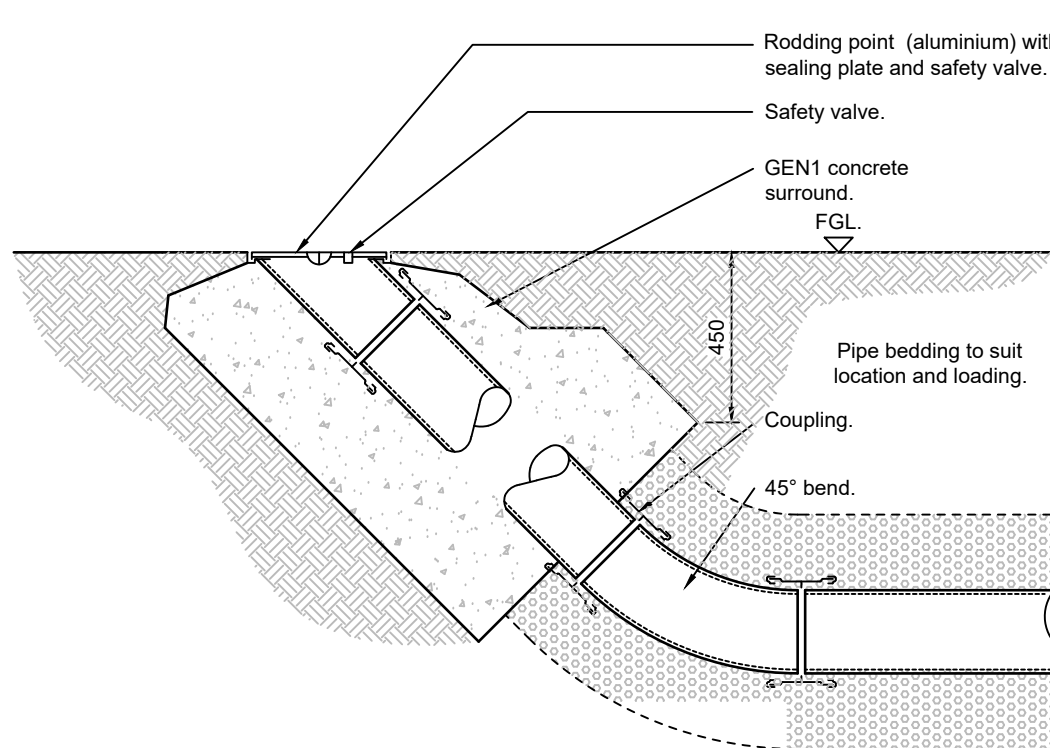
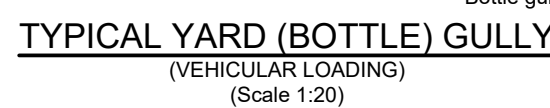
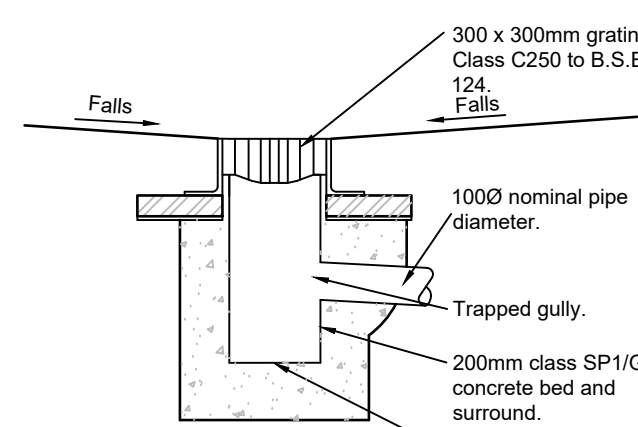
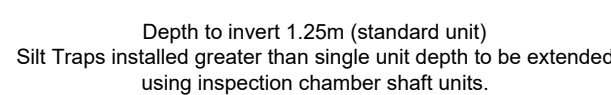
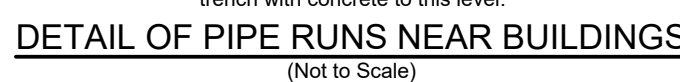
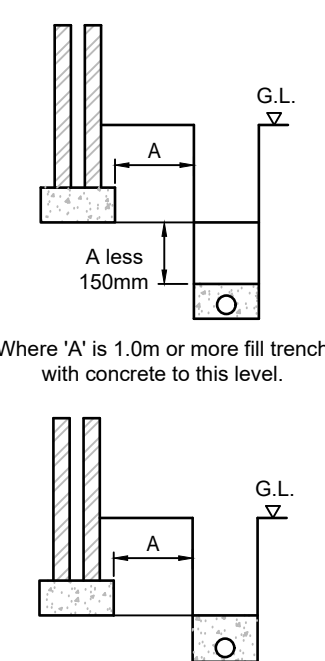
