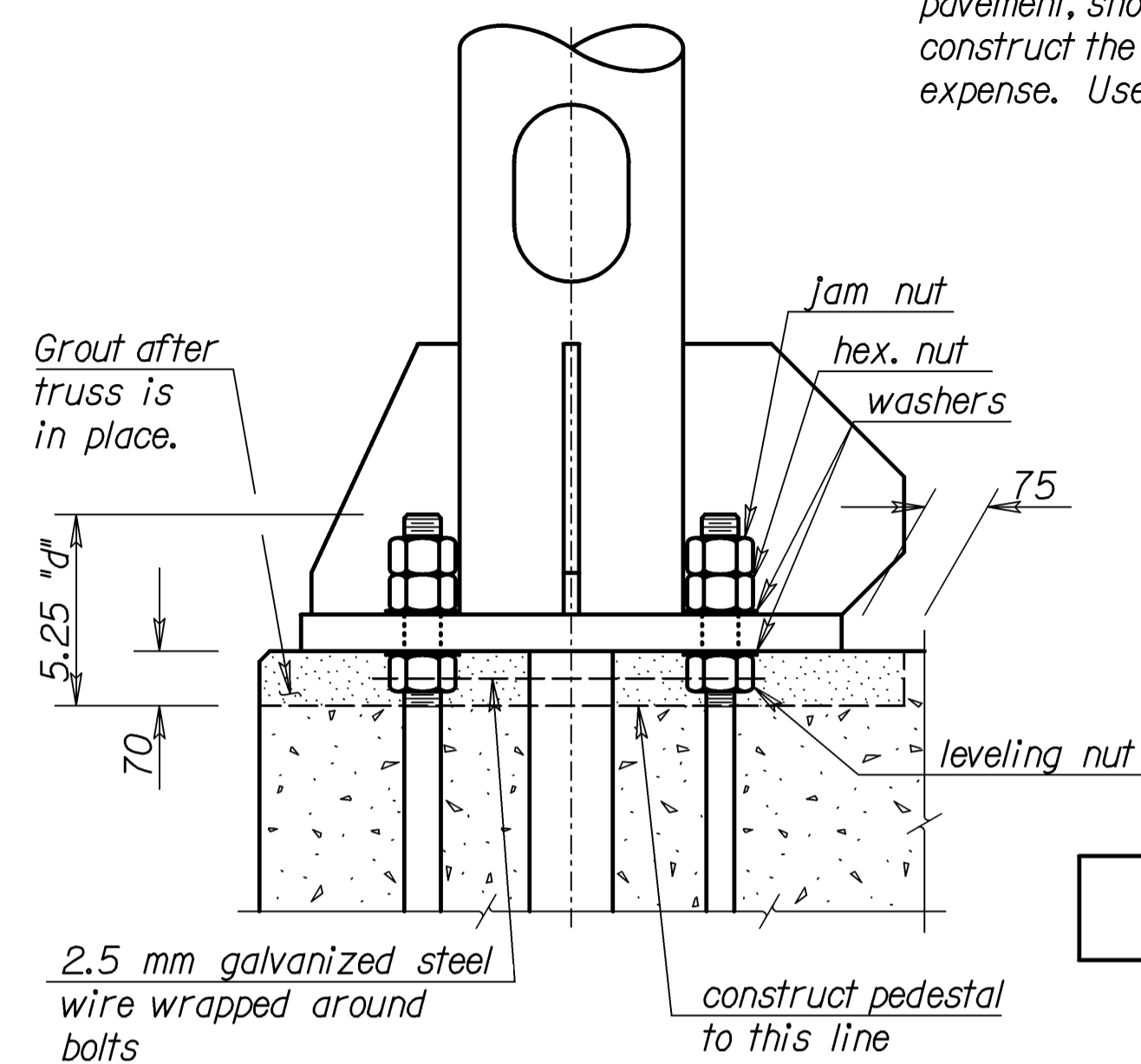


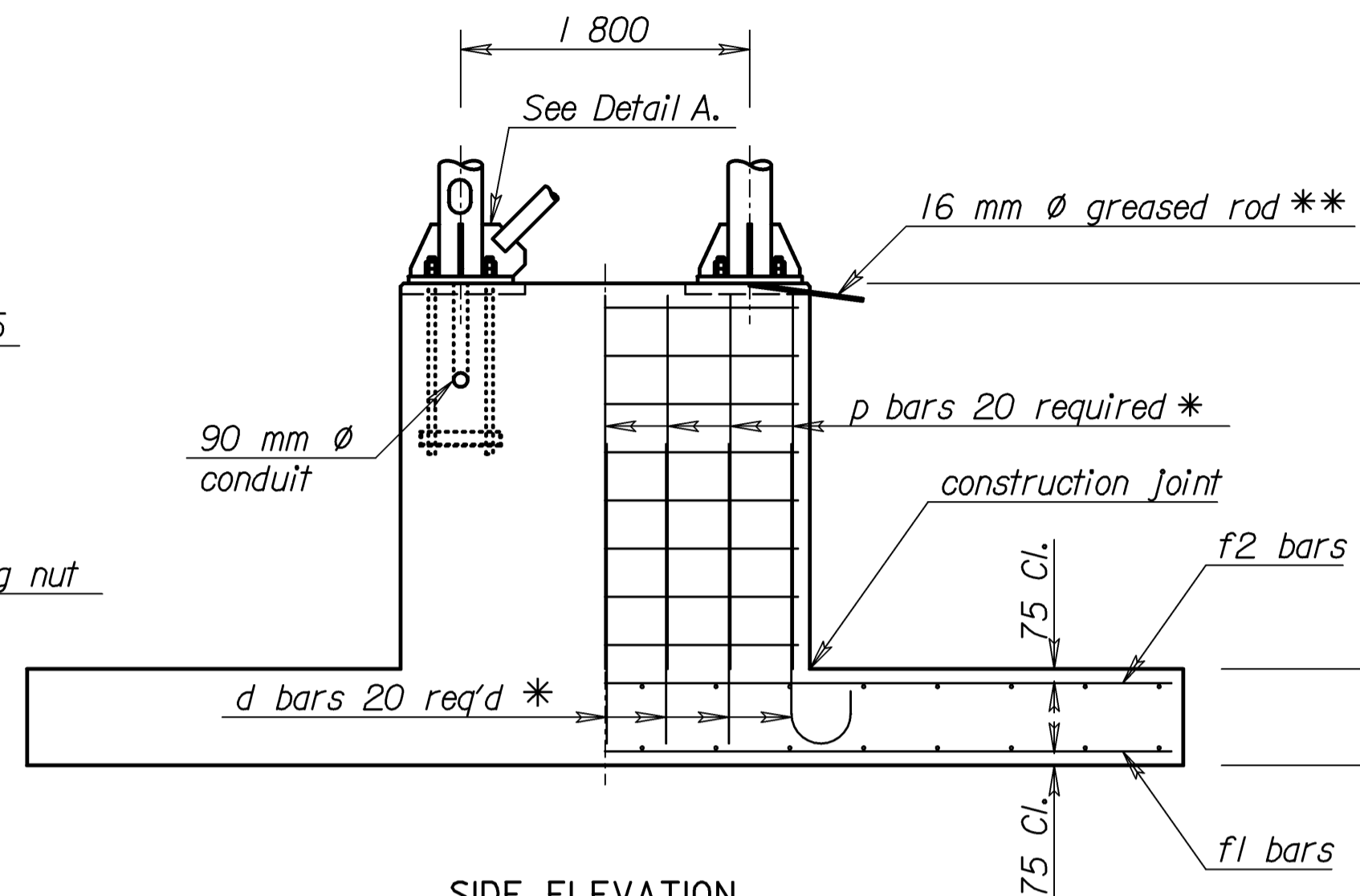
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	5-87 K-8258-01	2007	457	556

NOTE: Restore any existing facilities, (i.e., curb and gutter, guard fence, pavement, shoulders, etc.), whose removal is required in order to construct the footing, to their original condition at no additional expense. Use sawed joints when removing any existing concrete.

