SolarPath™
sun solutions

The Problem

- In 2009, there were 59,000 REPORTED pedestrian injuries, nearly one every 9 minutes.
- 72% of pedestrian fatalities occurred in an urban environment
- 76% occurred in Non-intersection locations
- 70% of pedestrian fatalities occurred at nighttime
- 89% occurred in normal weather.
- $5.2 billion per year spent on pedestrian death and injury among children ages 14 and younger (Safe Kids Worldwide).

Source: US DOT Traffic Safety facts

Contributing Factors

Visibility

- Drivers don't see pedestrians because of:
  - Traffic (moving or stopped vehicles can hide pedestrians)
  - Cell phones
  - Parked cars
  - Weather conditions
  - Other visual obstructions (foliage, curves in the road, etc.)

Vehicle Speed

- Roads designed to maximize traffic flow
- Higher speed increase fatality rates:
  - When hit by a car traveling 40 mph, a pedestrian has only a 15% chance of survival
  - At 20 mph, this survival rate increases to 85%

Source: UK Dept. of Transportation "Killing Speed and Saving Lives."

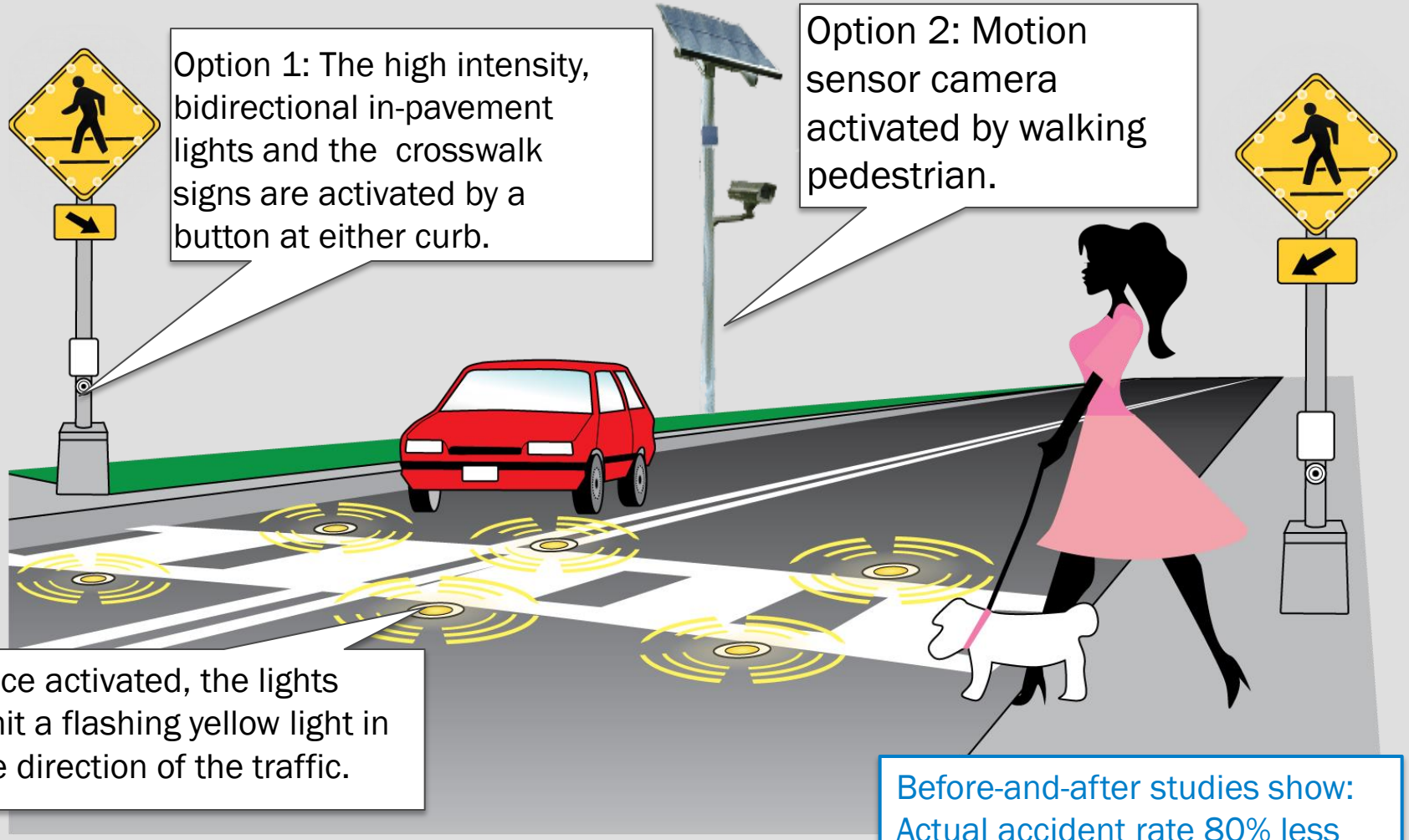
Possible Solutions

- Enhanced law enforcement
- Speed bumps
- Narrow traffic lanes
- Traffic education programs

- ACTIVE SOLUTION

Cross Safe™ System

Cross Safe™ System: How it works...

