

**UNIFORM STANDARD DRAWINGS  
CLARK COUNTY AREA**

**VOLUME II - YEAR 2006 REVISIONS**

<b>Drawing Number</b>	<b>Title</b>	<b>Nature of Change</b>	<b>Effective Date</b>
404.406B	Type XX-B-30'-0" Signal and Luminaire Pole (65' Thru 85' Mast Arms) (sheet 1 of 3), Type XX-B-30'-0" Signal and Luminaire Pole Details (65' Thru 85' Mast Arms) (sheet 2 of 3), and Loading Information (sheet 3 of 3)	Addition for use with Type M foundations.	01/01/06
404.412	School Sign Pole Type XX-A	Revision to Drawing No. 404.412, "School Sign Pole Type XX-30' " has had its title changed to "School Sign Pole Type XX-A".	01/01/06
404.417	Street Name Sign Internally Illuminated	Revised to change the Gauge of the polycarbonate clear substrate panel from 0.060" to 0.1875"	7/1/2006
404.417A	Alternative Street Name Sign Internally Illuminated (sheet 1 of 3), Alternative Pole Mounted Street Name Sign Internally Illuminated Attachment Detail (sheet 2 of 3), and Alternative Pole Mounted Street Name Sign Internally Illuminated Bracket Detail (sheet 3 of 3)	Addition to allow the use of an alternate flag mount bracket.	01/01/06

LUMINAIRE ARM DATA				
ARM SPAN "L" (FT)	FIXED END DIA. (IN)	FREE END DIA. (IN)	GAUGE	LUMINAIRE MOUNTING HEIGHT
6	3.42	2.38	11	32'-0"
8	3.75	2.38	11	33'-3"
10	4.16	2.38	11	35'-0"
12	4.62	2.38	11	36'-6"
15	4.85	2.38	11	37'-0"

LUMINAIRE MOUNTING HEIGHT MEASURED TO CENTER OF END OF MAST ARM

11 GA. ROUND TAPERED ARM

REMOVABLE POLE TOP

PROVIDE WIRE GUIDE INTO SHAFT SEE SHEET 2 THIS DRAWING NO.

REMOVABLE ARM END CAP

LENGTH "L" SEE SIGNAL PLANS OR CONTRACT

LENGTH "T" SEE SIGNAL PLANS OR CONTRACT

TAPERED MAST ARM

LENGTH "T2" SEE SIGNAL PLANS OR CONTRACT

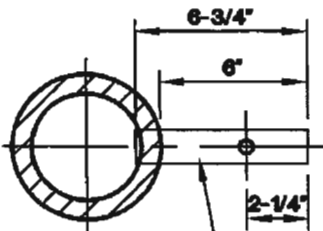
6" X 9" (INSIDE DIM)

HANDHOLE

6" MFG. RISE

TENON LOCATIONS SHALL BE REFERRED TO THE LOADING INFORMATION STANDARD DRAWING 404.406B SHT 3 OF 3

PROVIDE WIRE GUIDE INTO SHAFT. SEE SHEET 2 THIS DRAWING NO.



2" SCH 40 PIPE TENON WITH 7/16" THRU HOLE FOR ELEVATOR PLUMBER

DETAIL A-A

**NOTES:**

1. LOW BIDDER MUST SUPPLY SHOP DRAWING FOR DESIGN APPROVAL BEFORE CONTRACT CAN BE AWARDED.
2. ALL POLES TO BE HOT-DIP GALVANIZED BY MANUFACTURER OR PRIME PAINTED BY MANUFACTURER AND FINISH PAINTED BY CONTRACTOR PER SPECIFICATIONS AND AS REQUIRED BY THE ENTITY.
3. HANDHOLE COVERS SHALL BE ATTACHED VIA TWO SCREWS INTO PLATES MOUNTED INSIDE THE HANDHOLE.
4. PEDESTRIAN PUSH BUTTON SHALL NOT BE LOCATED MORE THAN 24" FROM THE BACK OF WALK. IF DISTANCE FROM BACK OF WALK TO PUSH BUTTON IS 20" TO 24", THE BUTTON SHALL BE LOCATED A MAXIMUM OF 42" FROM THE SURFACE OF THE WALK.
5. WHERE SIGNALS AND STANDARDS ARE INSTALLED BELOW OVERHEAD POWER LINES, CLEARANCES SHALL BE PER NATIONAL ELECTRIC SAFETY CODE SECTION 234 REQUIREMENTS. INSTALLATION OF STRAIGHT ARM STREETLIGHT ASSEMBLIES WHERE ADDITIONAL CLEARANCE IS REQUIRED SHALL BE APPROVED BY THE ENGINEER.
6. IF DUAL LUMINAIRE ARMS ARE NOT SPECIFIED IN THE PLANS, THE SECOND CONNECTION POINT SHALL BE COVERED BY A COVER PLATE UNTIL SUCH TIME AS A SECOND ARM MIGHT BE ADDED.

