

Project Name

Qty

Type

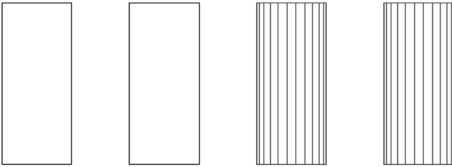
Catalog / Part Number



Certifications



Shafts

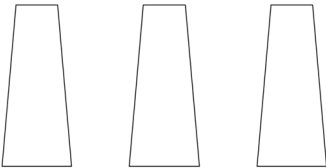


4" Straight
Smooth

5" Round
Straight
Smooth

4" Straight
Fluted

5" Round
Straight
Fluted



4"-3"
Tapered
Smooth

5"-3"
Tapered
Smooth

5"-4"
Tapered
Smooth

Description

These round poles are offered with with low profile base covers. The base is made of heavy wall, 356 alloy cast aluminum. It will have a 3/4" thick floor cast as an integral part of the base. It will have a cast anchor bolt cover designed with a curved relief. The shaft shall be double circumferentially welded internally and externally to the base for added strength.

Physical

Pole Model	450: 10.5" Ø x 3" Tall 550: 12" Ø x 4" Tall LU900: 19" Ø x 9" Tall SL900: 18.5" Ø x 6" Tall
Shafts	T4: 4"-3" Tapered Smooth P4: 4" Straight Smooth FP4: 4" Straight Fluted T5: 5"-3" Tapered Smooth T54: 5"-4" Tapered Smooth P5: 5" Round Straight Smooth FP5: 5" Round Straight Fluted
Height (in feet)	8', 10', 12', 14', 16', 18', 20', 22', 24', 26', 28'
Wall Thickness	.125: 1/8" Wall Thickness .188: 3/16" Wall Thickness .250: 1/4" Wall Thickness
Optional Post Center Cap	BCC: Ball Center Cap FCC: Finial Center Cap SCC: Spike Center Cap TFCC: Tall Finial Center Cap SSCC: Side Spike Center Cap RCC: Round Center Cap PCC: Plate Center Cap, Flat

Finish



anchor bolts



Optional Burial	DB4: Direct Burial mounting style pole, with 4' direct burial section (or advise other length) HXB: HXB - Helix Base mounting style pole
Optional Vibration Damper	VD: Internal Vibration Damper
Optional Receptacle	GFI LPIUC: 120V, 15 Amp Duplex GFCI receptacles with a low-profile in-use cover USB LPIUC: 120V, 15 Amp Duplex USB/ Receptacle combo with a low-profile in-use cover (NON-GFCI) GFI IUC: 120V, 15 Amp Duplex GFCI receptacles with a standard in-use cover
Optional Flag Pole Holder	FH: Cast Aluminum flag holder mount, for use with 1" diameter flag pole
Optional Banner Arms	SBA: Single Banner Arm, "PM" style mount DBA: Double Banner Arms, "PM" style mount SBAR: Single Banner Arm and Ring, for triangle banners, "PM" style mount HSBA: Single Banner Arm, HUB mount style mount HDBA: Double Banner Arms, HUB mount style mount BD6A: Double Banner Arms, Break-Away style, to break with 60MPH wind gust BD9A: Double Banner Arms, Break-Away style, to break with 90MPH wind gust C4SBA: Single Banner Arm, Clamp-Style mount, for straight 4" diameter poles C5SBA: Single Banner Arm, Clamp-Style mount, for straight 5" diameter poles C42BA: Two Banner Arms at 180°, Clamp-Style mount, for straight 4" diameter poles C52BA: Two Banner Arms at 180°, Clamp-Style mount, for straight 5" diameter poles
Banner Width (If Applicable)	18W: 20" Long Banner arm 24W: 26" Long Banner arm 30W: 32" Long Banner arm 36W: 38" Long Banner arm CSTM: Custom Sized Banner setup
Break-Away Banner Size (If Applicable)	18x36: 20" Long Banner arm, 36" tall center to center 18x72: 20" Long Banner arm, 72" tall center to center 24x48: 26" Long Banner arm, 48" tall center to center 30x36: 32" Long Banner arm, 36" tall center to center 24x60: 26" Long Banner arm, 60" tall center to center CSTM: Custom Sized Banner setup
Optional Planter Arms	DHPA: Double Hooked Planter Arm SHPA: Single Hooked Planter Arm DSPA: Double Stepped Planter Arm SSPA: Single Stepped Planter Arm PA478: Cast aluminum decorative planter arm
Optional Drip Irrigation	DIS: Drip Irrigation System

