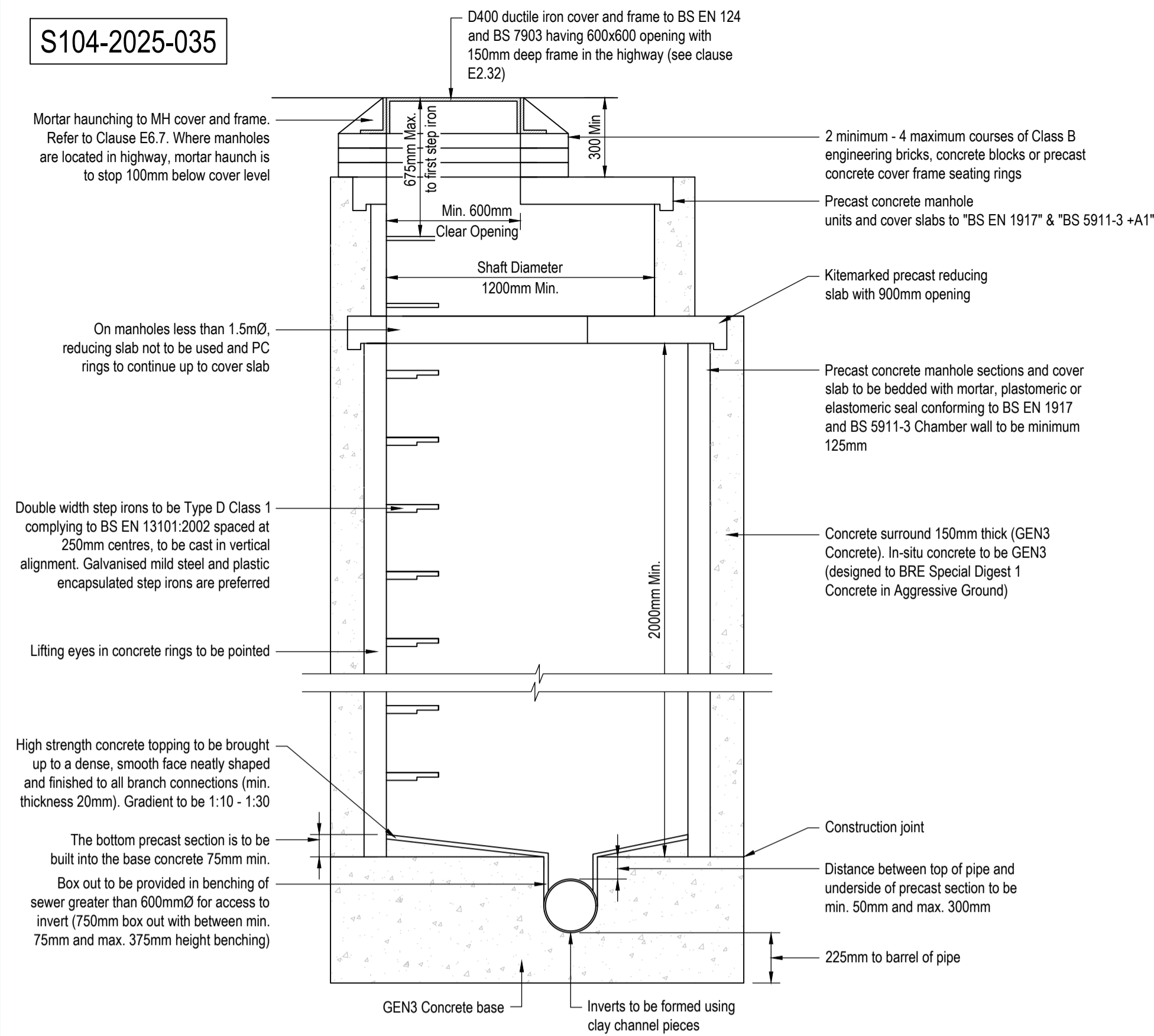
