Florida Department of Transportation Research

Evaluation of Innovative Safety Treatments
BD500

The Florida Department of Transportation has implemented on a developmental basis six innovative traffic control techniques that are intended to reduce crashes and fatalities. Follow-up studies were needed to evaluate the performance of these techniques to determine if their use has raised driver safety awareness and lowered accident rates.

Researchers with HNTB Corporation evaluated the techniques, and found that they all are providing safety benefits:

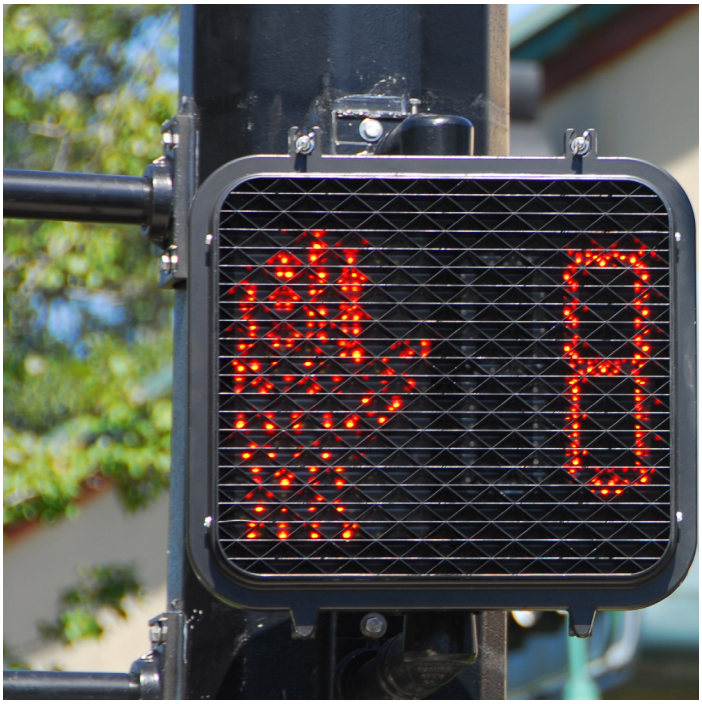
When used in advance of construction work zones, ***temporary rumble strips*** significantly reduced vehicle speeds, improving safety for motorists and construction workers.

The use of ***white enforcement lights at signalized intersections*** reduced the number of vehicles running red lights and occurrence of crashes associated with red light violations.

Motorist awareness systems, including changeable message signs, radar speed display units, and speed limit signs with flashers, along with targeted enforcement, reduced speeds in construction work zones.

Vehicles tended to slow down on pavement treated with the ***Tyregrip High Friction Surface system***, which increases the friction between pavement and tires.

The use of ***countdown pedestrian signals*** reduced the number of pedestrians who start crossing during the "Don't Walk" sign, and



A countdown pedestrian crossing signal light

increased the number of crossings completed during the signal time.

In-roadway flashing lights installed in a sample traffic turn lane just before a sharp right turn resulted in reduced vehicle speeds as they entered the turn.

These safety measures are providing positive safety benefits, and could be a useful addition to FDOT design, construction, and maintenance standards.

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For more information, visit: http://www.dot.state.fl.us/research-center/