



## “Wireless” Traffic Control Solutions

**APPLICATION:** *Fire Station Upgrade Package*  
**LOCATION:** *Bloomington, IL (Chicago suburb) U.S.A.*

### **Description**

STC has furnished a full replacement control package to Bloomington, IL to replace an old Right-Of-Way (ROW) hybrid fire station signal which was no longer functional.

The village of Bloomington had a fire station that was set back some distance from the nearby arterial. As the truck drove down the driveway towards the arterial, the system would activate optically and turn on the signals. For years the system did not work and there seemed to be no way to fix it since ROW had gone out of business in 2002.



*Stock Photo*

STC was called in to provide a similar system, one that would work with a GTT Opticom detector package. STC furnished a solar-powered master unit and a solar-powered slave unit placed at the end of the fire station driveway with indications facing the traffic on the arterial. The design is based on the hybrid systems STC has furnished the City of Tucson over the last 10 years and is approved for use in the MUTCD.

The master unit consists of a suitably-sized solar power system on a mast arm pole. The master also includes an Opticom 721 detector assembly with a euro-style card rack and 752 phase selector card (E series for 24VDC operation). Since the solar power system is a nominal 12VDC, a DC-DC converter was included to run the Opticom equipment. Once triggered, the control logic for the master would run through the timing cycles for the lamp sequence and radio across the street to the slave unit to run the LED lamps in a like manner. The control logic includes an LCD screen so the user can easily adjust the run time values for each interval.

The slave included a solar power system as well, and was linked to the master via license-free radio. Both the master and slave were configured with high efficiency red and amber DC LED lamps also from STC. The equipment was furnished to STC's Midwest distributor Traffic Control Corporation and the work was done by Meade Electric.



**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](http://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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