



## Kim Pavilion 7" Round Bollard - Impact Rated Bollard Installation Instructions

**! Notice to Installer:**

- 1. WIRING INSTRUCTIONS WARNING: RISK OF FIRE AND ELECTRICAL SHOCK: FIXTURE MUST BE INSTALLED BY A QUALIFIED ELECTRICIAN ONLY. FIXTURE IS INTENDED FOR INSTALLATION IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE, LOCAL AND FEDERAL SPECIFICATIONS. DISCONNECT POWER BEFORE SERVICING.**
- 2. This fixture has a VOLTAGE SPECIFIC DRIVER/BALLAST, Check that the voltage is the same as the installed driver voltage.**

**REQUIRED:**

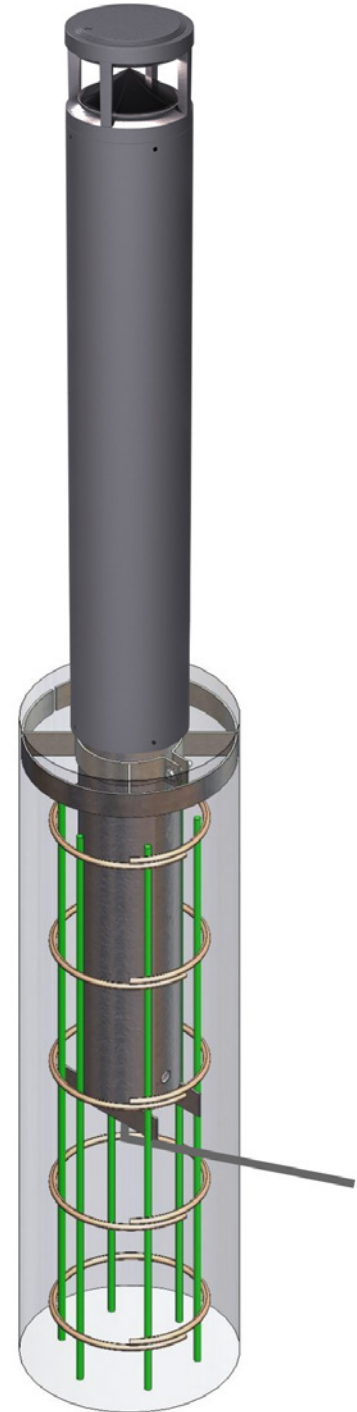
Concrete pour is 4,000 PSI minimum unconfined compressive strength, 12" x 12" x 42" deep and fully surrounded with a 3" minimum thick slab. Ground densities vary from site to site, Hubbell highly recommends consulting engineers familiar with the building site conditions to establish proper concrete foundation. It is the engineer's responsibility to ensure that the foundation is suitable for the bollard application.

**Note:** Crash-rated bollards are heavy—to prevent accidents and injuries, ensure the proper resources are available to set into place.

Hubbell is not responsible for inadequate foundation failure, the above suggestion with the soil conditions on site. The manufacturer is then discharged from liability when damage is caused by improper use or installation. If any luminaire is subsequently modified, the persons responsible for the modification shall be considered as the manufacturer. Impact protection rating is for a vehicle of, maximum, 5,000 pounds driving at a speed of up to 20 miles per hour. Passed ASTM F3016/F3016M S20 Speed Rating.

Standard Test Method	Conditional Designation	Test Weight (lb)	Test Vehicle Class
ASTM F3016-19	S20	5000	Passenger Pickup Surrogate
Test Speed (mph)	Kinetic Energy (kip-ft)	Momentum (kip-s)	
20	66.8	4.6	

**KEEP THIS SHEET FOR FUTURE REFERENCE.**

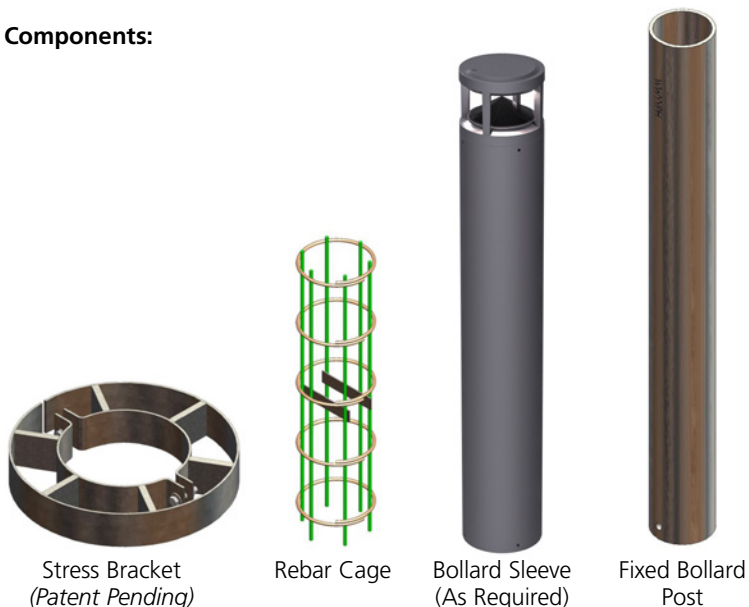


**Tools Required:**     1/8" Hex Wrench

**! Make certain electrical supply is OFF before starting fixture installation.    Required: Pour Concrete 12" x 12" x 42" deep minimum**

