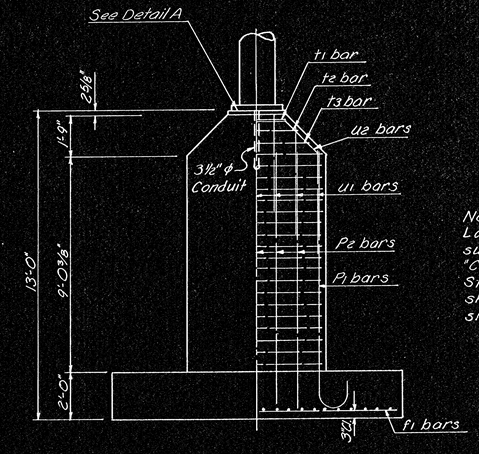
FHWA REGION NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	(BC)96-87-K044-1(28)	1978	115	143

Footing Cantilever Design No.	DIMENSIONS Lf	DIMENSIONS Wf	14 P1 bars Size	14 P1 bars Lgth.	10 P2 bars Size	10 P2 bars Lgth.	7 u1 bars Size	7 u1 bars Lgth.	7 u2 bars Size	7 u2 bars Lgth.	44 f1 bars Size	44 f1 bars Lgth.	1 t1 bar Size	1 t1 bar Lgth.	1 t2 bar Size	1 t2 bar Lgth.	1 t3 bar Size	1 t3 bar Lgth.	18 t4 bars Size	18 t4 bars Lgth.	Class AAA Concrete	Reinforcing Steel	Excavation
1 & 2	10'-3"	10'-3"	#8	11'-8"	#8	11'-8"	#8	13'-9"	#8	15'-1"	#5	9'-9"	#4	12'-6"	#4	15'-6"	#4	18'-6"	#4	21'-6"	14.7 Cu. Yds.	2025 lbs.	83 Cu. Yds.
3 & 4	11'-9"	11'-9"	#10	12'-2"	#9	12'-0"	#10	13'-9"	#10	15'-1"	#6	11'-3"	#4	12'-6"	#4	15'-6"	#4	18'-6"	#4	21'-6"	17.1 Cu. Yds.	3045 lbs.	101 Cu. Yds.
5, 6, & 7	12'-6"	12'-6"	#11	12'-4"	#10	12'-2"	#11	13'-9"	#11	15'-1"	#7	12'-0"	#5	12'-6"	#5	15'-6"	#5	18'-6"	#5	21'-6"	18.5 Cu. Yds.	4045 lbs.	111 Cu. Yds.

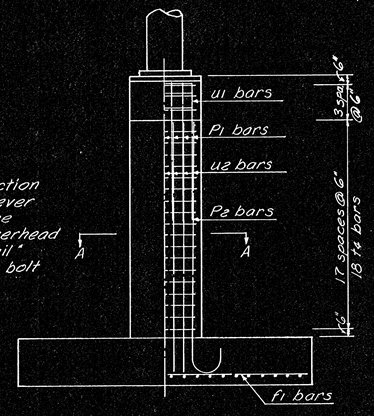
BILL OF REINFORCING

Note: Quantites shown are for estimating purposes only. The excavation is an approximation based on loose material.

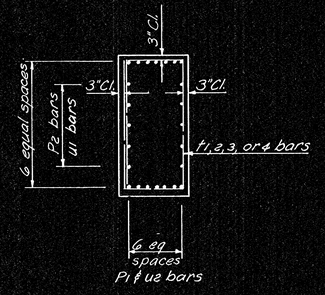


SIDE ELEVATION

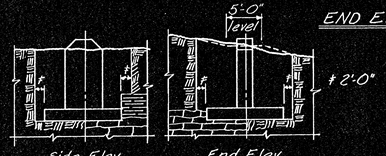
Note: See "Construction Layout" for cantilever support design. See "Cantilever Type Overhead Steel Support Detail" sheets for anchor bolt size "d" and "BC".



END ELEVATION



SECTION A-A



TYPICAL EXCAVATION DETAILS

Table for P bars			
Size	A	J	L
#8	11"	8"	10'-9"
#9	1'-3"	11¼"	10'-9"
#10	1'-5"	1'-0¾"	10'-9"
#11	1'-7"	1'-2¼"	10'-9"

GENERAL NOTES

LOADING: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, 1975 Edition.

CONCRETE: Use Class AAA concrete throughout. Bevel all exposed edges with a ¾" triangular molding.

