

Drainage Maintenance Schedule



Project	Wicks Farm - East, Ford Lane, Ford, West Sussex
Project Number	23482

By Stuart Magowan

Date 20 March 2022

1 Schedule of Maintenance

- 1.1 Once appointed the Contractor will prepare a site specific method statement for the control of silt and other pollutants during construction. CIRIA Report C532, Control of water pollution from construction sites, provides further guidance on this.
- 1.2 The Contractor will maintain the proposed drainage system during construction and until the handing over of the site.
- 1.3 Upon completion, responsibility for regular and corrective maintenance of all elements of the drainage system will be passed on to a Site Operator and managed by them.
- 1.4 An initial pre-handover inspection of the scheme will be undertaken to ensure that it has been constructed as designed.
- 1.5 The following maintenance schedules detail the typical tasks to be undertaken at different intervals and is based on the maintenance requirements outline in Chapter 32 of CIRIA document C753 'The SuDS Manual'.

Maintenance Schedule	Required Action	Frequency
Regular / Occasional Maintenance	Inspections and reporting on the whole drainage system	2 monthly or after significant storm events*
	Litter and debris removal – trash screen, catch pits, filter drain, Hydrobrake control device, swales, permitter ditches, pond and reservoir	Monthly or as required
	Grass Cutting – edges filter trench, pond and reservoir	Monthly or as required
	Weed and invasive plant control – filter trench, pond and reservoir	As required
	Shrub Control – filter trench, pond, permitter ditches and reservoir	As required
	Aquatic and shoreline vegetation management	As required
	Surface and foul water pipework, channel drains, headwalls and fin drains – jetting / rodding	Every 2 years or as required
	Remove sediment and debris from silt trap chambers, channel drains, inlet chambers and Hydrobrake chamber	6 monthly
	Remove sediment and debris from swales, pond and permitter ditches, reservoir and downstream defender.	Once a year



	Inspection of Downstream Defender	Once a year, or as manufacturers recommendation
--	-----------------------------------	---

* During the first year of operation inspections will usually be carried out monthly and/or after significant storm events to ensure that the system is functioning as designed and that no damage is apparent.

Maintenance Schedule	Required Action	Frequency
Corrective Maintenance	Remove debris and/or blockages from the drainage systems including, trash screen, silt traps, channel drains, fin drains, Hydrobrake control device	As required
	Repairs to access chambers, pipework, silt traps, manhole covers, fin drains, channel drains, headwalls, trash screens and grilles	As required
	Inspect inlet, outlet from downpipe and gullies for blockages, standing water and clear	As required
	Repairs to reservoir liner to ensure full capacity maintained	As required
	Replace Hydrobrake control device	As required/every 25 years
	Replace downstream	As required/every 25 years

Indicative Schedule of Maintenance for the Proposed Drainage System

- 1.6 Provisions will be made to replace any infrastructure that has reached the end of its serviceable design life and will be replaced on a like for like basis as far as reasonably practicable.

2 Financing

- 2.1 The regular and corrective maintenance of all elements of the drainage system will be managed and funded by the Site Operator:-

Inspection / Action Required	Gullies, Channels, Fin Drains and Gutters	Catchpits / Inspection Chambers	Surface and Foul Water Pipework	Headwalls and Trash Screen	Pond / Filter Trench / Reservoir	Hydrobrake Control Device	Downstream Defender
After leaf fall in Autumn	✓	✓					
Monthly	✓				✓		
2 Monthly	✓	✓	✓	✓	✓	✓	
6 Months	✓	✓		✓			
1 Year					✓		✓
2 Years			✓				
25 Years						✓	✓

Drainage System Maintenance Summary

Level of storage pond designed to allow the potential to link to existing western storage pond subject to future planning permission

Storage Pond Details

Top bank level = 4.960m AOD

1:100 year + 40% storage between 3.85m AOD and 4.143m AOD
Volume = 3546m³
293mm depth of flood storage
817mm freeboard

Maximum Irrigation water level
3.85m AOD
Pond base level
2.36m AOD
Volume = 17222m³

