

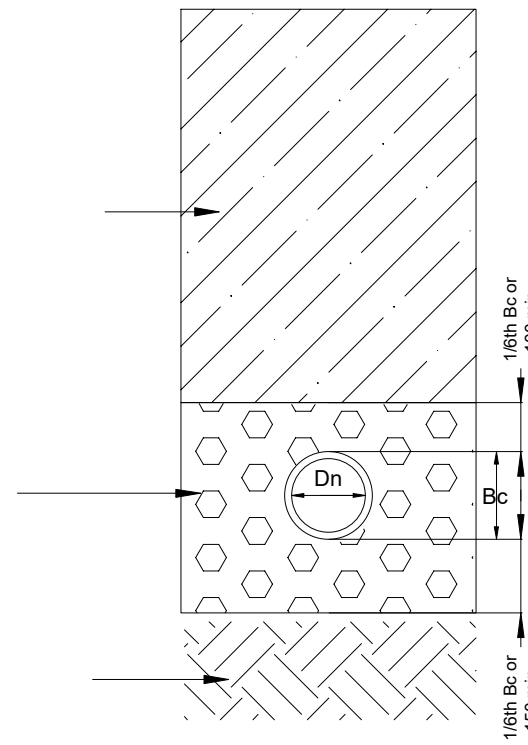
CLASS S BED & SURROUND

Backfill with selected suitable as-dug material up to formation level

Heavy compaction of the main backfill material should be avoided until the pipe has minimum cover to the crown of 250mm. The main backfill material shall be compacted in layers not greater than 250mm thick, unless stated otherwise.

Well compacted pipe bedding material in accordance with the specification.

Any soft spots in trench formation shall be replaced by an additional depth of granular bedding material unless instructed otherwise by the engineer.



Minimum Trench Width
Pipes up to Ø100 BC+200
Pipes up to Ø600 BC+300
Pipes exceeding Ø600 BC+450

Maximum Trench Width
Dn Bc
150 0.6
225 0.7
300 0.85
450 1.15
600 1.35

Class S granular bed and surround
Cover >900mm in vehicular loading
Cover >600mm in landscaped areas

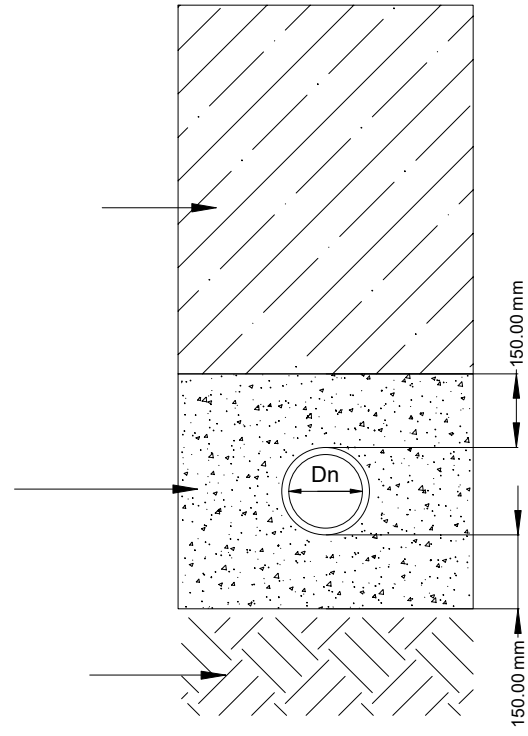
CLASS Z BED & SURROUND

Backfill with selected suitable as-dug material up to formation level

Heavy compaction of the main backfill material should be avoided until the pipe has minimum cover to the crown of 250mm. The main backfill material shall be compacted in layers not greater than 250mm thick, unless stated otherwise.

Sulphate resisting GEN3 concrete bed and surround with flexible joints

Any soft spots in trench formation shall be replaced by an additional depth of granular bedding material unless instructed otherwise by the engineer.



