



“Wireless” Traffic Control Solutions

APPLICATION: *In-Roadway Lighting (IRWL) Systems*

LOCATION: Casa Grande, Arizona, U.S.A.

UPDATE: 2 more systems installed in September, 2010 for a total of 7.

Description

A fast-growing bedroom community south of Phoenix, the City of Casa Grande, has improved public safety at a trail crossing by adding solar-powered, in-roadway lighting (IRWL) and radio-activated advance flashers.

During the selection process, the city's public works department explored three local sites, each using different manufacturers' systems. They purchased Traffic Safety Corporation (TSC), Model TS500 IRWL based on the visibility under the specified conditions

The system consists of six TS500 fixtures at the trail crossing featuring a Solar Traffic Controls solar power adapter. The IRWL system includes enhanced features such as Polara Model X pedestrian push button assemblies and a voice card which plays an audio message to pedestrians when the system is triggered. Two XFLO pedestrian detector pads are included and controlled using EDI loop detector cards. Pedestrians can either push the buttons or stand on the pad to activate the system.



The northbound approach to the crossing is a curved section of road with limited visibility. To heighten visibility, radio-activated flashing beacons and wide-angle lenses on all the TS500 fixtures facing south were added.

STC furnished two dual 8-inch amber flashers using an XSR control package for operation. Both feature 8-inch amber LED lamps; radio connection to the master crosswalk unit; LCD screens for system status and automatic night dimming of the lamps. One flasher system was installed on an aluminum traffic pole assembly; the other band-mounted to an existing street lamp pole. STC personnel provided training and assistance during the installation process.

Casa Grande had budgeted for more systems to be fielded around schools and new housing developments. Two more IRWL systems were awarded STC and installed by the city's public works department in July, 2009. These represent the fourth and fifth installations over the last three years.



The equipment consists of TS500 IRWL fixtures from Traffic Safety Corporation (TSC) of Sacramento, CA. The equipment is all solar-powered and features advance flashers with dual 8-inch indications. The solar power adapter, designed and built by STC for TSC, features control logic with a proprietary program and an LCD interface screen.



The software can be upgraded to operate in both button activation mode and school zone mode in which all the equipment activates based on time of day and day of the week. All units fielded thus far can have their programs upgraded via connection to a laptop or through the use of a memory chip that copies to the controls upon application of power.

Both systems feature a license-free contact closure radio with built-in supervisory function to ensure the communications link between the power adapter and the advance flashers. The pedestrian interface is a Polara Bulldog button assembly which provides both an audio and visual feedback to the user when pressed.

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.

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.

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