



ECOLOGYSOLUTIONS

Part of the ES Group

BURLEIGH OAKS WASTE
TRANSFER AND RECYCLING
CENTRE, WEST SUSSEX

ECOLOGICAL ASSESSMENT

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1. INTRODUCTION

1.1. Background & Proposals

- 1.1.1. Ecology Solutions was commissioned by Coxs Skips Ltd in March 2022 to undertake an Ecological Assessment at Burleigh Oaks Waste Transfer and Recycling Centre, West Sussex (hereafter referred to as 'the site').
- 1.1.2. The proposals for the site are for the demolition of the existing building and erection of a replacement building (see Appendix 1).

1.2. Site Characteristics

- 1.2.1. The site is situated northeast of Turners Hill, Crawley (see Plan ECO1) and comprises primarily buildings and hardstanding together with scrub and trees in the west. The north of the site is bordered by the existing Cox Skips development with River Medway and arable land beyond, while the east of the site is also bordered by the existing Cox Skips development with arable land and existing development beyond. The south of the site is bordered by existing woodland with existing development and arable land beyond. The west of the site is boarded by an existing grassland field with arable land and existing development beyond.

1.3. Ecological Assessment

- 1.3.1. This document assesses the ecological interest of the site. The importance of the habitats within the site is evaluated with due consideration given to the guidance published by the Chartered Institute of Ecology and Environmental Management (CIEEM)¹.
- 1.3.2. Where necessary mitigation measures are recommended so as to safeguard any significant existing ecological interest within the site. Specific enhancement opportunities that are available for habitats and wildlife within the site are detailed where appropriate, with reference to the 'UK Post-2010 Biodiversity Framework'². Finally, conclusions are drawn.

¹ CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine* version 1.2. Chartered Institute of Ecology and Environmental Management, Winchester.

² JNCC and Defra (on behalf of the Four Countries' Biodiversity Group) (2012) *UK Post-2010 Biodiversity Framework*. July 2012. <http://jncc.defra.gov.uk/page-6189>

2. SURVEY METHODOLOGY

2.1. The methodology utilised for the survey work can be split into three areas, namely desk study, habitat survey and faunal survey. These are discussed in more detail below.

2.2. Desk Study

2.2.1. In order to compile up to date background information on the site and its immediate surroundings, Ecology Solutions contacted Sussex Biodiversity Record Centre (SBRC) in March 2022. Where appropriate this information is included within this report, although much of it is cited as confidential and can only be made available upon request under the records centre terms and conditions.

2.2.2. Further information on designated sites was obtained from the online Multi-Agency Geographic Information for the Countryside (MAGIC)³ database, which utilises data provided by Natural England. This information is reproduced, where appropriate, on Plan ECO1 and at Appendix 2.

2.3. Habitat Survey Methodology

2.3.1. Surveys were carried out by Ecology Solutions in April 2022 in order to ascertain the general ecological value of the land contained within the boundaries of the site and to identify the main habitats and associated plant species, with notes made on fauna utilising these areas.

2.3.2. The site was subject to a detailed survey based around an extended Phase 1 survey methodology⁴, as recommended by Natural England, whereby the habitat types present are identified and mapped, together with an assessment of the species composition of each habitat. This technique provides an inventory of the basic habitat types present and allows identification of areas of greater potential which require further survey. Any such areas identified can then be examined in more detail.

2.3.3. Using the above method, the site was classified into areas of similar botanical community types, with a representative species list compiled for each habitat identified.

2.3.4. All the species that occur in each habitat would not necessarily be detectable during survey work carried out at any given time of the year, since different species are apparent at different seasons. The Phase 1 survey work was undertaken within the optimal period and given the habitat types present (dominated by existing buildings and hardstanding for the development footprint) it is considered that an accurate and robust assessment has been made.

³ <https://magic.defra.gov.uk>

⁴ Joint Nature Conservation Committee (2010). *Handbook for Phase 1 Habitat Survey – a Technique for Environmental Audit*. England Field Unit, Nature Conservancy Council, reprinted JNCC, Peterborough.

2.4. Faunal Survey

2.4.1. General faunal activity observed during the course of the surveys was recorded, whether visually or by call. Specific attention was paid to the potential presence of any protected, rare, notable or priority species. In addition, specific surveys were undertaken for bats and Badgers *Meles meles* and Great Crested Newts *Triturus cristatus*.

2.4.2. **Bats.** Field surveys were undertaken with regard to best practice guidelines issued by Natural England⁵, the Joint Nature Conservation Committee⁶ and the Bat Conservation Trust⁷.

Tree Assessment

2.4.3. In April 2022 all trees within and immediately adjacent to the site were assessed for their potential use by bats. Ladders, binoculars and an endoscope were used where necessary.

2.4.4. For a tree to be classified as having some potential for roosting bats it must usually have one or more of the following characteristics:

- Obvious holes, e.g. rot holes and old woodpecker holes;
- Dark staining on the tree below a hole;
- Tiny scratch marks around a hole from bats' claws;
- Cavities, splits and / or loose bark from broken or fallen branches, lightning strikes etc; and / or
- Very dense covering of mature Ivy *Hedera helix* over the trunk.

Building Assessment

2.4.5. Although it is considered that none of the buildings have potential to support roosting bats, internal searches were conducted for any evidence during the surveys undertaken.

2.4.6. **Badgers.** Specific surveys were undertaken within and adjacent to the site, to search for evidence of Badgers in April 2022. Such surveys comprise two main elements. The first of these is a thorough search for evidence of Badger setts. If any setts are encountered each sett entrance is noted and plotted even if the entrance appeared disused. The following information is recorded:

- i) The number and location of any well used or very active entrances; these are clear from any debris or vegetation and are obviously in regular use and may, or may not, have been excavated recently.
- ii) The number and location of any inactive entrances; these are not in regular use and have debris such as leaves and twigs in the entrance or have plants growing in or around the edge of the

⁵ Mitchell-Jones, A. J. (2004). *Bat Mitigation Guidelines*. English Nature, Peterborough.

⁶ Mitchell-Jones, A.J. & McLeish, A.P. (2004). *Bat Workers' Manual*. 3rd edition. Joint Nature Conservation Committee, Peterborough.

⁷ Bat Conservation Trust (2016). *Bat Surveys for Professional Ecologist – Good Practice Guidelines 3rd Edition*. Bat Conservation Trust, London.

entrance.

- iii) The number of any disused entrances; these have not been in use for some time, are partly or completely blocked and cannot be used without considerable clearance. If the entrance has been disused for some time all that may be visible is a depression in the ground where the hole used to be and the remains of the spoil heap.

2.4.7. Secondly, Badger activity such as well-worn paths and run-throughs, snagged hair, footprints, latrines and foraging signs are recorded so as to build up a picture of the use of the site, if any, by Badgers.

2.4.8. **Great Crested Newts.** The land within and surrounding the site was assessed in terms of its habitat quality and its ability to support Great Crested Newts.

2.4.9. There is one pond (P1) within the Cox Skips development, approximately 65m northeast from the development site. Four ponds (P2-P5) are located within 250m of the site (see Plan ECO1).

2.4.10. Ponds P3, P4 and P5 is separated from the site by River Medway, which is considered to be a significant dispersal barrier. Ponds P1 and P2 are not separated from the site by a dispersal barrier.

2.4.11. Ecology Solutions attempted to gain access to ponds P1 and P2 to undertake environmental DNA (eDNA) surveys to determine the presence of Great Crested Newts and to provide additional context for the Ecological Assessment. No access was sought for ponds P3, P4 and P5 as the River Medway is a flowing watercourse that is considered to represent a dispersal barrier for this species.

2.4.12. Access was granted for pond P1 but was denied for pond P2.

eDNA Survey

2.4.13. Specific eDNA sample surveys of P1 were undertaken on 21st April 2022.

2.4.14. The eDNA survey involves collecting 15-20 samples of 40ml of pond water at equally spaced locations around the perimeter of a pond. These 15-20 samples are then mixed together in a plastic sample bag to form a single amalgamated sample of the water in the pond. The amalgamated sample is mixed thoroughly to ensure any DNA present does not collect at the base of the sample bag.

