Norbeck E. C. Phase 2 & 3

Landscape & Ecology Management Plan (LEMP)

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APPENDICES

Appendix A: Approved Landscape Proposals and Specification (drawing number 185/PA/01)

Appendix B: Ecological Mitigation Method Statement (Chalkhill Environmental Consultants)

Appendix C: Preliminary Ecological Appraisal Report (Chalkhill Environmental Consultants)

Appendix D: Biodiversity Enhancement Plan and elevations (drawing numbers A104B, A202E and A203E)

Appendix E: Monitoring and Management Schedule

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1 INTRODUCTION

1.1 BACKGROUND

Johns Associates have been commissioned by Norbeck Ltd to prepare a Landscape and Ecology Management Plan (LEMP) to satisfy the requirements of Pre-Commencement Conditions 12 issued by Wiltshire Council in relation to permission 19/12156/FUL granted for development at Norbeck Enterprise Centre, Furnax Lane, Warminster, BA12 8FT, as follows:

Condition 12

'Prior to the commencement of any site clearance or construction works, pursuant to phases 2 and 3, a detailed Landscape and Ecological Management Plan ('LEMP') shall be submitted to the LPA and be approved in writing. The LEMP shall include measures to ensure there is no net loss of native hedgerow, habitat or ecological functionality of hedgerow habitat, through planting and management proposals, with suitable buffering of hedgerows to protect wildlife, including bats.

REASON: To ensure adequate protection and mitigation for protected species through the implementation of detailed mitigation measures and to secure net biodiversity gain in accordance with NPPF.

NOTE: Pursuant to the above condition, upon the submission of a discharge of condition application, the applicant should appreciate that it would necessitate a formal consultation and 8 weeks should be scheduled for the LPA to consult, negotiate and determine any such discharge request as a minimum

Proposals include the construction of 25 no. small business units within 2 no. blocks and an extension to an existing building. Proposed use classes for units: E(g)(i) (25%), B2 (25%), B8 (50%), proposals include: landscaping, forecourts, parking, access road improvements, a new garage, an electrical sub-station and container/s relocation'.

This LEMP also satisfies the requirements of Pre-Commencement Condition 13, as follows:

Condition 13

'Prior to the commencement of development taking place pursuant to phases 2 and 3, details of the provision of biodiversity enhancement measures, such as bat roosting features and nesting opportunities for birds shall be submitted to the local planning authority for its written approval, which should include a plan showing the location(s) and type(s) of the proposed enhancement feature(s). Upon approval, the approved details shall be delivered on site prior to either phase 2 and 3 being first brought into use.

REASON: To provide additional biodiversity opportunities as a biodiversity enhancement, in accordance with paragraph 175 of the National Planning Policy Framework and Section 40 of the Natural Environment and Rural Communities Act 2006.

NOTE: Pursuant to the above condition, upon the submission of a discharge of condition application, the applicant should appreciate that it would necessitate a formal consultation and 8 weeks should be scheduled for the LPA to consult, negotiate and determine any such discharge request as a minimum'.

1.2 SCOPE OF WORKS

This LEMP should be read in association with the approved landscape proposals and specification (drawing No. 185/PA/01, contained in Appendix A), which cover the implementation phase for the first 12 months (planting, seeding and replacement of any failures etc.) for all areas and also the Ecological Mitigation Method Statement (Chalkhill Environmental Consultants) which is contained in Appendix B.

This LEMP describes a scheme of habitat creation/enhancement and subsequent maintenance and management which is required to ensure that the ecological and landscape framework is sustained, such that all benefits to ecological biodiversity and visual amenity are delivered successfully.

The LEMP therefore serves as a handbook for future landscape and ecological management and maintenance following the construction phases and considers the whole of the proposed planning application area.

The LEMP includes the following:

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Description and evaluation of features to be managed, as contained in the Preliminary Ecological Appraisal Report, Chalkhill Environmental Consultants, November 2019 (Appendix C) and the detailed landscape proposals and specification (Appendix A) which sets out the overall landscape and ecological vision for the site:

- Appropriate management actions for achieving the aims and objectives
- Preparation of a work schedule (including an annual work plan capable of being amended for future use)
- Body or organisation(s) responsible for implementation of each element of the plan
- Monitoring and review measures
- Timeframe for reviewing the plan

It provides details of the required maintenance, management, and monitoring of all retained and proposed new planting for all vegetation types/ habitats/ habitat features within the Application Site and adjacent enhancement areas, as outlined below. The management prescriptions shall be implemented in full in accordance with the approved details.

This LEMP covers the period of ongoing monitoring, maintenance and management associated with the construction and operational phases of the proposed development at Unit 1, Norbeck Enterprise Centre, Furnax Road, Warminster to achieve the desired landscape and visual mitigation at the site and the habitat enhancement following the initial 12-month implementation and establishment phases. Any replacement planting to be carried out during the period of this LEMP will follow the soft landscape specification forming part of the proposals unless otherwise agreed.

The LEMP will be reviewed and updated as necessary following ongoing monitoring visits throughout the implementation stages of the proposed development, in consultation with Wiltshire Council.

1.3 REFERENCE DOCUMENTS

This document is to be read in conjunction with the following current drawings and documents:

- Preliminary Ecological Appraisal, Chalkhill Environmental Consultants, 15 November 2019
- Preliminary Ecological Appraisal – Addendum, Chalkhill Environmental Consultants, 25 March 2020
- Ecological Mitigation Method Statement, Chalkhill Environmental Consultants
- Drawing number 185/PA/01 Proposed landscaping plan and specification

NB: The LEMP provides details of the required management and monitoring of all retained and proposed new planting/ vegetation types/ habitats/ habitat features on site following an initial 12-month establishment/ defects period post practical completion.

1.4 SITE ROLES/SUPERVISION

Norbeck Ltd (or their successors) hold the overall responsibility for the adoption and implementation of this LEMP. The management, monitoring and maintenance regimes for the Site, as specified in this document, will be carried out by a suitably experienced landscape contractor appointed by Morbeck Ltd and overseen by a suitably qualified ecologist (SQE), as required: these are collectively referred to as the client representative (CR). Appointments are to be agreed.

Where the appointed landscape contractor may have concerns regarding maintenance of any areas within the site, this must be discussed and agreed with the CR prior to carrying out any works. Norbeck Ltd have overall responsibility for all health and safety matters required for ecological and landscape maintenance operations within the Site. Site specific Risk Assessment and Method Statements (RAMS), evidence of suitable training and qualifications, insurance cover and use of appropriate Personal Protective Equipment (PPE) and other required equipment will need to be provided by all organisations/ individuals implementing the works set out in this LEMP, which will be reviewed and approved by Norbeck Ltd in advance of works being undertaken.

It shall be the landscape contractor's responsibility to request all relevant and up to date details regarding any protected species identified on Site, and to ensure that all operatives are fully trained and aware of their obligations regarding legally

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protected species. Extreme care must therefore be taken to ensure that no maintenance/ management works are carried out on Site that will adversely affect protected species without prior discussions with the SQE/CR.

Where the contractor identifies the presence of species thought to be of importance and previously unidentified on Site, they shall immediately stop work and contact the SQE/CR.

Ecological condition assessments of new habitat areas will be conducted yearly post implementation for the first 3 years and a monitoring report for the Site will be submitted to Wiltshire Council with actions for the next 12-month period. The report will include representative photographs and plans of habitat areas to demonstrate compliance with the LEMP.

Following this, monitoring will be undertaken at 5-year intervals for a period of 15 years post-construction, with reports to be issued following each monitoring visit. These reports will identify all actions taken and will identify where deviations have been made and why.

1.4.1 Deviation from Approved Drawings

Where any deviation from the specification/ drawings occurs, consultation will first be made with Wiltshire Council. It is the landscape contractor's responsibility to request all relevant details prior to carrying out any maintenance operations to these areas.

1.5 DOCUMENT REVIEW

To ensure that the plan continues to remain appropriate, applicable, and effective, a review will be undertaken every 5 years by both the CR and the Wiltshire Council, to ensure that all information contained within the document remains relevant.

Monitoring of all semi-natural habitats will be undertaken annually, and a report will be prepared by the CR which will summarise the results of the monitoring and which will be submitted to the landowner/ operator and Wiltshire Council.

Should it be determined that the conservation aims of the management plan are not being met, remedial action will then be identified, agreed, and implemented so that the development still delivers the landscape and visual mitigation and fully functioning biodiversity objectives of the originally approved scheme. This review will be undertaken once every 5 years.

1.6 CONTROLLING AUTHORITY

The controlling authority is Wiltshire Council, who will be consulted on any matters relating to the approved proposals for the scheme.

1.7 HEALTH AND SAFETY

The CR will ensure that the Site is managed to comply with all relevant health and safety legislation, approved codes of practice (ACOP's) and Health and Safety Executive (HSE) guidance.

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2 ECOLOGICAL CONSTRAINTS

This Management Plan sets out a range of suitable measures that will need to be implemented to safeguard both protected species and their associated habitats within the site boundary and immediately adjacent areas (where applicable). The ongoing management of the Site will therefore take account of these ecological receptors.

2.1 HABITATS

Centered at Grid Reference ST 8675 4634, the application site is a former infill site approximately 1.42 hectares in size, now levelled and capped off and partially developed. It is located approximately 1km to the northwest of the centre of Warminster, and is accessed off Furnax Lane to the southwest, which connects with Bath Road (B3414). There are no major designations or constraints applicable to the site.

The site is set in an elevated position, in rural surroundings at the northern edge of Warminster Business Park. The west and south of the site is surfaced with hard landscaping. The north and west site boundaries are demarcated by vegetation in the form of trees and hedges. To the south of the site is F & S Gibbs Transport Services Ltd, a road freight transport business. Polar Thermal Packaging is located to the south-west, a producer and distributor of temperature-controlled packaging systems. Adjacent to this is Van Kappel, an engine repair garage, along with Con-tempo Furniture, a furniture maker. A train line is located to the east of the site and agricultural land appears to be located to the west and north. A Public Right of Way footpath (WARM 15) runs outside of the western site boundary.

A Phase 1 Habitat Survey was conducted by Chalkhill Environmental Consultants on 15 November 2019, which identified a total of 4 main habitat types, including: buildings, bare ground (hard standing and bare earth), tall ruderal vegetation, and improved grassland. Piles of rubble, stone and construction materials were also noted, which could provide habitat for common reptile species. Areas of scrub were identified immediately adjacent to the site boundaries.

2.2 PROTECTED SPECIES

Semi-natural habitats and habitat features present within the site boundary and in immediately adjacent areas have the potential to support legally protected and/or notable species including nesting birds, foraging/ commuting bats and common reptiles. Plans contained in Appendix D show the proposed locations of new habitat features to be provided (bat boxes and bird nesting features). These are to be installed under the supervision of the SQE to ensure correct placement.

2.2.1 Nesting Birds

Areas of scrub provide suitable nesting habitat for a range of common urban bird species. Vegetation clearance within these areas is anticipated to be minimal, however, should any works be unexpectedly required within other areas of suitable nesting habitat, further advice will be sought from the SQE. Vegetation clearance should be undertaken outside of the bird breeding season (typically March – August inclusive).

If works are necessary during the breeding season, potential bird nesting habitat will be assessed by a SQE and the appropriate level of avoidance applied prior to any works to avoid disturbance of nesting birds which may be present.

Prior to any vegetation clearance works the SQE will inspect the area within 24 hours of clearance commencing for evidence of nesting birds. Should nesting birds be present, a suitable disturbance buffer will be implemented around the nest and no disturbing works will be conducted until the young have fledged the nest and the nest is confirmed by the SQE to be inactive (up to 8 weeks).

Mitigation for the loss of nesting bird habitat includes the provision of additional hedgerow and scrub habitat during the construction phase, and the installation of bird boxes/ cups particularly those designed for swifts/ house martins.

It is an offence under UK legislation to willfully destroy or damage the nest of a wild bird while it is being built or is in use in any location.

2.2.2 Bats

Linear habitats within/ adjacent to the site boundary are considered to have a moderate suitability for foraging and commuting bats, particularly the hedgerows, scrub and along the railway line. These habitats will be protected and retained throughout the development.

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Boundary habitats should not be subject to an increase in lighting levels (<0.5 lux) during the construction phase. There will be no construction lighting used between dusk and dawn, to minimise impacts on nocturnal species i.e. bats and badgers (if present).

All native bat species receive full protection under UK and European legislation including the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Species and Habitats (Amendment) (EU Exit) Regulations 2019. It is an offence to willfully or recklessly disturb or harm individual bats or to destroy, damage or obstruct access to a place of shelter used by bats, even if bats are absent.

2.2.3 Reptiles

Areas of scrub, tall ruderal vegetation and piles of stone, construction materials and rubble recorded during the initial site survey conducted in 2019 all provide suitable habitat for a range of common reptile species, including slow worm *Anguis fragilis*, common lizard *Zootoca vivipara* and grass snake *Natrix natrix*.

A precautionary method statement has been produced by Johns Associates 2023 for all contractors on site to follow during pre-commencement works and the construction phase of the development after an initial toolbox talk to be delivered by a SQE. This is included as Appendix B of the Construction Environmental Management Plan (CEMP) produced for the site by Johns Associates (May 2023).

An Ecological Clerk of Works (ECoW) will supervise/ undertake the destructive search of potential refugia, (comprising the piles of rubble, construction materials and stone), and will supervise vegetation clearance works required to facilitate the construction phase or in the event that a reptile species is encountered.

All native UK reptile species are protected by UK legislation including the Wildlife and Countryside Act 1981 (as amended) and the CRoW Act 2000, against intentional or reckless harm.

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3 MANAGEMENT OBJECTIVES AND PRESCRIPTIONS (YEARS 1-5)

This Landscape and Ecology Management Plan aims to manage both existing habitat/ vegetation types to be retained and enhanced and newly created habitats within the Site (described below) in order to allow them to develop and thrive whilst introducing the additional landscape and ecological enhancement elements associated with the proposals.

Management objectives for the landscape and habitats within the site are:

- To preserve and enhance existing landscape and ecological value.
- To create and maintain new habitats within the Site to enhance biodiversity.
- To manage vegetation types and habitats to increase their biodiversity value where compatible with the above and the development proposals.

3.1 GENERAL REQUIREMENTS

3.1.1 Responsibilities

The plan will be implemented by Norbeck Ltd (CR) and will be responsible for its delivery including coordination of inputs as prescribed/necessary including the appointed landscape contractor, and ecologist etc.

Maintenance and management operations are to be undertaken in such a way as to allow healthy plants to develop, and habitats to establish unhindered by weed growth or other inhibiting factors to deliver the landscape and ecological objectives for the Site.

3.1.2 Timescale

The following operations are those required for the first 5 years following creation/ enhancement works. The management prescriptions are summarised in the Monitoring and Management Schedule (Appendix E) and described in the text below. The management prescriptions below reflect both the retained vegetation and the proposed landscape treatments as part of the proposed development. The scope of the LEMP (management objectives and prescriptions) are to be reviewed annually to ensure that the overall vision for the Site as set out above is being delivered.

3.1.3 Management

Management of the habitat areas shall be undertaken by an experienced landscape maintenance contractor. Maintenance visits shall be undertaken, at a minimum, once monthly throughout the year or as otherwise agreed/required. Visits may need to be increased at certain times of the year to enable the operations set out in the management plan to be properly executed.

The appointed landscape contractor shall programme and vary their agreed time of visits to coincide with appropriate weather conditions for carrying out operations, with regard for the use of chemicals and the mowing of grassland areas, as required.

3.2 BIOSECURITY & LOCAL PROVENANCE

In the interest of Biosecurity, replacement trees will not be imported directly from European suppliers and planted straight into the field, unless they have appropriate certification that they are 100% disease free and have come from an area with no known horticultural diseases. If disease free certification is not possible, the trees shall have spent a full growing season in quarantine, in a British nursery to ensure plant health and non-infection by foreign pests and diseases. This is a measure to address the threat of the introduction of pests and diseases from outside the UK. For current advice refer to DEFRA website: https://www.gov.uk/government/collections/importing-and-exporting-plants-and-plant-products.

The landscape contractor must demonstrate local provenance sourcing of all native trees and shrubs where possible and appropriate to follow best practice to sustain regional biodiversity.

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3.3 GENERAL (ALL AREAS)

3.3.1 Establishment Period (Post Practical Completion and 12 Months Defects Period)

The general intent of landscape management and maintenance of the Site is to ensure that the new planting and seeding works achieve successful establishment during this critical phase.

Maintenance and management operations are to be undertaken in such a way as to allow healthy plants to develop, unhindered by weed growth or other inhibiting factors.

The landscape contractor shall make themselves aware of all ecological constraints, drainage infrastructure and services prior to commencing maintenance operations.

3.3.2 Landscape Maintenance/Management Schedules

All landscape maintenance/management work is to be undertaken by an experienced/suitably qualified landscape contractor appointed by the CR.

