Landscape and Habitat Management Plan



Himley Village, Bicester 19th October 2023



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Section 1: Introduction

- 1.1. This Landscape and Habitat Management Plan (LHMP) has been prepared by Tyler Grange Group Ltd on behalf of Cala Homes in respect of Land at Himley Village, Oxfordshire, OX26 1RT, hereafter referred to as the 'site' The site is centred on National Grid Reference SP 55436 23155.
- 1.2. An outline planning application for the phased development of up to 1,700 residential dwellings (Class C3), flexible commercial floorspace (Classes A1, A2, A3, A4, A5, B1, C1 and D1), social and community facilities (Class D1), land to accommodate one energy centre and land to accommodate one new primary school (up to 2FE) (Class D1) was submitted to Cherwell District Council (Application Ref: 14/02121/OUT) in 2014.
- 1.3. The outline application was accompanied by an Environmental Statement (ES) which was submitted in 2014. Chapter 7 of the ES provides details of the ecological surveys completed by Hyder Consulting in 2010 and 2011, along with an update Phase 1 Habitat survey undertaken in 2014 by Waterman. This survey work included a background data search with records obtained from the Thames Valley Environmental Records Centre (TVERC), habitat features survey and hedgerow assessment, with specific surveys carries out for GCN *Triturus cristatus*, badger *Meles meles*, reptiles, breeding and overwintering birds, invertebrates, bat activity and roosts, dormice *Muscardinus avellanarius*, water vole *Arvicola amphibius* and otter *Lutra lutra*.
- 1.4. The outline planning permission was granted for the site in January 2020, subject to a number of conditions. Condition 29 of the planning permission states:

'No development shall commence on a phase until a Landscape & Habitat Management Plan (LHMP) for that phase detailing both management and monitoring proposals for green space (excluding building curtilages) has been submitted to and approved in writing by the Local Planning Authority. Thereafter the LHMP shall be implemented in accordance with the approved details.

Reason: To secure net biodiversity gain in accordance with Policies Bicester 1 and ESD10 of the Cherwell Local Plan 2011-2031 and Government guidance contained within the Eco Towns PPS and National Planning Policy Framework. This information is required prior to commencement of any development on the appropriate phase as it is fundamental to the acceptability of the scheme.'

- 1.5. The site is divided into phases, Phase 1 3, mixed use phase, care home phase, school phase and community and social use. This LHMP is in relation to Phase 2 only.
- 1.6. Phase 2 currently comprises modified grassland fields bounded by dry ditches and hedgerows. Two ponds are also located within the Phase 2 site boundary.
- 1.7. The purpose of this LHMP is to provide details to ensure the protection and favourable management of retained and created habitats to maximise their benefit to wildlife and to provide continued opportunities for biodiversity. It has been produced to provide



- management objectives and maintenance schedules covering an initial five-year period, after which it will be continued for the longevity of the scheme.
- 1.8. The responsibility for ensuring works proceed in accordance with this LHMP will lie with the appointed contractor for the works. Overall control will be held by the contractor's site manager or a suitable delegate within the contractor's company.
- 1.9. This LHMP is set out as follows and has been prepared in accordance with British Standard for Biodiversity: BS 42020:2013:
 - Section 2 details the site description and evaluation of ecological features to be managed within the LHMP;
 - Section 3 describes the ecological and landscape management aims and objectives; and
 - Section 4 describes the management prescriptions to achieve objectives set out in Section 3, as well as setting out monitoring and possible remedial action, where necessary, and responsibilities for implementing the plan.



Section 2: Site Description and Ecological Features

2.1. This section of the LHMP summarises the existing important ecological features within Phase 2.

Site Context

- 2.2. The 'site' is defined by the application red-line boundary (see Plan **15525/P03a**) comprising all phases. The site is located immediately to the west of Bicester in Oxfordshire, adjacent to the B4030, and is surrounded by arable land. The M40 is located to the west and Bicester is located to the east of the site.
- 2.3. Phase 2 comprises the land within the central section of the site with access from B4030 and connecting to a parcel in the north of the site.