POLES DESIGNED PER SPECIFICATION OF A.A.S.H.T.O. (1994 EDITION) 80 MPH WINDS. (SEE DRAWING NO. 404.406B SHEET 3 OF 3 FOR LOADING INFORMATION)

FOR "M" TYPE FOUNDATION SEE DRAWING NO. 404.210

6" X 9" (INSIDE DIM) HANDHOLE AND COVER

BASE COVER

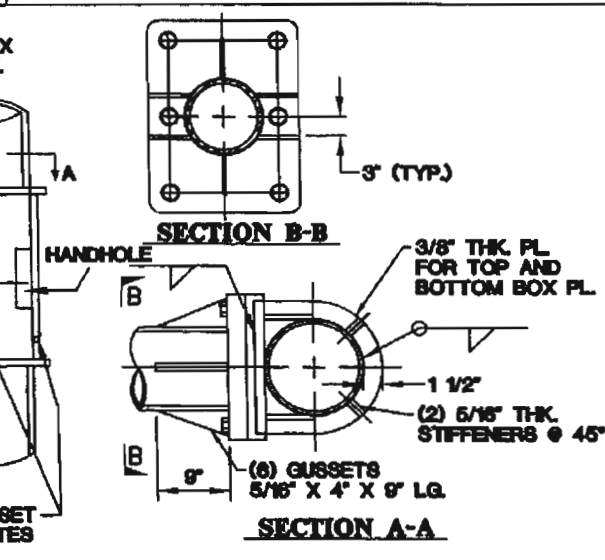
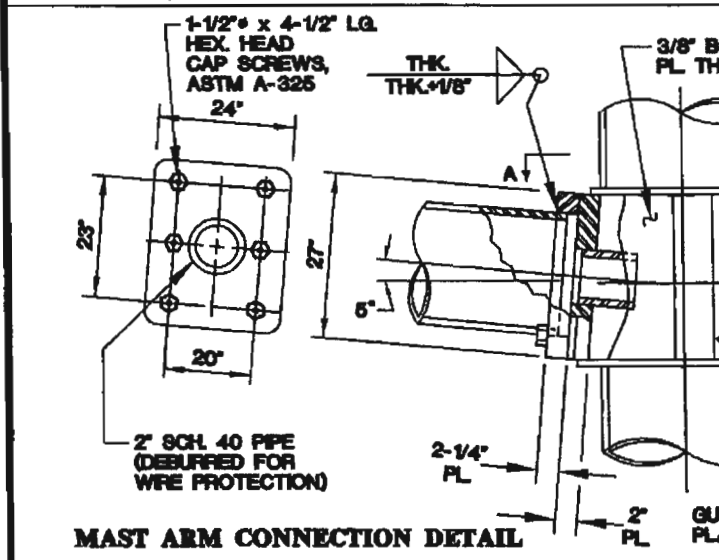
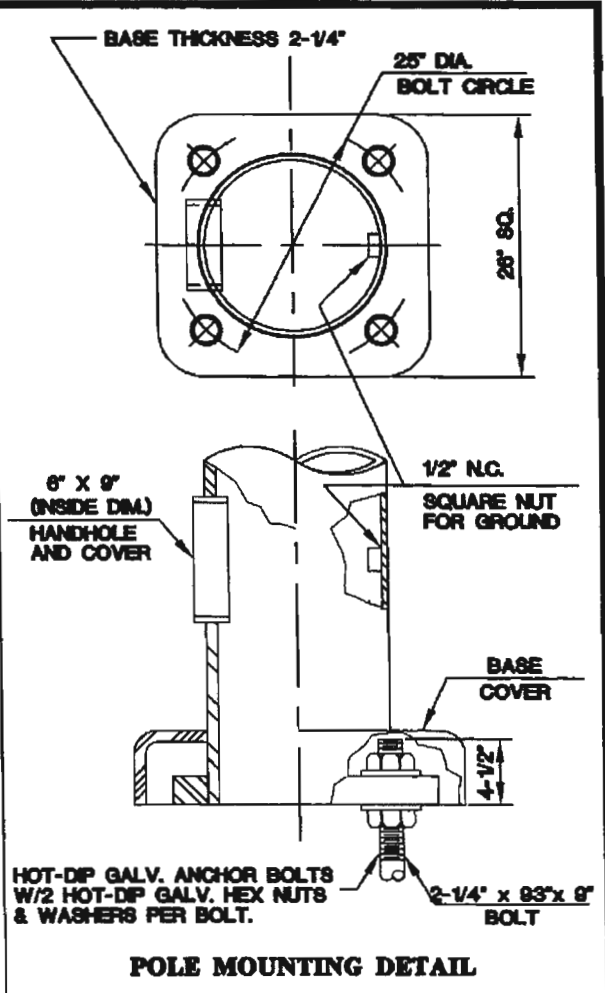
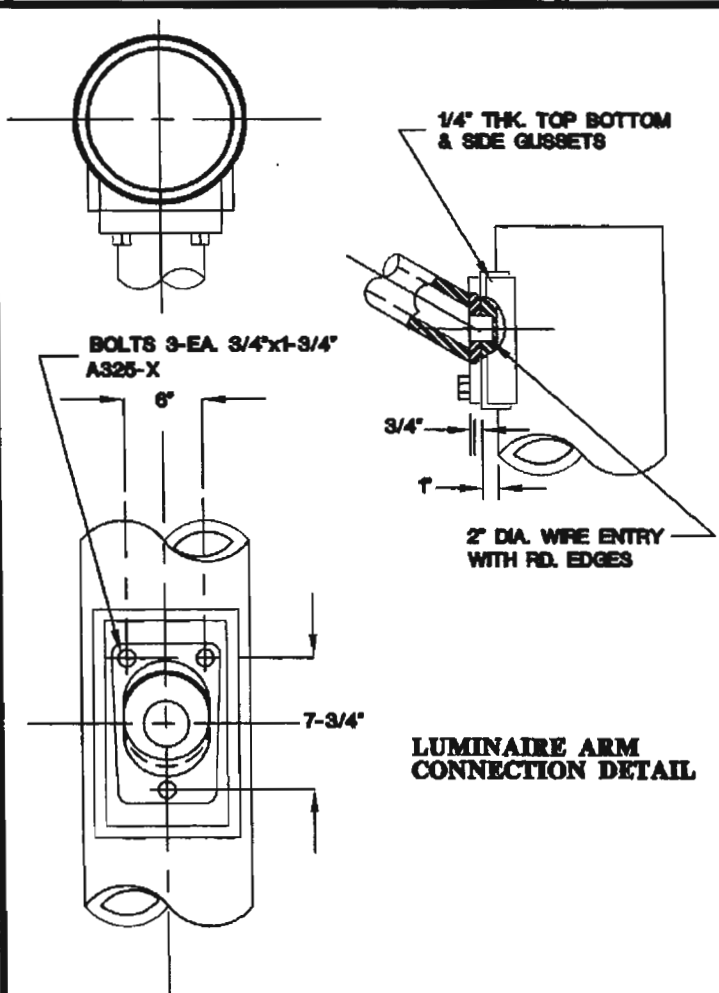
16'-6"

