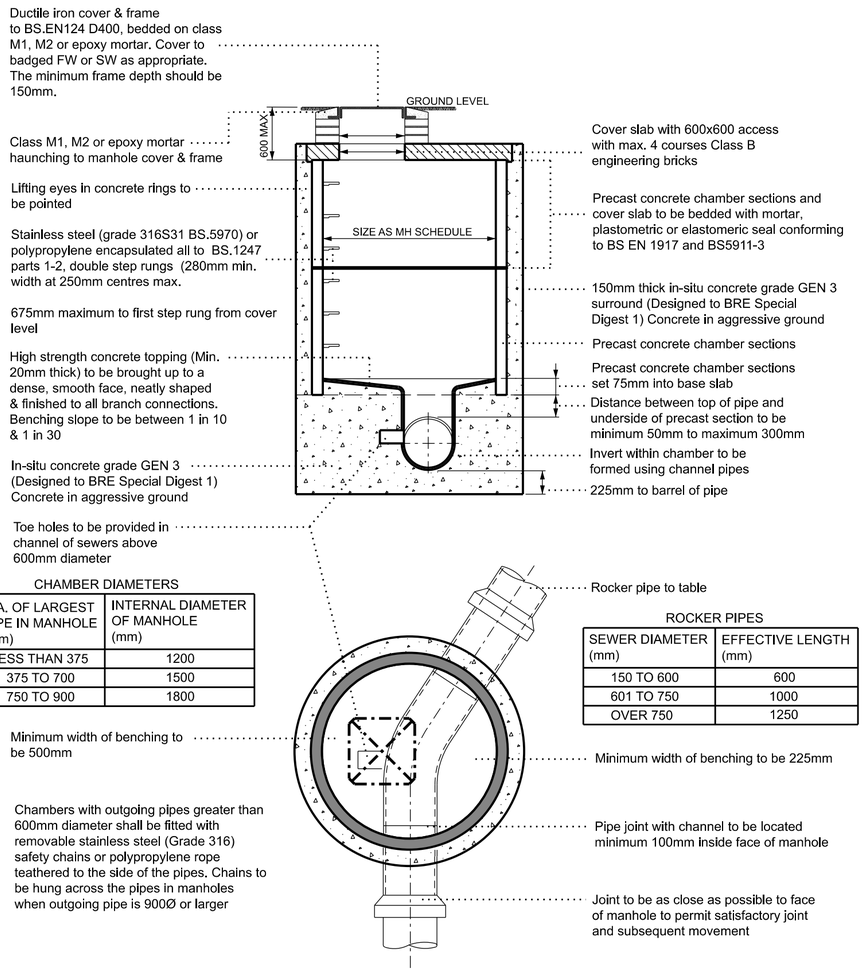
TYPICAL MANHOLE DETAIL TYPE B

(Maximum depth from cover level to soffit of pipe 3m)

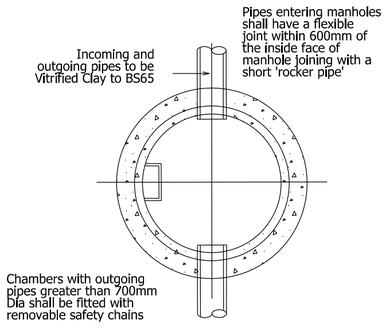


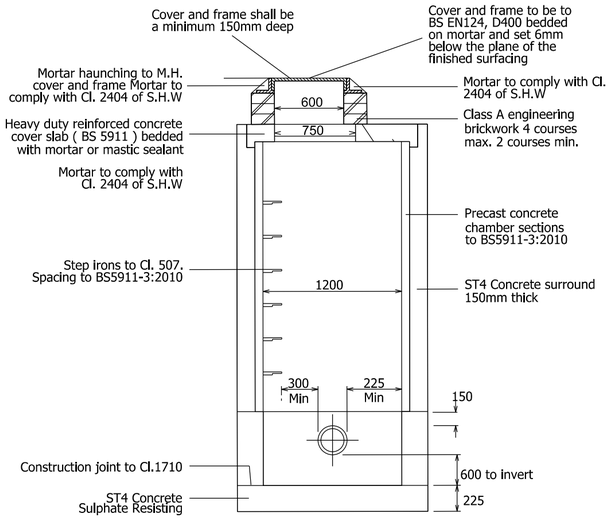
CHAMBER DIAMETERS

DIA. OF LARGEST PIPE IN MANHOLE (mm)	INTERNAL DIAMETER OF MANHOLE (mm)
LESS THAN 375	1200
375 TO 700	1500
750 TO 900	1800

ROCKER PIPES

SEWER DIAMETER (mm)	EFFECTIVE LENGTH (mm)
150 TO 600	600
601 TO 750	1000
OVER 750	1250





PRECAST CONCRETE RING CATCHPIT (CLAUSE 507) MH S8A ONLY

Notes.

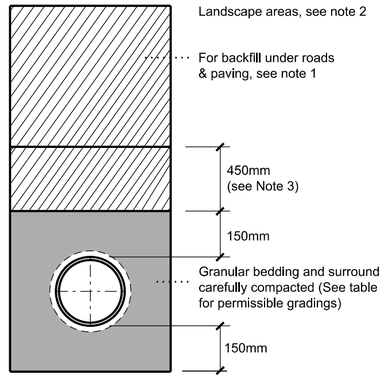
1. Backfilling under roads and paving: Backfill from top of granular bedding up to formation level with Granular Subbase Material Type 1 to Highways Agency specification for Highway Works 1998 Clause 803, laid and compacted in 150mm layers.
2. Backfilling under landscaped areas: Backfill from top of granular bedding up to underside of topsoil with selected Class 1B material. Class 1B fill 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 retained on 75mm and 37.5mm sieves respectively shall be excluded from the fill material. Laid and compacted in layers not exceeding 300mm.
3. Do not use heavy compactors before there is 600mm of material over pipe.

