

**LITTLEHAMPTON MARKET, SURREY STREET,
LITTLEHAMPTON, WEST SUSSEX**

ECOLOGICAL IMPACT ASSESSMENT

Final Document

November 2017

Preliminary Ecological Appraisals • Protected Species Surveys and Licensing • NVC • EclA • Management Plans
Habitats • Badger • Bats • Hazel Dormouse • Birds • Reptiles • Amphibians • Invertebrates • Riparian and Aquatic Species

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ECOSA Quality Assurance Record

This report has been produced in accordance with the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines for Ecological Report Writing 2015 (CIEEM, 2015). The report has been prepared in line with current best practice guidance and survey work has been undertaken in line with references within CIEEM's Source of Survey Guidance (CIEEM, 2017).

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EXECUTIVE SUMMARY

Littlehampton Market is located on the outskirts of Littlehampton in West Sussex and comprises the Littlehampton Market building and hardstanding with a small area of ruderal and ephemeral vegetation to the rear. The proposals comprise the demolition of the existing building and construction of a new semi-detached property providing a ground floor retail unit and two apartments, with parking court and car port.

ECOSA were commissioned by MH Architects to carry out an Ecological Impact Assessment of the site to identify, quantify and evaluate potential effects of the proposal on habitats, species and ecosystems. The main findings of the Ecological Impact Assessment are:

- The site supports a limited extent of common and widespread habitats, including buildings, hardstanding, managed improved grassland and a small number of scattered mature trees. These are considered to be of value at the site level only;
- On-site habitats are suitable to support small numbers of breeding birds. The development has potential to disturb nesting birds. This will be mitigated through sensitive timing of works and/or sensitive working methods;
- New planting comprising a diverse range of native plant species will enhance the site for a range of species; and
- If the planning application boundary changes or the proposals for the site alter, a re-assessment of the impacts may be required.

1.0 INTRODUCTION

1.1 Background

Ecological Survey & Assessment Limited (ECOSA) have been appointed by MH Architects to undertake an Ecological Impact Assessment to support a planning application for the redevelopment of Littlehampton Market, Surrey Street, Littlehampton, West Sussex BN17 5BG (hereafter referred to as the site).

1.2 The Site

The site is located in Littlehampton, West Sussex, centred on National Grid Reference (NGR) TQ 0268 0204 (**Map 1**).

The site is dominated by the Littlehampton Market building and hardstanding with a small area of ruderal and ephemeral vegetation to the rear.

In the wider landscape, the area immediately surrounding the site is dominated by urban development, with agricultural fields to the north and west beyond the town of Littlehampton. The River Arun is located approximately 0.1km to the south west of the site.

1.3 Aims and Scope of Report

The information within this report is based on a field survey and desktop study and relevant species-specific surveys carried out during September 2016. The report describes the habitats, species and ecosystems (hereafter referred to as ecological features) within the site's Zone of Influence (Paragraph 3.2), and provides a detailed assessment of potential ecological effects of the proposed development of the site. It identifies the need for any measures to avoid, mitigate or compensate negative effects on habitats and species and outlines enhancements to the site's ecology to be implemented as part of the development. The objectives of the assessment are:

- To provide baseline information on ecological features within the site's Zone of Influence and determine the importance of these features;
- To assess, characterise and quantify the effects on ecological features, including cumulative impacts, and identify significant effects in the absence of any mitigation;
- To set out measures to avoid, mitigate and compensate ecological impacts in accordance with the 'mitigation hierarchy'¹;

¹ In accordance with CIEEM Ecological Impact Assessment guidance (CIEEM, 2016) a sequential process is adopted to address impacts on features of ecological interest, with 'Avoidance' prioritised at the top of the hierarchy and Compensation/Enhancement' at the bottom. This is often referred to as the 'mitigation hierarchy'.

- To outline opportunities for enhancement in order to achieve a net gain for biodiversity.

1.4 Site Proposals

The proposals for the site entail the demolition of the existing building and construction of a new semi-detached property providing a ground floor retail unit and two apartments, with parking court and car port. Site access will make use of the existing area of paving present adjacent to Surrey Street. At this stage, lighting proposals are unknown, however, lighting will form part of the scheme design.

The report is based on site layout plan Development at 26/28 Surrey Street, Littlehampton BN17 5BG - Proposed Plans and Elevations (Drawing No. 15-122 004 P3) dated September 2017 (**Appendix 1**). Planning permission is being sought during late 2017 with construction commencing soon after permission has been granted.

1.5 Previous Reports

A Preliminary Ecological Appraisal of the site was undertaken in September 2016. The relevant findings of this ecological work have been included within this report.

ECOSA is not aware of any other previous ecological work having been undertaken at this site.

2.0 PLANNING POLICY CONTEXT

2.1 Introduction

This section summarises the planning policy in relation to ecology and biodiversity within the Arun District Council administrative area. This information is then used to assess the compliance of the scheme in relation to relevant planning policy and where necessary make recommendations for mitigation, compensation and enhancements (see Section 5.0).

2.2 National Policy

The National Planning Policy Framework (NPPF) sets out the government's requirements for the planning system in England. A number of sections of the NPPF are relevant when taking into account development proposals and the environment. As set out within Paragraph 14 of the NPPF *"At the heart of the National Planning Policy Framework is a presumption in favour of sustainable development, which should be seen as a golden thread running through both plan-making and decision-taking"*. However, Paragraph 119 goes on to state that *"The presumption in favour of sustainable development does not apply where development requiring appropriate assessment under the Birds or Habitats Directives is being considered, planned or determined"*.

The general impetus of the NPPF in relation to ecology and biodiversity is for development proposals to not only minimise the impacts on biodiversity but also to provide enhancement. Paragraph 109 states that the planning system should contribute to and enhance the natural environment by *"...minimising impacts on biodiversity and providing net gains in biodiversity where possible..."*

Paragraph 118 states that *"when determining planning applications, local planning authorities should aim to conserve and enhance biodiversity"*. A number of principles are set out in Paragraph 118, including that where harm cannot be adequately avoided then it should be mitigated for, or as a last resort, compensated for. Where impacts occur on nationally designated sites, the benefits must clearly outweigh any adverse impact and incorporating biodiversity in and around developments should be encouraged. Protection of irreplaceable habitats, such as ancient woodlands and those sites proposed as Special Protection Areas (SPAs), Special Areas of Conservation (SACs) and Ramsar sites or acting as compensation for SPAs, SACs and Ramsar sites, should receive the same protection as European sites.

In addition to the NPPF, Circular 06/05 provides guidance on the application of the law relating to planning and nature conservation as it applies in England. Paragraph 98 states *"the presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to*

result in harm to the species or its habitat”. Whilst paragraph 99 states “it is essential that the presence or otherwise of a protected species, and the extent that they may be affected by the proposed development, is established before planning permission is granted”.

2.3 Local Policy

Local planning policy within Arun District is provided by the saved policies within the Arun District Local Plan 2003. These are summarised below:

▪ **Policy GEN28: Trees and Woodland**

Development will not be permitted if it would damage or destroy one or more trees protected by a tree preservation order, identified as ancient woodland or in a conservation area unless:

- The removal of one or more trees would be in the interests of good arboricultural practice; or
- The benefits of the proposed development outweigh the amenity value of the protected trees.
- Conditions may be used to ensure that, for any trees which are removed as part of a development, an equivalent number are planted on the site.

▪ **Policy GEN29: Nature Conservation Across the District**

Development will only be permitted on sites which contain semi-natural habitats, features of nature conservation interest, or within wildlife corridors, where these can be largely retained and sympathetically incorporated into the scheme. Legal agreements may be used to offset the loss of, or impact on, any nature conservation resource present on the site prior to development.

▪ **Policy AREA13: Sites of International Importance for Nature Conservation**

Proposals for development in, or likely to affect (directly or indirectly) a site of international importance for nature conservation will be subject to the most rigorous examination. Development not directly connected with or necessary to the management of the site which is likely to have an adverse effect on the site, will not be permitted unless: there is no alternative solution, there are reasons of public health or public safety, or there are benefits of primary importance to the environment.

