

## **Executive summary**

Walking mode is widely used in everyday activities. Recently it has received more attention from transportation professionals because of its advantages over motorized transport modes especially for short trips. However, pedestrians are the most vulnerable road users for various reasons, more so in developing countries like Trinidad & Tobago. Most vehicle-pedestrian crashes in Trinidad are reported to involve a pedestrian crossing the roadway.

A widely used conventional zebra crossing consisting of transverse white pavement markings across the roadway suffers low drivers' yielding rates to pedestrians. Engineers have been searching for innovative engineering treatments to supplement zebra markings to increase driver's yielding behaviour. In this endeavour the government of Trinidad & Tobago has introduced an improved zebra crossing in 2004, which will eventually replace the conventional zebra crossing.

Flashing lights on painted posts, zigzag lines on the pavement, advance sign, and pedestrian-friendly guidelines when using the crossing are the major improvements on this crossing compared with conventional zebra crossing. The new crossing has a unique image, visible from sufficient distance under all roadway, traffic, and weather conditions. These features are vital in increasing yielding behaviour from an average driver.

The study involved evaluation of the new crossing, specifically the effect of the crossing on motorists; and public opinion about the crossing. The study did evaluate the effect of the crossing on pedestrian crossing behaviour. It was done through a survey administered to drivers, interviewing pedestrians, field observation of drivers' behaviour at crossings during daylight hours.

Flashing light operation was associated with increased drivers' yielding behaviour observed in the field. However, self-reported drivers' yielding rates were much higher than observed rates-self-reporting bias. Driver's risk perception of potential collision with a potential collision with a pedestrian prompted driver's yielding than activation of

flashing lights. Pedestrians were not satisfied with drivers' probably because of initial higher expectations. Drivers support the new crossing to increase pedestrian safety. Most drivers do not understand the meaning and hence and hence the purpose of zigzag lines at the new crossing, leading to frequent disrespect of zigzag lines at the new crossing, leading to frequent disrespect of zigzag lines prohibitions (parking, overtaking, stopping) at the crossing.

Engineering features of the priority crossing offers a viable solution for deficiencies of conventional crossing, specifically of all weather visibility. It promises in improving pedestrian safety in Trinidad & Tobago and is likely to benefit developing countries where driving culture marginalizes pedestrians and road maintenance practices are not adequate. However, based on experience of other countries there exist opportunities of improving the crossing. Engineering, Education, Enforcement, and Research elements are recommended for further improvement of the crossing.