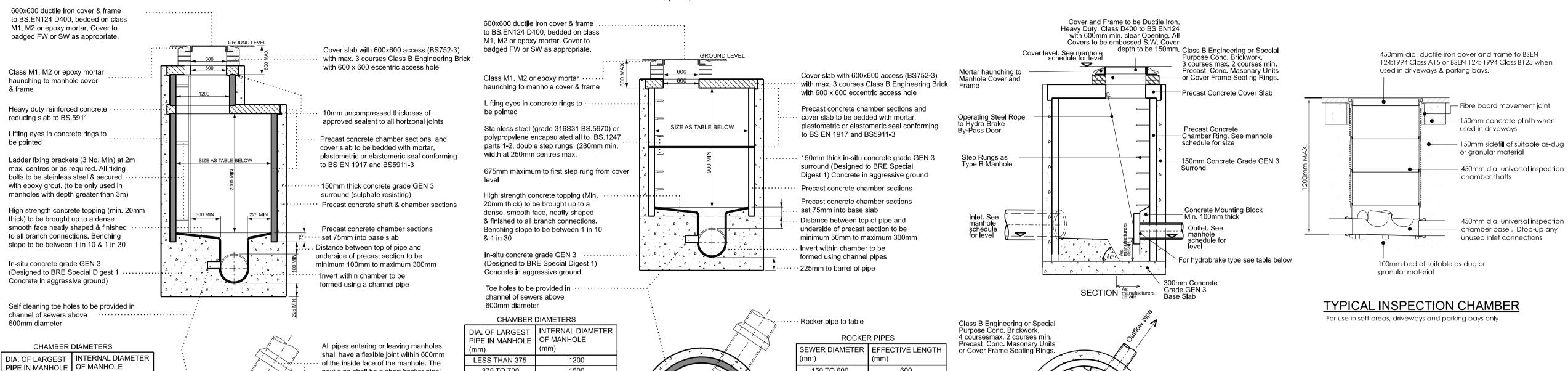
TYPICAL FLOW CONTROL CHAMBER DETAIL TYPICAL MANHOLE DETAIL TYPE 2 TYPICAL MANHOLE DETAIL TYPE 1A (DEPTH TO SOFFIT 3m - 6m) INDIVIDUAL FLOW CONTROL CHAMBER DETAILS (Maximum depth from cover level to SUBJECT TO STRUCTURAL ENGINEERS DESIGNS. sofft of pipe 3m)



150 TO 600

601 TO 750

OVER 750

Minimum width of benching to be 225mm

Pipe joint with channel to be located

Joint to be as close as possible to face

of manhole to permit satisfactory joint

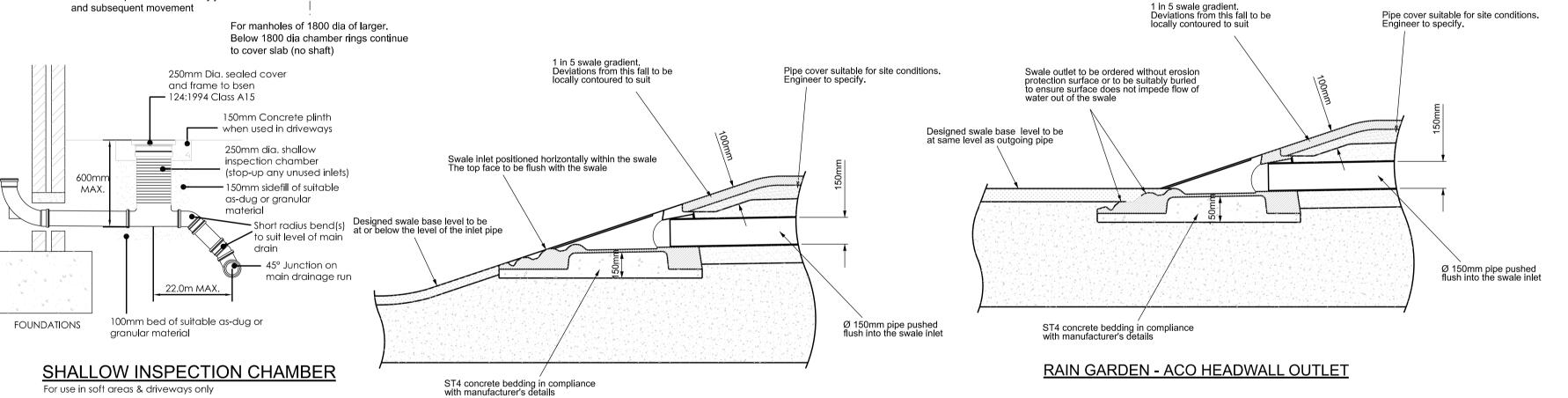
and subsequent movement

minimum 100mm inside face of manhole

600

1000

1250



375 TO 700

750 TO 900

be 500mm

Minimum width of benching to .

