

## WAVING GOODBYE TO FLAGGERS EXPLORING ALTERNATIVE TRAFFIC CONTROL METHODS

### The Issue:

When performing two-lane road maintenance, what is the best way to control traffic for periods ranging from a few hours to a few weeks?

### The Research:

Flaggers direct traffic during maintenance sessions on two-lane roads. The goal of this research was to find out whether the automated flagger devices that are used in some other states would help the Ohio DOT. In relation to this, the research investigated issues surrounding flagger devices' safety, cost, staffing, and quality of traffic control.

*“Even though flaggers are required to wear high-visibility safety apparel, crashes involving flaggers still occur and often result in serious injury to the flagger.”*

Projects in this research were set in specific times and locations, and the team analyzed three different methods. The first method involved small roadside automated flagger devices with stop gates, the next method used standard-sized portable traffic signals, and the last method used standard human flaggers. The success of each method was determined by the number of cars that went through a red light or around a flagger after being told to stop.

Success rates were about the same for the flaggers and the small automated flagger devices. A key problem with the full-sized traffic signals was that the motorists who were already queueing did not always obey the red light, but sometimes simply followed the vehicles ahead of them. Because of this, the operation of these signals should be such that the entire vehicle queue can clear within one cycle.



## Conclusion:

After analyzing the results of the field tests, the costs versus benefits, and the motorists' reactions, the recommendations are as follows. First, the research recommends using flaggers on projects that will only last for a few hours or when automatic devices are not feasible due to the location. Second, they recommend using automated flagger devices for projects that will occupy a location for more than a few hours at a time, up to a period of one day.

Automated flagger devices still require one employee to operate them, so it is important to remember that, although this might be safer, it still involves staffing issues. Third, the results recommended using large portable signals on high-volume roads. These signals can be utilized during longer-duration construction projects, on roads with flat shoulders, and at night. Using full-sized automatic traffic signals does come with specific challenges - they require more time and expertise to set up, and their cost can be prohibitive. All of these recommendations are based on the goals of increasing safety and reducing staffing problems.



“Overall, ODOT personnel felt that the AFAD (small automated flagger devices) and the PTS (portable full-sized traffic signals) improved worker safety, since the flagger was either located off the roadway or completely removed [from traffic].”



## Melisa Finley, P. E.

### Research Engineer

Traffic Operations and Roadway Safety Division,  
Work Zone and Dynamic Signs

Texas A&M Transportation Institute  
Headquarters and Research Building, Rm 253  
College Station, TX 77843-3135

Phone: (979) 845-7596 Ext. 57596

[m-finley@tti.tamu.edu](mailto:m-finley@tti.tamu.edu)

