



CITY OF ATHENS TRAFFIC SIGNAL SPECIFICATIONS

Pull Boxes:

Pull boxes shall be installed in accordance with TDOT Standard Specifications for Road and Bridge Construction Manual January 1, 2015, **Section 730.12 Pull Boxes**; pull boxes shall be either TDOT Type A or B and shall be installed in accordance with TDOT Standard Drawing T-SG-2, as amended.

Signal Cable, Wiring, Service Connections:

All signal cabling, wiring, and service connections shall be installed in compliance with TDOT Standard Specifications for Road and Bridge Construction Manual January 1, 2015, **Section 730.16 'Cable'**, **Section 730.17 'Wiring'** and **Section 730.18 'Service Connection'**, as amended.

Signal Head Strand Cable & Messenger Cable:

All span cabling and messenger wire and guy pole cable shall be installed in accordance with TDOT Standard Specifications for Road and Bridge Construction Manual January 1, 2015 **Section 730.20 'Strand Cable'**, as amended.

Bonding & Grounding:

All metallic cable sheaths, conduit, transformer bases, anchor bolts, poles, pedestals shall be properly bonded and grounded in accordance with TDOT Standard Specifications for Road and Bridge Construction manual January 1, 2015 **Section 730.21 'Bonding and Grounding'**, as amended.

Signal Heads & Luminaires:

All signal heads & luminaires shall be installed in accordance with TDOT Standard Specifications for Road and Bridge Construction Manual January 1, 2015, **Section 730.24 'Signal Heads'**, TDOT Standard Drawing T-SG-9A, and current ITE specifications, as amended. Replacement and new installations of signal heads shall be aluminum construction painted either flat or gloss black. Backplates shall be aluminum louvered dull black finish with type III yellow retroreflective striping.

Pedestrian Signals:

Pedestrian signals shall be installed in accordance with TDOT Standard Specifications for Road and Bridge Construction Manual January 1, 2015, **Section 730.24 'Signal Heads'**, and TDOT Standard Drawing T-SG-7, as amended. Mounting hardware shall be aluminum construction; signal housing and doors should be gloss or flat black; visor color shall be flat black. If attached to a signal pole, signal heads shall be mounted utilizing "clamshell" type hardware, color coordinated, as appropriate.

Signal Controllers & MMU:

Signal controllers shall be compliant with TDOT Standard Specifications for Road and Bridge Construction Manual January 1, 2015, **Section 730.25 ‘Controllers’**, as amended. New controller installations or replacements shall be current model Eagle/Siemens EPAC controllers and paired with EDI MMU2-LEip or SSM-LEip monitors capable of providing fully actuated signal operations. Units shall be equipped with ethernet ports, and have all software, firmware, and necessary cabinet connections to support interconnection of the intersection into the City traffic network, as appropriate.

Traffic Controller Cabinets:

All traffic cabinet installations shall be in accordance with TDOT Standard Specifications for Road and Bridge Construction Manual January 1, 2015, **Section 730.26 ‘Cabinets’** and TDOT Standard Drawing T-SG-5, as amended. All replacement or new traffic controller cabinet installations shall be NEMA TS-2 type cabinets; cabinets shall be weatherproof aluminum construction.

Coordination Equipment:

All coordination equipment installations shall be in accordance with TDOT Standard Specifications for Road and Bridge Construction Manual January 1, 2015, **Section 730.27 ‘Auxiliary Equipment for Traffic Signal Controllers’**, as amended. Equipment shall allow communication between SEPAC and SEMARC based EAGLE/Siemens controllers and Siemens Tactics traffic management system software and support ECOM to NTCIP conversion.

Vehicle Detection:

All video detection installations shall be in accordance with TDOT Standard Specifications for Road and Bridge Construction Manual January 1, 2015, **Section 730.29 ‘Detectors’** and TDOT Standard Drawing T-SG-3A, as amended. Stop bar vehicle detection shall be GRIDSMART Bell camera video detection and include all associated processor hardware, client software, and performance management software; advance approach intersection detection equipment shall be Wavetronix SmartSensor Advance detection equipment. New installations of in-ground inductive loops shall not be permitted unless written approval is obtained from the City.

Pedestrian Pushbuttons:

New pedestrian pushbutton installations and replacements shall be in accordance with TDOT Standard Specifications for Road and Bridge Construction Manual January 1, 2015, **Section 730.29 ‘Detectors’**. Pedestrian pushbutton stations shall be ADA compliant and meet all MUTCD signage and accessibility requirements, as amended. Pedestrian pushbuttons shall be Polara iNavigator style stations with correlating ethernet equipped central control units.