

LEIGHTON PARK SCHOOL

DEMOLITION AND REFURBISHMENT AT GROVE HOUSE

BUILDING INSPECTION REPORT (PROTECTED SPECIES)

FEBRUARY 2022



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INTRODUCTION

- 1.1. Soltys Brewster Ecology were commissioned by Leighton Park School to undertake a preliminary ecological appraisal to inform demolition and refurbishment works at Grove House, within the school grounds. The main building will be retained and subject to internal alterations, with more recent flat roofed extensions to the south and north east demolished. A plan showing the site location and extent of the demolition work included in Appendix I.
- 1.2. In order to inform an application to the local authority (Reading Borough Council) for the refurbishment works, a preliminary survey to establish any implications for protected species was advised as part of pre-application consultation in December 2021 (Ref: 211737/PREAPP). The current report presents the findings of an ecological data search and building inspection survey to identify any evidence of use by bats or nesting birds and advise on any required mitigation or enhancements associated with the works.

2.0 METHODOLOGY

- 2.1. In order to establish the baseline ecological conditions on site, a combination of desk-based consultation, and building inspection survey were undertaken in February 2022. The scope of survey work was based on best practice guidelines (BCT, 2016).

Desk study

- 2.2. The desk study primarily involved consultation with the Thames Valley Environmental Records Centre (TVERC) to identify any existing ecological records of designated sites or protected/notable species in the surrounding area (1km radius). A review of previous survey work undertaken at the School by Soltys Brewster in 2015/16 (Building Extension works); 2017 (New car park west of Grove House) and 2018 (New Sports Hall application) was also undertaken.

Building Inspection Survey

- 2.3. The fieldwork was undertaken on 15 February 2022 by a suitably experienced ecologist¹ and comprised of an external/internal check of the buildings to search for evidence of bats or nesting birds. The survey aimed to identify:
- if bats are, or have been, present within the building and, if so, which species are present;
 - the type of roost (e.g. maternity roost, day roost used by males or non-breeding females, feeding perch, night roost, mating roost, transitional roost, hibernaculum);
 - how bats use the buildings (e.g. location of roosting bats, exit and entrance points to the roost); and
 - the intensity of use (e.g. likely number of bats, time and duration of use).
- 2.4. External survey at the site involved the use of binoculars to identify possible access/entry points into the buildings and aimed to identify any evidence of use by bats such as droppings, staining, prey remains etc. Internal survey of the building was also undertaken where access was possible (see 2.7).
- 2.5. The surveyor searched for roost evidence (droppings, staining, scratch marks, noise, etc.) as described above and an assessment of the buildings potential to support nesting birds was also undertaken. The scope of the bat inspection survey, including timing, survey effort etc., was based on guidelines published by the Bat Conservation Trust (BCT, 2016). The potential of the building and adjacent trees to support roosting bats was determined based on the following categories (BCT 2016):

¹ Full Member of the Chartered Institute of Ecology & Environmental Management (MCIEEM) with experience of bat survey work (NRW bat licence no: S088259/1)

- **Known or confirmed roost**
- **High** - A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.
- **Moderate** – A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status.
- **Low** – A structure with one or more potential roost sites that could be used by individual bats opportunistically, or, a tree of sufficient size and age to contain PRFs but with none seen from the ground or features with only very limited roost potential;
- **Negligible** – Negligible habitat features on site likely to be used by roosting bats.

2.6 Any evidence of use of the building or surroundings by other protected species, such as nesting birds was also noted alongside a check for any invasive plant species.

Limitations

2.7. Both the southern and north eastern buildings proposed for demolition are flat roofed with no internal roof void. Internal surveys of both these structures was undertaken along with a check of basement and ground floor boiler rooms in Grove House. An accessible roof space was also present in the eastern part of Grove House although internal partition walls separate this space from any of the other pitched roof sections of the building. The ceiling within the accessible roof space did not permit access to the roof void above, although this was visible via a damaged area in the south eastern corner of the space (see site notes, Appendix II). These limitations were not considered to affect the overall assessment of the likelihood of use by bats or birds associated with the buildings proposed for demolition or internal refurbishment works.

