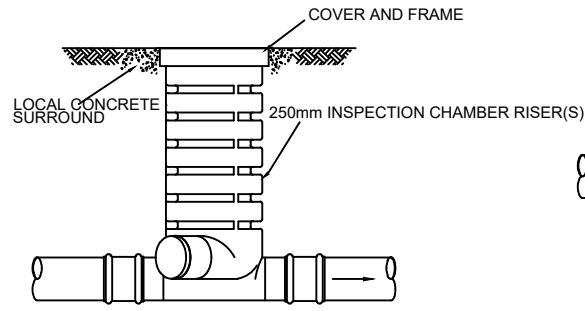
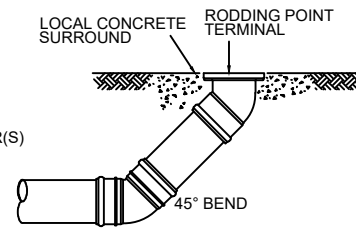


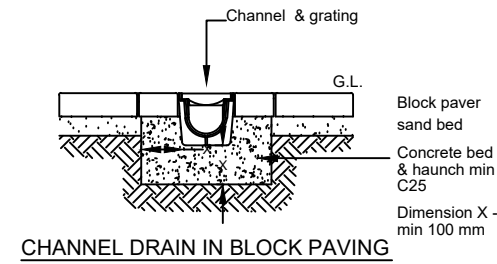
TYPICAL 450mm INSPECTION CHAMBER



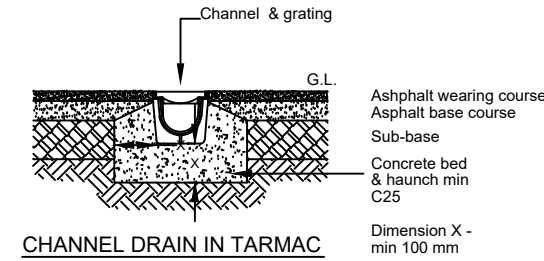
TYPICAL 250mm INSPECTION CHAMBER



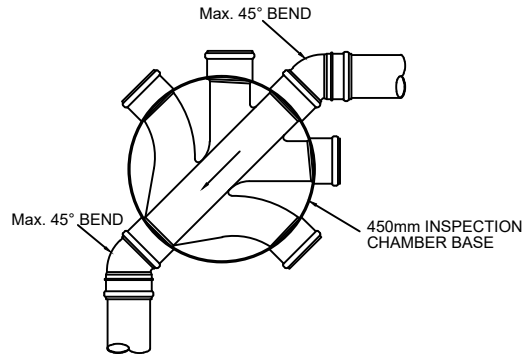
TYPICAL HEAD OF DRAIN RODDING POINT



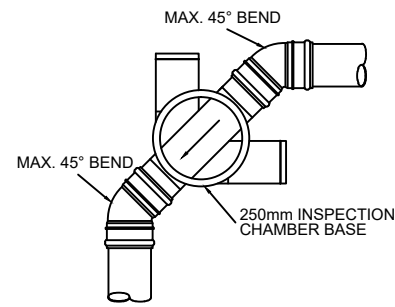
CHANNEL DRAIN IN BLOCK PAVING



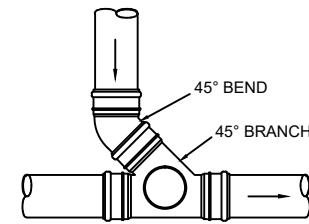
CHANNEL DRAIN IN TARMAC



TYPICAL 450mm INSPECTION CHAMBER



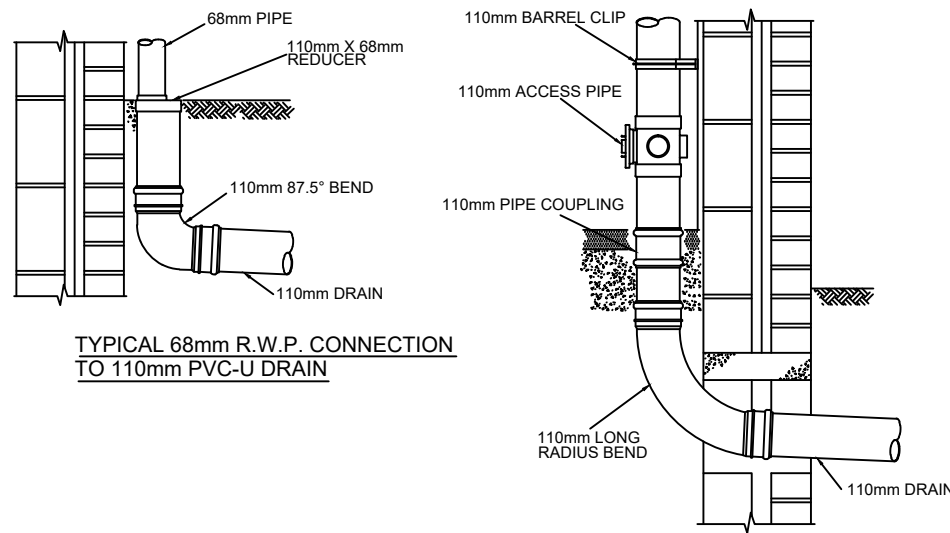
TYPICAL 250mm INSPECTION CHAMBER



TYPICAL BRANCH CONNECTION

GENERAL NOTES

- This drawing is to be read in conjunction with relevant architectural and engineering drawings.
- Levels indicated in blocks are finished floor levels which are generally 150mm above ground level.
- Roads footpaths and parking bays which form part of the highway to be adopted under Section 38 of the Highways Act 1980 shall comply with the relevant council highway specification.
- Sewers to be adopted under Section 104 of the Water Industries Act 1991 shall comply with the Water Authorities Association "Sewers for Adoption 6th Edition and Combined Addendum" and the Sewerage Undertakers reasonable requirements.
- All pipes to be used in adoptable sewers shall be unplasticised PVC pipes to BS 4660/ BS EN1401-1:1998 with Class S bedding unless otherwise stated. The minimum requirement for pipes to be used in adoptable sewers is to be as follows:
 150mm dia - Class 187 - min crushing strength 28kN/m
 225mm dia - Class 120 - min crushing strength 28kN/m
 300mm dia - Class 120 - min crushing strength 36kN/m
 Where cover to pipes is less than 1200mm under carriageway or vehicular access areas they shall be surrounded with 150mm Grade C20 concrete, flexibility of joints being maintained by using compressible fibreboard at intervals not exceeding 5m.