Maintenance visits will typically be undertaken once monthly between October and March and twice monthly between April and September. A guide minimum number of 12 visits per year shall be undertaken.

The primary maintenance operations will include:

- Watering trees, shrubs, plants, grass and wildflower areas as necessary to ensure vigorous and successful establishment during the early years after planting/sowing.
- General pruning and trimming to ensure footways, signs etc. are not obscured and to ensure plants develop appropriately according to their species.
- Checking and adjusting all shelter guards/tree stakes and ties at every maintenance visit during the first five years after planting. Remove when trees have established and are no longer required.
- Removal of litter.
- Replacing plants that fail where required in the following planting season with the approved species. All planting will be inspected annually in late Summer. Any dead, dying or diseased plants shall be removed and replanted according to the approved plan in the following planting season (November-March).
- Grass cutting and collection of arisings (see Grassland notes below).

3.3.3 Pesticides, Herbicides & Fertiliser

NB: No pesticides, herbicides, or fertilisers to be used in the ongoing management and maintenance of the Site unless otherwise approved by the CR.

Where the use of pesticide/herbicide is deemed necessary for the removal of injurious or invasive species they are only to be used with prior agreement of the SQE/CR. Any pesticides/herbicides to be applied by appropriately certified contractors.

Detailed records of any such applications must be kept in accordance with relevant legislation. These records shall be available for viewing during normal working/office hours by any person wishing to see them.

3.3.4 Weed Control

Weed control is to be kept to a minimum, and be restricted to hard standing areas, and those areas immediately adjacent to them unless otherwise specified. In all other areas, weed control is to be restricted to the control of injurious and invasive species and highly competitive weeds, unless otherwise instructed. When weeding, ensure that the methods used cause the minimum of damage to adjacent plants/vegetation, including trees and grass, as well as to animal species. Preferred method of removal of all encroaching scattered scrub/weeds is by mechanical methods or hand pulling weeds as required.

<u>Hand Weeding</u>

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Remove all weeds, including roots, by hand using hoes, trowels or forks, taking care to remove not more than a minimum quantity of soil, causing minimum disturbance to neighbouring plants and leaving the area in a neat, raked, clean condition.

Weed Cutting by Hand or Machine

Cut down completely and cleanly all undesirable grass, brambles, herbaceous growth, etc. to a maximum height of 75mm. Tall herb and tussocky grass will be subject to a phased cut as a precautionary method to avoid injury to protected species such as reptiles.

- First cut the grass to a height of 15cm. Cut vegetation will be raked or blown from the works area into a small number of piles outside of the working area working from the centre to the edge. Arisings should then be removed from areas that will be affected by construction
- The area will then be left to settle for at least 24 hours to allow reptiles to move from this works area
- The area will then be inspected by a suitably qualified ecologist to confirm no reptiles remain
- A subsequent cut to 5cm and then to ground level (within the working area) with arisings being removed from areas that will be affected by construction. Vegetation maintained with a short sward height until construction works commence
- The vegetation will be maintained in an unsuitable condition by strimming for the duration of the works, not being allowed to grow more than 5cm tall, and inspected weekly during the growing season by the construction manager and periodic inspection from the project ecologist

Weeding Around Tree and Plant Stems

Do not allow nylon filament rotary cutters or other mechanical tools closer than 100 mm to the stem of any tree or shrub to be retained. Complete operations close to stems using hand tools.

Herbicide Application

To be carried out only as last resort. Application rate as per manufacturer's instructions. Remove arisings before applying.

Application of General Systemic Weedkiller (only where required for invasive weed species and following approval of the SQE/CR).

Spray or spot-treat individual plants or whole colonies in April/May. Spot-treat new plants as they appear and re-treat in August/September as necessary. Application to be carried out as per manufacturers' recommendations. Apply herbicide in calm weather conditions and at the appropriate time of the year.

NB: General systemic weed killers will kill/ damage all plant matter that it touches. Care must be taken to cover any adjacent plant material with polythene or similar to protect it from spray drift.

3.3.5 Vegetation Clearance (if required)

Any vegetation clearance will avoid the bird nesting season (March-August, inclusive), otherwise pre-works checks will be undertaken by a SQE.

Groundworks during the winter hibernation period (mid to late October to March) will be avoided to prevent harm to reptiles, and other legally protected and/or notable species that may be present.

3.3.6 Snow Removal

Remove snow from boughs of trees, etc. when necessary or when instructed by the SQE/CR.

3.3.7 Autumn Clearance

Collect excess accumulations of drifted leaves from planting and hard surfaces. Removal of leaves to be by the most efficient means. Care to be taken around existing planting. Arisings to be removed from Site, unless distributed evenly as a mulch over planting beds, following discussions with the SQE/CR.

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3.3.8 Arisings

Unless otherwise specified, deal with arisings from operations as follows:

Biodegradable arisings

Remove to designated compost area on Site where available, otherwise remove to designated recycling facility.

Grass cuttings and brash - where grass cuttings are to be boxed, remove them to designated compost area on Site where available otherwise remove to designated recycling facility. Where agreed, create piles from grass cuttings to create reptile/ hedgehog habitat.

Leaf fall, branches and prunings

To be chipped and reused on Site and/or removed to designated recycling area. Where appropriate create piles from leaf litter/small prunings in suitable areas for wildlife.

Litter and non-biodegradable arisings

Remove from Site to designated recycling/refuse facilities.

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4 HABITAT MANAGEMENT PRESCRIPTIONS

4.1 GRASSLAND AREAS

4.1.1 Management Prescriptions

Any flushes of annual weeds will be controlled by mechanical topping.

Overseed if required with local seed-mix or similar approved in spring (February-March). The sowing rate is subject to agreement with the SQE.

Seed dispersal to be by hand/pedestrian broadcaster.

Except where otherwise indicated on the drawings, most of the wildflower grassland areas will be managed as a summer-flowering grassland and typically mown twice annually, once in the early season (spring) and again once the seed has set in late summer (hay cut). These areas will be cut to c.50mm in the summer cut and dried on Site, turning it to assist drying and dispersing seeds. A further cut in late autumn may be required.

Remove/hand pull non-native scrub and noxious weeds where necessary.

Do not apply herbicide other than to spot treat problem weed species if required. Do not apply fertiliser.

Remove all arisings from Site or deposit in specified location to compost for reptile/invertebrate habitat.

4.1.2 Grassland reinstatement/over-seeding

Where reinstatement is necessary, allow local grass species to colonise naturally, chain harrow or similar wildflower area during August/ September, in order to create new spaces for the wildflowers to establish.

Alternatively, a suitable grass mix (using locally sourced native seed closely matching the specified seed mix or similar approved at 4g/m^2 or as per manufacturer's instructions) should be sown in autumn. This should not require management until early spring (February) when tall vegetation may be cut to 50mm if required. All cut material to be removed to prevent young plants being smothered. Extreme care to be taken when cutting in spring to ensure no damage to reptiles or their habitat takes place. All arisings to be removed.

Any spring-sown meadow will be cut when the vegetation exceeds 200mm.

To allow for the successful establishment of wildflower species within the 2m strip outside of the site perimeter fence (but within Norbeck Ltd land ownership), removal of grass cuttings/arisings will prevent the build-up of plant litter and help to reduce soil fertility levels and therefore the competition from dominant grass species.

All arisings to be removed to a designated composting area on Site or to an off-Site recycling centre. Care to be taken when removing arisings, so as not to disturb fauna or their habitats.

4.1.3 Weed Control

Spot treat grass areas with an appropriate non-residual herbicide to remove thistle, docks & other undesirable weeds. Apply herbicide in calm weather conditions and at the appropriate time of the year.

4.2 NATIVE SCREEN HEDGE

4.2.1 Management Objectives

These areas are to be allowed to develop into a dense hedgerow with a good structure to provide a screen. New hedgerow to be managed to allow hedgerows to develop informally to a height of c.1.2m in the interests of visual mitigation and ecological enhancement.

4.2.2 Management Actions

<u>General</u>

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Retain and protect existing hedgerows and create a new native hedgerow according to drawing number 185/PA/01 to deliver biodiversity objectives.

All existing and newly planted hedgerows are to be allowed to develop to 1.2m height in the interests of visual mitigation and ecological enhancement and will achieve this height within a 10-year timeframe based on the species present.

Weed Control

Individual planting stations (c.600mm dia) or hedge lines to be kept weed-free for at least the first 3 years or until the canopy closes. Selective weed control to be undertaken beyond this period as required.

The development of a herbaceous layer other than pernicious weeds and/or weed species such ragwort, dock and thistles will be encouraged in the interests of biodiversity.

Litter Pick and Scavenge

As required throughout the year.

Cutting/Pruning

Regular inspection of hedgerows (every year) for risk management. Prune/trim as required with consideration for birds.

These points are to be observed when undertaking any work to hedgerows on Site:

- Any thinning/pruning works will take place outside the bird nesting season (March – Early September) and are best planned during the winter months.
- Any standard trees within the hedgerow will not be cut.
- The hedgerow planting areas will be allowed to naturally develop to a height of between 3-5m high. Intervention during the first 5 years will be limited to targeted thinning/formative pruning. No box cutting to front edges. This will allow the shape and habit of the hedge species to develop.
- However, some localised lateral cutting may be required to prevent encroachment onto adjoining areas in the interim.
- Keep hedges thick by cutting them, but only once every three years and no more than one third of hedges on the Site in any one year, safety and access considerations excepting. Leave some hedges uncut for longer to produce good flower and fruit crops. This management is for the benefit of a range of species including birds, badgers, and invertebrates.
- Cut and/or lay hedges in the winter (November – February).
- Management to be phased over time to maintain/create a varied age structure where possible.
- Suckers are to be removed by cutting back to their source on the affected plant.
- Pruning/trimming is to be carried out to the highest horticultural standards using secateurs, approved mechanical hedge cutters and hand saws. Pruning/trimming will be undertaken so as to achieve a natural habitat.
- Identify any opportunities for creating additional deadwood/log pile habitats or retaining standing deadwood if possible. Deadwood could be retained in undisturbed areas to create additional hibernacula to enhance refugia for small mammals, reptiles and amphibians.
- An annual assessment of the need for selective/formative pruning to remove any dead branches will be made at the end of each growing season with work carried out in the following winter or spring depending on species and undertaken to promote healthy new growth. Inspections and assessment are to be carried out by a suitably qualified arborist.
- Dead foliage and branches are to be removed by cutting back to an outward facing bud.

Thinning Works (to BS 3998 – 2010)

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The need for selectively thinning the native hedgerows in addition to the above items will be reviewed at the end of Year 3 and at the end of Year 5.

Any selected trees and shrubs identified for removal will be cut down to c.300mm from the ground & bark/cambium scarred over 50% of surface with chain saw. Stumps to be treated with an appropriate brushwood killer.

Thinning, trimming, and shaping will be conducted according to species, variety, season, state of growth and visual effect.

Arisings

To be distributed evenly as a mulch following prior discussions with SQE/CR. Care to be taken to check for hedgehogs/ reptiles/amphibians etc. before leaf removal.

Risk Management

Inspections and assessment are to be carried out by a suitably qualified arborist appointed by CR. All works to be undertaken by suitably qualified operatives who are appropriately trained and hold the relevant certificates of competence for the operations they carry out.

Remedial works

The CR will prioritise works arising from the tree inspection and recommendations of the tree survey. Specialist tree work will be carried out by an approved tree surgeon/contractor.

4.3 TREES

4.3.1 Management Objectives

New tree planting to be managed to achieve important visual screening function and provide ecological enhancement.

4.3.2 Management Prescriptions

General

Newly planted trees on Site are to be maintained in a healthy and weed-free condition. Where required, any dead or dying trees shall be replaced during the winter planting season (November to March). Plants loosened by frost heave or wind rock shall be re-firmed and all shelter guards / stakes are to be checked and reset / secured as required.

Establishment of new/replacement tree planting – where applicable:

- Replace defective planting at the earliest opportunity, with any defective planting replaced at the end of the first year (or before). Replacement trees should be of the same size as the specimen lost, whips to be replaced by whips or more mature specimens and heavy standards to be replaced by heavy standards.
- Fertiliser applications (if required) to planting pits to be approved by SQLA/CR prior to application.
- Planting time and fertiliser application to be approved by SQLA/CR.
- Carry out planting as per the Landscape Planting Specification.

During the initial establishment of newly planted trees, carry out maintenance of the planted areas as follows:

Watering

During the first twelve months of any replacement planting, ensure trees are well watered and well firmed in, if subject to heave or wind rock.

Weed removal

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Maintain a 600mm weed-free area around the base of each tree by hand weeding and light hoeing until plants have fully established. Fork over as necessary to keep soil loose, with gentle cambers and no hollows.

Removal of aggressive weed species that have invaded and are suppressing intended species.

The development of an herbaceous layer other than pernicious weeds and/or non-native weed species such as common nettle, ragwort, docks and thistles will be permitted in the interests of biodiversity.

Tree removal (where necessary)

Assessment of suitability for bats and presence of nesting birds (March to August) prior to tree works being conducted. SQE to be contacted for further advice if suitability or presence is identified.

Check for below and above ground services in the vicinity and inform SQLA/CR if they may be affected and obtain instructions before proceeding.

Comply with BS 3998:2010 and Forestry and Arboriculture Training and Safety Council Safety Guides.

Cut down and grub up roots of smaller trees only as instructed by the SQE/CR and potentially under supervision.

Clearly mark trees to be removed; fell/remove trees only as instructed by SQLA/CR.

Tree stumps: retain *in situ* in hedgerow areas where possible. Where removal is required remove stump by hand digging to a minimum depth of 300mm below ground.

Avoid damage to adjacent vegetation or structures to be retained.

Take down trees carefully in small sections where tree canopies overlap and in confined spaces generally.

Where necessary, obtain the SQLA/CR's approval before removing stumps by winching and do not use other trees as supports or anchors.

Fill holes and grade to marry in with surrounding ground level, using as-dug material and/or imported soil to match existing as required.

Leave surrounding area following removal clean and free from soil and debris.

Annual monitoring

Before starting work verify with SQLA/CR which trees are to be pruned or removed.

Trees to be inspected annually from March – September, approximately May-time.

When carrying out all tree works avoid damage to neighbouring trees, plants, and property.

Carry out all tree works in accordance with good horticultural practice and comply with BS 3998 (2010), unless otherwise specified or instructed by the SQLA/CR.

Comply with Arboriculture and Forestry Advisory Group Health and Safety Guides.

Cut vertical branches with no more slope on the cut surface than is necessary to shed rainwater.

Leave trees with a well-balanced natural appearance.

Work involving chainsaws must be carried out by holders of a Certificate of Competence.

Tree work must be carried out by a member of the Arboricultural Association, or a specialist approved by the SQLA/CR.

Trees to be monitored annually by a member of the Arboricultural Association or a specialist approved by the SQLA/CR.

Where agreed with SQLA/CR and SQE, all deadwood and prunings from trees within woodland areas to be stacked as wood piles as wildlife habitat.

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Cleaning out and dead wooding

Remove dead, dying, or diseased wood, broken branches, and stubs.

Remove fungal growths and fruiting bodies.

Remove rubbish, wind-blown or accumulated in branch forks etc.

Remove unwanted climbing plants as instructed.

Formative pruning of new/young trees

Do not prune whips or feathered trees, unless otherwise specified.

Do not prune during the late winter/early spring sap flow period, unless otherwise specified.

Extensive pruning of young trees and any surgery to larger trees must be carried out by a member of the Arboricultural Association or a specialist approved by the SQLA/CR.

Crown thinning / lifting etc.

Only to be carried out with prior approval of the SQLA/CR.

Remove inward growing, crossing, rubbing, dead and damaged branches.

Where possible, remove only branches mentioned above. Leaf area removed will not exceed 30%.

Cut portions of branches back to lateral or sub-lateral buds or branches without leaving stumps.

Leave a uniform and well-balanced structure of branches and foliage.

Where necessary, remove any excess growth or overhang. Seek approval of SQLA/CR prior to operations commencing.

Wounds/bark damage

Comply with the recommendations of BS 3998 (2010).

Do attempt to stop sap bleeding from wounds.

Inform SQLA/CR if liquid or flux is observed oozing from apparently healthy bark.

Gently remove ragged edges and remove splintered wood from deep wounds but keep wounds as small as possible.

Prevention of disease transmission

Comply with the recommendations of BS 3998:2010.

Cavities in trees

Any cavities discovered within existing trees will require inspection by a SQE/CR prior to any works, for the potential to accommodate roosting bats. This will include potential roosting features such as lifted bark, holes, cracks and splits in the branches and trucks. Following this, and where approved by the ecologist, clear away rubbish, and rotten wood.

Probe the cavity to find the extent of any decay, report to the SQE/CR and await instructions. Unless instructed, do not drain water-filled cavities, or remove wood from inside cavities.

