



THE FUTURE OF HVM

Roger Knight examines the importance of getting the balance between protection and aesthetics right

Unfortunately, it is a reality that Hostile Vehicle Mitigation (HVM) systems are required to protect the public against both accidental and intentional vehicle collisions. However, this does not need to be at the expense of the aesthetics of the public realm. Utilising modern street furniture solutions can enable urban planners to create visually appealing public landscapes while also delivering high levels of protection. Today, striking a balance between both aesthetics and protection is crucial for a number of reasons.

Globally, there has been a number of recent high-profile terror attacks involving the use of a vehicle as a weapon, with several occurring in the UK. During a four-month span in 2017, there were three vehicular attacks, which took place at London Bridge, Finsbury Park Mosque and Westminster Abbey. In each scenario, a vehicle was driven at high speeds into areas that were busy with pedestrians. Tragically, these attacks resulted in a number of innocent lives lost, with many more suffering severe injuries.

While HVM solutions are crucial for protecting against intentional attacks, accidental collisions also pose a threat

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to the public. In the UK, between 2005 and 2015, there were 548 reported incidents in which pedestrians were killed in accidental vehicular collisions, while standing on pavements or verges. There were a number of reasons listed for why the drivers lost control of their vehicles, including dangerous driving, momentary lapses in concentration, inexperience and medical episodes.

The incorporation of HVM solutions into public spaces is key to keeping pedestrians safer and bringing these figures down. There is currently no legislative requirement for businesses and other organisations that operate in publicly accessible spaces to protect people from intentional or accidental vehicle collisions, however, that is soon to change.

Although it didn't involve a vehicle, the 2017 Manchester Arena terrorist attack – in which 22 people lost their lives and hundreds more were injured – has resulted in new legislation set to be introduced later this year. The 'Protect Duty' will establish a new obligation for venue owners and those responsible for public spaces to have the necessary measures in place to protect the public from potential threats. These requirements include: seeking counter-terrorism advice and undertaking appropriate training; carrying out a vulnerability assessment of their location or venue; and developing and implementing an effective plan to mitigate the risks and vulnerabilities identified. As such, owners and operators of publicly accessible spaces will soon be legally required to have the necessary protective HVM solutions in place.

While traditional HVM solutions are effective in the protection that they offer, their 'heavy-duty' appearance can often have a negative impact on visual aesthetics. This is particularly important to consider due to the high-street decline experienced in the UK in recent years. Overly fortified spaces can feel oppressive, using only bollards, barriers and fences to provide protection is a possible contributor to the UK's high street decline, more likely to put people off rather than encouraging them to visit public spaces.

In a document published by High Street Task Force, it was found that footfall in England has fallen year on year for the last decade, with a decline of 5 percent witnessed in just the last five years. Research conducted by Local Data Company identified that during the period of January 2016 and June 2021, the UK saw a net decline of 5,251 chain stores, with high streets suffering far more than retail parks.

Of course, this issue has been further exacerbated by the impact of the COVID-19 pandemic. Three separate lockdowns forced non-essential shops to close their doors overnight, with many unable to reopen. Additionally, the emergence and success of homeworking throughout the pandemic has seen many businesses continue with this system, resulting in far less footfall. Despite initiatives, such as the Government's 'levelling-up' agenda, being set up to combat this, the UK's retail recovery looks to be uncertain.

However, town centres that offer a greater number of amenities, as well as provide green spaces, are much more likely to encourage greater footfall and dwell time. Thankfully there is now a solution for urban planners, so that they can deliver protection, function and aesthetic design into the public realm.

The difficulty then for many urban planners, is delivering adequate protection while having minimal

visual impact. For years, the focus has rightly been on protective qualities rather than visual appeal. Traditional HVM systems, such as bollards, fences, gates and walls, have been the favoured measures implemented to shield public spaces, including shopping centres, town plazas and sports stadia, from vehicular threats. Not only do these systems detract from the aesthetics of the spaces in which they reside, as easily recognisable protective systems, they can also evoke a sense of danger among pedestrians. For these reasons, traditional HVM products are not conducive to creating a welcoming environment, something desperately needed for high street recovery.

