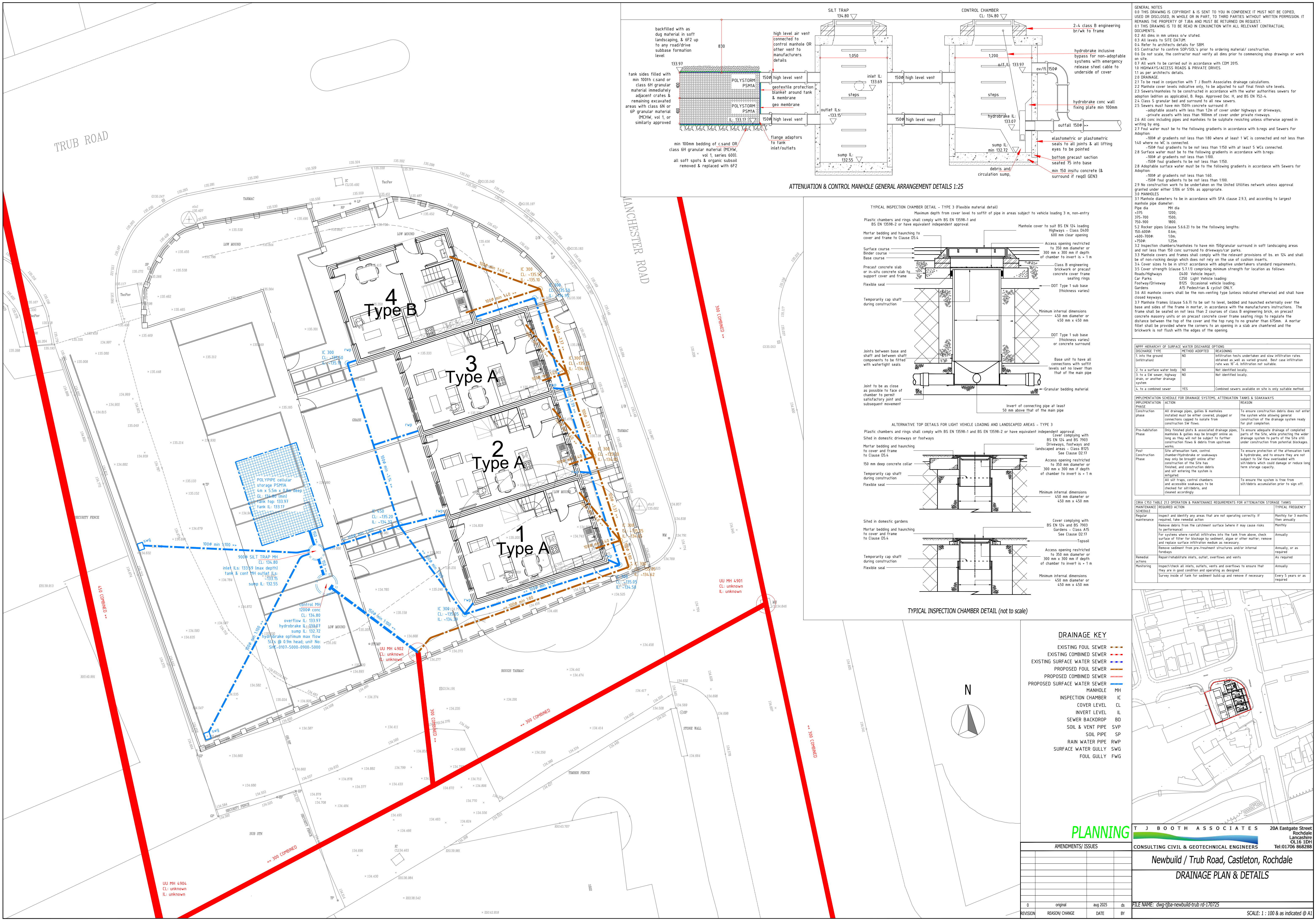




GENERAL NOTES

0.0 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 T J B & 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 SPM.

