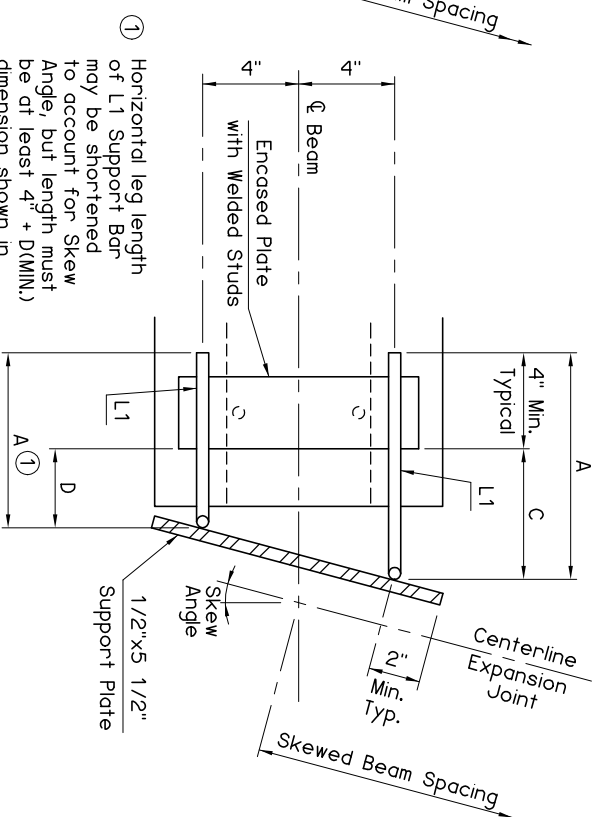


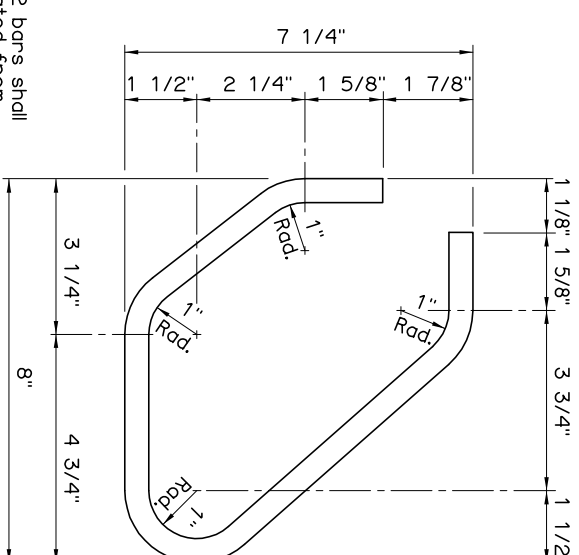
ROLLED BEAMS AND PLATE GIRDERS



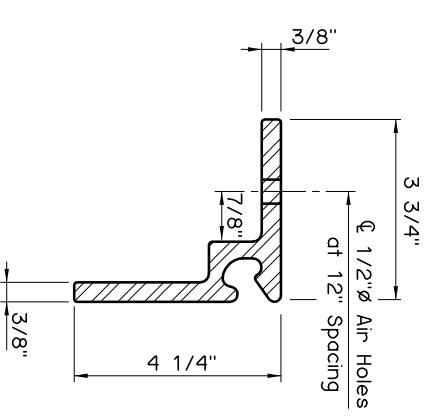
P.C. BEAMS

SUPPORT PLATE SCHEDULE		
SKEW ANGLE	PLATE LENGTH	
0°	1'-0"	
1° thru 25°	1'-1"	
25° thru 35°	1'-2"	
35° thru 45°	1'-4"	
45° thru 55°	1'-6"	
55° thru 60°	1'-8"	
60° thru 65°	2'-0"	
65° thru 70°	2'-4"	

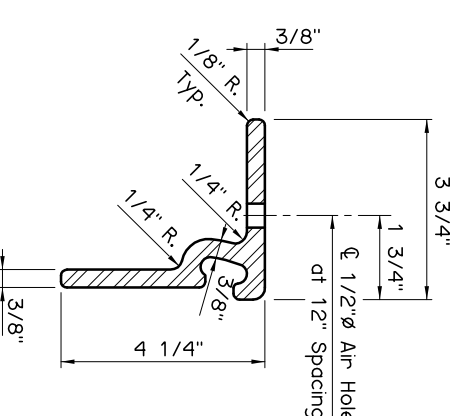
NOTE:  
W1 and W2 bars shall be fabricated from W20 Deformed Steel Wire.



