

# Land East of Albion Road and North of Copper Lane, Marden, Kent

## Outline Landscape and Ecological Management Plan (OLEMP)

October 2024



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*COVER: DEVELOPMENT FRAMEWORK PLAN by OSP for B.Yond Homes (not to scale)*

*FIGURE 1 & APPENDIX A: LANDSCAPE MANAGEMENT AREAS (appendix to scale)*

## 1.0 Introduction

This Outline Landscape and Ecological Management Plan (OLEMP) covers an area of residential development by B.Yond Homes at Land East of Albion Road and North of Copper Lane, Marden, Kent.

This OLEMP has been prepared by Allen Scott Ltd with input from Ecology Solutions on behalf of B.Yond Homes and is aimed to help support a planning application for development.

This OLEMP has been prepared based on a layout plan prepared by OSP Architects for B.Yond Homes. It has also been prepared based on the Landscape and Visual Impact Assessment, feedback from the Pre-App meeting as part of the planning approval process and a review of assessments by other disciplines such as ecology, arboriculture and heritage.

This OLEMP will inform a more detailed Landscape and Ecological Management Plan (LEMP) which will need to be based on final detailed proposed development and the results of the final protected species surveys.

Specific management areas addressed are illustrated on Figure 2 below and Appendix A which should be referenced alongside and in conjunction with this report.

The structure and content of this report is intended to provide a clear and comprehensive management framework for the existing and proposed ecological and landscape areas within the development site boundary, other than the private gardens.



*A view of the Site pre-development from Copper Lane (photography taken in July 2023)*



*Views within the Site pre-development (photography taken in April 2022)*

## **2.0 Aims and Objectives of the OLEMP**

The aims and objectives of this OLEMP is to set out a detailed framework of landscape operations required to:

- Secure the long term health, safety, screening quality and habitat connectivity of the important landscape green infrastructure of the site provided by existing and new hedgerows and tree cover and maintain and enhance the nature conservation value of these areas.
- Manage the new attenuation basin and swales to provide attractive features of conservation value with appropriate levels of accessibility, whilst ensuring their function as part of the natural drainage systems is also maintained as a Sustainable Urban Drainage System (SUDS) element.
- Provide a range of informal open spaces and a setting for the development.
- Provide and maintain a natural screening from the wider open countryside to the south.
- Provide and maintain connections throughout the areas of open space
- Provide and maintain hedgerows throughout the development.
- Enable new and existing vegetation to establish and be maintained to deliver the aims and aspirations shown in the Ecological Assessment.
- Provide a statement on who is responsible for management and maintenance post construction.

The OLEMP also helps illustrate how the proposed development can help deliver the objectives set within Maidstone Borough Council Landscape Character Assessment Supplement.

This report should be read in conjunction with the following reports and documents:

- The site layout by OSP for Rydon Homes
- Landscape Note – Initial Landscape Review
- Landscape and Visual Impact Assessment (LVIA)
- Ecological Assessment (EA) by Ecology Solutions
- Arboriculture Impact Assessment (AIA) by Broadoak
- Maidstone Borough Council's Landscape Character Assessment Supplement 2012



**FIGURE 1: LANDSCAPE AND ECOLOGICAL MANAGEMENT AREAS (NTS)**

*Please refer to Appendix A for an A3 version of this drawing*

### 3.0 Ecological and Landscape Area Descriptions and Management Principles

The development area is approximately 5.98 hectares, of which 2.67 hectares is proposed to fall to open space (outside of private gardens and access roads). These areas of communal open space can be described in four separate areas.

These areas are shown on the Figure 1 above and are described below together with a summary of broad objectives and management principles.

The areas of greatest ecological value are the existing hedgerows and trees which offer suitable foraging and sheltering opportunities for a wide range of bats and bird species. It's therefore recommended that these should be retained and enhanced wherever possible.

Great Crested Newts are known from ponds within 250m of the Site. The addition of new, and improvements of existing ponds within the site should be noted as an important action in creating new corridors for this species, and others.

Note that management of landscape areas within plots will be by individual property owners.



### 3.1 Management of Habitats for Reptiles

It is considered the species-rich grassland will offer improved shelter and foraging opportunities for reptiles. The management of the species-rich grassland should be specifically timed to avoid impacting reptiles and provide suitable habitat all year round.

Cutting of the grassland should be undertaken when accidental injury or fatality to reptiles is least likely, and so should ideally be conducted during the winter period of inactivity/ hibernation (November to February). However, consideration should be given to the cutting of grassland during this period to avoid the creation of large areas of very short sward vegetation around hibernation sites, this ensures ample vegetation cover is available for reptiles upon emergence in the spring<sup>1</sup>.

To avoid the simultaneous removal of all vegetation cover within the site, the cutting regime should ensure that no more than 50% of suitable grassland is cut in any one year. This should be achieved by the strategic selection of limited areas for cutting or by programmed phase cutting of grassland within the site. Achieving different sward heights within the areas of species-rich grassland will create transitional zones that provide reptiles with opportunities for both shelter and basking.

