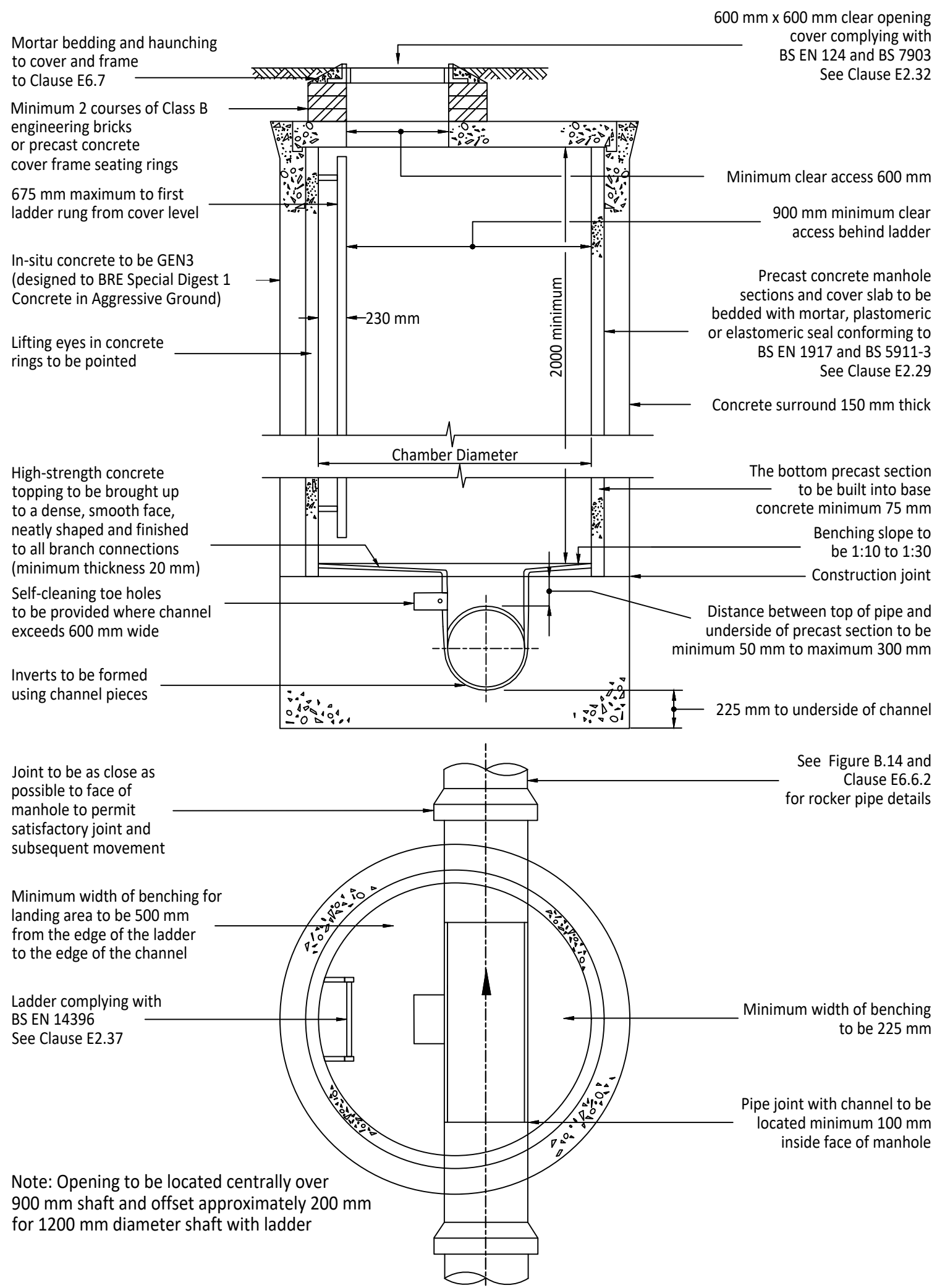
