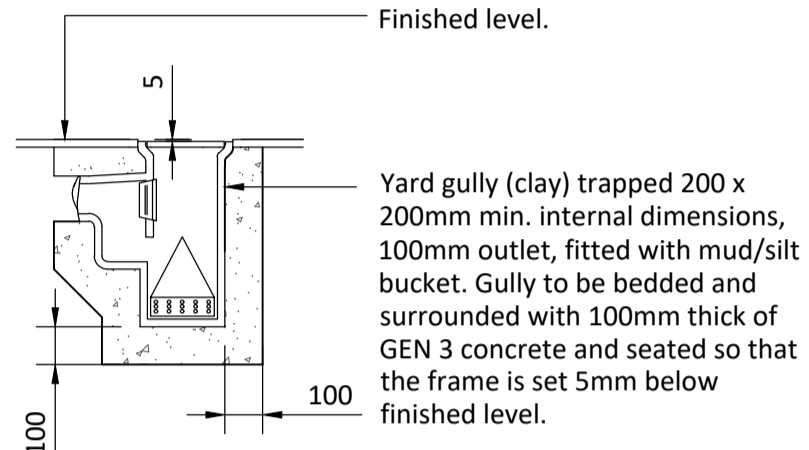
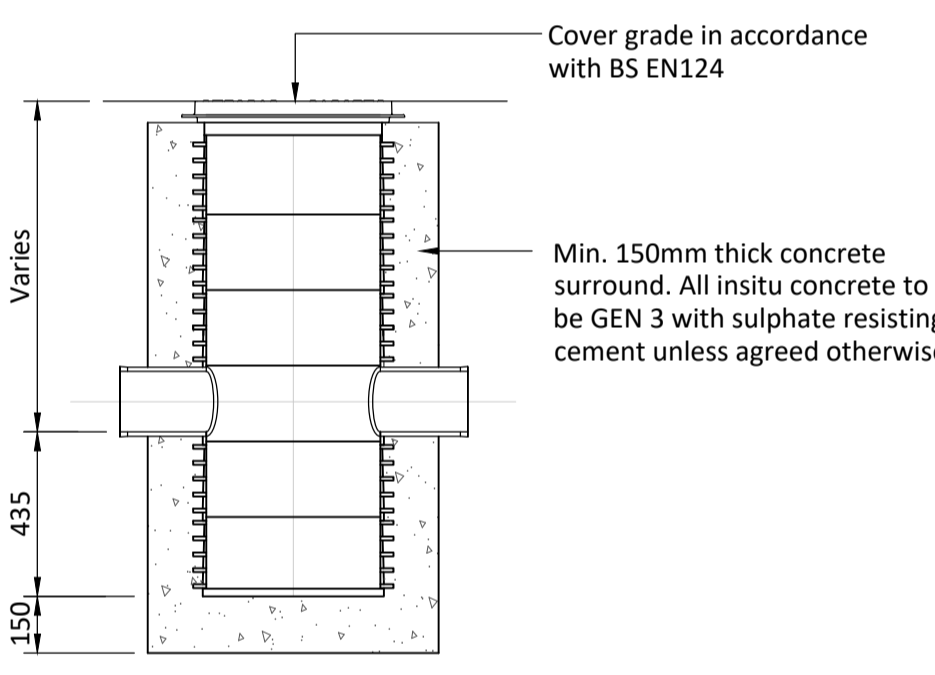


