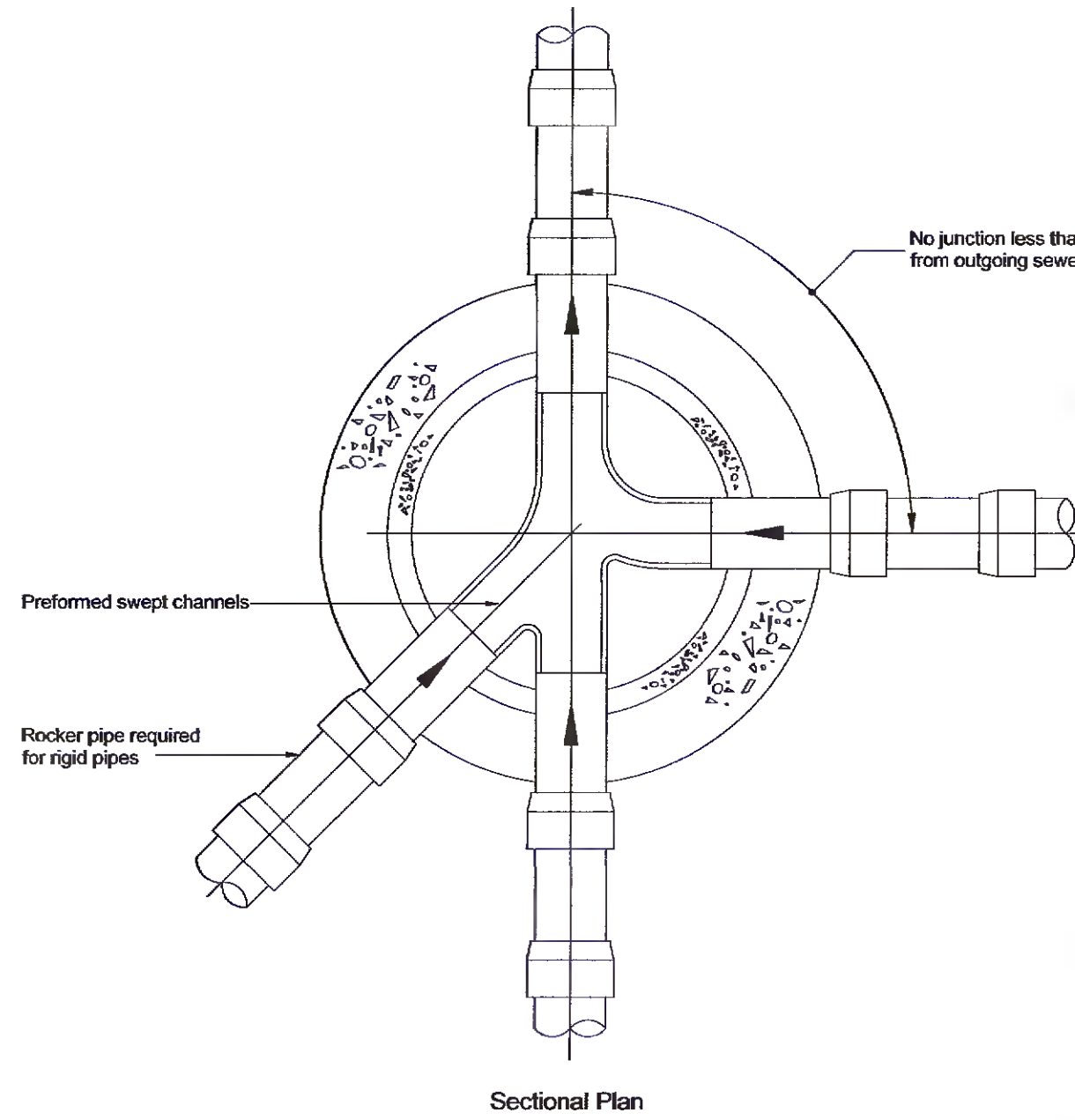


TYPICAL ARRANGEMENT OF PIPE JUNCTIONS WITHIN MANHOLES



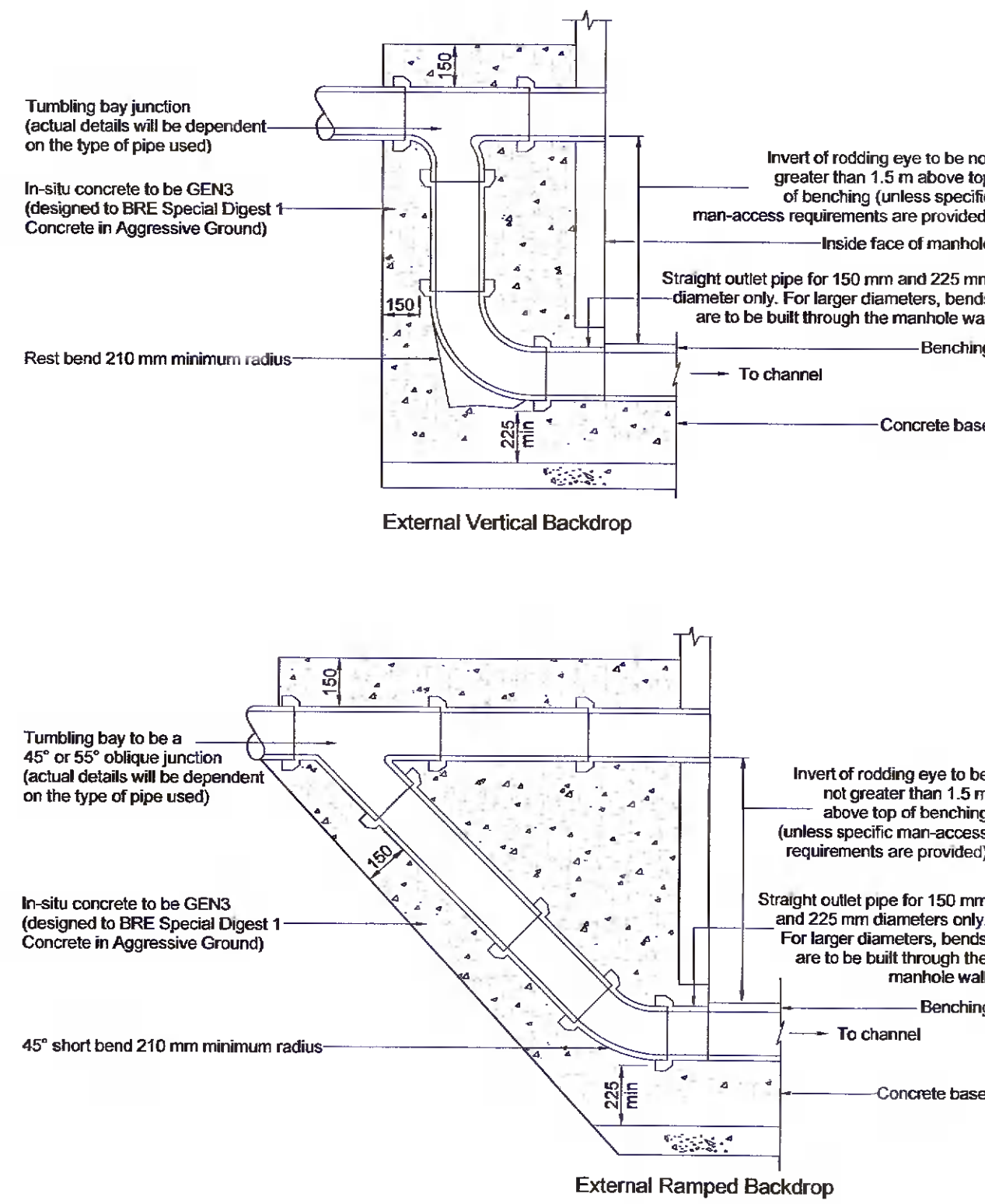
Rigid pipes built into manhole should have a flexible joint as close as feasible to the external face of the structure and the length of the next rocker pipe should be as shown.