2.4.15. 15ml of water is taken from the amalgamated sample and added to 35ml of ethanol within a sample tube, to preserve any DNA present. The sample tubes are then shaken vigorously to mix the water sample and ethanol thoroughly and prevent degradation of any DNA. This technique is repeated six times, using water from the amalgamated sample, such that six sample tubes are filled.

2.4.16. The six sample tubes are then sent off to SureScreen to be analysed using polymerase chain reaction amplification techniques. The analysis

involves producing DNA sequences that verify the taxonomic assignment of amplified DNA signals.

- 2.4.17. Terrestrial habitats within the site itself (and in areas surrounding ponds surveyed) were also searched for Great Crested Newts. This involved searching under logs, rocks and rubbish, which are favoured hiding places.

Habitat Suitability Index (HSI) Survey

- 2.4.18. Pond P1 was also subject to a HSI survey in April 2022.
- 2.4.19. An HSI survey is a quantitative measure of habitat quality for Great Crested Newts and is utilised as part of the assessment for a European Protected Species licence application.
- 2.4.20. An HSI survey is based on ten suitability indices that include:
- Location;
 - Pond area;
 - Pond drying;
 - Water quality;
 - Shade;
 - Fowl;
 - Fish;
 - Ponds;
 - Terrestrial habitat; and
 - Macrophytes cover.
- 2.4.21. Scores are attributed to each index and are then converted to suitability index scores on a scale from 0.01 to 1 (1 represents optimal habitat). The ten scores are multiplied together and the tenth root of this number is then calculated to give the overall HSI score.

3. ECOLOGICAL FEATURES

3.1. The site was surveyed in April 2022. The following main habitat / vegetation types were identified:

- Scrub and Trees; and
- Buildings and Hardstanding.

3.2. The location of these habitats is shown on Plan ECO2.

3.3. Each habitat present is described below with an account of the representative plant species present.

3.4. Trees and Scrub

3.4.1. An area of scrub is present behind the building in the northwest of the development site.

3.4.2. Trees present include Goat Willow *Salix caprea*, Ash *Fraxinus* sp. and Silver Birch *Betula pendula*.

3.4.3. Species present within the scrub include Bramble *Rubus* sp., Common Nettle *Urtica dioica*, Creeping Thistle *Cirsium arvense*, Broadleaf Dock *Rumex obtusifolius*, Wood Avens *Geum urbanum*, Lords and Ladies *Arum alpinum*, Herb Robert *Geranium robertianum*, Elder *Sambucus nigra*, Square Stalked Willow Herb *Epilobium tetragonum*, Holly *Ilex* sp., Cleavers *Galium aparine*, and Buckler Fern *Dryopteris dilatata*.

3.4.4. Areas of Bramble scrub are also present along the northwest margin.

3.5. Buildings and Hardstanding

3.5.1. Building B1 is a breeze block barn with a corrugated roof on a wooden frame and external lighting.

3.5.2. There are areas of hardstanding around the building.

3.6. Background Records

3.6.1. SBRC returned records of the Red Listed plant species Autumn Hawkweed *Hieracium sabaudum* located within the a 2km grid square that includes the site in 2016. During the surveys, Autumn Hawkweed was not recorded within the site.

4. WILDLIFE USE OF THE SITE

- 4.1. During the surveys undertaken in 2022 general observations were made of any faunal use of the site, with specific attention paid to the potential presence of protected or notable species. In addition, specific surveys were undertaken with regard to bats, Badgers and Great Crested Newts.

Bats

Building / Tree Surveys

- 4.2. No trees or buildings within the site were recorded to have any features with potential for roosting bats. In general the buildings are made of prefabricated materials which heat and up and cool down too quickly to provide the stable conditions preferred by roosting bats. The corrugated roofs also offer no roosting opportunities.
- 4.3. **Background Records.** SBRC returned no records of any bats from within the site. The closest activity records returned are from Soprano Pipistrelle *Pipistrellus pygmaeus*, Brown Long-eared *Plecotus auratus*, *Myotis* sp., and Serotine *Eptesicus serotinus* from approximately 0.8km north of the site in 2008. The closest roost record returned was for Common Pipistrelle *Pipistrellus pipistrellus* located approximately 0.6km west of the site in 2016.

Badgers

- 4.4. No evidence of Badger was found within the site.
- 4.5. **Background Records.** SBRC returned no records of Badger activity from within the site or from around the surrounding area.

Other Mammal

- 4.6. No evidence of any other notable or protected mammals was recorded during the surveys undertaken. It is considered that the scrub offers some suitable habitat for an arrange of common small mammals, although it is not considered they would be reliant on the habitats within the site given the surrounding area.
- 4.7. **Background Information.** SBRC returned no specific records of any other mammals from within the site. The closest record returned was for a Hedgehog *Erinaceus europaeus* (a Priority species) located approximately 0.6km north in 2005. It is not considered the site provides suitable opportunities for this species.

Birds

- 4.8. During the survey work no birds were recorded within the site. An old disused nest was found within the south of building B1. It is considered that the trees, scrub, and buildings offer some nesting and foraging opportunities for a range of common species.
- 4.9. **Background Records.** SBRC returned records of the Red List⁸ and Priority species Skylark *Alauda arvensis*, Song Thrush *Turdus philomelos*, Starling *Sturnus vulgaris*, Tree Pipit *Anthus trivialis*, Yellowhammer *Emberiza citrinella*, Linnet *Linaria cannabina* and House Sparrow *Passer domesticus*, the Red List Species Mistle Thrush *Turdus viscivorus* and Grey Wagtail *Motacilla cinerea*, and the Priority species Bullfinch *Pyrrhula pyrrhula*, Dunnock *Prunella modularis*, and Red Kite *Milvus milvus* from within a 2km grid square that contains the site in 2011.
- 4.10. The site provides some suitable foraging and nesting habitat for Starling, Yellowhammer, Linnet, House Sparrow, Bullfinch, and Dunnock, and some suitable foraging habitat for Skylark, Song Thrush, Tree Pipit, Mistle Thrush, Grey Wagtail, and Red Kite. However, it is not thought that any of these species would be reliant on the habitats within the site given the surrounding area.

Great Crested Newts

- 4.11. There is one pond (P1) within the Cox Skips development approximately 65m from the development site and one pond (P2) present within 250m of the site that is not separated by a significant dispersal barrier (see Plan ECO1).

eDNA Survey

- 4.12. Access was granted for pond P1 but denied for pond P2. Pond P1 returned a negative result for the presence of Great Crested Newts.

HSI Survey

- 4.13. The HSI score for a pond lies between 0 and 1, with 0 indicating unsuitable habitat and 1 indicating optimal habitat. A score of <0.5 indicates poor habitat, 0.5-0.59 indicates below average habitat, 0.6-0.69 indicates average habitat, 0.7-0.79 indicates good habitat and >0.8 indicates excellent habitat.
- 4.14. Pond P1 is located northeast of the site, within the Cox Skips development. The HSI score for this pond has been calculated at 0.68, indicating this pond offers average habitat for Great Crested Newts.

⁸ Red list species are those that are globally threatened, whose population or range has declined rapidly in recent years (ie by more than 50% in 25 years), or which have declined historically and not recovered. Amber list species are those whose population or range has declined moderately in recent years (by more than 25% but less than 50% in 25 years), those whose population has declined historically but recovered recently, rare breeders (fewer than 300 pairs), those with internationally important populations in the UK, those with localised populations, and those with an unfavourable conservation status in Europe.

Table 1. HSI Results Table.

Pond	P1
Location	1
Pond area	0.9
Pond drying	1
Water quality	0.33
Shade	0.9
Fowl	0.67
Fish	0.33
Ponds	1
Terr'l habitat	0.67
Macrophytes	0.5
HSI Score	0.68

- 4.15. **Background Records.** SBRC contained no records of any Great Crested Newts from within the site. The closest record returned was located approximately 0.9km northeast of the site in 2019 (beyond the dispersal barrier of River Medway).
- 4.16. Given the negative eDNA result returned from pond P1, the lack of records within the surrounding area, and the habitats present within the site, it is not considered that Great Crested Newts will be affected by the development proposals. Therefore, there will be no further reference in this report.