Typical Rodding Eye Access
Scale 1:20

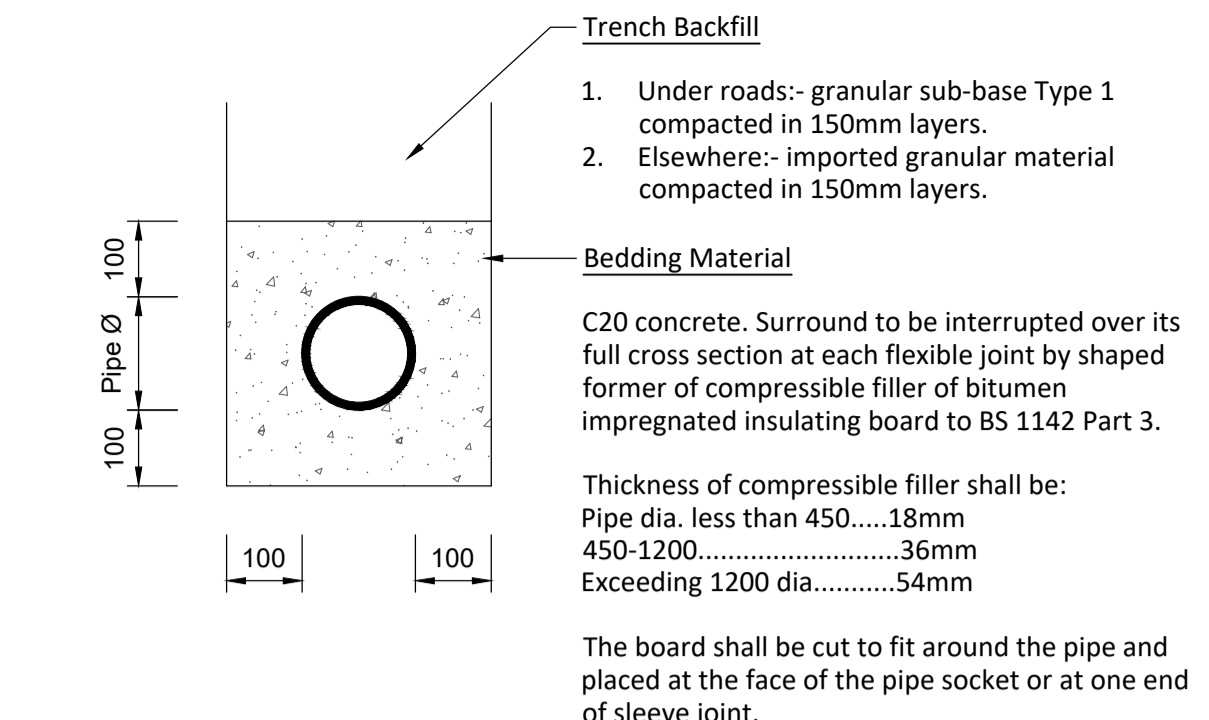


Typical Yard Gully
Scale 1:20

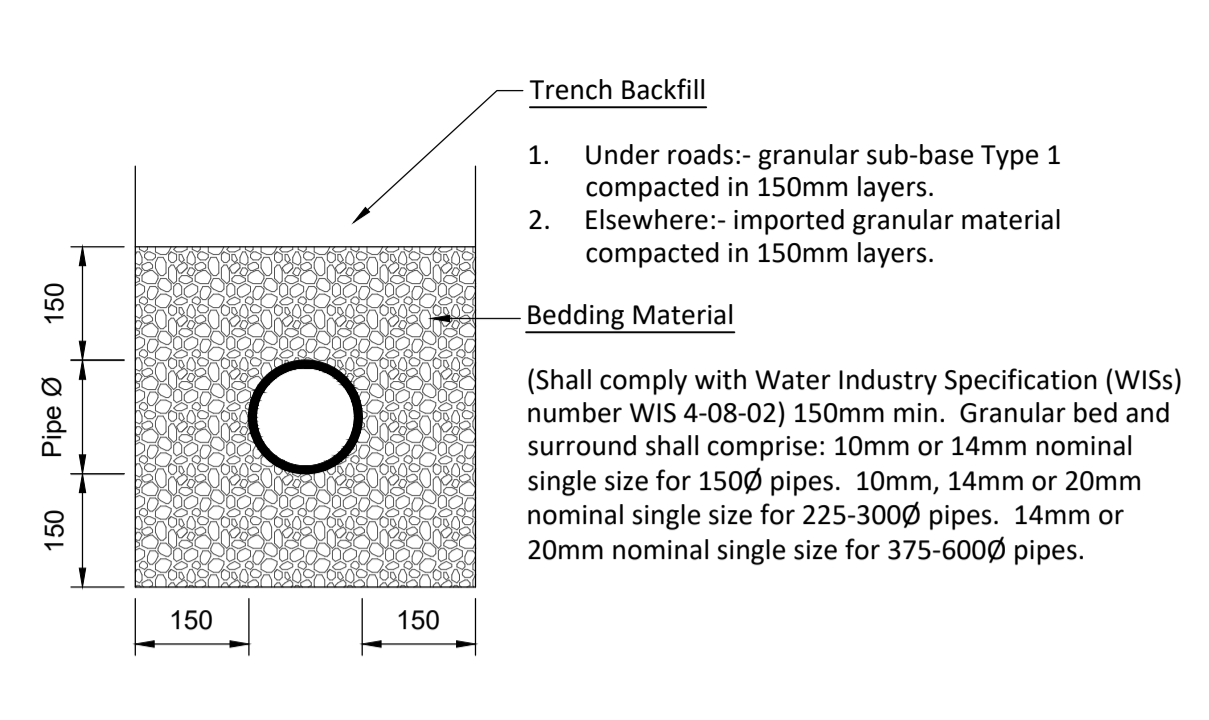


NOTE:
For all Inspection Chambers greater than 1200mm in depth, provide a reducer section 300mm Ø to make these a non-entry chamber.

