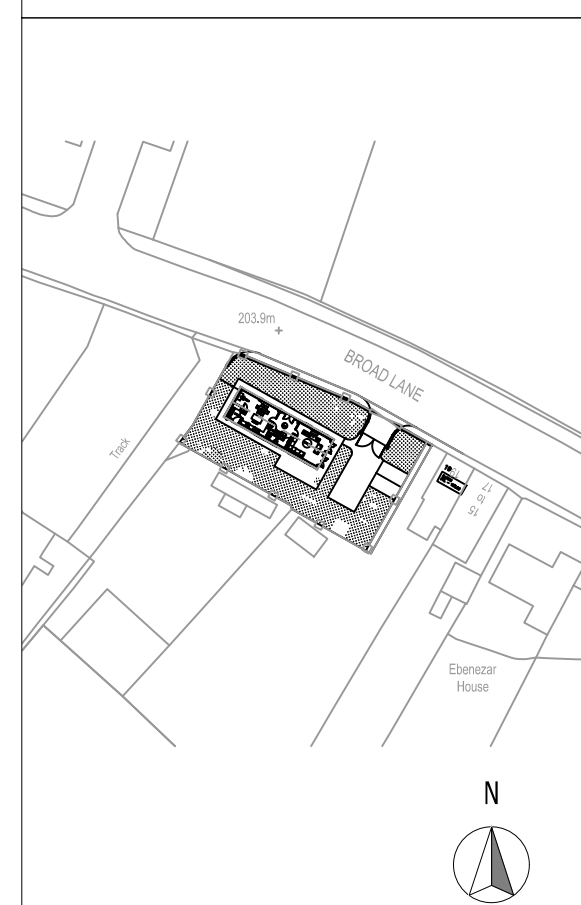
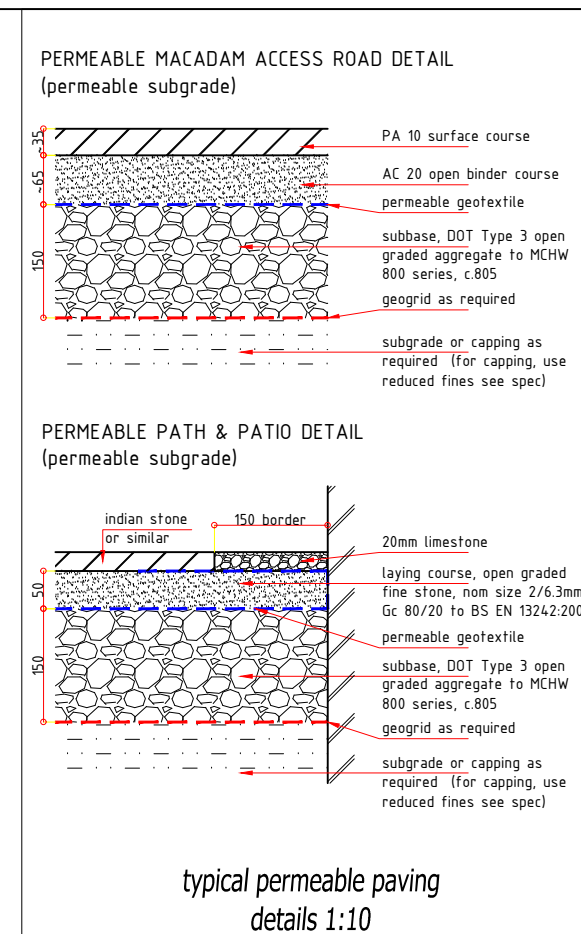




GENERAL NOTES

1 THIS DRAWING IS COPYRIGHT & IS SENT TO YOU IN CONFIDENCE IT MUST NOT BE COPIED, USED OR DISCLOSED, IN WHOLE OR IN PART, TO THIRD PARTIES WITHOUT WRITTEN PERMISSION. IT REMAINS THE PROPERTY OF TJB AND MUST BE RETURNED ON REQUEST.