Where such sites do not host a priority habitat or species, development will not be permitted unless there are imperative reasons of overriding public interest.

Where development is permitted, the use of conditions or planning obligations will be considered in order to avoid and minimise harm to the site, to enhance the site's nature conservation interest, and to secure any compensatory or mitigation measures and appropriate management that may be required.

- **Policy AREA14: Sites of National Importance for Nature Conservation**

Proposals for development in, or likely to affect (directly or indirectly) Sites of Special Scientific Interest will be subject to special scrutiny. Where such development is likely to have an adverse effect, it will not be permitted unless the reasons for the development clearly outweigh the nature conservation value of the site itself and the national policy to safeguard the national network of such sites.

Where the site concerned is a National Nature Reserve, a site identified by the Nature Conservation Review or Geological Conservation Review, particular regard will be paid to the national importance of that site.

Where development is permitted, harm to the nature conservation interest must be minimised. The use of conditions or planning agreements will be considered to ensure the protection and enhancement of the nature conservation interest, and to provide appropriate compensatory or mitigation measures and site management.

- **Policy AREA15: Sites of Local Importance for Nature Conservation**

Proposals for development in, or likely to have an adverse effect (directly or indirectly) on a Local Nature Reserve, Site of Nature Conservation Importance (including ancient woodlands or wildlife corridors) or Regionally Important Geological/Geomorphological Site will not be permitted unless it can be demonstrated that reasons for the proposal outweigh the need to safeguard the nature conservation value of the site/feature. Where development is permitted which would damage the nature conservation value of the site/feature, such damage should be kept to a minimum.

Conditions or planning obligations will be used to secure necessary compensatory or mitigation measures, enhancement and site management. Where appropriate, the Authority will consider the use of legal agreements to provide appropriate compensatory measures, enhancement and site management.

- **Local Plan 2011-2031**

A new Arun District Local Plan covering the period from 2011-2031 was submitted on 30th January 2015 for independent examination to the Secretary of State for

Communities and Local Government via the Planning Inspectorate. The Policies within the emerging Local Plan largely reflect the existing policy contained within the adopted local plan.

3.0 METHODS

3.1 Introduction

This section details the methods employed during the Ecological Impact Assessment undertaken for the Littlehampton Market site. Any significant limitations to the survey methods are also considered.

3.2 Zone of Influence

To define the total extent of the study area for this appraisal, the proposed scheme was reviewed to establish the spatial scale at which ecological features could be affected². The appropriate survey radii for the various elements of the appraisal (i.e. desktop study and field survey) have been defined in the relevant sections below. These distances are determined based on the professional judgement of the ecologist leading the appraisal, taking into account the characteristics of the site subject to appraisal, its surroundings and the nature of the changes proposed.

3.3 Scoping

Protected species considered within the Preliminary Ecological Appraisal are those species/species groups considered likely to be encountered given the geographical location and context of the site. Where the site was found to be suitable to support these species/species groups, and impacts cannot be avoided from the outset, further species-specific surveys are undertaken. These are discussed within the results section (Section 4.0) of the current report. Where such a species is unlikely to be present on site a justification for likely absence is provided. Species considered likely absent from the site are not then considered in the potential development impacts and ecological effects section (Section 5.0), and recommendations and conclusions section (Section 6.0) of this report.

3.4 Desk Study

A full biological record centre desktop study was not undertaken as part of this assessment. This was not considered necessary given the limited scale of impacts and the nature of on-site and surrounding habitats.

3.4.1 Multi-Agency Geographic Information for the Countryside

The Multi-Agency Geographic Information for the Countryside (MAGIC) (DEFRA, 2017) database was reviewed on 5th September 2017 to establish the location of statutory designated sites located within the vicinity of the site. This included a search for all internationally and nationally designated sites such as Special Protection Areas (SPAs), Special Areas of Conservation (SACs), Wetlands of International Importance (Ramsar sites), Sites of Special Scientific Interest (SSSIs), National Nature Reserves

² The Zone of Influence (Zoi), as defined by CIEEM, is the area over which ecological features may be subject to significant effects as a result of the proposed project and associated activities (CIEEM, 2016).

(NNRs) and Local Nature Reserves (LNRs) within one kilometre of the site. Where appropriate, the desk study search area has been extended to take account of any appropriate statutory designated sites which need consideration in terms of potential in-direct effects and which support particularly mobile species, particularly those specifically mentioned in local planning policy. The Impact Risk Zones (IRZ) were also obtained from MAGIC, which are used to help guide and assess planning applications for likely effects on SSSIs.

Sites within two kilometres of the site boundary where European Protected Species Mitigation (EPSM) licences have been granted were reviewed. This information allows a greater understanding of the potential for European protected species to be present in the local area.

Online mapping resources, at an appropriate scale, were used to identify the presence of habitats such as woodland blocks, ponds, watercourses and hedgerows, in the vicinity of the site.

3.5 Field Survey

3.5.1 Survey Methods

The field survey broadly followed standard Phase 1 habitat survey methodology (JNCC, 2010) and included a search for evidence of the presence of, and an assessment of the site's suitability to support, protected and notable species as recommended by CIEEM (CIEEM, 2013). The field survey covered all accessible areas of the site, including boundary features.

Phase 1 Habitat Survey

An assessment was made of all areas of vegetation within the site based on the standardised Phase 1 habitat survey methodology (JNCC, 2010)³. This involved identification of broad vegetation types, which were then classified against Phase 1 habitat types, where appropriate. A list of characteristic plant species for each vegetation type was compiled and any invasive species⁴ encountered as an incidental result of the survey recorded.

3.5.2 Protected and Notable Species Appraisal

A preliminary appraisal of the site's suitability to support legally protected and notable species was carried out. Specific methods for species/species groups considered during the appraisal are provided in **Appendix 2**.

³ The standard JNCC Phase 1 habitat survey methodology involves the production of a Phase 1 map showing the location and extent of habitat types, however, given the limited size and complexity of the site surveyed a Phase 1 habitat map has not been produced in this instance.

⁴ Plant species included on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). The survey was not specifically aimed at assessing the presence of these species and further specialist advice may need to be sought.

3.5.3 Survey Details

The field survey was carried out by Georgina Timmis, Ecologist of ECOSA on 15th September 2015. The weather conditions were sunny with approximately 10% cloud cover, an ambient temperature of 23°C and a light breeze.

3.5.4 Survey Limitations

Ecological surveys are limited by factors which affect the presence of plants and animals such as the time of year, migration patterns and behaviour. The field survey has therefore not produced a complete list of plants and animals and in the absence of evidence of any particular species should not be taken as conclusive proof that the species is absent or that it will not occur in the future.

No internal inspection could be undertaken of the on-site building as the building is disused and considered currently unsafe to enter.

3.6 Bat Survey

3.6.1 Survey Methods

Bat Emergence Survey

The bat emergence survey was undertaken in line with current best practice guidelines (Collins, 2016). In accordance with the guidelines for a building assessed as having low suitability to support roosting bats a single dusk emergence survey was undertaken in order to ascertain the presence/likely absence of roosting bats from within the building. Where the presence of roosting bats is confirmed the data also allows for an assessment of the status of the roost present.

The survey was carried out by two experienced ECOSA surveyors, positioned on the eastern and western elevations of the building. These vantage point locations allowed a sufficient coverage of the Potential Roosting Features identified on the building impacted by the proposals.

During the surveys surveyors recorded the time, species, location and direction of flight for each bat encountered, with particular attention paid to establishing bat access/egress locations to any roosts within the building.

3.6.2 Survey Details

Bat Emergence Survey

The bat emergence survey was undertaken on 27th September 2016. **Table 1** provides details of the emergence survey.