# Kim Pavilion 7" Round Bollard - Impact Rated Bollard Installation Instructions

## Components:



## Potential Layout Locations:

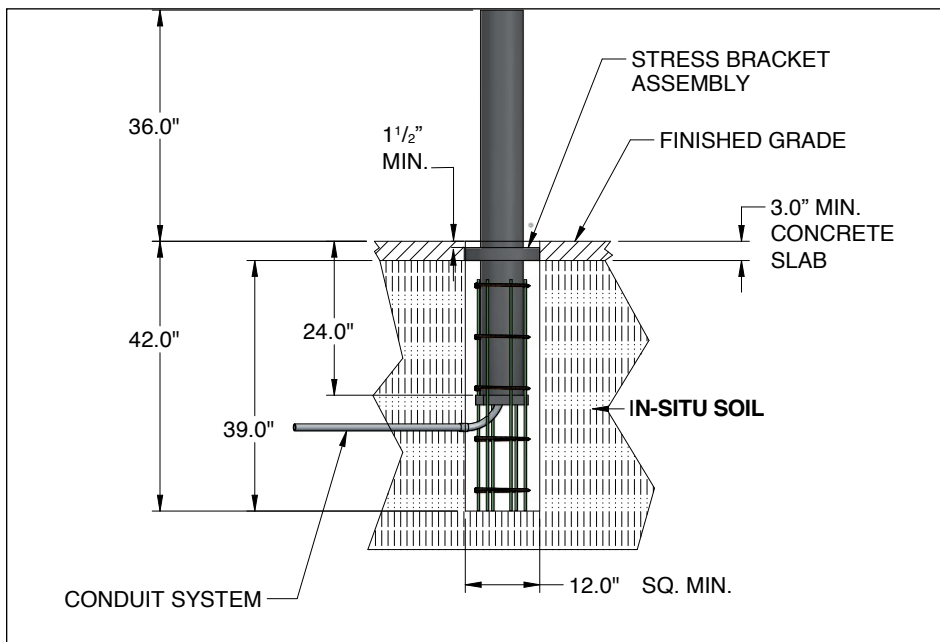


Inspect the work site for any potential conflicts that could obstruct the bollard's foundation. This includes items such as water meters, water lines, drainage pipes, electrical conduits, etc. It is advisable to use a utility locating service prior to marking any bollards.

In addition to identifying any possible obstructions, layout the bollards considering any accessibility ramps, stairways, etc. **Bollards should be placed no further than 5 ft-6 inches center-on-center to meet the specified crash performance rating.** Note that it is the user's responsibility to ensure the location of the bollards meets all accessibility and other requirements.

The bollards should be installed an appropriate distance from the area or object they are intended to protect in a 3" minimum concrete slab. If the bollards are installed along a curb line, the leading-edge of the bollard's impact face shall be no greater than 18 inches from the face of the curb, unless otherwise approved.

