

Figure B.6 - Typical Manhole Detail - Type A - Section

(Scale 1:20)
Depth from cover level to soffit of pipe 3.0m to 6.0m with ladder.
Rigid material construction without concrete surround.

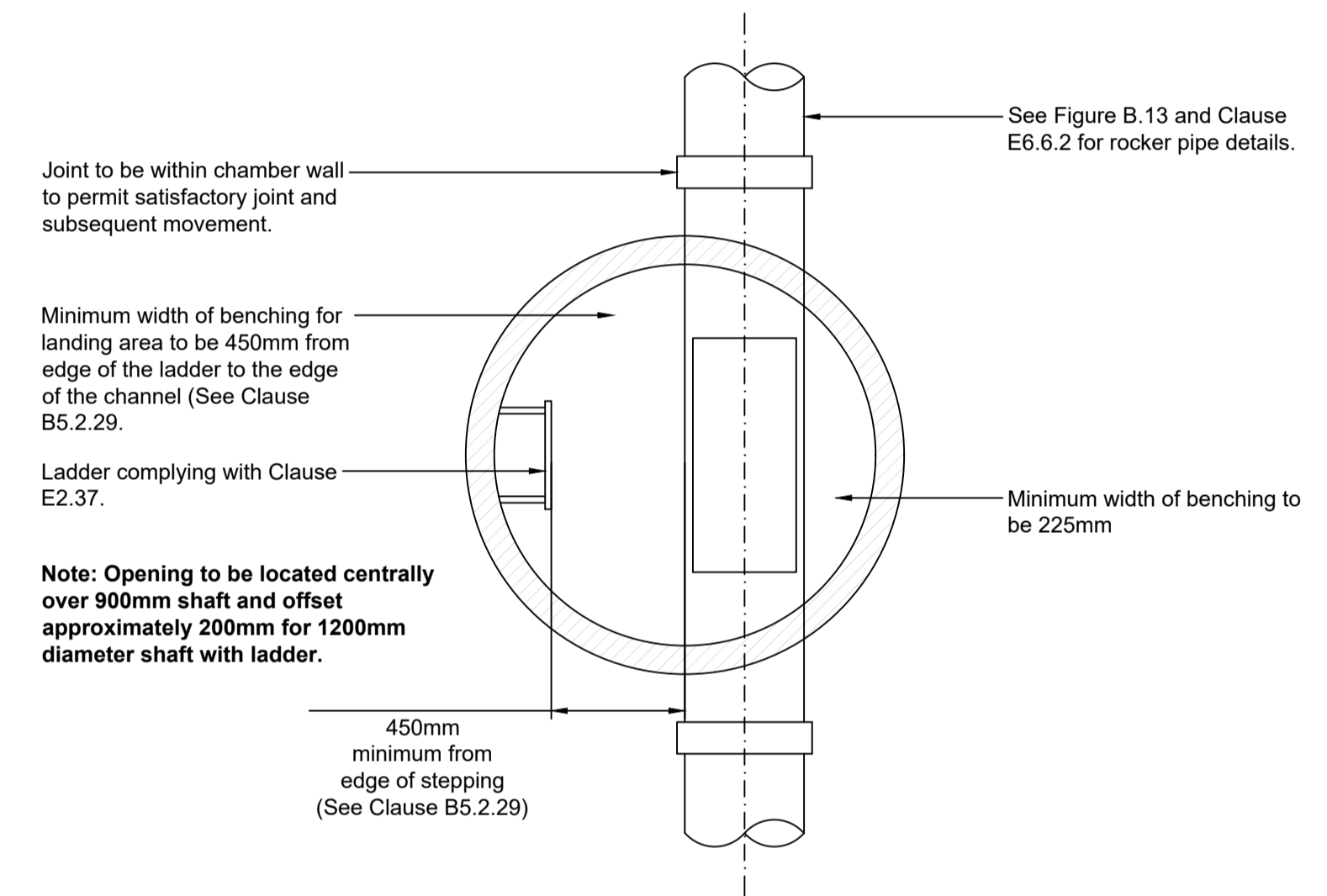


Figure B.6 - Typical Manhole Detail - Type A - Plan

(Scale 1:20)
Depth from cover level to soffit of pipe 3.0m to 6.0m with ladder.
Rigid material construction without concrete surround.

