



BJ Collins
PROTECTED SPECIES SURVEYORS

BAT SURVEYS 2022

**39 MAIN STREET
CARLTON
MARKET BOSWORTH
LEICESTERSHIRE**

A report to:

Mr and Mrs J Igoe
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Carlton
Market Bosworth
Leicestershire
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Report to:	Mr and Mrs J Igoe
Report Title:	Bat Surveys 2022

Survey Site/Job:	39 Main Street, Carlton, Market Bosworth, Leicestershire
OS Grid Reference:	SK3960 0502

Survey Date(s):	16 th of August & 23 rd of August 2022
Surveyed by:	Mr B J Collins MSc MCIEEM & Mr I Nixon MCIEEM

Architect/Agent:	DCI Architecture Limited
Planning Reference:	NA

Versioning and Quality Assurance

Report Status	Date	Author(s)	Reviewed by
Final version	17/10/2022	Ms H Spencer MSc	B J Collins MSc MCIEEM

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The evidence which we have prepared and provided is true and has been prepared and provided in accordance with the Code of Professional Conduct.

RELIANCE - The report describes the conditions and ecological features on the site (and possibly its environs) at the time of survey and that this may (is likely to) change over time. Reliance upon the findings of this report should be determined in accordance with the Chartered Institute of Ecology and Environmental Management guidance on the longevity of ecological surveys, see Advice Note (April 2019) *On the Lifespan of Ecological Reports and Surveys* CIEEM.

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SUMMARY

This report has been prepared by BJ Collins Protected Species Surveyors Limited for DCI Architecture Ltd on behalf of the site owners, Mr and Mrs Igoe. The report provides the results of protected species surveys, focused on bats (*Chiroptera*), of the dwelling at 39 Main Street, Carlton, Leicestershire, CV13 0BQ.

The protected species surveys, which consisted of a preliminary bat roost assessment and follow-up bat emergence and activity survey, were undertaken in the active season of 2022. The objective of these surveys was to assess the building with regards to roosting bats in order to inform the proposed development works and ensure that they remain lawful.

The preliminary bat roost assessment located evidence of roosting bats within the main attic space of the dwelling, over the original house section. It also found evidence of roosting associated with the two-storey extension. The evidence was such as to suggest that the original house attic space was of high potential of supporting roosting bats and the extensions were of moderate potential.

The survey was carried out at the end of the peak survey season and was therefore supported by a single emergence and activity survey. The emergence and activity survey found a single bat emerging from the eastern end of the ridge of the traditional house, from the evidence this was believed to be a Brown long eared bat. This discovery aligned with the extent of evidence within the attic space that the structure supported day roosting bat(s).

As a result, the redevelopment will need to be covered under a European protected species license, in order to ensure that activities that impact upon the existing dwelling remain lawful. It is anticipated that works required to the existing dwelling, proposed as the annex, would comprise of the removal of the roof extensions on the north elevation and reroofing. In this instance materials should be chosen which are favoured by roosting bats, specifically a bitumen based under felt, and bat access tiles will need to be installed.

The survey was completed at the end of the season and it was not possible to complete a full complement of emergence and activity surveys in the designated season. Therefore works to demolish the extensions and reroofed the annex should be phased, allowing for two further surveys after May 2023 and the licensing period.

To this end it is recommended that the planning approval is subject to a condition requiring a European protected species derogation licence in advance of works impacting on the existing building.

This will allow the construction of the new dwelling to the north to proceed in the intervening period. The survey found no activity by bats in the area proposed for the new dwelling.

The survey also found no evidence of historic bird nests. The roof covering of the original house contains a range of features which are often exploited by nesting birds, including for gaps underneath tiles and lead flashings. As a result a precautionary approach is required to ensure there is no impact upon nesting birds. To this end, it is recommended that the demolition of the building extensions and the roof repairs are carried out after precautionary check for nesting birds.

No other protected species will be negatively affected by the development proposals.

1. INTRODUCTION

This report has been prepared by BJ Collins Protected Species Surveyors Limited for DCI Architecture Ltd on behalf of the site owners, Mr and Mrs Igoe. The report provides the results of protected species surveys, focused on bats (*Chiroptera*), of the dwelling at 39 Main Street, Carlton, Leicestershire, CV13 0BQ. The site is centred upon the OS grid reference, SK39600502.

The protected species surveys, which consisted of a preliminary bat roost assessment and one follow-up bat emergence and activity survey, were undertaken in the active season of 2022, which runs from May to September annually. The objective of these surveys was to inform the proposed development works and ensure that they remain lawful.

The legislation with regard to bats (*Chiroptera*) is listed below.

1.1 Legislation applicable to bats

All species of British bat and their roosts are protected under British law by the Wildlife and Countryside Act 1981 (as amended), and bats are classified as European Protected Species under the Conservation of Habitats and Species Regulations

the Conservation of Habitats and Species Regulations (Amendment) (EU Exit) Regulations (2019) which continue the same provision for European protected species, licensing requirements, and protected areas after Brexit.

The legislation makes it an offence to kill, injure or disturb a bat and/or to damage or destroy a breeding site or resting place for a bat. It is also an offence to disturb the animals such that it impairs their ability to survive, to reproduce, to nurture their young, or such that it impairs their ability to hibernate or migrate. Under this legislation development work that could affect a bat or bat roost can only be permitted under a licence from Natural England.

Licences in respect of European Protected Species affected by development can be granted under Section 55(2) (e) of The Conservation of Habitats and Species Regulations (Amendment) (EU Exit) Regulations (2019), for the purpose of preserving public health or public safety or other imperative reasons of overriding public interest including those of social or economic nature and beneficial consequences of primary importance for the environment.

Under section 55(9) of the Regulations licences can only be issued if Natural England is satisfied that:

there is no satisfactory alternative to the work specification
and the action authorised will not be detrimental to the maintenance of the population of the species at a favourable conservation status in their natural range.

Natural England aim to process EPS licence applications within 35 working days of receipt and Low Impact Class licenses are typically registered within 14 working days of receipt.

1.2 Legislation applicable to birds

Under the Wildlife and Countryside Act 1981 (as amended), all native birds and their nests, whilst in use, are protected from harm, disturbance or destruction during the breeding season. To avoid conflict, development work that could affect breeding birds should be timed to take place outside of the breeding season, variable between March and September. Note that a nest is protected from the beginning of its construction until the young have fledged and have left the nest.

