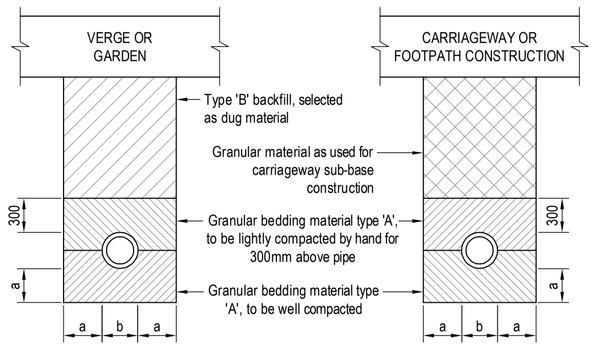
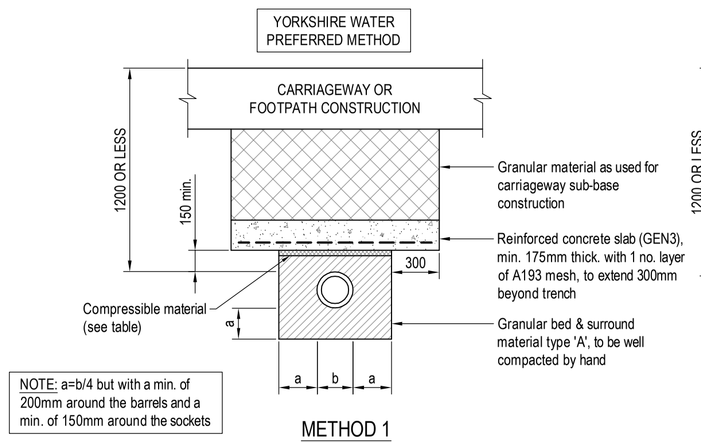


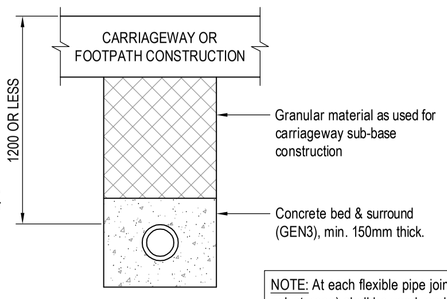
UNDER VERGE OR GARDEN
(BEDDING CLASS 'S')

UNDER CARRIAGEWAY OR FOOTPATH
(BEDDING CLASS 'S')



NOTE: a=b/4 but with a min. of 200mm around the barrels and a min. of 150mm around the sockets

METHOD 1



NOTE: At each flexible pipe joint a joint filler (e.g. fibreboard or polystyrene) shall be used, and shall extend through the full thickness of any concrete in contact with the pipe. the concrete bed shall be cut away at each joint to give a clearance of at least 50mm, so that the joint does not bear on the bed.

METHOD 2

UNDER CARRIAGEWAY OR FOOTPATH WHEN COVER TO CROWN OF PIPE IS 1200mm OR LESS

PIPE BEDDING MATERIAL DETAILS

(1) Material designated type 'a' shall consist of angular gravel or crushed rock graded in accordance with B.S. 882 : 1992, or air cooled blast furnace slag to B.S. 1047 : 1983, or sintered pulverised fuel ash to B.S. 3797 : 1990, selected according to pipe size as follows:-

NOMINAL SIZE OF PIPES (mm)	MAXIMUM PARTICLE SIZE (mm)	IMPORTED GRANULAR MATERIALS
100 - 125	10	10mm NOMINAL SINGLE-SIZE
150 - 200	15	10 OR 14mm NOMINAL SINGLE-SIZE OR 14mm TO 5mm GRADED
225 - 300	20	10, 14 OR 20mm NOMINAL SINGLE-SIZE OR 14mm TO 5mm GRADED OR 20mm TO 5mm GRADED
375 - 500	20	14 OR 20mm NOMINAL SINGLE-SIZE OR 14mm TO 5mm GRADED OR 20mm TO 5mm GRADED
OVER 500	40	14, 20 OR 40mm SINGLE-SIZE OR 14mm TO 5mm GRADED OR 20mm TO 5mm GRADED OR 40mm TO 5mm GRADED

