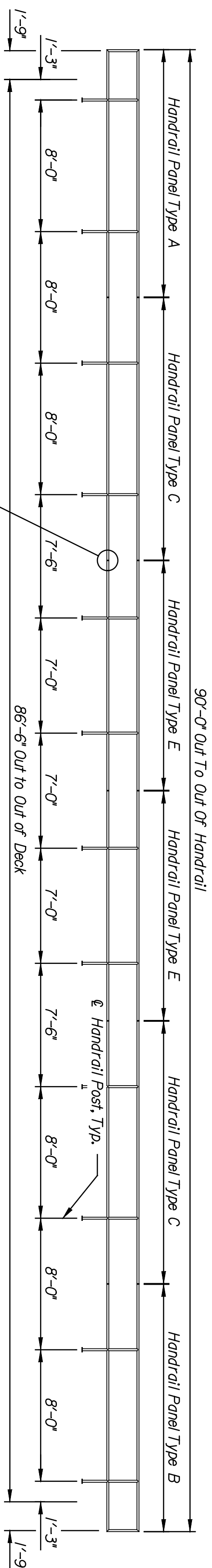
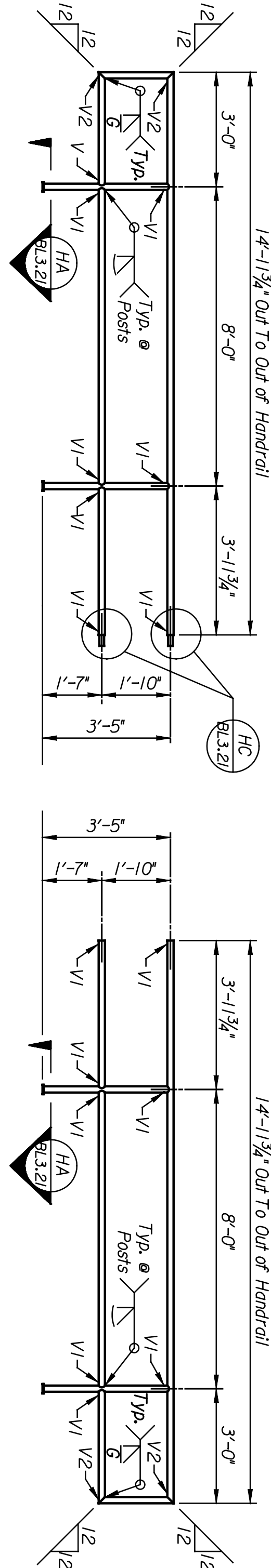


DATE	BY

Plotted on: 04-JAN-2005 12:03  
 Plot Queue: \$queue\$  
 Plot Scale: \$scale\$ Pen Table: \$pentables\$  
 Design Filename: k:\b29049\brldgesDec2004\Ballard Lighting Alternate\murdock\drawings\m20.dgn.