Optional Sign Arms	SA78: Small cast aluminum decorative sign arm, with 24" long channel for blade sign by others SA478: Large cast aluminum decorative sign arm, with 24" long channel for blade sign by others SABA: Banner arm style sign arm, with 24" long channel for blade sign by others
Optional Speaker Hub	SH0.5: Speaker Hub Coupling, 1/2"-14 NPS SH0.75: Speaker Hub Coupling, 3/4"-14 NPS SH1.0: Speaker Hub Coupling, 1"-11.5 NPS SH1.5: Speaker Hub Coupling, 1-1/2"-11.5 NPS SH2.0: Speaker Hub Coupling, 2"-11.5 NPS
Optional Sign Bracket	SB: Sign Bracket, vertically mounted on pole shaft
Optional Steel Wreath Hook	WHK: Steel Wreath Hook
Finish	BKT: Black Textured WHT: White Textured PGT: Park Green Textured ABZT: Arch Med Bronze Tex DBT: Dark Bronze Textured VG: Verde Green SI: Swedish Iron OWGT: Old World Gray Tex UGMT: Urban Gun Metal Textured UGM: Urban Gun Metal Matte UBT: Urban Bronze Textured UB: Urban Bronze Matte USLT: Urban Silver Textured USL: Urban Silver Matte UWHT: Urban White Textured UWH: Urban White Matte CM: Custom Match OI: Old Iron RT: Rust WBR: Weathered Brown CD: Cedar WBK: Weathered Black TT: Two Tone

Electrical and control

Optional Photocell	PCD: Electronic Button Photocontrol, mounted on an access door (120V-277V) PCD4: Electronic Button Photocontrol, mounted on an access door (480V)
Optional Motion Sensor In Arm	MSA-RND-L3: Motion Sensor, For Round shaft, L3 Sensor Lens (40' diameter coverage at 20' MH) MSA-RND-L7: Motion Sensor, For Round shaft, L7 Sensor Lens (50' diameter coverage at 20' MH)

How to Order

Pole Model	Shafts	Height (in feet)	Wall Thickness	Optional Post Center Cap	Optional Burial	Optional Vibration Damper ⁽⁶⁾	Optional Photocell	Optional Receptacle	Optional Motion Sensor In Arm	Optional Flag Pole Holder
450 10.5" Ø x 3" Tall ⁽¹⁾	T4 4"-3" Tapered Smooth	08FT 8'	.125 1/8" Wall Thickness	BCC Ball Center Cap	DB4 Direct Burial mounting style pole, with 4' direct burial section (or advise other length)	VD Internal Vibration Damper	PCD Electronic Button Photocontrol, mounted on an access door (120V-277V)	GFI LPIUC 120V, 15 Amp Duplex GFCI receptacles with a low-profile in-use cover	MSA-RND-L3 Motion Sensor, For Round shaft, L3 Sensor Lens (40' diameter coverage at 20' MH)	FH Cast Aluminum flag holder mount, for use with 1" diameter flag pole
550 12" Ø x 4" Tall ⁽²⁾	P4 4" Straight Smooth	10FT 10'	.188 3/16" Wall Thickness	FCC Finial Center Cap						
LU900 19" Ø x 9" Tall ⁽³⁾		12FT 12'		SCC Spike Center Cap						
SL900 18.5" Ø x 6" Tall ⁽³⁾	FP4 4" Straight Fluted ⁽⁴⁾	14FT 14'	.250 1/4" Wall Thickness	TFCC Tall Finial Center Cap	HXB HXB - Helix Base mounting style pole		PCD4 Electronic Button Photocontrol, mounted on an access door (480V)	USB LPIUC 120V, 15 Amp Duplex USB/ Receptacle combo with a low-profile in-use cover (NON-GFCI)	MSA-RND-L7 Motion Sensor, For Round shaft, L7 Sensor Lens (50' diameter coverage at 20' MH)	
	T5 5"-3" Tapered Smooth	16FT 16'		SSCC Side Spike Center Cap				GFI IUC 120V, 15 Amp Duplex GFCI receptacles with a standard in-use cover		
		18FT 18'		RCC Round Center Cap						
	T54 5"-4" Tapered Smooth	20FT 20'		PCC Plate Center Cap, Flat						
		22FT 22'								
	P5 5" Round Straight Smooth ⁽⁵⁾	24FT 24'								
		26FT 26'								
	FP5 5" Round Straight Fluted ⁽⁵⁾	28FT 28'								

Notes:

1. For use with T4, P4 and FP4 shafts only.
2. For use with T5, T54, P5 and FP5 shafts only.
3. For use with smooth shafts only (Not for use with FLUTED shafts).
4. Not available in .250 wall.
5. Not available in .125 wall.
6. Required on pole heights 26' and taller.