2. SITE DESCRIPTION

2.1 Location of 39 Main Street, Carlton

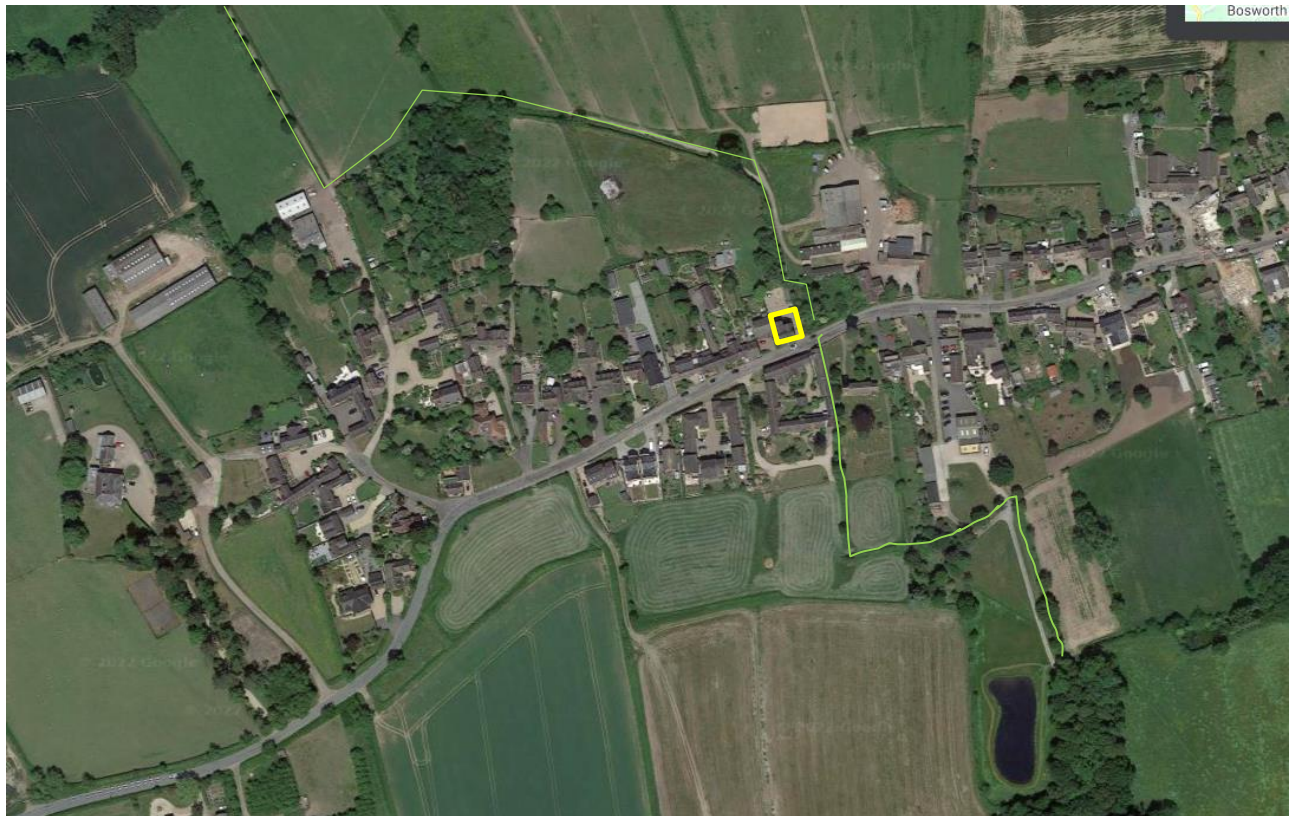


Figure 1: The situation of 39 Main Street, Carlton encircled in yellow, in relation to the surrounding landscape, courtesy of Google Earth. The green line indicates habitat connectivity into the local landscape suitable for bats.

The survey site comprises the original traditional brick built dwelling with more recent extensions to the north and a garage block to the north-east. The garden of the property comprises an extensive area of grassland surrounded by mature trees and hedgerows which provide connectivity to tree lines and woodland to the north-west. Immediately east of the property is an area of orchard and mature garden which also has connectivity via tree lines to deciduous woodland and water bodies to the south and south-east.

The property and the landscape surrounding provides good opportunities for commuting and foraging bats and the village itself provides a range of properties with suitable bat roosting potential.

The surveyor searched the Magic Mapping Application online resource looking for Statutory and Non-statutory Designations as well as optimal habitat for bats such as Ancient Woodland. The search returned one result within a 1km radius of the site. This was the Ashby Canal SSSI. The proposal will have no impact upon this wildlife site.

Additionally, the surveyor searched for previous granted European Protected Species Licences within a 1km radius and located none, the closest being associated with Market Bosworth to the south.

2.2 Description of the dwelling

The survey building consists of a traditional two-storey dwelling that has been extended with 2 wings added to the northern elevation, attached to the ridgeline of the existing dwelling.

The original traditionally built property has a ridgeline running west to east and is constructed from solid brick and covered with a rosemary tile roof, which is not lined. Attached to the northern elevation of this building are two extensions.

Located to the north-east of the dwelling is a single-storey garage. The access to the garage and rear of the property is of brick pavers which form a yard area to the northern side of the building.

In the property to the immediate east of the house is an area of mature orchard that links to an overgrown Hawthorn hedgerow to the north and then to hedgerows in the wider area. This same area then has connectivity to the churchyard immediately south and from there via tree lines and hedgerows to areas of deciduous woodland and wetlands to the south-east



Photograph 1: the frontage to 39 Main Street, Carlton. This shows the two-storey traditional dwelling section being retained as part of the development.



Photograph 2: view looking south from the northern garden area showing habitat connectivity to the dwelling and adjacent churchyard to the left (east) of the property and the garage block and house extensions proposed for demolition and redevelopment.



Photograph 3: showing the two house extensions proposed for removal to make way for the redevelopment.



Photograph 4: showing the garage proposed for removal as part of the development proposal.

3. SURVEY METHODOLOGY

3.1 Preliminary Bat Roost Assessment

A preliminary bat roost assessment was undertaken to the dwelling on the 16th of August 2022. This survey was completed in accordance with the Good Practice Guidelines (Collins 2016), comprising a visual inspection of all areas of the building (formerly referred to as a bat scoping survey).

The methodology included examining the dwelling for potential roost features and assessing the likelihood of these features being used by bats. This included searching for evidence of bat roosting in the form of feeding remains, droppings, staining, worn surfaces and the bats themselves (alive or dead).

The attic space over the dwelling and the interior of the garage was accessed and searched. Equipment used included a powerful torch, collapsible ladders, camera, and binoculars.

3.2 Emergence and Activity Survey

Due to seasonality the building was assessed for its current bat occupation by a single emergence and activity survey.

The survey was carried out in the peak season, May to the end of August, and in accordance with national guidelines.

The survey was completed by deploying one experienced and licensed bat ecologist and one experienced assistant ecologist. The surveyors used a range of equipment including Pettersson D-1000x, Pettersson D-240x and Anabat Express Full Spectrum. Sound recordings analysed by Ian Nixon utilising BatSound version 4.2.1 and Anabat Insight version 2.0.4-0-g0f5195b.

Night vision recording equipment was also used in support of the surveyors. Video cameras (a Canon XF200 and a Canon XA35), equipped with night vision infrared capability combined with IR130 infrared lights with 18 SMD5050/42u LEDs were positioned looking at the north and south elevations of the building. The footage was reviewed by Ian Nixon using VLC media player version 3.0.17.4 software.

The emergence survey began 15 minutes prior to sunset and lasted for 105 minutes each.

All bat activity was documented by the surveyors.

3.3 Survey constraints

The surveyor did not encounter any significant constraints with regards to the preliminary bat roost assessment. Access was available to all areas of attic spaces and the interior of buildings.