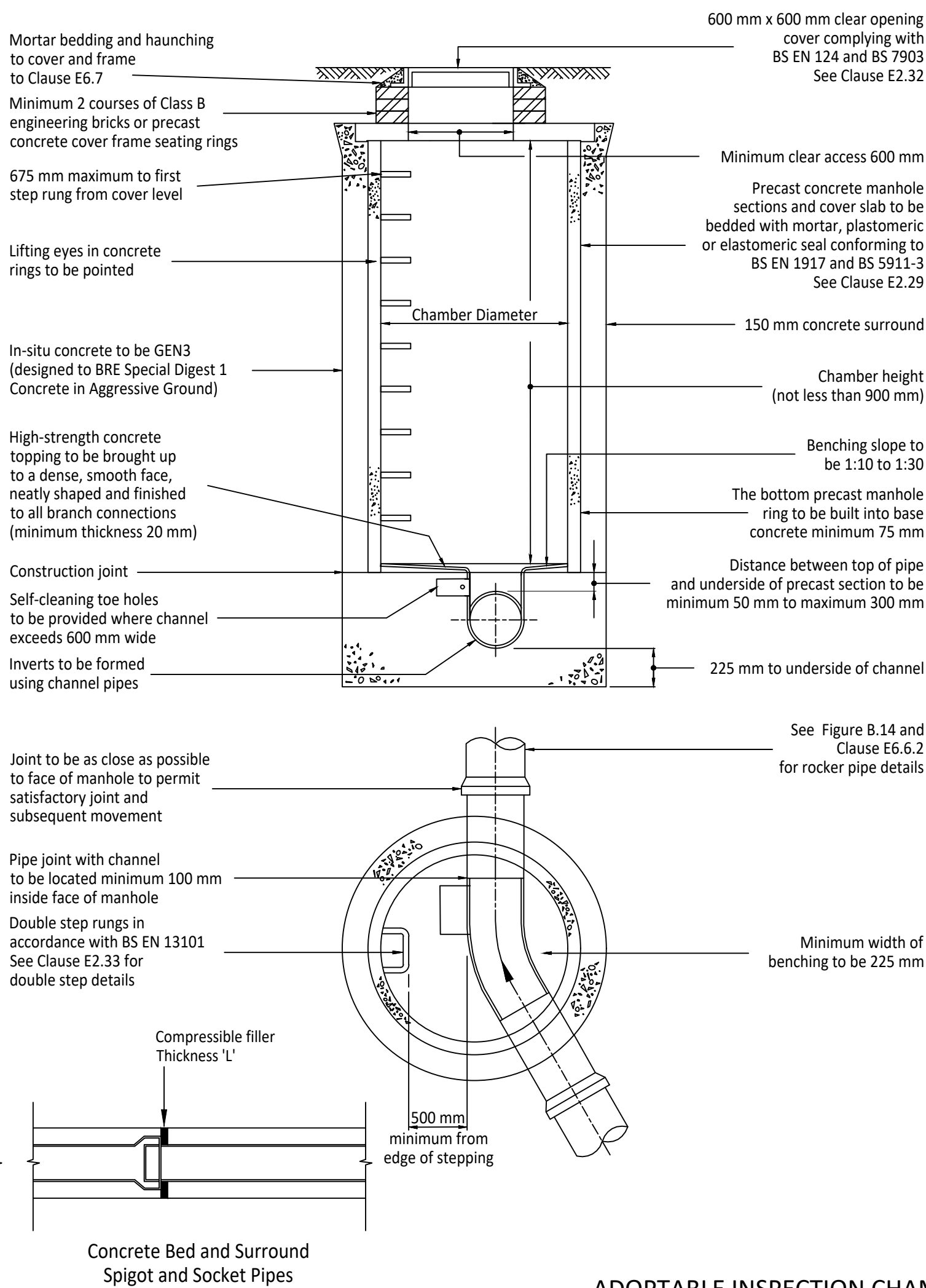