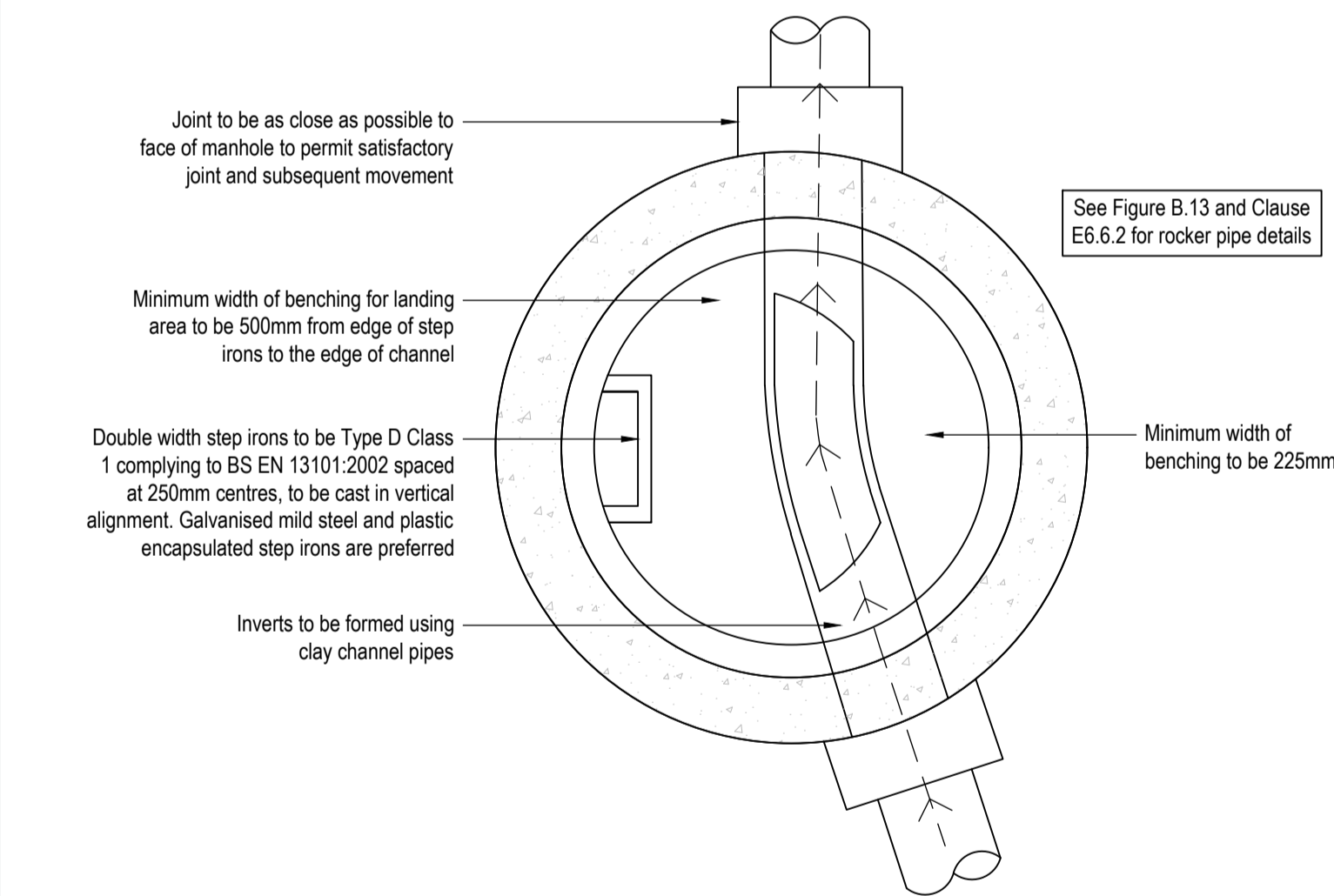


