

HARESHILL ROAD, HEYWOOD, BURY

LANDSCAPE AND HABITAT CREATION AND MANAGEMENT PLAN

February 2025



Report Control Sheet

Project Name: Hareshill Road, Heywood, Bury
Project Reference: CW20-3233
Report Title: Landscape and Habitat Creation and Management Plan
Report Reference: CW20-3233
Printing Instructions: Print at A4 Portrait, Double Sided.

<i>Rev</i>	<i>Date</i>	<i>Description</i>	<i>Prepared</i>	<i>Reviewed</i>	<i>Approved</i>
/	04.02.25	Final report sent to client.	MB	KB	KB

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1 INTRODUCTION

1.1. SCOPE & PURPOSE

- 1.1.1. Collington Winter Environmental Ltd was commissioned by Northstone to prepare a Landscape and Habitat Creation and Management Plan (LHCMP) to support planning permission for the proposed development of 186 residential properties and associated landscaping at Hareshill Road, South Heywood.
- 1.1.2. The author of this report is Michael Boucher, Ecological Project Manager at Collington Winter and has been overseen by Katie Bird, Associate Director at Collington Winter Environmental Ltd. Katie is highly experienced managing complex residential schemes and has produced many Landscape and Habitat Management Plans and reports to inform planning permission.

1.2. OBJECTIVES

- 1.2.1. The report has been created to discharge condition 25 which states:

“No development shall take place on any phase of development until a Landscape and Habitat Creation and Management plan (LHCM) for that particular phase has been submitted to, and be approved in writing by, the local planning authority. The content of the LHCM shall include the following.

- Description and evaluation of features to be created and/or managed.
- Ecological trends and constraints on site that might influence management.
- Aims and objectives of management.
- Appropriate management options for achieving aims and objectives.
- Prescriptions for management actions.
- Preparation of a work schedule (including an annual work plan capable of being rolled forward over a five-year period).
- Details of the body or organization responsible for implementation of the plan.
- Ongoing monitoring and remedial measures.

The LHCM should set out how net gain in biodiversity (habitat enhancement) will be achieved on the site and 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.”

1.3. PROPOSED DEVELOPMENT

- 1.3.1. The proposed development comprises the erection of 186 residential dwellings with associated parking and gardens. The development also includes landscaping across the site in the form of public open space, hedgerows, individual trees and sustainable urban drainage systems (SUDs).

1.4. AIMS AND OBJECTIVES OF MANAGEMENT:

- 1.4.1. This report has been prepared to inform management of the landscaped areas of the site through their operational phase. This management plan covers 5 years post completion of construction.
- 1.4.2. The aims and objectives of management specific to the site include:
- Management of landscaped areas for ecological benefit and provide a gain to biodiversity within the site and local area.
 - Ensure monitoring of habitats is undertaken for a minimum period of 5 years to ensure habitat success.
 - Provide details of remedial measures if required.

2 BASELINE SURVEYS

- 2.1.1. Preliminary Ecological Appraisals (PEAs) have been completed at the site, which aim to identify potential ecological constraints and opportunities on a site by assessing the biodiversity value of the area. The site was previously surveyed by REC Ltd in 2016, and an updated walkover of the site was undertaken by E3P in May 2018.
- 2.1.2. Collington Winter then completed a walkover survey on 18th November 2024, the purpose of the walkover was to determine if habitats and conditions on site were the same as when surveyed by Collington Winter, REC Ltd and E3P Ltd in 2021, 2016 and 2018 respectively. All the updated walkovers have shown the site to be in similar condition to the initial 2016 PEA.
- 2.1.3. The site was found to support low value habitats of improved grassland and species poor native hedgerow. The habitats were found to have value for breeding birds as well as bats and badger (*Meles meles*) (though no active badger setts were identified).

3 ROLES AND RESPONSIBILITIES

- 3.1.1. Northstone will be responsible for the execution of the following plan and for maintaining the landscape elements. Any transference of responsibility should be undertaken with the appropriate appointment of a competent organisation capable of delivering the detailed measures within this plan.
- 3.1.2. This plan is not intended as a fully prescriptive or definitive 'maintenance' schedule but identifies key 'management and maintenance' requirements. This is to ensure that the management of the landscape is flexible and allows for changes overtime. This ensures the continued establishment and satisfactory management and maintenance in the long-term and in the interest of the landscape, visual amenity, as well as the ecology of the site and wider area.
- 3.1.3. The organisation implementing this plan will be a management company with the necessary certificates of competence to implement landscape management operation on site. The managing organisation will ensure that management complies with best practice standards (detailed in Section 11) and all relevant health and safety procedures, protection of the environment, avoidance of pollution and protection of protected/notable species and associated habitats.
- 3.1.4. The site will be managed to comply with all relevant health and safety legislation, approved codes of practice (ACOP'S) and Health and Safety Executive (HSE) guidance.
- 3.1.5. As the managing organisation will be the main company involved in on site works, the managing organisation will fulfil the landowner's role and the work manger's role. This places an obligation on the managing company to ensure that any contractor understands and fulfils their health and safety role and any work undertaken on the site will follow the guidelines of the HSE.

