

GENERAL NOTES

LOADING: AASHTO 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. Form only the beam tying the two drilled shafts together. Rod or vibrate the concrete. Cast the drilled shafts to neat lines.

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 10 mm and 13 mm spirals which conform to ASTM A615M Grade 300 or A82M. For all other reinforcing, use steel which conforms to ASTM A615M Grade 300 or Grade 420.

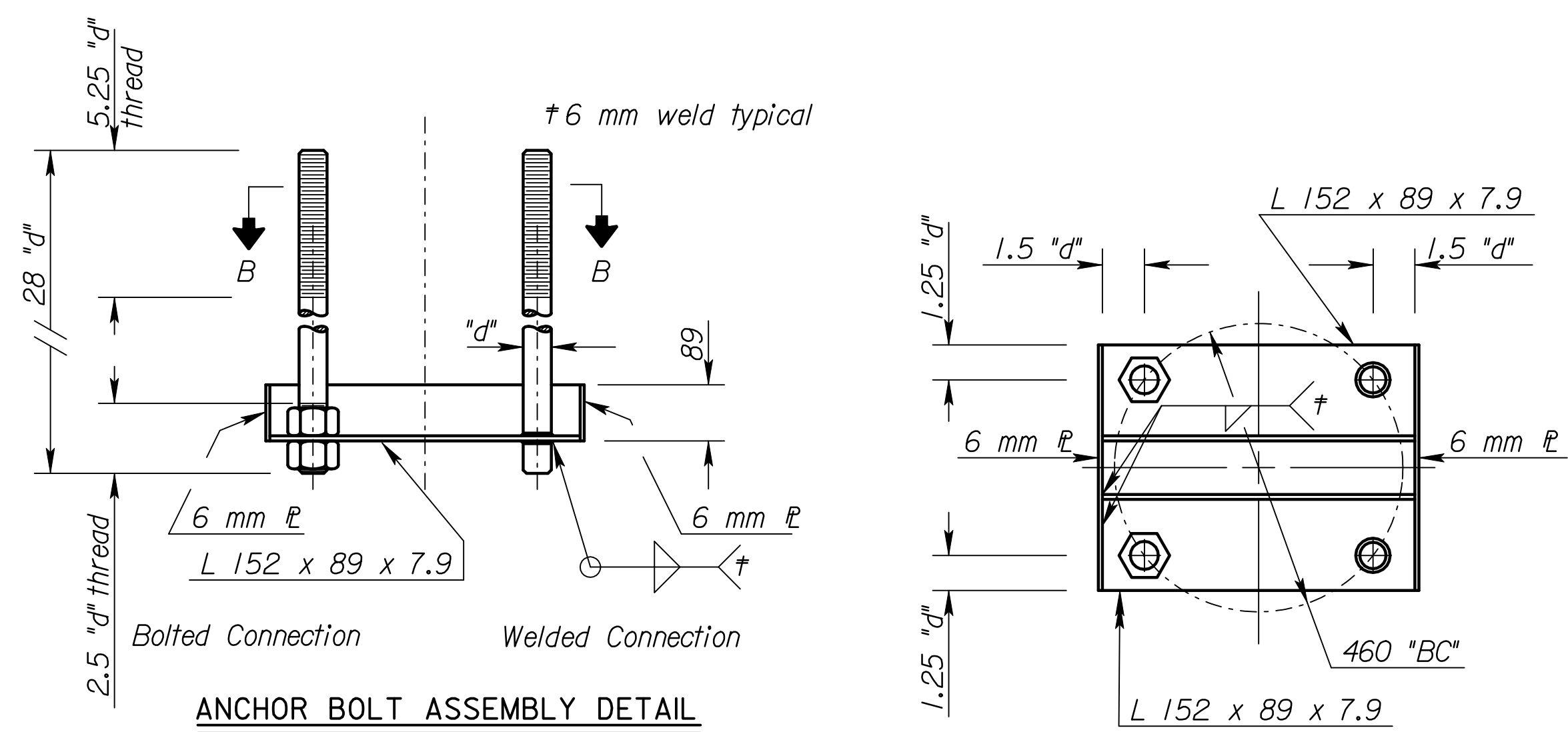
EXCAVATION: Carefully drill the footing holes to the required size at the proper location. Dispose, within the right-of-way, all excavated material in such a manner as to blend uniformly with the existing surface and as approved by the Engineer. Remove all loose and uncompacted material from the bottom of the hole immediately before placing any concrete.