If the cutting of the grassland is required during the reptiles' active season (March to October), cutting should be undertaken at intervals staggered over several weeks to ensure there is always some vegetation cover available, with the cut being made as high as possible (a minimum of 15 cm).

Cutting arising from tree and scrub management should be utilised to create log piles within areas suitable for reptiles, providing new sheltering and hibernation opportunities. If possible, these log piles should be located in areas exposed to prolonged sunlight and within existing suitable vegetation i.e. the species-rich grassland.

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<sup>1</sup> Edgar, P., Foster, J. and Baker, J. (2010) *Reptile habitat management handbook*. Bournemouth: Amphibian and Reptile Conservation.

### 3.2 Management of Habitats for Birds (Turtle Dove)

The management of any habitat suitable for birds should adhere to Section 1 of the Wildlife and Countryside Act 1981, prohibiting the disturbance of any nesting birds. As such, it is recommended that clearance of any suitable nesting vegetation, (scrub, hedgerow and tree felling) be undertaken outside the bird nesting season (March to September inclusive) to avoid any potential offence. Should the above timing constraints conflict with any timetabled works, it is recommended that works commence only after a suitably qualified ecologist has undertaken checks to ensure no nesting birds are present. If nesting birds are found to be present during checks, then clearance would need to be delayed until young have fledged.

A sensitive and appropriate management regime for the species-rich grassland and scrub that promotes floristic diversity will ensure that birds utilising the site have enhanced foraging opportunities throughout the year.

Specific management practices should be adopted to enhance opportunities for Turtle Dove *Streptopelia turtur* within the site. Turtle Doves require three key breeding season resources in the form of suitable nesting habitat, access to fresh water, and suitable seed food (all ideally located within 300m of each other)<sup>2</sup>.

Suitable nesting habitat can be ensured through the management of tall, wide hedgerows and thick areas of scrub. The inclusion of native thorny species within new areas of hedgerow and scrub is desirable, such as Hawthorn *Crataegus monogyna*, with care also being taken to retain climbing species within these features such as Traveller's Joy *Clematis vitalba*, Honeysuckle *Lonicera periclymenum* and Bramble *Rubus fruticosus*.

Management of the existing ponds and the newly created attenuation feature should likewise be orientated towards the provision of Turtle Dove opportunities within the site. Tall and thick areas of scrub on the north side of ponds, such as that proposed, provides ideal nesting habitat without casting too much shade over the water. Vegetation surrounding the ponds and attenuation feature should be managed to ensure the pond is not shaded on all sides but has open areas present that allow access to the pond by Turtle dove, ideally having shallow edges along segments of the waterbody.

Turtle doves require areas of short vegetation in which to forage, therefore maintaining patches or strips of low vegetation within any suitable grassland meadows allows the birds to access the seed<sup>3</sup>. This can be achieved through adopting a cutting regime for the species-rich grassland that promotes a varied sward length, such as phased or rotational cutting. In addition, as turtle doves will not forage within tall or dense vegetation, 'feeding locations' could be adopted within suitable areas of the site. These comprise small sections of short, patchy vegetation less than 15cm in height with a minimum of 30% bare ground from April to September.

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<sup>2</sup> RSPB. (2024) *Land Management For Wildlife: Turtle Dove: Streptopelia turtur*.

<sup>3</sup> Browne, S.J. and Aebischer, N.J. (2003) *Habitat use, foraging ecology and diet of Turtle Doves Streptopelia turtur in Britain*. Ibis, 145(4), pp.572-582.

### 3.3 Area i: Northern Arrival

This area consists of the main proposed access road which leads from Albion Road into Area ii and the majority of the new development. It also consists of: footpaths, an existing pond, existing hedgerow and groups of existing trees along with proposed trees to enhance these areas.

The objective is to protect and maintain the existing hedgerow, woodland and pond, and to establish further vegetation with trees that help to reinforce the natural / verdant edge to this part of Marden. It will also create an attractive sense of arrival into the new area of housing development.

Note in the Maidstone Borough Landscape Character Area guidelines: "Ponds are also a valuable nature conservation resource and landscape feature. The council will encourage landowners and developers to retain and increase ponds and wetland areas to enhance their visual and wildlife functions."

#### Management Principles:

##### **Existing Trees:**

*Trees will be regularly visually checked for the presence of any diseased or rotten wood; fungal or other infections / disease; and structural stability. An Arboricultural Assessment will be undertaken annually in the initial stages; inspecting the condition of existing trees and identifying any works required for health and safety reasons.*

##### **New Trees:**

*There are several new trees proposed within Area i. The new trees shall be set within suitable tree pits within areas of soft landscape and have appropriate support and protection from rabbits. They will be watered regularly in the first year to establish and will continued to be watered during dry periods in the second year. General maintenance will be carried out at appropriate times of the year to maintain a healthy condition. Reducing, lifting or thinning the crown, coppicing or pollarding will be carried out if required.*

