



DESIGNER NOTE

Surface Water system designed for a 1 in 100 year event plus an allowance of 40% for climate change. Impermeable areas have had an additional 10% added for urban creep. Infiltration not viable based on local geology. Groundwater was monitored and found in the rear garden at 109.34mAOD in December 2023.



CDM RESIDUAL RISK ITEM

Works within public Highway.
Danger to site personnel and general public



CDM RESIDUAL RISK ITEM

Existing services likely within working area.
Danger to site personnel and general public



CDM RESIDUAL RISK ITEM

Drainage pipes, manhole rings covers and fittings.
Risk of Manual handling injury.



CDM RESIDUAL RISK ITEM

Contact with waste water when making drainage connections.
Risk of infection from Weils disease etc.



CDM RESIDUAL RISK ITEM

Above Ground activities.
Possibility of objects falling from operations at high level onto persons working or passing below.



CDM RESIDUAL RISK ITEM

Works within confined spaces.

BURIED UTILITIES RISK NOTE

- Buried utilities are present on and in the vicinity of the site.
- The Contractor must satisfy themselves that they have seen utility returns for the area and that appropriate Risk Assessment Method Statement (RAMS) are in place and implemented to ensure that buried and/or overhead services are located prior to any works taking place.
- Any RAMS shall address safe procedures for protection and working in the proximity of services.

DESIGNERS CDM NOTE - RESIDUAL RISKS IDENTIFIED

The design Engineer(s) have analysed this design as the scheme has been developed, in order to identify if there are any significant residual risk hazards (i.e. unusual, unexpected, abnormal or difficult).

Residual risks **HAVE** been identified and are therefore shown on this drawing. These risks have not been possible to remove by design.

This statement assumes that a competent Contractor with the appropriate qualified staff will be employed for the works, and that they will be familiar with site wide construction risks and hazards that they can reasonably be expected to encounter as part of their work.

Construction Note

It is essential that new drainage associated with the development is laid from the outfall(s) into the site. This is essential to avoid unforeseen obstructions where encountered (such as services). If the drainage is laid from the site out to the outfall it can result in significant abortive works to relay and overcome such obstructions.

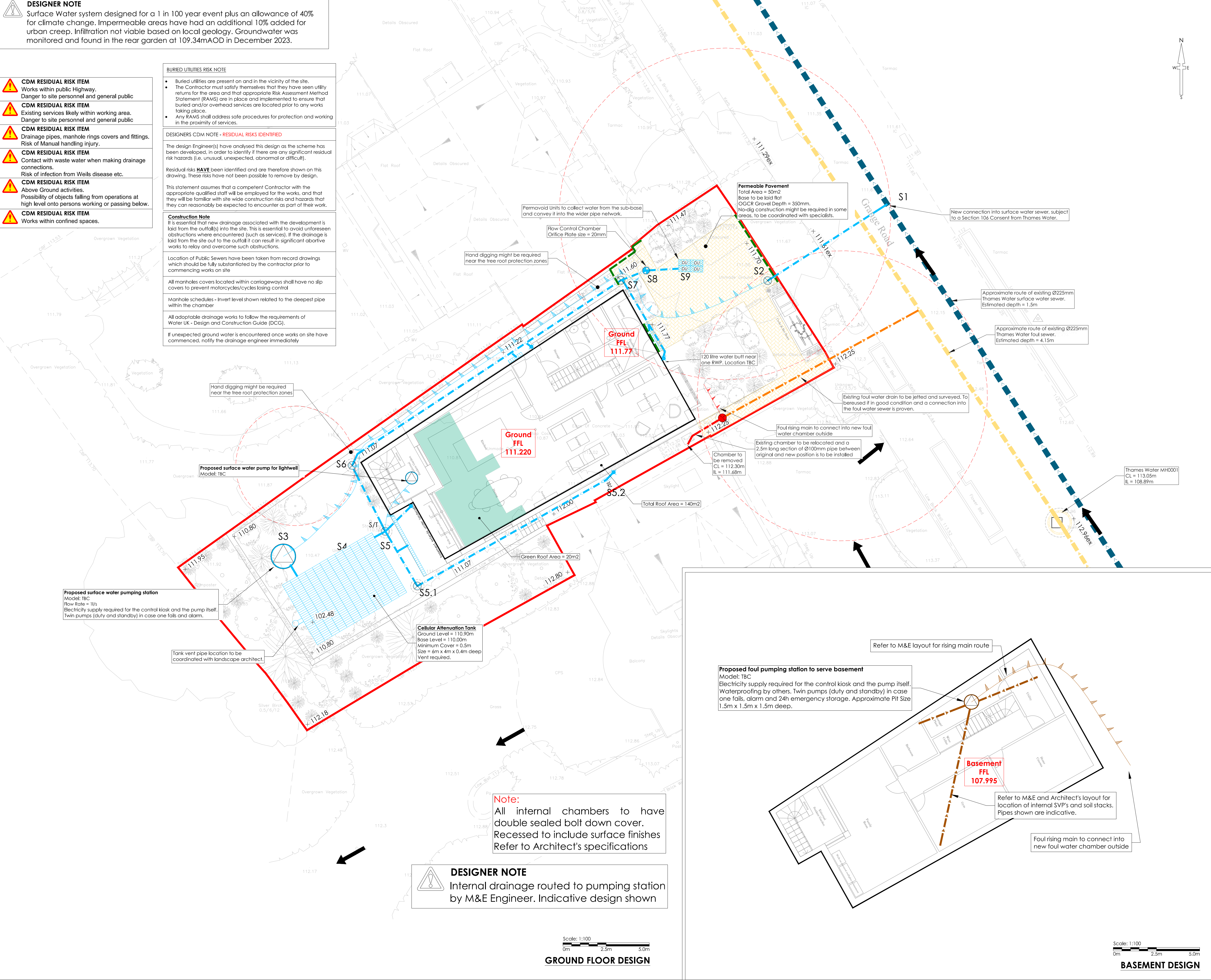
Location of Public Sewers have been taken from record drawings which should be fully substantiated by the contractor prior to commencing works on site

