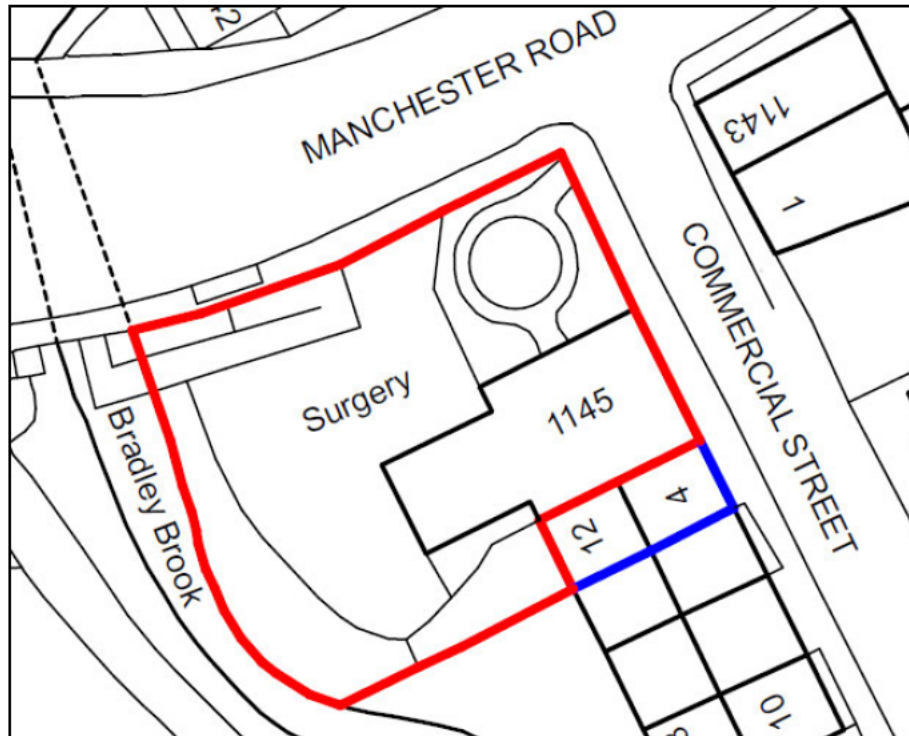


Ecological Design Strategy
Croft House Surgery, Slaithwaite

26th July 2022



Prepared by:

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Document ref : MBE/OTH/2021/12/02				
Purpose and Description	Originated	Checked	Reviewed	Date
For Planning	Robert Bell MCIEEM	P Middleton MCIEEM	Robert Bell MCIEEM	26/07/2022

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1. Summary

- 1.1.1 This Ecological Design Strategy (EDS) was commissioned by Freddie Garside of One17 Design on behalf of the client Garside Developments on 26th November 2021. The purpose of this EDS is to inform the re-development of the Croft House Surgery site, with the existing building to be altered to form four residential units and with two additional dwellings to be constructed on the site.
- 1.1.2 This work was commissioned in order to inform Condition 13 of the planning permission (Application Ref: 2021/62/91975/W).
- 1.1.3 No previous ecological survey work has been undertaken in connection with this scheme and no site visit was carried out in connection with this document. The site was viewed from Google Earth in order to gain an understanding of local habitats present to inform mitigation and enhancement measures suitable for the area. The site is adjacent to the tree-lined Bradley Brook, an area included in the Kirklees Wildlife Habitat Network (KWHN).
- 1.1.4 Lighting restrictions are to apply on the site in order to avoid new artificial light spill across the treeline bordering Bradley Brook. A lighting constraints plan is presented in this document.
- 1.1.5 This EDS includes the installation of one bat box and two swift boxes on new site buildings. Swift boxes have been chosen in preference to other types of building mounted bird boxes, as research has shown all common species of bird that nest in buildings will readily use swift boxes.
- 1.1.6 Holes of an appropriate size to facilitate the free movement of hedgehog will be created in boundary fences/walls to allow hedgehog access from the Bradley Brook area into the gardens of Units 1 & 2.
- 1.1.7 One fruit tree comprising either native crab apple or wild cherry will be planted on site, together with c.15m of new species-rich native hedgerow. New ornamental planting will also make use of species which benefit wildlife.

