

LANDSCAPE MANAGEMENT AND MAINTENANCE PLAN OCTOBER 2025

Westland Horticulture Ltd.

Llanwern Works, Queensway, Llanwern, Newport, South Wales,
NP19 4QZ

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1. Introduction

- 1.1 This Landscape Management Plan (LMP) outlines the maintenance and management approach for the newly planted landscape features associated with the approved development at the above location. The document is intended to support the discharge of the relevant planning conditions and ensures that all planting establishes successfully and contributes to the long-term visual and ecological quality of the site.
- 1.2 The plan sets out the requirements for the initial 36-month establishment period following practical completion of the landscape works and then for a further 24 months beyond that for a total of 5 years.
- 1.3 This LMP must be read in conjunction with the following documents and drawings:
- Planting Site Layout – Drg 24/12/100 Revision A
 - Landscape and Ecological Management Plan (RSK) January 2025

2. Objectives

- 2.1 The primary objectives of this management plan are:
- To ensure that all planting becomes successfully established and remains healthy;
 - To prevent colonisation by invasive weeds and maintain the visual amenity of the site;
 - To uphold biodiversity value through appropriate mitigations;
 - To address any plant failures promptly during the 12-month establishment period.

3. Site Preparation for Tree and Hedge Planting

General

- 3.1 All works shall be carried out in accordance with industry best practice, including relevant British Standards, in particular:
- **BS 3882:2015** – Specification for Topsoil
 - **BS 8545:2014** – Trees: from nursery to independence
 - **BS 4428:1989** – Code of Practice for General Landscape Operations
- 3.2 The Contractor shall verify all dimensions, locations of services, and site constraints before commencing excavation.

Site Clearance

- 3.3 Clear the designated planting areas of debris, stones larger than 50 mm, rubbish, and vegetation unsuitable for retention.

- 3.4 Remove surface weeds by hand or approved mechanical means. If herbicide is required, use only an approved systemic product and allow adequate die-off time before ground disturbance.

Tree Planting Pits

- 3.5 Dimensions are as follows:
- Each tree planting pit shall be 600 mm minimum depth and 1000 mm minimum diameter/width.
 - Depth shall be increased where necessary to incorporate drainage layers or to reach free-draining sub-base.
- 3.6 Excavation Requirements:
- Pits shall be square or circular as required.
 - Break up the base of the pit to a depth of 150 mm to relieve compaction.
 - Side walls shall be loosened to allow root penetration.
- 3.7 Drainage (where required):
- If ground investigations indicate poor drainage, excavate deeper to install a 150 mm layer of free-draining material (e.g., washed gravel).
 - Install vertical or lateral drainage pipes if indicated in the drawings or by site conditions.
- 3.8 Backfilling:
- All pits shall be backfilled with BS 3882-compliant topsoil, mixed with approved organic matter (e.g., composted material).
 - Backfill in layers, firming lightly to avoid air pockets but not compacting excessively.

Hedge Planting Trench

- 3.9 Dimensions:
- The hedge shall be planted within one continuous trench, running the full specified length.
 - Minimum trench width = 2.5 m.
 - Minimum depth = 600 mm (deeper where drainage correction is required).
- 3.10 Excavation and Soil Preparation:
- Excavate to the required dimensions and break up the base to 150 mm depth.
 - Scarify the trench sides to ensure root penetration.
 - Remove stones larger than 50 mm and all deleterious materials.
- 3.11 Backfilling:
- Backfill the trench with BS 3882 topsoil blended with organic matter at an approved rate.
 - Ensure even distribution of soil along the trench and maintain a light tilth at the surface.

Topsoil and Organic Matter

- 3.12 Topsoil shall comply with BS 3882, suitable for general landscaping.
- 3.13 Organic matter shall be stable, well-composted, and free from contaminants.
- 3.14 Mix ratio typically up to 20% organic matter by volume, unless specified otherwise by soil testing.

Levels and Finished Grading

- 3.15 Ensure the planting areas achieve the required finished levels as shown on site drawings.
- 3.16 Avoid creating low spots that may cause waterlogging unless specifically intended for drainage.
- 3.17 Ensure final surfaces are even and lightly cultivated to a fine tilth.