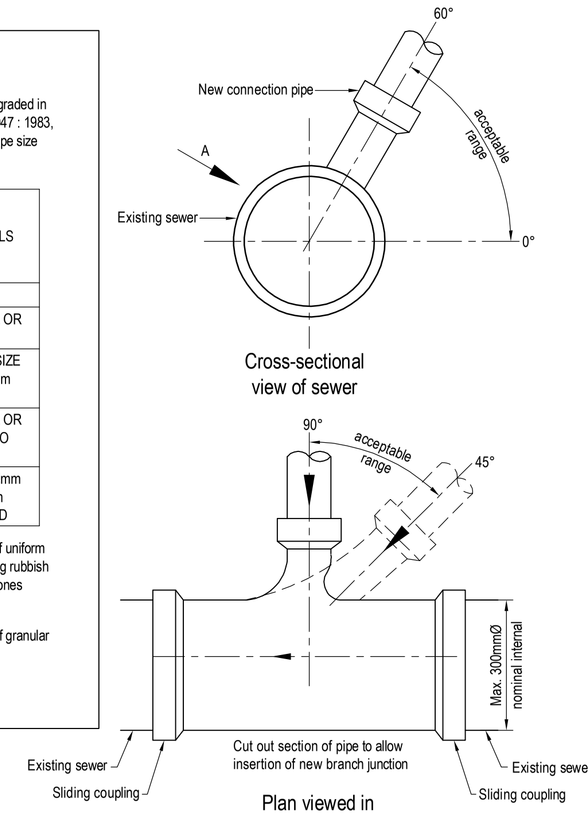
(2) Material designated type 'B' used under gardens and verges shall consist of uniform readily compactable material, free from tree roots, vegetable matter, building rubbish and frozen soil, and excluding clay lumps retained on a 75mm sieve and stones larger than 37mm. bedding to be compacted in 225mm layers.

(3) Material designated type 'B' used under roads and footpaths shall consist of granular material as used for carriageway sub-base construction.

COMPRESSIBLE FILLER AND PACKING FOR PIPELINES	
NOMINAL DIAMETER OF PIPE (mm)	THICKNESS OF COMPRESSIBLE FILLER (mm)
LESS THAN 450	18
450 - 1200	36
EXCEEDING 1200	54

PIPE BEDDING DETAILS (SEWERS)

Scale 1:25



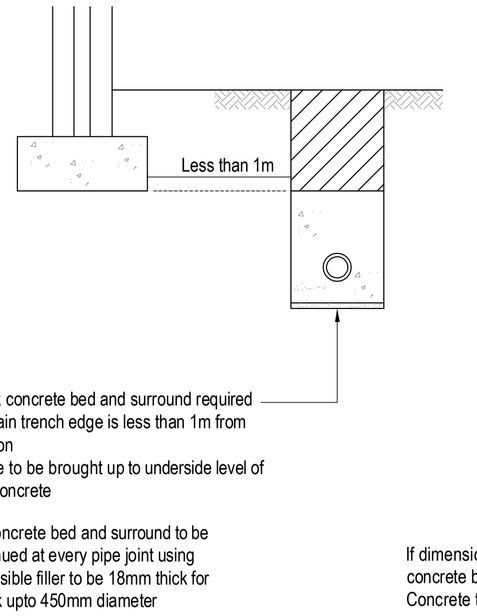
JUNCTION CONNECTION DETAIL TO EXISTING SEWER