4 HABITAT CREATION ON SITE

4.1. INTRODUCTION

- 4.1.1. All plant stock shall comply with the specifications shown on the drawings, with plant size taking precedence over pot size. Where possible, stock shall be supplied bare-root or rootballed and planted during the appropriate planting season. All trees and specimen shrubs shall be pre-selected at the supplying nursery by the Landscape Architect to ensure consistency, uniformity, and compliance with the specified standards.
- 4.1.2. All soil used shall be site-won topsoil. Where additional soil is required, imported topsoil shall comply with BS requirements for 'General Purpose' topsoil. New shrub beds and planters shall receive a minimum settled depth of 450mm of topsoil. Turf and seeded areas shall receive a minimum settled depth of 150mm of topsoil. The Landscape Contractor shall confirm to the client team that planting beds have been handed over by the groundwork's contractor in full compliance with these requirements.
- 4.1.3. All planting areas shall be free of weeds prior to the commencement of planting works. Mulching materials shall consist of a fine-grade composted bark and must be approved by the client team before delivery to site. The finished mulch level shall be maintained at 15mm below adjacent pavements or other hard surfaces to prevent spillage.
- 4.1.4. Please refer to the Proposed Site Plans prepared by Northstone (Reference: P25-1945_EN_0002 sheets 2-7) for details of the proposed development. The habitats to be created have been summarised here, with specific management aimed at wildlife and biodiversity detailed.
- 4.1.5. Species lists have been detailed in line with the Landscape Specification and Maintenance notes (P25-1945_EN_0002_S1_Rev).

4.2. HEDGEROW

Existing Hedgerow

- 4.2.1. A hedgerow lies on the boundary of the site, it will continue to provide suitable features for invertebrates, nesting and foraging birds and foraging bats.

Hedgerow creation

- 4.2.2. Hedgerows shall be planted as specified in the Landscape Specification and Maintenance Notes. For single-row hedgerows, trenches shall be dug 450mm x 450mm x 450mm depth, with the base broken up before returning the approved topsoil and compost mixture at a rate of one part compost to two parts topsoil. For double staggered row hedgerows, trenches shall be dug 1m x 1m x 450mm, prepared in the same manner. All stock shall be planted to the root collar and well firmed in place. After planting, a 50mm layer of approved composted fine bark shall be applied across the hedge area. Hedgerows shall be protected from rabbit damage using rabbit-proof fencing or individual tree tubes/shrub guards as appropriate.

Management Objectives

- The management objectives for hedgerow are:
- Ensure the satisfactory typical of the respective species;
- Promote conditions so that it is healthy and safe; and
- Ensure continuity of the design approach and amenity value of the hedgerow
- Ensure continuity of ecological value of the hedgerow, in providing a suitable foraging and commuting resource.
- All hedgerows shall be maintained weed- and rubbish-free.
- Any loose plants shall be re-firmed.
- All canes and spirals shall be checked regularly and adjusted or replaced as required.
- Slow-release fertiliser shall be applied at the end of the maintenance period, and mulch shall be topped up to original levels.
- Shrub guards and spirals should be removed from site once plants have established, to be assessed at year 5 after planting.

Annual Works

- 4.2.3. **Weeding and general maintenance:** Remove all weed growth by hand as necessary to ensure weed free and tidy planting areas. Seven visits are required per growing season. Visits should occur approximately monthly in the growing season, subject to weather conditions from April to October, with an extra visit outside of the growing season in December or January to inspect the condition of the beds. Weeding frequency should therefore be varied according to the site and density of vegetation cover and in any event should be between 4 and 8 i.e. whatever is required to achieve a weed free scheme. All weeds shall be removed from the site.
- 4.2.4. **Regular Cutting of Hedgerows:** Edges to be squared and maintainable height to be confirmed, once a year in September. Place cutting material from site on the created log piles (see Ecological Enhancement Plan). Hedgerow cutting to be completed outside of the nesting bird season (defined between March to August). If not possible, a nesting bird check will be required.
- 4.2.5. **Watering of hedges:** Water hedges during dry periods (being any period without substantial rainfall for 14 days or more). Apply at a frequency of up to 2 times per week from April to the end of September (to a maximum of 20 visits in any one calendar year) as required during any continuous hot weather lasting more than 7 days. The Landscape Management Contractor shall be entirely responsible for varying the frequency of these visits according to climatic conditions and for contacting the landowner and agreeing the timing of any additional watering visits if required and where restrictions are placed on the use of water, sources and costs of obtaining second class water. The Landscape Management Contractor shall be responsible for any tree failures or excessive die back from drought stress during the management contract. All hedgerows shall be regularly watered to field capacity during drought, with slow-release fertiliser applied as specified. Mulch levels shall be maintained.

Occasional Works

- 4.2.6. **Gapping up hedges:** Where sections of hedgerow become thin or fail, gap up hedgerows with an appropriate mix of species to an approximate density of 6 plants/linear metre, planted in a double staggered row during the planting season (November through to mid-March inclusive). Gap up areas of less dense growth with additional plants as required to achieve a continuous hedge line taking due allowance for natural growth and regeneration of cut material. All plants should match those that the infill section will relate to.
- 4.2.7. All hedge plants shall be firmed into place, and after planting, watered thoroughly. Mulch shall be applied as required, and protective guards removed once plants are established (assessed at year 5).

4.3. ORNAMENTAL SHRUBS

Planting Description

- 4.3.1. All shrub beds and planters shall be backfilled with good quality topsoil to a depth of 450mm, ensuring the base ground is free of weeds and debris and thoroughly broken up prior to placement. Tree and shrub planting compost shall be spread to a minimum depth of 50mm and thoroughly rotavated into the soil during cultivation. All stock shall comply with the specifications provided on the planting drawings.
- 4.3.2. All plants shall be well firmed in after planting and watered if necessary. After planting, all beds shall receive a 50mm layer of approved mulch over the full extent of the bed. The top of the mulch layer shall be maintained approximately 15mm below adjacent pavements or other surfaces to prevent spillage.
- 4.3.3. Bulbs are to be broadcast throughout the areas shown and planted where they land for a naturalistic effect. Ensure even distribution of bulbs within planting beds.