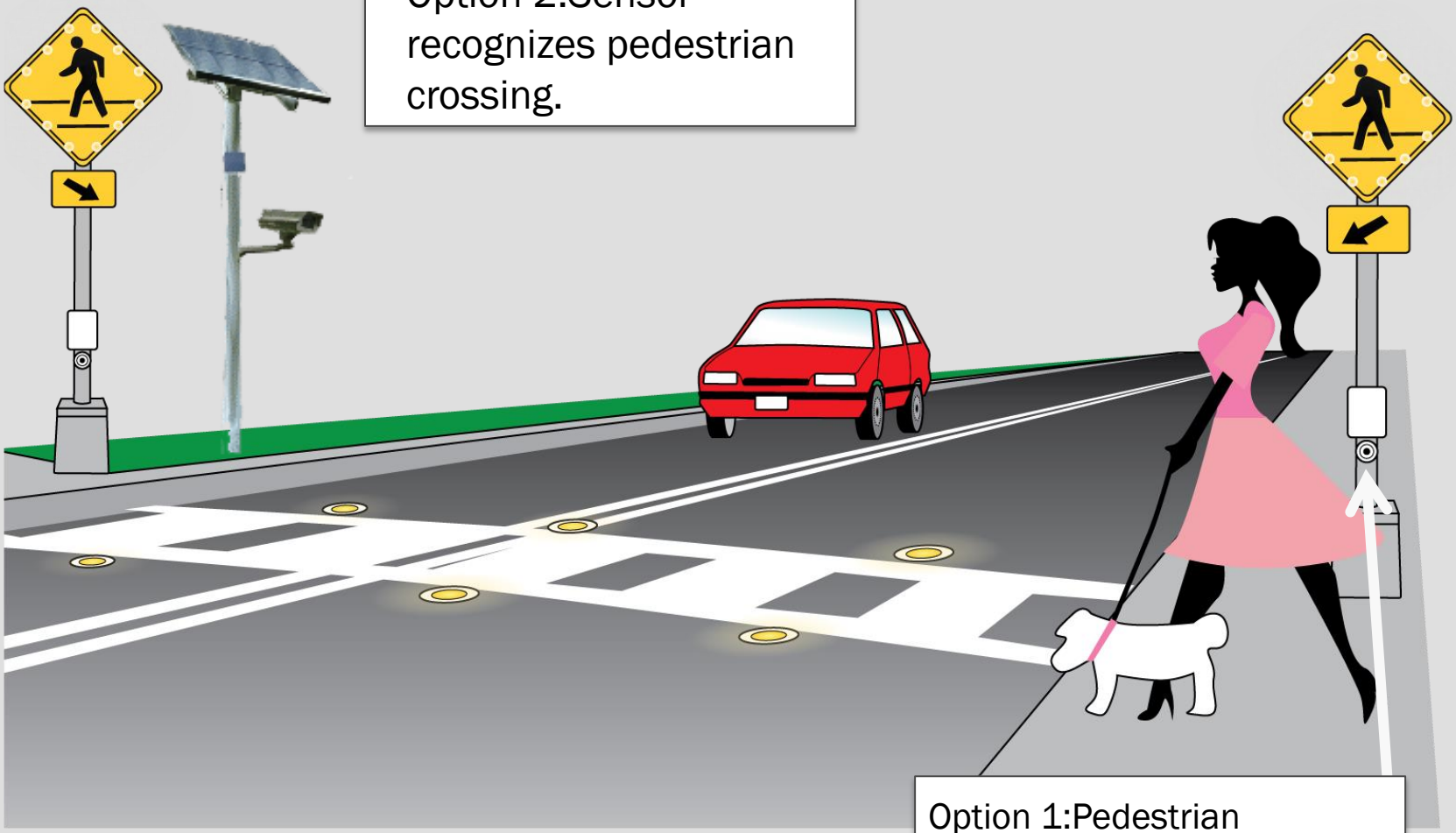


Before-and-after studies show: Actual accident rate 80% less than predicted for uncontrolled unlighted crosswalks.

