3.9.1

**NOTES:**

1. **Bridge Seat Elevations** shall be determined as follows:

   \[ C = B - (T + T + T + A) \]

   where:

   - \( T \) = Wearing surface + slab thickness
   - \( T \) = Depth of beam
   - \( T \) = Height of bearing pad
   - \( A \) = Blocking distance @ centerline of bearing = \( H \) or \( H + Z - M \), whichever is greater, where:

   \[ Z = \text{Net upward camber at erection calculated using the PCI "at erection" multipliers for prestressing and selfweight, minus the unfactored elastic deflections from the weight of the slab, utilities, diaphragms, haunch, and superimposed dead load. Long term effects due to creep, shrinkage and live load shall be ignored for beam seat calculations.} \]

   \[ M = B2 - (B1 + B3)/2, \] where:

   - \( B1 \) = Final top of roadway elevation @ C of Bearing @ Support No. 1
   - \( B2 \) = Final top of roadway elevation @ mid span of the beam
   - \( B3 \) = Final top of roadway elevation @ C of Bearing @ Support No. 2

   This method is limited to situations where the minimum haunch dimension occurs at either mid span or at the bearings. In cases where this is not so, (for example: the vertical curve starts or ends within the center lines of bearings) the designer shall use the other methods to determine the minimum haunch location along the length of the beam and adjust the beam seats accordingly so that the minimum haunch dimension is not violated at any point along the length of the beam.

For spread precast concrete box beams, refer to Dwg. No. 3.8.2 for additional details.