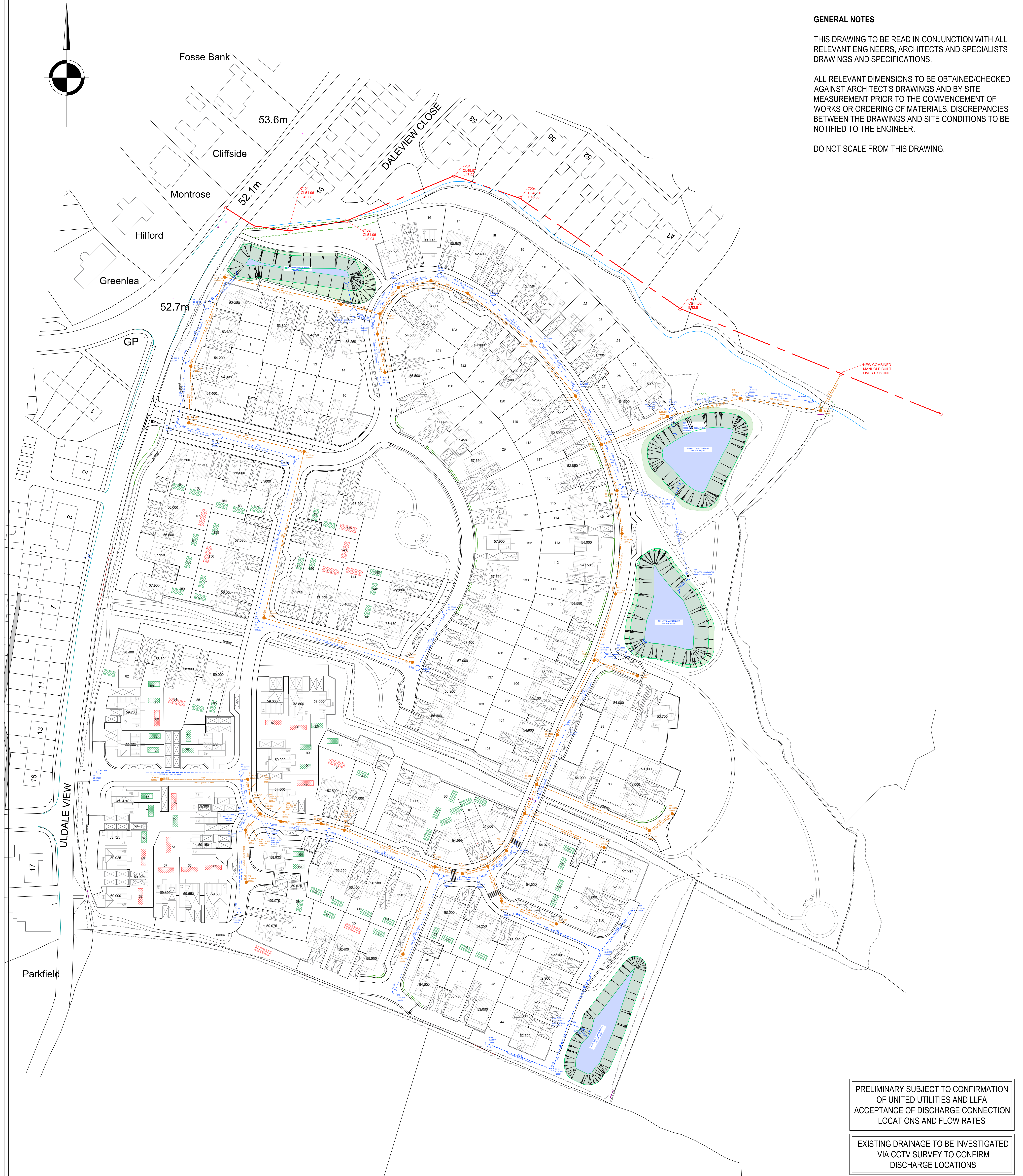


GENERAL NOTES

THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT ENGINEERS, ARCHITECTS AND SPECIALISTS DRAWINGS AND SPECIFICATIONS.

ALL RELEVANT DIMENSIONS TO BE OBTAINED/CHECKED AGAINST ARCHITECT'S DRAWINGS AND BY SITE MEASUREMENT PRIOR TO THE COMMENCEMENT OF WORKS OR ORDERING OF MATERIALS. DISCREPANCIES BETWEEN THE DRAWINGS AND SITE CONDITIONS TO BE NOTIFIED TO THE ENGINEER.

