



University of Reading Park House and Library Substation

Bat Building Inspection of the Library Substation

1. INTRODUCTION

Scope of Work

- 1.1 Ecological Planning & Research Ltd. (EPR) was instructed by the University of Reading to complete a bat building inspection of an electrical substation east of the Library Building, Whiteknights Campus (SU 73478 71754). This was in relation to a planning application for the demolition of the existing substation and the construction of a new, larger substation and associated cable network. The cable route for the proposed substation runs north of the site following the existing road network. Full Site plans are provided in **Appendix 1**.
- 1.1 This note provides a summary of the survey methodology and results and outlines any mitigation that will be necessary to enable the proposals to proceed in accordance with nature conservation legislation and planning policy.

2. LEGISLATION & POLICY

- 2.1 There are 18 species of bat in the UK, seven of which are listed on Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 as Species of Principal Importance for the conservation of biodiversity in England. Section 41 species are afforded protection under Section 11 of the NPPF. Public authorities have a responsibility to give specific consideration to the Section 41 list when exercising their normal functions.. All bats and bat roosts are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Bats are also a European Protected Species and are also protected under the Conservation of Habitat and Species Regulations 2017 (as amended). It is an offence to:

- Intentionally or deliberately kill, injure or capture bats;
- Intentionally, deliberately or recklessly disturb bats in such a way as to be likely to significantly affect the ability of any significant group of bats to survive, breed, or rear or nurture their young or the local distribution of or abundance of a species of bat;
- Intentionally, or recklessly damage, destroy or obstruct any place used for shelter or protection (i.e. bat roosts) or intentionally or recklessly disturb a bat whilst it is occupying such a place;
- Damage or destroy a breeding site or resting place of a bat; and

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- Possess, sell or transport a bat, or anything derived from it.
- 2.2 Development proposals affecting bats or their roosts require a European Protected Species licence (EPSL) from Natural England.
- 2.3 Certain bat species For planning authorities, consideration for Species and Habitats of Principal Importance will be exercised through the planning and development control processes.
- 2.4 As part of the Bat Building Inspection, the presence of bird nests was also considered. All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended), making it an offence, with certain exceptions (e.g. game birds), to intentionally kill, injure or take any wild bird and to take, damage or destroy their nests or eggs.

The Zone of Influence

- 2.5 The area over which the activities associated with the proposed scheme are considered to potentially affect bat populations is referred to as The Zone of Influence (Zoi). This has been predicted by considering the likely activities and resultant biophysical changes arising during the proposed works. Given the scale and nature of the proposal, this encompasses the Site and its immediate surrounds.

3. METHODOLOGY

Building Inspection

- 3.1 This bat building inspection report has drawn on information collected through a field visit carried out by Siobhan Pryke of EPR, a suitably experienced ecologist who holds a class 2 bat licence (registration number 2024-12372-CL18-BAT), on the 4th of July 2025.
- 3.2 Features of the buildings were inspected using binoculars, a high-powered torch and endoscope, where appropriate. Where practical, features on elevations were accessed via a ladder for close inspection.
- 3.3 The methodology used has been described in more detail in **Appendix 2**.

Survey Limitations and Constraints

- 3.4 All surveys were undertaken at an appropriate time of year. However, bats are often nomadic and invariably move between roosts. Therefore, any bat survey will only provide a snapshot of how bats are using a particular site at that time.

4. SURVEY RESULTS AND EVALUATION

Building Inspection

- 4.1 The building inspection identified no features or access points for bats to enter. A thorough search externally and internally revealed no presence of bats. There was one potential access point into the building, however this was covered with mesh netting that would not allow a bat to enter. Please see **Appendix 3, Figure 3** for image of mesh netting.
- 4.2 Therefore, the building is deemed as negligible to support roosting bats.

Other notable species groups

- 4.3 No signs of birds were identified during the site visit. Due to the mesh netting covering the only potential access point, no birds would be able to enter the building.

5. CONCLUSIONS AND RECOMMENDATIONS

- 5.1 The building is deemed to have negligible suitability to support roosting bats and therefore no further surveys are required.

6. REFERENCES

Bat Conservation Trust (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines*, London, The Bat Conservation Trust

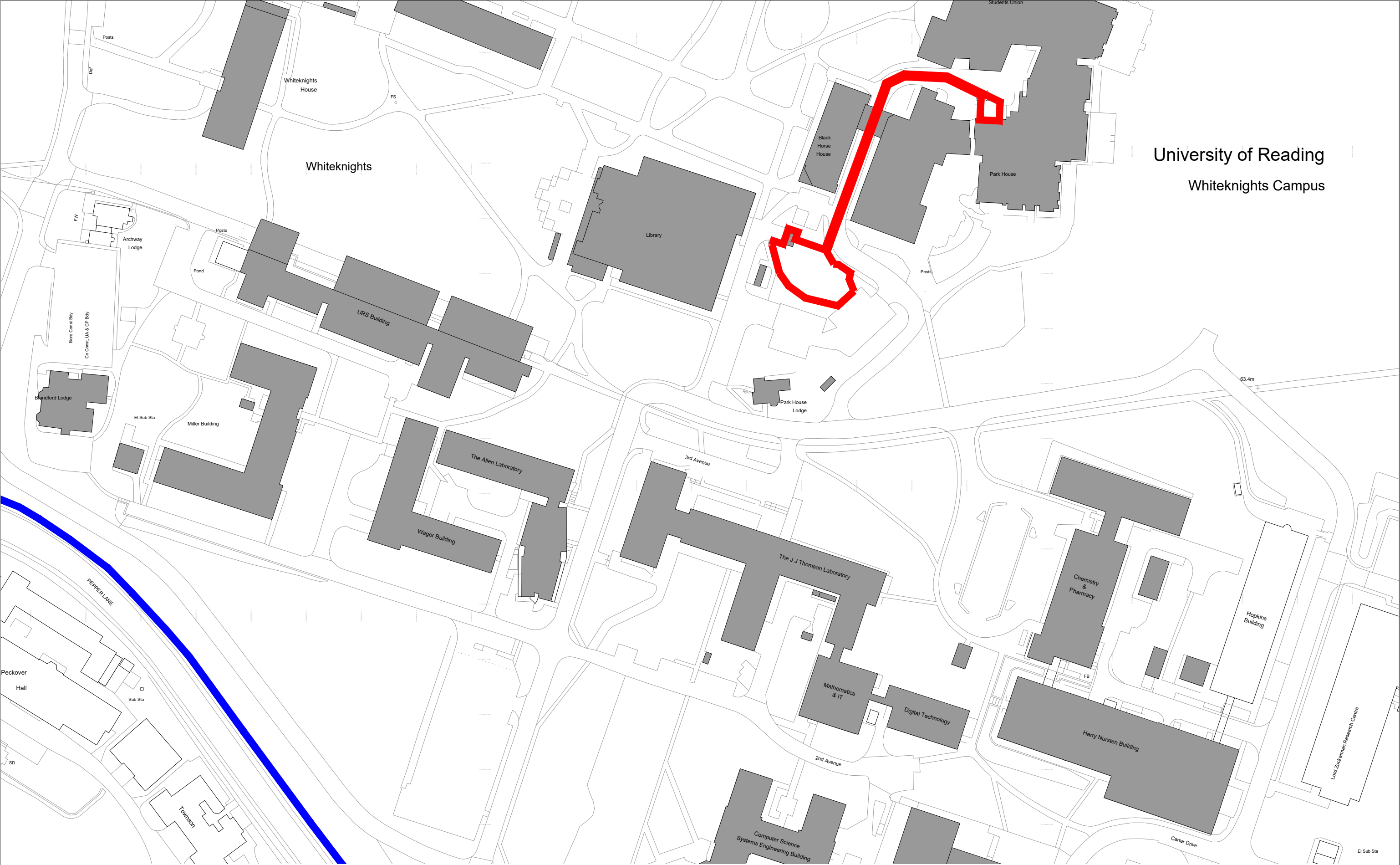
Document Prepared By: Holly McIndoe BSc (Hons) MSc