##### **Hedgerows:**

*An existing hedgerow creates a boundary between Area i and Area ii. There is a break in the hedgerow to allow for an access road between Albion Road and the rest of the Site.*

*Hedgerows that require bulking out /replacing should typically be: a mixed native species to support and attract wildlife; Plants that provide year-round interest from buds and flowers in spring through berries and seeds in the autumn; such as Birch, Silver Beech, English Oak, Field Maple, Hazel, Common Dogwood, Hawthorn, Holly.*

*Plants will be a minimum of 1m tall whips or 3L containers. Planting will be of an approximate density of 5 plants per linear metre (dependant on container size and species) in double staggered rows. The planted areas of hedge will require repeated layering until the new planting has sufficiently knitted into the existing planting. The planting season runs from November to March prior to the bird nesting season.*



*Where hedgerows are managed by trimming, hedgerows will be trimmed no more frequently than every other year on a rotational cutting scheme, with no more than one third of such hedges trimmed within the same 12 months, to encourage bushier growth and fruiting of hedgerow plants in addition to reducing maintenance costs. Hedgerows will be trimmed between January and February, to avoid the disturbance of bird nesting sites and allow the majority of hedgerow fruits to be eaten by birds and other wildlife prior to cutting. Any hedgerow maintenance required during the March to September bird breeding season would be immediately preceded by a nesting bird check by a suitably qualified ecologist to avoid effects on nesting birds. Hedgerow trees to be retained will be identified and measures must be taken to ensure that these trees are not damaged when the hedgerow tops are cut back. Where appropriate, excessive horizontal growth will be maintained with layering. Scrub encroachment from hedgerows into grassland will be monitored and where necessary, cut back between March and September, outside the bird nesting season. Cuttings that result from management works will be used on site to enhance log piles or be placed in a designated compost area and are not to be left on grassland for any period of time.*

**Pond:**

*There is a small existing pond within the vegetation on the south boundary of Area i. Initial clearance of surrounding vegetation through the development will expose the pond where the existing condition should be assessed.*

*Management will include periodic inspections to ensure any inlets/outlets are not blocked, control of invasive aquatic or marginal plants, removal of litter and grass cutting twice a year.*

**Footpaths:**

*The proposed access road comprises footpaths on either side in this area. These will typically be adoptable asphalt / tarmac paving and edging.*

*The new footway along the eastern side of Albion Road connecting the access road to the neighbouring Seymour Drive will also typically be adoptable asphalt / tarmac paving and edging.*

*Following completion of capital works no further work will typically be required in the medium term other than sweeping and periodic making good.*

*The shared surface roads shall be laid to suitable block paving. Following completion of capital works no further work will typically be required in the medium term other than sweeping and periodic making good.*

**Ecological enhancements:**

*Management of habitats as outlined in section 3.1 and 3.2 above.*

### 3.4 Area ii: Northern Edge & Upper Levels

This area consists of a new housing, roads, footpaths, trees, partly retained existing windbreak of Birch trees and a central village green. It is set at the north side and highest plateau of the Site, surrounded by mature trees and hedgerow to the north and east which are to be retained.

The area adjoins Area i to the west with the access road from Albion Road passing through an existing hedgerow and Area iii to the south. To the north is the Russet Grove development, separated by a line of existing trees and mature vegetation, to the south Area ii joins Area iii.

Houses have been arranged to 'face outwards' in order to ensure a perimeter footpath route can be retained and good buffer widths provided along existing vegetated boundaries.

Area ii includes new street trees throughout and there are locations along the primary road for grass verges and an avenue of street trees. There is a central 'village green' managed as part of the regular management and maintenance of the wider open space.

#### Management Principles:

##### **Existing Trees:**

*Trees will be regularly visually checked for the presence of any diseased or rotten wood; fungal or other infections / disease; and structural stability. An Arboricultural Assessment will be undertaken annually in the initial stages; inspecting the condition of existing trees and identifying any works required for health and safety reasons.*

##### **New Trees:**

*There are several new trees proposed within Area ii. The new trees shall be set within suitable tree pits within areas of soft landscape and have appropriate support and protection from rabbits. They will be watered regularly in the first year to establish and will continued to be watered during dry periods in the second year. General maintenance will be carried out at appropriate times of the year to maintain a healthy condition. Reducing, lifting or thinning the crown, coppicing or pollarding will be carried out if required.*

##### **Existing hedgerows:**

*The majority of the existing north and east boundary hedgerows in this area are to be retained and managed as a mature hedgerow.*

*Hedgerows that require bulking out /replacing should typically be: a mixed native species to support and attract wildlife; Plants that provide year-round interest from buds and flowers in spring through berries and seeds in the autumn; such as Birch, Silver Beech, English Oak, Field Maple, Hazel, Common Dogwood, Hawthorn, Holly.*

*Plants will be a minimum of 1m tall whips or 3L containers. Planting will be of an approximate density of 5 plants per linear metre (dependant on container size and species) in double staggered rows. The planted areas of hedge will require repeated layering until the new planting has sufficiently knitted into the existing planting. The planting season runs from November to March prior to the bird nesting season.*

