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LANDSCAPE MANAGEMENT PLAN

Prickleden Mills, Holmfirth

Report Reference: BG20.316.4

December 2021





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1. Summary

1.1 Brindle and Green Environmental Consultants Ltd were commissioned by Lagan Homes Ltd to undertake a Landscape Management Plan for Prickleden Mills, Holmfirth. The purpose of this document is to set out the management and maintenance requirements for the hard and soft landscape treatments on the site. It is understood that the proposal involves the construction of 61 dwellings and associated works – with access road, associated car parking and landscape treatments. Design proposals can be found in drawings BG21.316.3 Hard and Soft Landscape Plan.

2. Introduction

2.1. Scope and aims of the appraisal

- 2.1.1. This report is a Landscape Management Plan (LMP), which sets out the management and maintenance measures required by the various hard and soft elements of the proposed landscape scheme which accompanies the proposed development of 61 new age-restricted apartments (outline planning application permission reference 2021/62/92003/W# situated on a piece of land ('the site') off Lower Mil Lane, Holmfirth.
- 2.1.2. The landscape management plan will cover the establishment period of the first 5 years following the completion of the works, as well as the ongoing management and maintenance operations applicable to maintain the landscape scheme in perpetuity (at least 30 years).
- 2.1.3. This report has three broad aims: to establish the overall intended character of the landscape scheme and how it relates to the proposed development, to provide design objectives for individual hard and soft landscape treatments (hereafter referred to as 'landscape elements'), to set management actions for each of these landscape elements in order for them to achieve their respective design objectives.
- 2.1.4. The landscape management plan needs to be read in conjunction with the following appendix:
- Appendix 1 – a schedule of works which details the landscape management and maintenance actions which are required to be carried out and the timescales in which these are necessary. Years 1-5 of the schedule cover the five-year establishment period following completion of the works, whereas Years 6-10 cover longer term management operations which are to be repeated on a 5-year rolling basis in perpetuity (at least 30 years).

2.2. The site

- 2.2.1. The site is located to the west of Lower Mill Lane and to the south of Woodhead Road, in Holmfirth, approximately 0.6km away from the village centre and approximately 8km away from Huddersfield. The boundaries of the site are defined by wooded embankments, stone and brick walls, retaining boundary walls for dwellings on Woodhead Road and Lower Mill Lane and the River Holme. Immediately north of the site are houses on Woodhead Road, whereas the eastern boundary is adjacent houses on Lower Mill Lane. To the south of the site are the River Holme and arable fields and to the west are houses on Perseverance Place.
- 2.2.2. The current land use of the site is brownfield land which left unmanaged. The site has an overall derelict appearance due to piles of bricks and rubble, areas of hard standing, unmanaged vegetation and Heras fencing securing the site.

2.3. The proposed development

- 2.3.1. The proposed development is approximately 1.5 hectares and comprises 61 new dwellings, associated underground parking, pedestrian and vehicular access and public open space. The development is edged by a landscape buffer of native scrub to the south-eastern and western boundary. The development will be accessed via Lower Mill Lane which is to the east of the site.
- 2.3.2. For full details of the proposed development, please see the drawings submitted as part of the planning application for approval of reserved matters reference 2021/62/92003/W#(Kirklees Council, 2021).

3. The landscape scheme

3.1. Description of the proposed landscape scheme

- 3.1.1. The design of the proposed soft landscape scheme within the site comprises a mixture of native trees, native hedgerows, native scrub, native shrubs, ornamental shrubs and hedges, species rich grassland, meadow grassland and amenity grassland. The soft landscape scheme for each area (landscape buffer, the main housing area, and public open space) is described in more detail below.
- 3.1.2. A variety of hard landscape treatments have been applied to the site including paths and asphalt areas for parking. Again, these are set out in relation to each area of the site below.

3.2. Areas within the proposed landscape scheme

Main housing area

- 3.2.1. The soft landscape treatments within the residential area comprise a mixture of native and ornamental planting with flowering lawn to the front of the properties. Native hedgerow species have been used within the hedges proposed on to the site to strengthen the quality and character of the development. Formal planting to the front of the proposed dwellings will consist of native hedgerows and plug planting along a swale to soften and add to the streetscape. Pathways to the apartments will consist of flag paving in a natural finish which is laid out in a running pattern. Plot boundaries will comprise formal hedgerows in a single native species to reflect the rural setting. Parking areas will consist of asphalt with hedgerow planting to soften the streetscape.

Landscape buffer

- 3.2.2. Along the south and south-eastern edges of the site, the soft landscape treatment to the landscape buffer will incorporate existing native trees with an understory of native scrub planting. This landscape buffer will sit adjacent to the existing rural context and will help the proposed development to assimilate into the wider landscape.