DO NOT SCALE FROM THIS DRAWING.



- Key:**
- Combined Drainage
 - Foul Drainage
 - Surface Water Drainage
 - Geocellular Baskets (4.5x2.0x0.8m)
 - Geocellular Baskets (5.5x2.0x0.8m)
 - Open Drainage Feature

Drainage Strategy:

SUDS Hierarchy

The hierarchy of potential methods for disposing of surface water are shown below in order of preference:

- discharge via infiltration
- discharge to a surface water sewer
- discharge to a combined sewer

BRE365 soakaway testing has been carried out which deem infiltration drainage to be suitable for the south and south western sections of the site.

There is an unnamed watercourse that runs along the northern boundary of the site.

Drainage records United Utilities sewer records show a 525mm diameter public surface water running from south to north along Uldale View, before discharging into the watercourse that runs along the northern boundary of the site.

There are two combined public sewers to the east of the site, running parallel to the eastern boundary. One is 450mm vitrified clay and the other is a 900mm diameter concrete sewer. There is also a combined 300mm diameter concrete sewer running along the northern boundary of the site.

Surface Water Strategy

Highways will be served by gulleys, that will then enter the piped network. House roof and driveway areas (for the north and western part of the site) will also enter the system that will include a conveyance swale and two attenuation basins before discharging into the adjacent watercourse. The discharge will be restricted using a vortex flow control device.

The area to the south east of the site will enter a piped network and be served by an infiltration basin. The highway within this area will be impermeable and surface water will enter the piped network. House roof and driveway areas will also enter the piped network before discharging into the basin.

The remaining plots will have permeable driveways and will infiltrate naturally, with attenuation provided in the stone layer beneath. House roof areas will enter individual geocellular soakaways and also infiltrate.

The surface water system will attenuate for storm periods up to and including the 100 year plus 50% climate change event with an allowance of 10% for urban creep and a 30 % allowance for the remaining greenfield areas on site.

The discharge to the watercourse will be restricted using a vortex flow control device. The runoff rate will match the one year return period and QBAR for all storms above this up to and including the 100 year event plus a 50% allowance for climate change.

Foul Water Strategy

The foul drainage will be a traditional gravity fed piped network that will discharge into the existing combined sewer to the north east of the site.

Maintenance:

- Highway to be adopted by Highway Authority
- Surface water drainage be adopted by United Utilities
- Foul drainage to be adopted by United Utilities

General Notes:

Geocellular soakaways to be min 5m from property and 2.5m from boundaries.

PRELIMINARY SUBJECT TO CONFIRMATION OF UNITED UTILITIES AND LLFA ACCEPTANCE OF DISCHARGE CONNECTION LOCATIONS AND FLOW RATES

EXISTING DRAINAGE TO BE INVESTIGATED VIA CCTV SURVEY TO CONFIRM DISCHARGE LOCATIONS

REV	DATE	DESCRIPTION	BY	CHECK	APP
P06	13/03/2024	REMOVED WETLAND AND AMENDED OUTFALL	RB	RG	MG
P05	26/01/2024	AMENDED LAYOUT AND DRAINAGE DESIGN	RB	RG	MG
P04	23/06/2023	UPDATED TO SUB REVISED SITE LAYOUT	RB	RG	MG
P03	10/06/2023	AMENDED SW DRAINAGE AND REMOVED PERMEABLE HIGHWAY	RB	RG	MG
P02	30/05/2023	UPDATED SOAKWAYS	RB	RG	MG
P01	23/05/2023	PLANNING ISSUE	RB	RG	MG
REV	DATE	DESCRIPTION	BY	CHECK	APP

DRAWING STATUS						
PLANNING						
CLIENT:						
GLEESON HOMES						
ARCHITECT:						
DESIGN BY POD						
PROJECT:						
LAND OFF ULDALD VIEW EGREMONT						
TITLE:						
DRAINAGE LAYOUT						
STATUS	PROJECT NO.	ORGANISATION	PHASE	LEVEL	TYPE	ROLE
S2	23127	- GAD -	00	- 00	- DR	- C -
1:500	DESIGNED	RB	DRAWN	RB	CHECKED	RG
1:500	DESIGNED	RB	DRAWN	RB	CHECKED	MG
1:500	DESIGNED	RB	DRAWN	RB	CHECKED	MG