Reptiles

- 4.17. As the site mainly comprises hardstanding and buildings it is not considered that there is suitable habitat present for reptiles. The trees and scrub may offer some potential sheltering/hibernation opportunities for this faunal group.
- 4.18. **Background Records.** SBRC returned no records of reptiles from within the site. The closest record returned was a historical record of Slow Worm *Anguis fragilis* from approximately 0.2km north of the site in 1991. Records for Grass Snake *Natrix Helvetica* were returned from approximately 0.8km north of the site in 2018.

Invertebrates

- 4.19. The site is expected to support a limited range of common invertebrate species, but there is no evidence to suggest that any protected or notable species are likely to be present. The habitats present reduce the site's suitability to support a diverse / notable invertebrate assemblage.
- 4.20. **Background Records.** SBRC returned no records of records of notable invertebrates from within the site itself. The nearest record returned was for Purple Emperor *Apatura iris* from approximately 0.7km southwest of the site in 2013. This species of Butterfly is found in large areas of broadleaved woodland with a good supply of Willow *Salix* sp.. It is considered that this species could utilise the site, however it would not be reliant on the site given the surrounding habitat.

Other Species

- 4.21. Given the habitats present and records from the local area, there is no evidence from site surveys or desk study to suggest that any other protected or notable species would be present within the site or affected by the proposed development.

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5. ECOLOGICAL EVALUATION

5.1. The Principles of Site Evaluation

- 5.1.1. The latest guidelines for ecological evaluation produced by CIEEM⁹ proposes an approach that involves professional judgement, but makes use of available guidance and information, such as the distribution and status of the species or features within the locality of the project.
- 5.1.2. The methods and standards for site evaluation within the British Isles have remained those defined by Ratcliffe¹⁰. These are broadly used across the United Kingdom to rank Sites, so priorities for nature conservation can be attained. For example, current Site of Special Scientific Interest (SSSI) designation maintains a system of data analysis that is roughly tested against Ratcliffe's criteria.
- 5.1.3. In general terms, these criteria are size, diversity, naturalness, rarity and fragility, while additional secondary criteria of typicalness, potential value, intrinsic appeal, recorded history and the position within the ecological / geographical units are also incorporated into the ranking procedure.
- 5.1.4. Any assessment should not judge sites in isolation from others, since several habitats may combine to make it worthy of importance to nature conservation.
- 5.1.5. Further, relying on the national criteria would undoubtedly distort the local variation in assessment and therefore additional factors need to be taken into account, e.g. a woodland type with a comparatively poor species diversity, common in the south of England may be of importance at its northern limits, say in the border country.
- 5.1.6. In addition, habitats of local importance are often highlighted within a local Biodiversity Action Plan (BAP).
- 5.1.7. Levels of importance can be determined within a defined geographical context from the immediate site or locality through to the International level.
- 5.1.8. The legislative and planning policy context are also important considerations and have been given due regard throughout this assessment.

⁹ CIEEM (September 2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal and Marine*. Version 1.2 Chartered Institute of Ecology and Environmental Management, Winchester

¹⁰ Ratcliffe, D A (1977). *A Nature Conservation Review: the Selection of Sites of Biological National Importance to Nature Conservation in Britain*. Two Volumes. Cambridge University Press, Cambridge.

Habitat Evaluation

5.2. Designated Sites

- 5.2.1. **Statutory Sites.** There are no statutory designated sites of nature conservation interest within or immediately adjacent the site. The nearest statutory site is Turners Hill Site of Special Scientific Interest approximately 1.1km southwest of the site. This geological SSSI is designated for being a former quarry that exposed the Tunbridge Wells Sand Formation.
- 5.2.2. This SSSI is well separated from the site by major and minor roads, existing development and open country side. The Impact Risk Zones for this SSSI show no likely impacts from the proposed development. The proposals in this case would not fall into that category and so no likely effects are anticipated.
- 5.2.3. Indeed, given the distance of Turners Hill SSSI from the site, it is not considered that there will be any adverse impacts (either direct or indirect) to this SSSI as a consequence of the development at the site.
- 5.2.4. **Non-Statutory Sites.** There are no non-statutory sites of nature conservation interest within or directly adjacent the site. The nearest non-statutory site is Grove, Threepoint & Green Woods Local Wildlife Site (LWS) approximately 1.5km southwest of the site (designated for being a Oak and Birch woodland that supports a rich community of birds, mosses and liverworts).
- 5.2.5. Given the separation from the site it is not considered likely that any direct or indirect effects would occur but standard construction safeguards could be employed to ensure that indirect effects from dust, run-off etc would not affect this designation.
- 5.2.6. On this basis, it is not considered that any detrimental effects will arise as a result of residential proposals at the site to any other statutory or non-statutory site of nature conservation interest.
- 5.2.7. An area of ancient woodland lies directly to the south of the site. As such it is considered that a 15m buffer / green belt should be put in place to stop any adverse effects on this area.

5.3. Habitats within the Site

The habitats within the site are generally not considered to be of any particular intrinsic ecological importance being dominated by buildings/hardstanding. Notwithstanding, the trees and scrub therein are of some relatively greater ecological value in the context of the site.

Trees and Scrub

- 5.3.1. The trees and scrub within the site are of relatively greater ecological value in the context of the site. They offer some suitable nesting opportunities for birds and foraging and navigational opportunities for bats.
- 5.3.2. The trees and scrub are to be lost to the proposed development.

- 5.3.3. **Mitigation and Enhancements.** It is recommended that any planting around the new building comprises of local species and that new trees are planted to replace those lost. If possible, new planting should include fruit-bearing trees / shrubs which will provide seasonal foraging opportunities for a range of wildlife including birds and small mammals.

Buildings and Hardstanding

- 5.3.4. The buildings have limited ecological value (see birds below) and the areas of hardstanding are of no ecological value.
- 5.3.5. The building is to be lost to the proposed development and the areas of hardstanding are to be retained.
- 5.3.6. **Mitigation and Enhancement.** No mitigation required.

Faunal Evaluation

Bats

- 5.3.7. **Legislation.** All bats are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and included on Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (“the Habitats Regulations”)¹¹. These include provisions making it an offence to:
- Deliberately kill, injure or take (capture) bats;
 - Deliberately disturb bats in such a way as to be likely to significantly affect:-
 - (i) the ability of any significant group of bats to survive, breed or rear or nurture their young; or to hibernate; or
 - (ii) to affect significantly the local distribution or abundance of the species concerned;
 - Damage or destroy any breeding or resting place used by bats;
 - Intentionally or recklessly obstruct access to any place used by bats for shelter or protection (even if bats are not in residence).
- 5.3.8. While the legislation is deemed to apply even when bats are not in residence, Natural England guidance suggests that certain activities such as re-roofing can be completed outside sensitive periods when bats are not in residence provided these do not damage or destroy the roost.
- 5.3.9. The words ‘deliberately’ and ‘intentionally’ include actions where a court can infer that the defendant knew ‘the action taken would almost inevitably result in an offence, even if that was not the primary purpose of the act.
- 5.3.10. The offence of damaging (making it worse for the bat) or destroying a breeding site or resting place is an absolute offence. Such actions do not have to be deliberate for an offence to be committed.

¹¹ On 1st January 2021 The Habitats Regulations were replaced by the Conservation of Habitats and Species Amendment (EU Exit) Regulations 2019, however this does not materially alter the provisions of the Regulations and this assessment. Most of these changes involved transferring functions from the European Commission to the appropriate authorities in England and Wales. All other processes or terms in the 2017 Regulations remain unchanged and existing guidance is still relevant.

