



On average, crashes involving fatalities and serious injuries are reduced by 33 percent after cable barrier installation.

The Michigan Department of Transportation (MDOT) has installed cable barrier in place of steel guardrails and concrete barriers to stop vehicles from crossing into oncoming traffic – often with devastating consequences. Cable barrier has been 97 percent effective in containing out-of-control vehicles.

Cross-median crashes are the most severe of all freeway crashes. The cable barrier installed in Michigan has been shown to reduce the rate of these types of crashes by 90 percent.

Cable barrier reduces the severity of crashes, and is a very cost-effective safety measure when compared to other barriers. Cable barrier is designed to prevent a vehicle from crossing into lanes of oncoming traffic. The cable also absorbs most of the impact, usually preventing the vehicle from bouncing back into traffic.

MDOT has installed cable barrier along some medians with a history of median crossover crashes. Cable barriers are typically placed in medians up to 100-foot wide.



FOR MORE INFORMATION:

**[www.Michigan.gov/
CableMedianBarrier](http://www.Michigan.gov/CableMedianBarrier)**



MDOT: Providing the highest quality integrated transportation services for economic benefit and improved quality of life.



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CABLE MEDIAN BARRIER

**Saving Lives on
Michigan Freeways**



COST

Cable median barrier is a very cost-effective countermeasure for preventing cross-median crashes as compared to traditional steel guardrail or concrete barrier. Transportation funds allocated for safety projects can be stretched furthest with the installation of cable barrier.

A recent study from Washington state compared the costs of three barrier types:

- Cable barrier: \$58.40 per foot
- Traditional beam guardrail: \$89.94 per foot
- Concrete barrier: \$351.11 per foot or more

According to the National Safety Council, the comprehensive cost per fatality in a traffic crash is \$11.5 million, compared to \$52,700 per crash resulting in only property damage. The anticipated increase in property damage during the winter months with cable barrier is dramatically less significant when compared to the economic and emotional toll associated with a fatality.

Cable barrier has reduced cross-median crash rates by 90 percent and contained 97 percent of out-of-control vehicles.



PLACEMENT

It is understandable most people would think cable barrier should be placed in the center of the median. However, specific criteria must be followed in order for cable barrier to be most effective.

Unlike concrete barrier and steel guardrail, cable barrier can be placed on sloping shoulders. However, cable barrier must be placed within specific distances from both the top and the bottom of the slope, depending on the pitch of the slope, to ensure optimal barrier performance. As a result, some stretches of cable barrier may be closer than others to the edge of the roadway.

In many cases, cable barrier is not placed in the center of the median due to abrupt and extreme changes in slope. If cable barrier were placed in such areas, it would significantly reduce or eliminate the cable barrier's ability to capture or redirect impacting vehicles. Additionally, water tends to accumulate in the bottom of a ditch, making most maintenance difficult, sometimes impossible.

Straight-Line Cable Design



Interwoven Cable Design

