

Landscape & Ecological Proposals

Document Ref: LR.LAND.01

Type: Full Planning Application

Site: Plot 1 adjacent to Lyne House, Links Road, Worthing

Previous Planning Consent: AWDM/0821/22: For 2 NO. New Detached Dwelling Houses (Access Only with all other matters Reserved)

Landscaping Drawing Reference: LR.LTP.01: (Appendix C) Landscaping, tree protection & Neighbour Impact



Plot one outlined in red.

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1. General

The landscaping specification looks only at the land outlined within plot 1 and not the wider (larger) site in planning approval AWDM/0821/22. The remaining land is not within the control of plot 1. It is understood plot 2 (southern plot) will be retained as garden space for the foreseeable future. The access drive remains in the title of Lyne House, but the plot 1 & 2 have access, creating and maintenance rights & responsibilities.

This proposal sets out the requirements for all soft & hard landscape and Ecological works associated with the proposed development of plot 1. The scheme has been designed to enhance biodiversity, protect existing trees, and provide long-term environmental improvements.

All works shall be carried out in accordance with good horticultural practice, approved drawings, and **BS 5837:2012 – Trees in relation to design, demolition and construction**, where applicable.

2. Site Context and Background

The site (plot 1) comprises approximately **1,040 m²** of former garden land associated with Lyne House, which has become overgrown and unmanaged over a prolonged period. Vegetation is largely opportunistic and most of limited ecological value, with poor structural diversity and dominance of low-value species.

The Preliminary Ecological Appraisals report prepared by The Ecology Co-op considered the wider site including plot 2 which covers approximately a further 1337m² of land located to the Southern end of the site. This land has been identified as having more ecology beneficial areas, described as being the most botanically diverse on the total site.

The application site (for plot 1) contains **one Tree Preservation Order (TPO) tree**, a mature **Copper Beech (*Fagus sylvatica* ‘Purpurea’)** identified as **T.1** under Order No. **23.1990**, and referenced as **Tree 32** within the approved arboriculture Report. The tree is described as being in **fair condition**, approximately **20 m in height** with a crown spread of **8–11 m**.

The Copper Beech has been historically **crowded by a row of nine Leylandii cypress** (Group G31), each approximately **23 m tall**, resulting in suppressed crown development and reduced ecological function beneath the canopy.

The land beneath the TPO tree, totalling approximately **300 m²**, is currently in poor condition and consists mainly of brambles (*Rubus fruticosus* agg), common ivy (*Hedera helix*) and hedge bindweed (*Calystegia sepium*), along with some small saplings.

Overall, the baseline habitat quality is **low**, with limited biodiversity value, poor soil condition, and minimal benefit to pollinators, birds, or soil ecology. It has the potential to provide habitat for reptiles, but it is understood that slow worms (*Anguis fragilis*) were found in the adjoining site during the Preliminary Ecological Appraisal.

3. Preliminary Ecological Appraisal

The Preliminary Ecological Appraisal covered areas outside of this application and does not ask for a full Ecological Mitigation Strategy but recommend:

1. A reptile presence/absence survey and testing for Great Crested Newts
2. Tree & shrub removal done outside of birds breeding season (avoiding 1st March – 31st August)
3. Enhanced the Western boundary by introducing a hedgerow and wildflower.
4. Incorporate a reptile hibernaculum to the south-western corner.

These recommendations have been structured as follows:

1. A Reptile and Great Crested Newt Survey has already been completed by The Ecology Co-op. No Great Crested Newts were found. Reptile survey results recorded slow worms, primarily within the south-western area of the original application site. The proposed development site (Plot 1) lies to the north of this area, approximately 25 metres from the principal area of recorded slow-worm activity. Plot 2, where the slow worms have predominantly been found, will not be redeveloped and is being retained as garden space, so the habitat of the slow worms will not be altered. Land within Plot 2 does not form part of this application. A Reptile Mitigation Method Statement is being prepared and will be implemented before any work starts on site, aligning with the requirements of the previously approved outline planning consent.
2. Vegetation clearance will be undertaken outside the bird breeding season (March–August inclusive) where practicable, or otherwise preceded by a check by a suitably qualified ecologist
3. The enhancements are detailed within the biodiversity and landscaping proposals
4. The Reptile hibernaculum is not within the application site; however, one will be put in place within the application site and is detailed with the biodiversity and landscaping proposals. This would be installed after all construction work has taken place to allow the existing population of slow worms additional suitable habitat to migrate into.