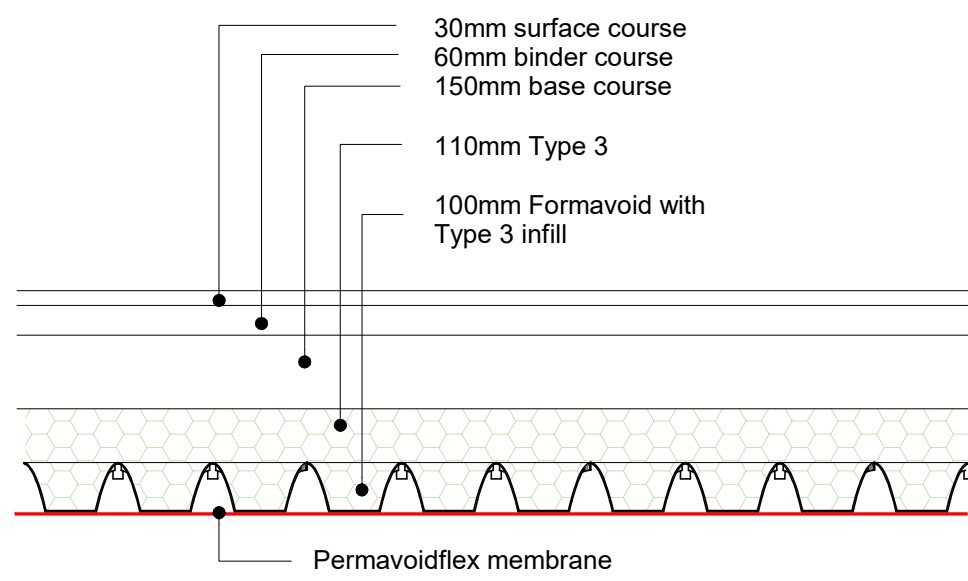
Minimum Trench Width
Pipes up to Ø100 BC+200
Pipes up to Ø600 BC+300
Pipes exceeding Ø600 BC+450

Maximum Trench Width
Dn Bc
150 0.6
225 0.7
300 0.85
450 1.15
600 1.35

Class Z concrete bed and surround
Cover <900mm in vehicular loading
Cover <600mm in landscaped areas