STORM WATER MANHOLE SCHEDULE

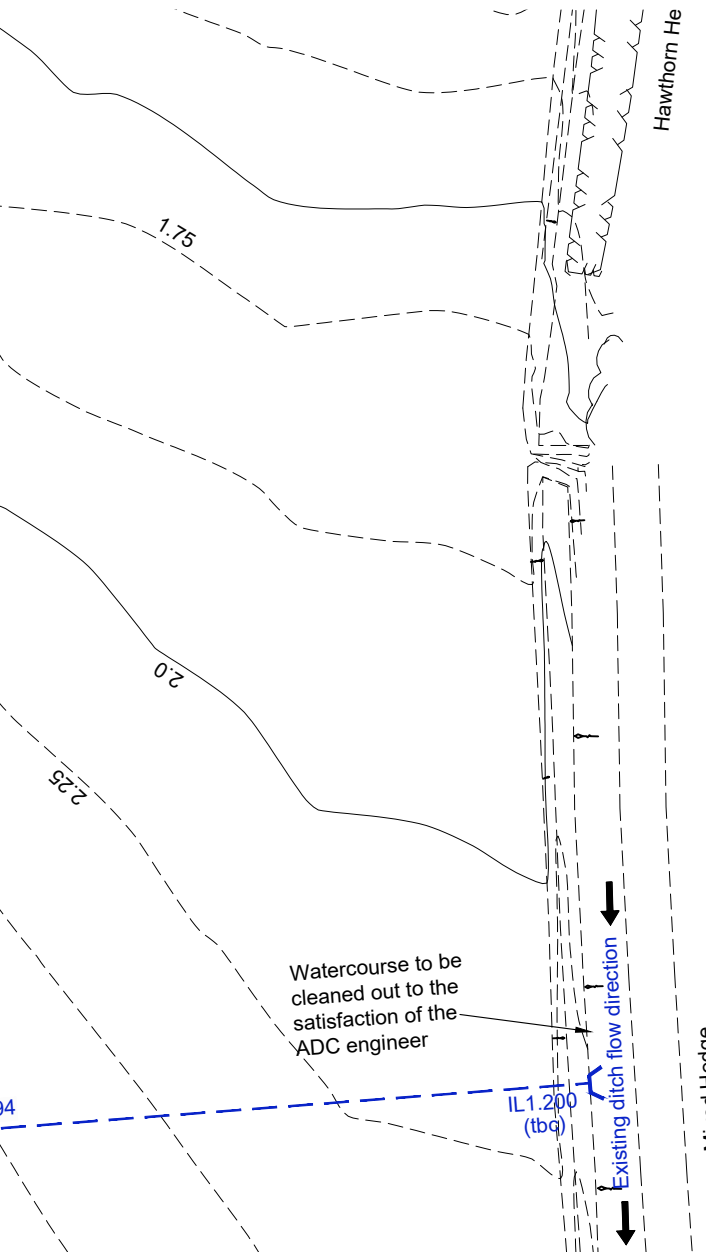
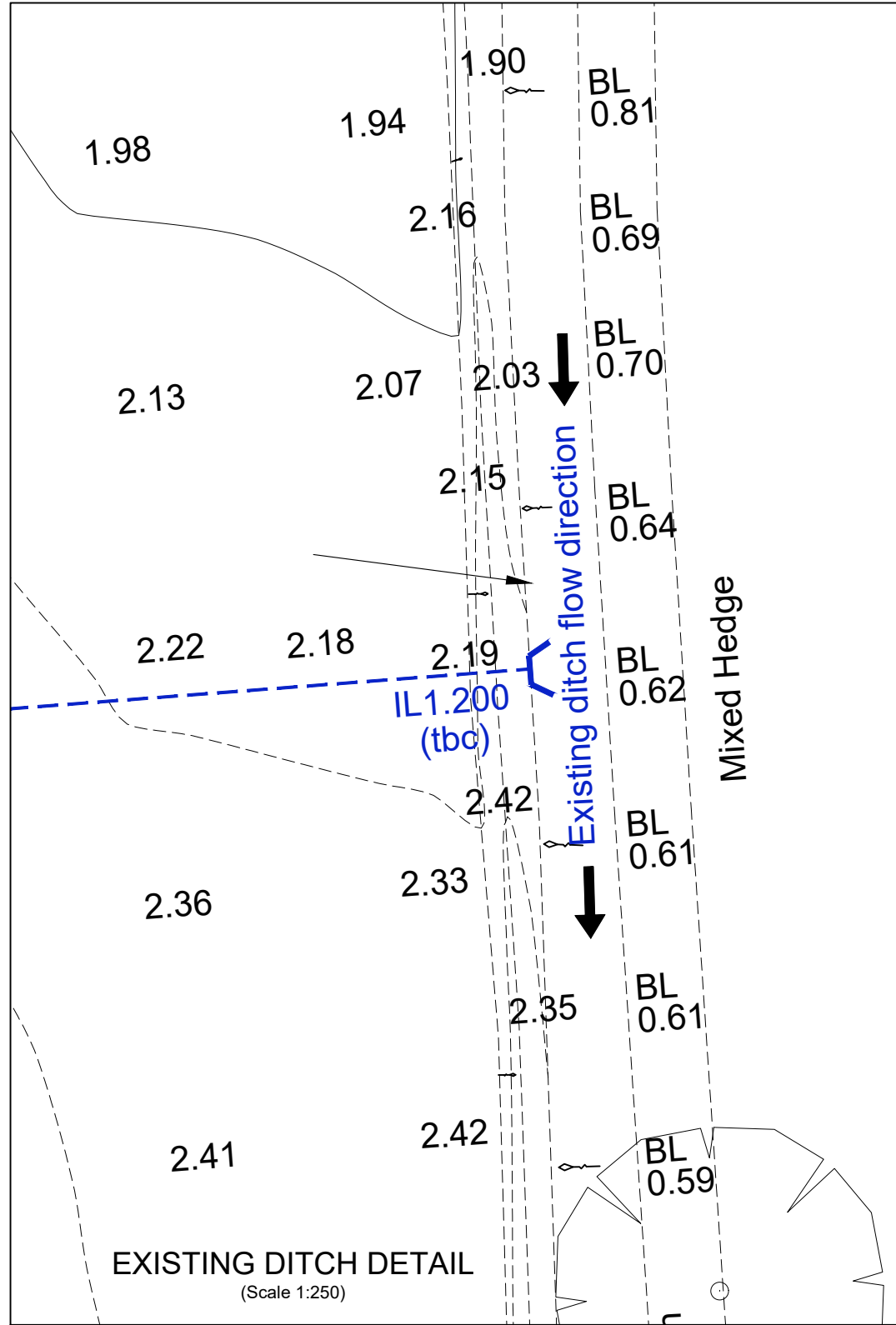
MH_REF	COVER LEVEL	INVERT	DEPTH	COVER TYPE	CHAMBER TYPE	EASTING	NORTHING
HB01	4.650	3.350	1.300	D400	TYPE C 1350 DIA (Hydrobrake manhole)	499256.262	104169.123
HB02	4.940	3.640	1.300	D400	TYPE C 1350 DIA (Hydrobrake manhole)	499358.696	104279.779
S01	4.650	3.525	1.125	D400	TYPE D 600 DIA FIG B18	499208.220	104123.613
S02	4.650	3.525	1.125	D400	TYPE D 600 DIA FIG B18	499253.296	104169.123
S03	4.650	3.130	1.520	D400	TYPE D 450 DIA FIG B18	499292.962	104169.123
S04	4.650	2.910	1.740	D400	TYPE D 450 DIA FIG B18	499329.662	104169.123
S05	4.650	2.692	1.958	D400	TYPE D 450 DIA FIG B18	499366.031	104169.123
S06	4.158	2.671	1.487	D400	TYPE D 450 DIA FIG B18	499369.517	104169.123
S07	3.599	2.142	1.457	D400	TYPE C 1350 DIA FIG B15	499457.892	104169.123
S10	4.960	3.557	1.403	D400	TYPE D 450 DIA FIG B18	499358.696	104265.932
S11	4.450	3.461	0.989	D400	TYPE D 450 DIA FIG B18	499366.031	104251.633
S12	4.550	3.215	1.335	D400	TYPE D 450 DIA FIG B18	499366.031	104210.498
DD01	4.650	3.340	1.310	D400	1200Ø PQL Conc Downstream Defender	499258.166	104169.123