3.0 RESULTS

Desk Study

- 3.1 The data provided by TVERC confirmed that the site does not contain any statutory or non-statutory nature conservation designations. A number of Local Wildlife Sites (LWS) are located within the surrounding area including Whiteknights Park (approx. 600m east), Whitley Park Farm/ St Patrick's Hall Pond (approx. 500m west) and The Cowsey (approx. 900m south west). Whiteknights Park is designated due to the Parkland and Wood Pasture habitats and associated species it supports. Whitley Park Farm/ St Patrick's Hall LWS is designated due to the lowland mixed deciduous woodland habitats and associated bird and The Cowsey LWS is designated due to the lowland mixed deciduous woodland it supports. Based on the physical separation from the Leighton Park School site these sites were not considered of particular ecological relevance to the current proposals
- 3.2 No records of bats or roof nesting birds were specifically associated with Grove House although the data provided by TVERC and previous site work by Soltys Brewster (2016 & 2017) has confirmed that foraging/commuting bats and a number of bird species are present within the wider School grounds. For example, surveys in 2017 to inform a new car park immediately west of Grove House identified foraging Common Pipistrelle *Pipistrellus pipistrellus*, Soprano Pipistrelle *P. Pygmaeus* and Noctule *Nyctalus noctula* although no evidence of roosting bats was identified. Bird species identified as part of the 2016/17 survey in the vicinity of Grove House included Blackbird *Turdus merula*, Wood Pigeon *Columba palumbus*, Carrion Crow *Corvus corone*, Long-tailed Tit *Aegithalos caudatus* and Robin *Erithacus rubecula*.
- 3.3 The TVERC data confirmed the presence of up to six species of bats within the 1km search area including all three Pipistrelle species (Common, Soprano & Nathusius *P.nathusii*), Brown Long-eared *Plecotus auritus*, Noctule and Daubentons' *Myotis daubentoni*. A high proportion of the records were associated with the LWS at Whiteknights and St Patricks Hall, where existing woodland habitat is present. A small number of records for roosting bats were identified in close proximity to Grove House, including Brown Long-eared and Common Pipistrelle in residential properties along Northcote Avenue (ca. 250m west) and Common and Soprano Pipistrelle at the Rural History Centre of Reading University, approximately 150m north.
- 3.4 The TVERC data included numerous records of birds although as noted above, the majority were associated with district habitat features such as Whiteknights Park to the east. Records of species often

associated with buildings included Swift *Apus apus*, recorded along Pepper Lane and House Sparrow *Passer domesticus*, associated with buildings in the southern part of the school grounds.

- 3.5 The northern (Pepper Lane) and western (Shinfield Road) boundaries at the school are characterised by tree/scrub corridors which are likely to provide habitat connectivity for a number of species (including birds and bats) in the immediate local area.

Building Inspection Survey

- 3.6 A summary of the site features and building inspection survey is provided in the following sections with further detail included in the notes and supporting photographs in Appendix II. The buildings proposed for demolition are flat roofed extensions to the original structure (Main Building) and are both brick built single storey with flat felt roof. The southern structure ('The Carbuncle') is used for school exams with a number of small internal rooms separated by partition walls. The structure at the north east corner is used as the sports changing room with lead cladding present at the sides of the flat roof to eastern and northern elevations. An adjoining two-storey structure, also with a flat roof and lead cladding is connected to the changing rooms although this will be retained as part of the works (with lead cladding repaired or replaced).

Grove House and Changing Rooms

- 3.7 Within the Main building, where internal refurbishment works are proposed, basement and ground floor boiler rooms were inspected along with a single accessible roof space for the eastern part of the building, where a pitched, tiled roof is present. No obvious means of access for birds or bats into the boiler rooms was identified and no evidence of use by either species was identified. Although the building is currently only used irregularly, it is well maintained, the doors and windows are all sound and none of the internal areas supported features that could be used by bats.
- 3.8 The accessible roof space in the eastern part of the Main building was accessed via a locked loft hatch and the space is enclosed by partition walls and a second (original) papered ceiling such that there is no connection to other pitched roof sections (see notes in Appendix II). A window in the eastern gable end means that the interior is relatively light and the window is sound, with no obvious means of access identified. A single Swift carcass was found within this space suggesting that either the window had previously been open (and subsequently shut) or that the bird had entered via a damaged section of ceiling and could not find its way back out. No evidence of bats was noted within this roof space including the area below the damaged ceiling. The roof void above was partially visible through the

damaged ceiling with timber boards visible to the underside of the roof tiles. A possible means of access (for birds or bats) into the roof void was identified on the eastern gable end, where vertical, brick lined openings were present. It was not possible to establish if there was an opening at the top of these vertical channels during the current survey. No external evidence of use by birds or bats – such as nesting material or droppings within the brick-lined channel – was identified (using binoculars) on this elevation of the building.

