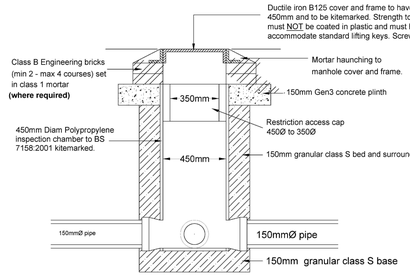
Manhole Number	Cover Level	Pipe			Diam	Type	
	Depth to invert	Inverts	Diams	Length / Gradient		Cover	Manhole
PF1	131.35 / 1.55	129.80	150	L=4.00 / 1/10	450	B125 450 x 450 with 350 Dia reducing ring.	Polypropylene Inspection Chamber (PPIC)
PF2	131.45 / 1.95	129.50	150	L=4.50 / 1/7	450	B125 450 x 450 with 350 Dia reducing ring.	Polypropylene Inspection Chamber (PPIC)
PF3	131.25 / 1.95	129.30	150	L= 6.50 / 1/11	450	B125 450 x 450 with 350 Dia reducing ring.	Polypropylene Inspection Chamber (PPIC)
PF4	131.00 / 1.75	129.25	150	L= 8.50 / 1/10	450	B125 450 x 450 with 350 Dia reducing ring.	Polypropylene Inspection Chamber (PPIC)
PF5	131.85 / 3.10	128.75	150	L= 9.50 / 1/14	1200	B125 600 x 600	Type B Manhole
PF6	130.60 / 1.70	128.90	150	L= 4.50 / 1/45	450	B125 450 x 450 with 350 Dia reducing ring.	Polypropylene Inspection Chamber (PPIC)
PF7	129.00 / 1.85	127.15	150	L= 10.00 / 1/50	450	B125 450 x 450 with 350 Dia reducing ring.	Polypropylene Inspection Chamber (PPIC)

Manhole Number	Cover Level	Pipe			Diam	Type	
	Depth to invert	Inverts	Diams	Length / Gradient		Cover	Manhole
PF8	128.10 / 2.20	125.90	150	L=10.00 / 1/12	1200	B125 600 x 600	Type B Manhole
PF9	125.60 / 1.60	124.00	150	L=5.00 / 1/50	450	B125 450 x 450 with 350 Dia reducing ring.	Polypropylene Inspection Chamber (PPIC)
PF10	125.60 / 1.70	123.90	150	L= 10.00 / 1/12	450	B125 450 x 450 with 350 Dia reducing ring.	Polypropylene Inspection Chamber (PPIC)
PF11	122.75 / 1.95	120.80	150	L= 7.50 / 150	450	B125 450 x 450 with 350 Dia reducing ring.	Polypropylene Inspection Chamber (PPIC)
PF13	131.90 / 1.60	130.30	150	L= 6.50 / 1/11	450	B125 450 x 450 with 350 Dia reducing ring.	Polypropylene Inspection Chamber (PPIC)
PF14	131.75 / 1.95	129.80	150	L= 4.00 / 1/8	450	B125 450 x 450 with 350 Dia reducing ring.	Polypropylene Inspection Chamber (PPIC)
PF15	131.80 / 1.95	129.85	150	L= 7.50 / 1/12	450	B125 450 x 450 with 350 Dia reducing ring.	Polypropylene Inspection Chamber (PPIC)

