



London & Regional Properties

Bicester Gateway, Hotel

Habitat & Landscape Management Plan

2019 – 5 years post-development

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1.0 Introduction

1.1 Background

WYG was commissioned by London & Regional Properties in November 2017 to provide ecological input for a reserved matters application (16/02586/OUT) for Phase 1A at the site known as Bicester Gateway, located off Wendlebury Road, Bicester, OX25 2PA. The site was granted outline planning consent on 26th July 2017. The ecological input provided by the WYG commission was required to update the results of surveys completed by Ecology Solutions Ltd. in 2016

This Habitat & Landscape Management Plan (HLMP) is required as part of the Mandatory Requirements for BREEAM LE 05 (Long Term Impact on Biodiversity).

The purpose of the HLMP is to provide a practical guide for the building occupants for appropriate long-term management and protection of ecologically valuable features and habitats on site during the construction phase and for at least five years post-development.

1.2 Site Description

The site is located off Wendlebury Road in Bicester, Oxfordshire and is centred at Ordnance Survey National Grid Reference SP 5738 2124. The site is situated in a semi-rural area and is bordered to the north and west by the A41, and to the south and east by Wendlebury Road. The wider area includes agricultural land, urban development and small, isolated blocks of woodland.

The site is 1.3 ha in size and consists predominantly of a species-poor semi-improved grassland with areas of scrub and inundation vegetation. There are several ditches on site, four of which are dry. Over 400 m of species-poor hedge are also present on site, with scattered trees throughout.

1.3 Development Proposals

The development proposals include the construction of a four-storey hotel for up to 149 bedrooms and associated car parking. The site layout was updated as part of the reserved matters application to retain the western hedgerow between the site and the A41. Also, the landscaping proposals were changed following discussion between WYG and Turkington Martin to include more native species which are beneficial to wildlife.



1.4 Purpose of the Habitat and Landscape Management Plan

The HLMP for the site is intended to cover the construction phase and the first five years post-construction and is structured as follows:

- Specification of measures that will protect retained habitats and ecological features on site during the construction phase of development;
- Specification of measures that will result in the creation of features of ecological value as part of the development of the site;
- Specification of measures to maintain any new or retained habitats and ecological features for their ecological value for the first five years following construction; and
- Provision of a monitoring schedule which outlines the commitment to deliver and implement these measures as well as review and adjust as appropriate over time.

The HLMP considers the unique features of the site, the local area and the proposed development and is based on currently available information.

If before or during implementation of this plan the development proposal is altered substantially, or significant new ecological information comes to light, then the plan should be revised accordingly by the project ecologist.



2.0 Baseline Information

2.1 Existing Ecological Studies

The site has been subject to the following ecological surveys and assessments:

- Ecological Assessment, Bicester Gateway, April 2016 (Ecological Solutions Ltd, December 2016);
- Reptile Survey, Bicester Gateway, September 2017 (Ecological Solutions Ltd, October 2017).
- Ecological Appraisal, Bicester Gateway Phase 1A, November 2017 (WYG, February 2018).

2.2 Desk Study

Information was gathered during a site visit to inform a preliminary ecological appraisal of the site and its locality in November 2017 (WYG, 2018). Information was requested from Thames Valley Environmental Records Centre (TVERC) as part of the Ecology Solutions Ltd Ecological Assessment (Ecology Solutions Ltd, 2016) for information on any nature conservation designations within 2.5 km and protected or notable species records within 1.5 km of the site.

The data search covered:

- Statutory designated sites for nature conservation, namely SACs, SPAs, Ramsar sites, SSSIs, NNRs and LNRs;
- Non-statutory designated sites for nature conservation, namely LWS;
- Legally protected species, such as great crested newts (GCN) *Triturus cristatus*, bats and badger;
- Notable habitats and species, such as those listed as Habitats or Species of Principal Importance; and,
- Priority habitats or species within the Oxfordshire LBAP.

The data search did not cover:

- Tree Preservation Orders (TPOs); or
- Conservation Areas designated for their special architectural and historic interest.



The following local species recording groups were also contacted by Ecology Solutions Ltd in April 2016, for any relevant records that they held:

- Oxfordshire Bat Group, no records held for the application site or the local area.
- Oxfordshire Badger Group, small number of records returned.
- Oxfordshire Ornithological Society, no response received.

As part of the Ecological Appraisal undertaken by WYG in November 2017 (WYG, 2018), online resources were consulted, namely:

- MAGIC www.magic.gov.uk – DEFRA’s interactive, web-based database for statutory designations and information on any EPSL applications that have been granted in the local area since 2015.

2.2.1 Statutory Designated Sites

No statutory designated sites were identified within 2.5 km of the site, based on the data search obtained by Ecology Solutions Ltd in April 2016, this was verified by WYG November 2017 (WYG, 2018).

2.2.2 Non-statutory Designated Sites

Three non-statutory designated sites of nature conservation were identified within 2.5 km of the site based on the data search obtained by Ecology Solutions Ltd in April 2016.

Table 1 Non-statutory Designated Sites within 2.5 km

Designation	Site Name	Distance & Direction	Summary of features
LWS	Bicester Wetland Reserve	0.4 km east	Site is managed by Banbury Ornithological Society in co-operation with Thames Water Utilities Ltd. The site is mostly maintained as wet grassland by outflow from sewage works. Small area of reedbed, open water, wet ditches, banks with tall herb and a dry grassland area. The site is important for overwintering wildfowl.
LWS	Graven Hill	1.4 km South-east	Graven Hill wood caps a low rounded hill on heavy soil. Oak <i>Quercus</i> sp. and ash <i>Fraxinus excelsior</i> woodland with a mixed scrub layer including hazel <i>Corylus avellana</i> with hawthorn



			<i>Crataegus sp.</i> , English elm <i>Ulmus minor</i> , midland hawthorn <i>Crataegus laevigata</i> , field maple <i>Acer campestre</i> and blackthorn <i>Prunus spinosa</i> .
LNR	Bure Park	2.25 km north	Habitats include grass meadow, young broad-leaved woodland, hedges and scrub. A small river (the Bure) runs through the site, feeding a small pond which is home to GCN. A balancing pond at one end of the Reserve is fed by run-off from the area.

2.3 Site Visits

An extended Phase 1 habitat survey was undertaken on site on 29th November 2017, to verify the previous findings of Ecology Solutions Ltd, 2016 (WYG, 2018). The survey was undertaken by WYG Assistant Ecologist Amy Dowers.

The current ecological baseline of the site as established within the ecological surveys and assessments is summarised below.

2.3.1 Habitats

A figure showing the layout of habitats present on site is provided in Appendix A. The habitat types recorded are listed below:

- Semi-improved grassland;
- Ditches (dry), and
- Species-poor hedgerows and trees.

These habitats have a generally poor vegetative structure, low species diversity and are ubiquitous in the wider landscape.

2.3.2 Fauna

In November 2017 identified and assessed habitats within the site and adjacent to the site as having potential suitability to support the following protected and notable species undertaking the following activities (WYG, 2018):

- Foraging & commuting badgers – **potential** for foraging and/or commuting on site.



