

PLAN ON MANHOLE S5
SCALE 1:25

Manhole covers to be heavy duty twin 600mm x 600mm or twin 610mm x 675mm double triangular covers, with a clear access opening of 1220mm x 675mm and shall be Class D400 to BS EN 124 with 150mm deep frames in highways. Cover complying with Clause E2.32.

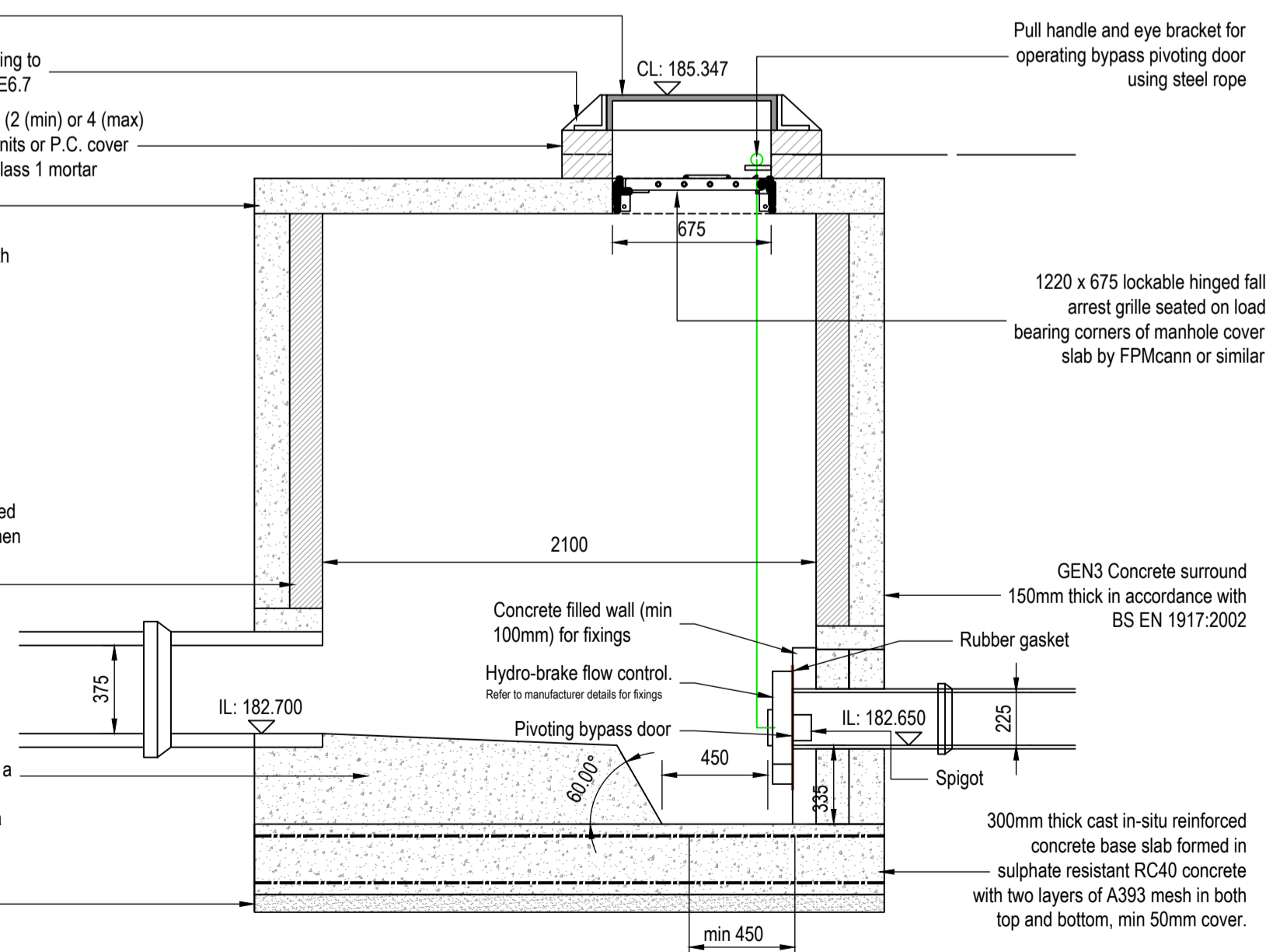
Mortar bedding and haunching to cover and frame to Clause E6.7
Class 'B' engineering bricks (2 (min) or 4 (max) courses) or P.C. masonry units or P.C. cover frame seating rings set in Class 1 mortar

Heavy duty reinforced precast sulphate resistant concrete slab complying with E2.30, bedded on mortar, proprietary bitumen or resin mastic sealant. Cover Slab must be Kitemarked.