0.1 THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT CONTRACTUAL DOCUMENTS.

0.2 All dims in mm unless o/w stated.

0.3 All levels to SITE DATUM.

0.4 Refer to architects details for SBM.

0.5 Contractor to confirm SPM/SOL's prior to ordering material/ construction.

0.6 Do not scale, the contractor must verify all dims prior to commencing shop drawings or work on site.

0.7 All work to be carried out in accordance with CDM 2015.

10. HIGHWAYS/ACCESS ROADS & PRIVATE DRIVES.

1.1 Private driveway to comprise permeable paving, refer to permeable details on drawing.

20. DRAINAGE.

2.1 To be read in conjunction with T J Booth Associates drainage calculations.

2.2 Manhole cover levels indicative only, to be adjusted to suit final finish site levels.

3.2 Sewers/manholes to be constructed in accordance with the water authorities sewers for adoption (edition as applicable), B. Regs. Approved Doc. H, and BS EN 752-4.

2.4 Class 5 granular bed and surround to all new sewers.

2.5 Sewers must have min 150th concrete surround if:-

- adoptable assets with less than 12m of cover under highways or driveways;
- private assets with less than 900mm of cover under private driveways.

2.6 All c/s including pipes and manholes to be sulphate resisting unless otherwise agreed in writing by eng.

2.7 For water to be to the following gradients in accordance with Brgs and Sewers For Adoption:

- 100+ at gradients not less than 180 where at least 1 WC is connected and not less than 140 where no WC is connected.
- 150+ foul gradients to be not less than 150 with at least 5 WCs connected.

2.8 Surface water must be to the following gradients in accordance with Brgs:

- 100+ at gradients not less than 100.
- 150+ foul gradients to be not less than 150.

2.8 Adoptable surface water must be to the following gradients in accordance with Sewers for Adoption:

- 100+ at gradients not less than 160.
- 150+ foul gradients to be not less than 100.

3.0 MANHOLES

3.1 Manhole diameters to be in accordance with SFA clause 2.9.3, and according to largest manhole pipe diameter:

Pipe dia	MH dia
>375	1200;
375-700	1500;
750-900	1800.

5.2 Rocker pipes (clause 5.6.6.2) to be the following lengths:

150-600m;	0.6m;
600-700m;	1.0m;
>700m;	1.25m.

3.2 Inspection chambers/manholes to have min 150granular surround in soft landscaping areas and not less than 150 c/s surround to driveways/car parks.

3.3 Manhole covers and frames shall comply with the relevant provisions of bs. en 124 and shall be of non-rocking design which does not rely on the use of cushion inserts.

3.4 Cover sizes to be in strict accordance with adoptive undertakers standard requirements.

3.5 Cover strength (clause 5.7.1.1) comprising minimum strength for location as follows:

Roads/Highways	D400 Light Vehicle Impact;
Car Parks	C250 Light Vehicle Impact;
Footway/Driveway	B125 Occasional vehicle loading;
Gardens	A15 Pedestrian & cyclist ONLY.