- 3.9 The internal check of the Changing Rooms in the north east of the site found no features suitable for use by birds or bats and no evidence of either group. The door and windows are all sound although a shallow gap was noted on both the eastern and northern elevation where the overhang of the lead cladding meets to brick/blockwork wall (Plate 1). No external evidence of bats was found on walls, windows or sills below this gap although occasional use during the active part of the year (April – October) by individual or small number of bats could not be ruled out. This gap was also present on the two storey structure in the north, fronting onto Pepper Lane. The features identified at the Changing Rooms, adjoining 2 storey extension and on the eastern gable end of Grove House were considered of **Low bat potential**, and further survey of these features would be recommended to inform the demolition/refurbishment works

Plate 1 Gap behind overhang of lead cladding, single storey Changing Rooms



Southern Extension

- 3.10 The single storey extension south of Grove House was of brick construction with a flat felt roof. The roof was in good condition as viewed from the ground and the fire escape of Grove House. The doors and windows of this building are all sound as is the overlap of the roofing felt at the roof. No external evidence of bats or birds was found and this structure was considered of **Negligible roost potential**.

Other Site Features

- 3.11 A linear belt of trees and scrub, including native and ornamental species was present to the northern boundary of the site along Pepper Lane. No felling or removal works along this corridor are proposed. Similarly, an ornamental Beech hedge to the west of the southern extension will be retained as part of the demolition works. These features are likely to support nesting birds during the breeding season (March – August) and could be used by foraging/commuting bats in the immediate local area.
- 3.12 The school grounds are well maintained and no invasive weeds (i.e. species listed under Schedule 9 of the Wildlife & Countryside Act 1981 (as amended)) were noted during the current survey in parts of the site where demolition/disturbance of the ground is likely.

4.0 LEGISLATION, POLICIES AND PLANS

- 4.1 The following legislation relating to bats and nesting birds is considered of relevance to the building and the proposed demolition and refurbishment works at the site.

Legislation Pertaining to the Protection of Bats

- 4.2 Under Annex II of the *Council Directive 92/43/EEC 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora* (EC Habitats Directive) some bat species are listed as of Community Interest, the conservation of which requires designation of Special Areas of Conservation (SACs); Under Annex IV of the EC Habitats Directive all bat species are listed as of Community Interest, in need of strict protection. In England and Wales, the EC Habitats Directive has been transposed into law in 1994 and, following recent amendments is set out in the *Conservation of Habitats & Species Regulation 2017* to give bats, their breeding sites and resting places a high level of strict protection making it an offence (subject to certain specific exceptions) to deliberately capture or kill/injure a bat, to damage or destroy a place used for shelter or protection or to deliberately disturb a bat in such a place. Case Law has placed an onus on

local planning authorities to satisfy ‘three tests’ under the Habitats Directive when determining applications that could affect European Protected Species. Essentially, these three tests are: i) that there is no satisfactory alternative; ii) that the proposed development is in the over-riding public interest (including those of a social or economic nature) and iii) the proposed development would not adversely affect the Favourable Conservation Status of the species locally

- 4.3 Bats are also afforded protection within England and Wales under the Wildlife and Countryside Act 1981 (as amended); Countryside and Rights of Way Act 2000; Natural Environment and Rural Communities Act 2006.

Legislation Pertaining to Birds

- 4.4 Under the Wildlife & Countryside Act 1981 (as amended) all wild birds are protected against killing or injury and their nests against damage or destruction whilst they are being built or contain eggs/dependent young.

5.0 CONCLUSIONS AND RECOMMENDATIONS

- 5.1 The combination of desk study & site inspection surveys have established that there was no evidence of current or historical use by bats at any of the surveyed locations at Grove House. The flat roofed southern extension was considered of Negligible roost potential and similarly did not support features that could be used by nesting birds – no further surveys would be required for this structure prior to demolition.
- 5.2 The features associated with the Changing Rooms (proposed for demolition); adjoining two-storey structure (retained but lead cladding replaced/repared) and eastern gable end of Grove House (retained with internal refurbishment undertaken) were considered of Low bat potential and use by individual or small numbers of bats during the active season could not be precluded. Similarly, use by nesting birds (March – August) of the vertical openings at the eastern gable end of Grove House could not be ruled out on the basis of the current survey.