The constraints with regards to the survey were the amount of emergence and activity surveys able to be completed before the close of the active season, at the end of August 2022. This has been offset by mitigation within this document.

3.4 Weather Data

Date	Sunset/ Sunrise	Temperature (°C)		Cloud Cover (%)		Wind (Beaufort)		Precipitation
		Start	End	Start	End	Start	End	
23/08/2022	20:00	22.2	20.1	100	50	0	0	None

Table 1: Weather data for the emergence and activity survey.

3.5 Personnel

The preliminary bat roost assessment was undertaken by B J Collins MSc MCIEEM (Bat licence 2015-13152-CLS-CLS) and registered consultant RC110.

The emergence and activity survey was led by Ian Nixon MCIEEM (registered to use Natural England Class Licences WML-CL19 and WML-CL20 to survey bats; registration numbers 2015-12336-CLS-CLS and 2015-12338-CLS-CLS respectively).

Date	Surveyor	Position	Licences (If applicable)
23/08/2022	Ian Nixon	North-west of the dwelling	Natural England Class Licence: 2015-14621- CLS-CLS
23/08/2022	Victoria Smith	South-east of the building	None

Table 2: Surveyor data from the emergence and activity survey, with the lead surveyor shown in bold.

4. SURVEY RESULTS

4.1 Preliminary Bat Roost Assessment Results

The internal and external search of the garage block north-east of the dwelling found no evidence of bat roosting and no features with significant bat roost potential. No further emergence and activity surveys were recommended.

The search of the interior of the dwelling space comprised of access to and investigation within the attics. There are three interconnected attics above the second floor of the dwelling. This comprises of the main attic of the original traditional section of the house with the ridge line running east to west. This is approximately 2.8 m tall and is covered with a rosemary tile roof which is not lined. The tiles were traditionally underlined with lime torching and this has failed in many areas. There was a light covering of fibreglass insulation across this attic. Daylight was accessing the attic in many areas.

There are then two extensions on the north elevation of the roof. This leads to two separate but interconnected attic spaces covered with rosemary tiles on a modern plastic membrane. These attics are laid upon a pre-trussed rafter frame and there is a layer of fibreglass insulation in place.

The search of the attic spaces found an aggregation of droppings at the apex of the north-western extension. This amounted to approximately 50 droppings typical of those voided by the Pipistrelle (*Pipistrellus* sp.) bat species.



Photograph 5 - Pipistrelle droppings below the ridgeboard in the north-east extension

The search of the main attic space found one aggregation of old droppings typical of those voided by the Brown long eared bat (*Plecotus auritus*) in one isolated location. This amounted to approximately

100 old droppings, all grey and desiccating. There was a similar but lighter aggregation at the western end of the roofline below a large gap in a ridge tile in this area suggesting a potential bat roost access.

There was then a smaller number of more recent droppings scattered throughout the attic, with no aggregation sufficient to suggest a number of bats or an established bat roost such as a maternity colony.



Photograph 6 and 7 - aggregations of droppings found within the traditional attic space area

Externally, there was a potential roost access point in the north-western extension by a gaps underneath tiles in this location. There was then potential access into the attic over the traditional house section via multiple gaps under tiles and ridge tiles.



Photograph 8: example of potential bat roosting feature under ridge tiles on the main traditional house.



Photograph 9: example of the multiple gaps present under the existing rosemary tiles on the traditional house section.

4.2 Emergence and Activity Survey Results 9th September 2022

For the emergence and activity survey, two ecologists were deployed positioned on the north-west and south-east corners of the dwelling ensuring all elevations were under observation simultaneously. The surveyors were further supported by two night-vision video cameras and infrared floodlights.

The surveyor to the north-west of the building recorded a total of 26 events from four species of bat. The first bat pass and the most abundant across the survey period was that of Common pipistrelle (*Pipistrellus pipistrellus*) which was recorded at 20:27 hours and then with a total of 14 events across the survey period until 21:35 hours. The second most abundant species was the Noctule bat (*Nyctalus noctula*) which was flying across the top of the building foraging or commuting on a total of 9 occasions. There was then a single pass by a Soprano pipistrelle (*P. pygmaeus*) at 21:09 hours and 2 passes by a *Myotis* bat at 21:01 hours and 21:26 hours.

No bats were observed emerging from out of the building or associating such as to suggest future roosting from the surveyor on this position. The Canon night-vision video did not record any bats emerging from out of the northern section of the building.

The surveyor monitoring from the south-east of the building recorded the first bat as a Common pipistrelle at 20:33 hours. From this point on the route total of 30 events logged from a total of 4 species. Again the most abundant was the Common pipistrelle with 24 separate events, Soprano pipistrelle with a single event, Noctule with 3 passes high over the building and 2 passes recorded from Brown long-eared bat.

The surveyor on the south-east of the building recorded a single bat, considered to be Brown long eared bat, emerging from the ridge by the eastern chimney at 20:42 hours.



Figure 2 - Field of view from Camera F at end of survey 21:37:30. The bat emerged from the area encircled in red.

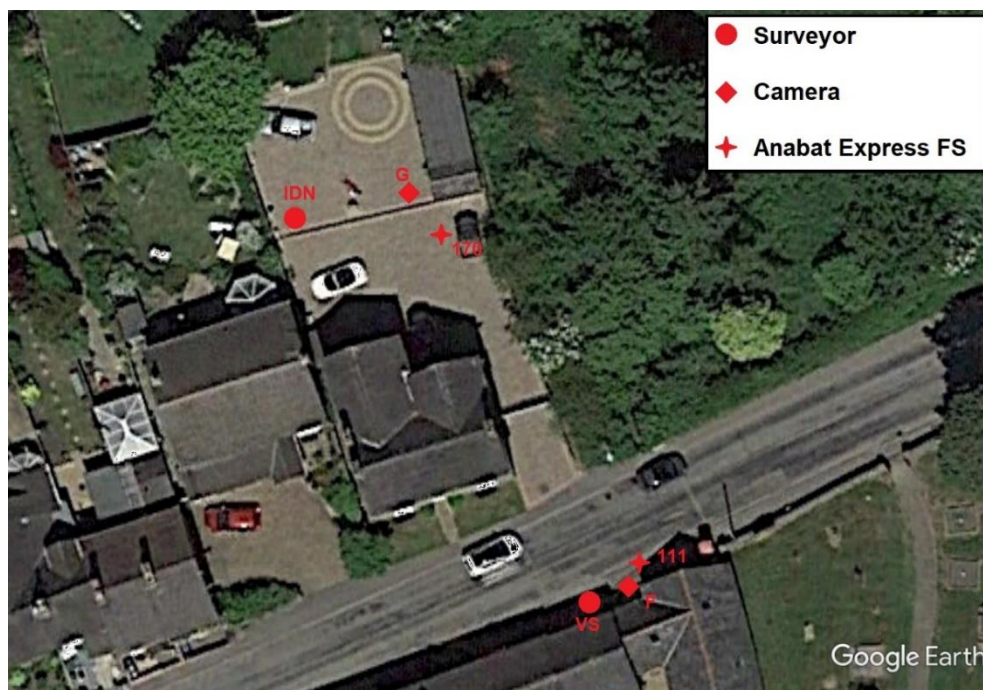


Figure 3 - showing the positioning of surveyors and night vision video equipment

5. EVALUATIONS AND RECOMMENDATIONS

5.1 Bats

The findings of the preliminary bat roost assessment recorded evidence of the use of the attic space over the building by two species of bat on an ad hoc basis by a small number of bats. This was assessed as being one of the Pipistrelle bats in one small location in the north-western extension and a species almost certainly the Brown long-eared bat with evidence of an old established roost and a general spread of droppings under the ridge line to suggest limited use of this area by this species as a day roost by an individual or small number of bats.