Document Dated: 17 July 2025

Reviewed By: Alison Hogan BSc (Hons) MSc MCIEEM

Appendix 1

Site Plans



University of Reading
Whiteknights Campus

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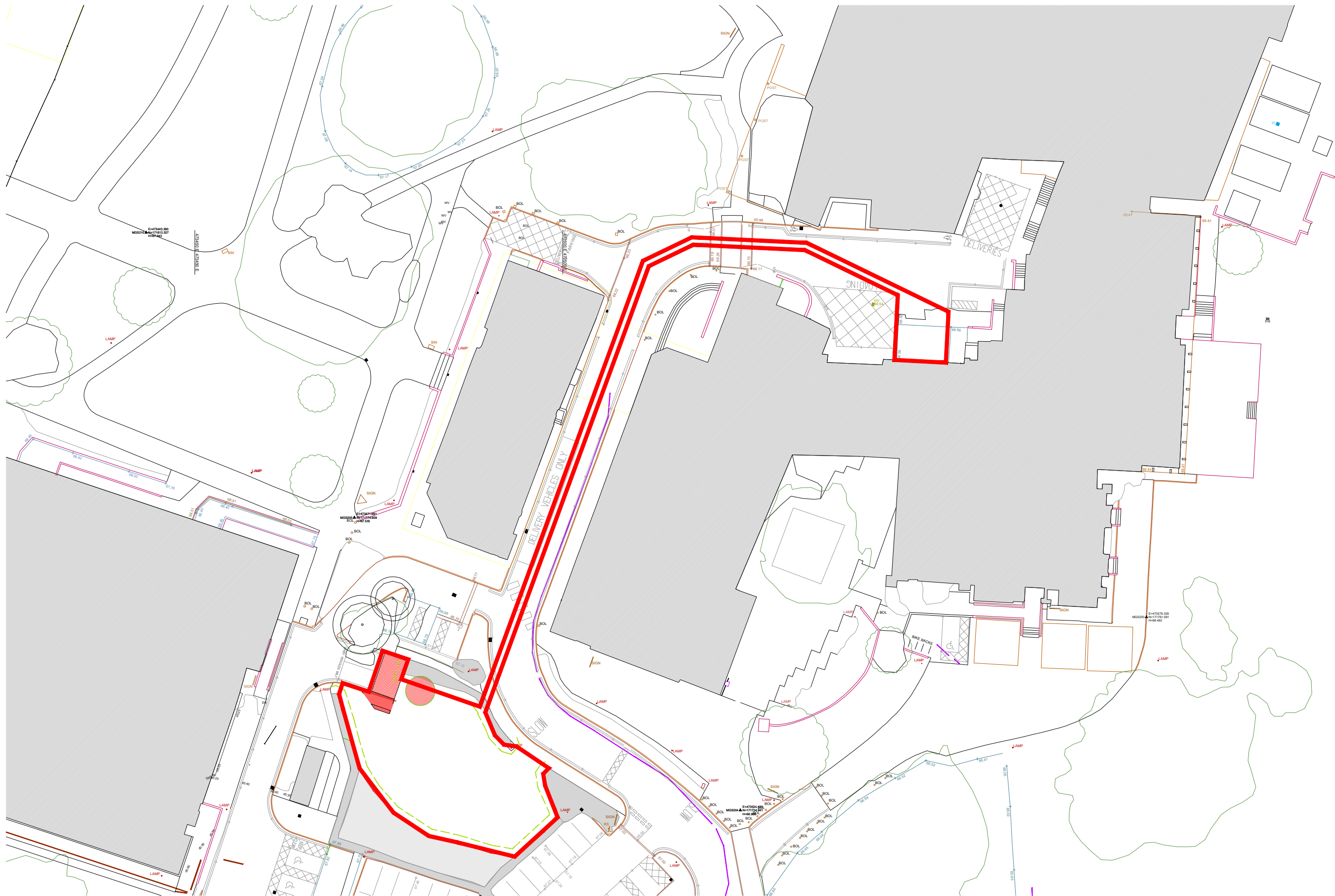


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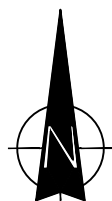
Thames Valley Surveying