Manhole Number	Cover Level	Pipe			Diam	Type	
	Depth to invert	Inverts	Diams	Length / Gradient		Cover	Manhole
PF16	131.20 / 1.80	129.40	150	L=6.50 / 1/11	450	B125 450 x 450 with 350 Dia reducing ring.	Polypropylene Inspection Chamber (PPIC)
PF17	124.50 / 1.65	122.85	150	L=7.00 / 1/10	450	B125 450 x 450 with 350 Dia reducing ring.	Polypropylene Inspection Chamber (PPIC)
PF18	125.75 / 1.65	124.10	150	L= 7.50 / 1/11	450	B125 450 x 450 with 350 Dia reducing ring.	Polypropylene Inspection Chamber (PPIC)
PF19	125.25 / 1.45	123.80	150	L= 5.00 / 1/100	450	B125 450 x 450 with 350 Dia reducing ring.	Polypropylene Inspection Chamber (PPIC)
PF20	123.85 / 1.85	122.00	150	L= 8.50 / 1/57	450	B125 450 x 450 with 350 Dia reducing ring.	Polypropylene Inspection Chamber (PPIC)
PF21	122.25 / 1.55	120.70	150	L= 9.50 / 1/24	450	B125 450 x 450 with 350 Dia reducing ring.	Polypropylene Inspection Chamber (PPIC)

DEMARCATION CHAMBER LOCATED IN GARDENS DETAIL

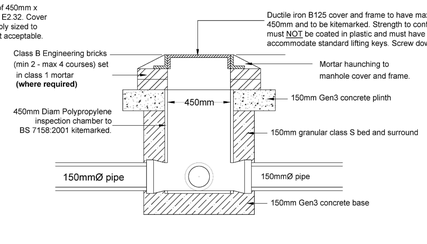
Depth from cover level to invert level of pipe chamber greater than 1200mm (maximum depth 2000mm).
Maximum lateral drain diameter 150mm



DEMARCATION CHAMBER LOCATED IN GARDENS DETAIL

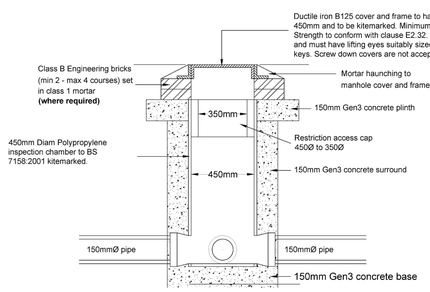
Depth from cover level to invert level of pipe chamber less than 1200mm.

Maximum lateral drain diameter 150mm



DEMARCATION CHAMBER LOCATED IN DRIVEWAY

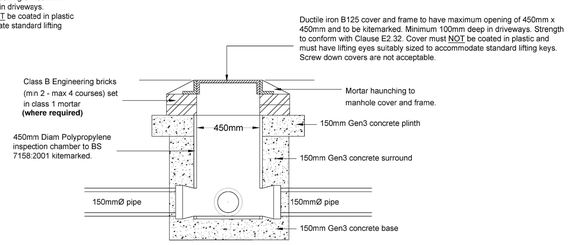
Depth from cover level to invert level of pipe chamber greater than 1200mm (maximum depth 2000mm).
Maximum lateral drain diameter 150mm



DEMARCATION CHAMBER L0CATED IN DRIVEWAY

Depth from cover level to invert level of pipe chamber less than 1200mm.

Maximum lateral drain diameter 150mm



Pipes

Diameter (mm)	Gradient	
	Foul	S.W.
100	1:80	-
150	1:80	1:80

Vitrified clay pipes to BS EN 295 kitemarked.
Unplasticised PVC pipes to BS 4660:200 & BS EN 1401-1 kitemarked.
Structured Wall Unplasticisd PVC pipes to WIS 4-35-01 kitemarked.

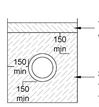
Demarcation chamber covers & frames

Surface	Class (Loading in kN)	Loading
Road	D400	Vehicle Impact
Footway & Driveway	B125	Occasional vehicle loading
Gardens	B125	Pedestrian/cyclist

LATERAL DRAIN BEDDING DETAIL

Minimum depth of Lateral drains

Location	Minimum Depth (m)
Gardens	0.9
Agricultural/Open spaces	0.9
Driveways (trafficked areas)	1.2 (see detail)



Trench fill under roads to conform with Highways requirements.

Single-size granular material.
10mm for 100mmØ pipes.
10 or 14mm for 150mmØ pipes.
14 or 20mm for 225mmØ pipes.

Adoptable Connection (Laterals) - Pipes.

Vitrified Clay Pipes to BS EN 295 kitemarked.