The results of the follow-up survey recorded a single bat emerging from the eastern ridge line adjacent to the chimney. The lack of echolocation and the general behaviour of the animal suggests this was a Brown long-eared bat. There were no bats observed emerging from the location where evidence of the Pipistrelle bats had been found. The survey was carried out at the end of the peak survey season, August 2022, and was therefore supported by a single emergence and activity survey.

It is therefore the conclusion of this report that the building supports an active bat roost for an individual Brown long-eared bat. Further, that the building has the potential to support day roosting pipistrelle bats. The building is therefore protected by law from damage to the roost area and disturbance to any bat whilst in occupation.

As a result, the redevelopment will need to be covered under a European protected species license in order to ensure that activities that impact upon the existing dwelling remain lawful. It is anticipated that works required to the existing dwelling, proposed as the annex, would comprise of the removal of the roof extensions on the north elevation and reroofing overall. In this instance materials should be chosen which are favoured by roosting bats, specifically a bitumen based under felt, and bat access tiles will need to be installed.

The survey was completed at the end of the season and it was not possible to complete a full complement of emergence and activity surveys in the designated season. Therefore works to demolish the extensions and to re-roof the annex should be phased, allowing for two further surveys after May 2023 and the following licensing period.

To this end it is recommended that the planning approval is subject to a condition requiring a European protected species derogation licence in advance of works impacting on the existing building. The roost is categorised as being of low conservation significance in accordance with Mitchell-Jones (2004) and as a result provide confidence that an EPS licence will be granted by Natural England.

This will allow the construction of the new dwelling to the north to proceed in the intervening period.

Chapter 6 contains a mitigation strategy to cover the progression of the development under this methodology.

5.2 Breeding Birds

There was no evidence of nesting birds at the time of the preliminary bat roost assessment. The roof over the traditional building contains defects which offer opportunities for building associated birds to nest.

Therefore, if works are required to the fabric of the traditional house area during the breeding bird season, which runs from March to September, then a precautionary inspection is required in advance of works. then the nest must remain undisturbed and a 5m buffer zone should be created around and above it. The zone around the nest site is to remain free of construction activities

the commencement of the building of the nest until the young have fledged and left the nest.

6.

6.1 Summary and Introduction

The discovery of an individual bat roosting within the attic space of the traditional section of dwelling, combined with evidence in the form of historic dropping depositions determined that the attic space over the traditional house support day roosting bats, which includes for the Brown long-eared bat and most likely one of the Pipistrelle species on a transient basis. Therefore, works which impact upon this building will need to be covered by a European protected species derogation licence.

An EPS licence application must be supported by a mitigation strategy. The fundamentals of the mitigation strategy are to safeguard roosting bats from harm during works and to provide permanent alternative roosting habitat proportionate to the species and roosts identified during the surveys.

The following bat roosts have been identified and the mitigation required is outlined:

Common pipistrelle roost an integrated bat tube will be installed into the exterior of the eastern gable wall of the renovated annex.

Brown long-eared bat day roost the attic space will be retained within the traditional section of the building for continued roosting by Brown long-eared bats. To facilitate this, access points will be installed in the locations identified by survey and the new roof covering will be underlined with traditional bitumen based under felt.

6.2 Timing of works

The evidence provided by the preliminary bat roost assessment and the emergence and activity survey is that the site supports a day roosting bat. As such, extensive research has demonstrated that these animals are able to utilise alternative roost features whilst development work is ongoing. There is therefore no significant constraint to the proposal with regard to timing. Ideally, to avoid any implications with regards to hibernating bats, works to the roof covering over the traditional house should avoid the period of November to April annually.

It is recommended that a planning condition is framed requiring a European protected species derogation licence in advance of works impacting upon the existing dwelling. Given the location of bat roosts and the flight lines to and from the building observed there were no constraints identified to the construction of the new dwelling section north of the existing. This is shown graphically below:

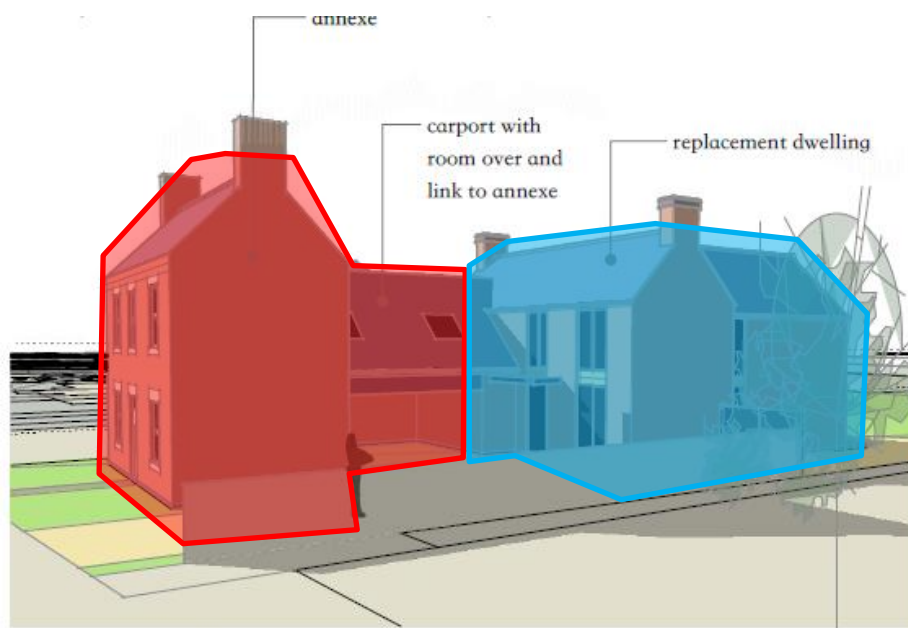


Figure 4 area in red must be left unaffected by development until an EPS License is in place. Area in blue can proceed without any impact upon the bat roosts located.