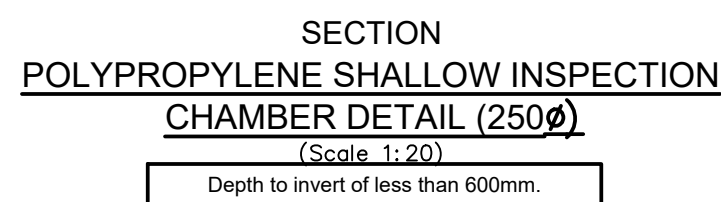
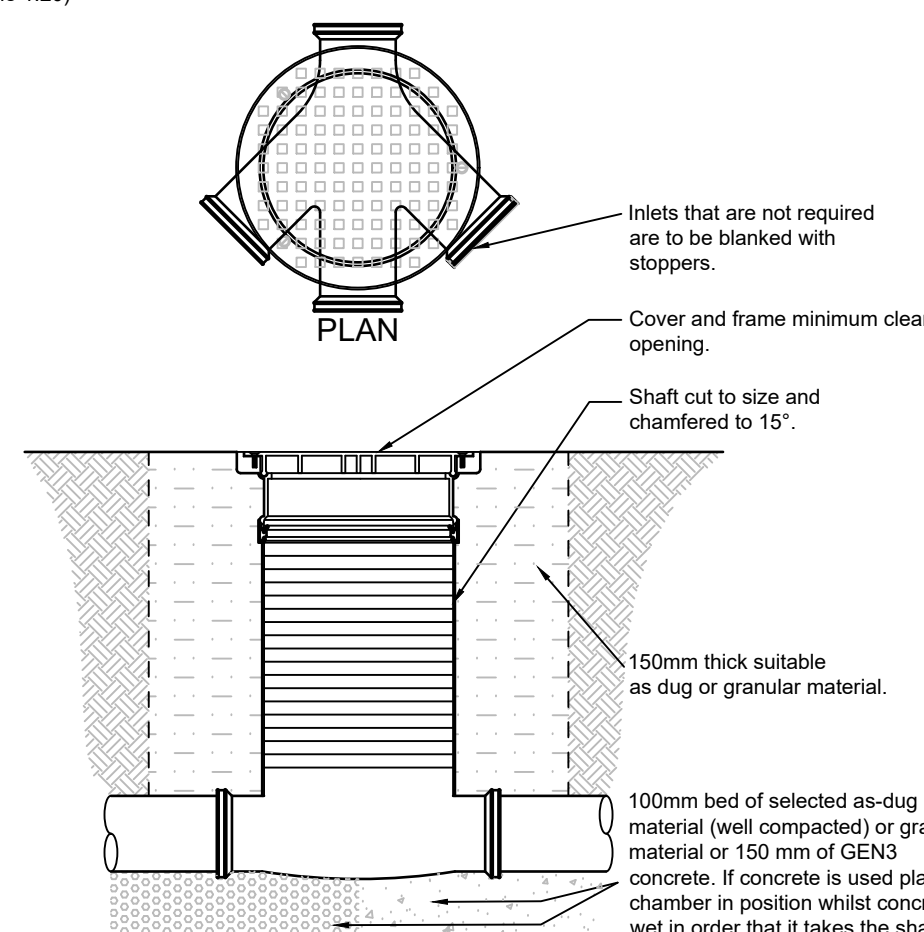
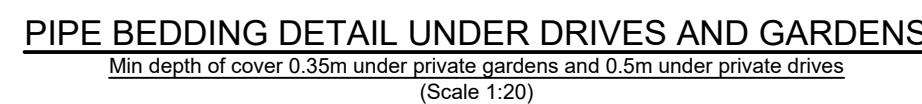
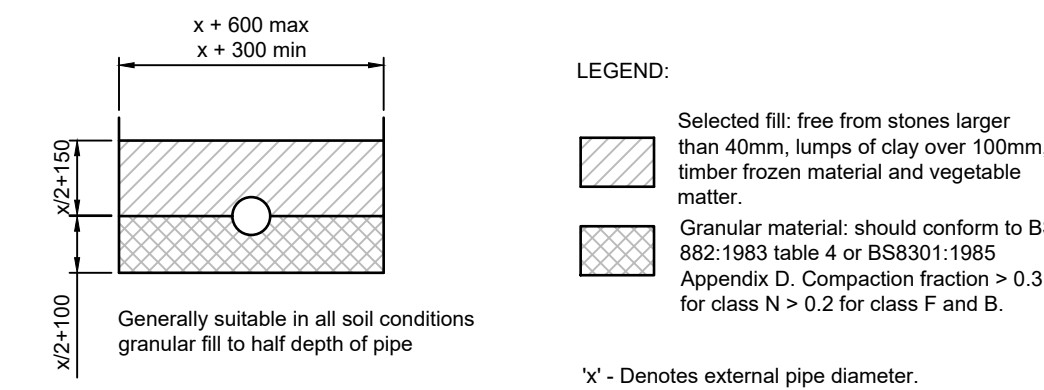
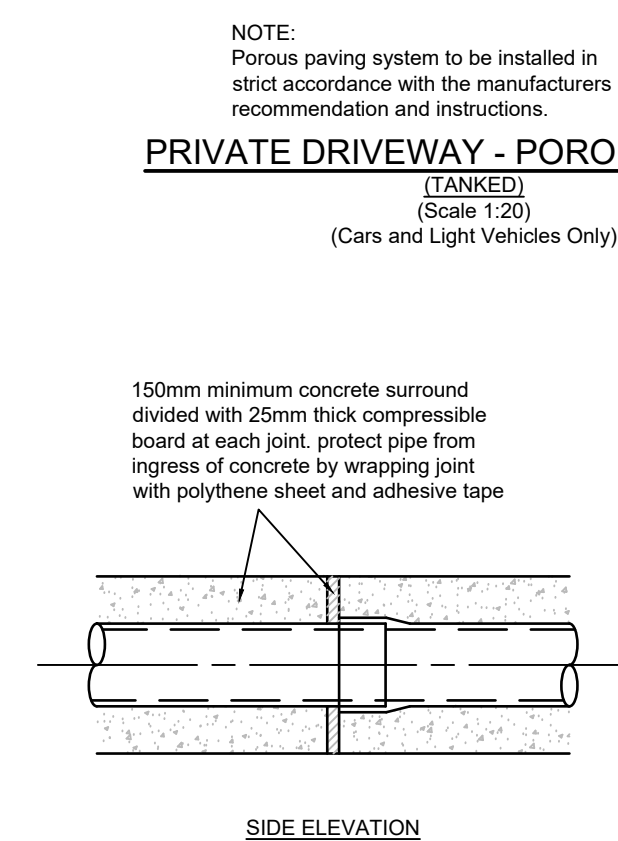
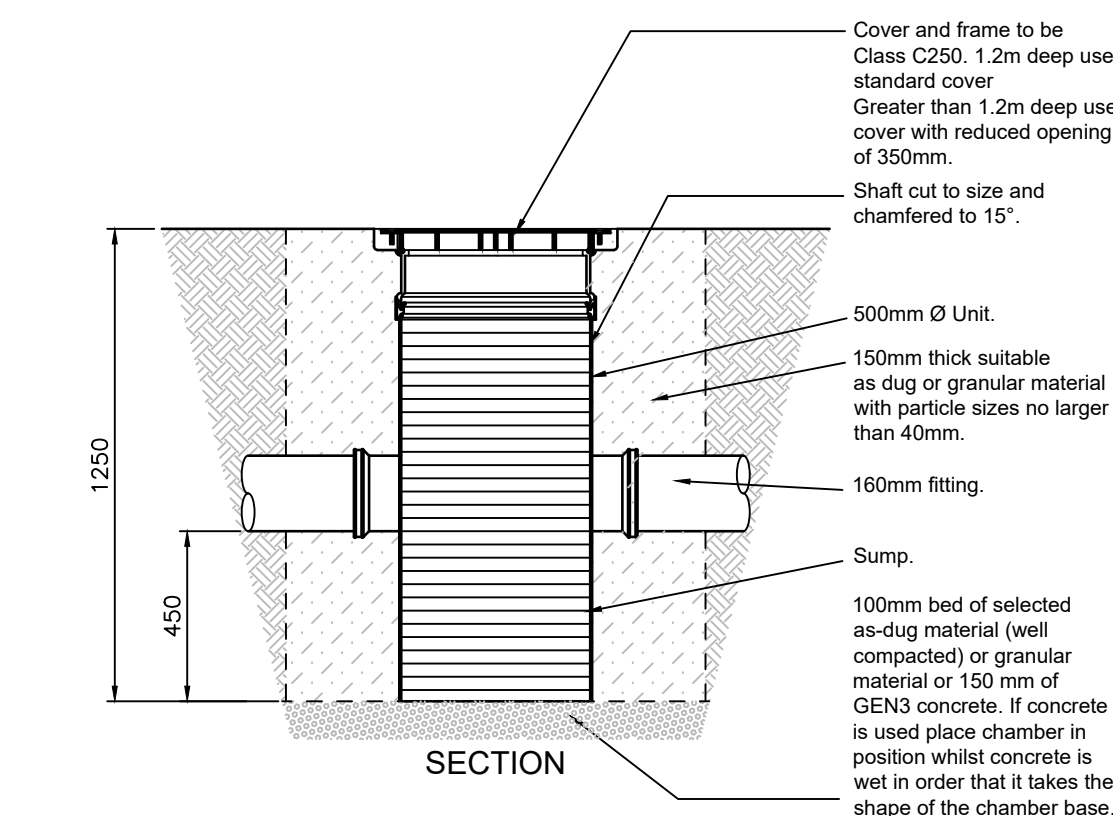
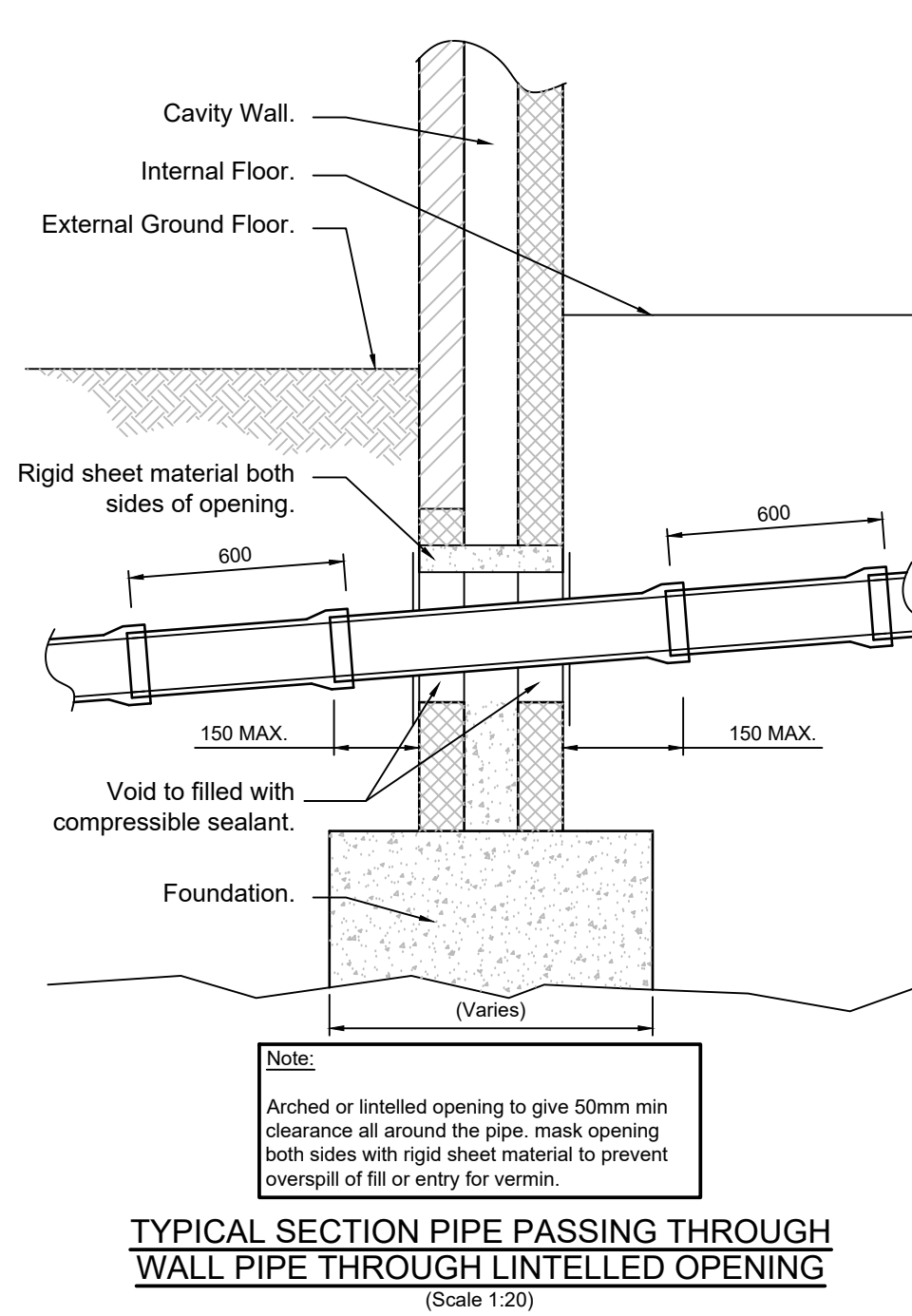