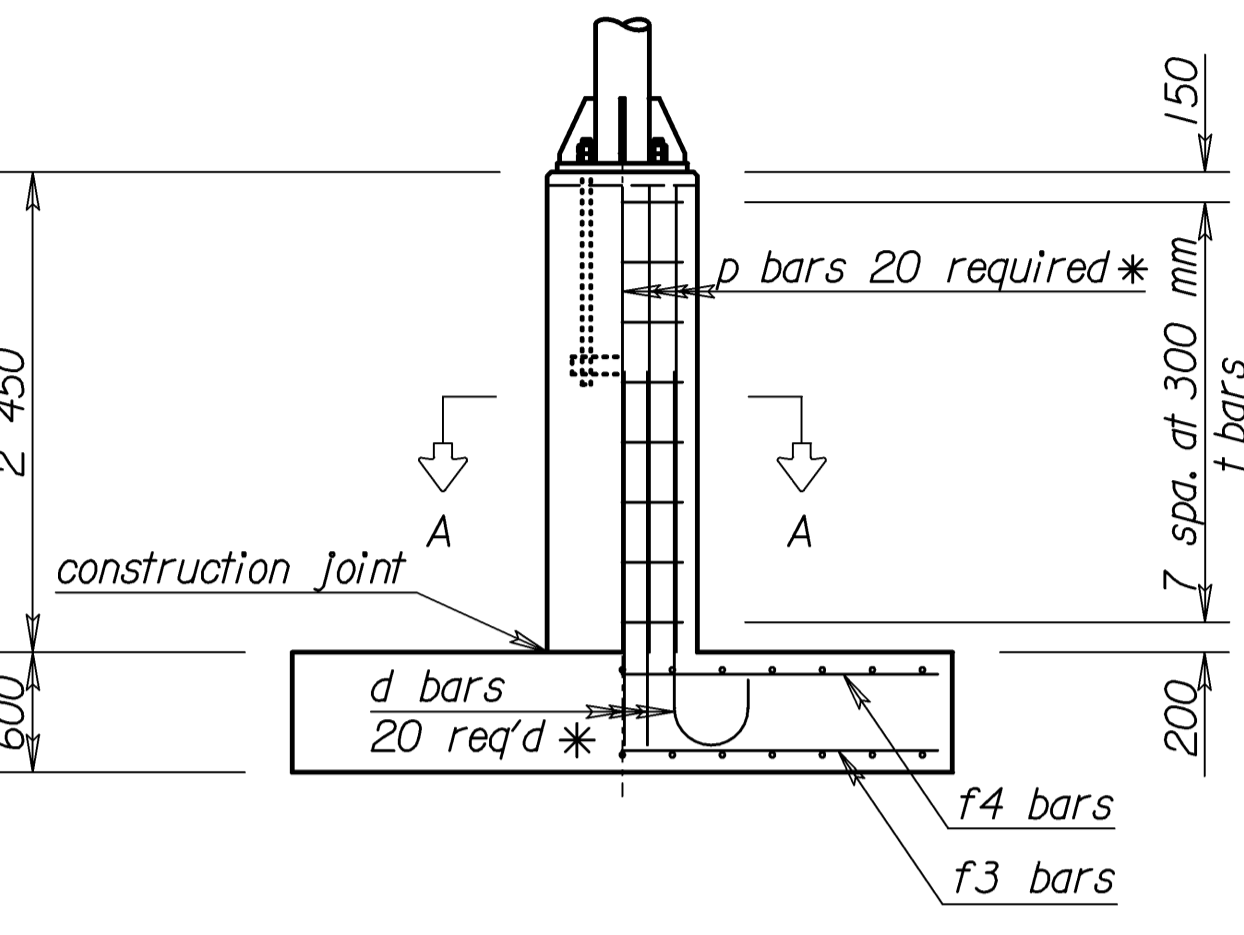
** Note: Place a 16 mm diameter greased rod in the grout at the support to form a drain. Remove the rod after the grout has taken set.