GENERAL NOTES:

- 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.
- This drawing is to be read in conjunction with all relevant Architect's and Engineer's drawings and specification.
- The main Contractor is responsible for ensuring the stability of the structure whilst the works are in progress.
- Any information given regarding existing underground services is given in good faith after consultation with the relevant authority. No liability is accepted by the Consultant and the main Contractor is responsible for obtaining and checking all information and taking due care and attention whilst undertaking the works.

DRAINAGE NOTES:

- All adoptable pipes, bends and junctions shall be vitrified clay in accordance with the current version of BS EN 295-1, with flexible joints and kitemark certified.
- All Adoptable sewers shall be in strict accordance with the SSG Appendix C - Design and Construction Guidance. Unless otherwise specified adoptable sewers shall be 150mm diameter and shall be laid in a class S bedding. Where the depth to soffit is less than 1.2m under a public highway or 0.5m elsewhere the pipe shall be laid with a class Z bedding.
- All private building drainage shall be constructed in strict accordance with the current version of BS EN 752:2017. Unless otherwise specified building drainage shall be 100mm diameter and shall be laid at a minimum gradient of 1 in 40 for foul drains and 1 in 80 for surface water drains. All building drains shall be laid in class B bedding unless otherwise specified.
- Where a pipe is within 1m of a foundation the trench shall be filled with class GEN 3 concrete up to the lowest level of the foundation. Where the trench is further than 1m from the foundation, the trench shall be filled with class GEN 3 concrete to a level below the lowest level for the foundation equal to the distance from the foundation less 150mm. In both cases the pipe shall be bedded and surrounded in 150mm thick class GEN 3 concrete.
- Where pipes, external to the structures, have a depth to soffit from ground level of less than 450mm they shall have a class GEN 3 concrete encasement (150mm thick). In all other cases the pipes shall be bedded and surrounded with 100mm thick granular material.
- In any circumstances where pipes are bedded and surrounded in concrete flexible joints should be provided. Compressible boards (fibreglass or polystyrene) shall be provided at a maximum of 8m centres (coinciding 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.
- All sumps shall have rodding access plates fitted at their bases (ground floor level).
- Where existing pipes are to be abandoned they shall be dug out together with any abandoned manholes.
- Any discrepancy between the drawing and site should be reported immediately to the Engineer.
- All manhole and chamber sizes are given as a minimum to meet the SSG Appendix C-Design and Construction Guidance



B	05.04.22	AJD	Existing ditch detail added	SRM
A	17.03.22	AJD	Updated to suit Planning Condition 3	SRM
REV	DATE	INT	DESCRIPTION	CHK

Issue Status

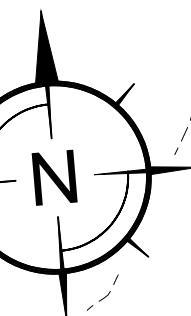
FOR APPROVAL



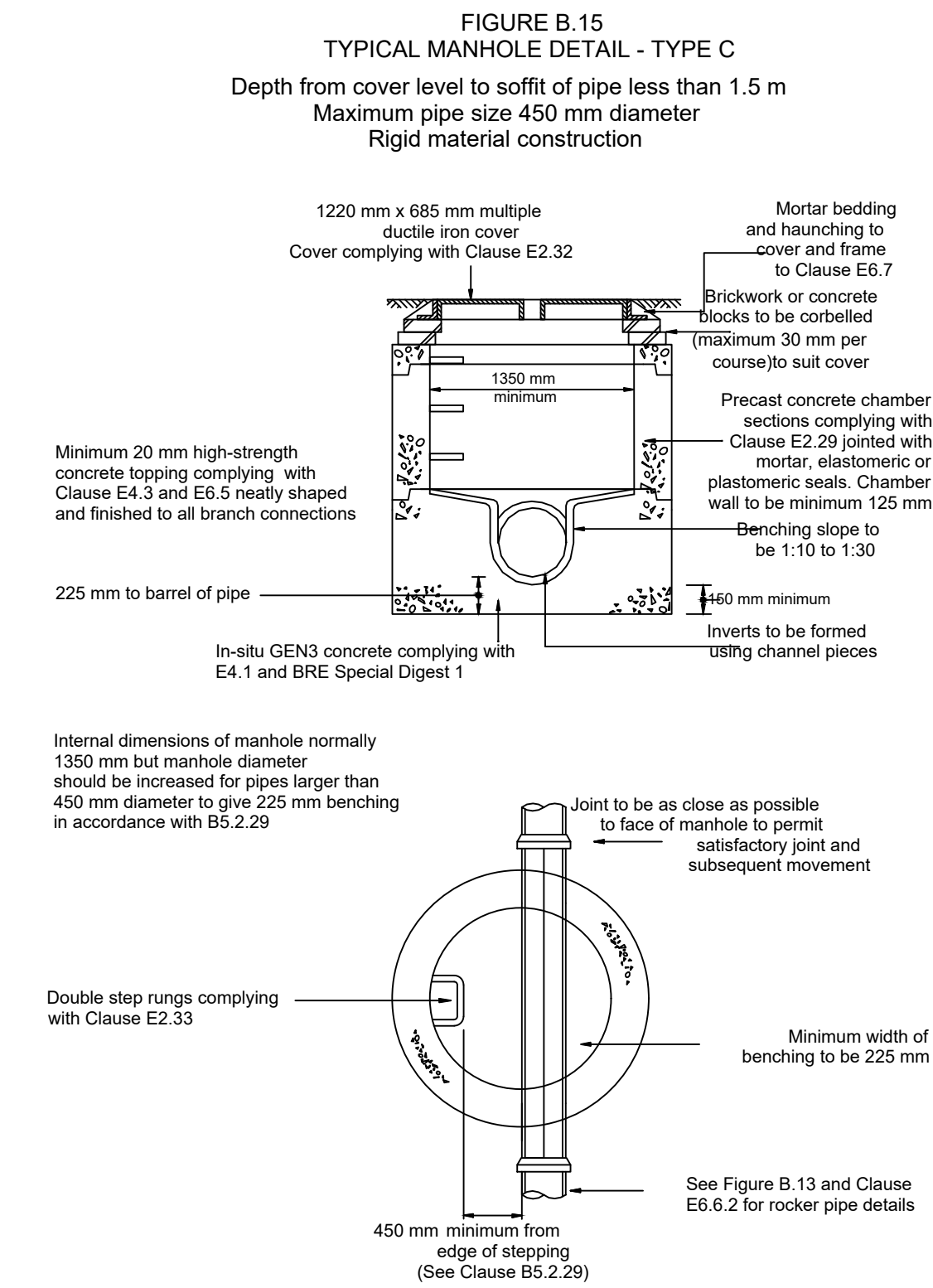
The Civil Engineering Practice
11 Tungsten Building
George Street
Fishergate
Sussex
BN41 1RA
01273 424424
reception@civil.co.uk
www.civil.co.uk

