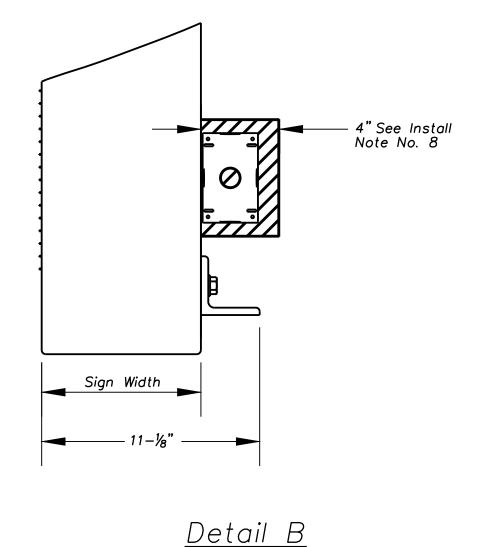


Detail A



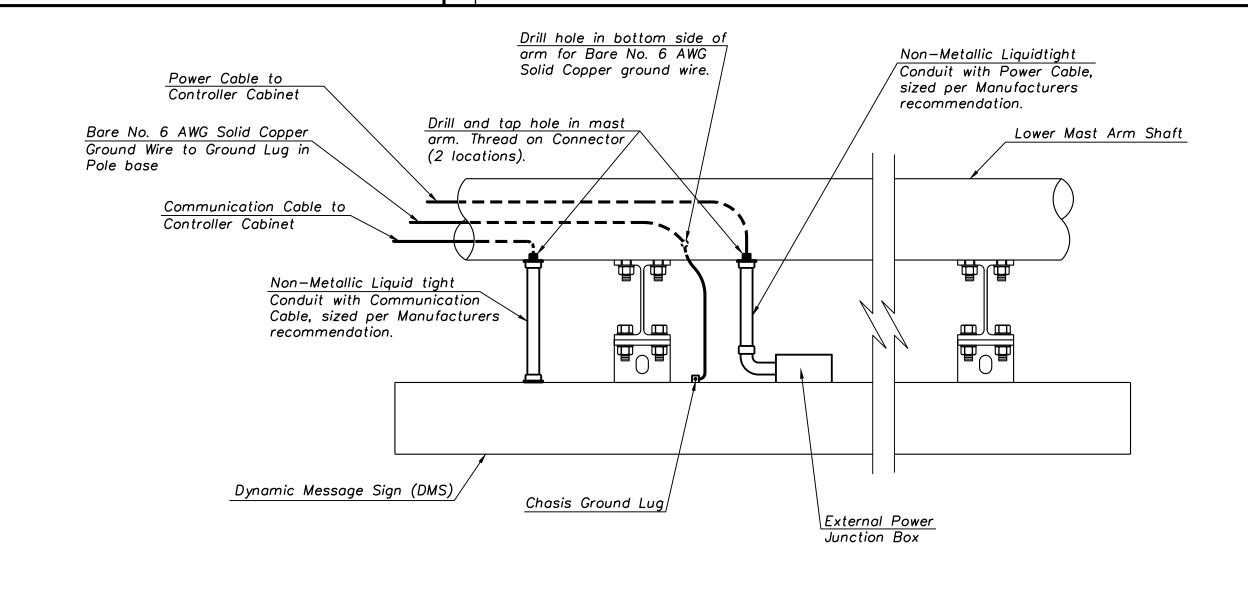
#	Detail	Description
1	Display	VL-3550-48 X 160-16MM
2	LED Color	RGB
3	Active Area	2' 7-7/6" X 8' 8"
4	Overall Size	$3' 2-\frac{13}{16}" \times 9' 2-\frac{1}{8}"$
5	Cabinet	Aluminum, Painted Semi—Gloss Black
6	Ventilation	Intake & Exhaust at Bottom—Front
7	Access	Service from Front Only
8	Weight	250 lbs (Approx)

Structural Rating				
1	Design Wind Pressure "P"	P<=110 PSF		
2	Standard/Code	IBC 2006		

Pow	wer Ratings Per Single Face						
				Do	International		
#	Color	Effective Date	WATTS	120VAC,60Hz 2 Wire + GND	120/24 60Hz, + (	3 Wire	240VAC,1PH 50Hz 2 Wire + GND
				Line 1 (AMPS)	Line 1 (AMPS)	Line 2 (AMPS)	Line 1 (AMPS)
1	RGB	After 4/26/12	1200	N/A	4.77	5.23	5.00
2	RGB	Prior to 4/25/12	1541	N/A	6.26	6.59	6.42