Baseline Habitats

- 2.4. The majority of Phase 2 comprises modified grassland fields with a short sward bounded by species-rich hedgerows, species-poor hedgerows and species-rich hedgerows with trees and ponds P1 and P2. Pond P2 is surrounded by scattered scrub and broadleaved parkland, as shown on the Habitat Features plan (15525/P03a).
- 2.5. Habitats within the wider site boundary are dominated by arable fields which are subject to frequent management with minimal margins present and further short sward, modified grassland fields, bounded by hedgerows and dry ditches with a number of scattered trees present. A broadleaved woodland plantation runs along the eastern boundary of the site.
- 2.6. Three buildings are present on the wider site with associated residential gardens and hardstanding access tracks. Small areas of modified grassland, orchard, broadleaved parkland and scattered scrub are also located on the wider site.
- 2.7. A third pond is located within the wider site boundary (labelled P3 on the Habitat Features plan **15525/P03a**).

Protected and Notable Species

2.8. Protected and notable species surveys have been undertaken across the wider site in 2010, 2011, 2014 and 2023 to inform the outline and reserved matters planning applications. These have included surveys for great crested newt (GCN) *Triturus cristatus*, badger *Meles meles*, reptiles, breeding and overwintering birds, invertebrates, bats, dormice *Muscardinus avellanarius*, water vole *Arvicola amphibius* and otter *Lutra lutra*.

Amphibians

2.9. A medium population was recorded within ponds P2 and P3 in 2011, however updated surveys undertaken in 2023 identified a small population within both ponds. Terrestrial



habitat including arable fields and short sward modified grassland are considered to be largely unsuitable for GCN due to its intensive management. The hedgerows, scrub and woodland provide suitable terrestrial habitat for foraging and sheltering amphibians, including GCN. No GCN were recorded within pond P1.

2.10. Pond P2 is located within the far east of Phase 2 with the majority of core habitat¹ of pond P2 located within Phase 3. With the exception of approximately 0.35ha of core habitat around pond P2, the majority of Phase 2 is within intermediate and distant habitat from ponds P2 and P3. A GCN mitigation licence from Natural England will be required to enable works to proceed legally. A GCN Mitigation Strategy has also been produced to discharge planning condition 28 as part of this application.

Badgers



Bats

- 2.12. Bat activity and static surveys undertaken in 2010 recorded seven species/species groups of bats using the site for commuting and foraging including common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *P. pygmaeus*, brown long-eared *Plecotus autitus*, noctule *Nyctalus noctule*, leisler's bat *N. leisleri*, serotine *Eptesicus serotinus* and myotis sp. Activity levels recorded during the surveys in 2010 were relatively low with most activity concentrated around the hedgerows and ponds throughout the site.
- 2.13. Dusk and dawn-re-entry surveys were also undertaken for a number of trees and buildings associated within the entire survey boundary. A common pipistrelle roost was confirmed within the farmhouse in 2011, which falls outside the boundary for all phases of development, including Phase 2. These buildings were originally within the survey boundary but have since been removed and will no longer be impacted as part of the development.

Birds

- 2.14. Surveys for breeding birds were carried out in 2011. The species recorded include song thrush Turdus philomelos, dunnock Prunella modularis, house sparrow Passer domesticus, linnet Carduelis cannabina subsp. autochthonal cannabina, starling Sturnus vulgaris, common bullfinch Pyrrhula pyrrhula whitethroat Sylvia communis and marsh tit Poecile palustris.
- 2.15. In addition, wintering bird surveys were undertaken in 2011, and recorded flocks of yellowhammer *Emberiza citrinella*, redwing *Turdus iliacus* and fieldfare *Turdus pilaris*.

and distant habitat is 250m - 500m from a breeding pond (English Nature, 2001)



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¹ Immediate or core habitat is that within 50m of a breeding pond, intermediate habitat is 50 – 250m of a breeding pond

2.16. The bird assemblage recorded within the site includes some Birds of Conservation Concern and Cherwell Biodiversity Action Plan (BAP) Important Species, however the habitats on site are considered to be of low importance for these species.

Dormouse

2.17. Surveys for dormouse in 2011, comprising nest tube surveys and a nut search, recorded no evidence of dormouse within the site and no records of dormouse were returned by TVERC. As such, it was considered that dormouse are likely absent from the habitats within the site.

Invertebrates

2.18. The 2011 surveys concluded that the majority of habitats on the site were considered unlikely to support more than a common invertebrate assemblages, however individuals of brown hairstreak *Thecla betulae* and white-letter hairstreak butterflies *Satyrium album* (UK BAP and Cherwell BAP species) were recorded within the hedgerows on site.