Scale 1:10

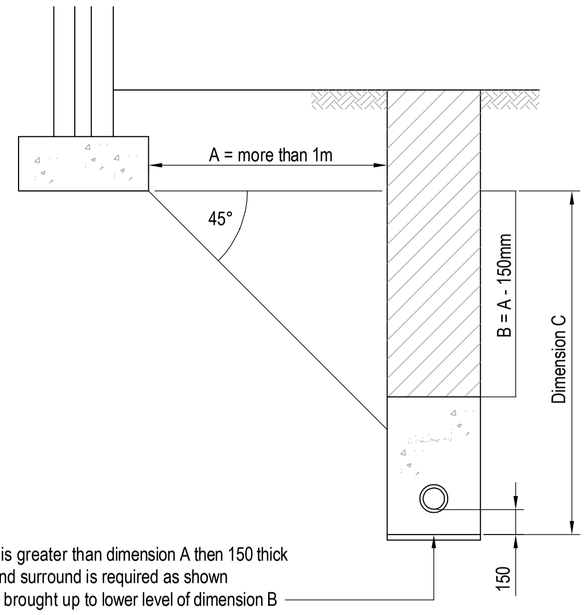
Notes:-

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Health and Safety Note:
The details on this drawing have been prepared on the assumption that a competent contractor will be carrying out the works. If the contractor(s) considers that there is insufficient Health and Safety information on this drawing, this should immediately be brought to the attention of the designer.

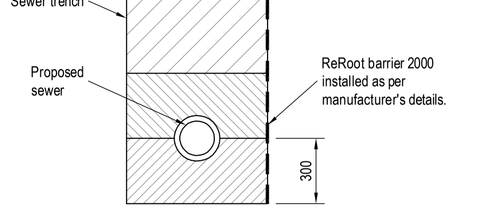


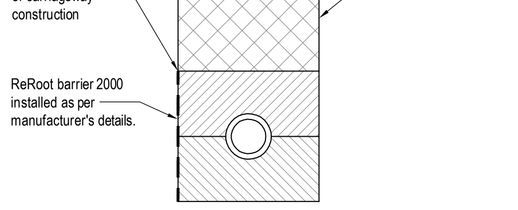
Drain trench edge less than 1m. from footing/foundation edge