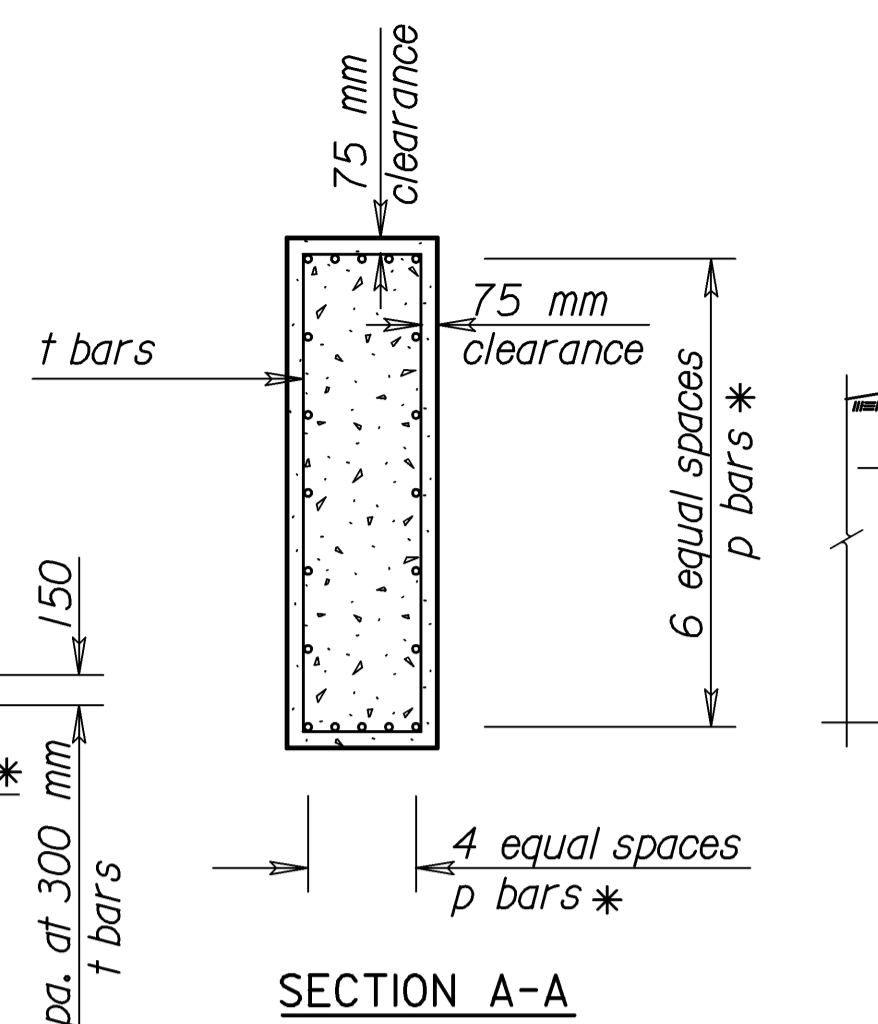
DETAIL A



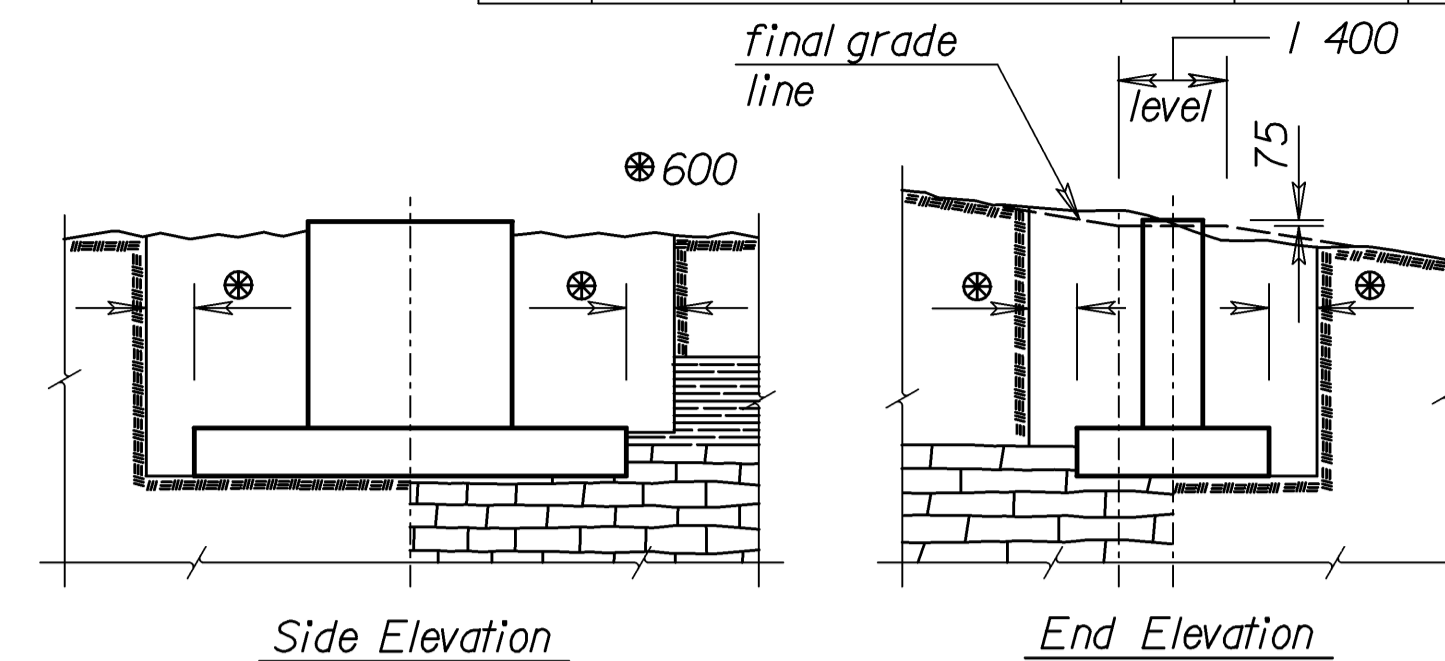
SIDE ELEVATION



END ELEVATION



SECTION A-A



TYPICAL EXCAVATION DETAILS

GENERAL NOTES

LOADING: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, 1994 Edition.

CONCRETE: Use Grade 25 (AE) Concrete throughout. Bevel all exposed edges with a 20 mm triangular molding.

CURING AND ERECTING: Cure the concrete a minimum of 4 days. Do not erect the sign structure before 15 days have passed, unless flexural beam tests indicate that the concrete has attained sufficient strength.