How to Order

Optional Banner Arms ⁽⁷⁾	Banner Width (If Applicable) ⁽⁹⁾ (10) (11)	Break-Away Banner Size (If Applicable) ⁽¹¹⁾ (12)	Optional Planter Arms	Optional Drip Irrigation ⁽¹³⁾	Optional Sign Arms	Optional Speaker Hub	Optional Sign Bracket ⁽¹⁴⁾	Optional Sign Bracket (Length in inches) ⁽¹⁵⁾	Optional Steel Wreath Hook	Finish
SBA Single Banner Arm, "PM" style mount DBA Double Banner Arms, "PM" style mount SBAR Single Banner Arm and Ring, for triangle banners, "PM" style mount HSBA Single Banner Arm, HUB mount style mount HDBA Double Banner Arms, HUB mount style mount BDBA6 Double Banner Arms, Break-Away style, to break with 60MPH wind gust BDBA9 Double Banner Arms, Break-Away style, to break with 90MPH wind gust C4SBA Single Banner Arm, Clamp-Style mount, for straight 4" diameter poles ⁽⁸⁾ C5SBA Single Banner Arm, Clamp-Style mount, for straight 5" diameter poles C42BA Two Banner Arms at 180°, Clamp-Style mount, for straight 4" diameter poles ⁽⁸⁾ C52BA Two Banner Arms at 180°, Clamp-Style mount, for straight 5" diameter poles	18W 20" Long Banner arm 24W 26" Long Banner arm 30W 32" Long Banner arm 36W 38" Long Banner arm CSTM Custom Sized Banner setup	18x36 20" Long Banner arm, 36" tall center to center 18x72 20" Long Banner arm, 72" tall center to center 24x48 26" Long Banner arm, 48" tall center to center 30x36 32" Long Banner arm, 36" tall center to center 24x60 26" Long Banner arm, 60" tall center to center CSTM Custom Sized Banner setup	DHPA Double Hooked Planter Arm SHPA Single Hooked Planter Arm DSPA Double Stepped Planter Arm SSPA Single Stepped Planter Arm PA478 Cast aluminum decorative planter arm	DIS Drip Irrigation System	SA78 Small cast aluminum decorative sign arm, with 24" long channel for blade sign by others SA478 Large cast aluminum decorative sign arm, with 24" long channel for blade sign by others SABA Banner arm style sign arm, with 24" long channel for blade sign by others	SH0.5 Speaker Hub Coupling, 1/2"-14 NPS SH0.75 Speaker Hub Coupling, 3/4"-14 NPS SH1.0 Speaker Hub Coupling, 1"-11.5 NPS SH1.5 Speaker Hub Coupling, 1-1/2"-11.5 NPS SH2.0 Speaker Hub Coupling, 2"-11.5 NPS	SB Sign Bracket, vertically mounted on pole shaft		WHK Steel Wreath Hook	BKT Black Textured ⁽¹⁴⁾ WHT White Textured ⁽¹⁴⁾ PGT Park Green Textured ⁽¹⁴⁾ ABZT Arch Med Bronze Tex ⁽¹⁴⁾ DBT Dark Bronze Textured ⁽¹⁴⁾ VG Verde Green SI Swedish Iron OWGT Old World Gray Tex UGMT Urban Gun Metal Textured UGM Urban Gun Metal Matte UBT Urban Bronze Textured UB Urban Bronze Matte USLT Urban Silver Textured USL Urban Silver Matte UWHT Urban White Textured UWH Urban White Matte CM Custom Match ⁽¹⁷⁾ OI Old Iron ⁽¹⁷⁾ RT Rust ⁽¹⁷⁾ WBR Weathered Brown ⁽¹⁷⁾ CD Cedar ⁽¹⁷⁾ WBK Weathered Black ⁽¹⁷⁾ TT Two Tone ⁽¹⁷⁾

Notes:

7. Consult EPA chart for compatibility

8. For use with FP4 or P4 shaft only.

9. Only required if a NON-Break Away style banner arm is selected

10. Height to be advised (CONSULT EPA CHART)

11. Banner width should be 2" smaller than the banner arm, so an 18" wide banner is assumed to be used with a 20" long arm. Banners by Others.
12. Only required if a Break-Away style banner arm is selected