## <u>Install Notes</u>

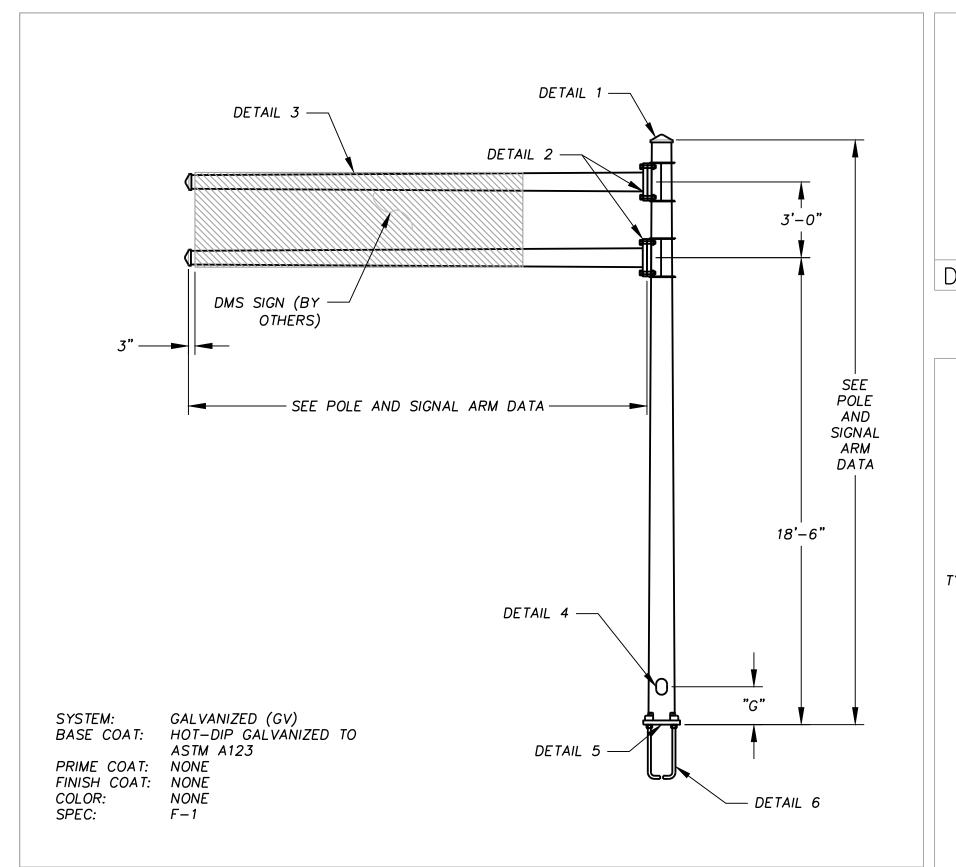
- Display is front ventilated so no portion of the front face can be covered. Air intakes are filtered. Filters are located in drawers on face.
- 2. In order to maintain the structural integrity of the display cabinet, use spreader beam and maintain a 90° angle between the cabinet and the lifting method. All eyebolts must be used for lifting the cabinet.
- 3.  $\frac{1}{2}$ " eyebolts to assist with display installation. Eyebolts may be removed after installation.
- 4. Eyebolts may not be used for permanent installation.
- 5.  $L\bar{3} \times 3 \times \frac{3}{8}$  × 3 Wide" ASTM A36 steel angle for mounting attached to the display with  $\frac{1}{2}$ " bolt and nut insert. Clip angle can be adjusted vertically as needed during installation.
- 6. External junction box is provided for power termination. See power ratings above.
- 7. Signal input at quick connect. Primary/Single face display shown. See clearance dimension on detail View B.
- 8. Signal output quick connect for mirror face.
- 9. Ground lug for ground lug connection. Display needs to be grounded.
- 10. Two  $\frac{1}{2}$ " conduit knockout locations for optional signal entrance.