Public Open Space

3.2.3. Public Open Space is proposed for the central part of the development. The soft landscape treatment to this area will comprise native hedgerows, native tree planting, flowering lawn to the main public areas and a swale and wet grassland along the central pathway. An existing hedgerow along the south-western boundary will be retained and again, additional native hedgerow species will be planted to strengthen the hedgerow quality and character and the addition of a post and rail fence.

3.3. Design principles and intentions

3.3.1. The design of the proposed landscape scheme has been primarily driven by ecological factors and habitat creation such as seen by the proposed grass mixes around the pond and in the swales and the potential to provide further varied habitats to support biodiversity on site.

3.3.2. The overarching principles and intentions of the landscape scheme set out in section 3.1 are as follows:

Table 1: Design principles related to the proposed landscape scheme on the site

Number	Principle	Relevant areas of the site
1	Maintain and protect existing conservation value of retained features such native hedgerows.	Whole site
2	Ensure that existing retained trees are protected, managed and maintained	Whole site
3	Create new habitat including scrub, shrubs, hedgerows, grassland and specimen trees	Whole site
4	Monitor retained and created habitats	Whole site
5	Ensure the successful establishment of soft landscape elements during the five-year establishment period	Whole site
6	Ensure the ongoing management of the landscape scheme in perpetuity beyond the initial establishment period	Whole site
7	Use the landscape elements to replace, reinforce and enhance the landscape character of the site in line with the current site condition, the site context, and local published landscape character assessments	Whole site

-
- 8 Provide a buffer which filters views of the proposed development from the surrounding landscape context. Landscape buffer

4. Landscape elements

4.1. Existing retained trees and shrubs (reference number 01)

Applicable areas

4.1.1. Public Open Space

Intended character

4.1.2. These landscape elements will provide a semi-mature landscape framework into which the new landscape proposals can sit and develop.

Element objectives

4.1.3. The existing retained trees and shrubs within the site need to meet the following management and maintenance objectives:

- Retain semi-mature existing vegetation;
- Integrate new planting into areas of existing vegetation; and
- Monitor and manage the growth of existing vegetation to provide a diversity of vegetation within the site.

Actions

4.1.4. To achieve the above objectives, the following actions need to be performed:

- No-dig within the root protection area (RPA);
- Remove all litter and debris on a quarterly basis; and
- Undertake weeding to plant bases in order to remove and control any undesirable species or invasive weeds. Weed management to be undertaken during the five-year establishment period and to comprise application of an approved herbicide up to four times per year. Herbicide to be applied initially in May, July and September, although this will be reviewed and monitored to ensure that the prescribed frequency of application gives a result of 95% weed-free coverage of all planting plots. Application of herbicide is to take place in appropriate weather conditions, and in accordance with the Environment Agency Guidance Note AqHerb01: Agreement to use herbicides in or near water (Environment Agency, 2017) where appropriate.

Inspections

- 4.1.5. To ensure compliance with the above actions, it is recommended that the following inspections are undertaken:
- Monitoring by a qualified Arboriculturist at the construction stage, in particular the following key points: signing off the installation of tree protection fencing, ground protection and pre-works toolbox talk with the contractor; erection of any required scaffolding and ground protection within the RPA; and removal of tree protection fencing following completion of all ground works.
 - Quarterly inspections by a Chartered Landscape Architect and the Landscape Contractor in accordance with the schedule set out in Appendix A. Please note that the Landscape Contractor will need to hold a BASIS amenity horticultural products certificate so that they are able to provide appropriate recommendations on the selection and use of herbicides. They will also need to be competent at plant identification, particularly those species proposed as part of the landscape scheme, invasive weeds (as per Schedule 9 of the 1981 Wildlife and Countryside Act – as revised (UK Government, 1996)), and other undesirable species; and
 - Four-yearly inspections to be carried out by a qualified Arboriculturist to ascertain the health of retained trees and shrubs and specify any remedial measures.

4.2. Specimen trees (reference number 02)

Applicable areas

4.2.1. Whole Site

Intended character

- 4.2.2. Specimen tree planting is proposed throughout the site to provide structure and vertical interest within the scheme. Species are chosen to be reflective of the local landscape character.

Element objectives

- 4.2.3. Specimen trees within the site need to meet the following management and maintenance objectives:
- Ensure establishment, particularly that of larger plant specimens; and

- Monitor and manage the growth of specimen trees on a longer-term basis to ensure that the range of sizes and ages of vegetation across the site remains varied.