UNIT STRESSES: fc = 1,600 psi; f'c = 4000 psi; fs = 20,000 psi

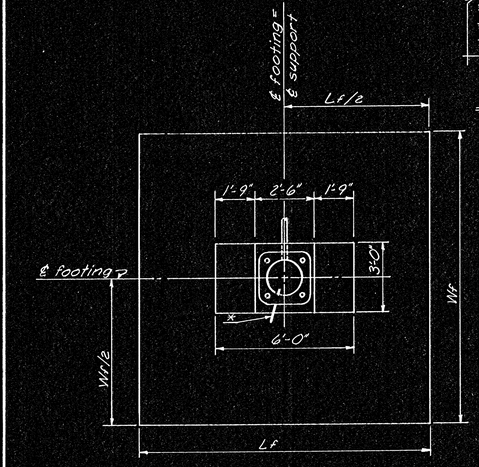
REINFORCING: All dimensions relative to reinforcing steel are to center line of bar unless otherwise noted.

EXCAVATION: When rock or shale is encountered, all excavation below the top of this material shall be to neat lines. See excavation details.

BACKFILL: Backfill material shall be placed in one foot lifts and each lift shall be thoroughly compacted before the next lift is placed.

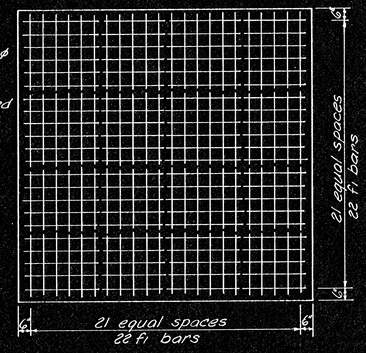
ANCHOR BOLT ASSEMBLY: Anchor bolts shall conform to K.S.H.C. Standard Specifications Sub-Section 1006.13 and shall be Type II. Angles and plates shall conform to ASTM A36. Welding shall conform to K.S.H.C. Standard Specifications and the latest edition of the American Welding Society Specifications.

PAYMENT: The cost of all material and labor needed to construct its footing shall be included in the unit price bid for each Cantilever Type Overhead Sign Support.

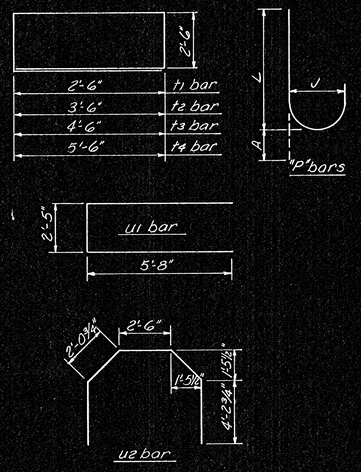


FOOTING PLAN

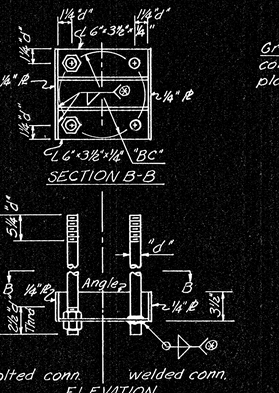
*To form a drain at the support, a ⅝" ϕ greased rod shall be placed in the grout and removed after grout has taken set.



FOOTING PLAN
(showing reinforcing)

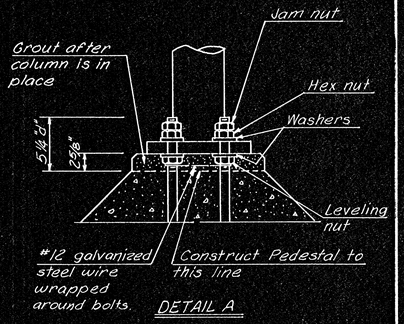


BENDING DIAGRAM
All dimensions are out to out



ANCHOR BOLT ASSEMBLY DETAIL

⊗ ¼" weld - typ.



DETAIL A

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

DEPARTMENT OF TRANSPORTATION - KANSAS

STANDARD STRUCTURAL SIGN SUPPORTS
CANTILEVER TYPE OVERHEAD
FOOTING DETAILS

8-75

SHEET NO. 115 OF 143	SCALE		APP'D		
DESIGNED LES	DETAILED LES		QUANTITIES LES		TRACED
DESIGN CK. DRE	DETAIL CK. DRE		QUAN. CK. DRE		TRACE CK.