Top View

DYNAMIC MESSAGE SIGN STRUCTURE LAYOUT

CITY OF OVERLAND PARK DEPARTMENT OF PUBLIC WORKS



MATERIAL DATA

COMPONENT

GALVANIZING-HARDWARE

ANCHOR BOLTS

YIELD

50

50

\_\_\_

**DESIGNATION** 

A595 GR.A OR

A572

A572 A325

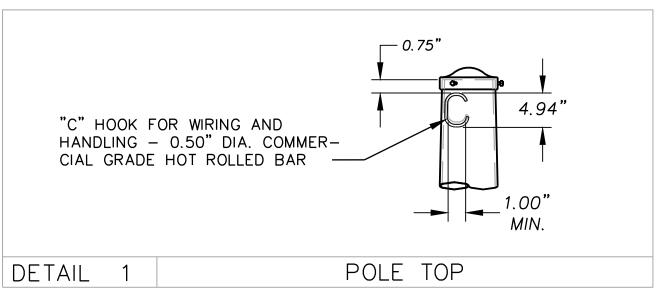
COMPONENT

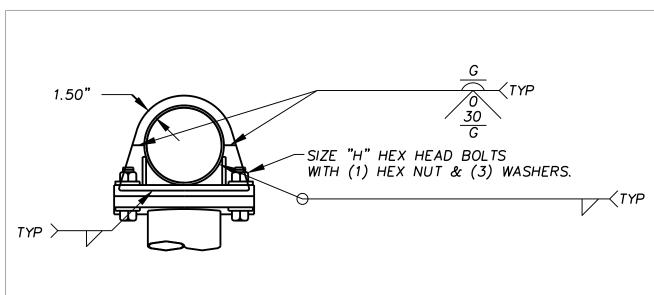
TAPPERED TUBE

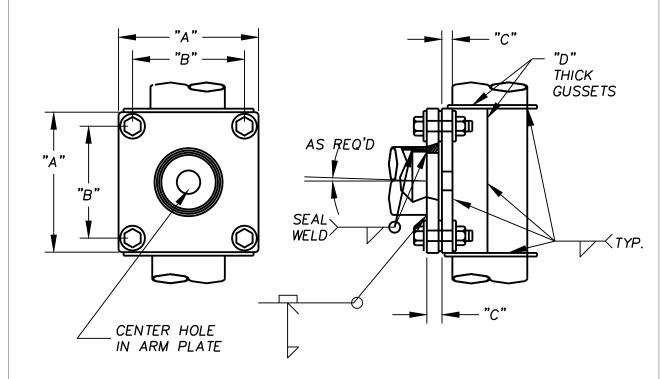
ARM ATTACHMENT

ARM CONN. BOLTS

POLE BASE







YIELD (KSI) 55	SIGNAL ARM ATTACHMENT DATA						
	POLE BASE DIA. (IN)	"A" (IN)	"B" (IN)	"C" (IN)	"D" (IN)	CENTER HOLE DIA. (IN)	"H" (IN)
	12.50	17.75	14.50	2.00	0.375	7.00	1.25 X 6.00
	DETAIL	2	S	IGNAL /	ARM AT	TACHMI	ENT

		POL	E TUBE				POLE E	BASE			ANCHO	R BOLT			SIGNAL	ARM TUBE	•
POLE SERIES	BASE DIA. (IN)	TOP DIA. (IN)	LENGTH (FT)	GAUGE OR THICK (IN)	SQUARE "S" (IN)	BOLT CIRCLE "Y" (IN)	THK. "M" (IN)	HOLE "Z" (IN)	CENTER HOLE "P"	DIA. "K" (IN)	LENGTH "J" (IN)	HOOK "H" (IN)	THREAD LENGTH "U" (IN)	FIXED END DIA. (IN)	FREE END DIA. (IN)	GAUGE OR THICK (IN)	SPAN (FT)
OP	12.50	9.28	23.00	5	17.50	16.50	2.00	1.75	11.00	1.50	54.00	6.00	8.00	9.00 9.00	6.48 6.48	7	18.00 18.00