2. Introduction

2.1.1 This Ecological Design Strategy (EDS) was commissioned by Freddie Garside of One17 Design on behalf of the client Garside Developments on 26th November 2021. The purpose of this EDS is to inform the re-development of the Croft House Surgery site, with the existing building to be altered to form four residential units and with two additional dwellings to be constructed on the site. The site is located at 1145 Manchester Rd, Slaithwaite (Ordnance Survey Grid Reference: SE 08087 13802). The site location is shown in Figure 1.

2.1.2 This work was commissioned in order to inform Condition 13 of the planning permission (Application Ref: 2021/62/91975/W), which states:

13. Before work commences on the superstructure of the new dwellings, an ecological design strategy (EDS) addressing means of providing ecological enhancement, including, but not restricted to, compensatory tree planting, shall be submitted to and approved in writing by the Local Planning Authority. The EDS shall include the following:

- a. Purpose and conservation objectives for the proposed ecological works.*
- a. Location (shown on appropriate scale plans) of specific make and model, or design, of habitat boxes, such as bat boxes, bird boxes and hedgehog refuges. Habitat boxes to be integral to new structures where appropriate.*
- b. Details of how the design of boundary treatments will not obstruct the movement of hedgehogs.*
- c. Planting schedule and planting plan showing the inclusion of native species of tree and shrub to be included within/at the boundary of the application area, and how this achieves the stated purpose.*
- d. Details of maintenance.*
- e. Details of how and where external lighting will be installed so that it can be clearly demonstrated that areas to be lit will not negatively impact the Kirklees Wildlife Habitat Network.*

The EDS shall be implemented in accordance with the approved details and all features shall be retained in that manner thereafter.

2.1.3 No previous ecological survey work has been undertaken in connection with this scheme and no site visit was carried out in connection with this document. The site can however be well viewed from Google Earth in order to gain an understanding of local habitats present which informs mitigation and enhancement measures suitable for the area. The site is known to be adjacent to the tree-lined Bradley Brook, an area included in the Kirklees Wildlife Habitat Network (KWHN).

Figure 1. Site location indicated by red line



3. Purpose and Conservation Objectives

3.1.1 The strategy is aimed at achieving the following:

- To avoid indirect lighting impacts on the trees bordering Bradley Brook, within the KWHN.
- To provide new bat roost provision within the proposed scheme.
- To provide new provision for building nesting birds within the proposed scheme.
- To include within the proposals, planting of a new heavy standard tree to mitigate for the loss of a tree present on the pre-development site.
- To include new wildlife friendly ornamental planting, within garden areas and adjacent to car parking.
- To provide free access for hedgehog between the new gardens of Units 1 & 2.