30' ROUND TAPERED STEEL SHAFT

**SPECIFICATION REFERENCE**

**UNIFORM STANDARD DRAWINGS  
CLARK COUNTY AREA**

**TYPE XX - B - 30'-0"  
SIGNAL & LUMINAIRE POLE  
(65' THRU 85' MAST ARMS)**



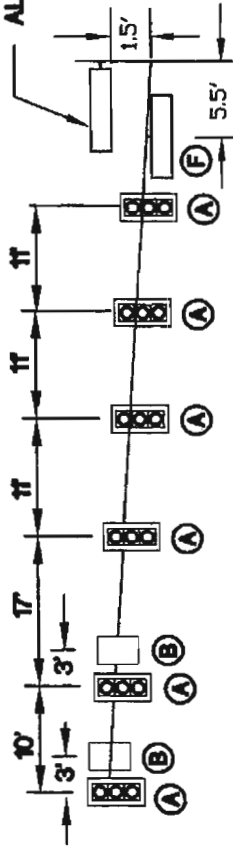
SPECIFICATION REFERENCE	

**UNIFORM STANDARD DRAWINGS  
CLARK COUNTY AREA**

**TYPE XX - B - 30'-0"  
(65' THRU 85' MAST ARMS)  
SIGNAL & LUMINAIRE POLE DETAILS**

DATE 11/10/05 DWG. NO. 404.406B SHEET 2 OF 3

ALTERNATE SIGN INSTALLATION  
65' THRU 85'  
SPANS  
ALTERNATE LOADING



**NOTE:**  
TYPE XX-B POLE  
SHALL ALSO SUPPORT  
THE ALTERNATE LOADING  
SHOWN ABOVE

MAX. 85' SPAN

TYPE XX-B

**DESIGN CRITERIA:**

AASHTO STANDARD SPECIFICATIONS (1994 EDITION) FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS.

DESIGN MINIMUM YIELD STRENGTH FOR TUBULAR MEMBERS SHALL BE LIMITED TO 48,000 PSI FOR COLD WORKED MATERIALS AND 60,000 PSI FOR NON-COLD WORKED MATERIALS.

WIND VELOCITY:

80 MPH ISOTACH.

DEVICE	DESCRIPTION	PROJ. AREA (FT <sup>2</sup> )	WEIGHT (LBS)
(A) SIGNAL	12"- 3 SEC. W/ BACKPLATES (M-2)	9.80	40
(B) SIGN	R3-5 24" X 30"	5.00	15
(C) SIGN	R3-4 24" X 24"	4.00	10
(D) SIGNAL	12"- 5 SEC. W/ BACKPLATES	13.68	80
(E) SIGN	R10-5(8) 24" X 36"	6.00	15
(F) SIGN	STREET NAME-FREE SWINGING-168" X 6"	13.44	100
(G) SIGNAL	DUAL-12"- 3 SEC. W/ BACKPLATES	17.94	80
(H) SIGNAL	DUAL-PEDESTRIAN	8.00	60