Table 1: Bat Emergence Survey Details

Survey Date	Survey Type	Duration	Weather Conditions	Sunset/ Sunrise Time
27 th September 2016	Dusk	18:33 - 20:48	Ranging from 23°C to 18.9°C, overcast, 100% cloud cover and no wind	18:48

During the bat emergence surveys the surveyors were equipped with Pettersson D240x time expansion bat detectors. The Pettersson detectors were connected to Edirol R-90 recorders for the full duration of the survey. Recordings made with the detectors were later analysed using Sonobat® (v2.9.7) to confirm the identity of any species encountered.

The bat emergence/re-entry surveys were led by Sophie Lancaster, Ecologist of ECOSA assisted by Viktoria Gal a suitably qualified and experienced ECOSA surveyor.

3.6.3 Survey Limitations

Some bat species, e.g. long-eared bats *Plecotus* species, generally emerge from their roosts in total darkness and do not produce strong echolocations, and therefore these bats can be difficult to observe and record during bat surveys, leading to under-recording.

The quality of both hand-held and automated bat detector recordings is based, to a large extent, on the proximity of a bat to the detector's microphone. Obstructions such as vegetation or environmental variables such as rainfall and wind noise from vegetation will all influence the quality of sound reaching the microphone and thus some bat echolocation recordings are of insufficient quality for specific identification. Bats routinely alter their echolocations in relation to behaviour and their environment. It is not always possible to make a robust identification of every bat recording.

The use of bat detectors is likely to result in the under-recording of a percentage of bats present, such as those flying at height (Collins & Jones, 2009), which would be out of the recording range for the detectors.

The dusk emergence survey was undertaken outside the peak of the season (May to August) as recommended by the Bat Conservation Trust Guidelines (Collins, 2016). However, bat activity was recorded during the survey, suggesting that bats were still

⁵ There are two species of long-eared bat, the brown long-eared bat *Plecotus auritus* and the grey long-eared bat *Plecotus austriacus*. These species can only be separated by examination of physical characteristics and Phylogenetic Analysis Identification of bat droppings. Unless confirmation of identification has been made by visual identification the two species shall be referred to in this report as long-eared bat. The brown long-eared bat is the commonest of the two species typically being found roosting within large roof voids although small voids and trees are also utilised. The grey long-eared bat is rare and confined to southern England and like the brown long-eared typically roosts in roof voids.

active, and the high level of lighting at the site would make it unlikely that bats would select the site for use as a maternity site.

3.7 Criteria used to Assess Ecological Value

The ecological values provided within this report are based around both professional judgement and current published relevant guidance, including information sources such as A Nature Conservation Review (Ratcliffe, 1977) and Guidelines for Ecological Impact Assessment in the United Kingdom (CIEEM, 2016).

4.0 BASELINE ECOLOGICAL CONDITIONS AND EVALUATION

4.1 Introduction

This section details the results of the Ecological Impact Assessment undertaken for the site. It assesses the baseline ecological conditions of the site at the time the desktop study was completed and based on the findings of the field survey and subsequent protected species surveys. This section also provides an assessment of the ecological value of ecological features present at the site.

4.2 Desktop Study

4.2.1 Baseline Ecological Conditions

There are two statutory designated sites of nature conservation interest situated within one kilometre of the site boundary. Details of these designations are provided in **Table 2**. Further information on sites designated for nature conservation is provided in **Appendix 3**. The closest site is Climping Beach located approximately 570m south of the site.

Table 2: Designated Sites Located Within the Zone of Influence

Designation	Name	Approximate Relative Location	Reason for Designation
SSSI	Climping Beach	570m south of site	The site is a stretch of coast with a vegetated shingle beach, behind which is a sand dune system. The intertidal zone supports important populations of wintering birds and the numbers of wintering sanderling <i>Calidris alba</i> , in particular, are of European significance.
LNR	West Beach	900m south of site	The West Beach LNR is part of the Climping Beach SSSI, which has national protection. It includes: sand flats, the tide line, shingle, sand dunes and the plants, birds, molluscs, reptiles and mammals which either live or feed on them.

4.2.2 Evaluation

Climping Beach SSSI is of national importance, West Beach LNR is of local importance.

4.3 Habitats

4.3.1 Baseline Ecological Conditions

Field Survey Results

Habitats are described in general terms using standard Phase 1 habitat survey terminology. The main habitats recorded on site during the Phase 1 habitat survey were as follows:

Buildings

The site is dominated by the Littlehampton Market building. Full details of the building are provided in the bat assessment section of this report (Paragraph 4.4.1).

Ruderal and Ephemeral Vegetation

A small area of ruderal and ephemeral vegetation in the west of the site (**Figure 1**). Species recorded in this area include broad-leaved dock *Rumex obtusifolius*, mallow *Malva* species, redshank *Persicaria maculosa*, great plantain *Plantago major*, ribwort plantain *Plantago lanceolata*, groundsel *Senecio vulgaris*, toadflax *Linaria vulgaris*, dandelion *Taraxacum officinale* aggregate, buddleia *Buddleja davidi* and hawkbit *Leontodon* species.



Figure 1: Small area of ruderal and ephemeral vegetation

Other Habitats

An area of hardstanding providing access to the rear of Littlehampton Market is present in the south of the site.

4.3.2 Evaluation

The on-site habitats are very limited in extent and support common and widespread vegetation species of relatively low diversity. Given the limited extent and low quality of the habitat, the site is considered to be of negligible value.

4.4 Bats

4.4.1 Baseline Ecological Conditions

Desktop Study Results

Consultation with MAGIC revealed three recently granted EPSM licences within two kilometres of the site. All three licences relate to sites approximately 1.7 kilometres north-east of the site in habitat on the fringe of Littlehampton:

- EPSM2009-946: Valid between 2010 and 2011 for the destruction of resting places and/or breeding sites of common pipistrelle *Pipistrellus pipistrellus*,

soprano pipistrelle *Pipistrellus pygmaeus* and brown long-eared bat *Plecotus auritus*;

- EPSM2012-4975: Valid between 2012 and 2014 for the destruction of resting places of common pipistrelle, brown long-eared bat and natterer's bat *Myotis nattereri*; and
- 2015-10184-EPS-MIT: Valid between 2015 and 2020 for the destruction of a common pipistrelle resting place.

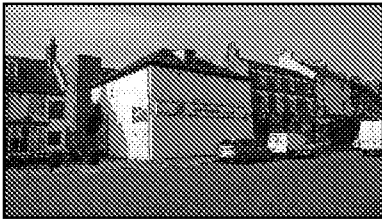
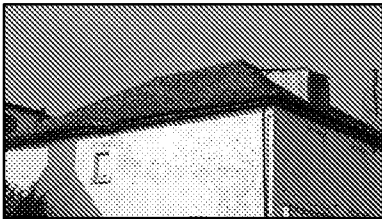
Building Assessment

The Littlehampton Market building supports a number of bat roosting features including lifted, cracked and missing roof and bonnet tiles gaps under ridge tiles, gaps underside and roof of dormers, ivy cladding, gap in guttering behind soffit and gaps around boarded up windows. While the site supports a large number of bat roosting features, the building is located in highly suboptimal habitat, in an urban environment with a high level of surrounding street lighting and minimal suitable foraging and commuting habitat (see below). Overall the site is considered to have low suitability to support roosting bats. The results of the building assessment are provided in **Table 3**.

Foraging and Commuting Habitat

The on-site vegetation offers very limited foraging and commuting opportunities for bats in the form of buildings and a small area of ruderal and ephemeral vegetation. The site is isolated from off-site habitats by surrounding urban development which is dominated by buildings and hardstanding and subject to considerable street lighting at night. Overall the site is considered to have low suitability for foraging and commuting bats.

