

# Special Provision to Special Specification 6515

## Lighting Control System



Special Specification 6515, "Lighting Control System," is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

**Section 3.3., "Luminance Meter."** The last bullet of the third paragraph is voided and replaced by the following.

- Luminance meters should be wired using two No. 10 AWG (as specified in Item 620) in 3/4-in. Type 316 stainless steel liquid-tight flexible metal conduit (LFMC). LCam must be mounted to RIP, where indicated on the drawings. Mounting should be on adjustable mount using Type 316 stainless steel pole clamps.

**Article 3., "Material,"** is supplemented by the following.

- 3.12. **Convenience Transformer.** Provide 277/480–120/240 single-phase encapsulated dry-type transformer with copper windings, and install within the LCS enclosure.
- 3.13. **277/480 Electrical Service.** The service must be rated 277/480, 400A, three-phase four-wire. A main distribution panel (MDP), two lighting panels with powerline filter and gateways, a lighting control cabinet, and an encapsulated transformer with copper windings and a power panel must be provided in a weatherproof enclosure. The Contractor should refer to Contract drawings for equipment ratings. The Contractor should submit the shop drawings for review, detailing the full interior and exterior layout of the enclosure with all the electrical equipment as proposed in the Contract drawings.
- 3.14. **12×24×24 Junction Box.** Provide large pull boxes hung from deck constructed of angle or channel frames, and sheet metal with welded joints for conduits carrying northbound/southbound circuits. All welds must be ground smooth. Provide neoprene gaskets for complete sealing. Provide continuous hinges for all covers. Provide gaskets with sectionalized covers where covers meet, using angle iron or channel cross-members at the joint. Furnish boxes of sheet metal no less than No. 12 gauge Type 316 stainless steel. Interior angles and supports must be of galvanized steel, or carbon steel with a corrosion-resistant phosphate coating and primer. Provide each box with a grounding lug for connection to the nearest ground bus. Provide ground lugs of current capacity of at least that required by the NEC for the largest feeder entering the equipment.

**Section 4.1., "Installation,"** is supplemented by the following.

Mount electrically held lighting contactors with elastomeric isolator pads to eliminate structure-borne vibration, unless contactors are installed in an enclosure with factory-installed vibration isolators.

Provide means of temporary dimming of luminaires during construction to reduce intensity and glare until control system is fully commissioned and can manually dim addressable luminaires.

Coordinate and install luminance camera pole on proposed RIP assemblies as detailed on drawings and in accordance with applicable portions of Item 610, "Roadway Illumination Assemblies."

Provide labor and materials for final aiming of all meters to the Engineer of Record's satisfaction. Aiming should take place immediately before the work is accepted by the Engineer of Record. Image taken from LCam should be provided for verification.

**Article 4., "Construction,"** is supplemented by the following.

- 4.4. **Installation of Electrical Service.** Furnish and install electrical service equipment. Follow NEC and local utility company requirements when installing the electrical equipment. Coordinate the utility companies' work for providing service.

**Article 6., "Measurement,"** is voided and replaced by the following.

This Item will be measured by each "Lighting Control System," each "ELC SRV TY A 277/480 400 (SS) (N) (U)," each "ELC SRV TYP C 277/480 400 (SS) (N) (U)," each "LCAM Pole Assy," and each "12×24×24 Junction Box" indicated on the plans, connected, energized, tested, and made fully operational.

**Article 7., "Payment,"** is voided and replaced by the following.

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Lighting Control System," "LCAM Pole Assy," and "12×24×24 Junction Box." This price is full compensation for the furnishing, installing, commissioning, and testing of the tunnel roadway lighting control system, with all assemblies, poles, foundations, devices, controllers, power supplies, and apparatuses necessary to provide a fully functioning control scheme as detailed herein, including training and 1 yr. of technical support and incidentals necessary to complete the work.

The cost for each "ELC SRV TY A 277/480 400 (SS) (N) (U)" and each "ELC SRV TYP C 277/480 400 (SS) (N) (U)" is full compensation for paying all fees, permits, and other costs; making arrangements with the utility company for all work and materials provided by the utility company; furnishing, installing, and connecting all components, including poles, service supports, foundations, anchor bolts, riprap, enclosures, switches, breakers, service conduit (from the service equipment, including the elbow below ground), fittings, service conductors (from the service equipment, including the elbow below ground), brackets, bolts, hangers, and hardware; and materials, equipment, labor, tools, and incidentals.

Costs for utility-owned powerline extensions, connection charges, meter charges, consumption charges, and other charges will be paid for by the Department. The Department will reimburse the Contractor the amount billed by the utility, and an additional 5% of the invoice cost will be paid for labor, equipment, administrative costs, superintendence, and profit.