CASING: Place temporary casing in the drilled shafts, to prevent the collapse of the excavations, unless exempted by the Engineer.

BACKFILL: Thoroughly compact the soil, used for backfilling of the footing excavation, as it is placed. Bring the backfill up to the finished ground line adjacent to the footing.

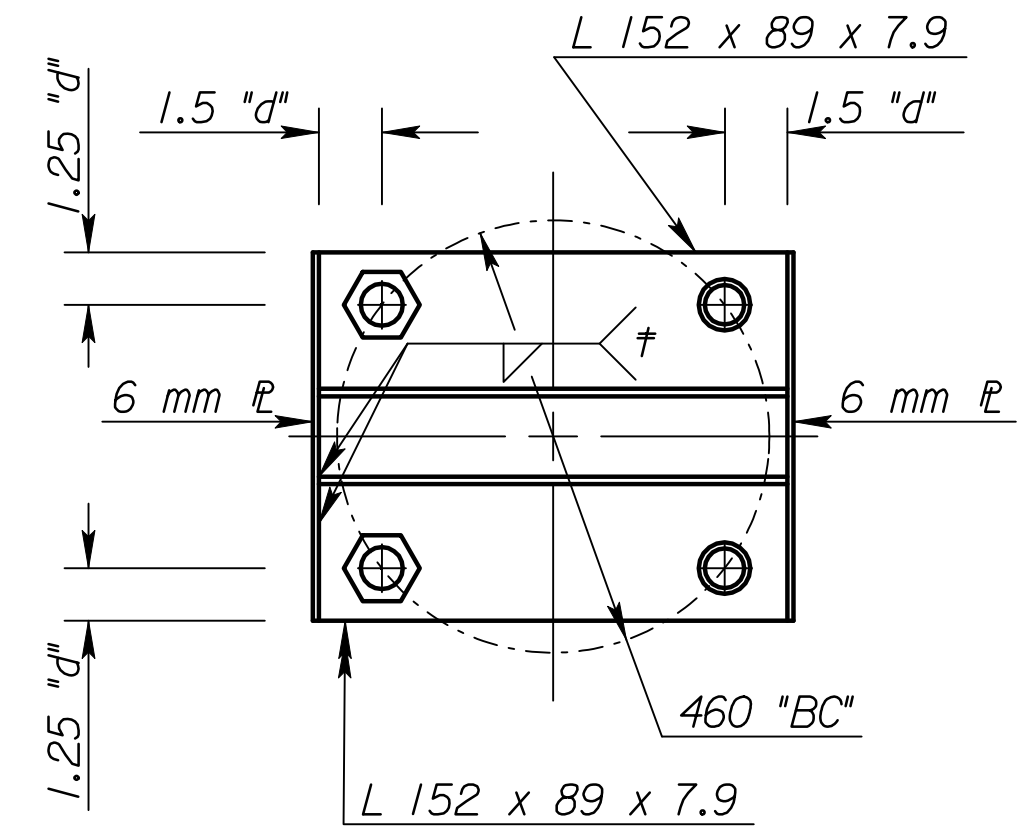
ANCHOR BOLT ASSEMBLY: Use anchor bolts which conform to the "Standard Specifications for State Road and Bridge Construction" Subsection 1613 and are Type II. Use angles and plates which conform to ASTM A709M. Weld in accordance with the "Standard Specifications for State Road and Bridge Construction"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