Table 3: Building Assessment – Summary of Features with Bat Roost Potential and Evidence of Bat Roost Activity

Surveyed Feature	Figure	Building Description	Description of Potential Bat Roost Features	Evidence of Bat Roost Activity and Location	Assessment of Suitability for Roosting Bats
Littlehampton Market Building	 Figure 2: Littlehampton Market building  Figure 3: Missing tiles in the roof and bonnet  Figure 4: Gaps around dormer windows	A two storey building of brick and stone construction with a hipped clay pan tile roof and flat roofed timber dormers (Figure 2). No internal access was available during the survey as the building is considered to be structurally unsound.	The building supports a number of potential bat roosting features including lifted, cracked and missing roof and bonnet tiles (Figure 3) gaps under ridge tiles, gaps underside and roof of dormers (Figure 4), ivy cladding, gap in guttering behind soffit and gaps around boarded up windows.	No evidence of roosting bat was recorded during the preliminary ecological assessment.	Low suitability

Bat Emergence Survey Results

The surveys recorded only one species of bat, common pipistrelle, in very low numbers with only five registrations recorded throughout the survey.

Table 4 provides details of the species, numbers and locations of bats recorded roosting and foraging/commuting during the emergence/re-entry surveys.

Table 4: Bat Emergence Survey Results

Survey Date	Recorded Bat Roosts	General Bat Activity at the Site		
		Species	First Pass	Last Pass
27 th September 2016 <i>Dusk Emergence</i>	<u>Summary:</u> No bats were recorded emerging from the building during the survey.			
		Common pipistrelle	19:22	20:11
		<u>Summary:</u> Low levels of activity were recorded from all elevations during the survey, with only five registrations of common pipistrelle.		

4.4.2 Evaluation of Ecological Features

No bats were recorded roosting within the Littlehampton Market building and the site is therefore considered to be of negligible value to roosting bats.

Bat surveys recorded on one species of bat foraging and commuting at the site, common pipistrelle. The survey recorded only individual bats foraging within the on-site habitat, which lacks established vegetation. The number of roosts in the wider area is not known although considered likely to be low given the sites urban location. The site is therefore considered to be of local value for common pipistrelle and for foraging and commuting bats overall.

4.5 Badger

4.5.1 Baseline Ecological Conditions

Field Survey Results

No evidence of badger *Meles meles* was recorded on site during the survey. The site is dominated by building and hardstanding and offers no foraging or sett building opportunities. The site is isolated from off-site habitats by surrounding urban development. The habitat on site is unsuitable for badger and therefore the species is not considered further in this report.

4.6 Hazel Dormouse

4.6.1 Baseline Ecological Conditions

Field Survey Results

The site lacks hedgerow or woodland habitats suitable for supporting hazel dormouse *Muscardinus avellanarius*, and is completely isolated from suitable habitat in the wider area. The habitat on site is unsuitable for hazel dormouse and therefore the species is not considered further in this report.

4.7 Birds

4.7.1 Baseline Ecological Conditions

Field Survey Results

During the survey a number of bird species were recorded on site or passing over including feral pigeon *Columba livia domestica*, goldfinch *Carduelis carduelis* and herring gull *Larus argentatus*. The building provides nesting opportunities for breeding birds such as feral pigeon or amber listed⁶ swift *Apus apus*.

The site lacks habitats such as areas of wetland, grassland, hedgerows, scrub or woodland, that are suitable for supporting wintering birds. The habitat on site is unsuitable for wintering birds and therefore they are not considered further in this report.

4.7.2 Evaluation of Ecological Features

Breeding Birds

The on-site building is situated in an urban area and is likely to only support common species of breeding bird in small numbers. The site is therefore considered to be of local value for breeding birds.

4.8 Reptiles

4.8.1 Baseline Ecological Conditions

Field Survey Results

The on-site ruderal and ephemeral vegetation provides limited foraging, sheltering and basking opportunities for reptiles. However, the site is completely isolated from suitable

⁶ The UK's birds are split in to three categories of conservation importance - red, amber and green. Red is the highest conservation priority, with species needing urgent action. Amber is the next most critical group, followed by green. Amber list criteria include species which are: in unfavourable conservation status in Europe; subject to historical population decline during 1800–1995, but recovering; subject to moderate (25-49%) decline in UK breeding population or contraction of UK breeding range over last 25 years, or the longer-term period; subject to moderate (25-49%) decline in UK non-breeding population over last 25 years, or the longer-term period; rare breeders (1–300 breeding pairs in UK); rare non-breeders (less than 900 individuals), or; internationally important species with at least 20% of European breeding or non-breeding population in UK.

habitat in the wider area by surrounding urban development and hardstanding and it is therefore not possible for reptiles to have colonised on-site habitat. The site is unsuitable for reptiles and therefore this species group is not considered further in this report.

4.9 Great Crested Newt

4.9.1 Baseline Ecological Conditions

Field Survey Results

There is a single water body within 500m of the site, approximately 490m south of the site. The on-site habitats offer limited sheltering and foraging opportunities for terrestrial great crested newt *Triturus cristatus*, however, the site is isolated by surrounding urban development and hardstanding. The River Arun to the south-west is also considered to act as a barrier for great crested newt. It is therefore not possible for reptiles to have colonised on-site habitat. The habitat on site is unsuitable for great crested newt and therefore the species is not considered further in this report.

4.10 Invertebrates

4.10.1 Baseline Ecological Conditions

Field Survey Results

The site comprises a very limited area of common and widespread habitats with a relatively low diversity of species, and is unsuitable for supporting rare or notable species or assemblages.

5.0 ASSESSMENT OF ECOLOGICAL EFFECTS AND MITIGATION MEASURES

5.1 Introduction

This section assesses the ecological effects of the proposed development scheme on the identified ecological features as identified in Section 4.0. Methods for addressing potential impacts on ecological features have been approached in accordance with the mitigation hierarchy⁷ with avoidance of impacts prioritised where possible. Where impacts cannot be avoided mitigation is prioritised over compensation and enhancement.

5.2 Scheme Design, Summary of Impacts and Avoidance Measures

The proposals for the site entail the demolition of the existing building and construction of a new semi-detached property providing a ground floor retail unit and two apartments, with parking court and car port. This will result in the loss of approximately 330 square metres of building, hardstanding and ruderal and ephemeral vegetation. A new external lighting scheme will also be introduced at the site, although as there are already very high levels of existing external lighting at the site, this is considered unlikely to increase the level of external lighting at the site overall. In the absence of mitigation, the potential ecological impacts of these works are:

5.3 Designated Sites

5.3.1 Potential Effects

There are two designated sites within one kilometre of the site. The closest site is Climping Beach located approximately 570m south of the site. Both designated sites actively attract visitors and have visitor facilities including cafés and restaurants, toilets, showers and picnic areas. Given that the site already attracts a significant number of visitors, the potential net increase in visitors as a result of the proposed development is considered to be of negligible significance.

5.4 Habitats

5.4.1 Potential Effects

The proposals will result in the loss of approximately 330 square metres of building, hardstanding and ruderal and ephemeral vegetation. No significant ecological effects are anticipated as a result of the loss of this small area of low quality habitat.

⁷ In accordance with CIEEM Ecological Impact Assessment guidance (CIEEM, 2016) a sequential process is adopted to address impacts on features of ecological interest, with 'Avoidance' prioritised at the top of the hierarchy and 'Compensation/Enhancement' at the bottom. This is often referred to as the 'mitigation hierarchy'.

5.4.2 Enhancement Measures

Proposed garden landscaping should incorporate native tree and shrub species rather than cultivars. New areas of grass should comprise a native lawn mix (E.g. Emorsgate EL1 Flowering Lawn Mixture).

5.5 Bats

5.5.1 Potential Effects

No bats were found to be roosting within the Littlehampton Market building and therefore no effects are anticipated on roosting bats as a result of the proposed development works.

No significant effects on foraging and commuting bats are anticipated as a result of a new external lighting scheme as a very high level of external lighting is already present on site and the new proposed external lighting strategy is unlikely to make the site any less suitable for foraging and commuting bats.

