
**LAND TO THE EAST OF 279 QUEMERFORD,
CALNE, WILTSHIRE, SN11 8LA**

**LANDSCAPE AND ECOLOGICAL MANAGEMENT PLAN
FOR**

**ERECTION OF TWO DETACHED DWELLINGS AND
ASSOCIATED WORKS**

Prepared by:

WHLandscape

On behalf of:

Mr Paul Mayo & Mr Julian Miller

Project Reference: 25.1962

Revision:

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APPOINTMENT

WH Landscape Consultancy Ltd (WHLandscape) has been appointed by Mr Paul Mayo & Mr Julian Miller to produce a Landscape and Ecological Management Plan (LEMP) to comply with Condition 10 of planning permission PL/2024/09508 for the erection of two detached dwellings and associated works on land to the east of 279 Quemerford, Calne, Wiltshire, SN11 8LA.

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1. INTRODUCTION

1.1 This document, along with the associated illustrative material, provide the landscape and ecological management detail to enable the discharge of Condition 10 of Planning Permission PL/2024/09508. The Condition is reproduced in full below:

CONDITION 10

A Landscape and Ecological Management Plan (LEMP) shall be submitted to, and approved in writing by, the Local Planning Authority before the commencement of the development. The content of the LEMP shall include, but not necessarily be limited to, the following information:

- a) Description and evaluation of features to be managed;*
- b) Landscape and ecological trends and constraints on site that might influence management;*
- c) Aims and objectives of management;*
- d) Appropriate management options for achieving aims and objectives;*
- e) Prescriptions for management actions;*
- f) Preparation of a work schedule (including an annual work plan capable of being rolled forward over an (X) year period;*
- g) Details of the body or organisation responsible for implementation of the plan;*
- h) Ongoing monitoring and remedial measures;*
- i) Details of how the aims and objectives of the LEMP will be communicated to future occupiers of the development.*

The LEMP shall also include details of the legal and funding mechanism(s) by which the long-term implementation of the plan will be secured by the developer with the management body/ies responsible for its delivery.

The plan shall also set out (where the results from monitoring show that the conservation aims and objectives of the LEMP are not being met) how contingencies and/or remedial action will be identified, agreed and implemented.

The LEMP shall be implemented in full in accordance with the approved details.

REASON: The application contained insufficient information to enable this matter to be considered prior to granting planning permission and the matter is required to be agreed with the Local Planning Authority before development commences in order that the development is undertaken in an acceptable manner, to ensure adequate protection, mitigation and compensation for the enhancement of biodiversity.

1.2 This document has been compiled by WHLandscape in conjunction with Malford Environmental Consulting. The document should be read alongside existing ecological documents (*New Dwellings at Common Farm, Quemerford, Wiltshire - Ecological Appraisal*, Malford Environmental Consulting, 27th September 2024) and information including the landscape plans prepared by WHLandscape (included within the illustrative material).

1.3 The aim is to not only integrate the proposed development into the landscape but also provide landscape and ecological enhancements through a comprehensive scheme of new planting and management of existing vegetation, as well as the creation of new habitat areas on land to the north of the site.

1.4 Appointment of a suitably qualified contractor(s) to complete the role of implementing the landscape scheme, and the management of the landscaping thereafter will be undertaken by the client/project manager prior to the commencement of development. Planting will be undertaken during the first planting season after the completion of the proposed development and the implementation of hard landscaping proposals.

1.5 The specification tables included below show the total number of plants for the whole site, while the accompanying illustrative material shows the specific number of plants required for the public and private realms respectively. Furthermore, it is important to note that the specification tables show the sizes of vegetation at planting. Their eventual size will depend on growing conditions and appropriate management.

2. ECOLOGY

2.1 ECOLOGICAL BASELINE

2.1.1 The development site encompasses grazed improved grassland, which supports a very restricted range of common plants. All existing hedge / tree boundary vegetation will be retained and protected. There are no notable or invasive habitats or plants within the development site.

2.1.2 There is no bat roosting habitat and there are no protected mammals inhabiting the development plot, but given the rural setting there is potential for common animals to move or forage through the site. The development site is unsuitable for supporting nesting birds, reptiles and great crested newt.

2.2 OBJECTIVES

2.2.1 The overall aim of creation and management of semi-natural habitats is to establish and/or enhance a range of nationally and locally important habitats that will potentially allow a wider diversity of wildlife to inhabit and use the application site.

2.2.2 The main objective of habitat creation and management during the first 5 years is to ensure the successful establishment of the different habitat types defined below.

2.2.3 Longer-term management objectives deal mainly with maintaining a species- and structurally-diverse and robust habitats for the benefit of a wide range of wildlife.

2.2.4 The specific ecology objectives of the landscape proposals are:

- *Objective E1:* Establishment and subsequent management of species-rich (wildflower) grassland to promote floristic diversity and opportunities for wildlife.
- *Objective E2:* Establishment and subsequent management of new woody planting (including hedgerow shrubs and trees) within the site to promote enhanced structural integrity and habitat connectivity, thereby providing places of shelter as well as movement corridors and foraging resources for wildlife.
- *Objective E3:* Provision and, where required maintenance, of new species-specific features (e.g. bat and bird boxes) to provide places of shelter/nesting/roosting for wildlife.

2.2.2 The above objectives will be achieved by the establishment and growth/maturity of individual trees, hedgerows, planted and seeded areas, through appropriate management operations as detailed in the chapters below.

2.3 LANDSCAPE AND ECOLOGICAL FEATURES

2.3.1 Provided below is a summary of the landscape and ecological features currently on site that are to be retained, protected and managed, as well as those to be created as part of the development.

2.3.2 Retained habitats to be protected and managed are:

- Trees
- Hedgerows

2.3.3 New habitats/features to be created, protected and managed are:

- Individual trees (native and domestic)
- Mixed native hedgerows
- Wildflower grassland
- Lawn grass (private)
- Bat boxes
- Bird boxes

2.4 HABITAT CONDITION TARGETS

TREES

2.4.1 The site management of individual trees will aim to achieve 'moderate condition' by achieving 4 of the 6 criteria (No. 1, 2, 4 and 6) as set out below.

1. The tree is a native species.
2. The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).
3. The tree is mature (or more than 50% within the block are mature).
4. There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.

5. Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.
6. More than 20% of the tree canopy area is oversailing vegetation beneath.

NATIVE HEDGEROW ON BOUNDARIES

2.4.2 To achieve a 'good' condition status management of the hedgerow will aim to achieve no more than 2 failures in total and no more than 1 failure in any functional group (A-D) of the following components.