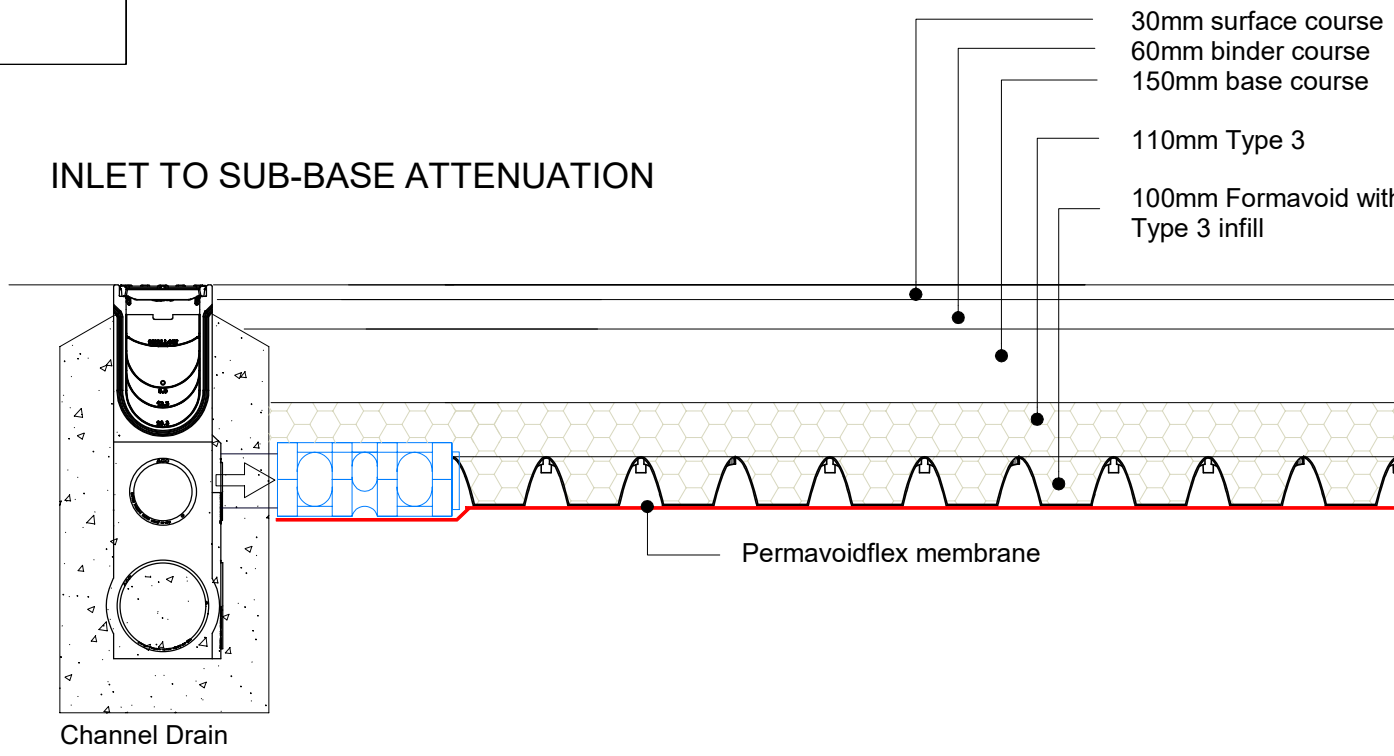
Bedding Details

Nominal Pipe Size Dn	Pipe Bedding Requirement Size of Aggregate mm
150	10 or 14 nominal single size or 14 to 5 graded
225-525	10, 14 or 20 nominal size or 14 to 5 graded or 20 to 5 graded
>525	10, 14, 20 or 40 nominal single crushed rock or 14 to 5 graded or 20 to 5 graded or 40 to 5 graded