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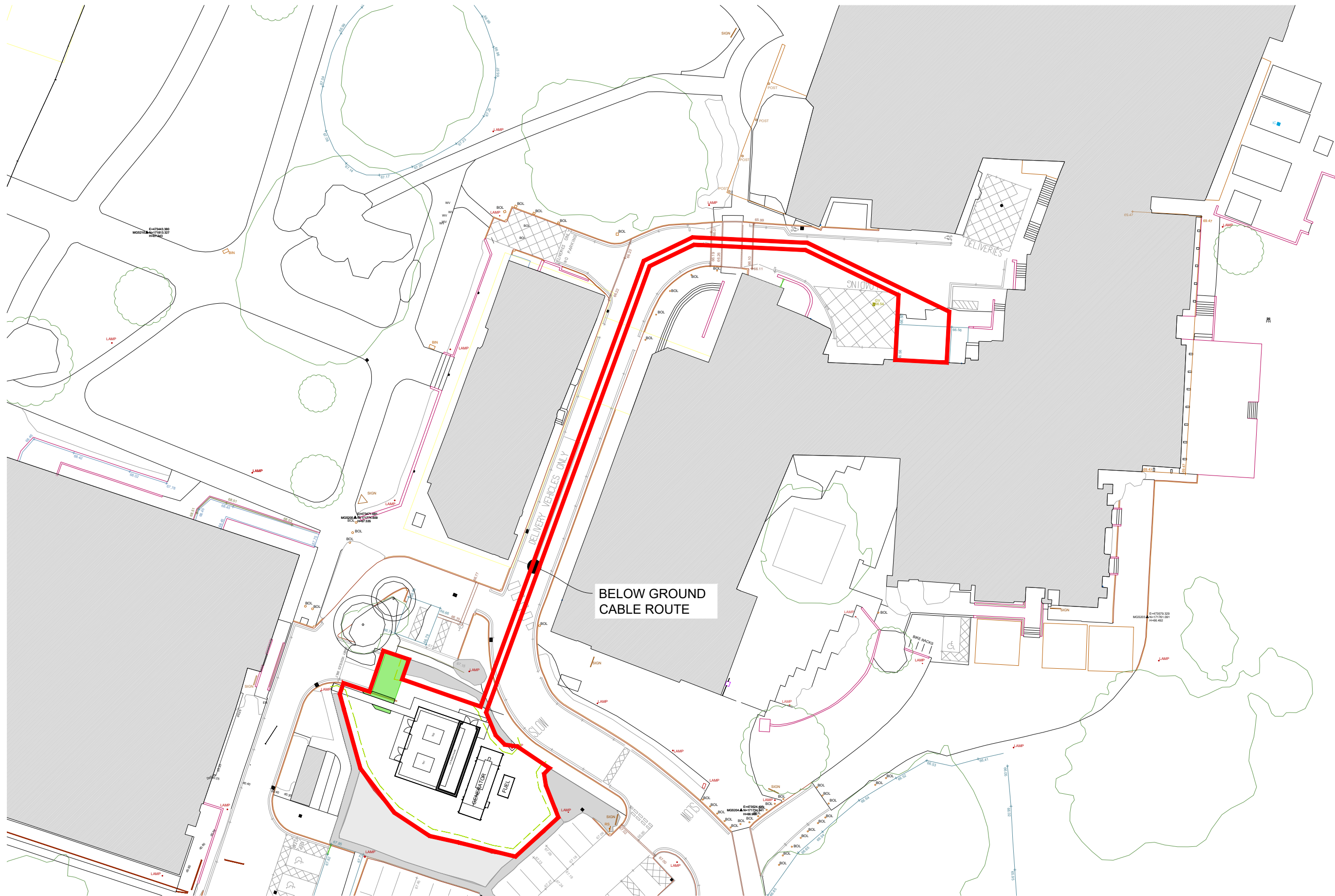
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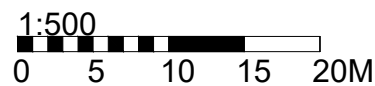
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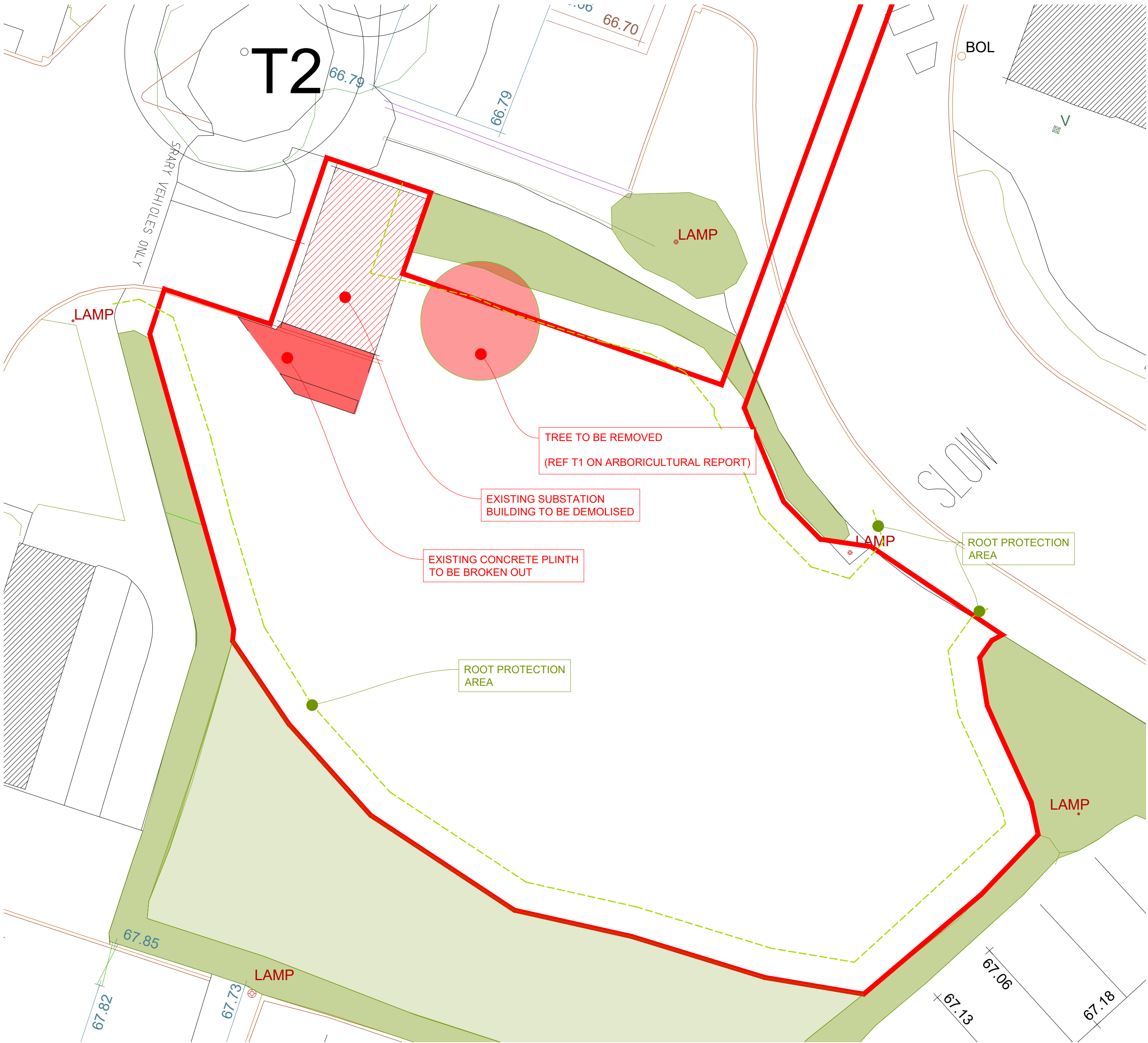
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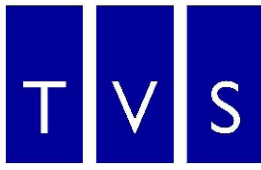