CLIENT	DPS Limited				
PROJECT	Wicks Farm - East, Ford Lane				
TITLE	Site Layout - Proposed Drainage And Levels				
DRAWN	A Davies		DATE	Feb 2022	
ENGINEER	S Magowan		CHECKED	SRM	
SCALE	1:500 @ A1, 1:1000 @ A3				
			PROJECT NO.	23482	
			DRG. No.	101	REV. B

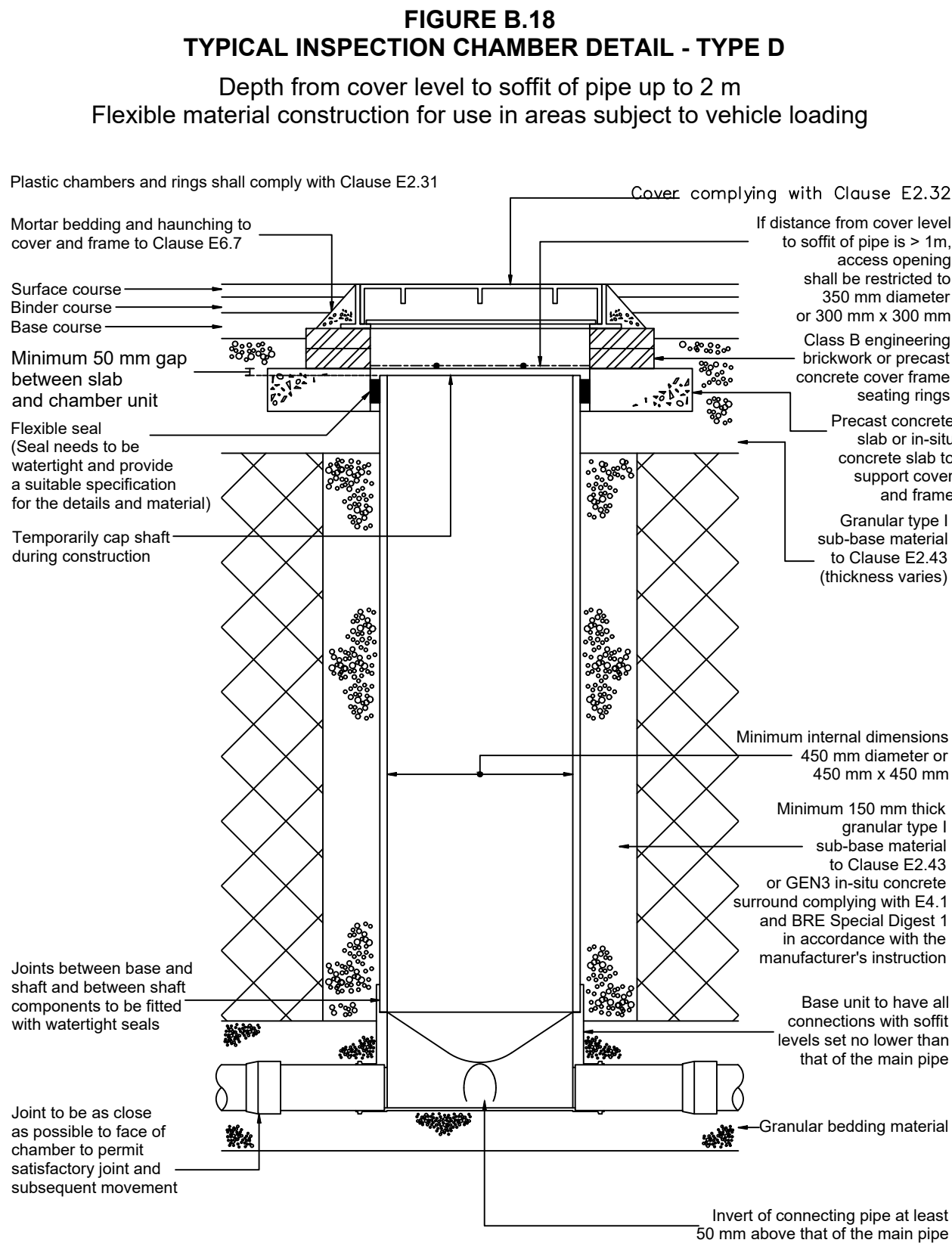