- A1. *Height*. Has a greater than 1.5m average height along length.
- A2. *Width*. Has a greater than 1.5m average width along length.
- B1. *Gap – hedge base*. Gap between ground and base of canopy <0.5m for 90% of length.
- B2. *Gap – hedge canopy continuity*. Gaps make up <10% of total length and no canopy gaps >5m long.
- C1. *Undisturbed ground and perennial vegetation*. >1m width of undisturbed ground with perennial herbaceous vegetation for >90% length (from outer edge of hedge on at least one side)
- C2. *Nutrient-enriched perennial vegetation*. Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground.
- D1. *Invasive and neophyte species*. >90% of the hedgerow and undisturbed ground is free of invasive, non-native plant species (including those listed on Schedule 9 of the WCA) and recently introduced species.
- D2. *Current damage*. >90% of the hedgerow or undisturbed ground is free of damage caused by human activities.

WILDFLOWER GRASSLAND

2.4.3 To achieve a 'good' condition status the management of the species-rich grassland will aim to achieve all of the following six components.

1. Supports a consistently high proportion of characteristic indicator species based on the UKHab description.
2. Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.
3. Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens.

4. Cover of bracken (*Pteridium aquilinum*) is less than 20% and cover of scrub (including bramble (*Rubus fruticosus* agg.) is less than 5%.
5. Combined cover of species indicative of suboptimal conditions (see below) and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. **(If any invasive non-native plant species (as listed on Schedule 9 of WCA) are present, this criterion is automatically failed).**
6. There are 10 or more vascular plant species per m² present, including only forbs that are characteristic of the habitat type.

2.4.4 Species indicative of suboptimal condition for this habitat type (do not contribute to components 1 and 6) include: creeping thistle (*Cirsium arvense*), spear thistle (*Cirsium vulgare*), curled dock (*Rumex crispus*), broad-leaved dock (*Rumex obtusifolius*), common nettle (*Urtica dioica*), creeping buttercup (*Ranunculus repens*), greater plantain (*Plantago major*), white clover (*Trifolium repens*) and cow parsley (*Anthriscus sylvestris*). There may be additional relevant species local to the region and or site, as well as species listed on Schedule 9 of the Wildlife & Countryside Act 1981.

2.4 RESPONSIBILITIES AND GENERAL MAINTENANCE

2.4.1 Upon practical completion of each landscape area, the Landscape Contractor will hand over to the Management Agency who will be responsible for implementation of the management and maintenance measures detailed in this document.

2.4.2 A formal record/log of management activities undertaken will be kept, along with details of vegetation establishment (and any informal records of associated wildlife use where appropriate), which should be used to inform and provide suitable justification for any alterations to the management activities undertaken. An annual summary of the measures undertaken, and any snags or deviations should be prepared. Should measures not have been undertaken in line with the requirements, or other issues identified, the annual summary should include actions to remedy these, including dates, timelines and responsibility. A copy of the annual summary should be kept with the log/record and made available upon request for inspection.

2.4.3 All landscape maintenance operations, where they do not conflict with ecology operations, will be conducted in accordance with BS 4428:1989 'Code of practice for general landscape operations'. Ongoing landscape maintenance operations are to be in accordance with sound ecological principles,

and where relevant to be in accordance with BS 7370-4:1993 'Grounds Maintenance Recommendations for maintenance of soft landscape'.

2.4.4 All relevant Acts of Parliament and the manufacturer's instructions must be followed, and containers and other contaminated equipment must be cleared from the site after each day's work.

2.4.5 During routine maintenance visits, the Management Agency shall:

- Check all plants for damage, security, firmness, fixing and support, and replant in an upright position and re-firm if required;
- Keep all planting areas free from weed growth and hoe over and level all cultivated areas and remove weeds to tip, reinstating mulch as necessary;
- Remove encroaching scrub growth from grassland areas;
- Re-fix displaced, ease where necessary, or replace where damaged, tree ties and tree and shrub shelters; and
- Remove any waste or surplus discarded materials from the above within planted areas including riparian areas.

2.4.6 At the end of each growing season, an inspection of all new planting areas shall be carried out to identify plants that are dead/dying or are failing to thrive. Any dead plants shall be removed and replaced with plant material of the same size and species as specified in Section 5 Landscape and Ecological Enhancement.

2.4.7 Replacement tree and shrub planting shall be carried out by the Management Agency in the current/first planting season following the discovery of the defect.

2.4.8 Any waste created as part of the general or habitat specific landscape management operations will either be disposed of appropriately off-site, composted on-site or used to create discrete brash piles.

3. MANAGEMENT OF EXISTING VEGETATION AND HABITATS

3.1 TREES

3.2.1 While there are currently no trees on-site, an avenue of hybrid black poplar delineates the approach to Common Farm (the route of Footpath CLAN21), with 5 lying adjacent to the redline boundary. These trees fall outside of the applicants' control, and at the time of writing, are not covered by a Tree Preservation Order or fall within designated Conservation Area.

3.2.2 Branches of off-site trees overhanging the site, can be subject to cutting back to the ownership boundary without prior consent. However, no trespass must occur, including climbing the tree or accessing the adjacent land without consent. Furthermore, as these trees lie outside of the site, their retention is at the discretion of the relevant landowners.

Existing Off-site Trees – Maintenance Operations

- a. All works shall be carefully carried out to avoid damage to the tree being treated, or neighbouring trees. No trees to be retained shall be used for anchorage or winching.
- b. Under the terms of the Wildlife and Countryside Act 1981 (as amended), the Countryside Rights of Way Act 2000 and the Conservation of Habitats and Species Regulations 2010, it is an offence to disturb any protected species, including their habitat or resting place. It may, therefore, be necessary to obtain expert ecological advice prior to the commencement of any works. This is particularly relevant to nesting birds, bats and their roosts. Contractors must be reminded of their responsibilities and should contact the relevant authorities if any signs of bats are found.
- c. The nesting season for most birds runs from 1st March to 31st August. However, this can vary depending on the species and location. During these months, careful inspection must be made before any work commences and works must be postponed if active nests are found.
- d. All tree works will be undertaken by a suitably qualified arborist in accordance with the BS 3998:2010 British Standard Tree Work - Recommendations. Proof of experience and insurance provision will be required. All work shall be undertaken at the appropriate time and with the consent of the applicant.

3.3 HEDGEROWS

3.3.1 While there are currently no hedgerows on-site, part of the land to the north to the site is bounded by a mixed native hedgerow along its western boundary.

3.3.2 Branches of off-site hedges overhanging the site, can be subject to cutting back to the ownership boundary without prior consent. However, no trespass must occur, including climbing onto hedges or accessing the adjacent land without consent. Furthermore, as these hedges lie outside of the site, their retention is at the discretion of the relevant landowners.

As previously notes, under the terms of the Wildlife and Countryside Act 1981 (as amended), the Countryside Rights of Way Act 2000 and the Conservation of Habitats and Species Regulations 2010, it is an offence to disturb any protected species, including their habitat or resting place. As such, hedgerow management will take place between mid-December and early March. This will avoid the dormice active period and bird-nesting season and allow berries to be used for foraging wildlife.