- Nesting, foraging & loafing birds – **potential** for nesting, foraging and loafing on site.
- Foraging & commuting bats – **Confirmed** foraging and commuting on site;
- Foraging, sheltering and commuting hedgehog – **potential** for foraging, sheltering and commuting on site.
- Foraging, sheltering and commuting polecat – **potential** for foraging and/or commuting across site.

Habitats on site were also assessed to be suitable for other protected species, however presence of these species have been discounted for the following reasons:

- Great crested newt (GCN) – the nearest population is 2.25 km away (Ecology Solutions Ltd, 2016) and ditches on and adjacent to the site were dry during surveys undertaken by Ecology Solutions, 2016. A pond 175 m to the south-east of site was heavily stocked with fish and unlikely to support GCN (Ecology Solutions Ltd, 2016). Although terrestrial habitats are suitable, significant barriers to dispersal are present and therefore GCN are unlikely to have colonised the site.
- Reptiles – the nearest records of grass snake and slow worm were located 1.3 km west of the site in 2003. Terrestrial surveys were undertaken by Ecology Solutions Ltd in September 2017, with no reptiles recorded. The habitats on site have not changed significantly since these surveys were undertaken and significant barriers to dispersal remain present and therefore reptiles are considered unlikely to have colonised the sites.

2.3.3 Invasive Species

The desk study identified a record of American mink located 140 m north of the site and nine records of signal crayfish *Pacifastacus leniusculus* 390 m south-east of the site.

The desk study also identified records of Nuttall's waterweed *Elodea nuttallii* and water fern *Azolla* sp. both of these records were from Bicester Wetland Reserve located 400m east of the site.

No invasive species were identified on site during the Ecology Solutions Ltd. Survey in 2016/17.

No invasive species were recorded on site during the survey in November, 2017 (WYG, 2018).



3.0 Roles and Responsibilities

3.1 Biodiversity Champion

A Biodiversity Champion will be nominated to influence site activities during construction phase / landscaping works and over the next five years (post construction) in line with the recommendations of this report.

The champion does not need to be an ecologist but should be familiar with this report and have sufficient authority and presence on site to influence activities. Usually the lead landscaping contractor takes this role during the site construction phase. The Biodiversity Champion nominated during the construction phase may not have a site presence during the first five years post-development. Therefore, the role of Biodiversity Champion can be transferred to a new individual (such as a member of the grounds maintenance team) once management of the site is transferred at the end of the construction phase.

The role of a Biodiversity Champion is to promote the ecological recommendations as set out in the HLMP and oversee that the recommendations are adhered to.

The Biodiversity Champion will take photographs, make log book entries of inspections and produce progress reports as appropriate to evidence that the above responsibilities are being upheld. This monitoring and review process will be carried out as an integral part of the overall management plan.

General responsibilities of the Biodiversity Champion during the Construction Phase are:

- Checking that all site contractors know to report any ecological concerns/issues to him/her (should any ecological concerns/issued be raised, the Biodiversity Champion is advised to contact an ecologist for further guidance);
- Making sure that an overview of the site's ecological constraints is included within the contractor inductions as appropriate;
- Regular checks (at least once per week) to make sure that habitat creation measures are implemented as set out in this document;
- Checking that the installation of wildlife boxes at suitable locations has been carried out; and
- Checking that the wildlife boxes are not removed / damaged.



General responsibilities of the Biodiversity Champion during the first 5 years of operation are:

- Overseeing that the retained and created habitats on site are managed as per this management plan;
- Checking the success of new habitats and ensuring that remedial action is taken where necessary;
- Checking that the wildlife boxes are not removed / damaged and ensuring that remedial action is taken where necessary; and
- Cleaning bird boxes.

Where additional issues are identified that are not currently covered in this management plan, or where it is considered that revised maintenance regimes are needed to maximise the ecological value of the site, the Biodiversity Champion should contact a suitably qualified ecologist who can make changes to management prescriptions as appropriate.

3.2 Contractor Responsibilities

The contractor responsibilities include the following;

- To adhere to the relevant provisions made within this document and to comply with the advice of the Ecological Clerk of Works (ECoW) and/or Biodiversity Champion;
- To make sure that the protective barriers around retained habitats and habitats highlighted for enhancement / creation are maintained for the duration of the construction phases to prevent damage to these areas; and
- To contact the Biodiversity Champion and/or, if necessary, the ECoW regarding any uncertainties or activities that may impact on ecological features on site.



4.0 Identification of Ecological Features and Habitats

The habitats to be lost on site to facilitate development includes semi-improved grassland, inundation vegetation, scrub and (dry) ditches, whilst hedgerows and scattered trees are to be retained. Hedgerows and scattered trees outside of the construction zone, on the eastern boundary are also to be protected.

Required actions on these habitats and associated ecological features are summarised as follows:

- The grassland and inundation vegetation on site will be stripped during site preparation works. The site has potential for badger sett building;
- The scrub on site will be cleared during the construction works. Scrub has suitability to support nesting birds;
- Habitat used by foraging and commuting bats was primarily the western boundary hedgerow (Ecological Solutions Ltd, 2016). This feature is to be retained and protected;
- The ditches on site will be infilled; and
- Existing hedgerows and some trees on site will be retained and appropriately protected.

Created habitats and new ecological features (the soft landscaping works plan and planting schedule is included in Appendix A):

- Newly planted shrub and herbaceous planting beds;
- Newly planted native species hedgerow on site boundaries;
- Newly planted native trees to be provided in planting areas;
- Two Schwegler 2FR bat tubes will be installed on the new hotel buildings to enhance the value of the site for roosting bats; and
- Four bird boxes, of varying sizes will be placed on the new building and in retained trees. Of these two will be swift *Apus apus* boxes incorporated into the building, one hole-fronted tree box will be targeted at species such as blue tit *Cyanistes caeruleus*, great tit *Parus major* etc. and the other, an open-fronted tree box will target species such as house sparrows *Passer domesticus*, robins *Erithacus rubecula* etc.



5.0 Management Plan Objectives

This section describes the main objectives of this HLMP.

The key objectives of this HLMP are:

- To protect features of ecological value which are to be retained within the site, namely the **hedgerow on the western boundary** and **twelve trees** around the site boundary in accordance with BS5837: 2012 Trees in relation to design, demolition and construction.
- To create and manage new shrub and herbaceous planting beds;
- To create and manage new native species hedgerows and ground cover;
- To plant and manage new trees;
- To provide a variety of nesting features to increase the opportunities for nesting birds on site;
- To provide new roost features to increase the opportunities for bat roosting on site;
- To implement a bat friendly lighting scheme;
- To comply with relevant wildlife legislation; and
- To enhance the ecological value of the site, including non-target species, in perpetuity.



6.0 Construction Management Plan

6.1 Pre-Construction and Construction

This section describes the management activities to be carried out during the pre-construction and construction stage of the proposed development. These activities have been designed to reduce the likelihood that any negative impacts will occur to ecological receptors on or adjacent to the site.

It also covers the management activities to be carried out during the landscaping phase of the development to improve the success of created habitats and reduce the need for maintenance and replacement. All landscaping will be completed in accordance with BS 4428:1989 Code of practice for general landscape operations (excluding hard surfaces). The landscaping plan, with biodiversity enhancement measures is available in Appendix B.