Summary:

The Reptile Mitigation Method Statement will be prepared by a suitably qualified ecologist and will include contingency measures for capture and release if required. Following construction, enhanced habitat and a reptile hibernaculum will be provided to support long-term habitat availability and connectivity. The other recommendations made in the Preliminary Ecological Appraisal (2, 3 and 4 above) will also be followed.

4. Lawn Areas – Approx. 165 m²

Lawn areas shall be formed on prepared subgrade using existing site soils only.

Soil to be lightly cultivated, rendered stone-free, and graded to falls as required.

Lawn to be established using **hard-wearing amenity turf** or an approved seed mix, laid to a smooth, even finish.

Allow for initial watering, establishment maintenance, and making good.

The lawn shall be managed using a **periodic no-mow regime**, allowing selected areas to grow longer seasonally to encourage flowering species such as clover and daisies, supporting pollinators and improving biodiversity.

Cutting frequency shall be reduced during spring and early summer, with arisings removed to maintain soil health.

5. Wildflower Meadow – Beneath TPO Copper Beech (~100 m²)

A shade-tolerant native woodland wildflower meadow shall be established beneath the canopy of the **TPO Copper Beech** using a **no-dig / overseeding methodology**.

No excavation, cultivation, or alteration to existing soil levels shall be permitted.

A low-nutrient, free-draining woodland meadow seed mix shall be applied to the existing soil surface only, with biodegradable mulch used where required.

All works shall be undertaken by hand, with no machinery, trafficking, or soil compaction within the Root Protection Area.

Species shall include (or similar): **Creeping red fescue, Wood meadow-grass, Sweet vernal grass, Primrose, Red campion, Foxglove, Wild strawberry, Common dog-violet.**

The works shall provide biodiversity enhancement while safeguarding the TPO tree, in accordance with **BS 5837**.

6. Woodland-Edge Shrub and Groundcover Habitat – Beneath TPO Copper Beech (~165 m²)

A structured woodland-edge shrub and groundcover habitat shall be established beneath the canopy of the retained TPO Copper Beech, designed to reflect semi-natural woodland margin conditions and to enhance biodiversity while protecting the existing tree.

All works shall be undertaken using a no-dig methodology, with no excavation, cultivation, or alteration of existing soil levels permitted. Planting shall be carried out by hand only, with no machinery, trafficking, or soil compaction within the Root Protection Area, in full accordance with BS 5837.

The habitat shall comprise a mosaic of shade-tolerant native and wildlife-friendly shrubs, interspersed with low groundcover species to provide continuous shelter, foraging opportunities, and movement corridors for fauna, including reptiles and invertebrates. Light mulching with organic woodchip may be used where necessary; no compost or fertiliser shall be applied.

Indicative species shall include (or similar, subject to availability):

Shrub layer

- Hazel (*Corylus avellana*)
- Dogwood (*Cornus sanguinea*)
- Guelder rose (*Viburnum opulus*)
- Spindle (*Euonymus europaeus*)
- Sarcococca (*Sarcococca confusa* or *S. hookeriana*)

Groundcover / understorey

- Bugle (*Ajuga reptans*)
- Wild strawberry (*Fragaria vesca*)
- Sweet woodruff (*Galium odoratum*)
- Red dead-nettle (*Lamium purpureum*)
- Yellow archangel (*Lamium galeobdolon* – non-invasive form)

The planting shall be arranged in irregular naturalistic groups, allowing for open patches and transitional edges to create micro-habitats and basking opportunities. Leaf litter shall be retained where practicable, and long-term management shall be low-intervention, limited to selective thinning and replacement planting as required.

The works shall provide biodiversity enhancement, improved habitat structure, and long-term ecological resilience, while fully safeguarding the retained TPO Copper Beech in accordance with BS 5837 and arboricultural best practice.