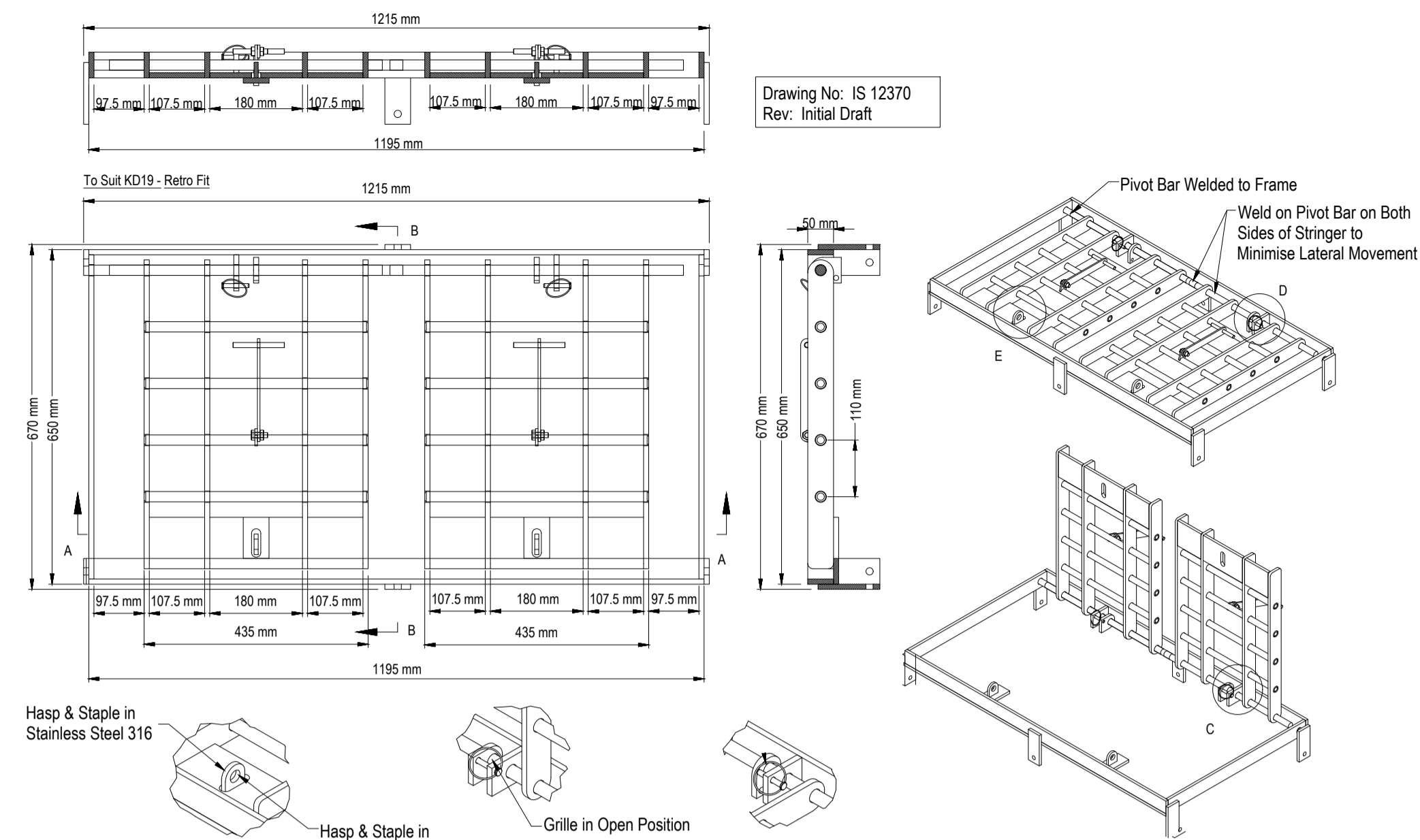
Bolted segmental or reinforced precast sulphate resistant concrete manhole rings to Clause E2.29 bedded on mortar, proprietary bitumen or resin mastic sealant and must be Kitemarked.

