

**TERRA LUNAR BRIDGE BOLLARD 30mph****NEW FOR 2020****IWA-14 STATIC TERRA LUNAR  
BRIDGE BOLLARD 30mph****ZERO PENETRATION**

Frontier Pitts is excited to introduce our shallowest bollard yet requiring foundations of just 75mm which resulted in zero penetration when tested to IWA 14 stopping 7.2t at 30mph.

Bridges around the World are vital to our transportation network but have already been subjected to vehicle attacks by terrorists and users (cyclists and pedestrians) have become extremely vulnerable. Frontier Pitts have created a bollard bridge system that is able to sit within the bridge kerb structure utilising an ultra-shallow foundation of less than three inches.

The Terra Lunar Bridge Bollard system was impact tested to IWA 14 at Horiba MIRA. The system successfully stopped a 7.2t vehicle traveling at 30mph at a shallow attack angle of 30-degrees, resulting in ZERO penetration. At time of print, this is the best result in the world from a bridge protection bollard system. This means the bollard system successfully protected the pathway and cycleway as there was no encroachment by the vehicle. The Terra Lunar Bollard system was not damaged after the impact test and remained fully upright.

The challenge of designing and installing a bollard system to protect a bridge has its own set of unique problems as the not only are the foundations extremely limiting, but the structural integrity of the bridge deck cannot be compromised. A unique articulated connection between the bollards using flexible linkages allows for bridge movement and expansion.

The Terra Lunar Bridge Bollard system is designed to fit lengths of pathways and pavements. Although designed to protect bridges, this ultra-shallow bollard solution can also be used for other inner-city areas, pathways, linear walkways and cycle lanes where there is limited foundation depth.

**TERRA LUNAR BRIDGE BOLLARD 30mph**

Height above Ground	<b>840mm</b>
Diameter Typical	<b>219Ø</b>
Foundation for an array of 8 bollard	<b>D: 75mm</b>
Finish:	<b>Painted as standard Decorative over sleeving Stainless Steel</b>
Security Rating:	<b>IWA 14-1 7.2t @ 48kph</b>

**IWA14 CLASSIFICATION CODE IWA14  
V/7200/48/30:0.0**

**\*\*\*ZERO PENETRATION\*\*\***

**BENEFITS & FEATURES**

- Zero penetration
- Only 75mm depth foundation required
- Anti-Terrorist protection for Bridges or other Ultra Shallow installations.
- Bollards remained upright and intact after the crash test
- Modular design for quick & easy installation
- Designed for ease of maintenance
- Crash tested with Decorative Top Sleeve
- A unique articulated connection between the bollards using flexible linkages allows for bridge movement and expansion.

**OPTIONS**

- LED lights