ITEM #1108116A - FULLY ACTUATED CONTROLLER WITH ACTUATED PEDESTRIAN PHASE (16 PHASE)

1.0 Description

a. This work under this Section shall consist of providing all labor, equipment and materials to install a fully-actuated controller with actuated pedestrian phase (16 phase) and all auxiliary equipment to provide the sequence, timing and traffic signal operation as shown on the plans or as directed by the Engineer. The controller shall be manufactured by Peek Traffic.

b. The cabinet to house the controller shall be completely wired and all sub-bases shall be complete with load switches and flash relays. The cabinet shall also have all necessary auxiliary equipment required to provide the sequence and timing indicated on the plans. A time switch shall be installed in the cabinet.

2.0 MATERIALS:

The controller shall be manufactured by Peek Traffic. The controller and the cabinet shall be TS2 type 2. The cabinet shall be unfinished.

a. The materials for the controller shall conform to the following requirements:

1) The controller unit shall be a user-friendly, fully actuated, volume density, keyboard entry, menu driven, and 16 Phase unit operating in up to four rings with fully programmable ring structure. Controller shall have internal coordination capability with 6 coordination modes. They shall be Permissive, Yield, Permissive/Yield, Permissive/Omit, Sequential Omit, and Full Actuated Coordination. Controller shall also be capable of running a Coordination virtual split routine based on coordination phase vehicle traffic activity. The internal time clock shall have 250 events with 99-day programs and 10 week programs. Internal Preemption shall include 6 programmable emergency preemption and 6 low priority routines with in sync return to coordination. Controller shall generate cycle MOE reports and be capable of adjusting split times smoothly based upon these reports and time of day. Other reports shall include Local alarm log, Detector fault log, and Volume count log. Controller shall be programmable with up to 5 Max, and 3 adaptive Max routines. The controller shall be complete with communications modules compatible with a master controller and a "closed loop" responsive signal traffic system operating on 2 wire half duplex systems. Controller shall conform to applicable NEMA Standards. Sixteen Overlap displays shall be programmable through the keyboard. An “Eagle EPAC” series controller may be used.

2) A "D" harness shall be provided with each controller unit to access preemption and coordination functions. The controller unit and all equipment shall have approved surge protection. A RS232 connector shall be provided on the controller for direct communications with the conflict monitor by a separate cable. The controller shall have a standard RS232 port for one (1) data transfer cable and one (1) printer cable.

3) Timing circuits of the traffic signal controllers shall be fully digital and shall be as accurate as the 60 Hz power source with an input range from 105 VAC to 130 VAC, over a temperature range encountered in Meriden.

b. The conflict monitor shall conform to the following requirements:

The conflict monitor shall have an LCD display and record the last nine faults. It shall be able to upload the log thru the controller unit in a closed loop system and include the RS232 controller to monitor cable. The recorded faults shall include the fault, showing the active red, yellow or green displays at the time, and the time and date of the occurrence.

c. This item shall include the installation of an interconnect cable termination panel on the left inside wall of the controller cabinet. The panel shall consist of a spring clip, quick connect type (R66) with a clear plastic cover. The panel shall have one row or 50, 4 position clips, and provide for the termination of a minimum of 25 pairs.

3.0 CONSTRUCTION METHODS:

a. The new controller, mounted in controller cabinet, shall be installed at the location(s) shown on the plans to provide the sequence, timing and traffic signal operation as shown on the plans or as directed by the Engineer.

4.0 METHOD OF MEASUREMENT

This work will be measured for payment by the number of controllers, completed and accepted in place.

5.0 BASIS OF PAYMENT

This work will be paid for at the contract unit price each for “Fully Actuated Controller with Actuated Pedestrian Phase (16 Phase)” of the type specified, which price shall include all materials, miscellaneous hardware, labor, tools, and work incidental thereto.

Pay Items	Pay Units
Fully Actuated Controller with Actuated Pedestrian Phase (16 Phase)	EA.