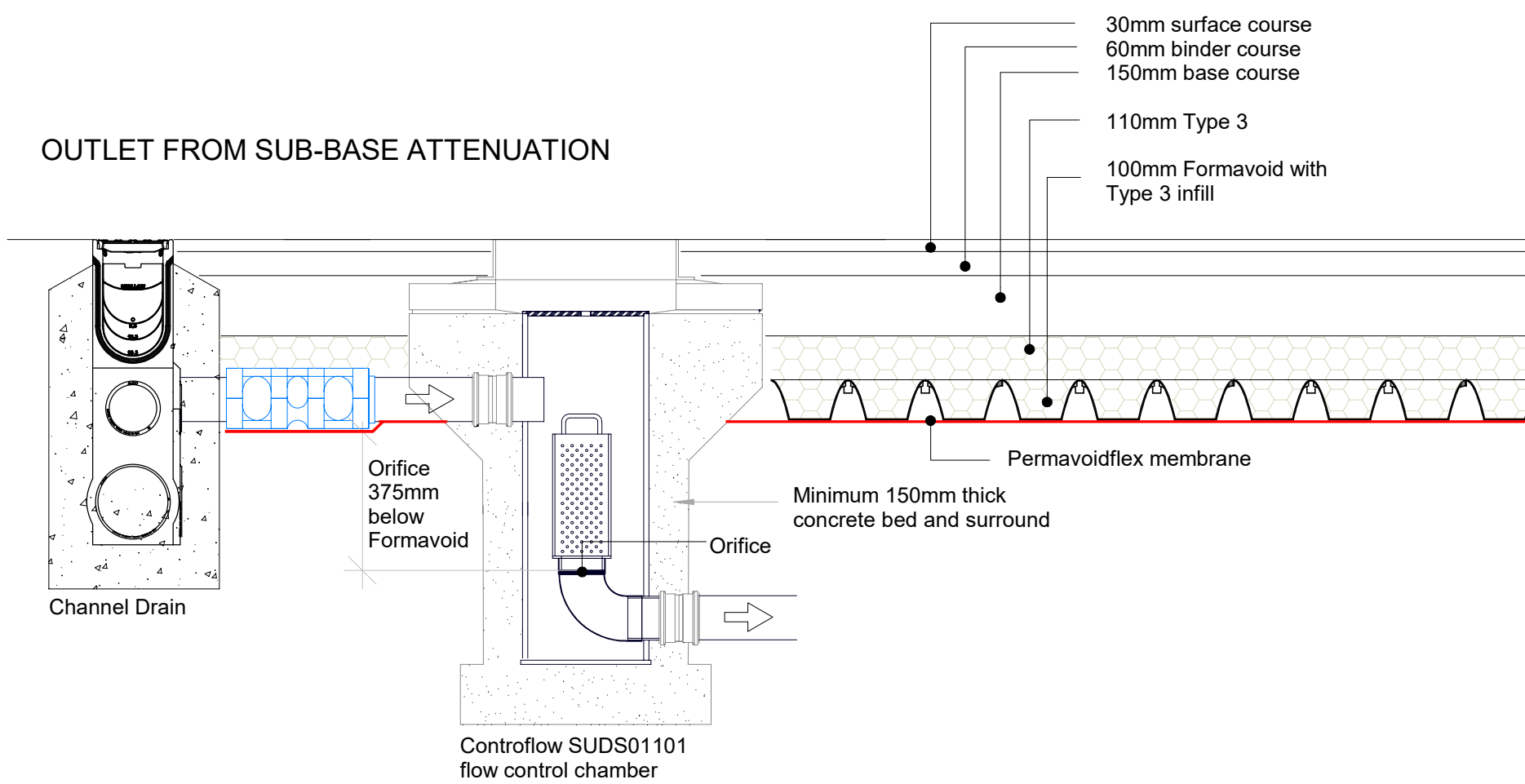


TYPICAL PAVEMENT CONSTRUCTION

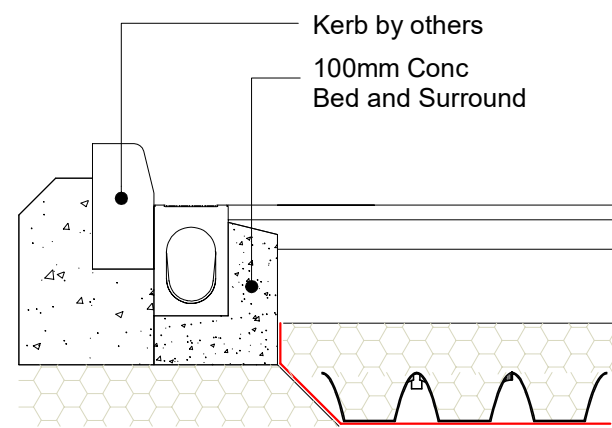