Otter and Water Vole

2.19. An assessment of habitats for both water vole and otter was carried out in 2011. The only suitable habitat for either of these species is within the wet ditches. The majority of these ditches were dry during the 2023 walkover survey, reducing the habitat suitability for water vole and otter. No evidence of either species was recorded during the surveys and it was considered that these species are likely absent from the site.

Reptiles

2.20. Reptile surveys undertaken in 2011 recorded low numbers of common lizard *Zootoca vivipara* within areas of suitable habitat within the site, comprising field margins and hedgerows. The data search also revealed historic records of grass snake *Natrix helvetica* within the site, although no individuals of this species were observed during the 2011 surveys.

Western European Hedgehog

2.21. Hedgehog is a priority species known to be present within the area in 2011. The site habitats, namely the hedgerows and woodland, are considered to be suitable to support this species in low numbers.

Post-development Habitats

- 2.22. The Phase 2 site post-development will comprise residential dwellings with associated residential gardens, hardstanding and introduced shrub planting in the south of the site and sports pitches within the northern parcel of Phase 2 (see Appendix 1).
- 2.23. Ponds P1 and P2 and the surrounding scrub and broadleaved woodland around pond P2 will be retained as part of the proposals. Hedgerows will also be retained and enhanced with native buffers where possible, except for in discrete sections for access roads and footpaths. Additional planting across Phase 2 will include amenity grassland, species-rich long grasslands, wildflower meadows, flowering lawns and scrub, bulb and tree planting.



2.24.	At handover of the site to the management company and the start of the implementation of this LHMP, it is expected that the site construction is complete including the installation of ecological features.



Section 3: Ecological and Landscape Management Objectives

Ecological and Landscape Trends and Management Constraints

- 3.1. Ongoing habitat management and maintenance on the site cannot be undertaken if it would compromise the survival or success of the fauna that could be present post-development, as this could result in an offence under protective legislation pertaining to wildlife, notably the Wildlife and Countryside Act (WCA) 1981 (as amended) and the Protection of Badgers Act 1992. Such constraints would therefore apply to bats, GCN, nesting birds, reptiles and badgers.
- 3.2. All bats and their roosts and GCN are European Protected Species (EPS) under the Conservation of Habitats and Species Regulations 2017 (as amended) (the 'Habitats Regulations') and are afforded protection under the WCA 1981 (as amended).
- 3.3. All breeding birds, their nests, eggs and young are protected under the WCA 1981 (as amended), which makes it illegal to knowingly damage or destroy a nest site while it is in use or being built. Species listed under Schedule 1 of the WCA 1981 are afforded additional protection from disturbance while breeding.
- 3.4. Badgers and their setts are protected under the Protection of Badgers Act 1992, due to persecution of the species in the past.
- 3.5. This management strategy will ensure that no breach in legislation occurs with regards to European Protected Species, nesting birds, reptiles and badger. The measures proposed will also protected other protected/priority species which may be present including common toad, brown hare, harvest mouse, polecat and hedgehog.

Aims and Objectives

- 3.6. In considering options for management of the habitats within the site, the following factors were considered:
 - The existing land use and character of the site;
 - The habitat requirements of species currently present within the site, in particular protected species and species of principal importance (SoPI) as defined in section 41 of the Natural Environment and Rural Communities Act 2006;
 - Cherwell Local Plan 2011-2031 detailing current planning policy within Cherwell Council;
 - Opportunities to contribute towards priority habitats and species within Cherwell BAP 2016 - 2018 which includes priority habitats and species;



- The sustainability of habitats to be created, taking into account natural processes (such as succession) and management inputs required to maintain them;
- Opportunities to enhance structural variety within habitats through new habitat planting; and
- Opportunities to strengthen green corridors across and around the site through new habitats and retention and enhancement of habitats to maximise connectivity for wildlife.
- 3.7. The overarching management objectives are:
 - Apply good horticultural and ecological practice to all operations;
 - Promote healthy growth and establishment of all plants, trees and grass;
 - Ensure consistent control of weeds;
 - Provide protection against pests and disease;
 - Promote wildlife value and species diversity where appropriate;
 - Ensure long-term commitment to replacement of defective plant material; and
 - Review opportunities for introduction of new species or replacement of exhausted species where appropriate, in line with original design intentions.
- 3.8. The aims and objectives of this LHMP are listed below, with a detailed rational provided thereafter:
 - 1) To ensure that retained and newly created habitats are maintained in order that they establish successfully and provide biodiversity benefits in the long term, in line with national and local policies;
 - 2) Maintain, and where possible improve, the conservation status of identified key species, namely GCN, badgers, bats, birds, reptiles and hedgehog. This will be completed through native planting onsite, the installation of bat and bird boxes integrated into new buildings, enhancement of retained habitats and hibernacula/log pile creation within the retained and enhanced habitats; and
 - 3) Monitor the efficacy of this LHMP.