Additional work

If defective, diseased, unsafe, or weak parts of trees are discovered other than those scheduled for attention, inform the SQLA/CR and await instructions.

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Arisings

To be distributed evenly as a mulch following prior discussions with SQLA/CR. Care to be taken to check for hedgehogs/reptiles/amphibians etc. before leaf removal.

Tree shelters, stakes, and ties (where present)

Inspect monthly or as scheduled, and carry out the following:

- Check trees with stakes for looseness, breaks and decay and replace as necessary to original specification. If a tree with a defective stake has grown sufficiently to become self-supporting, inform SQLA/CR and, if instructed, remove stake(s) and fill the hole(s) with lightly compacted soil.
- Adjust, re-fix or replace loose or defective ties as necessary, allowing for growth and to prevent chafing. Where chafing has occurred, reposition, or replace ties to prevent further chafing.
- Where stakes are longer than half the height of the clear stem of the tree, cut the stake to this height in spring and re-tie to tree firmly but not tightly with a single tie.
- Remove redundant tapes, tags, ties, labels and other encumbrances.
- Remove stakes and ties during spring where trees have become self-supporting.

Re-firming

Ensure that trees remain firmly bedded after strong winds, frost heave and other disturbances. Re-firm by treading around the base. 'Collars' at the base of tree stems created by tree movement to be broken up by fork, avoiding damage to roots, backfilled with topsoil as necessary, and re-firmed.

Risk Management

Inspections and assessment are to be carried out by a suitably qualified arborist appointed by CR. All works to be undertaken by suitably qualified operatives who are appropriately trained and hold the relevant certificates of competence for the operations they carry out.

Remedial works

The CR will prioritise works arising from the tree inspection and recommendations of the tree survey. Specialist tree work will be carried out by an approved tree surgeon/contractor.

4.4 SHRUBS

4.4.1 Management Objectives

The management objectives are to maintain an attractive and species rich shrub habitat within the site that will provide suitable habitat for a range of species.

4.4.2 Management Prescriptions

General

Newly planted shrubs on Site are to be maintained in a healthy and weed-free condition. Where required, any dead or dying plants shall be replaced during the winter planting season (November to March). Plants loosened by frost heave or wind rock shall be re-firmed and all shelter guards / stakes are to be checked and reset / secured as required.

Establishment of new/replacement shrub planting – where applicable:

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- Replace defective planting at the earliest opportunity, with any defective planting replaced at the end of the first year (or before).
- Fertiliser applications (if required) to planting pits to be approved by SQLA/CR prior to application.
- Planting time and fertiliser application to be approved by SQLA/CR.
- Carry out planting as per the Landscape Planting Specification.
- During the initial establishment of newly planted trees, carry out maintenance of the planted areas as follows:

Watering

During the first twelve months of any replacement planting, ensure shrubs are well watered and well firmed in.

Weed removal

Any grasses or injurious weeds should be removed that will hinder the growth of the new shrubs.

Formative pruning

Do not prune unless otherwise specified.

Do not prune during the late winter/early spring sap flow period, unless otherwise specified.

Pruning of shrubs to be approved by the SQLA/CR.

Shelters, stakes, and ties (where present)

Inspect monthly or as scheduled, and carry out the following:

- Check planting with stakes for looseness, breaks and decay and replace as necessary to original specification. If any plants with a defective stake have grown sufficiently to become self-supporting, inform SQLA/CR and, if instructed, remove stake(s) and fill the hole(s) with lightly compacted soil.
- Adjust, re-fix or replace loose or defective ties as necessary, allowing for growth and to prevent chafing. Where chafing has occurred, reposition, or replace ties to prevent further chafing.
- Where stakes are longer than half the height of the clear stem of the tree, cut the stake to this height in spring and re-tie to tree firmly but not tightly with a single tie.
- Remove redundant tapes, tags, ties, labels, and other encumbrances.
- Remove stakes and ties during spring where trees have become self-supporting.

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5 LONGER TERM MANAGEMENT (YEARS 6-15)

5.1 GENERAL REQUIREMENTS

The following section sets out broad management and maintenance tasks for the long-term care and protection of ecological and landscape features on-Site. Given the dynamic nature of habitats and their ability to change over time, it is both inappropriate and impractical to set out a fixed and prescriptive set of management tasks to be implemented 'regardless of progress.' A key element of the plan is flexibility.

It is therefore considered that this plan should be reviewed after five years with any necessary changes to management documented within an updated LEMP. However, the recommendations for management discussed below will be broadly adopted during the management regime of years six to fifteen and included within an updated LEMP as required.

5.1.1 Habitat-Specific Management Measures

Trees and Hedgerows

To ensure the long-term viability of all retained trees on-Site, and all newly planted trees and hedgerow planting, regular inspections will be undertaken, with all recommended tree surgery works implemented in full within three months of the inspection. From year five after planting, or once plants are established, all tree stakes, ties, supports and shelters can be removed and disposed of (recycled/composted) off-Site.

Hedgerows will be managed to create, bushy structures and a minimum 1.2m height.

Hedgerows are to be managed on rotation with no more than one third, or one side, of a hedgerow cut in any one year.

Cutting should ideally be undertaken in January or February, but certainly between September to February inclusive to avoid the main bird breeding season.

Pruning:

An annual assessment of the need for selective/formative pruning to remove any dead branches should be made at the end of each growing season with work carried out in the following winter or spring depending on species and undertaken to promote healthy new growth. Inspections and assessment are to be carried out by a suitably qualified arborist.

Pruning/trimming is to be carried out to the highest horticultural standards using secateurs, approved mechanical hedge cutters and hand saws. Pruning/trimming will be undertaken so as to achieve a natural habitat.

Dead foliage and branches are to be removed by cutting back to an outward facing bud.

Suckers are to be removed by cutting back to their source on the affected plant.

Thinning Works (to BS 3998 – 2010):

The need for selectively thinning the native hedgerows in addition to the above items will be reviewed at the end of Year 10.

Any selected trees and shrubs identified for removal will be cut down to c.300mm from the ground & bark/cambium scarred over 50% of surface with chain saw. Stumps to be treated with an appropriate brushwood killer.

Thinning, trimming and shaping will be conducted according to species, variety, season, state of growth and visual effect.

Scrub/ Wildflower Area

An annual assessment of any required management actions within this area will be undertaken by a SQE and communicated to the CR. Intervention within this area is to be minimal to maximise its value to wildlife but may involve scrub removal and/or the control of invasive species.

Shrubs

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Ornamental and native shrub planting will be subject to an annual assessment by a SQE and any required management actions communicated to the CR.

Grassland

Areas of grassland will be managed by mowing within the amenity area.

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6 MONITORING & REVIEW

6.1 SCHEDULE OF MONITORING

The responsibility of the undertakings set out within this LEMP rests with Norbeck Ltd, as CR.

Detailed timings for the delivery of management prescriptions in the long term (years six onwards) have not been provided as this information is required to be informed by a five-year review of the management plan. Broad management recommendations as given in Appendix E will be incorporated into long term timings for the delivery of the Site's long-term management.

Monitoring will continue post-construction to ensure the success of the ecological mitigation measures and to trigger any dynamic management that may be required. Initial monitoring of ecological features by a SQE will be on an annual basis for the first five years following completion of construction and then every five years following.

6.2 LEMP REPORTING

An annual LEMP report is to be provided and submitted by the appointed landscape contractor to the CR. A report detailing works undertaken will be submitted to Wiltshire Council to ensure compliance.

A progress report of the details of annual monitoring and ecological habitat condition in line with the work programme and actions required for the next 12-month period will be submitted to Wiltshire Council for the first 5 years post-construction to demonstrate that the objectives of the LEMP are being/have been met.

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APPENDIX A – APPROVED LANDSCAPE PROPOSALS AND SPECIFICATION (DRAWING NO. 185/PA/01)

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PLANT SCHEDULE. All to BS3936 Part 1;

STRUCTURE TREES. Of local provenance where possible.
All container grown 100L Airpot if planted outside the recognised bare root season (Nov-e. March). Trees planted with single short stake 75mm diameter with 1M diameter circle of bark mulch 75mm depth in grass areas. Incorporate 10% of approved compost or manure with topsoil backfill and water to field capacity

	Species	Common name	Size
Abre	Betula pendula	(Silver birch)	Std 8-10cm 3.0-3.4M
	Fruiting Apple	(Bramleys)	1/2std 1.8-2.1M feathered MM106 Rootstock (semi-v)
	Tilia cordata Rancho	(Lime)	Std 8-10cm 3.0-3.4M

IMPACT SHRUBS. Container grown. Multi-stem. Those in grass planted with 1M diameter circle of bark mulch 75mm depth. 10% compost added to backfill.

BtA	Berberis thun Atropurpureum	(Purple barberry)	3L 450-600mm
Bd	Buddleia Black Knight	(Butterfly bush)	5L 1.0-1.2M
CaS	Cornus alba Sibirica	(Scarlet dogwood)	Br. 450-600mm
CMF	Cornus Midwinter Fire	(Orange dogwood)	Br. 450-600mm
Cp	Crataegus prunifolium	(Hawthorn)	5L MStem 600-800mm
LWB	Lonicera Winter Beauty	(Shrub honeysuckle)	3L 450-600mm
PT	Phormium tenax / Tricolor	(NZ flax / Variigated)	5L 5 leaf.
SBL	Sambucus Black Lace	(Purple leaf elder)	5L 450-600mm
SY	Syringa Charles Joly	(Lilac, purple/white)	5L 600-900mm

GROUND COVER 3 strong breaks from base. Planted mixed groups 5/sq.M through biofabric. Gravel mulch above 10-16mm stone.

Anemanth lessoniana	(Pheasants tail grass)	2L
Miscanthus sinensis Silver Feather	(Silvergrass)	2L
Phlomis fruticosa	(Jerusalem sage)	2L
Valerian ruber	(Valerian)	9"plug
Verbena bonariensis	(Verbena)	9" plug

NATIVE SHRUBS. Of local provenance. Supplier details to be provided for approval before ordering. Hedge planted in double staggered row with post and 2 wire support frame 1.0M ht, 400mm between rows, 500mm between plants in row. Species planted in groups of 10-12 evenly distributed. All with protective tube 750mm ht, green and support cane. Cut back by 1/3 after planting.

Acer campestre	(Field maple)	Br. 0.6-0.8M
Corylus avellana	(Hazel)	Br. 0.6-0.8M
Crataegus monogyna	(Hawthorn)	Br. 0.6-0.8M
Euonymus europaeus	(Spindle)	Br. 0.6-0.8M
Prunus spinosa	(Blackthorn / sloe)	Br. 0.6-0.8M
Rosa canina	(Dog rose)	Br. 0.6-0.8M
Sambucus nigra	(Elder)	Br. 0.6-0.8M
Salix cinerea	(Grey willow)	Br. 0.6-0.8M

NOTES. abbreviations;
(B) = back, (H) = hedge, (i) = inside, (M) = margin, (S) = side.
Plant numbers to be checked prior to ordering and planting.
All proposed plant substitutions to be agreed before ordering and planting.
Building foundations with regard to tree roots to be in accordance with NHBC recommended guidlines, Chapter 4.2.

OUTLINE PLANTING SPECIFICATION

GENERAL. All work to be undertaken in accordance with BS4428:1989 and BS7370:1993.

SERVICES; No trees to be planted within 3 meters of existing or proposed foul, surface water drain or soakaway. Planting adjacent to other services shall be in accordance with the guidelines laid down by the relevant service authority.

SUBSOIL. Rip to 500mm depth using the teeth of a JCB back bucket to break up compaction and allow free drainage.

TOPSOIL. All imported topsoil to comply with BS 3882:2015. pH 6-8, free of stone greater than 50mm in any dimension, perennial weed roots, builders rubble/waste, toxic materials and contamination. Analysis certificate of N,P,K,Mg, conductivity and contamination to be provided. Sample load corresponding to the respective analysis load to be left on site for comparison with subsequent deliveries.
Supply and spread by loose tipping to the following depths;
Tree pits 1.0 x 1.0M x 0.75mm depth
shrubs/hedgerow - 300mm depth.
Grass - 100mm depth
Wildflower seed - Low fertility topsoil or subsoil with N,P,K,Mg and conductivity index of <2.
Lightly firm shrub beds without compacting. Grade to an even surface and marry in with adjacent soft landscape areas. Finished levels adjacent to hard surfaces to be level with kerb unless otherwise instructed. Cultivate to a fine tilth removing all stones over 50mm that come to the surface and incorporating 25L of compost or well rotted organic certified farmyard manure from approved source. Allow to settle and make good defficiencies, humps and hollows. Remove any weeds before planting.

WILDFLOWER SEED. Eradicate weeds by repeat cultivation or herbicide. Include for ploughing, harrow and rake of large areas to produce a medium tilth and roll to produce a firm surface. Remove all stones and builders rubble over 50mm that come to the surface. Supply, sow and establish agreed seed mix to suppliers recommendations. Maintain to facilitate natural seeding in combination with spring mowing. Cut timing subject to conditions and sward development. Remove all cuttings from site to Contractors tip to avoid building up fertility.
Supplier; Emorsgate Seeds or similar approved.
Short grass - EL1 Flowering Lawn/DLF Slowgrowth or similar approved. For open areas allow 12 cuts/year.
Tussock Wildflowers - EM10F or similar approved.

WATER all plants in after planting and before mulching. Watering is essential if planted between April and October;soaking thoroughly after planting and then for dry spells of 7 days duration for the first growing season. Allow for provision of water from a bowser during periods of hosepipe ban to maintain uniform healthy growth.

WEEDSTOP BIOFABRIC Supply and lay beneath shrub and herbaceous planting beds ref. Gardman Performance Weed Control Fabric or similar agreed. UV resistant biodegradable weed suppressing mat secured with pegs to suppliers recommendations. Gravel mulch 50mm depth of 10-16mm clean stone above from local quarry, source and colour to be agreed.

BARK MULCH - 50mm depth over shrub beds and 800mm wide strip beneath new hedges. Main constituent pine bark that has been stored for 6 months minimum time, maximum of 15% wood content, particle size 5-65mm and no fines, free of pests, disease and weed contamination. 2L sample is be submitted for approval with tender documents and approved prior to delivery.

MAINTENANCE. until handover of client instruction; Include for the removal of weeds and litter and the maintenance of bare ground beneath planted areas by cultivation or use of non residual herbicides, replacement of plant defects, topping up bark, pruning dead / damaged branches and edge trimming as required. Grass areas to be relevelled scarified and overseeded to remove hollows, troughs and bare patches which develop. Close mown areas mown to keep neat and trim at between 35-100mm ht. Wildflower grass areas established to seed suppliers recommendations. Cutting frequency to be confirmed. Remove all cuttings to maintain low soil fertility. Re-instate hollows and humps that develop. Paved areas to be kept free of weeds, litter and leaves. Mulch areas topped up to 50mm depth on completion of the Defects period. All plant defects including replacement trees re-instated to comply with the conditions of Planning Approval.

Landscape Management Plan. 15 year summary sheet

Operation	Time in years 1	2	3	4	5	> 15yr
Grass - Close mown. Open areas.						
Cutting (March-Nov. approx.12 times/year)	*	*	*	*	*	*
Weedkilling (April-Sept, twice a year)	*	*	*	*	*	*
Remove litter (14 times anually)	*	*	*	*	*	*
Edging adjacent to hard surfaces and planting areas (Once a year)	*	*	*	*	*	*
Wildflower / Long grass.						
Time of cut and frequency to be agreed	*	*	*	*	*	*
Cuttings removed from site	*	*	*	*	*	*
Eradicate noxious weeds	*	*	*	*	*	*
Trees						
Replacement of Defects	*	*	*	*	*	
Pruning (Annually)	*	*	*	*	*	*
Restaking and tying (Twice yearly check)	*	*	*	*	*	*
Reinstating 2M dia bark circle in grass areas	*	*	*	*	*	
Watering (during dry spell of 14 days)	*	*	*			
Annual safety inspection followed by recommended tree works	*	*	*	*	*	*
Shrubs						
Replacement of defects (Communal areas)	*	*	*	*	*	
Pruning and deadheading (Annually)	*	*	*	*	*	
Fertilizer (annually)	*	*	*	*	*	
Hoeing (14 occasisions anually)	*	*	*	*	*	
Weeding/remove litter (14 occ's annually)	*	*	*	*	*	
Hedges. Maintain as a compact block 1.2M ht. unless instructed.						
Cutting (Once a year when extension growth exceeds 450mm)	*	*	*	*	*	*
Cut back ivy (every 3 years)			*			*
Mulching (Bark)						
Top up to 50mm in March	*	*			*	
Hard Surfaces						
Brush (Twice a year)	*	*	*	*	*	*
Remove litter/leaves (14 occasions annually)*	*	*	*	*	*	*
Spray/weedkiller (once a year)	*	*	*	*	*	*

Note: * Denotes year in which tasks are undertaken.
All work to be undertaken in accordance with BS4428:1989 and BS7370-4:1993

scale 1:250
0 20m

NOTE ;
THIS DRAWING HAS BEEN PREPARED FROM SURVEY INFORMATION PRODUCED BY MET GEO ENVIRONMENTAL. REFERENCE SHOULD BE MADE TO THEIR DRAWING P18--00104--001 & 002 FOR FULL DETAILS OF EXISTING BUILDINGS, SERVICES, LEVELS AND DRAINAGE.

