

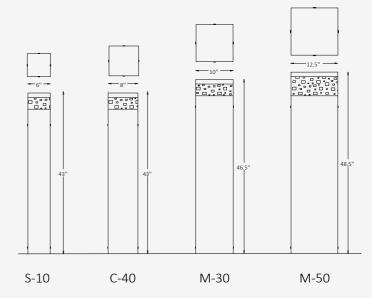


### **SPECIFICATIONS**

Material	Stainless Steel + PMMA				
Lens	Frosted, Acrylic				
Length & Width	6" / 8" / 10" / 12.5"				
Height	43" / 46.5" / 48.5"				
Light Source Type	LED				
Power	3W				
Input Voltage	110-277V, 50-60 Hz				
LED Output	640 lm				
CCT	2200K / 3000K / 4000K				
CRI	90				
Dimming & Driver	Integral, 0-10V				
Light Distribution	Type V — 360° Symmetrical				
IP Rating	IP 65				
Warranty	5 years				
Finishes	19 standard finishes 8 wood-effect finishes 12 metallic finishes Custom on request*				

### **GENERAL INFORMATION**

The Bastion SB is a high-strength security bollard engineered to combine robust protection with architectural lighting. Built from stainless steel with frosted acrylic optics, it delivers reliable perimeter defense while enhancing outdoor environments with uniform Type V illumination. Its solid, square design communicates strength and permanence, making it ideal for securing building frontages, pathways, and high-traffic public spaces. With customizable finishes, the Bastion SB adapts seamlessly to both modern and traditional landscapes, ensuring safety without compromising design aesthetics.



## OTHER VERSIONS AVAILABLE



### **CERTIFICATION**





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## **Ordering Information**

	Code	ASTM F	Rating / Length & Width / Height		Wattage / Lumens		Material
V	<b>BST-SB</b> Security Bollard		<b>\$10</b> ASTM Rating S10 / 6" / 43"		<b>6</b> 8 W / 640 lm	<b>✓</b>	SS Stainless Steel
			<b>C40</b> ASTM Rating C40 / 8" / 43"		<b>Cus</b> Custom on request		
			M30 ASTM Rating M30 / 10" / 46.5"				
			<b>M50</b> ASTM Rating M50 / 12.5" / 48.5"				
	CCT Light Distribution		Dimming		Luminaire Head Finish Options		
	<b>22</b> 2200K	<b>✓</b>	LD5 Type V — 360° / Symmetrical		<b>NN</b> Non-Dimmable		<b>ST</b> Standard
	<b>30</b> 3000K				<b>DM</b> 0-10V		<b>WE</b> Wood effect
	<b>40</b> 4000K						MC Metallic
	<b>Cus</b> Custom on request						Cus Custom on request
Bollard Body Finish Options							
	<b>ST</b> Standard						
	<b>WE</b> Wood effect						
	MC Metallic						
	<b>Cus</b> Custom on request						

## **Finishes**

#### Standard finishes



### Wood-effect finishes



















### **RAL K7 CLASSIC COLORS** (80-95% GLOSS): RAL\_ \_ \_ \_

RAL 8017

All RAL Classic colors are available with no setup fee.

On your specification submittal, choose your RAL color by entering the 4-digit RAL code (e.g., RAL 3003).



#### Metallic finishes



















**RAL 8015** 





RAL 8028

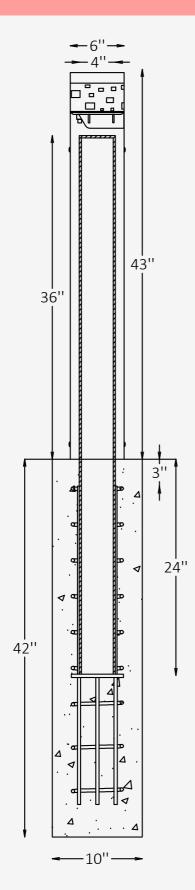




Project

Notes

## Crash-Tested S10 Bollard Mounting Details



Crash Rating ASTM F3016 S10 Crash Rated

Rating Details Certified to meet ASTM F3016.

Tested and proven to stop a 5,000 lb vehicle up to 10 mph.

Minimum qty

Bollards must be installed in a

minimum array of three (3) units to achieve the specified crash rating. A single bollard alone does not meet the tested standard.

# MINIMUM GROUND CONDITIONS REQUIRED PER ASTM F3016

1a: The concrete is 3000 psi minimum unconfined compressive strength, with one layer of #3 (Ø3/8") rebar spaced at 12" each way, with 1-1/4" cover at bottom. Rebar not shown here.

1b: The base is Type A Grade 1 crushed limestone road base, compacted to 90% of standard proctor density.

1c: The washed sand shall be classified as SP - poorly graded sand & be compacted to a density of not less than 90% maximum dry density

#### KITTED SYSTEM

We provide everything but the concrete – core, cover, rebar cage and hardware are all included.