Management Objectives

- 4.3.4. The management objectives for ornamental shrub, herbaceous, and groundcover areas are to:
- Maintain healthy and vigorous plant growth.
 - Ensure continuity of the design approach, visual amenity, and ecological value.
 - Minimise weed and debris cover to promote plant establishment and growth.
 - Promote flowering, fruiting, and habitat provision for invertebrates and birds where possible.

Annual Works

- 4.3.5. **Weeding and general maintenance:** All shrub beds, herbaceous, and groundcover areas shall be kept weed- and rubbish-free. Any loose plants shall be re-firmed.
- 4.3.6. **Watering:** All beds shall be watered during periods of drought to maintain plant health.
- 4.3.7. **Fertiliser:** Apply an annual application of slow-release fertiliser to maintain plant vigour.
- 4.3.8. **Pruning and trimming:** Shrubs within public areas shall be pruned, climbing plants shall be secured to supporting line wires as growth requires.
- 4.3.9. **Mulch:** Mulch shall be regularly topped up to original levels to suppress weeds and retain soil moisture.
- 4.3.10. Regular summer mowing of grass areas containing bulbs should not commence until bulbs have died back. Bulbs within planting beds should be left to die back.

Occasional Works

- 4.3.11. **Replacement planting:** Any plants that die or fail to establish shall be replaced with appropriate species of the same or similar stock size. All replacement plants shall be installed following the same methods as initial planting, including compost incorporation, firming, watering, and mulching.

4.4. PROPOSED TREE PLANTING

Planting Description

- 4.4.1. Trees are to be planted throughout the scheme providing suitable features for invertebrates, nesting and foraging birds and foraging bats.
- 4.4.2. **Tree Pit Construction:** All standard and multi-stem trees shall be planted in individual pits measuring 750mm x 750mm x 800mm deep. Pits shall be backfilled with a mixture of approved topsoil and tree/shrub compost at a ratio of 2 parts topsoil: 1 part compost. All trees shall be planted to the original root collar depth. Where tree planting occurs within the Root Protection Area (RPA) of existing trees, hand-dig methods only are permitted. Root barriers shall be installed where identified on the plan, including highway verges, service corridors, and near property foundations as advised by the project engineer.
- 4.4.3. **Tree Support and Protection:** In Public Open Space (POS), 16–18 cm girth standard trees shall be secured using underground tree anchors (Greentech or similar approved) and installed with a tree irrigation pipe. Other standard trees shall be supported with two untreated softwood stakes and a cross-bar, with the stake height set at approximately one-third of the tree height. A rubber collar shall ensure the stem does not touch the stake. A spiral guard shall be fitted to the base of each tree to protect against rabbit damage and strimmer damage. After planting, all trees shall be watered-in and a 1m diameter circle of approved forest bark mulch shall be applied to a 50mm depth.

Management Objectives

- 4.4.4. Trees planted will be native-first in biodiversity areas with non-native ornamentals in designed areas, the following objectives apply:
- Ensure the satisfactory establishment and growth of new tree planting typical of the respective species, to enable them to become mature;
 - There will be no herbicide use on the trees and no regular pruning regime so the trees can retain >75% of the expected canopy for their age range and height.
 - The management will encourage the presence of microhabitats for birds, mammals and insects by encouraging the presence of deadwood, cavities and loose bark.
 - Trees are to be located immediately adjacent to other vegetation habitats such as the grassland and mixed scrub.
 - Promote conditions so that trees are healthy and safe; and
 - Ensure continuity of the design approach and amenity value of tree planting.

Annual Works

- 4.4.5. **General tree maintenance during establishment:** Check all trees for firmness and stability in the ground. Check and adjust tree ties, replacing if necessary. Top up bark mulch levels where necessary around the base of new trees, using the same or similar product to that previously supplied to maintain an approximate depth of 50mm to reduce competition from weeds and retain soil moisture. Where trees are in grass areas, remove weed growth by hand and retain a circle of bark mulch (approximate radius of 500 mm) to aid mowing and prevent damage to the main stem. Small chicken wire fences can be erected around the stem (approximately 0.75cm around the tree base) and dropped leaf litter can be used as an alternative to mulch in autumn. Prune any diseased or rotten wood (including the removal of main stems and limbs) back to sound wood as required. Remove all cut material from the site.
- 4.4.6. **Watering trees:** Water trees during dry periods (being any period without substantial rainfall for 14 days or more), until trees are successfully established. For the first two years following planting, water all trees to field capacity (minimum 10 litres per m²) and water all large specimens at 10 litres each. Slow-release bags can be used to minimise visits during times of anticipated drought. Apply water at a frequency of up to 2 times per week from April to the end of September (to a maximum of 15 visits in any 1 calendar year) as required during any continuous hot weather lasting more than 7 days.
- 4.4.7. The Landscape Management Contractor shall be entirely responsible for varying the frequency of these visits according to climatic conditions and for contacting the Adopting Organisation and agreeing to the timing of any additional watering visits if required and where restrictions are placed on the use of water, sources and costs of obtaining second class water. The Landscape Management Contractor shall be responsible for any tree failures or excessive die back from drought stress during the management contract.

