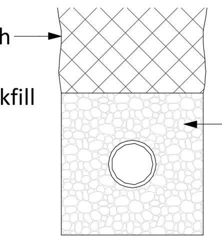
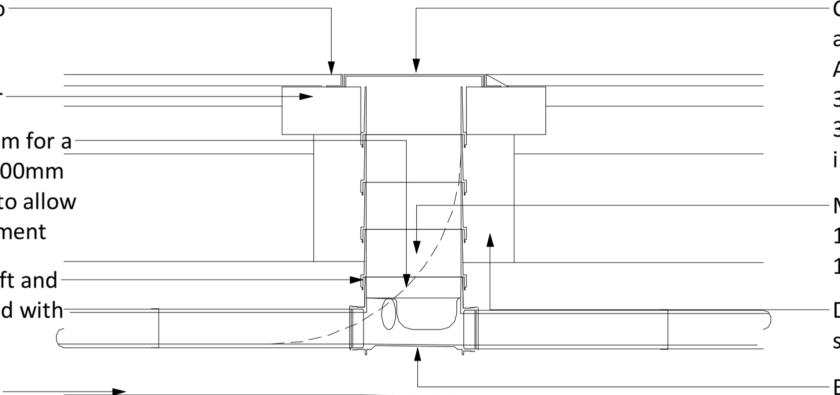
Do Not Scale



Class 's' pipe bedding detail

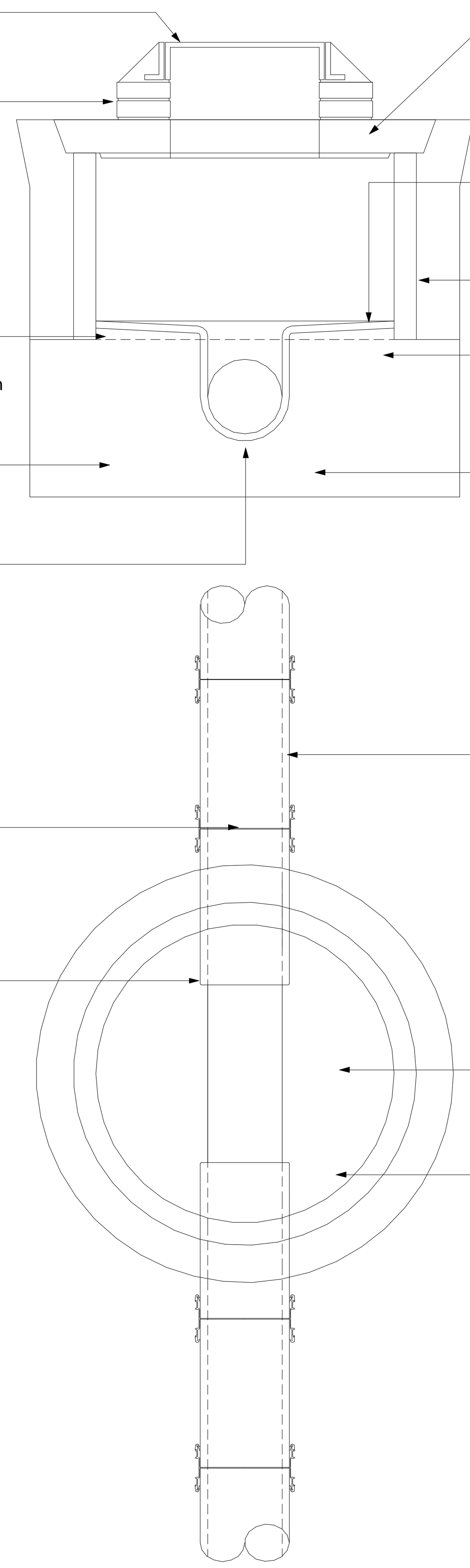
DIMENSION a :- in rock or material containing hard spots sleeved jointed pipes - 150mm min. socketed pipes - 200mm min . elsewher esleeve djointed pipes - 150mm min socketed pipes - 150mm

PIPE NOMINAL BORE (DN)	MAX. PARTICLE SIZE (mm)	CLASS OF BEDDING	SUITABLE IMPORTED GRANULAR MATERIALS
100 dia	10	S	10mm NOMINAL SINGLE-SIZED OR 10mm TO 5mm GRADED.
OVER 100 TO 150 dia	15	S	max 14mm NOMINAL SINGLE-SIZED OR 14mm TO 5mm GRADED.
OVER 150 TO 600dia	20	S	max 20mm NOMINAL SINGLE -SIZED OR 20mm TO 5mm GRADED.
OVER 600	40	S	max 40mm NOMINAL SINGLE-SIZED OR 40mm TO 5mm GRADED.

