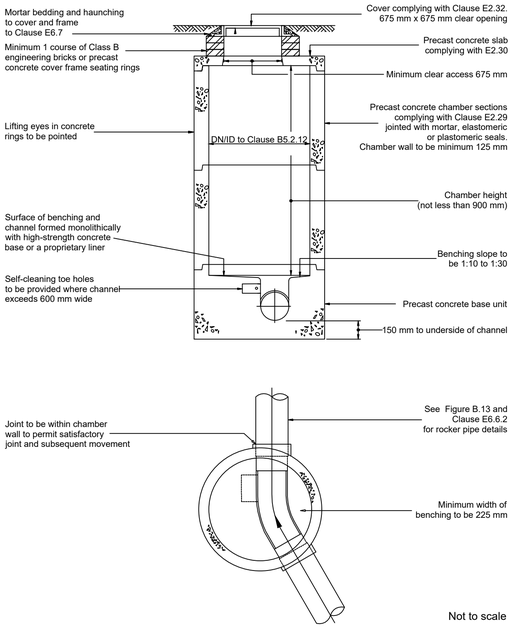
FIGURE B.9
TYPICAL MANHOLE DETAIL - TYPE B

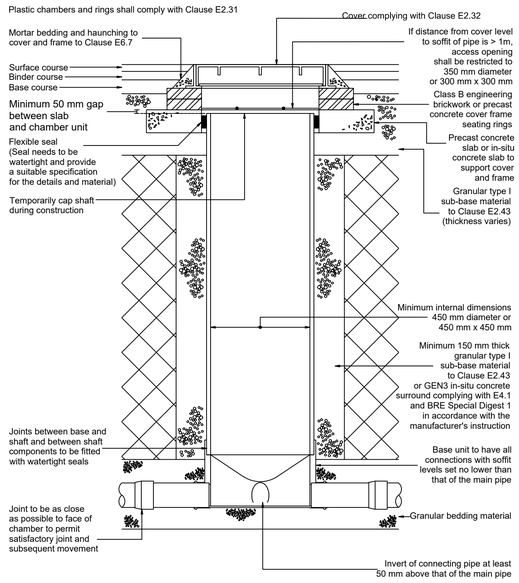
Depth from cover level to soffit of pipe 1.5 m to 3.0 m
Rigid material construction without concrete surround



Not to scale

FIGURE B.18
TYPICAL INSPECTION CHAMBER DETAIL - TYPE D

Depth from cover level to soffit of pipe up to 2 m
Flexible material construction for use in areas subject to vehicle loading

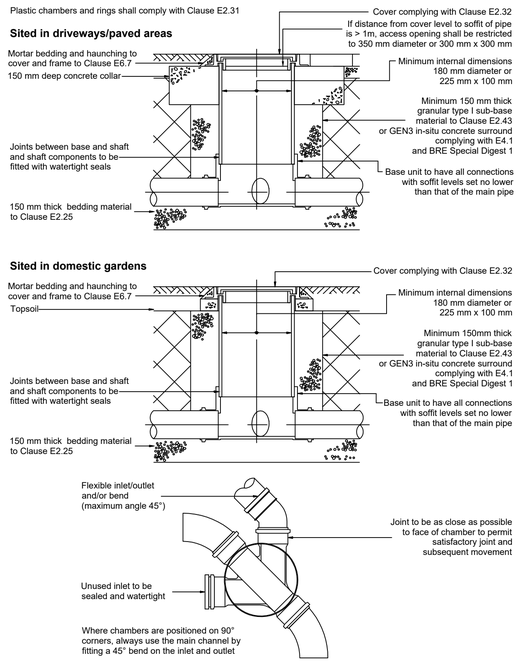


Note: Where the access chamber is in the highway (including any footway), the highway authority can have specific requirements.

Not to scale

FIGURE B.23
TYPICAL INSPECTION CHAMBER DETAIL - TYPE E

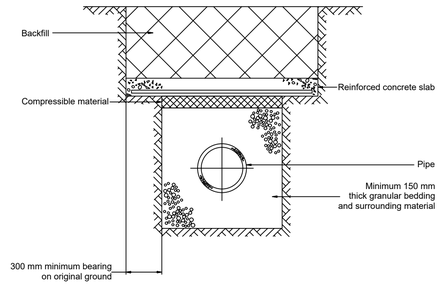
Depth from cover level to soffit of pipe up to 2 m
Flexible material construction



Note: Where the access chamber is in the highway (including any footway), the highway authority can have specific requirements.