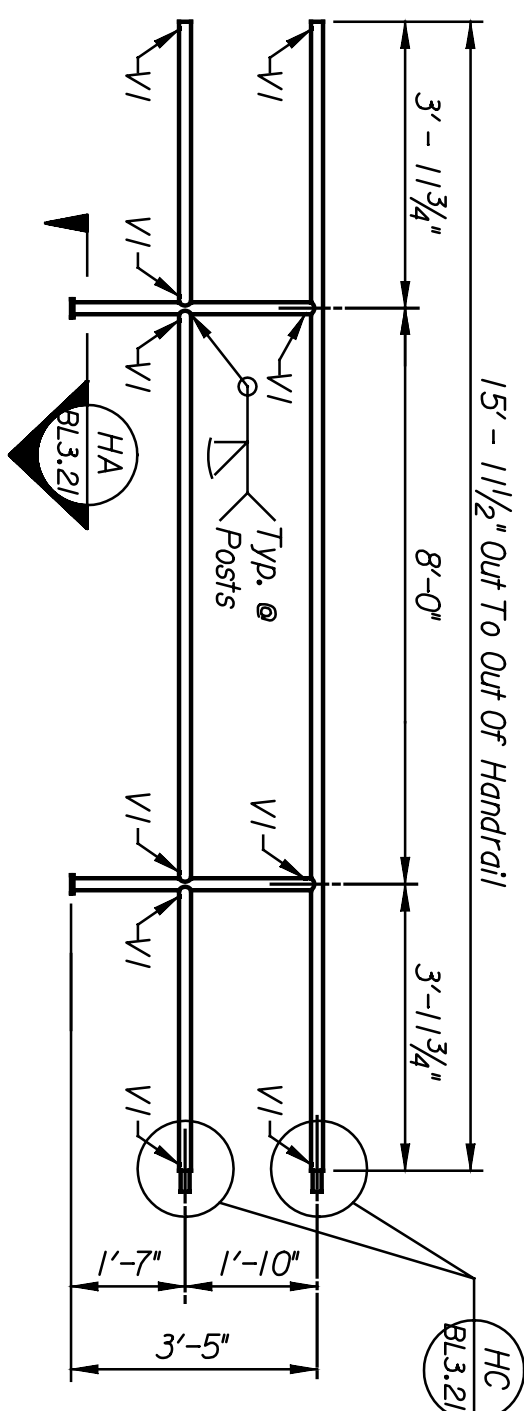


**HANDRAIL ELEVATION (TYPE 2)**  
 Scale:  $\frac{3}{16}'' = 1'-0''$

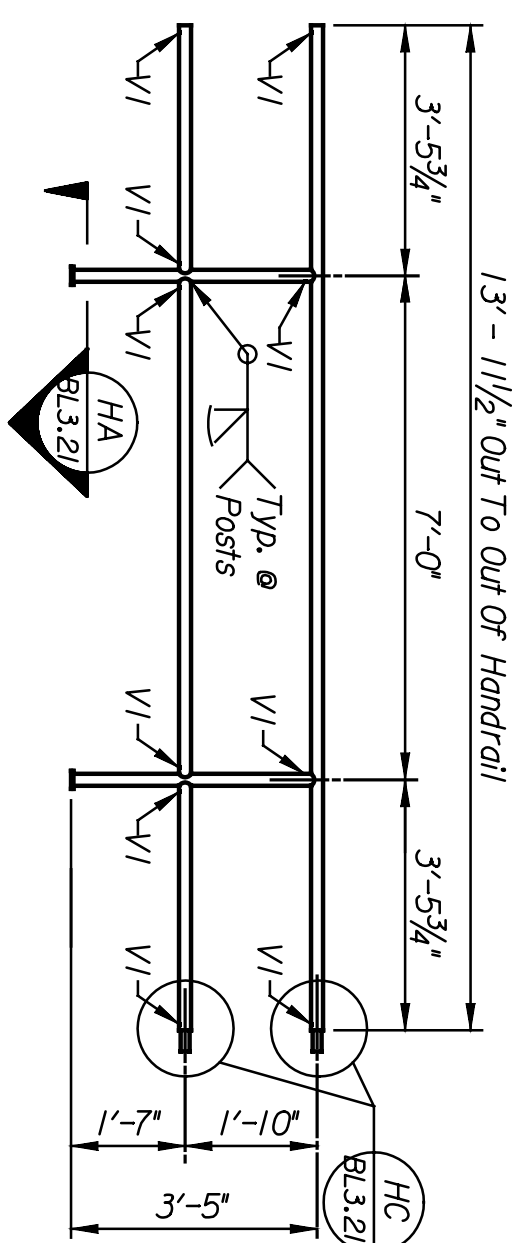


**HANDRAIL PANEL TYPE A**  
 No. Required = 1  
 Weight = 105 Lbs. Each  
 Handrail Panels are to be fabricated using  
 1/2" Dia. std. Black Pipe.  
 (Galvanize after fabrication)  
 Scale:  $\frac{3}{8}'' = 1'-0''$

