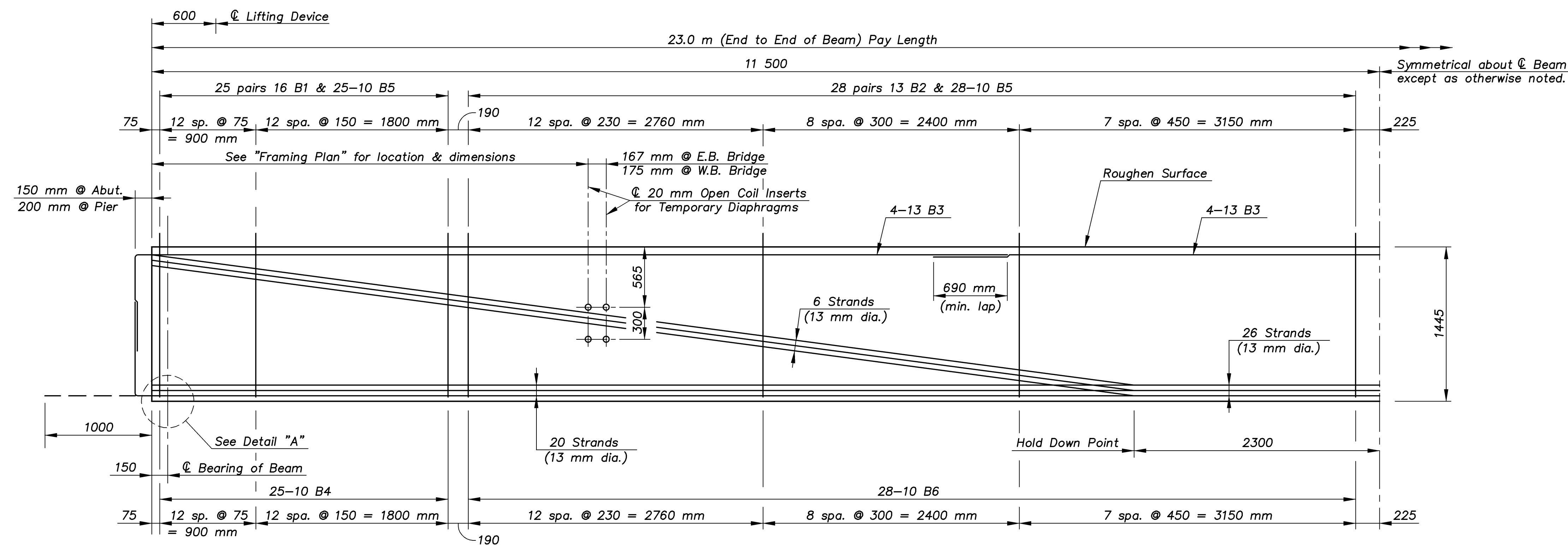


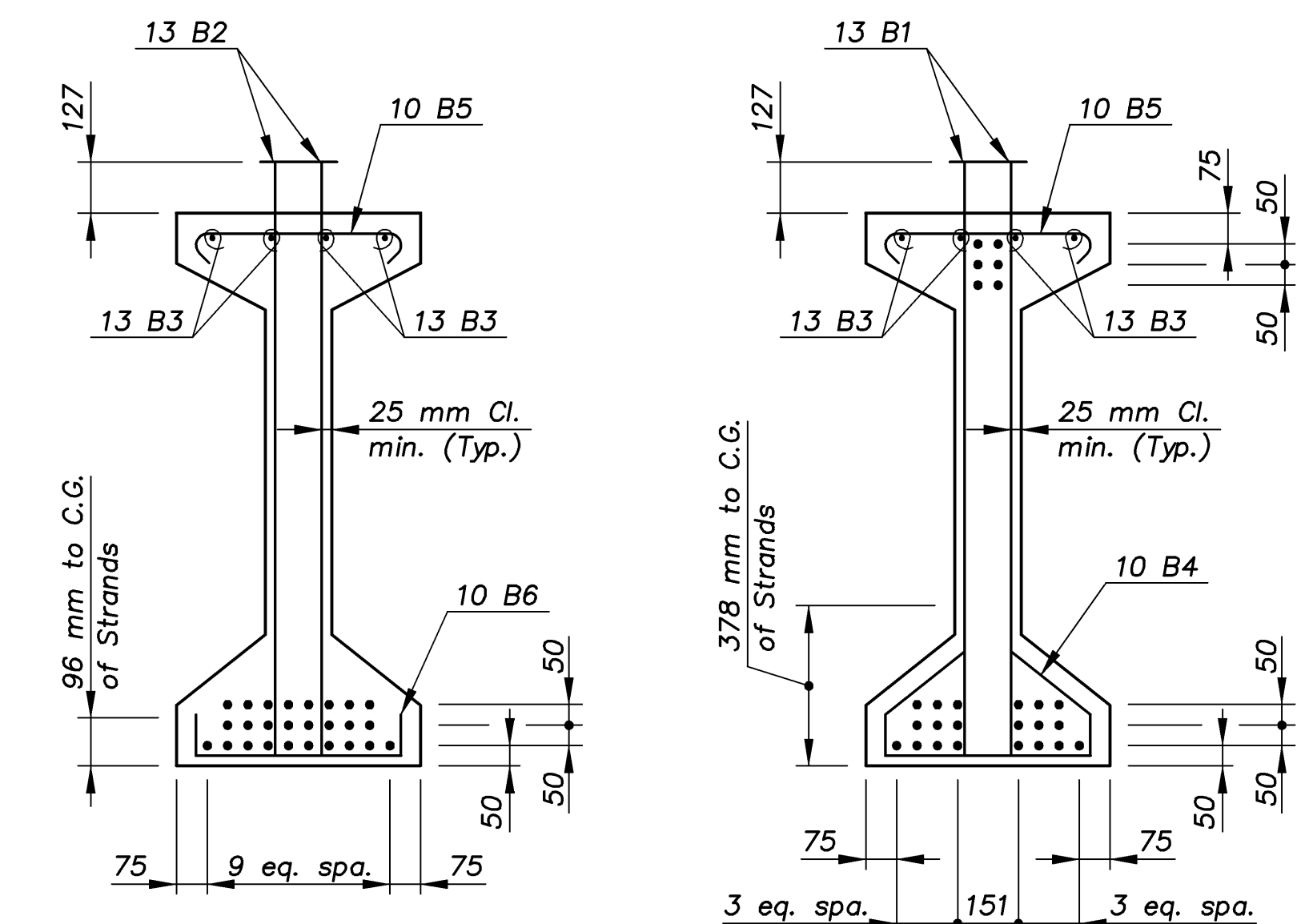
E.F. INDICATES EACH FACE.  
N.F. INDICATES NEAR FACE.  
F.F. INDICATES FAR FACE.

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	54-87 K-8258-01	2007	200	556

