



GENERAL WARNINGS AND CAUTIONARY STATEMENTS FOR COLLAPSIBLE BOLLARDS

In order to safely and effectively use any TrafficGuard[®], Inc. product, please read and understand the General Warnings and Cautionary Statements contained below. If you have any questions about any of these General Warnings and Cautionary Statements, or about any aspect of TrafficGuard[®], Inc.'s products or literature, please contact TrafficGuard[®], Inc. at 877-727-7347, or email sales@trafficguard.net.



BOLLARD SELECTION AND PLACEMENT

based on vehicle weight, speed and other site specific factors to be determined by owner.



FAILURE TO UTILIZE TRAFFICGUARD[®], INC. AUTHORIZED PARTS, OR MODIFICATIONS

to the TrafficGuard[®], Inc. products, or failure to follow the recommended installation procedures, will result in your warranty being null and void.



READ AND FULLY UNDERSTAND THE INSTALLATION INSTRUCTIONS

before attempting to install any TrafficGuard[®], Inc. bollard product.



SUBSTITUTION OF COMPONENTS MAY IMPAIR THE PROPER FUNCTION

of TrafficGuard[®], Inc. bollards products. If you need replacement parts, please contact TrafficGuard[®], Inc. at the number and email above.



ALWAYS ENSURE THAT THE LOCK PIN IS LOCKED INTO PLACE

in the upright position with all collapsible bollards.



WARNING: FAILURE TO RETURN COLLAPSIBLE BOLLARD TO UPRIGHT, LOCKED POSITION IMMEDIATELY AFTER USE POSES A SIGNIFICANT HAZARD.



REPLACEMENT LOCK PINS ARE AVAILABLE

for purchase at TrafficGuard[®], Inc. For purchase of replacement lock pins or other components, please contact TrafficGuard[®], Inc. at the number or email above.



CAUTION: LOCK PIN MUST ALWAYS BE SECURED WITH PADLOCK WHEN BOLLARD IS IN UPRIGHT POSITION.



FOR MAXIMUM EFFECTIVENESS

of TrafficGuard[®], Inc. bollard products, be sure to properly maintain bollards by replacing any damaged, corroded or missing components, and reapply paint as required to maximize visibility. Failure to properly maintain product can negatively impact the bollards performance over time.



TO ENSURE VISIBILITY

of bollards, be sure to apply all decals that are provided with the product, and in the manner recommended by TrafficGuard[®], Inc.

IF IN DOUBT CALL TRAFFICGUARD[®], INC. 877-727-7347

INSTALLATION INSTRUCTIONS FOR:

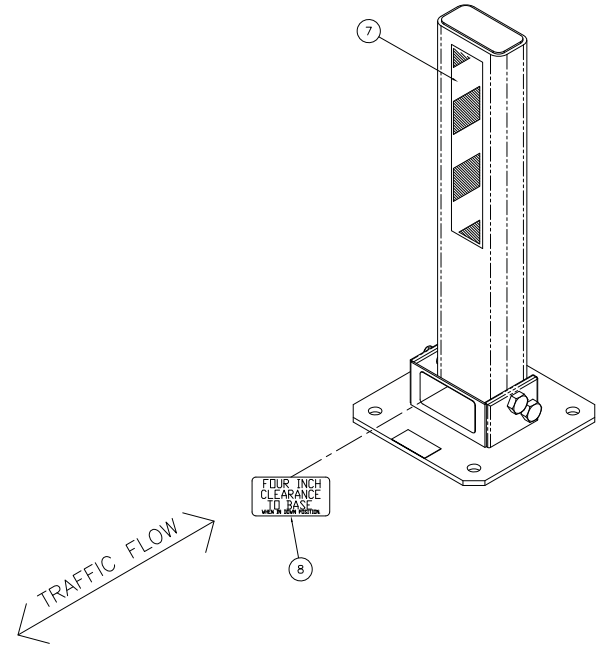
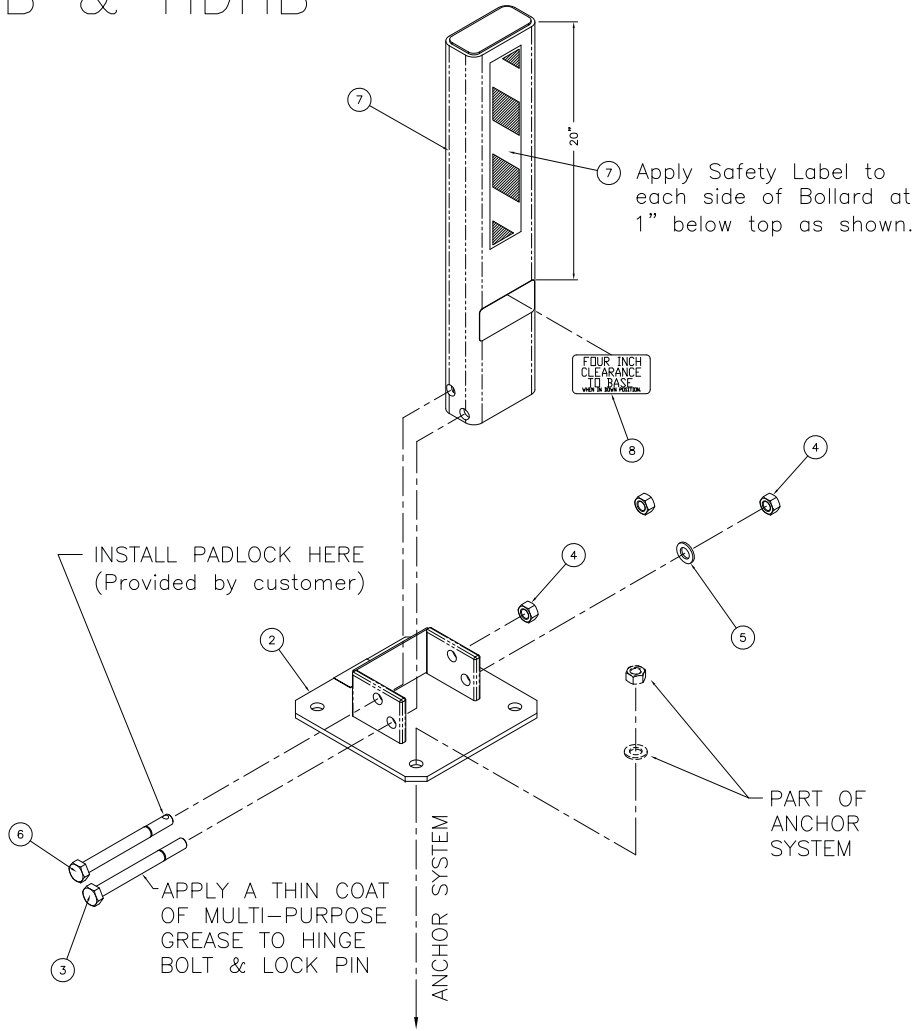
(HDHB & LPHDHB)

LOW PROFILE HEAVY DUTY HINGED BOLLARD

1. Verify that all Low Profile Heavy Duty Hinged Bollard parts are in the shipment package as shown on the "Bill of Material".
 2. Provide Low Profile Heavy Duty Hinged Bollard Anchor System (see included Anchor System Drawing-BAS) of your choice at a location to suit your specific needs.
 3. Install LPHDHB Base (Item 2) true and level on your selected Anchor System using the flat washers and hex nuts included in your Anchor System Kit. Use S.S. shims to level if needed. Torque hex nuts to Minimum 100 ft-lbs for Anchor Systems CPAS and ESAS. Torque hex nuts for other Anchor Systems to Manufacturers Specification.
 4. Install LPHDHB Post (Item 1) to LPHDHB Base (Item 2) using Hinge Bolt (Item 3), Flat Washer (Item 5), and Hex Nut (Item 4) as shown. Tack Weld Hex Nut to Hinge Bolt or Chisel Hinge Bolt Threads such that Hex Nut cannot be easily removed.
 5. Install Locking Pin thru UP Position Bollard Post, and install Padlock where shown. A Hex Nut (Item 4) is included in case a padlock is not available.
 6. Install the four Labels at the locations shown.
 7. Check the functional operation of the Low Profile Heavy Duty Hinged Bollard.
- * Note: S.S. shims, tools, grease, and padlocks are not provided.