UNIT STRESSES: $f_c=8$ MPa; $f'_c=20$ MPa; $f_s=140$ MPa

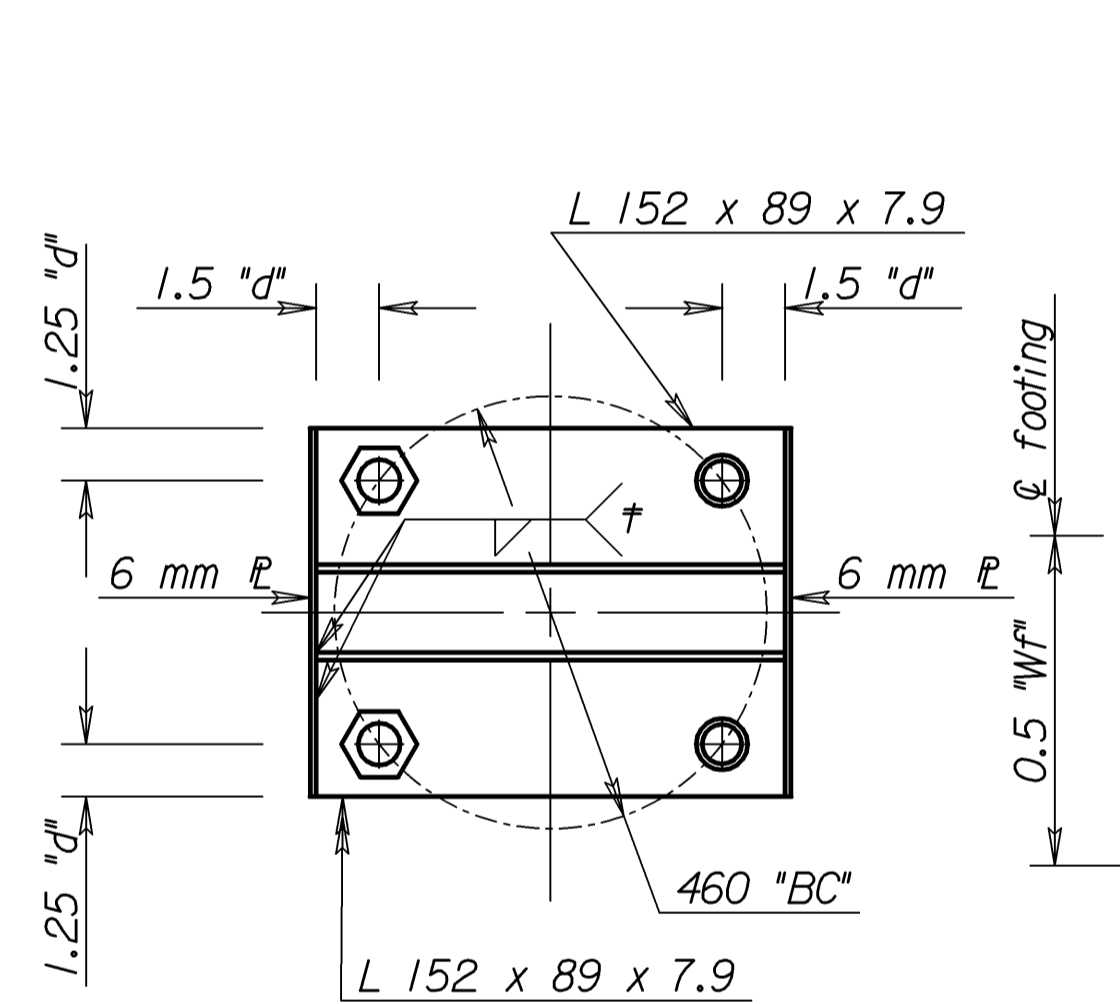
REINFORCING: All dimensions relative to reinforcing steel are to center line of bar unless otherwise noted. Use steel which conforms to ASTM A615M Grade 300 or 420.

EXCAVATION: When rock or hard shale is encountered, excavate to neat lines all excavation below the top of this material or the top of the footing, whichever is lower. See excavation details.