Actions

4.2.4. To achieve the above objectives, the following actions need to be performed:

- Remove all litter and debris on a quarterly basis;
- Provide artificial irrigation as and when required, particularly during periods of abnormally dry weather. Artificial irrigation to be undertaken through surface watering. Where watering is either the initial application or the first application for a period of five or more weeks, the soil around the tree needs to be loosened for a radius of 0.5m as this will aid the percolation of the water into the soil. Should there be a restriction on water usage, seek advice on the use of grey or second-class water as an alternative;
- Adjust and replace any displaced or damaged spiral guards, stakes, tree ties or other equipment for securing the plants. Re-firm any plants which are leaning or otherwise not vertical as necessary. Ensure that chafing is not an issue and adjust any ties accordingly should this occur. Remove and dispose of all spiral guards, stakes, tree ties and other equipment at the end of the five-year establishment period;
- Undertake weeding to plant bases in order to remove and control any undesirable species or invasive weeds. Weed management to be undertaken during the five-year establishment period and to comprise application of an approved herbicide up to four times per year. Herbicide to be applied initially in May, July and September, although this will be reviewed and monitored to ensure that the prescribed frequency of application gives a result of 95% weed-free coverage of all planting plots. Application of herbicide is to take place in appropriate weather conditions, and in accordance with the Environment Agency Guidance Note AqHerb01: Agreement to use herbicides in or near water (Environment Agency, 2017) where appropriate;
- Apply a bark mulch to the base of each plant to a minimum 50mm depth and 300mm radius from each plant centre. Top up the mulch annually to a minimum of 50mm depth as required. In years 3 and 5 of the maintenance schedule, remove the mulch from the base of each plant and apply 70 grams of slow-release NPK

granular fertiliser per plant. Replace the bark mulch on top of the freshly applied fertiliser;

- During the establishment period, undertake formative pruning on an annual basis to encourage a natural shape and form for each specimen. Pruning should be undertaken by a qualified Arboricultural contractor and comply with both BS3998 (British Standards Institute, 2010) and good arboricultural practice. Pruning operations to include the crown lifting of all standard trees to achieve a maximum of 3.0m clear stem. At no point should the leader shoot be cut; and
- The planting areas need to be inspected quarterly and any dead, dying, damaged or diseased trees recorded/reported. These defective specimens are to be removed and replaced with stock of the same species, size and form of that originally planted (or a suitable alternative as agreed with the Local Planning Authority) during the next available planting season (November to March inclusive) and in line with BS8545 (British Standards Institute, 2014). Prior to any replacement works, the cause of death of the specimen must be identified and any notifiable pests and diseases reported to the relevant authorities and treated accordingly.

Inspections

4.2.5. To ensure compliance with the above actions, it is recommended that the following inspections are undertaken:

- Quarterly inspections by a Chartered Landscape Architect and the Landscape Contractor in accordance with the schedule set out in Appendix A. Please note that the Landscape Contractor will need to hold a BASIS amenity horticultural products certificate so that they are able to provide appropriate recommendations on the selection and use of herbicides. They will also need to be competent at plant identification, particularly those species proposed as part of the landscape scheme, invasive weeds (as per Schedule 9 of the 1981 Wildlife and Countryside Act – as revised (UK Government, 1996)), and other undesirable species; and
- Four-yearly inspections to be carried out by a qualified Arboriculturist to ascertain the health of all trees and specify any remedial measures.

4.3. Native scrub (reference number 03)

Applicable areas

4.3.1. Landscape buffer

Intended character

4.3.2. Native scrub planting is proposed beneath existing retained trees along the south-eastern boundary to act as an ecological resource, to provide a vegetative screening between the proposed development and wider landscape. Species are chosen to be reflective of the local landscape character, as well as their fruiting qualities to encourage wildlife.

Element objectives

4.3.3. Native shrub planting within the site needs to meet the following management and maintenance objectives:

- Compensate for lost habitat and provide a new viable habitat as part of an overall biodiversity net gain;
- Provide vegetative screening; and
- Ensure successful establishment of all native scrub planting within the site.

Actions

4.3.4. To achieve the above objectives, the following actions need to be performed:

- Remove all litter and debris on a quarterly basis;
- Adjust and replace any displaced or damaged spiral guards, stakes or other equipment for securing the plants. Re-firm any plants which are leaning or otherwise not vertical as necessary. Remove and dispose of all spiral guards, stakes, and other equipment at the end of the five-year establishment period;
- Undertake weeding to plant bases in order to remove and control any undesirable species or invasive weeds. Weed management to be undertaken during the five-year establishment period and to comprise application of an approved herbicide up to four times per year. Herbicide to be applied initially in May, July and September, although this will be reviewed and monitored to ensure that the prescribed frequency of application gives a result of 95% weed-free coverage of all planting plots. Application of herbicide is to take place in appropriate weather conditions, and in accordance with the Environment Agency Guidance Note AqHerb01:

Agreement to use herbicides in or near water (Environment Agency, 2017) where appropriate;

- During the establishment period, undertake formative pruning on an annual basis to promote a natural shape and form, encourage growth, and tidy wounds or damage. All pruning operations to be undertaken in line with good horticultural practice and current standards; and
- The scrub planting areas need to be inspected quarterly and any dead, dying, damaged or diseased plants recorded/reported. These defective plants are to be removed and replaced with stock of the same species, size and form of that originally planted (or a suitable alternative as agreed with the Local Planning Authority) during the next available planting season (November to March inclusive) and in line with BS8545 (British Standards Institute, 2014). Prior to any replacement works, the cause of death of the plant must be identified and any notifiable pests and diseases reported to the relevant authorities and treated accordingly; and
- The scrub planting areas need to be monitored and managed to ensure that the original planting composition is retained.

