

- N. The Contractor shall ensure that all pipes and fittings are sound and clean before laying. When pipe laying is not in progress, the Contractor shall ensure that the pipe end is closed at all times by watertight plug or other approved means.

25.3.5 Installing Pipes Through Structures

- A. The Contractor shall ensure that pipes and pipe specials through concrete walls and floors are as far as possible located and built in during construction. The pipe shall be located exactly in the positions and with puddle flanges as shown in the Drawings. The Contractor shall ensure that the pipe is true to line and level and that fully compacted concrete is in contact with the pipe at all points.
- B. Where it is impracticable to cast pipes and specials in the concrete, box-outs shall be formed in the shuttering. Boxes from four to eight sides, depending on the pipe diameter shall be formed. The sides of the box-outs shall be provided with a tapered central annular recess to provide a positive key. The box-outs shall be provided with a grout hole and, at the top of the central annular recess with a vent hole. The box-outs shall be stripped from the main shuttering and thoroughly clean and roughen the concrete surface.
- C. Unless otherwise shown on the Drawings, the pipes passing through a concrete wall or structure shall be protected with a surround of concrete Class 'B' integral with the external face(s) of the structure.
1. For pipes of less than 500mm diameter, extend the surround from the wall or structure by 300mm, and extend the width and depth of the surround beyond the outside face of the pipe at its horizontal and vertical diameters by a minimum of 300mm or as otherwise indicated on the Drawings.
 2. For pipes of 500 mm diameter or greater, extend the surround from the wall or structure by 500mm, and extend the width and depth of the surround beyond the outside face of the pipe at its horizontal and vertical diameters by 500mm or as otherwise indicated on the Drawings.
- D. On spigot and socket pipelines of GRP or other plastic materials the socket end of the pipe passing through the wall shall protrude 300mm from the concrete surround. A protective synthetic rubber strip 6 mm thick and 150mm wide shall