- 5.3.11. Licences can be granted for development purposes by an 'appropriate authority' under Regulation 55 (e) of the Habitats Regulations. In England, the 'appropriate authority' is Natural England (the government's statutory advisors on nature conservation). European Protected Species licences permit activities that would otherwise be considered an offence.
- 5.3.12. In accordance with the Habitats Regulations the licensing authority (Natural England) must apply the three derogation tests as part of the process of considering a licence application. These tests are that:
1. The activity to be licensed must be for imperative reasons of overriding public interest or for public health and safety;
 2. There must be no satisfactory alternative; and
 3. The favourable conservation status of the species concerned must be maintained.
- 5.3.13. Licences can usually only be granted if the development is in receipt of full planning permission (and relevant conditions, if any, discharged).
- 5.3.14. Seven species of bat are Priority Species, these are Barbastelle, Bechstein's, Noctule, Soprano Pipistrelle, Brown Long-eared, Greater Horseshoe and Lesser Horseshoe.
- 5.3.15. **Site usage.** No trees within the site have developed features that would be considered suitable to support roosting bats. No evidence of bats was recorded within any of the buildings on site and it is not considered the buildings offers suitable roosting opportunities for bats in itself.
- 5.3.16. The trees and scrub offer some navigational and foraging opportunities for bats.
- 5.3.17. The scrub and trees will be lost as part of the proposed development.
- 5.3.18. **Mitigation and Enhancements.** It is recommended that and planting around the proposed building be comprised of native species to create new and enhanced foraging and navigational opportunities for bats.
- 5.3.19. Where lighting is necessary during construction, any potential light spillage will be reduced by directing light below the horizontal plane, preferably at an angle less than 70 degrees away from features that offer suitable foraging opportunities for bats, e.g. the woodland to the south.
- 5.3.20. As an enhancement, new bat boxes (see Appendix 3) for suitable examples) for species recorded within the site will also be provided throughout the site on retained mature trees.

Badgers

- 5.3.21. **Legislation.** The Protection of Badgers Act 1992 consolidates the previous Badgers Acts of 1973 and 1991. The legislation aims to protect the species from persecution, rather than being a response to an unfavourable conservation status, as the species is in fact common over most of Britain, with particularly high populations in the southwest.

- 5.3.22. As well as protecting the animal itself, the 1992 Act also makes the intentional or reckless destruction, damage or obstruction of a Badger sett an offence. A sett is defined as “any structure or place which displays signs indicating current use by a Badger”¹². “Current use” of a Badger sett is defined by Natural England as “how long it takes the signs to disappear”, or more precisely, to appear so old as to not indicate “current use”.
- 5.3.23. In addition, the intentional elimination of sufficient foraging area to support a known social group of Badgers may, in certain circumstances, be construed as an offence by constituting ‘cruel ill treatment’ of a Badger.
- 5.3.24. **Site Usage.** No evidence of Badger activity was found within the site.
- 5.3.25. **Mitigation and Enhancements.** Although no evidence was recorded within the site, given the habitat present and the dynamic nature of Badgers it is recommended that the development be mindful of potential impacts to Badgers and that all contractors are briefed regarding the possible presence of Badgers.
- 5.3.26. Any trenches or deep pits that are to be left open overnight should be provided with a means of escape should a Badger enter. This could simply be in the form of a roughened plank of wood placed in the trench as a ramp to the surface. This is particularly important if the trench fills with water.
- 5.3.27. Any trenches/pits should be inspected each morning to ensure no Badgers have become trapped overnight. Should a Badger get stuck in a trench it will likely attempt to dig itself into the side of the trench, by forming a temporary sett. Should a trapped Badger be encountered, Ecology Solutions should be contacted immediately for further advice.
- 5.3.28. The storage of topsoil or other ‘soft’ building materials within the site should be given careful consideration. Badgers will readily adopt such mounds as setts, which would then be afforded the same protection as established setts. So as to avoid the adoption of any mounds, they should be subject to daily inspections (or nightly patrols if 24 hour security is present on site) or consideration given to fencing them with Badger proof fencing.
- 5.3.29. During the development, the storage of any chemicals required for the building construction should be well away from any Badger activity and contained in such a way that they cannot be accessed or knocked over by any roaming Badgers.
- 5.3.30. The use of berry / fruit bearing species in the landscape planting scheme would provide seasonal foraging resources for Badgers.

Birds

- 5.3.31. **Legislation.** Section 1 of the Wildlife and Countryside Act 1981 (as amended) is concerned with the protection of wild birds, whilst Schedule 1

¹² Protection of Badgers Act 1992 (as amended). Guidance on ‘Current Use’ in the definition of a Badger Sett
<http://www.naturalengland.org.uk/ourwork/regulation/wildlife>

lists species that are protected by special penalties. All species of birds receive general protection whilst nesting.

- 5.3.32. **Site Usage.** A single old, disused nest was found within building B1 and it is considered that the trees and scrub offer some suitable nesting and foraging opportunities for a range of common birds. The trees, scrub are to be lost within the proposed development.
- 5.3.33. **Mitigation and Enhancements.** New native shrub planting is recommended to offset the loss of trees and scrub. The provision of berry/fruit-bearing species would provide seasonal foraging resources for birds.
- 5.3.34. It is recommended that clearance of any suitable nesting vegetation, including tree felling and the demolition of the existing building, be undertaken outside the bird nesting season (March to July inclusive) to avoid any potential offence. Should the above timing constraints conflict with any timetabled works, it is recommended that works commence only after a suitably qualified ecologist has undertaken checks to ensure no nesting birds are present. If nesting birds are found to be present during checks then clearance would need to be delayed until young have fledged.
- 5.3.35. Simple enhancement measures could ensure the ornithological interest at the site is increased. For example, the erection of nest boxes on suitable retained trees. Using nest boxes of varying designs would maximise the species complement attracted to the site and, where possible, these could be tailored to provide opportunities for Red Listed / Priority Species known from the local area (see Appendix 4 for suitable examples).

Reptiles

- 5.3.36. **Legislation.** All six British reptile species receive a degree of legislative protection that varies depending on their conservation importance.
- 5.3.37. Smooth Snake *Coronella austriaca* and Sand Lizard *Lacerta agilis* receive 'full protection' under the Wildlife and Countryside Act 1981 as well as protection under the Conservation of Habitats and Species Regulations 2017 ("the Habitats Regulations"). These receive protection from:
- Killing, injuring, taking;
 - Possession or control (of live or dead animals, their parts or derivatives);
 - Damage to, destruction of, obstruction of access to any structure or place used for shelter or protection;
 - Disturbance of any animal occupying such a structure or place;
 - Selling, offering for sale, possession or transport for purposes of sale (live or dead animal, part or derivative).
- 5.3.38. Common Lizard, Grass Snake, Slow Worm *Anguis fragilis* and Adder *Vipera berus* are only 'partially protected' under the Wildlife and Countryside Act 1981 (as amended) and as such only receive protection from:
- Deliberate killing and injuring;

- Being sold or other forms of trading.
- 5.3.39. The legislation relevant to common reptiles therefore protects the species, but not their habitat and any works that avoid killing or injuring any of these species, should ensure that an offence is avoided.
- 5.3.40. **Site Usage.** It is considered that the trees and scrub could provide some potential sheltering/hibernation opportunities for reptiles.
- 5.3.41. **Mitigation and Enhancements.** As a precaution, it is recommended that the removal of any scrub within the site is undertaken outside of the reptile hibernation period (October to March inclusive) and the roots of the scrub should be pulled slowly from the ground and overseen by a suitably qualified ecologist, to ensure reptiles resting within the scrub are not impacted.

Invertebrates

- 5.3.42. **Site usage.** Given the habitats present it is likely an assemblage of common invertebrate species would be present within the site, although there is no evidence to suggest any notable / protected invertebrates would be present.
- 5.3.43. **Mitigation and Enhancements.** The recommended creation of new areas of native shrub planting, would provide new and enhanced opportunities for a range of invertebrates.

6. PLANNING POLICY CONTEXT

6.1. The planning policy framework that relates to nature conservation at the site is issued nationally through the National Planning Policy Framework (NPPF) and locally through the Mid Sussex District Plan. The proposed development will be judged in relation to the policies contained within these documents.

