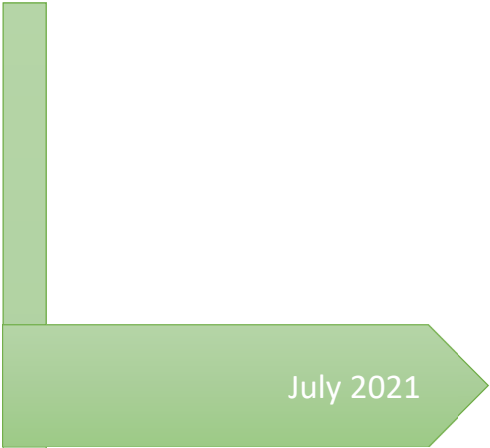




July 2021

Landscape and Habitat Enhancement & Management Plan RevA Feb 2022

Land to North of Tenford Lane, Tean

Client: Hewitt & Carr Ltd

Landscape and Habitat Enhancement & Management Plan

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1. Introduction

1.1. This Landscape and Habitat Enhancement & Management Plan (LHEMP) has been prepared in accordance with the requirements of Planning Condition No 17 of the application SMD/2016/0811 by awSCAPE Ltd for residential development at Land North of Tenford Lane, Tean, Staffordshire.

1.2. Planning condition 17 reads:

“Details submitted under first reserved matters shall include a ‘Landscape and Habitat Enhancement & Management Plan’ prepared in accordance with Ecological Appraisal, including long term design objectives, management responsibilities, maintenance schedules over a 20 year period for the application site as shown on Location Plan drawing ref. (ref 00438_AL(0)04 A), which shall be approved in writing by the Local Planning Authority. The Plan shall include design objectives, management responsibilities and maintenance schedules for all landscaped areas (except privately owned domestic gardens) within site...”

1.3. The purpose of the LHEMP is to:

- Set out the long term objectives of the site, the management aims of each element of the site, including any hard landscape elements associated with public realm.
- Identify the management responsibilities of the site
- Set out a maintenance schedule that can be followed over a 20 year period and how this will be monitored and reviewed

2. Long-term Objectives

2.1. The objectives of the management plan are to:

- To create a residential character that is distinctive but not out of place from the village
- To ensure the development creates a suitable transition between its rural context and the edge of conurbation
- To establish and maintain high quality public open space, SuDS and community orchards that serve the communities within and outside of the development.
- To ensure the establishment and appropriate maintenance of an important ecological resource for birds, bats, bees, butterflies, reptiles and invertebrates as well as all other important wildlife in and around the site.
- To ensure that the open SuDS is appropriately managed to benefit wildlife and the community and is not undermined in any way.
- To provide substantial tree cover to reduce visual impacts and improve visual amenity.

3. Site Management Responsibilities and Liabilities

Management Company

- 3.1. The site owners will employ a management company who will be responsible for the management and maintenance of the landscape within the site boundary, excluding residents' gardens. The highways, associated footways and drainage will be adopted by Staffordshire County Council.
- 3.2. Management organisations must have approved qualifications and experience to undertake the site specific tasks to manage a wildlife and SuDS enhanced site, and maintain it to a high standard for residents amenity and biodiversity enhancement.

Duties and liabilities

- 3.3. The following duties and liabilities are to be undertaken by the Management Company, Highway Authority and the site owner:
- The Environment Protection Act 1990 requires that the duty holders as detailed above ensure that the land is, so far as is practicable, kept clear of litter and refuse, and that the highway or road is, so far as is practicable, kept clean.
 - To comply with the Wildlife and Countryside Act 1981 (as amended) for all protected species, Protection of Badgers Act 1992 for badgers, and Conservation Regulations 1994 (or Habitats Regulations) for protection of bats.
 - To prevent and control of invasive non-native species through the Wildlife and Countryside Act 1981 (as amended).
 - Protection of all nesting birds under the Wildlife and Countryside Act 1981. Operations that could cause harm to nesting birds should not be undertaken during the months from March-September, i.e. outside of the nesting season.
 - Mature trees within the site should have an annual safety inspection, and recommendations undertaken following strict adherence to The Town and Country Planning (Tree Preservation) Regulations 2012 for the TPO trees. The trees to the southern boundary of the site should not fall into the care and management of residents. A full condition survey should be undertaken every 5 years.
 - Adherence to Health and Safety at Work Act 1974 and associated regulations. Risk assessments must be undertaken for the site and retained in a Health and Safety File.