Inspections

4.3.5. To ensure compliance with the above actions, it is recommended that the following inspections are undertaken:

- Quarterly inspections by a Chartered Landscape Architect and the Landscape Contractor in accordance with the schedule set out in Appendix A. Please note that the Landscape Contractor will need to hold a BASIS amenity horticultural products certificate so that they are able to provide appropriate recommendations on the selection and use of herbicides. They will also need to be competent at plant identification, particularly those species proposed as part of the landscape scheme, invasive weeds (as per Schedule 9 of the 1981 Wildlife and Countryside Act – as revised (UK Government, 1996)), and other undesirable species.

4.4. Native hedgerow (reference number 04)

Applicable areas

4.4.1. Public Open Space

Intended character

4.4.2. Native hedgerow planting is proposed in the public open space within the site as an ecological resource to provide structure within the scheme and to prevent public access to the Mill Pond. To ensure the ecological value of the hedgerows, they need to be kept as a densely planted feature. Species are chosen to be reflective of the local landscape character.

Element objectives

4.4.3. Native hedgerow planting within the site need to meet the following management and maintenance objectives:

- Compensate for lost habitat and provide a new viable habitat as part of an overall biodiversity net gain;
- Prevent public access to the Mill Pond; and
- Ensure successful establishment of all hedgerows within the site.

Actions

4.4.4. To achieve the above objectives, the following actions need to be performed:

- Remove all litter and debris on a quarterly basis;
- Adjust and replace any displaced or damaged spiral guards, stakes or other equipment for securing the plants. Re-firm any plants which are leaning or otherwise not vertical as necessary. Remove and dispose of all spiral guards, stakes, and other equipment at the end of the five-year establishment period;
- Undertake weeding to plant bases in order to remove and control any undesirable species or invasive weeds. Weed management to be undertaken during the five-year establishment period and to comprise application of an approved herbicide up to four times per year. Herbicide to be applied initially in May, July and September, although this will be reviewed and monitored to ensure that the prescribed

- frequency of application gives a result of 95% weed-free coverage of all planting plots. Application of herbicide is to take place in appropriate weather conditions;
- Apply a bark mulch to the base of each plant to a minimum 50mm depth and 300mm radius from each plant centre. Top up the mulch annually to a minimum of 50mm depth as required. In years 3 and 5 of the maintenance schedule, remove the mulch from the base of each plant and apply 70 grams of slow-release NPK granular fertiliser per plant. Replace the bark mulch on top of the freshly applied fertiliser;
 - Undertake formative pruning on an annual basis to encourage growth and a dense structure to the hedgerow. In years 1 and 2, the formative pruning needs to comprise of the central plant leader to be clipped to a height of two-thirds of its annual growth, with the remainder of the hedge trimmed to an A-shape. Hedges to be maintained at a height of 1.2-1.5m and all pruning operations to be undertaken in line with good horticultural practice and current standards;
 - The hedgerows need to be inspected quarterly and any dead, dying, damaged or diseased plants recorded/reported. These defective plants are to be removed and replaced with stock of the same species, size and form of that originally planted (or a suitable alternative as agreed with the Local Planning Authority) during the next available planting season (November to March inclusive) and in line with BS8545 (British Standards Institute, 2014). Prior to any replacement works, the cause of death of the plant must be identified and any notifiable pests and diseases reported to the relevant authorities and treated accordingly; and
 - The hedgerows need to be monitored and managed to ensure that the original planting composition is retained.

Inspections

- 4.4.5. To ensure compliance with the above actions, it is recommended that the following inspections are undertaken:
- Quarterly inspections by a Chartered Landscape Architect and the Landscape Contractor in accordance with the schedule set out in Appendix A. Please note that the Landscape Contractor will need to hold a BASIS amenity horticultural products certificate so that they are able to provide appropriate recommendations on the selection and use of herbicides. They will also need to be competent at plant identification, particularly those species proposed as part of the landscape scheme,

invasive weeds (as per Schedule 9 of the 1981 Wildlife and Countryside Act – as revised (UK Government, 1996)), and other undesirable species.

4.5. Ornamental hedges (reference number 05)

Applicable areas

4.5.1. Main housing area

Intended character

4.5.2. Ornamental hedge planting is proposed to provide screening to plot frontages, add an aesthetic feature to the street scene. Species are chosen to be low maintenance and have qualities that provide year-round interest and be resistant to common diseases. Whilst a single species is used in these hedges for ornamental effect, they are native species.