INLET TO SUB-BASE ATTENUATION



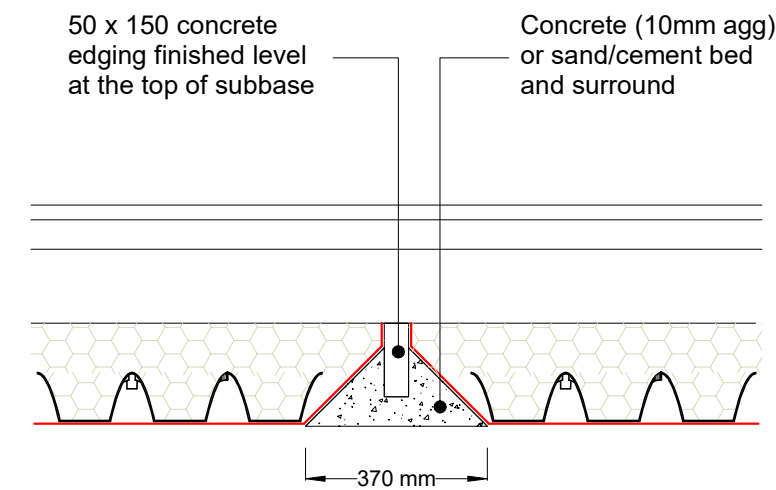
OUTLET FROM SUB-BASE ATTENUATION



