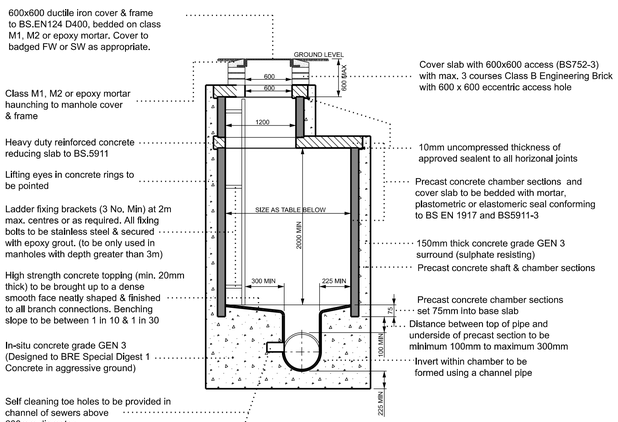
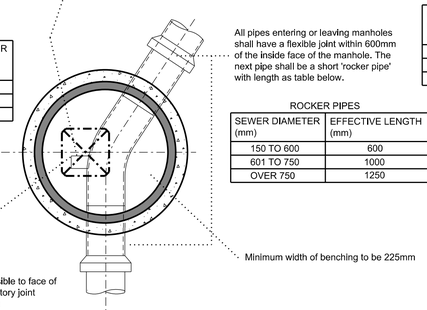
TYPICAL MANHOLE DETAIL TYPE 1A

(DEPTH TO SOFFIT 3m - 6m)



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

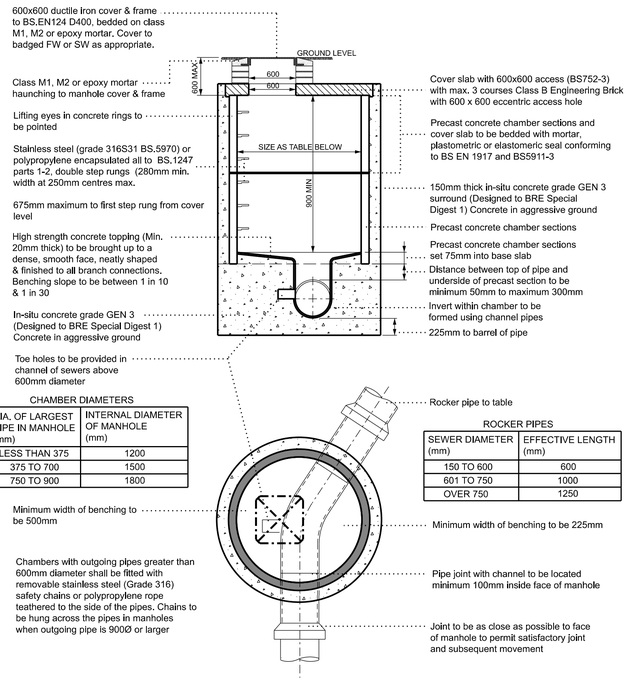


ROCKER PIPES

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

TYPICAL MANHOLE DETAIL TYPE 2

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



CHAMBER DIAMETERS

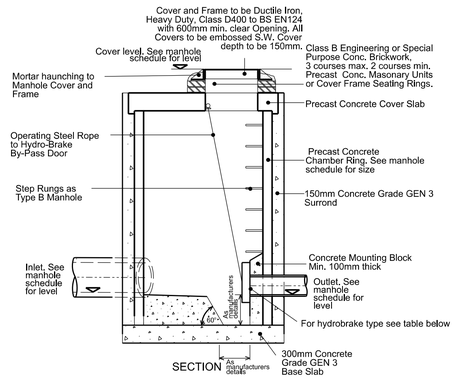
DIA. OF LARGEST PIPE IN MANHOLE (mm)	INTERNAL DIAMETER OF MANHOLE (mm)
LESS THAN 375	1200
375 TO 700	1500
750 TO 900	1800

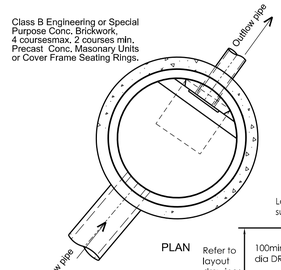
ROCKER PIPES

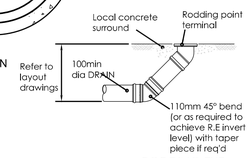
SEWER DIAMETER (mm)	EFFECTIVE LENGTH (mm)
150 TO 600	600
601 TO 750	1000
OVER 750	1250

TYPICAL FLOW CONTROL CHAMBER DETAIL

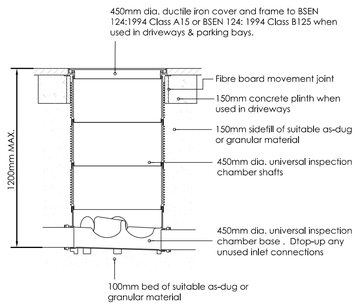
INDIVIDUAL FLOW CONTROL CHAMBER DETAILS SUBJECT TO STRUCTURAL ENGINEERS DESIGNS.