4.5.3. As the ornamental hedge planting is present on private plots, the establishment actions will be set out for year 1 only. Following the plot sale, the maintenance will be the responsibility of the plot owner.

Element objectives

4.5.4. Ornamental hedge planting within the site needs to meet the following management and maintenance objectives:

- Form a visually attractive feature for residents and visitors to the development;
- Provide delineation between public and private land; and
- Ensure successful establishment of all ornamental hedge planting within the site.

Actions

4.5.5. To achieve the above objectives, the following actions need to be performed:

- Remove all litter and debris on a quarterly basis;
- Re-firm any plants which are leaning or otherwise not vertical as necessary;
- Undertake weeding to plant bases in order to remove and control any undesirable species or invasive weeds. Weed management to be undertaken during the five-

year establishment period and to comprise application of an approved herbicide up to four times per year. Herbicide to be applied initially in May, July and September, although this will be reviewed and monitored to ensure that the prescribed frequency of application gives a result of 95% weed-free coverage of all planting plots. Application of herbicide is to take place in appropriate weather conditions;

- Apply a bark mulch to the base of each plant to a minimum 50mm depth and 300mm radius from each plant centre. Top up the mulch annually to a minimum of 50mm depth as required. In years 3 and 5 of the maintenance schedule, remove the mulch from the base of each plant and apply 70 grams of slow-release NPK granular fertiliser per plant. Replace the bark mulch on top of the freshly applied fertiliser;
- During the establishment period, undertake formative pruning on an annual basis to promote a dense hedge, encourage growth, and tidy wounds or damage. All pruning operations to be undertaken in line with good horticultural practice and current standards;
- The hedge planting areas need to be inspected quarterly and any dead, dying, damaged or diseased plants recorded/reported. These defective plants are to be removed and replaced with stock of the same species, size and form of that originally planted (or a suitable alternative as agreed with the Local Planning Authority) during the next available planting season (November to March inclusive) and in line with BS8545 (British Standards Institute, 2014). Prior to any replacement works, the cause of death of the plant must be identified and any notifiable pests and diseases reported to the relevant authorities and treated accordingly; and
- The hedge planting areas need to be monitored and managed to ensure that the original planting composition is retained.

Inspections

4.5.6. To ensure compliance with the above actions, it is recommended that the following inspections are undertaken:

- Quarterly inspections by a Chartered Landscape Architect and the Landscape Contractor in accordance with the schedule set out in Appendix A. Please note that the Landscape Contractor will need to hold a BASIS amenity horticultural products certificate so that they are able to provide appropriate recommendations on the

selection and use of herbicides. They will also need to be competent at plant identification, particularly those species proposed as part of the landscape scheme, invasive weeds (as per Schedule 9 of the 1981 Wildlife and Countryside Act – as revised (UK Government, 1996)), and other undesirable species.

4.6. Flowering lawn (reference number 06)

Applicable areas

4.6.1. Public Open Space in main housing area

Intended character

4.6.2. Informal species-rich flowering lawn which will add seasonal interest and increase the biodiversity of the site. A low maintenance landscape element which will act as an ecological resource as well as an attractive feature.

Element objectives

4.6.3. Flowering lawn within the site needs to meet the following management and maintenance objectives:

- Provide a low-maintenance but attractive element adjacent to properties;
- Integrate the new seeding with surrounding planting areas;
- Maintain the species composition of the seeding mix where possible whilst allowing for locally characteristic grassland species to grow; and
- Ensure the successful establishment of a species-rich flowering lawn which can act as an ecological resource.

Actions

4.6.4. To achieve the above objectives, the following actions need to be performed:

- Remove all litter and debris on a quarterly basis;
- All strimming to be undertaken using recognised equipment fitted with a nylon filament line as per the manufacturer's instructions;
- Subsequent to seeding in the spring, areas of species-rich grassland will undergo regular establishment cuts (every 10 days) during the growing season to a height of 40-60mm (if there is sufficient material to be cut). Remove cuts as dense;

- In the second and subsequent years, areas of species-rich grassland regular cuts during the growing season to a height of 25-40mm. To permit flowering, cuts can be reduced from late June and cut when sward is untidy (after 4-8 weeks). Arisings need to be collected and removed from site;
- Undertake weeding to seeded areas in order to remove and control any undesirable species or invasive weeds. Weed management to be undertaken during the five-year establishment period and to comprise application of an approved herbicide up to four times per year. Herbicide to be applied initially in May, July and September, although this will be reviewed and monitored to ensure that the prescribed frequency of application gives a result of 95% weed-free coverage of all planting plots. Application of herbicide is to take place in appropriate weather conditions, and in accordance with the Environment Agency Guidance Note AqHerb01: Agreement to use herbicides in or near water (Environment Agency, 2017) where appropriate;
- The seeded areas need to be inspected annually and any worn areas are to be re-seeded using a seed mix which replicates as closely as possible that which was originally specified; and
- The seeded areas need to be monitored and managed to ensure that the original species composition is retained.