Occasional Works

- 4.4.8. **Checking and removal of tree stakes and ties:** Review the need for tree stakes and ties annually for up to 6 years. Remove stakes and ties between 4 to 6 years after planting, but be sure trees are firm and stable. Stakes and ties removed shall be cut at ground level, below lowest grass height (to prevent snagging mower blades) or pulled from the ground and the post holes filled with suitable topsoil. If the tree is found to be weak or unstable after the stakes have been removed, then check the base of the tree for signs of rot. If rotten or unlikely to stabilise, remove the tree and replace. If the tree is free from rot or other cause of its instability, then re-instate a tree support, using 100 mm diameter chestnut stake and single tie. The stake should be pushed into the ground with a post rammer, to a depth of 600 mm and cut to one third the height of the tree. Fix the tree stem with a rubber tie and spacing device attached to at a point no more than 25-35 mm below the top of the post, to prevent chafing against the post in high winds. Remove old posts, ties and arisings and dispose of off-site.
- 4.4.9. **Long-term tree surgery works:** After 10-20 years of maintenance (or earlier if required), newly planted trees will reach semi-maturity and at this time may need corrective surgery. Trees should become subject to a frequent Arboricultural Assessment.
- 4.4.10. **Tree replacement and enhancement of tree cover:** Any tree that dies or is necessarily felled, but which is not removed as part of a programme of tree removals, shall be replaced with a tree of appropriate species and stock size. Such replacement shall be with a tree of either the same or similar species as those existing. The option for replacing with a different species is to allow some flexibility avoiding problems encountered with 'Same Species Disease' and to ensure sustainable tree cover in the interests of visual amenity. Possible damage to drainage/services and adjoining building foundations must be considered before choosing a replacement tree species and location. Where alternative species are being considered, then the species should be suitable to the character of the location and adjoining trees. Once annually the site shall be considered for the need for any strategic replacement or enhancement planting, to broaden the age class of trees and tree groups, in the interests of the long-term sustainability of strategically important vegetation. Trees should be a minimum stock size of standards (10-12 cm girth) and implemented and maintained in accordance with good horticultural practice.

- 4.4.11. Replacement planting is best undertaken during the planting season (November through to March, inclusive).

4.5. GRASSLAND

Planting Description – All Parcels

- 4.5.1. All newly seeded, overseeded, or repaired grass areas shall be sown with the grass or species-rich seed mixes specified in the planting schedule, or similar approved alternatives. Seeding shall take place in either spring (late March to May) or autumn (August to September), in accordance with good practice.

- 4.5.2. Prior to soil preparation, all areas shall be cleared of stones, debris, and material greater than 10mm in any dimension. Annual or perennial weeds shall be treated with an approved herbicide a minimum of six weeks prior to sowing, with retreatment undertaken where necessary.
- 4.5.3. Topsoil shall be cultivated, fine graded to even running falls, raked, and cross-raked prior to seeding. Where existing tree roots are present, only shallow cultivation shall be undertaken to prevent root damage.
- 4.5.4. Seed shall be broadcast by machine or by hand and rolled or lightly trodden where possible to ensure good soil-to-seed contact. Seed shall not be buried or covered with soil.
- 4.5.5. Amenity grassland areas shall be subject to a mowing regime appropriate to the grass mix and function. While grass will generally be cut regularly for aesthetic reasons, sward height may be varied to enhance biodiversity and nature conservation value.

Public Open Space (POS) – Wildflower / Species-Rich Grass

- 4.5.6. Grass areas identified as POS wildflower or species-rich grass shall be sown with the approved wildflower seed mixes as set out in the schedule.
- 4.5.7. These areas shall be topsoiled with site-won soils or an approved nutrient-poor soil to a minimum settled depth of 100mm. The sub-base shall be thoroughly broken up prior to topsoil placement. Once placed, the topsoil shall be cultivated and graded to even running falls before raking and cross-raking.
- 4.5.8. Seed shall be surface sown only, either by small machine or hand broadcasting. For even coverage, seed shall be divided into two or more portions and sown in overlapping passes. The seed shall then be lightly firmed by rolling or treading to achieve good soil contact, without covering the seed.

Public Open Space (POS) – Amenity Species-Rich Grass

- 4.5.9. POS amenity grass areas shall be seeded with Emorsgate EL1 Flowering Lawn Mixture at a rate of 4g/m², or similar approved.
- 4.5.10. Topsoil shall be prepared to a minimum settled depth of 100–150mm depending on ground conditions and grass type. Cultivation, grading, raking, and rolling shall be carried out in accordance with good practice.
- 4.5.11. Where trees are present, shallow cultivation only shall be undertaken to avoid damage to existing root systems.

SuDS Areas – Species-Rich Wetland Grass

- 4.5.12. SuDS and drainage features identified as species-rich wetland grass shall be sown with Emorsgate EM8 Meadow Mixture for Wetlands, comprising Emorsgate EG8 Meadow Grass Mixture for Wet Soils with additional wildflower species incorporated.
- 4.5.13. The subsoil shall be cleared of stones and debris exceeding 10mm in any dimension, cultivated, and fine graded to even running falls. The surface shall then be raked, cross-raked, and lightly firmed prior to sowing.
- 4.5.14. Seed shall be broadcast at a rate of 4g/m² in spring or autumn and firmed by rolling or treading to ensure good soil/seed contact.

