For of-site drainage design see RSK drawing "40-13 Of Site Drainage Layout"

See pump station designers drawing for layout

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.

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In 100 Yr storage to be stored and to be 0.5m deep, storage to be provided is 32.0m³. Base of storage to be set at 31.170m

Hydrobrake to limit flow to 45l/s based on a design head of 0.360m. Hydrobrake to be a MD-SHE-0236-4500-3950-4500

Phase 2

Phase 1

New Manhole to be constructed online of existing 975Ø pipe. Manhole to be fitted with non return valve

UU MH 0201
CL 32.237 (New CL)
IL 29.418 (Surveyed)

UU MH 0202
CL 32.243 (Surveyed)
IL 29.223 (Surveyed)

UU MH 0204

UU MH 9202
CL 32.700
IL 28.830

UU MH 9203
CL 32.51
IL 28.98

<Existing 300Ø Combined Sewer>
<Existing 225Ø Combined Sewer>
<Existing 100Ø Combined Sewer>
<Existing 300Ø Combined Sewer>
<Existing 150Ø Combined Sewer>

Inset A-A
NTS

All manhole covers located within the highway to be inset covers with appropriate high friction surfacing material

FFL'S subject to change following completion of External works and Plot drainage.

Drainage Statement - Surface Water

- Surface water for plots 90-106, 111-123, 150-171, 177-187, & 192-213 to drain to private soakaways
- The proposed surface water drainage connection point is the 2250mm diameter combined sewer beneath Yew Tree Lane, the agreed discharge rate is 45l/s As agreed with UU
- 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.
- System designed not to flood in 30yrs and surcharge in the 2yr events
- 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
- Receiving drain may require CCTV investigation/further investigation to prove condition of receiving pipework or Manholes.

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 S.

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

Important Note
Prior to any Adoptable drainage groundworks being undertaken on site the contractor must confirm back to RSK the precise as-built or existing invert level, pipe diameter and condition of the receiving drainage system, watercourse and / or manhole in order to allow design reviewed if required.
All proposed private drainage groundworks must also prior to construction start on site first establish that a viable outfall connection can be made into the receiving drainage system. The contractor must also immediately advise RSK should any discrepancy or perceived conflict between as-built level and proposed design level information become apparent / identified during the implementation of any ongoing drainage / groundworksconstruction.

Please telephone RSK - Land and Development Engineering on 01942 493255

N

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.

Legend

- Proposed foul water sewer and manhole by Developer
- Proposed surface water sewer and manhole by Developer
- Proposed surface water rising main
- Existing Combined water sewer and manhole
- Proposed foul water dragouts
- Proposed surface water dragouts
- Demarcation for Build Phases
- Proposed S104 Drainage Easement
- FFL 102.85 — Finished Floor Level
- Area indicates the proposed plots to be drained via Soakaways

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. Refer to RSK drawing 40-17 for pipe embedment 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.
- 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 1200mm dia or 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.

Rev.	Date	Amendment	Drawn	Chkd.	Appd.
P14	10.10.23	S185 diversion route updated	MAR		
P13	18.05.23	Updated to suit Phase 2 re design	LGS	MAR	
P12	03.04.23	Revised planning layout to Rev S	PO	AP	
P11	15.03.23	Revised planning layout to Rev Q	AP		
P10	20.01.23	Sewer design revised	AP		
P9	12.12.22	Removed gully's at the in front of plots 146-218	AP		
P8	12.12.22	Removed gully's at the in front of plots 146-218	AP		

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Client: miller homes

Project Title: Northenden, Manchester

Status: INFORMATION

Drawing Title: Adoptable Drainage Layout

Drawn	Date	Checked	Date	Approved	Date
AP	Oct 20	MAR	Oct 20		

Scale	Orig Size	Dimensions
1:500	A0	m

Project No.: 882187
Drawing File:
Drawing No.: 40-01
Rev.: P14

Scale 1:500
0 5 10 15 20 25m