

**Application to the City of Calgary Council Innovation Fund**

**Date:** 2011 May 11

**Name of Project:** Rectangular Rapid Flash Beacon (RRFB) Solar Powered Pedestrian Crossing Pilot

**Sponsor:** Alderman Peter Demong and Richard Pootmans

**Address:** 700 Macleod Trail South, Calgary, AB T2P 2M5

**Affected Business Unit(s) and /or Departments:** Roads, Transportation

**Amount of Funds Requested:** up to \$200,000

**Summary Description of Project (Max 1 page):** Roads, Traffic Division has become aware of Rectangular Rapid Flash Beacon (RRFB) Solar Powered Pedestrian Crossing Systems. An example of such a system is illustrated in the attachment. These systems typically cost in the range of \$10,000 to \$20,000, depending upon installation specifics. It is proposed to acquire ten of these systems from various suppliers and install them as a pilot to test the technology. The pilot installations would be at locations where there are existing pedestrian crossing issues and concerns. Should this device prove successful, additional installations could be undertaken. A warrant or guidelines will be established addressing locational criteria. This device could be a low cost alternative to a pedestrian corridor, which currently cost upwards of \$100,000.00 each to install.

**Proposed Timeline (including proposed date of final report):** The goal is to have at least three RRFB Solar Pedestrian Crossing Systems in place by the summer of 2011. The pilot would run for a period of approximately one year to evaluate performance of these systems during all seasons. A final report on the pilot will be provided to Personnel and Accountability Committee by the end of December 2012.

**How does this project meet the criteria of the fund as set out in the Terms of Reference for the Council Innovation Fund?** RRFB systems enhance safety, since their purpose is to warn motorists that a pedestrian is about to cross. The pilot systems will be solar powered and they are considered environmentally friendly.

RRFB systems have the potential to replace pedestrian crossings in specific circumstances, thus significantly reducing the cost to install a pedestrian activated crossing device. If the rectangular flashing beacons are found to be unsuitable but the solar power system is effective our normal circular beacon system may be interchanged. As such, this pilot project has the potential to enhance the manner in which pedestrian crossing systems are powered and displayed.

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**What does success look like and how will it be measured?** Success of the RRFB as a warning device will be measured by effective motorist yielding behaviour at crossings where the devices are installed. Studies of motorist behaviour before and after installation of the device will be undertaken. Comparable yielding to pedestrians compared with current pedestrian corridor systems would be considered a success. Success of the solar power system will be measured by maintenance frequency of the pilot installations and continued service through all seasons. Maintenance frequency equivalent to traditionally powered pedestrian crossing devices would be considered a success.

Increased pedestrian safety by reducing the number of accidents or incidents related to pedestrian / vehicle conflicts.

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