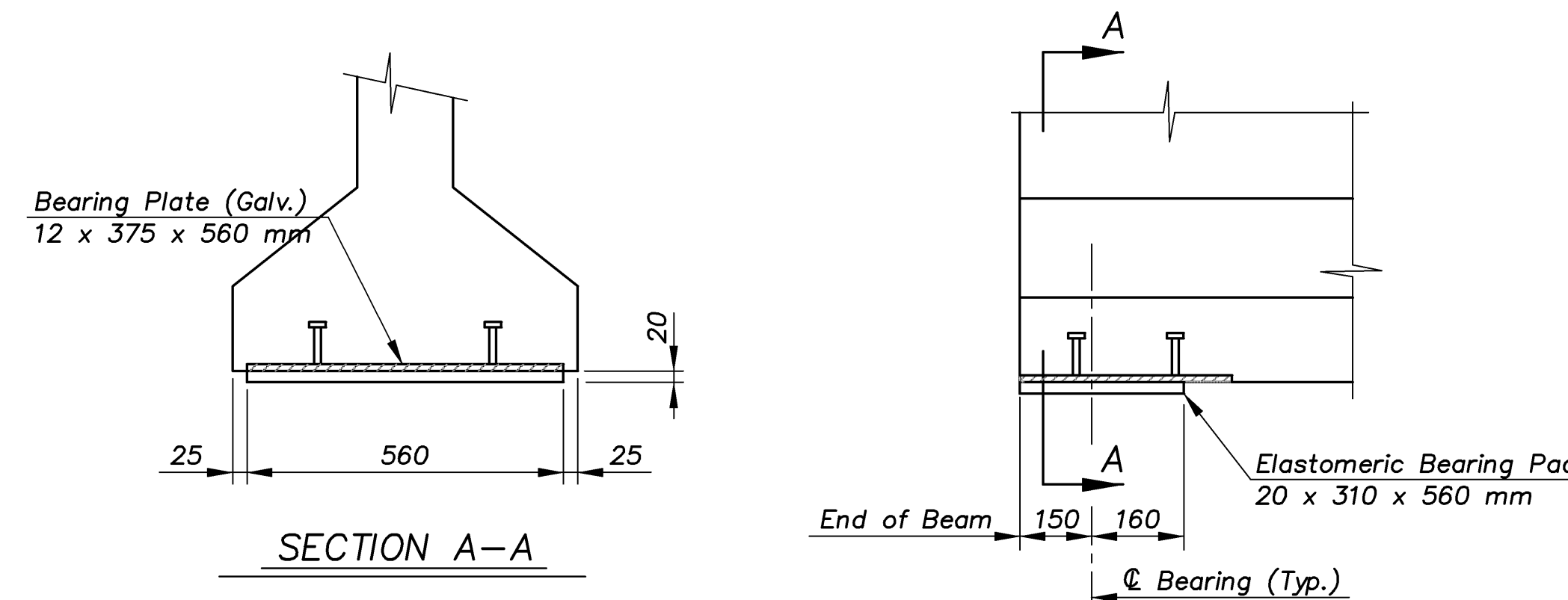


TYPICAL BEAM ELEVATION (K4+75 mm)

NOTE: Force per Strand (Vertical Uplift) = 18.14 kN  
Total Uplift for 6 Strands = 108.84 kN



