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The license may not give you all of the permissions necessary for your intended use. For example, other rights such as publicity, privacy, or moral rights may limit how you use the material. There are many circumstances where a traffic barrier can be used to prevent damage and protect people from injury. Here we explore what they are. Using Armco barriers as a traffic barrier means reassurance that measures have been put in place to prevent the damage, destruction and devastation that can be caused by out of control vehicles of all shapes and sizes. The traffic barriers that we supply at Armco Direct are discreet, yet super strong safety barriers, which are made from 100% recyclable corrugated steel that is galvanised to the BS EN 1461 standard. They are designed to stand firm and solid - strong enough to deflect the impact of a moving vehicle, not only protecting whatever is on the other side of the barrier, but, causing as little damage to the vehicle as possible, too. The installation of traffic barriers in a whole host of settings means prevention of accidents and injury but also huge cost savings can be made by business owners, when a collision occurs with a traffic barrier instead of the expensive stock or equipment that lies behind it. Where traffic barriers are used So, where are the many places where you might see traffic barriers being used to prevent damage? You might find them in a car park, where vehicles and pedestrians move in close proximity to one another. In this case, the traffic barrier will clearly mark out where traffic can and can't go, hopefully preventing collisions with pedestrians and also parts of the car park which might be badly affected by the impact from a moving vehicle - such as a supporting column. Traffic barriers can be installed in warehouses, not only to keep the workforce safe from collisions with vehicles, such as forklifts, but also to protect the following: Expensive equipment and machinery Shelving Warehouse stock Stacks of pallets Main structure of the building Supporting columns Doorways The traffic barriers are not only super tough, but they can be made highly visible, in order to warn drivers away and hopefully prevent accidents from occurring in the first place. In addition to being used to prevent damage, Armco barriers can also be installed in areas to prevent crime. They can, for example, be set up in pedestrian areas to stop unauthorised vehicle access, where the driver either has the intention to cause injury to others, or carry out a criminal act, such as ram-raiding or vandalism. A particular monument may require protection from intentional and unintentional damage caused by a moving vehicle. In some cases a traffic barrier may need to be installed temporarily, or it can be a more permanent safety solution in areas which are at risk. As you can see traffic barriers can be used in a multitude of ways. If a health and safety audit has flagged up issues and you think they might make a positive addition in your workplace, why not get in touch with us for a quote? Armco Barrier Calculator To find out the amount of Armco traffic barrier protection that you require, you can get a free calculation of your Armco Barrier needs by using our handy Armco Barrier Calculator. Once you know exactly what you need, our team is ready and waiting to help provide you with a cost effective quote to meet your budget. 3.2m Effective Beam A major component of any barrier system is a crash barrier beam. Crash barrier beams are used as a way to increase safety measures as they are designed to better control vehicle collisions. The 3.2m Effective Beam is a great option as it works in a variety of environments. It is made from strong material using 100% recyclable galvanised steel, which makes it a long-lasting solution. The 3.2m Effective Beam comes in a few sizes, so you can adapt it to suit your specific requirements. 3.2m Effective Beam Yellow RAL 1007 The 3.2m Yellow RAL 1007 beam is another excellent option. Made from 100% recyclable galvanised steel, it has a yellow powder coating, which makes the beam significantly more visible. This is perfect for low-ht warehouses and car parks. The additional coating also makes it ideal for outdoor barrier systems as it will withstand the harsh British weather conditions. 2.4m Open Box Beam 5mm thick If you are looking for something much stronger and more effective than your traditional Armco barriers, look no further than the 2.4m Open Box Beam. It is 5mm thick and, because of their shape, they are extra durable and compatible with dig in and bolt-down posts. Why trust Armco Direct with your barriers? At Armco Direct, we only use BS EN 1461 grade galvanised steel. This is to ensure the steel we use is regulated and of high quality. All our products come with an 85-year life expectancy, which means they stand the test of time. We have a 48-hour delivery pledge on orders across England and Wales, so you can make all your project deadlines in time. Having been trusted by prestigious companies across the UK, we come recommended as a go-to for your barrier system needs. We do all the hard work, including making sure our products hit the recommended health and safety guidelines so you can go about your planning and setting up the structure without an ounce of worry. If you're wanting to install a traffic barrier that will stand the test of time, fill out our online calculator and get your free quote today. How can financial brands set themselves apart through visual storytelling? 