

NEW  
PRODUCT

# ULTRA SHALLOW ANTI-TERRORIST BRIDGE BOLLARDS

Crash Tested to Stop a 18 Tonne (GVW) Truck Travelling at 30mph/48m/h 30°



## No Pinning to the Bridge Deck

### KEY ELEMENTS IN OUR DESIGN

Our key elements in our design, and in our brief to our design team:

- ▶ Keep the design, aesthetically pleasing
- ▶ Have Ultra-shallow topping (of only 80mm deep) with no deck fittings
- ▶ Must stop the LARGE TRUCK (N3C vehicle, 18 tonne Gross Vehicle Weight) which replicates the size of a large London bus
- ▶ It must be a light weight system, and not over engineered
- ▶ Heritage style bollards and modern
- ▶ Must be designed to be the most cost effective bollards HVM solution



Safetyflex Barriers have been commissioned and tasked to design a new ultra-shallow anti-terrorist bollard for protecting London Bridges from Vehicle Terrorist Attacks.

Safetyflex design team have once again designed the next generation of bollard, with their specialist designs and energy absorption materials they have designed a new type of bollard that requires:

- ▶ Light Weight Designed Bollard System for High Speed Install
- ▶ An Ultra Shallow Topping of "Only 80mm Deep"
- ▶ No pinning to the bridge deck
- ▶ 80mm Topping Only

Safetyflex's new Truckstopper Bridge Bollard has been tested to IWA14, to stop an 18 ton vehicle (N3C) At 30mph with the attack impact at 30 Degrees, with only 80mm Topping. It has been designed with the idea of using single heritage-style bollards that will create separate space for cyclists across the bridge, and enough space for all other bridge users.

BRIDGE BOLLARD 40						
Vehicle Test Weight	Vehicle Class	Vehicle Speed kph	Vehicle Angle °	Vehicle Penetration	25kg+ Dispersion m	Footing Depth mm
IWA 14-1:V/7200	[N2A]	64	90	3.8	0.00	450