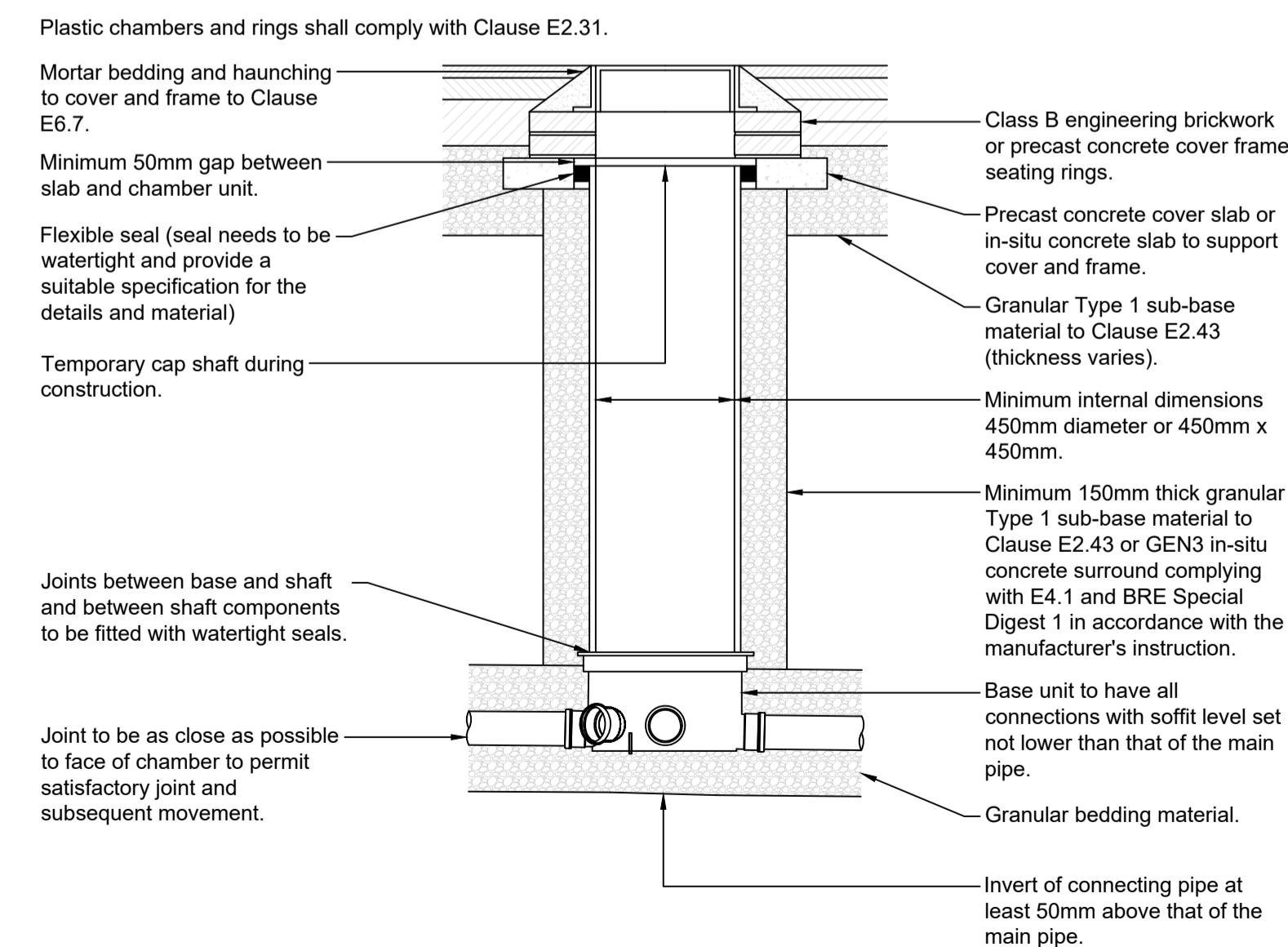


Figure B.37 - Typical Inspection Chamber Detail - Type D

(Scale 1:20)
Depth from cover level to soffit of pipe up to 3.0m.
Flexible material construction for use in areas subject to vehicle loading.