ANCHOR BOLT ASSEMBLY DETAIL

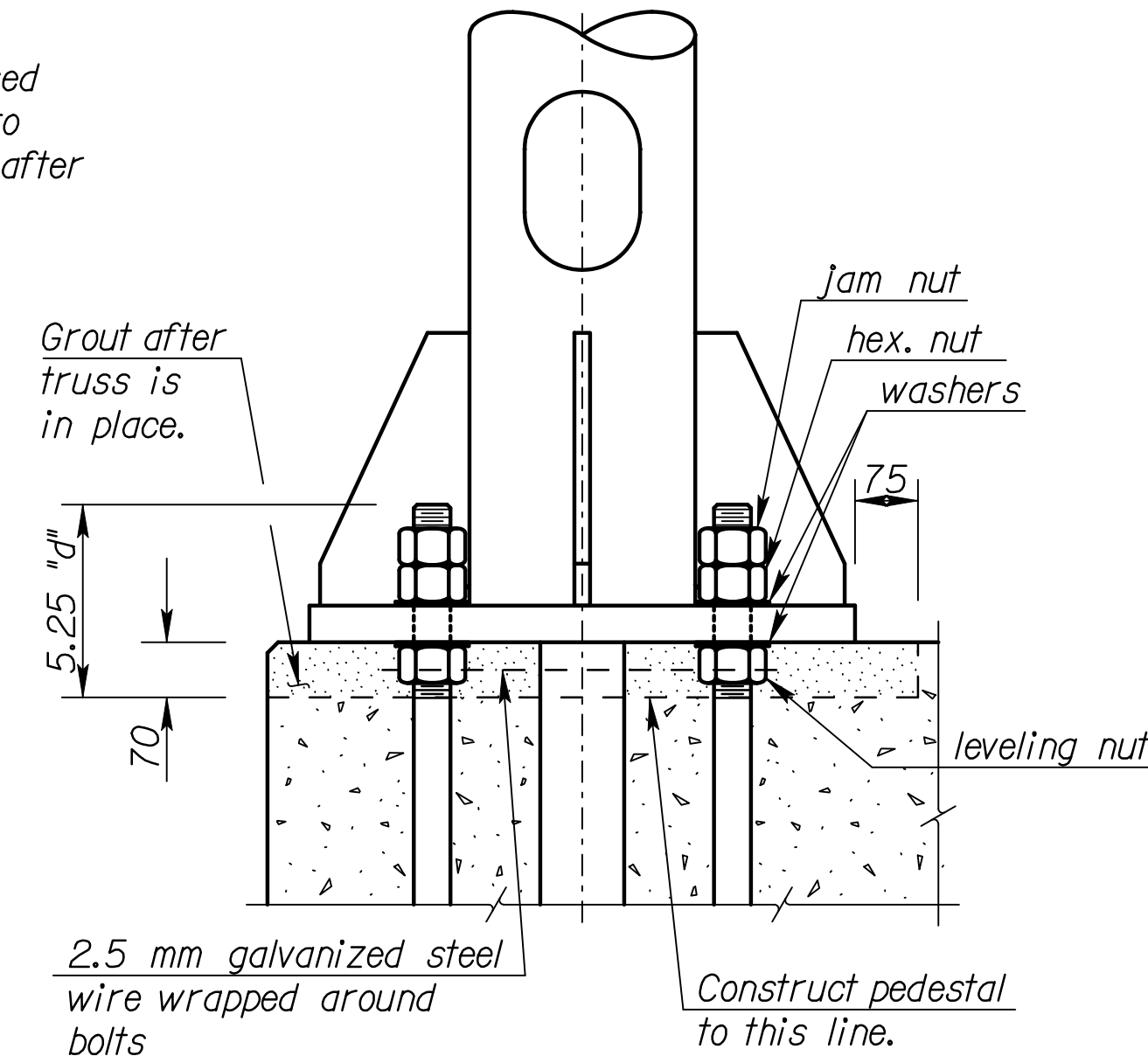
See end support framing plan sheet for anchor bolt "d".