6.2. National Policy

National Planning Policy Framework

- 6.2.1. Guidance on national policy for biodiversity and geological conservation is provided by the NPPF, published in March 2012, revised on 24 July 2018, February 2019 and again on 20 July 2021. It is noted that the NPPF continues to refer to further guidance in respect of statutory obligations for biodiversity and geological conservation and their impact within the planning system provided by Circular 06/05 (DEFRA / ODPM, 2005) accompanying the now-defunct Planning Policy Statement 9 (PPS9).
- 6.2.2. The key element of the NPPF is that there should be “*a presumption in favour of sustainable development*” (paragraphs 10 to 11). It is important to note that this presumption “*does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site*” (paragraph 182). ‘Habitats site’ has the same meaning as the term ‘European site’ as used in the Habitats Regulations¹³.
- 6.2.3. Hence the direction of Government policy is clear; that is, the presumption in favour of sustainable development is to apply in circumstances where there is potential for an effect on a European site, if it has been shown that there will be no adverse effect on that designated site as a result of the development in prospect.
- 6.2.4. A number of policies in the NPPF are comparable to those in PPS9, including reference to minimisation of impacts to biodiversity and provision of net gains to biodiversity where possible (paragraph 174).
- 6.2.5. The NPPF also considers the strategic approach that Local Authorities should adopt with regard to the protection, maintenance and enhancement of green infrastructure, priority habitats and ecological networks, and the recovery of priority species.
- 6.2.6. Paragraphs 179 to 181 of the NPPF comprise a number of principles that Local Authorities should apply, including encouraging opportunities to incorporate biodiversity in and around developments; provision for refusal of planning applications if significant harm cannot be avoided, mitigated or compensated for; applying the protection given to European sites to potential SPAs, possible SACs, listed or proposed Ramsar sites and sites identified (or required) as compensatory measures for adverse effects on European sites; and the provision for the refusal for developments

¹³ As noted earlier, on 1st January 2021 The 2017 version of the Habitats Regulations were replaced by the Conservation of Habitats and Species Amendment (EU Exit) Regulations 2019,

resulting in the loss or deterioration of 'irreplaceable' habitats – unless there are 'wholly exceptional reasons' (for instance, infrastructure projects where the public benefit would clearly outweigh the loss or deterioration of habitat) and a suitable compensation strategy exists.

- 6.2.7. National policy therefore implicitly recognises the importance of biodiversity and that with sensitive planning and design, development and conservation of the natural heritage can co-exist and benefits can, in certain circumstances, be obtained.

6.3. **Local Policy**

Mid Sussex District Plan 2014-2031

- 6.3.1. The Mid Sussex District Plan is the current document in use for planning control purposes. There are two policies within this document that relates in whole or in part to nature conservation, Policy **DP37** (Trees, Woodland and Hedgerows) which is concerned with the enhancement of green areas and corridors and Policy **DP38** (Biodiversity) which is concerned with maintaining and enhancing local biodiversity.

6.4. **Discussion**

- 6.4.1. The proposals will not affect any other statutory or non-statutory designated sites and will have no adverse effects on any protected species or Priority Species. As such it is considered that the proposals will accord with Policy DP37 and Policy DP38 of the District Plan and the principles laid down in the NPPF and will enhance the biodiversity of the site post development.
- 6.4.2. In conclusion, implementation of the measures set out in this report would enable development of the site to accord with national and local planning policy for ecology and nature conservation.

7. SUMMARY AND CONCLUSIONS

- 7.1. Ecology Solutions was commissioned by Coxs Skips Ltd in March 2022 to undertake an Ecological Assessment at Burleigh Oaks Waste Transfer and Recycling Centre, West Sussex.
- 7.2. The proposals for the site are for the demolition of the existing building and erection of a replacement building.
- 7.3. The site was surveyed based around extended Phase 1 survey methodology, as recommended by Natural England, in April 2022. In addition, specific surveys were undertaken within the site in relation to bats, Badgers and Great Crested Newts.
- 7.4. There are not considered to be any significant adverse effects on any other statutory and non-statutory sites of nature conservation interest from the development proposals. However, an Ancient Woodland is located adjacent to the south of the site and this will be given a 15m buffer from any development.
- 7.5. No trees or buildings within the site were observed to have features to support roosting bats and no evidence of any roosting bats was identified within the buildings. The inclusion of bat boxes within the site will provide new roosting opportunities for bats.
- 7.6. There is no evidence of Badgers utilising the site, however precautionary mitigation/safeguards have been recommended.
- 7.7. The recommendation of new native planting as part of the landscape proposals will provide enhanced opportunities for birds, while the erection of bird boxes within the site will also provide new nesting opportunities for birds.
- 7.8. Given the habitats present it is likely an assemblage of common invertebrate species would be present within the site, although there is no evidence to suggest any notable / protected invertebrates would be present. The recommendation of new native planting as part of the landscape proposals would provide new and enhanced opportunities for a range of invertebrate.
- 7.9. In conclusion, through the implementation of the safeguards and recommendations set out within this report it is considered that the proposals accord with planning policy with regard to nature conservation at all administrative levels.

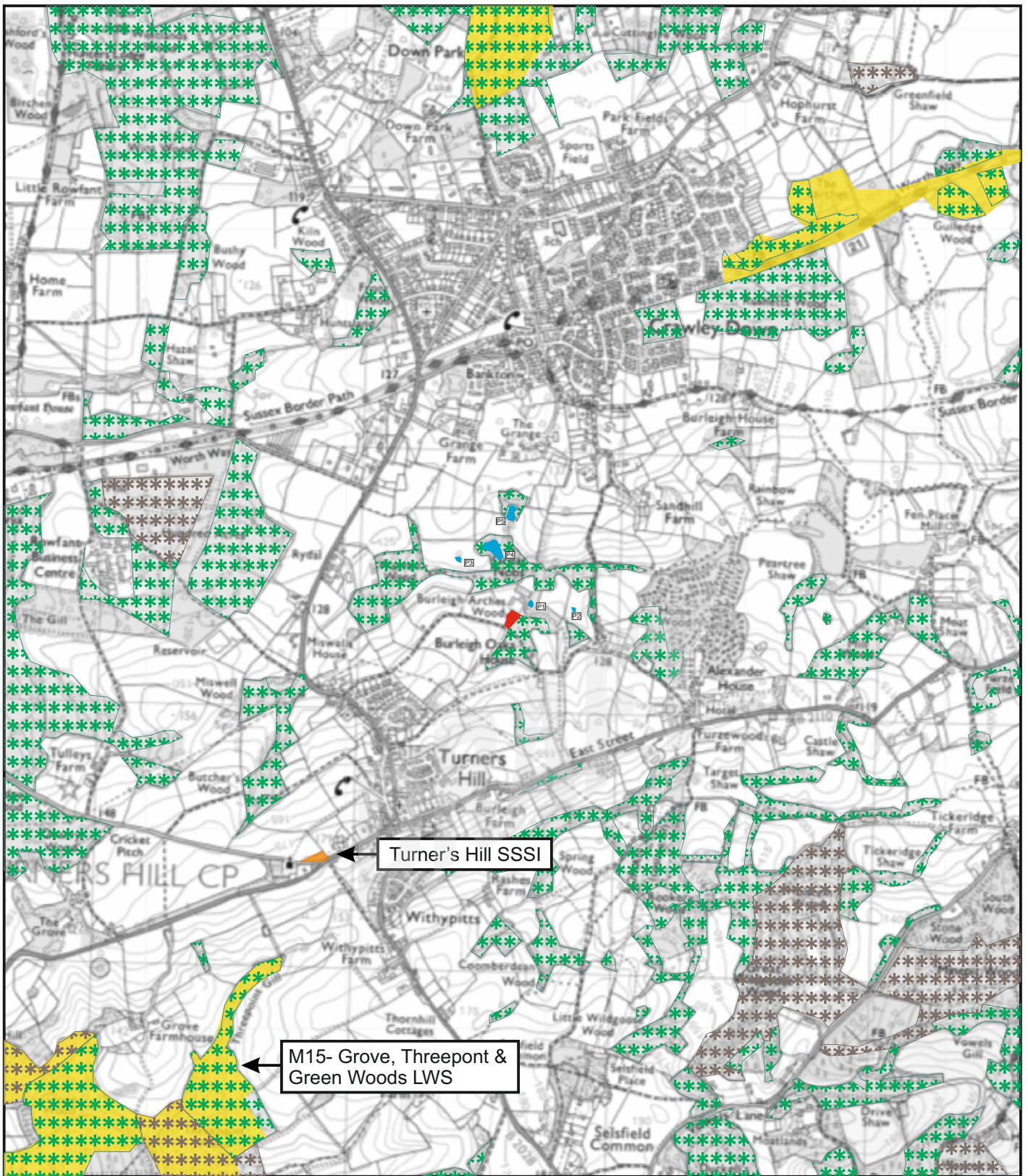
PLANS

DRAFT







PLAN ECO1

Site Location & Ecological Designations

DRAFT



KEY:

-  SITE BOUNDARY
-  SITE OF SPECIAL SCIENTIFIC INTEREST (SSSI)
-  LOCAL WILDLIFE SITE (LWS)
-  ANCIENT AND SEMI-NATURAL WOODLAND
-  ANCIENT REPLANTED WOODLAND
-  POND



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<p>10071: BURLEIGH OAKS WASTE TRANSFER AND RECYCLING CENTRE, WEST SUSSEX</p>	
<p>PLAN ECO1: SITE LOCATION AND ECOLOGICAL DESIGNATIONS</p>	<p>Rev: A Aug 2022</p>

PLAN ECO2

Ecological Features and Protected Species

DRAFT



KEY:

-  DEVELOPMENT AREA
-  SCRUB
-  HARDSTANDING
-  TREE
-  BUILDING
-  APPROXIMATE LOCATION OF BIRDS NEST



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TRANSFER AND RECYCLING CENTRE,
WEST SUSSEX

PLAN ECO2:
ECOLOGICAL FEATURES AND
PROTECTED SPECIES

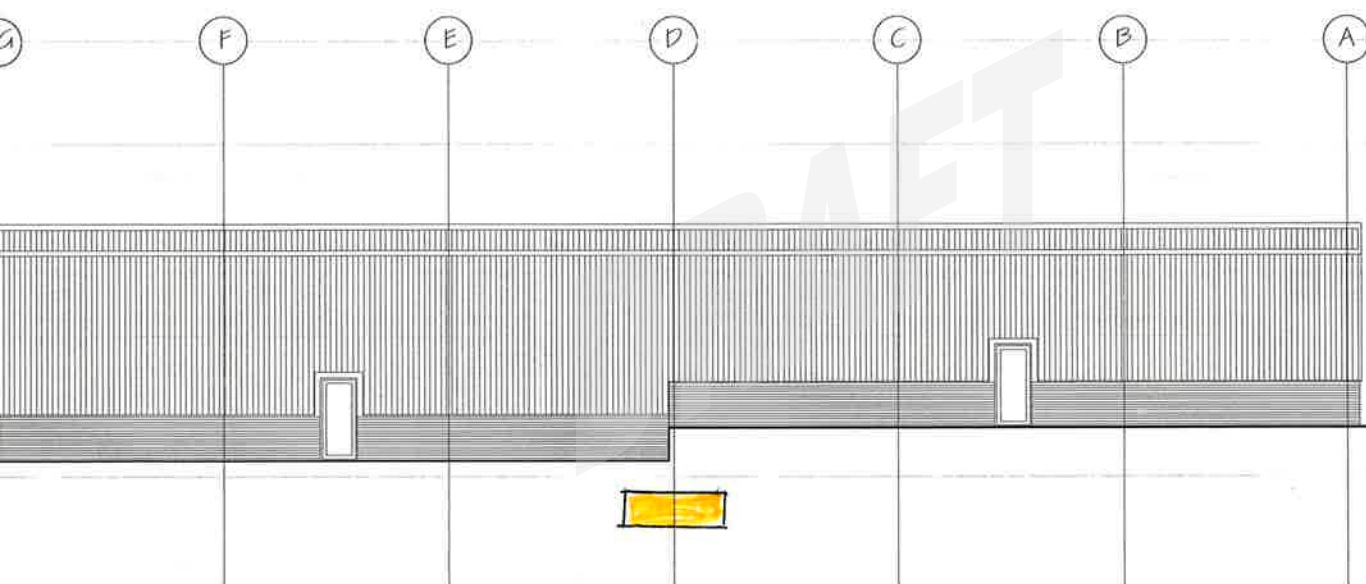
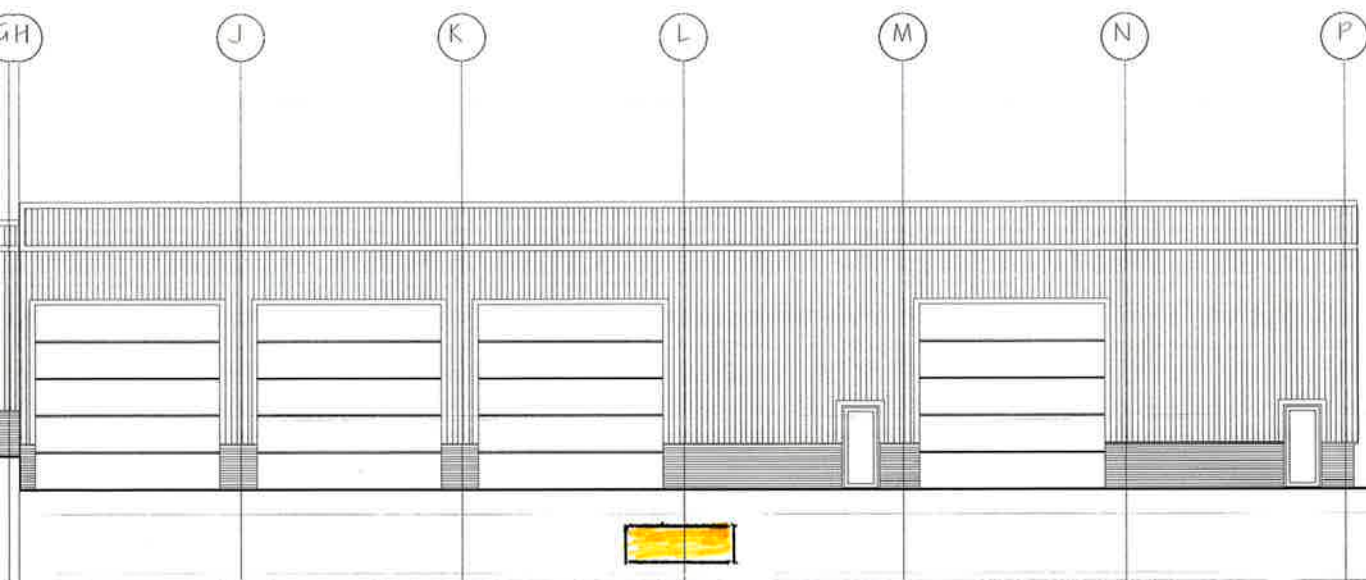
Rev: A
Aug 2022