Cross Safe™ System | SolarPath™ sun solutions

Cross Safe™ System Operation: Step 1

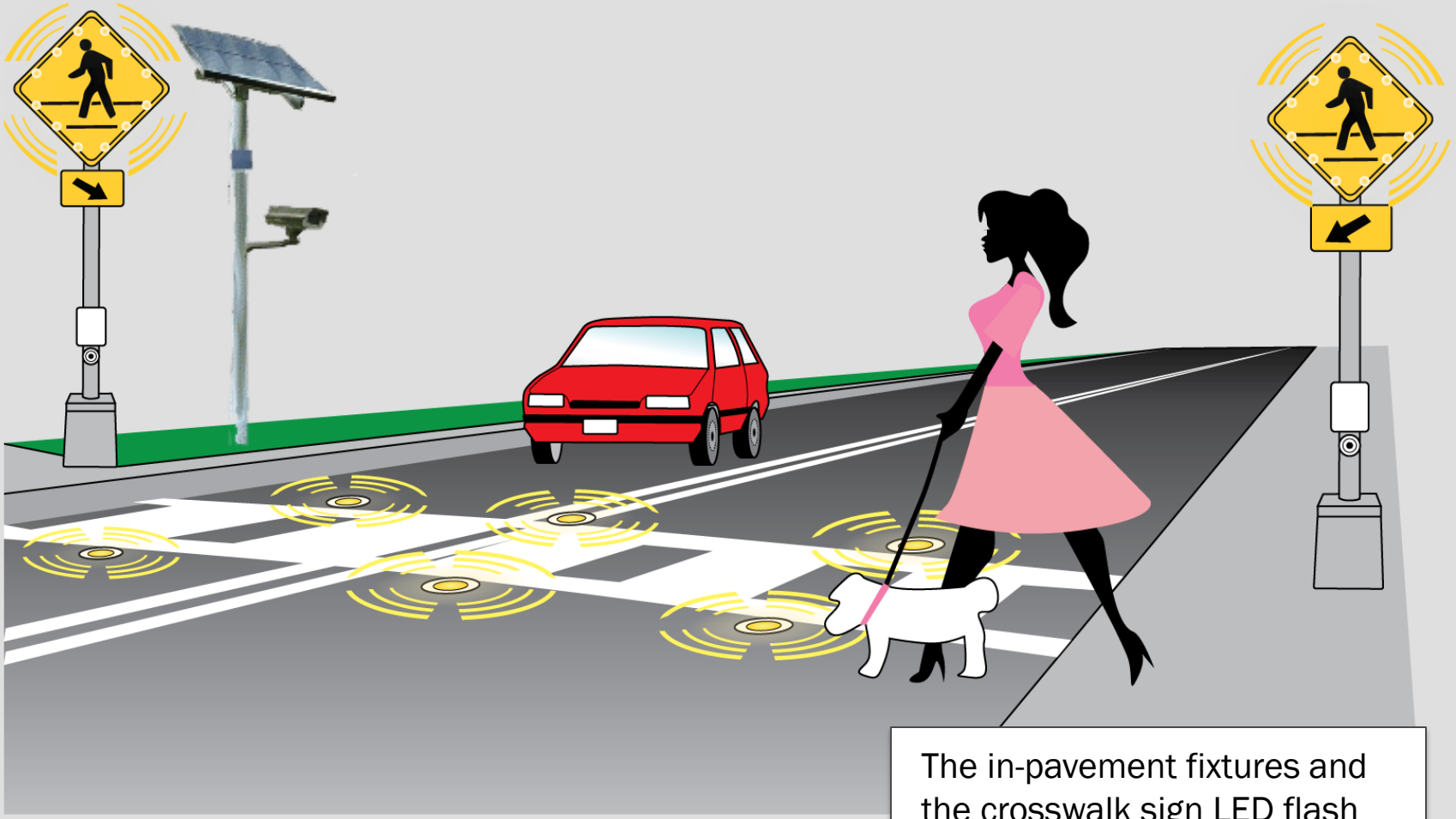
Option 2:Sensor recognizes pedestrian crossing.



Option 1:Pedestrian activates system using either push button or radar control.

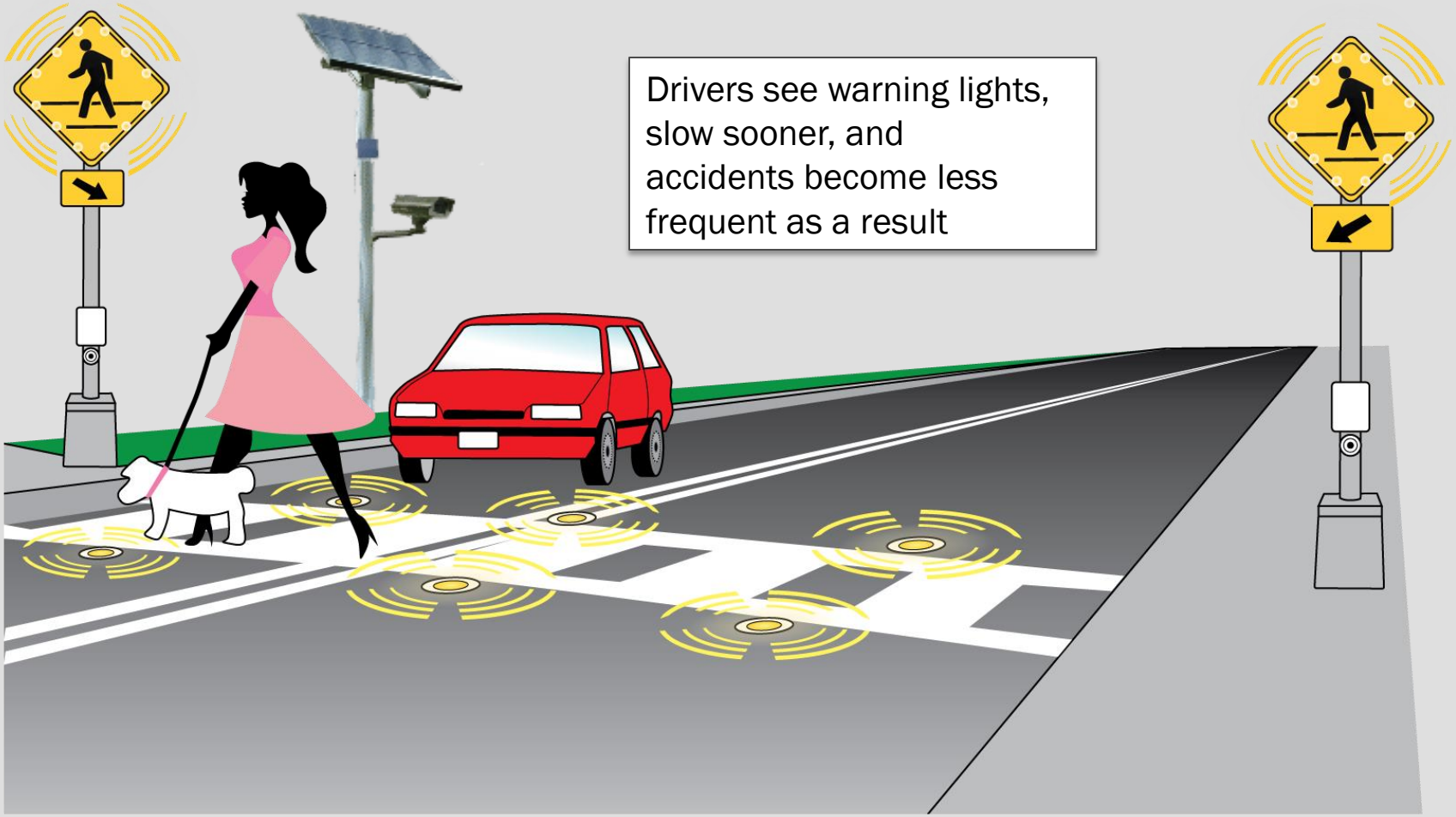
Cross Safe™ System | SolarPath™ sun solutions