4. PROTECTION OF EXISTING VEGETATION

4.1 The retained trees and hedgerows are vulnerable to damage during demolition and construction and shall be protected during the construction period. Trees and hedges will be protected in accordance with the requirements of BS 5837 (2012), taking account of the Construction Exclusion Zones (CEZ) calculated by a suitably qualified arboriculturalist.

- Protection Barriers will be used to provide a Construction Exclusion Zone (CEZ) to prevent construction activity within the RPAs of the retained trees and hedging both on-site and off-site directly boarding construction areas.
- The protection barriers are to be constructed from weldmesh panels of at least 2.00m height and securely fixed with wire or scaffold clamps fixed to a rigid framework. This framework must be constructed from horizontal and vertical scaffold tubes during the construction period, in accordance with the requirements of BS 5837:2012.
- Where protection fencing falls outside of the RPAs of the retained trees and other vegetation, a robust high visibility plastic mesh barrier is recommended in place of the above-mentioned fencing. This will create a visual deterrent and signify the extent of the CEZ.
- All services should be directed outside the retained tree's RPAs.
- No unplanned construction activity whatsoever must be allowed within the RPAs of trees to be retained. This includes the storage of materials, unplanned re-routing of underground services or incursions by vehicles or site operative unless specified and accompanied by specialist protection measure.
- Mixing of concrete or cement, or the storage of fuels must not take place within 10m of the retained trees, nor in any location where a slope in the ground could lead to the contamination of the RPA of any tree to be retained.
- Fires must not be lit in a position where flames could extend within 10m of the foliage, branch framework or trunk of any tree to be retained.
- Landscape works undertaken within the RPAs must be done so as not to damage shallow roots and are to be agreed by the arboricultural consultant. Heavy mechanical cultivation of the soil must not be undertaken within the RPAs of trees to be retained.
- Changes in soil levels should not be undertaken within the RPAs of retained trees, unless otherwise agreed in writing with the Local Planning Authority (LPA). This is in order to ensure that the rooting systems, including the delicate non-woody roots, are not inadvertently severed, or the rooting zones are not compromised by compaction.

4.2 The undertaking of the above measures will ensure that the biodiversity of the site is protected in accordance with the Wildlife and Countryside Act 1981.

5. LANDSCAPE AND ECOLOGICAL ENHANCEMENT

5.1 LANDSCAPE AND HABITAT ENHANCEMENT

5.1.1 Management practices are proposed that will safeguard and enhance key habitats (e.g. hedgerows and mature trees) for the benefit of wildlife. The design and long-term management of the land seeks to provide enhanced green infrastructure connections into the wider landscape, as well as encouraging species diversity around the site.

5.1.2 The proposed planting will largely consist of introducing structural planting around the site (including land to the north), helping contain the development on the residential edge of Quemerford while also breaking up views through the use of strategic tree planting. Additionally, areas of wildflower planting should be established as a landscape enhancement, as well as to achieve 10% Biodiversity Net Gain.

5.2 PRELIMINARIES

GENERAL

- Planting will be undertaken during the first planting season after the completion of the proposed development and the implementation of hard landscaping proposals.
- Failure of Plants (pre-practical completion): the Contractor entirely at his own cost shall replace any trees, shrubs or other plants other than those found to be missing or maliciously damaged.
- Malicious Damage or Theft prior to Practical Completion: the Contractor at his own expense shall make all loss and damages arising from theft or malicious damage prior to practical completion of the entire project good.
- Post Practical Completion: the Contractor will carry out the maintenance of trees, shrubs and grasslands after the date of practical completion until the responsibility is transferred to the new owners or by the appointed management company.
- Replacements of plants shall take place as many times as is necessary in order to maintain a complete cover of plants and to maintain the scheme as designed by the Landscape Architect, and within the correct season for the type of plant, tree, shrub and grassland mix.
- Appointment of a suitably qualified contractor(s) to complete the role of implementing the landscape scheme, and the management of the landscaping thereafter will be undertaken by the client/project manager prior to the commencement of development.

- The developer shall ensure that any landscape contractor employed by the developer shall carry out the periodic maintenance of all planted areas, other than any areas for which the appointed Management Company becomes responsible during the said Maintenance Period. Inspection checks shall be carried out at monthly intervals and the appropriate work carried out.
- The developer shall ensure that any landscape contractor employed by the developer shall carry out in all areas any tree, shrub, grass and other plants replacements that may be necessary until transfer of responsibility to the Management Company.
- The Management Company shall be responsible for all periodic maintenance and replacement thereafter for all planted areas to which its management agreement relates and shall ensure that any landscape contractor employed by it carries out periodic maintenance of all such areas in accordance with the general management details provided. Either inspection checks shall be carried out by a competent person, a member of British Association of Landscape Industries (BALI) or the Landscape Institute (LI), acting for the Management Company, at minimum monthly intervals and the appropriate work carried out.
- No existing, trees shrubs or grass shall be removed or cut without specific instructions from the Contract Administrator and written agreement of the Wiltshire Council Tree Officer. Any existing trees on the site are to be retained, protected and undisturbed throughout the contract.
- On hand-over to the new domestic owners of the properties an outline of the management plan should be made available to provide the principles of the landscaping and encourage the future management of the domestic setting in perpetuity.
- Any landscaping beyond the boundaries of domestic ownership will be maintained in perpetuity by the Management Company(ies).

LITTER REMOVAL

- The Contractor will ensure that the site is kept free of litter and other debris through a regular programme of monitoring, collection and disposal, carried out in accordance with the Code of Practice on Litter and Refuse issued under Section 89 of the Environment Protection Act (1990).
- Litter removal will coincide with visits to maintain vegetation.
- Particular care will be taken to remove all broken bottles, glass, tins, sharp objects and other items likely to constitute a hazard to the public.
- All litter and debris shall be removed off site to an authorised tip specified by the Contractor.

TREE ROOT BARRIERS

5.2.1 Where necessary, to protect services, structures and surfaces Root barriers (GreenBlue Urban or similar approved) will be used. Root barriers are to be installed as directed by the Project Structural Engineer where trees are proposed within 3.00m of services, structures and surfaces or are located closer to site features than the offsets recommended in Table A.1 of BS 5837:2012 'Trees in Relation to Design, Demolition and Construction'. However, in the first instance the location of trees and services should be designed to minimise conflicts.

5.2.2 Root barriers are to be installed to supplier specification on the tree side along the back edge of the kerb/edging restraint to the adjacent hardstanding and are to extend a minimum 3.00m in each direction from a point taken perpendicular from the tree trunk to the kerb/edging face.

5.2.3 The following root barriers specifications outlined below are to be used, dependent on the depth of underground services:

- Where no services present – GreenBlue Urban – ReRoot300 (or similar approved)
- For services 450mm deep – GreenBlue Urban – ReRoot600 (or similar approved)
- For services 800mm deep – GreenBlue Urban – ReRoot1000 (or similar approved)
- For services deeper than 800mm – GreenBlue Urban – ReRoot2000 (or similar approved)

5.2.4 For locations where a hardstanding with or without underground services exists on both sides of the tree (e.g. grass verges), then a root barrier is to be installed against both kerb/edging faces.