Nominal diameter (mm)	Maximum effective length (m)
150 - 600	0.6
601 - 750	1.00
over 750	1.25

All pipes entering the bottom of the manhole to have soffits level.

TYPICAL VERTICAL AND RAMPED BACKDROP DETAIL

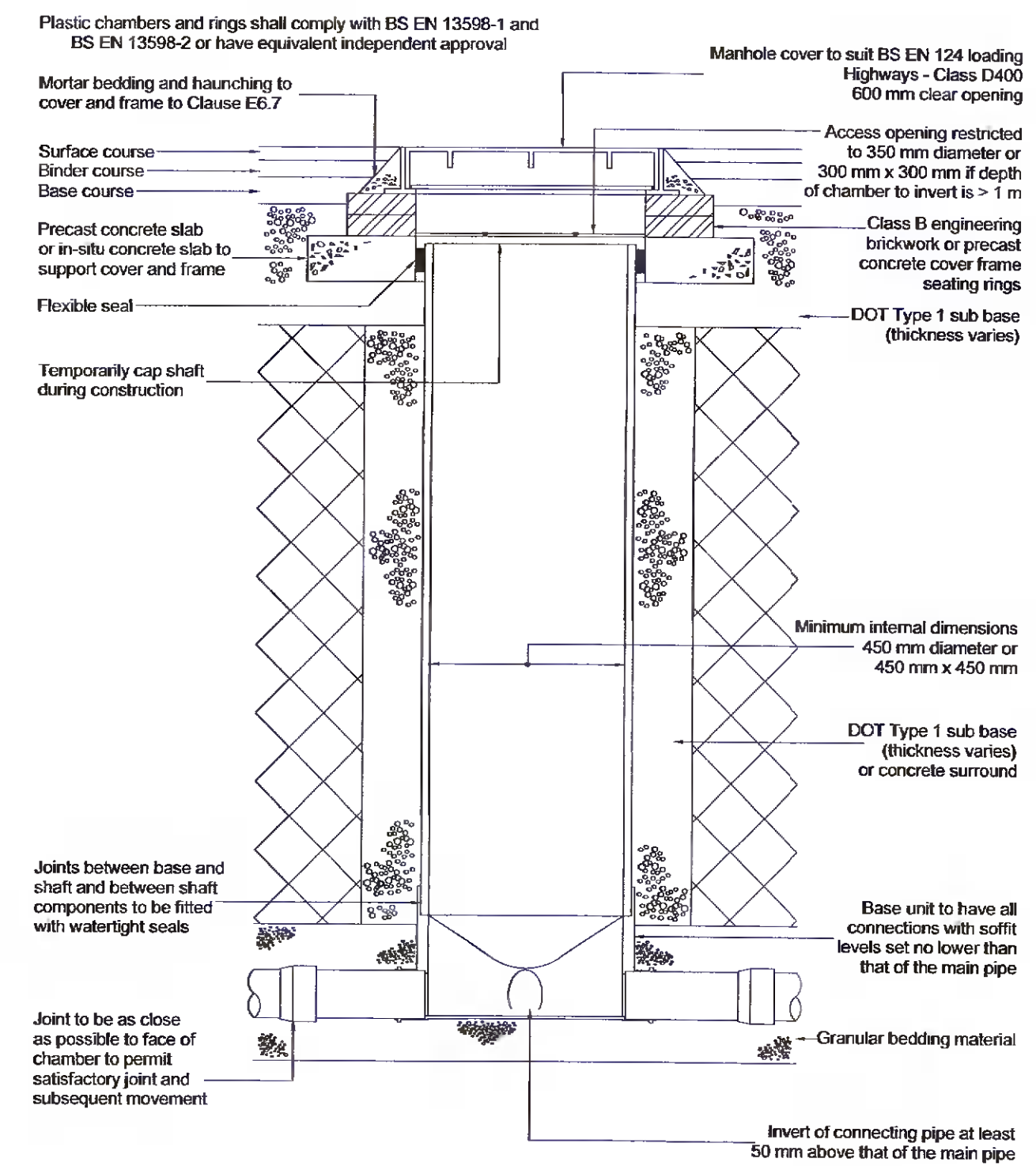
Note: Steeper gradients are preferred to the use of backdrops. Type of backdrop to be used to be agreed with Undertaker.