KEY
PROPOSED TREE PLANTING
PROPOSED SPECIMEN SHRUB PLANTING
PHASE 1 TREES. DEFECTS RE-INSTATED WEEDS CLEARED FROM 2M DIAMETER CIRCLE AROUND BASE
EXISTING TREES (OFF SITE) TO BE RETAINED
PROPOSED SHRUB PLANTING
PROPOSED HEDGE
EXISTING SCRUB PLANTING RETAINED
PROPOSED TUSSOCK WILDFLOWER MARGIN 2.0M WIDE
EXISTING SCRUB CLEARED AND OVERSEEDED REF EMORSGATE EM10F
CLOSE MOWN LAWN
GRASS/ WILDFLOWER SEED MIX REF. EMORSGATE EL1

EXISTING BELOW GROUND SEWAGE PLANT
EXISTING BOREHOLE
450 sq.ft GARAGE
EXISTING STORAGE CONTAINER RELOCATED
PROPOSED SUB-STATION
AMENITY AREA
15 NO. EXISTING STORAGE CONTAINERS
13 NO. EXISTING STORAGE CONTAINERS RELOCATED
WELFARE AREA
1,000 sq.ft UNIT
500 sq.ft UNIT
750 sq.ft UNIT
FURNAX LANE
6.5m
NORBECK OWNERSHIP
ACCESS OWNERSHIP
3 Lonicera Winter Beauty

Existing trees and scrub on railway embankment retained - Off site

Original tree planting inspected. Surviving material retained. Coarse vegetation cleared within a 2M diameter circle and tree guards re-instated Defects replaced.

Existing scrub of high wildlife value. 2M strip outside perimeter fence cleared of brambles and overseeded with Wildflower mix. ref Emorsgate EM10F Remaining area managed with minimum intervention to Ecologist recommendation.

ENTRANCE 'AVENUE'
4 TILIA PANCHO

ENTRANCE BED - LOW SHRUB MARGIN. IMPACT SHRUBS, PRAIRIE GRASS AND HERBACEOUS DROUGHT TOLERANT MATERIAL INSIDE;
1 BETULA PENDULA (Multi-stem)
1 Phormium tricolor (', point)
3 Phormium tenax (*)
1 Sambucus Black Lace
1 Buddleia Black Knight
1 Crataegus prunifolia
1 Syringa Charles Joly
3 Salix cinerea
Existing box retained, protected, lifted and replanted on the margin
30 Miscanthus Silver Feather (evenly spaced)
30 Anemanthe lessoniana (evenly spaced)
30 Verbena bonariensis
30 Phlomis fruticosa
30 Centranthus ruber
Overseed with Herbaceous Tussock Mix

AMENITY AREA - CLOSE MOWN GRASS WITH SPECIMEN SHRUBS AND TREE
NATIVE SCREEN HEDGE
1M WIDE MAINTENANCE STRIP INSIDE SECURITY FENCE
1 MALUS BRAMLEYS SEEDLING
15 Cornus Midwinter Fire (CMF)
15 Cornus Sibirica (CS)
1 Syringa Charles Joly (SY)
2 Buddleia Black Knight (Bd)
1 Sambucus Black Lace (SBL)
3 Berberis thun Atropurpureum (BtA
6 Euonymus europaeus (3/gp)
Hedge 50 Lin.M
30 Acer campestre
50 Corylus avellana
100 Crataegus monogyna
50 Prunus spinosa
10 Rosa canina
10 Sambucus nigra

NATIVE SCREEN SHRUBS
20 Salix cinerea @ 1M centers

All setting out dimensions to be site confirmed prior to works commencing and any discrepancies confirmed to Architect. This drawing is to be read in conjunction with all other architectural and structural engineers drawings.

PROPOSED SMALL BUSINESS UNITS
FURNAX LAN, WARMINSTER
for NORBECK ENTERPRIZES CENTER.

LANDSCAPE PROPOSALS 1:250 @ A1

PRELIMINARY

M D LANDSCAPE ARCHITECTS
3 HANOVER BUSINESS UNITS, BA12 0AD
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APPENDIX B – ECOLOGICAL MITIGATION METHOD STATEMENT (CHALKHILL ENVIRONMENTAL CONSULTANTS)

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ECOLOGICAL MITIGATION METHOD STATEMENT
(EMMS)

LAND AT
NORBECK ENTERPRISE CENTRE
UNIT 1 NORBECK ENTERPRISE CENTRE, FURNAX LANE
WARMINSTER
BA12 8FT

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ECOLOGICAL MITIGATION METHOD STATEMENT (EMMS)

LAND AT
NORBECK ENTERPRISE CENTRE
UNIT 1 NORBECK ENTERPRISE CENTRE, FURNAX LANE
WARMINSTER
BA12 8FT

Client:	Robert Beck
Prepared by	Jan Freeborn Project Ecologist
Contract:	Q755

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Chalkhill is the environmental consultancy of the Wiltshire Wildlife Trust. All profits are passed by gift-aid to the Trust for its conservation work. Where Chalkhill works on a project this does not imply that the Wildlife Trust either supports or objects to that project. Our aim is to provide sound, independent ecological advice.

ECOLOGICAL MITIGATION METHOD STATEMENT
(EMMS)

LAND AT
NORBECK ENTERPRISE CENTRE
UNIT 1 NORBECK ENTERPRISE CENTRE, FURNAX LANE
WARMINSTER
BA12 8FT

1 Introduction

1.1 This EMMS relates to a planning application to Wiltshire Council 19/12156/FUL to construct small business units within 2 blocks and an extension to an existing building. Other proposals include landscaping, forecourts, parking, access road improvements, a new garage, new sub-station and container relocation and expansion of the site drainage system including creation of discharge into a small water course along the eastern site boundary.

1.2 The proposed work will be carried out in 3 phases including the expansion of the existing site drainage system.

1.3 The need for this EMMS was prompted by comments from the Environment Agency of 14.10.2020 EA ref: WX/2020/133732/05-L01 paragraph 2 requesting details of how the groundworks contractor will specifically mitigate the risks posed to surface and groundwater arising from the development.

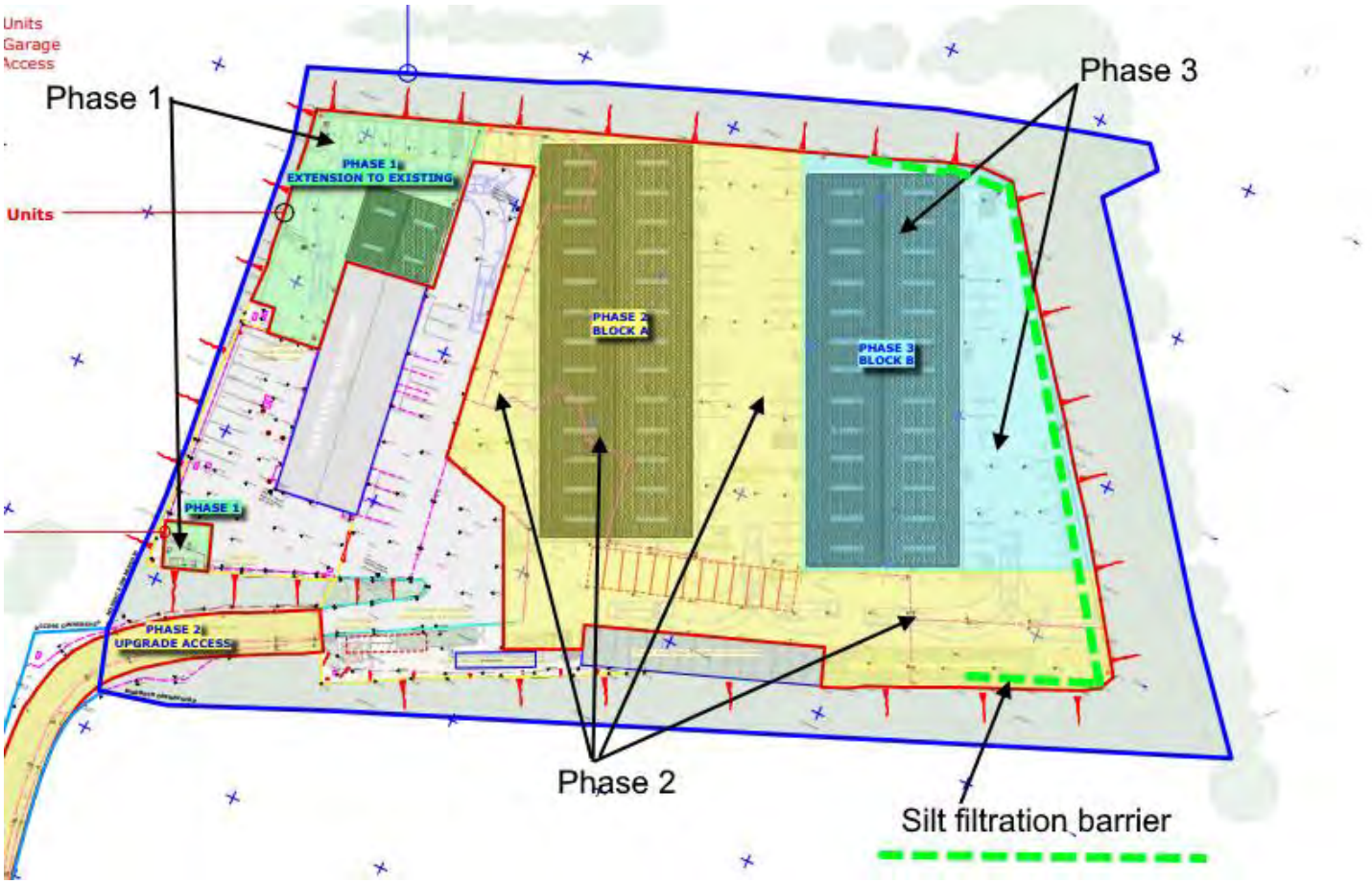
1.4 The principle risks of pollution to surface and ground water from construction sites arise from disturbance of soil resulting in erosion leading to silt pollution of surface water and run-off of silt polluted surface water and spillage of hazardous substances which may pollute surface water or infiltrate and contaminate ground water.

1.5 This EMMS therefore suggests methods of work and pollution avoidance techniques aimed at reducing these risks and includes recommendations relating to site specific pollution risks.

1.6 A copy of this EMMS will be available on site at all times and a named individual of site personnel who is present on the site will be made responsible for adherence to the conditions it contains.

2 Ecological Mitigation Method Statement

Figure 1 Annotated site plan showing proposed site layout and location of silt filtration barrier



2.1 Avoidance of soil erosion and run-off of silt polluted surface water

2.1.1 Avoidance of soil erosion and run off of silt polluted water will be based on retention and protection of existing vegetation, phased removal of vegetation where such removal is necessary and the use of silt filtration barriers to avoid run-off into the water course at the base of the eastern site boundary.

2.1.2 A tool kit talk will be given to all site personnel outlining the contents of this EMMS, the reasons why these are necessary and the underlying principles which form the basis of this EMMS.

2.2 The role of existing site banks in reducing run off of silt polluted water

2.2.1 The site is surrounded by steeply sloping banks topped by a protective metal palisade and these banks will be retained on site. The banks are densely vegetated with blackthorn, bramble and tall ruderal colonising vegetation. This vegetation stabilises the bank face and will absorb and filter any run-off of surface water from the site. The site is partially developed and the banks already perform these functions.

2.2.2 It is therefore essential that the site banks are protected from damage and disturbance as a result of the development. No cutting back of vegetation on the site banks will be permitted other than for reasons directly related to the development and in these circumstances, guidance contained in this EMMS relating to protection of the site banks must be followed.

2.2.3 There will be no storage, dumping or spillage of soil in any form including excavated soil containing stripped vegetation or excess construction materials over or through the fence onto the surface of the banks during construction work. This exclusion also includes construction materials of any type such as bricks, blocks, cement, concrete, gravel, stone or other similar aggregates. This is necessary to prevent damage to the

existing vegetation and potential run-off of silt polluted surface water to the surrounding area.

2.2.4 Signs will be fixed to the metal palisade fence indicating that the site banks are non-access areas and that it is not permitted to dump or store soil or construction materials of any type over the palisade fence onto the site banks.

2.2.5 Heaps of excavated soil, aggregates or other construction materials must not be permitted to spill through the palisade fences onto the site banks.

2.2.6 Heaps of excavated soil or stored aggregate heaps must located at least 10 metres from the palisade fence and should be covered reduce the risk of direct run-off of silt polluted water onto the site banks.

2.2.7 An extension to the site drainage system is planned which will result in soil disturbance to and cutting back of the vegetation on the steeply sloping bank at the south east corner of the site. A small water course runs along the base of the eastern site bank.

2.2.8 During construction of the drainage system extension**,** no cut vegetation will be prevented from falling into the water course regardless of whether or not water is present. This is necessary to avoid creating obstructions to water flow.

2.2.9 If water is present in the water course during construction of the drainage system extension, a water permeable silt trap such as a securely anchored straw bale should be placed downstream in the water channel to trap any suspended silt which runs off the work site.

2.2.10 Excavation of soil necessary to construct the drainage system extension in the steeply sloping banks will be carried out in a way that does not permit soil to fall into the water course whether or not water is present. Ideally this excavation should be done in dry weather to reduce the risk of soil being washed down into the water course.

2.2.11 Excavated soil should be replaced in situ following construction of the drainage system extension. Excess soil should be removed and preferably used elsewhere on the site in areas planned for soft landscaping.

2.2.12 Should it be necessary to leave heaps of soil in situ for more than one day, these heaps should be profiled with a low slope to minimise destabilisation and secured with a water proof covering. A silt barrier such as a coir roll or straw bales should located at the base of the heap to reduce the risk of run-off of silt polluted water.

2.2.13 Vegetation should be cut back to a low height and stripped off in turves which can be used to reinstate the excavated areas. Cutback shrubby species will regenerate with woody regrowth and perennial or annual species will regenerate from fragments contained in the soil or from shed seeds. These turves should be carefully stored preferably in single layers and roots down to avoid the risk of drying out which will negatively affect successful re-establishment. If space is limited the turves should not be stored more than 2 layers deep. If at all possible disturbed turves should be put back in position on the same day.

2.2.14 Vegetation which is cut back should be checked to ensure that no breeding birds are present. If at all possible cutting back should be done outside of the normal breeding season for birds.

2.2.15 Excess construction materials used to build the proposed headwall should be removed and not dumped on the site bank and care must be taken not to allow excess concrete or cement to enter the water channel, whether or not water is present.

2.3 The role of existing ground vegetation in reducing run off of silt polluted water

2.3.1 On the site there are extensive areas of level capped off landfill which have become colonised by tall ruderal vegetation. These areas will ultimately be occupied by Phases 2 and 3 of the proposed development Bare soil which has become colonised by vegetation is stabilised and has a role in filtering loose soil and silt from surface water as a result of run-off. This vegetation therefore has a role to play in reducing the risk of run-off of silt polluted surface water from the site created during construction of the development.

2.3.2 It will therefore be essential to retain these areas of vegetation on site for as long as possible and removal should be carried out on a staged basis so that this is not removed earlier than is necessary. This is necessary to retain their function in filtering

silt polluted surface run-off and as silt traps and avoid creating large areas of bare soil at risk of becoming sources of silt polluted run-off.

2.3.3 Phase 1 is an extension to an existing building located in the north-west corner of the site already surrounded by an area of hard standing and precautions contained in 2.1 relating to the protection of the site banks should be adhered to.

2.3.4 Existing vegetation within phases 2 and 3 will be left in place until phase 1 has been completed. This is necessary because established vegetation has a function in stabilising the soil surface and filtering surface water and therefore should be retained in situ for as long as possible.

2.3.5 Disturbance to vegetation in Phase 2 and 3 necessary to create trenches for utilities and drainage prior to construction of the units will be kept to the minimum and affected areas immediately infilled and reinstated, preferably on a cut and fill basis, so that no trenches are left open overnight. This will avoid such excavations potentially filling with silt polluted water and the need for dewatering. Should such excavations require dewatering, drained water should be stored and disposed of off-site and not permitted to enter the drainage system or run through silt capture traps.