BEAM SECTION SHOWING REINFORCEMENT

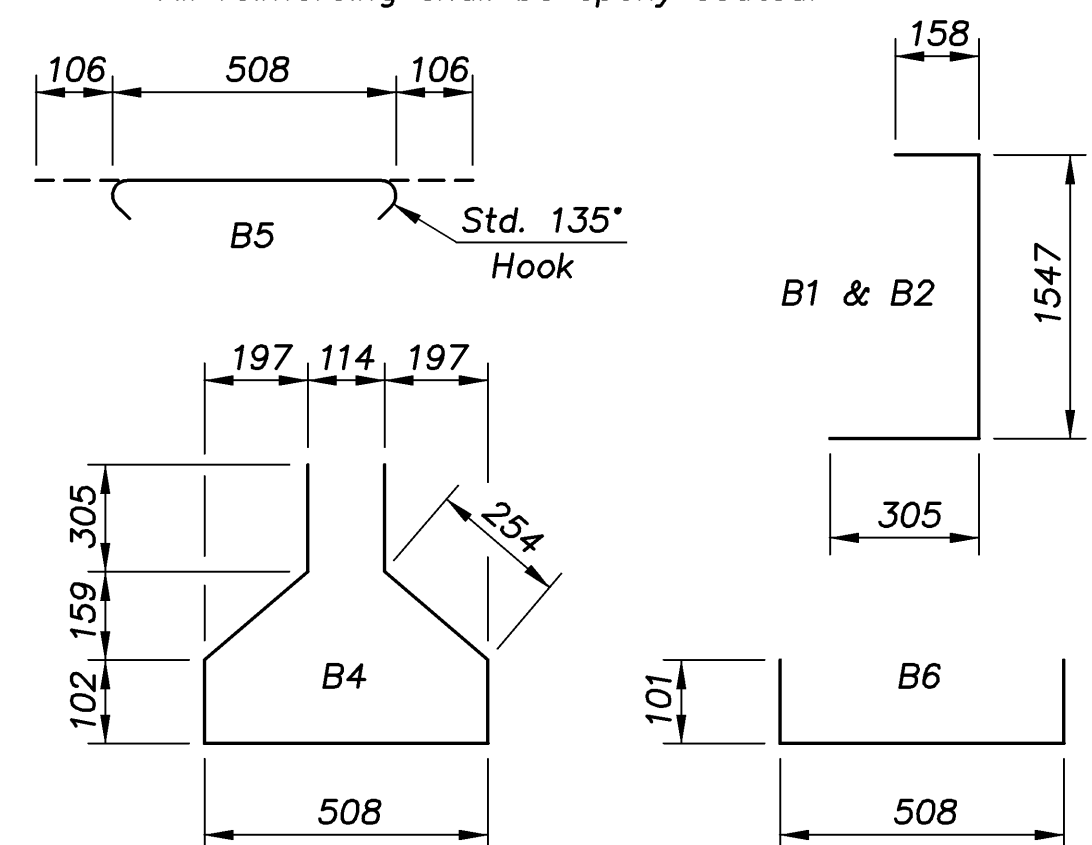


\* 4 each exterior beam.  
8 each interior beam.

NOTE: During transportation only, beams may be supported on bearing points a maximum of 2300 mm from the beam ends. The fabricator shall show the proposed support location on the the shop drawings. See General Notes on the "Standard P.C. Beam Details" sheet.

BILL OF REINFORCING STEEL							
23.0 m BEAM (1 Listed-9 Required each Bridge)							
STRAIGHT BARS				BENT BARS			
MARK	SIZE	NO.	LENGTH	MARK	SIZE	NO.	LENGTH
B3	13	12	8130	B1	16	100	2010
				B2	13	112	2010
				B4	10	50	1830
				B5	10	106	720
				B6	10	56	710

Note: All dimensions are out to out of bars.  
All reinforcing shall be epoxy coated.



BILL OF MATERIAL			
ITEM	UNIT	W.B. Bridge 54-87-30.81(700)	E.B. Bridge 54-87-30.82(701)
23.0 m Prestressed Concrete Beams (K4+75 mm)	m	207.0	207.0
The following quantities are given for information only and shall not be paid for directly but shall be considered subsidiary to the bid item "Prestressed Concrete Beams".			
Beam Concrete ( $f'c = 35$ MPa), (per beam)	m <sup>3</sup>	10.7	10.7
Approximate weight of beam	kg	25 576	25 576
13 mm nominal diameter Prestressed Strands (1860 MPa low relaxation), (per beam)	m	618.966	618.966
Reinforcing Steel Grade 420 (Epoxy Coated), ( $f_y = 420$ MPa), (per beam)	kg	750	750
Elastomeric Bearing Pads (20 x 310 x 560 mm)	Each	18	18
Bearing Plates (12 x 375 x 560 mm)	Each	18	18
20 mm Open Coil Inserts	Each	64 *	64 *
20 mm dia. x 460 mm Threaded Coil Rods	Each	64 *	64 *
Lifting Devices	Each	18	18

STRAND EXTENSION DETAIL

Extend 10 Strands beyond the ends of the Beams as shown. Strands not shown shall be cut flush with the ends of the Beams.

ARMOUR/PCB-DETAILS 1:100

KANSAS DEPARTMENT OF TRANSPORTATION

BR. NO. 54-87-30.81(700) W.B. STA. 3+378.725  
BR. NO. 54-87-30.82(701) E.B.

23.0 m P.C. BEAM DETAILS

KELLOGG AVENUE OVER ARMOUR ROAD

Proj. No. 54-87 K-8258-01 SEDGWICK COUNTY

**CFS**  
Cook, Flatt & Strobel  
ENGINEERS, P. A.

DESIGNED R.S.C. SCALE Varies  
DETAILED T.R.G. DATE  
QUANTITIES T.R.G. SHEET 20 OF 39