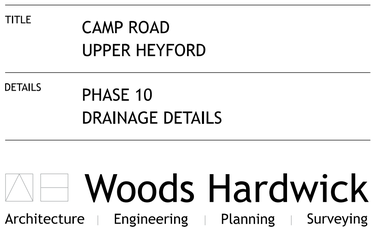
RODDING EYE



TYPICAL INSPECTION CHAMBER

For use in soft areas, driveways and parking bays only

Manhole Ref	Hydrobrake type	Design head	Permitted flow	Hydrobrake Reference
S279	"Optimum"	1.70m	4.5 l/s	MD-SHE-0090-4500-1700-4500
S309	"Optimum"	1.30m	5.0 l/s	MD-SHE-0101-5000-1300-5000



CLASS S BEDDING DETAIL

(Rigid Pipes)

CONCRETE PROTECTION

Notes.

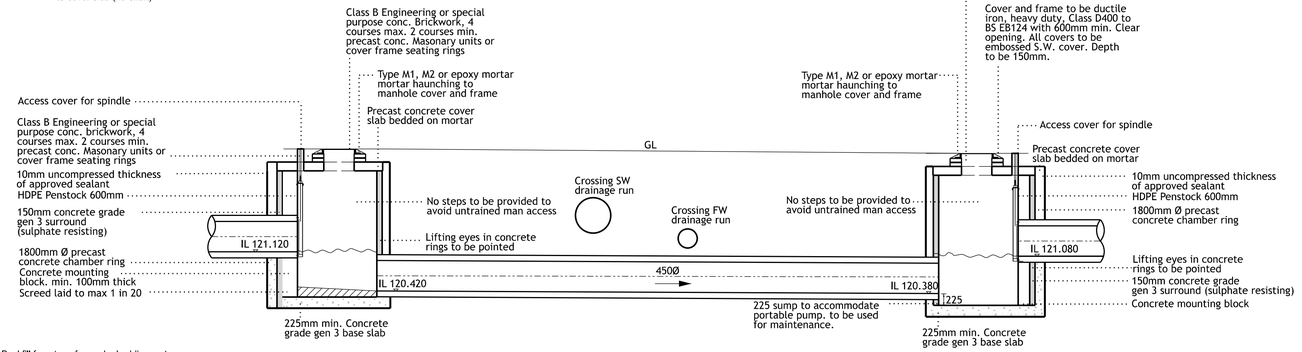
1. Backfilling under roads and paving: Backfill from top of granular bedding up to formation level with Granular Subbase Material Type 1 to Highways Agency specification for Highway Works 1998 Clause 803, laid and compacted in 150mm layers.
2. Backfilling under landscaped areas: Backfill from top of 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.

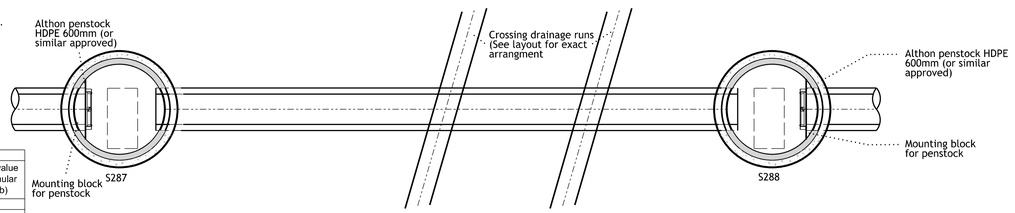
Table - Granular bedding and sidefill materials for rigid pipes

