

Drainage Notes

1. Do not scale this drawing. The contractor is to check all dimensions on site before carrying out the works.
2. This drawing is to be read in conjunction with the Architects drawings which should be used to verify the layout, setting out, finishes etc. Any discrepancies are to be brought to the attention of the Architect prior to construction.
3. All building drainage works shall be carried out in accordance with the current british/european standards been752, the current building regulations and the local authority building control or nhbc specifications and requirements.
4. For external finished ground levels refer to architects external works drawing.
5. Surface water pipes to be 100mmØ uPVC @ 1:80 unless specified otherwise.
6. Foul drain pipes to be 100mmØ uPVC @ 1:60 unless specified otherwise.
7. All external/floor levels to be confirmed by architect.
8. All public sewer closures/diversion agreements to be in place and agreed with service provider prior to works on site.
9. All drains to have concrete slab cover over where crossing roads.
10. All existing site drainage levels and pipework to be checked and confirmed as adequate.
11. All pipes 300Ø and less to be laid at manholes with inverts level, 375Ø and greater at soffits level unless otherwise stated.
12. Pipework to be laid to inverts shown on schedule.
13. All cover levels to manholes are approximate only and may be adjusted on site to tie in with architects proposed levels.
14. Internal drainage points to be confirmed by architect. rainwater pipe outlets to be rodable.
15. For all setting out, dimensions and current site layout refer to architects drawing. do not scale from this drawing
16. Invert levels of all outfall points in road to be clarified prior to commencing drainage works.
17. position size and depth of all existing drains and services shall be established prior to commencement on site and any discrepancies reported to engineer.
18. The contractor shall allow for the protection, temporary and permanent support, and temporary and permanent diversion works, as necessary to all existing services
19. The contractor shall allow for all traffic management in connection with road and sewer works
20. The contractor shall allow for keeping trenches and excavations as dry as practicable by pumping from temporary sumps and dewatering as appropriate. the point and method of discharge to be agreed with the drainage authority and environment agency
21. Contractor to apply for sewer permits and road opening permits as necessary from the appropriate authorities, prior to commencing works.

For Comment

Disclaimer

The information contained in this drawing has been compiled during the course of the design and is offered to assist the contractor in the planning and construction of the work. much of the information has been compiled from data received from utility companies and other bodies and has not been checked. there could be errors in the data received or in the interpretation of the data when transferring it to this drawing. up to date utilities drawings must be obtained by the contractor from the utilities supplier.