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**Typical Manhole Construction Type A1 (Design and Construction Guidance)**

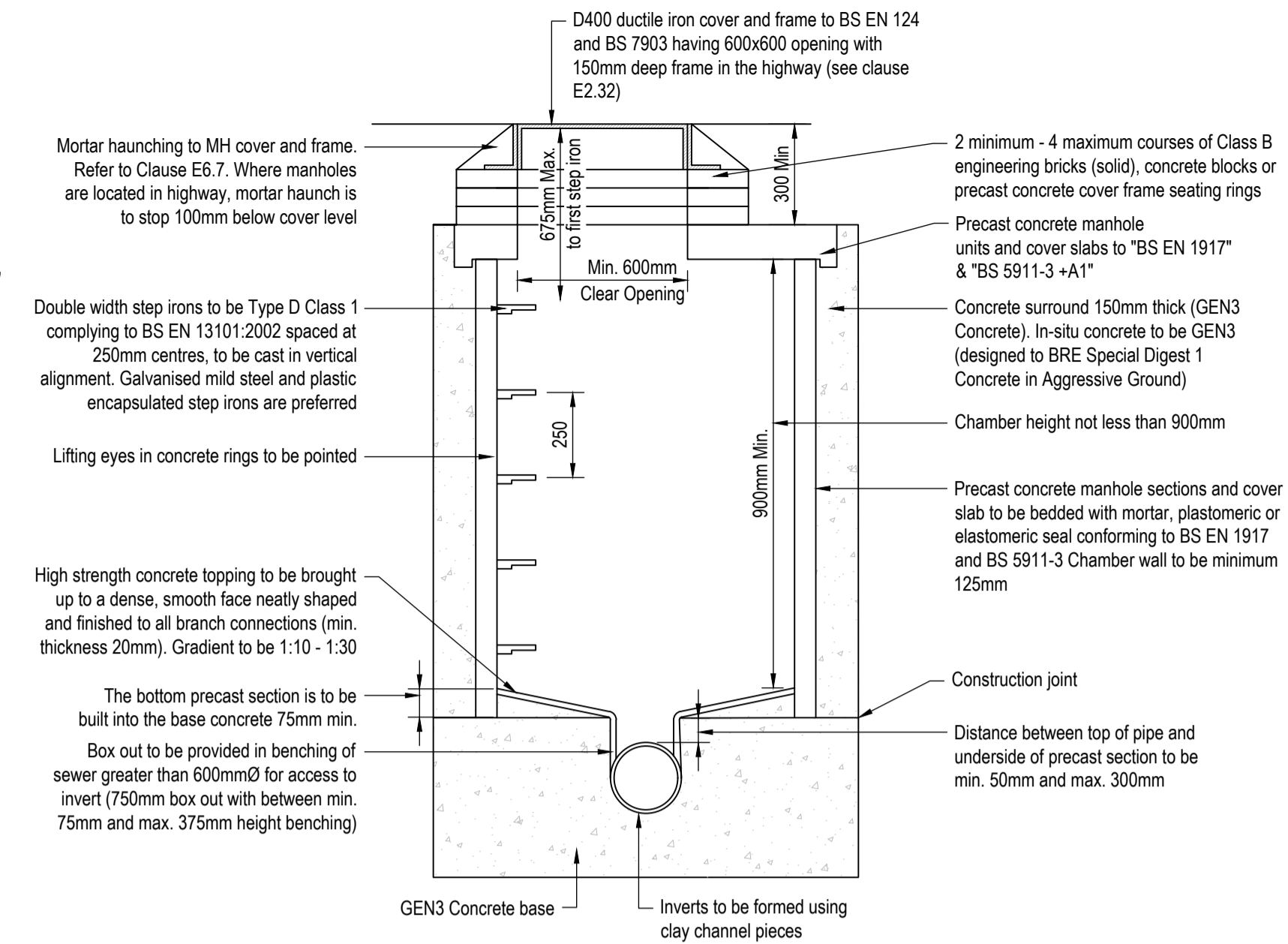
For use on manholes of depth from cover level to soffit level between 3000mm and 6000mm  
Scale 1:20