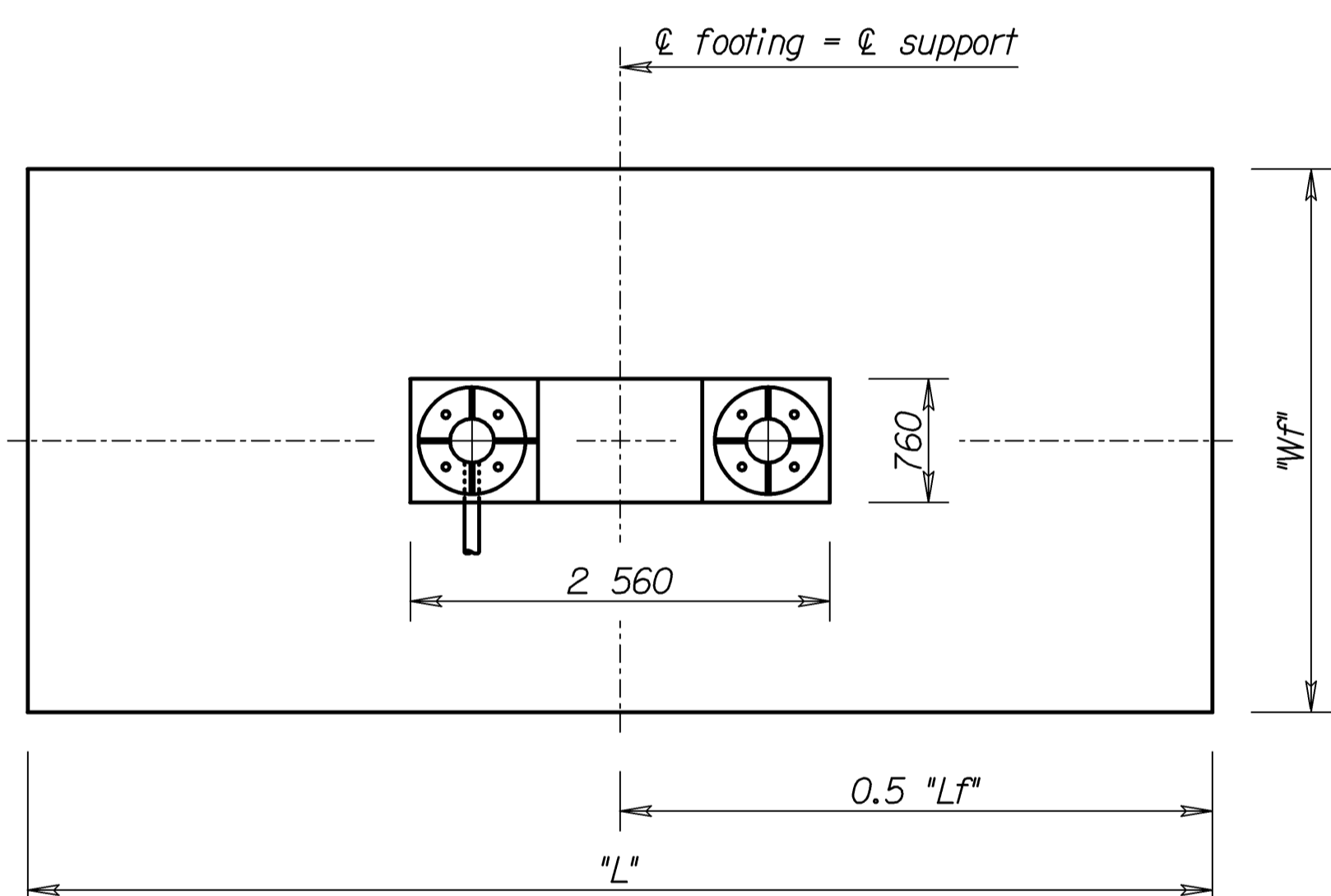
BACKFILL: Place backfill material in 300 mm lifts and compact each lift thoroughly before placing the next lift.

ANCHOR BOLT ASSEMBLY: Use anchor bolts which conform to the "Standard Specifications for State Road and Bridge Construction" Subsection 1613 and are Type II. Use angles and plates which conform to ASTM A709M. Weld in accordance with the "Standard Specifications for State Road and Bridge Construction" and the latest edition of the American Welding Society Specifications.

