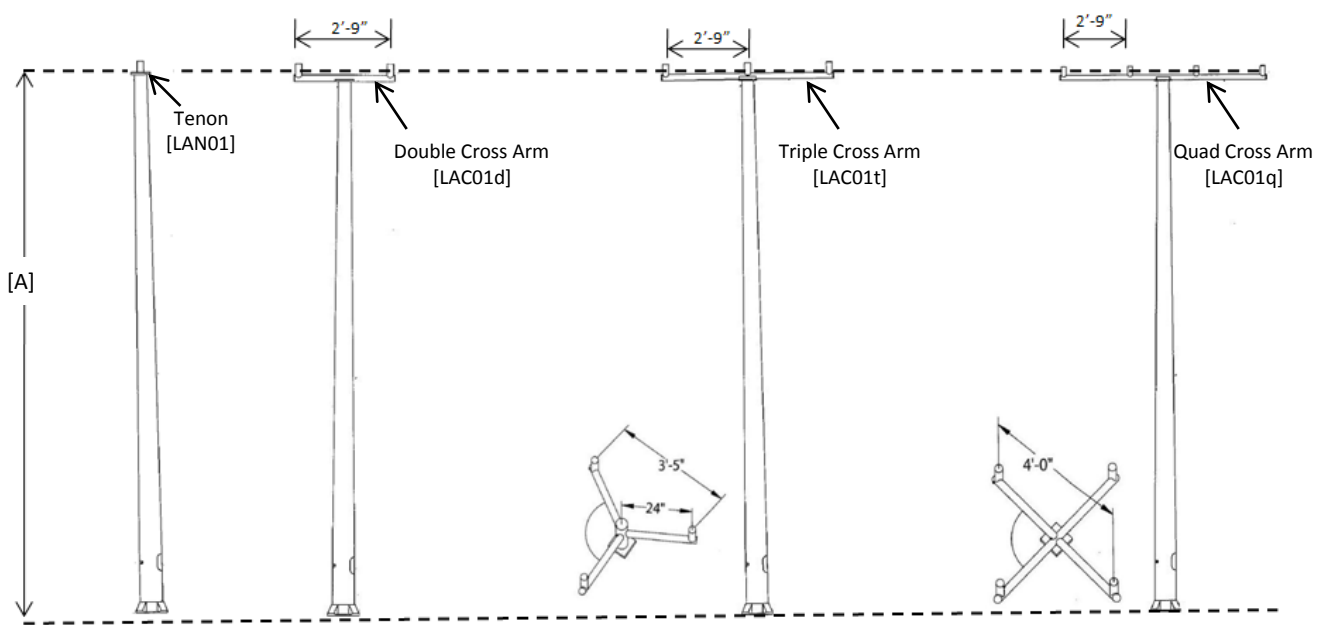
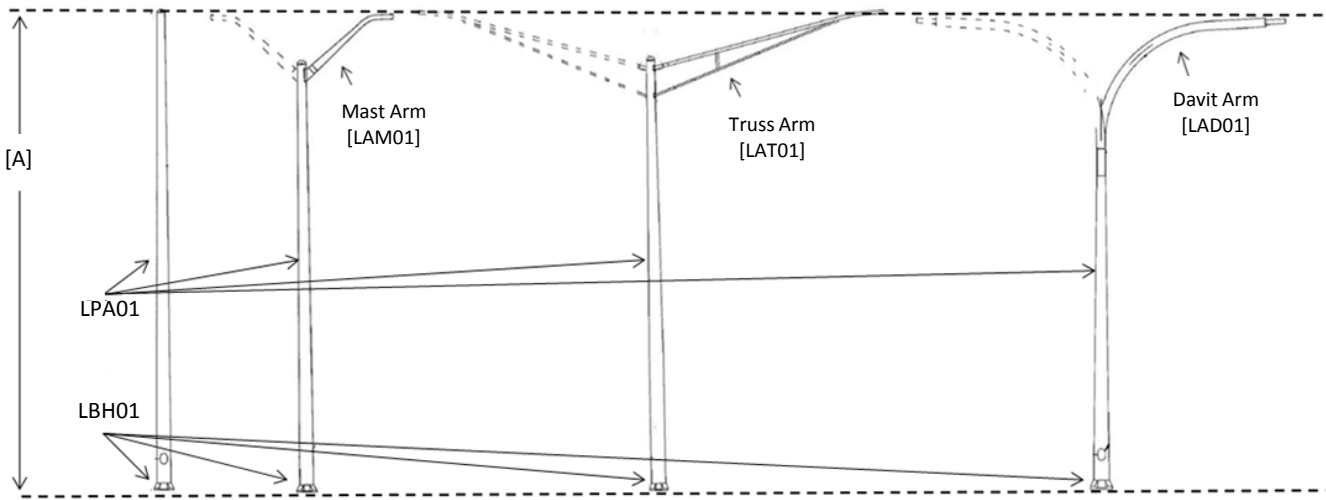


Attachment A

Draft Drawings for
Luminaire Systems, Poles,
and Bases



HAPCO SHOE BASE LUMINAIRE SYSTEM



SLH01

SHEET NO.