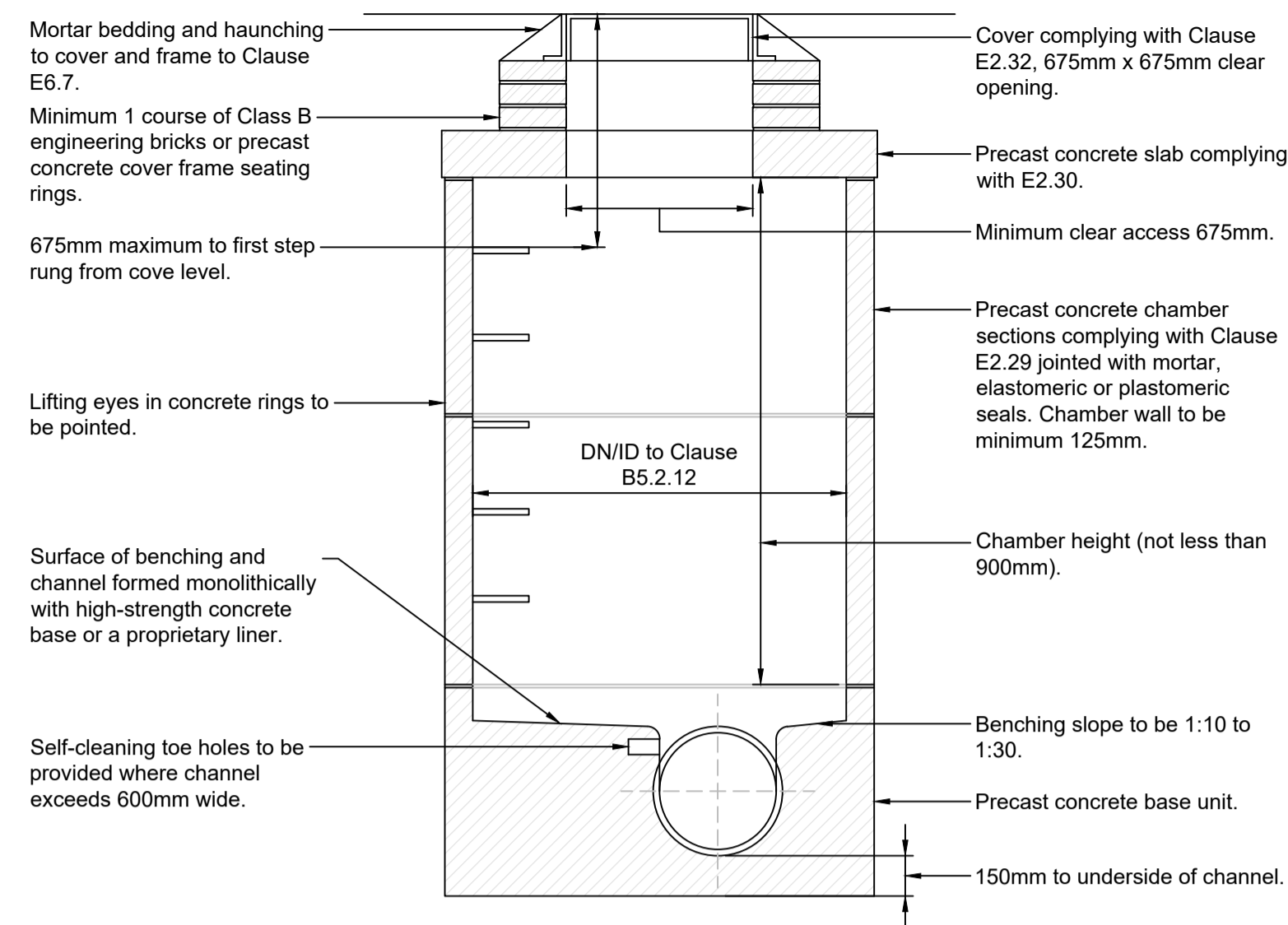


Figure B.9 - Typical Manhole Detail - Type B - Section

(Scale 1:20)
Depth from cover level to soffit of pipe 1.5m to 3.0m.
Rigid material construction without concrete surround.