Inspections

4.6.5. To ensure compliance with the above actions, it is recommended that the following inspections are undertaken:

- Quarterly inspections by a Chartered Landscape Architect and the Landscape Contractor in accordance with the schedule set out in Appendix A. Please note that the Landscape Contractor will need to hold a BASIS amenity horticultural products certificate so that they are able to provide appropriate recommendations on the selection and use of herbicides. They will also need to be competent at plant identification, particularly those species proposed as part of the landscape scheme, invasive weeds (as per Schedule 9 of the 1981 Wildlife and Countryside Act – as revised (UK Government, 1996)), and other undesirable species.

4.7. Species-rich grassland (reference number 07)

Applicable areas

4.7.1. Public Open Space

Intended character

4.7.2. Informal species-rich grassland which will add seasonal interest and increase the biodiversity of the site. A low maintenance landscape element which will act as an ecological resource as well as an attractive feature.

Element objectives

4.7.3. Species-rich grassland within the site needs to meet the following management and maintenance objectives:

- Integrate the new seeding with surrounding planting areas;
- Provide an attractive but low-maintenance element within the public open space;
- Maintain the species composition of the seeding mix where possible whilst allowing for locally characteristic grassland species to grow; and
- Ensure the successful establishment of a species-rich grassland which can act as an ecological resource.

Actions

4.7.4. To achieve the above objectives, the following actions need to be performed:

- Remove all litter and debris on a quarterly basis;
- All strimming to be undertaken using recognised equipment fitted with a nylon filament line as per the manufacturer's instructions;
- Subsequent to seeding in the spring, areas of species-rich grassland will undergo regular establishment cuts during the growing season to a height of 40-60mm (if there is sufficient material to be cut);
- In the second and subsequent years, areas of species-rich grassland are not to be cut from spring to late July / August to allow for flowering. After flowering in July or August, cut to a height of 50mm. The arisings need to be left in situ for 1-7 days

in dry conditions, then need to be removed from site. Mow regrowth through to late autumn to a height of 50mm;

- Undertake weeding to seeded areas in order to remove and control any undesirable species or invasive weeds. Weed management to be undertaken during the five-year establishment period and to comprise application of an approved herbicide up to four times per year. Herbicide to be applied initially in May, July and September, although this will be reviewed and monitored to ensure that the prescribed frequency of application gives a result of 95% weed-free coverage of all planting plots. Application of herbicide is to take place in appropriate weather conditions, and in accordance with the Environment Agency Guidance Note AqHerb01: Agreement to use herbicides in or near water (Environment Agency, 2017) where appropriate;
- The seeded areas need to be inspected annually and any worn areas are to be re-seeded using a seed mix which replicates as closely as possible that which was originally specified; and
- The seeded areas need to be monitored and managed to ensure that the original species composition is retained.

Inspections

4.7.5. To ensure compliance with the above actions, it is recommended that the following inspections are undertaken:

- Quarterly inspections by a Chartered Landscape Architect and the Landscape Contractor in accordance with the schedule set out in Appendix A. Please note that the Landscape Contractor will need to hold a BASIS amenity horticultural products certificate so that they are able to provide appropriate recommendations on the selection and use of herbicides. They will also need to be competent at plant identification, particularly those species proposed as part of the landscape scheme, invasive weeds (as per Schedule 9 of the 1981 Wildlife and Countryside Act – as revised (UK Government, 1996)), and other undesirable species.

4.8. Pond edge grassland (reference number 08)

Applicable areas

4.8.1. Exposed pond edge

Intended character

4.8.2. Informal wet grassland situated on the edge of the Mill Pond which will add seasonal interest and increase the biodiversity of the site. A low maintenance landscape element which will act as an ecological resource as well as an attractive feature.

Element objectives

4.8.3. Pond edge grassland within the site needs to meet the following management and maintenance objectives:

- Provide a vegetated pond edge and stabilisation to the banks of the pond;
- Maintain the species composition of the seeding mix where possible whilst allowing for locally characteristic grassland species to grow; and
- Ensure the successful establishment of a species-rich grassland which can act as an ecological resource.

