Runaway Vehicle Arrestor EB WYO 22 between Victor, ID and Wilson



About CatchNET





CatchNET is comprised of a series of nets set up along an escape ramp. The array of nets is arranged to stop the vehicle in the distance allowed, while minimizing the deceleration forces. These nets made of aircraft cable can have one or two energy absorbers connected on each side. The energy absorbers, in turn, are mounted within the concrete walls of the truck escape ramp.

The variables involved with determining the stopping distance and 'g' load response of a system are vehicle weight, vehicle speed and net width. CatchNET systems have been designed to stop a wide range of vehicles weighing up to 90,000 pounds and traveling up to 90 mph.

A 4,500-pound vehicle hitting a 30-foot wide net at a speed of 62 mph will stop in approximately 83 feet with an average deceleration of approximately 1.6 g's.

CatchNET's energy absorbers use a patented "metal bender" principle for absorbing energy, which provides the means to stop vehicles of varying weights and speeds. The absorbers are primarily comprised of a chamber, a length of metal tape and a series of offset pins.

As the metal tape is pulled through the series of offset pins, the tape is bent back and forth beyond its yield point. The process of bending the metal beyond its yield point is the principal mechanism for absorbing the energy of impact.

The absorbers utilize few moving parts, making them virtually maintenance free. Following an arrestment, the system can be quickly returned to service by replacing the metal tapes with minimal time and effort.

About Vehicle Escape Ramps



Vehicle escape ramps are designed and constructed in areas where steep grades exist to provide a location for out-of-control vehicles to come to a safe stop. They save the lives of the vehicle operators as well as reduce property damage.

Ramps are generally located at points on a route to intercept the highest number of runaway vehicles. Most ramps are located either at the bottom of a grade or at points on the grade where a vehicle could possibly crash after losing brakes along the route.

Ramps have been designed for 80- to 90-mph right hand exiting from the highway surface. Yellow warning highway signage warns of impending escape ramps well in advance of the ramp exit.

The escape ramps are designed as either an ascending grade, horizontal grade or descending grade exit with enough length to disperse the kinetic energy of an out-of-control vehicle. The ramp arrester beds are lined with loose pea-sized gravel with a minimum depth of 3 feet and a minimum width of 26 feet.

Ramps are built on sections of highway with long sight distances with the entire ramp in full view for the driver.