7. Pleached Laurel Trees – Raised Planters (~48 linear metres)

Pleached laurel trees shall be planted within raised, free-draining planter beds.

Planters shall be supported on **ground screws** and incorporate a **galvanised steel load-spreading grate** at the base to prevent soil compaction and distribute loads evenly.

No excavation or foundations shall be required, and existing ground levels beneath the planters shall remain unchanged.

Planters shall be filled with an improved topsoil blend incorporating organic matter and fertiliser suitable for tree establishment. All loads shall be transferred to discrete points, avoiding continuous bearing and safeguarding underlying soils.

The pleached trees shall provide replacement screening and arboricultural betterment in accordance with **BS 5837**.

8. Shrub, Perennial, and Groundcover Planting

8.1 Planting Area P.01 – Approx. 49 m²

Planting shall be undertaken to create a biodiverse understorey beneath trees and within areas of low or dappled light.

Shaded Areas:

Shade-tolerant species to support woodland ecology, including **Epimedium**, **Geranium macrorrhizum**, **Helleborus**, **Pulmonaria**, **ferns (Dryopteris / Polystichum)**, and **Wild strawberry (Fragaria vesca)**.

Part Sun / Dappled Light Areas:

Flowering perennials and grasses to enhance pollinator value, including **Geranium ‘Rozanne’**, **Nepeta**, **Alchemilla mollis**, **Salvia nemorosa**, **Heuchera**, and **Carex grasses**.

All planting within RPAs shall be carried out by hand only.

8.2 Planting Area P.02 to P.06 – Approx. 52 m²

Planting Area P.02 – Approx.	28.4 m ²
Planting Area P.03 – Approx.	18.0 m ²
Planting Area P.04 – Approx.	2.0 m ²
Planting Area P.05 – Approx.	2.8 m ²
Planting Area P.06 – Approx.	2.8 m ²

Mixed ornamental planting bed to provide year-round structure and high biodiversity value.

Planting shall comprise a framework of larger evergreen shrubs with integrated flowering shrubs, perennials, and groundcover.

Indicative species shall include:

Evergreen shrubs such as **Viburnum tinus**, **Sarcococca confusa**, **Skimmia japonica**, **Pittosporum tenuifolium**, and **Elaeagnus × ebbingei**; flowering shrubs and perennials including **Lavandula angustifolia**, **Salvia nemorosa**, **Nepeta racemosa**, **Echinacea purpurea**, and **Achillea millefolium**; and groundcover species such as **Geranium macrorrhizum**, **Vinca minor**, and **Ajuga reptans**.

Existing soil shall be improved in situ with organic matter.

8.3 Planting Area P.07 – Cut-Flower Bed Approx 9m2

A dedicated cut-flower planting bed shall be provided to deliver seasonal cut flowers while supporting biodiversity.

Planting shall comprise pollinator-friendly perennials and annuals including **Echinacea, Rudbeckia, Achillea, Salvia, Astrantia, Cosmos, Calendula, Ammi majus, Cornflower, and Nigella.**

Existing soil shall be improved in situ with organic matter; no change to finished levels shall occur.

Management shall allow some flowers and seed heads to remain for wildlife benefit.

9. Trees

Trees shall be planted in accordance with good arboricultural practice and supplied as healthy, nursery-grown specimens.

Tree species shall include:

- Apple (*Malus domestica*, dwarf rootstock) T.01
- Pear (*Pyrus communis*, dwarf rootstock) T.02
- Plum (*Prunus domestica*, dwarf rootstock) T.03
- Cherry (*Prunus avium* / *cerasus*, dwarf rootstock) T.04
- Magnolia grandiflora (compact varieties) T.05
- Arbutus unedo T.06

All trees shall be staked, tied, mulched, and watered during establishment.

10. Griselinia littoralis Hedge – Approx. 44 linear metres

An evergreen hedge comprising **Griselinia littoralis** shall be planted at **1.8 m height** to provide immediate screening.

Planting shall be undertaken using **hand-dug pits or trench only** within the Root Protection Zone.

Existing soil shall be improved in situ; no change to ground levels permitted.

Planting density shall be approximately **3 plants per linear metre.**

Roots encountered during planting shall be retained and protected, with planting positions adjusted as required.