- All existing drainage invert levels, diameters and locations are to be checked by the Contractor prior to the commencement of any proposed drainage work. Any difference between actual and drawn details is to be reported immediately.
- Positions of existing services/stutory undertakers apparatus adjacent to or crossing proposed sewers is to be checked by the Contractor prior to starting work.



TYPICAL 68mm R.W.P. CONNECTION TO 110mm PVC-U DRAIN

TYPICAL DETAIL AT BASE OF S.V.P.

BUILDING DRAINAGE

- Building drainage shall comply with BS 8301:1985 and the Building Regulations 2002 Edition part H incorporating 2010 amendments.
- All house drainage to be 100mm diameter unless shown otherwise.
- Inspection chambers located within garages to have double seal bolt-down covers.
- Pipes penetrating walls:
Pipes running under buildings without suspended floors shall have 100mm granular surround. An opening is to be formed through the wall to give at least 50mm clearance around pipe. Brickwork over shall be supported by a lintel. The opening is to be masked each side with rigid sheet material. Pipes embedded in walls shall have a joint formed within 150mm of each wall face. A rocker pipe of max 600 length shall be used to continue the pipework.
- Pipes running near buildings:
If trench is within 1m of building it is to be filled with concrete up to a level below the building equal to the distance from the building less 150mm.
- All garage floor levels to be 150mm below attached house slab level unless shown otherwise.
- All private drives exceeding two car parking bays in area are to be provided with gullies to prevent water discharging onto the public highway where the drive falls way from the dwelling. Where a drive falls towards the dwelling gullies and channels are to be provided to prevent water damaging building.
- The first 1 m of private drives measured from back of footpath shall not exceed grade of 1 in 20 to create a rollover.