Not to scale, dimensions in millimetres

TYPICAL INSPECTION CHAMBER DETAIL - TYPE 3 (Flexible material detail)

Maximum depth from cover level to soffit of pipe in areas subject to vehicle loading 3 m, non-entry



Note: Where the access chamber is in the highway the Highway Authority can have specific requirements

Not to scale

Notes:

- All dimensions to be checked on site. Engineer to be informed immediately of any discrepancies before work proceeds.
- Existing foundations are subject to site inspection.
- All structural steelwork to be grade S355 U.N.O. and shall comply with the requirements of Eurocode 3.
- The contractor must ensure that the location of all masonry control joints is confirmed by the architect and the engineer prior to commencement of the works.
- All blockwork to be dense solid blockwork with a minimum compressive strength of 5N/mm² u.n.o. and shall comply with the requirements of IS 325.
- All blockwork is shown indicatively. Refer to architects drawings for blockwork details including exact setting out.
- All timber shall be minimum grade C16 (U.N.O.) and shall comply with I.S. 444.
- Unless noted otherwise all joints between 215 solid blockwork and RC walls/columns to be provided with 150 long stainless steel ties at 450 vertical centres (ancon sp21 or similar approved). Ties to slot into channel cast into RC element (ancon Z116 omega channel or similar approved).
- Stainless steel bed joint reinforcement to be provided to all window openings in 2 courses directly above and below the opening (bed joint reinforcement to be minimum 175 wide in 215 masonry) and to extend minimum 600 past the opening.
- All foundations to be placed on minimum 50mm lean mix blinding (U.N.O.)
- For details of underground drainage services refer to architects' and engineers drawings. For exact location of services, service openings, external ducting and lighting refer to architects engineers drawings.
- All non-structural finishes shall be to architects details unless noted otherwise.
- All damp-proofing, radon protection, insulation and fireproofing of building including service penetrations shall be to architects details unless noted otherwise.
- All temporary works necessary shall be the sole responsibility of the contractor.
- All steel to be CE certified
- Contractor to provide steel fabrication drawings for review by architect and engineer. Steelwork fabricator must be CE certified
- This drawing to be read in conjunction with all relevant architects and engineers drawings.
- All concrete to be grade 35N/20 with a crushing strength of 35N/mm² after 28 days.
- Minimum of 150mm bearing on all precast elements.
- Reinforcement to have a minimum of 40mm clear cover of concrete unless otherwise noted.
- Do not scale drawing.
- All dimensions in millimetres unless otherwise stated.
- Foundations to be formed on suitable bearing strata with capacity of 100 kN/sq.m.
- Engineers office to be notified 24 hours before concrete pour.
- Foundation design subject to no presence of water. Engineers office to be notified if soil conditions differ.
- Refer to architects drawings for setting dimensions and finishing details.
- All dimensions and setting out to be confirmed and checked with architects drawings. Any discrepancies to be disclosed to architects and engineers office.
- All building works to comply with current building control and regulations (BCaR)

Rev	Description	Date
01	Planning	11.20

Suitability Status:
P1 - Suitable for Planning

Client:
Richard & Elana Quinn

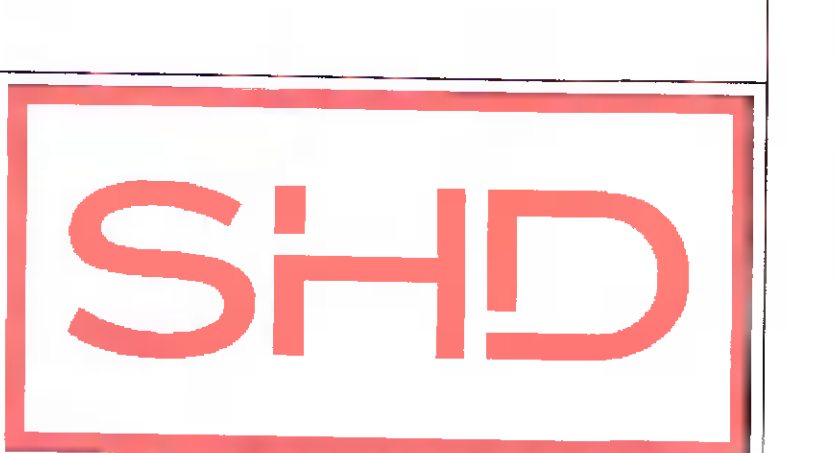
Job Title:
Proposed Dwelling at Kilakee Green, Firhouse, D.24

