Evaluation of Low Cost Traffic Calming for Rural Communities

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Small rural communities often lack the expertise and resources necessary to address speeding and the persistent challenge of slowing down high-speed through traffic. Community entrance areas are especially problematic given that the drivers must transition from a high-speed, often rural, roadway setting to a low-speed community environment. The rural roadway provides high-speed mobility outside the community, but within the community the same road provides local access and accommodates pedestrians of all ages, on-street parking, bicycles, and other features unique to the character of a small community. Drivers who have been traveling for some distance on the high-speed road and are traveling through the community may not receive the appropriate clues that the character of the roadway is changing and may not adjust their speeds appropriately.

Addressing speeding issues is an even greater challenge given that smaller communities typically lack engineering staff and resources and at times decisions may be made that do not conform to accepted design guidance and good engineering practice. For instance, many rural communities set transition zones with low speeds that begin at a significant distance outside the community, before there is any practical need for drivers to slow down. Communities may also have unrealistic expectations about what speed reductions are practical and, in some cases, may even implement strategies to reduce speeds that are not appropriate for the situation. For instance, some small communities in Iowa that are frustrated with speeding issues simply use stop signs to slow traffic which diminishes both enforcement and compliance.

A number of traffic calming devices were evaluated to determine their effectiveness in reducing speeds along the main road through a small rural community. Five different treatments were selected and installed in six rural Iowa communities. This presentation summarizes the effectiveness of the various treatments.