"Wireless" Traffic Control Solutions

Pedestrian-activated, in-pavement lighting & advance flashing beacons

LOCATION: Marana, Arizona U.S.A.

Description

The Town of Marana, AZ has heightened public safety at a neighborhood crosswalk by adding pedestrian activated in-pavement lighting and advance flashing beacons.

Photo taken during final testing at about 2 p.m. with a slight overcast.

According to Scott Leska, P.E. (Project Manager / Traffic Engineer, Marana Public Works Department), "This crosswalk warning light system was installed to increase the margin of safety for pedestrians crossing the four-lane collector road to access a parking lot and a community center." In addition to being all solar electric, Mr. Leska said, "The system is the first of its kind in the southern Arizona/Tucson metropolitan region, and we anticipate this system will be effective for motorists and pedestrians at all times of the night and day."

Traffic Safety Corporation furnished the in-pavement lighting system for the project. It incorporates 12 of the TS500 in-pavement fixtures with high intensity LED lamps, which have a maximum optical output of 600,000 candela. The in-pavement system is a 12VDC parallel circuit powered by a 40W solar power adapter package with a single sealed battery. It includes an LCD screen to display the system's status and allow the user to make adjustments to the run time and flash rate of the lamps, as well as a running count of the button inputs.

Included is a contact closure radio transmitter to activate the flashers located in advance of the crosswalk. The in-pavement system has Polara Engineering Model X series buttons on each side of the crosswalk with built-in speakers to play an audio message for visually impaired pedestrians when the system is activated. Each Model X button assembly includes embedded LED lamps in the faceplate, above the button, to provide a visual indication that the system is operating.

The advance solar flashers use dual 12-inch LED lamps. The solar flasher units were originally designed to function as 24-hour flashers. To operate in conjunction with this project the flasher system controls were modified to a Solar Traffic Controls XSR model flasher with radio receiver and control logic prior to installation at the site. When the in-pavement system is activated the advance flashers are activated via the contact closure radio signal trans mitted from the power adapter at the crosswalk.

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The Town of Marana is located northwest of Tucson, AZ. Installation was done by Hanmar Energy of Tucson, AZ with both Traffic Safety and Solar Traffic personnel on hand for technical guidance.

Take these steps to insure the success of your solar-powered project:
1. Location - identify the site of the application; for example, the nearest town, village or city and state.
2. Load - specify the number and size of lamps, timers or other controls (anything which draws power).
3. Duty Cycle - determine how many hours per day and which days per week the load will be drawing power.

Go to "Send us your requirements" at www.SolarTrafficControls.com/support/requirements.php for more details.

Solar Power: a free source of energy
STC's solar-powered systems are designed for quick and easy installation in the field. Our careful front-end engineering minimizes your installation costs and provides years of trouble-free operation. The standard solar power system includes the solar array, system enclosure with all the necessary electronics, color-coded wiring harnesses, sealed batteries and full documentation. DC LED lamp kits can also be purchased. These include the LED beacon, lamp housing and mounting hardware.

STC Systems are Cost Effective
Our solar flasher systems allow you to stretch your budget to obtain the traffic safety devices you need at affordable prices. Most systems are equivalent to the cost of obtaining an AC power drop. Battery life is typically three to six years; less expensive than grid electricity for the same period of time.

Solar Traffic Controls (STC) provides solar-powered traffic control systems for city, state and federal DOTs; police, firefighting and public works departments; facility maintenance and plant safety industries. Our primary products are solar-powered flashing beacon systems used for school zones and 24-hour applications. We also supply specialized flasher systems using environmental sensors and custom communications packages to control the flashing beacon systems. Our product spectrum also includes wireless power systems for ITS, EMS and HAR. STC's products and services are sold through a network of regional distributors who offer technical support for your project.

For more information: Solar Traffic Controls, LLC • 1930 East Third Street, Suite 21 • Tempe, AZ 85281-2929 USA
Tel: 480.449.0222 • Fax: 480.449.9367 • info@solar-traffic-controls.com • www.solar-traffic-controls.com