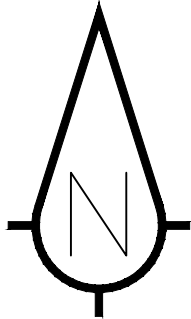


MANHOLE SCHEDULE

Sheet 2 of 2

Manhole Number	Cover Level	Connections	Pipe			Manhole Size	Types	
Coordinates	Depth To Soffit		Code	Inverts	Diams		Manhole	Cover
SWMH1	101.143		1 2.000	100.160	150	1800	Ref to drw 11444-019	D400
E. 434762.602	1.295		2 1.001	100.160	150			
N. 408775.724			3 1.000	99.566	300			
SWMH2	101.362		1 1.001	98.888	900	1800	Type B	D400
E. 434769.243	1.574		2 1.002	98.888	900			
N. 408761.096			0 1.003	98.888	900			
SWMH3	101.390		1 1.003	98.870	900	1800	Type B	D400
E. 434767.223	2.520		0 1.004	98.870	900			
N. 408753.002			1 1.001	99.553	150	3000	Ref to drw 11444-006	D400
SWMH4	101.160		1 1.002	98.803	900			
E. 434782.013	1.457		0 1.003	98.803	150			
N. 408723.917								
SWMH5	101.545					1800	Type B	D400
E. 434780.687	1.732		0 2.000	98.913	900			
N. 408766.472								
COMH01	101.108		1 1.005	98.710	150	2100	Type B	D400
E. 434789.716	2.173		2 1.003	98.785	150			
N. 408723.490			3 1.004	98.785	150			
			0 1.000	98.710	225			

MANHOLE SCHEDULE - SURFACE WATER



MANHOLE SCHEDULE

Sheet 1 of 1

Manhole Number	Cover Level	Connections	Pipe			Manhole Size	Types	
Coordinates	Depth To Soffit		Code	Inverts	Diams		Manhole	Cover
FWMH1	101.069		1 1.000		150	1200	TypeB	D400
E. 434759.417	1.614		1 1.002		150			
N. 408777.805			0 1.003	99.305	150			
FWMH2	101.184		1 1.000	99.172	150	1200	TypeB	D400
E. 434764.491	1.862		0 1.001	99.172	150			
N. 408768.025			1 1.001	99.103	150	1200	TypeB	D400
FWMH3	101.331		1 1.001	99.103	150			
E. 434764.720	2.078		0 1.002	99.103	150			
N. 408752.011			1 1.001	98.854	150	1200	TypeB	D400
FWMH4	101.103		2 1.002	98.854	150			
E. 434779.848	2.099		0 1.003	98.854	150			
N. 408722.204			1 1.005	98.710	150	2100	TypeB	D400
COMH01	101.108		2 1.003	98.785	150			
E. 434789.716	2.173		3 1.004	98.785	150			
N. 408723.490			0 1.000	98.710	225			

MANHOLE SCHEDULE - FOUL WATER

Yorkshire Water General Notes

- All adoptable sewer works and material to be in accordance with "Design and Construction Guidance" 2021, the relevant British/European and Yorkshire Water's Standards/Requirements/Addendum to the Mechanical and Electrical Specification and be Kitemarked.
- Manhole covers shall/must have a clear opening of 600mm and shall be Class D400 to BS EN 124 with 150mm deep frames in highways.
- 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.
- 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 the 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 600x600mm for the Yorkshire Water specified cover size. Please refer to the 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 to Figure 2.3 on page 33 in "Design and Construction Guidance" 2021 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 the granular bed and surround.
- Adoptable plastic sewer pipes to be BSI Kitemarked (Certified to WIS 4-35-01 and BS/EN13476). Adoptable sewer pipes to be laid in maximum 3 metre lengths unless there is a specific operational need to lay longer.
- Plastic channel sections in manholes are not acceptable and clayware is preferable. Plastic channels are difficult to set in concrete and a satisfactory finish cannot be obtained on the bedding.
- 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 manhole 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.
- Surface water and foul rising mains to be provided with marker tape above the rising mains.
- If plastic pipes are to be used then the following should apply:
 - All adoptable sewers to be BSI Kitemark (certified to WIS 4-35-01).
 - Bedding and backfill material to conform to the requirements of Water industry Specification 4-08-02 (Table A2).
- Where plastic pipes are proposed for adoptable sewers, structural calculations for the plastic pipes and a site investigation report to prove that the ground condition is suitable for the plastic pipes are to be produced.
- Where plastic pipes are installed into the ground prior to getting full technical approval, the developer must provide a CCTV survey of the prospectively adoptable sewers and a deformation test (Light-Line test) of the plastic pipes.
- Demarcation chambers to be a min. 450mmØ chamber for 100mmØ foul & 150mmØ surface water pipes up to 1.2m deep. For depths greater than 1.2m, restricted access opening to 450mm is required for safely reasons.
- Maximum depth of demarcation chamber to be 2m, where depth exceeds 2m, manhole to be constructed as type B manhole.
- Yorkshire Water is not obliged to accept filter drain/land drainage runoff into the public sewer network or adoptable drainage system (directly or in-directly). An alternative method of disposal of the land drainage runoff will therefore be required and you will have to liaise with the Land Drainage Authority/Land Drainage Section with regard to the disposal of the filter drain/land drainage runoff is required.
- Strength of vitrified clay pipes (if used) to be 40kN/m for 100Ø, 40kN/m for 150Ø, 45kN/m for 225Ø and 72kN/m for 300Ø. All concrete pipes to be Class 120 concrete to EN 1916/BS 5911-1:2002.
- All levels of existing drainage to be confirmed prior to work commencing on site.
- The contractor must allow for any fees required for road and sewer opening permits, sewer connections and make the appropriate applications.
- All pipes with a diameter equal or greater than 450mm shall be concrete.
- Any existing sewers or culverts shown on this drawing are taken from records and exact location and levels should be determined prior to commencement of works
- There may be a requirement for the diversion or protection of statutory undertakers apparatus to facilitate the works shown on this drawing

General Notes

- All private drainage shall comply with current building regulations
- Drains passing through buildings shall be protected with a lintel over.
- No building to be constructed within 3m of an adoptable sewer
- No services to be sited over an adoptable sewer without agreement from the water authority
- Private drainage connections not direct to manholes are to be made via a 45 degree junction
- Upon completion of the drainage works the contractor shall clean all drainage works by jetting, removing all debris from site. No debris shall be permitted to enter the public drainage or watercourse system. All drains shall be CCTV surveyed with the DVD passed to Redrow Homes technical department for review.
- Any live connections to be picked up as part of the diversion works.

C	Updated to Yorkshire Water comments - 26-January 2022	WW	27/01/22	PJM
B	Updated to Yorkshire Water comments - 14-December 2021	WW	07/01/21	PJM
A	Updated Yorkshire Water comments - 04-October 2021	WW	25/10/21	PJM
Rev	Amendment	Drawn	Date	Checked

PRELIMINARY
DRAWING



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Client	YGI LTD		
Project Title	STUD FARM, BARNSELY LAND OFF SPRING LANE, CARLTON		
Drawing Title	MANHOLE SCHEDULE – SURFACE & FOUL		
Scale	1:500	Drawn By	WW
Drawing Size	A1	Checked By	PJM
Date	07.09.21	Approved By	PJM
Drawing Number		Rev	
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