W1 ANCHOR BAR DETAIL



D.S. BROWN TYPE SSOK STEEL EXTRUSION RECEPTOR DETAIL



WATSON BOWMAN AND ACME TYPE Q STEEL EXTRUSION RECEPTOR DETAIL

GUIDE FOR SIZING SEALED EXPANSION JOINT SUPPORT MEMBERS

- After determining Skewed Beam Spacing and C, find Support Bar diameter from L1 SUPPORT BAR DIAMETER SCHEDULE.
- Knowing Support Bar diameter, find Pin Diameter from L1 SUPPORT BAR PIN DIAMETER SCHEDULE. If actual D dimension is less than DIMIN, scheduled, the required weld of Support Bar to Encased Plate for P.C. Beams cannot be made and location of joint support will need to be adjusted. No check of DIMIN from the end of Rolled Beams and Plate Girders is required.
- Dimension A of Support Bars is 4" minimum plus C or D. Horizontal leg length of L1 Support Bar may be shortened to account for Skew Angle, but length must be at least 4" + DIMIN, dimension shown in L1 SUPPORT BAR PIN DIAMETER SCHEDULE.
- Dimension B of Support Bar is dependent upon Haunch Thickness as shown in L1 SUPPORT BAR DIMENSION B SCHEDULE.
- Length of Support Plate is dependent upon Skew Angle as shown in SUPPORT PLATE SCHEDULE.

SEALED EXPANSION JOINT NOTES

The Sealed Expansion Joint shall have a total movement range of 4" and seal the deck to prevent moisture or other contaminants from descending onto the lower structure components.

The Steel Receptor provided shall either be the Watson, Bowman and Acme Type Q Steel Extrusion or the D.S. Brown Type SSOK Steel Extrusion as shown on this sheet.

PAINT

Two shop coats, one an inorganic zinc rich (IZ) primer, the other an inorganic zinc rich (IZ) intermediate coat, will be applied to the entire surface of the Steel Receptor, Support Plates, L1 Support Bars and W1 and W2 Anchor Bars. One field application of urethane topcoat will be applied to all exposed surfaces after installation. All painting shall be done in accordance with Section 730 of the Standard Specifications.

MATERIALS

Steel Receptors, Support Plates and L1 Support Bars shall be in accordance with AASHTO M270 (ASTM A709), Grade 36, 50 or 50W (Charpy V-Notch testing not required). W1 and W2 Anchor Bars shall conform to AASHTO M225 (ASTM A496). All bar dimensions shall be included in the shop drawings. Welding of Steel Receptors, Support Plates, L1 Support Bars and W1 and W2 Anchor Bars shall be in accordance with Subsection 724.03 of the Standard Specifications. Preformed neoprene gland lubricant adhesive shall be in accordance with the manufacturer's published literature.

FABRICATION OF JOINT

At locations where joint is shown to be mitered at any angle for turn-up at traffic rail or for skew, the material shall be shop spliced with heat vulcanizing or other method of equal effectiveness as recommended by the listed joint manufacturer or approved equal and approved by the Engineer.

BASIS OF PAYMENT

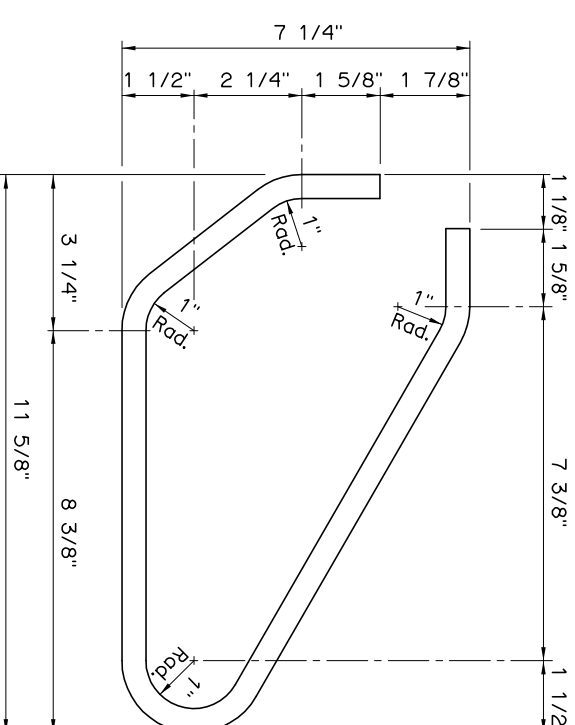
The contract unit price for SEALED EXPANSION JOINT shall be full compensation for furnishing all materials for the complete joint including Neoprene Gland, Support Plates, Steel Receptors, L1 Support Bars, W1 and W2 Anchor Bars, welding, equipment, labor and other incidentals necessary to complete and install the Sealed Expansion Joint in place.