Amenity Turf – Front Gardens

- 4.5.15. All areas to be turfed shall receive a minimum settled depth of 150mm of topsoil. The base shall be thoroughly broken up prior to topsoil placement. The surface shall be cultivated, fine graded, raked, and cross-raked to even falls.
- 4.5.16. Rolawn Medallion Turf, or similar approved, shall be laid in accordance with the manufacturer's recommendations and good practice. Prior to turfing, all areas shall be free of weeds and debris, and a pre-turfing fertiliser shall be applied in accordance with manufacturer's instructions.
- 4.5.17. Newly laid turf shall be watered immediately after laying and regularly thereafter until the turf is fully established and rooted.

Rear Lawns of Properties – Seeded Grass

- 4.5.18. Rear garden lawns shall be topsoiled to a minimum settled depth of 150mm, with the base thoroughly broken up prior to placement. Topsoil shall be cultivated, fine graded, raked, and cross-raked to achieve even running falls.
- 4.5.19. Emorsgate EG22 Strong Grass Mixture, or similar approved, shall be sown in accordance with good practice. This mix shall provide a high-quality lawn while also offering durability and low maintenance characteristics.
- 4.5.20. Newly seeded areas shall be watered immediately after sowing and regularly thereafter until the grass is firmly established.

*MANAGEMENT OBJECTIVES**General Requirements (All Grass Areas)*

- 4.5.21. All turfed and seeded grass areas shall establish a good quality, initially vigorous sward. Any areas that fail to meet this standard shall be re-cultivated and re-seeded or re-turfed as required.
- 4.5.22. All grass areas shall be watered regularly following installation and during establishment, particularly during dry periods, until fully rooted. During the first three years, watering shall be undertaken during prolonged droughts (two or more weeks without significant rainfall), watering to field capacity (minimum 20 L/m²), preferably in the morning or evening to reduce evaporation.
- 4.5.23. Physical damage shall be limited to less than 5% of the grassland area, bare ground shall be maintained between 1–10%, and invasive non-native species (as listed under Schedule 9 of the Wildlife and Countryside Act) shall be absent.

Turfed Grass Areas (Front Gardens and Amenity Lawns)

- 4.5.24. Any turfed areas failing to establish a healthy sward shall be re-turfed or re-cultivated and re-seeded as required.
- 4.5.25. The first cut shall take place between 3–7 days after laying, provided mowing can be carried out without disturbing the turf. Where turf becomes dislodged, it shall be replaced and allowed further time to establish before mowing recommences. During the first few cuts, no more than the top quarter of the grass blade shall be removed.
- 4.5.26. Following establishment, turfed grass shall be mown regularly to maintain a finished height of approximately 25mm. Close-mown lawns shall be cut weekly during peak growing periods (mid-March to mid-June and September to October), reducing frequency during dry summer conditions, allowing for up to 25 cuts per year. All arisings shall be collected and removed.

Seeded Amenity and Mown Species-Rich Grass (POS)

- 4.5.27. Seeded amenity grass and mown species-rich grass areas shall be maintained to a height of 25–40mm.
- 4.5.28. Any seeded areas failing to establish satisfactorily shall be re-cultivated and re-seeded as necessary. Amenity grass and verges shall be cut regularly, with mowing frequency adjusted to seasonal growth rates and site usage. Verges and general amenity areas shall typically be cut fortnightly from mid-March to October, reducing frequency during hot or dry conditions, allowing for approximately 12–15 cuts per year.
- 4.5.29. Litter shall be removed prior to mowing, and adjacent paths and hard surfaces swept clean afterwards. Grass margins adjoining paths and roads shall be edged annually using shears or a half-moon cutter.

Wildflower / Species-Rich Grassland (POS)

- 4.5.30. Wildflower grass areas shall be managed to encourage species diversity and long-term ecological value.
- 4.5.31. During the first year of establishment, areas shall be cut regularly to control fast-growing grasses and suppress annual weeds. From the second year onwards, grassland shall be allowed to grow to full height and cut once annually at the end of August to a minimum height of 100mm.
- 4.5.32. All cut arisings shall be left in situ for approximately ten days to allow seed dispersal before being removed from site. Any self-seeded trees or scrub developing within wildflower areas shall be removed during annual maintenance operations.

SuDS Grass Areas

- 4.5.33. SuDS grassland areas above the normal waterline shall be managed as species-rich grassland. Any areas failing to establish a vigorous sward shall be re-cultivated and re-seeded as required.
- 4.5.34. These areas shall be strimmed once annually in August, unless otherwise directed by site-specific hydrological or ecological requirements.

Fertiliser, Weed Control and General Lawn Care

- 4.5.35. Due to proximity to watercourses, fertiliser and herbicide use shall be minimised. Fertiliser and weed control are discouraged except where grass health or visual amenity is compromised.
- 4.5.36. Where required, spot treatment of persistent weeds may be undertaken using approved products in strict accordance with COSHH regulations and manufacturer's instructions. Any fertiliser application shall be limited to a single annual application in May unless otherwise agreed.
- 4.5.37. Prior to any re-turfing or re-seeding, all areas shall be free of weeds and debris, and an appropriate pre-seeding or pre-turfing fertiliser shall be applied where necessary.

Replacement and Remedial Works

- 4.5.38. Small areas of wear or failure shall initially be addressed through changes to mowing regimes or temporary protection measures. Larger areas shall be re-cultivated and re-seeded or re-turfed.
- 4.5.39. Failed turf shall be removed, replaced with new turf laid flush with surrounding areas, and top-dressed with a sand/topsoil mix incorporating compatible grass seed. Where widespread degradation occurs, full re-seeding shall be undertaken using approved amenity or species-rich grass seed mixes appropriate to the location.