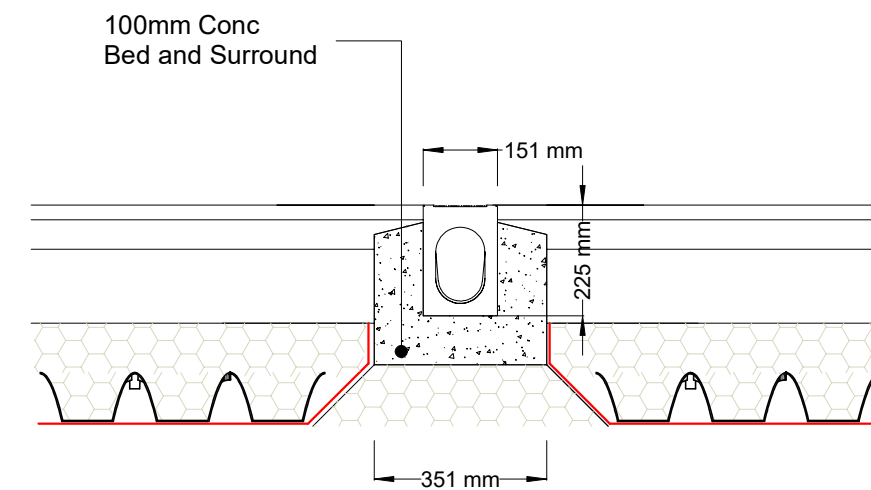
HB2 KERB AND CHANNEL



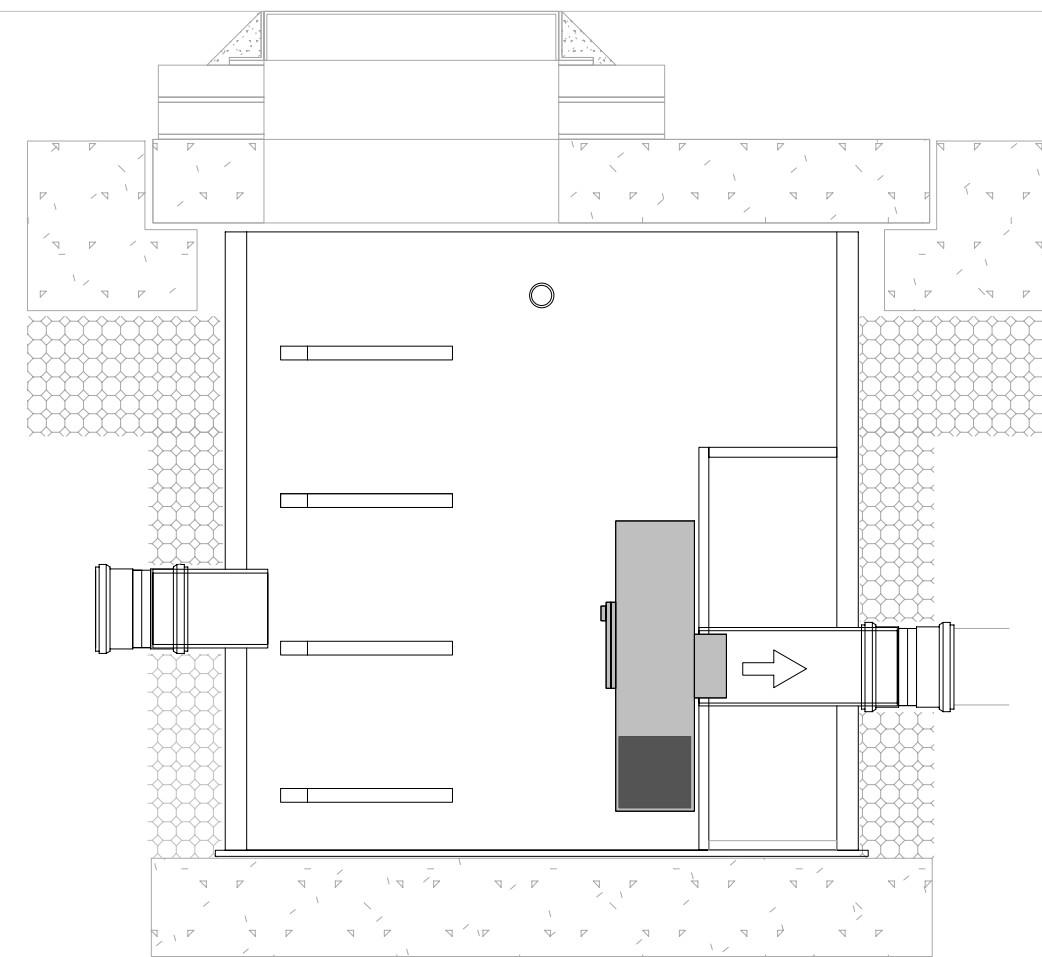
INTERMEDIATE CHECK DAM