*Where hedgerows are managed by trimming, hedgerows will be trimmed no more frequently than every other year on a rotational cutting scheme, with no more than one third of such hedges trimmed within the same 12 months, to encourage bushier growth and fruiting of hedgerow plants in addition to reducing maintenance costs. Hedgerows will be trimmed between January and February, to avoid the disturbance of bird nesting sites and allow the majority of hedgerow fruits to be eaten by birds and other wildlife prior to cutting. Any hedgerow maintenance required during the March to September bird breeding season would be immediately preceded by a nesting bird check by a suitably qualified ecologist to avoid effects on nesting birds. Hedgerow trees to be retained will be identified and measures must be taken to ensure that these trees are not damaged when the hedgerow tops are cut back. Where appropriate, excessive horizontal growth will be maintained with layering. Scrub encroachment from hedgerows into grassland will be monitored and where necessary, cut back between March and September, outside the bird nesting season. Cuttings that result from management works will be used on site to enhance log piles or be placed in a designated compost area and are not to be left on grassland for any period of time.*

### **Existing Birch Windbreak**

*Parts of the line of birch trees are to be retained, the extent of this being dependent on the detailed design of the site.*

*It is recommended to plan for natural succession of a band of hedgerow and mature trees to develop across this area due to the short life-span of the birch species (20-40years longevity remaining).*

*The existing Birch will be regularly visually checked for the presence of any diseased or rotten wood; fungal or other infections / disease; and structural stability. An Arboricultural Assessment will be undertaken annually in the initial stages; inspecting the condition of existing trees and identifying any works required for health and safety reasons. Any deadwood to be left standing unless it is structurally unstable.*

*The hedgerow planting should typically be : a mixed native species to support and attract wildlife; Plants that provide year-round interest from buds and flowers in spring through berries and seeds in the autumn; such as Silver Beech, English Oak, Field Maple, Hazel, Common Dogwood, Hawthorn, Holly.*

*Plants will be a minimum of 1m tall whips or 3L containers. Planting will be of an approximate density of 5 plants per linear metre (dependant on container size and species) in double staggered rows. The planted areas of hedge will require repeated layering until the new planting has sufficiently knitted into the existing planting. The planting season runs from November to March prior to the bird nesting season.*

*For detailed management of the new hedgerow – see hedgerows section.*

### **Village Green**

*The green is to be mown regularly from late spring to autumn by strimming or mowing. Grass cuttings shall be removed from site or stored in appropriate compost on site.*

*Subject to detail design and the proposed use of the Green, it may be beneficial to retain areas of species rich meadow grasses that require less cutting during the year and provide additional biodiversity benefits.*

***Planting in front of plots and along verges:***

*A grass margin / verge is proposed along the road edge to the access road.*

*Grass verges shall be kept mown regularly during late spring / summer months by strimming or mowing. Grass cuttings shall be removed from site or stored in appropriate compost on site.*

*Subject to detail design, it may be beneficial to create grass verges with of species rich meadow grasses that require less cutting during the year and provide additional biodiversity benefits.*

***Footpaths:***

*The proposed access road comprises footpaths on either side in this area. These will typically be adoptable asphalt / tarmacadam paving and edging.*

*Following completion of capital works no further work will typically be required in the medium term other than sweeping and periodic making good.*

*Other new paths within areas of open space will be laid to self binding gravel and timber edge and maintained as per other footpaths within the open spaces across the development. Subject to final products specification, it is envisaged that these will require little ongoing maintenance other than periodic making good to address depressions, ruts and/or scoring. If these issues are due to drainage problems, these will be rectified prior to resurfacing.*

*The shared surface roads shall be laid to suitable block paving. Following completion of capital works no further work will typically be required in the medium term other than sweeping and periodic making good.*

***Ecological enhancements:***

*Management of habitats as outlined in section 3.1 and 3.2 above.*

### 3.5 Area iii: Mid-Levels

This area is defined by a central green corridor which filters at the edges into Areas ii (north) and iv (south) whilst existing hedgerows and mature trees line the west and east boundaries. The residential housing has facades arranged facing outwards onto the green corridor and along the roads.

New street trees are to be planted along the green corridor with wide grass verges adding to the open public space provision and providing a structural landscape. North-south linear SUDS channels buffered by green infrastructure run through the area connecting into a further SUDS system to the south in Area iv.