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Explore our latest gallery of Editors' Picks.Browse Editors' Favorites Barrier installed within medians of and next to roads to prevent vehicle collisions See also: Guard rail and Guide rail § Roadway guide rail Traffic barrier with a pedestrian guardrail behind it Traffic barriers (known in North America as guardrails or guard rails,[1] in Britain as crash barriers,[2] and in auto racing as Armco barriers[3]) keep vehicles within their roadway and prevent them from colliding with dangerous obstacles such as boulders, sign supports, trees, bridge abutments, buildings, walls, and large stone drains, or from traversing steep (non-recoverable) slopes or entering deep water. They are also installed within medians of divided highways to prevent errant vehicles from entering the opposing carriageway of traffic and help to reduce head-on collisions. Some of these barriers, designed to be struck from either side, are called median barriers. Traffic barriers can also be used to protect vulnerable areas like school yards, pedestrian zones, and fuel tanks from errant vehicles. In pedestrian zones, like school yards, they also prevent children or other pedestrians from running onto the road. While barriers are normally designed to minimize injury to vehicle occupants, injuries do occur in collisions with traffic barriers. They should only be installed where a collision with the barrier is likely to be less severe than a collision with the hazard behind it. Where possible, it is preferable to remove, relocate or modify a hazard, rather than shield it with a barrier.[4] To make sure they are safe and effective, traffic barriers undergo extensive simulated and full scale crash testing before they are approved for general use. While crash testing cannot replicate every potential manner of impact, testing programs are designed to determine the performance limits of traffic barriers and provide an adequate level of protection to road users.[5] Roadside hazards must be assessed for the danger they pose to traveling motorists based on size, shape, rigidity, and distance from the edge of travelway. For instance, small roadside signs and some large signs (ground-mounted breakaway post) often do not merit roadside protection as the barrier itself may pose a greater threat to general health and well-being of the public than the obstacle it intends to protect. In many regions of the world, the concept of clear zone is taken into account when examining the distance of an obstacle or hazard from the edge of travelway. Clear zone, also known as clear recovery area or horizontal clearance[6] is defined (through study) as a lateral distance in which a motorist on a recoverable slope may travel outside of the travelway and return their vehicle safely to the roadway. This distance is commonly determined as the 85th percentile in a study comparable to the method of determining speed limits on roadways through speed studies and varies based on the classification of a roadway. In order to provide for adequate safety in roadside conditions, hazardous elements such as fixed obstacles or steep slopes can be placed outside of the clear zone in order to reduce or eliminate the need for roadside protection. Common sites for installation of traffic barrier: Bridge ends Near steep slopes from roadway limits At drainage crossings or culverts where steep or vertical drops are present Near large signs/illumination poles or other roadside elements which may pose hazards Turns on roads above ground level. When a barrier is needed, careful calculations are completed to determine length of need.[7] The calculations take into account the speed and volume of traffic volume using the road, the distance from the edge of travelway to the hazard, and the distance or offset from the edge of travelway to the barrier. In accordance with U.S. regulations for nuclear power plants, the U.S. Nuclear Regulatory Commission (NRC) addresses vehicle barriers under 10 CFR Part 73, specifically in 10 CFR 73.55(e)(10) Vehicle Barriers.