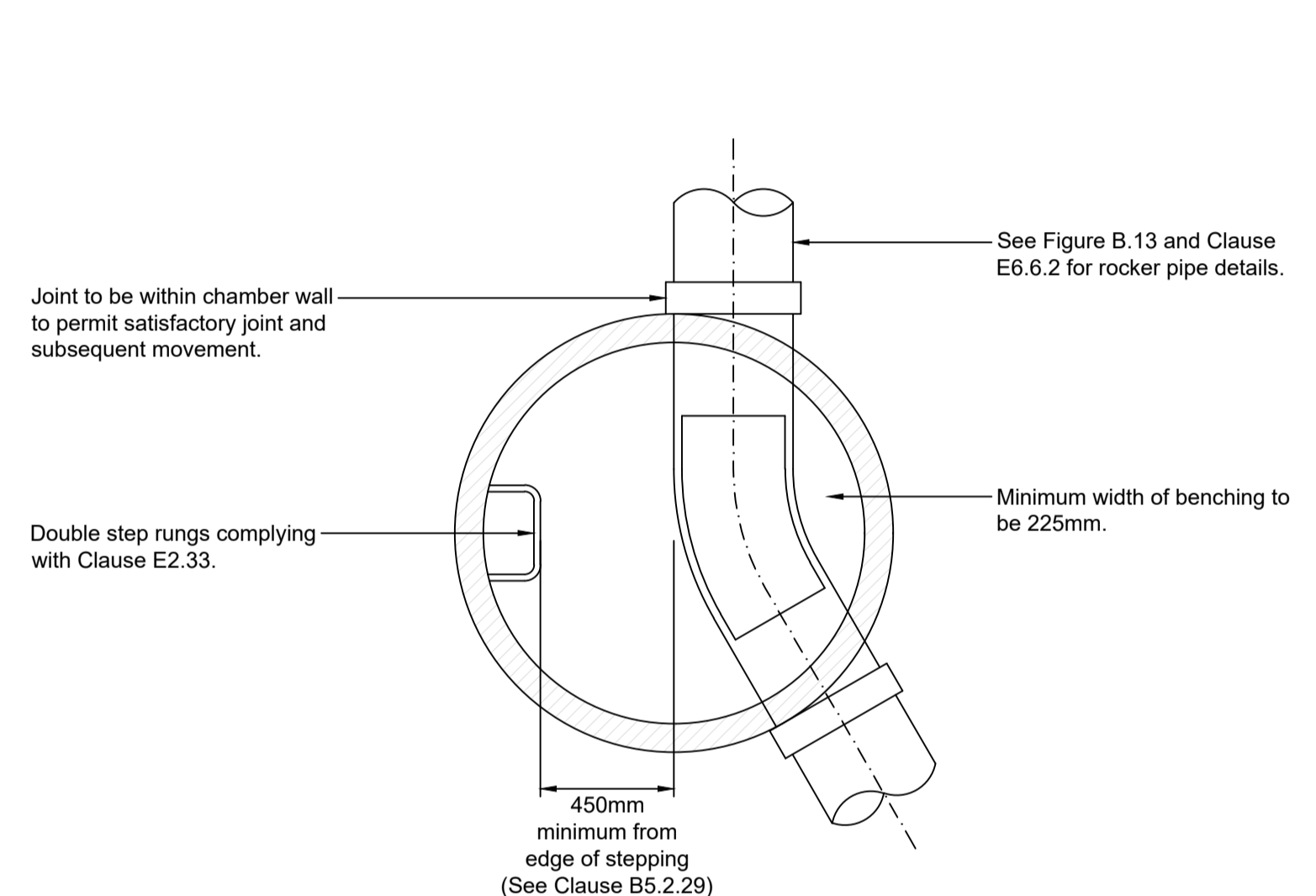
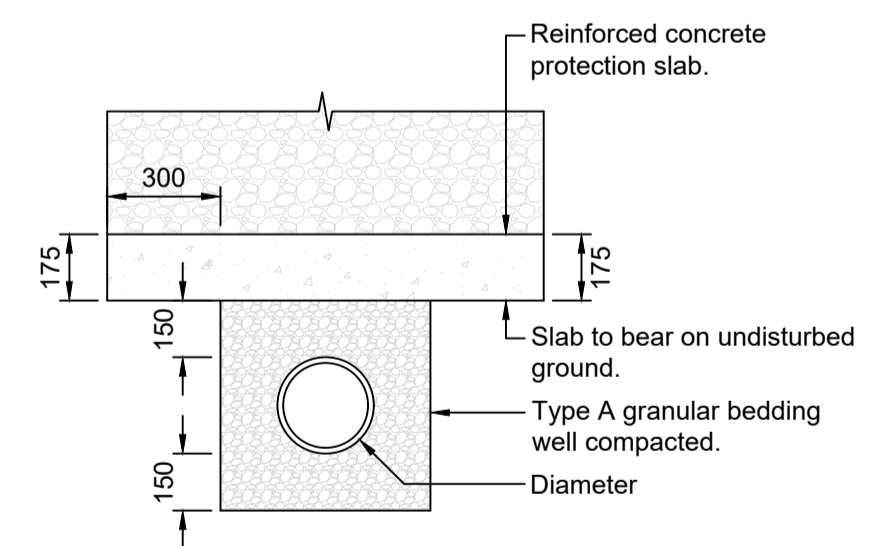