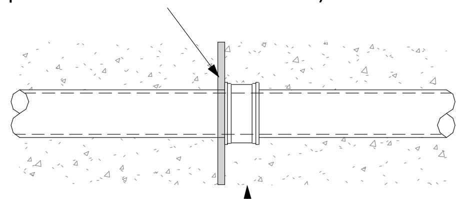


Polypipe non man entry deep inspection chamber (ICDB1) for depths up to 2m deep
Polypipe inspection chamber (UG670 or UG440) for depths up to 1m deep
Polypipe shallow inspection chamber (UG437 or UG537) for depths up to 0.6m deep or similar approved

Typical inspection chamber detail

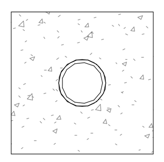


Typical manhole detail type B1/E

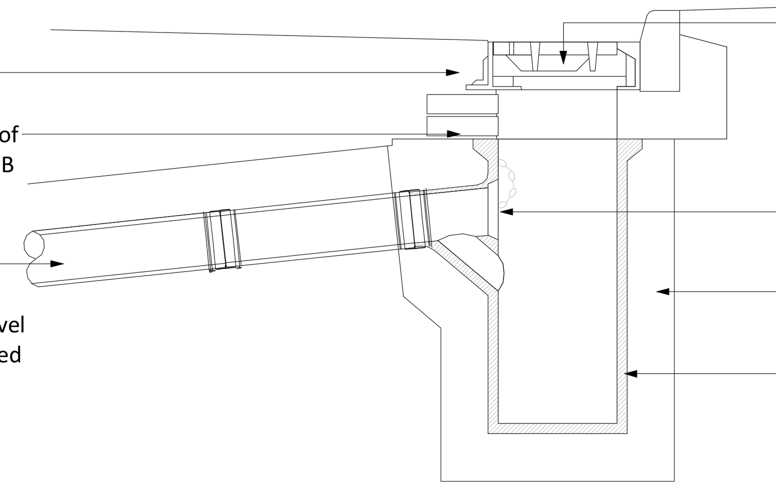


Movement joint to concrete pipe surround

Nominal DIA of pipe (mm)	Thickness of compressible filler (mm)
Less than 450	18
450-1200	36
Exceeding 1200	54