However, recent advancements in technology, design and manufacture have led to a rapid progression in protective street furniture solutions, with an extensive range of products now available for urban planners to consider. These street furniture solutions offer equal protection as their traditional counterparts, as well as several other advantages.

URBAN PLANNERS CAN NOW DELIVER PROTECTION, FUNCTION AND AESTHETIC DESIGN

The key benefit that crash-tested protective street furniture holds above traditional HVM systems, is the secondary functionality it offers in addition to its protective properties. This functionality can take many shapes, but ultimately enhances the public realm.

Amenities are a necessity in the public realm and help to make public spaces more visitor friendly. In essence, amenities provide a specific purpose that make public spaces easier to navigate and more accessible. Litter bins and bike rails are staples within public spaces. The former help with maintaining the appearance of the public realm while the latter encourage green travel and offer somewhere safe for those cycling to store their bikes.

By enabling visitors to identify where they are, or where they need to go, signage is possibly the most vital amenity to have within the public realm. As either directional signposts or maps of an area, signage can assist visitors in finding other amenities, such as transport links or public toilets.

Street lighting is fundamental to public spaces. The presence of adequate lighting has repeatedly been proven to contribute towards a feeling of safety when moving through a space at night. Additionally, environments that possess strong lighting report far less crime and antisocial behaviour than those environments that don't.

As previously discussed, the difficulties facing high street retailers and leisure facilities are ever increasing. Understanding these struggles, encouraging more footfall is a key ambition for urban planners. Fortunately, there are protective street furniture solutions that can assist in this endeavour.

The inclusion of tables and seating within public environments is vital for a number of reasons. Acting as a meeting point for friends, a rest stop (particularly important to the elderly and those with mobility restrictions), or just a place to enjoy lunch, are just

some of their uses. When positioned and coordinated appropriately, these products make public spaces more inviting and naturally encourage visitors to socialise and spend more time occupying the space in which they are situated, something desperately needed by business owners.

THE 'HEAVY-DUTY' LOOK OF HVM SOLUTIONS CAN HAVE A NEGATIVE IMPACT ON VISUAL AESTHETICS

There is also an extensive variety of protective street furniture products that can assist with enhancing the visual appeal of public spaces. The importance of greenery within the public realm, such as trees, plants and flowers, is sometimes overlooked. Small-scale greening additions can deliver health, social and environmental benefits, helping to create a more relaxed and inviting space. Planting trees, bushes, *etc.* directly into the ground can create a great amount of disruption and is not always a feasible option for urban planners. However, protective planters and shrubbery boxes provide a straightforward solution for introducing green elements into the public realm.

Introducing protective art, such as sculpture, into the public realm is another means for urban planners to visually enhance an environment. It is well accepted that public art contributes to community

identity and improves the experience had by visitors. As such, using artwork to deliver protection against vehicular threats is a perfect way to keep pedestrians from harm without them knowing. Thanks to new innovations, all of the aforementioned products are available with protective properties, allowing urban planners to offer purpose and protection in one go.

It is sometimes assumed that, because protective street furniture solutions have been advanced in a relatively short period of time, that the range of designs and products available isn't that varied. This is absolutely not the case, with a vast number of materials – including metals and stone – that offer an exceptional amount of design freedom for urban planners to work with.

With such a wide choice of street furniture products available on the market, there is likely a solution to suit any given location – whether modern or historic. The aim for urban planners should be to blend-in street furniture seamlessly with its surroundings. This is particularly important for heritage sites, in order to maintain the integrity of the historic space while providing adequate protection.

While the need for HVM products is still as pertinent as ever, the demand to deliver adequate protection through less obvious means is growing. Protective street furniture solutions not only provide the same levels of security as their traditional counterparts, but also offer urban planners a range of additional functionality that benefit pedestrians, the public realm and the businesses that reside there. Street furniture makes it achievable to strike that all-important balance between protection, aesthetics and function ●

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