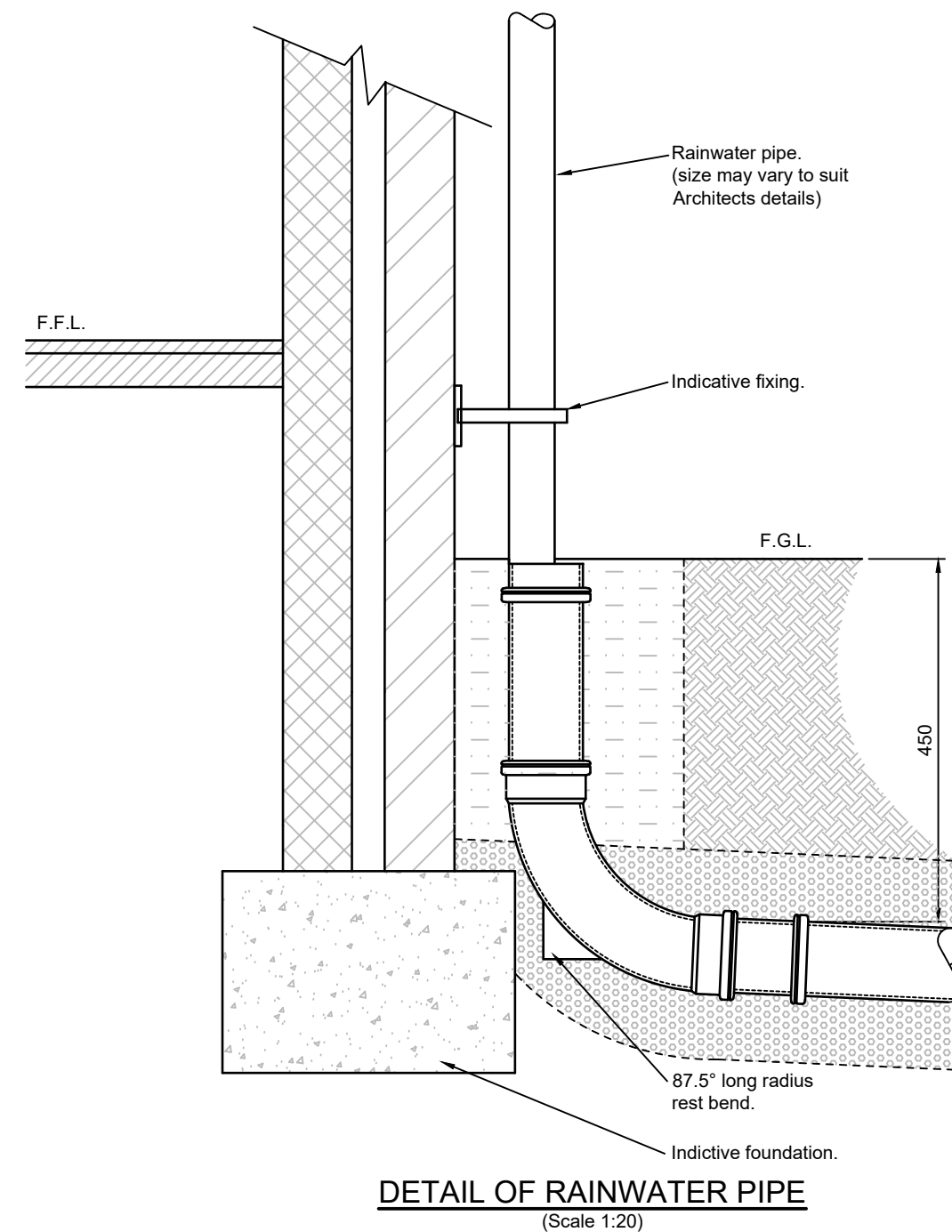
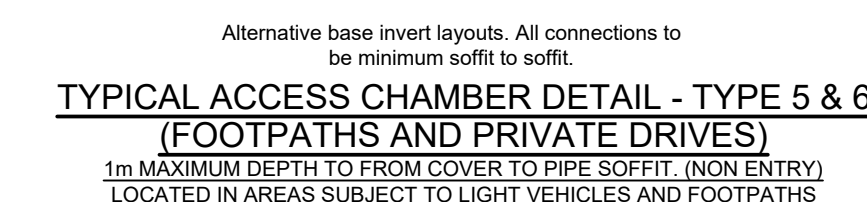
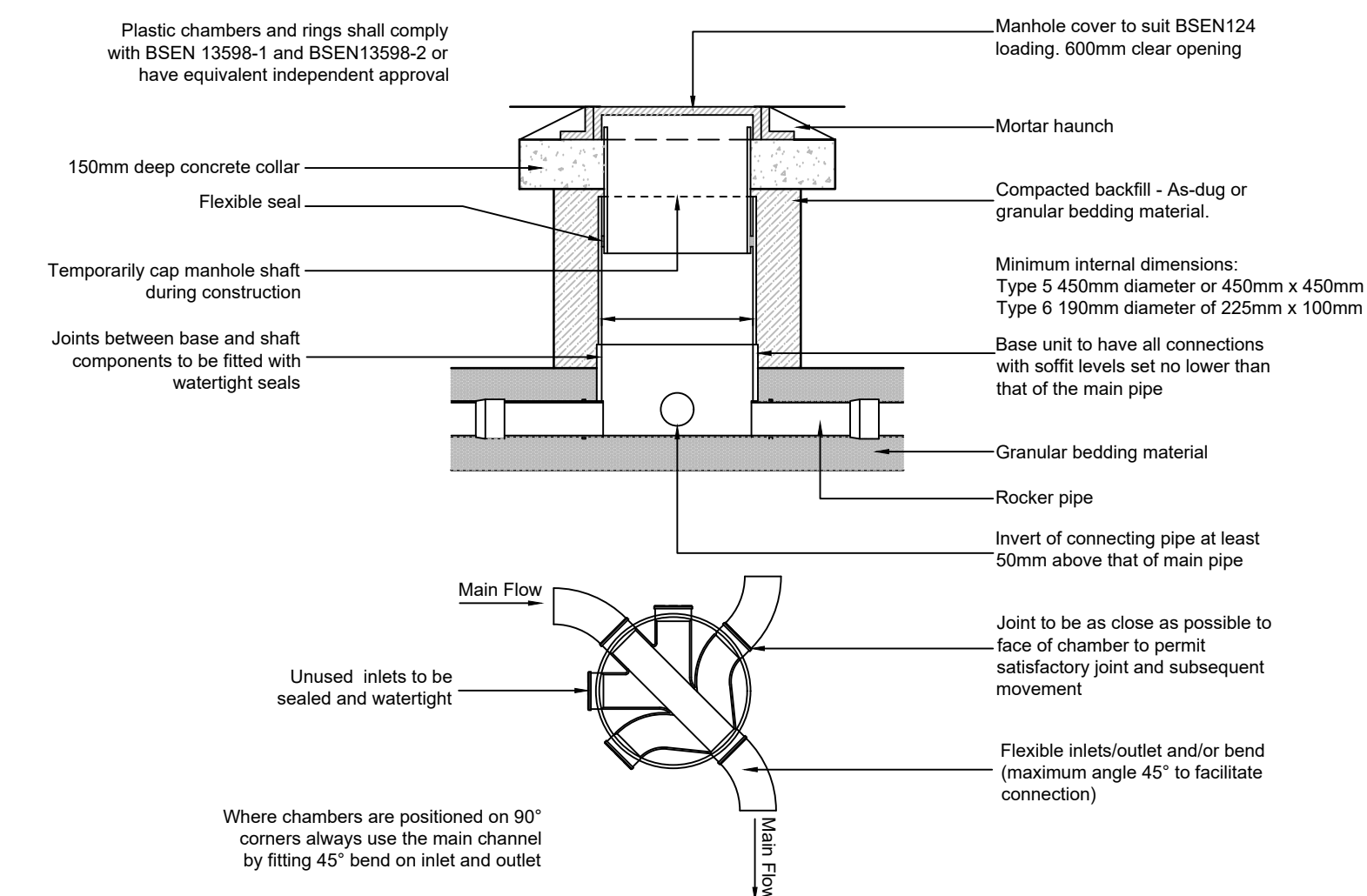
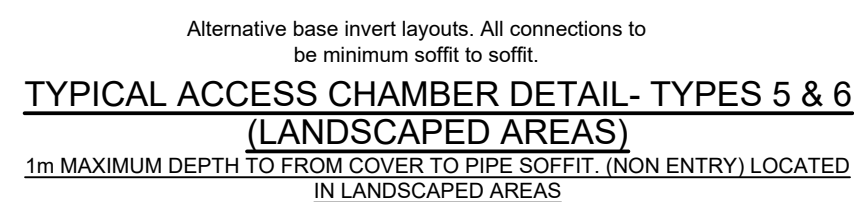
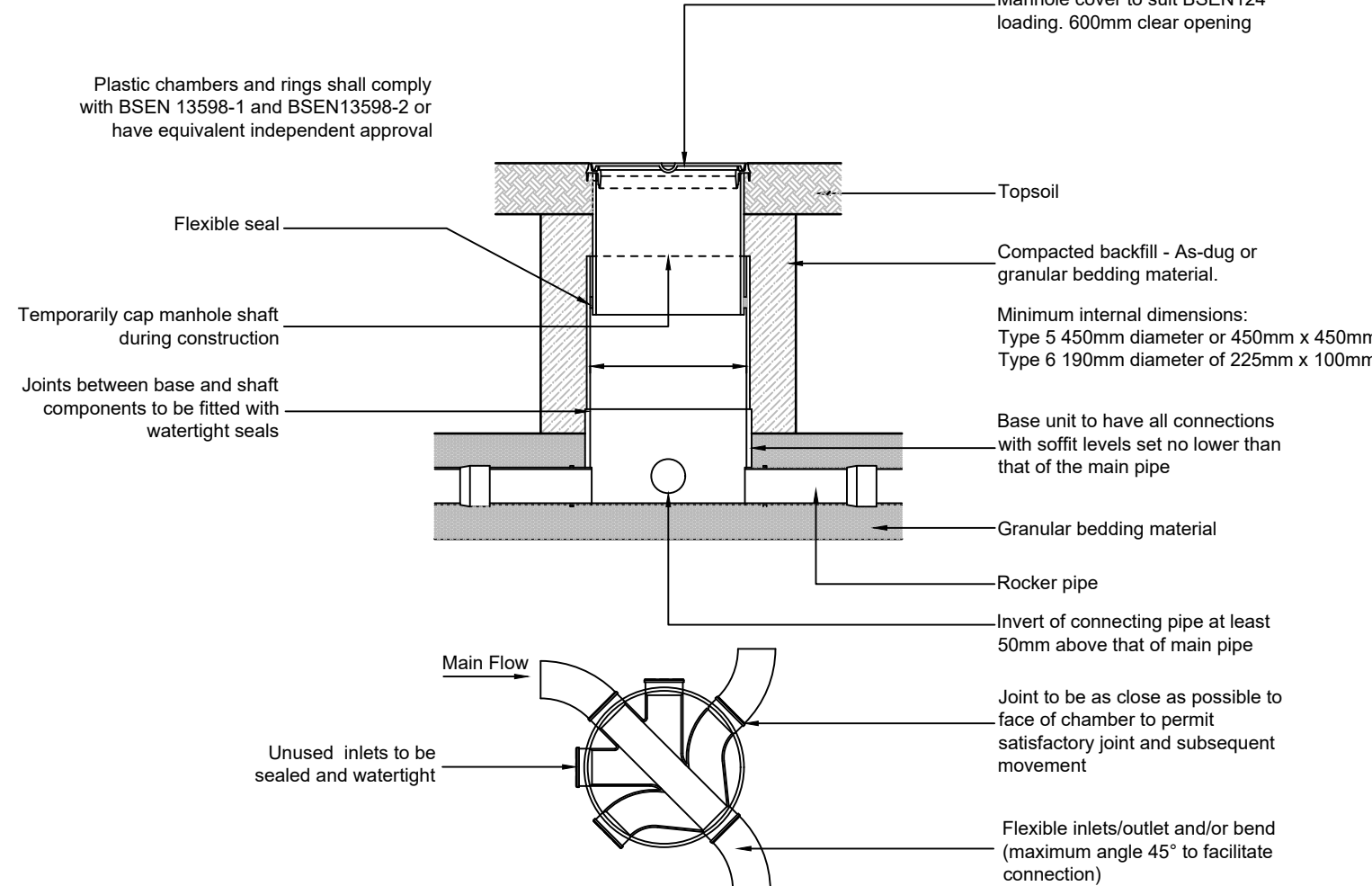
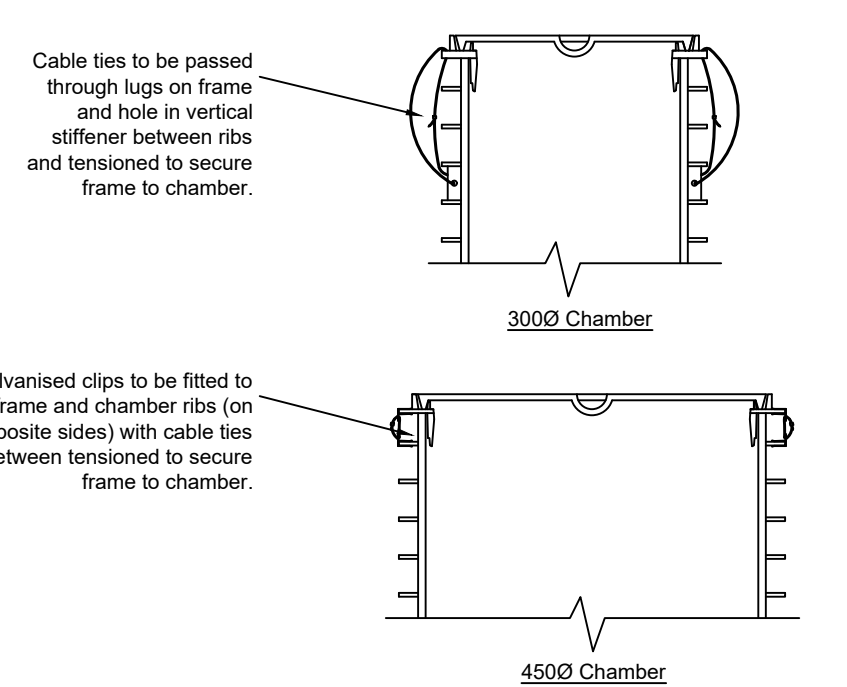
