

SteelCore Bollards

Application Guide



selux

SteelCore Bollards

Selux SteelCore crash rated bollards are designed for protecting pedestrians and property from the threat of vehicular impact. Choose from five decorative illuminated covers (round or square) that can also be matched with unlit SteelCore bollards, blank SteelCore Case bollards, or non-structural versions. Five unique optical options give a variety of solutions to meet IESNA recommended light levels while also meeting crash ratings set forth by the American Society for Testing and Materials (ASTM). With an overall outside diameter of 8 inches Selux SteelCore bollards blend inconspicuously into the hardscape and can be combined in a lighting plan with companion columns. This provides protection without the appearance of overwhelming security.

Compatible Bollard Heads

Choose from five illuminated bollard heads (round or square) ranging from 4' to 5' in height. These luminaires can also be matched with unlit SteelCore bollards, Blank Cover SteelCore Case bollards, or non-structural illuminated versions. Five unique bollard styles give a variety of solutions to meet IESNA recommended light levels while also meeting crash ratings set forth by ASTM.

*Refer to individual luminaire specification sheets for more information

**MTR
Round**



**MTR
Square**



Corral[®]



Notch



Inula



Blank Cover SteelCore Bollards

Each SteelCore Bollard has a matching blank cover as an additional option. Use non-illuminating blank covers (flat or domed) when the design calls for a matching aesthetic and impact protection is required, but no additional light is needed. Blank Cover SteelCore Case Bollards are available in various heights ranging from 3.5' to 5'.



Flat Blank Cover



Domed Blank Cover

Typical Applications

Typical applications for SteelCore Bollards include, but are not limited to, government facilities, police stations, banks, store fronts, sensitive hardscape/landscape areas, parks, bike/pedestrian traffic lanes, and other areas where blocking vehicular access is required.



Crash Rating Standards

The use of crash rated/security bollards has seen a significant increase where they are being used for traffic guidance, protection of urban landscapes/building fronts, and guarding pedestrians from harm. When security bollards were first developed, the industry used what is called the K-Rating, or DoS K-Rating – a system for evaluating structural resistance to impacts from an oncoming vehicle. Since then, the American Society for Testing and Materials (ASTM) introduced a new rigorous system for crash ratings where they measure vehicle penetration through security bollards. While K-ratings are still often referred to, ASTM requirements are the latest standards for crash rated bollards.

Selux Bollard Certifications

ASTM Standard F3016/F3016M for Testing of Protective Devices at Low Speeds		
Vehicle	Speed Rating	Penetration Rating
Vehicle (with specified crumple zone) 5000lbs	S30 - up to 30mph	P1 ≤ 1ft

The ASTM F3016/F3016M Test is performed with a vehicle with a designed crumple zone in the nose and must weigh 5,000lbs +/- 110 lbs. During the test, the vehicle must hit the bollard at 28 inches +/- 1 inch, head on, at 90° +/- 1.5°.

ASTM Standard F2656 for Small Passenger Car Testing of Protective Devices at High Speeds		
Vehicle	Speed Rating	Penetration Rating
Small Passenger Car 2,430lbs	C40 - up to 40mph	P1 ≤ 3.3ft

The ASTM F2656 Test is performed with a variety of vehicle sizes. This test was performed with a small passenger car that weighs 2,430lbs. Above are the test results based on the required testing on a small passenger car for ASTM F2656.