4.6. SUSTAINABLE URBAN DRAINAGE SYSTEM (SuDS)

Description

- 4.6.1. The site also incorporates a SuDS basin designed to manage surface water runoff while providing additional green space within the development. The feature can support a range of moisture-tolerant plants and attract common invertebrates, amphibians and birds seeking foraging or temporary shelter.
- 4.6.2. SuDS/drainage features identified as species-rich grass for wetland areas shall be sown with EM8 Meadow Mixture for Wetlands (Emorsgate EG8 Meadow Grass Mixture for Wet Soils plus additional wildflower seeds). Stones and debris over 10mm shall be removed from the subsoil. Annual or perennial weeds shall be treated with an approved herbicide at least six weeks prior to sowing, with re-treatment if necessary. The subsoil shall be cultivated, fine-graded to even running falls, then raked and cross-raked. Seed shall be surface sown at 4g/m² in spring (late March–May) or autumn (August–September) and rolled or trodden to ensure good soil–seed contact.

Management Objectives

- 4.6.3. The management objectives for the SuDS will be:
- Vegetation structure is varied, providing opportunities for vertebrates and invertebrates to live, eat and breed. A single structural habitat component or vegetation type does not account for more than 80% of the total habitat area.
 - The habitat parcel contains different plant species that are beneficial for wildlife, for example flowering species providing nectar sources for a range of invertebrates at different times of year.
 - Plant species are mostly native. If non-native species are present, they should not be detrimental to the habitat or native wildlife.
 - The vegetation is comprised of plant species suited to wetland or riparian situations.
 - Any seeded SuDS grass areas which fail to establish a good quality, vigorous sward shall be re-cultivated and re-sown as required.

Annual Works

- Removal of litter and other inorganic debris as required: An inspection should be completed annually in mid-Autumn-Winter to assess the level of litter and other inorganic debris. All litter should be removed from the habitat and appropriately discarded.
- Undertake clipping, pruning, coppicing and thinning as required: Leave cuttings in situ or create habitat piles. Thinning using hand tools or strimmers, avoiding hitting the ground where animals may be sheltering. No more than 10% scrub cleared in any one year. Rotational clearance to maintain varied structure and species diversity.
- Mow as required and in appropriate conditions (e.g. do not mow wet swales): to achieve a varied sward structure. Before mowing check for wildlife. Use clippings to create habitat piles. Frequent mowing in the first year after sowing speeds establishment, but once established, mowing should be timed to suit either a spring or summer flowering meadow. Avoid mowing before July where ground-nesting birds may be present. Depending on weather, a single cut may suffice before leaving the meadow uncut through winter. SuDS grassland areas above any water line shall be strimmed annually in August.
- During dry spells (14+ days) water every 2-3 days.

Occasional Works

- Species should be planted between November and March with irregular spacing.
- Replace dead plants if and as required: adjusting species mix according to local conditions. Plant native species of local provenance that maximise flowering and fruiting periods to support invertebrates and birds and encourage natural regeneration wherever possible. Planting density should reflect site conditions, with irregular, widely spaced arrangements, no more than 2 shrubs per m² and trees at roughly 10 m intervals, to create a natural appearance, promote natural infill, and support structural diversity. In formal areas, use mulching to suppress weeds, as chemical control near water risks pollution and may require Environment Agency consent. Once established, shrub blocks can be enhanced with shade-tolerant native herbaceous species through seeding or plug planting at about 2 plants per m², though wider spacing of around 3 per m² helps individual plants develop naturally. Overall, good preparation and aftercare are essential, and developing a planting plan for the SuDS can help guide long-term success.

4.7. GENERAL MAINTENANCE

- Bare-root plants shall be planted during the appropriate planting season only. Where necessary, container-grown or rootballed stock shall be used, as advised by the supplier.
- Seeding and cultivation works shall be carried out in late summer to mid-autumn or mid-spring, in accordance with best practice.
- Cultivation shall not be undertaken during frozen, excessively wet, or waterlogged ground conditions.
- Any replacement planting required during the initial maintenance period shall be carried out within the planting season (November to March).
- All imported topsoil shall comply with the requirements of BS 3882.
- Supplying nurseries shall be registered under the HTA Nursery Certification Scheme, and all plant material shall be of certified British provenance.
- All plants shall be packed, handled, and transported in accordance with the Code of Practice for Plant Handling published by the Committee for Plant Supply and Establishment (CPSE).
- All plant material shall conform to the requirements of BS 3936 and BS 4428.
- Planting operations shall be undertaken only in suitable weather conditions and shall avoid periods of frost, drought, frozen ground, waterlogging, or prolonged cold, drying winds.

5 LANDSCAPE IMPLEMENTATION, MONITORING AND REVIEW

5.1. IMPLEMENTATION

- 5.1.1. A Management Company will be established for the site to undertake all management aspects relating to the external landscape areas. Residents will undertake management of their own plots with guidance.
- 5.1.2. The Management Company will coordinate all management of the site in perpetuity in accordance with Landscape and Ecological Management Plan and the accompanying maintenance schedules.
- 5.1.3. The Management Company may employ a Landscape Management Contractor to carry out general maintenance operations. Specialist Contractors may be used on an as needs basis to complete specialist operations and/or occasional works.
- 5.1.4. The Management Company may also appoint from time-to-time consultants to provide specialist advice, monitoring or to undertake a watching brief in relation to aspects of this site or specific maintenance operations. This may include suitably qualified ecologists, arboriculturists, horticulturalists, landscape architects, engineers and/or health and safety.
- 5.1.5. All works, materials and operations will be in accordance with relevant legislation, British Standards, Regulations (including the CDM Regulations) and Codes of Practice.

