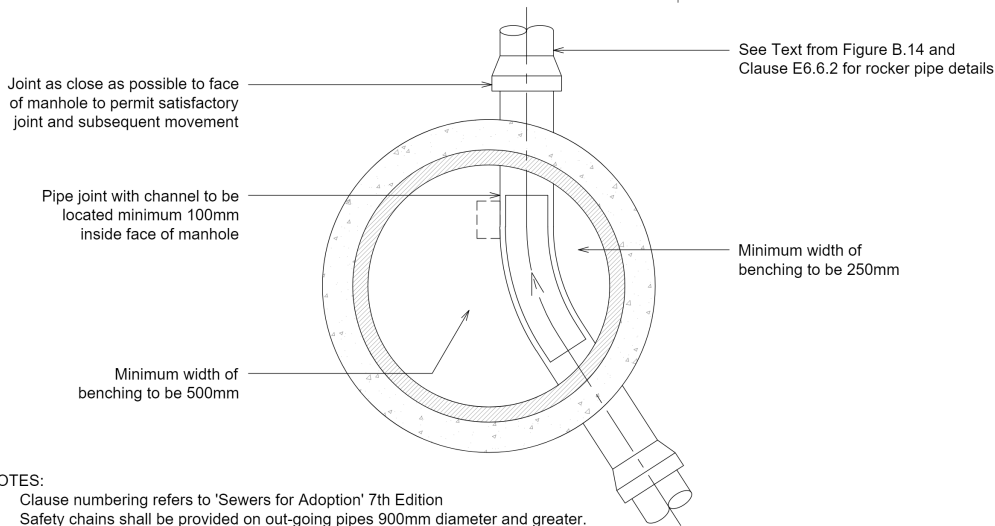
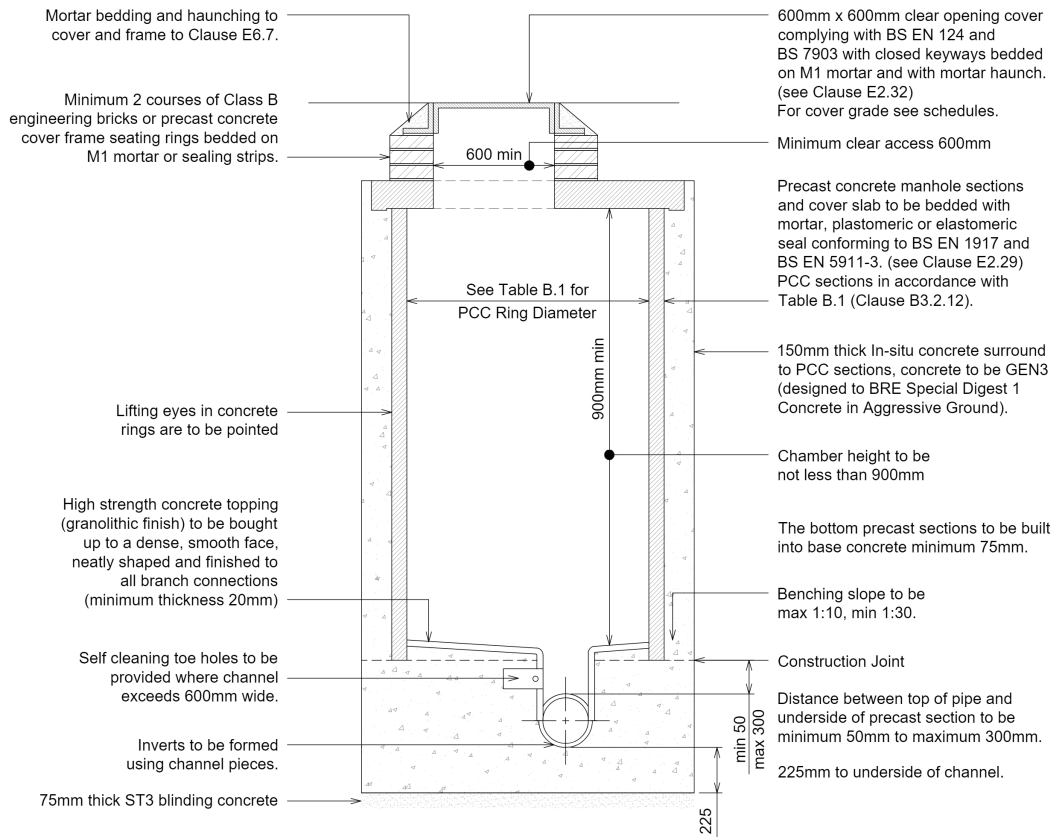


Typical Type 2 Chamber Detail

scale 1:25

- Maximum depth from cover level to soffit of pipe 3.0m



NOTES:

1. Clause numbering refers to 'Sewers for Adoption' 7th Edition
2. Safety chains shall be provided on out-going pipes 900mm diameter and greater.