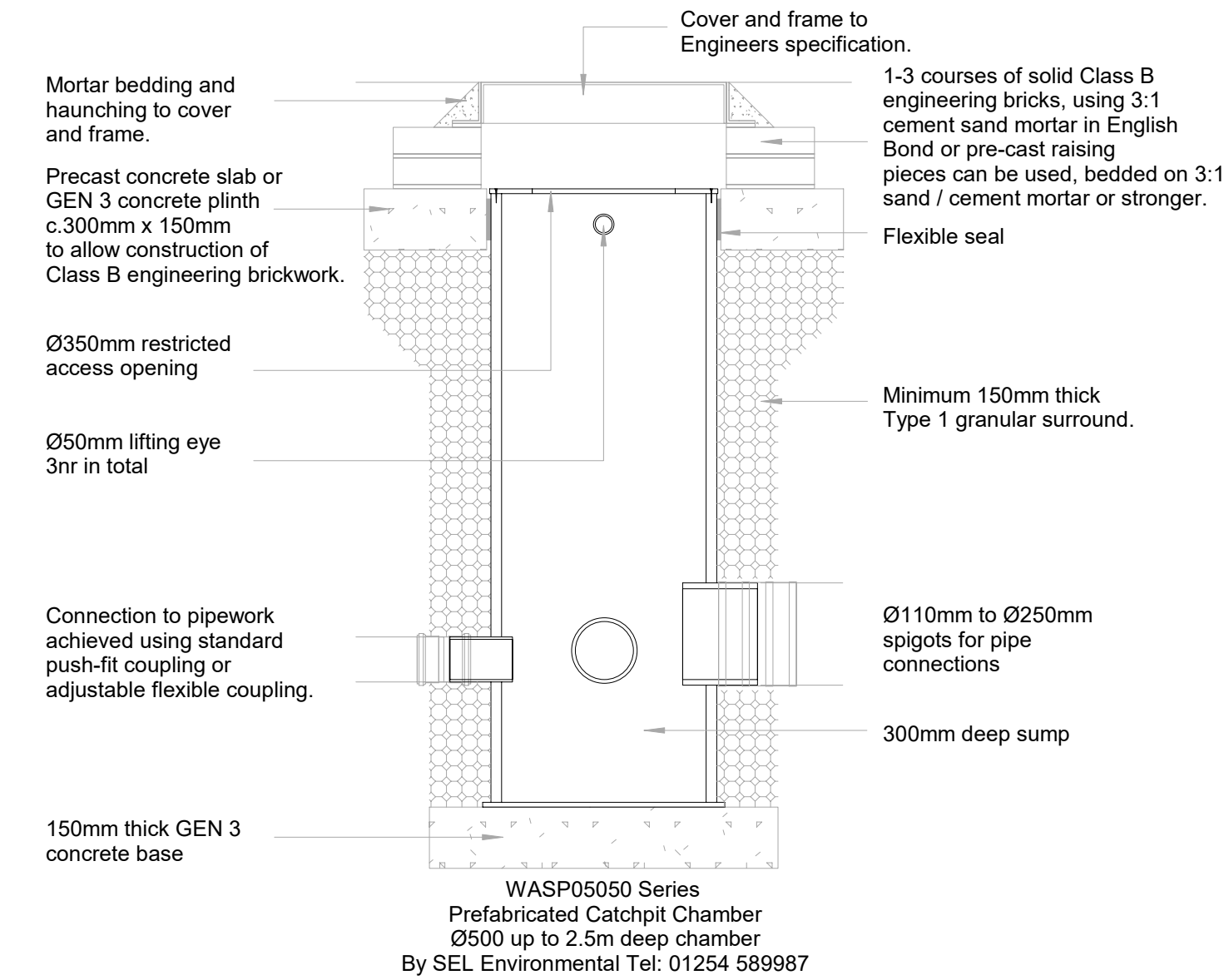
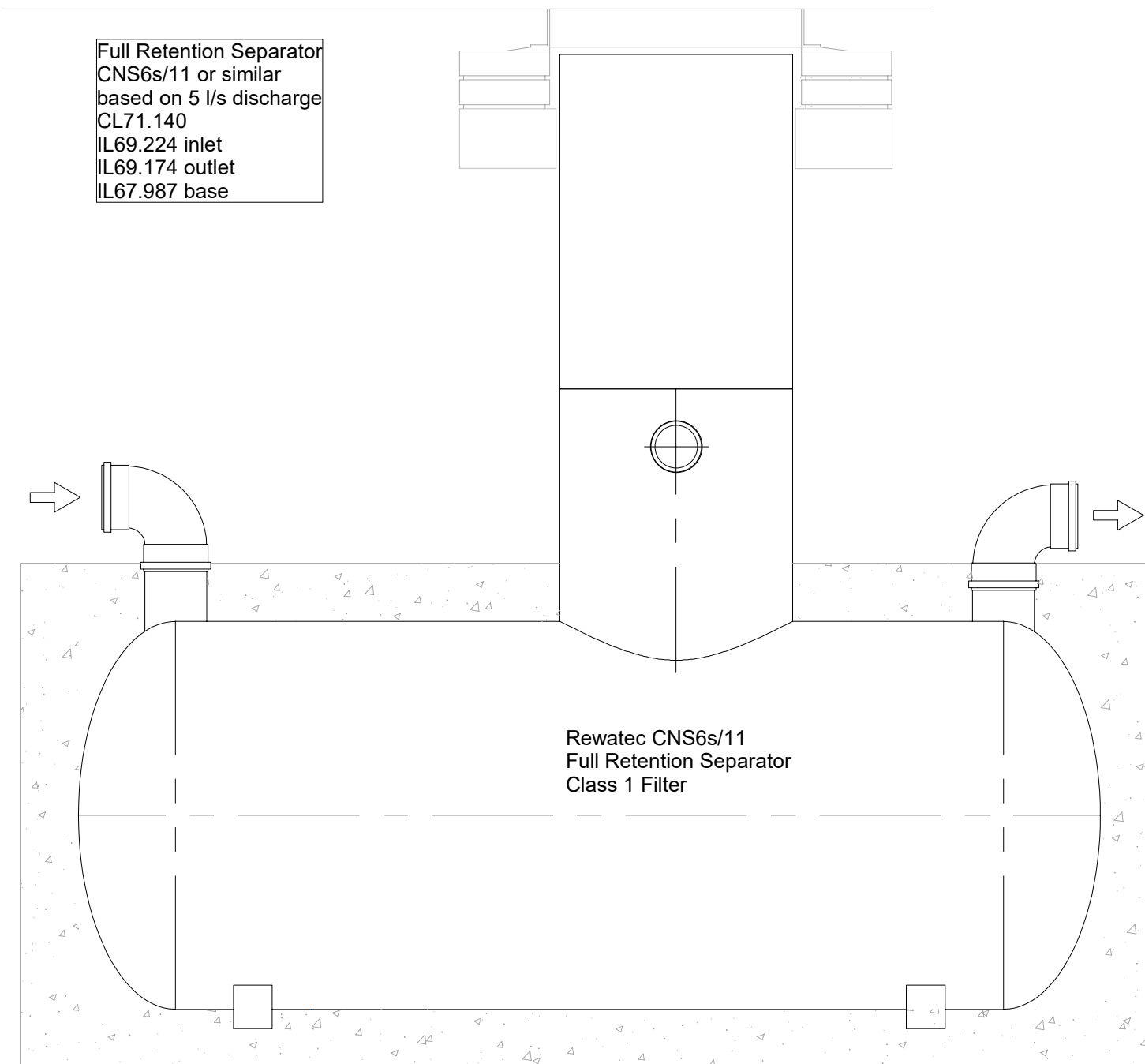
CHANNEL - NO KERB