Objective 1 - To ensure that retained and newly created habitats are maintained in order that they establish successfully and provide biodiversity benefits in the long term, in line with national and local policies.

3.9. The mitigation and enhancement recommendations provided within the Biodiversity Strategy (Tyler Grange, 2023) and the previous ES chapter (Hyder Consulting, 2011) should be adhered to, to reduce/minimise the potential to adversely impact upon protected or priority species and/or habitats. These include:



- The Landscape Masterplan includes the incorporation of native tree, shrubs, hedgerows and grasslands within areas of green space, reinforcement of the hedgerows and around the boundaries of the site (see Appendix 1). These habitats will all be installed as per the landscape proposals;
- Landscape design includes landscape planting that is of benefit to wildlife, especially pollinating insects;
- Retain and enhance existing ponds P1 and P2, trees, hedgerows, scrub and shrubs along the boundaries of the site; and
- As the habitats mature and become established, the ecological value of the site will become increasingly more diverse and beneficial to faunal species.

Objective 2 - Maintain, and where possible improve, the conservation status of identified key species, namely GCN, badgers bats, birds, reptiles and hedgehog. This will be completed through native planting onsite, the installation of bat and bird boxes integrated into new buildings, enhancement of retained habitats and hibernacula/log pile creation within the retained and enhanced habitats

Bats

- 3.10. No bat roosts were identified within the Phase 2 boundary. The majority of hedgerows are being retained and enhanced as part of the proposals and the creation of approximately 1.7km of hedgerow across the wider site will enhance the site for foraging and commuting bats. New native scrub planting along the hedgerows will reduce light spill and minimise disturbance to bats. Enhancement of the ponds and creation of new Sustainable Urban Drainage Systems (SUDS) will also create further opportunities for foraging bats. The creation of a wildlife corridor and the hedgerow creation will provide increased connectivity for bats across the site and into the wider landscape.
- 3.11. A sensitive lighting strategy will be implemented on the site to minimise disturbance to bats, particularly along the retained and created habitats. This lighting strategy will avoid light spill directly onto the retained and new landscape planting.
- 3.12. To provide additional roosting opportunities, Vivara Pro Build-in Woodstone Bat Boxes, or similar, will be installed onto new buildings throughout the site. All boxes should be installed on a south easterly to south-westerly aspect as high as possible. Boxes should be in a sheltered position, close to suitable foraging habitats, with a clear entry and exit route. The recommended bat boxes are designed for self-cleaning. However, monitoring of the boxes for signs of damage will be undertaken biennially for five years, commencing the first year from implementation of this LHMP.

Birds

3.13. Management of retained and newly created habitats, as detailed in the Landscape Masterplan (see Appendix 1) such as trees, hedgerows and shrubs will, once established continue to provide nesting and foraging opportunities for birds. The creation and seeding of new grassland with species-rich mixes will also attract invertebrates, which is turn will provide a foraging resource for birds.



3.14. To provide additional nesting opportunities, Vivara Pro Seville 32mm Woodstone Bird Boxes and Vivaro Pro Barcelona Open Woodstone Bird Boxes, or similar, will be installed onto new buildings throughout the site. All boxes should be installed on a north to north easterly aspect as high as possible. Boxes should be in a sheltered position, close to suitable foraging habitats, with a clear entry and exit route. Monitoring of the boxes for signs of damage will be undertaken biennially for five years, commencing the first year from implementation of this LHMP.

Badgers

3.15. Management of retained and newly created habitats, as detailed in the Landscape Masterplan (see Appendix 1) such as scrub, shrubs and grassland will, once established continue to provide opportunities for badger on the site and habitat connectivity between the site and the wider landscape will be maintained. The four badger setts across the wider site, including those within Phase 2 will be retained and buffered post-development.