Typical concrete pipe surround detail class 'Z' bedding

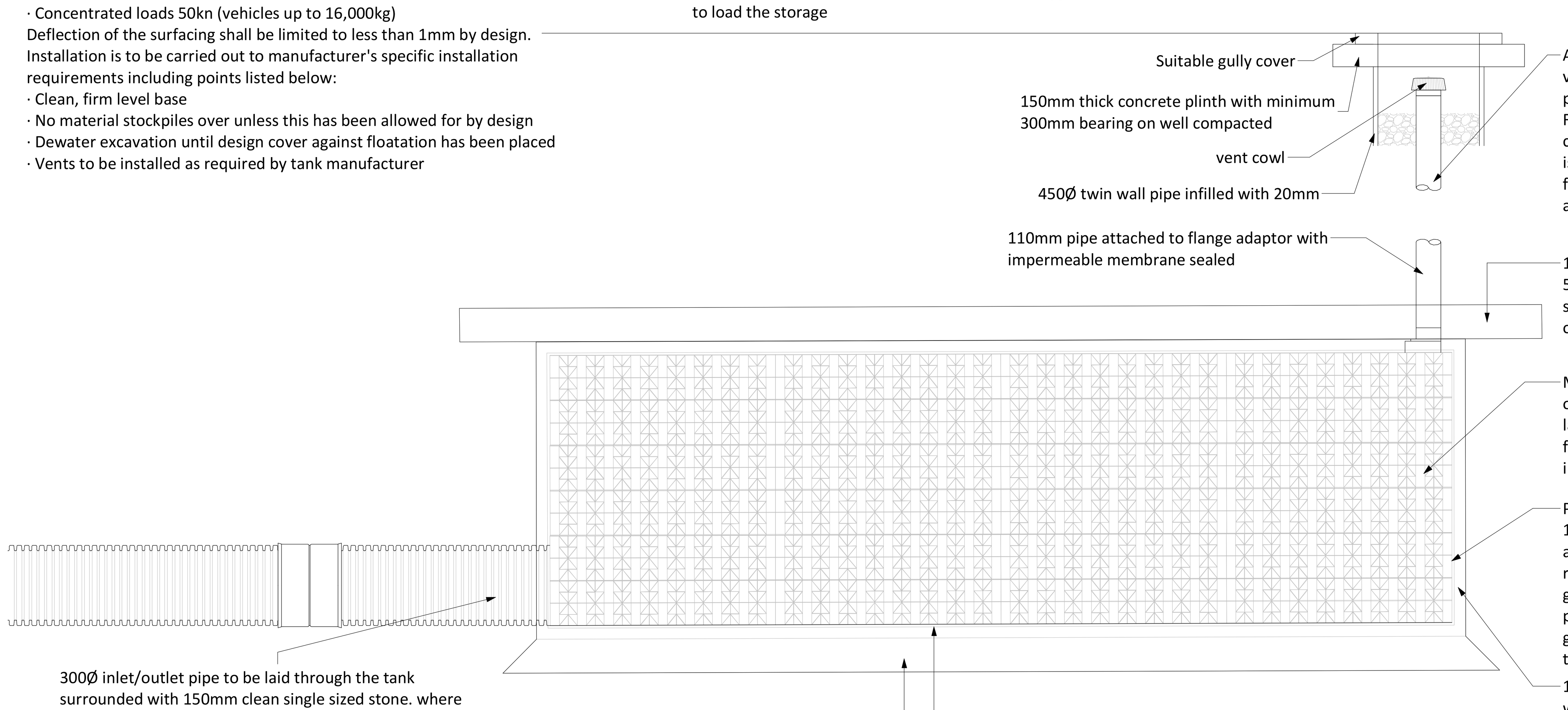


Typical detail showing road gully

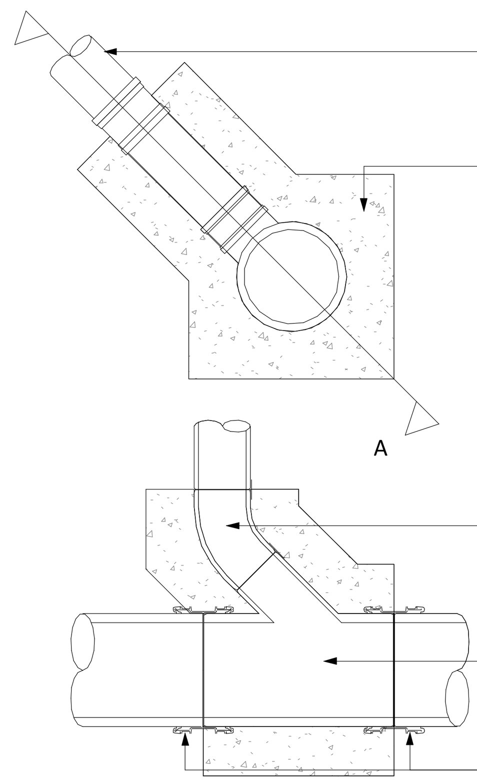
NOTES WITH RESPECT TO GEO-CELLULAR SURFACE WATER ATTENUATION TANKS
All modular geo-cellular surface water drainage attenuation tanks shall be designed by a specialist contractor in accordance with:
· Eurocode 7 (BS EN 1997-1-2004)
· CIRIA report C680
Design shall include checks for:
· Flotation
· Dynamic and cyclic loading
· Creep
· Deformation
As well as the following vertical loads and associated surcharge (both on & adjacent to the tank)
· Surfacing - 500mm (includes 150mm tarmac surface and 350mm stone foundation.)
· Backfill underlying the surfacing, specification to be determined by manufacturer min 1100mm
· Distributed loads 10 kn/m²
· Concentrated loads 50kn (vehicles up to 16,000kg)
Deflection of the surfacing shall be limited to less than 1mm by design.
Installation is to be carried out to manufacturer's specific installation requirements including points listed below:
· Clean, firm level base
· No material stockpiles over unless this has been allowed for by design
· Dewater excavation until design cover against floatation has been placed
· Vents to be installed as required by tank manufacturer

Construction plant such as excavators can impose significant loads on any cellular storage the following guidelines should be followed:
· Care must be taken not to damage the units especially edges of the units
· Where ever possible machines placing back fill material should not load the tank. where this is not possible a minimum of 300mm thick layer of fill should be placed over the units. Only tracked excavators not exceeding 20 tonnes weight should be used.
· Compaction plant used over the units should not exceed 2300kg/metre width compaction should be done in accordance with the Specification for Highway Works.
· All site traffic should be prevented from trafficking the system even once finished unless site specific assessment demonstrates that it is acceptable.
· Under no circumstances are cranes or their outriggers to load the storage

Back fill under landscaped areas to be done with selected site won material free from large/sharp objects.
Backfill under trafficked areas is to be selected granular material suitable for compaction with the plant available.
Backfill materials needs to be suitable for end use and capable of being laid above the cells with compaction plant deemed appropriate by the manufacturer.



Typical detail cellular attenuation tank



Junction pipes to be used on all pipes less than and including 300mm dia
This detail is to be used for all pipes connected by a junction greater then 1in2

Typical detail junction pipe connection

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09/02/2018 12:22:22

DESIGN REVIEW

Design review by:		Checked by:	

Residual hazards:

DRAWING NOTES

Date	Revision	By	Chkd	Rev
09.02.18	Preliminary issue	BB	PG	P01

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Project
ASDA Ferring

Title
Proposed Drainage Details

Client
ASDA Save money. Live better.

Scale @ A1	Drawn	Checked	Date
1 : 20	BB	PG	Feb'18

Suitability S1 Purpose Preliminary

UPRN Originator Zone Level Type Role Class Drg. No. Rev.
05.16049-ACE-XX-ZZ-DR-D-50-0102-P01