Protection of Works

- 3.18 Protect excavated pits and trenches from collapse, flooding, and contamination.
- 3.19 Secure the planting areas from site traffic and machinery during preparatory works.
- 3.20 Any damaged areas shall be made good at the Contractor's expense.

Site Handover

- 3.21 Completed planting pits and trenches shall be inspected prior to planting.
- 3.22 Any variations in ground conditions, obstructions, or contamination discovered during excavation shall be reported immediately for instruction.

4. Site Preparation

4.1 Scope:

Prepare ground with challenging conditions (slag, aggregate, high pH, dry soil) for planting. Works include clearance, soil improvement, trench and pit preparation, and ecological considerations.

4.2 Materials:

- BS3882 general-purpose topsoil (slightly stoned)
- Organic matter for soil improvement
- Native, British-grown trees and shrubs:
 - Willow (*Salix* sp.)
 - Alder (*Alnus glutinosa*)
 - Silver and Downy Birch (*Betula* sp.)
 - Oak (*Quercus robur*)
 - Hazel (*Corylus avellana*)
- Mulch (50–100 mm depth)
- Soaker hoses and tree hydration bags
- Stakes and ties for tree support

4.3 Method:

1. **Site Assessment:** Test soil pH and drainage; identify ecological constraints.
2. **Clearance:** Remove debris and aggregate piles; consult ecologist if reptiles or nesting birds are found.
3. **Ground Preparation:**
 - Hedge trenches: Excavate to 500–600 mm depth; add drainage layer if waterlogged; backfill with BS3882 topsoil.
 - Tree pits: 100 cm wide x 60 cm deep; backfill with organic matter and topsoil; apply mulch.
4. **Planting:** Use species tolerant of alkaline conditions; hedge in double staggered rows at 2 m spacing; trees with stakes and ties.
5. **Irrigation:** Install soaker hoses for hedges and hydration bags for trees.
6. **Ecological Enhancements:** Create habitat piles and sow native seed mixes near swales to support biodiversity.

4.4 Quality Assurance

- All materials must comply with BS standards.
- Trees and plants must be healthy, pest-free, and correctly labelled.
- Works to follow ecological method statements and health & safety protocols.

4.5 Maintenance

- Mulch renewal annually.
- Inspect swales for blockages and invasive species.
- Replace failed plants during dormant season (Nov–Dec).
- Hedge pruning only between November and February.

5. Arboricultural Method Statement

- 5.1 The existing site is made up primarily, of slag and aggregate, with some soil. As well as a very high PH level, the soil is also very dry, so plants/trees must be selected with this in mind.

5.2 Tree / Plant Selection

The following trees/plants have been selected based on the PH level of the soil:

Willow

Alder

Birch species

Oak

Hazel.

All trees/plants must be native and grown within the British Isles. They must all be healthy, sturdy, pest and disease free. Each tree/plant must be clearly labelled, showing variety and specification.

5.3 Native Tree Hedge (Potential Bat Roost)

Measuring 120m x 2.5m x 4m (L x W x H) a native tree hedge should be planted on two sides of the building.

- Hedge must be planted between November-March only.
- A pit/trench must be dug the length and width of the hedge, to a depth of 500/600mm. If the pit/trench shows no sign of water in the bottom, it should be refilled with dry top soil BS3882 general purpose grade (slightly stoned). If it is holding water, dig a further 200mm and add a layer of stone for drainage before adding the new top soil.
- A staggered double row of trees can then be planted at 2m spacing. 10/12 or 12/14 feathered trees should be used to achieve 4m high at planting.
- Hawthorn, Hornbeam, Yew, will give an excellent hedge for, not only a bat roost, but all other wildlife.
- Each tree must be supported by stake and tie.
- 50-100mm of mulch added to top dress pit/trench after planting.
- Soaker hose irrigation will give the new hedge the best chance of establishment and with it's close proximity to the building this means water is close at hand.
- Ongoing maintenance – pruning etc. must only be carried out during the winter months – November to February.