6.1.1 Badger Walkover & Protection

The site and habitats immediately adjacent are suitable for badgers. No signs of badgers were observed during previous surveys it is recommended that a pre-construction walkover is undertaken due to the highly mobile nature of the species. This would be completed to identify any newly excavated setts within the site and within 50 m of the site boundary.

During the construction phase any deep excavations must be covered overnight or a ramp placed inside to allow the escape of any animal which could fall into the excavation and otherwise become trapped.

6.1.2 Nesting Bird Reasonable Avoidance Measures

Vegetation clearance of habitat suitable for nesting birds is to take place during the construction phase. These works are to be avoided during the bird nesting season (March to September inclusive) or, if necessary, preceded by a search for nesting birds by a suitably experienced and qualified ecologist / ECoW.

If a nesting bird is identified, the ecologist will advise on suitable working methods and species-specific exclusion zones in order to restrict works on site, until such time as the chicks have fledged and cease to return to the nest.



6.1.3 Hedgerow and Tree Protection

The trees and hedgerows to be retained are shown in Appendix C. Protective fencing will be installed to protect these features due to their location within the construction zone in accordance with BS5837: 2012 Trees in relation to design, demolition and construction. This may include measures such as scaffolding, vertical tubes and support stakes. Supports should be spaced appropriately and anchored into the ground at an appropriate depth. Protection fencing should be established prior to construction work taking place on site. All damaging operations will be excluded for these areas including the following activities: storage of materials (including soil and rubble), mixing of materials and chemicals, excavations, and the movement/parking of plant and vehicles.

Excavations near retained hedgerows and trees will be avoided because this could potentially affect the root systems and prevent or limit growth. If excavations are required in the immediate vicinity, then they will be carried out by hand.

6.1.4 Best Practice

A safe system for the correct storage of materials/chemicals on site will be implemented to make sure that materials are stored in a suitable manner to avoid potential impacts on vegetation. This is particularly important with liquids/hazardous chemicals which will not be stored near vegetated areas and should be stored within a bund.

Appropriate cleaning/maintenance of machinery/tools on site will be undertaken at a sufficient distance from vegetated areas. Any run-off will be collected and disposed of responsibly. Failure to do so may result in contaminated water entering the soil and reducing / increasing soil pH and increasing contaminant levels. It is anticipated that an appropriate Pollution Prevention Control Plan will be implemented during the construction phase.

Although the presence of construction waste on site is unavoidable, it is recommended that waste is removed at the earliest opportunity to avoid contamination of the ground and possible disturbance to wildlife and degradation of soil quality.

The habitats to be cleared including the semi-improved grassland will be stripped slowly and directionally in a south to north direction using vigilance to enable any animals in these areas to safely disperse towards the adjacent woodland. This will be completed outside of the hibernation season (November to February inclusive). If an injured animal is found, then works should cease immediately and the project ecologist be contacted for further advice.



6.2 Habitat Creation & Protection

6.2.1 Hedgerow Planting

Two hedgerows will be created as part of landscaping measures. One comprising of a native hedge mix containing blackthorn *Prunus spinosa*, crab apple *Malus sylvestris*, dogwood *Cornus sanguinea*, field maple *Acer campestre*, goat willow *Salix caprea* and hawthorn *Crataegus monogyna*. The second will be predominantly Wilson's honeysuckle *Lonicera nitida*.

The ground will be prepared thoroughly to allow new plants to establish more easily. Good soil conditions should be provided with little competition from other vegetation. Ideally, planting into bare soil is achieved through cultivation, turf stripping or by building a bank. If using a herbicide, then a non-residual chemical will be applied, using either a wiping or spraying (i.e. localised) method, only where necessary, a minimum of 1-2 months before cultivating the soil and planting. The overuse of chemical herbicides will be avoided, and chemicals will only be applied during dry conditions. Fertilizer use will be avoided or minimised as this encourages dominance by a few species, therefore reducing overall species diversity. Bark mulch will be included and maintained to 50 mm depth around new plantings.

The hedgerow plants will be thoroughly watered prior to planting. When planting, it is essential that hedge plants are kept in their tubs until they are ready to be placed gently into the ground, roots can quickly dry out if they are exposed to the wind. Hedgerows are to be planted at a density of seven plants per meter, in a double staggered row.

Protection of newly planted hedgerow plants is essential to promote growth and survival rates. Planting will include the installation of timber post and strained galvanised wire fence line to the centre of the hedge. Tree tubes are also very useful in providing protection and they also provide additional support throughout the early stages of growth. All hedge plants should be protected with a 600mm high transparent spiral shelter supported by a cane, or with a shelter appropriate to the plant stock.

The hedgerow planting area will receive 450 mm topsoil over 450 mm subsoil/class 2 landscape fill, with a 150 mm drainage layer.

The newly planted hedgerow shrubs will be thoroughly watered immediately after planting, and the day after planting. Water should be applied to make sure that all voids between the roots and the ground are filled.



6.2.2 Tree Planting

Native trees are to be planted within specified planting areas and will include field maple (girth 20-25 cm, height 6 m), oak *Quercus robur* (girth 18-20 cm, height 4.5 m) and silver birch *Betula pendula* (girth 20-25 cm, height 6 m).

Good ground preparation prior to planting will improve the success rate and reduce the need for maintenance and replacement. The ground should be prepared to provide sufficient soil drainage and structure and to decrease competition for light, water and nutrients from other plants. This is particularly important where drainage is poor or where a dense and high grass sward exists as this will prevent new saplings establishing and can reduce tree growth and survival rates. Densely compacted soils should be rotovated and broken up prior to planting. Bark mulch will be included and maintained to 50 mm depth around new plantings. Traditionally tree planting is proposed to be carried out between October and March. Periods of frost and snow must be avoided to reduce the risk of tree death.

New trees should be fitted with some form of protection and support, i.e. tubes / stakes, if necessary when planted. Protection of newly planted trees is essential to promote growth and survival rates. Mulch will be spread around the base of newly planted trees to protect the roots, reduce evaporation (water loss) and suppress weeds.

6.2.3 Shrub and Herbaceous Planting

Following discussions between WYG and Turkington Martin planted areas of native shrubs and herbaceous species are to be planted for the benefit of wildlife. Traditionally planting of herbaceous species should be carried out between March – April inclusive or September – October inclusive, but periods of frost and snow must be avoided. The ground should be prepared as above.

Shrubs and herbaceous plants should be kept in their tubs / packets until they are ready to be placed gently into the ground. Roots can quickly dry out if exposed to the wind. The shrubs and herbaceous plants will be thoroughly watered immediately after planting and the day after planting. Water should be applied so that all voids between the roots and the ground are filled. Fertilizer use will be avoided or minimised as this encourages dominance by a few species therefore reducing overall species diversity. Bark mulch will be included and maintained to 50 mm depth around new plantings.

6.2.4 Lighting Strategy

To protect habitats of value to foraging and commuting bats, a sympathetic lighting scheme has been designed and covers the site and an adjacent cycle path (see Appendix D1, D2). The lighting scheme



has been designed to minimise light spill to these areas and maintain dark corridors. Hedgerows and other boundary features have been targeted, with Lux levels kept at 0.5 or below.