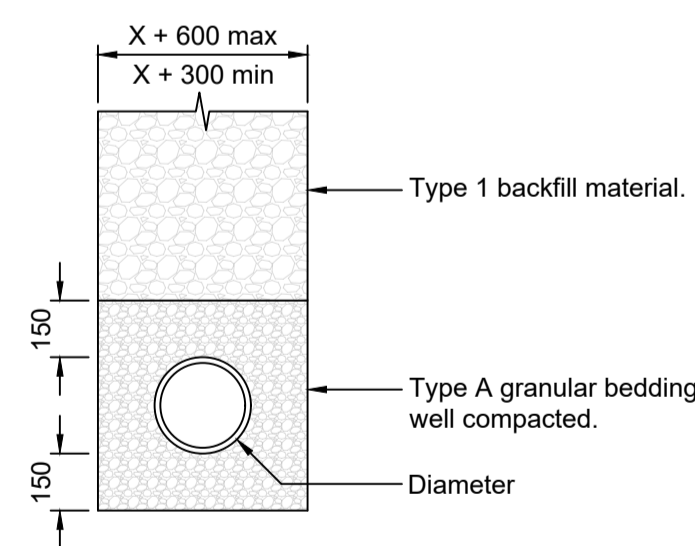
Figure B.9 - Typical Manhole Detail - Type B - Plan

(Scale 1:20)
Depth from cover level to soffit of pipe 1.5m to 3.0m.
Rigid material construction without concrete surround.



Reinforced Concrete Protection Slab

(Scale 1:20)
Bedding Factor 4.5
Notes
1. Class 'S' granular bed and surround preferred with the addition of a reinforced concrete protection slab where the depth of cover beneath the highways is less than 1.200m or less than 0.900m in non trafficked areas.
2. See WIS 4-08-02 for bedding material specification.
3. Refer to IGN 4-11-2 for trench width details.



Granular Bed and Surround - Class S

(Scale 1:20)
Bedding Factor 2.2
Notes
1. Class 'S' granular bed and surround preferred with the addition of a reinforced concrete protection slab where the depth of cover beneath the highways is less than 1.200m or less than 0.900m in non trafficked areas.
2. See WIS 4-08-02 for bedding material specification.
3. Refer to IGN 4-11-2 for trench width details.