Drawing Title:
Proposed Drainage Details
Sheet 2 of 2

Original:	Drawn by:	Checked by:	Scale:	Date:	Sheet:
SOS	SOS	BK	as noted	24.11.20	A1

Dwg No:
20A224-SHD-XX-XX-DR-C-0003
PROJECT - ORIGINATOR - VOLUME - LOCALITY - TYPE - CODE - NUMBER

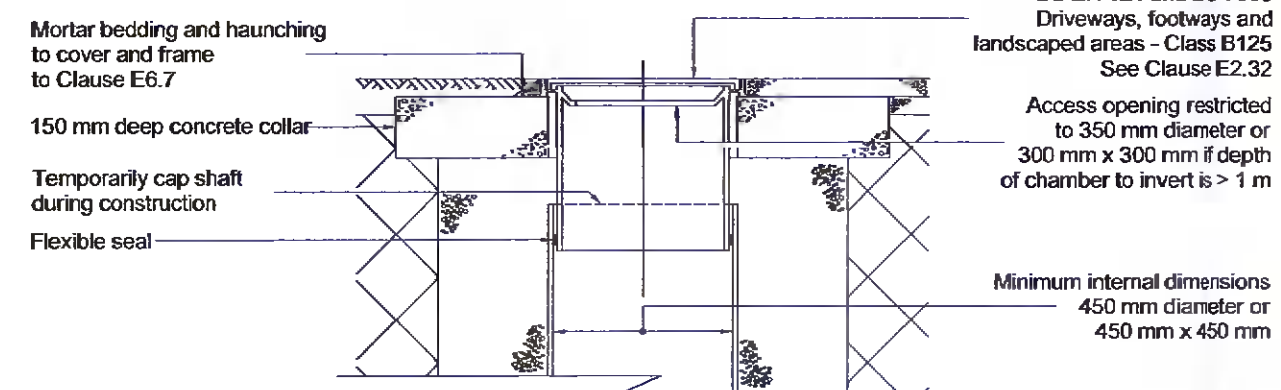
SHD Consultant Engineers
Nulgrove Enterprise Park, Rathfarnham, Dublin 14
Tel: 01-6852266
email: info@SHDeng.ie www.SHDeng.ie