It is noted that lighting plans are to be updated for the carpark. A review of the updated plans will be required to check that the features mentioned above remain protected.



6.3 Ecological Features

6.3.1 Bat Boxes

To increase the value of the site for bats, two Schwegler 2FR bat tubes will be incorporated into the masonry of the buildings or built flush to the external wall, on south facing aspects. These should be at approximately minimum of 3-4 m high to avoid disturbance by cats or the public and allow for monitoring and maintenance access. The optimum position is under eaves, on gables or on high walls. It is recommended that the bat boxes be checked two years after installation by a licensed bat worker and any necessary maintenance works undertaken.

All British bat species are fully protected through their inclusion in Schedule 5 of the *Wildlife and Countryside Act 1981* (as amended) and in Schedule 2 of *The Conservation of Habitats and Species Regulations 2017* as European protected species. Under the legislation, it is an offence to intentionally kill, injure or take a bat as well as intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by a bat or disturb an animal while it is occupying a structure or place which it uses for that purpose. **Therefore, bat boxes cannot be disturbed by anyone without a licence after they have been installed.**

6.3.2 Bird Boxes

To increase the value of the site for nesting birds four bird boxes will be incorporated into the development, their location can be seen in Appendix B.

One open-entranced and one hole-entranced bird box will be erected at the end of the construction phase on either the northern or southern aspect of two retained trees. These will be placed 3-4 m above ground. Two Schwegler 17a swift nesting boxes will be incorporated into the new building, one on the north-eastern and one on the south-western aspect. The optimum position is under eaves, on gables or on high walls that have some shade.



7.0 Operational Management Plan

This section provides details of the proposed management of the created habitats and ecological features for five years following the completion of the construction and landscaping programme. The management proposals below assume that created habitats have established successfully; if created habitats and vegetation (or parts thereof) have failed, then remedial action should be taken to re-establish them in the next annual cycle under the guidance of the landscaping consultant. A Management Schedule is provided in Section 9.0.

7.1 Habitats

7.1.1 Hedgerows

After planting, checks of the health status of new hedge plants will be made at least twice annually, and additional maintenance will be expended to replace any failed or sickly-looking plantings. During the examinations new plantings will be inspected for signs of disease and replaced if necessary, to prevent the disease spreading.

New hedge plants should be watered regularly and thoroughly for at least two months during both the first and second growing seasons following planting to make sure the root systems establish. Watering twice weekly in the morning or late afternoon / evening only and not in the middle of the day or bright sunshine is often sufficient. The frequency of watering should be increased during warmer, drier spells to avoid plant loss. Thereafter the frequency can be reduced when environmental conditions cool. New plantings should also be watered in the growing season during dry spells in Years 3 – 5 post-planting and will be watered every 10 days in autumn / winter in Years 1 – 5 if it doesn't rain for this period.

Light, regular, trimming of the hedgerow is required in Years 1 and 2 to encourage dense and bushy growth which is favourable to wildlife. Hedgerows will be cut every two to three years after Year 2 to allow the hedgerow to maximise growth. The bigger (volume rather than height) a hedge the more wildlife it tends to support. Furthermore, most tree and shrub flowers are produced on year-old twigs and annual cutting removes these twigs. Hedgerows will be cut in January or February so that wildlife will have the time to take advantage of the nuts and berries produced and also to avoid cutting in the bird nesting season. It is recommended that the hedgerow is cut on only one side each year so that some berries / flowers are available every year for wildlife.



When trimming / cutting the hedgerow an 'A' shape will be fashioned. An 'A' shape hedgerow maximises height and the surface area available for flower / berry production. Furthermore, when wide enough an 'A' shape hedgerow provides birds with ample nesting opportunities.

If a hedgerow has to be cut every year, care will be taken to avoid cutting the grass and other plants at the base each time, particularly in the autumn. Instead, the vegetation at the base will be cut once every two or three years. The majority of insects and other invertebrates that live in hedgerows overwinter in their bases and will be harmed and/or killed by the cutting of this low-growing vegetation.

Bark mulch levels will be checked each year and maintained at a depth of 50 mm, replenishing as necessary.

Undertake localised weed control around and within the new hedgerow during Spring/Late Summer as necessary. Chemical applications will be avoided where possible.

Assess the structural status of new plantings at least twice annually. Support tubes / stakes will be installed, replaced, loosened, tightened or removed as necessary as new plantings grow. By Year 5 post-planting it is anticipated that few, if any, of the plants will require support stakes / ties.

Cold winds and frosts can loosen and lift the roots of new hedge plantings. If this happens then the roots will be carefully re-firmed and a temporary wind-break installed if the problem re-arises. Spreading a mulch at the base of new plantings will help prevent root damage due to cold conditions.

7.1.2 Trees

New trees will be pruned annually when dormant (November to February inclusive) i.e. crown lifting, thinning or removing dead limbs where necessary. Tree management will be avoided during the bird nesting season (March to September inclusive).

Newly planted trees will be protected from cold winds and frosts which can loosen and lift the roots. If this happens then the roots will be carefully re-firmed, and a temporary windbreak installed if the problem re-arises. Spreading a mulch at the base of new plantings will help prevent root damage due to cold conditions.

Localised weed control may be used during spring/late summer as necessary for the first three years after planting. Chemical applications will be avoided where possible. If herbicide is required, the



chemical will be applied using either a wiping or spraying (i.e. localised) method only where necessary. The overuse of chemicals (herbicides) will be avoided.

Bark mulch levels will be checked each year and maintained at a depth of 50 mm, replenishing as necessary.

New tree plantings will follow the same watering regime as hedgerows, described in section 7.1.1.

7.1.3 Shrub and Herbaceous Planting

After planting, checks of the health status of new plants will be made at least twice annually, and additional maintenance will be expended to replace any failed or sickly-looking plantings. During the examinations new plantings will be inspected for signs of disease and replaced if necessary, to prevent the disease spreading. This will occur only for the first two years after which failures are unlikely. Replace failed plantings in October and March avoiding periods of frost.

Newly planted shrub and herb plantings follow the same watering regime as hedgerows, described in section 7.1.1.

Localised weed control may be used during spring/late summer as per the methodology outlined for trees in section 7.1.2.

Bark mulch levels will be checked each year and maintained at a depth of 50 mm, replenishing as necessary.

7.2 Ecological Features

7.2.1 Bat Boxes

It may take several years for a bat box to become occupied and it can be difficult to know whether roosting bats are present on any occasion. Bats typically use a variety of temporary roosts during the summer, spending a night or two in one location, before moving on to roost elsewhere then returning. Bats are usually active from March to October inclusive, hibernating during the winter months.

Bat boxes will be checked externally, from the ground using binoculars, to visually check for damage. This will be done annually during summer. A bat licensed ecologist should be informed if the box appears to be damaged.



Internal bat box checks will be made by a licensed bat worker in Year 3 (March/April or Autumn (September/October). If work is required in relation to the bat boxes when occupied then a licence will be required. If there is no evidence of roosting bats, the boxes will be checked by the bat licensed ecologist to see if they are in a reasonable condition and cleaned if necessary. A **WYG Ecologist** will be contacted for advice regarding bat box maintenance. Sometimes birds may occupy a bat box in which instance the (former) bat box will then be treated as a bird nest box.