5.2. PROCESSING FOR MONITORING AND REVIEW

- 5.2.1. The Landscape and Ecological Management Plan and maintenance schedules will be monitored and assessed for their effectiveness on an annual basis for the first five years following the completion of the facility.
- 5.2.2. Each annual review will be coordinated and completed by a suitably qualified person, the review will include advice from specialist consultants as required.
- 5.2.3. To this end the review may include (as appropriate):
- Specialist reports - advising on particular aspects such as protected species, general silvicultural husbandry and health and safety issues;
 - Records or attendance sheets demonstrating the maintenance work undertaken; and
 - A walk over assessment of the landscape areas to assess landscape components and their condition, and the need for enhancement including minutes.
- 5.2.4. The review should identify any changes to site conditions and circumstances, whether the aims and objectives of the Landscape and Ecological Management Plan are being met, and where identified changes are needed to existing management practices and timeframes. Furthermore, any strategic enhancements, including new planting should be identified and priorities established for undertaking these works.
- 5.2.5. Following the review, a revised Landscape and Ecological Management Plan shall be produced (if appropriate) and circulated to stakeholders. Within 5 years of the completion of the site, then the revised document shall be submitted to the LPA as a non- material amendment to the previously approved Landscape and Ecological Management Plan.
- 5.2.6. After the first five years the LHCMP will be reviewed every five years, or as required to ensure the satisfactory management of the landscape in perpetuity.

6 DETAILS OF MANAGEMENT

6.1. DOCUMENTATION FOR OPERATORS

- 6.1.1. All areas subject to this plan are identified on the following landscape plans by Northstone November 2025 which has provided a red line boundary as well as the habitats and planting schedule to be incorporated within the site.
- 6.1.2. The hand-over to the Management Company or any sale of the site will include this document and relevant drawings and will enable the Management Company to know which areas of the site are covered by which section of this Management Scheme.

7 SUMMARY

7.1.1. This plan has provided as follows:

- Planting Plan plans by Northstone (November 2025) demonstrate the areas of habitat to be maintained, enhanced and created;
- A schedule of actions to create or enhance and maintain each habitat at the required quality for a period of 5 years and beyond.
- Ecological trends and constraints on site that might influence management such as nesting bird checks, where necessary.
- A schedule of ecological monitoring for the 5-year period identifying when key indicators of habitat maturity should be achieved; and
- A schedule of actions to be undertaken in case signs of failing are identified, so target conditions can be obtained.
- Provisions for protected species that may be on site.

7.1.2. Overall, the site will provide higher value for biodiversity and wildlife post development through the provision of additional habitats such as wildflower grassland, scrub, shrubs and trees. The site currently, being former agricultural fields limited value for wildlife, and thus development provides a significant opportunity for not only enhancements and ecological betterment on site.

8 BRITISH STANDARDS

7.1.3. In addition to the standards described above, the soft landscape works should meet the following British Standards:

Topsoil Handling, Stripping and Storage

- BS 3882:2015 – current standard for topsoil
- BS ISO 15799:2003 Soil quality – guidance on ecotoxicological characterisation of soils and soil materials BS 3882:1994 Specification for topsoil
- BS 6031:1981 Code of practice for earthworks
- BS 4428:1989 Guide of practice for general landscape operations (excluding hard surfaces) AMD 6784

Quality of Trees and Shrubs

- BS 3936-1:1992 Nursery stock specification for trees and shrubs BS 3936-5:1985 nursery stock specification for poplars and willows
- BS 3936-10:1990 nursery stock specification for ground cover plants

Maintenance of Gardens/ Landscapes

- BS 7370-3:1991 grounds maintenance recommendations for maintenance of amenity and functional turf (other than sports turf)
- BS3998: 2010 'Tree Work – Recommendations 'and AMD 6549

Horticulture

- BS EN 12579:2000 Soil improvers and growing media - sampling
- BS EN 13037:2000 Soil improvers and growing media - determination of pH

Biodiversity

- BS42020 Biodiversity – Code of Practice For Planning & Development

9 REFERENCES

- Northstone Proposed Layout: SH01-P-SL-003
- Bat Conservation Trust (2018). Bats and Artificial Lighting in the UK: Bats and the Built Environment series.
- Collins, J. (ed) (2016). Bat Surveys for Professional Ecologists: Good practice Guidelines, 3rd Edition. The Bat Conservation Trust.
- Institute of Lighting Engineers (2005). Guidance Notes for Reduction of Obtrusive Light.