IRRIGATION

5.2.5 This document is not able to give precise recommendations with regard to species-specific watering requirements, however the following should be considered in respect of watering for all new planting:

- Use a watering can with a rose attachment on the end to water or a sprinkler or other such method that will administer water slowly and at a low pressure, mimicking rainfall.
- Water should be applied to the base of the plant, evenly distributed over the entirety of the root-ball to encourage even root development.
- Ensure that water is draining well away after 10 minutes of application of water.
- A newly planted tree/shrub should be watered in when planted, and at the point of bud burst in the spring and should be continued throughout the spring and summer until the leaves have fallen in autumn (for deciduous trees).

- Watering is advised for the first 3 summers after planting, further to this the trees and shrubs should be able to access water from the surrounding soil. (**Note:** *Be mindful that newly planted trees do need watering, even if it has been raining as often rainwater will not reach the rootball*).
- Evergreens may need to be watered a little during the winter months if it is particularly dry, this does not need to be done routinely and can be a response to a period of dry weather.
- Use organic mulch at the base of the plants to help retain water, prevent weed growth and also give you an indication of where you need to water.

5.2.3 The table (below) provides a guide to the necessary irrigation period.

Irrigation Schedule: Years 1 to 3		
Size of nursery stock	Irrigation Frequency	Irrigation Rates**
<50mm girth (Shrubs & hedge plants)	Daily for 2 weeks; every other day for 2 months; weekly until established.	Water will be applied to trees at a rate of 8-12 litres of water per 25mm of trunk diameter; Water will be applied to shrubs at a rate of 4-8 litres of water per 25mm of trunk diameter.
50-100mm girth (Standard trees)	Daily for 1 month; every other day for 3 months*; weekly until established.	
>100mm girth (Selected Standard + trees)	Daily for 6 weeks; every other day for 5 months*; weekly until established.	
* When planting in winter, the irrigation frequency can be reduced to 2-3 times each week (after the initial period of daily watering) instead of every other day. ** During the period between May to September weekly watering rates will be no less than 20 litres per tree and 10 litres per individual shrub/linear metre of hedgerow unless ample rainfall renders this unnecessary. During extended dry periods (i.e. 10 days with no rain), plants will be watered every other day.		

5.3 INDIVIDUAL TREE PLANTING AND MANAGEMENT

5.3.1 All tree locations and species must be taken into consideration by the Project Structural Engineer to ensure that foundation design accords with the specifications set out under Chapter 4.2 of the NHBC Standards. It is the Contractors responsibility to ensure that all underground services have been located and identified in advance of tree pit excavation. Root barriers are to be installed as directed by the Project Structural Engineer where trees are within 3.00m of services, structures and surfaces or are located closer to site features than the offsets recommended in Table A.1 of BS 5837:2012 'Trees in Relation to Design, Demolition and Construction'. Supply and aftercare of trees shall be in accordance with BS 8545: 2014 'Trees: from nursery to independence in the landscape', with aftercare proposals detailed below.

5.3.2 All tree pits must be backfilled with certified topsoil and subsoil as required. If soil has not been supplied by the site then approved soil must be imported to site, all certificates must be handed to the Site Manager on delivery. All trees will comprise pot grown or root-balled stock.

Ground Preparation and Planting

General

- a. All trees are to be pit-planted in minimum 1.00m² square pits, which have been cleared of all vegetation. The base and side (unless root barriers are being used) of tree pits are to be 'broken' to assist root penetration and improve drainage.
- b. Trees will be planted during the first planting season following completion of development (i.e. between November and March) when the ground is neither frozen nor waterlogged. If the ground is dry, the plants will be watered to ground capacity on planting.
- c. Trees are to be planted a minimum of 3.00m from any existing and proposed drainage channels and service runs that cross the site. (The precise routes of drainage, and any service points, are to be determined before planting commences to prevent conflicts.)
- d. Trees are to be planted a minimum of 1.00m from any fencing or boundary walls to prevent future conflicts.
- e. Root barriers (GreenBlue Urban or similar approved) should be used where necessary to protect services, structures and surfaces if trees cannot be suitably repositioned in their immediate locality (see 5.2.1 to 5.2.5 for full details).
- f. All trees will be watered to capacity once planted.

Trees Within Soft Landscape Areas – Tree Pits

- a. Tree pits are to be excavated to a depth of 750mm and backfilled with:
 - 300mm of good quality certified subsoil .
 - 450mm depth of good quality certified topsoil.
- b. A general-purpose slow-release fertiliser (at the rate of 75gm/m²) and Tree Planting and Mulching Compost (at the rate of 20litres/m²) are to be incorporated into the top 150mm of topsoil during its final cultivation.

Staking

- a. 'Light Standard', 'Half Standard' and 'Standard' trees will be single staked using (Ht) 1200mm (Dia) 1000mm tree stakes. Trees are to be secured with tree buckle and rubber block, attached to the stakes with flat headed wood nails.

- b. 'Selected Standard' trees will be double staked using (Ht) 1800mm (Dia) 100mm tree stakes with a 100mm x 25mm treated timber brace. Trees are to be secured with tree buckle and rubber block, attached to the brace with flat headed wood nails.
- c. All trees will be mesh guarded to prevent damage by vermin.

Planting Specifications

Open Space Tree Species							
Plan Ref.	Scientific name	Common name	Specification	Girth (cm)	Approx. height (m)	Clear stem height (m)	No.
Ac	<i>Acer campestre</i>	Field Maple	Standard	8-10	2.50/3.00	1.75/2.00	3
Cb	<i>Carpinus betulus</i>	Hornbeam	Selected Standard	10-12	3.00/3.50	Min 2.00	1
Cm	<i>Crataegus monogyna</i>	Hawthorn	Light Standard	6-8	2.50/3.00	1.50/1.75	2
Ms	<i>Malus sylvestris</i>	Wild crab apple	Light Standard	6-8	2.50/3.00	1.50/1.75	2
Pp	<i>Prunus Padus</i>	Bird Cherry	Standard	8-10	2.50/3.00	1.75/2.00	1
St	<i>Sorbus torminalis</i>	Wild service tree	Standard	8-10	2.50/3.00	1.75/2.00	1
Total:							10