Health and Safety and liability compliance

- 3.4. The management company must have full Health and Safety compliance to work within a public setting.

- 3.5. The site owners will have overall responsibility for the health and safety of the site and to the management company they employ. They will be required to undertake informal safety inspections and formal inspections annually to identify and remediate any health and safety issues. Safety inspection of trees to be undertaken annually by a qualified professional, with 5 yearly full condition surveys undertaken. Any action will require application to the LPA for management to trees based on their TPO protection.
- 3.6. Risk assessments must be undertaken for the site to comply with the Management of Health and Safety at Work Regulations 1999. Any accidents or incidents must be reported through the appropriate channels under RIDDOR 2013.
- 3.7. A Health and safety file must be prepared for the site and adhered to by the site owners, management company and all subcontractors employed to manage and maintain the site. Health and Safety files should be available to all operatives alongside management objectives.

4. Management Objectives of Landscape Types

- 4.1. The frontages and rear of properties will be managed by homeowners once occupied. It is recommended that frontages are managed by the Management Company within the first year, but this is optional. This is to ensure that the site establishes in a coherent manner.
- 4.2. Public Open Space or land of a communal nature including SuDS and community orchards will be managed by the approved management company.

Landscape Components

- 4.3. The various landscape components are identified on Drawing AW0127-PL-01 Sheets 1 and 2.
- 4.4. The landscape elements to be managed by the management company include the following:
- Existing grassland
 - Proposed Meadow
 - Native Tree and scrub planting
 - Specimen tree planting including orchard trees
 - Native hedgerow planting
 - Existing hedgerows including infill/gapping up planting
 - Existing overgrown hedgerows/mature trees
 - SuDS ponds and swale

- 4.5. Each landscape component will include a description of these components, the required first year establishment and maintenance thereafter.

Existing meadow

- 4.6. The existing meadow lies to the west of the site and will form the basis of the Public Open Space. The existing meadow is classified as Improved grassland. The grassland has been grazed by horses and as such is nutrient rich. Management alteration would help to reduce nutrient content and with introduction of additional wildflower mixes or hay strew would assist in creating a high quality meadow.

- 4.7. The management objectives are to create a high-quality meadow for biodiversity and for the health and wellbeing of the community.

4.8. Year 1 management

- Cut and collect at 3 intervals through the year: April, June and September. Collection is essential to remove nutrients. Cut to within 5cm of ground, without scalping ground.
- Remove dock and nettle (preferably by hand) to avoid use of herbicides
- September, chain harrow meadow area and either Haystrew from Staffordshire Wildlife Trust approved donor site, or overseed with 100% wildflower mix of N4F Summer Flowering Butterfly and Bee Mix for main areas, and N9F Hedgerow Mix Flowers for areas identified to boundaries near to woodland and hedgerows. Seeds to be 100% wildflower from Naturescape.
- Edging to paths: Maintain a 1-1.5m mown (cut and collect) strip of grass to one or both sides of the footpath to reduce encroachment onto paths. To be undertaken fortnightly from April-September.
- Introduce mown path to north eastern extent of site (cut and collect). To be undertaken fortnightly from April-September.

4.9. Year 2 establishment/management

- Cut and collect in March/April to control grass flush. Cut to 7.5cm in height
- Cut and collect July/August
- Two additional cut and collect between August and November to control pernicious weeds and grasses. Cut to 4cm
- Edging to paths: Maintain a 1-1.5m mown (cut and collect) strip of grass to one or both sides of the footpath to reduce encroachment onto paths. To be undertaken fortnightly from April-September.
- Introduce mown path to north eastern extent of site (cut and collect). To be undertaken fortnightly from April-September.