**Typical Manhole Plan View Type A & B (Design and Construction Guidance)**

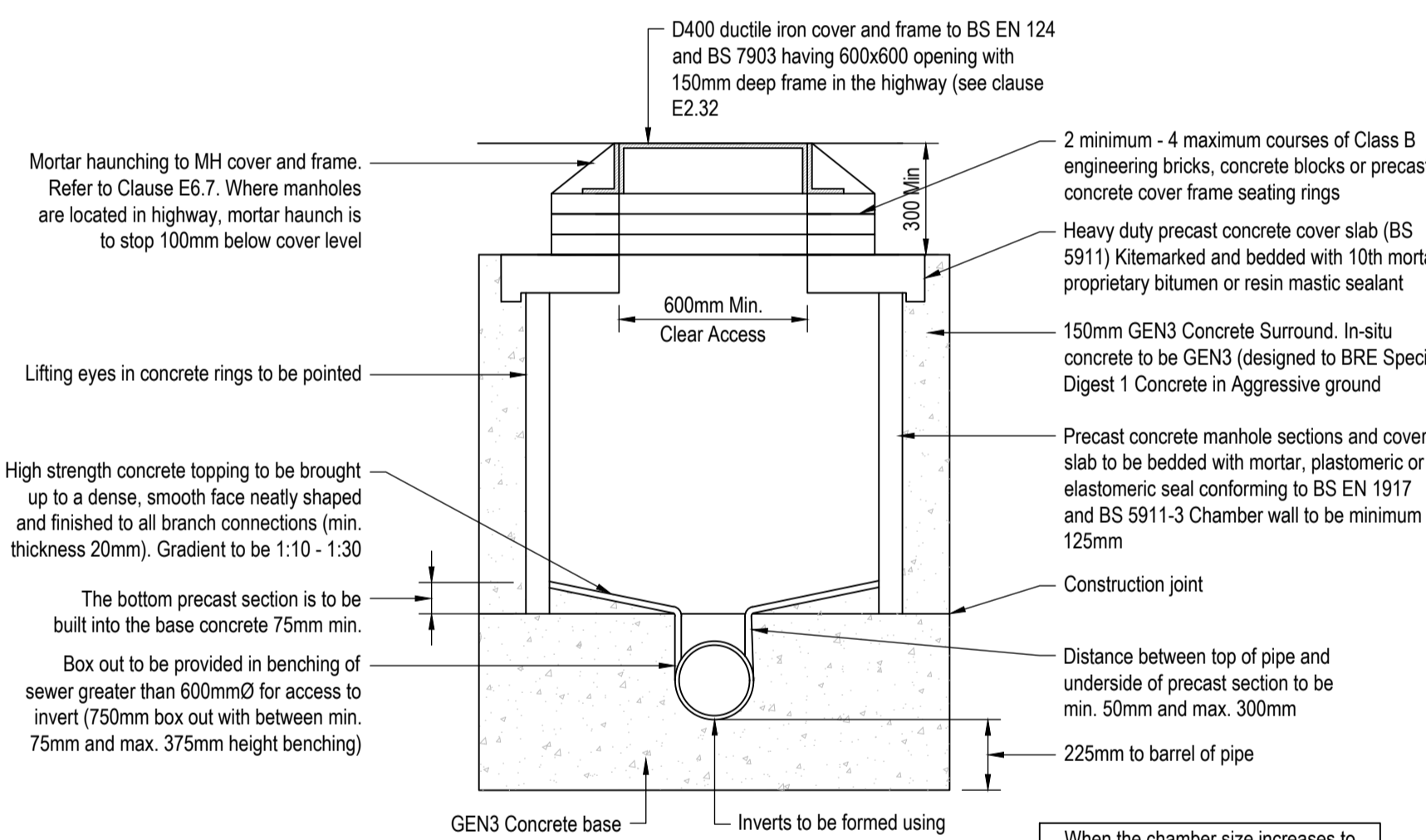
Scale 1:20

Manhole Diameters	
Nominal Internal Diameter of Largest Pipe in Manhole (mm)	Minimum Nominal Internal Dimension of Manhole (mm)
Up to 300	1200
375-450	1350
500-700	1500
750-900	1800
Greater than 900	Specified Detailed Drawing Required