Cross Safe™ System Operation: Step 2



The in-pavement fixtures and the crosswalk sign LED flash in sequence, warning drivers of vulnerable pedestrians.

Cross Safe™ System Operation: Step 3



Why Install a Cross Safe™ System?

They Work – Up to Four Out of Five Accidents Avoided

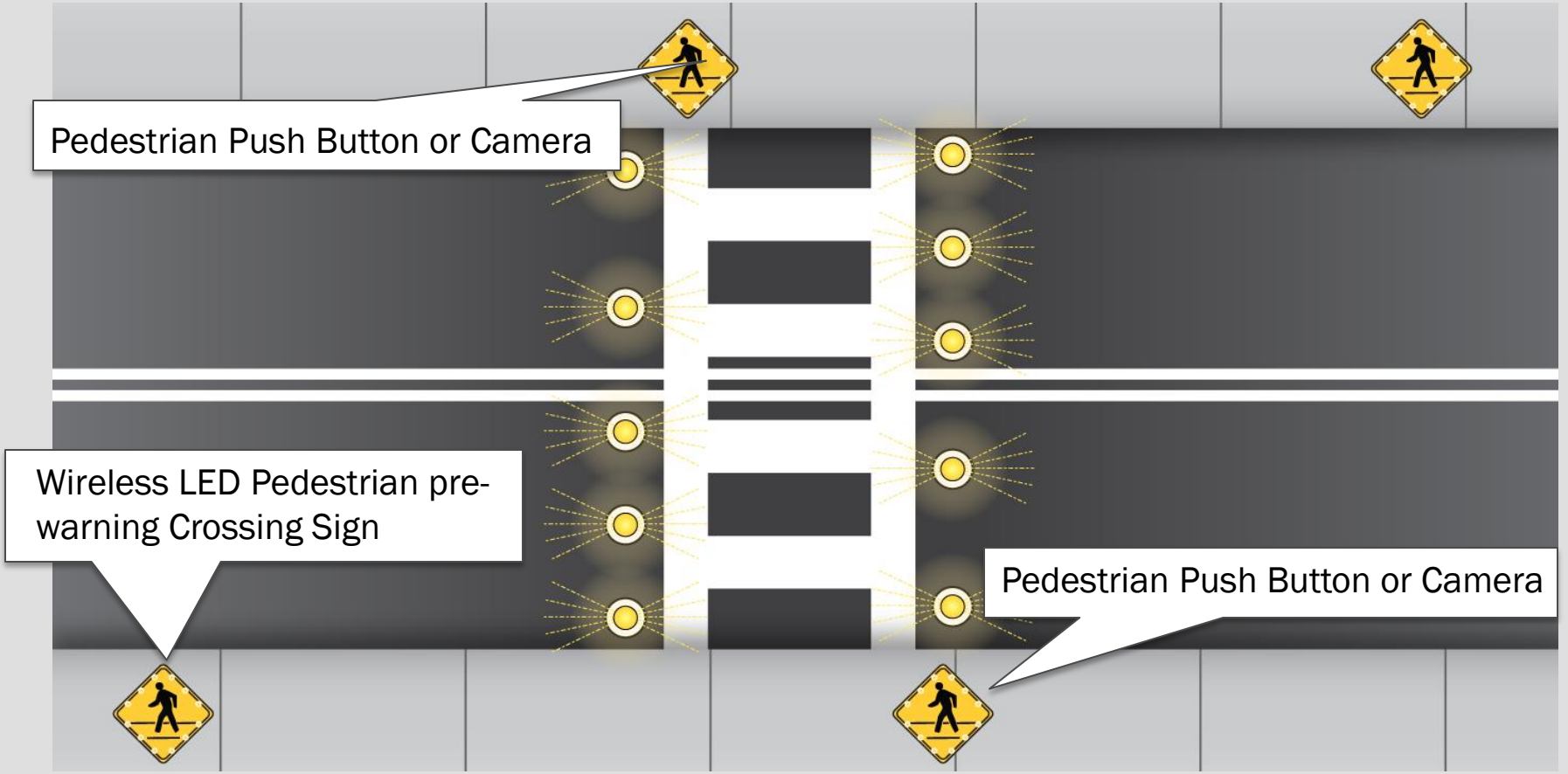
- Field Study: 100 lighted crosswalks with 427 million vehicle crossings showed the following:
  - Decrease in driver approach speeds
  - Increase in yielding to pedestrians
  - Actual accident rate 80% less than predicted for uncontrolled, unlit crosswalks

Source: Miller, Rock “In-Pavement Flashing Crosswalks: State of the Art.”