4.10. Year 3-20+ management

- Cut and collect in March/April to control grass flush. Cut to 7.5cm in height
- Cut and collect August. This can be a hay cut which requires a cut, leaving the grasses to dry for 2-3 days, turning them to allow seed drop, followed by hay baling.
- One additional cut and collect can be performed between August and November.
- Remove areas of nettles within meadow with repeated cut and collect.
- Hand dig removal of dock.
- Should grasses remain dominant, sow yellow rattle (*Rhinanthus minor*) in August following hay cut and increase cut and collect between August and March.
- Edging to paths: Maintain a 1-1.5m mown (cut and collect) strip of grass to one or both sides of the footpath to reduce encroachment onto paths. To be undertaken fortnightly from April-September.
- Introduce mown path to north eastern extent of site (cut and collect). To be undertaken fortnightly from April-September.

Proposed meadow

4.11. The proposed meadows are located within the SuDS, community orchards and to roadside edges (outside of property curtilages). They can include service strips to the boundaries of dwellings to ensure their appropriate establishment and maintenance.

4.12. The management objectives are to create high quality meadows for the benefit of people and wildlife to enhance biodiversity; to create a natural play resource; to ensure the site sits well within the rural context; and to respond to climate change.

4.13. Year 1 establishment

- Cut and collect after first 6-8 weeks of growth (approximately May). Cut to 5cm in height
- Cut and collect July and September to 5cm in height.
- Ensure maintenance is undertaken carefully around trees to avoid ring barking of trees. No strimming/mowing should be undertaken within 500mm radius of trees.

4.14. Years 2-20+ management

- Cut and collect in March/April to control grass flush. Cut to 7.5cm in height
- Cut and collect August. This can be a hay cut which requires a cut, leaving the grasses to dry for 2-3 days, turning them to allow seed drop, followed by hay baling.
- One additional cut and collect can be performed between August and November.
- Remove areas of nettles within meadow with repeated cut and collect or hand dig.
- Hand dig removal of dock.

- Should grasses dominate, sow yellow rattle (*Rhinanthus minor*) in August following hay cut and increase cut and collect between August and March.
- Ensure maintenance is undertaken carefully around trees to avoid ring barking of trees. No strimming/mowing should be undertaken within 500mm radius of trees.

Native Tree and Scrub Planting

4.15. Native trees and scrub are located within the public open space, forming the western boundary of the site and framing the eastern edge of the site.

4.16. The management objectives are to create a high quality public open space, framed by trees and scrub whilst providing visual screening of the proposed development from short and long distance views; to enhance biodiversity on the site; and, to respond to climate change.

4.17. Year 1-5 establishment

- Maintain 1m diameter around each tree free of weeds using mulch mats. Replacement of mulch mats as and when required. Nylon filament trimmers not to be used within 1m diameter of tree base. Herbicide to be avoided.
- Mowing to be avoided within 1m diameter of tree base to avoid damage to trees.
- Watering to be undertaken at a minimum of 4 times per year to ensure continued thriving of planting. Trees and whips to receive approximately 5litres each. In unusually dry years the number of operations should be increased as appropriate.
- Inspect tree stakes annually or after period of windy weather. Refirm after strong winds or frost heave.
- Replace or refirm tree stakes and rabbit guards as and when required.
- Replace dead or dying trees and scrub within first 5 years to ensure 100% establishment by Year 5.

4.18. Years 5-20+ management

- Maintain 1m diameter around each tree free of weeds using mulch mats. Replacement of mulch mats as and when required. Nylon filament trimmers not to be used within 1m diameter of tree base. Herbicide to be avoided.
- Mowing to be avoided within 1m diameter of tree base to avoid damage to trees.
- Watering to be undertaken at a minimum of 4 times per year during dry periods to ensure continued thriving of planting. Feather trees (as they mature) to receive approximately 25litres each. In unusually dry years the number of operations should be increased as appropriate. Watering may cease after successful establishment of 10 years subject to review.
- Inspect tree stakes annually or after period of windy weather. Refirm after strong winds or frost heave.

