Perforated Pipe

Drainage Field
Is to be composed of perforated or slotted pipes laid in trenches, filled with washed gravel (10-50mm in size) and topped with geotextile membrane to prevent soil infiltration. Pipes should be laid at a shallow gradient (1:200 to 1:400) to ensure even distribution of effluent and must be a minimum of 200mm below the surface. System to be design by professional subject to planning approval.

Solid Pipe to accomodate existing ground gradient

Perforated Pipe

5785
Minimum 5m

Natural mound/slope to be created/enhanced to stop contamination

Rain-fed Pond
Nom 8.5m² - to be confimed on site.

Surface Water Drainage - Swale 02

Shallow, stone-filled gully to direct water into rain fed pond.

Rain Garden Catchment
Area to be 20% of roof area (140m²) = 28m²
Minor Radius : nom 1.7m
Major Radius: nom 5.25m

Catchment to be 300mm deep, with surrounding berm 300mm wide and 100mm deep. Appropriate fall to be created on site to allow overflow to pass through smaller swale to a rain-water fed pond.

To be planted with native plants such as Deschampsia cespitosa, Asplenium scolopendrium, Osmunda regalis, Ajuga rapens.

Entry to Catchment Area

To be filled with layer of loose organic material and cobbles to prevent erosion. To be planted with high wet tolerance plants such as Iris pseudocorus, Juncus effusus and Carex pendula.

Surface Water Drainage - Swale 01

Single exit pipe to swale (500mm wide x 300mm deep). Rill to be stepped stone slabs to create channel. Check dams to slow water flow.

Percolation test to confirm suitability of placement for all raingarden elements. The planting scheme aims to increase biodiversity with native planting with the intention of increasing habitat potential. All rain garden elements to maintain a minimum of 5m distance from drainage field and dwelling with land formed gradients to ensure contamination does not occur.

All stone to be sourced on site.

Septic Tank Treatment Plant
Designed in accordance with BS EN 12566-1, minimum of 7m from any habitable building, 10m from a watercourse, and 50m from a water abstraction point such as a well or borehole. The tank capacity is appropriately sized, for a minimum of 2,700L for a four-bedroom house.

All piped drainage leading to the tank must be installed with a minimum 1:40 fall to ensure efficient flow, preventing blockages and maintaining long-term functionality.

Effluent discharge is directed into drainage field (soakaway highlighted in orange) designed in accordance with BS 6297, following a successful percolation test to confirm adequate ground filtration.

Solid Pipe

2000

1200

Foul drain pipes are not currently connected to existing mains and would need extensive infrastructure to do so. Septic tank proposal is subject to planning.

Inspection Chambers

Premade polypropylene inspection chambers by Hepworths or other similar approved manufacturer. To be installed in accordance with their instructions and recommendations.
Pedestrian/garden areas to have light duty cover and frames.

Levels subject to site conditions.

IC

To be Demolished

RWP-00-006
RWP-00-005
RWP-00-007
RWP-00-008
RWP-00-009
RP-00-004
RP-00-001
RP-00-002
RP-00-003

Bedroom 2
14.6 m²

Master Bed
17.3 m²

En-suite
3.8 m²

Hall
8.0 m²

Bedroom 3
13.5 m²

Family Bathroom
6.5 m²

Bedroom 4
13.2 m²

Drains under the building and within 1m of and below foundation level to be encased in minumum 150mm concrete and concreted up to foundation level, where neccesary.

Drains passing through walls to have lintels provided with 50mm gap around pipe in-filled with insert sheet material and sealed to prevent ingress of fill, vermin and radon gas. Pipes should be masked at wall faces. Insulation around pipes to be considered to prevent acoustic transfer.

Surface Water Drainage

All surface water to discharge to Rain garden at the rear of the property. Permable surfacing to be used around perimeter of the dwelling. Water-buts to be used where appropriate.

Any existing drains discovered during excavation to be reported.

Exact drainge details including requirement for manhole and pipe routes are to be agreed on site following the excavation and positioning of existing drainage systems. All work is to be to the satisfaction of the supervising building control officer.

1 Proposed_Site_Drainage-01FirstFloor
Scale: 1 : 50

0 0.5 1 1.5 2m
1:50 @ A1

Notes:

- Figured dimensions are to be used in all case.
- Dimensions should not be scaled from drawing.
- All existing dimensions should be checked on site before commencement of the works.
- Any discrepancies in dimensions should be clarified with the Architect prior to commencement of the works.
- No deviation from this drawing will be permitted without the prior written consent of the Architect.
- This drawing is to be read in conjunction with all other relevant LMA drawings, and the drawings and information produced by other professionals / consultants involved in the project
- Please note that the use of any quantification data is done so at the users own risk.
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This drawing must be printed in colour to be read correctly

Rev.	Date	Revision Description	Drawn	Checked
P5	17.04.2025	SuDS update - Rain garden	KB	FG
P4	25.03.2025	Re-issue regarding alt updates	KB	FG
P3	07.03.2025	Amendments made as per comments and advice from Mayer	KB	FG
P2	04.09.2024	Comments from building control officer and specialist regarding insulating lime plaster addressed	KB	FG
P1	09.08.2024	First Issue of Drawing	KB	MM

FDH | LMA | XX | XX | DR | A
3360 | P5
[FRON DEG]

Drainage_Site_Layout

Fron Deg
LL20 7NW

Status:

Project Number: 2425

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