LOW PROFILE HEAVY DUTY HINGED BOLLARD		THIRD ANGLE PROJECTION	TrafficGuard, Inc.	
ASSEMBLY DRAWING		Do not scale from drawing	P.O. Box 201, Geneva, IL 60134 Toll Free: 877-727-7347 Fax: 800-814-7194	
CONSULTING ENGINEER: ZE Job # 02-121		Action by	Design WKZ	SIZE
ZABEL ENGINEERING			Drawn CJD	D
CONSULTING ENGINEERS				Assembly Shipping Weight
203 South Rosedale Av., Aurora, IL 60506				70.64 Pounds
Bus: 630-892-0688 Fax: 630-892-1087	Rev. by	Date	Description	Checked WKZ
				Scale: 3"=1'
				Drawing Date: 9-25-2002
				Sheet: 2 of 2

LPHDHB & HDHB

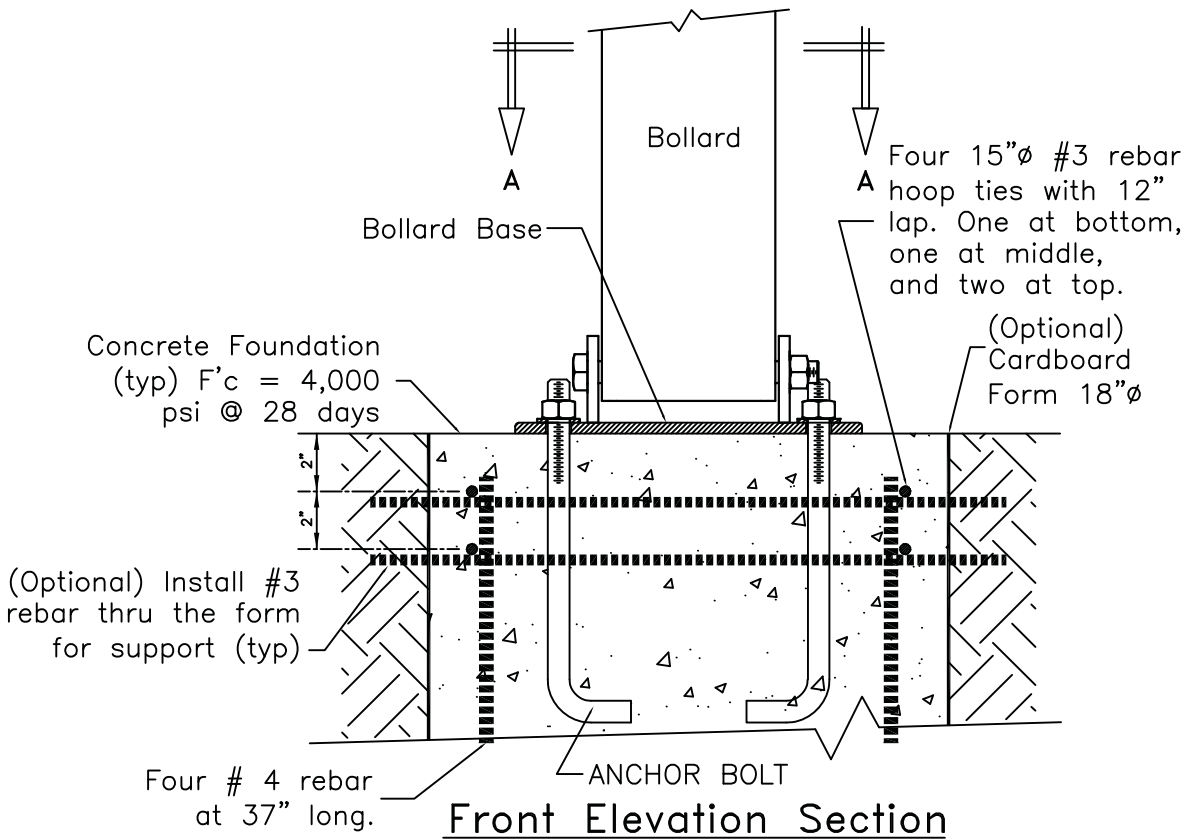


BILL OF MATERIAL

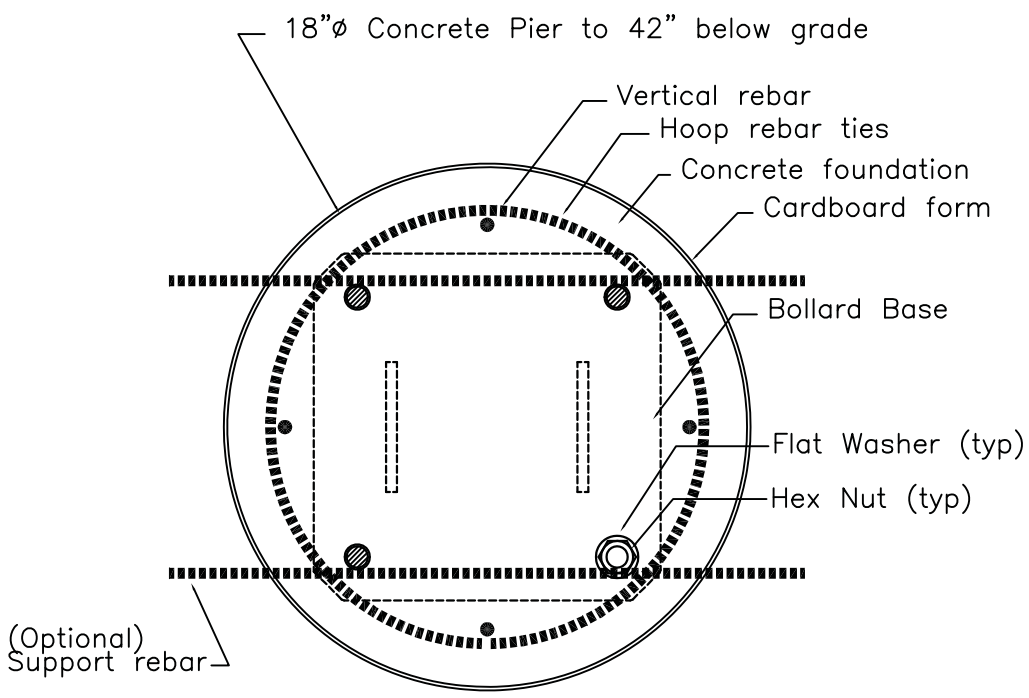
ITEM	PART #	DESCRIPTION	QTY.
1	LPHDHB1	LPHDHB POST	1
2	LPHDHB2	LPHDHB BASE	1
3	0010	ø3/4" x 8" HEX HEAD HINGE BOLT - 18-8 SS	1
4	0008	ø3/4" HEX NUT - 18-8 SS	2
5	0009	ø3/4" FLAT WASHER - TYPE A NARROW - 18-8 SS	1
6	2007	ø3/4" X 8" HEX HEAD LOCKING PIN - 18-8 SS	1
7	0107	SAFETY LABEL 3" x 12"	2
8	0102	FOUR INCH CLEARANCE LABEL	2

LOW PROFILE HEAVY DUTY HINGED BOLLARD ASSEMBLY DRAWING		THIRD ANGLE PROJECTION Do not scale from drawing	TrafficGuard, Inc. P.O. Box 201, Geneva, IL 60134 Toll Free: 877-727-7347 Fax: 800-814-7194
Design	Wkz	Action	by
Drawn	CJD	Checked	Wkz
Rev.	by	Date	Description
1	wkz	1.28.10	Safety Label replaces arrows
Assembly Shipping Weight 70.64 Pounds		Drawing Number: LPHDHB2	
Scale: 3"=1'		Drawing Date: 9-25-2002 Sheet: 2 of 2	

This Drawing shall not be used nor reproduced except when authorized in writing by TrafficGuard,® Inc.