Benching to be formed with a high strength topping - minimum 40mm thick with a smooth and neat finish.

75mm concrete blinding



SECTION A-A
SCALE 1:25

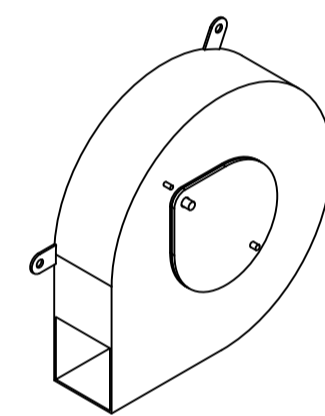


LOCKABLE HINGED FALL ARREST GRILLE DETAIL
SCALE 1:10

Table 1 - Rocker pipe length

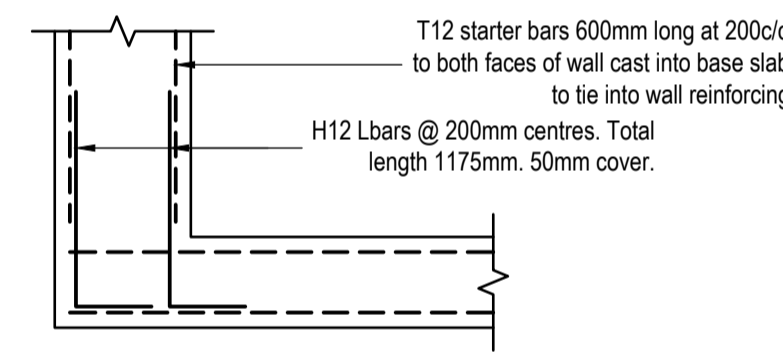
Nominal diameter of pipe (mm)	Effective length (m)
150 to 600	0.6
675 to 750	1.0
Over 750	1.25

NOTE: Flexible pipe joint should be placed as close to the chamber as practicable.