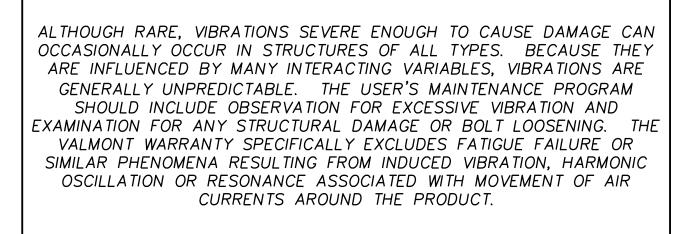
ASTM

**DESIGNATION** 

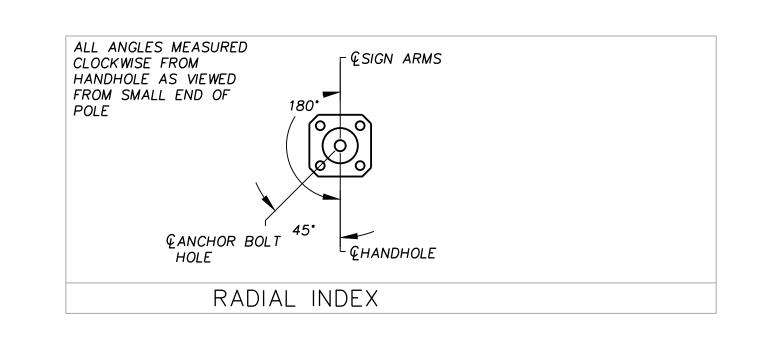