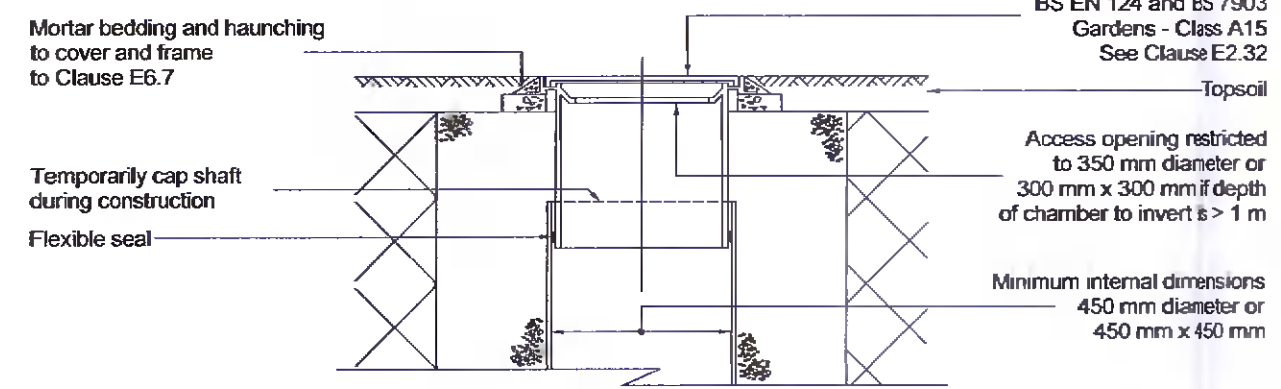
ALTERNATIVE TOP DETAILS FOR LIGHT VEHICLE LOADING AND LANDSCAPED AREAS - TYPE 3

Plastic chambers and rings shall comply with BS EN 13598-1 and BS EN 13598-2 or have equivalent independent approval

Sited in domestic driveways or footpaths



Sited in domestic gardens



Note: Where the access chamber is in the highway the Highway Authority can have specific requirements

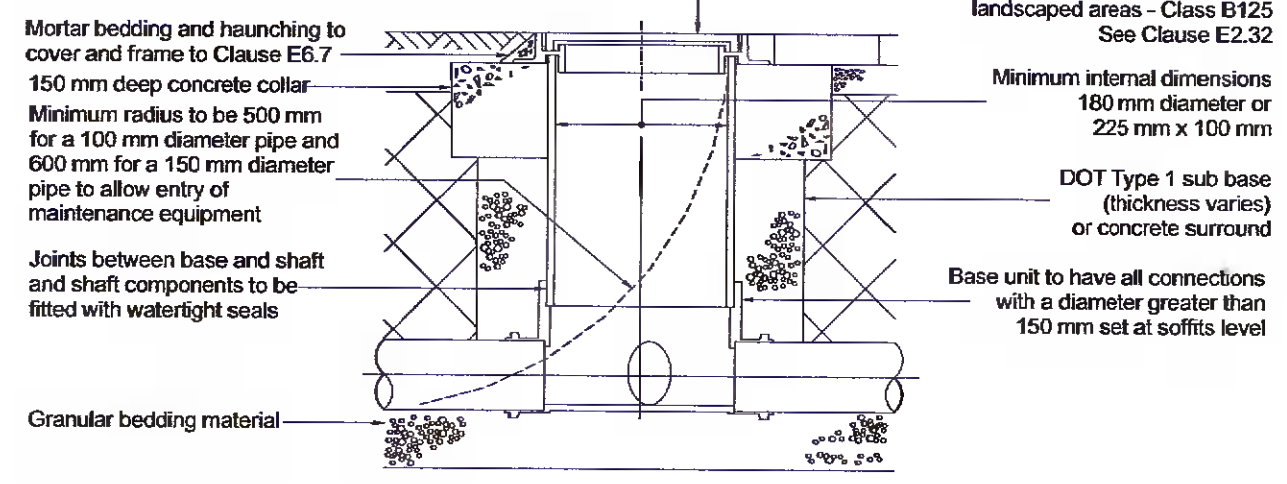
Not to scale

TYPICAL INSPECTION CHAMBER DETAIL - TYPE 4 (Flexible material detail)