Additional Benefits of The Cross Safe™ System

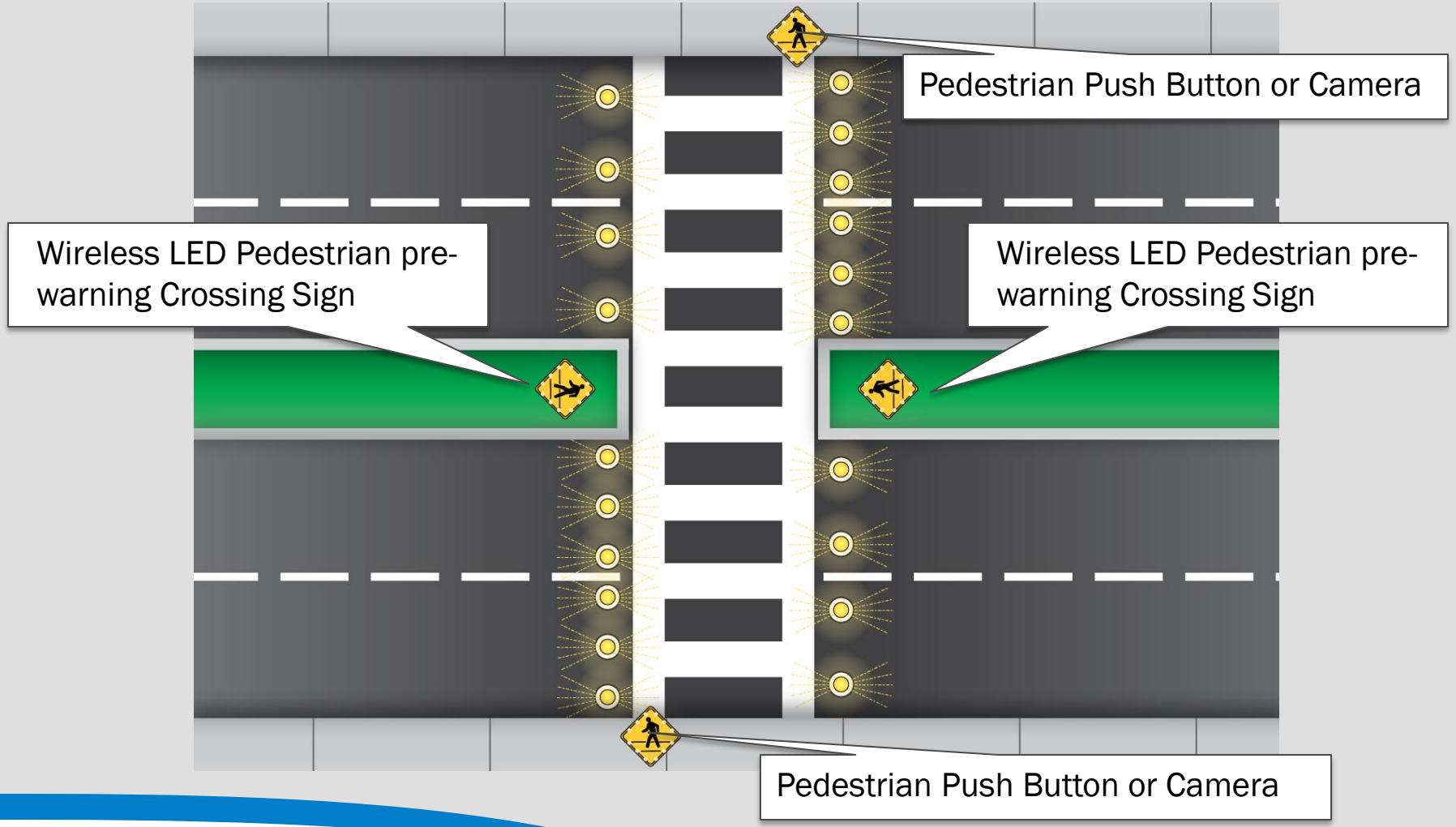
- Easy to Use
  - Push button or motion activated
- Easy to Understand
  - Standard FHWA signal flash rate or sequenced
- Easy to Install and Maintain
  - Can be installed by city personnel
  - Low maintenance and long LED life
- Low Cost
  - 1/10 the cost of a traditional traffic light
- Energy Efficient
  - LED technology & solar PV option
- Solar Power Option
  - No electrical required