Front Garden Tree Species							
Plan Ref.	Scientific name	Common name	Specification	Girth (cm)	Approx. height (m)	Clear stem height (m)	No.
Ac'QE'	<i>Acer campestre</i> 'Queen Elizabeth'	Field Maple 'Queen Elizabeth'	Standard	8-10	2.50/3.00	1.75/2.00	1
Axg	<i>Amelanchier × grandiflora</i> 'Autumn Brilliance'	Serviceberry 'Autumn Brilliance'	Light Standard	6-8	2.50/3.00	1.50/1.75	1
Cl	<i>Crataegus laevigata</i> 'Paul's Scarlet'	Hawthorn 'Paul's Scarlet'	Standard	8-10	2.50/3.00	1.75/2.00	1
Sa	<i>Sorbus aria</i>	Whitebeam	Standard	8-10	2.50/3.00	1.75/2.00	1
Total:							4

Rear Garden Fruit Tree Species							
Plan Ref.	Scientific name	Common name	Specification	Root-stock*	Approx. height (m)	Clear stem height (m)	No.
Md'JG'	<i>Malus domestica</i> 'James Grieve'	Apple 'James Grieve'	Half Standard	MM106	Min 1.50	Min 0.80	1
Pc'WC'	<i>Pyrus communis</i> 'Williams' Bon Chrétien	Pear 'Williams' Bon Chrétien	Half Standard	Quince A	Min 1.50	Min 0.80	1
Total:							2
* Rootstocks determine the vigour of fruit trees.							

Maintenance Operations

- a. The planting will be checked at regular intervals and any damaged stakes, canes and ties replaced. Plants will be firmed up following planting and, if necessary, until established. Any plants which die, become diseased or damaged will be replaced.
 - Years 0 – 2: Tree will be checked quarterly and after inclement weather.
 - Years 3 – 5: Tree will be checked annually and after inclement weather.
 - Years 5+: Trees will be checked be checked at least once every two years and after severe inclement weather.
- b. For the first three years, trees will be watered. For subsequent years, during extended dry periods (i.e. 10 days with no rain), trees will be watered to ground capacity on a weekly basis until dry conditions are alleviated.
- c. Weeding around trees will be carried out monthly by hand until the plants are well established. Mulch will be applied annually, using 50mm of matured wood bark, or wet straw, for the first three years after planting to suppress weed growth and contain the moisture.
- d. Limited formative pruning will be necessary to ensure that healthy and balanced crowns develop, avoiding 2 weeks either side of bud burst and leaf fall, at which time the stakes, guards and tree ties will be checked to ensure that the trees are not being damaged by them.
- e. Stakes and guards will be removed when the trees are established, after approximately 3 to 5 years depending on species.
- f. Any losses will be replaced during the following planting season to achieve a stocking rate of 100% by the end of the 5-year period.
- g. Mature and established trees will be inspected at least once every two years and after severe inclement weather, and any necessary remedial work performed.

5.4 HEDGE PLANTING AND MANAGEMENT

Ground Preparation and Planting

- a. Bare-rooted hedging material will be planted during the first planting season following completion of development (i.e. between November and March) when the ground is neither frozen nor waterlogged. If the ground is dry, the plants will be watered to ground capacity on planting.
- b. All invasive and pernicious weeds will be removed from the site before works commence. Clearance will be restricted to non-residual herbicide in accordance with manufacturers specifications and hand weeding. All planting beds will be free from weeds and waste materials.
- c. Planting beds are to be excavated to a depth of 500mm and backfilled with:
 - 200mm of good quality certified subsoil.
 - 300mm depth of good quality certified topsoil.
- d. All Mixed Native hedging material will be planted as bare-rooted transplants and are to be notch-planted in a double staggered row at 45cm centres using 5 plants per linear metre, taking care to ensure species are mixed and not heavily grouped.
- e. Planting areas will be mulched using 50mm of matured wood bark, or wet straw
- f. Plants will be individually staked using (Ht) 600mm bamboo canes and guarded with spiral guards to prevent damage by vermin.
- g. All hedgerow plants will be watered in once planted.

Planting Specifications

Mixed Native Hedge Species – Total Length: 72.6m						
Plan Ref.	Scientific name	Common name	Specification	Approx. height (cm)	%	No.
1	<i>Acer campestre</i>	Field maple	1 + 1 transplants	80-100	5	18
	<i>Corylus avellana</i>	Hazel	1 + 1 transplants	80-100	20	73
	<i>Crataegus monogyna</i>	Hawthorn	1 + 1 transplants	80-100	60	218
	<i>Euonymus europaeus</i>	Spindle	1 + 1 transplants	80-100	5	18
	<i>Prunus spinosa</i>	Blackthorn	1 + 1 transplants	80-100	5	18
	<i>Viburnum lantana</i>	Wayfaring tree	1 + 1 transplants	80-100	2.5	9
	<i>Viburnum opulus</i>	Guelder rose	1 + 1 transplants	80-100	2.5	9
Total Plants:						363

Maintenance Operations

- a. The planting will be checked at regular intervals and any damaged stakes, canes and ties replaced. Plants will be firmed up following planting and, if necessary, until established. Any plants which die, become diseased or damaged will be replaced.
 - Years 0 – 2: Hedging plants will be checked quarterly and after inclement weather.
 - Years 3 – 5: Hedging plants will be checked biannually and after inclement weather.
 - Years 5+: Hedging plants will be checked annually and after severe inclement weather.
- b. For the first three years, hedge plants will be watered. For subsequent years, during extended dry periods (i.e. 10 days with no rain), plants will be watered to ground capacity on a weekly basis until dry conditions are alleviated.
- c. Weeding around hedges will be carried out monthly by hand until the plants are well established. Mulch will be applied annually, using 50mm of matured wood bark, or wet straw, for the first three years after planting to suppress weed growth and contain the moisture.
- d. Pruning will be required to ensure the growth of strong, dense hedging and will be carried out once the plants are well established, normally in the second year, but dependant on growth rates.
- e. Hedgerow management will take place between mid-December and early March. This will avoid the dormice active period and bird-nesting season and allow berries to be used for foraging wildlife.
- f. Mixed native hedging will be maintained at a minimum of 2.50m in height once established.
- g. Guards and stakes will be removed once the plants are well established.
- h. Any losses will be replaced during the following planting season to achieve a stocking rate of at least 95% by the end of the 5-year period.
- i. Established hedges will be inspected annually and after severe inclement weather, and any necessary remedial work performed.

5.5 WILDFLOWER GRASSLAND

Ground Preparation

5.5.1 To prepare the seed bed weeds must first be removed using repeated cultivation or a non-residual herbicide. The existing grassland will be prepared in late summer by cutting the sward very hard, while creating gaps in the sward (aiming to create 50% bare soil) by harrowing or by raking. This is best done when the ground is dry.

5.5.2 It may be necessary to return to site even after seeding in order to remove any invasive species such as docks, thistles, mare's tail or brambles; these should either be manually removed or individually chemically treated.