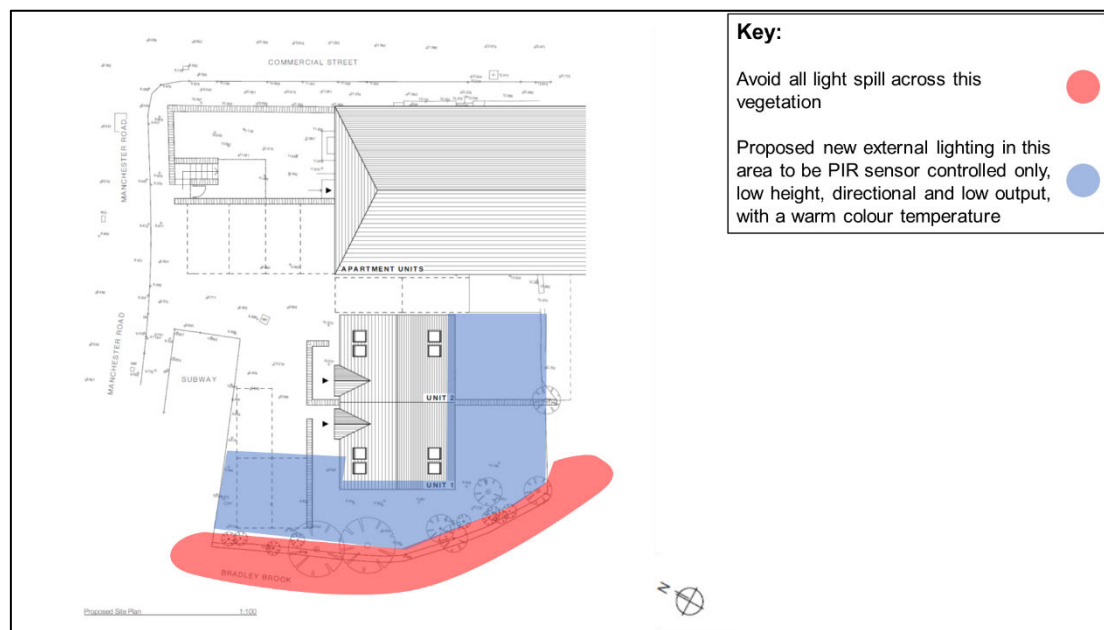
4. Detailed Scheme Prescription

4.1.1 Five mitigation or enhancement measures are described here, with these measures detailed fully within this section of the report.

Lighting restrictions

4.1.2 New external lighting is being designed to comply with the lighting restriction measures detailed in Figure 2. New sources of external lighting are to be designed to avoid light spill across trees bordering Bradley Brook (see red zone in Figure 2). In order help achieve this, any new external lighting is to be installed within the section of the site adjacent to Bradley Brook (see blue zone in Figure 2) is to be PIR sensor controlled only and is to be low height, directional and low output, with a warm colour temperature.

Figure 2. Lighting restrictions plan



Bat box

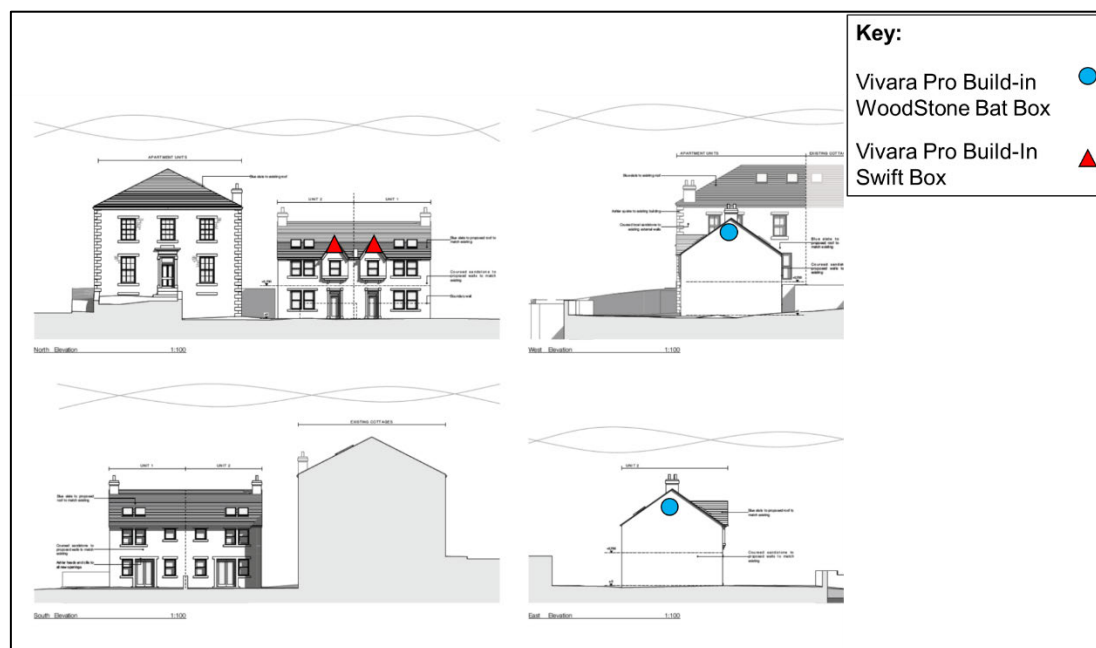
- 4.1.3 UK bats are known to have suffered historic declines in abundance and modern building methods can result in new buildings lacking potential bat roost locations or presenting a risk of entanglement in modern roofing membranes. The provision of new integrated boxes increases the number of safe roosting options for bats in the area.
- 4.1.4 Single Vivara Pro Build-in WoodStone Bat Boxes are to be integrated into both the southwest gable of Unit 1 and northeast gable of Unit 2 (Figure 3). This box should be fitted close to the gable apex. These locations have been selected to offer complimentary roost locations and easy access to the habitats along Bradley Brook. This bat box is made entirely from Woodstone, a robust material comprising concrete and wood fibers. This bat box can be purchased from Wildcare (<https://www.wildcare.co.uk/>).