GCN

- 3.16. A mitigation licence from Natural England will be required to enable works to proceed legally in relation to the population of GCN within ponds P2 and P3. Habitat management of the ponds and habitat with suitability to support GCN, including hedgerow, scrub and woodland bases and grassland.
- 3.17. Enhancement of the ponds P1 and P2 will include aquatic species planting. Connectivity between ponds P2 and P3 will be enhanced through the creation of wildlife corridors connecting these ponds with planting of species-rich long grassland and wildflower meadows with scattered scrub and tree planting to create a tussocky sward providing shelter and foraging opportunities for amphibians including GCN. Connectivity between ponds P1 and P2 will also be enhanced through similar planting as the wildlife corridor and new hedgerow creation will provide increased opportunities for connectivity with offsite habitats. Furthermore, the provision of purpose-built hibernacula in conjunction with existing suitable habitat, will provide amphibians and other species with additional areas of undisturbed refugia post-development.

Hedgehog

3.18. Management of retained, enhanced and newly created hedgerows, grassland and scrub will continue to provide opportunities for hedgehog on the site. Placement of log piles in appropriate locations, particularly within the wildlife corridor and adjacent to hedgerows throughout the site will provide additional opportunities for hedgehog, and other species groups such as invertebrates. Log piles will be created using woody arising from vegetation clearance and management.

Reptiles

3.19. The proposals include a range of retained and new habitats that will be of benefit to reptiles, such as SUDS, hedgerows, scrub and wildflower grassland that provides extensive new habitat for reptiles, creating new opportunities for this species group post-development. The new habitats created will enhance connectivity through the site for reptiles and into offsite habitats including extensive planting around the northern boundary of the site. Furthermore,



the provision of purpose-built hibernacula in conjunction with existing suitable habitat, will provide reptiles and other species with additional areas of undisturbed refugia post-development.

Constraints

3.20. All British birds, their nests, young and eggs are legally protected while actively nesting (generally acknowledged to occur between March and August inclusive, although this is not defined in law and birds can nest outside of this time). As such, removal and future management of trees, hedgerows, scrub and shrubs will be timed to avoid the bird nesting season. Bat box monitoring will be undertaken by a licenced bat worker due to bats being a EPS.

Objective 3 - Monitor the efficiency of this LHMP

- 3.21. Planting will be regularly monitored by the management company. Should the need for replacement planting be identified, this will be undertaken in line with the Landscape Masterplan (see Appendix 1).
- 3.22. As outlined in Objective 2, bat boxes will be monitored biennially for five years, commencing the first year from implementation of this LHMP. Monitoring of bat boxes will be undertaken within the active season for bats (May September inclusive) by a licenced bat worker.



Section 4: Management Prescriptions

- 4.1. The prescribed management actions, including implementation timetable, management responsibilities and maintenance schedules are set out in Table 4.1 4.3 below which should also be read in conjunction with the Landscape Masterplan (see Appendix 1). Management and maintenance will continue in perpetuity in line with these reports.
- 4.2. After five years, a review of the LHMP will be undertaken and amended as required. The prescriptions detailed are flexible and can be amended as appropriate. On completion of the LHMP, the prescriptions undertaken will be fully reviewed and the LHMP will then be updated and continued as required.
- 4.3. Responsibilities for implementing the plan lie with the management company team, and any other parties mentioned in the prescriptions below.



Table 4.1: Objective 1 - To ensure that retained and newly created habitats are maintained in order that they establish successfully and provide biodiversity benefits in the long term, in line with national and local policies.

All prescriptions and habitat management should be read in conjunction with the Landscape Masterplan.