2.3.6 If the new surface water drainage system is fully operational before or during construction of the proposed development, no silt polluted surface water will be permitted to enter the drainage system. This will be done by covering drain openings into the system to prevent silt polluted surface water entering and diverting such flows onto remaining vegetated areas or the site boundary banks or through silt capture traps.

2.3.7 The area to be occupied by phase 3 will be designated as a non-access area during the construction of phases 1 and 2 and fenced off by locked Heras fencing. Signage will fixed to the Heras fencing indicating that this is a non-access area and must not be used for the storage of construction materials or location of heaps of excavated soil. This area is adjacent to the eastern site boundary at the base of which the water course is located. This makes the area to be occupied by Phase 3 a high risk area for potential run-off of silt polluted surface water if vegetation is stripped off at an unnecessarily early stage.

2.3.8 This will also ensure that the filtration and soil stabilisation functions of the vegetation within the area to be occupied by phase 3 will be retained for as long as possible.

2.3.9 Before phase 2 commences a water permeable silt barrier will be constructed along the interior base of the site metal palisade fence**.**

2.3.10 This barrier will be extend to occupy the length of the eastern site boundary and short lengths of the northern site boundary and southern boundary of sufficient lengths to prevent silt polluted water run-off entering the water course at the base of the eastern boundary.

2.3.11 The silt filtration barrier will be constructed of a line of straw bales placed closely together in a continuous line and securely anchored in place. This barrier will trap and retain sediment from silt polluted run-off from the site but must be checked regularly to ensure its proper function as a silt trap and failing straw bales replaced as necessary. As an alternative to straw bales, coir rolls could No vegetation will be permanently removed from the area to be occupied by phase 3 until phase 2 has been completed.

2.3.12 The silt filtration barrier will remain in place and be fully functional during the period of time from the commencement of the construction of Phase 2 until completion of construction of Phase 3. This barrier will be regularly checked and any sections which are failing will be immediately replaced.

2.3.13 The location of the silt filtration barrier is indicated in Figure 1. The south-east corner of the site is a high risk area for run-off of silt polluted surface water into the adjacent water course at the base of the eastern site boundary.

2.3.14 the silt filtration barrier will be dismantled following completion of the development and disposed of off-site. It must not be left on site to decompose or dumped over the metal palisade fence onto the sloping boundary banks.

2.4 Avoidance of spillage of hazardous substances which may pollute surface water or infiltrate and contaminate ground water

2.4.1 Avoidance of pollution of surface or ground water will be based on techniques and methods of work aimed at preventing accidental spillage of hazardous substances infiltrating the soil surface potentially resulting in pollution of ground water and run-off of surface water polluted with hazardous substances. This will include the establishment of site compounds, designated parking of plant and machinery, storage of construction materials and isolation of potential sources of spillage and drips of hazardous substances such as fuel and chemicals. Polluted surface water run-off will not be permitted to enter the site drainage system at any stage of the development. The risk of this occurring should be continually assessed and drainage openings at risk of receiving polluted surface water run-off will be covered and/or flow of water likely to drain into these will be appropriately diverted or collected and stored for later disposal.

2.4.2 A tool kit talk will be given to all site personnel outlining the contents of this EMMS, the reasons why these are necessary and the underlying principles on which the EMMS is based.

2.4.3 Plant and machinery should be parked/stored in a designated compound on an existing area of hard standing or constructed with an impermeable base and surrounded by a liquid capture bund. Either of these options must be located at least 10 metres away from surface water drains or the watercourse. The liquid capture bund must not be permitted to overflow or drain off into the site drainage system. Water emptied from the bund must be stored and disposed of appropriately off site in accordance with regulations relation to the disposal of polluted water.

2.4.4 The risk of fuel and chemical spills will be reduced by:

- Refuelling mobile plant and machinery in a designated area on an impermeable base away from drains or the water course
- Containing fuel in a bunded bowser to prevent leakage
- Ensuring that refuelling is supervised.
- Checking the available capacity of the fuel tank before refuelling.
- Checking hoses and valves regularly for signs of wear and ensuring delivery valves are not jammed open.
- Turning valves off after refuelling and locking these when not in use
- Positioning drip trays under pumps to catch minor spills
- Providing incident response training to the staff and contractors
- Ensuring that a spill kit with sand, earth or commercial products is available on site for containment of spillages
- Ensuring that a spill kit is used immediately f any fuel or chemical spill does occur during construction or operation, a spill kit containing

2.4.5 Hazardous substances must be disposed of in accordance with safety guidance and must not be disposed of by tipping onto areas of vegetation or the site boundary banks. This is essential to avoid hazardous substances polluting surface or ground water.

2.4.6 Concrete and cement are very alkaline and corrosive and can cause pollution and damage to vegetation which reduces the capacity of that vegetation to stabilise the soil and filter run-off surface water and capture silt. The following measures proposed for concrete and cement mixing and washing are aimed at reducing the risk of pollution and damage from these substances.

- Concrete and cement mixing and washing should not be sited within 10 metres of the water course or the vegetated site banks or within 10 metres of any surface water drain in order to minimise the risk of concrete/cement polluted run-off.
- A re-circulation system should be used to minimise the risk of pollution. Any wash water from this process must be collected and contained in order for this to be disposed of off-site.

- Excess pre-mixed concrete or cement must be disposed of off-site.. It will not be permitted to clear delivery tanks or tubes by discharging excess mixed cement or concrete in any location on site either before or after load delivery.

2.4.7 Cleaning and washing of plant and machinery and removal of mud and soil must be done in a designated area with a non-permeable surface and water polluted with washed off material must not be permitted to enter the site drainage system.

3 Appendices

Appendix 1 Summary of legislation relating to breeding birds

It is illegal to disturb breeding birds or to damage or destroy their nests. The breeding season for birds is between and including the months of February to August, although some species will breed outside of this period of time. Nests are regarded as active when being constructed or contain incubating eggs, unfledged or nest dependent young. Vegetation should not be cut back during the breeding season for birds of if this is not possible should be inspected by a competent person to ensure that no active nests are present.

Disclaimer *All reasonable effort was taken to ensure an accurate assessment of the situation at the time of the survey. However, the absence of recorded presence or sign should not be taken as an absolute guarantee that the site was not being used by a particular species. There is also no guarantee that any particular species will not use the site at any time in the future. Survey results may be weather or seasonally dependent. Any interpretation of legislation is based on our understanding and experience of the law. The relevant statutory authority can provide a more definitive interpretation.*

This report is the responsibility of Chalkhill Environmental Consultants. It should be noted, that whilst every effort is made to meet the client's brief, no site investigation can ensure complete assessment or prediction of the natural environment.

APPENDIX C – PRELIMINARY ECOLOGICAL APPRAISAL REPORT (CHALKHILL ENVIRONMENTAL CONSULTANTS)

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PRELIMINARY ECOLOGICAL APPRAISAL

LAND AT NORBECK ENTERPRISE CENTRE
FURNAX LANE
WARMINSTER BUSINESS PARK
WARMINSTER
BA12 8FT





Client:	Rob Lucas For David Brain Partnership
Survey date:	15 November 2019
Project ecologist:	Jan Freeborn
Report written by:	Jan Freeborn
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Contract:	Q755

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PRELIMINARY ECOLOGICAL APPRAISAL

LAND AT NORBECK ENTERPRISE CENTRE
FURNAX LANE
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1 Summary

2 Introduction
- **Figure 1 Map view of site**
- **Figure 2 Aerial view of site**
- **Figure 3 Map view of site in local context marked by a red square**
- **Figure 4 Proposed site layout and elevations**

3 Methodology

4 Desk study

5 Field survey
- **Figure 5 Annotated oblique aerial view of site**

6 Discussion and analysis of results

7 Conclusions

8 Recommendations

9 Net biodiversity gain

10 Appendices
- **Appendix 1 Site photographs**
- **Appendix 2 Designated sites within a 2 km radius**
- **Appendix 3 Summary of legislation relating to bats**
- **Appendix 4 Summary of legislation relating to widespread reptile species**

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PRELIMINARY ECOLOGICAL APPRAISAL

LAND AT NORBECK ENTERPRISE CENTRE
FURNAX LANE
WARMINSTER BUSINESS PARK
WARMINSTER
BA12 8FT

1 SUMMARY

1.1 Report purpose

1.1.1 A planning application will be made to construct light industrial units on the site.

1.1.2 A preliminary ecological appraisal has therefore been requested to assess the ecological impact of the proposed work.

1.2 Key issues

1.2.1 The site is a former in-fill site which has been capped off and levelled.

1.3 Work carried out for the purpose of the report

1.3.1 A preliminary ecological appraisal was carried out on 15 November 2019 in accordance with CIEEM guidelines to identify habitats present on the site and assess the potential risk for the presence of protected species.

1.4 Survey findings

1.4.1 The site had previously been partially developed.

1.4.2 The site has been recently colonised by tall ruderal vegetation.

1.4.3 The steeply sloping site boundaries have been colonised by shrubby vegetation.

1.4.4 Habitat on site could support a small population of widespread reptile species.

1.4.5 No evidence of badgers was found.

1.5 Conclusions

1.5.1 There is no habitat of high ecological significance on the site.

1.5.2 There is a low risk of negative impact on widespread reptile species.

1.5.3 The shrubby vegetation on the site boundaries has important ecological significance in a local context.

1.6 Recommendations

1.6.1 Precautionary guidelines should be followed to avoid deliberate disturbance and harm to any widespread reptile species on the site.

1.6.2 The shrubby vegetation on the site boundaries should be retained, protected during the proposed work and enhanced in the future by appropriate management.

1.6.3 Good practice guidelines regarding external lighting of the site should be followed in relation to bats and other nocturnal wildlife species

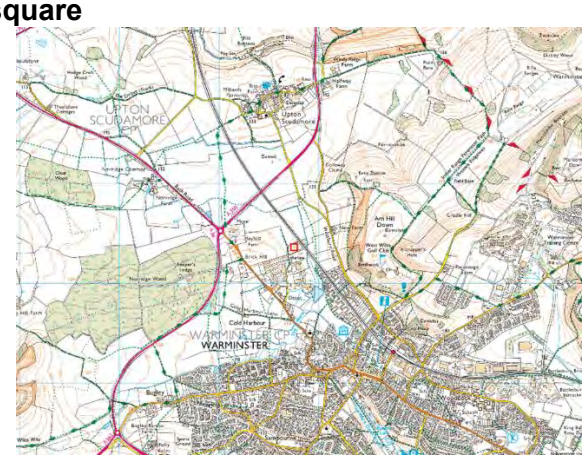
1.6.4 A native species planting scheme in the area adjacent to the site entrance will compensate for the loss of habitat of low ecological significance and strengthen connectivity and biodiversity along the site boundaries.

1.7 Net biodiversity gain

1.7.1 Provision should be made for bats to roost and for swifts and house martins to breed on the site.

2 Introduction

Figure 1 **Map view of site location with building surveyed marked by red square**



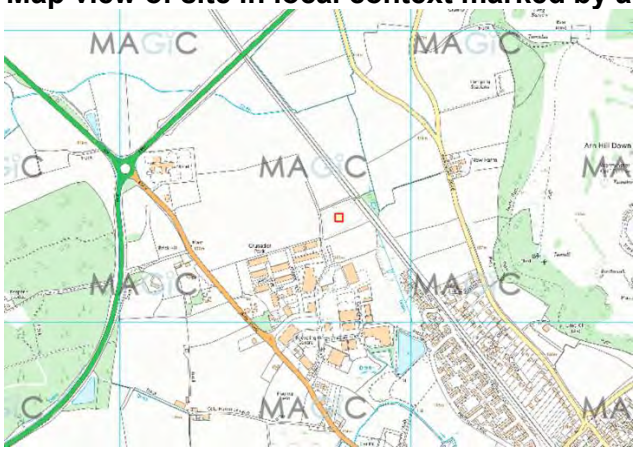
Scale 1:25,000
Central grid reference ST86754634

Figure 2 **Aerial view of site with building surveyed marked with by red square**



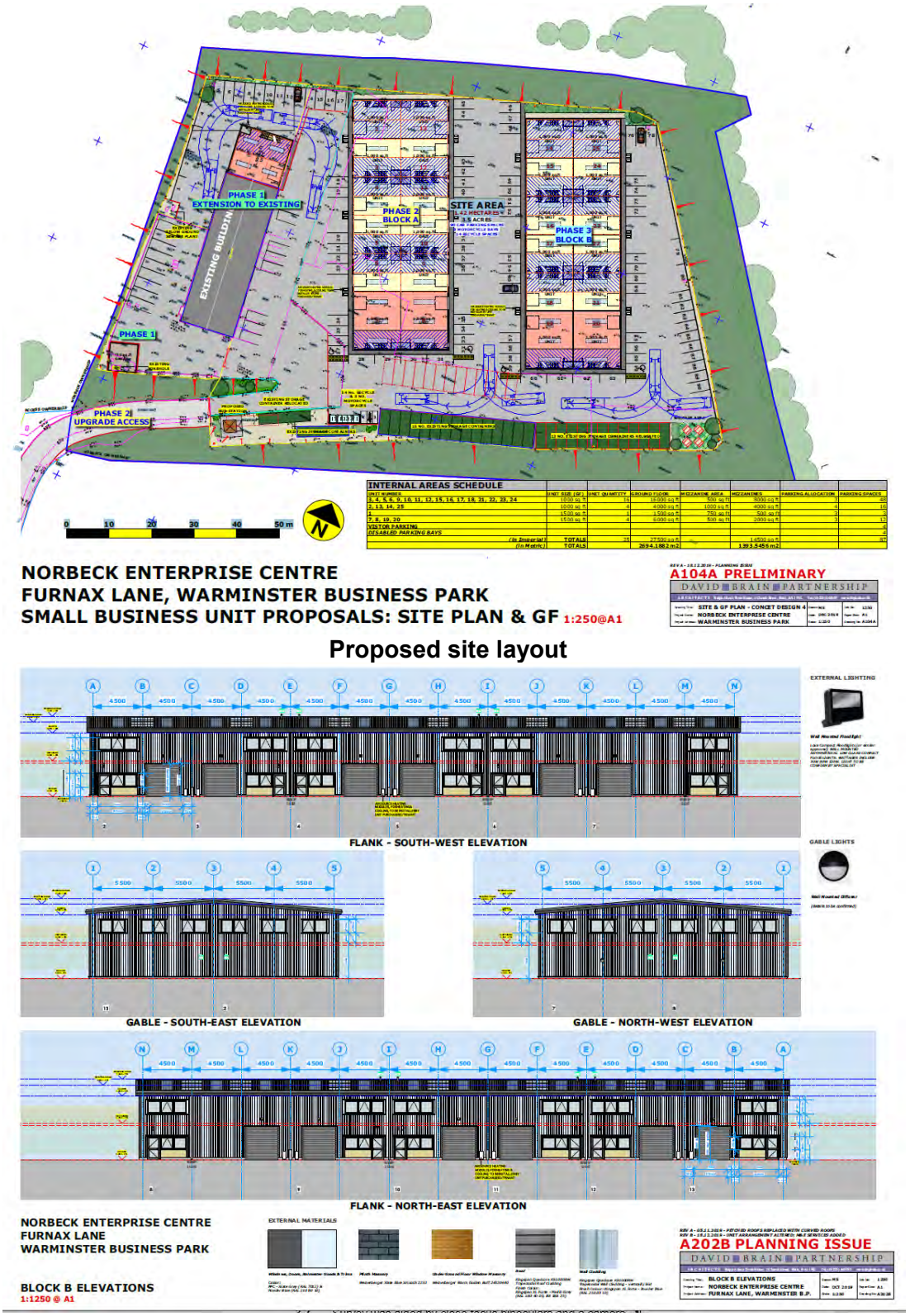
Scale 1:25,000
Central grid reference ST86754634

Figure 3 **Map view of site in local context marked by a red square**



Scale 1:10,000
Central grid reference ST86754634

Figure 4 Proposed site layout and elevations



2.1 Chalkhill was commissioned to carry out a preliminary ecological appraisal in advance of submission of a planning application to construct light industrial units on the site.

2.2 The purpose of the survey was to assess the ecological impact of the proposed work. (Appendix 1 Photographs of site surveyed).

2.3 The site surveyed was a former infill site approximately 1.3 hectares in area, now levelled and capped off and partially developed.

2.4 The site surveyed was set in an elevated location in rural surroundings at the northern edge of Warminster Industrial Estate.

2.5 A mainline railway track runs past the eastern boundary and approximately 13 metres to the south east is an area of Priority Habitat Deciduous Woodland.

2.6 The central grid reference is ST86754634.

2.7 The site location is illustrated in Figures 1 and 2.

3 Methodology

3.1 Desk study data relating to designated sites and habitats within a 2 kilometre radius of the site surveyed was obtained from MAGIC. http://www.natureonthemap.naturalengland.org.uk (refer Appendix 2 Designated sites within a 2 km radius).

3.2 An aerial view of the site was reviewed in local context to assess the degree of connectivity to the immediate and wider countryside.