Actions

4.8.4. To achieve the above objectives, the following actions need to be performed:

- Remove all litter and debris on a quarterly basis;
- Subsequent to seeding, annual weed growth should be cut back. Establishment on sites prone to flooding may be patchy and may take several years to fully colonise;
- In the second year or once considered established, and in subsequent years, variation in structure can be achieved by cutting back and removing short sections of vegetation every 3 years in rotation. These areas of pond edge grassland which are to be cut will undergo a single hay cut. This annual vegetation removal will take place each year in September, following flowering of the various species. Following this annual cut, the arisings need to be left in situ for 1-7 days in dry conditions, then need to be removed from site;

- Undertake weeding to seeded areas in order to remove and control any undesirable species or invasive weeds. Weed management to be undertaken during the five-year establishment period and to comprise hand pulling. Weeding will take place initially in May, July and September, although this will be reviewed and monitored to ensure that the prescribed frequency of weeding gives a result of 95% weed-free coverage of all planting plots. No herbicide is to be applied in this area;
- The seeded areas need to be inspected annually and any worn areas are to be re-seeded using a seed mix which replicates as closely as possible that which was originally specified; and
- The seeded areas need to be monitored and managed to ensure that the original species composition is retained.

Inspections

4.8.5. To ensure compliance with the above actions, it is recommended that the following inspections are undertaken:

- Quarterly inspections by a Chartered Landscape Architect and the Landscape Contractor in accordance with the schedule set out in Appendix A. Please note that the Landscape Contractor will need to be competent at plant identification, particularly those species proposed as part of the landscape scheme, invasive weeds (as per Schedule 9 of the 1981 Wildlife and Countryside Act – as revised (UK Government, 1996)), and other undesirable species.

4.9. Swales (reference number 09)

4.9.1. Public open space in main housing area

Intended character

4.9.2. Species-rich wet grassland seeding and plug planting will add seasonal interest and increase the biodiversity of the site. A low maintenance landscape element which will aid the sustainable drainage of the site, act as an ecological resource as well as an attractive feature.

Element objectives

4.9.3. Swales within the site need to meet the following management and maintenance objectives:

- Provide sustainable urban drainage; and
- Ensure the successful establishment of a wet species-rich grassland which can act as an ecological resource.

Actions

4.9.4. To achieve the above objectives, the following actions need to be performed:

- No maintenance operations to be carried out whilst the swales are inundated;
- Remove all litter and debris on a quarterly basis;
- All strimming to be undertaken using recognised equipment fitted with a nylon filament line as per the manufacturer's instructions;
- Subsequent to seeding in the spring, areas of wet grassland in swales will undergo regular establishment cuts during the growing season to a height of 40-60mm (if there is sufficient material to be cut);
- In the second and subsequent years, areas of wet grassland in swales will undergo a single annual hay cut. This will take place each year in September, following flowering of the various species. Following this annual cut, the arisings need to be left in situ for 1-7 days in dry conditions, then need to be removed from site;
- Undertake weeding to seeded areas in order to remove and control any undesirable species or invasive weeds. Weed management to be undertaken during the five-year establishment period and to comprise application of an approved herbicide up to four times per year. Herbicide to be applied initially in May, July and September, although this will be reviewed and monitored to ensure that the prescribed frequency of application gives a result of 95% weed-free coverage of all planting plots. Application of herbicide is to take place in appropriate weather conditions, and in accordance with the Environment Agency Guidance Note AqHerb01: Agreement to use herbicides in or near water (Environment Agency, 2017);
- The seeded areas need to be inspected annually and any worn areas are to be re-seeded using a seed mix which replicates as closely as possible that which was in the originally specified wildflower seed mix;

; and

- The swales need to be inspected on a regular basis to ensure that the inlets and outlets are clear of blockages and the swale can function properly. Any silt or debris build-up needs to be removed by hand as a matter of course. Mechanical removal of silt or debris is not permitted, in order to minimise damage to the soft landscape planting.

Inspections

4.9.5. To ensure compliance with the above actions, it is recommended that the following inspections are undertaken:

- The inlets and outlets of the swales need to be inspected monthly and any blockages found need to be cleared by hand as a matter of urgency. Each swale will also undergo an annual inspection to assess levels of silt build-up. Should an unacceptable level of silt build-up be found, this will need to be cleared by hand as necessary and removed from the site.
- Quarterly inspections by a Chartered Landscape Architect and the Landscape Contractor in accordance with the schedule set out in Appendix A. Please note that the Landscape Contractor will need to hold a BASIS amenity horticultural products certificate so that they are able to provide appropriate recommendations on the selection and use of herbicides. They will also need to be competent at plant identification, particularly those species proposed as part of the landscape scheme, invasive weeds (as per Schedule 9 of the 1981 Wildlife and Countryside Act – as revised (UK Government, 1996)), and other undesirable species.

4.10. Surfacing and paving (reference number 10)

Applicable areas

4.10.1. Public open space and main housing area

Intended character

4.10.2. Surfaced areas within parking spaces, pedestrian pavements and paths to front doors of houses. These areas are intended to be functional and practical.

4.10.3. The paths to the front door of each plot and parking spaces are on private plots, the management and maintenance actions will be set out for year 1 only. Following the plot sale, the maintenance will be the responsibility of the plot owner.

