco-Counter CITIX-AI Evo

604-3981 St. Laurent Blvd.

Montreal, QC, H2W 1Y5, Canada

Phone: 866-518-4404

Attn: Stephen Charters

2. Mounting hardware. Use two stainless steel hose clamps sized for the mounting pole.

3. Wiring. Furnish outdoor rated cables as defined by the manufacturer.

4. Software. Include expert level software subscription for 4 years that includes service alerts, data dashboards, quarterly data validation and reconstruction by the manufacturer, weather module, and data presenting web page by the manufacturer.

5. Licensing. Include licensing according to the manufacturer for counting and classification of user classes including pedestrians, cyclists, e-scooters, and motorized vehicles and over-the-air firmware upgrades.

**c. Construction.**

1. General.

A. Install pedestrian counter on MDOT owned strain pole or mast arm as shown on the plans. Orient the pedestrian counter at the trail, crossing or intersection as directed by the Engineer and recommendation of the manufacturer’s representative during field calibration.

B. Furnish 110-volt AC power source from the control cabinet for the strain pole on which the pedestrian counter is mounted in accordance with the manufacturer’s recommendations. Do not impact the function or integrity of the control panel or traffic control infrastructure.

C. Secure all conduit, conduit tees, and cables in accordance with *NEC* and relevant local and national codes.

D. Perform a field calibration after installation with the manufacturer’s representative.

2. Documentation required.

A. Submit all documentation required herein to the Engineer in electronic format.

B. Furnish documentation detailing equipment, parts list, manuals, wiring schematics, all field notes specific to each installed pedestrian counter, and any other documentation as required by the Engineer.

3. Warranty. Furnish the pedestrian counter with a standard manufacturer’s warranty, transferable to the MDOT.

**d. Measurement and Payment.** The completed work, as described, will be measured and paid for at the contract unit price using the following pay item:

**Pay Item** **Pay Unit**

Pedestrian Counter Each

**Pedestrian Counter** includes all materials and work necessary to complete the pedestrian counter installation in accordance with the plans and special provisions. It also includes any necessary payments for licensing, field calibration with a manufacturer’s representative, and 4 years of expert level software subscription for data management.