Engineered for Strength and Durability

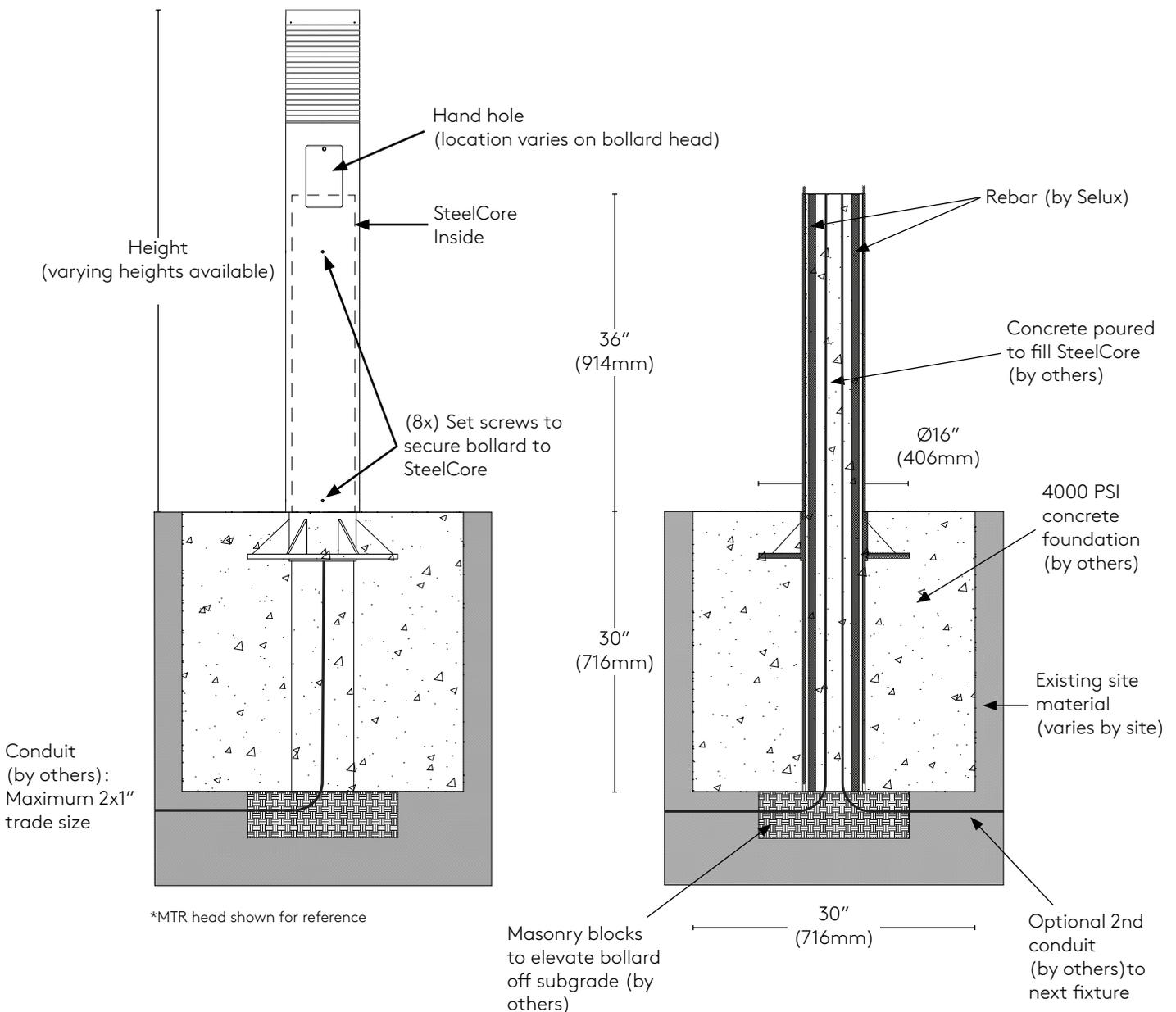
The SteelCore bollard family is the perfect choice for a decorative, crash-rated, and illuminated bollard solution.

SteelCore (by Selux) - 6-5/8" (OD) structural steel tube filled with rebar and concrete (concrete by others on site). Certified to ASTM Standard F2656 (C40) for 2,430lb Small Passenger Car traveling at 40mph and meets the requirements of ASTM Standard F3016/F3016M (S30) for 5,000lb Vehicle traveling at 30mph.

Footing (by others) - 30" cubic footing constructed with minimum 4,000 PSI concrete. One or two Rigid Metal or PVC conduit up to 1" trade size for wiring.

Structural Details

Refer to SteelCore installation instructions for further details (available on Selux website).



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