5.5.2 Enhancement Measures

Measures outlined in Paragraph 5.4.2 will enhance the site for foraging and commuting bats by providing an enhanced resource for invertebrate prey.

5.6 Birds

5.6.1 Potential Effects

The buildings, trees and hedgerows on site provide suitability for breeding birds. Nesting birds may be disturbed or harmed during construction works if undertaken during the nesting season.

All birds, their nests, eggs and young are legally protected, with certain exceptions. Refer to **Appendix 4** for details.

5.6.2 Mitigation Measures

Vegetation clearance and construction works should be undertaken outside the breeding bird season of March to August, inclusive, or if not possible, an ecologist should be present immediately prior to clearance to check for nests. Active nests should be left with a suitable buffer until nesting ends.

5.6.3 Significance of Residual Effects

The mitigation measures outlined above will avoid effects on nesting birds and no significant residual effects are anticipated.

5.6.4 Enhancement Measures

One Schwegler 2H open fronted nest box should be installed on a retained tree and one Schwegler 1SP house sparrow box should be installed on the new building. This will provide additional opportunities for nesting birds on site post-development.

5.7 Invertebrates

5.7.1 Potential Effects

Clearance of ephemeral and ruderal vegetation will result in a net loss of suitable invertebrate habitat, however, the habitat is of low quality and limited in extent and therefore the significance of this effect is considered to be negligible.

5.7.2 Enhancement Measures

Recommendations made to enhance habitats post-development (Paragraph 5.4.2) will also provide an enhanced resource for invertebrates.

5.8 Cumulative Effects

Given the mitigation outlined above, no significant negative residual impacts are anticipated on any of the species considered. Therefore, there will be no cumulative effects on local populations as a result of the development.

6.0 CONCLUSIONS

6.1 Conclusion

Demolition of the existing Littlehampton Market building has potential to result in disturbance to nesting birds, if present. This will be mitigated through sensitive timing and working methods. It is anticipated this will be secured through planning condition.

Given the mitigation proposed, no adverse residual effects are anticipated and proposed enhancement measures including provision of enhanced landscaping will result in a net gain for biodiversity overall.

It is considered that the proposals will accord with all relevant national and local planning policy in relation to ecology (see Section 2.0). Measures have been provided to avoid or mitigate for the adverse effects likely to result from development.

6.2 Updating Site Survey

Given the mobility of animals and the potential for colonisation of the site, it is recommended that an updating walkover of the site is undertaken prior to the development commencing should this not occur within 12 months of the date of the survey.

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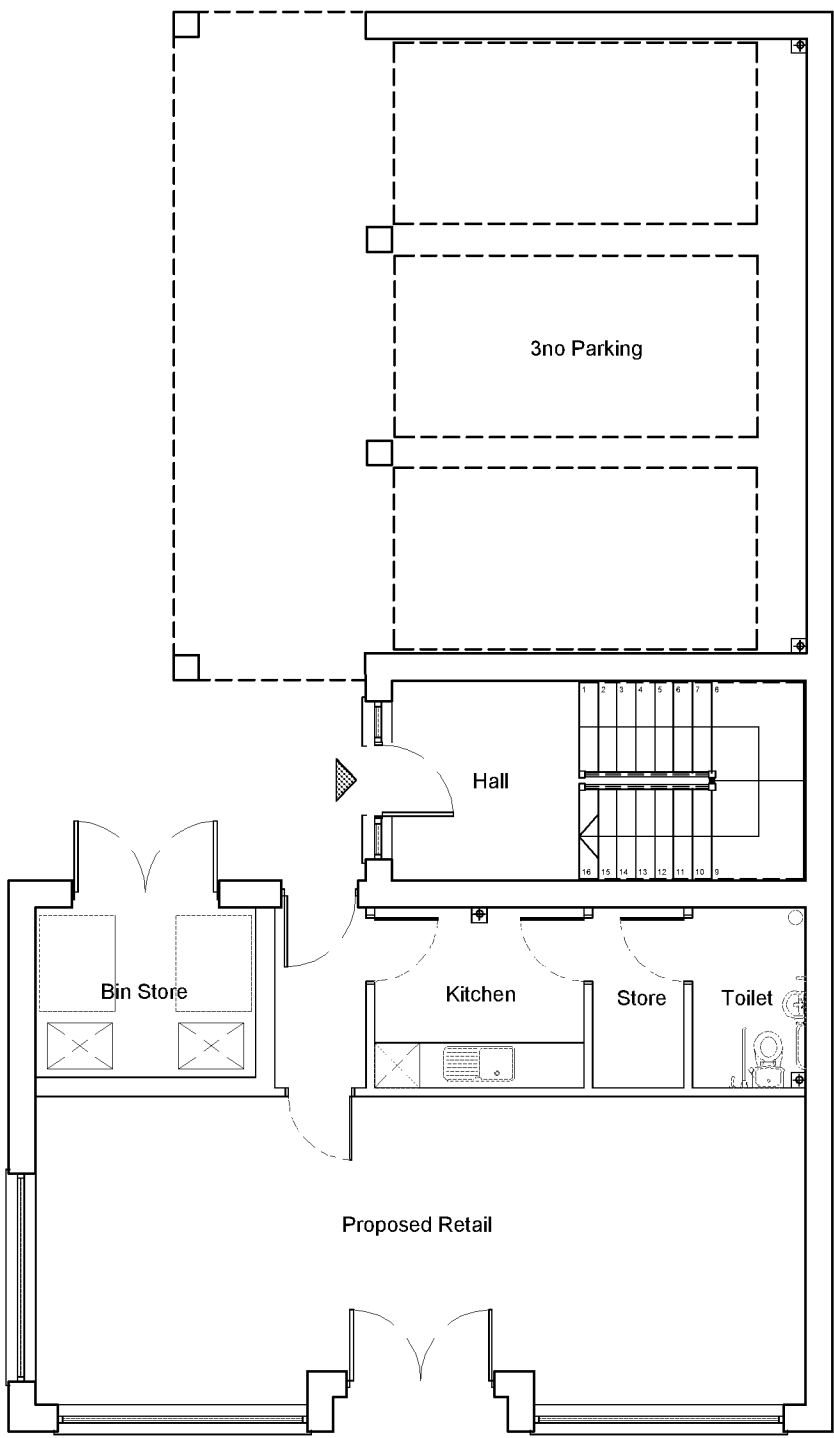
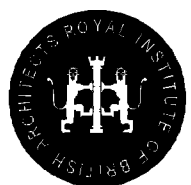
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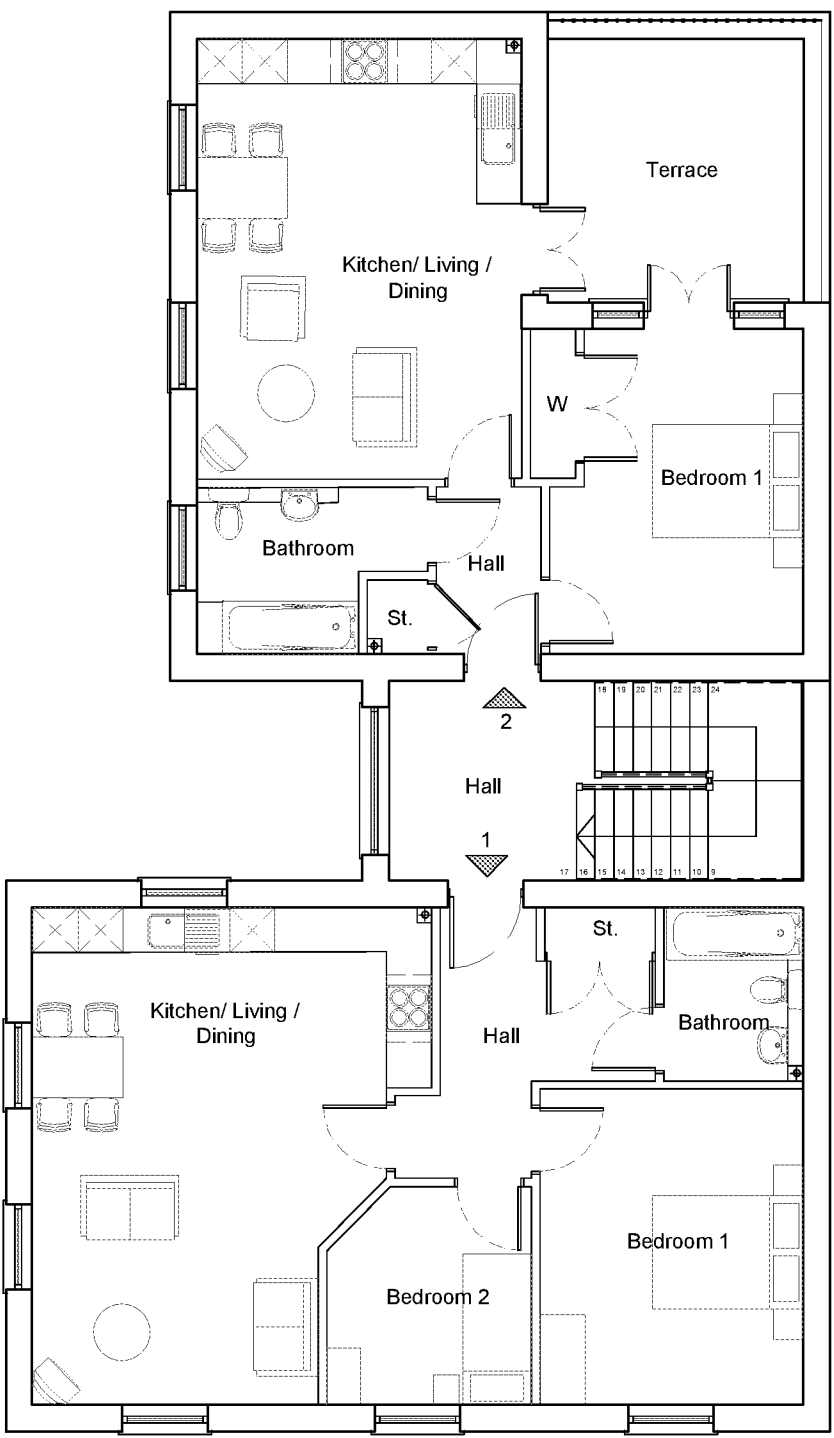
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Map 1 Site Location Plan