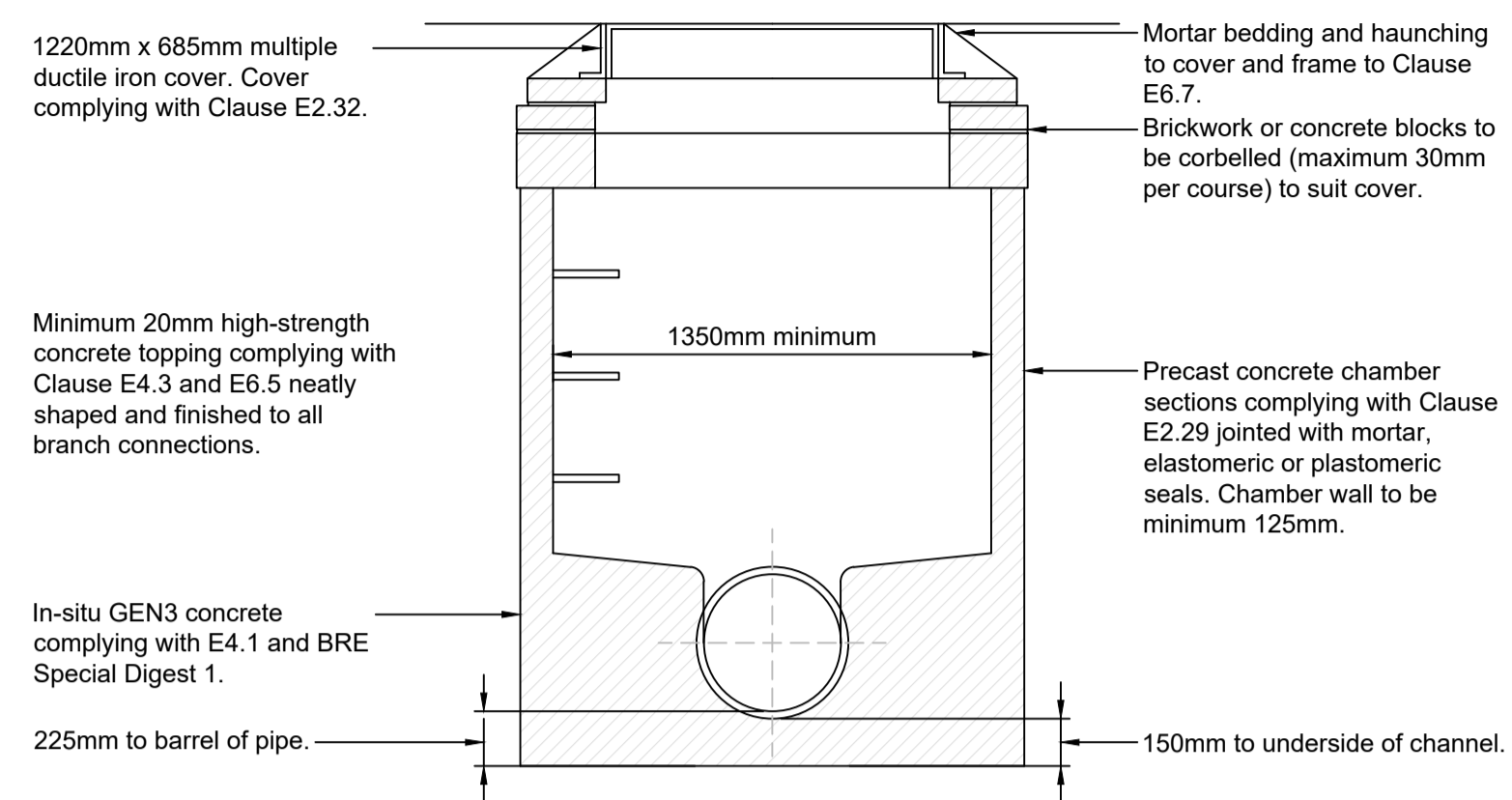


Figure B.15 - Typical Manhole Detail - Type C - Section

(Scale 1:20)
Depth from cover level to soffit of pipe less than 1.50m
Maximum pipe size 450mm diameter. Rigid material construction.