Application: Two Lane Crosswalk



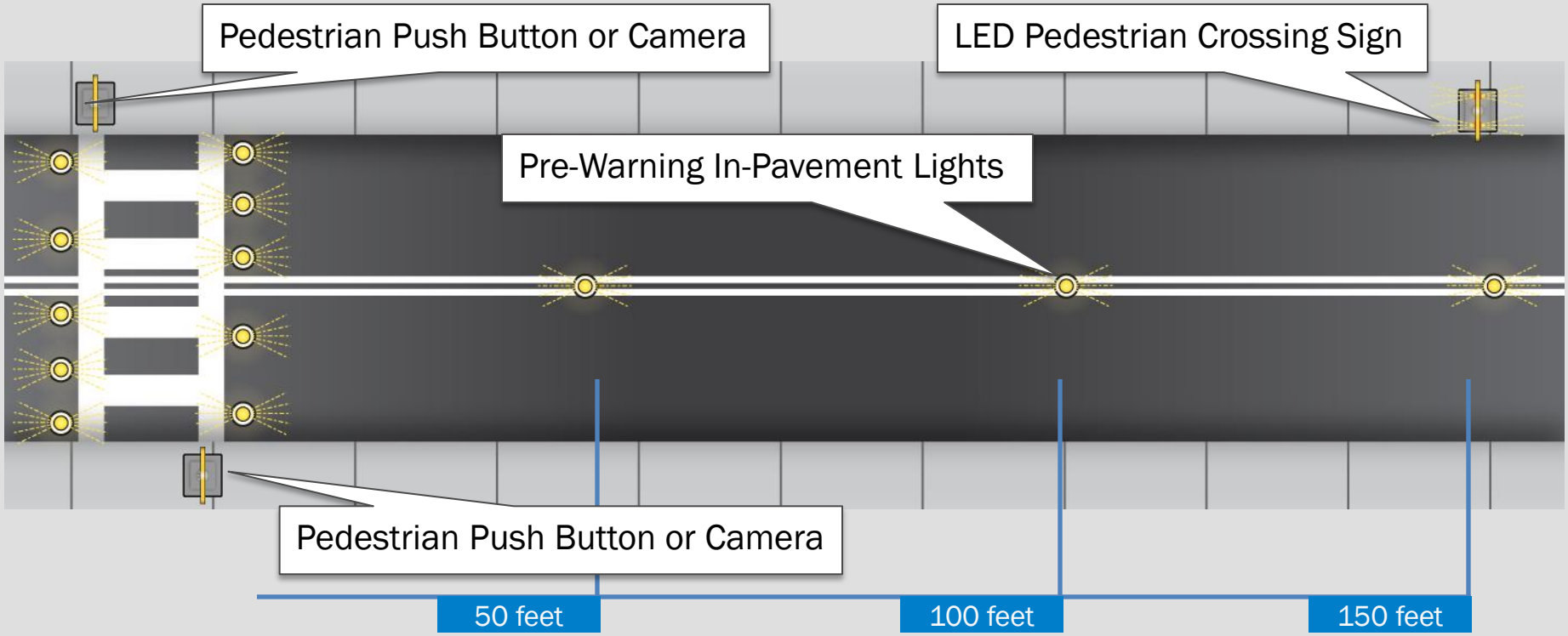
Cross Safe™ System | SolarPath™ sun solutions

Application: Four Lane Crosswalk



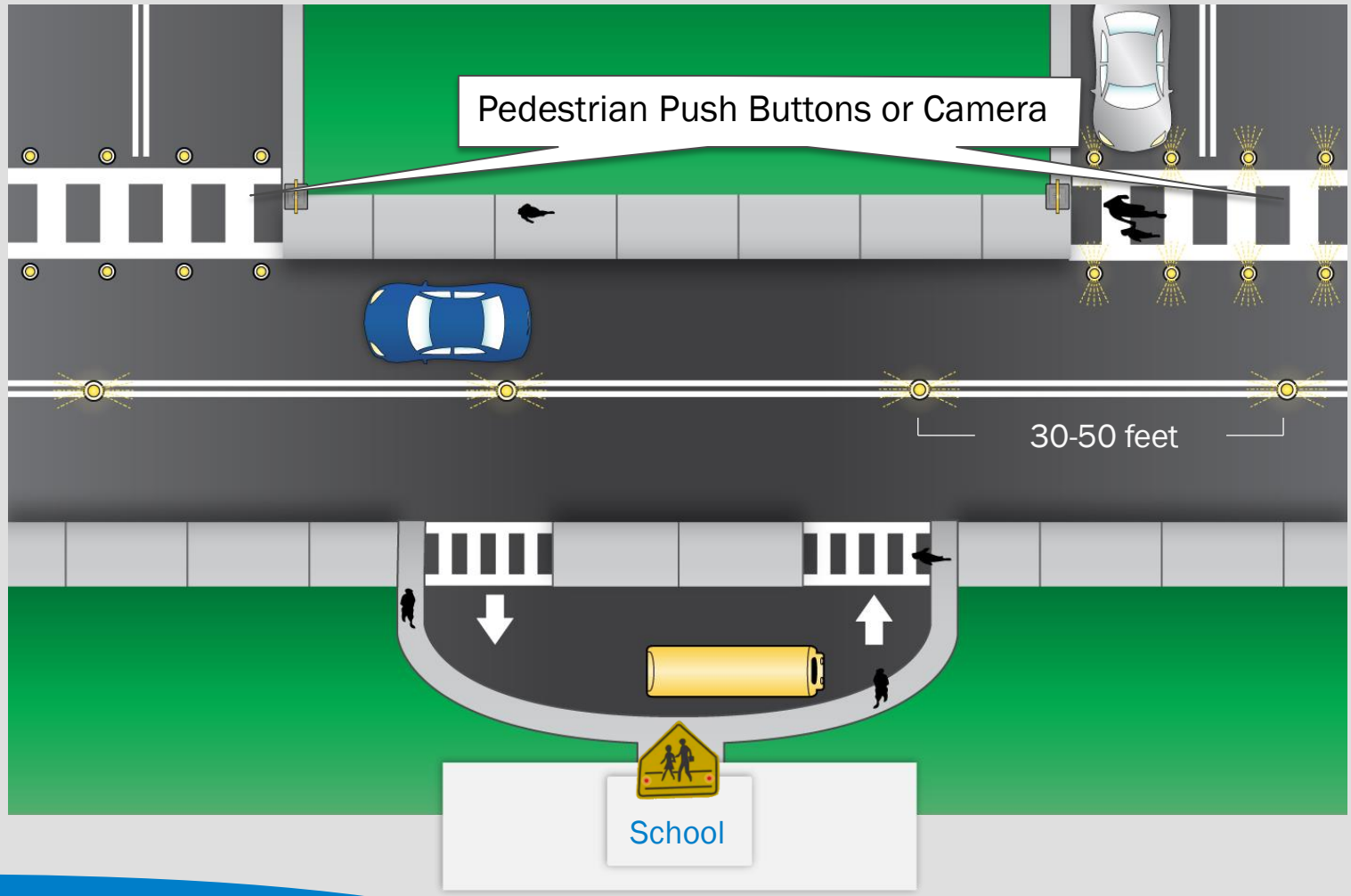
Cross Safe™ System | SolarPath™ sun solutions