3.3 An assessment was made of the potential risk of bats and other protected species being present on the site surveyed.

3.4 An assessment was made of the ecological significance of habitats present on the site.

3.5 The preliminary ecological appraisal was carried out on 15 November 2019 by an experienced ecologist trained in Phase 1 and National Vegetation Classification survey techniques.

3.6 The site was surveyed for evidence of the presence of badgers including heaps of freshly excavated soil with associated arched tunnel entrances, badger footprints, tracks created by badger access in tall vegetation or along fence lines, signs of badger feeding activity in the form of snuffle holes and excavated holes used as latrine pits or territory markers.

3.6 The site was surveyed in the daytime and weather conditions at the time of survey were cold and wet.

3.7 Survey was aided by close focus binoculars and a camera.

3.8 There were no limitations to survey although preliminary ecological appraisals to assess the potential impact on habitats are best carried out during the period of time when plant species present are likely to be in flower or in full growth and easily identified. However, it is considered that at the time of this winter survey when many of the plant species were still in growth an adequate assessment of the habitats present was possible.

3.11 The survey was carried out in accordance with Phase 1 habitat and National Vegetation Classification survey guidelines.

3.12 The survey results contained in this report are considered accurate for 2 years.

4 Desk study

4.1 Desk study data relating to designated sites and habitats within a 2 kilometre radius of the site surveyed was obtained from MAGIC (refer Appendix 2 Designated sites within a 2 km radius). http://www.natureonthemap.naturalengland.org.uk

4.2 Review of an aerial view of the site in local context showed poor connectivity to the wider countryside, largely due to the urban development of the area. The mainline rail track embankment could provide a migration route along which wildlife species could disperse and colonise but the track itself would for a significant barrier to migration.

4.3 There were no sites with statutory designations immediately adjacent to the site surveyed.

4.4 Within a 2 km radius of the site were:

- Areas of Priority Habitat Inventory - Lowland Calcareous Grassland (England)
- Norridge Wood Ancient and Semi-Natural Woodland and Ancient Replanted Woodland

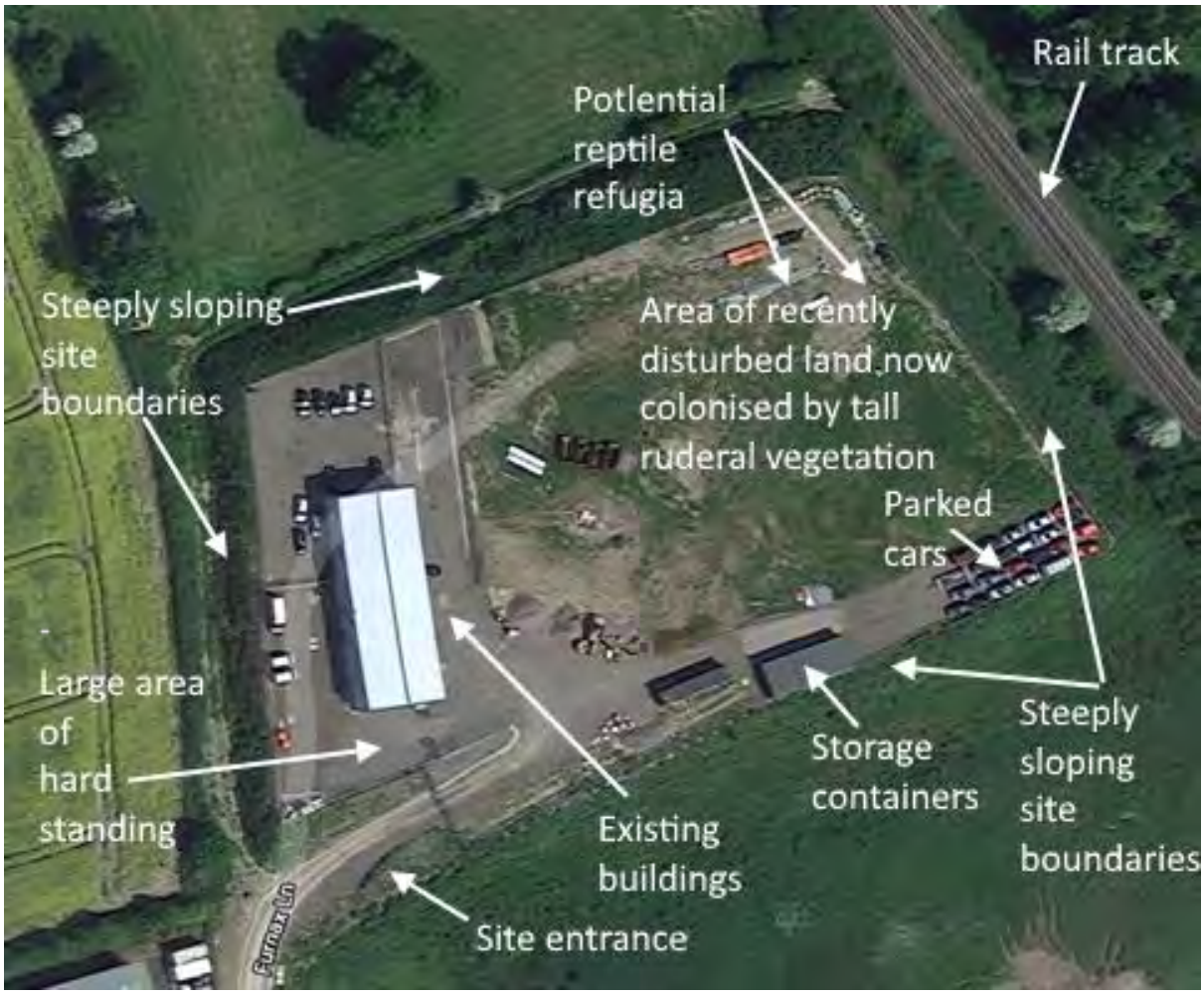
- Areas of Priority Habitat Inventory - Deciduous Woodland (England)
- Area of woodland listed in the National Forest Inventory (GB)
- Priority Habitat Inventory Traditional Orchards (England)

4.5 With a 2 kilometre radius of the site were the following granted European Protected Species applications

- 2014-979-EPS-MIT relating to Brown Long-eared bats and Common pipistrelle bats
- EPSM2013-5855 relating to Common pipistrelles and Brown Long-eared bats allowing the destruction of a resting place

5. Field survey (refer Appendix 1 Site photographs)

Figure 5 Annotated oblique aerial view of site



5.1 Initial site assessment

5.1.1 The site surveyed was a levelled flat area of land in an elevated and exposed location.

5.1.2 The site was approximately 1.3 hectares in area.

5.1.3 A large light industrial building had been constructed with the western area of the site surrounded by an area of hard standing.

5.1.4 Steeply downward sloping site boundaries were present, topped by a metal palisade fence and colonised by tall ruderal and shrubby vegetation.

5.2 Field survey

5.2.1 Access to the site was through a hard surfaced access track with upward sloping banks which had been planted up with native and non-native shrubby species. Areas of bare earth were present on these slopes.

5.2.2 Approximately one-third of the site in the western section was occupied by a large light industrial building and a surrounding area of hard standing. Within this area storage containers and parked cars were present.

5.2.3 The site surveyed was an area of recently disturbed land which had been colonised by tall ruderal vegetation and common grass species.

5.2.4 Areas of bare earth were present and at the time of survey following heavy rain surface water had accumulated in places.

5.2.5 Amongst the plant species identified were teasel *Dipsacus fullonum,* locally dominant in places, frequent creeping thistle *Cirsium arvensis*, ground ivy *Glechoma hederacea* and dock *Rumex sp*, burdock *Arctium lappa*, spear thistle *Cirsium vulgare*, creeping buttercup *Ranunculus repens,* wormwood *Artemesia absintha*, ribwort plantain *Plantago lanceolata* locally frequent and comfrey *Symphetum officinale* was locally abundant.

5.2.6 In the north east corner of the site vegetation colonised large piles of building rubble, construction materials, stone and soil.

5.2.7 The steeply sloping site boundaries on the perimeter outside the palisade fence were colonised by tall ruderal and shrubby vegetation including locally dominant dense and impenetrable and locally frequent thinner bramble *Rumex fructicosus* and frequent teasel *Dipsacus fullonum* and comfrey *Symphetum officinale*.

5.2.8 No evidence of badgers was found on survey.

6 Discussion and analysis of results

6.1 Field survey

6.1.1 The tall ruderal vegetation which has colonised the site with associated areas of bare earth and disturbed land may be suitable habitat for widespread reptile species by providing shelter, basking areas and sources of foods in the form of insects and invertebrates.

6.1.2 It is possible that a small population of widespread reptile species may have become established on the site, migrating in from the nearby railway track embankment, in the relatively short period of time between capping and levelling of the site after use for infill ceased.

6.1.3 The vegetated piles of building rubble, construction materials and stone on which vegetation has become established by vegetation could be attractive to widespread reptile species as basking areas, refugia and hibernation sites.

6.1.4 The steeply downward sloping banks of the site where colonising vegetation has become established are likely to be important in soil stabilisation and run off reduction and erosion control.

6.1.5 These slopes are likely to provide shelter and sources of food for small mammals and mobile species such as birds and bats and a route along which wildlife species can move to and from the immediately surrounding countryside enabling migration, colonisation and dispersal to occur.

6.1.6 The steeply sloping banks create connectivity with the railway track embankment to the east.

7 Conclusions

7.1 There is a very low risk that a small population of widespread reptile species is present on the site but no reptile survey is necessary.

7.2 An area of tall ruderal vegetation of low ecological significance will be lost as a result of the proposed work.

7.3 The steeply sloping banks of the site with established vegetation have high ecological significance in a local context.

7.4 Increased lighting on the site could have a negative impact on nocturnal wildlife by disrupting potential dark commuting routes and reducing the number of potential hours of night time feeding for species such as bats.

8 Recommendations

8.1 Widespread reptile species

8.1.1 All widespread reptile species are protected by law and from deliberate harm and killing.

8.1.2 These recommendations are aimed at minimising the risk of deliberate harm and killing as a result of being crushed as a result of the proposed work.

8.1.3 There are low heaps of building rubble, construction materials and stone colonised by vegetation on the site. These may be attractive as refugia and potential hibernation sites to widespread reptile species.

8.1.4 These refugia should be carefully dismantled by hand during the time of year when reptile species are likely to be active, not breeding and not in hibernation. Hibernating animals are particularly vulnerable to disturbance and as a result may not survive the winter. Refugia should therefore be dismantled during and including the months of February to April.

8.1.5 Cut vegetation should be removed from the area and not allowed to accumulate in heaps since reptiles can be attracted to heaps of decomposing vegetation.

8.1.6 Following dismantling of the refugia, vegetation on the site should be cut to a height of 5 cms and maintained at this height to avoid recolonisation by any reptiles which may be present.

8.1.7 Any reptiles found during refugia dismantling should be carefully captured and released into the shelter provided by the vegetated steeply sloping site banks.

8.1.8 Construction materials should be stored on areas of hard standing, preferably on pallets, to avoid the risk of colonisation by reptiles, particularly if the construction materials are in place for a prolonged period of time.

8.2 Habitat retention, protection and creation

8.2.1 The vegetation on the steeply sloping site banks should be protected from disturbance during the proposed work and no soil, stone or other materials arising from the proposed work should be deposited in this area

8.2.2 This is necessary to retain its structure and integrity and to prevent destabilisation and erosion of the earth banks.

8.2.3 The vegetation on the sloping site banks should be subject to general non-intervention management so as maintain its integrity and function in stabilising the banks and preventing erosion by run off and as a wildlife corridor. This vegetation should ideally only be cut back when encroaching into the site though the metal palisade fence or when there are other over riding reasons relating to health and safety.

8.2.4 The current planting scheme bordering the main site entrance should be strengthened by a planting scheme of native tree and shrubby species of local provenance and known to grow well in the area. This will create additional species rich shrubby habitat on the site and strengthen connectivity with existing similar habitat in the immediate area.

8.2.5 Any planting scheme within the perimeter fence, including the welfare area and small strip of land along the northern boundary, should consist only of native species of trees and shrubby species of local provenance and known to grow well in the area.

8.2.6 This will compensate for the loss of habitat of low ecological significance on the site resulting from the proposed development

8.3 Lighting strategy

8.3.1 A lighting strategy for the site should be drawn up aimed at minimising light spillage from the site on to the surrounding area and maintain dark corridors

along which nocturnal wildlife, particularly bats, can commute and use as feeding areas.

8.3.2 It would be particularly important to avoid lighting the northern, western and eastern site boundaries which overlook open countryside and/or form part of potential wildlife commuting routes and feeding areas.

8.3.3 This recommending is in keeping with current guidelines relating to bats and lighting, although other wildlife species including moths and other insects can be negatively impacted by light pollution. This may disrupt commuting routes and reduce the number of hours of darkness during which nocturnal species such as bats feed.

9 Net biodiversity gain (National Planning Policy Framework)

9.1 There will be net biodiversity gain (National Planning Policy Framework) if provision is made for swifts and house martins to breed and bats to roost in the new buildings to be constructed on the site.

9.1.1 Swifts and house martins:

- Bird boxes/cups designed swifts and swallows should be fixed to the exterior walls of the new buildings.
- Suitable locations would be on the north western gable ends. One bird box/cups suitable for swifts and one for swallows should be fixed to each north western gable end.
- These locations over look open countryside likely to be used as a feeding area and provide the height and free flying access required by swifts and swallows for breeding sites. These boxes are therefore likely to be found and investigated by migrating birds as potential breeding sites or as temporary roosts whilst on migration.
- The provision of house martin cups may stimulate the establishment of further breeding pairs on the site and there are local sources of wet clay which house martins require to construct their nests naturally.
- Details of suitable bird boxes/cups can be found on https://www.nhbs.com/4/birdboxes?q=&fR[hide][0]=false&fR[live][0]=true&fR[shops.id][0]=4&hFR[subjects_equipment.lvl1][0]=Bird%20Boxes

9.1.2 Bats

- Bat boxes designed for this purposed should be fixed to the exterior walls of the new buildings.
- Suitable locations would be on the north western gable ends. One bat box should be fixed to each north western gable end.
- These locations over look open countryside and are adjacent to the railway embankments, areas likely to be used by bats as feeding areas and commuting routes. These bat boxes are therefore likely to be found and explored by bats commuting through and feeding in the area.
- Details of suitable bat boxes can be found on: *https://www.nhbs.com/4/integrated-bat-boxes?q=&hPP=60&idx=titles&p=0&fR%5Bhide%5D%5B0%5D=false&fR%5Bhide%5D%5B1%5D=false&fR%5Blive%5D%5B0%5D=true&fR%5Blive%5D%5B1%5D=true&fR%5Bshops.id%5D%5B0%5D=4&fR%5Bshops.id%5D%5B1%5D=4&hFR%5Bsubjects_equipment.lvl1%5D%5B0%5D=Bat%20Boxes%20%3E%20Bat%20Boxes%20for%20External%20Walls*
- Suggested external wall mounted bat boxes are:
  - 2FE Schwegler Wall-Mounted Bat Shelter (Pack of 2)
  - 1FQ Schwegler Bat Roost (For External Walls)

10 Appendices

Appendix 1 Site photographs

<table>
<tr><td></td><td></td></tr>
<tr><td>Upward sloping site entrance showing metal palisade fence and storage containers beyond</td><td>View across the site towards the north east showing parking area and storage containers</td></tr>
<tr><td></td><td></td></tr>
<tr><td>Existing building in the western area of the site</td><td>View across site looking east beyond railtrack</td></tr>
<tr><td></td><td></td></tr>
<tr><td>View across site to north east also showing piles of stored timber and vegetated rubble</td><td>View across site showing tall colonising vegetation</td></tr>
</table>