#### Management Principles:

##### **Existing Trees:**

*Trees will be regularly visually checked for the presence of any diseased or rotten wood; fungal or other infections / disease; and structural stability. An Arboricultural Assessment will be undertaken annually in the initial stages; inspecting the condition of existing trees and identifying any works required for health and safety reasons. Where bat roost features are identified in any trees recommended for removal, these will be inspected by a qualified ecologist.*

##### **New Trees:**

*There are several new trees proposed within Area iii. The new trees shall be set within suitable tree pits within areas of soft landscape and have appropriate support and protection from rabbits. They will be watered regularly in the first year to establish and will continued to be watered during dry periods in the second year. General maintenance will be carried out at appropriate times of the year to maintain a healthy condition. Reducing, lifting or thinning the crown, coppicing or pollarding will be carried out if required.*

##### **Existing hedgerows:**

*The existing hedgerows to the west and east boundaries are to be retained and managed as a mature hedgerow. There are breaks to allow vehicle and pedestrian access between Area ii and iv .*

*Hedgerows that require bulking out /replacing should typically be: a mixed native species to support and attract wildlife; Plants that provide year-round interest from buds and flowers in spring through berries and seeds in the autumn; such as Birch, Silver Beech, English Oak, Field Maple, Hazel, Common Dogwood, Hawthorn, Holly.*

*Plants will be a minimum of 1m tall whips or 3L containers. Planting will be of an approximate density of 5 plants per linear metre (dependant on container size and species) in double staggered rows. The planted areas of hedge will require repeated layering until the new planting has sufficiently knitted into the existing planting. The planting season runs from November to March prior to the bird nesting season.*

*Where hedgerows are managed by trimming, hedgerows will be trimmed no more frequently than every other year on a rotational cutting scheme, with no more than one third of such hedges trimmed within the same 12 months, to encourage bushier growth and fruiting of hedgerow plants in addition to reducing maintenance costs. Hedgerows will be trimmed*

*between January and February, to avoid the disturbance of bird nesting sites and allow the majority of hedgerow fruits to be eaten by birds and other wildlife prior to cutting. Any hedgerow maintenance required during the March to September bird breeding season would be immediately preceded by a nesting bird check by a suitably qualified ecologist to avoid effects on nesting birds. Hedgerow trees to be retained will be identified and measures must be taken to ensure that these trees are not damaged when the hedgerow tops are cut back. Where appropriate, excessive horizontal growth will be maintained with layering. Scrub encroachment from hedgerows into grassland will be monitored and where necessary, cut back between March and September, outside the bird nesting season. Cuttings that result from management works will be used on site to enhance log piles or be placed in a designated compost area and are not to be left on grassland for any period of time.*

**Swales:**

*Linear SUDS features forming drainage and surface storm water attenuation, whilst providing an attractive green corridor within the development, will add to the landscape value of the streetscape and development. Area iii consists of a swale running north to south along the access road, spanning into Area iv.*

*The swale will be managed and maintained so that they are effective drainage elements as well as forming part of an attractive green corridor through the site linking areas of open space. Where these features cross roads they will be culverted, outfalling to the attenuation basin.*

*Generally the swales shall be vegetated using a mixture of wildflower suitable for wetlands (for example EM8 Meadow seed). Management and maintenance shall carefully follow the seed supplier's recommendations for laying, establishment and aftercare.*

*Invasive aquatic/marginal plants will be controlled, and periodic removal of accumulated silt will ensure they function correctly.*

**Planting in front of plots and along verges:**

*A grass margin / verge is proposed along the road edge to the access road.*

*Grass verges shall be kept mown regularly during late spring / summer months by strimming or mowing. Grass cuttings shall be removed from site or stored in appropriate compost on site.*

*Subject to detail design, it may be beneficial to create grass verges with of species rich meadow grasses that require less cutting during the year and provide additional biodiversity benefits.*

**Footpaths:**

*The proposed access road comprises footpaths on either side in this area. These will typically be adoptable asphalt / tarmac paving and edging.*

*Following completion of capital works no further work will typically be required in the medium term other than sweeping and periodic making good.*



*Other new paths within areas of open space will be laid to self binding gravel and maintained as per other footpaths within the open spaces across the development. Subject to final products specification, it is envisaged that these will require little ongoing maintenance other than periodic making good to address depressions, ruts and/or scoring. If these issues are due to drainage problems, these will be rectified prior to resurfacing.*

*The shared surface roads shall be laid to suitable block paving. Following completion of capital works no further work will typically be required in the medium term other than sweeping and periodic making good.*

***Ecological enhancements:***

Management of habitats as outlined in section 3.1 and 3.2 above.

### 3.6 Area iv: Southern Edge & Lower Levels

The southern extent of the site comprises of housing that forms the edge of the development / settlement, moving into open space which has within it: SUDS Swale, proposed attenuation basin, three existing ponds, hedgerows, mature trees and orchards. The majority of existing vegetation is to be retained and managed as part of the development.

Boardwalks and tracks are provided within the open space. Area iv is bound by mature hedgerow and trees on all except the north boundary. There are breaks in the south boundary for pedestrian/cycle/emergency & maintenance vehicle access onto Copper Lane.

The area includes a large naturalised attenuation basin which is intended as a positive landscape feature within the open space, contributing to the ecological & hydrological value of three existing ponds.

A pumping station is located to the west and screened by existing and new vegetation.