#### **EASY TO INSTALL**

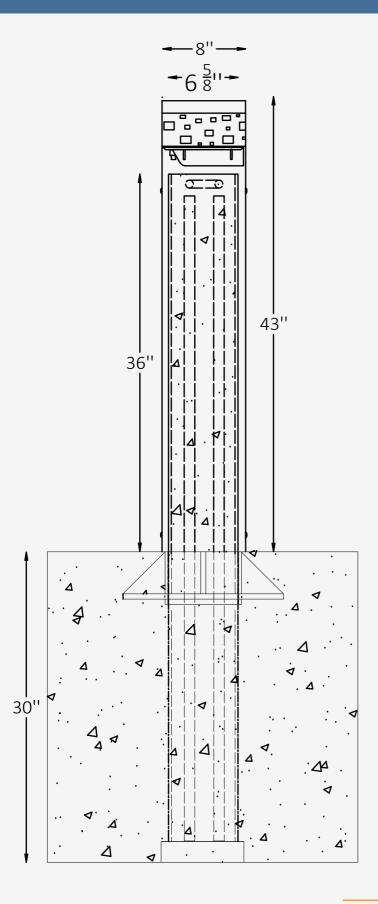
CrashCore Bollards have a simple core drilled installation — so simple you can install one in less than an hour.



Project

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# Crash-Tested C40 Bollard Mounting Details



Crash Rating ASTM F2656 C40, P1 Crash Rated

Rating Details Certified to meet F2656-07 standards. Capable of halting a

2,342 lb. vehicle traveling at 40 mph.

Minimum qty

Bollards must be installed in a

minimum array of three (3) units to achieve the specified crash rating. A single bollard alone does not meet

the tested standard.

# MINIMUM GROUND CONDITIONS REQUIRED PER ASTM F2656-07

1a: The concrete shall be 4000 psi minimum unconfined compressive strength, poured to a 30" depth. Each bollard is factory-filled with concrete and includes two pre-cut vertical rebars (installer-supplied) placed inside the bollard tube

1b: Masonry blocks or rebar chairs shall be used to elevate the bollard steel off of the subgrade, ensuring proper concrete coverage below the tube. The base is prefabricated and delivered as a single unit, requiring no field welding, bolting, or assembly.

1c: The system supports unrestricted spacing between bollards and is suitable for sloped or curved installations without modification. Symmetrical bollard design ensures uniform impact resistance from any direction

#### **BOLLARD SPACING**

We provide everything but the concrete – core, cover, rebar cage and hardware are all included.

#### **EASY TO INSTALL**

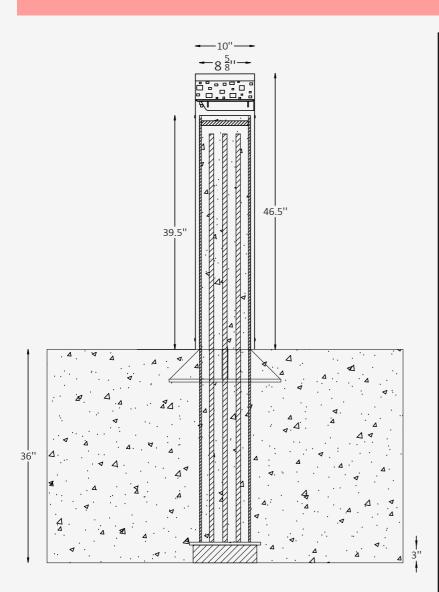
Easy and quick installation; excavate set bollard and pour concrete



Project

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## Crash-Tested M30 Bollard Mounting Details



Crash Rating ASTM F2656-07 - M30/P1 Crash Rated Rating Details Certified to meet F2656-07 standards.

Stops 15,000 lb. vehicle traveling at

30 mph

Minimum qty Bollards must be installed in a minimum

array of three (3) units to achieve the specified crash rating. A single bollard alone does not meet the tested standard.

# MINIMUM GROUND CONDITIONS REQUIRED PER ASTM F2656-07

1a: 1a: The concrete shall be 4000 psi minimum unconfined compressive strength, poured to a depth of 36". Each bollard tube is filled to the top with concrete and contains six (6) vertical #6 rebars (68" long), inserted inside the steel pipe.

1b: A 12" x 12" x ½" steel base plate is welded to the bottom of the bollard tube. The bollard must be elevated 3" off subgrade using masonry blocks or rebar chairs, ensuring proper embedment of the foundation and alignment with the concrete surface.

1c: The system is prefabricated and designed for "set and pour" installation with no rebar required in the foundation itself. Standard spacing between bollards is 60" on center, with a 51-3/8" clear span, although modifications are allowed for site-specific conditions

#### **BOLLARD SPACING**

Recommended 60 inches (1524 mm) maximum oncenter (o/c) spacing.