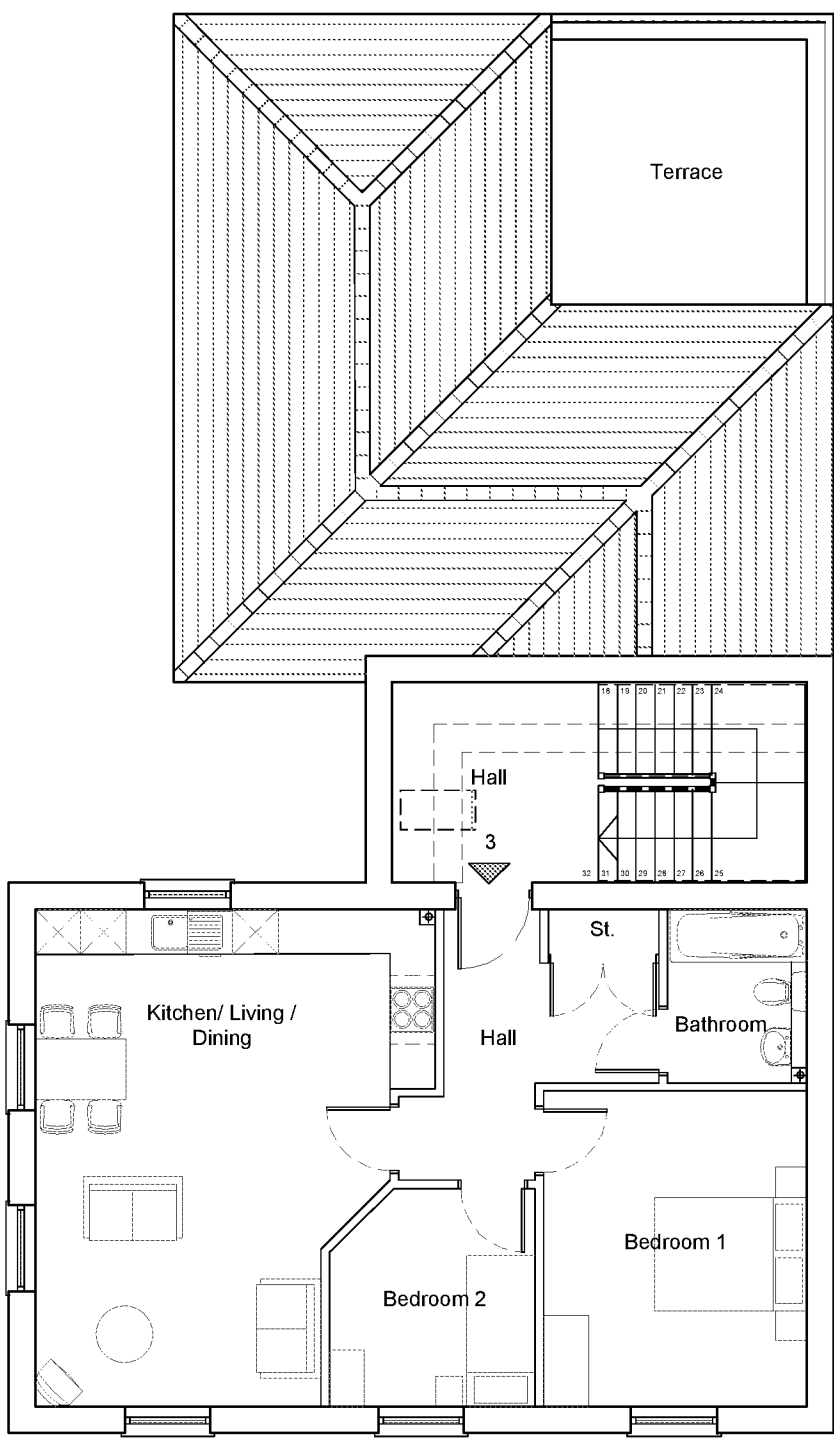
Appendix 1 Proposed Site Layout



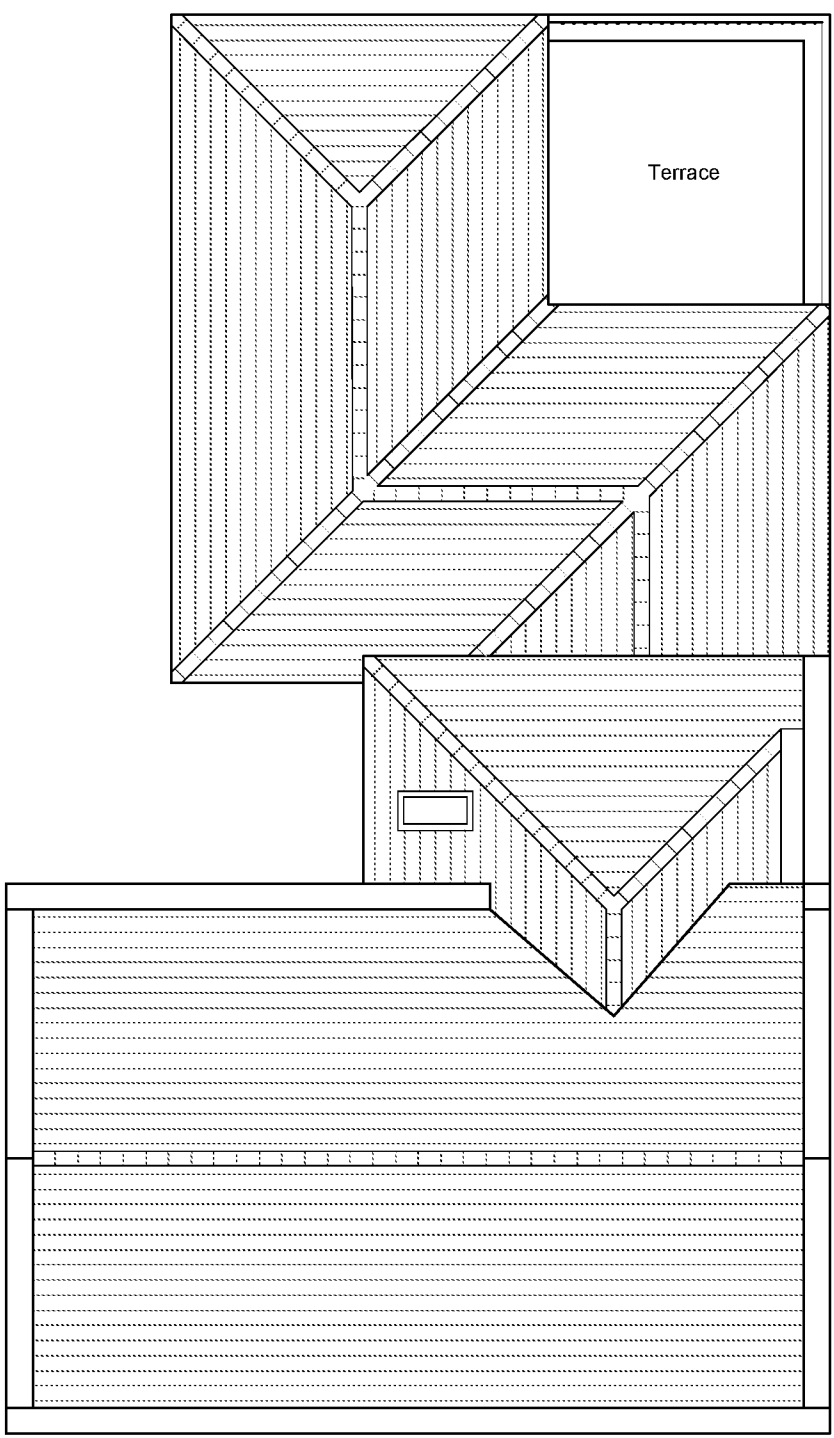
GROUND PLAN



FIRST PLAN



SECOND PLAN



ROOF PLAN



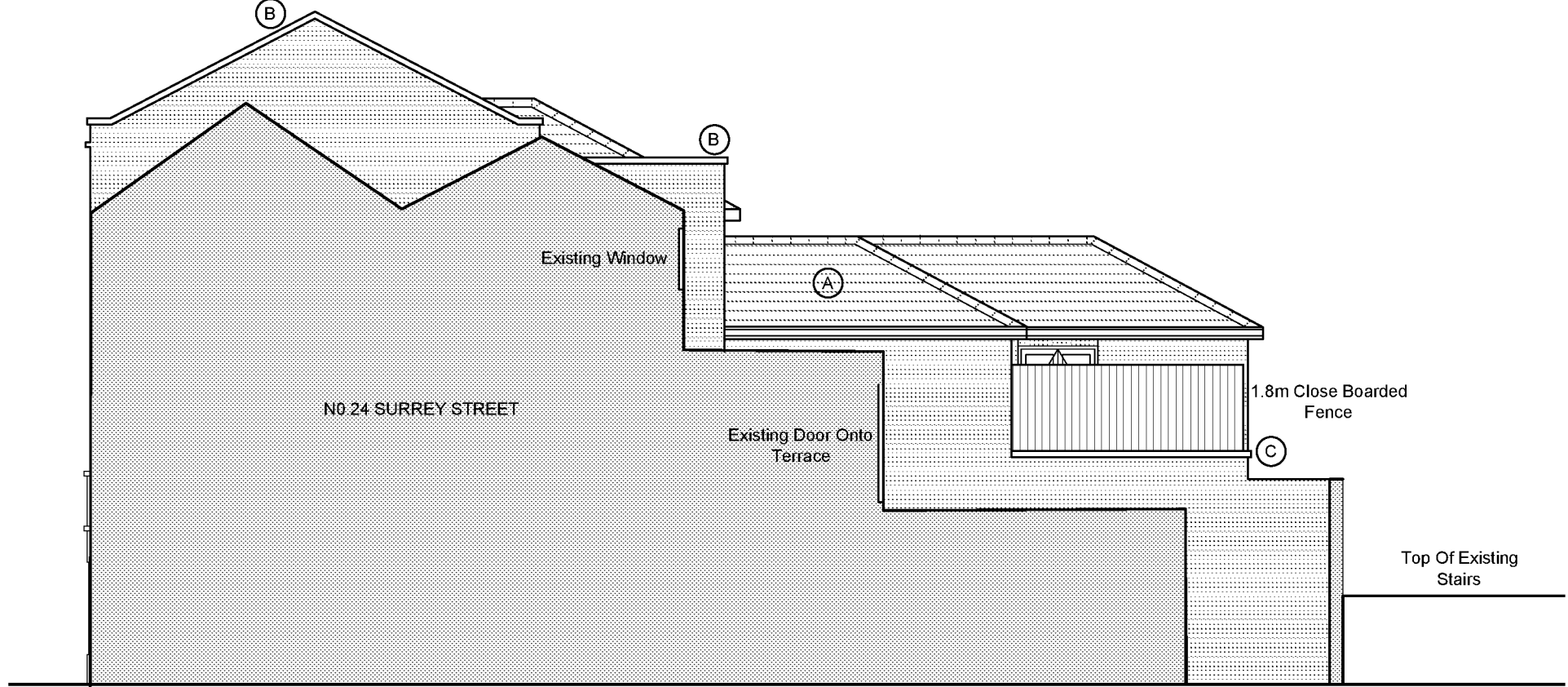
EAST ELEVATION



SOUTH ELEVATION



WEST ELEVATION



SECTION THROUGH NO.24 SURREY STREET

SCHEDULE OF EXTERNAL MATERIALS

Roof	A	False slate tiles
	B	Reconstituted York stone capping
Walls	C	Red stock brick with yellow mortar
Windows / Doors		White Sash effect windows
		Stained hardwood front door
Rainwater goods		Black uPVC half-round profile
		gutter / downpipes
Shop Front		White Painted Timber

Client

Job title

Development At
26/28 Surrey Street
Littlehampton, BN17 5BG

Drawing title

Proposed Plans And Elevations

Drawn Date Checked Date Scale at A1
JK Sep 17 CJP Sep 17 1:100

Job N° Drawing N° Rev.
15-122 004 P3

Status

PLANNING APPLICATION

Appendix 2 Protected and Notable Species Appraisal Methods

Bats

The survey conformed to current Bat Conservation Trust guidelines (Collins, 2016). An assessment was made of the suitability of buildings and trees on the site and immediately on the site boundary to support roosting bats based on the presence of features such as loose or missing roof tiles or lifted lead flashing for buildings and holes, cracks, splits, loose bark and ivy cladding for trees.

An assessment was made of the suitability of the site and the surrounding landscape to support foraging and/or commuting bat species. The assessment of the potential for the site to support roosting, foraging and commuting bat is based on a four-point scale as detailed in **Appendix 5**.

Badger

The survey involved a detailed investigation of the site to identify evidence of badger residence, foraging or territorial activity. Particular emphasis was placed on locating badger setts, paths, and signs of territorial activity such as latrine sites both on-site and within immediately adjacent areas where access was possible.

Hazel Dormouse

The appraisal for the potential of the site to support dormouse was based on an assessment of habitat features that may indicate that the species is present. This includes the presence of key food sources such as hazel and bramble, or plants used as nesting material such as honeysuckle and clematis. Additionally, the species requires a continuum of food supply so that habitat structure, diversity and connectivity to adjacent areas of woodland/scrub are important features in determining the potential presence of dormouse.