SECTION B-B

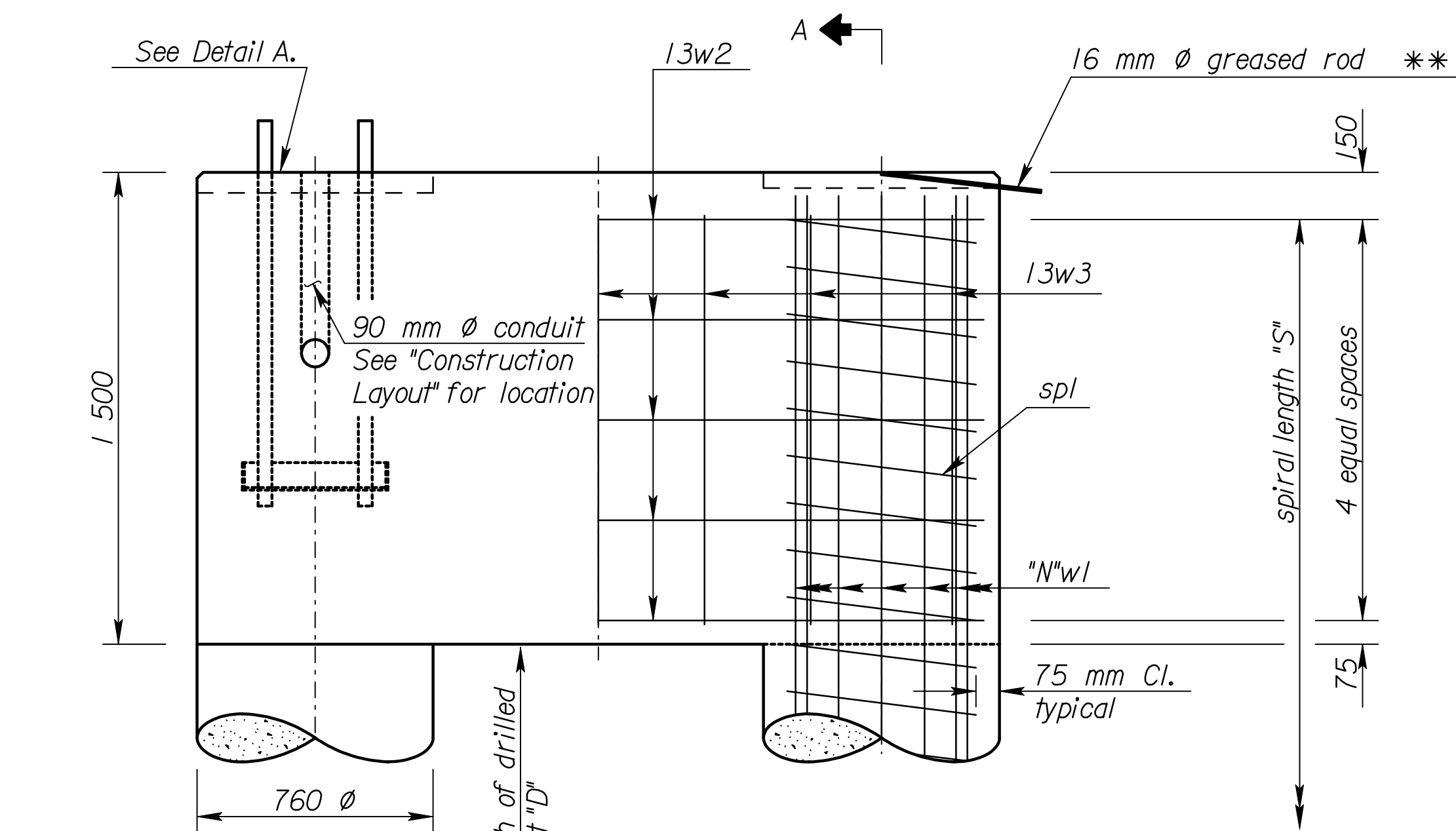
NOTE: Restore any existing facilities, (i.e., curb and gutter, guard fence, pavement, shoulders, etc.), whose removal is required in order to construct the footing, to their original condition at no additional expense. Use sawed joints when removing any existing concrete.