F1554 GR.55

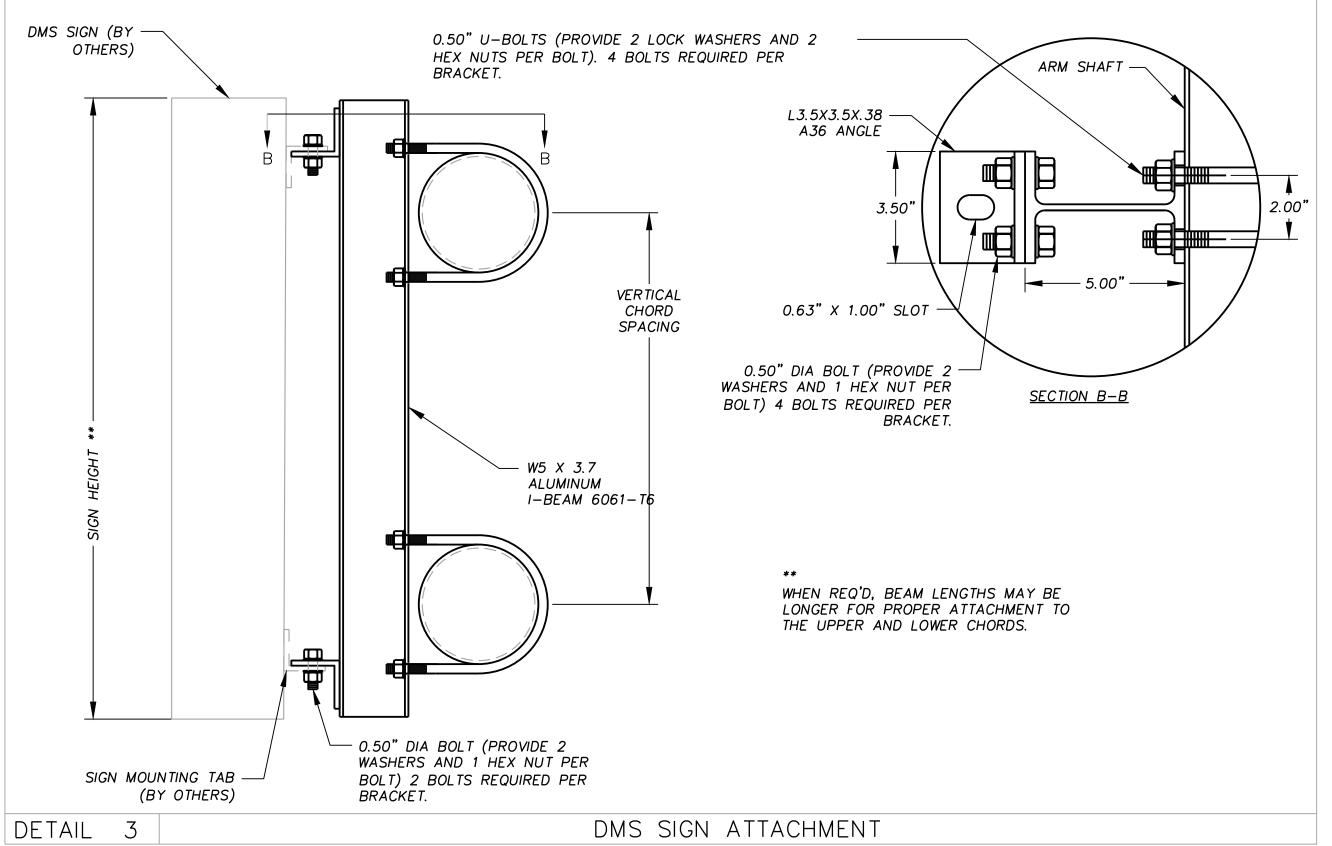
HOT DIP ZINC

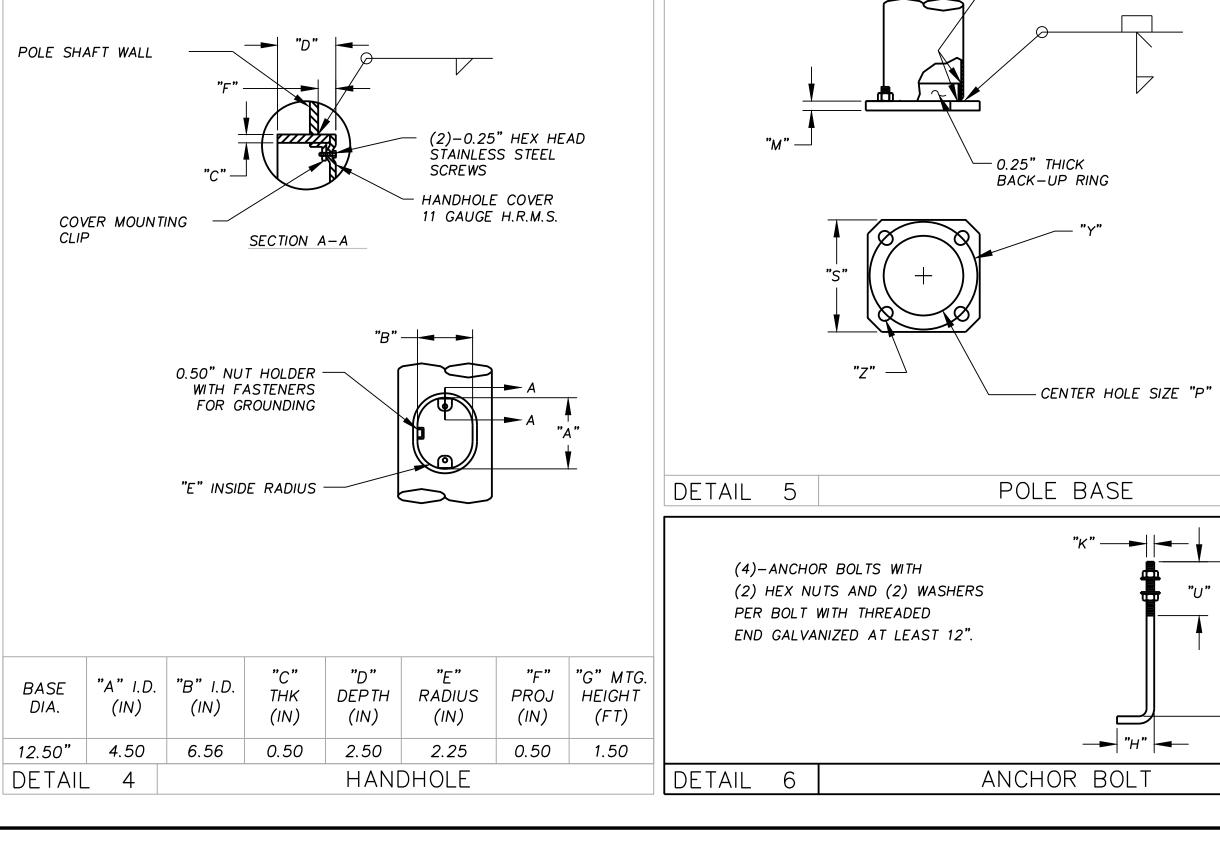
MIN.