The hedge shall be staked, mulched, and watered during establishment.

11. Maintenance and Establishment

All planting shall be maintained for a minimum period of **12 months** following completion.

Maintenance shall include watering, weeding, mulching, formative pruning, and replacement of failed plants on a like-for-like basis.

Biodiversity-friendly management practices shall be adopted, including reduced mowing regimes and avoidance of pesticides where practicable.

Meadow and lawn areas shall be managed with reduced cutting frequency, planting areas maintained without unnecessary disturbance, and ecological enhancement features retained for the lifetime of the development.

12. Environmental Outcome

The landscape scheme replaces unmanaged, low-value vegetation with diverse, structured habitats, delivering long-term ecological enhancement and a clear biodiversity net gain, while safeguarding existing trees and soil structure.

13. Ecological Improvements

These are detailed within section 7 of document LR.BNG.01 which looks at Biodiversity.

Here more information is provided regarding construction & placement and although these measures do not generate biodiversity units under the Defra metric they contribute to the functional ecological value of the site by supporting a range of protected and priority species.

13.1 Reptile Hibernaculum

The Preliminary Ecological Appraisal recommended a reptile hibernaculum within the south-western area of Plot 2; however, as this land is outside the application site and not within the applicant's control, this proposal includes a purpose-built reptile hibernaculum within a quiet area of Plot 1 to provide secure overwintering habitat for reptiles, including slow worms. The hibernaculum shall be constructed to create a well-drained structure with internal voids, allowing reptiles to access frost-free conditions during winter months.

The feature shall be located in a sunny or partially sunlit position, adjacent to existing or proposed vegetation to provide cover and connectivity, and shall avoid areas of regular disturbance.

Should be constructed as follows:

- Construction shall comprise a **layered structure** using inert materials such as:
 - clean hardcore, rubble or broken bricks (base layer),
 - logs, branches and stones to create internal voids,
 - a covering layer of soil and turf to provide insulation.
- The base of the hibernaculum shall be **free-draining** and constructed to prevent waterlogging.
- The overall footprint shall be approximately **1.0–1.5 m²**, with a height of **0.5–0.8 m**, unless otherwise agreed by an ecologist.
- Small gaps and access points shall be retained within the structure to allow reptiles to enter and exit freely.
- No cement, mortar, treated timber or contaminated materials shall be used.
- Construction shall be undertaken **outside the reptile active season where practicable** and in accordance with ecological best practice.
- Once completed, the hibernaculum shall be **left undisturbed** and allowed to naturally vegetate over time.

See typical construction detail in (Appendix A).

13.2 Hedgehog Access Holes

A total of six hedgehog access holes shall be provided within boundary treatments to facilitate the movement of hedgehogs between adjacent gardens and habitats. Each opening shall measure a minimum of 130 mm × 130 mm and shall be formed at ground level through fences or walls, ensuring permanent permeability.

The access holes shall be positioned to avoid obstruction and shall be maintained free of blockage. These features will enhance habitat connectivity for hedgehogs while preventing access by larger mammals.

13.3 Solitary Bee Nesting Habitat

Solitary bee nesting habitat shall be provided as an ecological enhancement measure to support native wild pollinators. The feature shall comprise purpose-built artificial solitary bee nesting structures, such as drilled hardwood blocks, bundled hollow stems, or commercially available nesting units, installed in a warm, sheltered location with a southerly or south-easterly aspect.

The nesting habitat shall be positioned close to nectar-rich planting areas and fixed securely to a stable structure or post at an appropriate height above ground level.

Provide four bee nesting units similar to those shown in (Appendix B) supplied by hiller.co.uk

13.4 Bat Roost Features

Four Schwegler 2F artificial bat roost features shall be installed as an ecological enhancement measure. The roost features shall be securely fixed to the retained Copper Beech (*Fagus sylvatica* 'Purpurea') in suitable locations, ensuring no harm to the tree and in accordance with arboricultural best practice.

13.5 Bird Nesting Features

Four bird nesting features shall be installed as an ecological enhancement measure to provide additional nesting opportunities for small garden and woodland bird species. The nesting features shall comprise appropriately designed bird nest boxes, suitable for a range of common species, and shall be installed on retained trees or suitable built structures in quiet locations away from regular disturbance.