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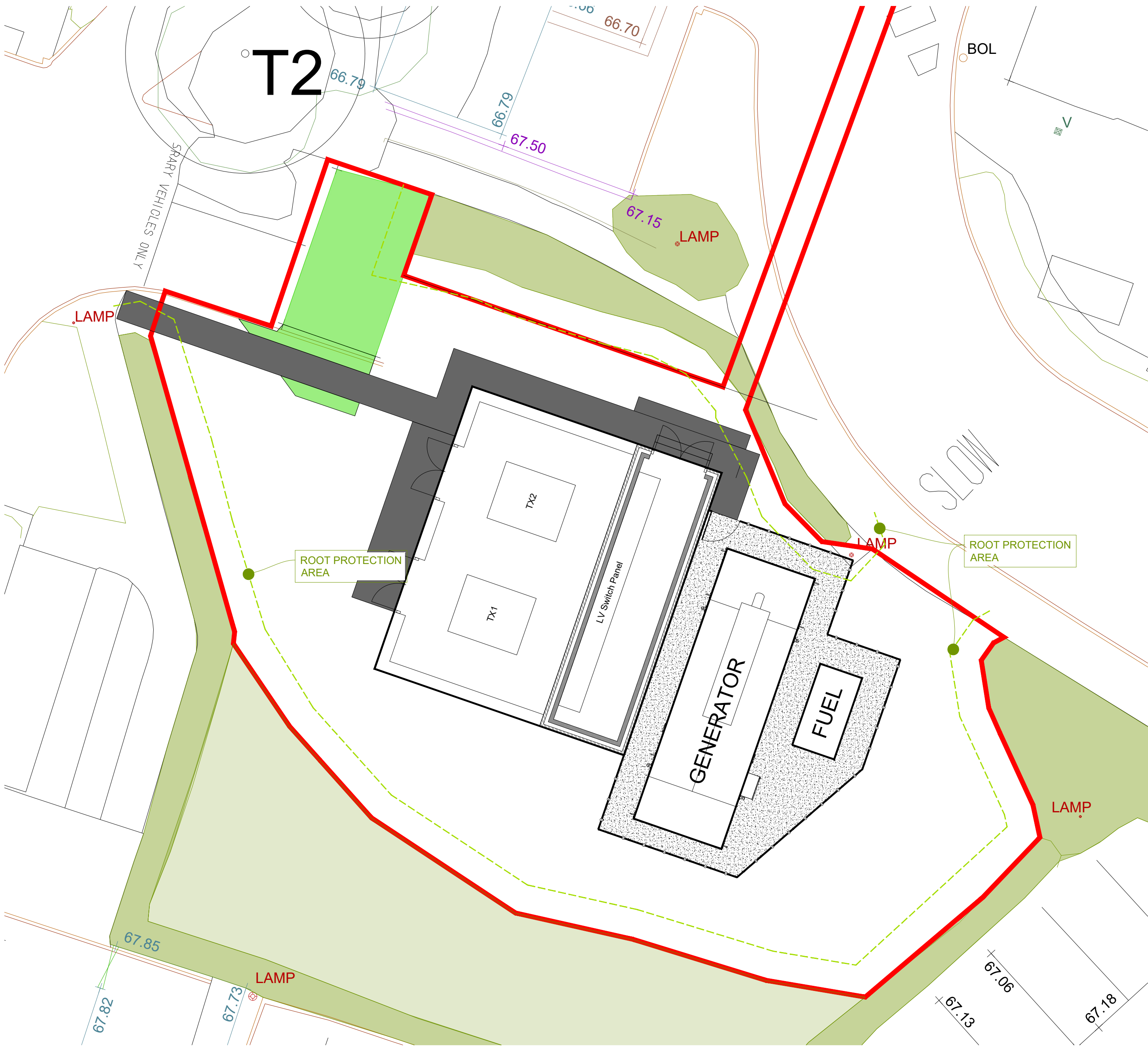
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Building	W123 Substation (Park House)	Rev	A	Description	Red line amended, drawing changed to A2 sheet	Date	9/7/25
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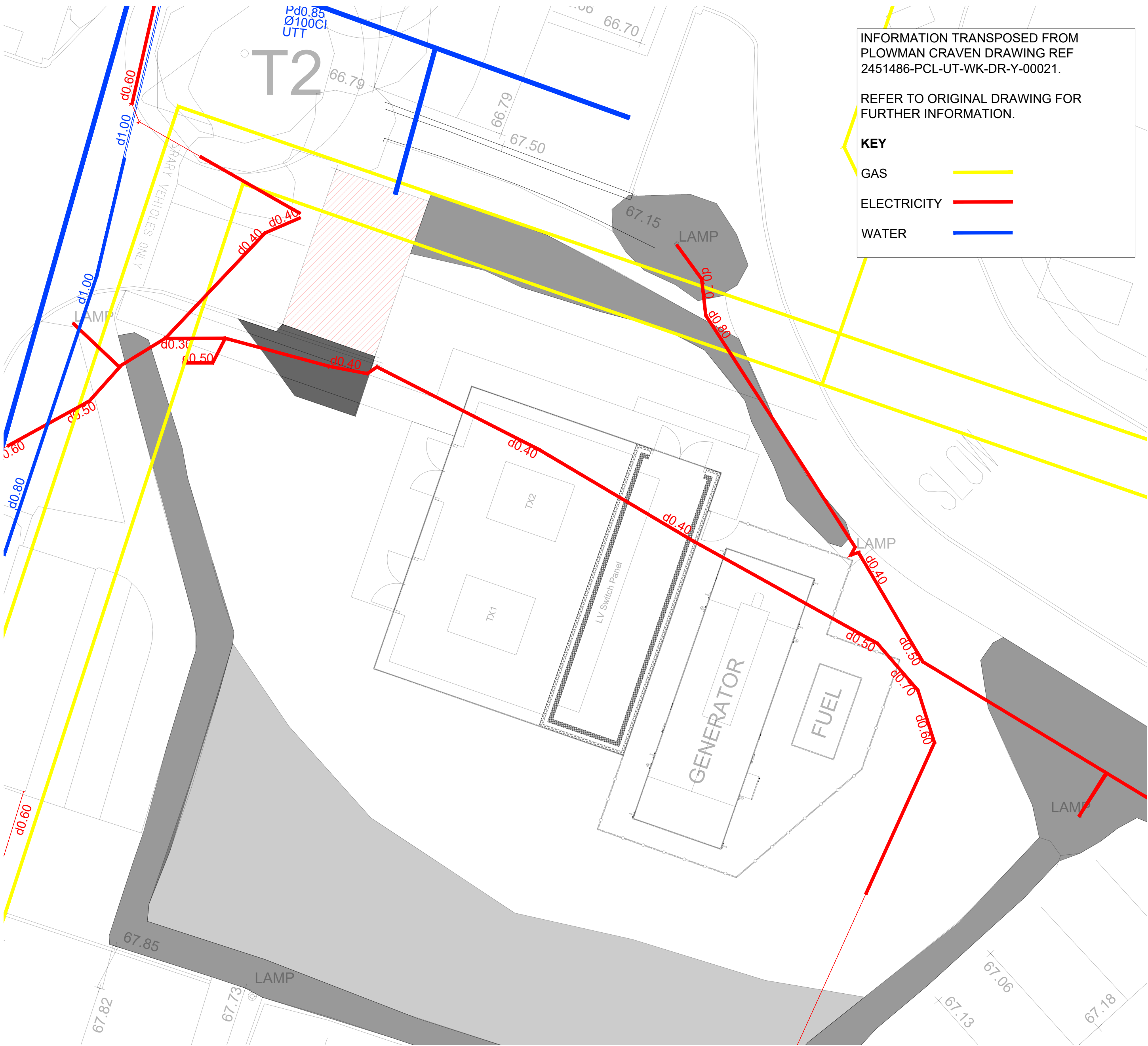
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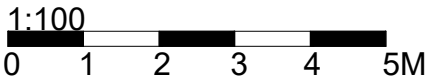
KEY

