



Diagram illustrating the cross-section of a road construction structure, showing a 150mm thick reinforced concrete slab with a 1 layer of A393 mesh and 50mm of cover to each face. The slab is supported by a single-size granular material. Dimensions for the granular material are 150mm min for 100mmØ pipes, 10 or 14mm for 150mmØ pipes, and 14 or 20mm for 225mmØ pipes. The diagram also shows a 200mm min dimension for the granular material on the sides and a 150mm min dimension for the granular material on the top.

Backdrop to be within the 150mm concrete surround to the manhole

The diagram illustrates the cross-section of a manhole structure. At the top, there is a D400 Ductile iron cover & frame to BS. EN 124 with 150mm deep frame in the highway having 1220 x 610 double twin opening directly over the channel. Below the cover is a heavy-duty precast concrete cover frame seating ring. The structure is built with a minimum of 2 and a maximum of 4 courses of Class B Engineering brick (solid), concrete blocks, or precast concrete cover frame seating ring. The bricks are laid with 10th. mortar, proprietary bitumen, or resin mastic sealant. A construction joint is indicated. Below the brickwork is a GEN 3 concrete base. In-situ concrete to be GEN3 (designed to BRE Special Digest 1 Concrete in Aggressive Ground) is shown. The base is 225mm to the barrel of the pipe. High-strength concrete topping is brought up to a dense smooth face neatly shaped and finished to all branch connections (min. thickness 20mm). Gradient to be 1:10 - 1:30. Mortar haunching to M.H. cover and frame refers to Clause E6.7. Where manholes are located in highway, mortar haunch is to stop 100mm below cover level. Inverts formed using clay channel pipes are shown at the bottom.

D400 Ductile iron cover & frame to BS. EN 124 with 150mm deep frame in the highway having 1220 x 610 double twin opening directly over the channel

Mortar haunching to M.H. cover and frame Refer to Clause E6.7. Where manholes are located in highway mortar haunch is to stop 100mm below cover level

High strength concrete topping to be brought up to a dense smooth face neatly shaped and finished to all branch connections (min. thickness 20mm). Gradient to be 1:10 - 1:30

Inverts formed using clay channel pipes.

Heavy duty precast concrete cover slab (B.S. 5911) Kite Marked and bedded with 10th. mortar, proprietary bitumen or resin mastic sealant.

Construction joint

GEN 3 concrete base. In-situ concrete to be GEN3 (designed to BRE Special Digest 1 Concrete in Aggressive Ground)

225mm to barrel of pipe

D400 Ductile iron cover & frame to BS. EN 124 with 150mm deep frame in the highway having 1220 x 610 double twin opening directly over the channel

Inverts formed using clay channel pipes.

High strength concrete topping to be brought up to a dense smooth face neatly shaped and finished to all branch connections (minimum thickness 20mm). Gradient to be 1:10 to 1:30

[illegible]

The diagram illustrates a 4-course brickwork pattern. It shows four courses of bricks laid in a sequence. The 1st Course is a stretcher course, the 2nd Course is a header course, the 3rd Course is a stretcher course, and the 4th Course is a header course. The pattern is shown in a perspective view, with bricks laid in a regular grid. The 2nd and 4th courses are header courses, meaning the bricks are laid with their ends facing the viewer. The 1st and 3rd courses are stretcher courses, meaning the bricks are laid with their long sides facing the viewer. The pattern is shown in a perspective view, with bricks laid in a regular grid. The 2nd and 4th courses are header courses, meaning the bricks are laid with their ends facing the viewer. The 1st and 3rd courses are stretcher courses, meaning the bricks are laid with their long sides facing the viewer.

11 Broomhead Road, Wombwell, Barnsley, S73 0SA.
Mobile 07528 278070 . Email Shauntongeengineering@yahoo.co.uk