13. Requires planter arm

14. Advise Length in next field.

15. Bracket should be 2 inches shorter than the sign/frame.

16. Smooth finishes are available upon request.

17. Custom colors require upcharge.

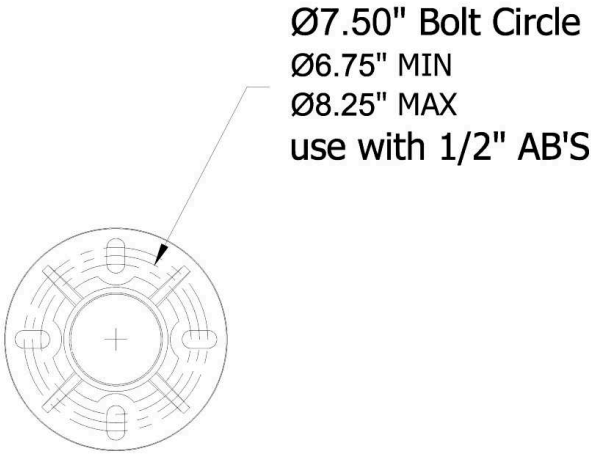
Specifications

Construction	The base shall be made of heavy wall, 356 alloy cast aluminum with a 3/4" thick floor. It shall have a mechanically attached cast aluminum anchor bolt cover.
Access Door	Cast aluminum access door installed on pole shaft. Includes stainless steel allen head hardware for attachment to base.
Tenon	Standard tenon size to be 3" OD x 3" tall. Consult the Sales Department for additional sizes.
Straight Smooth Shaft - Round	The straight round shaft shall be made of ASTM 6061 extruded aluminum and tempered to a T6 condition.
Straight Fluted Shaft	The straight fluted shaft will have a 12 Flat Flute profile and shall be made of ASTM 6061 extruded aluminum and tempered to a T6 condition.
Tapered Smooth Shaft	The tapered smooth shaft shall be made of ASTM 6063 extruded aluminum and tempered to a T6 condition.
Installation	Above the base cover, a hand-hole with a 2.75"x5.5" door shall be provided for wiring access, secured with stainless steel hardware. Post will be provided with a grounding stud mounted inside the shaft, opposite the door. 4" Anchor Base: Slotted base with a recommended 7.5"bolt circle. Slot allows for 6.75" (MIN) and 8.25" (MAX) diameter. Base accommodates four 1/2" diameter, hot-dipped galvanized "L" type anchor bolts that shall be provided with the post for anchorage. 5" Anchor Base: Slotted base with a recommended 8.75"bolt circle. Slot allows for 8.25" (MIN) and 9.25" (MAX) diameter. Base accommodates four 3/4" diameter, hot-dipped galvanized "L" type anchor bolts that shall be provided with the post for anchorage. CONCRETE FOOTING DESIGN BY OTHERS (OPTIONAL): 4' direct burial portion of pole shaft extending below pole base. Includes "Slipping" base style which has set screws at the neck to tighten the base down to the pole shaft. Includes anti-rotational rod and (2) wireway holes on direct burial portion.
Hardware	Includes Stainless steel hardware. Most finishes will include hardware with a Black Oxide conversion coating. Light finishes will get non-color coated hardware (Whites and Silvers)
Receptacle	Optional 120V duplex 15A GFI (GFI LPIUC) or NON-GFI/5A USB combo duplex receptacle (USB LPIUC) installed in proprietary "Low-Profile" box with a lockable In-Use cover (lock not included). Optional 120V duplex 15A GFI duplex receptacle installed in standard J-box with a lockable In-Use cover (lock not included).
Photocontrols	Button Photocell (On Plate): Optional photocontrol shall be mounted on a plate and installed on the pole shaft. The electronic button type photocontrol is instant on with a 5-10 second turn off, and shall turn on at 1.5 footcandles with a turn-off at 2-3 footcandles.
Wreath Hook	A steel wreath hook is offered to support a variety of decorations. The removable hook attaches to a cast aluminum mount via 2 stainless steel hex head bolts . Not for use to support catenary applications - 40 LB max weight
Drip Irrigation System	Optional concealed irrigation system efficiently waters flora in hanging baskets. The system includes 1" PVC pipe, 1/4" OD clear flexible tubing and a cord grip. The PVC acts as a conduit to separate the water from the power. The 1/4" tubing carries water from the supply line to the flora. The cord grip seals the system, stopping rainwater and debris from entering the pole. This low-maintenance feature can help reduce upkeep costs and conserve water. Plants, planter baskets and water supply system are by others.

Motion Sensor	The optional passive infra-red (PIR) sensor allows for autonomous management of each luminaire's light levels based on activity within the coverage area. Fully programmable for the specific needs of the site, including an integral photocell for dusk to dawn on/off control. Sensor mounted in 10" long rectangular aluminum arm, available for square and round poles shafts. Offered with 2 optional FSP-Lx lenses. L3 – 40' diameter coverage at 20' MH L2 – 50' diameter coverage at 20' MH Lenses include a WHITE frame with USLT, USL, UWHT, UWH finishes. All other finishes include BLACK frame on lens. Enables compliance with Title 24 for luminaires without integral dimming control.
Banner Arm(s)	"PM" style banner arms use a cast aluminum mount welded to the pole shaft. The removable banner arm includes a flange that attaches to cast mount via 2 stainless steel hex head bolts and a removable cast aluminum ball cap. 1/2" pipe (.84" OD) is used for banner arm lengths up to and including 20" long. 3/4" pipe (1.05" OD) is used for banner arm lengths 21" to 30" •The actual banner width should be 2" smaller than the attachment arm , so an 18" wide banner is assumed to be used with a 20" long arm. All Banners by Others (SBA) - Single Banner Arm (DBA) - Double Banner Arm (SBAR) - Single Banner Arm and Ring "HUB" style banner arms use an aluminum female coupling welded to the pole shaft. The removable banner arm includes a nut and bolt for a "cotter pin" style attachment to hub and a removable cast aluminum ball cap. 3/4" pipe (1.05" OD) is used for banner arm lengths up to and including 30" long. 1" pipe (1.315" OD) is used for banner arm lengths 31" to 38" •The actual banner width should be 2" smaller than the attachment arm , so an 18" wide banner is assumed to be used with a 20" long arm. All Banners by Others (HSBA) - Hub Style Single Banner Arm (HDBA) - Hub Style Double Banner Arm "CLAMP" style banner arms include a decorative 2-piece cast aluminum pole shaft attachment clamp with stainless steel hardware and a removable cast aluminum ball cap. 3/4" pipe (1.05" OD) is used for all sizes. •The actual banner width should be 2" smaller than the attachment arm , so an 18" wide banner is assumed to be used with a 20" long arm. All Banners by Others •They are for use on 4" (C4) or 5" (C5) straight shafts only. (C_SBA) - Single Clamp-Style banner arm, (1) Clamp and (1) Banner arm (C_2BA) - Double Clamp-Style banner arms, (1) Clamp and (2) Banner arms @ 180 degrees "BREAK-AWAY" style banner arms use an aluminum female coupling welded to the pole shaft. The removable banner arm includes a nut and bolt for a "cotter pin" style attachment to hub and a removable cast aluminum ball cap. Engineered with a 60MPH maintained break speed (BDBA6), or a 90MPH maintained break speed (BDBA9). Includes an air-craft cable to hold broken section after incident. 3/4" pipe (1.05" OD) is used for 60 MPH break speed (BDBA6). 1" pipe (1.315" OD) is used for 90 MPH break speed (BDBA9) •The actual banner width should be 2" smaller than the attachment arm , so an 18" wide banner is assumed to be used with a 20" long arm. All Banners by Others •This style is offered in standard sized, consult factory for custom sizes •Standard sizes include: 20"x36", 20"x72", 26"x48", 32"x36", 26"x60" (BDBA6) - Break-Away Style Double Banner Arm, 60MPH break speed (BDBA9) - Break-Away Style Double Banner Arm, 90MPH break speed
Vibration Damper	OPTIONAL Internal canister style vibration damper comes pre-installed from the factory and can help limit pole vibrations. REQUIRED on pole heights 26' and taller.