GAS ———

ELECTRICITY ———

WATER ———

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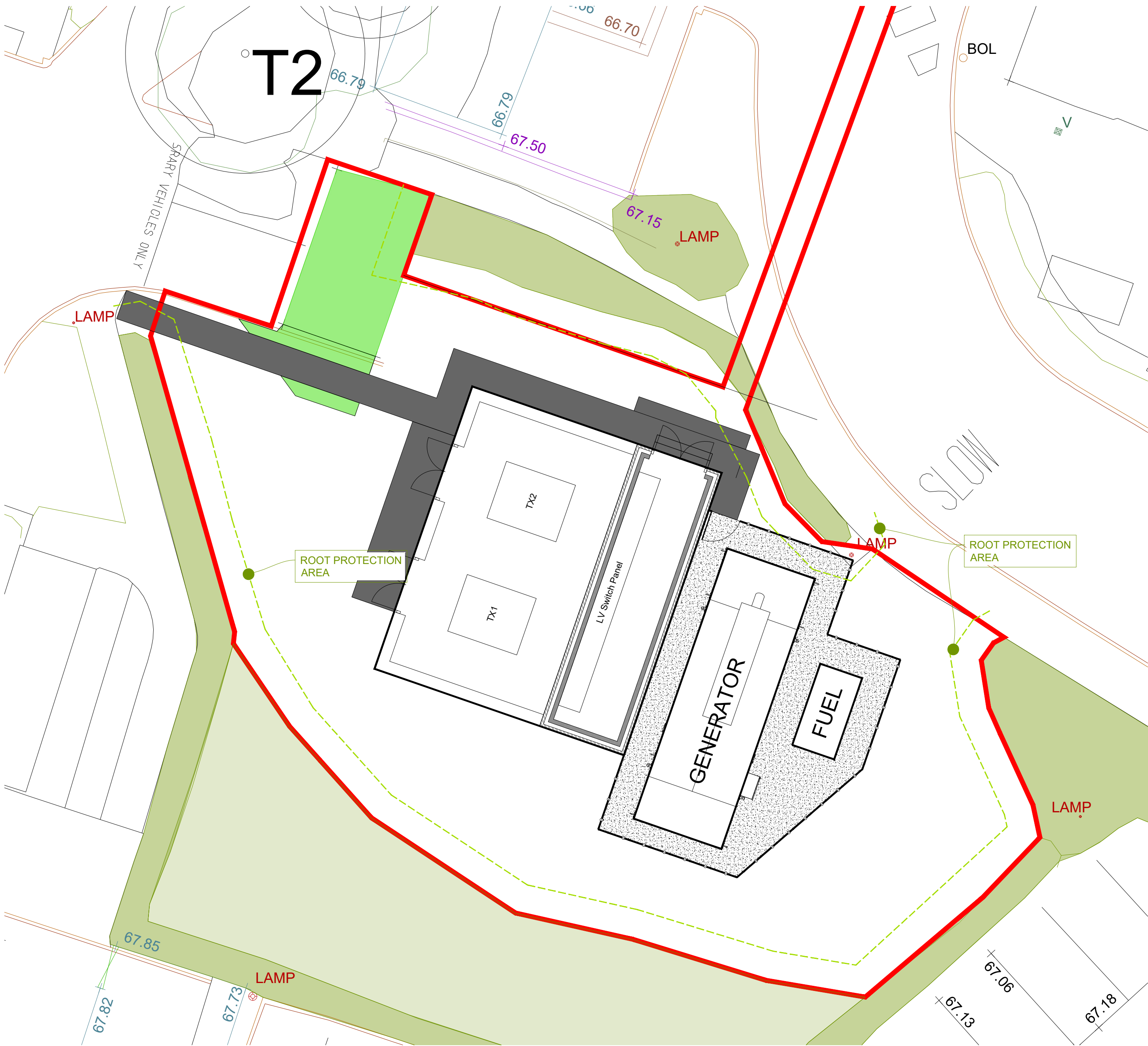