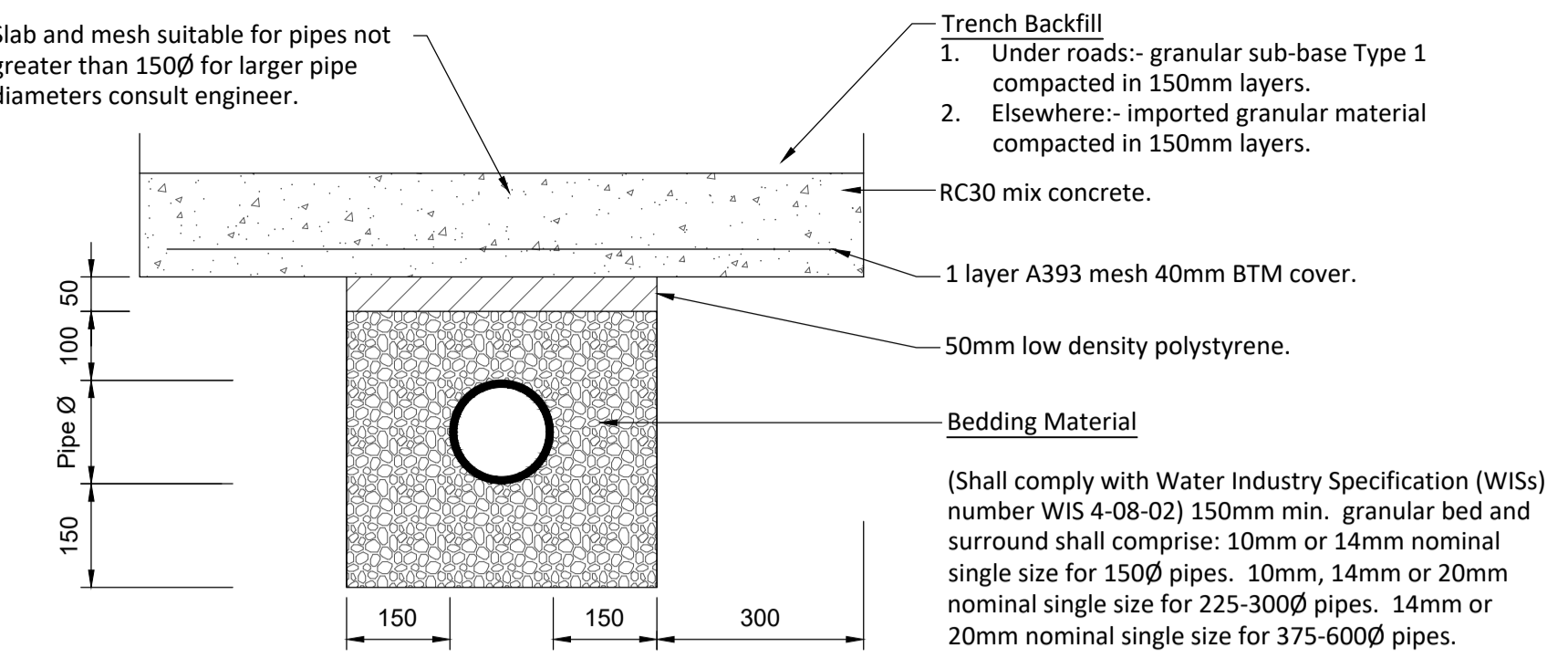
Typical Inspection Chamber with Catchpit
450mmØ Polypropylene
Scale 1:20