SW VTX 1
CL 71.230 TBC
IL 69.226
Vortex 5 l/s



Full Retention Separator
CNS6s/11 or similar
based on 5 l/s discharge
CL71.140
IL69.224 inlet
IL69.174 outlet
IL67.987 base



NOTES

GENERAL
This drawing is to be read in conjunction with all relevant Engineers and Architects drawings.

For setting out refer to Architects drawings.

All dimensions are in millimetres and levels are in metres unless noted otherwise.

Contractor to take all relevant dimensions on site.

Any discrepancies to be advised to the Engineer.

Contractor to check/scan for services prior to construction to avoid any damage during works.

DRAINAGE
Any information given on this drawing regarding existing services is believed to be correct.

The contractor must check this information and determine the nature and location of other existing services from the various statutory authorities before commencing excavation works.

Drainage works to be constructed in accordance with BS EN 752 and Approved Document H.

All soft spots and unacceptable material encountered in drainage excavations is to be removed and replaced with granular material to the requirements of the building control officer.

Pipes to be installed to manufacturers recommendations.

Pipes under buildings to be laid to a fall of 1:40 minimum unless noted otherwise.

Plastic plain wall pipes to be PVC-U to BS EN 1401-1, class SN4, with flexible joints, Kitemark certified. Structured wall plastic pipes to be to WIS 04-35-01, Kitemark certified

Clay pipes to be vitrified clay to BS EN 295-1, with flexible joints, Kitemark certified. Clayware pipes must be extra strength classification protected in accordance with the specified details.

Bedding of pipes to be in accordance with approved document H1.

Rocker pipes with flexible joints are to be provided at a distance of 150mm and 750mm from the face of construction to manholes, where pipes pass above, below or through ground beams or foundations; at gully connections and soil stack ends.

Manhole access covers are to be located at the outgoing side of manholes.

Cover levels are to be fixed on site to suit finished levels. Covers and frames to BS EN124, Grade D to be used in areas subject to heavy vehicular loading, Grade C in areas subject to light vehicular loading and Grade B to be used elsewhere.

REV.	DESCRIPTION	DATE	DRW.	CHK.
C02	Channel details added	27/06/2023	MG	ABS
C01	Construction Issue	25/05/2023	MG	JHS
P02	Drawing number corrected	03/01/2022	MG	ABS
P01	First issue	22/12/2022	MG	ABS



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PROJECT
North Manchester General Hospital

TITLE
Car Park 26
Surface Water Drainage Details 1

STATUS S4 **PURPOSE OF ISSUE** For Construction

DRAWN BY MG **CHECKED BY** ABS **DATE** 20/12/2022

SCALE (@A1) NTS **PROJECT NUMBER** 20200 Car Park 26

FILE DRAWING NUMBER 20200-SEL-NM110-XX-DR-Y-0053 **REV.** C02