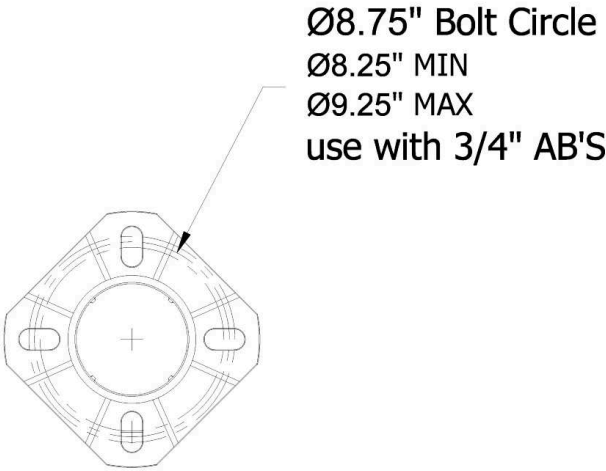
Finish	Our 6 Stage Polyester Powder coat paint system offers a beautiful high-end finish that holds up to even the most extreme environments. Each part is inspected for quality and consistency before being released for shipment. Our system exceeds AAMA 2604, AAMA 2605, ASTM D523 and ASTM D4214 requirements.
Urban Finish	The Urban finish palette was created to highlight a modern, elegant aesthetic. All finishes are a 1 part powder coat with metallic flakes for a superior appearance. Finishes are available in textured or matte. Available finishes include: Black Textured, Urban Gun Metal, Urban Bronze, Urban Silver and Urban White
Traditional Finish	Traditional paint finishes are available in Sternberg Lighting's Traditional product line. A range of colors help accent the decorative elements on the product. Finishes are available in textured or smooth. Available finishes include: Black, White, Park Green, Architectural Medium Bronze and Dark Bronze
Sternberg Select Finish	The Sternberg Select antique-inspired palette adds a touch of vintage elegance to modern applications. Old World Gray Textured is a 1 part powder coat with metallic flakes. Verde Green and Swedish Iron is a 2 part finish that includes a powder coat base coat with a hand applied antique top coat. The top coat is unique to each application and changes over time.
Custom Finish	Custom finishes are offered to adapt to any application. Rust, Weathered Brown and Cedar are special 1 part powder coat finishes with a distinctive look. Old Iron and Weathered Black are 2 part finishes that includes a powder coat base coat with a hand applied antique top coat. The top coat is unique to each application and changes over time. Two-Tone and Custom Match options are available to blend Sternberg product with the site, consult factory for more information.
UL Listing	UL listed per UL1598 for the US and Canada.
Warranty	5-year limited warranty (See Website for Terms and Conditions)