- Formative pruning where required.
- If possible replace or refirm tree stakes and rabbit guards as and when required.
- Remove rabbit guards and stakes after year 10 or after annual inspection identifies their removal due to size limitation.

Specimen tree planting

4.19. Specimen trees are located throughout the site within Public Open Spaces, SuDS community orchards and boundary hedges. There are a number of specimen trees within front gardens.

4.20. The management objectives are to create high quality public open space, community orchards and SuDS; to reduce visual impact of the proposed development; to enhance biodiversity and create important wildlife corridors through the site; to create edible landscapes for the community; and, to respond to climate change.

4.21. Year 1-5 establishment

- Within the public open spaces, maintain 1m diameter around each tree free of weeds using mulch mats. Replacement of mulch mats as and when required. Nylon filament trimmers and mowers not to be used within 1m diameter of tree base. Herbicide to be avoided.
- Inspect tree stakes annually or after period of windy weather. Refirm after strong winds or frost heave.
- Maintain guying or staking of trees as required; check, repair or replace stakes and ties.
- Replace dead or dying trees within first 5 years to ensure 100% establishment by Year 5. Repeat losses to be identified and investigated for management failures, species suitability, disease, drought or water logging. If species is not suitable for location alternative species to be sought.
- Watering to be undertaken at a minimum of 6 times per year to ensure continued thriving of planting. Standard and Heavy Standards to receive approximately 25-50litres each. In unusually dry years the number of operations should be increased as appropriate.

4.22. Years 5-10 management

- Maintain 1m diameter around each tree free of weeds using mulch mats. Replacement of mulch mats as and when required. Nylon filament trimmers and mowers not to be used within 1m diameter of tree base. Herbicide to be avoided.
- Watering to be undertaken at a minimum of 6 times per year to ensure continued thriving of planting up until year 10. Trees to receive approximately 50litres each. In unusually dry years the number of operations should be increased as appropriate

- Inspect tree stakes annually or after period of windy weather. Refirm after strong winds or frost heave. Replace tree stakes and ties where required. Readjust ties prior to chafing. Remove tree stakes and ties once trees are established and strong enough to withstand winds. Usually Year 5.
- Formative pruning where required. Specialist pruning for orchard trees.

4.23. Years 10-20+ management

- Continue annual inspection and undertake 5 year tree condition survey to ensure trees are managed and maintained in a safe condition. Pruning where required.
- Specialist pruning of orchard trees undertaken following annual inspection at appropriate season and specific to each species.

Native hedgerows

4.24. Native hedgerows are located to the site boundary from west to east, and a number of hedgerows north to south. New hedgerows are also located where gapping up is required.

4.25. The management objectives are to establish new and reconnect existing hedgerows; to provide a strong boundary to the site; to create important wildlife corridors and enhance biodiversity; and, to create a high quality visual amenity landscape for residents.

4.26. Years 1-5 establishment

- Replace dead or dying hedging within first 5 years to ensure 100% establishment by Year 5.
- Replace rabbit guards, restake and refirm as and when required, particularly following strong winds and frost heave.
- Maintain hedgerow weed free with mulch. Herbicides to be avoided.
- Year 1 after planting trim lateral growth by 50% in the first spring.
- Years 2-5, lightly trim early spring and August/September allowing the hedgerow to increase in size each year.
- Watering to be undertaken at a minimum of 4 times per year to ensure continued thriving of planting. Whips to receive approximately 5litres each. In unusually dry years the number of operations should be increased as appropriate.

4.27. Years 5-20+ management

- Trim hedgerow and remove arisings to achieve a height of 2m. To be undertaken in August/September. Early cuts may be advised for initial flush if causing access issues.
- Remove dead hedging and gap up where required. Determine reason for hedgerow loss and alter species or management practice accordingly.

