



**TITLE:** Consider/Discuss/Act on a Resolution Authorizing the City Manager to Purchase Equipment from Texas Highway Products and Paradigm Traffic Systems for a Radio-Operated School Flashing Beacon System

**MEETING DATE:** September 4, 2012

**DEPARTMENT:** Development Services/ Engineering

**CONTACT:** Gary Graham, P.E., P.T.O.E., Traffic Engineering Manager  
Robyn Root, P.E., P.T.O.E., Traffic Engineer

**RECOMMENDED CITY COUNCIL ACTION:**

- Approval of the Resolution.

**ITEM SUMMARY:**

- This Resolution authorizes the City Manager to purchase equipment from the following vendors for equipment necessary for the installation of a radio-operated school flashing beacon system:
  - Cabinet radios master radio from Texas Highway Products, for an amount not to exceed \$78,000
  - Antennae and miscellaneous equipment from Paradigm Traffic Systems, for an amount not to exceed \$21,000

**BACKGROUND INFORMATION:**

- The school districts in McKinney have 26 elementary schools, 6 middle schools and 3 high schools and each of these schools have reduced speed school zones.
- The reduced speed school zones include 130 flashing beacons to draw driver attention to the reduced speed in an active school zone.
- The flashing beacons are controlled by a clock that is housed in a cabinet located adjacent to the flashing beacons.
- The clocks in these controllers need to be adjusted to match the days and the times the school zones are active as well as adjusted periodically to ensure the time on the clock is accurate.
- The changes typically are required before the beginning of the school year and before the beginning of summer school for the campuses that have summer sessions. However, the school districts also make changes to their schedules during the school year thereby requiring adjustments to each of the affected controllers.

- A radio-operated school flashing beacon system would place a radio communication device in each cabinet that would communicate with the master system. The radio-operated system would allow staff to make the changes from a central controller (located at the Traffic Management Center) instead of driving to each individual location and would result in effective and efficient response to reports of malfunctioning flashing beacons.
- This new system would also save staff time in responding to inquiries about equipment operation. The centralized software allows staff to see readout of issues and can help diagnose problems before staff drives to the field to investigate. With advance knowledge of issues, staff can ensure they have the proper equipment need to fix the problem so they don't have to make multiple trips to the field.
- The radio-operated flasher system will also send out daily broadcasts to all the controllers to ensure that the clock in the controller is set to the correct time. This would eliminate a common problem that is encountered. The system allows staff to ensure that all flashers are operating when they should be operating.
- Staff recommends the purchase of equipment for an ENCOM radio-operated school flashing beacon system (Safe to School System) equipment for half of the controllers. The controllers that currently take the most staff time to adjust will be completed with this first phase.
- This equipment will take approximately 8 months to install.

**FINANCIAL SUMMARY:**

- Approval of this Resolution will authorize the purchase of equipment from Texas Highway Products (\$78,000) and Paradigm Traffic Systems (\$21,000) for the installation of a radio-operated school flashing beacon system, for a total amount not to exceed \$99,000.
- Chapter 791 of the Texas Government Code, Interlocal Cooperation Contracts, authorizes cities to make purchases utilizing State of Texas contracts. Both of the proposed vendors are included on the State of Texas term contract 550-A2, Traffic Control Devices, Markers, Delineators.
- Upon City Council approval, staff will make necessary budget transfers within existing appropriations.

**BOARD OR COMMISSION RECOMMENDATION:**

- N/A