Chambers with outgoing pipes greater than

teathered to the side of the pipes. Chains to

600mm diameter shall be fitted with

safety chains or polypropylene rope

removable stainless steel (Grade 316)

be hung across the pipes in manholes

when outgoing pipe is 900Ø or larger

next pipe shall be a short 'rocker pipe'

ROCKER PIPES

SEWER DIAMETER | EFFECTIVE LENGTH

Minimum width of benching to be 225mm

600

1000

1250

with length as table below.

150 TO 600

601 TO 750

OVER 750

1500

1800

Headwa ll Ref	Central pipe dia	Second pipe dia	Third pipe dia	Top of bank level	Pipe Invert Level	Bank slope gradient	Althon Model	Grille Requried
HW01	525	-	-	119.520	118.640	1:3	SFA10C	Yes
HW02	1050	-	-	121.520	119.100	1:3	SFA15C	Yes
HW03	1050	-	-	121.520	118.950	1:3	SFA15C	Yes
HW04	225	-	-	123.750	122.350	1:3	SFA6C	No
HW05	750	-	-	123.090	120.890	1:3	SFA15C	Yes

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

Manhole

Ref

S234

Local concrete

surround

100min

dia DRAIN

Refer to

Hydrobrake

"Optimum"

type

Rodding point

(or as required to

achieve R F inver

level) with taper

piece if req'd

RODDING EYE

Design

head

1.60m

Permitted Hydrobrake

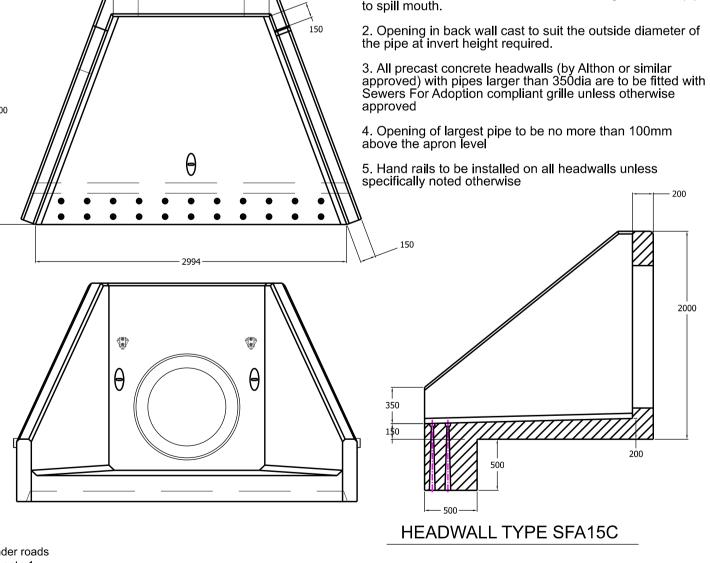
MD-SHR-0074-3000-1600-3000

1. Unit to be bedded on minimum 100mm of semi-dry

concrete. Sit the headwall level or with a slight fall from pipe

flow

3.0 l/s



es. ackfi ll ing under roads and paving: Backfill from top of granular bedding up to rmation level with Granular Subbase Material Type 1 to Highways Agency ecification for Highway Works 1998 Clause 803, laid and compacted in 150mm layers.	RAIN GARDEN - ACO HEADWALL INLET
ackfilling 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 sleves respectively shall be excluded from the fill most respectively. material. Laid and compacted in layers not exceeding 300mm. 3. Do not use heavy compactors before there is 600mm of material over pipe.

LESS THAN 375

375 TO 700

750 TO 900

subject to specific design

be 500mm

Minimum width of benching to

Chambers with outgoing pipes greater than 600mm diameter shall be fitted with

teathered to the side of the pipes. Chains to

removable stainless steel (Grade 316)

safety chains or polypropylene rope

be hung across the pipes in manholes

when outgoing pipe is 900Ø or larger.