** 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.

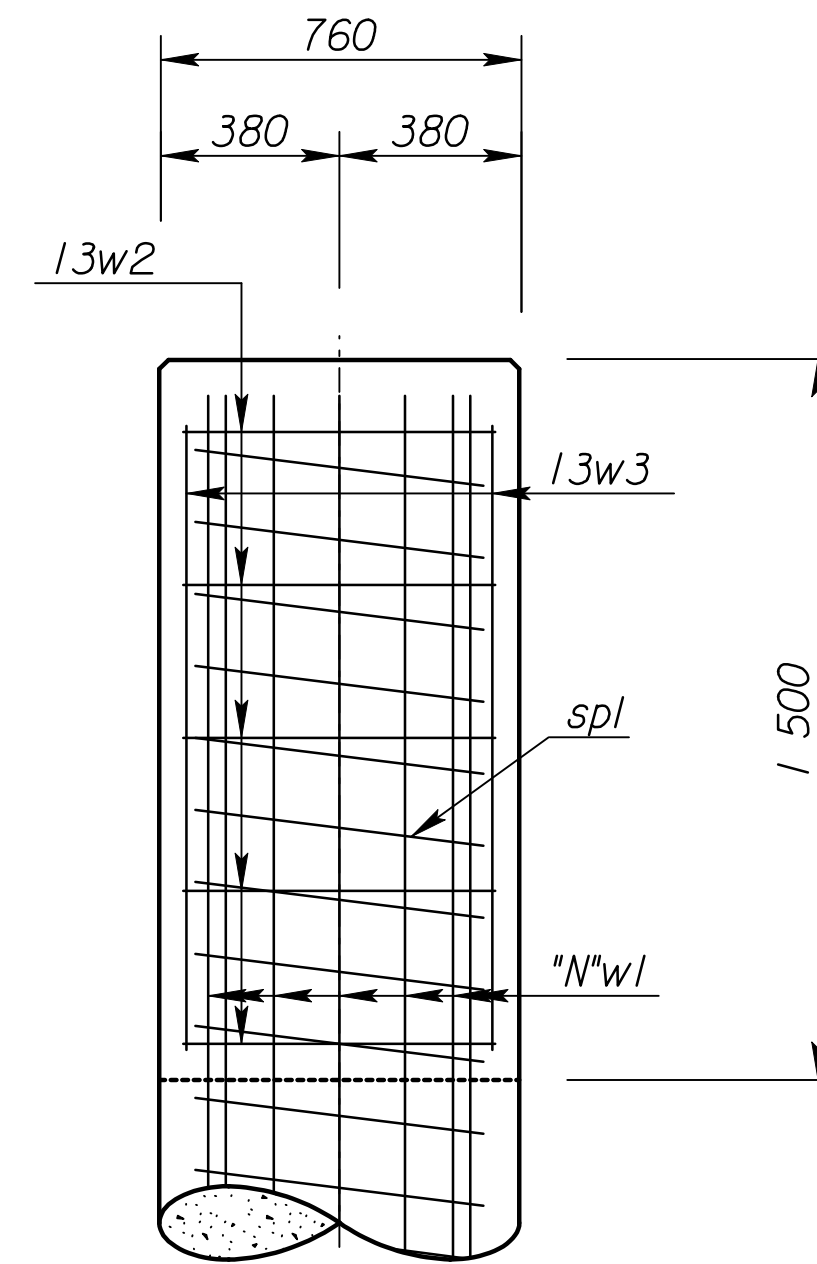