7.2.2 Bird Boxes

Bird boxes will be checked and maintained annually outside of breeding bird season (May – September inclusive), removing old nests and cleaning if required, with the aim of restoring the box to its original state. Should the boxes be damaged or missing during these checks then it should be fixed or replaced like-for-like.

7.3 Other Management Activities

7.3.1 Litter Picking

It is anticipated that regular litter picking will be completed by the ground staff of the hotel when operational. Litter picking should be completed once monthly as a minimum so that habitats and associated wildlife are not significantly affected by waste products on site.



8.0 Useful Local Contacts

Table 2. Contacts for relevant local wildlife bodies.

Organisation	Contact
Local Biodiversity Action Plan:	See 'Local Wildlife Trust' contact details below.
Local Wildlife Trust	The Berkshire, Buckinghamshire and Oxfordshire Wildlife Trust (BBOWT) The Lodge 1 Armstrong Road Littlemore Oxford OX4 4XT Email: info@bbowt.org.uk
Bat Conservation Trust	Email: enquiries@bats.org.uk If a grounded bat is found, call the Bat Helpline telephone number: 0345 1300 228
RSPB	www.rspb.org.uk
WYG	WYG Executive Park Avalon Way Anstey Leicester LE7 7GR Email: ecology.leicester@wyg.com Telephone: 0116 234 8000



9.0 Checklist of Management Actions

Table 3 highlights the anticipated timetable for completion of tasks and sets out which party will be responsible for which actions. Note: *timings have been estimated based on construction commencing in February 2019 – should construction start prior to or after February 2019, timings may need to be altered accordingly.*

Table 3: Summary schedule of actions/tasks to be carried out with regards to ecology at the site.

During the construction and operation phase, the biodiversity champion must undertake regular monitoring (once weekly) to check that habitat creation measures are implanted as set out in this document.

Construction Activity	Ecological Activity	Responsible Party
Pre-construction	A pre-construction badger walkover should take place to check that no new setts are present.	London & Regional and appointed contractors
Construction	Reasonable avoidance measures for nesting birds	London & Regional
Construction	Appointment of ECoW should scrub removal be required during nesting bird season.	London & Regional
Construction	Hedgerow and tree protection measures to be implemented.	London & Regional and appointed contractors
Construction/Landscaping Phase	Planting of new trees and hedgerows.	
Construction/Landscaping Phase	Planting of shrub and herbaceous planting beds.	
Construction/Landscaping Phase	Incorporation of bat tubes and swift boxes into building.	
Construction/Landscaping Phase	Implementation of measures to achieve lighting strategy.	
Post-construction	Replanting of failed trees, hedge planting, shrubs and herbaceous planting.	Bicester Gateway Hotel staff and operatives
Post-construction	Control of weeds around new trees, shrubs, herbaceous planting.	
Post-construction	Mowing of grassland areas	
Post-construction	Installing two bird nesting boxes to retained trees.	
Post-construction	Regular litter picking to be implemented.	



Table 4 details individual site tasks to be undertaken post-construction and also provides an indication of the appropriate timing for each task.

Table 4: Summary of post-construction tasks and appropriate timings

Task	Recommended Month / Season	Yr 1 (2020)	Yr 2 (2021)	Yr 3 (2022)	Yr 4 (2023)	Yr 5 (2024)
Hedgerows						
Check health status of new hedge plants	Twice annually (in January/February and August/September)	✓	✓	✓	✓	✓
Replace any failed or sickly hedge plants	October and March (avoiding periods of snow or frost)	✓	✓	✓	✓	✓
Water new hedge plants	Twice weekly in the morning or late afternoon/evening only for at least two months during first two growing seasons. Water in years 3-5 during dry periods.	✓	✓	✓	✓	✓
Trimming/cutting of hedge plants	Light, regular, trimming of the hedge required in years 1 and 2 followed by a final cut in year 5 in January or February. When trimming, 'A' shape will be fashioned.	✓	✓		✓	
Removal of grass and weeds at hedgerow base	Spring / late Summer as necessary	✓	✓	✓	✓	✓
Bark Mulch Maintenance	Inspect once a year and maintain at a depth of 50mm	✓	✓	✓	✓	✓
Remove hedge plant supports/tubes	Year 5 or as necessary once established.					✓
Check that roots of hedge plants have not lifted and re-firm as necessary	After periods of cold winds and frosts	✓	✓	✓	✓	✓
Trees						
Localised weed control around newly planted trees	Spring / Late Summer as necessary in Years 1 – 3. Avoid chemical use where possible. Avoid applying fertilizer.	✓	✓	✓		
Bark Mulch Maintenance	Inspect once a year and maintain at a depth of 50mm	✓	✓	✓	✓	✓
Inspect health status of new planted trees and replace failed/sickly-looking trees.	Inspect at least twice annually and undertake any removals / replacements between October and March inclusive avoiding periods of frost and snow in Years 1 - 2	✓	✓			
Inspect and install, replace, loosen, tighten or remove support tubes/stakes and protection.	At least twice annually or more often as necessary each year	✓	✓	✓	✓	✓
Take necessary actions to protect trees from cold and extreme weather	Annually and as necessary	✓	✓	✓	✓	✓



Task	Recommended Month / Season	Yr 1 (2020)	Yr 2 (2021)	Yr 3 (2022)	Yr 4 (2023)	Yr 5 (2024)
Water trees	Twice weekly during the first two growing seasons and as required during hot and dry spells in years 3-5.	✓	✓	✓	✓	✓
Pruning of trees	Between November and February inclusive avoiding bird nesting season.	✓	✓	✓	✓	✓
Shrubs and Herbaceous Planting						
Check health status of new plants	Twice annually (in January/February and August/September)	✓	✓	✓	✓	✓
Replace any failed or sickly hedge plants	October and March (avoiding periods of snow or frost)	✓	✓	✓	✓	✓
Water new plants	Twice weekly during the first two growing seasons and as required during hot and dry spells in years 3-5.	✓	✓	✓	✓	✓
Localised weed control around new planting	Spring / Late Summer as necessary in Years 1 – 3. Avoid chemical use where possible. Avoid applying fertilizer.	✓	✓	✓		
Bark Mulch Maintenance	Inspect once a year and maintain at a depth of 50mm	✓	✓	✓	✓	✓
Bat Boxes						
Box checks via binoculars to assess condition. Contact WYG ecologist if box is damaged.	Annually during summer	✓	✓	✓	✓	✓
Checked by a licensed bat worked and any necessary maintenance work undertaken.	Year 3 in spring (March/April) or autumn (September/October)			✓		
Bird Boxes						
Checking for presence of and maintenance of bird boxes.	Annually outside of breeding bird season (March –September inclusive).	✓	✓	✓	✓	✓
Other Management Tasks						
Litter Picking	Once monthly (as a minimum) all year round.	✓	✓	✓	✓	✓



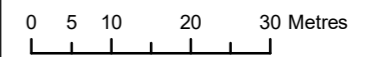
APPENDIX A – Pre-development habitats.