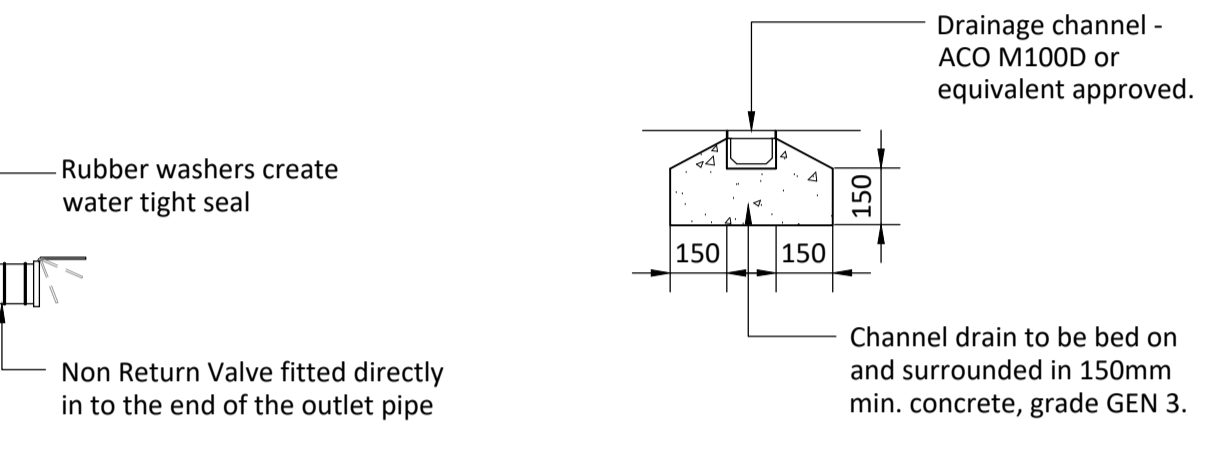
Concrete Protection (Type Z) Rigid Pipes
Scale 1-10



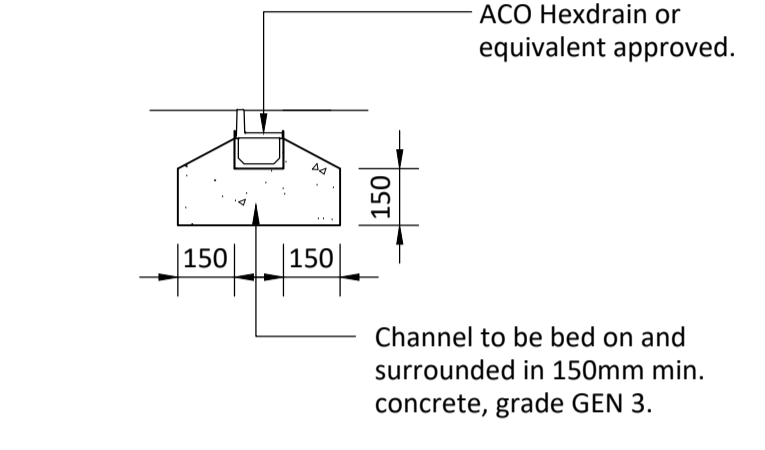
Granular Surround (Type S)
Scale 1-10



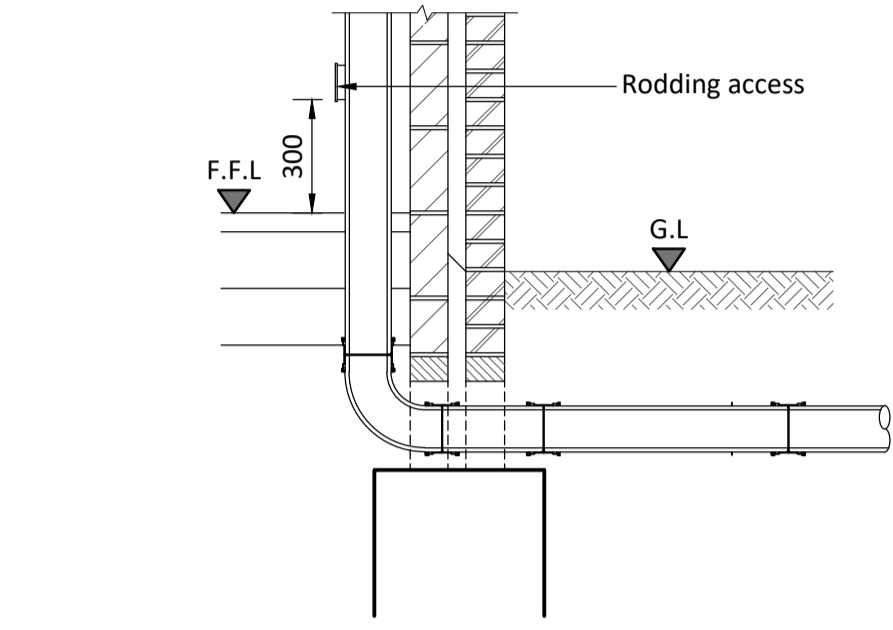
Concrete Protection Flexible Pipes
Scale 1-10