VIBRATION DISCLAIMER





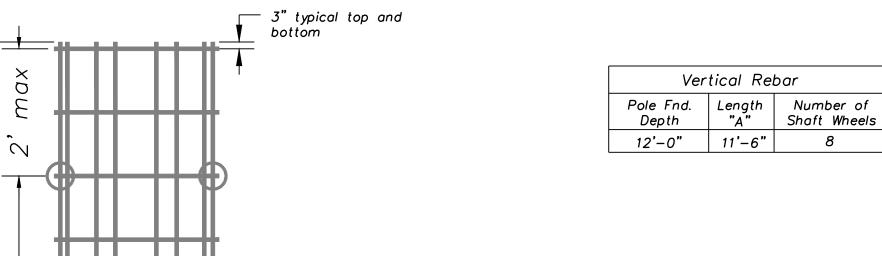


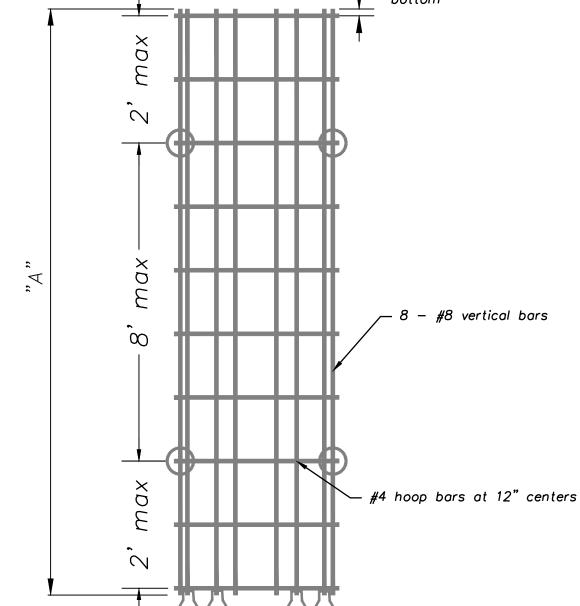
DYNAMIC MESSAGE SIGN TILEVER STRUCTURE DET

"K" — —

OF OVERLAND PARK MENT OF PUBLIC WOF

	ŀ	lorizontal	Rebar
Pole Fnd. Dia.	Pole Fnd Depth	Rebar Cir. "D"	Spacing
36"	12'	30"	12" MAX.





Vertical Steel Support Boots on every other —

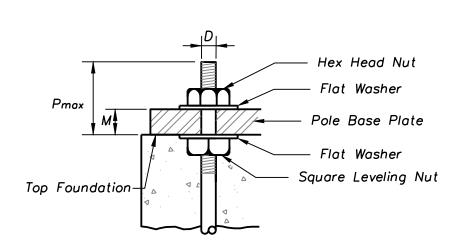
vertical bar (Minimum of 4 Required)

Rebar	Caae	Detail	

Bare No. 6 AWG solid copper ground conductor to chasis ground lug on DMS.
1/2" x No. 6 AWG brazed copper electro—tin plated ring terminals. Connect to ground lug in base of pole.
Bare No. 6 AWG solid copper ground conductor to ground rod.

DMS Grounding Detail

Table 2 Signal Pole Foundations Drilled Shaft Dimensions						
Length of Mast Arm	"D" Diameter	"L" Length				
18'	36"	12'				