5m 0 5 10 15 20m



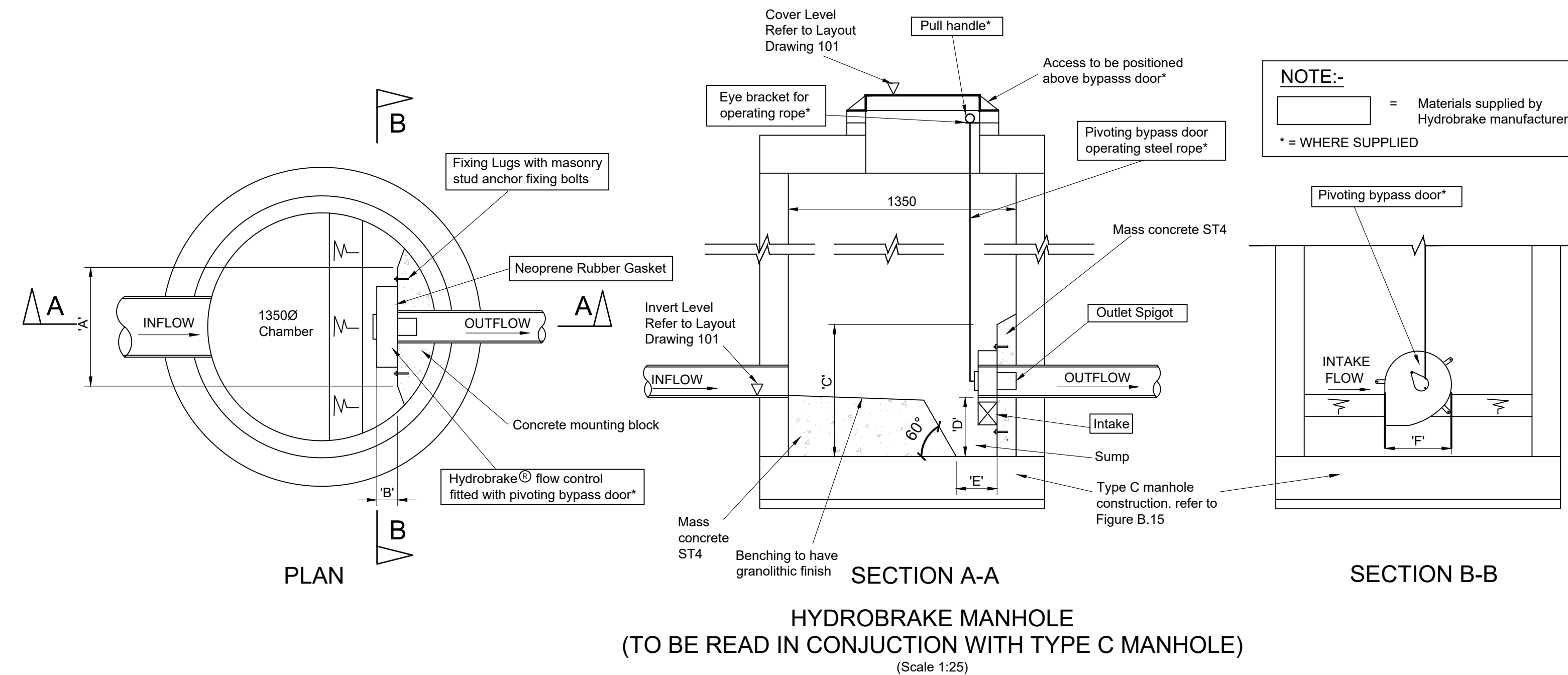
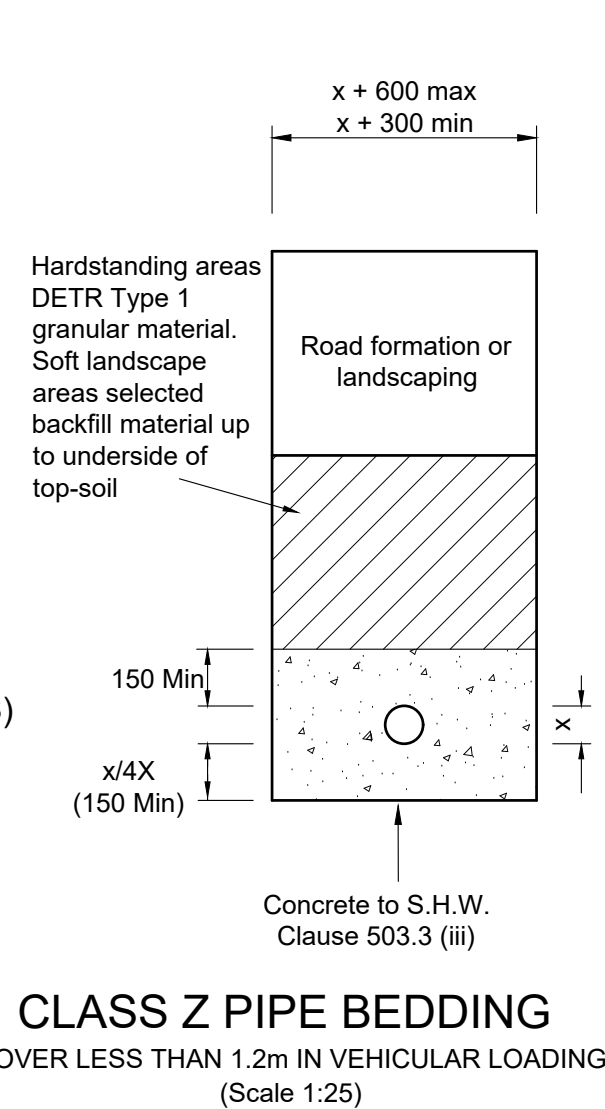
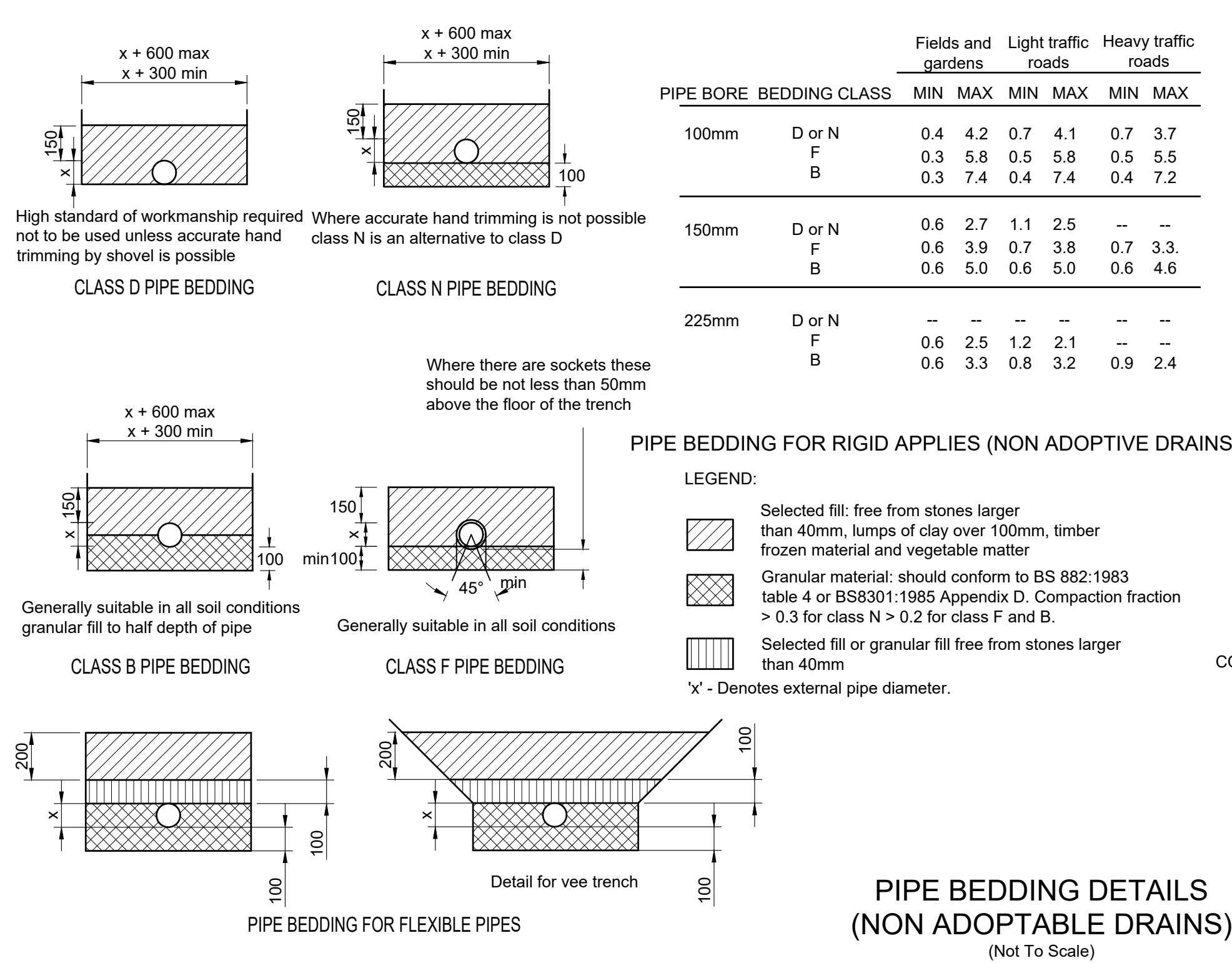
3.0