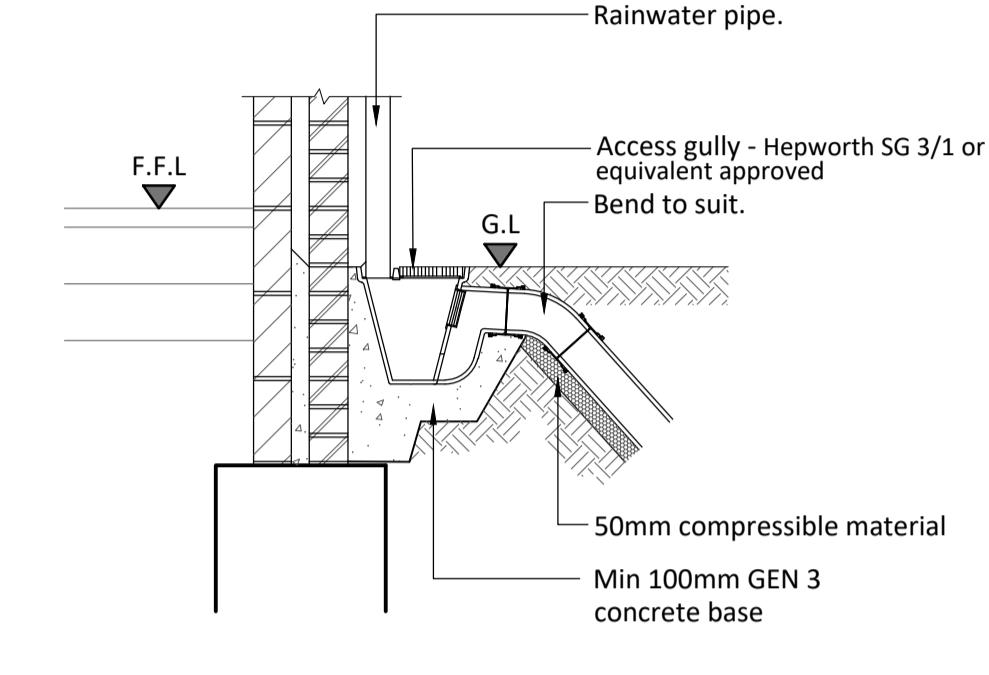
Typical Non Return Valve
Up to 150mmØ By Watertight International or equivalent
Scale 1-20



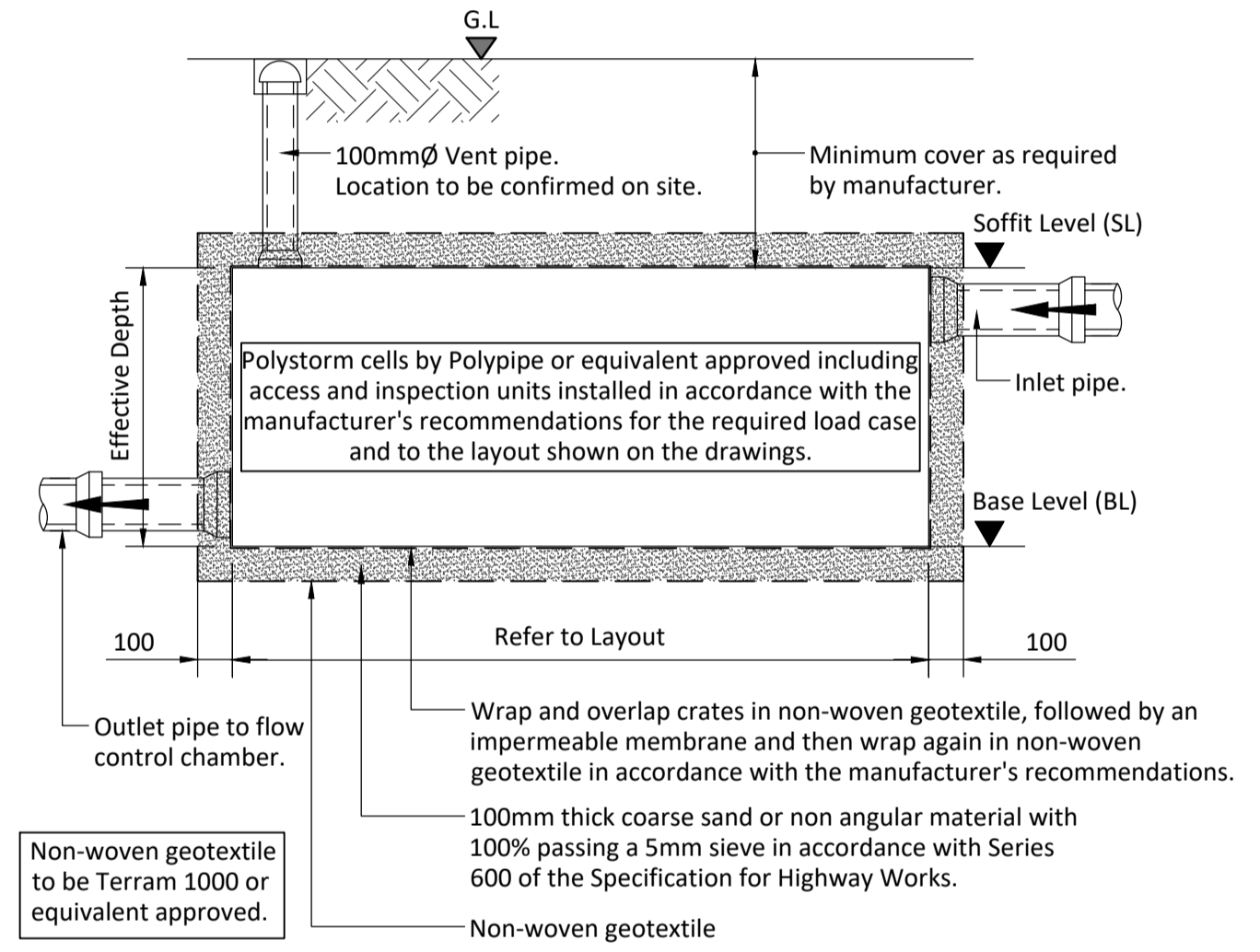
Typical Channel Drain
ACO M100D
Scale 1:20