**LOADING INFORMATION**

**SPECIFICATION REFERENCE**

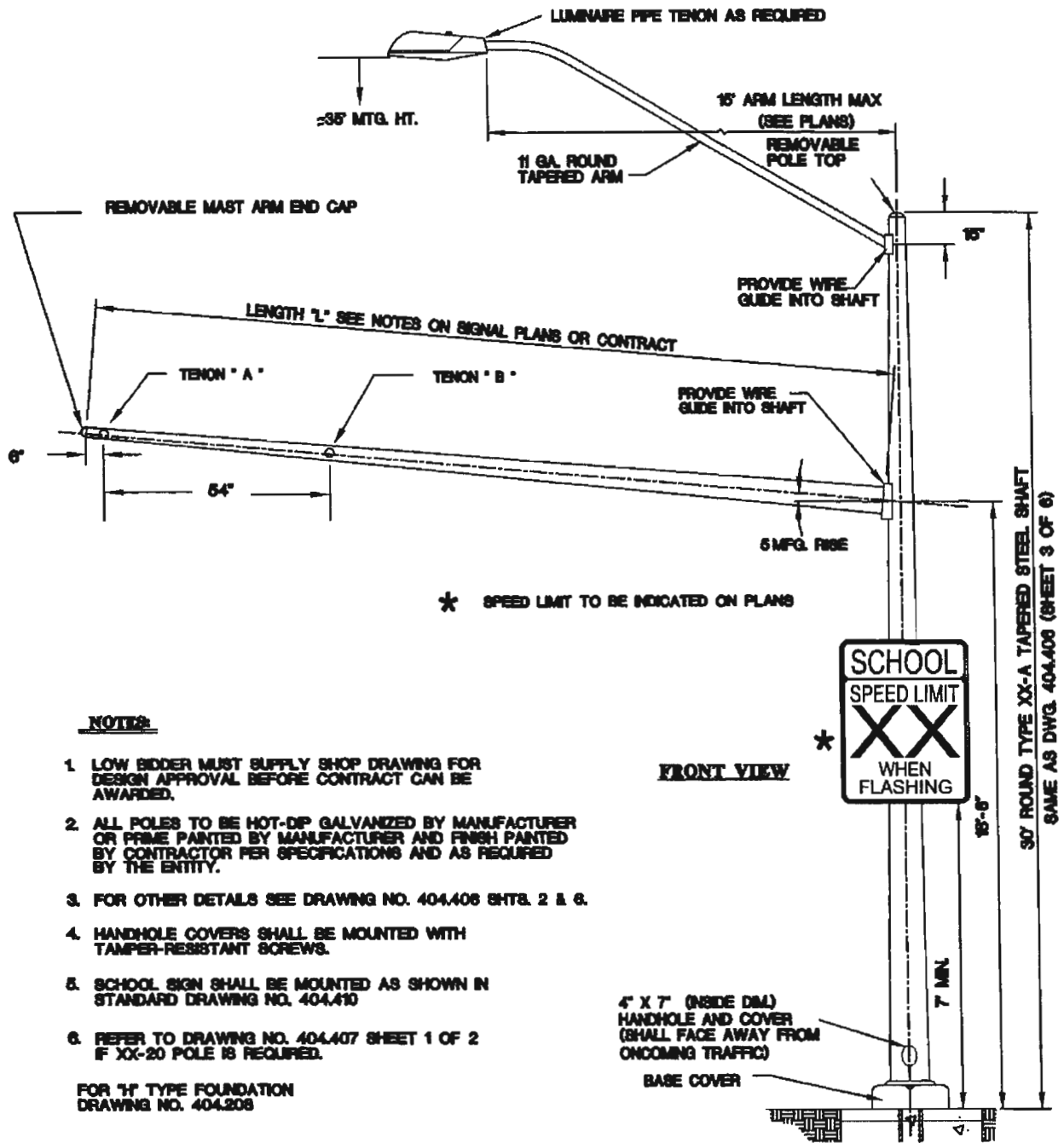
**UNIFORM STANDARD DRAWINGS  
CLARK COUNTY AREA**

**LOADING INFORMATION**

DATE 11/10/05

DWG. NO. 404.408B

SHEET 3 OF 3



**NOTES:**

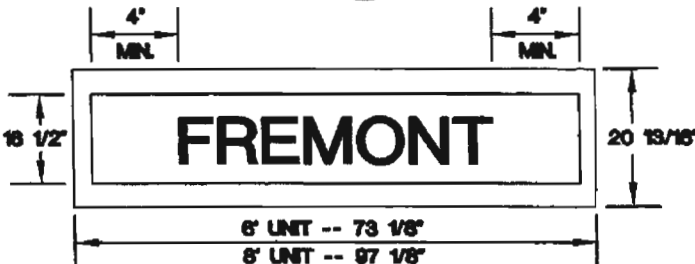
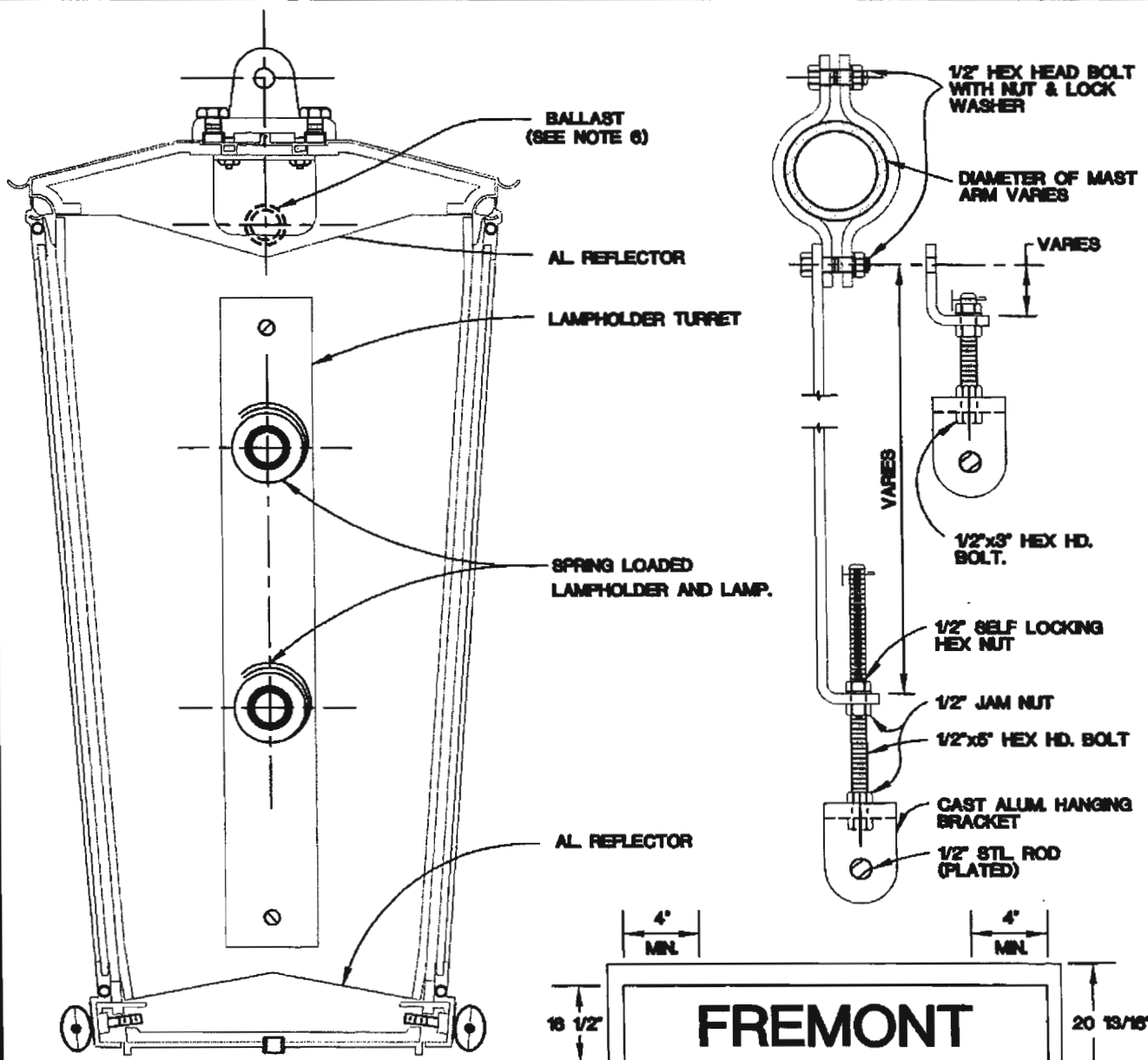
1. LOW BIDDER MUST SUPPLY SHOP DRAWING FOR DESIGN APPROVAL BEFORE CONTRACT CAN BE AWARDED.
2. ALL POLES TO BE HOT-DIP GALVANIZED BY MANUFACTURER OR PRIME PAINTED BY MANUFACTURER AND FINISH PAINTED BY CONTRACTOR PER SPECIFICATIONS AND AS REQUIRED BY THE ENTITY.
3. FOR OTHER DETAILS SEE DRAWING NO. 404.408 SHTS. 2 & 6.
4. HANDHOLE COVERS SHALL BE MOUNTED WITH TAMPER-RESISTANT SCREWS.
5. SCHOOL SIGN SHALL BE MOUNTED AS SHOWN IN STANDARD DRAWING NO. 404.410
6. REFER TO DRAWING NO. 404.407 SHEET 1 OF 2 IF XX-20 POLE IS REQUIRED.