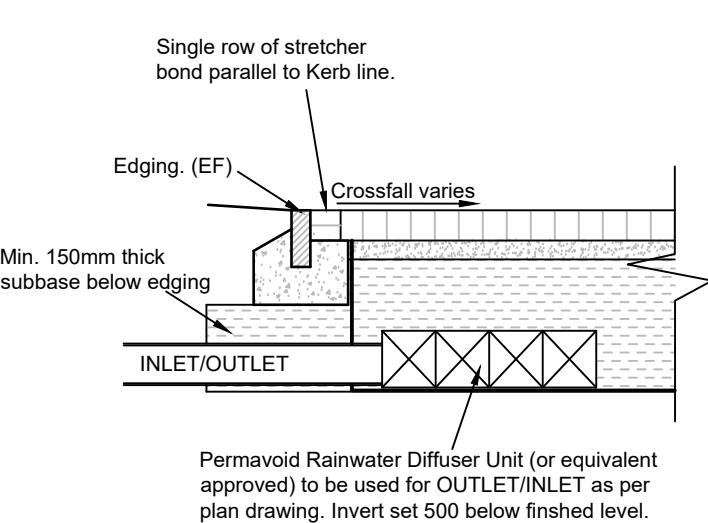
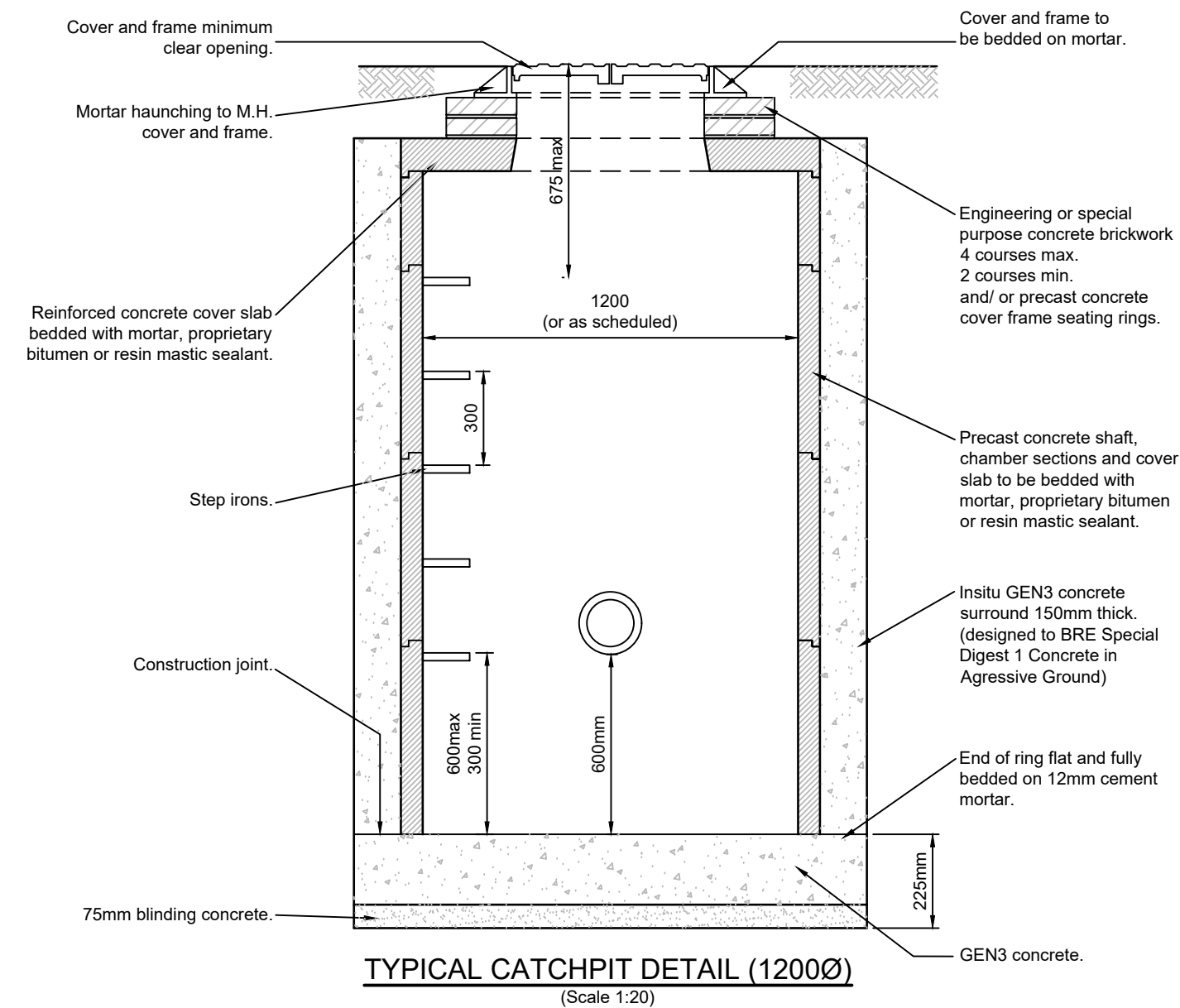




Minimum Dimensions for Access Fittings and Chambers						
Type	Internal Sizes			Cover Sizes		
	Depth to invert (m)	Size of largest pipe (DN)	Length x Width (mm)	Circular (mm)	Length x Width (mm)	Circular (mm)
Rodding Eye	As Drain but Minimum 100mm					
Shallow Access						
Small	0.6 or less	150	150x100	150	150x100	150
Large			225x100		225x100	
Inspection Chamber	0.6 or less			190		190
	1.2 or less	150	450x450	450	450x450	450
	1.2 - 3.0		450x450	450	300x300	350
Manhole	1.5 or less	150 225 300 >300	675x750 675x1200 675x1200 DN+450 x1800	1200 1200 1200 The larger of 1800 or (DN+450)	675x750 1200x675 1200x675 1200x675	n/a n/a n/a n/a
	Over 1.5	1200 375-450 >450	1200x1000 1200x1075 1350x1225 DN+775 x1800	1200 1200 1200 The larger of 1800 or (DN+775)	600x600 600 600x600 1200x675	600 600 600 600
Manhole Shaft	Over 2.7		900x840	900	600x600	600

BUILDING REGULATIONS MINIMUM DIMENSIONS FOR MANHOLES

This plan complies with the Building Regulations 2002
Section 'H' - Drainage & Waste Disposal.