Prescription and Habitat	Action	Timing	Responsibility
Ensure no significant adverse impacts on biodiversity occur during the operational stage of the new development.	Post-development management of retained and newly planted trees, hedgerows, scrub and shrubs; should landscape maintenance work be carried out during the nesting bird season (generally acknowledged to be between March and August inclusive, though this is not defined in law and birds can nest outside of this time), all working areas will be checked for active nests by a suitably qualified person immediately prior to work commencing. Any active nests within vegetation will be protected with a suitably sized protection zone, within which no activity will take place until any chicks have fledged.	Annually, as and when tree, scrub and shrub management is required	Management Company Suitably Qualified Person
All new planting	All new planting will be provided with suitable irrigation. Water trees, whips, hedgerows, grassland and shrubs at least once a week if there has been no rain or at times of drought, particularly during the first growing season after installation. Litter pick retained and new planting. Control weeds around the base of the new planting and remove as necessary. Maintain a weed free area around each plant during the first 5 years.	At least once a week/when required Eight weekly intervals annually between April – December Eight weekly intervals annually between April – December	Management Company
	During the first 5 years, dead and broken branches/shoots will be pruned anc disposed of appropriately	Eight weekly intervals annually between April - December	
Trees	Trees should be planted as per manufacturing specifications. New tree planting to be protected using tree guards and staked appropriately. Remove tree guards and stakes once trees become established.	During construction -first planting season As required	Management Company



Prescription and Habitat	Action	Timing	Responsibility
	Trees will be provided with suitable irrigation. Water trees at least once a week if there has been no rain or at times of drought, particularly during the first growing season after installation.	At least once a week, when required	
	Control weeds around the base of the tree and remove as necessary.	Annually, every six months Annually, in Spring	
	Mulch all new trees annually in spring to insulate the soil and protect plant roots.	Once every three years in Autumn (September-November)	
	Once established, trees will be pruned every three years, as required. Undertake corrective tree surgery cperations as necessary – this may consist of the removal of dead limbs, crown thinning or reduction or pollarding where necessary, although only where there is a risk to the public due to the benefits to wildlife that these features could support. Felling should only be undertaken as a last resort.	Visual inspections to be completed by a qualified Arboriculturist annually when trees are in leaf or as required when visual inspections identify a health and safety risk.	
	Any arisings will be placed on site in heaps in sunny positions along the western, northern and eastern boundary to create natural log piles. All trees will be surveyed and tagged by a suitably qualified arborist with any defects catalogued.	Corrective surgery to be completed as identified by arboricultural assessment following approvals from LPA. To be carried out outside of the bird nesting season and following advice from an ecologist.	
		Prior to the implementation of this LHMP	
Hedgerows	Whips to be planted in double staggered rows, including a native mix and species within a known wildlife benefit.	Prior to the implementation of this LHMP or in the next planting season following occupation.	Landscape Contractor to plant – advised as necessary by Ecologist, Arbariculturist.
		During planting	



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Prescription and Habitat	Action	Timing	Responsibility
	Installation of tree guards and stakes, where required, around newly planted trees and whips.	Annually	
	Annual monitoring of the tree guards and stakes. Replace any damaged guards or stakes and loosen or tighten as required. Remove tree guards and stakes once trees have become established.	Annual check, then removal between year 3 – 5, or as required. Every three years, November	
	Once established, management will include single cuts to provide a more natural appearance, with one side cut every three years on a rotational basis. Cutting should be undertaken in November to allow plants to produce flowers and berries and thereby provide further food sources for birds, invertebrates and a range of other wildlife.		
	Informal management of scrub once every two years. Cut back, coppicing and thinning where required, to maintain a naturalised buffer.	Once every two years between September and February inclusive.	Management Company
Scrub	Create log piles with larger woody vegetation and remove all other arising from site.		
	Visually inspect the surrounding grassland to prevent encroaching of scrub into other habitats. Cut back as required.	Annually, in October	
Charle including appricage - to the	New specimen shrubs, climbers and herbaceous specimens planting will be provided with suitable irrigation. All new planting to be watered at least once a week if there has been no rain or at times of drought, particularly during the first growing season after installation.	Immediately after construction. At least once a week, when required	Management Company
Shrub including specimen shrubs, climbers and herbaceous specimens within planted borders	Monthly checks of planting to ensure specimens are becoming established for sx months following planting.	Monthly for first six months	
	Pruning as and when required to promote a denser growth.	Annually, as and when required	
	Mulch all new planting annually in spring to insulate the soil and protect plant roots.	Annually in spring	