The boxes shall be fixed securely at an appropriate height and orientation to avoid prevailing winds and direct sunlight

14. Hard Landscaping:

Hard Landscaping Specification

All hard landscaping works shall be carried out in accordance with the approved drawings and the following specification. All materials shall be installed in accordance with the manufacturer's instructions and relevant British Standards.

14.1 Composite Decking – Lower Seating Area

- Decking shall be formed using Millboard, NeoTimber, or similar high-quality composite decking system.
- Boards shall be fixed to recycled composite joists or equivalent substructure.
- The decking shall be installed above existing ground levels, with no excavation where possible.
- The construction shall allow for free drainage beneath the deck, ensuring the area remains fully permeable.
- Decking shall be laid to falls where required to prevent surface water pooling.

This area shall function as a permeable seating terrace with minimal ground disturbance.

14.2 Upper Terrace – Paved Areas Adjacent to the House

- Paving shall comprise natural stone paving slabs, Dorchester White stone supplied by Quorn Stone, or similar approved alternative.
- Paving shall be laid on a fully SuDS-compliant permeable construction, comprising:
 - Geotextile separation layer
 - Minimum 100 mm depth of SuDS-compliant open-graded sub-base
 - 20 mm layer of SuDS bedding stone
- Paving joints shall be filled with free-draining fine grit, not mortar, to maintain permeability.
- The finished surface shall allow infiltration of surface water and prevent runoff.

This area shall operate as a permeable paved terrace suitable for pedestrian use.

14.3 Driveway – SuDS-Compliant Construction (Resin Finish)

- The driveway shall be constructed as a fully SuDS-compliant permeable surface, designed to allow infiltration of surface water into the underlying chalk geology, with no discharge onto the public highway or adjacent land.

Construction Build-Up

(from formation level upwards):

1. Prepared formation
 - Existing chalk ground lightly trimmed and levelled
 - No sealing of formation
 - Soft spots removed and replaced with permeable aggregate
2. Geotextile membrane
 - Permeable geotextile laid directly over the chalk formation to prevent migration of fines
3. Permeable sub-base
 - Minimum 200 mm depth of open-graded Type 3 or equivalent SuDS-compliant aggregate
 - Laid and compacted in layers in accordance with manufacturer's recommendations
 - No impermeable binders or sealing layers shall be used that would compromise the permeability of the SuDS system.
4. Regulating layer (if required)
 - Open-graded aggregate to provide a smooth, level surface for the resin finish

5. Wearing course / finish

- PermaBond resin stop-top coat, finished in Millstone colour, laid over a permeable stone base in accordance with the manufacturer's specification
 - Natural aggregate fully encapsulated at the surface to provide a durable, slip-resistant finish while maintaining permeability
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Finished Surface Performance

- The completed driveway shall remain permeable, allowing rainfall to pass through the surface and sub-base to the chalk below.
- The surface shall be suitable for vehicular use and resistant to weathering.
- Surface falls shall be designed to retain water within the permeable system.

14.4 Car Port and Rear Side Passage – SuDS Block Paving Specification

- The car port and rear side passage shall be surfaced using permeable concrete block paving, Brett Alpha Flow in Charcoal, or an approved equivalent.
- The paving system shall be fully SuDS-compliant, allowing surface water to infiltrate through the pavement construction into the underlying chalk geology, with no surface water runoff.

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Construction Build-Up (from formation level upwards):

1. Prepared formation

- Existing chalk ground lightly trimmed and levelled
- Formation left unsealed to allow infiltration
- Any soft spots removed and replaced with permeable aggregate
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2. Geotextile membrane

- Permeable geotextile laid directly over the chalk formation to prevent migration of fines

3. Permeable sub-base

- Minimum 200 mm depth of open-graded Type 3 or equivalent SuDS-compliant aggregate
- Installed and compacted in layers in accordance with manufacturer's recommendations

4. Bedding layer

- 50 mm layer of 2–6 mm clean, washed angular grit (no sand or fines)

5. Surface course

- Brett Alpha Flow permeable block paving, colour Charcoal, laid to the required pattern
- Joints filled with 2–6 mm clean, washed grit to maintain permeability