0.5 Contractor to confirm SPM/S&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.

1.0 HIGHWAYS/ACCESS ROADS & PRIVATE DRIVES.

1.1 as per architects details.

2.0 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.

2.3 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 152-4.

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 100mm of cover under private viewings.

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

2.7 Foul water must be to the following gradients in accordance with B Regs 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 B Regs:

- 100@ at gradients not less than 1100.
- 150@ foul gradients to be not less than 150.

2.9 No construction work to be undertaken on the United Utilities network unless approval granted under either S106 or S104 as appropriate.

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

3.2 Inspection chambers/manholes to have min 150 granular surround in soft landscaping areas and not less than 150 conc 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-racking 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) comprising minimum strength for location as follows:

Footway/Driveway	C250 Light Vehicle Loading
Gardens	B125 Occasional Vehicle Loading
Car Parks	A15 Pedestrian & cyclist ONLY.

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

3.7 Manhole frames (clause 5.6.7) 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 sealed on not less than 2 courses of class B engineering brick, on precast concrete masonry units or on precast concrete cover frame sealing rings to regulate the distance between the top of the cover and the top rung to no greater than 475mm. 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)	NO	Infiltration tests undertaken and slow infiltration rates obtained as well as varied ground. Best case infiltration rate was 10^-5. Infiltration not suitable.
2 to a surface water body	NO	Not identified locally.
3 to a SW sewer, highway drain, or another drainage system	NO	Not identified locally.
4 to a combined sewer	YES	Combined sewers available on site is only suitable method.

IMPLEMENTATION SCHEDULE FOR DRAINAGE SYSTEMS, ATTENUATION TANKS & SOAKAWAYS

IMPLEMENTATION PHASE	ACTION	REASON
Construction phase	All drainage pipes, gullies & manholes installed must be either covered, plugged or connections capped to isolate from construction SW flows.	To ensure construction debris does not enter the system while allowing general construction of the drainage system ready for start completion.
Pre-habilitation Phase	Only finished plots & associated drainage pipes, manholes & gullies may be brought online as long as they will not be subject to further construction flows & debris from upstream works.	To ensure adequate drainage of completed parts of the Site, while protecting the wider drainage system to parts of the Site still under construction from potential blockages.
Post Construction Phase	Site attenuation tank, control chamber/hydrobrake or soakaway may only be brought online after construction of the Site has finished, and construction debris and silt entering the system is mitigated. All air traps, control chambers and accessible soakaways to be checked for air-tightness, and cleaned accordingly.	To ensure protection of the attenuation tank & hydrobrake, and to ensure they are not subject to SW flow overloaded with silt/debris which could damage or reduce long term storage capacity. To ensure the system is free from silt/debris accumulation prior to sign off.

CRIPA CP3 TABLE 213 OPERATION & MAINTENANCE REQUIREMENTS FOR ATTENUATION STORAGE TANKS

MAINTENANCE SCHEDULE	REQUIRED ACTION	TYPICAL FREQUENCY
Regular	Inspect and identify any areas that are not operating correctly. If required, take remedial action.	Monthly for 3 months then annually
Remedial actions	Remove debris from the catchment surface (where it may cause risks to performance). For systems where rainfall infiltrates into the tank from above, check surface of filter for blockage by sediment, algae or other matter, remove and replace surface infiltration medium as necessary. Remove sediment from pre-treatment structures and/or internal forebay.	Annually
Monitoring	Repair/rehabilitate inlets, outlets, overflows and vents as required.	As required
	Inspect/check all inlets, outlets, vents and overflows to ensure that they are in good condition and operating as designed.	Annually
	Survey inside of tank for sediment build-up and remove if necessary.	Every 5 years or as required

PLANNING

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CONSULTING CIVIL & GEOTECHNICAL ENGINEERS

Newbuild / Trub Road, Castleton, Rochdale

DRAINAGE PLAN & DETAILS

AMENDMENTS/ ISSUES	REASON/ CHANGE	DATE	BY
0	original	aug 2025	ds

FILE NAME: dwg-tjb-newbuild-trub rd-170725

SCALE: 1 : 100 & as indicated @ A1