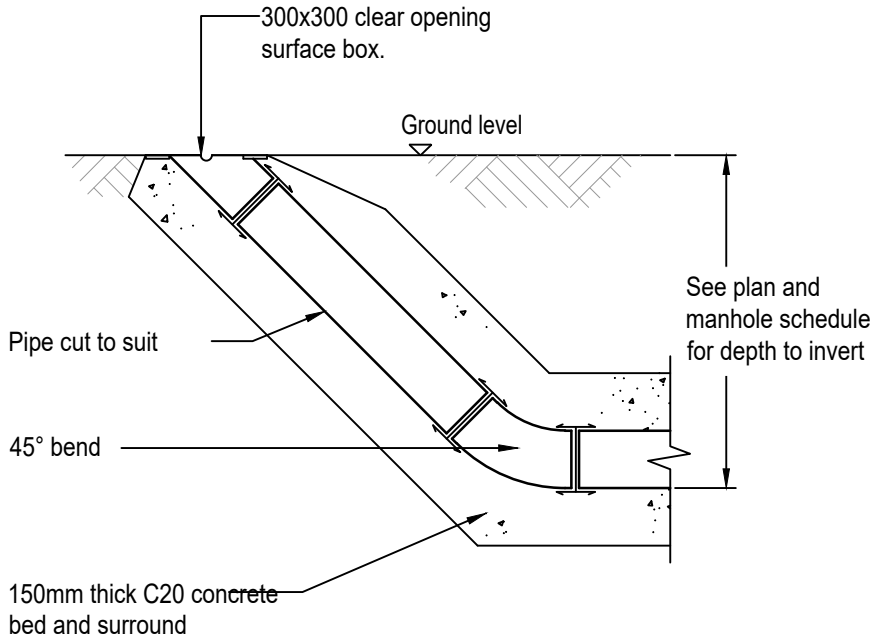
Mark	Made by	Date	Revision
Job Title			
804-806 Oldham Road Newton Heath Manchester			
Drawing Title			
Typical Drainage Details			
Job No.			
20-296			
Drawing No.			
D02			
Revision			
P01			
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Drawn By			
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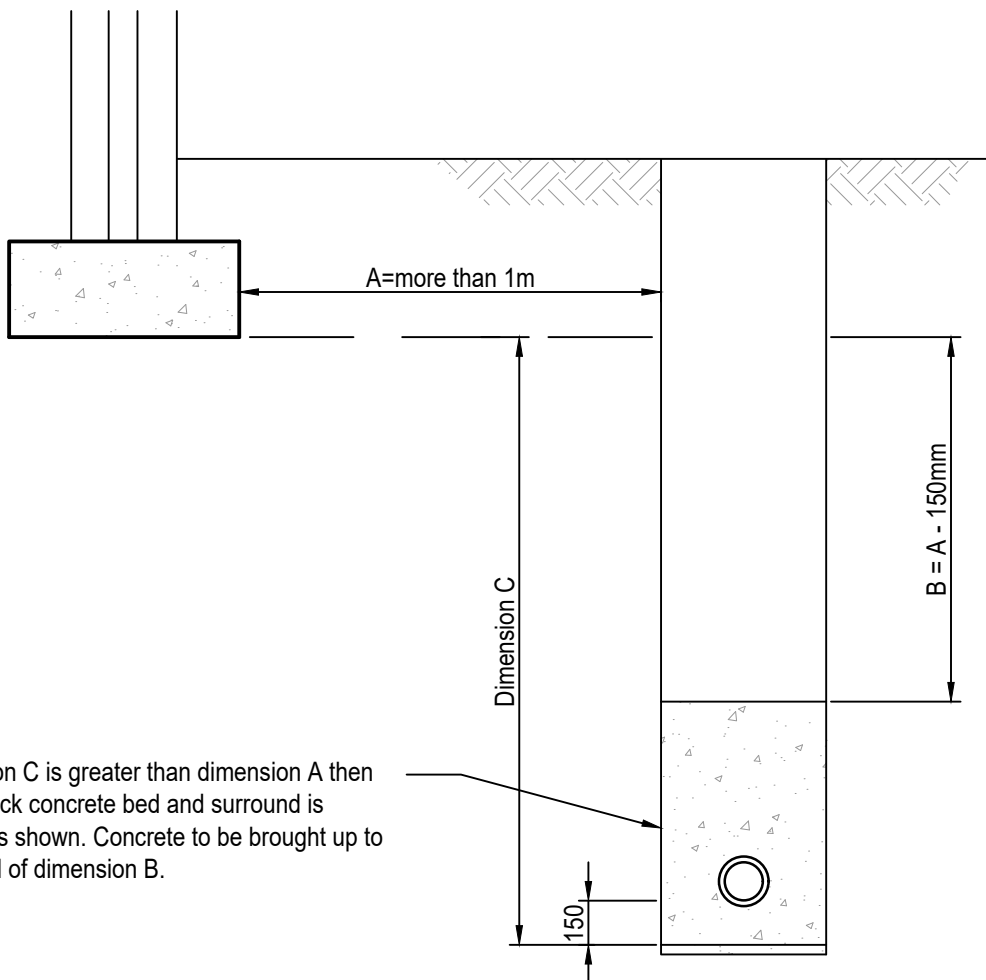
Scale as shown @A1