Table B.1 - Clause B3.2.12 - Manhole Diameters

Nominal internal diameter of largest pipe in manhole (mm)	Minimum nominal internal dimension of manhole (mm)
Less than 375	1200
375 - 450	1350
500 - 700	1500
750 - 900	1800
Greater than 900	Pipe diameter + 900

Clause E6.6 - Pipes and Joints Adjacent to Structures

1. Where rigid pipes are used, a flexible joint (rocker pipe) shall be provided as close as is feasible to the outside face of any structure into which a pipe is built, within 150mm for pipe diameters less than 300mm. The design of the joints shall be compatible with any subsequent movement.
2. The recommended length of the next pipe (rocker pipe) away from the structure shall be as shown in Table E.12.

Clause E6.7 - Setting Manhole Covers and Frames

1. Manhole frames shall be set to level, bedded and haunched externally over the base and sides of the frame in mortar, in accordance with the manufacturers instructions. The frame shall be seated on at least two courses of Class B engineering bricks, on precast masonry units or on precast concrete cover frame seating rings to regulate the distance between the top of the cover and the top rung of the ladder (to be no greater than 675mm). A mortar filler shall be provided where the corners to an opening in a slab are chamfered and the brickwork is not flush with the edges of the opening.
2. Frames for manhole covers shall be bedded in a polyester resin based mortar in all situations where covers are sited in NRSWA Road Categories I,II or III (i.e. all except residential cul-de-sacs).

Table E.12 Rocker Pipes

Nominal Diameter (mm)	Effective length of Rocker Pipe (mm)
150 to 600	600
600 to 750	1000
Over 750	1250

Clause E2.29 - Precast Concrete Manhole

1. Precast concrete manhole units shall comply with BS EN 1917 and BS 5911-3. Units which bed in imposed vertical loads are transmitted to the structure. The profiles of joints between units and withstanding applied loadings from such loads shall be used where the soffit of the slab is required to be used.
2. Precast concrete chamber sections for manholes shall comply with BS EN 1917 and BS 5911-3.

Clause E2.32 - Manhole Covers and Frames

1. Manhole covers and frames shall comply with BS 7903 and Highways Agency Guidance for a non rocking design which does not rely on the cover being seated on the frame.
2. Manhole covers on foul-only sewers shall be designed to prevent excessive surface water ingress.
3. As a minimum, Class D400 covers shall be used on pedestrian streets, hard shoulders and verges and on roads for heavy vehicles.
4. Minimum frame depths for NRSWA road categories shall be as shown in Table E.6.
5. Class B125 covers shall be used in footpaths and cycleways.
6. In situations where traffic loading is anti-typical residential estate distributor roads, higher specification E600 covers shall be used.
7. All Manholes shall be the non ventilating type.

Table E.6 Minimum Frame Depths

NRSWA Road Category	Road Description
I	Trunk road and dual carriageways
II	All other A roads
III	Bus services
IV	All other roads except residential cul-de-sacs
-	Residential cul-de-sacs

Clause E2.32 - Manhole Covers and Frames

1. Manhole covers and frames shall comply with BS 7903 and Highways Agency Guidance for a non rocking design which does not rely on the cover being seated on the frame.
2. Manhole covers on foul-only sewers shall be designed to prevent excessive surface water ingress.
3. As a minimum, Class D400 covers shall be used on pedestrian streets, hard shoulders and verges and on roads for heavy vehicles.
4. Minimum frame depths for NRSWA road categories shall be as shown in Table E.6.
5. Class B125 covers shall be used in footpaths and cycleways.
6. In situations where traffic loading is anti-typical residential estate distributor roads, higher specification E600 covers shall be used.
7. All Manholes shall be the non ventilating type.

Text taken from Figure B.14

1. Stub pipes into structures shall be of rigid material.
2. No incoming branch is to be less than 900mm diameter. If flow, all pipes entering the bottom of the chamber shall be rigid.