#### Management Principles:

##### **Existing Trees:**

*Trees will be regularly visually checked for the presence of any diseased or rotten wood; fungal or other infections / disease; and structural stability. An Arboricultural Assessment will be undertaken annually in the initial stages; inspecting the condition of existing trees and identifying any works required for health and safety reasons.*

*A row of young Oak trees are due to be removed from the southern area to enable construction of the attenuation basin. These are to be transplanted within the development following further assessment and guidance by a qualified Arboriculturalist.*

##### **New Trees:**

*There are several new trees proposed within Area iv. The new trees shall be set within suitable tree pits within areas of soft landscape and have appropriate support and protection from rabbits. They will be watered regularly in the first year to establish and will continued to be watered during dry periods in the second year. General maintenance will be carried out at appropriate times of the year to maintain a healthy condition. Reducing, lifting or thinning the crown, coppicing or pollarding will be carried out if required.*

##### **Existing Orchards**

*Parts of the existing apple orchard are to be retained in the lower area of the site. Their management is dependent on their use, whether this continues as a managed orchard or becomes a community orchard.*

*Trees will be regularly visually checked for the presence of any diseased or rotten wood; fungal or other infections / disease; and structural stability. An Arboricultural Assessment will be undertaken in the initial stages to establish the condition of existing trees and identifying any works required for health and safety reasons. Any deadwood or trees, unaffected by disease or harmful pathogens, are to be left standing unless there is structural instability, as trees with standing dead or decaying wood are highly valuable as a wildlife habitat within orchards.*

*The trees should be pruned yearly whilst they are dormant in late winter or early spring (Nov-March), taking up to 20% of the wood to maintain a balanced tree.*

*The Orchard understorey should be mown regularly during late spring to autumn. Mulching may be necessary in spring if trees are suffering from lack of nutrition.*

*Use of pesticides should be ceased as this is damaging to the surrounding environments and heavily limits the ecological value of the area. Proximity to SUDS allows it to 'travel' and damage further.*

*Ongoing management and fruit picking will be subject to detail design and the final LEMP.*

### **Existing and new hedgerows:**

*Most of the existing hedgerows that define this area is to be retained and managed as a mature hedgerow.*

*The existing and replacement hedgerows along Copper Lane are intended to let grow and maintained at a tall height so to provide screening of the development.*

*Hedgerows that require bulking out /replacing should typically be: a mixed native species to support and attract wildlife; Plants that provide year-round interest from buds and flowers in spring through berries and seeds in the autumn; such as Birch, Silver Beech, English Oak, Field Maple, Hazel, Common Dogwood, Hawthorn, Holly.*

*Plants will be a minimum of 1m tall whips or 3L containers. Planting will be of an approximate density of 5 plants per linear metre (dependant on container size and species) in double staggered rows. The planted areas of hedge will require repeated layering until the new planting has sufficiently knitted into the existing planting. The planting season runs from November to March prior to the bird nesting season.*

*Where hedgerows are managed by trimming, hedgerows will be trimmed no more frequently than every other year on a rotational cutting scheme, with no more than one third of such hedges trimmed within the same 12 months, to encourage bushier growth and fruiting of hedgerow plants in addition to reducing maintenance costs. Hedgerows will be trimmed between January and February, to avoid the disturbance of bird nesting sites and allow the majority of hedgerow fruits to be eaten by birds and other wildlife prior to cutting. Any hedgerow maintenance required during the March to September bird breeding season would be immediately preceded by a nesting bird check by a suitably qualified ecologist to avoid effects on nesting birds. Hedgerow trees to be retained will be identified and measures must be taken to ensure that these trees are not damaged when the hedgerow tops are cut back. Where appropriate, excessive horizontal growth will be maintained with layering. Scrub encroachment from hedgerows into grassland will be monitored and where necessary, cut back between March and September, outside the bird nesting season. Cuttings that result from management works will be used on site to enhance log piles or be placed in a designated compost area and are not to be left on grassland for any period of time.*

### **Ponds**

*Three existing ponds are to be retained on the southern edge, connecting to the wider SUDS network, with species recorded including Black Knapweed *Centaurea nigra*, Ox-eye Daisy*

*Leucanthemum vulgare* and *Birds-foot Trefoil* *Lotus corniculatus* (according to the Exhibition FAQs).

*Management will include periodic inspections to ensure any inlets/outlets are not blocked, control of invasive aquatic or marginal plants and removal of litter. Surrounding neutral grassland is to be mown in late summer/early autumn with cuttings shall be removed from site or stored in appropriate compost on site.*

#### **Attenuation Basin:**

*The attenuation basin will follow best practice guidance on delivering successful SuDS scheme's in development. The intention is to design it as attractive and naturalistic area within the development / wider landscape and not as solely as functional storm water storage.*

*The attenuation basin will be de-silted as required to maintain the depth for it to uphold the capacity for storm water. This process will include the removal of decomposing vegetation therefore maintain healthy oxygen levels in the water. De-silting work will be carried out in September or October. Removed silt or vegetation will be left at the basin edge for two days before removing to allow any wildlife to return to the basin.*

*The basin will be vegetated using a mixture of wildflower suitable for wetlands (for example EM8 Meadow seed). Management and maintenance shall careful follow the seed supplier's recommendations for laying, establishment and aftercare.*