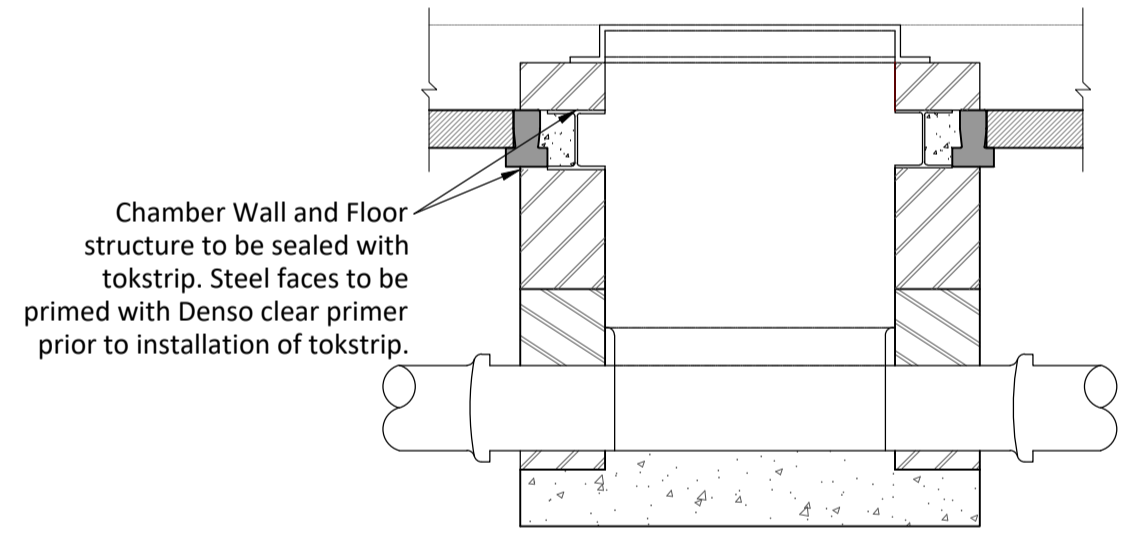
Typical Threshold Drain
ACO Hexdrain or equivalent Approved
Scale 1-20



Typical Internal Rainwater Pipe Arrangement
To Architect's Specification
Scale 1:20



Typical Attenuation Tank Detail
Sealed Geo-Cellular System
Refer to Plan for Required Layout
Not to Scale