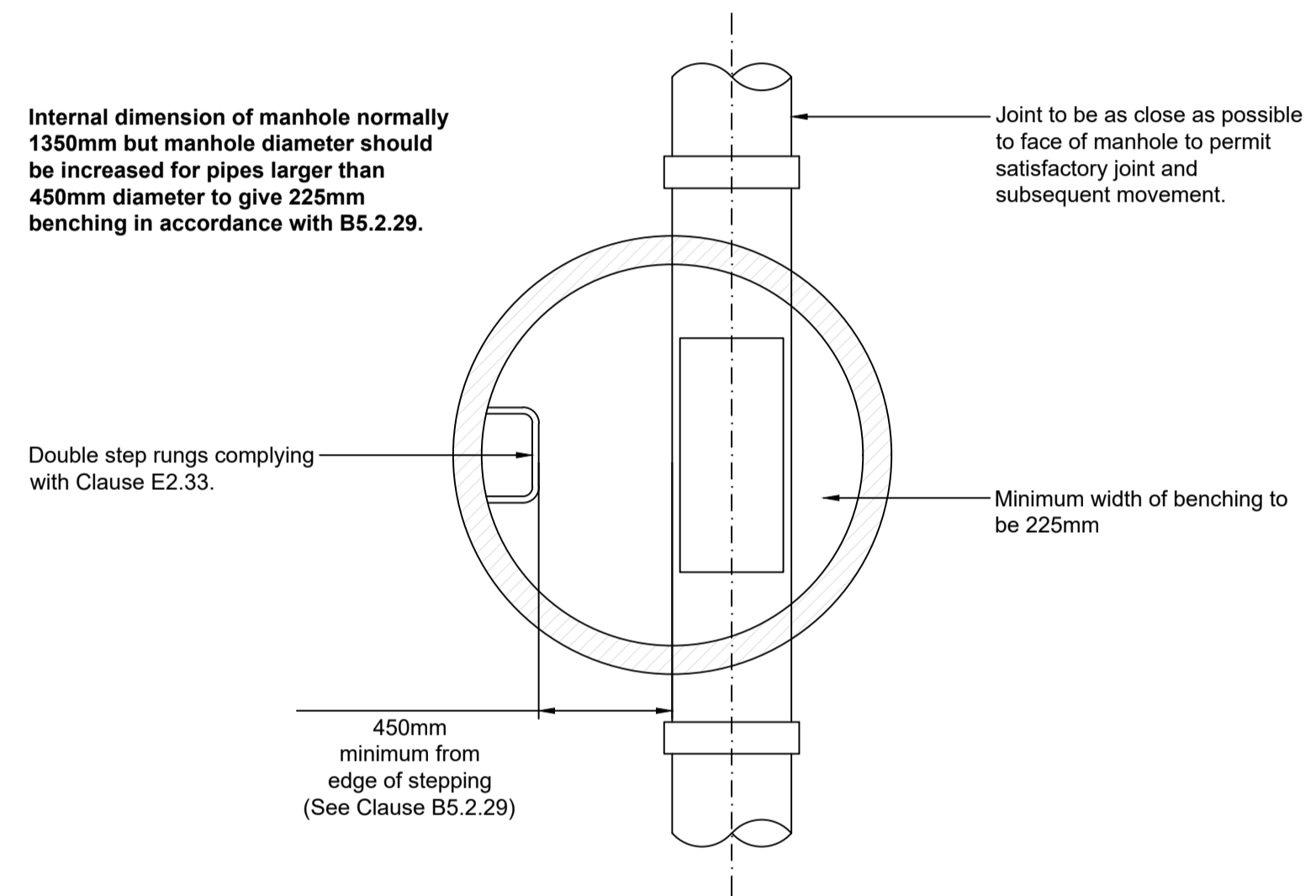


Figure B.15 - Typical Manhole Detail - Type C - Plan

(Scale 1:20)
Depth from cover level to soffit of pipe less than 1.50m
Maximum pipe size 450mm diameter. Rigid material construction.

General Notes

- Do not scale this drawing.
- All dimensions are in millimeters unless stated otherwise.
- This drawing is to be read in conjunction with all other relevant drawings & specifications.
- All proprietary items to be installed in strict compliance with manufacturers instructions and recommendations.
- No works shall commence on site until approval has been obtained from all relevant Agencies / Authorities.
- All dimensions referred to in this drawing must be verified.

Yorkshire Water Notes

- All adoptable sewer works and material to be in accordance with "Design and Construction Guidance (DCG)/Code for Adoption". The Relevant British/European and Yorkshire Water's Standards/Requirements/Addendum to the Mechanical and Electrical Specification and 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 indirectly). 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 regarding the disposal of the filter drain/land drainage run-off.
- 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.
- 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 nonvehicular access areas) then a concrete slab should be provided above granular bed and surround.
- Bedding and backfill material to conform to the requirement of Water Industry Specification 4-08-02 (Table A2).
- Yorkshire Water policy is that brick manholes and Type "C" 1050mm diameter manhole rings are not preferred. Instead, it is preferred that you use a type "B" manhole with 1200mm diameter or 1350mm diameter rings, with the opening sited over the channel where depth of cover to pipe soffit is 1 - 1.5m.
- Adoptable plastic sewer pipes to be BSI Kitemarked (certified to WIS 4-35-01 and BS/EN13476). 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 require clay ware channel in manholes.
- 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/BS5911-1 2002). Plastic pipes should conform to WIS 4-35-01 and BS EN13476.
- 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 must be enough clearance at crossovers to accommodate bedding to both pipes, approx. 300mm; if crossover is near the rocker then the clearance needed may need to be increased.

P2	Drawing revised inline with Yorkshire Water comments	SG	16.03.26
P1	First Issue	SG	29.09.25
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1 Chapel Farm Close, Elston, Newark, Nottinghamshire, NG23 5PW
W: www.elstonengineering.com
E: enquiries@elstonengineering.com
T: 07931 391372



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drawing title:
Section 104 Construction Details - Sheet 1

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