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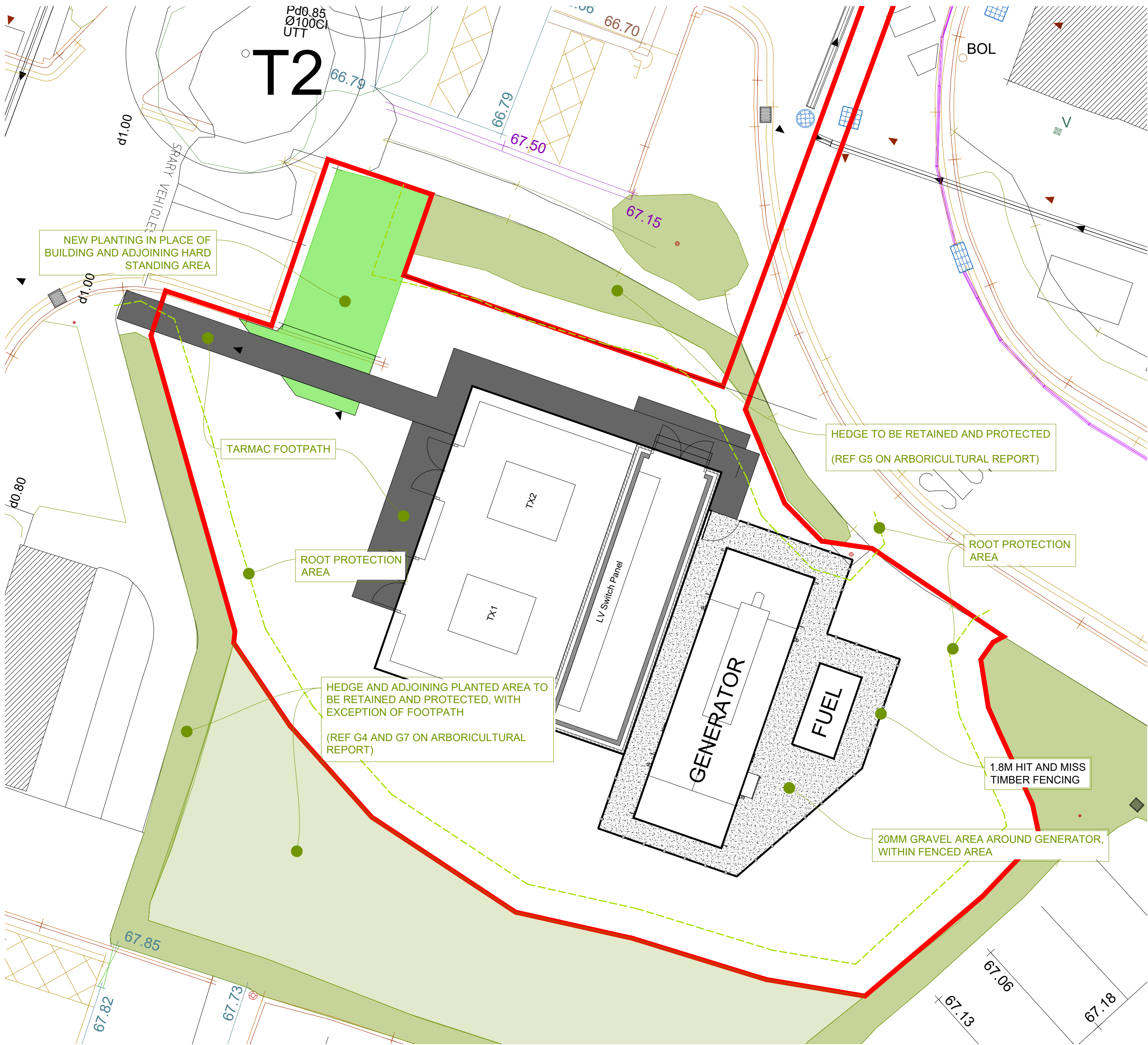
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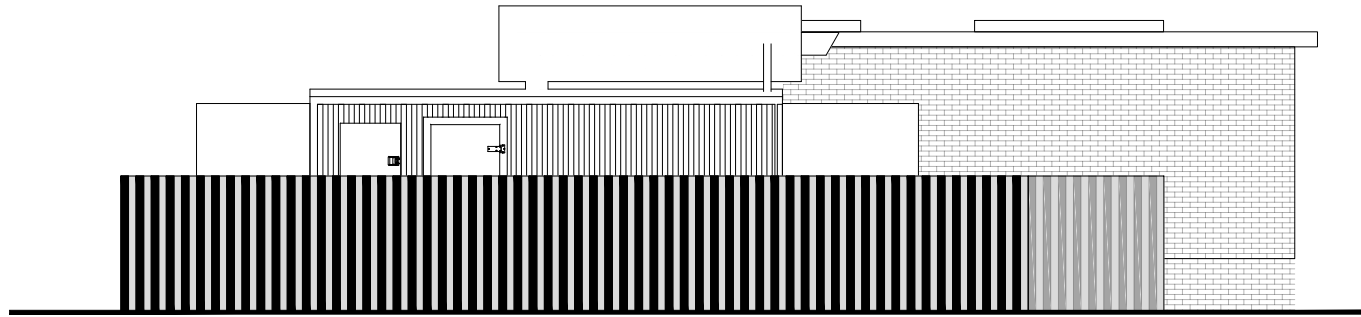
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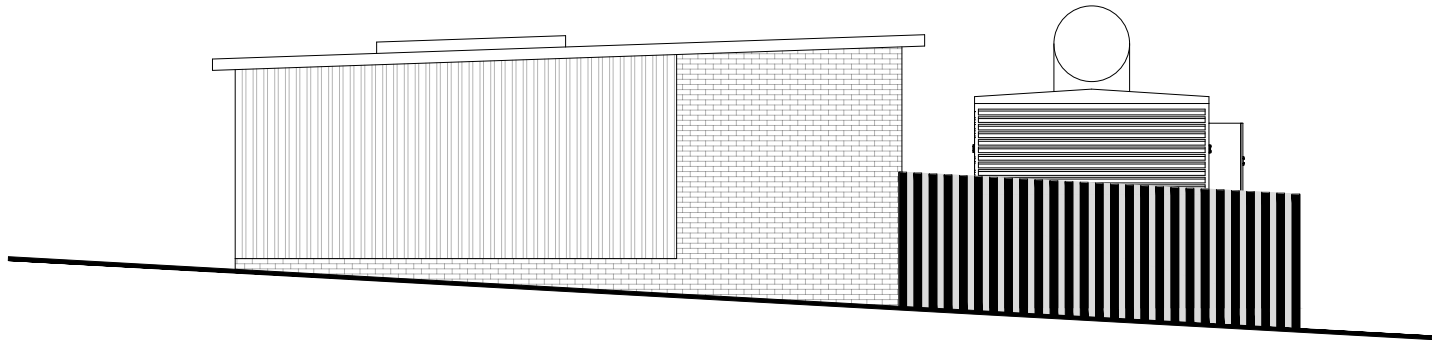
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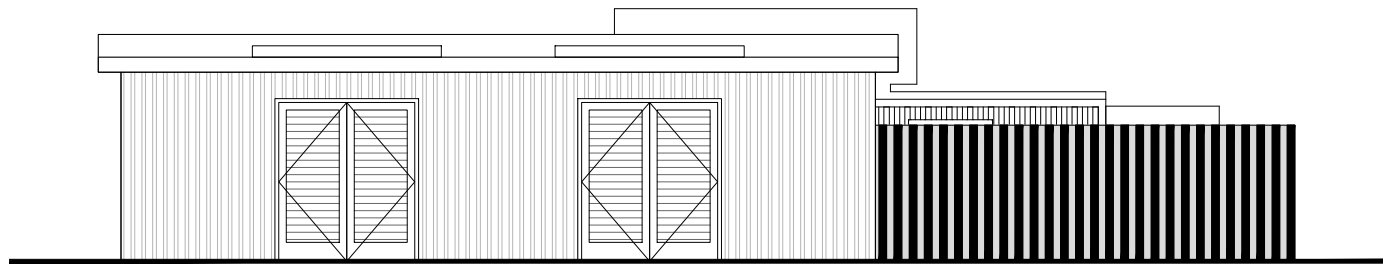