FOR "L" TYPE FOUNDATION  
DRAWING NO. 404.208

IN THE CITY OF NORTH LAS VEGAS, USE ONLY XX-A POLE DWG. 404.408 SHT 3 & 6  
FOR "L" FOUNDATION SEE DWG. 404.209

SPECIFICATION REFERENCE	

<b>CLARK COUNTY AREA</b>		
<b>SCHOOL SIGN POLE TYPE XX-A</b>		
DATE 08/11/05	DWG. NO. 404.412	SHEET 1 OF 1



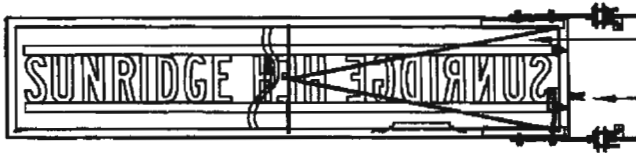
**NOTES:**

1. SIGN SHALL BE DOUBLE FACED.
2. SIGN PANEL SHALL BE WHITE WIDE-ANGLE PRISMATIC TRANSLUCENT CLASS 6 REFLECTIVE SHEETING, EITHER REVERSE-SCREENED WITH MANUFACTURER'S RECOMMENDED GREEN INK AND CLEAR COATING OR OVERLAYED WITH GREEN ELECTRONIC CUTABLE TRANSPARENT OVERLAY FILM, APPLIED TO A POLYCARBONATE CLEAR SUBSTRATE, 0.1875" GAGE.
3. LETTERS SHALL BE 8" SERIES E AND, UNLESS OTHERWISE SPECIFIED BY THE TRAFFIC ENGINEER, SHALL BE ALL UPPERCASE WITH NO STREET NAME SUFFIX. IF NECESSARY TO MAKE SPACING FIT, REDUCE TO 8" SERIES D. SPACING BETWEEN LETTERS MAY BE INCREASED BY UP TO 25% (MAX) TO ACHIEVE 4" END SPACES.
4. APPROVAL OF SHOP DRAWING OF SIGNFACE LAYOUT BY TRAFFIC ENGINEER IS REQUIRED PRIOR TO FABRICATION OF SIGN PANELS.
5. SHEETING SHALL BE APPLIED IN A VERTICAL ORIENTATION IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION.
6. ADVANCE BALLAST RSM1768TP FOR EACH FLUORESCENT TUBE IS REQUIRED AND NO SUBSTITUTES.

<b>SPECIFICATION REFERENCE</b>	<b>UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA</b>		
	<b>STREET NAME SIGN INTERNALLY ILLUMINATED</b>		
	DATE 3-9-08	DWG. NO. 404.47	SHEET 1 OF 1