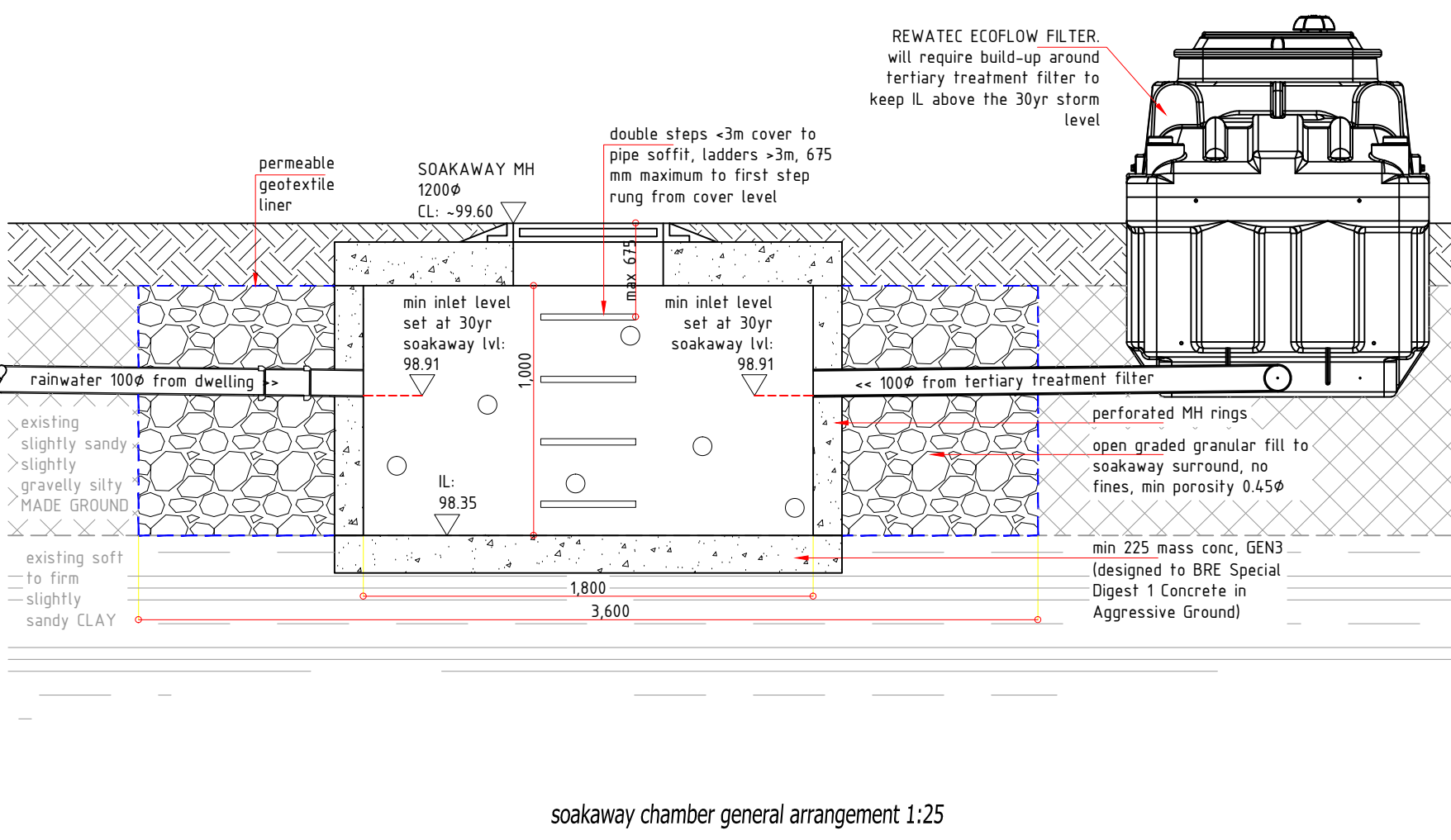
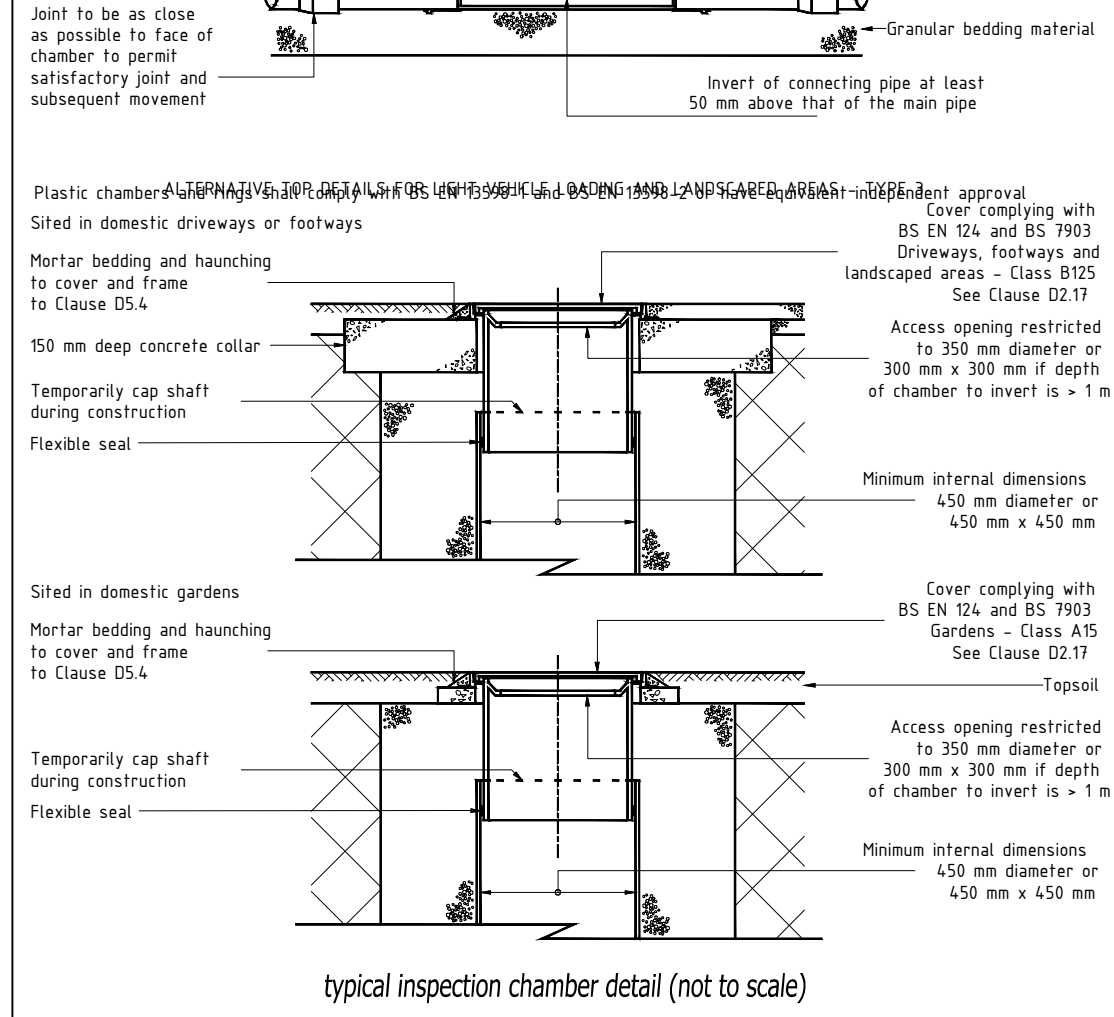
3.6 All manhole covers shall be the non-venting type (unless indicated otherwise) and shall have closed keys.