DETAIL A

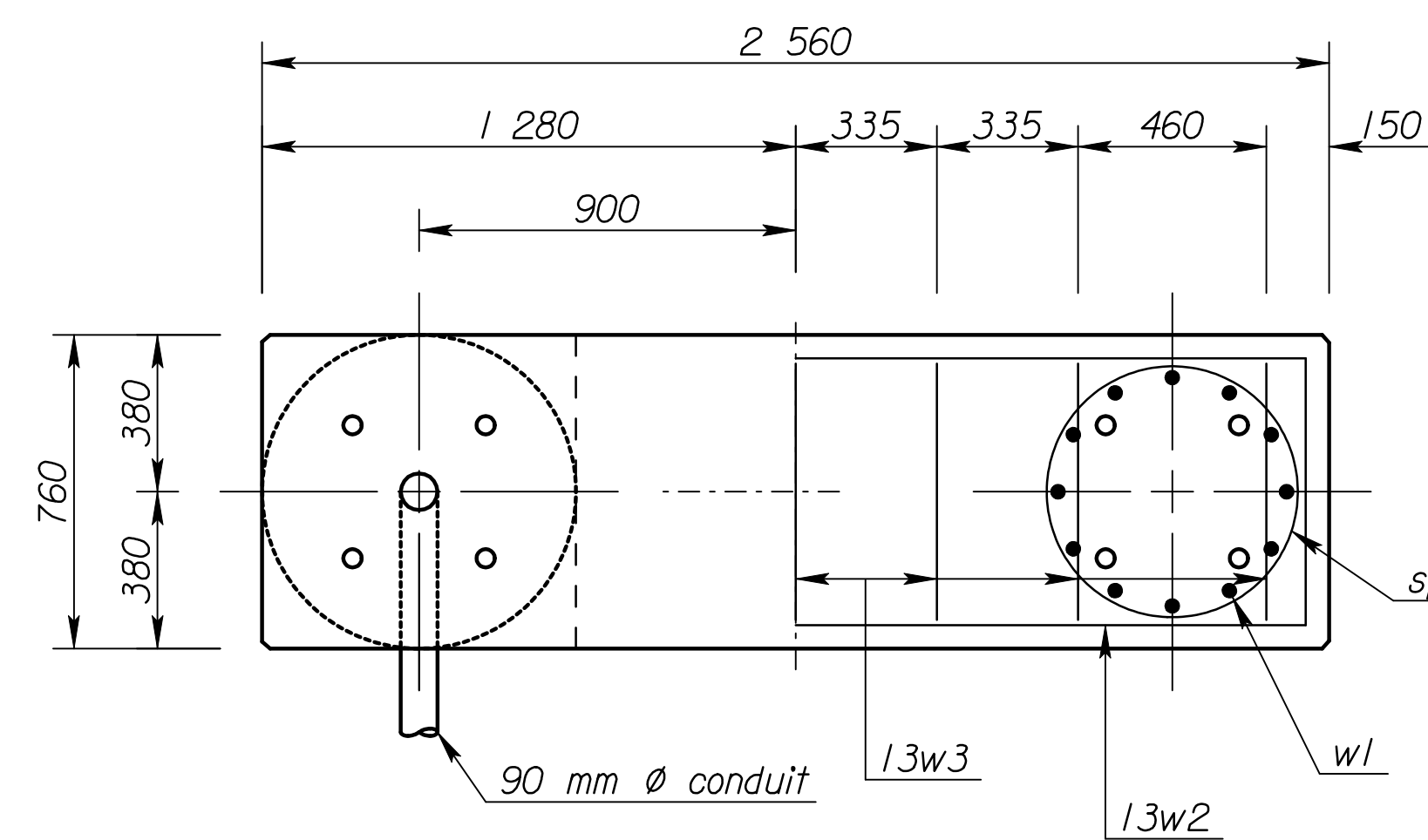
See "Construction Layout" sheet for Footing Type.