Manholes greater than 6m depth shall be

1500

1800

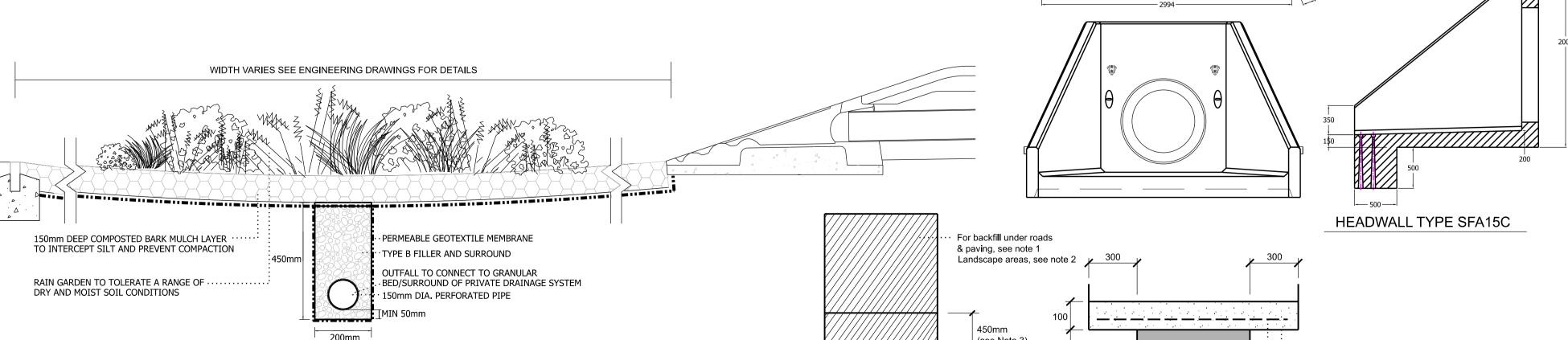
Joint to be as close as possible to face of

manhole to permit satisfasctory joint

and subsequent movement

	Table	e - Granulai	bedding and sidefill materials for rigio	l pipes		
Б.	Mariani		Suitable materials			
Pipe Nominal Bore (DN)	Maximum Particle Size (mm)	Class of Bedding	Imported granular materials (Note a)	Maximum CF valu for as-dug granula material (Note b)		
100	10	S		0.15		
		В	10mm nominal single- size	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		
		В		0.30 (Note c)		
		F		0.15		
		N	Coarse, medium or fine sand			
Over	20	S	14mm to 5mm graded	0.15		
150 to 500		В	or 20mm to 5mm graded	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	0.15		
		В	14mm to 5mm graded or 20mm to 5mm graded	0.30 (Note c)		
		F	or 40mm to 5mm graded	0.15		
		N	All in aggregate or coarse medium or fine sand			

- (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

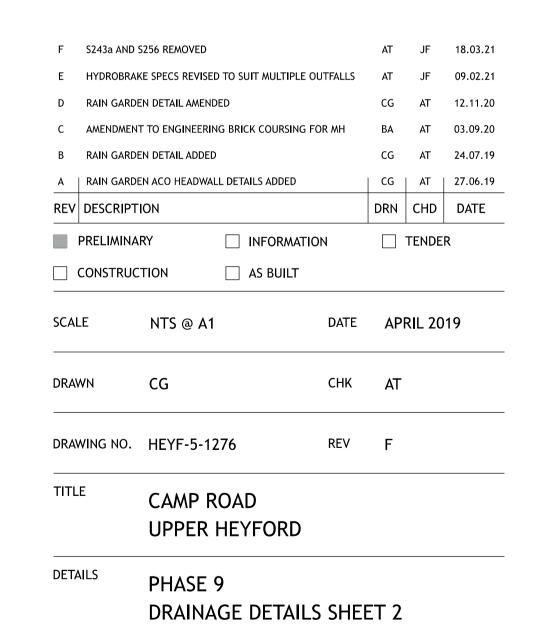


TYPICAL RAIN GARDEN DETAIL

(see Note 3) Slab to span 300mm outside of trench and to be provided with a flexible joint (Flexcell or similar) at ever 6 metres Granular bedding and surround carefully compacted (See table 100mm C20 concrete with for permissible gradings) A393 reinforcement

CLASS S BEDDING DETAIL CONCRETE PROTECTION **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.
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- 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.



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