Potential reptile refugia colonised by vegetation



Tall colonising vegetation



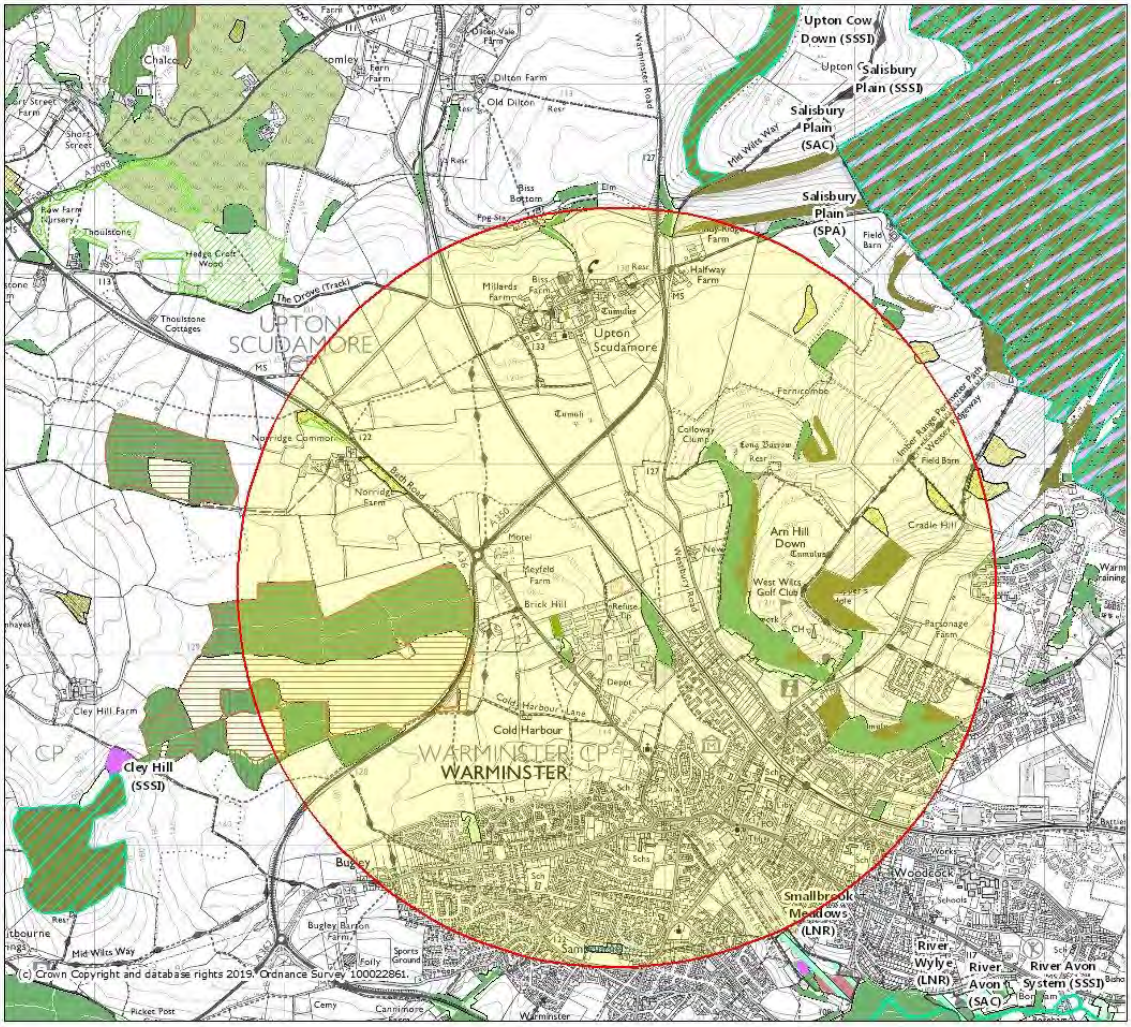
Views across site looking west





Mound of stone and earth colonised by tall ruderal vegetation

Appendix 2 Designated sites within a 2 km radius of the site surveyed



Appendix 3 Summary of legislation relating to bats

All species of British bat are listed in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of the European Conservation (Natural Habitats etc.) Regulations 1994. As well as giving full protection from intentional and deliberate killing, injuring, disturbing and taking of bats, the cited legislation protects bat breeding and resting places (roosts) from damage, destruction and preventing access to such places. The legislation regarding roosts applies irrespective of whether the bats are present or not. The Countryside and Rights of Way Act 2000 added the word “reckless” to existing protection against “intentional and deliberate” actions. The law requires that reasonable effort be made to ensure that any actions, plans or projects do not detrimentally affect bats or their roosts. Proposed developments that affect bats or bat roosts may require a licence from Natural England. The threshold above which a person will commit the offence of deliberately disturbing bats has been raised. Now, a person will commit an offence only if he deliberately disturbs such animals in a way as to be likely significantly to affect (a) the ability of any significant groups of animals of that species to survive, breed, or rear or nurture their young, or (b) the local distribution of abundance of that species. However, the recent amendments to the Habitat Regulations have also removed many of the defences. This includes the commonly relied upon 'incidental result defence', which previously covered acts that were the incidental result of an otherwise lawful activity and which could not reasonably have been avoided. If the work cannot be done in a manner that does not affect the bats and their roosts, and a licence is needed, the licence application must include a Method Statement detailing measures to be taken to avoid, mitigate or compensate for any potential impacts upon bats. Note that Natural England requires 30 working days to process licence applications. These are usually applied for upon granting of planning permission – although, due to a recent change in licensing arrangements, licences can now be applied for in advance of planning permission but the Method Statement in the licence (which is a legally binding document) must concur with the detail of the planning permission.

Appendix 4 Summary of legislation relating to widespread reptile species

All widespread reptile and amphibian species are protected by law during all stages of their life cycles from deliberate harm and killing.

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This report has been prepared for exclusive use of the commissioning party and unless otherwise agreed by Chalkhill Environmental Consultants, no party may use, make use of or rely on the contents of this report, other than for the purposes for which it was originally prepared and provided.

Opinions and information provided in this report are on the basis of Chalkhill Environmental Consultants using due skill, care and diligence in the preparation of the same and no explicit warranty is provided as to their accuracy. It should be noted, and is expressly stated that no independent verification of any of the documents or information supplied to Chalkhill Environmental Consultants has been made.

All reasonable effort was taken to ensure an accurate assessment of the situation at the time of the survey. However, the absence of recorded presence or sign should not be taken as an absolute guarantee that the site was not being used by a particular species. There is also no guarantee that any particular species will not use the site at any time in the future. Survey results may be weather or seasonally dependent. Any interpretation of legislation is based on our understanding and experience of the law. The relevant statutory authority can provide a more definitive interpretation.

This report is the responsibility of Chalkhill Environmental Consultants. It should be noted, that whilst every effort is made to meet the client’s brief, no site investigation can ensure complete assessment or prediction of the natural environment.

APPENDIX D – BIODIVERSITY ENHANCEMENT PLAN

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LOCATION OF ECOLOGICAL ENHANCEMENT FEATURES

Location of:
— 1 no. Swift Box & 1 no. Swallow Nest Bowl

Location of:
— 1 no. 2FE Schwegler Bat Shelter & 1 no. 1FQ Schwegler Bat Roost

PHASE 1
EXTENSION TO EXISTING

EXISTING BUILDING

PHASE 1

PHASE 2
UPGRADE ACCESS
PASSING PLACE

PHASE 2
BLOCK A

PHASE 3
BLOCK B

SITE AREA
1.42 HECTARES
3.5 ACRES
90 CAR PARKING SPACES
3 MOTORCYCLE BAYS
14 BICYCLE SPACES

AIR SOURCE HEATING MODULES, FOR HEATING & COOLING, TO BE INSTALLER BY UNIT PURCHASERS/TENANT

1,000 sq.ft UNIT
1,500 sq.ft UNIT
450 sq.ft GARAGE

EXISTING BELOW GROUND SEWAGE PLANT

EXISTING BOREHOLE

PROPOSED SUB-STATION

EXISTING STORAGE CONTAINER RELOCATED

14 No. BICYCLE & 3 NO. MOTORCYCLE SPACES

ORIGINAL POSITION OF 15 NO. EXISTING STORAGE CONTAINERS

EXISTING STORAGE CONTAINERS

15 NO. EXISTING STORAGE CONTAINERS

13 NO. EXISTING STORAGE CONTAINERS RELOCATED

WELFARE AREA

ACCESS OWNERSHIP

NORBECK OWNERSHIP

FURNAX LANE

9607.2 tbc

0 10 20 30 40 50 M

N

INTERNAL AREAS SCHEDULE							
UNIT NUMBER	UNIT SIZE (GF)	UNIT QUANTITY	GROUND FLOOR	MEZZANINE AREA	MEZZANINES	PARKING ALLOCATION	PARKING SPACES
3, 4, 5, 6, 9, 10, 11, 12, 15, 16, 17, 18, 21, 22, 23, 24	1000 sq ft	16	16000 sq ft	500 sq ft	8000 sq ft	3	48
2, 13, 14, 25	1000 sq ft	4	4000 sq ft	1000 sq ft	4000 sq ft	4	16
1	1500 sq ft	1	1500 sq ft	750 sq ft	500 sq ft	3	3
7, 8, 19, 20	1500 sq ft	4	6000 sq ft	500 sq ft	2000 sq ft	3	12
VISTOR PARKING							4
DISABLED PARKING BAYS							4
OTHER PARKING							7
(in Imperial)	TOTALS	25	27500 sq ft		14500 sq ft		94
(in Metric)	TOTALS		2554.8336 m2		1347.0941 m2		

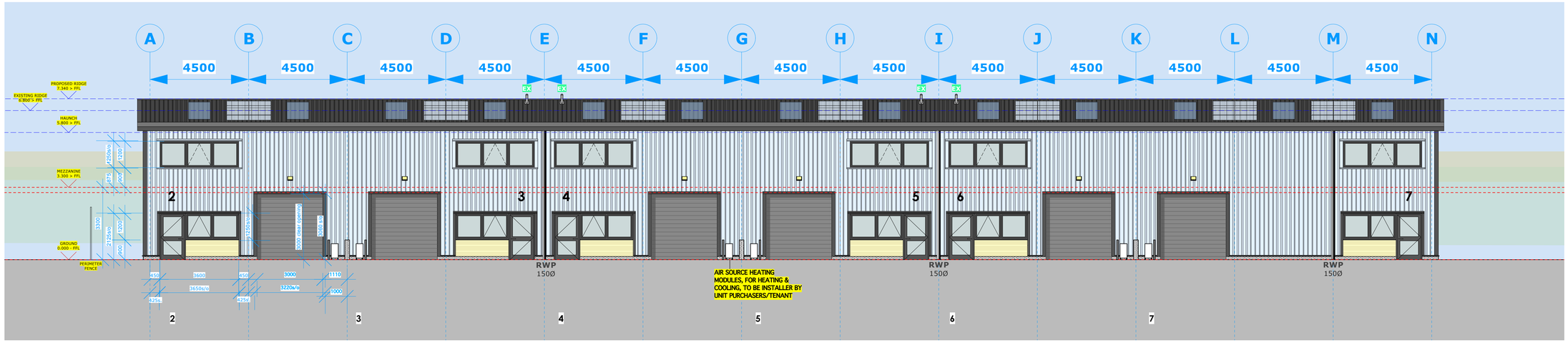
NORBECK ENTERPRISE CENTRE
FURNAX LANE, WARMINSTER BUSINESS PARK
SMALL BUSINESS UNIT PROPOSALS: SITE PLAN & GF 1:250@A1

REV A - 18.12.2019 - PLANNING ISSUE
REV B - 24.05.2023 - BUILDING GRIDS UPDATED; ECOLOGICAL ENHANCEMENT FEATURES ADDED

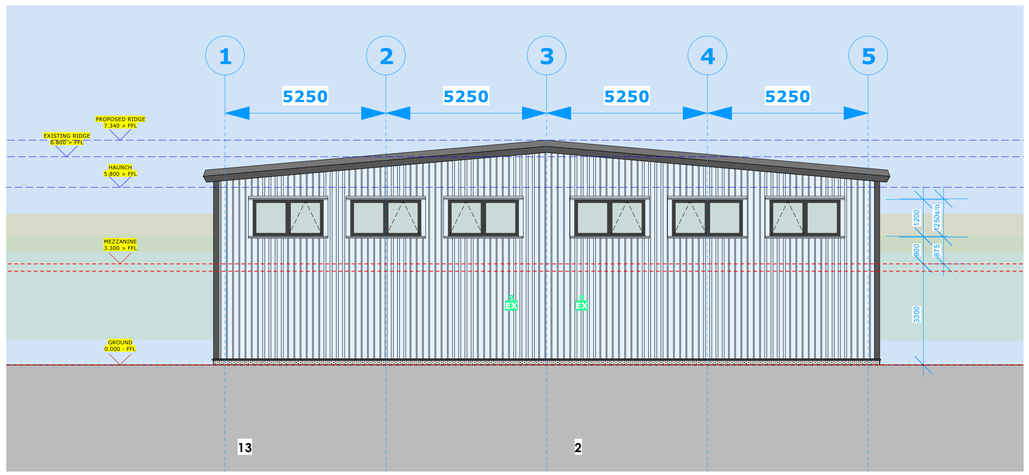
A104B PLANNING ISSUE

DAVID BRAIN PARTNERSHIP
ARCHITECTS Ralph Allen's Town House, 2 Church Street, Bath, BA1 1NL Tel: (01225) 445055 www.dbpbath.co.uk

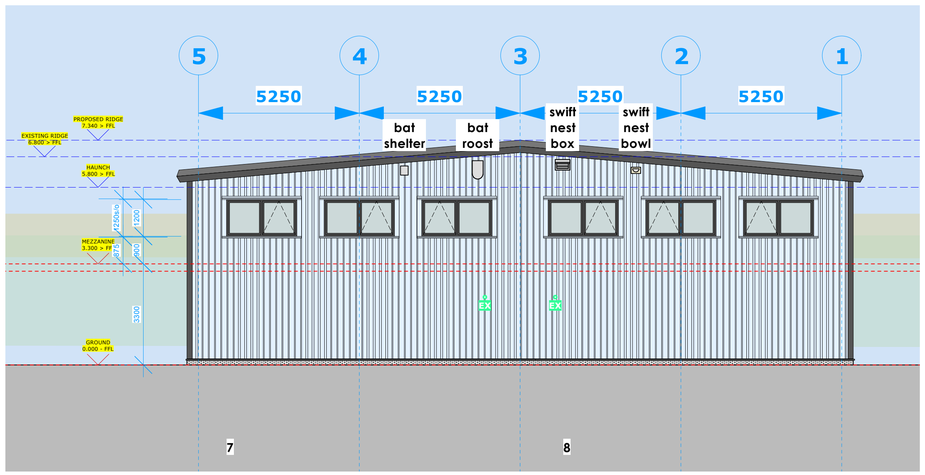
Drawing Title:	SITE & GF PLAN - CONCEPT DESIGN 4	Drawn: MS	Job No: 1250
Project Name:	NORBECK ENTERPRISE CENTRE	Date: DEC 2019	Paper Size: A1
Project Address:	WARMINSTER BUSINESS PARK	Scale: 1:250	Drawing No: A104B



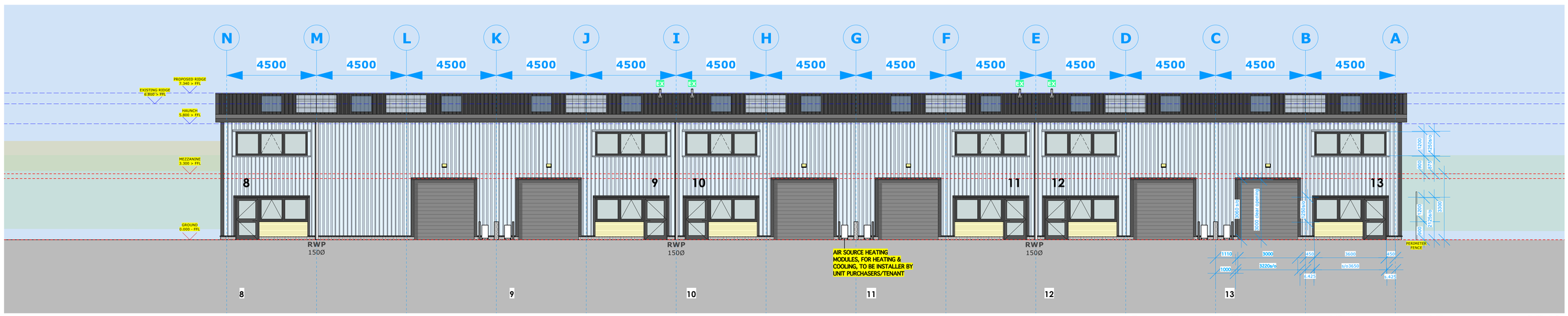
FLANK - SOUTH-WEST ELEVATION



GABLE - SOUTH-EAST ELEVATION



GABLE - NORTH-WEST ELEVATION



FLANK - NORTH-EAST ELEVATION

0 5 10 15 20 M

EXTERNAL LIGHTING



Wall Mounted Floodlight

Loxa Compact Floodlights (or similar approved) WALL MOUNTED ASYMMETRICAL LOW GLARE COMPACT FLOODLIGHTS. WATTAGES INCLUDE 30W 80W 120W. LIGHT TO BE CONFIRM BY SPECIALIST

GABLE LIGHTS



Wall Mounted Diffuser

(details to be confirmed)

REV A - 05.11.2019 - PITCHED ROOFS REPLACED WITH CURVED ROOFS
REV B - 18.12.2019 - UNIT ARRANGEMENT ALTERED; M&E SERVICES ADDED
REV C - 18.05.2021 - DIMS. UPDATED
REV D - 27.08.2021 - WINDOW / VEHICLE DOOR DIMS UPDATED
REV E - 24.05.2023 - ECOLOGICAL ENHANCEMENTS ADDED TO N.W. ELEVATION