General Requirements

- Finished levels shall be coordinated with surrounding surfaces to prevent runoff.
 - No cement, mortar, or impermeable sealants shall be used within the construction.
 - All works shall be carried out in accordance with the manufacturer's installation guidance, relevant British Standards, and SuDS best practice.
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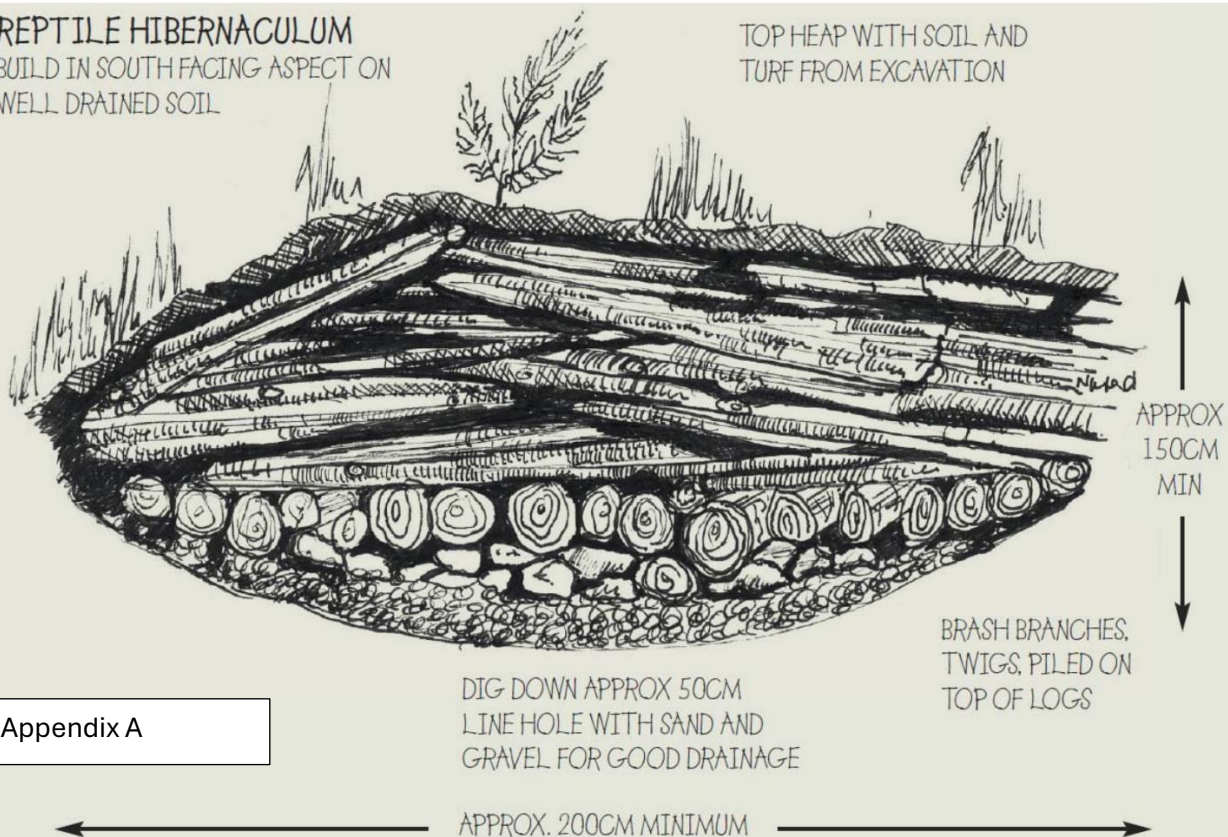
15. Conclusions

The proposed landscape and ecological works provide a high-quality, policy-compliant response to the site's constraints and opportunities. The scheme protects existing assets, enhances biodiversity, safeguards neighbour amenity, and supports sustainable drainage.

REPTILE HIBERNACULUM

BUILD IN SOUTH FACING ASPECT ON
WELL DRAINED SOIL

TOP HEAP WITH SOIL AND
TURF FROM EXCAVATION



Appendix A

Appendix B