Element objectives

4.10.4. Surfacing and paving within the site needs to meet the following management and maintenance objectives:

- Ensure the functionality, integrity and longevity of the various surface treatments is preserved;
- Contribute to a tidy and smart appearance across the site; and
- Provide functional pedestrian and vehicle links between the various areas of the site, as well as areas for parking/waiting, and connections to the wider site context.

Actions

4.10.5. To achieve the above objectives, the following actions need to be performed:

- Remove all litter and debris on a quarterly basis;
- Undertake weeding to surfaced areas in order to remove and control any weeds. Weed management to be undertaken on an annual basis and to comprise a combination of sweeping, hand pulling of weeds and/or application of an approved herbicide up to four times per year. Herbicide spot treatments to be applied in May and September as required. Application of herbicide is to take place in appropriate weather conditions, and in accordance with the Environment Agency Guidance Note AqHerb01: Agreement to use herbicides in or near water (Environment Agency, 2017) where appropriate;
- Slippery surfaces which are affected by the growth of algae or moss are to be treated up to four times a year using an approved proprietary cleaning fluid. Please note that high-pressure washing devices are not to be used on paved surfaces anywhere within the site; and
- All areas of hard standing including asphalt and paved areas to be inspected on a quarterly basis for damage, cracks, subsidence or settlement, and any other

failure. Any defects or issues found need to be reported immediately and repaired as soon as is possible.

Inspections

4.10.6. To ensure compliance with the above actions, it is recommended that the following inspections are undertaken:

- Quarterly inspections by a Chartered Landscape Architect and the Landscape Contractor in accordance with the schedule set out in Appendix A, focusing in particular on any damage, cracks, subsidence or settlement, and other failure to the various hard surfaces. Please note that the Landscape Contractor will need to hold a BASIS amenity horticultural products certificate so that they are able to provide appropriate recommendations on the selection and use of herbicides.

4.11. Fencing (reference number 11)

Applicable areas

4.11.1. Along semi-publicly accessible path adjacent to pond and site boundaries

Intended character

4.11.2. Glazed panels to provide a barrier to the pond but to also allow unobstructed views to the pond. The proposed fencing is to provide security and delineate site boundaries.

Element objectives

4.11.3. Fencing / glazed panels within the site need to meet the following management and maintenance objectives:

- Ensure that the functionality, integrity and longevity of the various boundary treatments is preserved;
- Contribute to a tidy and smart appearance across the site; and
- Prevent pedestrian access between / to specific areas of the site.

Actions

4.11.4. To achieve the above objectives, the following actions need to be performed:

- Remove all litter and debris beneath and/or attached to the fencing on a quarterly basis; and

- All fencing (including existing fencing) to be inspected on a quarterly basis for damage, dents, breaks, subsidence, and any other failure. Any defects or issues found need to be reported immediately and repaired as soon as is possible.
- The glazed panel barrier to the mill pond requires weekly checks – for safety, integrity and functionality, paying particular attention to any damage, dents, cracks, breaks, and other failure. Any defects or issues found need to be reported immediately, with the element to be closed off to public use and made safe until it is repaired. The repair needs to be made as soon as is possible.

Inspections

4.11.5. To ensure compliance with the above actions, it is recommended that the following inspections are undertaken:

- Quarterly inspections by a Chartered Landscape Architect and the Landscape Contractor in accordance with the schedule set out in Appendix A, focusing in particular on any damage, dents, breaks, subsidence, and any other failure to the various fences.

Weekly checks to the glazed panel barrier by the onsite maintenance contractor in accordance with the schedule set out in Appendix A, focusing in particular on any damage, dents, breaks, subsidence, and any other failure to the glazing.

4.12. Benches (reference number 12)

Applicable areas

4.12.1. Public Open Space

Intended character

4.12.2. Benches have been specified within the site in order to provide a recreational element for use by the residents of the proposed development and users of the public open space.

Element objectives

4.12.3. Benches within the site needs to meet the following management and maintenance objectives:

- Ensure that the functionality, integrity and longevity of the benches is preserved; and
- Provide a recreational element for use by the residents of the proposed development and users of the public open space.

Actions

4.12.4. To achieve the above objectives, the following actions need to be performed:

- Remove all litter and debris beneath and/or on the benches on a quarterly basis; and
- All benches to be inspected on a quarterly basis for damage, dents, breaks, and any other failure. Any defects or issues found need to be reported immediately and repaired as soon as is possible.

Inspections

4.12.5. To ensure compliance with the above actions, it is recommended that the following inspections are undertaken:

- Quarterly inspections by a Chartered Landscape Architect and the Landscape Contractor in accordance with the schedule set out in Appendix A, focusing in particular on any damage, dents, breaks, and any other failure to the benches.

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