APPENDIX 1

MANAGEMENT TIMETABLE

MAINTENANCE OF HARD LANDSCAPE AREAS

Hard landscape, paved areas	Year 1	Year 2	Year 3	Year 4	Year 5	Years 6 and onwards
General: A minimum of 20 inspections will be completed per year. Areas that have been designed for light traffic should be prohibited to heavy vehicles to avoid damage to driveways, paths, verges and planting. Sweeping by hand or using pedestrian controlled motorised suction cleansers; on large open areas, mechanical sweepers may be used.	Inspect / cleanse as necessary	Inspect / cleanse as necessary	Inspect / cleanse as necessary	Inspect / cleanse as necessary	Inspect / cleanse as necessary	Inspect / cleanse as necessary
Paved surfaces: All paving to be maintained to original levels and falls. Where a risk of slipping exists, warning notices or handrails should be installed.	Minimum of 20 inspections per year.	Minimum of 20 inspections per year.	Minimum of 20 inspections per year.	Minimum of 20 inspections per year.	Minimum of 20 inspections per year.	Minimum of 20 inspections per year.
Winter weather: During a thaw, all surface water drainage channels, gully gratings and outlets to be kept cleared. Salt not to be used near trees and other plants and not be stored on site.	As necessary	As necessary	As necessary	As necessary	As necessary	As necessary

GENERAL – ALL AREAS

[illegible]

Tree planting	Year 1	Year 2	Year 3	Year 4	Year 5	Years 6 and onwards
Water monthly in growing season (March to September) and at least weekly in dry periods to maintain healthy growth.	Monthly or weekly in dry periods	Monthly or weekly in dry periods	Monthly or weekly in dry periods	Monthly or weekly in dry periods	Monthly or weekly in dry periods	As required in prolonged dry periods
Apply granular slow- release fertiliser at approved rates in spring (March/April). ONLY FOR USE IN PROBLEM AREAS. CONSULT YOUR ECOLOGIST FIRST	1 x year in Feb/March	1 x year in Feb/March	1 x year in Feb/March	1 x year in Feb/March	1 x year in Feb/March	1 x year Feb/March
Apply organic wood chip/ bark mulch min 5 cm thick, 1 m circle around tree stem. Collect leaf litter and use around tree bases as mulch in autumn.	2 x year in March/ Oct	2 x year in March/ Oct	1 x year in Oct	1 x year in Oct	1 x year in Oct	1 x year in Oct
Remove all tree ties, stakes or supports.			Year 3/4			
Inspect annually, prune as necessary, remove dead, damaged or diseased branches; Works to be carried out by an Arboricultural Associated approved contractor in accordance with BS3998: Recommendations for Tree Work.	1 x year	1 x year	1 x year	1 x year	1 x year	1 x year
Existing hedgerow	Year 1	Year 2	Year 3	Year 4	Year 5	Years 6 and onwards
Visual inspection of all areas will be undertaken a minimum of 20 times per year; removal of any litter, debris or fly tipping as necessary.	Minimum of 20 inspections per year.	Minimum of 20 inspections per year.	Minimum of 20 inspections per year.	Minimum of 20 inspections per year.	Minimum of 20 inspections per year.	Minimum of 20 inspections per year.
Maintain all planted areas weed-free; control by hand-dig; deep-rooted perennial weeds to be treated with herbicide spray.	4 x year	4 x year	4 x year	4 x year	4 x year	4 x year
Water regularly minimum 10 litres per shrub during growing season (March to September) and at least weekly in dry periods to maintain healthy growth.	As required in prolonged dry periods	As required in prolonged dry periods	As required in prolonged dry periods	As required in prolonged dry periods	As required in prolonged dry period	As required in prolonged dry periods
Hedges: remove diseased or dead plants and replace with appropriate species	2 x year in March/ Oct	2 x year in March/ Oct	2 x year in March/ Oct	2 x year in March/ Oct	2 x year in March/ Oct	2 x year in March/ Oct

Prune/ clip to create regular height and width as required.	1 x year in September	1 x year in September	1 x year in September	1 x year in September	1 x year in September	1 x year in September
Wildflower grassland	Year 1	Year 2	Year 3	Year 4	Year 5	Years 6 and onwards
In the first year, mow at least 1 x month. In following years mow 2 x year.	1 x month in May-Oct (6 times total)	2 x year in June-July and Sept-Oct	2 x year in June-July and Sept-Oct	2 x year in June-July and Sept-Oct	2 x year in June-July and Sept-Oct	2 x year in June-July and Sept-Oct
Maintain weed-free; spot treat non-native or problematic perennial weeds with a selective herbicide.	1 x year in spring	1 x year in spring	1 x year in spring	1 x year in spring	1 x year in spring	1 x year in spring
Over-seed damaged, worn, shaded areas to maintain a robust sward.	1 x year after cutting	1 x year after cutting	1 x year after cutting	1 x year after cutting	1 x year after cutting	1 x year after cutting
Grassed Amenity Areas	Year 1	Year 2	Year 3	Year 4	Year 5	Years 6 and onwards
Apply approved lawn fertiliser to manufacturers' rates. ONLY FOR USE IN PROBLEMATIC AREAS.	1 x year in spring	1 x year in spring	1 x year in spring	1 x year in spring	1 x year in spring	1 x year in spring
Maintain weed-free; spot treat perennial weeds with selective herbicide. ONLY FOR USE IN PROBLEMATIC AREAS.	2 x monthly in growing season	2 x monthly in growing season	1 x year in spring	1 x year in spring	1 x year in spring	1 x year in spring
Spike and scarify with spring-tined rake to remove moss and thatch; collect and remove arisings.	1 x year in autumn	1 x year in autumn	1 x year in autumn	1 x year in autumn	1 x year in autumn	1 x year in autumn
Over-seed damaged, worn, shaded areas to maintain a robust sward.	2 x year in March/ Sept	2 x year in March/ Sept	1 x year in Sept	1 x year in Sept	1 x year in Sept	1 x year in Sept

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