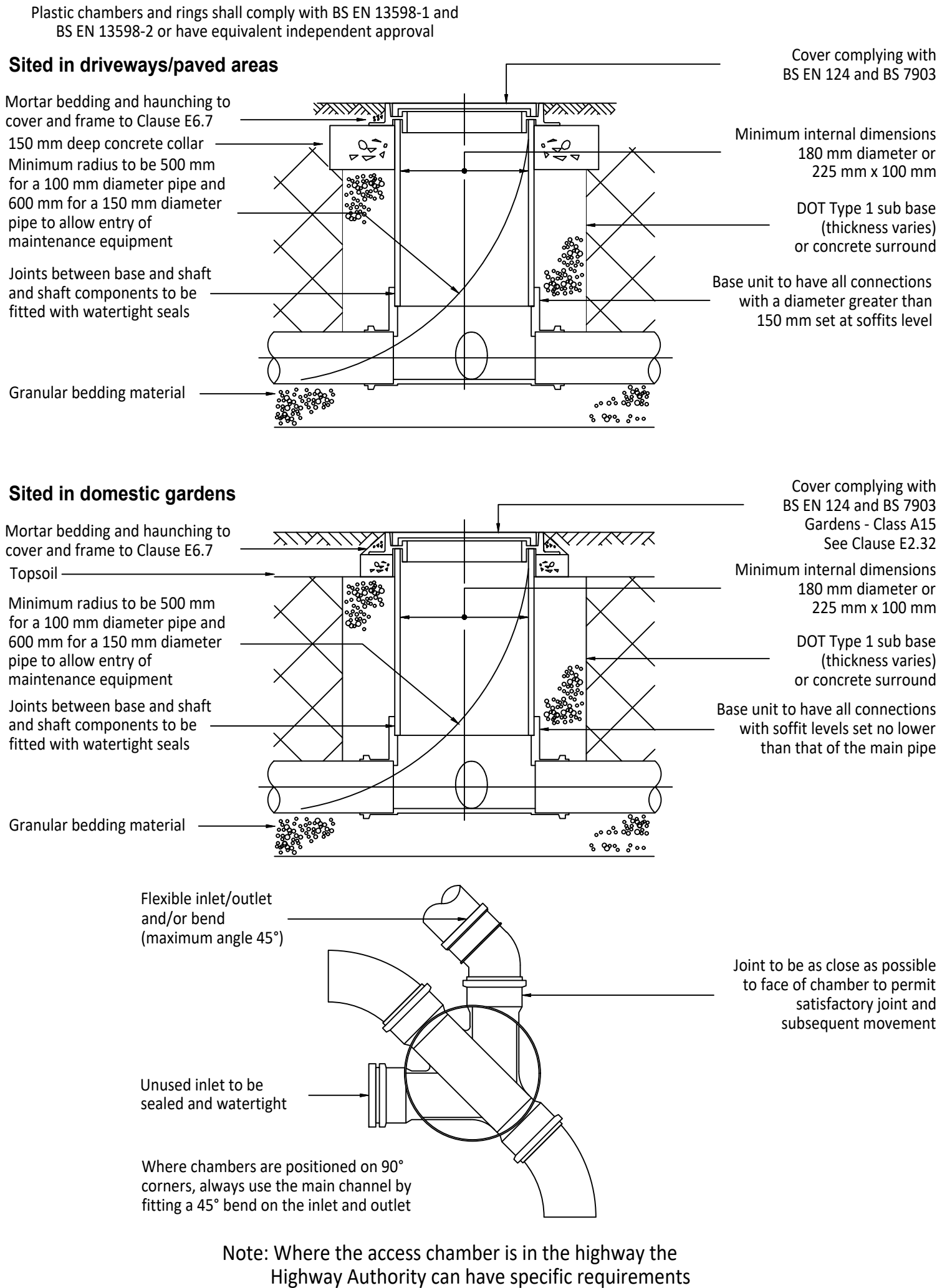
ADOPTABLE MANHOLE DETAIL - TYPE 1
Depth from cover level to soffit of pipe 3 m to 6 m