- 5.3 An application for the demolition and refurbishment works will be submitted to the local authority (Reading Borough Council) and, subject to planning approval, works are likely to commence from summer/autumn 2022. The current report would be sufficient to allow an application to be made and validated although further survey to establish the likely presence/absence of roosting bats would be recommended – the results of this survey would be needed to allow determination of an application. Best practice guidelines for structures of Low potential require a single emergence or re-entry survey and this could be achieved using a team of up to 3 surveyors at the eastern/north eastern elevation of the building. The optimal timing for this type of survey would be between May and August.
- 5.4 The findings of the activity survey would establish if specific mitigation or licensing (if roosting bats found) would be required. If no evidence of bats was found, the following avoidance and mitigation measures would be considered appropriate for the demolition and refurbishment works.
- Contractors briefed prior to the start of works on the low likelihood that birds or bats could be present and the action to take if a bat were discovered. In unlikely event that a bat were discovered at any point, all work will stop immediately and an ecologist contacted for advice on how to proceed;
 - Removal or repair of lead cladding to be undertaken using hand-held tools (crowbars, claw hammers etc.). Access for these works is likely to require use of scaffold and/or a Cherry picker;
- 5.5 There is no indication that the buildings proposed for demolition could support nesting birds and on this basis, avoidance of the bird nesting season (March – August) for the commencement of works would not be needed. However, if use by nesting birds was identified at the eastern gable of Grove House, due consideration would be required for any works that would risk damage to nests and/or injury to the birds.

Bird & Bat Boxes

- 5.6 If the bat activity survey identifies use by roosting bats, mitigation to provide continued roosting opportunities will be required under a licence. The exact nature of this mitigation will depend on the number and species of bat identified although could take the form of providing bat boxes along the retained tree/scrub corridor to Pepper Lane and Shinfield Road. A range of box designs suitable for use on trees (and buildings) are available and include:
- <https://www.nhbs.com/improved-crevice-bat-box>
 - <https://www.nhbs.com/eco-bat-box>

5.7 Local enhancement measures for birds (including Swifts) could also be provided using integrated or surface mounted boxes, although the suitability of these would need to be checked against the historical/architectural importance of the building. A number of designs for bird boxes are available which can either be surface mounted or integrated into the building – examples of available box designs are provided at the links below.

- <https://www.nhbs.com/vivara-pro-woodstone-house-sparrow-nest-box>
- <https://www.nhbs.com/woodstone-swift-nest-box>

5.8 Where the boxes are integrated into the building, they are relatively inconspicuous and require little or no maintenance. Provision of bird boxes (e.g. 2no. for House Sparrow and 2no. for Swift) would provide a local enhancement as part of the demolition/refurbishment works².

² The type and scale of mitigation required for bats would need to be informed by the recommended activity surveys.

REFERENCES

Bat Conservation Trust (2016) *Bat Surveys for Professional Ecologists – Good Practice Guidelines*. Bat Conservation Trust, London.

Soltys Brewster Ecology. 2017. *Leighton Park School, Reading. Proposed Car Park. Ecological Appraisal Report*. Document Ref: E1565502/ Doc 01 – 02 March 2017

Soltys Brewster Ecology. 2017a. *Leighton Park School, Reading. Proposed Car Park. Bat Survey Report*. Document Ref: E1565502/Doc 02 – 02 July 2017

Soltys Brewster Ecology. 2016. *Leighton Park School, Reading. Bat Survey Report*. Document Ref: E1565501/Doc 02 - 13 June 2016

APPENDIX I LOCATION PLAN & EXISTING FLOOR PLANS



AREA KEY	
GEFA	AREA: 2,313.8 sq m / 24,905.5 sq ft
AREA OF DEMOLISHMENT	
	AREA OF BUILDING TO BE DEMOLISHED AREA: 240 sq m / 2,583.3 sq ft
ACCESS KEY	
	MAIN ACCESS
	SECONDARY ACCESS
BOUNDARY KEY	
	INDICATIVE GROVE HOUSE SITE BOUNDARY (3,412 SQM) (0.8 ACRES)
	INDICATIVE LEIGHTON PARK SCHOOL BOUNDARY (220,195 SQM) (54.4 ACRES)

