



“Wireless” Traffic Control Solutions

APPLICATION: *Five-mode solar, RYG signal system*

LOCATION: *Toyota Arizona Proving Grounds facility*

Description

Solar Traffic Controls (STC) has completed design, installation and testing of a custom RYG signal system for Toyota's Arizona Proving Grounds Facility located just outside Phoenix, AZ. The system is a modification of the Solar Ped-X "Wireless" pedestrian safety system in which the signals had 5 operating modes rather than the normal yellow flash. The solar-powered signals operate in the following modes: On/Off, red solid, green solid, yellow solid, red flash and yellow flash.

Toyota had a traditional three section RYG signal assembly at three locations along its 10 mile

oval track. However, these were in poor condition and required AC power for operation. Rather than tie the new units to the grid, Toyota opted for solar-powered lamps. STC recommended a smaller footprint for the signal assembly by using a single section signal with color and shape specific signals. The red indicator consists of a red X, the green, an arrow pointing up and the yellow a solid ball. The signals, furnished by Industrial Traffic Solutions (lanecontrols.com), are all LED and provide good optical output with reasonable power draw.

Control of the system is managed from the facility command center using a custom designed master control unit. The master features an LCD user interface with 5 user buttons and lamp status indicators on the face of the enclosure. STC also included an optional remote status panel to mount in a 19-inch control rack. The remote also includes an LCD interface with 5 buttons and status lamp indicator.

Communications between the master control and the slaves is done using 1W frequency-hopping spread spectrum radios which converse over a range of up to 2.5 miles. STC oversaw installation of the units at the site and completed final testing and commissioning of the equipment.

Photos of this project are pending release due to the confidential nature of the work done at this location.



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.

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