Swift boxes

- 4.1.5 Swifts *Apus apus* are summer visitors to the UK. Each year they journey from their wintering grounds in Africa to breed, before returning again in August. Their nests are made high under the eaves of old buildings. Many modern and refurbished buildings now have much more effective sealing of the eaves, meaning that nesting spaces are becoming more difficult to find. This species is classed as Red Listed on the Birds of Conservation Concern list (Stanbury *et al.*, 2021).
- 4.1.6 A study of 741 swift boxes/bricks installed by the Duchy of Cornwall showed their use by a variety of nesting birds that utilise buildings including house sparrow *Passer domesticus*, starling *Sturnus vulgaris*, house martins *Delichon urbicum* and blue tit *Cyanistes caeruleus*. Given the appeal of swift boxes to other species, it has been decided to install swift boxes only in connection with this scheme, with the expectation that other species of building nesting bird will also use the boxes.
- 4.1.7 Two swift boxes are to be installed in the northwest elevation of Units 1 & 2 (Figure 3).

These boxes will be installed towards the wall top with their location chosen to reduce exposure to the sun in order to help prevent overheating of nests. The box design to be fitted is the Vivara Pro Build-In Swift Box. As with the bat box specified, this unit is constructed from Woodstone to give it longevity.

Figure 3. Bat and swift box plan



New landscaping

- 4.1.8 One new heavy standard crab apple *Malus sylvestris* or wild cherry *Prunus avium* is to be planted to the southwest of Unit 1 (see Appendix 1). These species can be grown on different root stocks according to the desired height of the tree. It is recommended that if an apple tree is grown then a tree on an M106 root stock, is selected, which will result in a maximum height of c.4m. If a cherry tree is to be grown then a Colt rootstock is recommended, giving a maximum height of 4-5m. The tree and all other ornamental plants should be sourced from a UK nursery or nurseries.
- 4.1.9 A c.15m length of new species-rich native hedge is to be planted along the boundary with Bradley Brook. This new hedgerow is to comprise a mix of at least five native species, to include hawthorn *Crataegus monogyna*, blackthorn *Prunus spinosa*, hazel *Corylus avellana*, dogwood *Cornus sanguinea* and dog rose *Rosa canina*.
- 4.1.10 Six new blocks of ornamental planting are to be located in the corners of the new gardens of Units 1 & 2, and to the east of the associated parking area. Species to be planted in these areas are to include non-native species known to display appeal to wildlife (notably pollinating insects), to include lavenders, heathers and sedums. No non-native invasive species included on Schedule 9 of the Wildlife and Countryside Act (1981) as amended, are to be included in the planting scheme.

Hedgehog holes

- 4.1.11 Hedgehogs are declining rapidly within the UK and part of the reason for the decline in urban areas is the lack of habitat connectivity and road casualties. The creation of access routes through the development serves the dual purpose of keeping hedgehogs away from roads whilst retaining access to foraging areas within the

animal's home range.

- 4.1.12 In order to ensure that hedgehogs continue to be able to freely access the enclosed gardens of Units 1 & 2 from Bradley Brook, purpose made 13cm x 13cm hedgehog holes will be created at the base of close boarded fences or walls in the locations shown in Figure 3. It is not proposed to create holes in boundary fences/walls that would allow hedgehogs access to neighbouring streets (i.e. Commercial Street and Manchester Road).
- 4.1.13 In order to show new homeowners, the purpose of new fence holes, signs should be affixed over the hole on both sides of the fence as shown in Plate 1. A suitable type of sign comprises the Eco Hedgehog Hole Fence Plate, which is made in the UK from 100% recycled plastic.