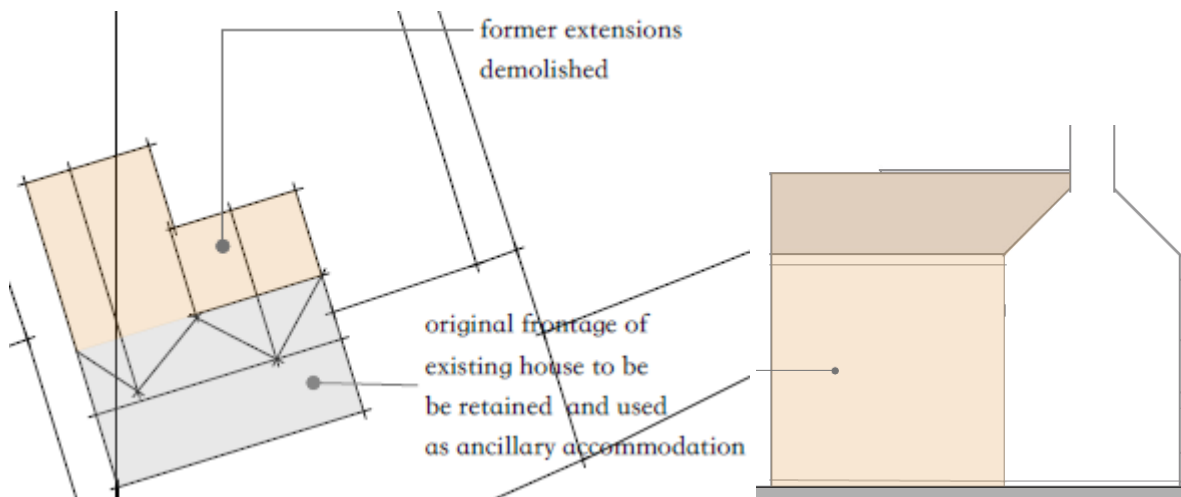


Figure 5 further figure indicating the sections of the existing dwelling being demolished and those being retained.

6.3 Temporary bat roost habitat

Upon the award of an EPS licence temporary roosting habitat in the form of timber bat boxes will need to be installed on trees outside the area of works. The purpose of these boxes is to provide a temporary roost environment for any bats found during the works and habitat whilst mitigation is being prepared and installed.

Roost features and potential roost features, specifically the roof covering of the traditional dwelling and the two northerly extensions, will need to be removed by hand with care and under the supervision of a licensed bat ecologist. Any bats found will need to be transferred by hand to the timber bat boxes by the licensed bat ecologist.

Permanent roosting habitat will need to be installed within the redeveloped building. Furthermore, safeguards with regards to exterior lighting and roofing membranes will also need to be implemented so that roost entrances and commuting routes remain free from light pollution, and safe for bats to use.

6.4 Permanent roost provisions

6.4.1 Pipistrelle Bat Day Roost Habitat

Like-for-like habitat for the pipistrelle bats is required due to evidence that suggests previous use by this species by dropping evidence. Whilst this bat species was not present during the August 2022 survey, sufficient activity was present around the building to suggest usage in the future.

The mitigation design is to install an enclosed bat tube into the eastern gable of the traditional dwelling, to be converted to an annex, and rendered over or faced with the same brick as the existing gable, resulting in a limited aesthetic impact. Different makes and finishes are available from building suppliers and two examples are provided below.



Figure 5: Examples of integrated bat tubes.

6.4.2 Brown long-eared bat day roost.

To ensure continuity of habitat for Brown long-eared bats post development, the attic space above the existing traditional section of house will be retained in the form that can be occupied by these individual bats in perpetuity.

To facilitate this, when redevelopment occurs the roof of the building should be finished such as it allows continued access for bats into the attic and the finished design incorporates materials favoured by attic dwelling bat species.

This will be delivered by installing a lead bat access tile adjacent to the existing access on the ridge tile, or alternatively by leaving a gap sufficiently large to allow bats access below the existing ridge tile. Two of these access features will be positioned at either end of the building adjacent to the chimney stacks.

The attic space will be retained using the same dimensions as existing within the traditional section of house, but with the removal of the extensions to the north.

The replacement roof will be underlined with a traditional Bitumen type 1F felt with a hessian matrix.



Figure 6 - proposed locations for the bat accesses into the traditional dwelling section (annex). Inset an example of the bat access tile to go alongside the chimney breasts. The blue arrow shows the proposed location for the bat tube to provide for day roosting common pipistrelle, see section 6.4.1.

6.5 Breathable Roofing Membranes

Scientific investigations (Waring et al., 2013) into bats roosting against breathable roofing membranes have found that bats become entangled in the loose fibres of the membrane resulting in death. The species most commonly affected are the pipistrelle bats which often gain access to the space underneath roof tiles and above the non-bitumen membranes. ALL non bitumen roofing membranes represent a threat to roosting bats in this way, unless these membranes have passed the snagging propensity test and hold a test certificate approved by Natural England.

Therefore, unless the modern breathable membrane comes with a certificate of compliance sufficient to satisfy the licensing officers at Natural England, the roof will have to be underlined with a bitumen based type I felt.

6.6 Light Pollution Control

Exterior lighting has been shown to negatively impact upon emergence times and foraging opportunities for bats thereby reducing their fitness and ability to survive (Stone, Jones & Harris, 2009). It is therefore important that the northern roof elevation of the traditional dwelling, along with the eastern gable of the same building where the bat tube is to be placed, must remain unlit in the hours of darkness to enable bats to safely access and use these features.

The following recommendations for mitigation of artificial lighting have been extracted from the Guidance note 08/18: Bats and Artificial Lighting in the UK produced by the Bat Conservation Trust and Institution of Lighting Professionals (2018).

Lighting units should use LED which emit a warm white light (less than 2700K) to reduce the blue light component known to attract insects.

Lighting units should feature peak wavelengths 550nm to avoid the component of light that is most disturbing to bats

Lighting units should be mounted horizontally as such there is no upward tilt

External security lighting should be motion sensitive on a short timer (1 min)

7.

Collins, J. (ed) (2016): **Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd Edition**, Bat Conservation Trust, London.

Institution of Lighting Professionals & Bat Conservation Trust (2018) **Guidance note 08/18: Bats and Artificial Lighting in the UK**, Institution of Lighting Professionals, Rugby.

Entwistle A.C, Racey P. A. and Speakman J. R. (1997) **Roost Selection by the Brown Long-Eared Bat *Plecotus auritus***. Journal of Applied Ecology Vol. 34, No. 2 (Apr., 1997), pp. 399-408 (10 pages). British Ecological Society

Mitchell-Jones, A.J. (2004) **Bat Mitigation Guidelines**, English Nature, Peterborough.

Stone, E. L., Jones, G., & Harris, S. (2009). **Street lighting disturbs commuting bats**. *Current biology*, 19(13), 1123-1127.

