

NOTE:- Drainage designed to contain a 1 in 30 year storm event. No flooding volume generated by the 1 in 100 year +40% Climate change event

Prior to any construction, the contractor must confirm the precise invert level and pipe diameter of the receiving drainage system and must immediately advise RSK of any variation to that upon which the design has been based.

The details provided on this drawing are subject to comments by all the relevant approving authorities. Until such time as all comments have been received and incorporated onto the drawings, all the information provided and costings, are used at PNHA risk and no liability will be accepted by RSK. Scheme based on Jay Ashall's site plan titled email to project team.

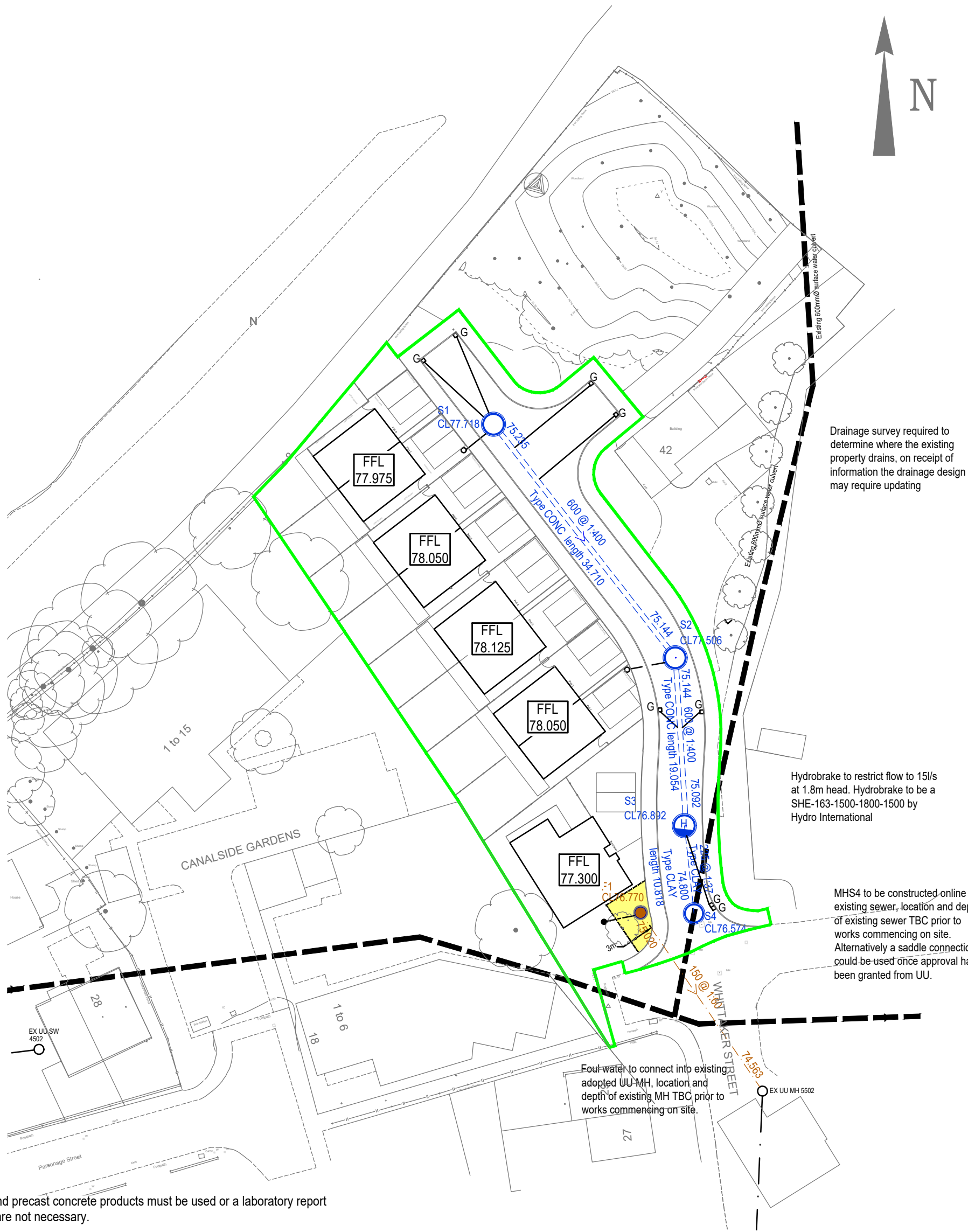
Drainage Legend:

- F1 Proposed adoptable foul water sewer and manhole
- FD1 Foul water lateral connection and demarcation manhole
- S1 Proposed adoptable surface water sewer and manhole
- SD1 Surface water lateral connection and demarcation manhole
- G Proposed road gully with 150mm dia. connecting pipe
- Proposed drainage easement
- Existing foul water
- Existing surface water
- Development Boundary
- Highway drain & Manhole

Notes

- All adoptable sewer works and material to be in accordance with Sewers for Adoption 6th Edition, The Relevant British/European and United Utilities' Standards/Requirements/Addendum and Kitemarked.
- Manhole covers shall have a minimum clear opening of 600mm and shall be Class D400 to BS EN 124 with 150mm deep frames in highways.
- Filled ground must be filled and consolidated under the supervision and to the satisfaction of United Utilities before any sewer works are carried out.
- United Utilities is not obliged to accept filter drain/land drainage run-off into the public sewer network or adoptable drainage system (directly or in-directly). An alternative method of disposal of the land drainage run-off will therefore be required and you will have to liaise with the Local Authority, Land Drainage Section with regard to the disposal of the filter drain/land drainage run-off.
- Cover slabs must carry the BSI Kitemark or will be rejected by United Utilities Inspector. Where the clear opening of the Kitemarked product is different to that of the cover and frame, a loading bearing slab should be fitted above the cover slab to bring the size down to 600mm x 600mm for the United Utilities specified cover size. Please refer to Concrete Pipe Systems Association (CPSA), 'Technical Bulletin' issued Autumn 2004 for Kitemarked cover slab opening sizes.

- Sulphate resistant cement (C20-DC2) and precast concrete products must be used or a laboratory report provided proving that such precautions are not necessary.
- The adoptable sewers should be a minimum of 1m and manholes 0.5m from kerb faces and service margins.
- Sewers must have 6 metres clearance from trees and hedges (please also refer to Figure 2.3 on page 33 in Sewers for Adoption 6th Edition for restrictions on tree planting adjacent to sewers).
- Unless noted otherwise, sewers are to be laid in Class S bedding in accordance with United Utilities standard details. Where depth of cover to top of the sewer is less than 1.2m in highways and verges (or less than 900mm in none vehicular access areas) then a concrete bed and surround shall be provided.
- Bedding and backfill material to conform to the requirement of Water Industry Specification 4-08-02 (Table A2) and in accordance with United Utilities' standard embedment details.
- United Utilities policy is not to accept Type "C" brick manholes and 1050mm dia manhole rings. Instead it is preferred that you use a type "B" manhole with 1500mm dia rings, with the opening sited over the channel where depth of cover to pipe soffit is 1 - 1.5m.
- All lateral drains to be 150mm dia. laid at 1 in 100 unless noted otherwise.
- Sewers sized to accommodate 1 in 30 year flows, with no flooding in 1 in 30 year critical event.



CIVIL / STRUCTURAL DESIGN RISK MANAGEMENT

Abnormal or unusual residual risks associated with the design outcomes shown on this drawing are:-

RSK LDE LTD has followed its Design Risk Management process for Hazard Elimination and Risk reduction in developing the designs shown on this drawing. Abnormal or unusual residual risks may be shown above where it is considered that such risk may not normally be expected by competent persons engaged on work of this nature or type.

Rev.	Date	Amendment	Drawn	Chkd.	Appd.
P9	23.08.22	Site boundary & site plan updated			
P8	01.08.22	Revised Boundary		AP	MAR
P7	02.07.21	Latest Issue		PT	MAR



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Client
**Prestwich & Northwestern
Housing Association**

Project Title
**Whittaker House
Whittaker Street
Bury**

Status
Approval

Drawing Title
S104 Agreement Plan

Drawn	Date	Checked	Date	Approved	Date
AN	Nov 16	MAR	Nov 16		
Scale	1:500	Orig Size	A2	Dimensions	
Project No.	881025	Drawing File			
Drawing No.	40-09	Rev.	P9		