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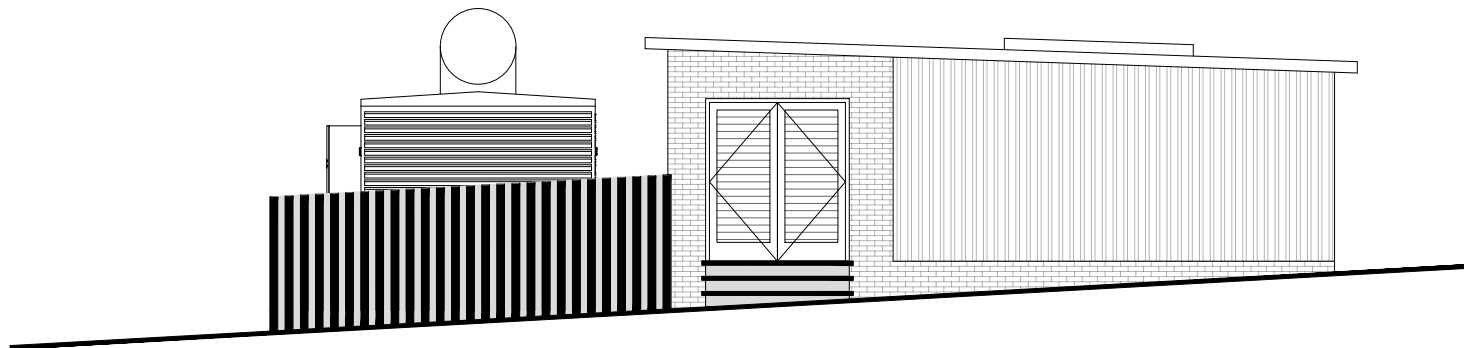
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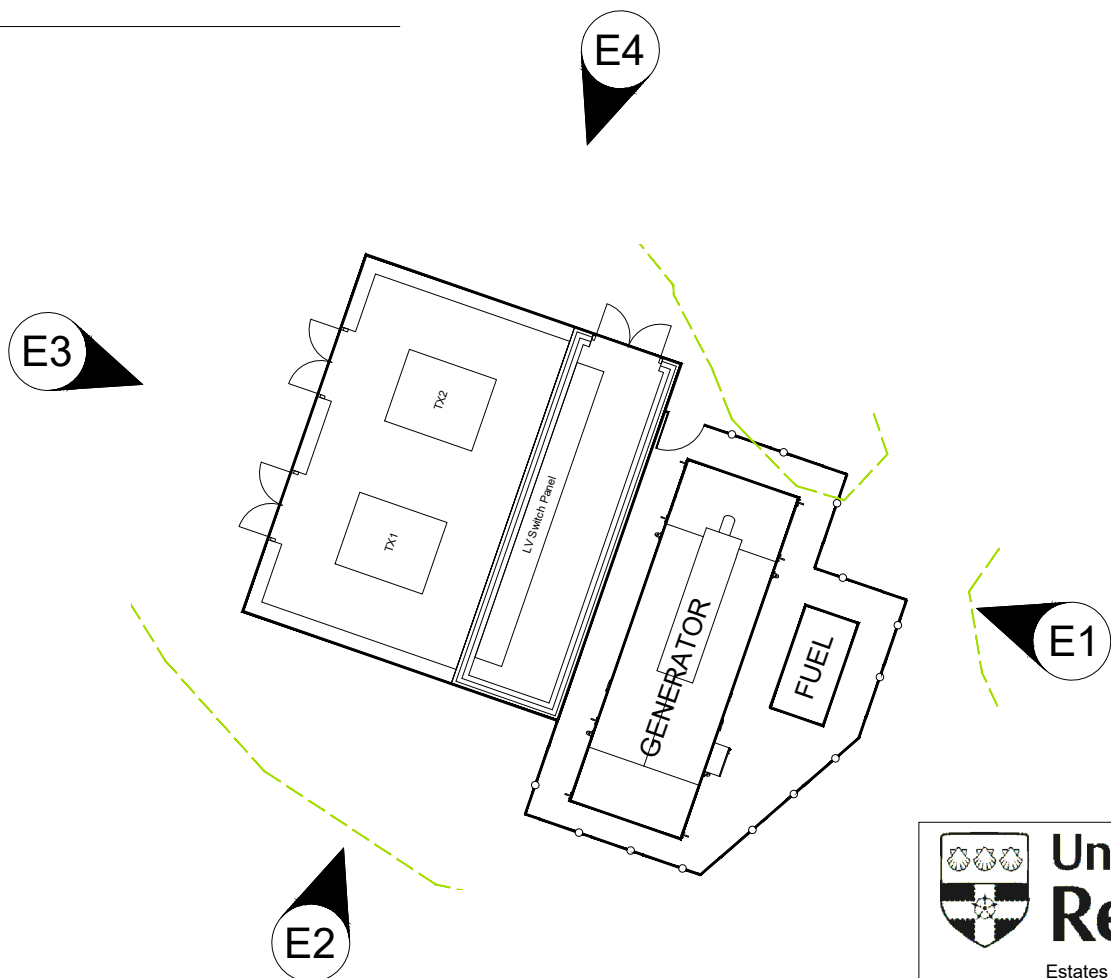
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Elevation 4
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Appendix 2