Wildflower Grassland Seed Mix – Total Area: 772.0m²			
Seed Mix	Sowing Rate (g/m²)	%	Quantity (g)
Emorsgate EM2F	1.5	100	≈1158

Sowing

- Seed is best sown in the autumn or spring but can be sown at other times of the year if there is sufficient warmth and moisture in the soil. Moisture may be supplied artificially by watering but must be thorough enough to penetrate at least 100mm and continued after sowing if dry weather follows.
- Seed will be surface sown onto a freshly prepared seed bed and can be applied by machine or broadcast by hand (do not drill). To get an even distribution, divide the seed into two or more parts and sow in overlapping sections.
- After sowing do not incorporate or cover the seed, but firm in with a roll, or by treading, to give good soil/seed contact.

Maintenance Operations

- Protect the newly sown seed from birds and prevent public access onto the soil. Weed the area by hand, removing any weeds before they flower.
- Newly sown seed must always remain moist unless conditions are naturally damp. Seed will be watered with sprinklers twice per day (morning and late afternoon) for 5 to 10 minutes each time so as not to oversaturate the soil. Watering will continue for 3-4 weeks, depending on weather conditions. Once germination occurs and green grass shoots are visible, reduce watering unless conditions are very dry.
- Once seed has germinated, the frequency of watering will be slowly reduced to a single long soak of approximately 40 minutes in late afternoon on alternate days, depending on weather conditions.
- Once seedling grasses are established and 50-80mm in height, (typically in good growing conditions after about three to four weeks), lightly roll or tread to firm and level the soil around the grass roots ready for the first cut. Do not roll if the ground is saturated with water.

- e. When the grass has picked up again (typically after a few days) the first cut can be undertaken with the mower set on a high setting (50mm +). The aim is to trim the sown grass back by about one-third of its height and cut back any weeds. The watering regime continued until the next cut.
- f. Growth and establishment of some wildflowers and grasses may be slow initially. There will often be a flush of annual weeds from the soil in the first growing season, however this can be controlled through repeated mowing.
- g. After the second cut the grassland can be mown regularly as needed, to a minimum of 50mm.
- h. Mowing can be reduced from late June to allow flowering. Cut again after 4-8 weeks. To allow cowslips to flower, mowing can be reduced earlier.
- i. Dense cuttings should be removed.
- j. A new sown grassland will take a full year or more to reach full strength and ground cover and knit together. It can be walked on during establishment but heavy use that might cause wear and tear will be avoided.

5.6 LAWN GRASS PLANTING AND MANAGEMENT

Ground Preparation

5.6.1 To prepare the seed bed the ground must be excavated to a depth of 300mm and backfilled with:

- 150mm of good quality certified subsoil.
- 150mm depth of good quality certified topsoil.

The soil will be raked and rolled to produce a medium tilth and a level bed. After the soil has been spread and levelled the ground will be left to settle for several days/weeks; this gives another opportunity to control any residual weeds which emerge during this time, such as docks, thistles, mare's tail or brambles.

5.6.2 To achieve an even surface, the ground will be lightly re-cultivated, and any large stones or bricks removed from the surface. Once prepared the ground will be raked and rolled, moving soil if needed to smooth out minor humps and depressions, to produce a firm surface. The final raking and rolling will produce a seed bed with a medium-fine tilth ready for seeding. Cultivation work will be carried out when the soil moisture level is reasonably low, allowing the soil to crumble.

Sowing Specifications

Garden Lawns Grass Seed Mix – Total Area: 368.5m²			
Seed Mix	Sowing Rate (g/m²)	%	Quantity (g)
Emorsgate EG22 (or equivalent)	25	100	~9213

Sowing

- Seed will be sown in spring when there is sufficient warmth and moisture in the soil. Moisture will be supplied artificially by watering if the soil is dry, however it must be thorough enough to penetrate at least 100mm.
- Seed will be surface sown onto a freshly prepared seed bed and can be applied by machine or broadcast by hand (do not drill). To get an even distribution, divide the seed into two or more parts and sow in overlapping sections.
- After sowing lightly rake or harrow the surface to settle the seed in. Take care not to bury the seed at depth. Firm with a roller, or by treading, to give good soil/seed contact.

Maintenance Operations

- Protect the newly sown seed from birds and prevent public access onto the soil. Weed the area by hand, removing any weeds before they flower.
- Newly sown grass seed must always remain moist unless conditions are naturally damp. Seed will be watered with sprinklers twice per day (morning and late afternoon) for 5 to 10 minutes each time so as not to oversaturate the soil. Watering will continue for 3-4 weeks, depending on weather conditions. Once germination occurs and green grass shoots are visible, reduce watering unless conditions are very dry.
- Once grass seed has germinated, the frequency of watering will be slowly reduced to a single long soak of approximately 40 minutes in late afternoon on alternate days, depending on weather conditions.
- Once seedling grasses are established and 50-80mm in height, (typically in good growing conditions after about three to four weeks), lightly roll or tread to firm and level the soil around the grass roots ready for the first cut. Do not roll if the ground is saturated with water.
- When the grass has picked up again (typically after a few days) the first cut can be undertaken with the mower set on a high setting (50mm +). The aim is to trim the sown grass back by about one-third of its height and cut back any weeds. The watering regime continued until the next cut.

- f. After the second cut the lawn can be mown regularly as needed (when grass reached 50-80mm in height), progressively reducing the mowing height over its first spring/summer to the desired height. The grass will be watered weekly at a rate of 40 minutes per day in late afternoon, depending on weather conditions. When there are extended dry periods (i.e. 10 days with no rain), the lawn will be watered to saturation twice a week until dry conditions are alleviated.
- g. A new sown lawn will take a full year or more to reach full strength and ground cover and knit together as a turf. It can be walked on during establishment but heavy use that might cause wear and tear will be avoided.

6. FAUNA SPECIFIC FEATURE CREATION AND MANAGEMENT

6.1 BATS

CREATION

6.1.1 To enhance the site for roosting bats, two integrated bat roosting boxes (also known as bat bricks or bat tubes) will be installed within the fabric of external walls on the new buildings. The two bat boxes will be installed as close to the roof apex on a west and east facing elevation.

MANAGEMENT

6.1.2 The bat boxes are fully integrated into the fabric of the buildings and are self-cleaning. The bat boxes require no specific maintenance.

6.2 BIRDS

CREATION

6.2.1 To provide mitigation and an enhancement for nesting birds, a total of four integrated swift nesting boxes, which fit into the fabric of an external cavity wall, will be incorporated into the scheme. The swift boxes will be installed as pairs. The boxes will be orientated as close to the roof apex on a west and east facing elevation, which provide sufficient height and shelter from direct sunlight and predators.