#### **EASY TO INSTALL**

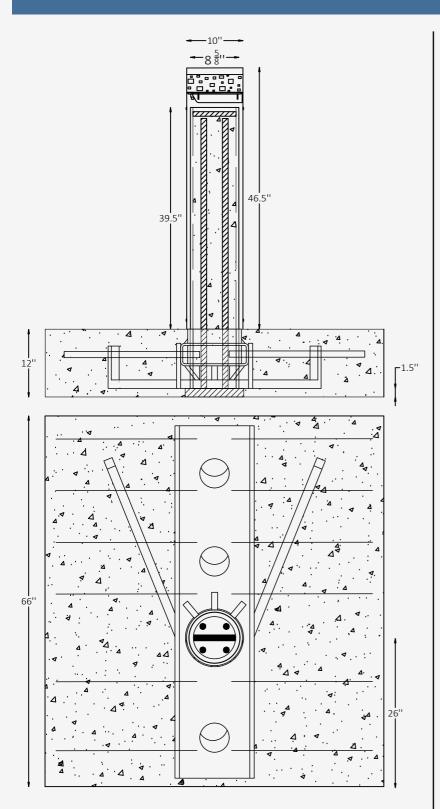
The set & pour method simplifies the entire installation process. With no rebar being required, install time and cost is reduced by nearly 50%.



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## Crash-Tested M30 Shallow Mount Bollard Mounting Details



Crash Rating ASTM F2656-07 - M30/P1 Crash Rated

Rating Details Certified to meet F2656-07 standards. Capable of halting a

2,342 lb. vehicle traveling at 40 mph.

Minimum qty

Bollards must be installed in a

minimum array of three (3) units to achieve the specified crash rating. A single bollard alone does not meet the

tested standard.

# MINIMUM GROUND CONDITIONS REQUIRED PER ASTM F2656-07

1a: The foundation shall consist of 3000 psi concrete, poured to a depth of 12", compacted over a properly tamped subgrade. The bollard tube is filled to the top with concrete and reinforced with four (4) vertical #8 rebars, each 48" long (provided by manufacturer)

1b:A 9-5/8" Schedule 40 steel collar surrounds an 8-5/8" Schedule 120 steel bollard pipe. The bollard is supported on 1-1/2" masonry blocks or chairs to elevate it above the subgrade, ensuring the top of the collar aligns with the finished concrete grade.

1c: The shallow mount system includes six (6) #5 horizontal rebars per bollard, each inserted 3" into predrilled holes in the adjacent bollard pipes for lateral reinforcement. Standard spacing is 54" on center, with a clear span of 45-3/8", although modified layouts are available for site-specific conditions

#### **BOLLARD SPACING**

Recommended 60 inches (1524 mm) maximum on-center (o/c) spacing.

#### **SHALLOW FOUNDATION**

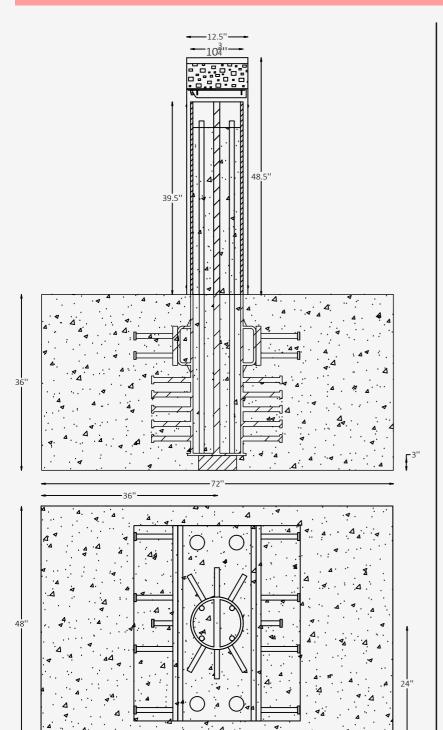
With a shallow foundation of only 12" deep, our system avoids potential conflicts with underground utilities.



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# Crash-Tested M50 Bollard Mounting Details



Crash Rating ASTM F2656 M50-P2 Crash Rated

Rating Details Certified to meet F2656 standards. Stops 15,000 lb. vehicle traveling at

50 mph

Minimum qty Bollards must be installed in a

minimum array of three (3) units to achieve the specified crash rating. A single bollard alone does not meet the tested standard.

# MINIMUM GROUND CONDITIONS REQUIRED PER ASTM F2656

1a: The foundation shall be poured using 4000 psi minimum compressive strength concrete, to a depth of 36" (914 mm). Each bollard is filled to the top with concrete and reinforced with four (4) #8 rebars (60 ksi), each 68" long, pre-inserted into the steel

1b: A 10-3/4" diameter Schedule 40 steel pipe is welded to a base and includes no field-assembly components. The bollard is factory-preassembled, requiring no bolting, tying, or installation beyond placement and concrete pour. It is supported on 3" masonry blocks or chairs to elevate it above subgrade for full encapsulation.

1c: Standard embedment depth is 33" (838 mm) below grade, with 39-1/2" (1003 mm) above grade. Typical center-to-center spacing is 60", with the system capable of achieving M50-P1 rating in a three-bollard array. A single bollard provides M50-P2 rating, stopping a 15,000 lb vehicle at 50 mph

#### **BOLLARD SPACING**

Recommended 60 inches (1524 mm) maximum on-center (o/c) spacing.

#### **EASY TO INSTALL**

No bolting, tying, or assembly is required for the bases prefabricated units drop into standard excavations without specialty subgrade.