APPENDICES

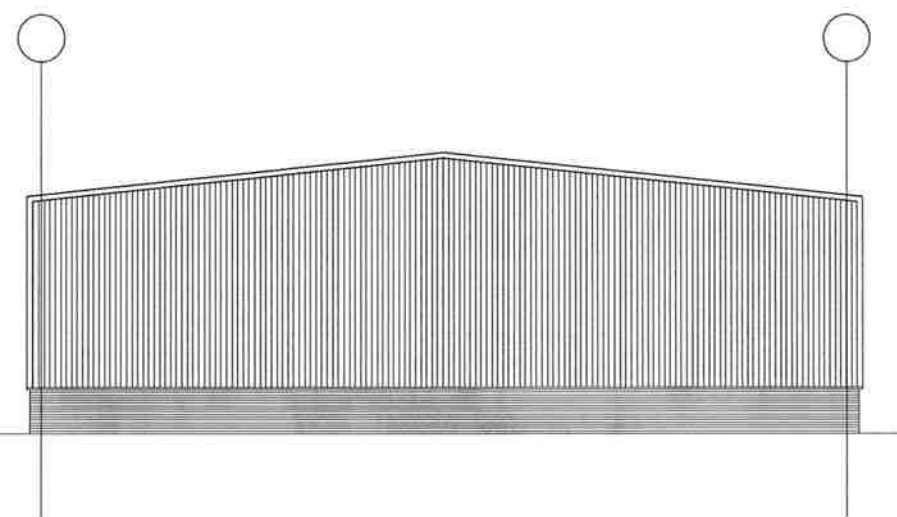
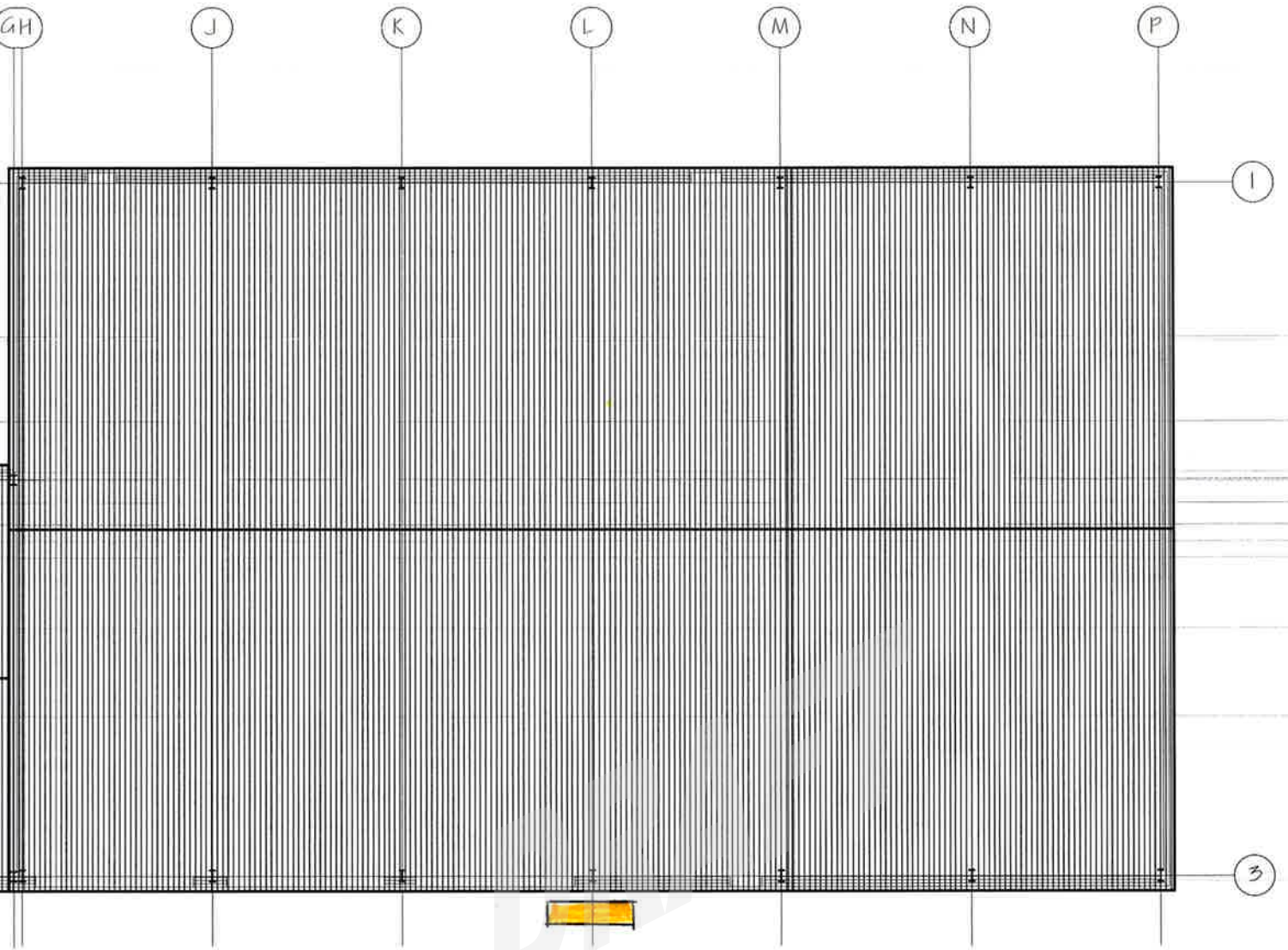
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APPENDIX 1
Proposed Building

DRAFT

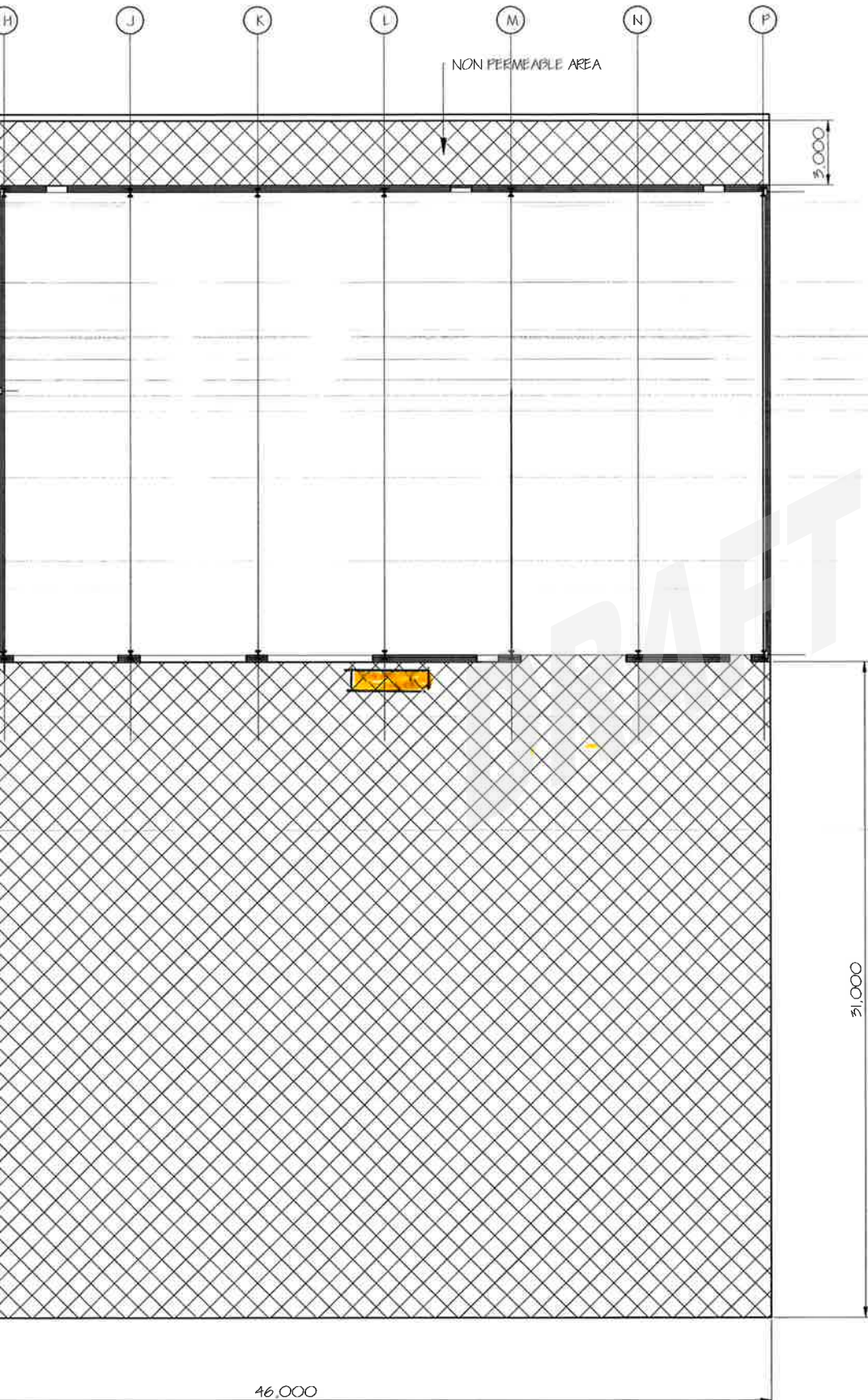


A	19.07.2022	Revised
No	Date	Amendment
John Marshall Associates Consulting Structural Engineers Unit 4 Riverview Business Park Station Road Forest Row East Sussex RH18 5FS email: info@johnmarshallassociates.co.uk		
Client	COX SKIPS	
Title	NORTH WEST AND SOUTH EAST ELEVATIONS ©	
Site	BURELIGH OAKS FARM TURNERS HILL ROAD TURNERS HILL WEST SUSSEX	
Scale		
Scale	1:500W/A 2:200W/A5	Date JUN 2022
Drawn by	JM	Checked
Drawn No	9845	Rev
	02	