FLAG MOUNT BRACKET



3/8" SUPPORT RODS TO PREVENT VERTICAL SAG OF CABINET

HAND-BOX FOR INCOMING PRIMARY

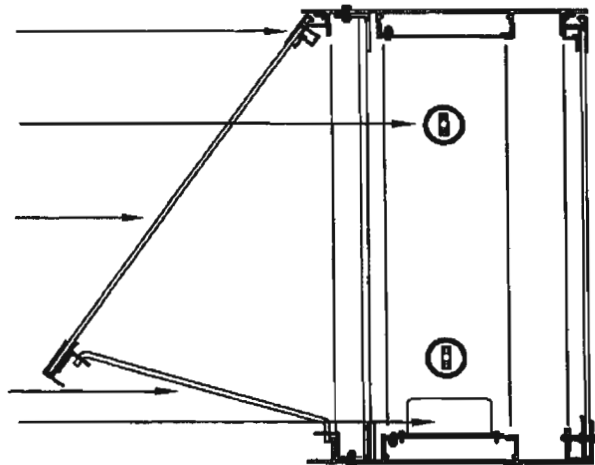


STD. 12" EXTRUSION WITH 1-1/2" TOP HINGE RETAINER SYSTEM

STD. 8'-0" CWHO LAMPS ON 10" CENTERS HORIZONTALLY

WHITE POLYCARBONATE FACE

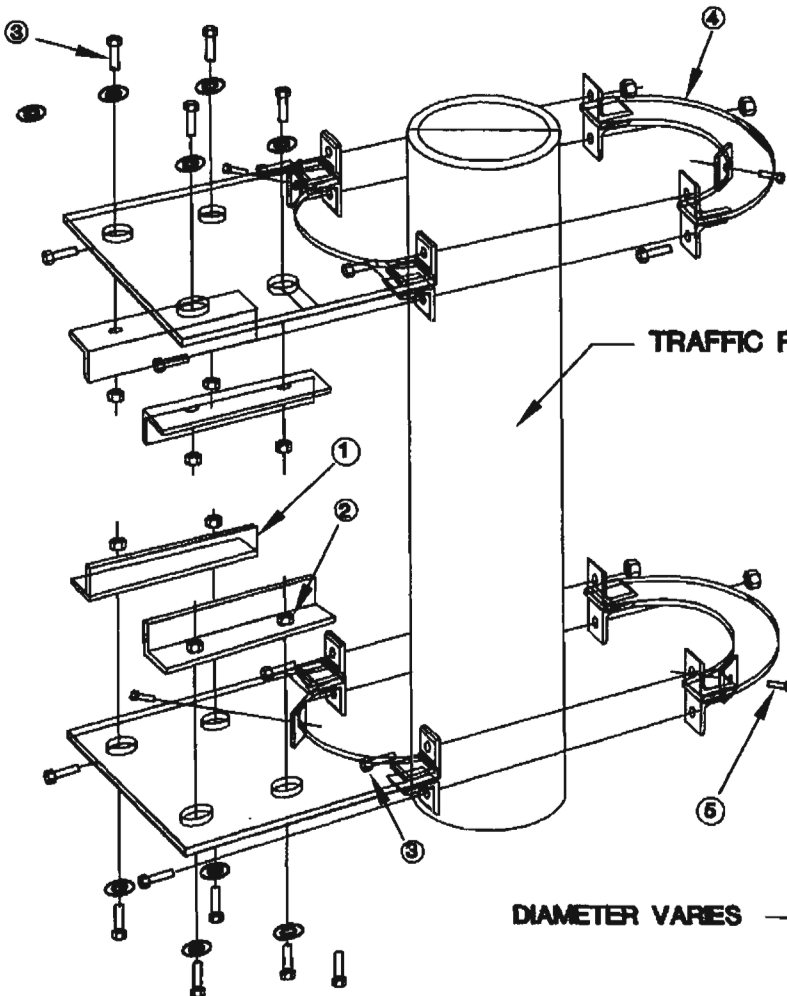
ALUMINUM PROP ROD FOR SERVICE BALLAST ATTACHED TO EXTRUDED WIREWAY



**NOTES:**

1. SIGN SHALL BE DOUBLE FACED.
2. ALUMINUM EXTRUSION CABINET 12" DEEP - MILL FINISH WITH ALL ALUMINUM INTERNAL STRUCTURE.
3. TOP-HINGED RETAINER SYSTEM WITH PROP ROD FOR ACCESS AND SERVICE.
4. T12 800MA CWHO FLUORESCENT ILLUMINATION INTERNALLY.
5. SIGN PANEL SHALL BE WHITE WIDE-ANGLE PRISMATIC TRANSLUCENT REFLECTIVE SHEETING, EITHER REVERSE-SCREENED WITH MANUFACTURER'S RECOMMENDED GREEN INK AND CLEAR COATING OR OVERLAYS WITH GREEN ELECTRONIC CUTTABLE TRANSPARENT OVERLAY FILM, APPLIED TO A POLYCARBONATE CLEAR SUBSTRATE, 0.177" THICK.
6. LETTERS SHALL BE 6" SERIES E AND UNLESS OTHERWISE SPECIFIED BY THE TRAFFIC ENGINEER, SHALL BE ALL UPPERCASE WITH NO STREET NAME SUFFIX. IF NECESSARY TO MAKE SPACING FIT, REDUCE TO 6" SERIES D. SPACING BETWEEN LETTERS MAY BE INCREASED BY UP TO 25% (MAX) TO ACHIEVE 4" END SPACES.
7. STEEL BRACKETS SHALL BE USED FOR FLAG MOUNT POLE ATTACHMENT.
8. THE USE OF THE POLE MOUNTED STREET NAME SIGN SHALL BE APPROVED BY THE ENTITY ENGINEER.

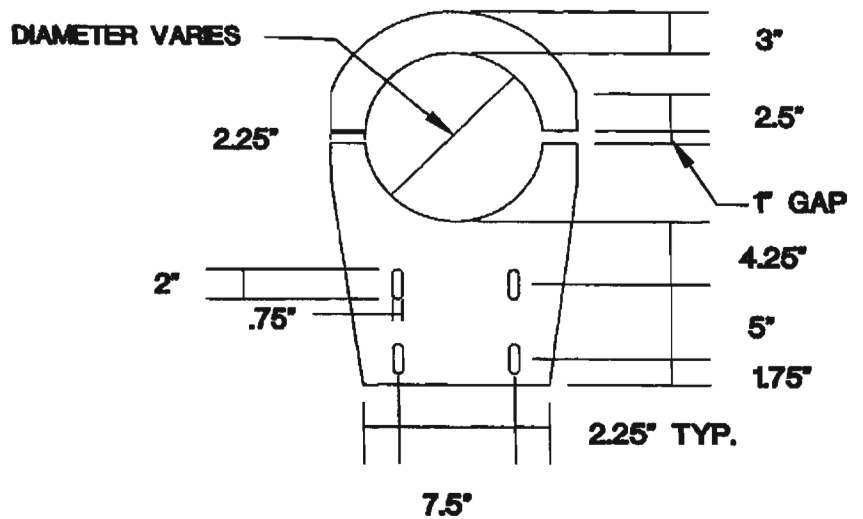
<b>SPECIFICATION REFERENCE</b>	<b>UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA</b>	
	<b>ALTERNATIVE POLE MOUNTED STREET NAME SIGN INTERNALLY ILLUMINATED</b>	
	DATE 11/10/05	DWG. NO. 404.417A
	SHEET 1 OF 3	



**FLAG MOUNT ATTACHMENT DETAIL  
NOT TO SCALE**

- ① ALUMINUM ANGLE WELDED TO INSIDE OF EXTRUDED CABINET
- ② NUTS WELDED TO ANGLE
- ③ 1/2" X 1 1/2" BOLTS
- ④ BRACKET FABRICATED FROM 3/8" PLATE STEEL
- ⑤ 5/16" SET SCREWS INTO POLE