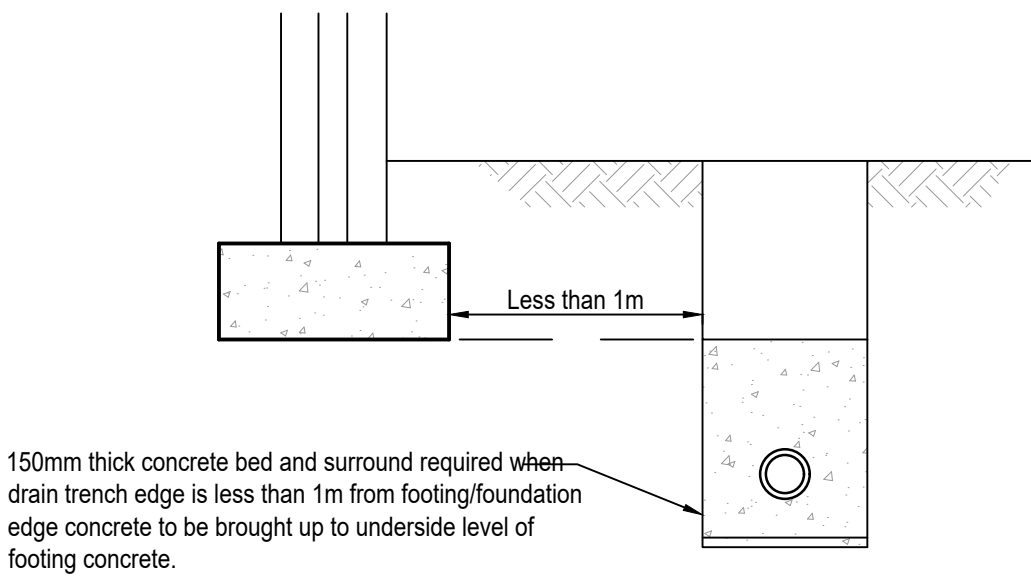
Typical Rodding Eye Detail

Nominal size	Effective length (mm)
150 TO 800	600
675 TO 675	1000
625 AND ABOVE	1250

