

Distracted Drivers and Seeing Red on the Orange Line

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Laws against driving and cell phone use are struggling to produce compliance and are difficult to enforce. Distracted drivers are quickly becoming the lowest common denominator when it comes to grade crossing visibility and design.

Transportation planners and designers alike are increasingly turning to technology to help mitigate the hazards connected with distracted driving.

In 2012, the National Safety Council published a [White Paper](#) demonstrating that two of the more serious consequences of driving while distracted are *tunnel vision* and *inattention blindness*. According to the study “Distracted drivers experience what researchers call inattention blindness, similar to that of tunnel vision. Drivers are looking out the windshield, but they do not process everything in the roadway environment that they must know to effectively monitor their surroundings, seek and identify potential hazards, and respond to unexpected situations.” The study goes on to say that “Drivers talking on hands-free cell phones are more likely to not see both high and low relevant objects, showing a lack of ability to allocate attention to the most important information. They miss visual cues critical to safety and navigation. They tend to miss exits, go through red lights and stop signs, and miss important navigational signage.”¹

With these types of concerns in mind the Metropolitan Transportation Authority (MTA) in California’s San Fernando Valley added a touch of red when it came to enhancing grade crossing visibility on their Metro Orange Line extension.



Marking this dedicated busway, the red in-roadway warning lights are directly in the line of sight creating a visual barrier, focusing the attention of the driver

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The original Orange Line, opened in 2005, ran from Warner Center to North Hollywood and experienced several incidents between buses and vehicles that had made their way onto the dedicated bus lanes. And let's not forget this is well before the cell phone was dramatically "reinvented" to become the indispensable personal assistant that today is within reach of a high percentage of drivers on the road. The new extension has several potential conflict points along the right of way and the MTA designers decided to incorporate red in-roadway warning light stop bars that are designed to target the tunnel vision of distracted drivers and are integrated with the city's signal network to operate in sync with the traditional overhead signal lights.

The in-roadway warning lights' brightness control adjusts the light output to provide highest intensity under bright daylight, adjusting automatically dimmer for overcast or night time visibility requirements, saving energy and providing a "green" system of red lights.



Traditional precautions such as signage and local education remain in place, and red light cameras have been used to catch offenders.