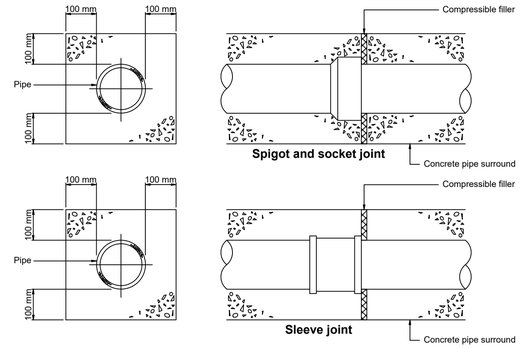
Not to scale

FIGURE B.27
PROTECTION OF PIPES LAID AT SHALLOW DEPTHS



Not to scale

FIGURE B.28
JOINTS FOR CONCRETE ENCASED PIPES



GENERAL NOTES:

1. All dimensions to be checked on site. All details and dimensions relating to sub-Contractors work must be checked and agreed between the sub-Contractor or supplier and the general Contractor.

2. This drawing is to be read in conjunction with all relevant Architect's and Engineer's drawings and specification.

3. The main Contractor is responsible for ensuring the stability of the structure whilst the works are in progress.

4. Any information given regarding existing underground services is given in good faith after consultation with the relevant authority. No liability is accepted by the Consultant and the main Contractor is responsible for obtaining and checking all information and taking due care and attention whilst undertaking the works.

DRAINAGE NOTES:

1. All adoptable pipes, bends and junctions shall be vitrified clay in accordance with the current version of BS EN 295-1, with flexible joints and kitemark certified.

2. All Adoptable sewers shall be in strict accordance with the SSG Appendix C - Design and Construction Guidance. Unless otherwise stated adoptable sewers shall be 150mm diameter and shall be laid in a class S bedding. Where the depth to soffit is less than 1.2m under a public highway or 0.9m elsewhere the pipe shall be laid with a class Z bedding.

3. All private building drainage shall be constructed in strict in accordance with the current version of BS EN 752:2017. Unless otherwise specified building drainage shall be 100mm diameter and shall be laid at a minimum gradient of 1 in 40 for foul drains and 1 in 80 for surface water drains. All building drains shall be laid in class B bedding unless otherwise specified.

4. Where a pipe is within 1m of a foundation the trench shall be filled with class GEN 3 concrete up to the lowest level of the foundation. Where the trench is further than 1m from the foundation, the trench shall be filled with class GEN 3 concrete to a level below the lowest level for the foundation equal to the distance from the foundation less 150mm. In both cases the pipe shall be bedded and surrounded in 150mm thick class GEN 3 concrete.

5. Where pipes, external to the structures, have a depth to soffit from ground level of less than 450mm they shall have a class GEN 3 concrete encasement (150mm thick). In all other cases the pipes shall be bedded and surrounded with 100mm thick granular material.

6. In any circumstances where pipes are bedded and surrounded in concrete flexible joints should be provided. Compressible boards (fibreboard or polystyrene) shall be provided at a maximum of 8m centres (coinciding with pipe joints). The boards shall be pre-cut to pipe diameter and to a height and width equal to the concrete cross section. A board thickness of 18mm for pipes up to 450mm nominal diameter and 36mm for pipes over 450mm nominal diameter.

7. All svps shall have rodding access plates fitted at their bases (ground floor level).

8. Impermeable membranes to be sealed around any incoming pipes

9. Where existing pipes are to be abandoned they shall be dug out together with any abandoned manholes.

10. Any discrepancy between the drawing and site should be reported immediately to the Engineer.

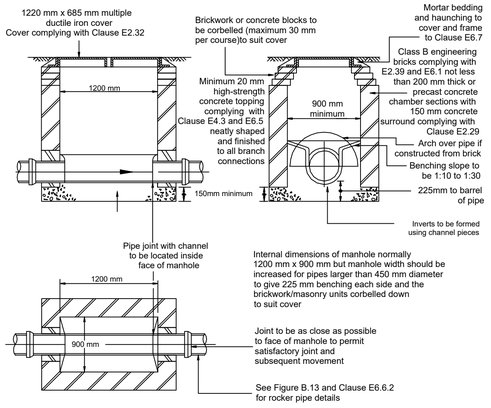
11. All manhole and chamber sizes are given as a minimum to meet the SSG Appendix C-Design and Construction Guidance

CHAMBER COVERS:

1. Class D400 covers shall be used in all carriageways and parking areas
2. Class B125 covers shall be used in all footways, pedestrian areas and driveways serving a single house and comparable locations.
3. Class A15 covers shall be used in landscaping areas not subject to vehicle loading.
4. For Type D and E inspection chambers with a greater distance than 1m from cover level to soffit level the access opeing shall be restricted to 350mmØ or 350 x 350mm

FIGURE B.14
TYPICAL MANHOLE DETAIL - TYPE C

Depth from cover level to soffit of pipe less than 1.5 m
Maximum pipe size 450 mm diameter
Rigid material construction

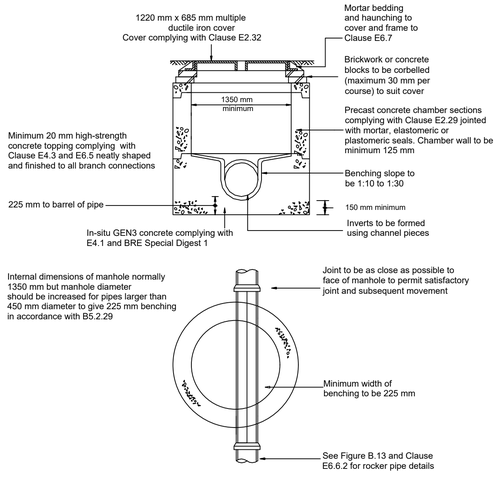


Note: The use of precast concrete chamber units to E2.29 with 150 mm GEN3 in-situ concrete complying with E4.1 and BRE Special Digest 1 in place of brickwork construction is permitted.

Not to scale

FIGURE B.15
TYPICAL MANHOLE DETAIL - TYPE C

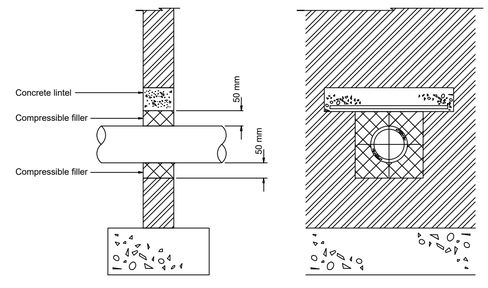
Depth from cover level to soffit of pipe less than 1.5 m
Maximum pipe size 450 mm diameter
Rigid material construction



Note: The use of precast concrete chamber units to E2.29 with 150 mm GEN3 in-situ concrete complying with E4.1 and BRE Special Digest 1 in place of brickwork construction is permitted.

Not to scale

FIGURE B.29
PROTECTION OF PIPES PENETRATING SINGLE LEAF BOUNDARY WALLS

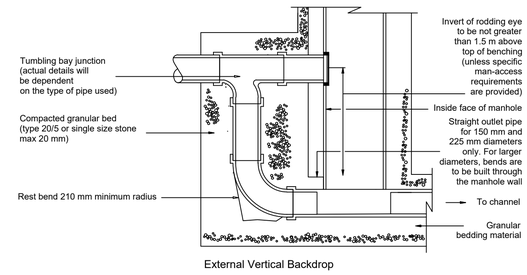


Not to scale
(all dimensions are minimum sizes)

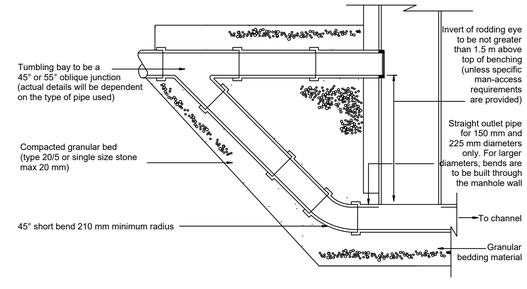
FIGURE B.17
TYPICAL VERTICAL AND RAMPED BACKDROP DETAIL(FLEXIBLE MATERIAL)

For use in manhole types A to D

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



External Vertical Backdrop



External Ramped Backdrop

Not to scale

-10 0 10 20 30 40mm

REV.	DATE	INT	DESCRIPTION	CHK

Issue Status: FOR APPROVAL

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CLIENT: Churchill Living
PROJECT: Windmill Inn, Mill Lane, Rustington
TITLE: Construction Details

DRAWN	DATE	PROJECT NO.
A Davies	Mar 2026	23915
ENGINEER	CHECKED	ORG. No. / REV.
S Doughty	SRD	501 -

SCALE: As Shown @ A1