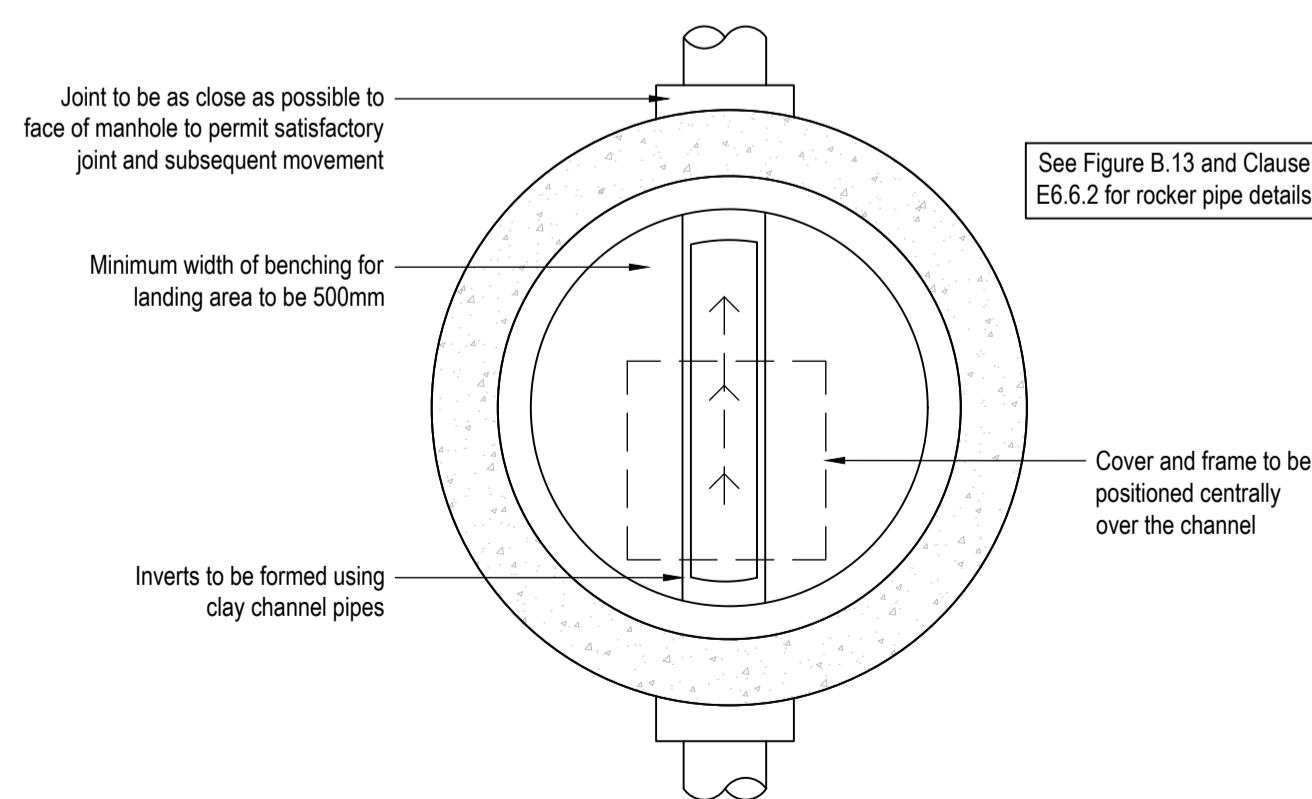
**Typical Manhole Construction Type B (Design and Construction Guidance)**