3.7 Manhole frames (clause 5.6.7.1) to be set to level, bedded and haunched externally over the base and sides of the frame in mortar, in accordance with the manufacturers instructions. The frame shall be seated on not less than 2 courses of class B engineering brick, on precast concrete masonry units or on precast concrete cover frame seating rings to regulate the distance between the top of the cover and the top ring to no greater than 675mm. A mortar fillet shall be provided where the corners to an opening in a slab are chamfered and the brickwork is not flush with the edges of the opening.

NPFF HIERARCHY OF SURFACE WATER DISCHARGE OPTIONS		
DISCHARGE TYPE	METHOD ADOPTED	REASONING
1 into the ground (infiltration)	YES	Site investigation confirmed sandy silty made ground & subsequent infiltration tests have confirmed site subsoil is suitable for infiltration.
2 to a surface water body	NO	Not available.
3 to a SW sewer, highway drain, or another drainage system	NO	Not available.
4 to a combined sewer	NO	Not available.

CIRIA C753 TABLE 13.1 OPERATION & MAINTENANCE REQUIREMENTS FOR SOAKAWAYS			
MAINTENANCE SCHEDULE	REQUIRED ACTION		TYPICAL FREQUENCY
Regular maintenance	Inspect for sediment and debris in pre-treatment components and floor of inspection tube or chamber and inside of concrete manhole rings		Annually
	Cleaning of gutters and any filters on downpipes		Annually (or as required based on inspections)
	Trimming any roots that may be causing blockages		Annually (or as required)
Occasional maintenance	Remove sediment and debris from pre-treatment components and floor of inspection tube or chamber and inside of concrete manhole rings		As required, based on inspections
Remedial actions	Reconstruct soakaway and/or replace or clean void fill, if performance deteriorates or failure occurs		As required
	Replacement of clogged geotextile (will require reconstruction of soakaway)		As required
Monitoring	Inspect pit traps and note rate of sediment accumulation		Monthly in the first year and then annually
	Check soakaway to ensure emptying is occurring		Annually

MAINTENANCE SCHEDULE	REQUIRED ACTION	TYPICAL FREQUENCY
Regular maintenance	Brushing and vacuuming (standard cosmetic sweep over whole surface)	Once a year, after autumn leaf fall, or reduced frequency as required, based on site-specific observations of clogging or manufacturer's recommendations – pay particular attention to areas where water runs onto pervious surface from adjacent impermeable areas as this area is most likely to collect the most sediment
Occasional maintenance	Stabilise and mow contributing and adjacent areas Removal of weeds or management using glyphosate applied directly into the weeds by an applicator rather than spraying	As required As required – once per year on less frequently used pavements
Remedial Actions	Remediate any landscaping which, through vegetation maintenance or soil slip, has been raised to within 50 mm of the level of the paving Remedial work to any depressions, rutting and cracked or broken blocks considered detrimental to the structural performance or a hazard to users, and replace lost jointing material Rehabilitation of surface and upper substructure by remedial sweeping	As required As required Every 10 to 15 years or as required (if infiltration performance is reduced due to significant clogging)
Monitoring	Initial inspection Inspect for evidence of poor operation and/or weed growth – if required, take remedial action Inspect silt accumulation rates and establish appropriate brushing frequencies	Monthly for three months after installation Three-monthly, 48 h after large storms in first six months Annually
	Monitor inspection chambers	Annually



soakaway chamber general arrangement 1:25			
DRAINAGE KEY			
EXISTING FOUL SEWER		EXISTING COMBINED SEWER	
EXISTING SURFACE WATER SEWER		PROPOSED FOUL SEWER	
PROPOSED COMBINED SEWER		PROPOSED SURFACE WATER SEWER	
MANHOLE			
INSPECTION CHAMBER			
COVER LEVEL			
INVERT LEVEL			
SEWER BACKDROP			
SOIL & VENT PIPE			
SOIL PIPE			
RAIN WATER PIPE			
SURFACE WATER GULLY			
FOUL GULLY			
PLANNING ONLY			
AMENDMENTS/ ISSUES			
0	original for planning	april 2024	ds
REVISION	REASON/ CHANGE	DATE	BY

J B O O T H A S S O C I A T E S



20A Eastgate Street
Rochdale
Lancashire
OL16 1DH
Tel: 01706 868288

CONSULTING CIVIL & GEOTECHNICAL ENGINEERS

Johnson / 19 Broad Lane (land adj), Rochdale

DRAINAGE PLAN & DETAILS

FILE NAME: dwg-tjba-johnson-19 broad ln-290424

SCALE: 1 : 100 @ A2 & as indicated