Birds

The appraisal of breeding birds on the site was based on the suitability of habitat present to support nesting bird communities, the presence of bird species that may potentially nest within the available habitat and evidence of nesting such as old or currently active nests.

The assessment of wintering birds was based on an assessment of the suitability of the habitat on site to support important wintering bird species and populations. Particular attention was paid to the potential for the site to support wintering farmland bird species, waders and wildfowl.

Reptiles

The reptile appraisal was based on an assessment of the suitability of the habitat present within the site to support a population of reptiles. Reptiles particularly favour scrub and rough grassland interfaces and the presence of these is a good indication that reptiles may be present

on-site. In addition, reptiles may utilise features such as bare ground for basking, tussocky grassland for shelter and compost heaps and rubble piles for breeding and/or hibernating.

Great Crested Newt

The appraisal of the site to support great crested newt included establishing the presence of suitable aquatic habitats such as ponds, lakes or other waterbodies within or adjacent to the site and the presence of suitable terrestrial habitat. Waterbodies that are densely shaded, highly eutrophic or that contain fish are likely to be less suitable for this species.

In addition, online mapping resources at a minimum scale of 1:25,000 were used to identify the presence of ponds or other waterbodies within a 500m radius of the site. The 500m radius is a standardised search radius to assist in the assessment of the potential of a site and its surrounding habitat to support this species, based on current Natural England guidance (English Nature, 2001).

Invertebrates

An assessment was made of the site for its potential value to support diverse communities of invertebrates. The assessment was based on the presence of habitat features which may support important invertebrate communities. These features include, for example, an abundance of dead wood, the presence of diverse plant communities, varied woodland structure, sunny woodland edges with a diverse flora, waterbodies and water courses and areas of free draining soil exposures. During the field survey there was no attempt made to identify species present as this is a more specialist area of ecological assessment reserved for targeted surveys.

Other Relevant Species

An assessment was made of the potential for the site to support other notable species such as more rarely encountered protected species, United Kingdom Biodiversity Action Plan (UKBAP)⁸ species and Local Biodiversity Action Plan (LBAP) species, specific to the study region.

Invasive Species

During the field survey any incidental records of invasive species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) were recorded. However, it should be considered that the survey was not specifically aimed at assessing the presence of these species and further specialist advice may need to be sought.

Appendix 3 Sites Designated for Nature Conservation

Statutory Sites

⁸ LBAPs identify local priorities for biodiversity conservation by translating national targets for species into effective action at the local level and identifying targets for species important to the local area.

Internationally Designated Sites - Ramsar Sites, Special Areas of Conservation and Special Protection Areas

Special Protection Areas (SPA) and Special Areas of Conservation (SAC) form a network of protected sites across the European Union called Natura 2000 sites. In the United Kingdom the primary legislative protection is afforded to these sites under the Conservation of Habitats and Species Regulations 2010 (as amended).

Ramsar sites are designated as wetlands of international importance which are afforded similar legislative protection to Natura 2000 sites.

SACs are sites which support intentionally important habitats or internationally important assemblages or populations of species. SPAs are designated for supporting internationally important populations of birds listed in the annexes of the Birds Directive. SACs, SPAs and Ramsar sites are generally also designated as Sites of Special Scientific Interest.

Under Regulation 61 of the Conservation of Habitats and Species Regulations 2010 (as amended) there is a legal requirement that competent authorities, such as local planning authorities, need to consider whether plans or projects are likely to have a significant adverse effect on Natura 2000 sites or Ramsar sites, either alone, or in combination with other plans or projects. In the event that a likely significant effect cannot be ruled out, on the basis of objective information, then the competent authority must undertake an “Appropriate Assessment” to fully assess the plan or project against the site’s conservation objectives. Unless certain defined derogation tests can be met, the competent authority may not authorise nor undertake any plan or project which adversely affects the integrity of a Natura 2000 site or Ramsar site.

Nationally Designated Sites – Sites of Special Scientific Interest and National Nature Reserves

Sites of Special Scientific Interest (SSSI) receive legal protection under the Wildlife and Countryside Act 1981 (as amended). Such sites are designated to protect specific areas of biological or geological interest of national importance. Such sites also generally receive strict protection through the planning system.

National Nature Reserves (NNR) are also usually designated as SSSIs and are specifically managed for their wildlife value. They receive legal protection through the National Parks and Access to the Countryside Act 1949 and the Wildlife and Countryside Act 1981 (as amended). As with SSSIs, these sites generally receive strict protection through the planning system.

Locally Designated Sites – Local Nature Reserves

Local Nature Reserves (LNR) are designated by local authorities under the National Park and Access to the Countryside Act 1949. These are generally designated not only for their local

wildlife value but also for education, scientific and recreational purposes. These sites generally receive protection from development through the planning system.

Appendix 4 Protected Species Legislation

Bats

All UK bat species are listed in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of the Conservation of Habitats and Species Regulations 2010. They are afforded full protection under Section 9(4) of the Act and Regulation 41 of the Regulations. These make it an offence to:

- Deliberately capture, injure or kill any such animal;
- Deliberately disturb any such animal, including in particular any disturbance which is likely:
 - To impair its ability to survive, breed, or rear or nurture their young;
 - To impair its ability to hibernate or migrate;
 - To affect significantly the local distribution or abundance of that species;
- Damage or destroy a breeding site or resting place of any such animal;
- Intentionally or recklessly disturb any of these animals while it is occupying a structure or place that it uses for shelter or protection; or
- Intentionally or recklessly obstruct access to any place that any of these animals uses for shelter or protection.

In addition, five British bat species are listed on Annex II of the Habitats Directive. These are:

- Greater horseshoe bat *Rhinolophus ferrumequinum*;
- Lesser horseshoe bat *Rhinolophus hipposideros*;
- Bechstein's bat *Myotis bechsteinii*;
- Barbastelle *Barbastella barbastellus*; and
- Greater mouse-eared bat *Myotis myotis*.

In certain circumstances where these species are found the Directive requires the designation of Special Areas of Conservation (SACs) by EC member states to ensure that their populations are maintained at a favourable conservation status. Outside SACs, the level of legal protection that these species receive is the same as for other bat species.

Breeding Birds

With certain exceptions, all wild birds, their nests and eggs are protected by Section 1 of the Wildlife and Countryside Act 1981 (as amended). Therefore, it is an offence, to:

- Intentionally kill, injure or take any wild bird;
- Intentionally take, damage or destroy the nest of any wild bird while it is in use or being built; or
- Intentionally take or destroy the egg of any wild bird.

These offences do not apply to hunting of birds listed in Schedule 2 subject to various controls. Bird species listed on Schedule 1 of the Act receive further protection, thus for these species it is also an offence to:

- Intentionally or recklessly disturb any bird while it is nest building, or is at a nest containing eggs or young; or
- Intentionally or recklessly disturb the dependent young of any such bird.

Appendix 5 Appraisal Criteria for Bats

The criteria used to assess the suitability of roosting and foraging/commuting habitat for bats is based on industry guidelines and outlined in **Table 5**⁹.

Table 5: Criteria used to Assess Suitability of Roosting and Foraging/Commuting Habitat for Bats

Suitability	Description of roosting habitats	Commuting and foraging habitats
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.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.
Moderate	A structure of 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.	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically/structure that does not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (ie. unlikely to be suitable for maternity or hibernation). A tree of sufficient size and age to contain potential roost features but with none seen from the ground or features seen with only very limited roosting potential.	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerows or un-vegetated stream, but isolated (i.e. not very well connected to the surrounding landscape by other habitat). Suitable, but isolated, habitat that could be used by small numbers of foraging bats such as a lone tree or a patch or scrub.
Negligible	Negligible habitat features on site likely to be used by roosting bats.	Negligible habitat features on site likely to be used by commuting or foraging bats.

⁹ Table adapted from Collins, J. (Ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (Third Edition). The Bat Conservation Trust, London