Rev	Date	Notes
A	06/06/19	Initial map production

Legend

- Site boundary
- Dense scrub
- Inundation vegetation
- SI Poor semi-improved grassland
- Dry ditch
- + Hedge and trees (species-poor)
- Running water
- Indicative bird box location
- × Scattered scrub
- Target note



Phase 1 Habitat Plan

**Land at A41 Bicester
Holiday Inn Express**

Scale at A3: 1:950	Project No: A103271	Drawing No: Figure 2	Revision: A
Drawn by: Ben Blowers		Drawn date: 06/06/2019	Approved by: Elizabeth Sanders

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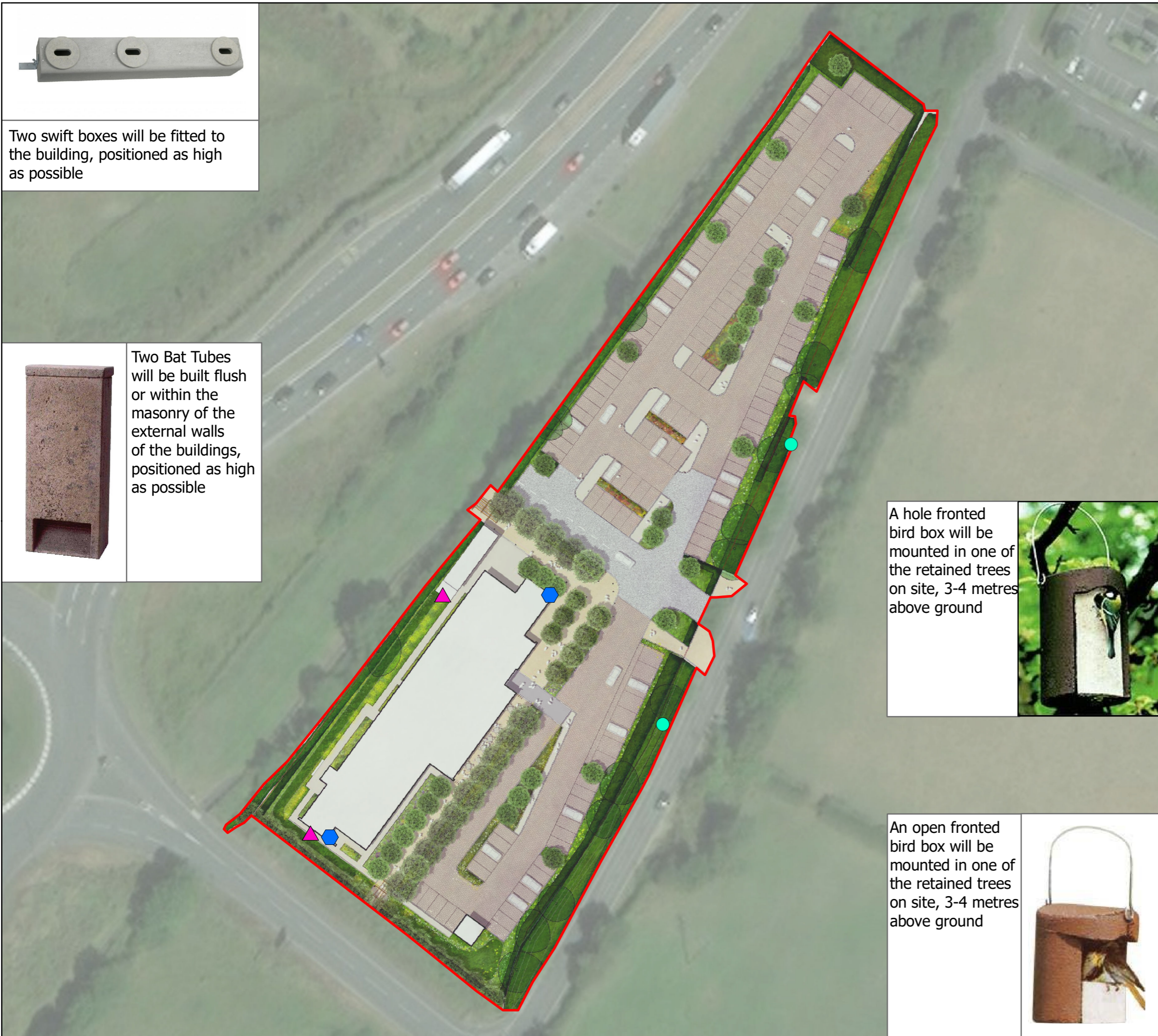
APPENDIX B – Landscape Plan and Biodiversity Enhancement Scheme



Two swift boxes will be fitted to the building, positioned as high as possible



Two Bat Tubes will be built flush or within the masonry of the external walls of the buildings, positioned as high as possible



A hole fronted bird box will be mounted in one of the retained trees on site, 3-4 metres above ground



An open fronted bird box will be mounted in one of the retained trees on site, 3-4 metres above ground

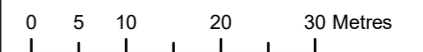


Rev	Date	Notes
A	10/06/19	Initial map production
B	01/07/19	Changes to symbology

Legend

- Site boundary
- ▲ Bat tube location
- ⬡ Swift box location
- Open-fronted bird box location

Illustrative Landscape Plan
 Drawn Date: 04/12/2017
 Provided by Tuckington Martin