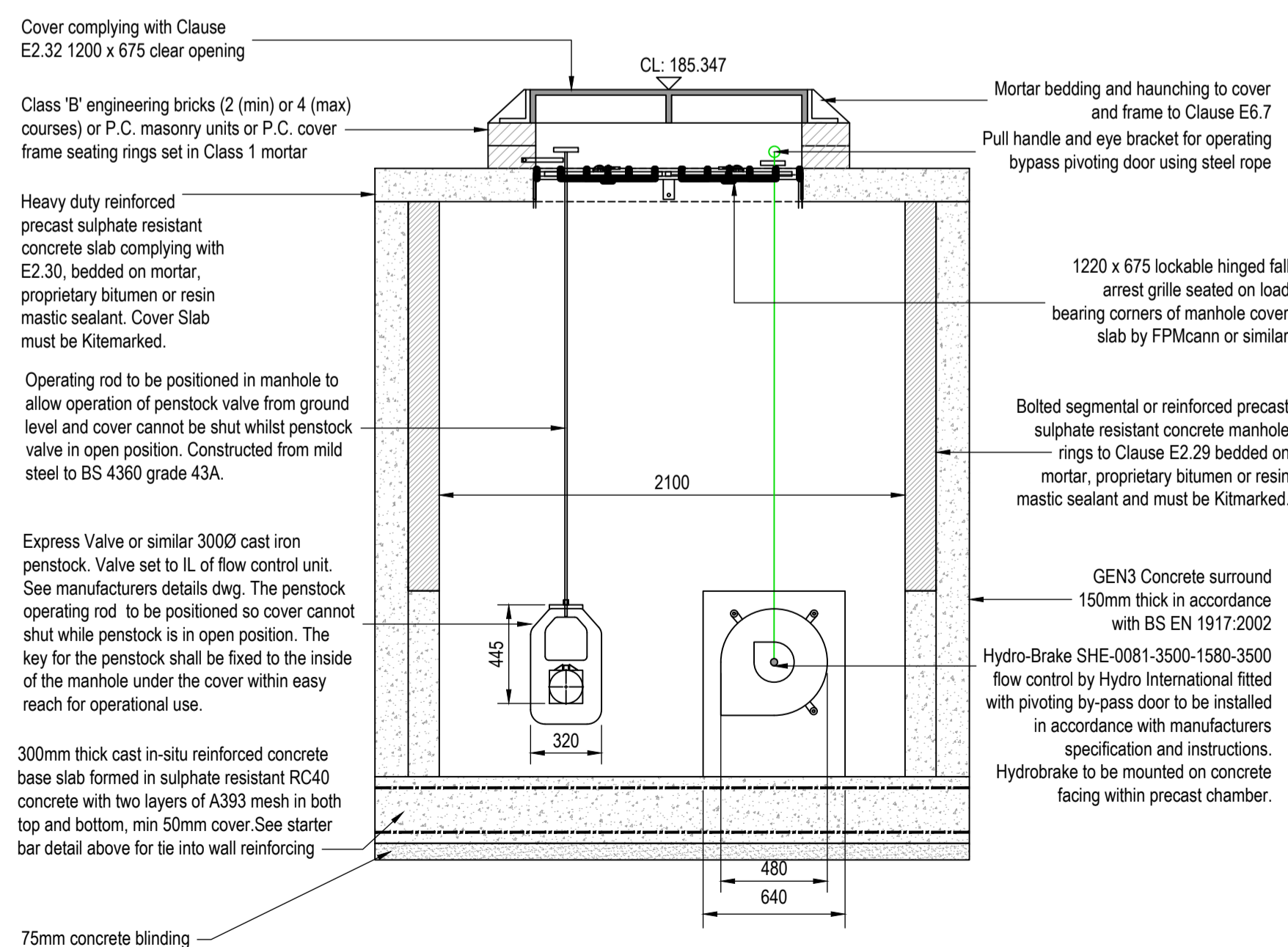


Hydrobrake Optimum Vortex Flow Control Device
SHE-0081-3500-1580-3500
Flow = 3.500l/s
Head = 1.580m
Minimum Sump Depth = 340mm
Outlet Size = 81mm

HYDROBRAKE DETAIL
NOT TO SCALE



T12 starter bars 600mm long at 200c/c to both faces of wall cast into base slab to tie into wall reinforcing
H12 Lbars @ 200mm centres. Total length 1175mm. 50mm cover.
SCALE 1:20



SECTION B-B
SCALE 1:25

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 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.
- Sulphate resistant cement (C20-DC2) and precast concrete products must be used or a laboratory report provided proving that such precautions are not necessary.
- 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. (**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 provided above granular bed and surround.
- Bedding and backfill material to conform to the requirement of Water Industry Specification 4-08-02 (Table A2).
- 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 not to accept Type "C" brick manholes and 1050mm dia manhole rings. Instead it is preferred that you use a type "B" manhole with 1200mm dia or 1500mm dia 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 prefer clayware channel in manholes. We have found that plastic channels are difficult to set in concrete because they float and a satisfactory finish cannot be obtained on the benching.
- 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 EN1916/BS5911-1:2002). Plastic pipes should conform to WIS 4-35-01 and BE EN13476.
- All custom built ironwork to be hot-dipped galvanised prior to final fixing to the drawing.

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

REV	DESCRIPTION	SIG	CHK	DATE
P05	Updated to suit Yorkshire Water comments	GT	GH	03/10/2025
P04	Section Markers updated to match detail.	GT	MA	03/06/2025
P03	Flow control spec amended following tank size update.	MA	-	02/05/2025
P02	Fall arrest grille added.	MA	GH	10/03/2025
P01	First issue.	MA	GH	21/02/2025

RIVA HOMES

CROFT ST, BIRKENSRAW,
BRADFORD, BD11 2HT

FLOW CONTROL DETAIL

St Andrew's House
23 Kingfield Road
Sheffield, S11 9AS

T: 0114 255 4554
E: mail@eastwoodce.com
eastwoodce.com

ECE PROJECT No	SCALE AT A1	STATUS	SUITABLE FOR
48785	1:20	S3	Comment
DRAWING NUMBER			
48785 - ECE - XX - XX - DR - C - 0013	P06		
Project	Originator	Zone	Level
			Type
			Role
			Number