Unplasticised PVC pipes to BS 4660:2000
& BS EN 1401-1 kitemarked.

Structured Wall Unplasticised PVC pipes to WIS 4-35-01 kitemarked.

Product Name	Diameter (mm)	Manufacturer	Material
SuperSleve	100 & 150 (I.D.)	Hepworth	Vitrified Clay
Superseal	150 (I.D.)	Hepworth	Vitrified Clay
Densleeve	100, 150 (I.D.)	Naylor	Vitrified Clay
Denseal	100, 150 (I.D.)	Naylor	Vitrified Clay
Ultra Fortis	150 to 300	Uponor	uPVC
Ultra-Drain	110 & 160 (O.D.)	Uponor	uPVC
Plastidrain	110 & 160 (O.D.)	Hepworth	uPVC
OsmaDrain	110 & 160 (O.D.)	Wavin	uPVC
Osma UltraRib	150 (I.D.)	Wavin	uPVC
Solid Wall	110 & 160 (O.D.)	Marley	uPVC
Quantum	150 (I.D.)	Marley	uPVC
Underground Drain	110 & 160 (O.D.)	Polypipe	uPVC
Ridgisewer	150 (I.D.)	Polypipe	uPVC

Adoptable Connection (Laterals) - Pipe Bedding.

Pipes shall be provided with single size full granular bed and surround (class S). Pipes in highway with less than 1.2 metres cover shall not be plastic and shall be protected by reinforced concrete slab placed above.

Adoptable Connection (Laterals) - Size and Gradients.

Foul: 100mm less than 10 properties min gradient 1:80
150mm greater than 10 properties min gradient 1:150

Combined: 150mm less than 10 properties min gradient 1:100
150mm greater than 10 properties min gradient 1:150

Surface Water: Minimum diameter is 150mm at min gradient 1:150

Adoptable Connection (Laterals) - Demarcation Chambers.

Polypropylene Inspection chambers to BS 7158:2001 kitemarked, min. 450mm diameter, up to 2.0 metres deep.

Codes for Adoption Type B manhole, 1200mm diameter, greater than 2m deep.

Manufacturer	Product Name	Material	Max. Depth	Cover Type
Naylor	Plastic Inspection Chamber	Polypropylene	Up to 1200mm	Class B125
Hepworth	PPIC	Polypropylene	Up to 1200mm	Class B125
Uponor	Inspection Chamber (450mm Ø)	Polypropylene	Up to 1200mm	Class B125
Marshalls	Inspection Chamber To BS5911 pt 2	Precast Concrete	Up to 1000mm	Class B125
Wavin	Osma UltraRib Inspection Chamber	Polypropylene	Up to 1200mm	Class B125
Wavin	OsmaDrain Universal Inspection Chamber	Polypropylene	Up to 1200mm	Class B125
Wavin	Non Entry Inspection Chamber	Polypropylene	Up to 2000mm	Class B125
Marley	Inspection Chamber (450mm Ø)	Polypropylene	Up to 1200mm	Class B125
Polypipe	110mm Inspection Chamber (460mm Ø)	Polypropylene	Up to 1200mm	Class B125
Polypipe	Non Man Entry Deep Inspection Chamber System	Polypropylene	Up to 2000mm	Class B125

Concrete surround shall be provided to demarcation chamber where subject to vehicle loading (e.g. driveways). For depths in excess of 1.2m a restricted access opening 350mm diameter (or 300x300mm) shall be used.

Alternatively, pre-cast concrete ring manhole to 'Codes for Adoption' Specification may be used as demarcation chamber. Chamber covers shall be ductile iron and appropriate strength for area situated (minimum classification B125).

Haigh Huddleston & Associates

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Client
AVANT HOMES

Project
HEY GREEN LANE, BIRDWELL

Detail
FWS LATERAL MANHOLE SCHEDULE

Dwn	Chkd	Date	Scale	Dwg No.
HH		Mar 2023	NTS@A1	E23/8034/008-02