Action	Timing	Responsibility
Prevent the growth and spread of invasive weeds such as creeping thistle Cirsium arvense, spear thistle C. vulgare, dock species Rumex sp. and common nettle Urtica dioica.	Annually, every six months	
Climbers only – ensure climbers are tied into the green wall façade frame or structure to provide support. Tie in new climber growth.	Annually, every six months	
Bulb planting should be undertaken as per the Landscape Masterplan. All bulbs will be planted as per the growers instruction.	Immediately after construction.	Management Company
Mulch around bulb annually in spring.	Annually, in spring	
Avoid mowing or strimming over the bulbs once new shoots and growth has started.	Oppuglly in Outumn	
Once bulbs have flowered, remove dead or dying flowers or leaves.	Hillouing in Hotoriin	
Grass areas shall be mown in order to maintain the visual amenity of the area. Mowing frequency and height shall be adjusted the function and use of each area. This will ensure that flowers are available throughout spring and summer. Arisings would be removed. Hand tools shall be used around trees, plants and confirmed spaces where it is impractical to use machinery.	As and when required	Management Company
Grassland areas on the Landscape Masterplan will be sown and managed as per the manufacturing instructions.	Immediately after construction. At least once a week, when required	Management Company
Ensure grasslands are adequately watered during the first growing season.	As required	
Grass areas shall be mown in order to maintain the visual amenity or biodiversity use of the area. Mowing frequency and height shall be adjusted the function and use of each area. This will ensure that flowers are available throughout spring and summer	Spring cut - May Autumn cut - September	
	Prevent the growth and spread of invasive weeds such as creeping thistle Cirsium arvense, spear thistle C. vulgare, dock species Rumex sp. and common nettle Urtica dioica. Climbers only – ensure climbers are tied into the green wall façade frame or structure to provide support. Tie in new climber growth. Bulb planting should be undertaken as per the Landscape Masterplan. All bulbs will be planted as per the growers instruction. Mulch around bulb annually in spring. Avoid mowing or strimming over the bulbs once new shoots and growth has started. Once bulbs have flowered, remove dead or dying flowers or leaves. Grass areas shall be mown in order to maintain the visual amenity of the area. Mowing frequency and height shall be adjusted the function and use of each area. This will ensure that flowers are available throughout spring and summer. Arisings would be removed. Hand tools shall be used around trees, plants and confirmed spaces where it is impractical to use machinery. Grassland areas on the Landscape Masterplan will be sown and managed as per the manufacturing instructions Ensure grasslands are adequately watered during the first growing season. Grass areas shall be mown in order to maintain the visual amenity or biodiversity use of the area. Mowing frequency and height shall be adjusted the function and use of each area. This will ensure that flowers are available throughout	Prevent the growth and spread of invasive weeds such as creeping thistle <i>Cirsium arvense</i> , spear thistle <i>C. vulgare</i> , dock species <i>Rumex</i> sp. and common nettle <i>Urtica dioica</i> . Climbers only – ensure climbers are tied into the green wall facade frame or structure to provide support. Tie in new climber growth. Bulb planting should be undertaken as per the Landscape Masterplan. All bulbs will be planted as per the growers instruction. Mulch around bulb annually in spring. Annually, in spring Annually in Autumn Annually in Faring Annually in Faring Annually in Faring Annually in Spring Annually, every six months Immediately after construction. Annually, every six months Annually, every six monthe



Prescription and Habitat	Action	Timing	Responsibility
	Management will include traditional meadow management. This includes: Autumn sowing – first summer cut to leave the grassland at a sward height of between 40 – 70mm in May and a second cut to the same length in the September. Spring sowing – first cut six weeks following sowing, then once in May and once in September. All arisings will be removed from site or placed in a designated compost heap. Prevent the growth and spread of invasive weeds such as creeping thistle, spear thistle, docks species and common nettle and encroachment of scrub.	Annually, every six months	
	Ensure pond P1 and P2 are retained and managed to continue to provide opportunities for fauna. Pruning as and when required to promote a denser growth with the aim to keep around 50% of the surface free of vegetation by thinning out plants during the summer.	Annually, in summer	Management Company Suitably Licenced GCN Ecologist
	Thin out excessive growth of underwater oxygenating plants, annually.	Annually, every six months	
Ponds (including ponds P1 and P2)	Remove dead leaves and debris from plants. Carefully remove as much invasive weeds such as duckweed <i>Lemna</i> sp. and water fern <i>Azolla</i> as possible with a rake or net and regularly inspect levels to prevent reestablishment. Continue to rake or net as appropriate. Place removed vegetation on the edge of the pond for at least a day to allow any found present to re-enter the pond	Annually, November to February inclusive Annually, as and when required. Annually during vegetation clearance	
All Habitats -Remedial Actions	before removing and disposing appropriately. Any scrub encroaching into ponds will be removed during the vegetation clearance. Each autumn, the new planting scheme shall be inspected, and dead or during plants shall be recorded and replaced in	Annually, November to February inclusive Annually, as required	Management Company