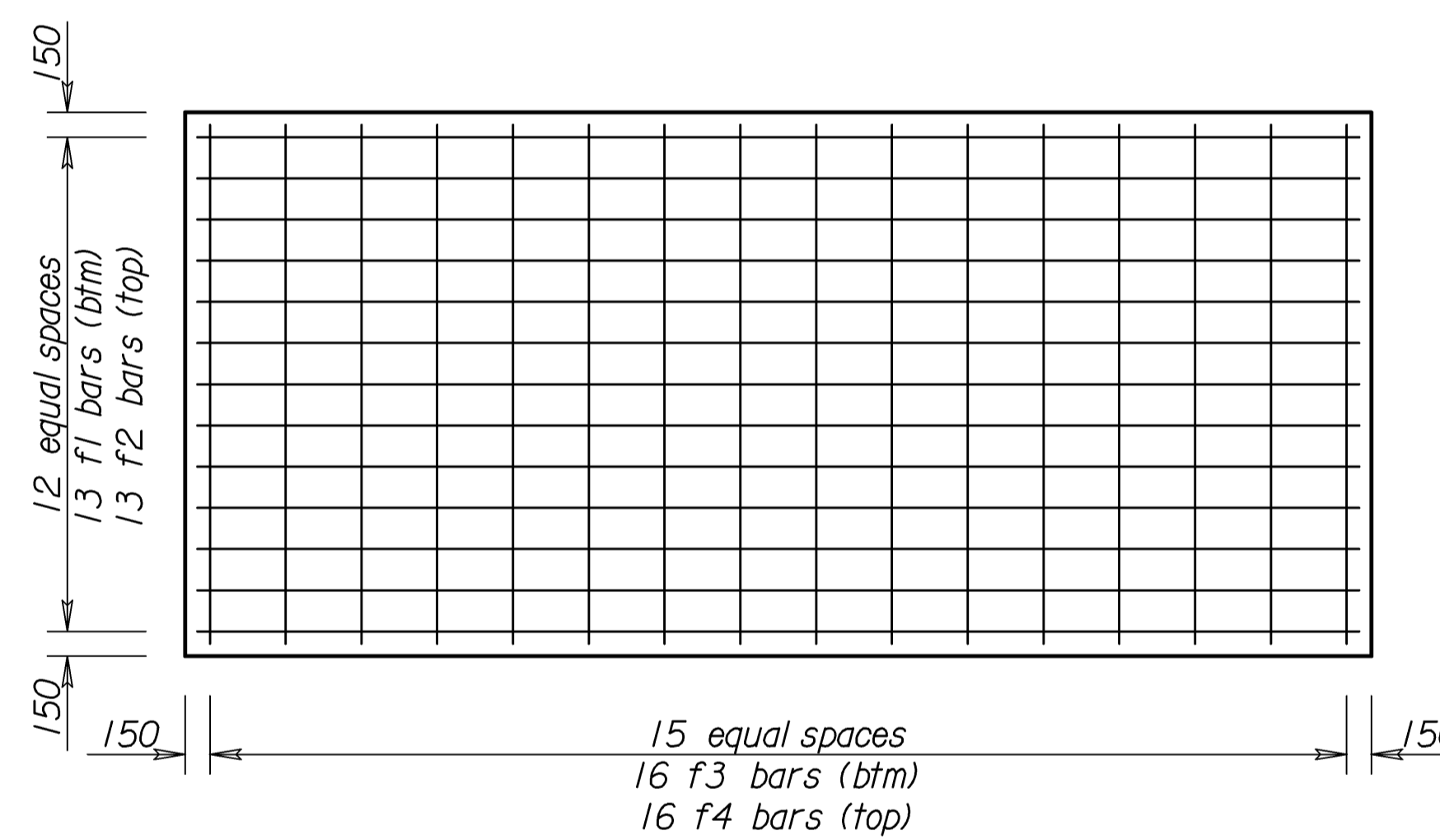
PAYMENT: Include the cost of all material and labor needed to construct its footing in the unit price bid for each "Span Type Overhead Sign Structure".



