

- KEY:**
- Existing Surface Water Sewer and Manhole
 - Existing Foul Water Sewer and Manhole
 - Existing Combined Sewer and Manhole
 - Proposed Surface Water Sewer and Manhole
 - Proposed Surface Water Sewer and Manhole and Backdrop
 - Proposed Surface Water Flow Control Manhole
 - Proposed Surface Water Lateral Drain and Demarcation Chamber
 - Proposed Surface Water Lateral Drain and Demarcation Chamber with Backdrop
 - Proposed Private Surface Water Drain and Inspection Chamber (100mm Ø at 1 in 80 unless specified otherwise)
 - Proposed Down Pipe
 - Proposed Eye
 - Proposed Yard Gully
 - Proposed ACO drainage Channel or Similar
 - Proposed Concrete Dished Channel and gully
 - Proposed Foul Water Sewer and Manhole
 - Proposed Foul Water Sewer and Manhole and Backdrop
 - Proposed Foul Water Lateral Drain and Demarcation Chamber
 - Proposed Foul Water Lateral Drain and Demarcation Chamber with Backdrop
 - Proposed Foul Water Rising Main
 - Proposed Private Foul Water Drain and Inspection Chamber (100mm Ø at 1 in 40m at top of run and 1 in 80 minimum elsewhere unless specified otherwise)
 - Proposed Private Foul Water Mini Inspection Chamber
 - Proposed Soil Vent Pipe or Foul Direct Connection
 - Proposed Highway Drain and Manhole
 - Proposed Highway Drain and Manhole and Backdrop
 - Proposed Highway Gully and 150mm Ø Connection
 - Proposed Easement

YORKSHIRE WATER NOTES:

- All adoptable sewer works and materials to be in accordance with "Code for Adoption". The relevant standards for "Code for Adoption" are: "Code for Adoption" in the Mechanical and Electrical Specification and "Code for Adoption" in the Mechanical and Electrical Specification.
- 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 regarding the disposal of the filter drain/land drainage run-off.
- 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 "B" 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 300mm 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).
- Yorkshire Water policy is that Type "C" brick manholes and 150mm diameter manhole rings are not preferred. Instead, it is preferred that you use a type "B" manhole with 150mm diameter x 150mm diameter rings, with the opening sized over the channel where depth of cover to pipes is 1.1 - 1.5m.
- Adoptable plastic sewer pipes to be BS 4743 (Kitemarked) (certified to WIS 4-35-01 and BS EN 13476). Adoptable plastic sewer pipes to be laid in maximum 3 metre lengths unless there is a specific operational need for longer lengths. Plastic channel sections in manholes are not acceptable and Yorkshire Water would require city sewer channel in manholes.
- The minimum crushing strength for clay pipes should be as follows:
100mm dia. 400N/m², 150mm dia. 400N/m², 225mm dia. 400N/m² and 300mm dia. 720N/m². The minimum crushing strength for concrete pipes should be: Class 120 to EN 1916 (BS EN 12001-1:2002). Plastic pipes should conform to WIS 4-35-01 and BS EN 13476.
- Where BS 4743 cover and frame has been approved, this must be sealed in place and must have lifting rings suitably sized to accommodate standard lifting keys. Some down covers are not acceptable.
- There must be enough clearance at crossovers to accommodate bedding to both pipes, approx. 300mm. If crossover is near the road then the clearance needed may need to be increased.

OTHER NOTES:

- The existing sewers and culverts shown on this drawing are taken from various archives, drainage plans and sewer records. Some of this information is corroborated and the locations shown are interpreted using existing features and manhole locations shown on the survey. The exact depth and location should be worked on-site prior to commencing construction.
- All drainage works shall be adopted by Yorkshire Water to be subject to their approval prior to commencement on site.
- All hard standing and immediate areas outside the adopted highway boundary to be drained and collected in provide drainage systems and discharged into the surface water sewer before water encroaches onto the public highway.
- Gullies should not be located in the area of dropped crossings.
- Granular bedding for pipes shall consist of aggregates from natural sources complying with the relevant provisions of BS 6900 in accordance with the table below.
- All pipes with a diameter larger or equal to 300mm shall be concrete. Pipes with a diameter less than 300mm shall be clay.
- Validated clay pipes and fittings for sewers shall have flexible mechanical joints. Pipes for foul sewers and surface water sewers shall comply with relevant requirements of BS EN202 and BS EN 653 surface water pipes only.
- All private work to be in accordance with current building regulations.
- Drains passing through buildings to be protected with initial cover.
- No building to take place within 5.0m of the edge of an adoptable sewer dependent on the size and diameter of the sewer.
- No services to be shed over or within 1.0m of an adoptable sewer.
- Private drainage connections not direct to manholes are to be made via a 45 degree junction and not saddles.

Rev	Date	Amendment	DRN	CHK	APR
1	08.08.23	Notes added to 150mm pipe across Penistone Road	RE		
2	27.08.23	Task position updated at client request dated 26.08.23	NB		
3	13.02.23	Details updated following VVU comments dated 09.02.23	NB		

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Client: Newlet Homes

Status:
Scale: 1:250
Size: A2 - 1180 x 841
Drawn: NB
Chd: IE
Appr:
Project: Residential Development
Penistone Road, Fenay Bridge

Title: Drainage

Job No: 22491/FST5000/001
Revision: C
Date: 19.12.22

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