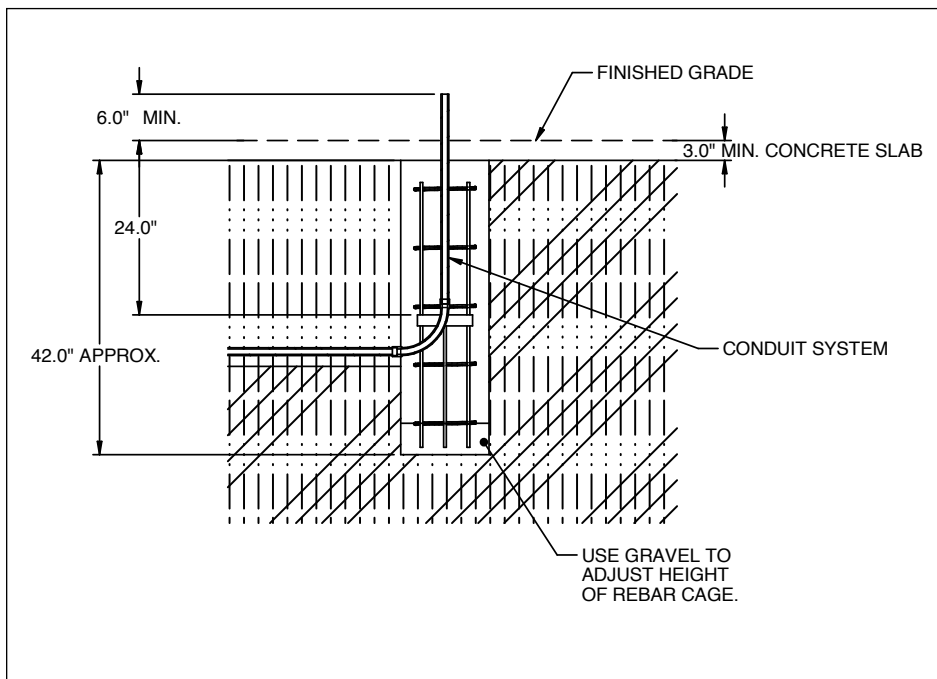
# Kim Pavilion 7" Round Bollard - Impact Rated Bollard Installation Instructions



**1.** Dig hole to adequate depth and size to allow correct positioning of pedestal and concrete fill.

**Required:** Pour Concrete 12" x 12" x 42" deep minimum

**2.** Center the rebar cage provided in the hole excavated. Be sure that the rebar cage is oriented correctly in the hole. The top of the rebar cage has a ring welded approximately flush with the top of the vertical bars. Gravel can be used to adjust the rebar cage height during positioning.



**3.** Run conduit system into the hole and up the center of the rebar cage. Conduit should protrude 6" minimum above grade level or higher if local codes require.

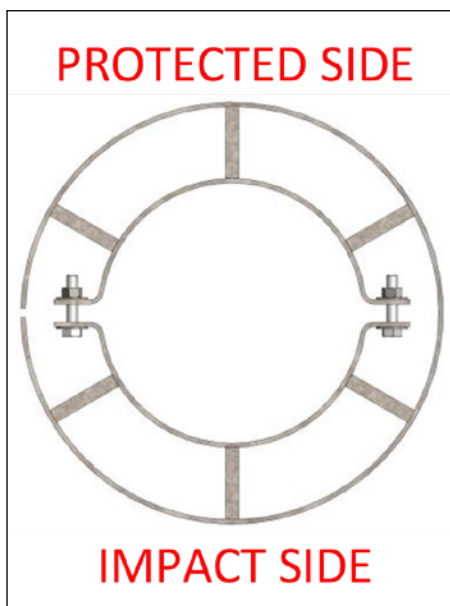
## Kim Pavilion 7" Round Bollard - Impact Rated Bollard Installation Instructions



### 4. Assemble Bollard Stress Bracket:

Install the stress bracket on the bollard post. Use a permanent marker to locate the top of the stress bracket correctly on the bollard post prior to setting it in the hole. The bollard post should be approximately 36 inches (+/- 1 inch) above finished grade. For a 3-inch concrete slab, the top of the stress bracket should be located 1 inch below finished grade. For slabs that are thicker than 4 inches, the top of the stress bracket should be located 1-1/2 inches to 2 inches below finished grade. Tighten the hardware using two 9/16 inch combination wrenches or gear wrenches.

Be sure that the bollard post is oriented correctly. The bottom of the bollard may have a hole through the wall and the top will have a serial number stamped on the side.



### 5. Set Bollard Assembly:

Set the bollard assembly into the hole and in the rebar cage. The Stress bracket is omnidirectional, but the optimal orientation is when the bolts are parallel with the direction a vehicle would impact the bollard.



# Kim Pavilion 7" Round Bollard - Impact Rated Bollard Installation Instructions



## 6. Concrete fill:

Ensure the bollard post is plumb using a post level or magnetic torpedo level and the top is 36 inches (+/- 1in) above finished grade. Wrap the bottom of the bollard post with stretch wrap to prevent concrete from adhering to the post.

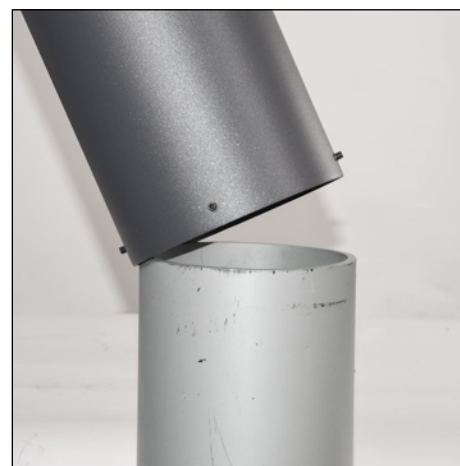
Mix and pour 4000 psi minimum concrete into the hole and level with top of stress bracket. Install finished concrete material. Be sure 36 inches (+/- 1 inch) of post will be above finished grade when complete.