Biodiversity Enhancement Scheme

Bicester Gateway, Hotel London & Regional

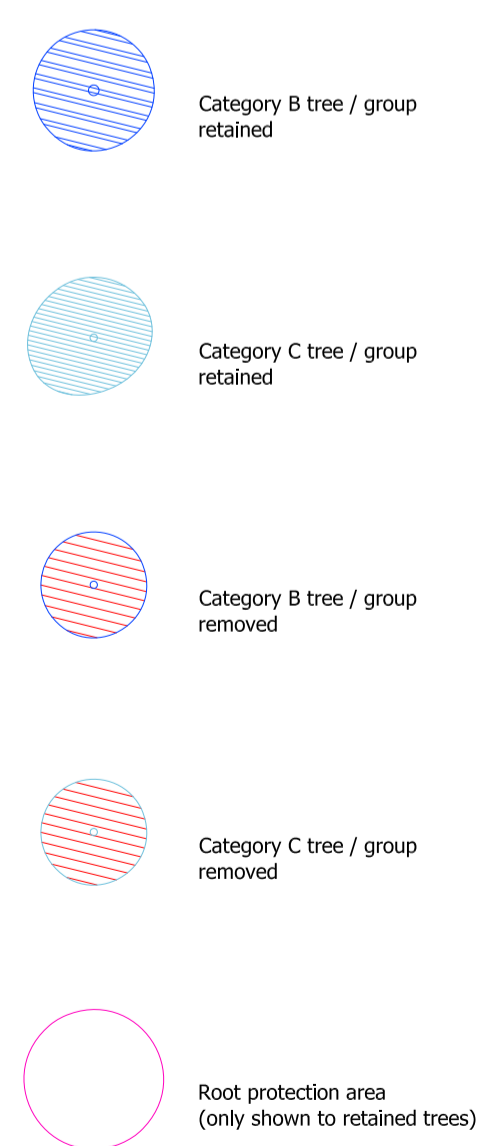
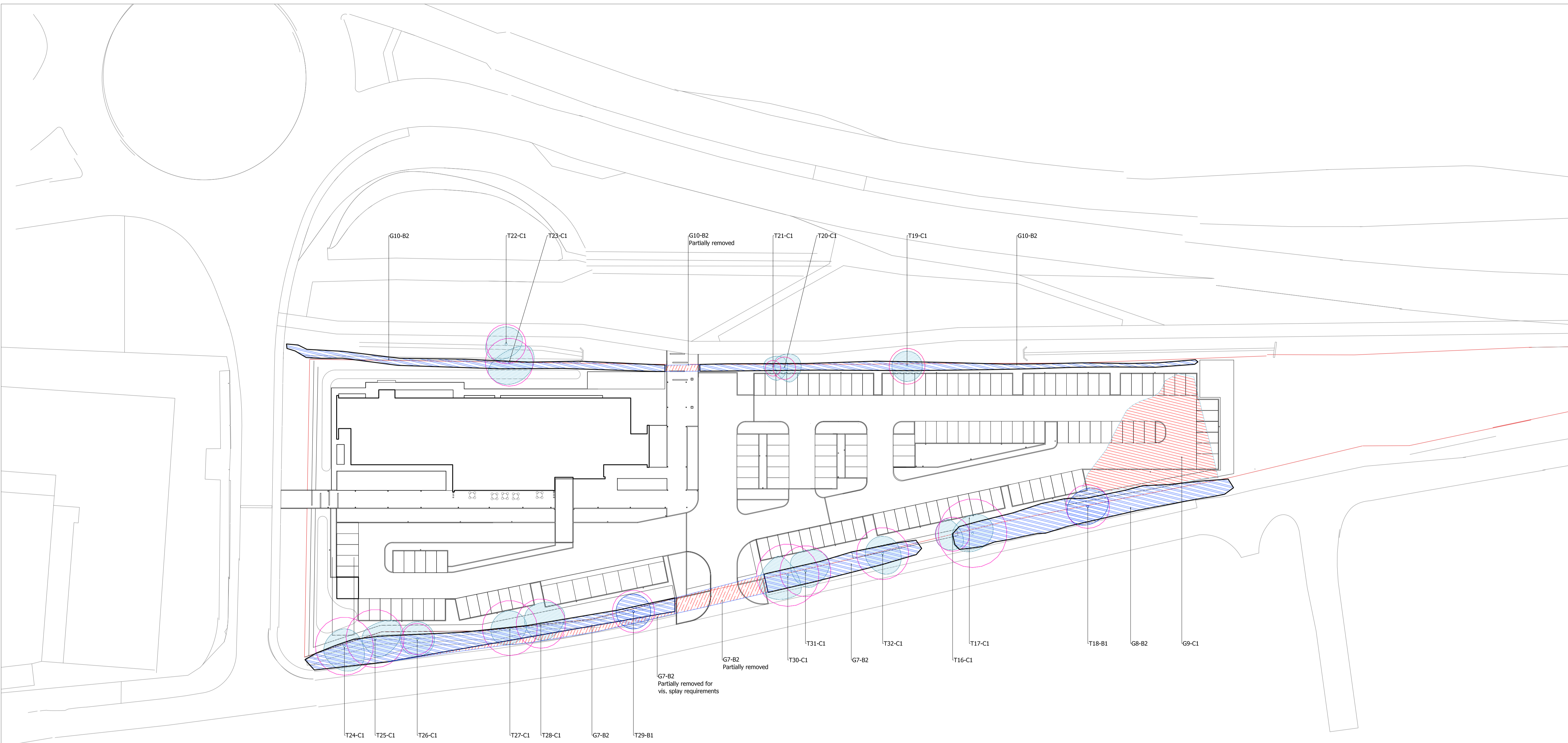
Scale at A3: 1:800	Project No: A103271-1	Drawing No: Figure 3	Revision: B
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Drawn by: Maddie Errington	Drawn date: 01/07/2019	Approved by: Elizabeth Sanders
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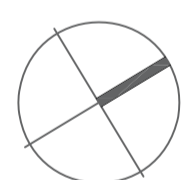
APPENDIX C – Trees to be Removed / Retained



TREES TO BE RETAINED				
Tree No.	Species	Stem Dia. (mm)	Height (m)	Cat
T16	Field Maple Acer Campestre	200-260	15	C1
T17	Ash Fraxinus excelsior	250	18	C1
T18	Ash Fraxinus excelsior	420	20	B1
T19	Ash Fraxinus excelsior	200	16	C1
T20	Ash Fraxinus excelsior	150	16	C1
T21	Ash Fraxinus excelsior	150	14	C1
T22	Sycamore Acer Pseudoplatanus	400	19	C1
T23	Ash Fraxinus excelsior	400	19	C1
T24	Ash Fraxinus excelsior	350	23	C1
T25	Ash Fraxinus excelsior	250	20	C1
T26	Ash Fraxinus excelsior	300	17	C1
T27	Ash Fraxinus excelsior	200	17	C1
T28	Ash Fraxinus excelsior	150	17	C1
T29	Ash Fraxinus excelsior	320	15	B1
T30	Ash Fraxinus excelsior	600	18	C1
T31	Ash Fraxinus excelsior	200	18	C1
T32	Ash Fraxinus excelsior	500	20	C1
G7	Field Maple Dogwood Hawthorn Blackthorn Goat Willow Crab Apple Elder	200	12	B2
G8	Field Maple Dogwood Hawthorn Blackthorn Goat Willow Crab Apple Elder	200	12	B2
G10	Hawthorn	200	12	B2

TREES TO BE REMOVED				
Tree No.	Species	Stem Dia. (mm)	Height (m)	Cat
G9	Blackthorn Field Maple Hawthorn	200	12	C1

- NOTES:
- This drawing is to be read in conjunction with all relevant contract documentation from the design team, with any conflicting information to be brought to the attention of Turkington Martin Landscape Architects in writing before commencing on site.
 - The contractor is to check and verify all levels and dimensions before construction. Any discrepancies are to be brought to the attention of Turkington Martin Landscape Architects in writing before commencing on site.
 - All dimensions in mm, unless otherwise stated.
 - Do not scale from this drawing.
 - All sub base and concrete design and specification to engineer's details. All diagrams provided here are purely indicative.
 - Waterproofing of any element to be specified by others.
 - All proprietary products shall be installed in accordance with manufacturers written instructions.
 - Plant numbers are an indication only and plants should be ordered to suit site areas in accordance with scheduled plant densities.
 - Any proposed plant substitution shall be agreed with the landscape architect prior to ordering.