Short And Rocker Pipe Lengths Table
Applicable To All Manhole Types

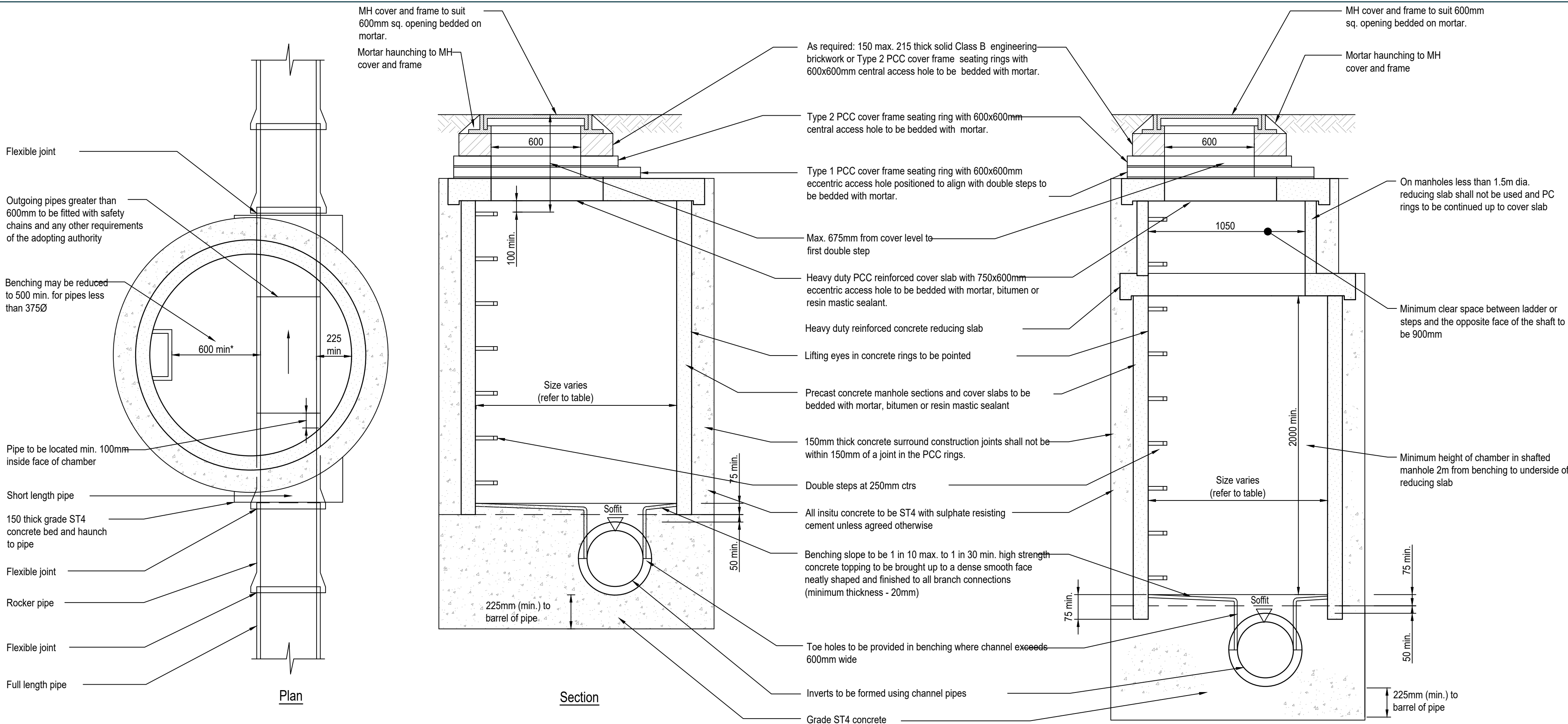


Drain Trench Edge More Than 1m
From Footing/Foundation Edge



Drain Trench Edge Less Than 1m
From Footing/Foundation Edge

CONCRETE BED AND SURROUND TO BE DISCONTINUED AT EVERY PIPE JOINT (NOT TO EXCEED 5m) USING COMPRESSIBLE FILLER COMPRESSIBLE FILLER TO BE 18mm THICK FOR PIPEWORK UP TO 450mm DIAMETER FOR PIPES OVER 450mm FLEXCELL JOINTS TO BE 36mm THICK

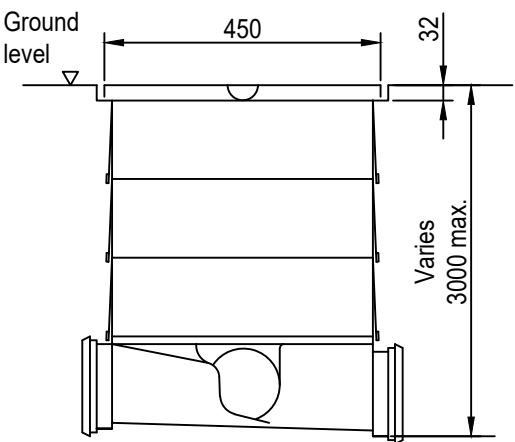


Typical Manhole Detail - Type B
Depth To Soffit Of Pipe 1450 To 3000

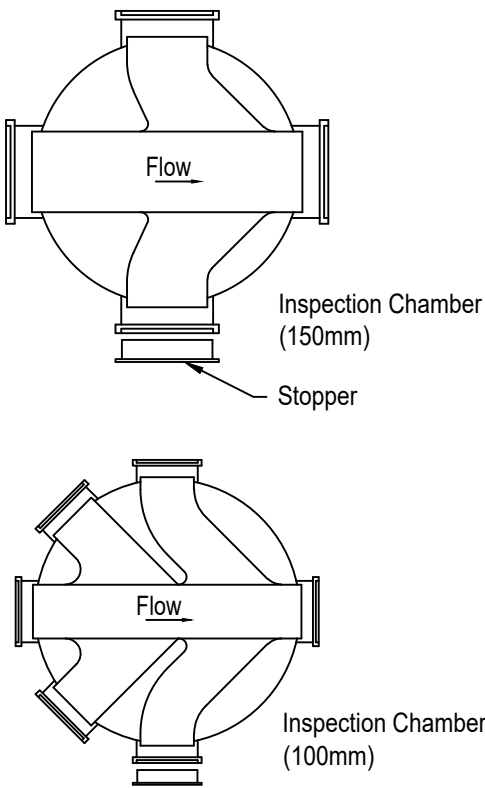
Type B manhole details may be applied to Type A manholes for chamber diameters less than 1500Ø up to 6.0m depth to soffit.