Figure 4. Location of new hedgehog holes

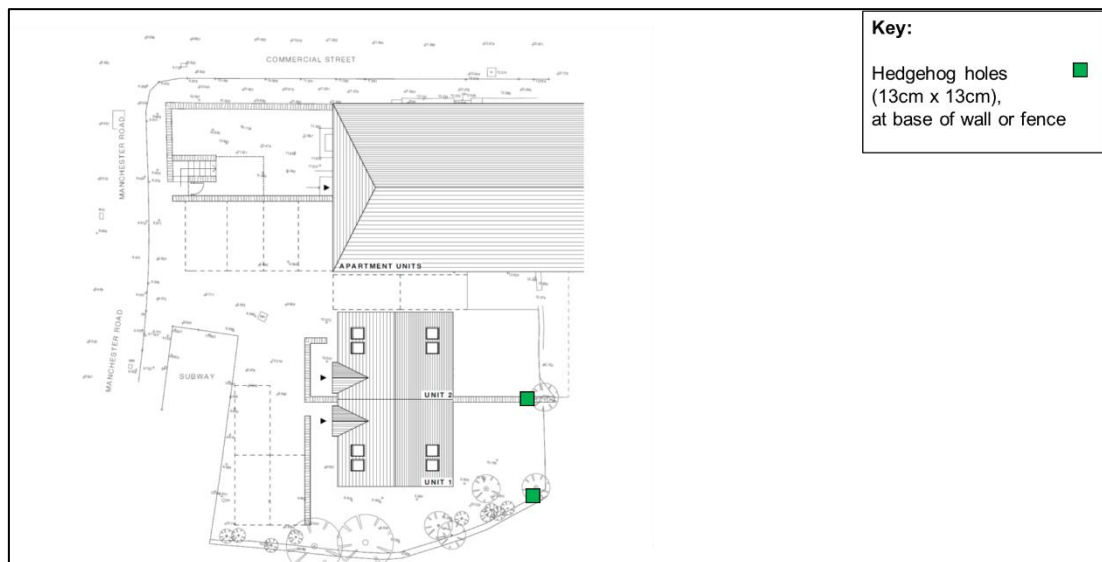


Plate 1. Sign fixed across fence hole to show purpose to homeowner



5. Timetable of Works

Table 1. Works timetable

Development activities and timing		
Activity	Timing	Notes
Lighting restrictions	To be observed throughout development	To be complied with during the development of any lighting plan and during installation of new lighting
Bat box	To be installed on Unit 1 gable wall once built	In location specified in Figure 3. Not to be subject to artificial light spill
Swift boxes	To be installed on Unit 2 gable wall once built	In location specified in Figure 3.
Landscaping	At completion of construction phase	Best done between October and April. Avoid planting in waterlogged or frozen soil. To be watered during dry spells in first two summers.
Hedgehog holes	During construction	Holes to be cut during installation of fence/construction of walls, with signs affixed above holes, during completion phase

Persons responsible for implementation of works

- 5.1.1 The developer (Garside Developments) is responsible for the purchase of materials and the installation or planting of ecological enhancement features specified in this document.
- 5.1.2 It is requested that images of the installed mitigation measures are sent to the consultant ecologists (Middleton Bell Ecology) to save down on file in the event of future queries relating to the site.

Aftercare and long-term maintenance

- 5.1.3 No maintenance is strictly required for bat, bird or hedgehog features.
- 5.1.4 New trees, hedge and ornamental planting should be watered once a week during dry spells over the first two summers. Failures should be replaced in the second year after planting.