A202E PRELIMINARY

NORBECK ENTERPRISE CENTRE
FURNAX LANE
WARMINSTER BUSINESS PARK

BLOCK A ELEVATIONS
1:1250 @ A1

EXTERNAL MATERIALS



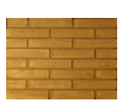
Windows, Doors, Rainwater Goods & Trims

Colour:
PPC - Slate Grey (RAL 7012) &
Powder Blue (RAL 210 80 10)



Plinth Masonry

Weinerberger Slate Blue Smooth 2232



Under Ground Floor Window Masonry

Weinerberger Warm Golden Buff 24320440



Roof

Kingspan Quadcore KS1000RW
Trapezoidal Roof Cladding
Finish Colour:
Kingspan XL Forte - Merlin Grey
(RAL 180 40 05; BS 18B 25)

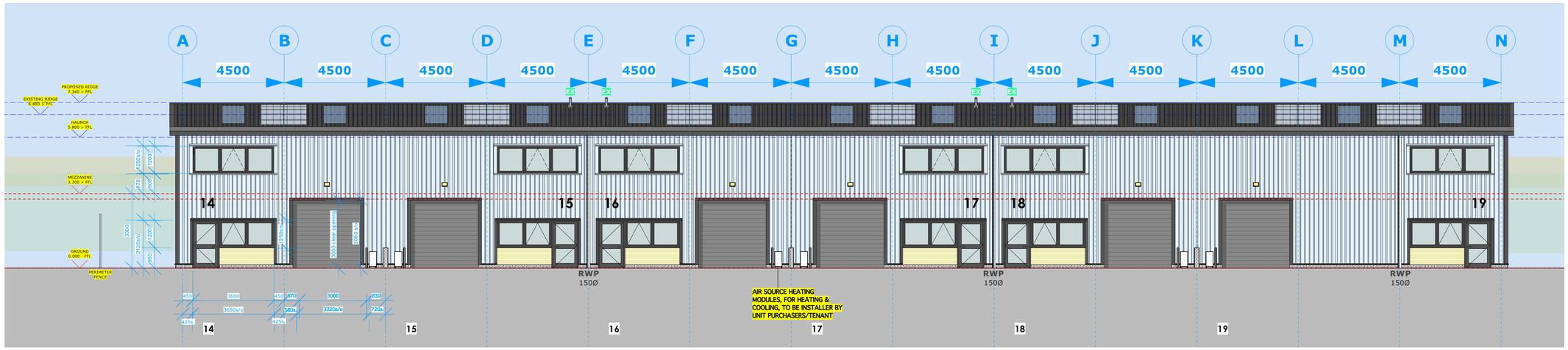


Wall Cladding

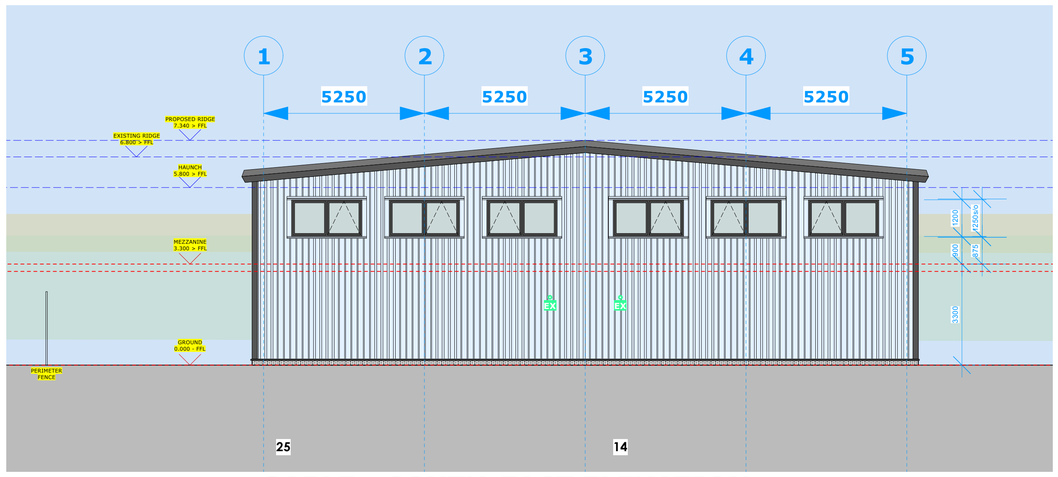
Kingspan Quadcore KS1000RW
Trapezoidal Wall Cladding - vertically laid
Finish Colour: Kingspan XL Forte - Powder Blue
(RAL 210 80 10)

DAVID BRAIN PARTNERSHIP
ARCHITECTS Ralph Allen's Town House, 2 Church Street, Bath, BA1 1NL Tel: (01225) 445055 www.dbpbath.co.uk

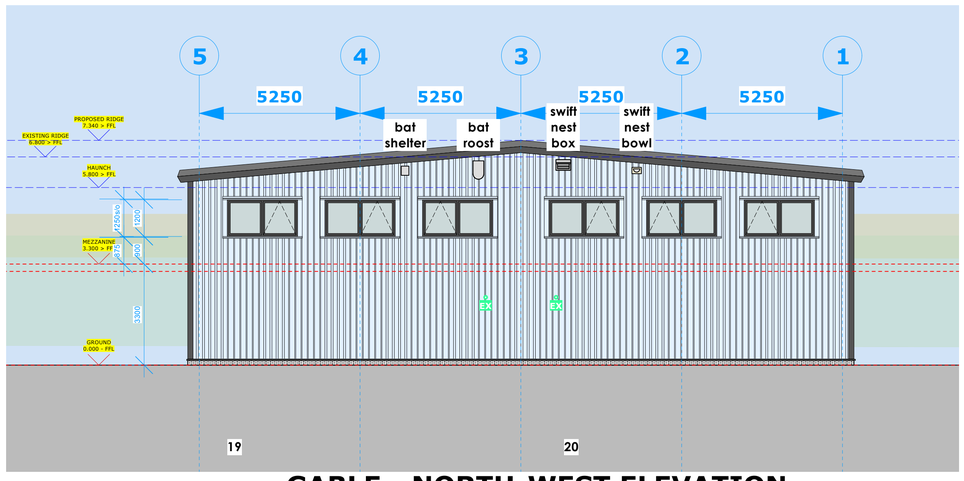
Drawing Title:	BLOCK A ELEVATIONS	Drawn: MS	Job No: 1250
Project Name:	NORBECK ENTERPRISE CENTRE	Date: OCT 2019	Paper Size: A1
Project Address:	FURNAX LANE, WARMINSTER B.P.	Scale: 1:250	Drawing No: A202E



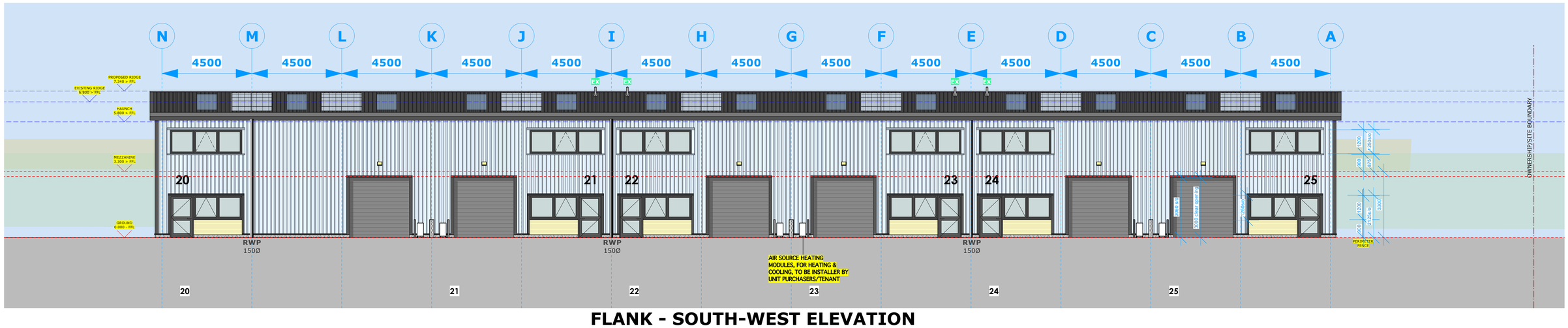
FLANK - NORTH-EAST ELEVATION



GABLE - SOUTH-EAST ELEVATION



GABLE - NORTH-WEST ELEVATION



FLANK - SOUTH-WEST ELEVATION

NORBECK ENTERPRISE CENTRE
FURNAX LANE
WARMINSTER BUSINESS PARK

BLOCK B ELEVATIONS
1:1250 @ A1

EXTERNAL MATERIALS



Windows, Doors, Rainwater Goods & Trims

Colour:
PPC - Slate Grey (RAL 7012) &
Powder Blue (RAL 210 80 10)



Plinth Masonry

Weinerberger Slate Blue Smooth 2232



Under Ground Floor Window Masonry

Weinerberger Warm Golden Buff 24320440



Roof

Kingspan Quadcore KS1000RW
Trapezoidal Roof Cladding
Finish Colour:
Kingspan XL Forte - Merlin Grey
(RAL 180 40 05; BS 18B 25)



Wall Cladding

Kingspan Quadcore KS1000RW
Trapezoidal Wall Cladding - vertically laid
Finish Colour: Kingspan XL Forte - Powder Blue
(RAL 210 80 10)

EXTERNAL LIGHTING



Wall Mounted Floodlight

Loxa Compact Floodlights (or similar approved) WALL MOUNTED ASYMMETRICAL LOW GLARE COMPACT FLOODLIGHTS. WATTAGES INCLUDE 30W 80W 120W. LIGHT TO BE CONFIRM BY SPECIALIST

GABLE LIGHTS



Wall Mounted Diffuser

(details to be confirmed)

REV A - 05.11.2019 - PITCHED ROOFS REPLACED WITH CURVED ROOFS
REV B - 13.12.2019 - PV PANELS, ROOFLIGHTS, EXTERNAL LIGHTS & MATERIALS ADDED
REV C - 18.12.2019 - UNIT ARRANGEMENT ADJUSTED; M&E SERVICES ADDED
REV D - 18.05.2021 - DIMS. UPDATED
REV E - 24.05.2023 - ECOLOGICAL ENHANCEMENTS ADDED TO N.W. ELEVATION

A203E PRELIMINARY

DAVID BRAIN PARTNERSHIP
ARCHITECTS Ralph Allen's Town House, 2 Church Street, Bath, BA1 1NL Tel: (01225) 445055 www.dbpbath.co.uk

Drawing Title:	**BLOCK B ELEVATIONS**	Drawn: **MS**	Job No: **1250**
Project Name:	**NORBECK ENTERPRISE CENTRE**	Date: **OCT 2019**	Paper Size: **A1**
Project Address:	**FURNAX LANE, WARMINSTER B.P.**	Scale: **1:250**	Drawing No: **A203E**

APPENDIX E – MONITORING AND MANAGEMENT SCHEDULE

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Landscape Management Plan 15 Year Summary

Operation	Year					
	1	2	3	4	5	>15
Grass – Close Mown. Open Areas						
Cutting (March – Nov. approx. 12 times/year)	*	*	*	*	*	*
Weedkilling (April – Sept, twice a year)	*	*	*	*	*	*
Remove litter (14 times annually)	*	*	*	*	*	*
Edging adjacent to hard surfaces and planting areas (once a year)	*	*	*	*	*	*
Wildflower/ Long Grass						
Cut twice yearly	*	*	*	*	*	*
Cuttings removed from site	*	*	*	*	*	*
Eradication of noxious weeds	*	*	*	*	*	*
Trees						
Replacement of defects	*	*	*	*	*	
Pruning (annually)	*	*	*	*	*	*
Re-staking and tying (twice yearly check)	*	*	*	*	*	*
Re-instating 2M dia. bark circle in grass areas	*	*	*	*	*	
Watering (during dry spell of 14 days)	*	*				
Annual safety inspection followed by recommended tree works	*	*	*	*	*	*
Shrubs						
Replacement of defects (communal areas)	*	*	*	*	*	
Pruning and deadheading (annually)	*	*	*	*	*	*
Fertiliser (annually)	*	*	*	*	*	*
Hoeing (14 occasions annually)	*	*	*	*	*	*
Weeding/ remove litter (14 occasions annually)	*	*	*	*	*	*
Hedges, maintain as a compact block, 1.2m in height unless otherwise instructed						
Cutting (once a year when extension growth exceeds 450mm)	*	*	*	*	*	*
Cut back ivy (every 3 years)			*			*
Mulching (bark)						
Top up to 50mm in March	*	*			*	
Hard Surfaces						
Brush (twice a year)	*	*	*	*	*	*
Remove litter/ leaves (14 occasions annually)	*	*	*	*	*	*
Spray/ weedkiller (once a year)	*	*	*	*	*	*

Note: * denotes year in which tasks are undertaken.
All work to be undertaken in accordance with BS4428:1989 and BS7370-4:1993

Landscape and Ecological Management Plan – Schedule of Operations

Norbeck E.C. Phase 2 & 3 Johns Associates: Job Number J01185	Ch Check, and if necessary, carry out Ca Carry out Certain operations may be affected by weather and/or seasonal conditions/ constraints. Contractors are to advise the Contract Administrator (CA) of any such factors.

REF.	OPERATION	Frequency	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
2.0	**Ecological Constraints**													
2.2	Protected Species Seasonal Constraints													
	Bat hibernation and activity													
	Common Reptile hibernation and activity													
	Bird nesting period													
	Hedgehog													
3.0	**General**													
	Management Plan Review	Annual check, review after 5 years.												
	Maintenance	Monthly Oct-Mar, twice monthly Apr-Sept.	Ca	Ca	Ca	Ca x2	Ca x2	Ca x2	Ca x2	Ca x2	Ca x2	Ca	Ca	Ca
	Reinstatement	As required												
	Weed Control	As required		Ch	Ch	Ch	Ch	Ch	Ch	Ch	Ch	Ch		
	Vegetation clearance	As required				Ch	Ch	Ch	Ch	Ch	Ch			
	Watering	As required				Ch	Ch	Ch	Ch	Ch	Ch			
	Mulch	As required	Ch	Ch	Ch	Ch	Ch	Ch	Ch	Ch	Ch	Ch	Ch	Ch
	Litter collection	As required	Ch	Ch	Ch	Ch	Ch	Ch	Ch	Ch	Ch	Ch	Ch	Ch
	Autumn/Winter Maintenance													
3.3.6	Snow removal	As required	Ch	Ch									Ch	Ch
3.3.7	Autumn clearance	As required									Ch	Ch	Ch	
	Autumn/Winter leaf removal	As required	Ch	Ch							Ch	Ch	Ch	Ch
4.0	**Management Prescriptions - Habitat Types**													
4.1	**Grassland Areas - Close Mown. Open Areas.**													
	Weedkilling	Apr-Sept, twice a year				Ch	Ch	Ch	Ch	Ch	Ch			
	Cutting	Mar-Nov approx 12 times/yr)			Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	
	Edging adjacent to hard surfaces	Once per year	Ch	Ch	Ch	Ch	Ch	Ch	Ch	Ch	Ch	Ch	Ch	Ch
	Remove litter	14 times annually	Ch	Ch	Ch	Ch	Ch	Ch	Ch	Ch	Ch	Ch	Ch	Ch
4.1	**Grassland Areas - Wildflower/ Long Grass**													
	Cutting	Twice yearly								Ca			Ca	
	Eradication of noxious weeds		Ch	Ch	Ch	Ch	Ch	Ch	Ch	Ch	Ch	Ch	Ch	Ch
	Spot weedkilling	Only with CA's approval		Ch	Ch	Ch	Ch	Ch	Ch	Ch	Ch	Ch		
4.2, 4.3 & 4.4	**Native Screen Hedge, Trees & Shrubs**													
	Existing mature trees	Inspect as required	Ch	Ch	Ch	Ch	Ch	Ch	Ch	Ch	Ch	Ch	Ch	Ch
	New planting - replacement planting as required	As required	Ch	Ch	Ch								Ch	Ch
	New planting - watering	As required to until new planting fully established				Ch	Ch	Ch	Ch	Ch	Ch			
	New planting - check stakes / guards / shelters - check and reset / replace as required	Twice yearly check				Ch					Ch			
	Weed removal	As required	Ch	Ch	Ch	Ch	Ch	Ch	Ch	Ch	Ch	Ch	Ch	Ch
	Tree/whip removal	As required	Ch										Ch	Ch
	Monitoring	Throughout growing season			Ch	Ch	Ch	Ch	Ch	Ch	Ch			
	Pruning / Maintenance	Annually or as required	Ch	Ch									Ca	Ca