ADOPTABLE MANHOLE DETAIL - TYPE 2
Maximum depth from cover level to soffit of pipe 3.0 m



TYPICAL INSPECTION CHAMBER DETAIL - TYPE 4 (Flexible material detail)
Maximum depth from cover level to soffit of pipe 2 m, non-entry



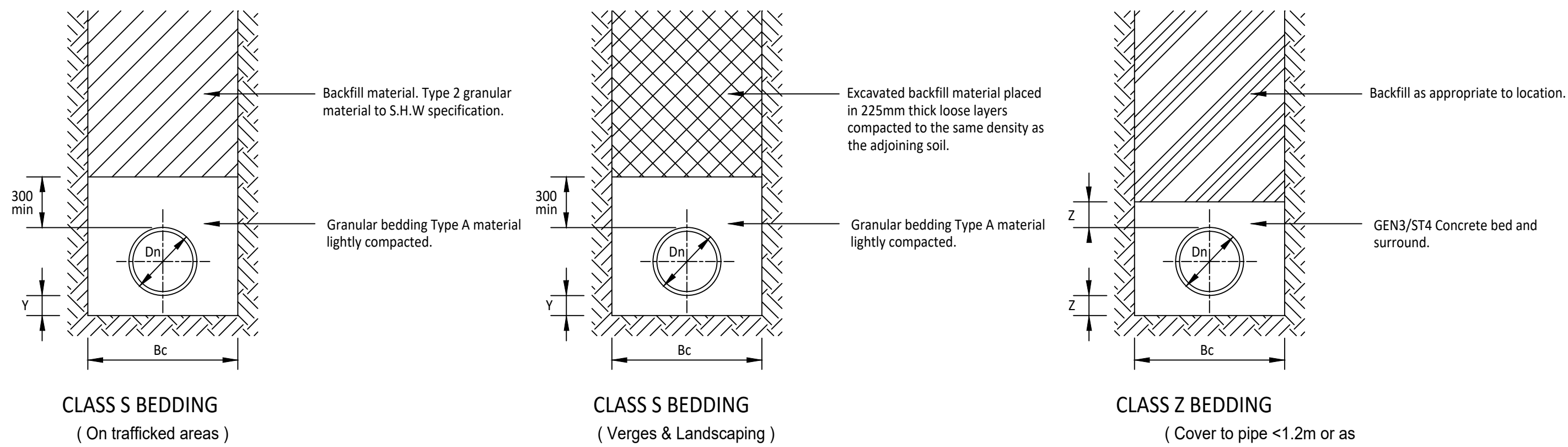
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GENERAL NOTES:

1. Do not scale.
2. Refer to all other Project Drawings.
3. All sewers to comply with the requirements of the water authorities publication "Sewer Sector Guidance (SSG)" together with Southern Waters Technical Advisories.
4. All public sewers are to be the subject of a Section 104 agreement of the Water Industry Act 1991.
5. Invert levels of existing manholes and sewers are to be checked on site before construction commences and results reported to engineers.
6. All manhole ironworks to comply with BS EN124, and be stamped with BSI Kitemark. Covers to suit loading as below:
 - Carriageways and Roads - D400
 - Driveways and Verges - C250
 - Footways and Pedestrian Areas - B125
 - Gardens/Landscaping - A15
7. All sewer pipes, up to, and including 225mm are to be vitrified clay to BS EN295. All sewer pipes 300mm diameter and above to concrete pipes to BS EN1916.
8. All drainage shall be installed and tested strictly in accordance with the Manufacturers' printed instructions, BS EN 752, BS EN 1601, Local Water Authority requirements and the Building Regulations.
9. All bedding shall be Class S unless noted otherwise.
10. All trenches under existing and proposed public highways are to be backfilled with thoroughly compacted Type 1 granular sub-base material.
11. Drainage laid beneath roads and areas of vehicular access (car parking etc) with less than 1200mm of cover shall be encased in concrete bed and surround with associated movement joints. Drainage laid beneath paths, footways and pedestrian areas with less than 900mm of cover shall be similarly treated.
12. Chambers with outgoing pipes greater than 600mm diameter shall be fitted with guard bars, safety chains or other approved safety devices.
13. The use of precast concrete products made with sulphate resisting cement is mandatory, unless a laboratory report proves such precautions are not necessary.
14. All gully connections to use a minimum diameter pipe of 150mm and to be surrounded by a minimum of 150mm of grade C8/C10 concrete over its full length (which should not exceed 15m) and its connection to the carrier system.