Anchor Base Detail



ACCESS DOOR

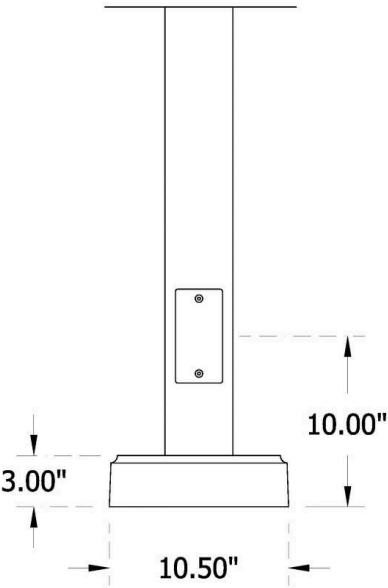
4" Anchor Base



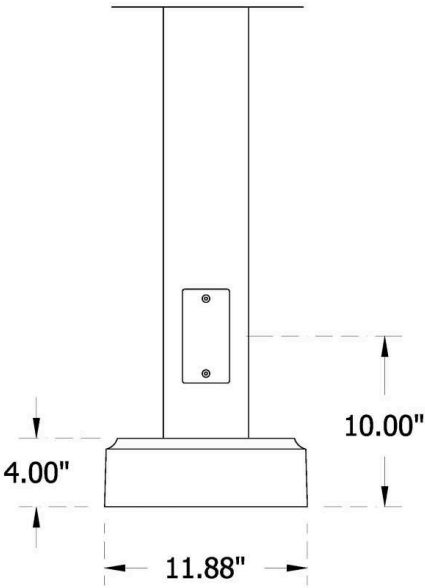
ACCESS DOOR

5" Anchor Base

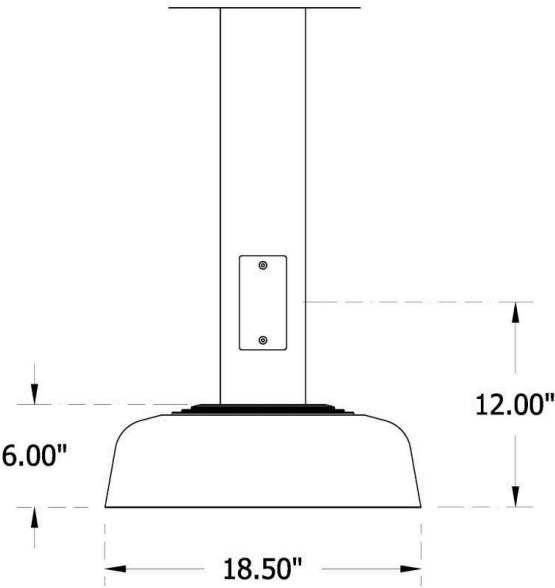
Dimensions



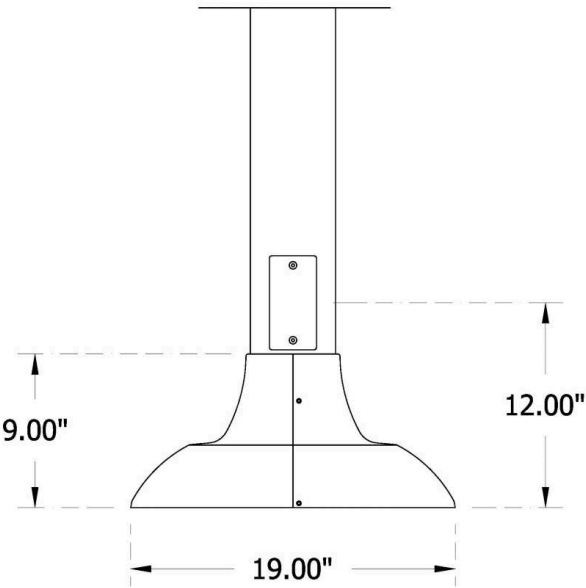
Lexington Base Cover (450)



Concord Base Cover (550)



Solana Base Cover (SL900)

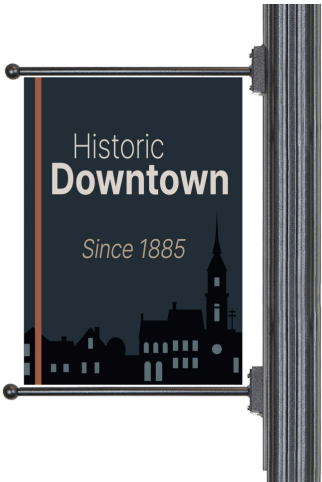


Lunaria Base Cover (LU900)

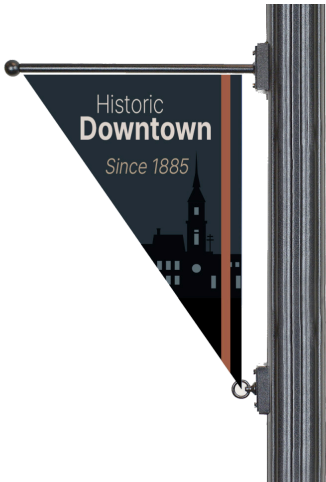
Options



Button Photocell On Door (PCD)



Double Banner Arms (DBA)



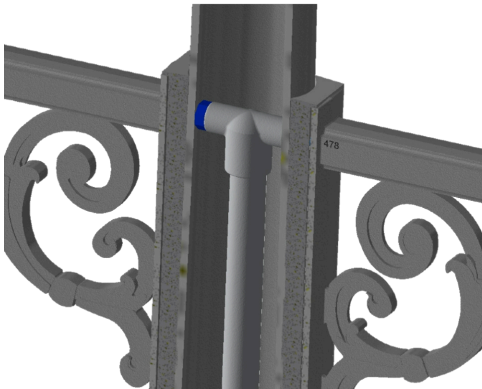
Single Banner Arm and Ring (SBAR)



Hub Style Banner Arm, Single Arm (HSBA)



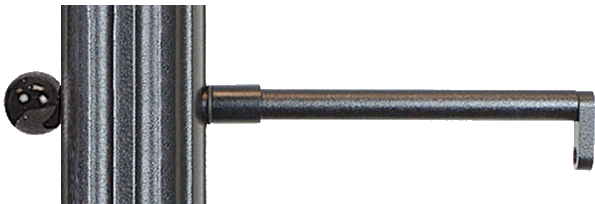
Break-Away Banner Arm Detail (BDBA6 & BDBA9)



Drip Irrigation System (DIS)



Double Hooked Planter Arm (DHPA)



Single Hooked Planter Arm (SHPA)