SOUTH WEST ELEVATION 1:100

Rev	Date	Updated	Amendment
A	16.07.2022		Update
John Marshall Associates Consulting Structural Engineers Unit 4 Ryeview Business Park Station Road Farnham Road East Sussex RH18 5FS email: info@johnmarshallassociates.co.uk			
Client: COX SKIPS			
Title: ROOF PLAN WITH NORTH EAST AND SOUTH WEST ELEVATIONS			
Job: BURLEIGH OAKS FARM TURNERS HILL ROAD TURNERS HILL WEST SUSSEX			
Scale:			
Drawn By: 11004131 20200413		Date: JUN 2022	
Drawn By: JM		Checked:	
Job No: 9845	Proj No: 01	Rev: A	

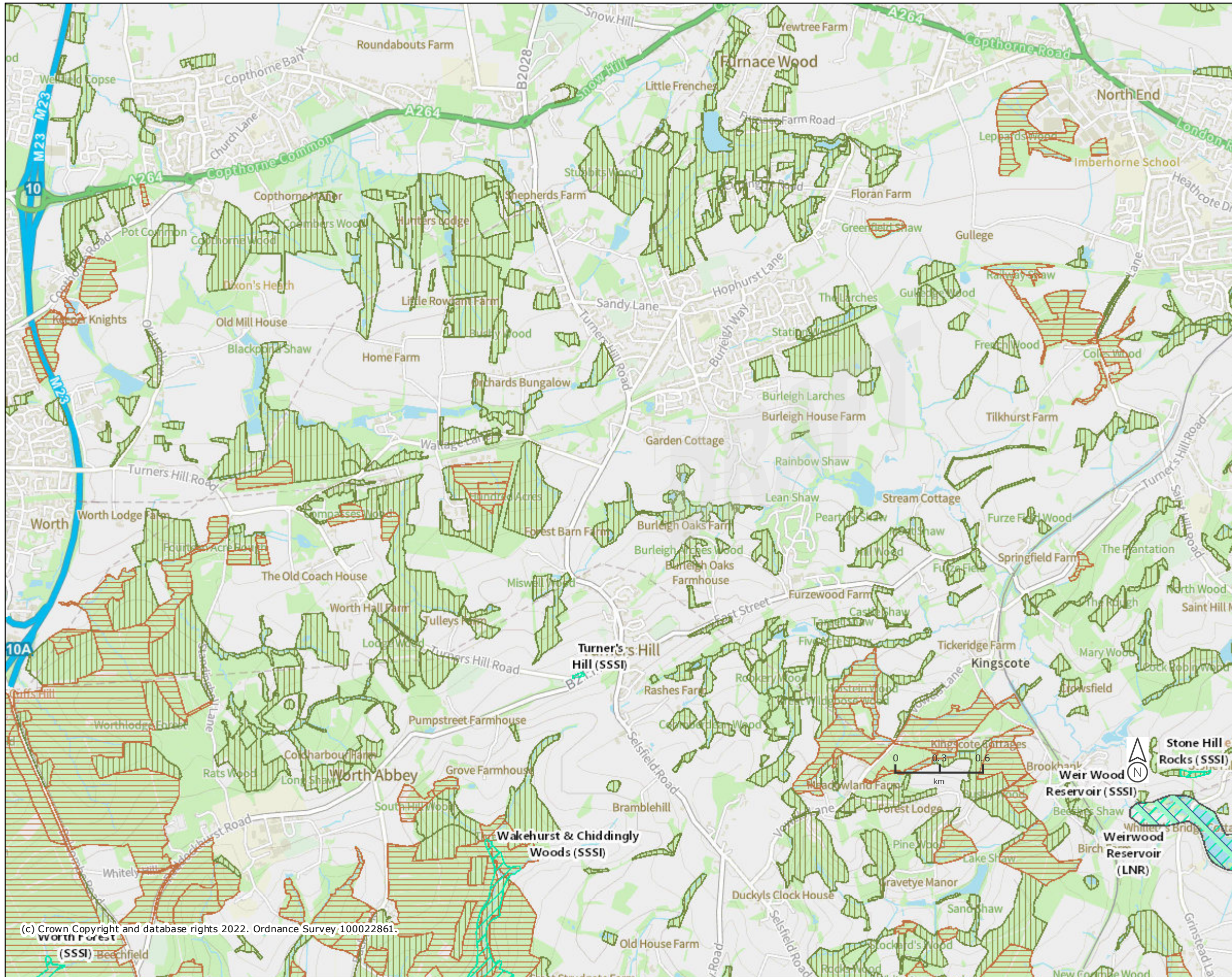


Rev	Date	By	Checked
A	15.07.2022	JM	JM
John Marshall Associates Consulting Structural Engineers Unit 4 Riverview Business Park Station Road Forest Row East Sussex RH18 5FS email: info@johnmarshallassociates.co.uk			
Client	COX SKIPS		
Title	GROUPED FLOOR PLAN SCAMING NON PERMEABLE HARDSTANDING AREAS		
Job	BURLEIGH OAKS FARM TURNERS HILL ROAD TURNERS HILL WEST SUSSEX		
Scale	1:200 @ A2 1:400 @ A1		
Date By	JM	Date	JUN 2022
Job No	9845	Day Mo	03
Rev			A

APPENDIX 2

Information obtained from MAGIC



DRAFT



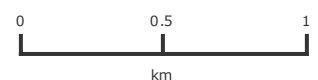
Legend

-  Local Nature Reserves (England)
-  National Nature Reserves (England)
-  Ramsar Sites (England)
-  Sites of Special Scientific Interest (England)
-  Special Areas of Conservation (England)
-  Special Protection Areas (England)

Ancient Woodland (England)

-  Ancient and Semi-Natural Woodland
-  Ancient Replanted Woodland

Projection = OSGB36
 xmin = 527500
 ymin = 133300
 xmax = 540800
 ymax = 140000



Map produced by MAGIC on 15 August, 2022.
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APPENDIX 3

Suitable Examples of Bat Boxes

DRAFT

Bat Boxes

Schwegler bat boxes are made from 'woodcrete' and have the highest rates of occupation of all types of box.

The 75% wood sawdust, clay and concrete mixture is ideal, being durable whilst allowing natural respiration and temperature stability. These boxes are rot and predator proof and extremely long lasting.

Boxes can be hung from a branch near the tree trunk or fixed using 'tree-friendly' aluminum nails.



1FF Bat Box

The rectangular shape makes the 1FF suitable for attaching to the sides of buildings or in sites such as bridges, though it may also be used on trees. It has a narrow crevice-like internal space to attract Pipistrelle and Noctule bats.

Woodcrete (75% wood sawdust, concrete and clay mixture)
Width: 27cm
Height: 43cm
Weight: 8.3kg



2F Bat Box

A standard bat box, attractive to the smaller British bat species. Simple design with a narrow entrance slit on the front.

Woodcrete construction, 16cm diameter, height 33cm.

APPENDIX 4

Suitable Examples of Bird Boxes

DRAFT

Bird Boxes

Schwegler bird boxes have the highest rates of occupation of all types of box.

They are designed to mimic natural nest sites and provide a stable environment with the right thermal properties for chick rearing and winter roosting.

Boxes are made from 'Woodcrete'. This 75% wood sawdust, clay and concrete mixture is breathable and very durable making these bird boxes extremely long lasting.



1B Schwegler Bird Box

This is the most popular box for garden birds and appeals to a wide range of species. The box can be hung from a branch or nailed to the trunk of a tree with a 'tree-friendly' aluminium nail.

Available in four colours and three entrance hole sizes. 26mm for small tits, 32mm standard size and oval, for redstarts.

1SP Schwegler Sparrow Terrace

A Woodcrete bird box which allows for several Sparrow pairs to nest in a single location. The box can either be integrated within the fabric of a building or otherwise fitted to the exterior of the building walls.

*Brood chamber dimensions:
Height: 16cm, Width: 10.5cm, Depth: 15cm*

*External dimensions:
Height: 24.5cm, Width: 43cm, Depth: 20cm*



PROTECTED



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