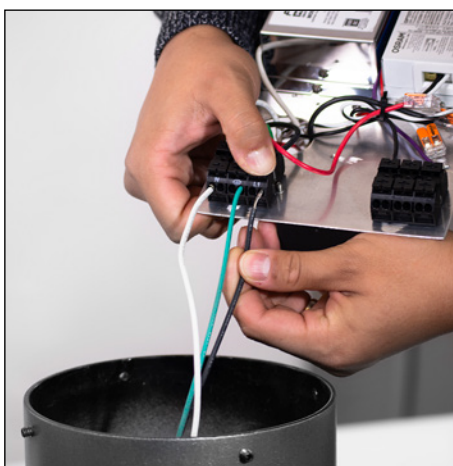
7. Loosen, do not remove, the four (4) 1/4-20 set screws securing the luminaire head assembly to the pedestal using a 1/8" hex wrench.



8. Loosen, do not remove the four (4) 1/4-20 set screws at the base of the pedestal using 1/8" hex wrench.



9. Carefully slide pedestal over Impact Post assembly and orientate as desired. Tighten the four (4) 1/4-20 set screws at the base of the pedestal with an 1/8" hex wrench.



10. Remove head to attach incoming power supply leads to terminal block at base of driver assembly i.e black-to-voltage, white-to-neutral and green-to-ground. Also, if using DMX dimming wires, attach the terminal block with purple and grey dimming wires.



















11. Carefully slide the luminaire head/driver assembly into the pedestal making sure not to pinch any wires. Orientate in desired direction.



12. Secure luminaire head assembly in desired direction by tightening the four (4) 1/4-20 set screws at the top of the pedestal using an 1/8" hex wrench.

# Kim Pavilion 7" Round Bollard - Impact Rated Bollard Installation Instructions

## Installation warnings and cautions for standard product Avertissements d'installation et mises en garde

-  **WARNING:** Make certain all electrical supply is OFF before starting installation or beginning maintenance procedures.
-  **AVERTISSEMENT:** S'assurer que toute alimentation possible est COUPÉE avant de commencer l'installation ou l'entretien.
-  **WARNING:** Fixtures must be grounded in accordance with local codes or the National Electrical Code. Failure to do so may result in serious personal injury.
-  **AVERTISSEMENT:** Les appareils doivent être mis à la terre en conformité avec le Code canadien de l'électricité et les codes locaux. Une non-conformité pourrait conduire à des blessures graves.
-  **WARNING:** To prevent wiring damage or abrasion, do not expose wiring to edges of sheet metal or other sharp objects.
-  **AVERTISSEMENT:** Pour empêcher l'endommagement ou l'éraflure des fils, empêchez tout contact avec les rebords des parties métalliques.
-  **MAINTENANCE:** A regularly scheduled maintenance program should be established to retain optimum light output and reduce heat retention. Dusting with a soft, clean, dry cloth is normally sufficient for the reflector.
-  **ENTRETIEN:** Un programme d'entretien régulier devrait être établi pour conserver la luminosité optimale et réduire l'accumulation de chaleur. Un chiffon doux et propre est normalement suffisant pour dépoussiérer le réflecteur optique. Ne pas utiliser de produit nettoyant alcalin ou acide sur les surfaces du réflecteur.
-  **NOTE:** All wiring must be done by a qualified electrician.
-  **REMARQUE:** Tout le câblage doit être fait par un électricien certifié.
-  **CAUTION:** LED fixtures are available in 120 volt input or 277 volt input. Please verify before wiring fixture to field wires. (see lamp label to verify).
-  **MISE EN GARDE:** Les appareils d'éclairage à DEL sont offerts pour alimentation à 120 V ou 277 V. Veuillez vérifier avant de raccorder (voir l'étiquette de l'appareil pour confirmer).
-  **CAUTION:** Lighted lamp is HOT! Do not touch hot lens, guard or enclosure. DO NOT operate fixtures with missing or damage lens.
-  **MISE EN GARDE:** Les ampoules allumées sont CHAUDES! Ne pas toucher leur lentille de diffraction, garde protectrice ou le boîtier. NE PAS allumer d'appareil d'éclairage dont la lentille serait absente ou endommagée.
-  **WARNING:** Photocell, if used, must match input voltage to driver.
-  **AVERTISSEMENT:** Toute cellule électrique utilisée doit être de la même tension que le ballast.

For warranty see <http://www.hubbellighting.com/resources/warranty>