[8] This section requires licensees to "use physical barriers and security strategies (via strategic planning) to protect against land vehicle borne explosive devices". Here, the focus is on safeguarding the protected area and vital areas of nuclear facilities from unauthorized vehicle access, emphasizing the need for effective barrier systems against potential vehicular threats. The regulation highlights the importance of designing and implementing barriers that are robust enough to withstand various threat scenarios, including different types of vehicles and potential explosive devices. The integration of these barriers with other security measures, such as surveillance, access control, and intrusion detection systems, forms a critical component of comprehensive security planning at nuclear facilities. The NRC's detailed guidelines on vehicle barriers demonstrate its commitment to maintaining high standards of safety and security at U.S. nuclear sites. Adherence to these regulations is crucial for mitigating risks associated with vehicle-based threats.[9] Traffic barriers are categorized in two ways: by the function they serve, and by how much they deflect when a vehicle crashes into them. Median barriers in Finland Roadside barriers are used to protect traffic from roadside obstacles or hazards, such as slopes steep enough to cause rollover crashes, fixed objects like bridge piers, and bodies of water. Roadside barriers can also be used with medians, to prevent vehicles from colliding with hazards within the median. Median barriers are used to prevent vehicles from crossing over a median and striking an oncoming vehicle in a head-on crash. Unlike roadside barriers, they must be designed to be struck from either side. Bridge barriers are designed to restrain vehicles from crashing off the side of a bridge and falling onto the roadway, river or railroad below. It is usually higher than roadside barrier, to prevent trucks, buses, pedestrians and cyclists from vaulting or rolling over the barrier and falling over the side of the structure. Bridge rails are usually multi-rail tubular steel barriers or reinforced concrete parapets and barriers. Work zone barriers are used to protect traffic from hazards in work zones. Their distinguishing feature is they can be relocated as conditions change in the road works. Two common types are used: temporary concrete barrier and water-filled barrier. The latter is composed of steel-reinforced plastic boxes that are put in place where needed, linked together to form a longitudinal barrier, then ballasted with water. These have an advantage in that they can be assembled without heavy lifting equipment, but they cannot be used in freezing weather. Road blockers are used to enhance security by preventing unauthorized or hostile vehicles from entering sensitive or protected locations, such as government buildings, military installations, airports, embassies, and high-security facilities. They act as a formidable deterrent against potential threats, including vehicle-borne attacks and unauthorized access. Road blockers[10] are equipped with mechanisms that allow for quick deployment and retraction when needed, providing a flexible and effective means of traffic control and security management. Platform barriers, Platform screen doors (PSDs) without the doors, are used when PSDs are not feasible due to cost, technological compatibility or other factors.[11] Barriers are divided into three groups, based on the amount they deflect when struck by a vehicle and the mechanism the barrier uses to resist the impact forces. In the United States, traffic barriers are tested and classified according to the AASHTO Manual for Assessing Safety Hardware (MASH) standards, which recently superseded Federal Highway Administration NCHRP Report 350.[12] Barrier deflections listed below are results from crash tests with a 2,000 kg (4,400 lb) pickup truck traveling 100 km/h (62 mph), colliding with the rail at a 25-degree angle.[13] Flexible barriers include cable barriers and weak post corrugated guide rail systems. These are referred to as flexible barriers with deflection 1.6 to 2.6 m (5.2 to 8.5 ft) when struck by a typical passenger car or light truck. Impact energy is dissipated through tension in the rail elements, deformation of the rail elements, posts, soil and vehicle bodywork, and friction between the rail and vehicle. Components of a standard guiderail (A-profile): S - guardrail, D - distance piece/spacer, P - sigma post Semi-rigid barriers include box beam guide rail, heavy post blocked out corrugated guide rail and three-beam guide rail. Three-beam is similar to corrugated rail, but it has three ridges instead of two. They deflect 3 to 6 feet (0.91 to 1.83 m): more than rigid barriers, but less than flexible barriers. Impact energy is dissipated through deformation of the rail elements, posts, soil and vehicle bodywork, and friction between the rail and vehicle. Box beam systems also spread the impact force over a number of posts due to the stiffness of the steel tube. 1-meter (43 in)-high version of the Jersey barrier for use on highways and semi-trailer trucks Rigid barriers are usually constructed of reinforced concrete. A permanent concrete barrier will only deflect a negligible amount when struck by a vehicle. 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