Established boundary hedgerows – south and east

- 4.28. Established boundary hedgerows are located to the south and east of the site. They are mature hedgerows that add to the character of the site and reflect the site's characteristics as a former field. They are important wildlife connections to the wider landscape. The southern boundary hedgerow is gappy in nature.
- 4.29. The management objectives are to ensure the continued thriving of the existing hedgerow; to maintain a high quality established boundary to the site for visual amenity that includes gapping up thin or gaps in existing hedgerows; and, to retain important wildlife corridors within and through the site.
- 4.30. Years 1-20+management mature hedge
- Cut hedge to retain current height of c.2m to southern and eastern boundaries. Remove arisings. Hedge to be cut in August/September outside of breeding bird season. Initial cut in April may be required for access and amenity purposes, although should be avoided where possible.
 - Any diseased or dying stands to be removed and replaced by gapping up and maintained according as Native Hedgerows above.
- 4.31. Potential Year 5 and year 15 management
- Should hedgerows show signs of thinning at base, hedgerows should be allowed to grow unmanaged over a period of 5-7 years and phased laying of hedgerows i.e. 1/3 of hedgerow laid per year in autumn/winter.
 - Relaying of hedgerows can be repeated 10 years after initial lay, or maintained at 2m height thereafter, with gapping up where required.
- 4.32. Years 1-5 establishment of newly planted gapped up hedge
- Replace dead or dying hedging within first 5 years to ensure 100% establishment by Year 5.
 - Replace rabbit guards, restake and refirm as and when required, particularly following strong winds and frost heave.
 - Maintain hedgerow weed free with mulch. Herbicides to be avoided.
 - Year 1 after planting trim lateral growth by 50% in the first spring.
 - Years 2-5, lightly trim early spring and August/September allowing the hedgerow to increase in size each year.
 - Watering to be undertaken at a minimum of 4 times per year to ensure continued thriving of planting. Whips to receive approximately 5litres each. In unusually dry years the number of operations should be increased as appropriate.
- 4.33. Years 5-20+ management of newly planted gapped up hedge

- Trim hedgerow and remove arisings to achieve a height of 2m. To be undertaken in August/September. Early cuts may be advised for initial flush if causing access issues.
- Remove dead hedging and gap up where required. Determine reason for hedgerow loss and alter species or management practice accordingly.

Existing overgrown hedgerows

- 4.34. Established overgrown hedgerows are located to the centre and west of the site boundary. Hedgerows are defunct in nature but have considerable benefits for visual amenity and wildlife. Gapping up of existing hedgerows to be undertaken where possible.
- 4.35. The management objectives are to ensure the continued wildlife benefits of the existing hedgerow; to maintain boundaries to the site; and, to retain and reconnect wildlife corridors within and through the site, via new planting where possible.
- 4.36. Years 1-20+management
- Mature hedgerows to centre and west of site to receive annual inspection. Should hedgerows show signs of significant decay or decline, consider laying hedge as per management of Established boundary hedgerows above. This to be undertaken on a phased basis to ensure wildlife disruption is kept to a minimum.
 - Should hedgerow be laid, allow to grow for 10-15 years before undertaking another phased lay. Gap up where required.
- 4.37. For gapping up management see Paragraphs 4.32 and 4.33 above.

Mature trees

- 4.38. Mature trees are located to the southern boundary of the residential aspect of the site. Mature trees to the northern extent of the fields are not included within this management plan. Many of these trees are subject to TPOs.
- 4.39. The management objectives are to ensure the trees are retained for the purpose of visual and landscape amenity; benefit to wildlife; and, to ensure they are safe for the purposes of proximity to residential dwellings.
- 4.40. Years 1-20+management
- Annually inspect mature trees by an approved arboriculturalist within the site boundary for signs of disease, decay or dead branches. All mature trees to be managed by Management Company and not in residents ownership.
 - Follow recommendations of arboriculturalist, Management Company to obtain appropriate permissions for TPO trees if under protection. Ensure any works to trees that may involve protected species such as bats or nesting birds, an approved ecologist undertakes assessment prior to removal.