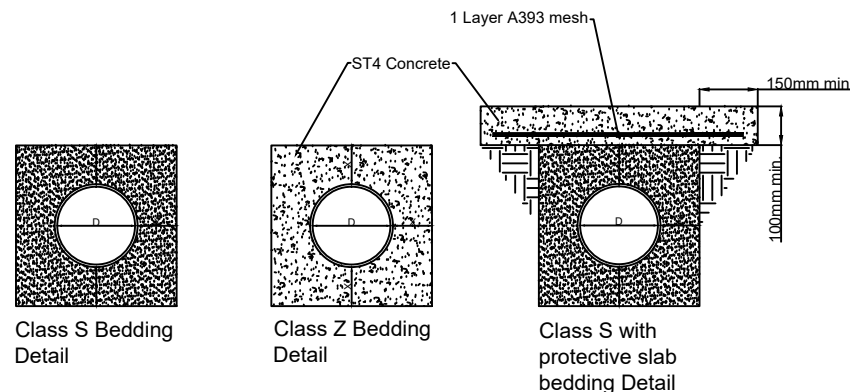
THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT DESIGN DRAWINGS AND OTHER INFORMATION

DRAINAGE POINTS PRELIMINARY CONTRACTOR TO CHECK AGAINST HOUSE TYPE WORKING DRAWINGS PRIOR TO CONSTRUCTION WORKS COMMENCING CLIENT TO CHECK ALL POSITIONS, SIZES, LEVELS OF EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF WORKS ON SITE AND REPORT ANY DISCREPANCIES IMMEDIATELY FOR DIVERSIONS TO BE ARRANGED

A SCREEN IS TO BE FITTED OVER THE OUTGOING PIPE TO THE LAST NEW SURFACE AND FOUL MANHOLES BEFORE ENTERING THE EXISTING SEWERS IN ACCORDANCE WITH SEWERS FOR ADOPTION 6. THE SCREEN SHALL ONLY BE REMOVED ONCE ON SITE CONSTRUCTION WORKS HAVE BEEN COMPLETED

LEVEL OF EXISTING ROAD AT POINT OF TIE IN WITH PROPOSED SITE ROAD MUST BE CHECKED BEFORE COMMENCEMENT OF WORKS

ALL EXISTING SEWER LEVELS TO BE CHECKED AND VERIFIED PRIOR TO ANY CONSTRUCTION WORKS



Class S Bedding Detail

Class Z Bedding Detail

Class S with protective slab bedding Detail

Dimension 'X' must be a minimum of either 150mm or 'D' (whichever is smaller). Trench base must be trimmed and compacted. Granular material should be 10mm single sized.

MINIMUM DIMENSIONS FOR ACCESS FITTINGS AND INSPECTION CHAMBERS

Type	Depth to Invert from cover level (m)	Internal sizes		Cover sizes	
		Length x width (mm x mm)	Circular (mm)	Length x width (mm x mm)	Circular (mm)
Rodding eye		As circ in but: min 100		Same size as pipework	
Inspection chamber shallow	0.6 or less 1.2 or less	225 x 100 450 x 450	190 450	Min 430 x 430	190 430
deep	> 1.2	450 x 450	450	Max 300 x 300 ²	Access restricted to max 350 ²

Notes:
 1) The clear opening may be reduced by 25mm in order to provide proper support for the cover and frame.
 2) Drains up to 150mm.
 3) A larger clear opening cover may be used in conjunction with a restricted access. The site is restricted for health and safety reasons to deter entry.

MINIMUM DIMENSIONS FOR MANHOLES

Type	Size of largest pipe (DN)	Min internal dimensions ¹	Min clear opening size ²		Circular diameter
			Rectangular length and width	Rectangular length and width	
Manhole < 1.5m deep to soffit	≤ 150	750 x 675 - 225	1000	750 x 675 - 2200 x 675	na ³
	300	1200 x 750	1200	1200	
> 1.5m deep to soffit	> 300	1800 x (DN+450)	The larger of 1800 or (DN+450)		
	≤ 225	1200 x 1000	1200	600 x 600	600
	300	1200 x 1075	1200		
	375-450	1350 x 1225	1200		
	> 450	1800 x (DN+775)	The larger of 1800 or (DN+775)		

Notes:
 1) Larger sizes may be required for manholes on bends or where there are junctions.
 2) May be reduced to 600 by 600 where required by highway loading considerations, subject to a safe system of work being specified.
 3) Not applicable due to working space needed.
 4) Minimum height of chamber in shelled manhole 2m from bending to underside of reducing slab.
 5) Min clear space between ladders or steps and the opposite face of the shaft should be approximately 500mm.
 6) Minch only - no steps or ladders, permanent or removable.
 7) The minimum size of any manhole serving a sewer (i.e. any drain serving more than one property) should be 1200 mm x 675 mm rectangular or 1200 mm diameter

Rev.	Date	Description	Initial



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Drawing Title
Private Drainage Construction Details

Status
For Construction

Drawing Number:
K000/STD/9001

Drawn By:	Date:	Scale @ A3:	Revision:
CB	Jan/2021	Not to Scale	-