806.04 MEASUREMENT AND PAYMENT. Luminaires will be measured and paid for at the Contract unit price per each. The payment will be full compensation for luminaires, lamps, ballast, photocell, mounting hardware, and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

SECTION 807 — ELECTRICAL SERVICE EQUIPMENT

807.01 DESCRIPTION. This work shall consist of furnishing and installing electrical service equipment necessary for the utility company to connect the electrical power supply as specified in the Contract Documents or as directed by the Engineer and coordinating the connection with the local utility company.

807.02 MATERIALS.

Control and Distribution Equipment	950.13

807.03 CONSTRUCTION. Electrical service equipment shall consist of the equipment necessary to connect a utility company service to a traffic signal controller cabinet, lighting control cabinet, traffic monitoring station cabinet, or other traffic control device cabinet. Electrical service equipment shall be provided at the phasing and amperage specified in the Contract Documents.

807.03.01 Metered Service Pedestal. Metered service pedestals shall consist of a galvanized steel post containing a 100 amp 2 pole main circuit breaker for service disconnect, branch circuit breakers, and integral meter socket.

The galvanized steel post shall be designed to be imbedded into the soil a minimum of 18 in. and have a stabilizer shoe. Where specified in the Contract Documents, the post shall be imbedded in concrete. The post and meter socket shall conform to NEMA 3R. Provisions shall be provided to padlock the post closed to protect the circuit breakers, and to install a utility company seal to secure the meter.

Branch circuit breakers shall consist of a combination of 4 single pole 20 amp circuit breakers, and 1 double pole 20 amp circuit breaker or as specified in the Contract Documents.

Metered service pedestals shall be UL listed "Suitable for Service Equipment," and shall be acceptable to the local utility companies for use as a service connection.

807.03.02 Electrical Service Distribution Cabinet. Where an electrical service distribution cabinet is specified, the Contractor shall furnish and install an equipment enclosure, meter socket, disconnect switch, panel boards, transformers, circuit breakers, thermostats, fans, lightning arresters, conduit, wiring and wiring devices, ground fault interrupters, and all other equipment necessary to provide a complete functioning electrical service distribution cabinet. All electrical outlets shall be protected by ground fault interrupters (GFI).

807.03.03 Meter Socket. Meter sockets shall be provided in either ringed or ringless types as required by the utility company. If a meter is not required, a ringless socket with suitable shunts and a metallic cover plate shall be provided. Hardware for attaching the meter socket to a cabinet, wood post, of other structure shall be provided by the Contractor.

807.03.04 Disconnect Switch. Disconnect switch shall include all hardware for attaching the disconnect switch to a cabinet, wood post, or other structure as specified in the Contract Documents.

807.03.05 Service Cable. Electric service cable for traffic signals, intersection control beacons, hazard identification beacons, and luminaires mounted on traffic signal structures shall have three individual type THWN wires. Each wire shall be a minimum of 19 strands. Electric service cable color identification by spray paint, tape, heat shrink tubing, or any other post-manufacturing method is prohibited.

807.03.06 Utility Connection. The Contractor shall arrange a meeting with the utility company representatives, Traffic Operations Division representatives, the Engineer, and the District Utility Engineer as specified in the Contract Documents to establish a schedule for utility connections before any control equipment or material is ordered.

The Contractor shall not disconnect, de-energize, reconnect, tamper with, or otherwise handle any of the utility company's facilities. The Contractor shall be responsible for the utility service connection to the utility company supplied point of service.

The Contractor shall make the necessary arrangements with the utility companies to ensure having needed utilities available at the time of turn on. Any utility energization, connection or disconnection delays will not be a valid reason for any time extension. Difficulties in securing utility

company services are to be reported to the Engineer at the earliest possible time.

807.04 MEASUREMENT AND PAYMENT.

807.04.01 Electrical Utility Service Equipment will be measured and paid for at the Contract unit price per each at the phasing and amperage specified. The payment will be full compensation for the disconnect switch, meter socket, meter, shunts, cover plate, lightning arresters, wiring, conduit risers, wiring trough, conduit nipples and adapters, and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

807.04.02 Metered Service Pedestal will be measured and paid for at the Contract unit price per each. The payment will be full compensation for all enclosures, panel boards, circuit breakers, internal wiring, wiring devices, meter sockets, meter, shunts, cover plates, wiring and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

807.04.03 Electrical Service Distribution Cabinet will be measured and paid for at the Contract unit price per each. The payment will be full compensation for all enclosures, disconnect switches, lightning arresters, panel boards, circuit breakers, internal wiring, ground fault interrupter outlets, conduits, wiring devices, meter sockets, meter, shunts, cover plates, wiring and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

807.04.04 Meter Socket will be measured and paid for at the Contract unit price per each. The payment will be full compensation for attachment hardware, meter, shunts, cover plate, and for all material, labor, equipment, tools, and incidentals necessary to complete the work. When an item for meter socket is not included in the Contract documents, this work will not be measured, but the cost will be incidental to other pertinent items.

807.04.05 Disconnect Switch will be measured and paid for at the Contract unit price per each. The payment will be full compensation for attachment hardware, fuses, switch, and for all material, labor, equipment, tools and incidentals necessary to complete the work. When an item for this work is not included in the Contract Documents, this work will not be measured, but the cost will be incidental to other pertinent items.

807.04.06 Underground conduit will be measured and paid for as specified in 805.04.

807.04.07 Service lateral cable will be measured and paid for as specified in 810.04.

807.04.08 Concrete foundation will be measured and paid for as specified in 801.04.

807.04.09 Utility connection coordination with the utility company will not be measured, but the cost will be incidental to other pertinent items.

807.04.10 All utility company energization, connection or disconnection costs will be the responsibility of the Administration.

SECTION 808 — LIGHTING STRUCTURES

808.01 DESCRIPTION. This work shall consist of furnishing and installing low level steel and aluminum lighting poles, bracket arms and fittings, as specified in the Contract Documents or as directed by the Engineer. Concrete foundations are excluded.

808.02 MATERIALS.

Cast Iron	909.04
Hardware	909.10
Conduit	921.07
Lighting Structures	950.07
Galvanization	A 123
Stainless Steel Hardware	A 167, Type 302
Aluminum Castings	B 26 or B 108, alloy 356-T6
Anchor Base Plate for Aluminum Structures	B 209, 6000 series alloy

808.03 CONSTRUCTION. Refer to Section 801 for concrete foundations.

All fabrication and welding shall conform to Section 430. After forming and welding, the pole shall have a smooth finish with only one longitudinal and no transverse welds. When fully assembled, each lighting structure shall be installed so that the pole is vertical.

All welding for aluminum poles shall be metallic arc consumable electrode inert gas shielded process. After welding, the entire assembly shall be precipitation heat treated to the T-6 temper by an approved method and rotary sand finished.