



Demarcation Chambers												
Surface Water												
Ref (SDC)	Cover Level	Invert Level	Depth to Invert (m)	Depth to Soffit (m)	Diameter (mm)	Cover Type	Cover Size	Chamber Type	Lateral Diameter (mm)	Lateral Length (m)	D/Stream Invert (1 in 7)	Lateral Gradient (1 in 7)
01	235.900	234.300	1.600	1.450	450	B125	450x450	Type D	150	10.5	233.970	31.8
02	235.000	233.780	1.220	1.070	450	B125	450x450	Type D	150	4.7	233.317	10.2
03	232.700	230.336	2.364	2.214	450	B125	450x450	Type D	150	2.6	230.076	10.0
04	232.300	229.795	2.505	2.355	450	B125	450x450	Type D	150	2.6	229.535	10.0
05	231.600	228.950	2.650	2.500	450	B125	450x450	Type D	150	3.6	228.900	72.0
06	231.645	229.480	2.165	2.015	450	B125	450x450	Type D	150	6.8	228.800	10.0

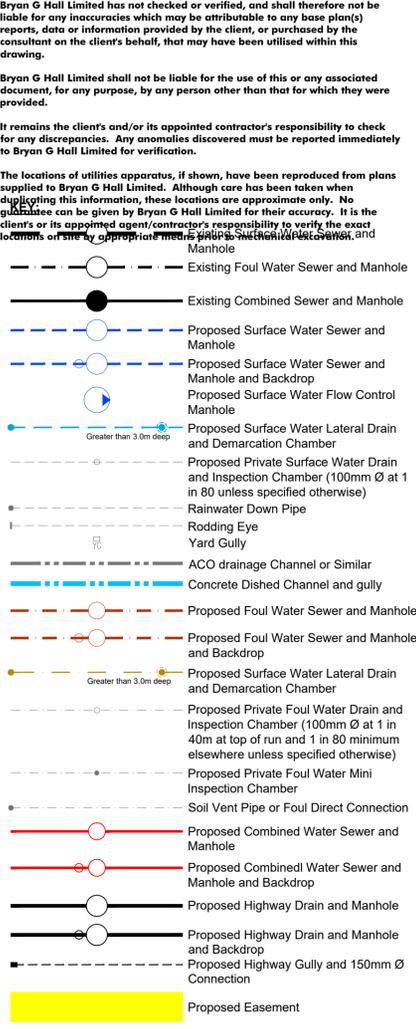
Demarcation Chambers to be WAVIN OSMAL ULTRARIB POLYPROPYLENE Inspection Chambers
 Demarcation chambers to be constructed as a TYPE A, B or C manhole if depth to soffit exceeds 3.0m
 Lateral Drains to be WAVIN OSMAL ULTRARIB UPVC Pipes
 Demarcation chambers located in non trafficked areas then 150mm granular bed and surround required
 Demarcation chambers located in single private drives to receive 150mm Gen3 concrete bed and surround will be required
 Access Opening restricted to 350mmØ or 350 x350mm if depth to soffit is greater than 1.0m
DEMARCATION CHAMBERS AND LATERAL DRAINS TO BE ADOPTED

Demarcation Chambers												
Foul Water												
Ref (FDC)	Cover Level	Invert Level	Depth to Invert (m)	Depth to Soffit (m)	Diameter (mm)	Cover Type	Cover Size	Chamber Type	Lateral Diameter (mm)	Lateral Length (m)	D/Stream Invert (1 in 7)	Lateral Gradient (1 in 7)
01	236.150	233.975	2.175	2.025	450	B125	450x450	Type D	150	13.7	233.800	78.3
02	233.250	231.560	1.690	1.540	450	B125	450x450	Type D	150	5.7	230.991	10.0
03	233.350	231.450	1.900	1.750	450	B125	450x450	Type D	150	9.5	230.500	10.0
04	233.100	231.100	2.000	1.850	450	B125	450x450	Type D	150	6.0	230.500	10.0
05	232.350	230.225	2.125	1.975	450	B125	450x450	Type D	150	3.9	230.155	55.7
06	231.650	230.000	1.650	1.500	450	B125	450x450	Type D	150	3.5	229.611	10.3

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 Demarcation chambers located in single private drives to receive 150mm Gen3 concrete bed and surround will be required
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DEMARCATION CHAMBERS AND LATERAL DRAINS TO BE ADOPTED

- YORKSHIRE WATER NOTES:**
- All adoptable sewer works and material to be in accordance with "Code for Adoption". The Relevant British/European and Yorkshire Water's Standards/Requirements/Addendum to the Mechanical and Electrical Specification and Kitemark.
 - 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 BS 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 filled above the cover slab to 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-D2) 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 or the width of the canopy at mature height.
 - 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 non 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 slotted over the channel where depth of cover to pipe soffit is 1 - 1.5m.
 - Adoptable plastic sewer pipes to be BS1 Kitemark (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 bedding.
 - The minimum crushing strength for clay pipes should be as follows: 100mm dia. 40kN/m, 150mm dia. 40kN/m, 225mm dia. 49kN/m and 300mm dia. 72kN/m. The minimum crushing strength for concrete pipes should be - (Class 120 to EN 1916/BS5911-1:2002). Plastic pipes should conform to WIS 4-35-01 and BS EN13476.
 - 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 at crossovers to accommodate bedding to both pipes, approx. 300mm - if crossover is near the rocker then the clearance may be increased.

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C	15.01.24	Architects layout updated and associated revisions	IE
B	13.11.23	Architects layout updated and associated revisions	IE
A	28.07.22	Revisions due to Jones Homes comment regarding external works from the 27 July 2022	IE

Rev: Date: Amendment: DRN CHK APR

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Client: Jones Homes (Yorkshire) Limited
 Status:
 Scale: 1:250
 Size: A1 - 841 x 594 Drawn: IE Chkd: NB Appvd:
 Project: Residential Development Swallow Lane, Golcar, Phase 2
 Title: Drainage Layout

Drawing No: 22/278/500/001 Revision: C
 Job No: 22-278 Date: 24.06.22
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