MANAGEMENT

6.2.2 The bird boxes are fully integrated into the fabric of the buildings and require no specific maintenance.

TABLES

TABLE 1: WOODY PLANTS LANDSCAPE MANAGEMENT – 5 YEAR SCHEDULE

Year/Season/ Month	Tree	Hedges
Planting <i>October</i> - <i>March</i>	Plant new trees to specification. Irrigate as necessary. If planted in November – December check plants twice before Spring (March). If planted in January – February check plants once before Spring (March).	Plant new hedges to specification. Irrigate as necessary. If planted in November – December check plants twice before Spring (March). If planted in January – February check plants once before Spring (March).
Year 1 <i>Spring</i> (<i>March – May</i>)	Weed monthly. Check trees (including stakes and guards). Check for damage. Irrigate new planting as necessary in dry weather.	Weed monthly. Check hedges (including stakes and guards). Check for damage. Irrigate new planting as necessary in dry weather.
<i>Summer</i> (<i>June – August</i>)	<u>As Spring Year 1</u> Be aware of additional irrigation requirements in dry conditions.	<u>As Spring Year 1</u> Be aware of additional irrigation requirements in dry conditions.
<i>Autumn</i> (<i>September – November</i>)	<u>As Spring Year 1</u>	<u>As Spring Year 1</u> Firm plants as necessary.
<i>Winter</i> (<i>December – February</i>)	Check all trees and replace failures. Check guards and stakes.	Check all hedging plants and replace failures. Check guards and stakes.
Year 2 <i>Spring</i> (<i>March – May</i>)	<u>As Spring Year 1</u> Continue irrigation schedule for new planting.	<u>As Spring Year 1</u> Continue irrigation schedule for new planting.
<i>Summer</i> (<i>June – August</i>)	<u>As Summer Year 1</u> Continue irrigation schedule for new planting, being aware of additional irrigation requirements in dry conditions.	<u>As Summer Year 1</u> Continue irrigation schedule for new planting, being aware of additional irrigation requirements in dry conditions.
<i>Autumn</i> (<i>September – November</i>)	<u>As Autumn Year 1</u>	<u>As Autumn Year 1</u>
<i>Winter</i> (<i>December – February</i>)	<u>As Winter Year 1</u> Prune all deciduous trees apart from maple and birch. Formative pruning of fruit trees.	<u>As Winter Year 1</u> Lightly trim top growth from mid-December to encourage dense low growth.
Year 3 <i>Spring</i> (<i>March – May</i>)	Weed monthly. Continue irrigation schedule for new planting.	Weed monthly. Continue irrigation schedule for new planting.
<i>Summer</i> (<i>June – August</i>)	<u>As Spring Year 3</u> Be aware of additional irrigation requirements in dry conditions.	<u>As Spring Year 3</u> Check hedges (including stakes and guards). Check for damage. Be aware of additional irrigation requirements in dry conditions.

<i>Autumn (September – November)</i>	<u>As Spring Year 3</u> Formative pruning of maple and birch.	<u>As Spring Year 3</u>
<i>Winter (December – February)</i>	Check all trees and replace failures. Check guards and stakes. Remove guards and stakes on vigorous plants. Prune all deciduous trees apart from maple and birch.	Check all hedging plants and replace failures. Check guards and stakes. Remove guards and stakes on vigorous plants. Lightly trim top growth from mid-December to encourage dense low growth.
Year 4 – 5 <i>Spring (March – May)</i>	Weed monthly. Only Irrigate during extended dry periods (i.e. 10 days with no rain), when plants will be watered every other day.	Weed monthly. Only Irrigate during extended dry periods (i.e. 10 days with no rain), when plants will be watered every other day.
<i>Summer (June – August)</i>	<u>As Spring Year 4</u> Be aware of additional irrigation requirements in dry conditions. Pruning of maple and birch.	<u>As Spring Year 4</u> Check hedging plants (including stakes and guards). Remove guards and stakes on vigorous hedging plants in year 4 and year 5. Be aware of additional irrigation requirements in dry conditions.
<i>Autumn (September – November)</i>	<u>As Spring Year 4</u>	<u>As Spring Year 4</u>
<i>Winter (December – February)</i>	Check all trees and replace failures. Check guards and stakes. Remove guards and stakes on vigorous trees in year 4 and any remaining guards and stakes in year 5.	Check all hedging plants and replace failures. Check guards and stakes. Remove guards and stakes on vigorous hedging plants in year 4 and any remaining guards and stakes in year 5. Trim hedge to shape annually from mid-December and gap up as necessary to achieve a minimum 95% stocking rate.
Years 5 +	Weed monthly from Spring to Autumn. Only Irrigate during extended dry periods (i.e. 10 days with no rain), when plants will be watered every other day. Established trees will be checked in winter every two years, starting in year, and any necessary remedial work will be performed in winter.	Weed monthly from Spring to Autumn. Only Irrigate during extended dry periods (i.e. 10 days with no rain), when plants will be watered every other day. Established hedges will be inspected on an annual basis in winter, and any necessary remedial work will be performed from mid-December to March.

TABLE 2: SEED MIXES LANDSCAPE MANAGEMENT – 5 YEAR SCHEDULE

Year/Season/ Month	Wildflower Grassland	Lawn Grass
Planting <i>September - March</i>	In September, prepare soil to specification. Second cultivation if needed. Sow seed and rake or harrow and firm with roller. Protect seed from birds and prevent public access. Irrigate as necessary.	In September, prepare soil to specification. Second cultivation if needed. Sow seed and rake or harrow and firm with roller. Protect seed from birds and prevent public access. Irrigate as necessary.
Year 1 <i>Spring (March – May)</i>	Weed by hand. Prevent public access Irrigate as necessary. Prepare for first cut and trim to 50mm+ once seedling grasses are established and 50-80mm in height. Undertake a second cut, after which grassland can be mown regularly as needed (when grass reached 50-80mm in height), progressively reducing the mowing height. Remove clippings for the first four cuts.	Weed by hand. Prevent public access Irrigate as necessary. Prepare for first cut and trim to 50mm+ once seedling grasses are established and 50-80mm in height. Undertake a second cut, after which grassland can be mown regularly as needed (when grass reached 50-80mm in height), progressively reducing the mowing height. Remove clippings for the first four cuts.
<i>Summer (June – August)</i>	Weed by hand. Allow public access but limit heavy use. From June mowing can be reduced to every 4 – 8 weeks, cutting the grass to 50mm+ (to allow cowslips to flower, mowing can be reduced earlier). Remove cuttings as required. Irrigate as necessary, being aware of additional irrigation requirements in dry conditions.	Weed by hand. Allow public access but limit heavy use. From June establish a regular mowing regime as required, cutting the grass to 50mm+. Remove cuttings as required. Irrigate as necessary, being aware of additional irrigation requirements in dry conditions.
<i>Autumn (September – November)</i>	Weed by hand. Top all plant growth in September if required. Remove cuttings as required. Irrigate grass as necessary. Sow fresh seed in any bare patches.	Weed by hand. Top all plant growth in September if required. Remove cuttings as required. Irrigate grass as necessary. Sow fresh seed in any bare patches. (Note: Bulbs will be planted in autumn).
<i>Winter (December – February)</i>	Weed by hand. Irrigate as necessary.	Weed by hand. Irrigate as necessary.
Year 2 <i>Spring (March – May)</i>	Weed by hand. From April, mow as necessary (Approximately every 4 - 8 weeks). Remove cuttings as required. Irrigate as necessary. Sow fresh seed in any bare patches.	Weed by hand. From April, mow as necessary (Approximately every two weeks). Remove cuttings as required. Irrigate as necessary. Sow fresh seed in any bare patches.
<i>Summer (June – August)</i>	Weed by hand. Mow as necessary (Approximately every 4-8 weeks), until November.	Weed by hand. Mow as necessary (Approximately every two weeks), until November.