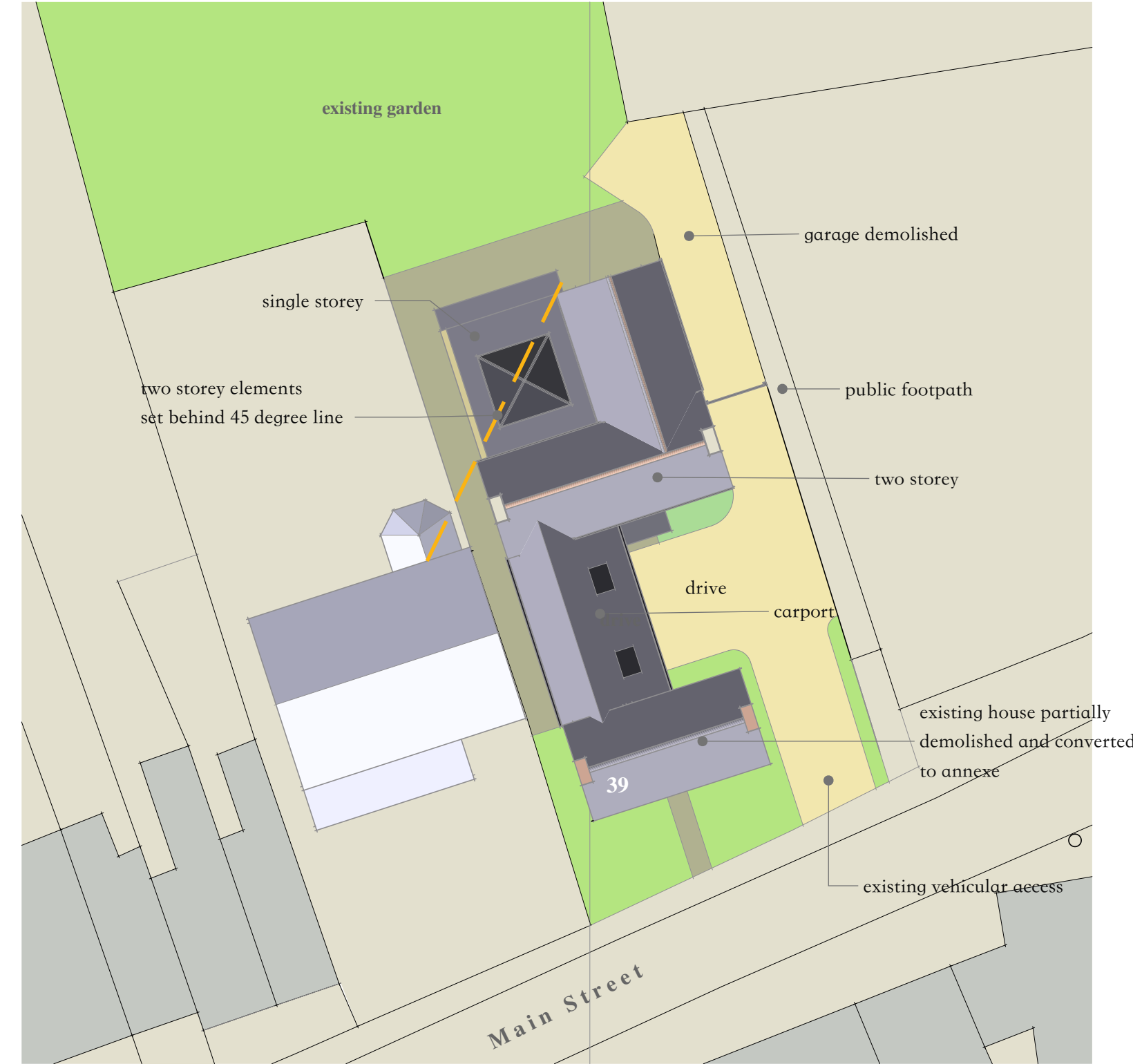
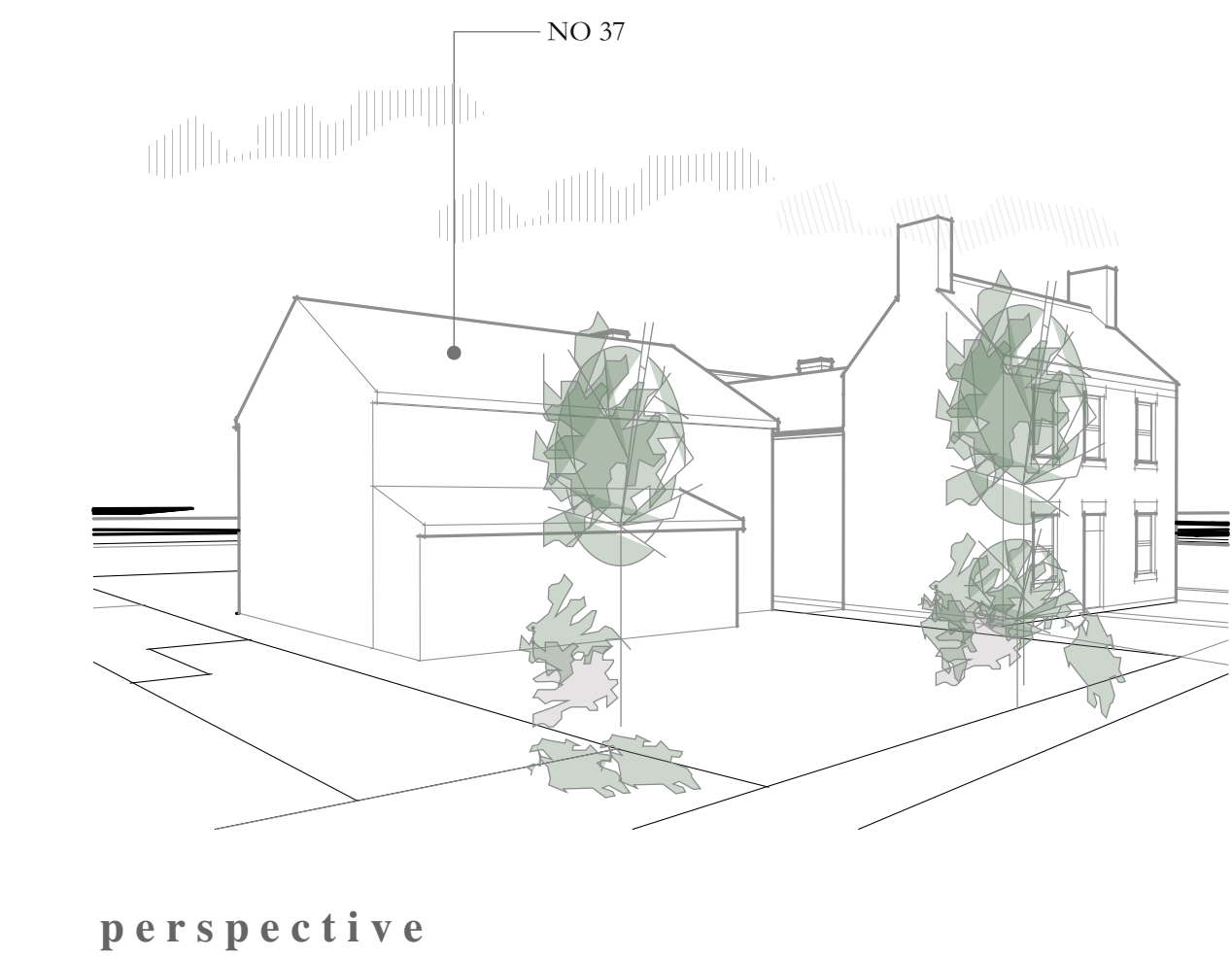
Waring S.D., Essah E.A, Gunnell K., and Bonser R.H.C., (2013) Double Jeopardy: The Potential for Problems when Bats Interact with Breathable Roofing Membranes in the United Kingdom. **Architecture & Environment**, 1 (1): 1-13.