Double Stepped Planter Arm (DSPA)



Single Stepped Planter Arm (SSPA)



Speaker Hub (**SH_**)



Sign Bracket (**SB**)



Wreath Hook (**WHK**)



Low-Profile In-Use Cover
(**GFI LPIUC/USB LPIUC**)



Standard In-Use Cover (**GFI IUC**)



Flag Holder (**FH**)
(For 1" diameter poles)



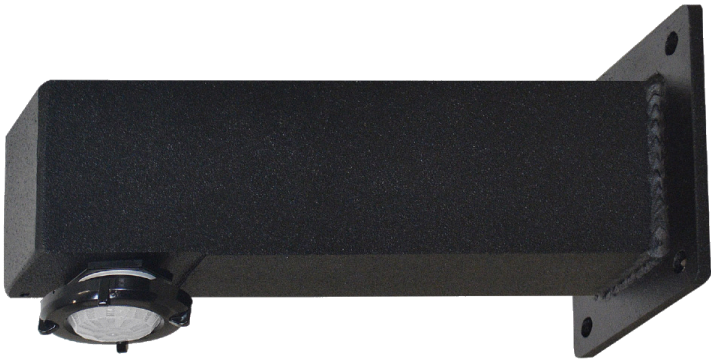
Sign Arm Banner Arm (**SABA**) (24" Channel)



Sign Arm, "78" style (**SA78**) (24" Channel)



Decorative Planter Arm, "478" style (**PA478**)



Motion Sensor in Arm **(MSA)**



Clamp on Banner Arm, Two arms @ 180° **(C_2BA)**



Clamp on Banner Arm, One arm **(C_SBA)**

Post Caps



Flower Center Cap (FCC)



Ball Center Cap (BCC)



Spike Center Cap (SCC)



Side Spiked Center Cap (SSCC)



Tall Finial Center Cap (TFCC)



Plate Center Cap, Round Flat (PCC)



Round Center Cap (RCC)

EPA Chart(s)

EPA Chart Based on AASHTO 2009 - EPA values expressed in square feet - Consult factory for other heights

Pole Height	90 MPH	100 MPH	110 MPH	120 MPH	130 MPH	140 MPH	150 MPH
(T4) - Tapered Smooth Shaft, 4"-3" - .125 Wall Thickness							
8	3.89	2.99	2.32	1.91	1.59	1.34	1.14
10	2.77	2.04	1.49	1.20	0.97	0.80	0.66
12	1.92	1.31	0.85	0.64			
14	1.24	0.71					
(T4) - Tapered Smooth Shaft, 4"-3" - .188 Wall Thickness							
8	5.95	4.66	3.70	3.06	2.57	2.19	1.88
10	4.44	3.39	2.61	2.14	1.77	1.49	1.26
12	3.34	2.45	1.79	1.44	1.17	0.96	0.79
14	2.46	1.70	1.13	0.87	0.67	0.52	
16	1.74	1.07	0.57				
(T4) - Tapered Smooth Shaft, 4"-3" - .250 Wall Thickness							
10	5.93	4.60	3.61	2.97	2.49	2.10	1.80
12	4.59	3.47	2.63	2.14	1.77	1.47	1.24
14	3.55	2.58	1.85	1.48	1.19	0.97	0.79
16	2.70	1.84	1.21	0.92	0.70	0.54	
18	1.98	1.21	0.64				
(P4) - Straight Smooth Shaft, 4" - .125 Wall Thickness							
8	7.03	5.56	4.54	3.77	3.18	2.71	2.33
10	5.27	4.09	3.31	2.73	2.28	1.93	1.64
12	3.97	3.00	2.40	1.95	1.60	1.34	1.12
14	2.95	2.14	1.67	1.32	1.06	0.86	0.70
16	2.11	1.42	1.06	0.80	0.60		
(P4) - Straight Smooth Shaft, 4" - .188 Wall Thickness							
10	8.10	6.38	5.20	4.32	3.63	3.09	2.66
12	6.36	4.93	3.99	3.29	2.75	2.32	1.98
14	5.01	3.81	3.05	2.48	2.05	1.71	1.44
16	3.93	2.89	2.27	1.82	1.47	1.21	1.00
18	3.01	2.11	1.61	1.25	0.98	0.77	0.61
(P4) - Straight Smooth Shaft, 4" - .250 Wall Thickness							
12	8.47	6.65	5.41	4.48	3.76	3.19	2.74
14	6.84	5.29	4.27	3.51	2.92	2.47	2.10
16	5.54	4.19	3.35	2.72	2.24	1.87	1.57
18	4.45	3.27	2.58	2.06	1.67	1.37	1.13
20	3.52	2.48	1.91	1.49	1.17	0.93	0.74
(FP4) - Straight Fluted Shaft, 4" - .125 Wall Thickness							
8	6.94	5.42	4.30	3.44	2.77	2.25	1.82
10	5.16	3.92	3.00	2.30	1.76	1.33	0.99
12	3.83	2.79	2.02	1.43	0.97	0.61	
14	2.79	1.89	1.22	0.71			
16	1.93	1.13	0.54				
(FP4) - Straight Fluted Shaft, 4" - .188 Wall Thickness							
10	7.98	6.21	4.89	3.89	3.12	2.50	2.00
12	6.22	4.72	3.61	2.77	2.12	1.60	1.18
14	4.85	3.56	2.60	1.87	1.31	0.86	
16	3.74	2.60	1.76	1.12	0.62		
18	2.80	1.78	1.03				