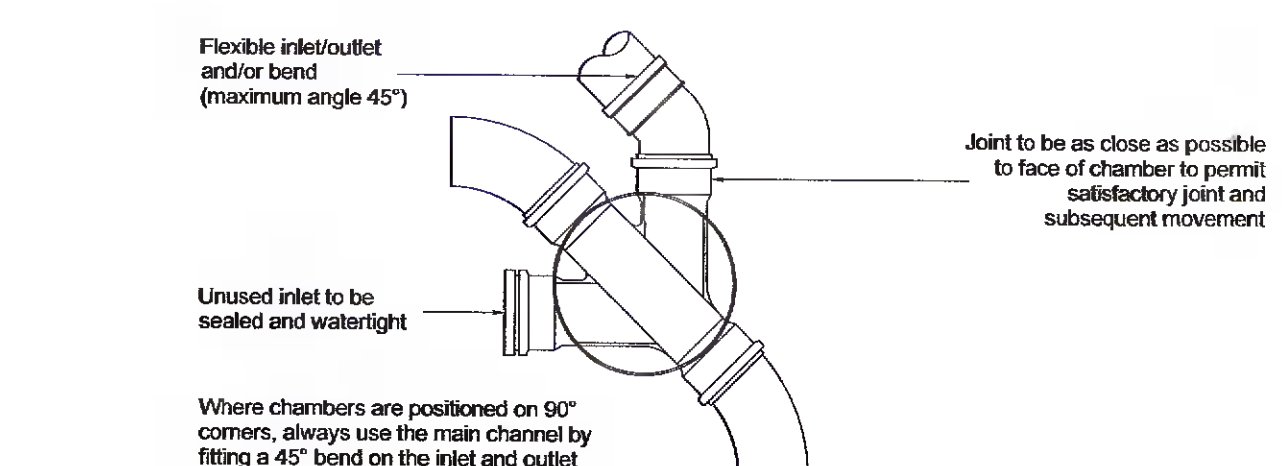
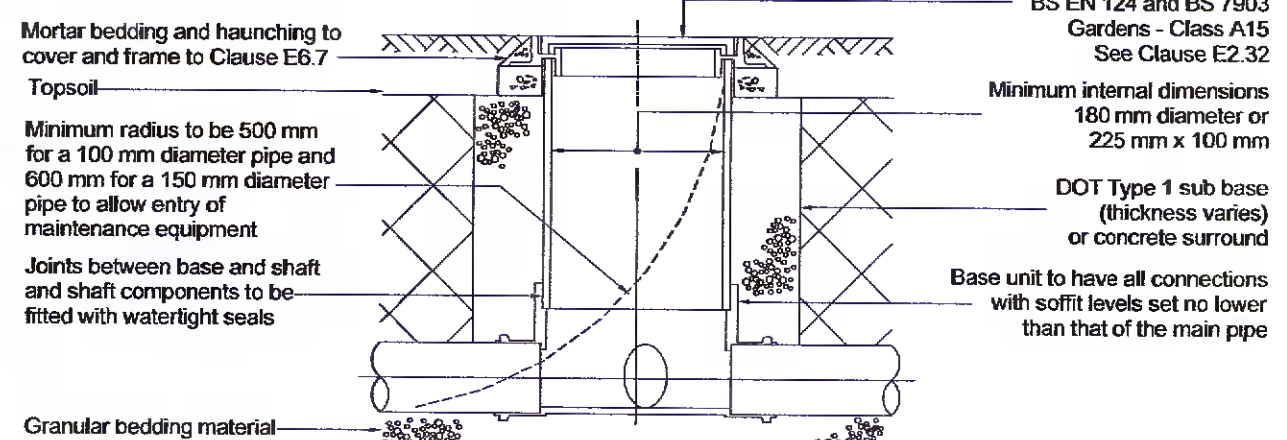
Maximum depth from cover level to soffit of pipe 2 m, non-entry

Plastic chambers and rings shall comply with BS EN 13598-1 and BS EN 13598-2 or have equivalent independent approval