Maximum depth from cover level to soffit of pipe 3000mm  
Scale 1:20



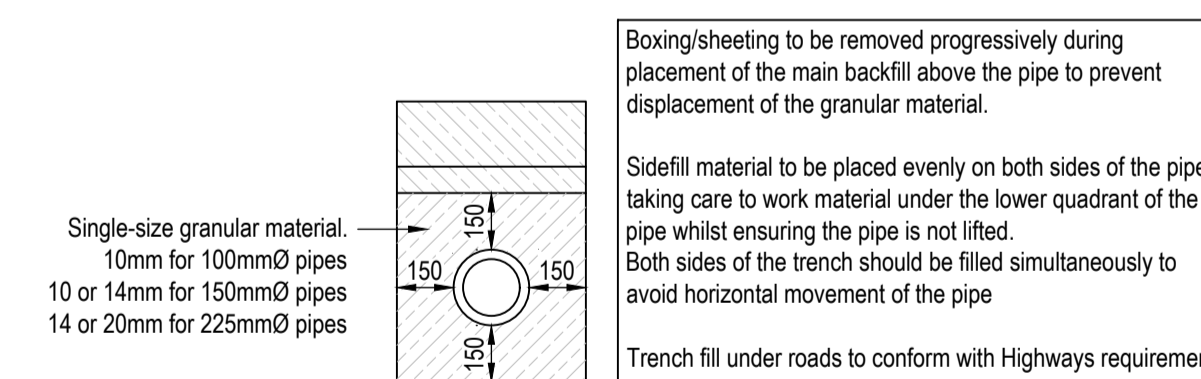
**Shallow Manhole Construction Type C (Design and Construction Guidance)**

Construction of manhole where depth from soffit to cover level less than 1.5m  
Scale 1:20



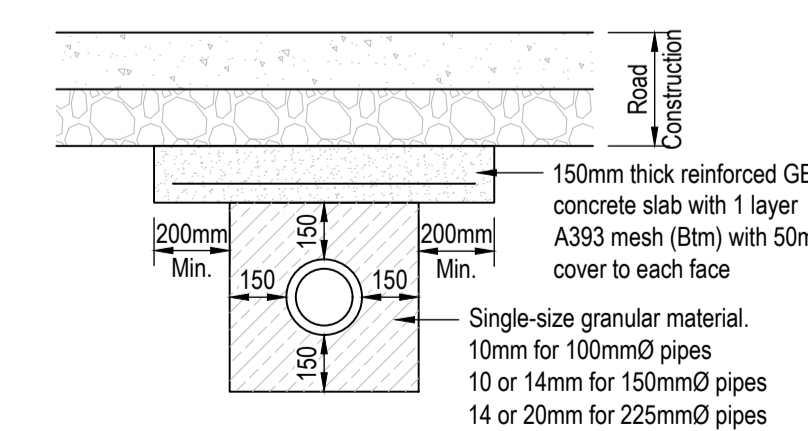
**Shallow Manhole Plan View Type C (Design and Construction Guidance)**