4.41. Year 5, 10, 15, 20 management

- Undertake a full condition survey to mature trees and any trees that mature within the site thereafter.
- Follow recommendations of arboriculturalist in terms of management obtaining appropriate permissions for TPO trees if under protection. Ensure any works to trees that may involve protected species such as bats or nesting birds, an approved ecologist undertakes assessment prior to removal.

SuDS Ponds and swale

4.42. SuDS ponds and swale are located to the centre and south west of the site.

4.43. The management objectives are to ensure the SuDS ponds and swale perform in relation to infiltration; to enhance biodiversity; and, to create an interactive feature accessible to the public outside of flood.

4.44. Year 1 establishment (undertaken prior to water ingress)

- Cut and collect after first 6-8weeks of growth (approximately May). Cut to 5cm in height
- Cut and collect July and September to 5cm in height.
- Check and remove obstructions to inlets and any outlets once per month. Arisings to tip.
- Clear autumnal tree debris if required to outlets and to basin once per year in Winter.

4.45. Years 2-20+ management

- Cut and collect in March/April to control grass flush. Cut to 7.5cm in height
- Cut and collect August.
- One additional cut and collect can be performed between August and November.
- Remove areas of nettles within meadow with repeated cut and collect or hand dig.
- Hand dig removal of dock.
- Check and remove obstructions to inlets and any outlets once per month. This may require more regular clearance during periods of heavy rainfall. Arisings to tip.
- Check for damage or maintenance repair requirements to inlet walls, protective fencing and protective guards and any signage once per month. Undertake repairs as required.
- Clear autumnal tree debris if required to outlets and to basin once per year in Winter.

- Remove self sets of willow and alder if they cause obstructions or hinder water capacity within Swales and basin.

Litter removal

4.46. This is to be undertaken to all publicly accessible locations excluding land within residential curtilage.

4.47. The management objective is to ensure the public open spaces are maintained to a high quality.

4.48. Years 1-20+ management

- Fly tipping to be removed or reported to Local Planning Authority for their removal.
- Litter pick weekly from April to September and fortnightly from October to March.
- Thorough litter pick to be undertaken prior to any mowing regime to avoid litter shredding.

Hard landscape to POS

4.49. Tarmac paths are located through the Public open space to be managed by Management Company. All footways and highways to be maintained by Staffordshire County Council as adopted highways.

4.50. The management objective is to maintain paths in a safe and accessible condition.

4.51. Years 1-20+ management

- Annual inspection of path through public open space for any signs of cracks, holes, wear and movement.
- Repair as required to maintain safe use of paths.

Street Furniture to POS

4.52. Street furniture (including bench and signage) to be installed upon creation of Public Open Space and managed by the Management Company.

4.53. The management objective is to ensure the maintenance and repair of all street furniture to allow for the continued enjoyment of the POS, and to keep the furniture in a safe and accessible condition.

4.54. Years 1-20+ management

- Annual inspection of street furniture through POS for signs of damage, wear of surface beneath benches/signage or movement.
- Repair/replace as required to maintain 6 number of seats within POS and minimum 2 informative signs.

Inspections

- 4.55. The management company and site owners have a responsibility to the site in terms of management and health and safety requirements.
- 4.56. The objectives are to ensure the site is maintained in a high quality state, that management objectives are being met and that the site remains in a safe manner for residents and maintenance operatives; to undertake any repairs and maintenance tasks appropriate to the inspection reports.
- 4.57. Inspections to be undertaken
- Annual tree safety inspection by an Arboriculturalist
 - Biannual management inspections to ensure site is maintained in a high quality condition, to be undertaken by management company and site owner
 - Impromptu biannual checks by Site Owner to ensure health and safety and management is adhered
 - Monthly checks to SuDS infrastructure
 - 5 year Tree Condition Survey by an Arboriculturalist
 - 5 year Ecology Survey by an ecologist

5. Review

- 5.1. This management plan is to be subject to annual review and any changes identified and appended to the management plan. A more detailed review of the management plan is recommended at 5 yearly intervals to ensure the management plan reflects any changes made to the site, results of inspections and surveys undertaken, and responds to environmental legislation (if required).