



10. It is essential to ensure that the foundation bottom is inspected and approved by a competent person to ensure that there are no tree roots present. Alternatively material excavated from the trench bottom should be examined.
11. If there is any doubt regarding the foundation depths, RSK should be contacted for advice.
12. Where void former is not detailed and it is noted that tree roots are cut during foundation excavation or there is evidence of desiccation within shrinkable soils, this should be brought to RSK's attention for advice.
13. Species of proposed trees should be selected such that they do not affect foundation depths when mature.
14. Dessication testing shall be carried out in locations where the tree influence depth is greater than 2.5m. Findings shall be reported to RSK to allow reassessment of foundation depths if appropriate.
15. Piled foundations are subject to specialist confirmation, design and specifications.

Legend

TP Approx. Trial Pit and Soakaway Location by GroundSolve Ltd

TP Approx. Trial Pit Location by GroundSolve Ltd

DCP Approx.DCP Location by GroundSolve Ltd

F.F.L. 18.70 Proposed Finished Floor Level.

Foundation depth legend - (Formation Depth from F.F.L.)

Extent of required heave precautions. Note: Heave precautions are required to the underside of all external and internal ground beams for piled plots within the zone of influence of existing trees.

Indicates extent of RC Strip/ Trenchfill foundations.

Indicates extent of piled foundations or alternatively Deep Subwall Trench Foundation solution can be adopted

Tree Influence Circles indicating min foundation depth required from existing ground level in metres

Existing Trees

**Heave Precautions**

Voids should be provided to accommodate movement due to heave forces acting against foundations and suspended ground floors where founding in shrinkable soils in accordance with Table 7, NHBC Standards Chapter 4.2, 2019.

| Volume change Potential | Void Dimension against side of foundation (mm) | Void Dimension Under ground suspended In-situ concrete ground floor (mm) | Void dimension under precast B&B floor |
|-------------------------|------------------------------------------------|--------------------------------------------------------------------------|----------------------------------------|
| High                    | 35                                             | 150                                                                      | 300                                    |
| Medium                  | 25                                             | 100                                                                      | 250                                    |
| Low                     | 0                                              | 50                                                                       | 200                                    |

Note: Under suspended floors, the void dimension is measured from the underside of the beam or joist to ground level and includes 150mm ventilation allowance.

Void formers consist of materials that collapse to form a void into which the clay can swell. The void dimension is the 'remaining void' after collapse. The thickness of the void former should be in accordance with the manufacturer's recommendations.

Proposed tree and shrub planting have the potential to influence minimum foundation depths, hence, the requirements of NHBC Standards, Chapter 4.2 will need to be complied with, assuming LOW VOLUME CHANGE POTENTIAL for the founding material (including a 150mm reduction in depth due to climate variations, in accordance with Appendix 4.2-D).

**NOTE : Ground Gas protection regime to be confirmed pending receipt of ground gas monitoring results.**

**CIVIL / STRUCTURAL DESIGN RISK MANAGEMENT**

Abnormal or unusual residual risks associated with the design outcomes shown on this drawing are:-

- 1.TRENCH WORKS - Excavations will need to be battered back or shored if greater than 1.20m deep, and going to be entered.
- 2.GROUND WATER: Groundwater seepages are not anticipated, if encountered, they should be slight and easily catered for by pumping from sumps cut within the excavation. However, it would be prudent when excavating service runs to excavate them up gradient to ensure they are self-draining.
- 3.SLOPE- The site is on a slight slope and surface run off may be an issue, which may cause deterioration of formations. This can either be catered for by temporary drainage grips along the north western site boundary, or by installing the access roads and drainage first.

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.

**Foundation Appraisal Notes**

**General**

This drawing should be read in conjunction with the following information:

- Ground Solve Ltd Phase II Geotechnical Job Ref 2689, dated April 2022.
- RSK LDE Engineering Appraisal drawing 882930-40-13 Rev P1 dated Sept 2025.
- Iain Tavendale F. Arbor.A. Arboricultural Impact assessment and Method Rev Ref: MG/6838/AIA&AMS/REV D/SEP23 date Sept 2023
- tba Landscape Architecture Arboriculture Tree Protection Plan

Any discrepancies must be referred to RSK for advice at the earliest opportunity.

**Ground Floor Slabs**

1. The ground floor construction is to be suspended P.C.C. with sub floor void.
2. Finishes, DPM, DPC & Insulation to be in accordance with the Architect's details & specification.

**Removal of Existing Substructures**

3. All existing hardstanding areas including roads, paths and oversite slabs should be removed.
4. Where existing foundations are encountered during new trench excavation, they should be broken out completely and removed. The void formed should be backfilled with lean-mix concrete up to the normal foundation level.

**Foundation Requirements**

5. The Design Sulphate Class for concrete in contact with the ground is DS-1, and the Aggressive Chemical Environment for Concrete Classification is AC-1.
6. Internal foundation depths are to be at the same depth as the externally connecting foundations.
7. All footings must be founded in consistent material where possible. Appropriate reinforcement should be designed and incorporated to reduce the risk of differential foundation settlement and subsidence where founding in variable materials.
8. All foundation excavations should be inspected and any unsuitable made ground, and soft, organic or otherwise unsuitable materials are to be removed and replaced by a suitable fill material adequately compacted to the satisfaction of the S.O.
9. Foundations on this site have been designed and should be constructed in accordance with NHBC, Chapter 4.2 (Building near trees). RC Strip/Trenchfill Foundations in shrinkable soils are to be taken to a moisture stable level which should be taken as the greater of:
  - a. The minimum depths shown on this drawing, which are derived from chapter 4.2
  - b. 500mm below evidence of live roots or other signs of desiccation.

| Rev | Date       | Amendment         | Drawn | Chkd | Appd |
|-----|------------|-------------------|-------|------|------|
| P01 | 29.09.2025 | Preliminary Issue | AS    | DW   | VV   |

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Client: **SALBOY**

Project Title: **DAISY BANK FARM**

Status: **PRELIMINARY**

Drawing Title: **FOUNDATION ZONING PLAN**

| Drawn | Date     | Checked | Date     | Approved | Date     |
|-------|----------|---------|----------|----------|----------|
| AS    | 20.09.25 | DW      | 20.09.25 | VV       | 20.09.25 |

Scale: 1:200  
Orig Size: A1  
Dimensions: mm/m

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| Drawing No.                 | Rev. |
|-----------------------------|------|
| 134691 LDE XX 00 DR ST 0001 | P01  |

Project No. Orig. Vol./Sys. Lev./Loc. Type Role Draw. No.

Scale 1:200  
0 2 4 6 8 10m