

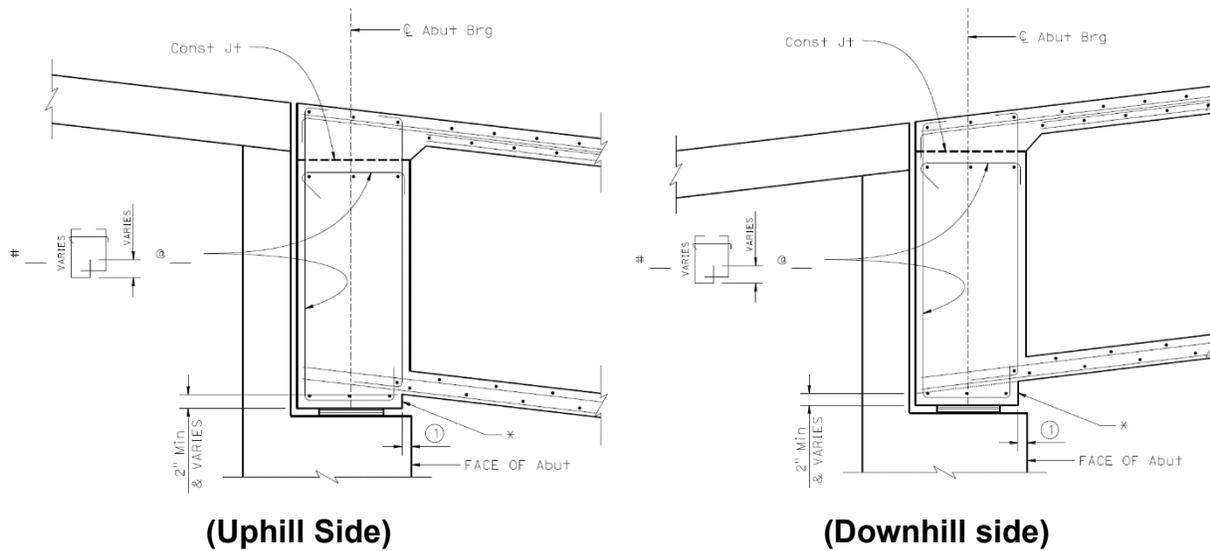


Bridge Design Details 14.5 January 2023

Level Abutment Seat

The End Diaphragm depth should be increased (also known as dropped diaphragm) for bridges with steep longitudinal slope (when longitudinal slope exceeds 3%). The portion of the End Diaphragm below the soffit should be inset behind the face of the abutment stem by an amount equal to the expected prestress shortening movement.

Additionally, a dropped diaphragm is used when there are high superelevations (cross slope exceeds 3%) or when there are high skews (greater than 20 degrees) to allow the bottom slab reinforcement to be extended into the end diaphragm and not conflict with the bottom end diaphragm reinforcement.

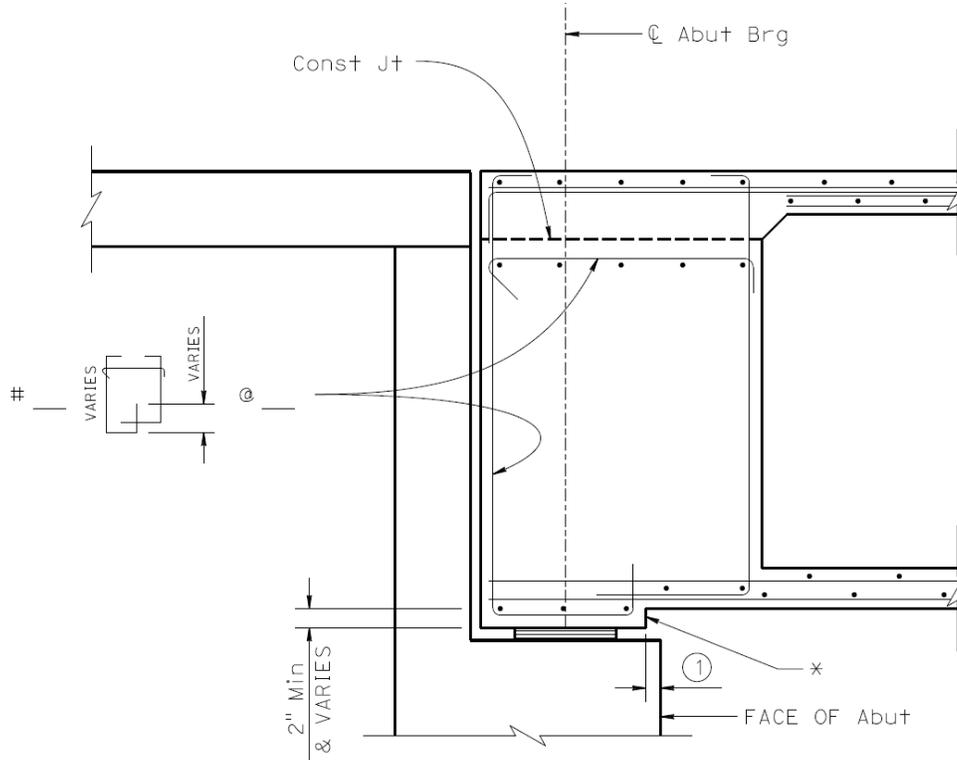


NOTE:

① Inset diaphragm —" to allow for prestress shortening.

* Increase end diaphragm depth to allow for abutment seat to be level

Figure 14.5.1 Level Seat at End Diaphragm



NOTE:

① Inset diaphragm —" to allow for prestress shortening.

* Increase end diaphragm depth to allow for abutment seat to be level

Figure 14.5.2 Level Seat at Wide End Diaphragm (Superelevation)