5.4 High Earth Bund (2m)

- 2m high and 2m wide bund should be made up of on site materials (slag, aggregate, soil etc)
- When moving the bund material, care and precaution must be shown by all contractors. If reptiles are found, all works must cease, and an ecologist must be consulted before any work recommences.
- The bund is to be left to vegetate naturally, with the exception of 7 x Sorbus trees – 10/12 in size, to be planted within the bund.

- 7 x tree pits, 100cm wide x 60cm deep, should be excavated, backfilled with a good layer of organic material, soil BS3882, trees top dressed with 50/100mm of mulch.

All 7 Sorbus trees should have a Tree Hydration Bag which will enable watering in times of drought whilst they are establishing.

5.5 Green Buffer

The site swales should be 1m wide and left to vegetate naturally, being oversewn with a native wetland seed mix, giving a green buffer throughout the site. Seed sowing should be completed during March/April or September/October.

The swales on the south side of the site should be oversewn with a native wetland seed mix and should have 9 x trees planted in the berm of the swale, alongside small soil piles for wildlife. The area around these trees and soil piles should be sown with a local seed mix to help support the Shrill Carder Bee. Seed sowing should be completed during March/April or September/October.

The swales will need periodic inspection. Large debris that could obstruct water flow must be removed along with any large vegetation that may overgrow and obstruct the function of the swale.

The 9 x trees should be a mix of Field Maple and Hornbeam, 10/12 in size. Tree pits of 100cm wide and 60cm deep should be dug for each tree and backfilled with a good layer of organic matter, topsoil BS3882. Trees top dressed with 50/100mm of mulch. Each of the 9 trees should have a hydration bag for irrigation, enabling the trees to be watered in times of drought whilst they are establishing.

6. Maintenance Regime

- 6.1 A site post-construction walkover will be undertaken by a suitably qualified ecologist between April and October to see the state and quality of the habitats, enhancement elements as installed and any evidence of protected species on the site. This will be completed in Years One and Three.
- 6.2 Where a habitat is not fulfilling its ecological potential, either due to health, condition or management regime, recommendations will be made to the landscape contractor in charge of the public realm on measures to improve this from an ecological perspective. This would normally entail either replanting or a change to management practice.
- 6.3 Where an enhancement feature is failing or damaged, recommendations will be made to repair or replace it.
- 6.4 **Earth Bund**
Vegetated earth bunds (and habitat piles if vegetated) should be mown once per year in late September to mid-October to leave flowers in place for Shrill Carder Bees to forage. All cuttings should be collected and removed.
- 6.5 **Hedgerow Maintenance**

Hedgerows will be managed to provide an increase in biodiversity with hedgerows allowed to grow to a minimum of 2.5m wide and 4m high.

Cutting of hedges must take place between November and February. This is to avoid the bird nesting period when they may be present in nests within the hedgerow. No maintenance of hedges will occur between May and September during the bird nesting season.

Pruning will be kept to a minimum (e.g. dangerous branches, not all dead wood). It will respect good arboricultural practice (e.g. not damaging the stem or bark, keeping wounds as small as possible and cutting cleanly back to sound wood). Any dead or dying plants will be replaced at the end of the growing season (i.e. from November to 31 December).

6.6 Swales

Open swales on the site will be continuously maintained to ensure they are functioning as designed. This will include:

- Annual inspections to ensure blockages, silt and excess litter are not negatively impacting the habitat or surrounding habitats;
- Waste management to reduce and manage the amount of silt build up and monitor pollutant levels; and
- Monitoring of plant assemblage to identify any invasive non-native species that would require further action.

7. Record Keeping

- 7.1 Maintenance visits and all associated activities (weed control, trimming, replacements, etc.) will be logged by the contractor. These records will be made available to the developer and the Local Planning Authority upon request.

8. Handover and Long-Term Management

- 8.1 At the end of the 12-month period, a final inspection will be undertaken. If the landscape is in good condition and all planting has established successfully, the site will be handed over to the ongoing management regime (either private or adopted as per agreement).