Application: Two Lane with Pre-Warning Lights



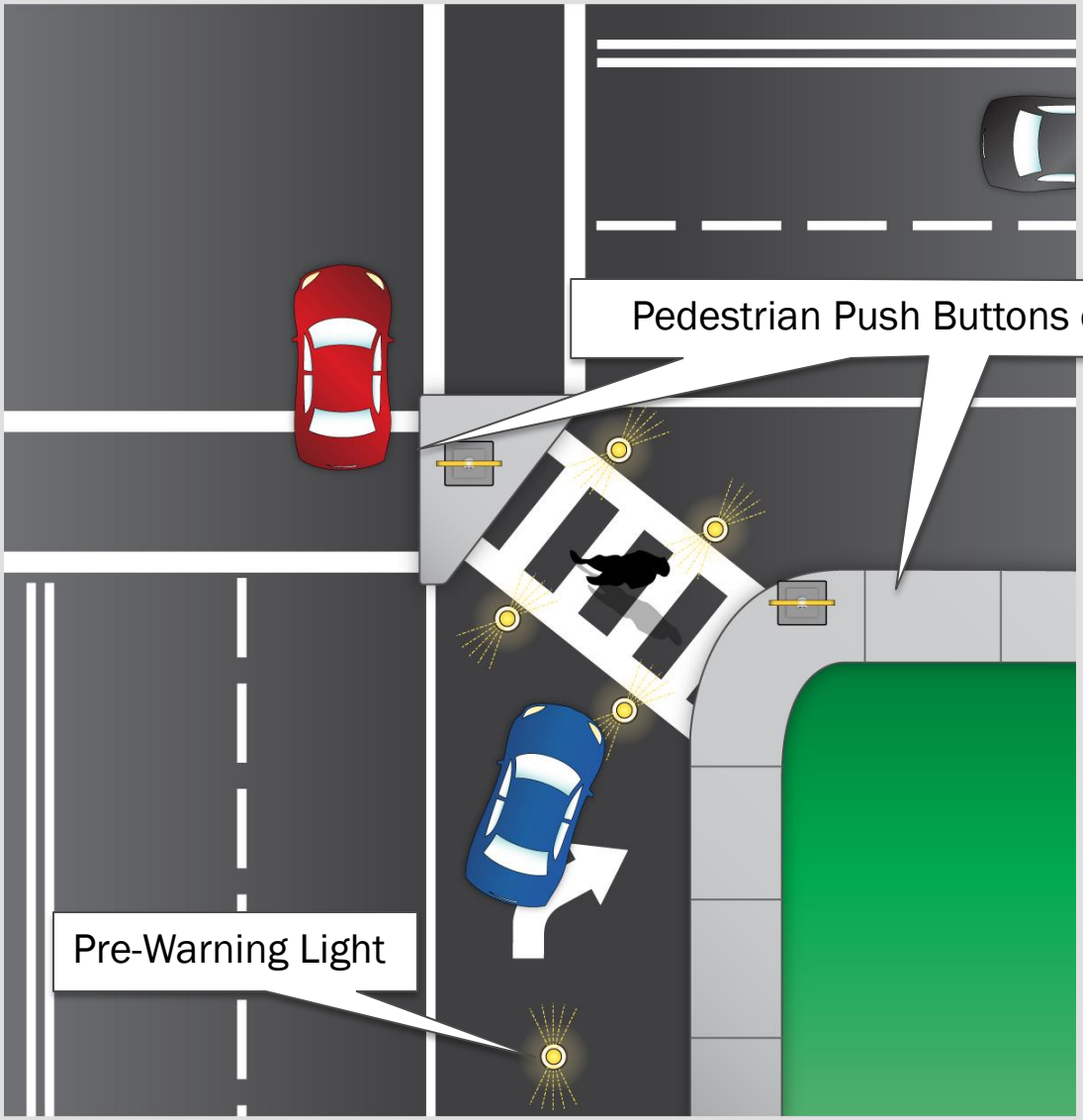
Cross Safe™ System | SolarPath™ sun solutions