DATE	DRAWN	DESCRIPTION OF REVISION	REVISION LETTER	CHECKED BY
20180212	CS	Existing hedge retained, car park layout amended	B	TS
20171214	CS	Building layout amended	A	TS

turkington martin
 Studio 3.05 Chester House, Kennington Park
 1-3 Brixton Road, London, SW9 6DE
 T: (+44) 020 3567 1050
 E: studio@turkingtonmartin.com

CLIENT
London & Regional

PROJECT TITLE
Bicester Gateway, Hotel

DRAWING TITLE
Trees to be Removed / Retained

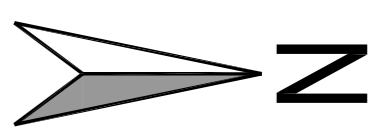
DRAWING STATUS
For Information

DRAWING SCALE:	DRAWN BY:	DRAWN DATE:
1:500	CS	2017.11.20
PAPER SIZE:	CHECKED BY:	CHECKED DATE:
A1	TS	2017.11.20

DRAWING NUMBER : **TM336L02** REVISION : **B**
 Turkington Martin LANDSCAPE ARCHITECTS

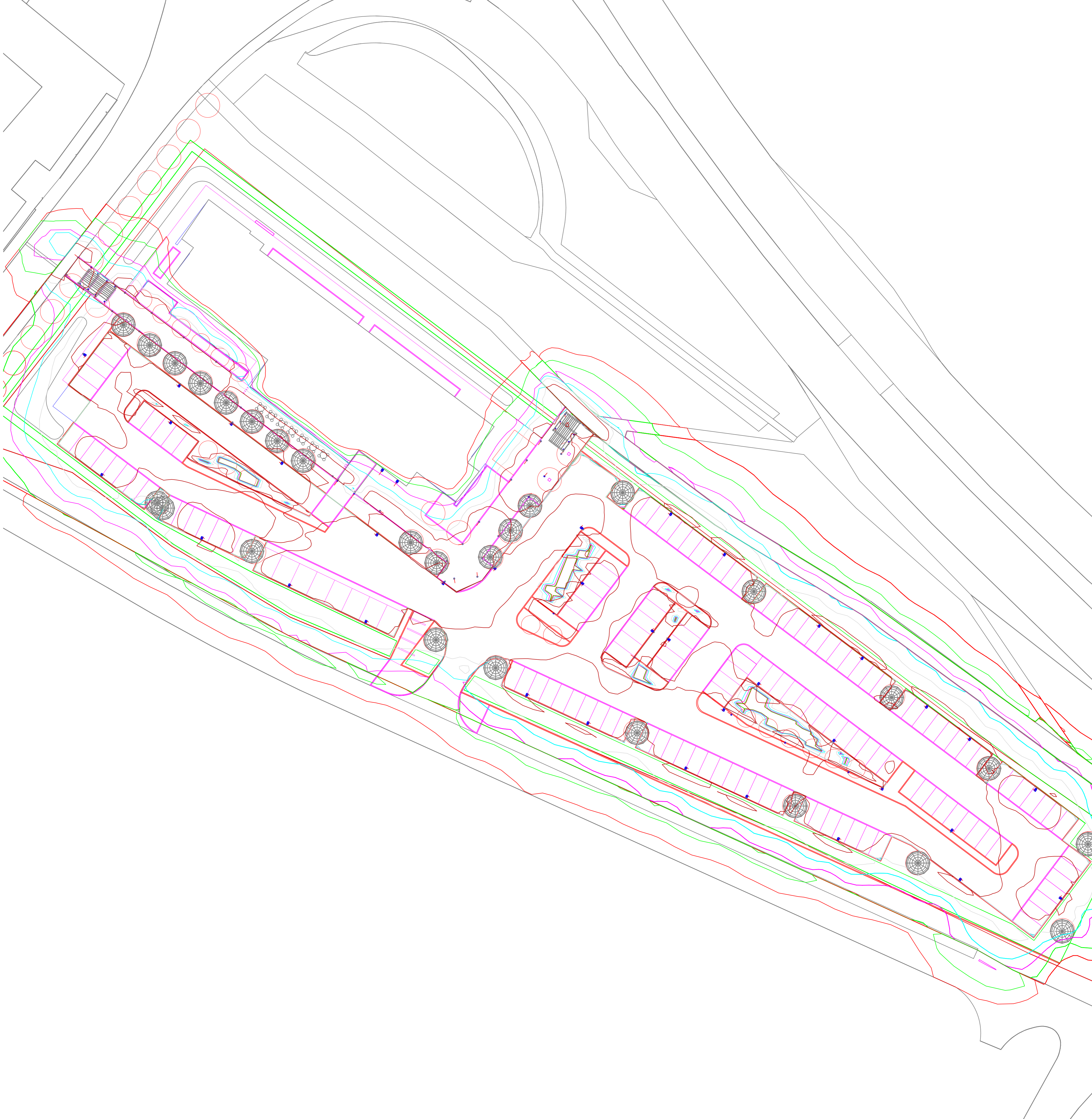


APPENDIX D – Proposed Lighting Layout



- 1 Thom 96231435 CESAR 1 CIRC 1X3L35 100 760 (STD) (257 lm: 3.0 W)
- 2 Thom 96257239 D-CO R LED MAXI 6L50 840 CL (STD) (608 lm: 12.0 W)
- 3 Thom 96263224 CONTRAST 2 LED M 12L105 R/S 24° 840 (STD) (2829 lm: 43.0 W)
- 4 Thom 96264232 THOR B S 10L25 730 RGB ASY CL1 MPL (STD) (739 lm: 11.0 W)
- 5 Thom 96265396 RAL2 S 12L35 EWSC 740 CL1 (STD) (670 lm: 15.0 W)

- Isolines**
- 0.1 k
 - 0.2 k
 - 0.5 k
 - 1.0 k
 - 2.0 k
 - 5.0 k



REV	DESCRIPTION	BY	CHK	APP	DATE

London and Regional

EXECUTIVE PARK
 AVALON WAY
 ANSTEY
 LEICESTER
 LE7 7GR
 TEL: +44 (0)116 234 8000
 FAX: +44 (0)116 234 8001
 e-mail: leicester@wvg.com

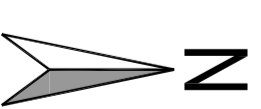


Bicester Gateway

Drawing Title:

PROPOSED LIGHTING LAYOUT

Scale @	A2	Drawn	Date	Checked	Date	Approved	Date
1:500	NA	05.12.17	DC	05.12.17	NM	05.12.17	
Project No.	Office	Type	Drawing No.	Revision			
A103271	35	34	001	2			



- 1 1* DW Windsor Z KIRIUM MINI :- 1LX2-90 114 05 LED MODULE (680 lm)
- 2 13* DW Windsor z KIRIUM MINI 1 :- 1LX2 FOOTPATH (915 lm)

Isolines
The cycle way has been lit to an average of 5 Lux with a minimum of 1 Lux.

- 0.1 lx
- 0.2 lx
- 0.5 lx
- 1.0 lx
- 2.0 lx
- 5.0 lx



REV	DESCRIPTION	BY	CHK	APP	DATE
-----	-------------	----	-----	-----	------

London and Regional

EXECUTIVE PARK
 AVALON WAY
 ANSTAY
 LEICESTER
 LE7 7GR
 TEL: +44 (0)116 234 8000
 FAX: +44 (0)116 234 8001
 e-mail: leicester@wyg.com



Project:

Bicester Gateway (3m Cycleway)

Drawing Title:

PROPOSED LIGHTING LAYOUT (3m Cycle Way)

Scale @	A2	Drawn	Date	Checked	Date	Approved	Date
1:1000	NA	12.12.17	12.12.17	DC	12.12.17	NM	12.12.17
Project No.	Office	Type	Revision	Drawing No.	Revision		
A103271	35	34	1	001	1		