Pole Height	90 MPH	100 MPH	110 MPH	120 MPH	130 MPH	140 MPH	150 MPH
(T5) - Tapered Smooth Shaft, 5"-3" - .125 Wall Thickness							
8	6.65	5.25	4.29	3.56	3.00	2.55	2.20
10	4.95	3.83	3.10	2.55	2.13	1.79	1.53
12	3.70	2.78	2.21	1.79	1.47	1.22	1.02
14	2.71	1.94	1.51	1.19	0.95	0.76	0.61
16	1.90	1.24	0.91	0.68	0.50		
(T5) - Tapered Smooth Shaft, 5"-3" - .188 Wall Thickness							
10	7.72	6.08	4.96	4.11	3.46	2.94	2.53
12	6.03	4.67	3.78	3.11	2.59	2.19	1.86
14	4.73	3.58	2.86	2.32	1.91	1.59	1.34
16	3.67	2.68	2.10	1.68	1.35	1.10	0.90
18	2.78	1.92	1.46	1.12	0.87	0.68	0.53
(T5) - Tapered Smooth Shaft, 5"-3" - .250 Wall Thickness							
14	6.56	5.06	4.08	3.35	2.79	2.35	2.00
16	5.28	3.99	3.18	2.58	2.12	1.77	1.48
18	4.22	3.09	2.42	1.93	1.56	1.27	1.05
20	3.31	2.31	1.77	1.37	1.07	0.84	0.66
22	2.51	1.62	1.19	0.87	0.63		
(T54) - Tapered Smooth Shaft, 5"-4" - .125 Wall Thickness							
8	6.60	5.28	4.31	3.58	3.02	2.57	2.22
10	4.88	3.87	3.14	2.58	2.16	1.82	1.55
12	3.62	2.83	2.26	1.83	1.51	1.25	1.05
14	2.61	2.00	1.56	1.23	0.99	0.80	0.65
16	1.79	1.31	0.97	0.73	0.55		
(T54) - Tapered Smooth Shaft, 5"-4" - .188 Wall Thickness							
12	5.95	4.72	3.82	3.15	2.63	2.22	1.89
14	4.63	3.64	2.91	2.37	1.95	1.63	1.38
16	3.56	2.75	2.16	1.73	1.40	1.14	0.94
18	2.66	2.00	1.53	1.18	0.93	0.73	0.57
20	1.87	1.34	0.97	0.71	0.51		
(T54) - Tapered Smooth Shaft, 5"-4" - .250 Wall Thickness							
14	6.46	5.12	4.14	3.40	2.83	2.39	2.03
16	5.17	4.05	3.24	2.64	2.17	1.81	1.52
18	4.09	3.16	2.49	1.99	1.61	1.32	1.09
20	3.17	2.40	1.84	1.44	1.13	0.90	0.71
22	2.36	1.72	1.27	0.94	0.70	0.52	
(P5) - Straight Smooth Shaft, 5" - .188 Wall Thickness							
14	9.18	7.32	5.96	4.93	4.14	3.52	3.02
16	7.58	6.01	4.86	4.00	3.33	2.81	2.40
18	6.26	4.92	3.95	3.22	2.66	2.23	1.88
20	5.14	4.00	3.17	2.56	2.09	1.72	1.44
22	4.17	3.19	2.49	1.97	1.58	1.28	1.04
24	3.31	2.48	1.89	1.46	1.13	0.88	0.69
(P5) - Straight Smooth Shaft, 5" - .250 Wall Thickness							
18	8.68	6.89	5.57	4.58	3.83	3.23	2.76
20	7.33	5.77	4.64	3.79	3.14	2.63	2.23
22	6.17	4.81	3.83	3.10	2.54	2.11	1.76
24	5.15	3.97	3.12	2.49	2.01	1.64	1.35
26	4.24	3.22	2.48	1.94	1.54	1.23	0.98
28	3.42	2.53	1.90	1.45	1.10	0.84	0.64

Pole Height	90 MPH	100 MPH	110 MPH	120 MPH	130 MPH	140 MPH	150 MPH
(FP5) - Straight Fluted Shaft, 5" - .188 Wall Thickness							
12	10.68	8.25	6.46	5.10	4.04	3.20	2.52
14	8.56	6.47	4.92	3.75	2.83	2.10	1.52
16	6.87	5.03	3.67	2.63	1.82	1.18	0.67
18	5.46	3.81	2.60	1.67	0.95		
20	4.24	2.76	1.66	0.83			
(FP5) - Straight Fluted Shaft, 5" - .250 Wall Thickness							
14	11.65	8.97	6.99	5.48	4.31	3.38	2.63
16	9.59	7.23	5.49	4.16	3.13	2.31	1.65
18	7.88	5.78	4.22	3.04	2.12	1.38	0.79
20	6.44	4.54	3.13	2.06	1.23	0.57	
22	5.18	3.45	2.16	1.19			