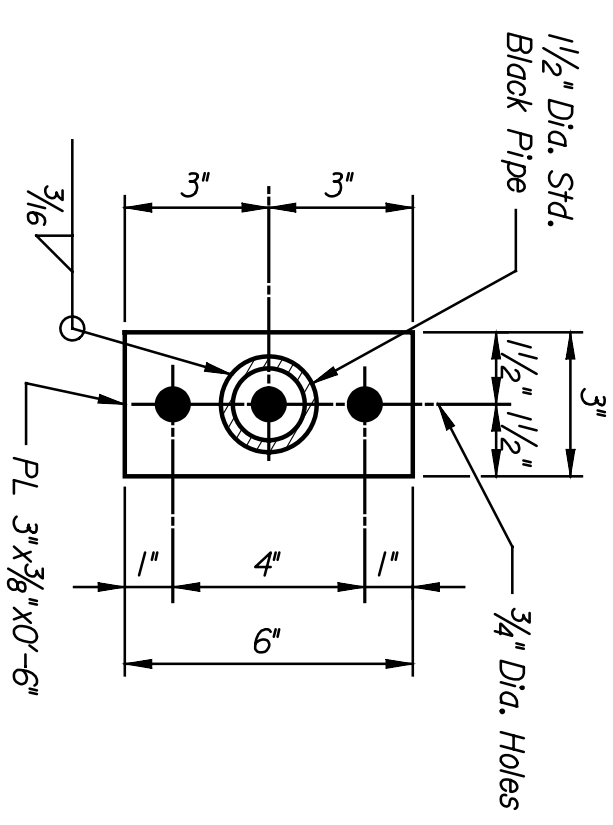
**HANDRAIL PANEL TYPE B**  
 No. Required = 1  
 Weight = 105 Lbs. Each  
 Handrail Panels are to be fabricated using  
 1/2" Dia. std. Black Pipe.  
 (Galvanize after fabrication)  
 Scale:  $\frac{3}{8}'' = 1'-0''$



**HANDRAIL PANEL TYPE C**  
 No. Required = 2  
 Weight = 106 Lbs. Each  
 Handrail Panels are to be fabricated using  
 1/2" Dia. std. Black Pipe.  
 (Galvanize after fabrication)  
 Scale:  $\frac{3}{8}'' = 1'-0''$



**HANDRAIL PANEL TYPE E**  
 No. Required = 2  
 Weight = 96 Lbs. Each  
 Handrail Panels are to be fabricated using  
 1/2" Dia. std. Black Pipe.  
 (Galvanize after fabrication)  
 Scale:  $\frac{3}{8}'' = 1'-0''$