Scale 1:20



**Typical Detail Through Class S Bed and Surround**

Scale 1:20



**Typical Detail Through Class S Bed and Surround with Concrete Slab Protection**

Scale 1:20

**Yorkshire Water Notes**

- All adoptable sewer works and material to be in accordance with "Code for Adoption", The Relevant British/European and Yorkshire Water's Standards/Requirements/Local Practice for the Adoption of Small Submersible Foul and Surface Water Pumping Stations and must be Kitemarked.
- Manhole covers shall have a clear opening of 600mm and shall be Class D400 to BS EN 124 with 150mm deep frames in highways.
- Filled ground must be filled and consolidated under the supervision and to the satisfaction of Yorkshire Water before any sewer works are carried out.
- Yorkshire Water is **not** obliged to accept filter drain/land drainage run-off into the public sewer network or adoptable drainage system (**directly or in-directly**). An alternative method of disposal of the land drainage run-off will therefore be required and you will have to liaise with the Local Authority, Land Drainage Section with regard to the disposal of the filter drain/land drainage run-off.
- Cover slabs must carry the BSI Kitemark or will be rejected by Yorkshire Water Inspector. Where the clear opening of the Kitemarked product is different to that of the cover and frame, a loading bearing slab should be fitted above the cover slab to bring the size down to 600mm x 600mm for the Yorkshire Water specified cover size. Please refer to Concrete Pipe Systems Association (CPSA), "Technical Bulletin" issued Autumn 2004 for Kitemarked cover slab opening sizes.
- Precast concrete manhole units including their cover slabs shall be manufactured from concrete with a Design Chemical Class DC-4 unless satisfactory evidence through soil analysis can be provided that a lower class will resist attack from soils and ground water.
- The adoptable sewers should be a minimum of 1m and manholes 0.5m from kerb faces and service margins.
- Sewers must have 5 metres clearance from trees and hedges or the width of the canopy at mature height. (**please also refer Design and Construction Guidance for restrictions on tree planting adjacent to sewers**).
- Sewers to be laid in Class "S" Bedding (**150mm granular bed and surround**). Where depth of cover to top of the sewer is less than 1.2m in highways and verges (**or less than 900mm in none vehicular access areas**) then a concrete slab should be provide above granular bed and surround.
- Bedding and backfill material to conform to the requirement of Water Industry Specification 4-08-02 (**Table A1**).
- The chamber size of manholes with more than one connection in them may need to be increased an increment to accommodate the connections and bends.
- Yorkshire Water policy is that brick manholes and 1050mm dia. manhole rings are not preferred. Instead it is preferred that you use a type "B" manhole with 1200mm dia., 1350mm dia. or 1500mm dia. rings, with opening sited over the channel where depth of cover to pipe soffit is 1.1-1.5m.
- Adoptable plastic sewer pipes to be BSI Kitemarked (**certified to WIS 4-35-01 and BS EN 13476**). Adoptable plastic sewer pipes to be laid in maximum 3 metre lengths unless there is a specific operational need to lay longer lengths. Plastic channel sections in manholes are not acceptable and Yorkshire Water would prefer clayware channel in manholes.
- Where a B125 cover and frame has been approved, this **must not** be coated in plastic and must have lifting eyes suitably sized to accommodate standard lifting keys. Screw down covers are not acceptable.
- There should be enough clearance to accommodate the bedding for both pipes, approx. 300mm. If crossover is near the rocker then the clearance needed may be increased.
- The minimum crushing strength for clay pipes should be as follows: 100mm dia. 40kN/m, 150mm dia. 40kN/m, 225mm dia. 45kN/m and 300mm dia. 72kN/m. The minimum crushing strength for concrete pipes should be - (Class 120 to EN 1916/BS 5911-1:2002). Plastic pipes should conform to WIS 4-35-01 and BE EN 13476.
- All laterals to be clay unless noted otherwise.
- Specification of all oversize precast concrete manhole circular vertical units and cover slabs including all ancillary concrete products to be in full compliance with "BS EN 1917" & "BS 5911-3 +A1".
- All precast concrete units in oversize manholes must have a design working life of 100 years (min) in accordance with BS 8800-1:2015+A2:2019 - Table A.5

For all clause and table references please refer to the Design and Construction Guidance contained within Code for Adoption

REV	DESCRIPTION	SIG	CHK	DATE
P04	Revised to suit Kirklees S38 comments	RJ	GH	01/04/2026
P03	Revised to suit Kirklees S38 comments	RJ	GH	04/03/2026
P02	Updated to suit Yorkshire Water comments	EL	GH	03/10/2025
P01	First issue	MA	GH	10/03/2025

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ECE PROJECT No SCALE AT A1 STATUS SUITABLE FOR  
**48785** 1:20 S3 Comment

DRAWING NUMBER REV  
**48785 - ECE - XX - XX - DR - C - 0011** P04  
Project Originator Zone Level Type Role Number