Sited in driveways/paved areas



Sited in domestic gardens

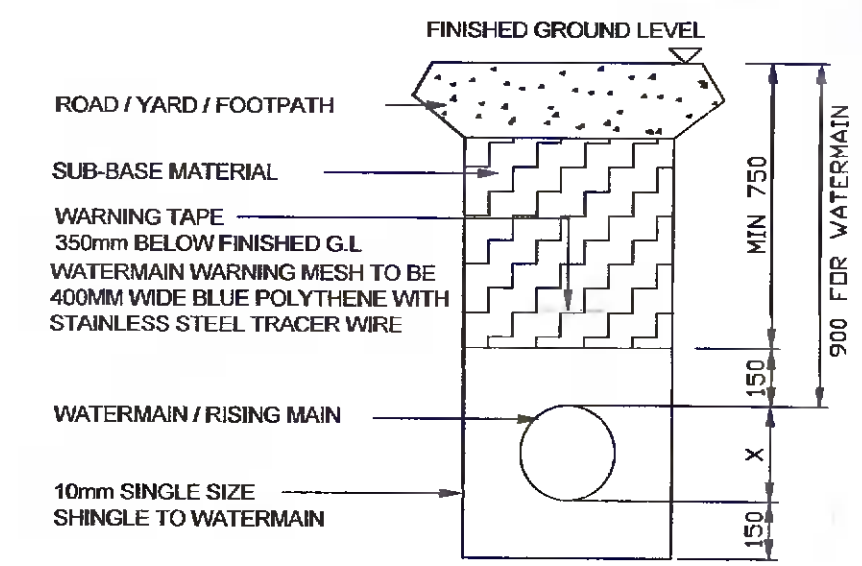


Where chambers are positioned on 90° corners, always use the main chamber by fitting a 45° bend on the inlet and outlet

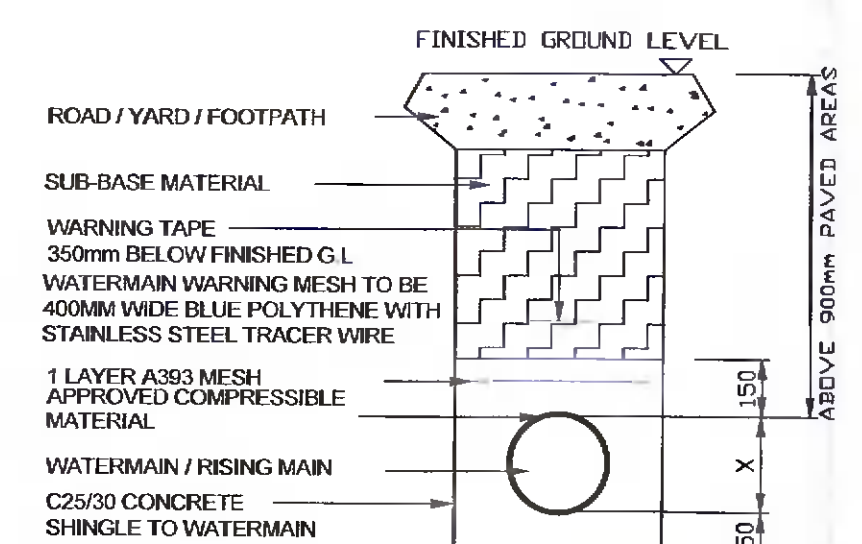
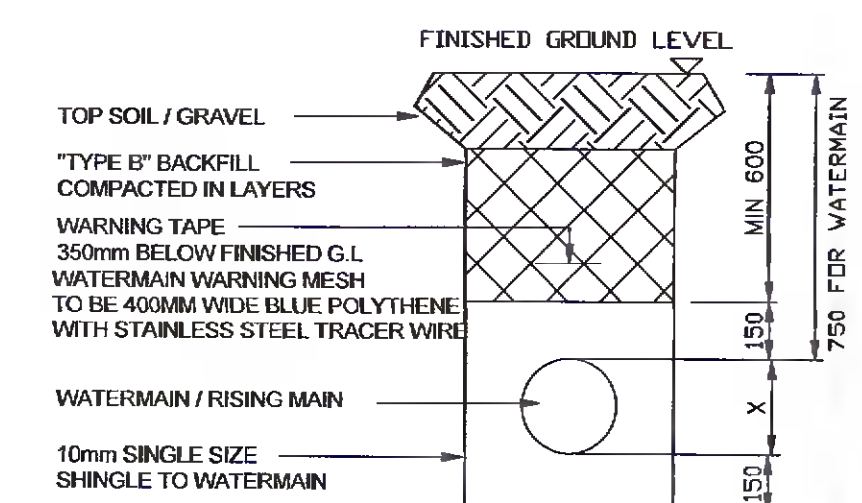
Note: Where the access chamber is in the highway the Highway Authority can have specific requirements

Not to scale

SECTION THROUGH WATERMAIN / TRENCH IN PAVED AREAS



TYPICAL SECTION THROUGH WATERMAIN / TRENCH IN UNPAVED AREAS



SECTION THROUGH WATERMAIN / TRENCH MINIMUM COVER NOT ACHIEVED