

- - - - - - Foul outlet and drain.
- - - - - - Surface water outlet and drain.
- - - - - - F.W. Inspection chamber.
- || - - - - - S.W. Rodding access
- - - - - - S.W. Inspection chamber

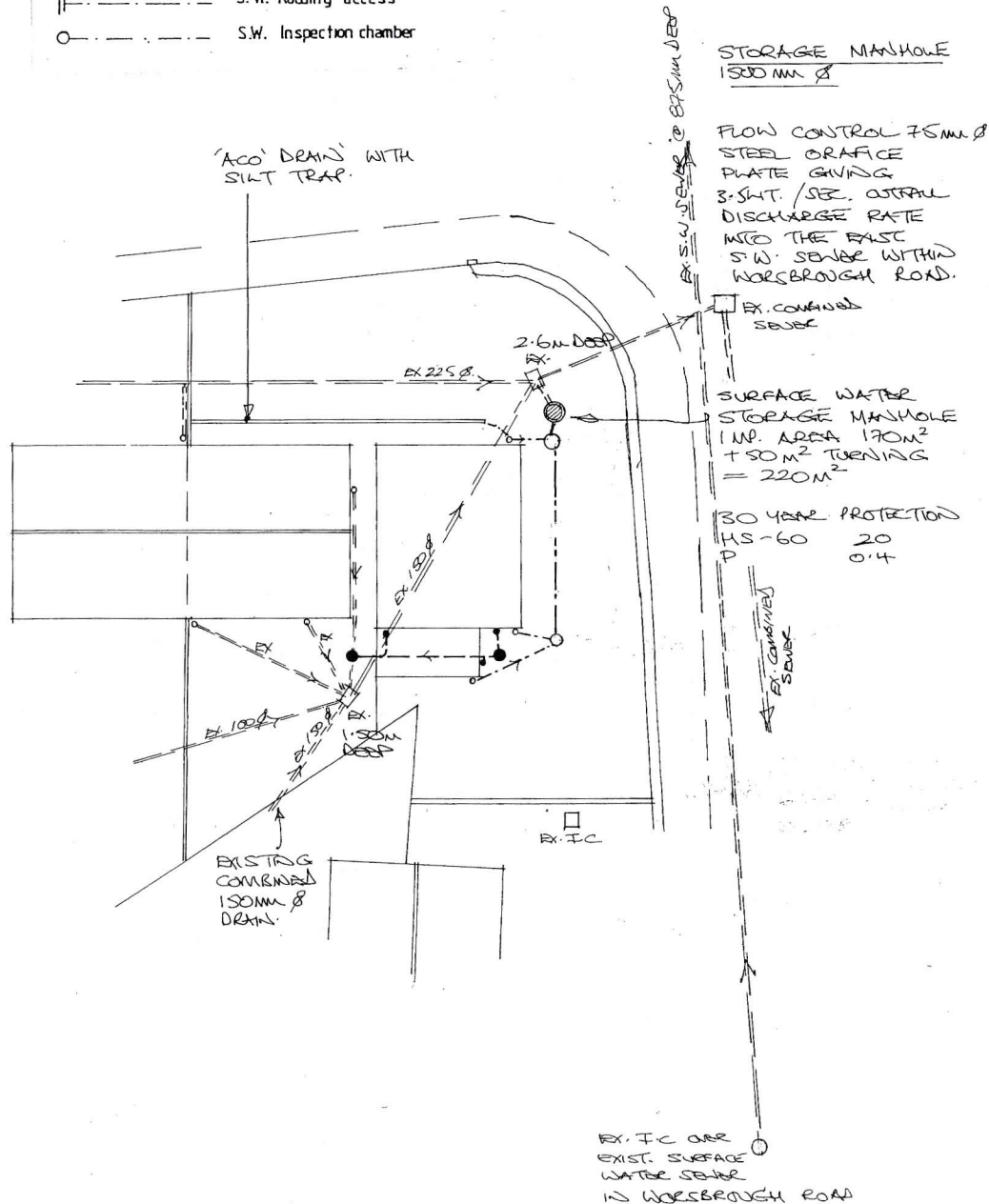


Table 11 Minimum dimensions for access fittings and inspection chambers

Type	Depth to invert from cover level (m)	Internal sizes		Cover sizes	
		Length x width (mm x mm)	Circular (mm)	Length x width (mm x mm)	Circular (mm)
Rodding eye		As drain but min 100		Same size as pipework ¹	
Access fitting	small 150 diam	0.6 or less, except where situated in a chamber	150 x 100	150	150 x 100 ¹
	large 225 x 100		225 x 100	225	225 x 100 ¹
Inspection chamber	shallow	0.6 or less	225 x 100	190	190 ²
	deep	1.2 or less > 1.2	450 x 450 450 x 450	450 450	Min 430 x 430 max 300 x 300 ³ Access restricted to max 350 ²

- Notes:
- ¹ The clear opening may be reduced by 20 mm in order to provide proper support for the cover and frame.
 - ² Drains up to 150mm.
 - ³ A larger clear opening cover may be used in conjunction with a restricted access. The size is restricted for health and safety reasons to deter entry.

Table 12 Minimum dimensions for manholes

Type	Size of largest pipe (DN)	Min Internal dimensions ¹		Min clear opening size ¹	
		Rectangular length and width	Circular diameter	Rectangular length and width	Circular diameter
Manhole	< 1.5m deep to soffit	≤ 150	750 x 675 ²	1000 ²	750 x 675 ²
		225	1200 x 675	1200	1200 x 675 ²
		300	1200 x 750	1200	
		>300	1800 x (DN+450)	The larger of 1800 or (DN+450)	
> 1.5m deep to soffit	≤ 225	300	1200 x 1000	1200	600 x 600
		300	1200 x 1075	1200	
		375-450	1350 x 1225	1200	
		>450	1800 x (DN+775)	The larger of 1800 or (DN+775)	
Manhole shaft ⁴	> 3.0m deep to soffit of pipe	Steps ⁵	1050 x 800	1050	600 x 600
		Ladder ⁵	1200 x 800	1200	
		Winch ⁵	900 x 800	900	600 x 600

- Notes:
- ¹ Larger sizes may be required for manholes on bends or where there are junctions.
 - ² May be reduced to 600 by 600 where required by highway loading considerations, subject to a safe system of work being specified.
 - ³ Not applicable due to working space needed.
 - ⁴ Minimum height of chamber in shafted manhole 2m from benching to underside of reducing slab.
 - ⁵ Min clear space between ladder or steps and the opposite face of the shaft should be approximately 900mm.
 - ⁶ Winch only - no steps or ladders, permanent or removable.
 - ⁷ The minimum size of any manhole serving a sewer (ie any drain serving more than one property) should be 1200 mm x 675 mm rectangular or 1200 mm diameter.

Garry Greetham Associates
 Residential Design Consultant
 Westwood House
 18 Carr Lane
 Tankersley
 Barnsley S75 3BE
 Tel 07786062364

Project: Detached Dwelling
 Client: Mr. Ian Goulding
 Title: Drainage Layout
 Address: c/dl, 60 Coronation Drive, Birdwell, Barnsley, S70 5RL
 DRAWN BY: 899
 SCALE: 1:200 @ A3 DATE: AUG 25
 DRAWING No: 517-02
 Member of the Chartered Institute of Architectural Technologists

Rev	Notes	Date
1	STORAGE MANHOLE	01/26
2	S.W. OUTLET PIPING	08/25