SECTION B-B



FOOTING PLAN



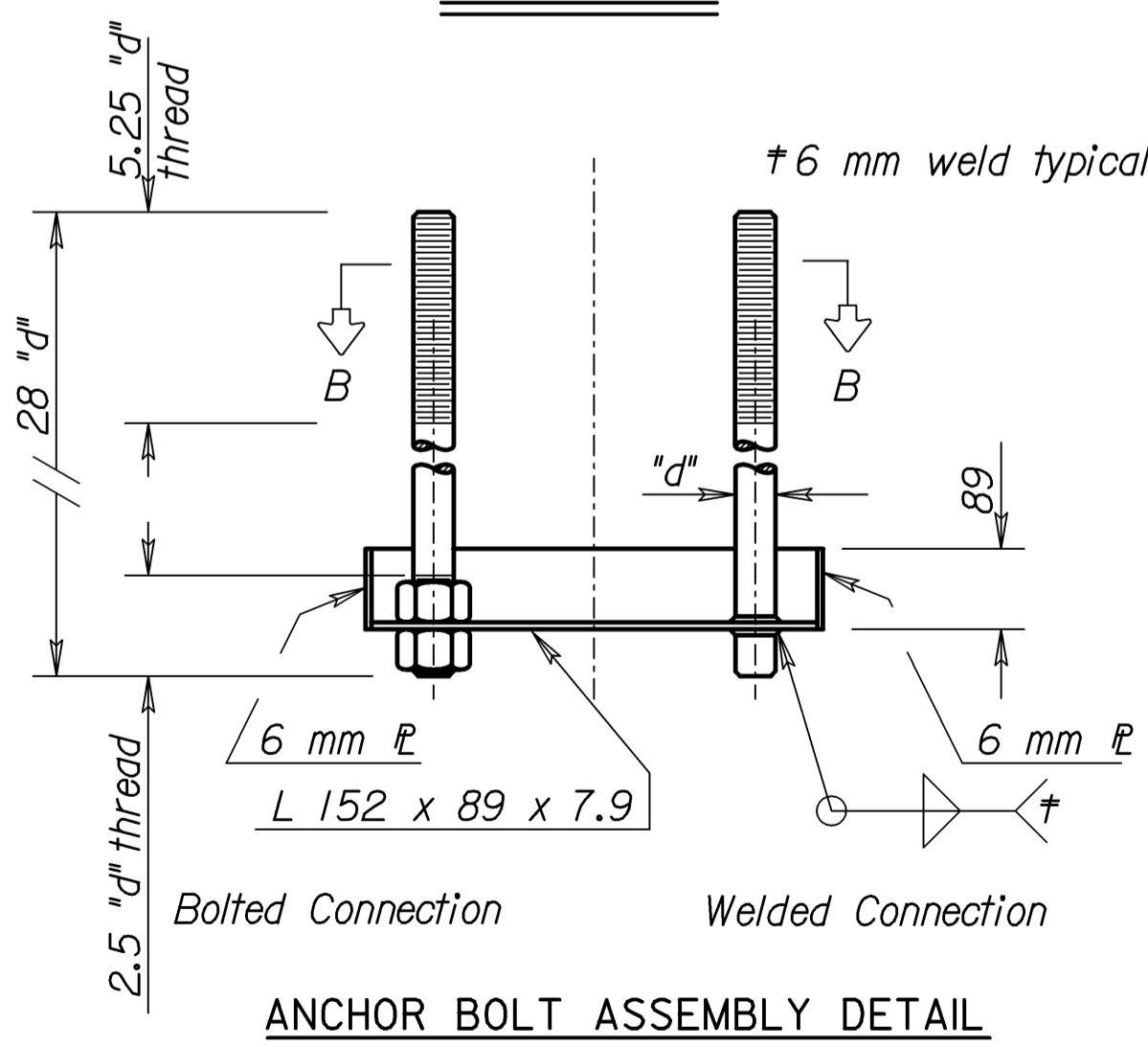
FOOTING PLAN

(Showing reinforcing steel)

All dimensions are out to out of bars.

BENDING DIAGRAMS

All dimensions are out to out of bars.



ANCHOR BOLT ASSEMBLY DETAIL

See end support framing plan sheet for anchor bolt "d".

See "Construction Layout" sheet for Footing Type.

* Note: Contractor may combine d and p bars into one bar.

FOOTING TYPE	DIMENSIONS		BILL OF REINFORCING STEEL												SUMMARY OF QUANTITIES		
	Lf	Wf	20 d bars *	13 f1 bars	13 f2 bars	16 f3 bars	16 f4 bars	20 p bars *	8 t bars	Class III Excavation	Gr.25(AE) Concrete	Reinforcing Steel	cu. m. **	cu. m.	kg.		
A	4 600	2 100	19	1 370	4 450	4 450	1 950	1 950	19	55	10.6	390					
B	4 900	2 250		1 370	4 750	4 750	2 100	2 100		60	11.4	400					
C	5 200	2 400	22	1 470	5 050	5 050	2 250	2 250		67	12.3	480					
D	5 500	2 500		1 470	5 350	5 350	2 350	2 350		71	13.0	490					
E	5 800	2 650	25	1 660	5 650	5 650	2 500	2 500		77	14.0	670					
F	6 100	2 800		1 660	5 950	5 950	2 650	2 650		84	15.0	790					
G	6 400	2 950	29	1 930	6 250	6 250	2 800	2 800		91	16.1	980					
H	6 700	3 100		1 930	6 550	6 550	2 950	2 950		98	17.3	1 150					
I	7 000	3 250	32	2 210	6 850	6 850	3 100	3 100		106	18.5	1 400					
J	7 300	3 400	36	2 560	7 150	7 150	3 250	3 250		113	19.8	1 800					

Size	A	J	L
19	220	160	1 150
22	250	180	1 220
25	280	200	1 380
29	400	300	1 530
32	430	340	1 780
36	480	360	2 080

NO.	DATE	REVISIONS	BY	APP'D
1	3/20/02	Concrete from Class to Grade	SMB	KFH

KANSAS DEPARTMENT OF TRANSPORTATION
STANDARD STRUCTURAL SIGN SUPPORTS
SPAN TYPE OVERHEAD
OPTIONAL SPREAD FOOTING DETAILS
SL151A-02 SI

DESIGNED	KFH	4-10-97	APP'D	Kenneth F. Hurst
Detailed	KFH	QUANTITIES	KFH	CADD
DESIGN CK.	LES	DETAIL CK.	LES	QUAN. CK.
				DESIGN CK.

** Approximate Excavation for loose material

Std. Base File: sl151asi.dgn - Plot 2
Plotted By: \$USER\$
File: \$\$\$\$\$\$CONSPE\$
Plot Date: \$\$\$\$STTIME\$\$\$\$