	Remove cuttings as required. Irrigate as necessary, being aware of additional irrigation requirements in dry conditions.	Remove cuttings as required. Irrigate as necessary, being aware of additional irrigation requirements in dry conditions.
<i>Autumn</i> <i>(September – November)</i>	Weed by hand. Mow as necessary (Approximately every 4-8 weeks), until November. Remove cuttings as required. Irrigate as necessary. Sow fresh seed in any bare patches.	Weed by hand. Mow as necessary (Approximately every two weeks). Remove cuttings as required. Irrigate as necessary. Sow fresh seed in any bare patches.
<i>Winter</i> <i>(December – February)</i>	Weed by hand. Irrigate as necessary.	Weed by hand. Irrigate as necessary.
Year 3 +	<u>As Year 2</u>	<u>As Year 2</u>

ILLUSTRATIVE MATERIAL

Open Space Tree Species							
Plan Ref.	Scientific name	Common name	Specification	Girth (cm)	Approx. height (m)	Clear stem height (m)	No.
Ac	<i>Acer campestre</i>	Field Maple	Standard	8-10	2.50/3.00	1.75/2.00	3
Cb	<i>Carpinus betulus</i>	Hornbeam	Selected Standard	10-12	3.00/3.50	Min 2.00	1
Cm	<i>Crataegus monogyna</i>	Hawthorn	Light Standard	6-8	2.50/3.00	1.50/1.75	2
Ms	<i>Malus sylvestris</i>	Wild crab apple	Light Standard	6-8	2.50/3.00	1.50/1.75	2
Pp	<i>Prunus Padus</i>	Bird Cherry	Standard	8-10	2.50/3.00	1.75/2.00	1
St	<i>Sorbus torminalis</i>	Wild service tree	Standard	8-10	2.50/3.00	1.75/2.00	1
Total:							10
Front Garden Tree Species							
Plan Ref.	Scientific name	Common name	Specification	Girth (cm)	Approx. height (m)	Clear stem height (m)	No.
Ac'QE'	<i>Acer campestre</i> 'Queen Elizabeth'	Field Maple 'Queen Elizabeth'	Standard	8-10	2.50/3.00	1.75/2.00	1
Axg	<i>Amelanchier</i> x <i>grandiflora</i> 'Autumn Brilliance'	Serviceberry 'Autumn Brilliance'	Light Standard	6-8	2.50/3.00	1.50/1.75	1
Cl	<i>Crataegus laevigata</i> 'Paul's Scarlet'	Hawthorn 'Paul's Scarlet'	Standard	8-10	2.50/3.00	1.75/2.00	1
Sa	<i>Sorbus aria</i>	Whitebeam	Standard	8-10	2.50/3.00	1.75/2.00	1
Total:							4
Rear Garden Fruit Tree Species							
Plan Ref.	Scientific name	Common name	Specification	Root-stock	Approx. height (m)	Clear stem height (m)	No.
Md'JG'	<i>Malus domestica</i> 'James Grieve'	Apple 'James Grieve'	Half Standard	MM106	Min 1.50	Min 0.80	1
Pc'WC'	<i>Pyrus communis</i> 'Williams' Bon Chrétien	Pear 'Williams' Bon Chrétien	Half Standard	Quince A	Min 1.50	Min 0.80	1
Total:							2
Mixed Native Hedge Species – Total Length: 72.6m							
Plan Ref.	Scientific name	Common name	Specification	Approx. height (cm)	%	No.	
1	<i>Acer campestre</i>	Field maple	1 + 1 transplants	80-100	5	18	
	<i>Corylus avellana</i>	Hazel	1 + 1 transplants	80-100	20	73	
	<i>Crataegus monogyna</i>	Hawthorn	1 + 1 transplants	80-100	60	218	
	<i>Euonymus europaeus</i>	Spindle	1 + 1 transplants	80-100	5	18	
	<i>Prunus spinosa</i>	Blackthorn	1 + 1 transplants	80-100	5	18	
	<i>Viburnum lantana</i>	Wayfaring tree	1 + 1 transplants	80-100	2.5	9	
	<i>Viburnum opulus</i>	Guelder rose	1 + 1 transplants	80-100	2.5	9	
Total Plants:							363
Wildflower Grassland Seed Mix – Total Area: 772.0m ²							
Seed Mix		Sowing Rate (g/m2)		%		Quantity (g)	
Emorsgate EM2F		1.5		100		≈1158	
Garden Lawns Grass Seed Mix – Total Area: 368.5m ²							
Seed Mix		Sowing Rate (g/m ²)		%		Quantity (g)	
Emorsgate EG22 (or equivalent)		25		100		≈9213	



KEY:

- Site

Existing Vegetation

- Existing boundary trees

- Existing boundary hedge

Proposed Planting

- New trees

- Mixed native hedge

Wildflower meadow (Emorsgate EM5 or equivalent)

Garden lawns (Emorsgate EG22 or equivalent)

NOTES:

This plan must be read in conjunction with the Landscape and Ecological Management Plan prepared by WHLandscape REF: 25.1962, as well as other relevant work proposed by other consultants.

Drawing not for construction.

Responsibility is not accepted for errors made in scaling from this drawing. All construction information should be taken from construction drawings with figured dimensions only.

All dimensions must be checked on site before commencing works or prior to preparation of drawings by other consultants.

No trees are to be planted within 3.00m of existing or proposed foul/surface water drains or soakaways, unless any conflicts can be overcome through the design of these features.

Precise route of drainage, and any service points to be determined before planting commences to prevent conflicts.

Where necessary, to protect services, structures and surfaces Root barriers (GreenBlue Urban or similar approved) will be used. Root barriers are to be installed as directed by the Project Structural Engineer where trees are proposed within 3.00m of services, structures and surfaces or are located closer to site features than the offsets recommended in Table A.1 of BS 5837:2012 'Trees in Relation to Design, Demolition and Construction'. However, in the first instance the location of trees and services should be designed to minimise conflicts.

All planting beds and tree pits must be backfilled with certified topsoil and subsoil as required. If soil has not been supplied by the site then approved soil must be imported to site, all certificates must be handed to the Site Manager on delivery.

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On behalf of:
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Drawing title:
Landscape Proposals

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Date:
April 25

Scale:
1:200 @ A3

DB:
WH

CB:
WH