All manholes covers located within carriageways shall have no slip covers to prevent motorcycles/cycles losing control

Manhole schedules - Invert level shown related to the deepest pipe within the chamber

All adoptable drainage works to follow the requirements of Water UK - Design and Construction Guide (DCG).

If unexpected ground water is encountered once works on site have commenced, notify the drainage engineer immediately

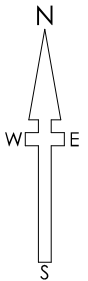


DESIGNER NOTE

Internal drainage routed to pumping station by M&E Engineer. Indicative design shown

Scale: 1:100
0m 2.5m 5.0m

GROUND FLOOR DESIGN



NOTE:

- DO NOT SCALE, IF IN DOUBT ASK.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT STRUCTURAL ENGINEER'S DRAWINGS AND DETAILS. THE SPECIFICATION FOR THE WORKS, THE RELEVANT ARCHITECT'S DRAWINGS AND ANY OTHER SPECIALIST'S DRAWINGS.

Drainage Key

Sewers

- New Foul water drain (private)
- New Surface water drain (private)
- Surface water sewer (Adoptable)
- New Basement Foul water drain (private)
- Surface Water rising main
- Foul rising main
- Existing foul water drain (private/non adopted)
- Existing foul water sewer (Adopted)
- Existing surface water sewer (Adopted)

Chamber Key

FW/SW

- Mini access chamber (mac) - 300mmØ
- PPIC - 475mmØ*
- P.C.C. units/brick*
- Precast Concrete Manhole

* General note
(Refer to standard details & longitudinal sections for chamber sizes. Size may need to increase dependant on number of incoming pipes/size of incoming pipes)

- Surface water rodding eye
- Rain water down pipe (roddable access)
- Soil vent pipe/soil stack
- Silt Trap (ST) with removable silt bucket
- Flow control chamber
- Pumping Station
- Manhole reference number
- Yard gully (150mm - 200mmØ trapped)
- Floor gully (trapped)
- Surface water sump unit
- Linear drainage channel
- Cellular storage (refer to drawing for sizes)
- RWP cellular discharge/collection unit (DU) (Permavoid or similar)
- Tree root protection zone (RFPZ)
- Impermeable barrier to stop lateral movement of water
- Finished Floor Level (FFL)
- Block paving - permeable
- Green Roof
- Flood excedance routing

Rev	Date	Amendments	By	Chk'd
P02	29.05.26	Existing chamber relocated	NJ	MBD
P01	12.05.26	Initial Issue	NJ	MBD

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Project:
**6A GRANGE ROAD
LONDON**

Drawing title:
DRAINAGE DESIGN

Scale at A1:
1:100

Drawn by:
MBD

Date:
May 2026

Chk'd by:
RJW

Status: Purpose For Issue:
S2 INFORMATION

Drawing Number:
2630-HRW-XX-XX-DR-C-0500

Rev:
P.02

Scale: 1:100
0m 2.5m 5.0m

BASEMENT DESIGN

Proposed foul pumping station to serve basement

Model: TBC
Electricity supply required for the control kiosk and the pump itself. Waterproofing by others. Twin pumps (duty and standby) in case one fails, alarm and 24h emergency storage. Approximate Pit Size 1.5m x 1.5m x 1.5m deep.

Refer to M&E layout for rising main route

Basement
FFL
107.995

Refer to M&E and Architect's layout for location of internal SVP's and soil stacks. Pipes shown are indicative.

Foul rising main to connect into new foul water chamber outside