

Traffic Approaching When Flashing

Signs

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Research and Technology Bureau

Office of Traffic and Safety



Figure 1 - Anamosa US 151/ODR

In an effort to reduce the number of crashes at certain expressway at-grade intersections, the Iowa DOT has installed signs with flashing beacons (Figure 1).

The first system was installed in Dyersville at the intersection of US 20 and 7th Street on June 10, 2010. A second system was installed in Anamosa at the intersection of US 151 and Old Dubuque Road on November 16, 2010. No other locations are planned at the time of this writing.

Traffic sensors are placed in the mainline pavement 1000' in advance of the at-grade intersection. When a vehicle (car, truck, motorcycle) drives over the sensor, the flashing beacons are activated. They remain flashing until the vehicle on the mainline has reached or cleared the intersection. The flashers are timed to include approximately 95% of all mainline traffic speeds.

The signs and beacons are for traffic on the side-road, in the median cross-over, and mainline left-turn lanes. They are positioned where drivers would normally look as they cross the intersection. For vehicles on the side-road, the sign directly to their left is intended for them. For vehicles in the median cross-over or mainline left-turn lane, the sign across the roadway is for them. The driver will still need to make their own decision if it is safe to cross on-coming traffic.

Figure 2 shows a typical installation. When a vehicle passes over the blue traffic sensors, the beacons begin to flash in the direction of the blue arrows. The red sensors operate the same way; however each direction is independent from each other.

The approximate cost per intersection is \$45,000.

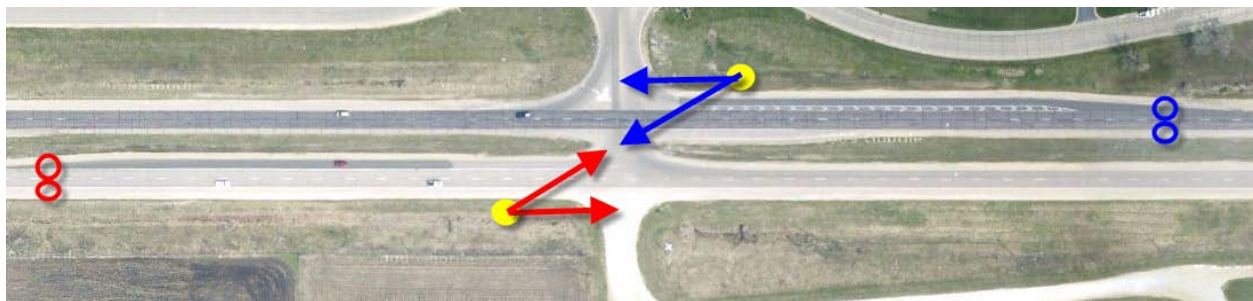


Figure 2 - Typical setup of sensors and flashers