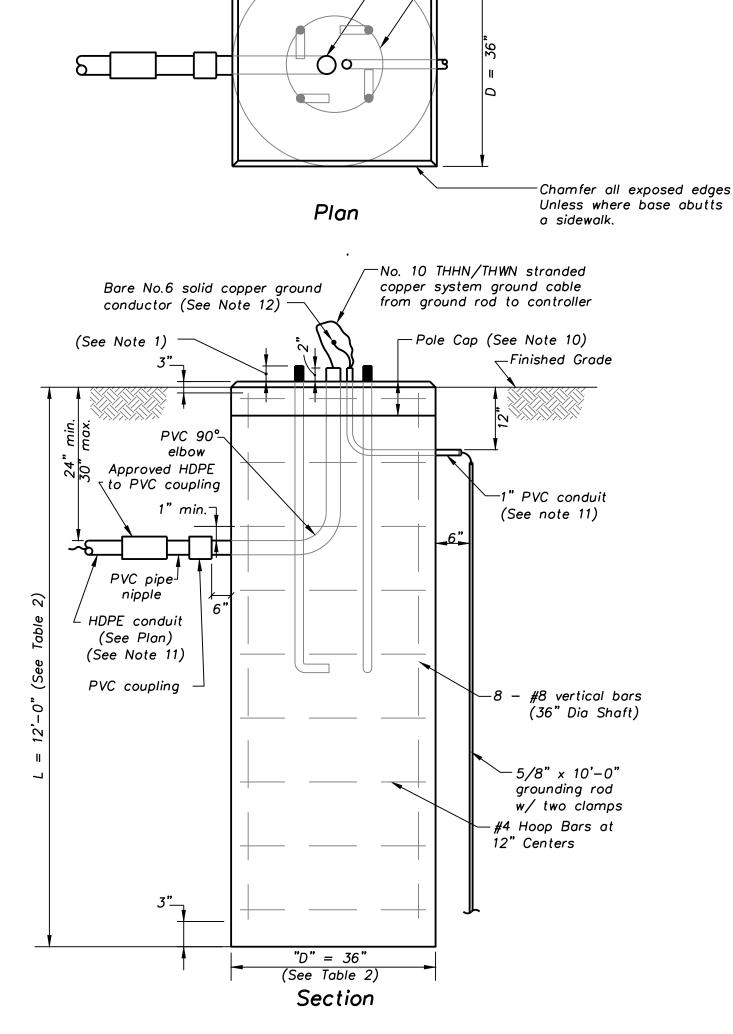


## Anchor Bolt Detail

Table 1	– Anchor Bolt Pr	ojection Dimensions
Bolt Diameter	Plate Thickness "M"	Bolt Projection "P"
1.50"	2.00"	6 ¼" ± ¼"

## Pole Foundation Notes:

- 1. Final pole, anchor bolt size, anchor bolt projection, and bolt circle shall be as per manufacturer's recommended practices (See Table 1). Rotate anchor bolt to maintain minimum clearance from edge of hole. All anchor bolt threads and nut surfaces shall be lubricated prior to tightening with stick wax or approved alternative.
- 2. All conduits and anchor bolts for all the new pole bases shall be rigidly installed before concrete is placed. Anchor bolts shall be spaced by means of a factory certified template or drawing, the center of which shall coincide with the center of the base.
- 3. All concrete used for pole foundataions shall meet the requirements of the Overland Park Municipal Code and shall be KCMMB5K concrete ( $f'_c = 5,000$  psi with a 7" slump). Poles shall not be erected until concrete has reached 3,500 psi.
- 4. Reinforcing steel shall have 60 ksi yield strength and meet ASTM A615 GR60.
- 5. The drilled shaft foundation details presented herein are intended for installation into soil foundations. A special foundation investigation and design shall be conducted for residual soils with an "N" value of 4 or less or characterized as very soft to soft clay.
- 6. These standard designs assume a minimum compactive effort of 90% of Standard or Modified Proctor for cohesive fill material.
- 7. In the event excavation for the drilled shaft encounters sound limestone short of the required length shown in the table of dimensions, the shaft may be shortened to a minimum length of 8 feet with a minimum inclusive rock socket of 3 feet.
- 8. Shale foundation material will be considered as a stiff clay. Drilled shafts in shale must satisfy the dimensions on Table 2.
- 9. All concrete pole bases shall be consolidated by an internal type vibrator.
- 10. Final 6" of concrete foundation (pole cap) shall be formed square. The cap shall be formed and poured after the mast arm is erected and the pole plumb. Final top elevation shall match finished grade.
- 11. PVC conduit elbows in concrete foundations shall be connected to HDPE conduit with PVC pipe nipple and approved PVC to HDPE couplings. all PVC pipe nipples, elbows, and couplings shall be considered subsidiary to the traffic signal pole base.
- 12. Bare No. 6 AWG solid copper ground conductor shall be connected from internal pole grounding nut, with a ring terminal, to the clamp on ground rod. Resistance to ground shall be 10 ohms or less, or additional ground rods shall be installed in an array. The contractor shall test ground resistance in the presence of the inspector.
- 13. Contractor shall use drill shaft wheels and rebar support boots to maintain 3" clearance to shaft wall and shaft bottom, respectively.
- 14. All concrete surfaces should be brushed and sealed with curing compound.
- 15. Contractor shall insure the DMS factory representative shall be on site during installation and testing of the sign. No direct payment will be made for factory representative costs.



- (See Note 2)

Bolt Circle

(See Note 1)

<u>Traffic Signal Pole Foundation</u>

DYNAMIC MESSAGE SIGN ATION & ANCHOR BOLT DET

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