Table - Granular bedding and sidefill materials for rigid pipes

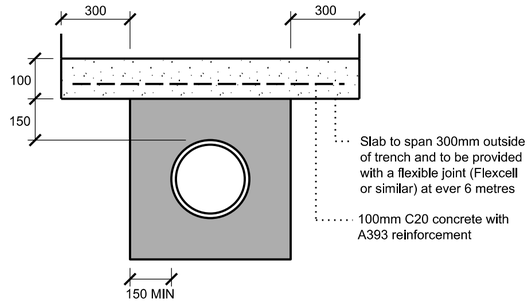
Pipe Nominal Bore (DN)	Maximum Particle Size (mm)	Class of Bedding	Suitable materials	
			Imported granular materials (Note a)	Maximum CF value for as-dug granular material (Note b)
100	10	S	10mm nominal single- size	0.15
		B		0.30 (Note c)
		F		0.15
		N	Course, Medium or fine sand	
Over 100 to 150	15	S	14mm to 5mm graded	0.15
		B		0.30 (Note c)
		F		0.15
		N	Coarse, medium or fine sand	
Over 150 to 500	20	S	14mm to 5mm graded or 20mm to 5mm graded	0.15
		B		0.30 (Note c)
		F		0.15
		N	All in aggregate or coarse medium or fine sand	
Over 500 (Note d)	40	S	14mm to 5mm graded or 20mm to 5mm graded or 40mm to 5mm graded	0.15
		B		0.30 (Note c)
		F		0.15
		N	All in aggregate or coarse medium or fine sand	

Notes

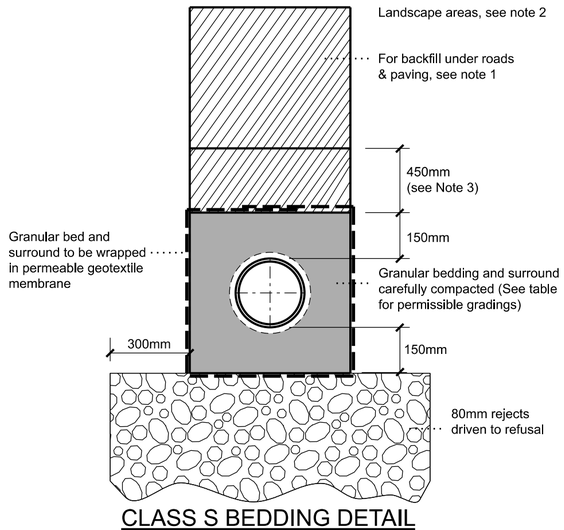
(a) Imported granular materials to include aggregates to BS 882, air- cooled blast furnace slag to BS 1047 and sintered pulverized- fuel ash to BS 3797 Compaction fraction value, See Appendix A
(b) The higher the CF value for as dug bedding and sidefill materials the greater the required
(c) effort for adequate compaction.
(d) Angular materials should be chosen to ensure sufficient support is provided to these heavier pipes. Crushed rock aggregates to BS 882 are recommended. Air- cooled blast furnace slag to BS 3797 or other granular materials may be used if they show a similar degree of angularity



CLASS S BEDDING DETAIL (MORE THAN 1.2m COVER IN ROAD OR 0.9m COVER IN LANDSCAPED AREAS)



CLASS S(S) CONCRETE PROTECTION (LESS THAN 1.2m COVER IN ROAD OR 0.9m COVER IN LANDSCAPED AREAS)



CLASS S BEDDING DETAIL (MORE THAN 1.2m COVER IN ROAD OR 0.9m COVER IN LANDSCAPED AREAS)

For use where unstable sand layers are encountered

NOTES

1. Contractors must check all dimensions on site. only figured dimensions are to be worked from. Discrepancies must be reported to the architect or engineer before proceeding. © this drawing is copyright.
2. All works to be undertaken in accordance with sewers for adoption 6th addition with any Southern water additions or deletions
3. Until technical approval has been obtained from the relevant authorities, all drawings are issued as preliminary and not for construction. should the contractor commence site work prior to approval being given it is entirely at his own risk.
4. All adoptable drainage works to be constructed as detailed in sewers for adoption 7th edition, or as stipulated in Southern water's addendum

REV	DESCRIPTION	DRN	CHD	DATE
C	Bedding details amended as per ADC Engineer comments	CLS	JGF	12-05-20
B	Concrete surround & catch pit details retitled	JGF	JGF	20-04-20
A	Additional details added	CLS	JGF	02-04-20

■ PRELIMINARY ☐ INFORMATION ☐ TENDER
☐ CONSTRUCTION ☐ AS BUILT

SCALE	NTS@ A2	DATE	FEB 2020
DRAWN	CLS	CHK	JGF
DRAWING NO.	17748-BARN-5-910	REV	C
TITLE	YAPTON ROAD BARNHAM		
DETAILS	TYPICAL DRAINAGE DETAILS		

Woods Hardwick
Architecture | Engineering | Planning | Surveying

BEDFORD : HEAD OFFICE
15-17 Goldington Road
Bedford MK40 3NH
T: +44 (0) 1234 268862

BIRMINGHAM
Fort Dunlop, Fort Parkway
Birmingham B24 9FE
T: +44 (0) 121 6297784

ONLINE: mail@woodshardwick.com | woodshardwick.com

PLEASE CONSIDER THE ENVIRONMENT BEFORE PRINTING THIS DRAWING