**ALL PIPE BEDDING TO BE
CLASS 'S' GRANULAR
SURROUND UNLESS NOTED
OTHERWISE ON THE
DRAWING**

FLEXIBLE JOINT DETAILS



GRANULAR BEDDING

Nominal bore of pipe (mm)	Alternative Aggregate sizes (mm)	
	Single sized	Graded
100	10	-
150 225-300	10 or 14	14-5
375-525	14 or 20	14-5 or 20-5
>525	14 or 20	14-5 or 20-5
	14, 20 or 40	14-5, 20-5 or 40-5

Granular bedding for pipes and backfilling material for temporary drains (trench sub-drains) shall consist of aggregates from natural sources to BS EN 1242 and BS EN 1744-1 or sintered pulverised fuel ash complying with the relevant provisions of BS 3892; sized in accordance with the above table

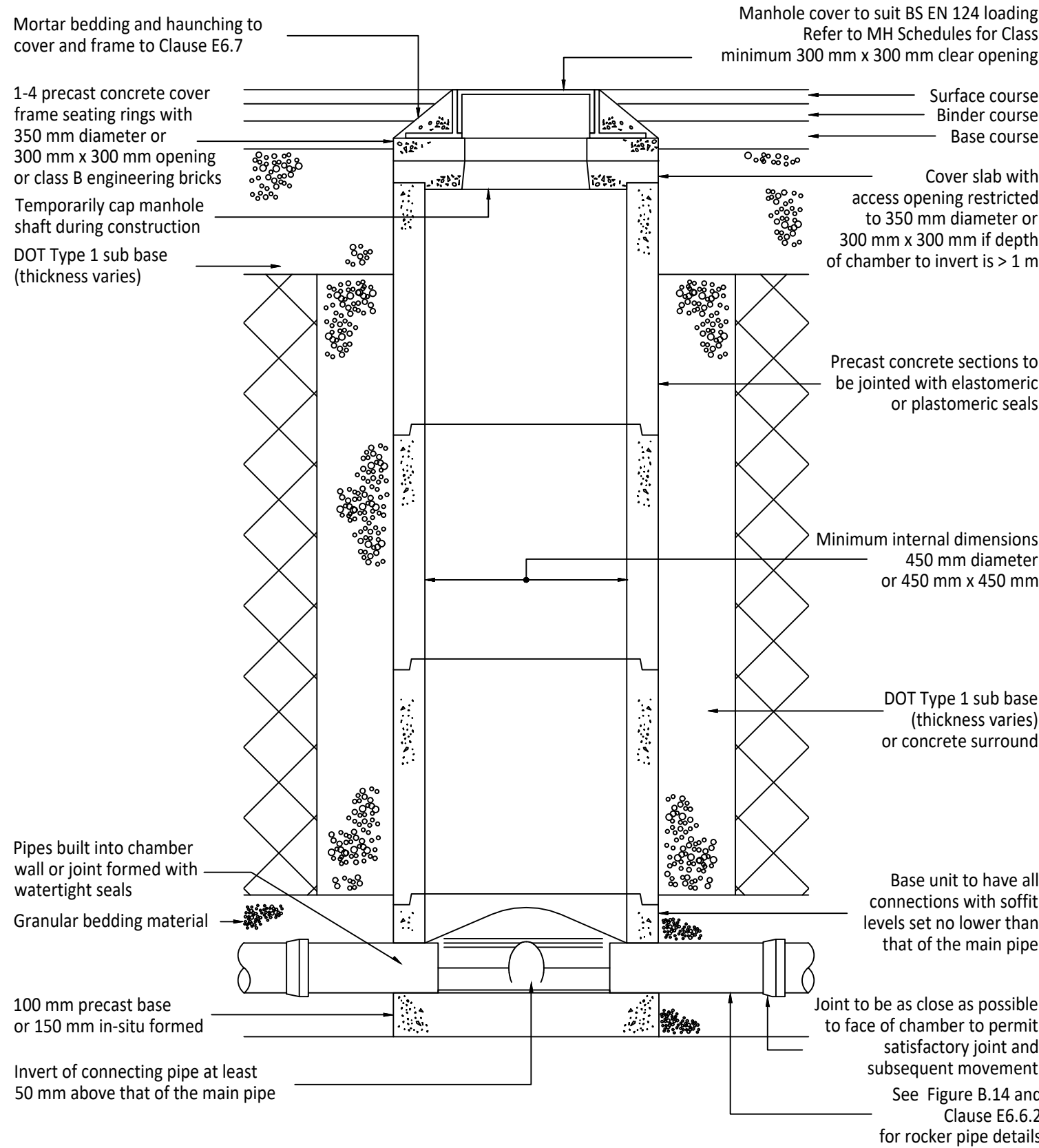
Selected fill material, whether selected from locally excavated material or imported, shall consist of uniform, readily compactible material, free from vegetable matter, building rubbish and frozen material, or materials susceptible to spontaneous combustion, and excluding clay of liquid limit greater than 80 and/or plastic limit greater than 55 and materials of excessively high moisture content. Clay lumps and stones shall be retained on 100mm and 40mm sieves respectively.

TRENCH WIDTHS & KEY DIMENSIONS

Dia Dn (mm)	Width Bc (mm)		Y (mm)		L (mm)	Z MIN (mm)
	Max	Min	Y1 (Uniform Soil)	Y2 (Rock)		