Manhole Depth (To Soffit)	Diameter of largest pipe in manhole (mm)	Internal diameter of manhole (mm)	Minimum Clear opening size
Less than 1500	150	1000	750x675
	300	1200	750x675
	450	1350	750x675
	700	1500	750x675
	900	1800	750x675
	1000	2100	750x675
Greater than 1500	Greater than 1000	Refer to schedules	750x675
	100 - 450	1200	600x600
	Greater than 450	Larger of 1800 or (DN+775)	600x600
Manhole shaft greater than 3000 to soffit of pipe	Greater than 1000	Refer to schedules	600x600
	Steps	1050	600x600
	Ladders	1200	600x600

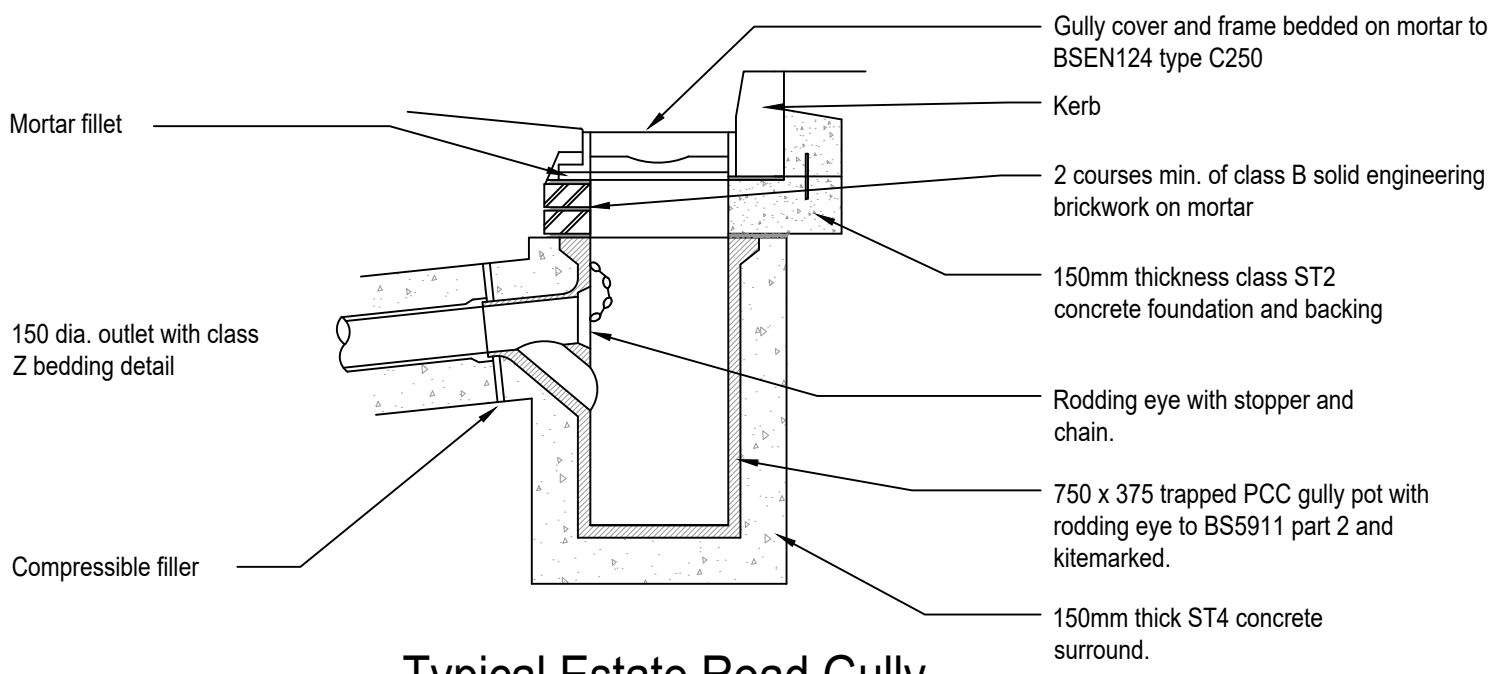
Table Applicable To Manhole Types A And B
(Chamber sizes are minimum required. See layout for variations, if any)