Application: School Zone



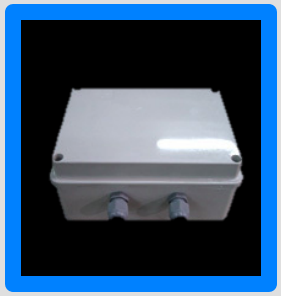
Cross Safe™ System | SolarPath™ sun solutions

Application:
Turn Lane Warning Lights

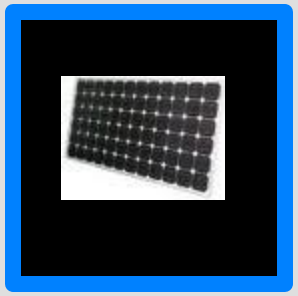


Cross Safe™ System Components

In-pavement Fixtures



Crosswalk Control System



Solar Power option

Pedestrian Activation Devices

Flashing LED Signs

Motion Detecting Camera

In-Road Warning Lights: R1/R2

- **Durable and long-lasting:**
  - Military-grade design: resistant to tanks, snow plows and other heavy machinery.
  - High compression strength (1000kg / cm).
  - Absolute water resistance (IP68).

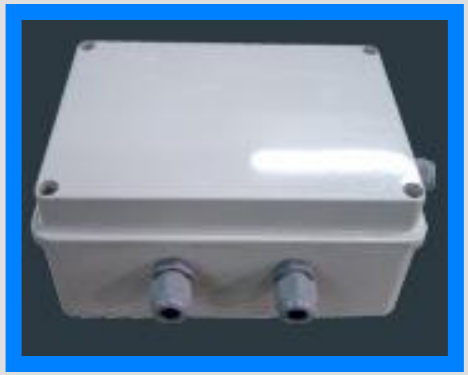
- **Flexible and Customizable:**
  - Adjustable luminance levels.
  - Programmable Flashing, sequential flashing or steady lighting .
  - Optional PC, RF and GSM Remote control.

- **Easy maintenance:**
  - A fixed base and a removable top.

Crosswalk Control System

- This intelligent controller offers the best characteristics of both inputs and outputs, while consuming the least amount of energy possible.

- The controller can perform in either a flash pattern, sequential or multi-sequential pattern, with possibility of CAB (automatic brightness control, DC [dark detection] and SR clock synchronism).



Solar Power Option: BP Solar Panel

- Mechanical characteristics
  - Solar cells 36 monocrystalline cells (125mm x 125mm) connected in series.
  - Front Cover High transmission 3.2mm tempered glass.
  - Frame Silver anodized aluminum.
  - Junction Box BP J-type junction box: IP 65 junction box with 4 terminal.
  - Certified to meet UL1703 flammability test.
  - Dimensions 1209 x 537 x 50mm / 47.6 x 21.1 x 2.0in
  - Weight 7.7kg / 17.0lbs
- Quality and safety
  - Certified according to the IEC 61215 (Crystalline silicon terrestrial photovoltaic modules.
  - Listed to UL 1703 Standard for Safety by Intertek ETL (Class C fire rating).
  - Approved by Intertek ETL for use in Class 1, Division 2, Groups A to D hazardous locations.
  - Manufactured in ISO 9001 and ISO 14001 certified factories.

Pedestrian Control Devices: Push Button

- Two-wire Advantage
  - Uses existing pushbutton wiring. Requires only two wires for very easy to hook up.
  - Significantly reduced installation cost due to no additional wires required.
  - Synchronizes all sounds on an intersection.
- System Uniqueness
  - Independent minimum & maximum volume settings for Locate Sounds, Clearance & Walk Sounds.
  - Extended button push and volume overrides.
  - Global configuration changes (setup one unit and save changes to all vs. setup per individual push button station).
  - Optional clearance sounds or audible countdown of remaining seconds during clearance available; complements or replaces visible countdown displays.

Flashing SolaSign: Crosswalk

Solar panel type	10.5V 220mA mono-crystalline solar panel
Illumination technology	Ultra-bright LED
Energy storage	7.2V 2500mA Li-on battery
Charging time	4 Hours (sunny) to 8 hours (cloudy or rainy)
Temperature range	-40F to +176F / -40C to +80C
On/Off level	24 hours operation
Operation modes	Switchable - On / Off / Auto
Warranty	2 year

Cross Safe™ System | SolarPath™ sun solutions

Motion Detector: Camera

Hardware	Aluminum, with integrated rain/sun shield.
Power Supply	Input Power 12-48VAC/DC Direct Current Consumption < 125mA @ 24VDC
Camera Type	Color CMOS Sensor Size 1/4 “ Resolution 640 x 480 Pixels(VGA)
Lens Type	Wide Angle- Focal Distance 2.1 mm Narrow Angle: Focal Distance 6.0mm
Field of View	Wide angle - Horizontal 96 degrees , Vertical 70 degrees Narrow Angle- Horizontal 29 degrees, Vertical 22 degrees
Effective Distance	Wide Angle- Horizontal 0-10 meters, Vertical 2-12 meters Narrow Angle- Horizontal 10-20 meters, Vertical 15-25 meters
Temperature Range	-31F-185F/ -35C- 85C
Video Compression	MPEG-4

For more information, please contact your local representative:

SolarPath Sun Solutions

Tel. +1.201.490.4499

Fax +1.201.839.4607

contact@solarpathusa.com | www.SolarPathUSA.com

Local Representative:

http://solarpathusa.com/contact-us.html