Substructure and bearing elevations

Substructure and bearing elevations are found in the bridge modeler Bridge Object Bent Assignments menu under Bridge > Bridge Objects > Modify /Show Bridge Object > Modify/Show Assignments for Bents > Elevation (Global Z).

Substructure Location, Elevation (Global Z) is the bearing seat elevation, or the elevation at the top of the bent cap or abutment cap. Bearing Assignment, Elevation at Layout Line (Global Z) is the elevation at the bearing action point. Abutment and bent figures, taken from pages 1-13 and 1-15 of the Bridge Seismic Design manual, are shown in Figures 1 and 2:

Figure 1 - Abutment bearing action point (Z = -49ft) and seat (Z = -51ft)

Figure 2 - Bent bearing elevation (Z = -49ft) and substructure elevation (Z = -51ft)
Figure 2 - Bent bearing action point (Z = -49ft) and seat (Z = -51ft)

See Also

- Bridge bearings FAQ