Assessment Methodology

Bats

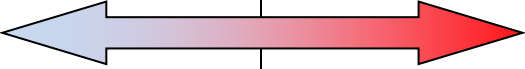
Bats use buildings and trees for roosting and breeding and, where present, a preliminary assessment of the potential for these features to support bats was undertaken during the survey in accordance with best practice guidance, including that set out within the Bat Conservation Trust's (BCT) Bat Surveys for Professional Ecologists, Good Practice Guidelines (2023).

Internal and External Building Inspection for Bats

The buildings were inspected externally with binoculars and a Clulite torch where required. Internal areas of the building (voids) were inspected, where accessible and bats and evidence of bats were looked for, including bats themselves, dead bat carcasses, bat droppings, urine staining, feeding remains, scratching and wear around access points. Where necessary endoscopes were used to investigate small spaces.

Potential roosting areas may include gaps beneath roof or hanging tiles, in soffits, or beneath the end of ridge tiles, but also under the edge of felt on flat roofs. Features considered during the external inspection, to assess the potential of a building to support a bat roost, are listed below in **Table A2.1**:

Table A2.1 *External features*

Lower Potential	 Higher Potential
Modern construction with few gaps Prefabricated with steel/ sheet materials Flat roof Roof shaded from sun	Pre/ early 20 th Century construction Pitched roof Tiled roof with natural gaps Hanging tiles or wooden cladding Cellar (hibernation potential) Bat evidence (droppings/staining etc)

Preliminary evidence was obtained through noting any staining around potential roost entrances, and looking for bat droppings, for example on windowsills. A preliminary evaluation was also undertaken of potential bat foraging habitat in the area, including woodland, pasture, hedges and watercourses.

The internal survey noted potential roosting opportunities for bats which can be factored into assessing the potential of the buildings to support roosting bats and the likely value of any such roost. If bats/ bat droppings are found, the building is a confirmed bat roost. If a roost is not confirmed, it will be necessary to give the building a potential value to bats.

In addition to the features described above, the immediate surroundings of a building, which will influence the potential of a building to support roosting bats, were investigated. **Table A2.2** below describes location factors that may affect a building's potential to support roosting bats.

Table A2.2 Location factors

Lower Potential	Higher Potential
Urban setting with few foraging areas Industrial sites Increased lighting	Rural Setting Close to woodland and/ or water Surrounded by good connective habitat

Assigning potential and value

Information from the external and internal inspection surveys was used to categorise a building as having negligible, low, medium or high potential to support roosting bats, and the likely value of any such roost. This was then used to contribute to an assessment of the overall potential value of the development site or survey site for bats.

Foraging habitat and commuting corridors

In addition to the various features described above, other features that may be of value to bats include foraging habitat and commuting corridors. These were noted during the survey. **Table A2.3** outlines foraging and commuting features and their potential value to bats.

Table A2.3: Foraging and commuting habitat features and their potential to be of value to bats

Lower potential to be of value	Higher potential to be of value
Arable field Hardstanding Defunct species poor hedgerows Isolated trees	Grazed pasture Ancient woodland Ponds with diverse marginal vegetation Wet ditches Species rich dense intact hedgerows

Overall Assessment and Assigning Value

In order to conclude whether further survey is required and if so, to design a suitable survey strategy, the overall **Potential Value** to bats is assessed, considering all of the features likely to be of value to bats (see above), and all roost features present are assigned a probability of being used by bats. This information then informs an assessment of the overall **Potential Value** for bats.

The value of a development site for bats will depend on a variety of factors (as shown in **Figure A2.1** below). Bats are nomadic and require a variety of roosts in addition to foraging areas and commuting routes.

Figure A2.1: Factors affecting the value of a site for bats

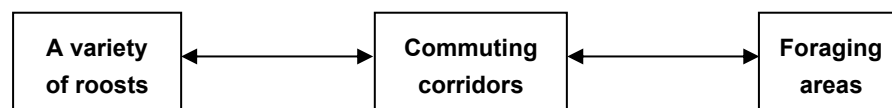
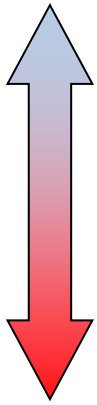


Table A2.4 below provides an example of the “value continuum” (adapted from BCT *Good Practice Guidelines*, 4th Edition, 2023).

Table A2.4: *How habitat features influence the potential value to bats*

Potential Value	Site features
LOW  HIGH	- No features likely to be used by bats (for roosting foraging or commuting). - Small number of potential roost sites unlikely to support high numbers, or rarer bat species. No maternity or hibernation potential. - Isolated site with habitats that could be used by small numbers of foraging bats. - Several potential roost sites in buildings, trees or other structures. - Habitat likely to be used by foraging bats - Site connected to the wider landscape by linear features and could be used by commuting bats. - High quality foraging habitat (broadleaved woodland, water courses etc). - High potential roost features with the potential to support maternity roosts and/or rarer species of bat.

Birds

Any birds seen whilst carrying out the survey were recorded, and the type and quality of habitats available for birds was considered, including vegetation suitable for nesting, and habitat with the potential to support valued species, including breeding and wintering bird.

Appendix 3

Site Visit Images



Figure 1. Front of Library Substation



Figure 2. Side of Library Substation



Figure 3. Side of Library Substation showing mesh covering