Drain trench edge more than 1m. from footing/foundation edge

Pipe Bedding Adjacent to Foundation



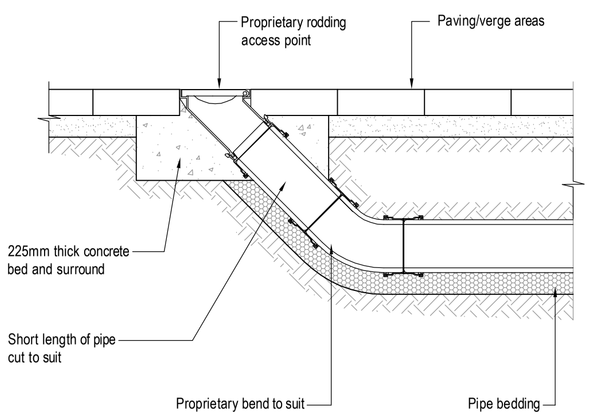


ROOT PROTECTION DETAIL

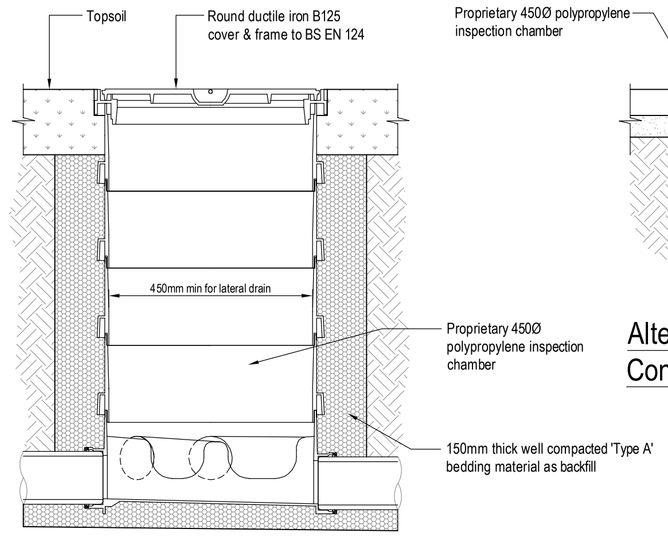
SCALE 1:20

YORKSHIRE WATER NOTES

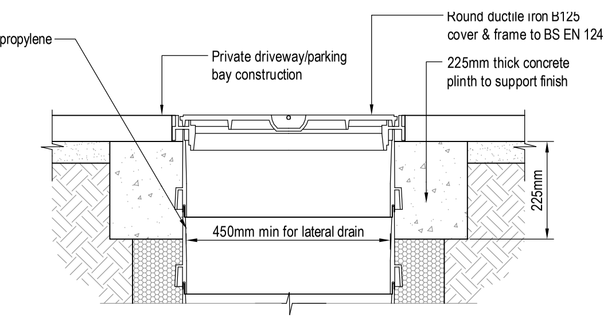
1. All adoptable sewer works and materials to be in accordance with "Sewers for Adoption" 6th Edition, The Relevant British/European and Yorkshire Water`s Standards/Requirements/Addendum to the Mechanical and Electrical Specification and Kitemarked.
2. Manhole covers shall/must have a clear opening of 600mm and shall be class D400 to BS EN 124 with 150mm deep frames in highways.
3. Filled ground must be filled and consolidated under the supervision and to the satisfaction of Yorkshire Water before any sewer works are carried out.
4. Yorkshire Water is not obliged to accept filter drain/land drainage runoff into the public sewer network or adoptable drainage system (directly or indirectly). An alternative method of disposal of the land drainage runoff will therefore be required and you will have to liaise with the Local Authority Land Drain Section with regard to the disposal of the filter drain/land drainage runoff.
5. 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 load 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 Autumn 2004 for Kitemarked cover slab opening sizes.
6. Sulphate resistant cement (C20-DC2) and precast concrete products must be used or a laboratory report providing proof that such precautions are not necessary.
7. The adoptable sewers should be a minimum of 1m and manholes 0.5m from kerb faces and service margins.
8. Sewers must have 5 metres clearance from trees and hedges. (Please also refer to Figure 2.3 on page 33 in "Sewers for Adoption" 6th Edition for restrictions on tree planting adjacent to sewers)"
9. 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), a concrete slab should be provided above the granular bed and surround.
10. Bedding and backfill material to conform to the requirement of Water Industry Specification 4-08-02 (Table A2).
11. 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.
12. 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 sited over the channel where depth of cover to pipe soffit is 1 - 1.5m
13. Survey information for the site is related to National Datum using GPS. See drawing B404/S/1 by Survey Site Services and also drawing 160460 by Interlock Surveys.



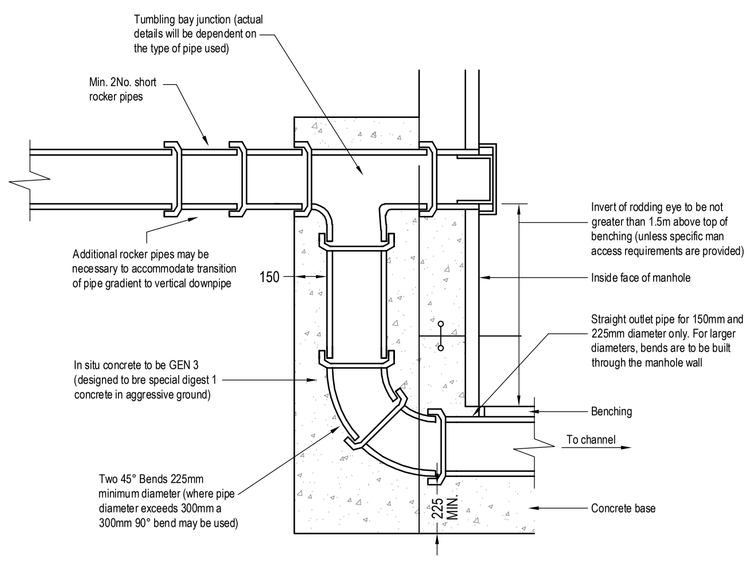
Private Rodding Eye Detail



Polypropylene Inspection Chamber-Typical Detail for Areas not Subject to Traffic



Alternative Polypropylene Inspection Chamber Construction - for Areas Subject to Traffic.



TYPICAL BACKDROP MANHOLE DETAILS - SECTION

Scale 1:20

Rev.	Date	Amendment	By	Chk.

Status: For Approval

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Client	ASHMOUNT HOMES
Job	LAND OFF WOMBWELL LANE, BARNSLEY, S70 3NR
Title	PROPOSED DRAINAGE DETAILS SHEET 2 OF 2
Scale	AS SHOWN @ A1
Date	NOVEMBER 2016
Drawn By	CPY
Eng. Check	
Tech. Check	

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