



INFORMATION WITHIN THIS DRAWING IS NOT NECESSARILY PRODUCED TO SCALE.
ALWAYS USE FIGURED DIMENSIONS AND CO-ORDINATES - IF IN DOUBT, ASK.

NOTES

- All pipes shall be either:
A - Verified clay to BS EN 295 with a minimum crushing strength as follow :-
150 dia - 40 kN/m
225 dia - 45 kN/m
300 dia - 72 kN/m
B - PVC (certified to WIS 4-35-01 & BS/EN 13476)
C - Class 120 concrete to BS 5911-1:2002/EN 1916.
- All pipes should always connect soffit to soffit unless noted otherwise.
- All sewers to have BSI Kitemark status (certified to WIS 4-35-01 & BS EN 13476). Maximum pipe length to be 3m. Plastic channel sections in manholes are not acceptable. Clay channel sections shall be used.
- 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 provide above granular bed and surround.
- Manhole covers shall have a clear opening of 600 and shall be class D400 to BS EN 124 with 150 deep frames in highways. Covers to have closed keyways and are to be bedded on steel shims with 1:3 mortar haunching.
- Pipes entering manholes and road gullies shall have a flexible joint within 600 of the inside the manhole or gully joining with a short Rocker pipe.
- The adoptable sewers should be a minimum of 1m and manholes 0.5m from kerb faces and service margins.
- Sewers must have 5m clearance from trees and hedges (refer to Figure 2.3 page 33 in "Sewers For Adoption" 6th Edition for restrictions on tree planting adjacent to sewers).
- All trenches in roads and paved areas shall be backfilled with Type 1 DOT granular sub-base material, or other granular material approved by the highway authority.
- Filled ground must be filled and consolidated under the supervision and to the satisfaction of Yorkshire Water before any sewer works are carried out.
- All in situ concrete to be designated mix FND2 to BS 8500-1 unless agreed otherwise.
- The invert levels at the proposed points of connection to existing public sewers shall be checked before any new drains are constructed. Any variation to the levels shown on the drawing shall be notified to Eastwood & Partners.
- 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.
- Cover levels are indicative only. Covers to be set to suit camber/gradient of existing and proposed roads.
- 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 Autum 2004 for Kitemarked cover slab opening sizes.
- All foul lateral sewers and drains to be 1000 unless noted otherwise.
- 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 stied over the channel where depth of cover to pipe soffit is 1 - 1.5m.
- Manhole covers 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.
- All adoptable sewer works and material to be in accordance with "Sewers for Adoption" 6th Edition, The Relevant British/European and Yorkshire Water's Standards/Requirements/Addendum to the Mechanical and Electrical Specification and Kitemarked.
- 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.
- Sulphate resistant cement (C20-DC2) and precast concrete products must be used or a laboratory report provided proving that such precautions are not necessary.
- Bedding and backfill material to conform to the requirement of Water Industry Specification 4-08-02 (Table A2).
- 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.

F	HSA1 position changed following BMBC comments	TB	CH	11.02.19
E	New cellular soakaway positions added	TB	CH	22.01.19
D	Amendments made following layout changes	TB	CH	07.01.19
C	Amendments made to tie in with S38/S104 drawings	TB	CH	12.12.18
B	Highway soakaway sizes adjusted, private soakaway levels added	TB	CH	24.09.18

A	First Issue.			
REV	DESCRIPTION	SIG	CHK	DATE

STRATEGIC TEAM GROUP

BONDFIELD CRESCENT, WOMBWELL

DRAINAGE LAYOUT

Eastwood & Partners

CONSULTING ENGINEERS

St. Andrew's House

23 Kingfield Road

Sheffield

S11 9AS

Tel 0114 255 4554

Fax 0114 255 4330

mail@eastwoodandpartners.com

www.eastwoodandpartners.com

EOP

SCALE WHEN PLOTTED AT A1			DRAWING STATUS		
1:500			PRELIMINARY		
DRAWN	CHECKED	DATE	DRAWING NUMBER	REV	
RJ	CH	14.09.18	42937/010	F	