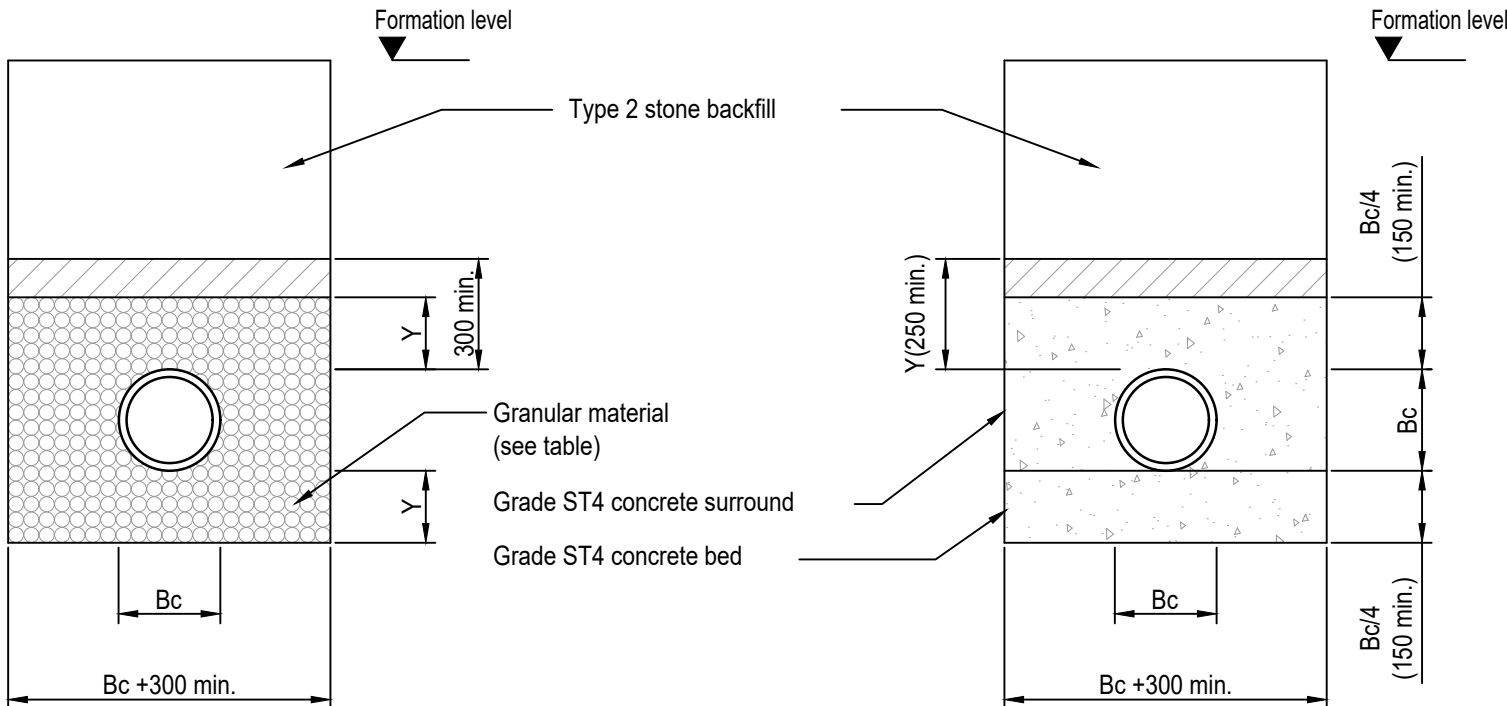
- Notes:
1. Inspection chambers between 1200mm to 3000mm depth must have restricted opening of maximum 350mm diameter.
 2. Cast iron cover and plastic frame are suitable for use where wheel loads do not exceed 1.5 tonnes.
 3. For heavy loading installations, chamber to be surrounded with 150mm thick concrete and cover replaced with appropriate loading classification cover.
 4. Where side branches are not to be used stopper to be inserted to blank off connection.



Typical Manhole Detail - Type A
Depth To Soffit Of Pipe 3000 To 6000



Typical Estate Road Gully



Class S Detail

Class Z Detail

Nominal pipe dia (mm)	Single sized (mm)	Graded (mm)
150	10 or 14	14 to 5
200 to 300	10,14 or 20	14 to 5 or 20 to 5
375 to 525	14 or 20	14 to 5 or 20 to 5
GREATER THAN 525	14,20 or 40	14 to 5,20 to 5 or 40 to 5

Granular Bedding Material

(All aggregates to Table 4 of BS882:1983)

Poly-Propylene Inspection Chamber (PPIC)