6. References

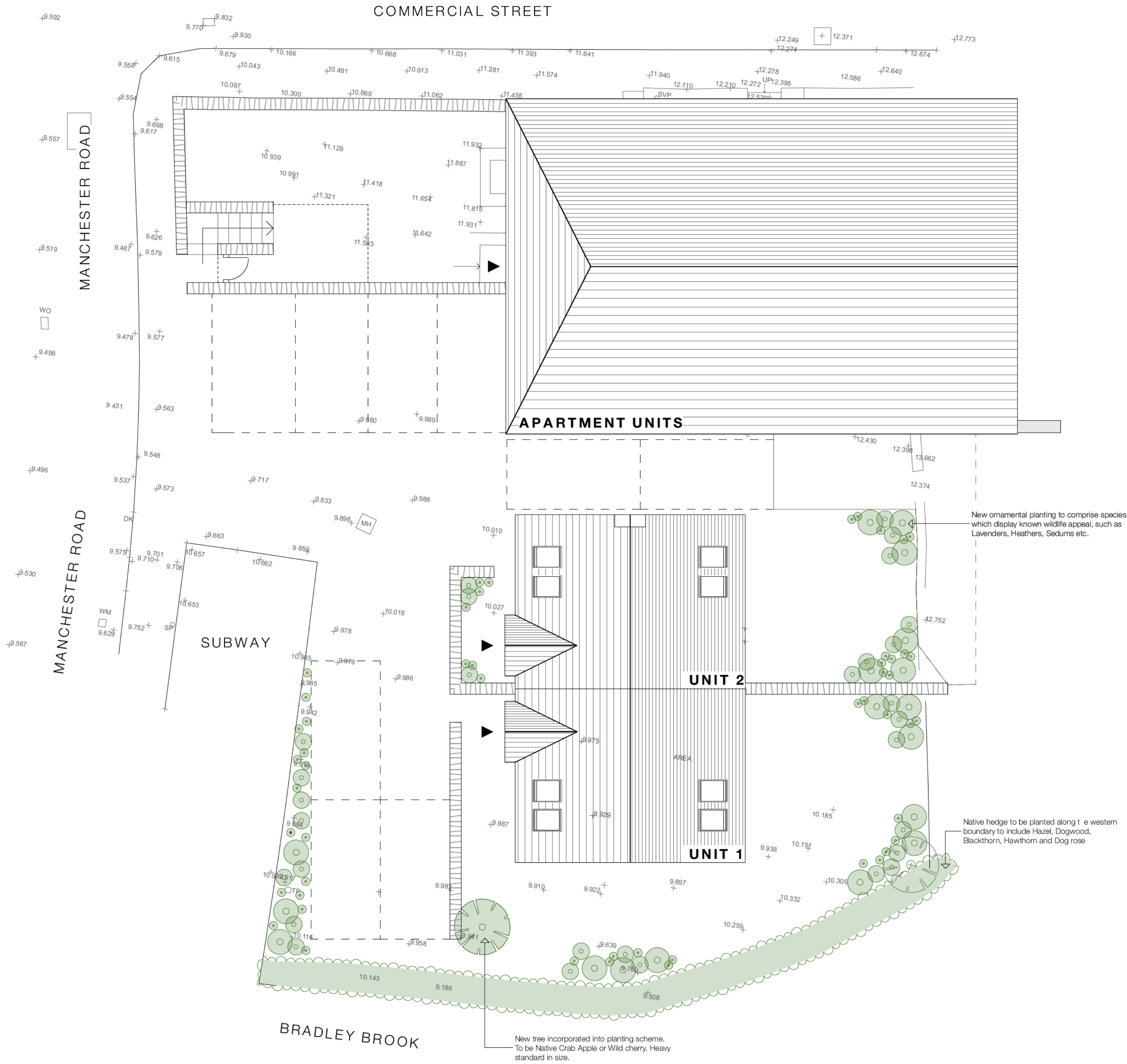
Stanbury, A, Eaton M, Aebischer N, Balme, D, Brown AF, Douse, A, Lindley, P. McCulloch, N, Noble, D and I Win (2021) The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. British Birds 114: 723-747.

Appendix 1. Proposed Landscaping Plan

Notes

Do not scale from drawing, use figured dimensions only.
All dimensions must be checked and verified on site prior to commencement of work and architect to be notified of any discrepancies.
This drawing is intended to permit overall scheme proposals only and cannot be used for construction purposes without further information.

Rev	Drawn	Checked	Date
• Drawing created	SW	FWG	11.07.22



Landscaping Plan 1:100

Job Title 1145 Manchester Rd Slaitthwaite, Huddersfield, HD7 5JY	
Client Garside Developments	
Status Building Regulations	Company AD
Drawing Proposed Landscaping Plan	
Scale @ A1 1:100	
Date July 2022	Drawn SW
Checked FWG	
Drawing No. 3373 (0-) 16 •	
Revision •	

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