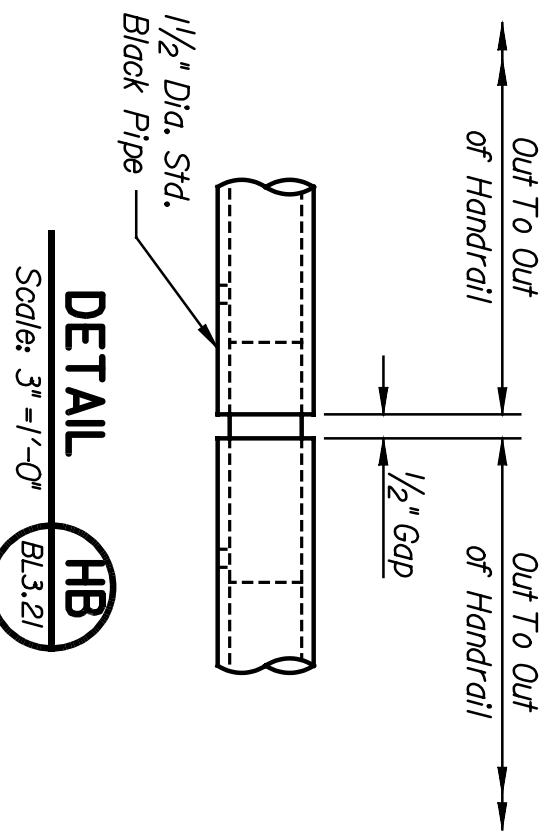


**SECTION HA**  
 Scale:  $3'' = 1'-0''$   
 (BL3.21)

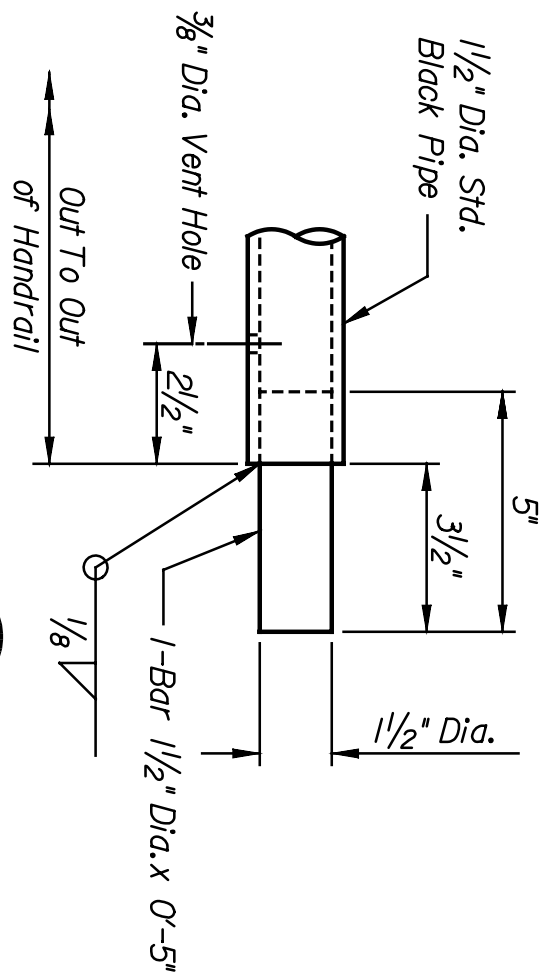
This sheet designed by:



ARCHITECTS ENGINEERS PLANNERS



**DETAIL HB**  
 Scale:  $3'' = 1'-0''$   
 (BL3.21)



**DETAIL HC**  
 Scale:  $3'' = 1'-0''$   
 (BL3.21)

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-84071	2005	BL3.21	

**NOTES:**

- Welding shall conform to the AREMA Manual for Railway Engineering and the Bridge Welding Code, AWS D1.5M/D1.5.
- All weld metal shall be equivalent to the base metal in strength, corrosion resistance and painted appearance.
- All pipe welds shall be made with the MIG process.
- All steel pipes shall be uncoated and conform to ASTM A53.
- All structural steel shall conform to ASTM A36 or A709, Gr 50.
- Handrails, hardware and appurtenances shall be galvanized in accordance with ASTM A123 or A153 after fabrication.
- After galvanizing, all elements shall be free of fins, abrasions, rough or sharp edges and other surface defects.

LOCATION: RMSF BR 2115	SCALE: AS NOTED	APPROVED:	DATE:
WICHITA, KS	LINE SEGMENT 7400		
<b>CITY OF WICHITA</b>			
<b>WICHITA CENTRAL CORRIDOR</b>			
<b>ALTERNATE 5</b>			
<b>MURDOCK</b>			
<b>BRIDGE HANDRAIL (TYPE 2)</b>			
SHEET NO.	OF	SCALE	AS NOTED
DESIGNED BY: GAB	DATE: 01/04/05	QUANTITIES: DJL	TRACED: DJL
DRAWN BY: SALS	DATE: 01/04/05	CHECKED: DJM	TRACED: DJM