Swift S.M. (1997) **Long-eared Bats**. Poyser Natural History

APPENDIX 1 OUTLINE PLANNING DRAWING - MAIN STREET, CARLTON

The outline planning drawing is provided overleaf:

OUTLINE PLANNING DRAWING -“The New House” 39, Main Street, Carlton, Leicestershire



1:250 SITE PLAN



DESIGN
CREATE
INNOVATE

ARCHITECTURE

-n. to make plans to build an object
-v. to make something new
-v. to make changes to something established

-n. the art and technique of designing buildings

dcj architecture ltd



The Rural Design Office
Barns Heath Farm,
Snarestone Road,
Appleby Magna,
Leicestershire.
DE12 7AJ



T: 01530 588141. M: 07834 162626. E: dciarch@me.com

Project: PROPOSED REPLACEMENT DWELLING

Address:
39, MAIN STREET, CARLTON, LEICS

Client:
MR & MRS J IGOE

Drawing: OUTLINE PLANNING DRAWING

Drawing No: 03

Rev:

Revision:

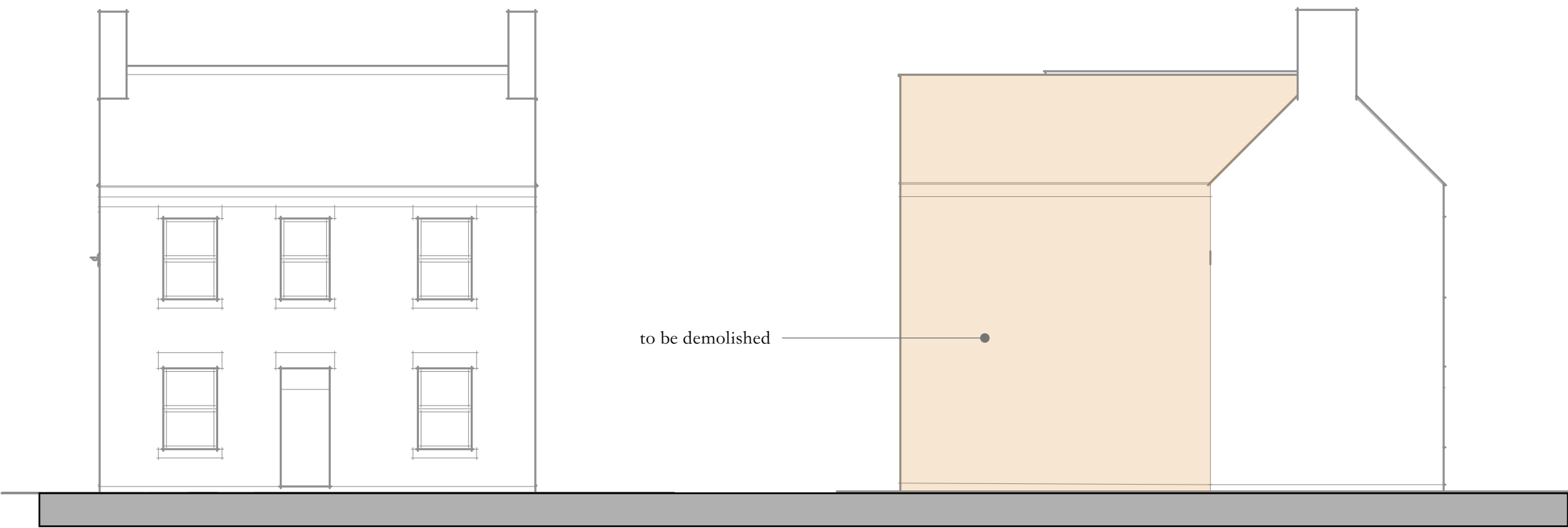
Scale:
1:100, 1:250, 1:1250

JUNE 2022

Drawing by:
Darren Insley

Project Ref:
1148-JI

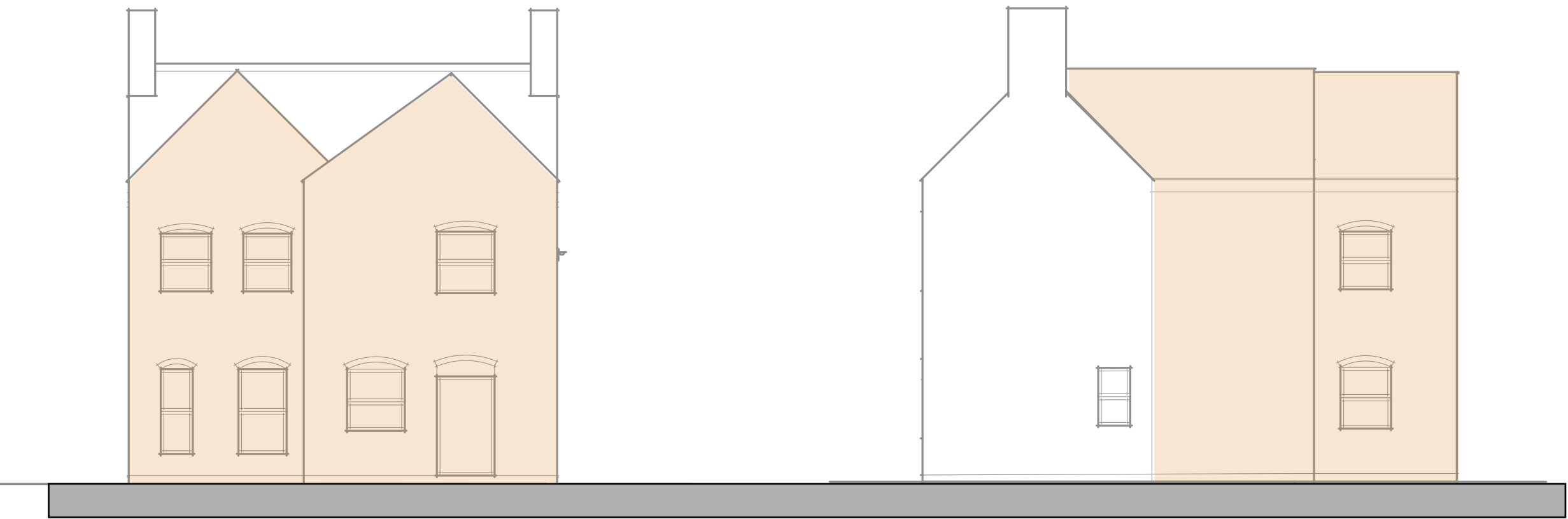
OUTLINE PLANNING DRAWING -“The New House” 39, Main Street, Carlton, Leicestershire