100	550	450	100	200	18	150
150	600	490	150	200		150
225	700	580	150	200		150
300	750	680	150	200	18	150
375	1050	950	150	200		150
450	1150	1030	150	200		150
525	1200	1120	150	200	36	150
600	1350	1240	150	200		150
675	1450	1330	150	200		225
750	1500	1400	150	200	36	225
825	1600	1490	150	225		225
900	2100	1900	150	225		225
975	2150	1950	175	250	54	300
1050	2250	2050	175	275		300
1200	2500	2250	200	300		300
OVER 1200	O.D+1000	O.D+800	I.D/6	I.D/4	54	400

Form vertical construction joints in GEN3/ST4 concrete surround at face of every pipe joint using compressible board (refer to table for thickness 'L', precut to finished profile of concrete and pipe. Fill any gap between spigot and socket with resilient material to prevent entry.

ADOPTABLE INSPECTION CHAMBER DETAIL - TYPE 3 (Rigid material detail)
Maximum depth from cover level to soffit of pipe in areas subject to vehicle loading 3 m, non-entry



P1	04/20	First Issue	DS	SM
Rev	Date	Description	Drawn	Checked

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Project:
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Title:
RESERVED MATTERS
DRAINAGE CONSTRUCTION
DETAILS SHEET 1

Status:
FOR APPROVAL

Scale	Date	Drawn	Checked
AS SHOWN@A1	APRIL 20	DS	SM
Drawing No	Revision		
A290-RM-560	P1		