Front Elevation Section



Plan Section "A-A"

CPAS12 COLLAPSIBLE POST ANCHOR SYSTEM DETAILS

These Anchorage systems are designed for the noted loading based on a quality substrate material and proper installation, by the customer's contractor. The installation shall conform to the drawing and the manufacturer's instructions. The customer is responsible to determine the adequate quality of new or existing concrete and the earth substrate. The concrete shall be solid and uncracked with adequate thickness for the anchors and a compressive strength of F_c' (minimum) = 4,000 pounds per square inch. The earth shall have an unconfined strength of Q_u (minimum) = 4,000 pounds per square foot. If you have questionable substrates, contact your local structural engineer for appropriate anchorage evaluation and/or anchorage design. A test installation may be required to determine the adequacy of the anchorage system for your specific installation. Call for guidance, if needed.

CONCRETE PIER ANCHOR SYSTEM
DETAIL DRAWING CPAS12

THIRD ANGLE PROJECTION
 Do not scale from drawing

Toll Free
TrafficGuard,® Inc.
 P.O. Box 201, Geneva, IL. 60134
 Bus: 1.877.727.7347 Fax: 1.800.814.7194

Rev.	Date	by	Description	Action	by	Dwg. Scale:	Assembly Shipping Weight	Drawing Number:
2	11.14.10	wkz	Locking Pins & Note	Design	wkz	nts	84 Pounds	CPAS12
1	-	-	-	Drawn	wkz	Copywrite: 2010		
				Checked	wkz	Dwg. Size: Letter	Drawing Date: 12.10.10	Sheet: 2 of 2