NOTES:

1. TOPOGRAPHICAL INFORMATION RECEIVED FROM CLIENT ON 10.11.2018

FEASIBILITY

Revisions: A JLS 28/06/2021 Initial Issue.
B EJT JLS 19/01/2022 Site context and colour added. Areas 'to be removed' annotated.

scale 1:250 @ A3 date 19/01/2022
drawn EJT checked JLS

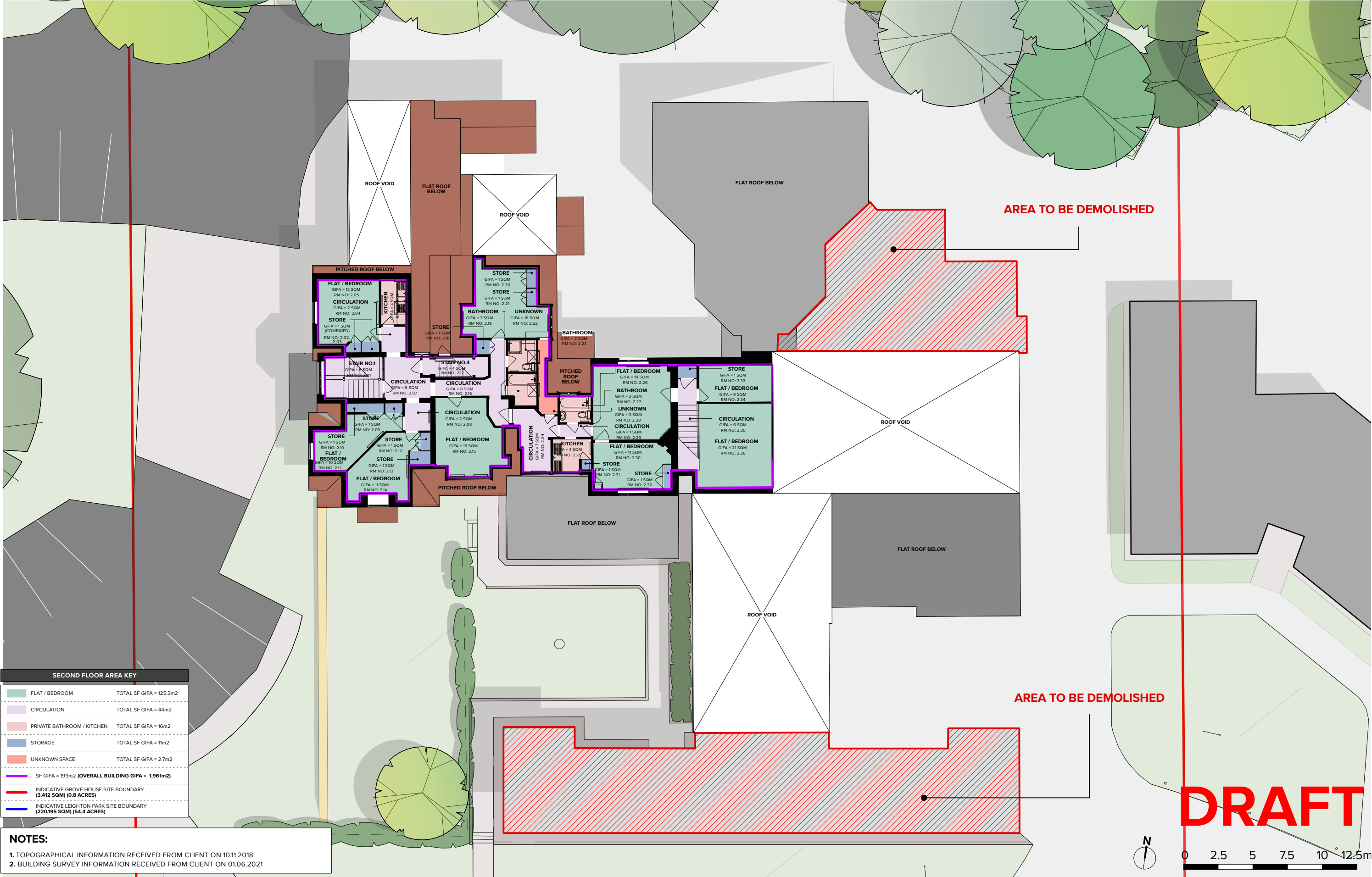
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APPENDIX II SITE NOTES & PHOTOGRAPHS (FEBRUARY 2022)