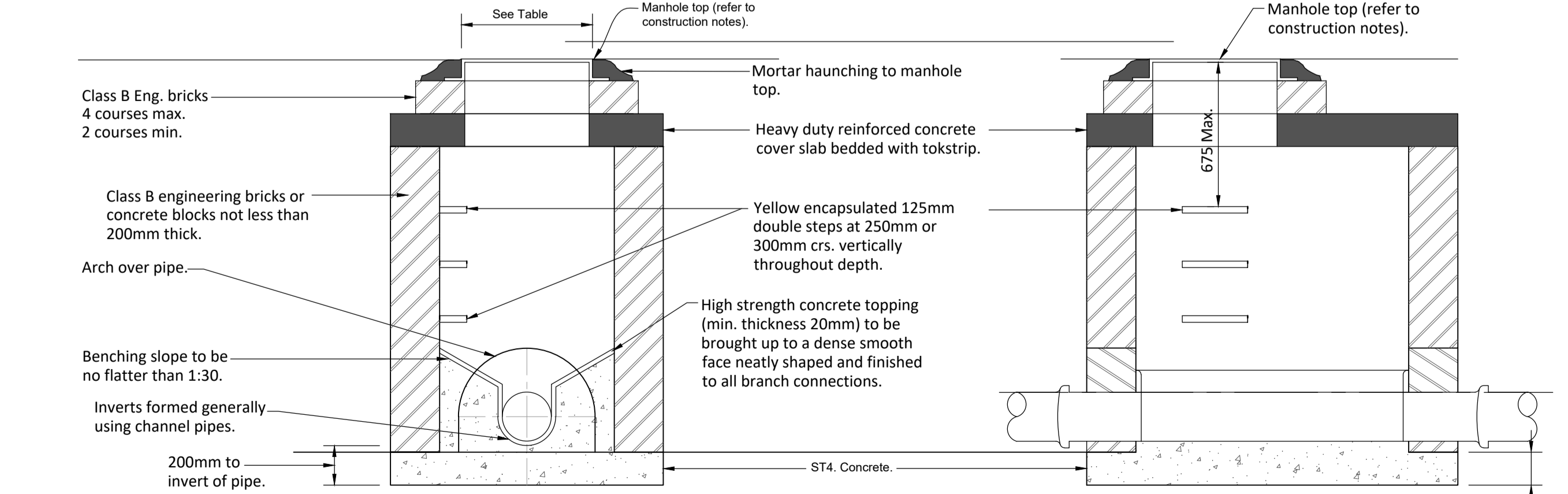
Indicative Internal Chamber Interaction
Scale 1:20

Type	Depth to invert from cover level	Min internal dimensions		Min clear opening size	
		Rectangular length and width	Circular diameter	Rectangular length and width	Circular diameter
Inspection chamber Shallow	0.6 or less	225 x 100	190b	-	-
	1.2 or less	450 x 450	450	Min. 430 x 430	190 ^a 430
Deep	> 1.2	450 x 450	450	Max. 300 x 300 ^c	Max 350 ^c

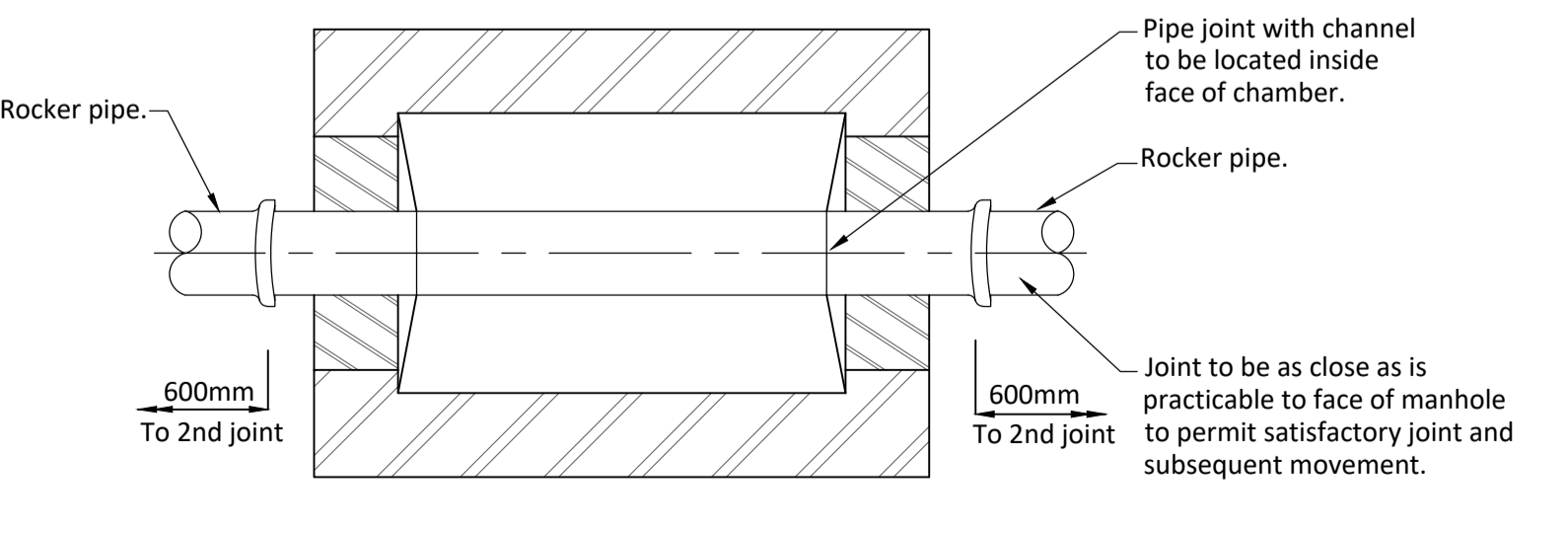
NOTES:
a The clear opening may be reduced by 20mm in order to provide proper support for the cover and frame.
b Drains up to 150mm.
c A larger clear opening cover may be used in conjunction with a restricted access. The size is restricted for health and safety reasons to deter entry.