DATE:

1 OF 2

3/31/2010

SPECIFICATIONS

- 1) System is available in mounting heights [A] of 20, 25 and 30 ft
- 2) System qualified for use on the National Highway System via FHWA Acceptance Letter LS-27
- 3) Designed for a basic wind speed (3 second gust) of 130 mph for a minimum design life of 50 years in accordance with "Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals "AASHTO 2001", 4th Edition when supporting a maximum EPA of 5.0 sq. ft. and a weight of 100 lbs. each
- 4) Pole (shaft) dimensions vary depending on system mounting height, type of arm, fixture weight, and desired EPA values.
- 5) Available finishes:
 - Satin powder coat: black, white, dark bronze, green, and grey
- 6) Warning: Do not install system without luminaire.

INTENDED USE

- 1) Place holder

HAPCO SHOE BASE LUMINAIRE SYSTEM



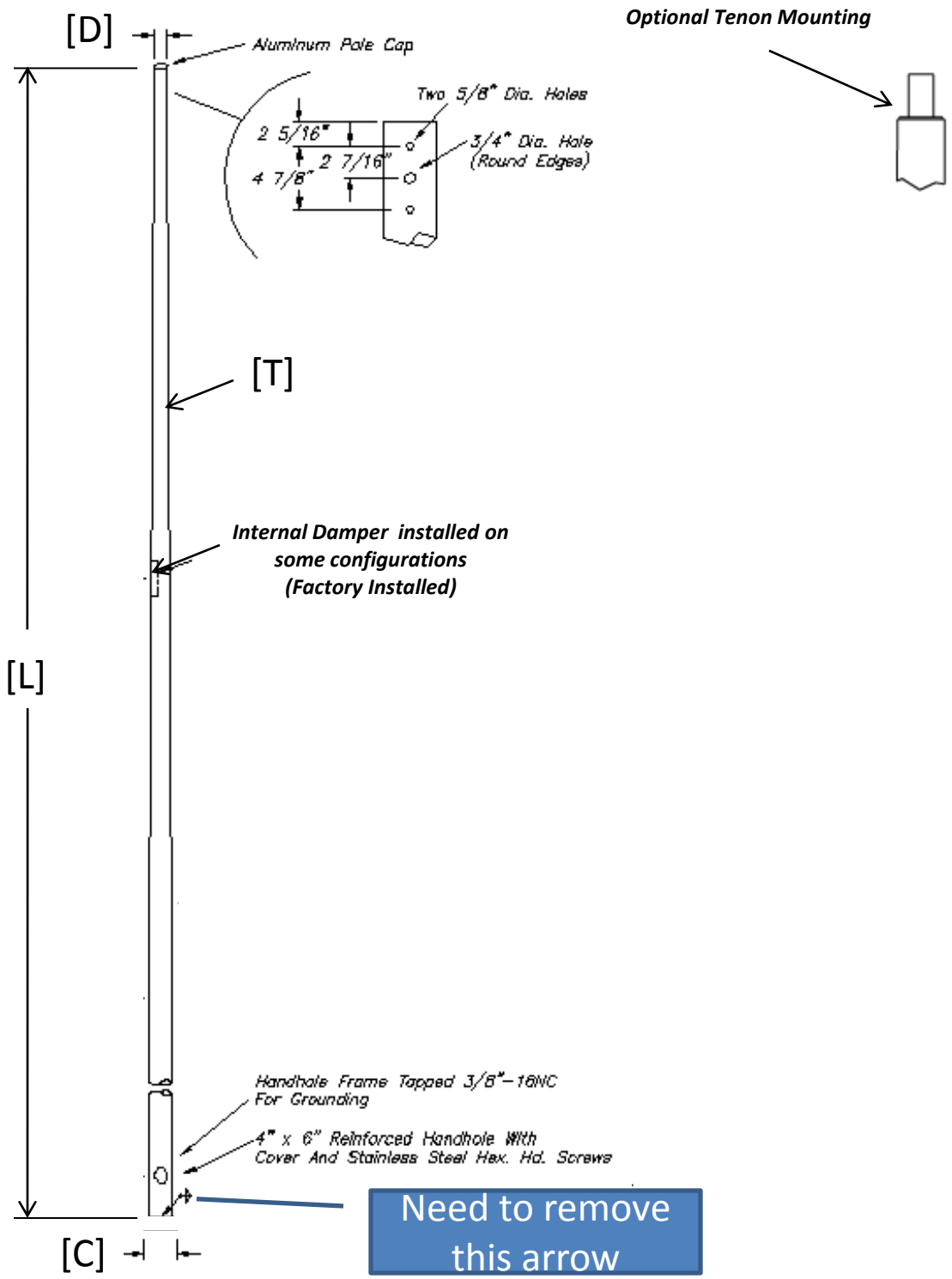
SLH01

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HAPCO ALUMINUM POLE FOR LUMINAIRE



LPA01

SHEET NO.

DATE:

1 OF 2

3/23/2010

AVAILABLE POLE DIMENSIONS

Pole (shaft) Component	Butt dia [C] (inch)	Top dia [D] (inch)	Wall Thickness		Pole/Shaft Length [L]
			(inch)	(*1/32 in)	
LPA01-7-4-5	7	4.5	0.156	5	Varies depending on overall system mounting height and arm type
LPA01-7-4-6	7	4.5	0.188	6	
LPA01-7-7-5	7	7	0.156	5	
LPA01-7-7-6	7	7	0.188	6	
LPA01-8-4-6	8	4.5	0.188	6	
LPA01-8-4-7	8	4.5	0.219	7	
