



A better Advanced Warning System

ENHANCING TRAM STOP SAFETY

SafeZone is designed to warn vehicle drivers of pedestrians at a tram stop.

SafeZone addresses safety, primarily targeting driver behaviour by awakening and stimulating the subconscious, heightening a drivers state of mind and level of alertness. Drivers approaching a high risk tram stop are repeatedly alerted with an advanced warning of a pedestrian crossing allowing the driver a longer reaction time to slow and stop.

Wireless directional beacons (IRADs), visible up to 400meters; provide the advanced warning by being embedded into the pavement.

When the **SafeZone** system is triggered the beacons emit a continuous strobed runway effect, which is the key to awakening & stimulating the subconscious & heightening a driver's state of mind & level of alertness.

SafeZone delivers added safety because it provides advanced warning day, night, during poor visibility and bad weather. Unlike other solutions where single reminder signs can be driven passed without noticing them, the SafeZone solution ensures that the "warning cannot be missed".

The **SafeZone** system can be automatically activated by a tram on approach to a stop.

A **Safezone** system can be installed at a fraction of the cost of traditional signalization, because the system is wireless there is no cabling requirements to install, which significantly reduces installation costs & increases reliability.



SafeZone can be mains or self powered (solar or battery).

Studies have been conducted that prove in pavement warning systems for crossings:

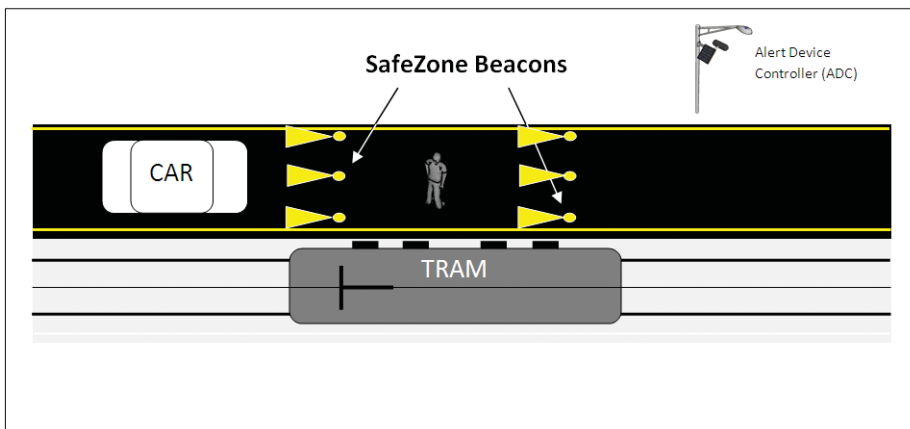
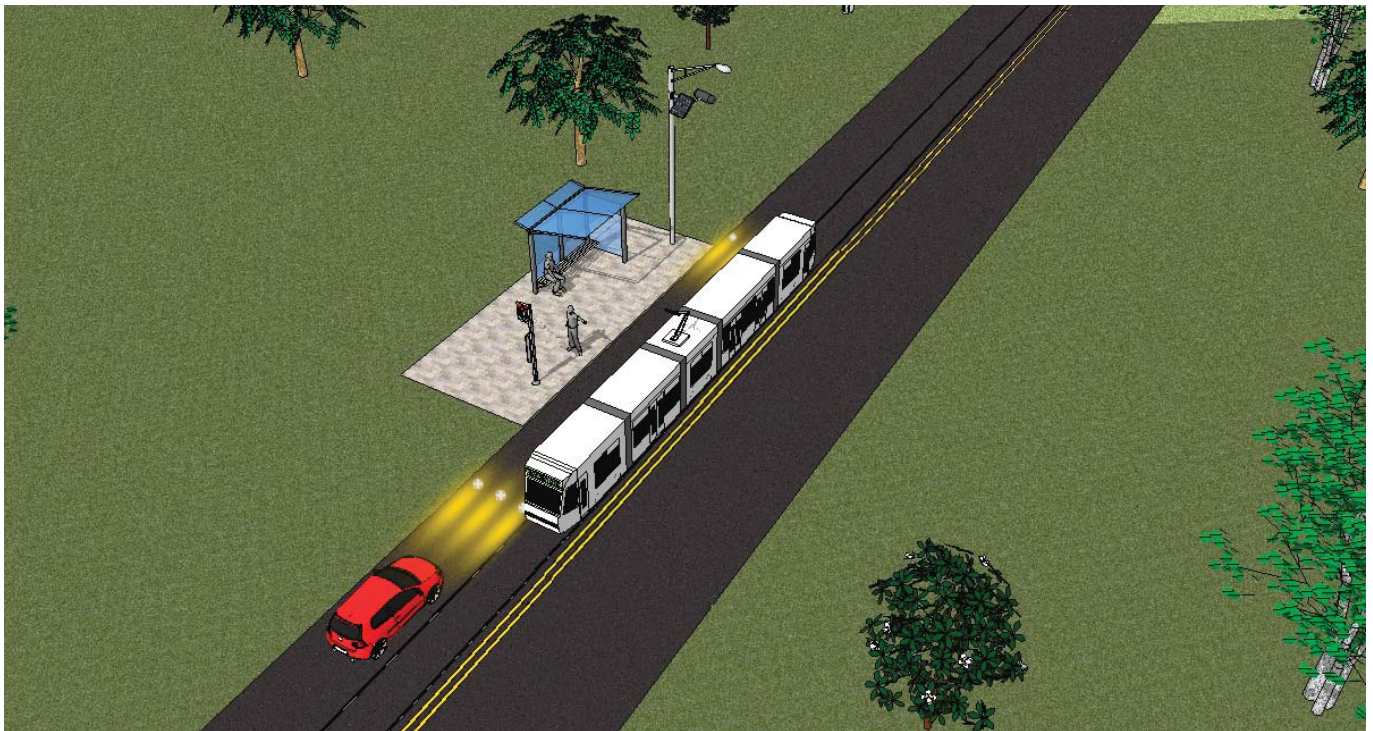
- reduce the mean speed at which vehicles approach the crossing
- reduce the mean number of vehicles that pass over the crossing while a pedestrian is waiting
- enhance the noticeability of the crossing to drivers that are not familiar with the location.



As a driver approaches an 'active' SafeZone Tram Stop, a series of in-road beacons will signal that there are pedestrians present. SafeZone gives drivers adequate warning to keep clear of the pedestrian zone, thus allowing pedestrians to safely board and alight from the tram.

HOW DOES SAFEZONE WORK?

A typical Tram Stop Application:



The **SafeZone** Tram Stop application system is triggered by a tram approaching an 'active' stop.

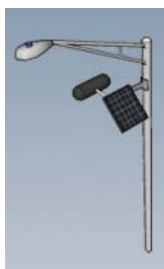
The **IRADs** are activated via the **ADC** and nearby cars are directed to clear the area, highlighted by the two rows of beacons.

Flash patterns and timing can be specified by the Rail Authority or Council and SafeZone can be tailored to work with existing systems.

SafeZone comprises two elements:

SafeZone ADC (Alert Device Controller)

- These are the roadside, pole-mounted, AC mains or solar powered zone control units that act as the bridge between the controlling authority (eg rail authority or council), & the in-road lights. They provide the signal that activates the in-road beacons & controls their flashing pattern, as well as receives information used for remote management & diagnostics.



SafeZone IRADs (In-Road Alert Devices)

- These are the in-road, ultra-bright flashing LED warning beacons.
- Battery powered
- Wireless control
- Remotely programmable
- Remote diagnostics
- Variable light output