Not to scale



Not to scale



Hydrobrake HB01 manhole dimensions	
Ref	Dimension mm
'A'	475
'B'	85
'C'	615
'D'	255
'E'	170
'F'	270

Note: All dimensions and specifications shall be confirmed with manufacturer prior to construction

Hydrobrake HB02 manhole dimensions	
Ref	Dimension mm
'A'	530
'B'	90
'C'	675
'D'	275
'E'	180
'F'	325

GENERAL NOTES:

- 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.
- This drawing is to be read in conjunction with all relevant Architect's and Engineer's drawings and specification.
- The main Contractor is responsible for ensuring the stability of the structure whilst the works are in progress.
- Any information given regarding existing underground services is given in good faith after consultation with the relevant authority. No liability is accepted by the Consultant and the main Contractor is responsible for obtaining and checking all information and taking due care and attention whilst undertaking the works.

DRAINAGE NOTES:

- All adoptable pipes, bends and junctions shall be vitrified clay in accordance with the current version of BS EN 295-1, with flexible joints and kitemark certified.
- All Adoptable sewers shall be in strict accordance with the SSG Appendix C - Design and Construction Guidance. Unless otherwise stated adoptable sewers shall be 150mm diameter and shall be laid in a class S bedding. Where the depth to soffit is less than 1.2m under a public highway or 0.5m elsewhere the pipe shall be laid with a class Z bedding.
- All private building drainage shall be constructed in strict in accordance with the current version of BS EN 752:2017. Unless otherwise specified building drainage shall be 100mm diameter and shall be laid at a minimum gradient of 1 in 40 for foul drains and 1 in 80 for surface water drains. All building drains shall be laid in class B bedding unless otherwise specified.
- Where a pipe is within 1m of a foundation the trench shall be filled with class GEN 3 concrete up to the lowest level of the foundation. Where the trench is further than 1m from the foundation, the trench shall be filled with class GEN 3 concrete to a level below the lowest level for the foundation equal to the distance from the foundation less 150mm. In both cases the pipe shall be bedded and surrounded in 150mm thick class GEN 3 concrete.
- Where pipes, external to the structures, have a depth to soffit from ground level of less than 450mm they shall have a class GEN 3 concrete encasement (150mm thick). In all other cases the pipes shall be bedded and surrounded with 100mm thick granular material.
- In any circumstances where pipes are bedded and surrounded in concrete flexible joints should be provided. Compressible boards (fibresorb or polystyrene) shall be provided at a maximum of 8m centres (coinciding 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.
- All syps shall have rodding access plates fitted at their bases (ground floor level).
- Where existing pipes are to be abandoned they shall be dug out together with any abandoned manholes.
- Any discrepancy between the drawing and site should be reported immediately to the Engineer.
- All manhole and chamber sizes are given as a minimum to meet the SSG Appendix C-Design and Construction Guidance

A	17.03.22	AUD	Updated to suit Planning Condition 3	SRM
REV	DATE	INT	DESCRIPTION	CHK

Issue Status FOR APPROVAL

The Civil Engineering Practice
11 Tungsten Building
George Street
Fishergate
Sussex
BN41 1RA
01273 424424
reception@civil.co.uk
www.civil.co.uk

CLIENT: DPS Limited
PROJECT: Wicks Farm - East, Ford Lane
TITLE: Construction Details
DRAWN: A Davies
DATE: Feb 2022
PROJECT NO.: 23482
ENGINEER: S Magowan
CHECKED: SRM
SCALE: As Shown @ A1
REV: 501 A