*The basins will be managed to ensure their effective functioning as drainage elements whilst promoting their habitat value. Management will include periodic inspection to ensure any inlets/outlets are not blocked, control of invasive aquatic or marginal plants, removal of litter and grass cutting twice a year.*

#### **Swales:**

*Linear SUDS features forming drainage and surface storm water attenuation, whilst providing an attractive green corridor within the development, will add to the landscape value of the streetscape and development. Area iv consists of a swale running north to south along the access road, connecting into the network of attenuation basin and ponds to the south.*

*The swale will be managed and maintained so that they are effective drainage elements as well as forming part of an attractive green corridor through the site linking areas of open space. Where these features cross roads they will be culverted, outfalling to the attenuation basin.*

*Generally the swales shall be vegetated using a mixture of wildflower suitable for wetlands (for example EM8 Meadow seed). Management and maintenance shall careful follow the seed supplier's recommendations for laying, establishment and aftercare.*

*Invasive aquatic/marginal plants will be controlled, and periodic removal of accumulated silt will ensure they function correctly.*

***Planting in front of plots and along verges:***

*A grass margin / verge is proposed along the road edge to the access road.*

*Grass verges shall be kept mown regularly during late spring / summer months by strimming or mowing. Grass cuttings shall be removed from site or stored in appropriate compost on site.*

*Subject to detail design, it may be beneficial to create grass verges with of species rich meadow grasses that require less cutting during the year and provide additional biodiversity benefits.*

***Footpaths:***

*New paths within areas of open space will be laid to self binding gravel and maintained as per other footpaths within the open spaces across the development. Subject to final products specification, it is envisaged that these will require little ongoing maintenance other than periodic making good to address depressions, ruts and/or scoring. If these issues are due to drainage problems, these will be rectified prior to resurfacing.*

***Timber Decking / Viewing Platform:*** *(subject to detailed design and approval following reserved matters):*

*Ongoing maintenance and management of the new viewing platform should follow guidance from the supplier / manufacturer.*

*It is assumed that, following completion, this will require little maintenance other than periodic checks for defects, damage, slips and trips.*

*Scheduled repairs and replacements are planned every 5 years.*

***Ecological enhancements:***

Management of habitats as outlined in section 3.1 and 3.2 above.

#### **4.0 Landscape Management and Maintenance Schedules**

The following schedules set out the management and maintenance actions for the development at Land East of Albion Road and North of Copper Lane, Marden, Kent. This section is structured to cover general site wide operations, followed by specific annual management and maintenance of landscape elements.

These need to be read in conjunction with the management of habitats outlined in section 3.1 and 3.2 above.

Noting that this OLEMP is based on an illustrative plan as part of an outline planning application, the final and more detail landscape management and maintenance schedules will need to be based on the detailed design.

#### **4.1 General Requirements:**

All maintenance visits and operations on site will take due regard of the operational and safety requirements of the site, its residents and road users.

The maintenance contractor shall remove from site all rubbish, trimmings and superfluous materials, leaving the works in a clean and tidy condition unless expressly stated that material is to remain.

All tree work shall be in accordance with BS3998 Recommendations for Tree Work.

All works should be completed at an appropriate time of year and in accordance with relevant EU and UK wildlife legislation.

Landscape Management and Maintenance Schedules to be revised on an annual basis, and/or as necessary, in accordance with information from ongoing monitoring.

Measures to minimise ecological impacts in construction and operational phases will include:

- Provide briefings to all contractual staff working on the site to make them aware of all the ecological receptors of interest.
- Establish site fencing to prevent access and the storage of materials to areas of ecological interest and landscape value (e.g. Root Protection areas for retained trees).
- Keep to appropriate times for site clearance to avoid ecological sensitive times of year e.g. avoidance of bird nesting period (March to September inclusive).
- All maintenance works to be conducted in accordance with the Environment Agency's 'Pollution Prevention Guidelines', particularly PPG6 'Working at construction and demolition sites' and PPG5 'Works and maintenance in or near water'.
- All works to comply to best practice methods.



## 4.2 Annual Maintenance schedules:

This schedule indicates the level of landscape maintenance required to fulfil the specification and keep the planting / vegetation in good and healthy condition. Operations are shown in months required and this does not indicate the number of visits. Operations marked with **P** are only carried out if and when necessary.