Type	Size of largest pipe (DN)	Min internal dimensions		Min clear opening size	
		Rectangular length and width	Circular diameter	Rectangular length and width	Circular diameter
Manhole <1.5m Deep to soffit	≤150	750 x 675 ^b	1000 ^b	750 x 675 ^b	Na
	225	1200 x 675	1200	1200 x 675 ^b	
	300	1200 x 750	1200		
>1.5m Deep to soffit	>300	1800 x (DN+450)	The larger of 1800 or (DN+450)		
	≤225	1200 x 1000	1200	600 x 600	600
	300	1200 x 1075	1200		
Manhole shaft ^d >3.0m Deep to soffit	375-450	1200 x 1225	1200		
	>450	1800 x (DN+775)	The larger of 1800 or (DN+775)		
	Steps ^e	1050 x 800	1050	600 x 600	600
	Ladder ^e	1200 x 800	1200		
	Winch ^f	900 x 800	900	600 x 600	600

NOTES:
a Larger sizes may be required for manholes on bends or where there are junctions.
b May be reduced to 600 by 600 where required by highway loading considerations, subject to safe system of work being specified.
c Not applicable due to working space needed.
d Minimum height of chamber in shafted manhole 2m from benching to underside of reducing slab.
e Minimum clear space between ladders or steps and opposite face of shaft should be approximately 900mm.
f Winch only - no steps or ladders, permanent or removable.
g The minimum size of any manhole serving a sewer (i.e. any drain serving more than one property) should be 1200mm x 675mm rectangular or 1200mm diameter.

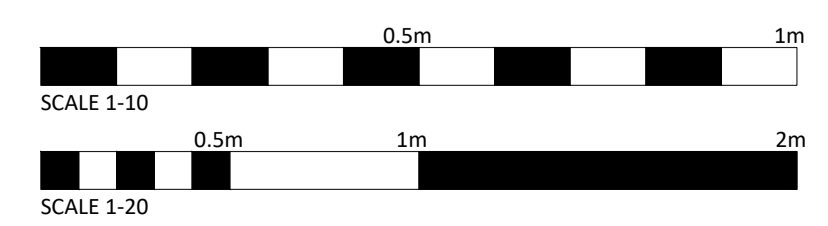


Sections



Plan

Regular Private Manhole Detail (See Table)
(Alternatively use precast concrete chamber sections installed to manufacturers recommendations.)
Scale 1:20



DO NOT SCALE THIS DRAWING. ALL SETTING OUT TO ARCHITECT'S DETAILS AND DRAWINGS
THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWING ISSUES AND THE SPECIFICATION.

Notes:
G1. All building materials, components and workmanship to comply with the appropriate public health acts, building regulations, british standards and codes of practice and the appropriate manufacturer's recommendations.
G2. For all specialist work see relevant drawings.
G3. Any discrepancies, errors or omissions to be reported to the project co-ordinator for further instructions before commencement of works.
G4. The Engineer is not responsible for dimensions, except where shown on his drawings. All setting out information, dimensions, etc, shall be calculated from the Architect's drawings.

Rev	Amendment	Drn	Chk	Date
C01	Construction Issue.			SJ MIF 08.12.23
P01	Preliminary Issue.			SJ MIF 05.10.23

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Client: **HAVEN LEISURE LTD**

Project: **HAVEN HOLIDAY PARKS - ALLHALLOWS ALLHALLOWS, ROCHESTER ME3 9QD**

Drawing Title: **DRAINAGE DETAILS**

drawing reference	project	originator	volume	level	type	role	number
considine ref 5720	7570	SJ	1540	1:20@A1			

status: **APPROVED**
revision: **CONSTRUCTION ISSUE**

Project: **5720 - CON - 00 - XX - DR - C - 1530**