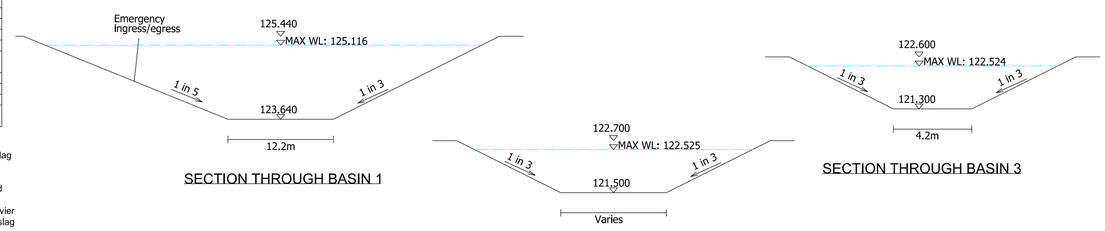
Pipe Nominal Bore (DN)	Maximum Particle Size (mm)	Class of Bedding	Suitable materials: Imported granular materials (Note a)	Suitable materials: Maximum CF value for as-dug granular material (Note b)
100	10	S	10mm nominal single- size	0.15
		B		0.30 (Note c)
		F		0.15
		N	Course, Medium or fine sand	
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

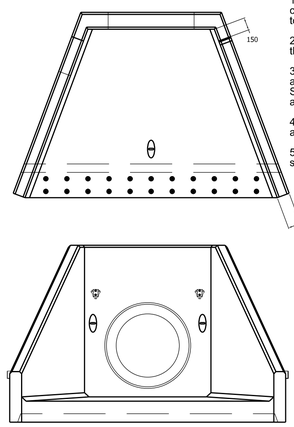




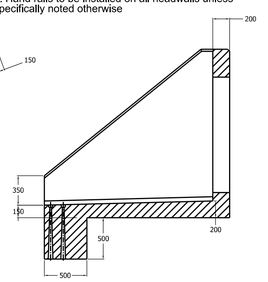


Headwall Ref	Pipe dia	Top of bank level	Pipe Invert Level	Bank slope gradient	Althon Model	Grille Requried
HW01	675	125.440	123.640	1:3	SFA15 A	Yes
HW02	450	122.700	121.600	1:3	SFA10 B	Yes
HW03	450	122.700	121.500	1:3	SFA10 B	Yes
HW04	450	122.600	121.390	1:3	SFA10 B	Yes
HW05	375	122.600	121.360	1:3	SFA10 B	Yes
HW06	450	122.600	121.300	1:3	SFA10 B	Yes

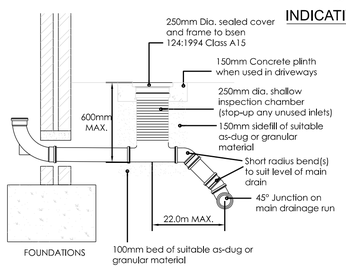
* ASSUMED LEVEL/ GRADIENT/ MODEL BASED ON AVAILABLE AS-BUILT INFORMATION



1. Unit to be bedded on minimum 100mm of semi-dry concrete. Sit the headwall level or with a slight fall from pipe to spill mouth.
2. Opening in back wall cast to suit the outside diameter of the pipe at invert height required.
3. All precast concrete headwalls (by Althon or similar approved) with pipes larger than 350dia are to be fitted with Sewers For Adoption compliant grille unless otherwise approved
4. Opening of largest pipe to be no more than 100mm above the apron level
5. Hand rails to be installed on all headwalls unless specifically noted otherwise



INDICATIVE HEADWALL ARRANGMENT



SHALLOW INSPECTION CHAMBER

For use in soft areas & driveways only

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.

2. Reproduced from OS Sitemap ® by permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office.

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 works to be undertaken in accordance with sewers for adoption 6th edition with any anglian water additions or deletions.

5. All buried concrete shall be designed in accordance with DS class DS-2 and ACEC class AC-2.

6. The contractor is to comply with all current requirements in relation to healty, safety & welfare.

7. Adoptable roads/works have been designed in accordance with 'Specification for Highway Works', 'Design Manual for Roads and Bridges', 'Manual For Streets' and Oxfordshire County Council guidance documentation.

8. All works and material are to comply with the Highway Agency Specfication for Highway.

REV	DESCRIPTION	DRN	CHD	DATE
	■ PRELIMINARY ☐ INFORMATION ☐ TENDER			
	☐ CONSTRUCTION ☐ AS BUILT			

SCALE	NTS @ A1	DATE	JULY 2022
DRAWN	AT	CHK	JF
DRAWING NO.	HEYF-5-1307	REV	-
TITLE	CAMP ROAD UPPER HEYFORD		
DETAILS	PHASE 10 DRAINAGE DETAILS		

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