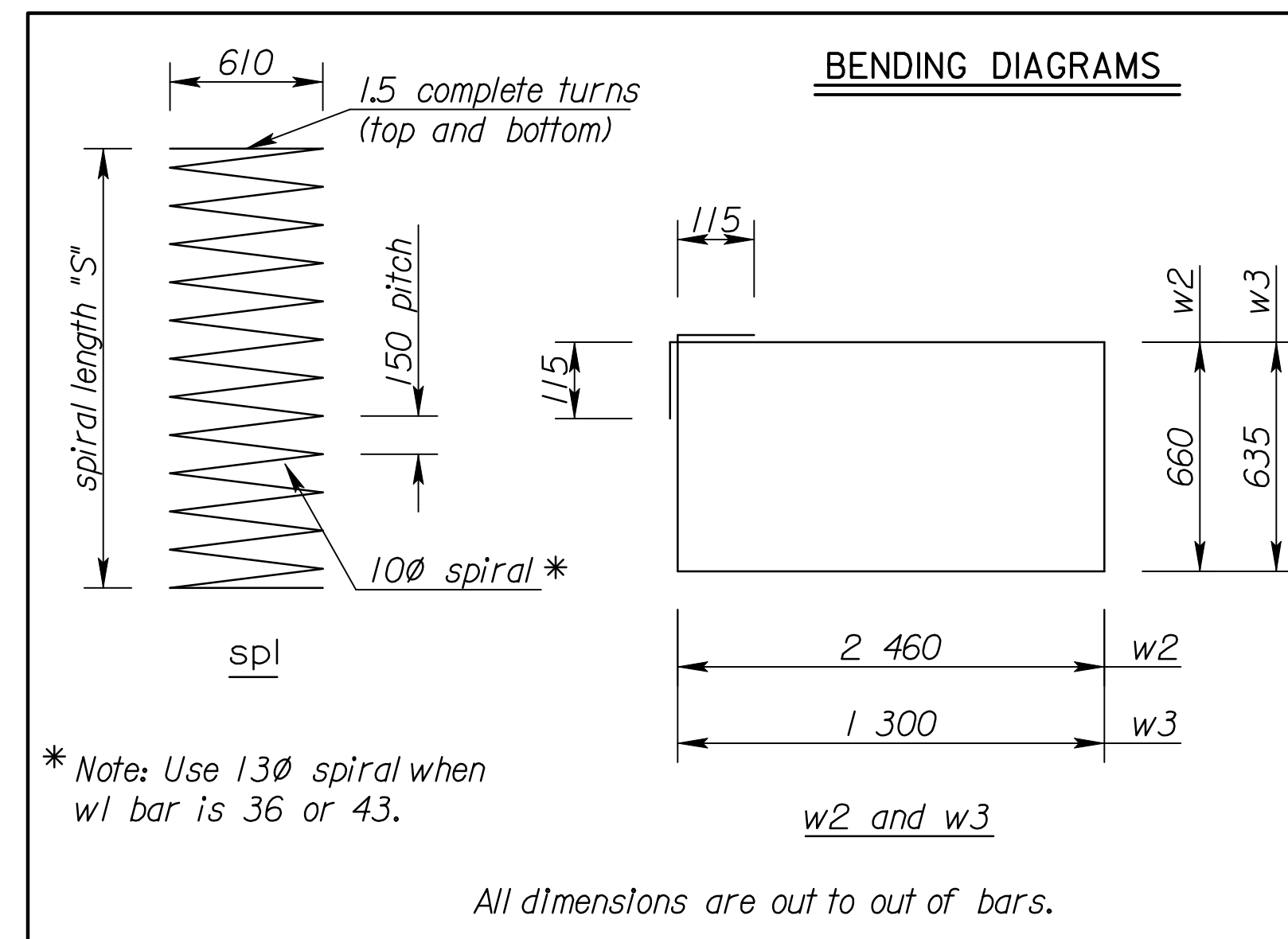
ELEVATION



SECTION A-A



PLAN



BENDING DIAGRAMS

* Note: Use 13Ø spiral when w1 bar is 36 or 43.

All dimensions are out to out of bars.

Type	"N"	Size	Depth "D"	Dimen. "L"	Dimen. "S"	Gr.25(AE) Conc. cu. m.	Reinf. Steel kg.	Cl. III Excav. cu. m.
A	8		4 600	5 950	5 800	7.2	670	15.1
B	8	29	4 900	6 250	6 100	7.5	700	15.4
C	10		5 200	6 550	6 400	7.7	860	15.7
D	9		5 500	6 850	6 700	8.0	1 000	15.9
E	11	32	5 800	7 150	7 000	8.3	1 220	16.2
F	14		6 100	7 450	7 300	8.6	1 560	16.5
G	14		6 400	7 750	7 600	8.9	2 040	16.7
H	16	36	6 700	8 050	7 900	9.1	2 370	17.0
I	19		7 000	8 350	8 200	9.4	2 860	17.4
J	15	43	7 300	8 650	8 500	9.7	3 320	17.6

BILL OF REINFORCING			
Mark	No.	Size	Length
Straight Bars			
w1	2"	☆	"L"
Bent Bars			
w2	5	13	6 470
w3	7		4 100
spl	2	100 *	"S"

☆ See Table

RECORD DRAWING

KANSAS DEPARTMENT OF TRANSPORTATION		STANDARD STRUCTURAL SIGN SUPPORTS	
OPTIONAL DRILLED SHAFT FOOTING DETAILS		SL151A-03 SI	
DESIGNED BY: Kenneth F. Hurst		DRAWN BY: DJE	
DESIGNED	LES/DAILED	LES/QUANTITIES	LES/CADD
DESIGN CK.	LRR/DETAIL CK.	LRR/QUAN.CK.	LRR/CADD CK.