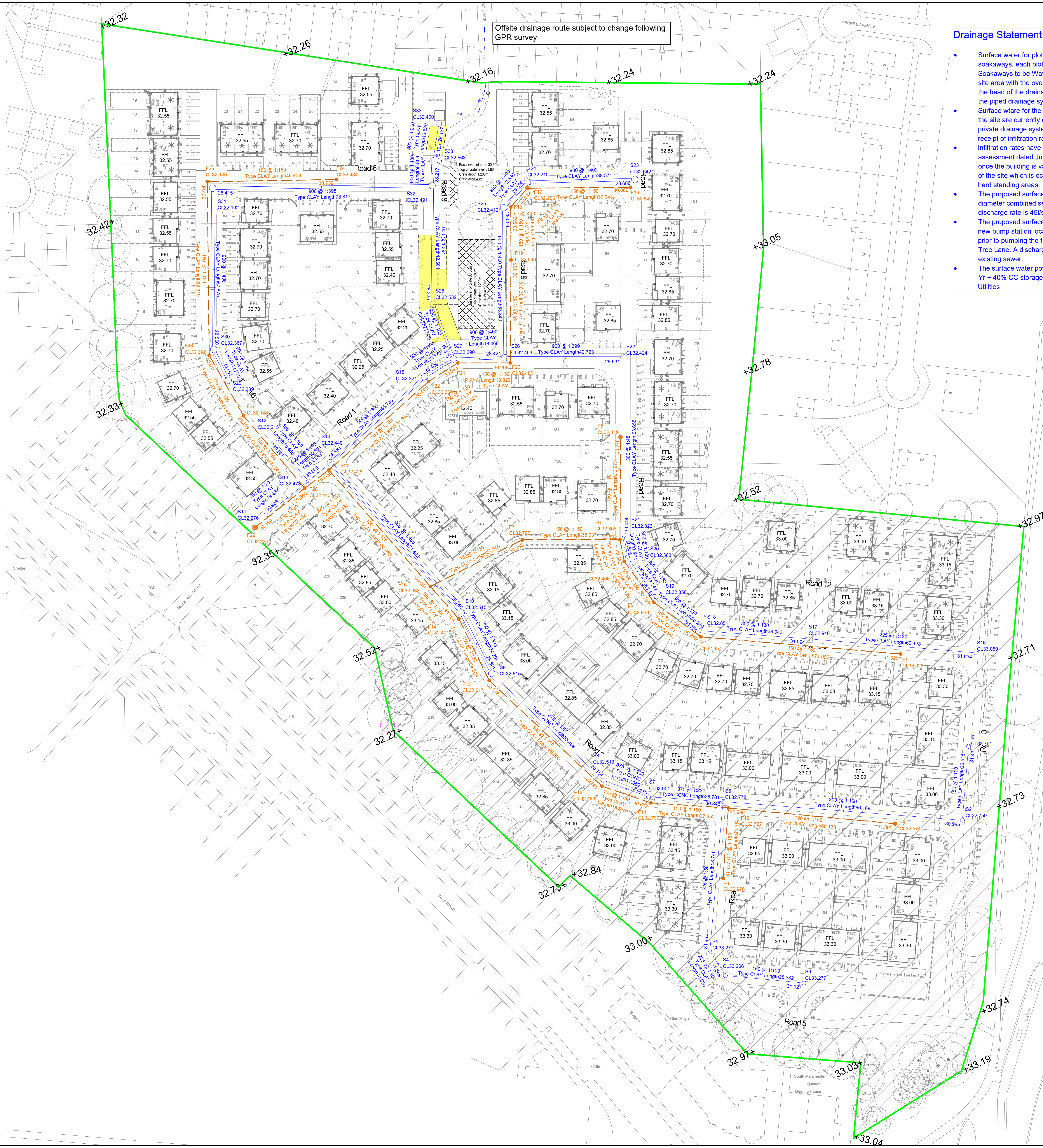




Offsite drainage route subject to change following GPR survey

Drainage Statement - Surface Water

- Surface water for plots and private areas to drain into private plot soakaways, each plot is to have its own individual soakaway. Soakaways to be Wavin Aquacell or similar approved, this is for the site area with the overall hatch in the background. Associated plots at the head of the drainage runs within the hatch area are to drain into the piped drainage system
- Surface water for the plots and private areas in the northern area of the site are currently design to drain into the proposed adoptable private drainage system. This area is subject to change following receipt of infiltration rates for this area.
- Infiltration rates have been taken E3p Phase 2 Geotechnical assessment dated July 2020. Further infiltration testing will be required once the building is vacant in order to confirm rates in the center/north of the site which is occupied by an existing building and associated hard standing areas.
- The proposed surface water drainage connection point is the 225mm diameter combined sewer beneath Yew Tree Lane, the agreed discharge rate is 45l/s
- The proposed surface water drainage system is designed to drain to a new pump station located to the north of the proposed development prior to pumping the flows to the agreed point of connect beneath Yew Tree Lane. A discharge MH will be required prior to draining into the existing sewer.
- The surface water power failure storage is catered for within the 1:100 Yr + 40% CC storage - This is subject to agreement with United Utilities

Drainage Statement - Foul Water

- Proposed foul drainage is to drain into the existing 225mm diameter sewer located beneath Moss Hey Drive as agreed with United Utilities

Prior to detailed design, the Client must confirm the precise invert level, condition, location 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 Miller Homes risk and no liability will be accepted by RSK. Scheme based on Miller Homes site plan 2131/SL/01 Rev B.

Note -
Appraisal based on the following :
1:2 year- No Flooding
1:30 year- No Flooding
1:100 year + 40% Climate change event overflow into offline crates for highways