Prescription and Habitat	Action	Timing	Responsibility
	the next winter planting season, until 100% canopy achieved and/or gaps are filled. Plants to be pruned as required.		
Bat and bird boxes	Installation of bat and bird boxes integrated into the new buildings throughout the site.	During construction	Management Company
Hibernacula and Log piles	Creation of hibernacula and log piles within suitable areas adjacent to the ponds and hedgerows.	Post construction	Management Company
Maintain incorporated landscape planting that is of benefit to wildlife	Landscape planting across the site to provide opportunities for pollinating insects and other wildlife.	The first planting season following completion of construction activities. Annually during the growing season.	Management Company



Table 4.2: Objective 2 – Maintain, and where possible improve, the conservation status of identified key species, namely GCN, bats, birds, reptiles and hedgehog. This will be completed through native planting onsite, the installation of bat and bird boxes integrated into new buildings, enhancement of retained habitats and hibernacula/log pile creation within the retained and enhanced habitats

Prescription	Action	Timing	Responsibility
Maintain, and where	Management of hedgerows, trees, scrub, ponds and shrubs to maintain features for commuting and foraging bats.	See Table 4.1.	Management Company
possible improve the conservation status of identified key species, namely bats	Bat boxes to be left undisturbed but checked for damages. Biennial monitoring by a bat licenced ecologist.	Biennially commencing the first year from implementation of LHMP for 5 years.	Suitably Qualified Person Bat Licenced Ecologist
Maintain, and where possible improve the conservation status of	Management of hedgerows, trees, scrub, ponds and shrubs for foraging and nesting birds and foraging opportunities for badger.	See Table 4.1.	Management Company
identified key species, namely birds and badger	Bird boxes to be left undisturbed but checked for damages.	Annually, anytime	Suitably Qualified Person
Maintain, and where possible improve the conservation status of	Management of hedgerows, trees, scrub, ponds and shrubs to maintain and enhance aquatic and terrestrial habitats for GCN.	See Table 4.1	Management Company Suitably Licenced GCN
identified key species, namely GCN	Refer to GCN mitigation licence - Management and monitoring of the ponds must be undertaken inline with the GCN mitigation licence	Refer to GCN mitigation licence	Ecologist Cologist
Maintain, and where possible improve the conservation status of	Creation of hibernacula and log piles with retained and enhanced habitat cround the ponds and hedgerows.	During construction	Management Company
dentified key species, namely reptiles and hedgehogs	Monitoring and management of log piles created from felled wood by ensuring there are gaps present and it is not compact. If no gaps are present, carefully place a garden fork in the log pile and slowly leaver the fork downwards to open up the structure.	Annually, in September	
	Continue to add woody arisings from habitat management to the log piles.	During management of woody vegetation, see Table 4.1	



Table 4.3: Objective 3 - Monitor the efficiency of this LHMP.

Prescription	Action	Timing	Responsibility
Monitor and review management objectives	Annually, the management and maintenance will be reviewed to establish if changes are required to ensure the long-term viability of the landscape proposals to maximise biodiversity potential.	Annually	Management Company
Monitor and review management objectives	Upon completion of the initial five years, ongoing habitat management and maintenance will be undertaken in perpetuity, as described within this document. This document will be reviewed and revised, if necessary, following the initial five year period, in order for the management prescriptions to be adapted/amended as required to continue to deliver management objectives.	Year 5	Management Company
Monitoring of bat and bird boxes	After Year 1, a check would be completed to ensure that the bat and bird boxes have been installed as per the manufacturer's instructions. Should this be incorrect then advice would be provided to rectify. Bat and bird boxes will be monitored biennially for five years for signs of damage. Should damage be identified, advice would be provided to fix the boxes.	After Year 1 Biennially for five years commencing Year 1 from implementation of this LHMP.	Ecologist and Management Company



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Appendix 1: Landscape Masterplan





Plans:

Plan 1: 15525/P03a Habitat Features plan

Plan 2: 15525/P06 Badger Survey Plan