Target Note	Description/comment
	General: Demolition proposed for two single storey structures to the south and north east corner of Grove House. Both are of brick construction as additions to the original building and are flat roofed with lead panels/cladding to the structure on the north east corner. A 2 storey structure on the northern elevation will have lead cladding renewed but will otherwise be retained. Internal works to the main building to create a vaulted ceiling in the eastern part are also being considered.
Interior Rooms – Main Building	Internal inspection of ground floor and basement boiler rooms of main building. Both are accessed via locked, interior doors – no means of access from outside. No evidence of bats found in either location and no obvious light or draught ingress or means of access.  
Rood Void – Main building	Single accessible roof space present in eastern part of building – roof space oriented east/west. Accessed via first floor room which overlooks flat roofed structure to north east corner. Rood space has been partitioned with internal walls and papered ceiling such that it does not connect to any other roof space. Damage to ceiling in south east corner exposed the original roof space above with timber planks visible to underside of tiled roof – no direct access into this void.

Target Note	Description/comment
	Accessible space is relatively light due to window in eastern gable end – this window is sound with glass intact. Dead Swift found inside space which suggests window may have been left open (and been blown shut). Old bird splashing (droppings) also present to roof timbers alongside the window. No features in accessible space for use by bats and no evidence found. Similarly, no evidence on floors or walls below damaged section of ceiling.

Target Note	Description/comment
	
Single Storey extension to south ('carbuncle')	Single storey brick with concrete roof plinth and flat felt roof. Doors and windows are all sound and no obvious means of access to interior noted. Building subdivided into a number of small exam rooms – no internal features suitable for use by bats and no evidence found.   Felt roof as visible from fire escape of adjacent main building is sound as is felt

Target Note	Description/comment
	overlap to concrete roof plinth – no obvious gaps and no external evidence of bats noted on any window panes, sills or frames.  Overall: Negligible Bat Potential.
Eastern Gable – main Building	Vertical brick-lined openings above window – not possible to establish if there is an opening or cavity at the top of the opening. No droppings (bird or bat) visible from ground level using binoculars. If top of the channel is ‘open’ would allow access into roof void above ceiling noted previously. 
Single storey	Single storey extension to north east with door and windows all intact – several

Target Note	Description/comment
building (Changing Rooms)	windows are slatted to allow ventilation of sports changing rooms – no internal evidence of bats or birds found (rooms are clean and in use).  Flat roof and cladding to two -storey building visible from first floor or main building. Roof is generally sound (including timber cladding to lower level) and while lead cladding is peeling in places, no obvious features for bats identified.   Covered porch to entrance door on eastern side is sound – no damage or gaps around plywood ceiling and no droppings/evidence of bats on floors, walls or door. Light fitting present – likely to limit any potential use by bats if this is on at

Target Note	Description/comment
	night.  Eastern and northern elevations of changing rooms with narrow gap behind the lead cladding where this overlaps with brick/blockwork wall – cavity approximately 20 – 30mm wide and to a height of ca. 100mm. No external evidence at any location on windows, walls or sills  Two-storey, lead clad structure adjoining changing rooms to be retained but cladding likely to be removed/repaired. Gap behind overhang present at top of ground floor level as noted for Changing Rooms. No external evidence of bats noted. 

Target Note	Description/comment
	<i>North eastern extension and eastern gable of Main Building</i> - No external or internal evidence of bats was found although features identified offer possible access and could support use on an occasional/irregular basis by individual or small numbers of bats during the active period of the year (April – Sept). Site is located in residential area but with scattered trees within the school grounds and tree/scrub corridors to north and west providing local habitat connectivity. <i>Overall these parts of the building were considered to be of Low potential.</i>
Trees and Scrub to Pepper Lane	Linear belt of trees and scrub along Pepper Lane – likely to be used as corridor for movement by bats or birds in immediate local area. 