**BRACKET DETAIL  
NOT TO SCALE**

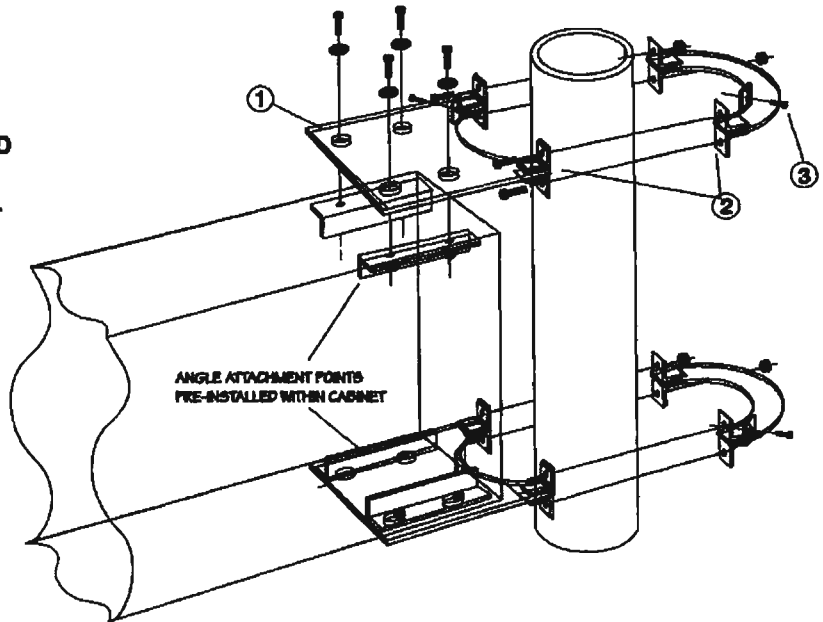


SPECIFICATION REFERENCE	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
	ALTERNATIVE POLE MOUNTED STREET NAME SIGN INTERNALLY ILLUMINATED ATTACHMENT DETAIL		
	DATE 11/10/05	DWG. NO. 404.417A	SHT 2 OF 3



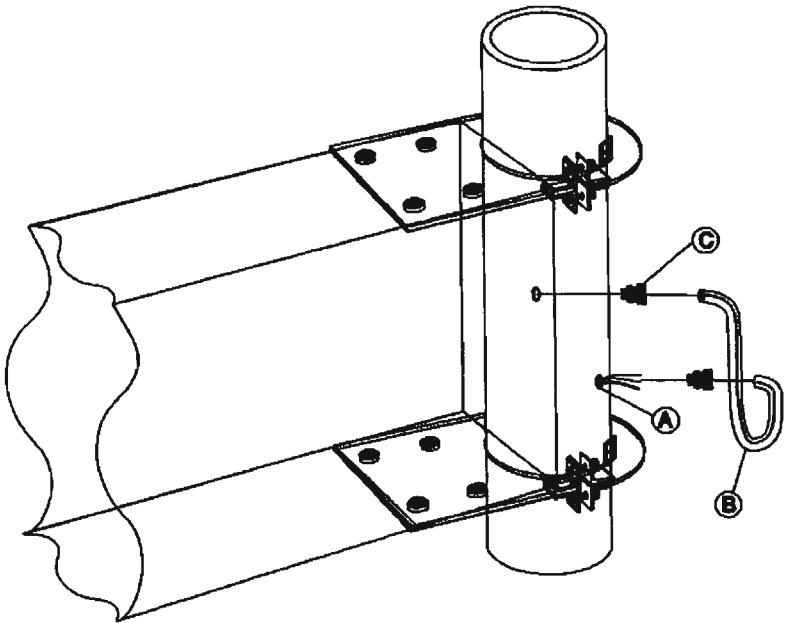
**INSTALLATION INSTRUCTIONS**

- \* ATTACH BRACKETS ① TO CABINET END AT TOP AND BOTTOM WITH BOLTS PROVIDED LOOSELY TIGHTEN BOLTS (SNUG).
- \* LIFT CABINET WITH BRACKETS TO POLE AT FINISHED HEIGHT USING A NYLON LIFTING STRAP NEAR THE BRACKETS (WHERE BALANCED).
- \* ATTACH BRACKET HALVES ② TOGETHER AROUND POLE WITH PROVIDED HARDWARE AS SHOWN.
- \* MOVE LIFTING STRAP TO CENTER OF CABINET & LEVEL THEN TIGHTEN BOLTS INTO CABINET.
- \* ATTACH SET SCREWS ③ THROUGH BRACKET INTO POLE AS SHOWN.
- \* HOOK UP ELECTRICAL CONNECTION (SEE PAGE 2 FOR AN EXAMPLE)



**WIRING RECOMMENDATIONS**

- \* LOCATE & DRILL A 3/4" DIA. HOLE ① THRU POLE. THREAD HOLE WITH 1/2" PIPE THREAD TAP.
- \* PULL WIRES FROM GROUND THRU TAPPED HOLE GUIDE WIRES TO AVOID SCRAPING INSULATION.
- \* ASSEMBLE LIQUID TIGHT 1/2" CONDUIT ② & FITTINGS ③ TO CONNECT POLE TO CABINET.
- \* FEED WIRES THRU CONDUIT & INTO CABINET, USE A 2 X 4 HANDY BOX INSIDE OF CABINET TO FACILITATE WIRE PULLING.
- \* AFTER FEEDING WIRES, THEN THREAD FITTINGS INTO THREADED HOLE IN POLE & CABINET.
- \* WIRE BALLAST INSIDE CABINET AS REQ'D.



NOTE: THE STREET NAME SIGN SHALL BE MOUNTED 16" ABOVE THE MAST ARM

<b>SPECIFICATION REFERENCE</b>	<b>UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA</b>		
	<b>ALTERNATIVE POLE MOUNTED STREET NAME SIGN INTERNALLY ILLUMINATED BRACKET DETAIL</b>		
	DATE 11/10/05	DWG. NO. 404.417A	SHEET 3 OF 3