



SOLE PLATE DETAIL

SCALE: 3" = 1'-0"

NOTES: (to be used with details shown on Dwg. No.'s 8.4.1 and 8.4.2)

1. D = Diameter of Elastomeric Bearing Pad;
 LM = Length of Stainless Steel Mating Surface = $D + 2"$;
 WM = Width of Stainless Steel Mating Surface = $D + (\text{calculated total thermal movement range} \times 1.5)$, rounded up to the nearest $\frac{1}{2}"$;
 LS = Length of Sole Plate = $LM + 8"$;
 WS = Width of Sole Plate = $WM + 1"$;
 LR = Length of Retainer Plate = LS ;
 WR = Width of Retainer Plate = WS .
2. The end of the beam and sole plate may be flush, however the sole plate cannot extend beyond the beam end. If required, increase the length of beam so that it always stays flush with sole plate.
3. Width of bridge seat may need to be increased to provide this clearance after the beam reaches its maximum thermal expansion length.
4. Width of bridge seat may need to be increased to maintain these clearances.
5. Sole plate must be tapered if slope of beam bottom flange due to roadway grade and camber exceeds 1%. Provide detail of tapered sole plate as shown above.
Diameter of hole = (bolt diameter $\times 1.25$), rounded up to nearest $\frac{1}{4}"$.
6. Modify retainer plate as required by Dwg. No. 8.4.1 and 8.4.2, and provide detail as shown on Dwg. No. 8.3.5.
7. Set centerline of cast-in-place inserts on strand location and omit those columns of strands for the specific strand pattern.
8. Designer must provide sufficient vertical clearance, which is based on the total height of the bearing assembly, for the bolts securing sole plate, to allow for their complete unscrewing and subsequent removal of the retainer plate and the bearing pad.
9. Designer must also provide sufficient horizontal clearance after maximum thermal movements between the centerlines of the cast-in-place inserts and the nuts securing retainer plate to avoid their interference during possible removal of the retainer plate and the bearing pad.



LRFD BRIDGE
MANUAL, PART II

SOLE PLATE DETAIL AND DESIGNER NOTES

SLIDING BEARINGS – NEBT BEAMS

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