- ### DRAINAGE NOTES

1. All drainage works to be constructed in strict accordance with specification of the Local Authority, Building Regulations, Design and Construction Guidance (published by Water UK), BS9301 & BS EN752-1.
2. For location and setting out of building drainage points refer to architects drawings.
3. All pipe runs near buildings to comply with the Building Regulations 2002 part H1. Where a pipe is within 1m of a foundation the trench shall be filled with class gen3 concrete to the lowest level of the foundation. Where the trench is further than 1m from the foundation, the trench shall be filled with class gen3 concrete to a level below the lowest level for the foundation equal to the distance from the foundation to the pipe with both sides of the pipe shall be bedded and surrounded in 150mm thick class GEN3 concrete.
4. Where pipes, external to the structures, have a depth to soft ground level less than 450mm they shall have a class GEN3 concrete encasement (150mm thick).
5. Where a pipe, under a carriageway, has a depth of cover of less than 1.2m the pipe shall be laid in a concrete bed and surround.
6. In any circumstances where pipes are bedded and surrounded in concrete flexible joints should be provided: compressible boards (fibreglass or polyurethane) shall be used at a maximum of 6m centres (conforming with pipe joints) the boards shall be pre-cut to pipe diameter and to a height and width equal to the concrete cross section. A board thickness of 18mm for pipes up to 450mm nominal diameter and 36mm for pipes over 450mm nominal diameter.
7. All private building drainage shall be constructed in strict accordance with BS EN752-1. Four drainage beneath the floor slab shall be laid, shall be laid no flatter than 1:40. Unless otherwise specified below ground building drainage external to the building shall be 100mm diameter and shall be laid at a minimum gradient of $\frac{1}{4}$ (1 in 40) i.e. $\frac{1}{4} = 1$ in 80 for four drains and 1 in 80 for surface water drains.
8. All building drains shall be laid in conjunction with 'non apertive bedding details' (class d, e or b) unless otherwise specified.
9. All pipes, bends and junction for private building drainage shall be UPVC conforming to BS6593. BS EN1401 as appropriate and shall be installed in accordance with the manufacturer's specification.
10. All pipes, bends and junction materials for adoptable drainage shall be verified dry extra strength or super strength to BS EN295, with flexible joints and kilnmark certified
11. All back inlet gullies to be roddable or connected to inspection chambers.
12. All gully connections other than at manholes to be 'Y' junctions.
13. All road gully connections to be 150mm diameter.
14. All stub stacks to be fitted with air admittance valves where branch drain exceeds 12m except at the head of the run. Soil vent pipes located at the head of a run to terminate to fresh air.
15. No low point shall be without a method drainage.
16. All connections to be soffit to soffit unless otherwise noted.
17. All concrete and concrete products to be in accordance with BRE 363 for sulphates.
18. The locations of all building drainage points shall be cross referenced against the architects drawings during setting out.
19. Before connections be made to existing public sewers an application under 106 must be made to relevant sewerage undertaker.
20. The precise depth and location and size of existing pipes, watercourses, or manholes where connections or diversion are proposed must be confirmed and reported to the engineer before works commence on site.
21. Existing drains - any existing drains to be abandoned to be decommissioned in view of building regulations by either building out, infilled or sealed.
22. Should ground water be encountered on site during construction BPC shall be informed to determine if additional measures are required.
23. The drainage drainage system shall be fully commissioned on completion of the project using methods that ensure pollution off site does not occur.
24. Any existing land drains severed during construction shall be reinstated.

NOTES

1. This drawing is to be read in conjunction with all other Bright Plan City drawings, and, with relevant Architect's and Engineer's drawings and specification. Any discrepancies found are to be reported to the Engineer immediately.
2. Bright Plan City accepts no responsibility for inaccuracies in or omissions from this drawing, which may be caused by information provided by third parties such as topographic surveys or Ordnance Survey mapping.
3. Do not scale, note to figure dimensions only. All dimensions are in millimetres unless noted otherwise and all levels are in metres from the topographic survey datum.
4. Any information given regarding existing underground services is given in good faith after consultation with the relevant authority, however it is not certain. The main contractor is responsible for checking all information on site prior to work commencing and taking due care whilst undertaking the works.
5. All dimensions to be checked on site. All details and dimensions relating to sub-contractors work must be checked and agreed between the sub-contractor or supplier and the general contractor.
6. The electronic information from this drawing can not be guaranteed as dimensionally drawn exact. Figured dimensions must be used for setting out and detailing. Bright Plan City's liability for any information must be removed from copies of this drawing if it is used.

RESIDUAL HAZARDS

In addition to the hazards/risks normally associated with the type of work detailed on this drawing, note the following:

1. Uncharted buried services. Contractor to use CAT prior to excavating.
2. Working in live carriageway. Contractor to implement traffic management to ensure safety of the workforce and public.
3. Working in live sewers. Contractor to ensure operatives are familiar with the dangers of working in live sewers.
4. Excavations close to existing structures. Contractor to prepare method statement to ensure stability of existing structures.

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved risk assessment and method statement

-	Original Issue		18/09/2018
Rev.	Amendments		Date
			
BRIGHT PLAN CIVILS <i>Transport Planning and Infrastructure Design Consultants</i> 2 West Barn, Norton Lane, Chichester, West Sussex PO20 3AF Tel: 01243 210418 www.bpcivils.co.uk enquiries@bpcivils.co.uk			
Drawing Status		FOR APPROVAL	
Client		THAKEHAM	
Project		BILSHAM ROAD YAPTON	
Drawing Title		PRIVATE DRAINAGE DETAILS	
Scale	Date	Drawn By	Checked By
NTS	FEB 22		
Drawing No.			Rev.
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