	J	F	M	A	M	J	J	A	S	O	N	D
General operations												
Annual review inspection								X				
Surfaces – maintain edges by strimming and mowing				X	X	X	X	X	X			
Gates, fences, furniture – maintain in good condition (P)	X	X	X	X	X	X	X	X	X	X	X	X
Plant inspections			X	X	X	X	X	X	X	X		
Vegetation clearance (P)	X	X									X	X
Plant replacements (P)											X	
Weed Control			X	X	X	X	X					
Watering (non-irrigation)					X	X	X	X				
Re-firming	X		X	X	X	X	X	X	X	X		X
Removal of litter	X		X	X	X	X	X	X	X	X		X
Pest and disease control (P)	X		X	X	X	X	X	X	X	X		X
Topping up mulch				X	X	X	X	X	X			
General pruning of plants and trees (exact timing dependant on species)	X	X	X	X	X	X	X	X	X	X	X	X

	J	F	M	A	M	J	J	A	S	O	N	D
Operations to boundaries / hedgerows and woodland												
Inspections	X		X	X					X	X		
Hedgerow planting up gaps (establishment years), laying, general ops (P)	X	X										
Transplants and feathered trees (establishment years). Replace as required (P)	X	X	X							X	X	X
Weed Control			X	X					X	X		
Vegetation clearance (P)	X	X									X	X
Selective Shrub Thinning (P)	X	X									X	X
Tree felling (P)	X	X	X								X	X
Removal of invasive species (P)						X	X					

	J	F	M	A	M	J	J	A	S	O	N	D
Operations to SUDS swales and basins												
<b>Weed control</b>			X	X					X	X		
<b>Vegetation management</b>	X	X						X			X	X
<b>Thinning / removal of blanket weed and dominant species (P)</b>								X	X			
<b>Removal of invasive species</b>						X						
<b>Litter / debris removal and clearance of inlets, outlets and culverts</b>	X		X	X	X	X	X	X	X	X		X
<b>Sediment monitoring and clearance when required</b>									X	X		

	J	F	M	A	M	J	J	A	S	O	N	D
Operations to Wildflower meadows												
<b>Hay cut (Sept/Oct depending on weather)</b>									X			
<b>Sowing additional seed (P)</b>			X						X	X		
<b>Control perennial weeds</b>			X	X	X	X	X					
<b>Optional second cut (P)</b>		X	X						X	X		

	J	F	M	A	M	J	J	A	S	O	N	D
Operations to Trees												
<b>Tree inspection</b>	X		X	X	X	X	X	X	X	X		X
<b>Weed control</b>			X	X	X	X	X	X	X	X		
<b>Formative pruning</b>	X	X									X	X
<b>Watering (non-irrigation)</b>					X	X	X	X	X			
<b>Mulch – topping up</b>			X							X		

	J	F	M	A	M	J	J	A	S	O	N	D
Operations to grass verges												
<b>Strimming and mowing</b>				X	X	X	X	X	X			
<i>Refer to 'Operations to Wildflower meadows'</i>												

	J	F	M	A	M	J	J	A	S	O	N	D
Operations to existing ponds												
<b>Strimming and mowing</b>				X	X	X	X	X	X			
<b>Weed control</b>			X	X					X	X		
<b>Vegetation management</b>	X	X						X			X	X
<b>Thinning / removal of blanket weed and dominant species (P)</b>								X	X			
<b>Removal of invasive species</b>						X						
<b>Litter / debris removal and clearance of inlets, outlets and culverts</b>	X		X	X	X	X	X	X	X	X		X
<b>Sediment monitoring and clearance when required</b>									X	X		

	J	F	M	A	M	J	J	A	S	O	N	D
Operations to village green												
<b>Strimming and mowing</b>				X	X	X	X	X	X			
<i>Refer to 'Operations to Wildflower meadows'</i>												

	J	F	M	A	M	J	J	A	S	O	N	D
Operations to orchards												
<b>Tree Inspection</b>	X		X	X	X	X	X	X	X	X		X
<b>Strimming and mowing</b>				X	X	X	X	X	X			
<b>Pruning</b>	X	X	X								X	X

### 4.3 Ongoing maintenance schedule:

	ESTABLISHMENT		MEDIUM TERM PERIOD							LONG TERM MANAGEMENT			
	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	YEAR 20	YEAR 30	YEAR 40
<b>OPERATIONS</b>													
Inspections													
Litter collection													
Weed control													
Replacement works													
<b>GENERAL</b>													
<b>SOFT ELEMENTS</b>													
Trees	Pruning												
	General Horticulture ops												
	Crown thinning												
	Coppicing												
Orchard <i>Edit depending on use type</i>	Planting												
	Pruning												
	Understorey Mown												
	General Horticulture ops												
Hedgerows	Planting												
	General Horticulture ops												
	Seed												
	Hay out												
Wildflower rich meadows	Weed control												
	Removal of invasive species												
	de-silting												
	Thinning vegetation												
Swales/Attenuation basins/Ponds	Strimming and Mowing												
	Cutting back edges / encroachments / mow / trim												
	Grass margin / Verge / Village Green												
	AS REQUIRED TO ENSURE FUNCTION												
<b>HARD ELEMENTS</b>													
Surfacing and paths maintain / replace													
	Fences and gates maintain / replace												
	Open Space tracks maintain / replace												
<b>Legend</b>													
Operation carried out													
Operation carried out as and when required													

## **5.0 Management and Maintenance responsibilities**

A Management Company will be formed for the maintenance of the private roads, parking areas, private drainage areas and areas of communal landscaping. The Developer will maintain these areas until the management company has taken transfer of it.