front elevation

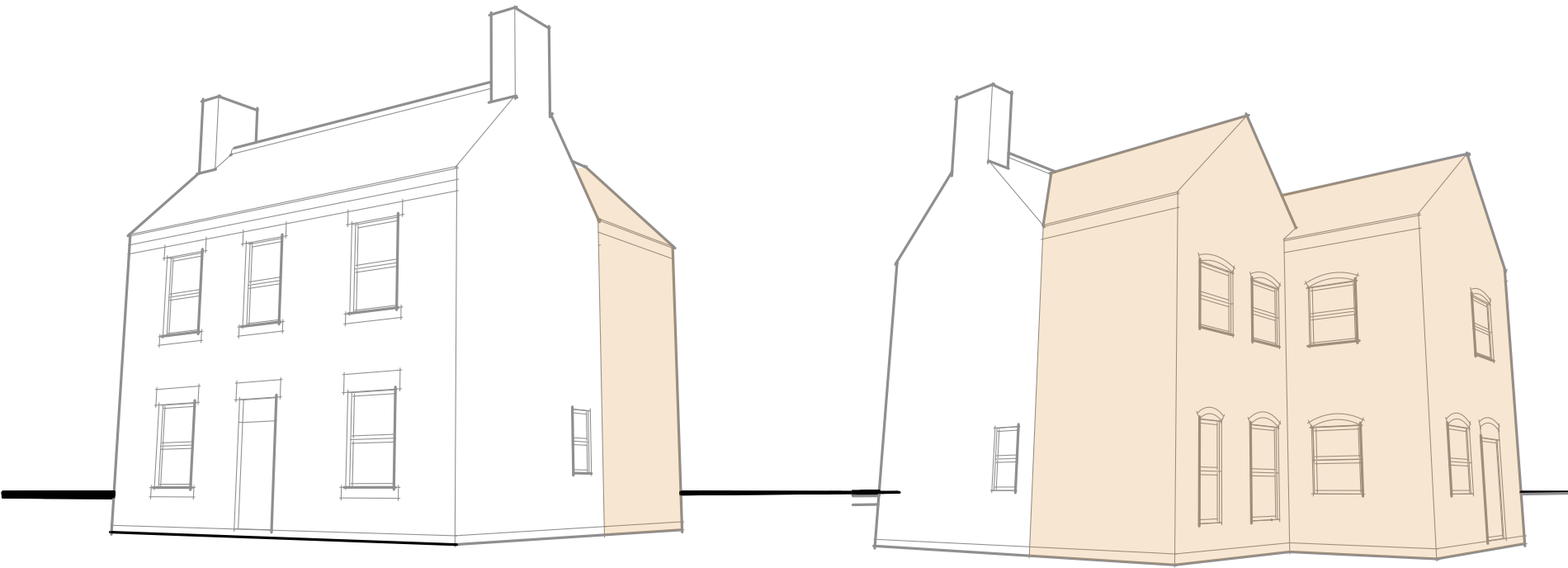
side elevation

1:100 Existing details



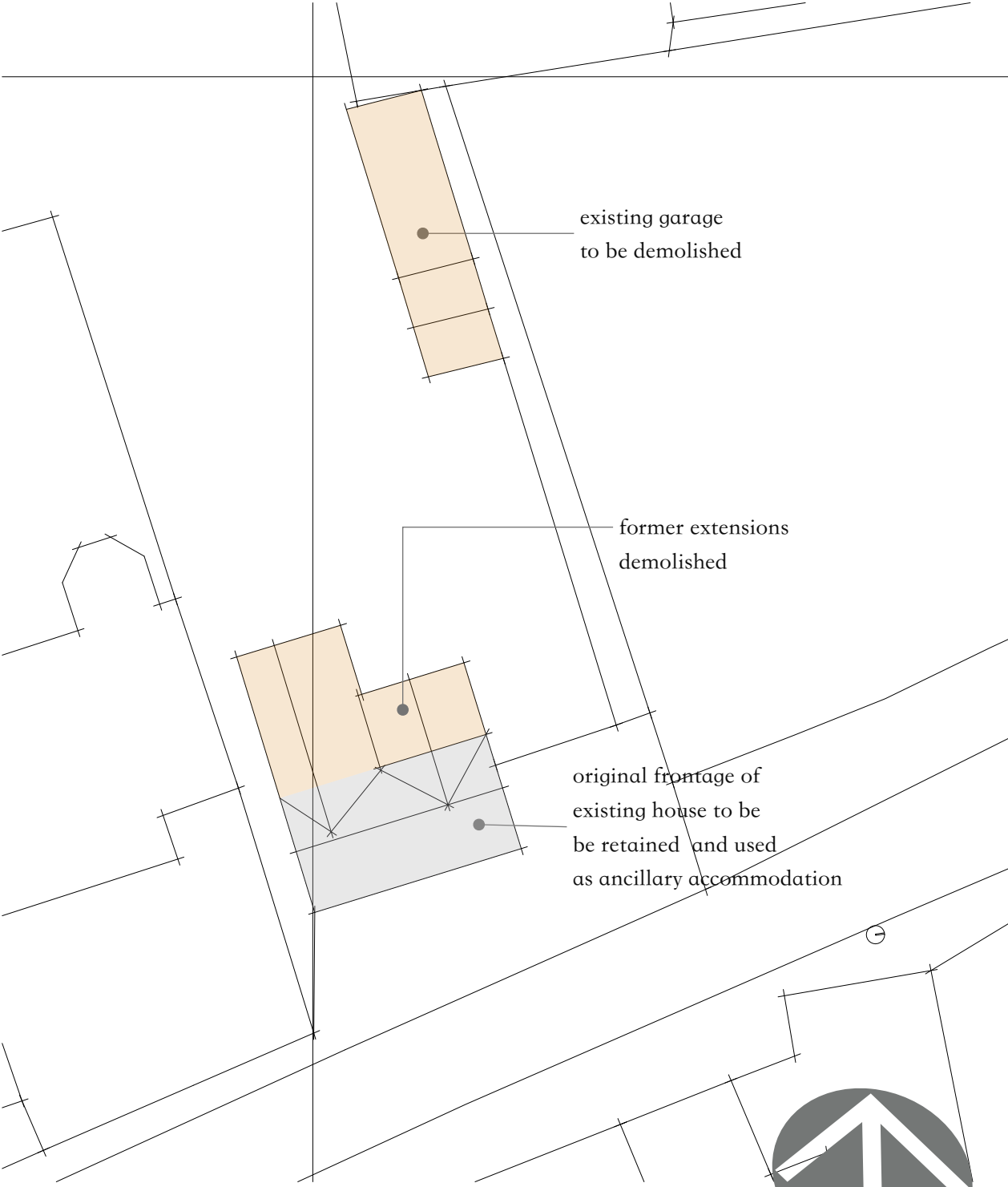
rear elevation

side elevation



perspective views

1:100 @ A3



1:250 site plan

legend

Indicates extent of demolition work

DESIGN -n. to make plans to build an object
CREATE -v. to make something new
INNOVATE -v. to make changes to something established

ARCHITECTURE -n. the art and technique of designing buildings

dc i architecture ltd



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Snarestone Road,
Appleby Magna,
Leicestershire.
DE12 7AJ



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Project: PROPOSED REPLACEMENT DWELLING

Address:
39, MAIN STREET, CARLTON, LEICS

Client:
MR & MRS J IGOE

Drawing:
OUTLINE PLANNING DRAWING

Drawing No:
04

Rev:

Revision:

Scale:
1:100, 1:250, 1:1250

JUNE 2022

Drawing by:
Darren Insley

Project Ref:
1148-JI