LPA01-8-4-8	8	4.5	0.250	8	
LPA01-8-6-6	8	6	0.188	6	
LPA01-8-6-7	8	6	0.219	7	
LPA01-8-6-8	8	6	0.250	8	
LPA01-8-8-6	8	8	0.188	6	
LPA01-8-8-7	8	8	0.219	7	
LPA01-8-8-8	8	8	0.250	8	

SPECIFICATIONS

- 1) Aluminum alloy 6063-T6 tube
- 2) Heat treated to T6 after welding to base support
- 3) Powder coated and texturized bronze

INTENDED USE

- 1) Designed for use with breakaway shoe base component No. LBH01
- 2) Designed for a basic wind speed (3 second gust) of 130 mph for a minimum design life of 50 years in accordance with "Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals "AASHTO 2001", 4th Edition when supporting a maximum EPA of 5.0 sq. ft. and a weight of 100 lbs. each

HAPCO ALUMINUM POLE FOR LUMINAIRE



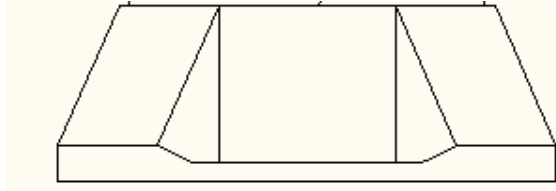
LPA01

SHEET NO.

DATE:

2 OF 2

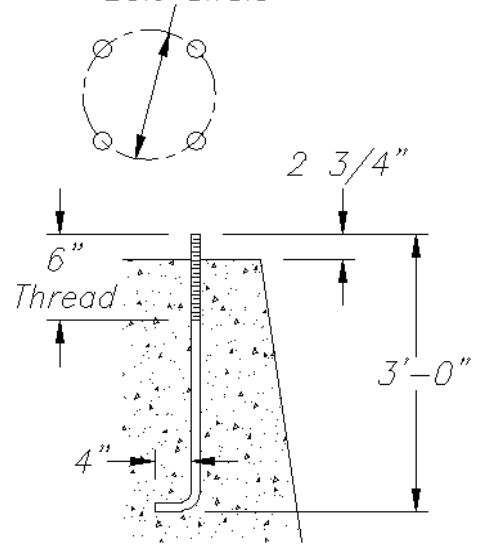
3/23/2010



SPECIFICATIONS

- 1) Aluminum alloy 356-T6 with bolt covers and stainless steel hex-head bolts
- 2) Four (4) 1" – 8NC galvanized steel anchor bolts, AASHTO M314-90 Grade 55, 10" of threaded end galvanized per ASTM A153
- 3) Four (4) 1" – 8NC galvanized steel hex nuts
- 4) Four (4) 1" galvanized steel Lockwashers
- 5) Four (4) 1" – galvanized steel flatwashers

10" To 11" Dia.
Bolt Circle



INTENDED USE

- 1) For use with pole component(s) LPA01

HAPCO 4-BOLT SHOE BASE FOR LUMINAIRE



LBH01

SHEET NO.

DATE:

1 OF 1

3/24/2010