L1 SUPPORT BAR DIAMETER SCHEDULE	L1 SUPPORT BAR PIN DIAMETER SCHEDULE	
	C (MAX.)	SUPPORT BAR DIAMETER
8'-0" or Less	3"	3/4"
	6"	1"
	1'-3"	1 1/4"
	1'-9"	1 1/2"
	2'-0"	1 3/4"
	3"	3/4"
	6"	1"
Over 8'-0" to 11'-0"	1'-0"	1 1/4"
	1'-6"	1 1/2"
	2'-0"	1 3/4"
	3"	1"
Over 11'-0" to 14'-0"	1'-0"	1 1/4"
	1'-6"	1 1/2"
	1'-9"	1 3/4"
	2'-0"	2"
	3"	1"
Over 14'-0" to 20'-0"	9"	1 1/4"
	1'-3"	1 1/2"
	1'-9"	1 3/4"
	2'-0"	2"
	3"	1"
Over 20'-0" to 25'-0"	6"	1 1/4"
	1'-0"	1 1/2"
	1'-6"	1 3/4"
	2'-0"	2"

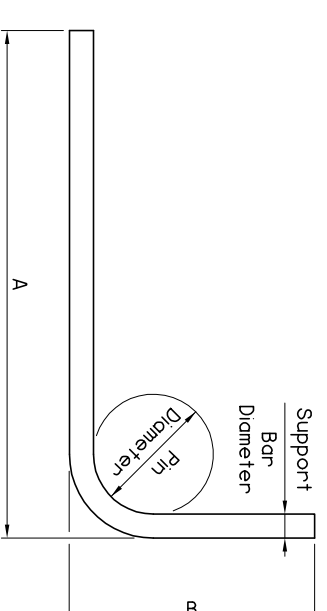
L1 SUPPORT BAR PIN DIAMETER SCHEDULE	L1 SUPPORT BAR DIMENSION B SCHEDULE	
	PIN DIA. (2)	D (MIN.)
3/4"	2 1/4"	2 3/8"
1"	3"	3"
1 1/4"	3 3/4"	3 5/8"
1 1/2"	4 1/2"	4 1/4"
1 3/4"	5 1/4"	4 7/8"
2"	6"	5 1/2"

L1 SUPPORT BAR DIMENSION B SCHEDULE	HAUNCH THICKNESS (3)		B (4)	
	1"	2"	6 3/4"	7 1/2"
	2"	3"	8 3/4" <td>8 1/2" </td>	8 1/2"
	3"	4"	8 1/2" <td>8 1/2" </td>	8 1/2"

- Pin Diameter shown is based on ASTM A6, Appendix X4 for Grade 36 steel.
- Haunch Thickness measured from top of Beam to bottom of Deck Slab.
- Dimension B assumes an 8" Deck Slab. If a different Deck Slab thickness is used, Dimension B must be adjusted accordingly.
- 1 3/4" and 2" L1 Support Bars cannot be used with 1" Haunch unless L1 Support Bars are hotbent around 3 1/2" Pin maximum.
- 2" L1 Support Bars cannot be used with 2" Haunch unless L1 Support Bars are hotbent around 5 1/2" Pin maximum.



W2 ANCHOR BAR DETAIL



L1 SUPPORT BAR DETAIL

APPROVED BY BRIDGE ENGINEER  
  
 DATE 8/16/03  
 OKLAHOMA DEPT. OF TRANSPORTATION  
 BRIDGE STANDARD (ENGLISH)  
 SEALED EXPANSION JOINT DETAILS  
 1999 SPECIFICATIONS  
 EU-DTL  
 OOE  
 B-10E