Plot soakaway based on an average plot size and associated driveway of 180m² requires a soakaway to be 3m² x 0.4m deep - Soakaways to be Wavin Aquacell or similar approved. Soakaway size based on an infiltration rate of 0.072m/hr - Soakaway sized to accommodate the site critical 1:100 Yr + 40%CC.

Proposed discharge rate into existing drainage network has been agreed with United Utilities for both foul and surface water 10.06.21

De-watering is likely to be required to construct the sewers

The proposed plots are set above the existing ground level in order to aid with the private soakaway drainage within the gardens

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.

Notes:

- This drawing is to be read in conjunction with all Architectural Drawings and Topographical Survey Drawing.
- This drawing has been prepared Appraisal purposes only, and a detailed design must be carried out prior to construction.
- Building levels are Finished Floor Levels (FFL's).
- Figures quoted next to manholes / rodding eyes are cover & invert level, in metres AOD.
- Footpaths are to be laid with a crossfall to allow drainage to soft landscaped areas.
- Where possible all drainage runs shall be kept a minimum of 4.0m from any existing tree that is to be retained.
- All drainage design is subject to technical approval, no connections shall be made to any public sewers without written consent from the drainage authority.
- Impermeable area is based on 50% of the site area being impermeable.

Drainage Legend:

- Existing combined public sewer and manhole
- Proposed foul water sewer and manhole
- Proposed surface water sewer and manhole
- Proposed surface water rising main
- Site boundary
- Proposed 6m Easement

Rev.	Date	Amendment	Drawn	CHKD	Appd
P4	30.06.21	Updated in accordance with latest site plan and latest drainage philosophy	PT		MAR
P3	08.04.21	Added Site Investigation	JA		MAR
P2	09.02.21	Updated in accordance with latest layout and revised surface water drainage strategy			MAR
P1	14.08.20	First Issue	LGS		MAR

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Client:
millermhomes

Project Title:
Northenden
Manchester

Status:
INFORMATION

Drawing Title:
Engineering Appraisal

Drawn	Date	Checked	Date	Approved	Date
LGS	AUG 20	MAR	AUG 20		

Scale	Orig Size	Dimensions
1:500	A0	mm

Project No:
882187

Drawing No:
10-01

Rev:
P4

Scale 1:500
0 5 10 15 20 25m