DEFINE

FONTWELL

LANDSCAPE MAINTENANCE PLAN

DE_352_LM_001
November 2020

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Landscape masterplans

DE-352-01-001
DE-352-01-002
DE_352-01-003
DE-352-01-007

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1. Introduction

1.1. This Landscape Management Plan details the proposed management of the public open spaces that surrounds and run through the proposed development in Fontwell. The open spaces are provided as part of a new residential development and they include large areas of retained vegetation, new meadow grassland and wildflower, amenity grass lawns, a play area, allotments, paddocks and water –attenuation basins/ swales.

1.2. The overriding landscape management objective is to ensure that a thriving and diverse landscape is established and maintained. Where appropriate, maintenance operations will be altered if necessary to reflect the stated objectives.

Management

1.3. This management report is initially aimed at the developer who will be maintaining the site during the establishment period (likely to be a 2 year period) and formulating likely costs for the upkeep of the public open space. Hereafter the open spaces described in this report will be managed and maintained by Walberton Parish Council and an appointed management company.

1.4. This document will provide the Parish Council and the appointed management company with the framework and necessary detail to guide operations relating to the maintenance and monitoring of the landscape typologies.

Review

1.5. A review of the document will occur between the handover to the parish council and the appointed management company. and then every 2 years thereafter. The review might include any differences required as a result of changes in circumstances i.e certain species are being allowed to naturalise due to site conditions or certain wildlife being encouraged.

Site description and general spatial aspirations

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1.6. There are several key landscape areas within the site that this document provides information on (refer to Landscape Masterplan DE352-01-001 in Appendix 01 for further details). A brief description of each space is as follows:

- **Main Park:** Large formal park with play provision and activity focused within the centre of the site. As the park heads out to the east it becomes more naturalistic in line with the rural connection to Wandleys Lane. The park contains areas of native grassland and native trees and shrubs, with more formal mown grass areas and an orchard. - Walberton
- **Allotments:** The allotments will be managed by the Parish Council and although each plot will be managed by tenants, the paths and edges will need to be managed by the site wide maintenance team. - Walberton
- **Paddocks:** The paddocks will be an open area of grazed grassland so will not require machine cut or mown grass. The edges will require cutting back to keep them free from overhanging vegetation (albeit to retain a dense boundary between Paddocks and adjacent properties). - Walberton
- **Wetland Corner –** The wetland corner will contain an attenuation basin to take surface water. The area will have a wild and naturalistic appearance. - Management Company

1.7. The maintenance schedules are divided into different landscape types i.e woodland, hedgerow etc as these typologies will span a range of the above character areas albeit in differing proportions. These are illustrated on the Landscape Masterplan DE-351_01_001

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2. General Management Advice

2.1. Prescribed management works are intended to increase the botanical diversity and habitat structure on site for the benefit of local wildlife whilst providing important amenity recreation space for members of the public. The interface between these two conflicting uses is controlled through both physical means and the prescribed management regimes.

2.2. Should any protected animal species exist in and around the site the maintenance/ management company will need to gain permission to carry out physical works in areas that contain protected species (a Licence is required for each species). In order to obtain a licence to work the landowner must demonstrate that the works will be carried out in accordance with strict methodologies stipulated by a qualified ecologist.

2.3. Arboricultural works will be carried out by suitably experienced and qualified contactors.

2.4. Further arboricultural assessments will be carried out by arboricultural consultants, who are a member of the Arboricultural Association or Institute of Chartered Foresters.

2.5. All tree surgery works shall be undertaken in accordance with the requirements of BS 39998:2010 'Tree Work. Recommendations' and BS5837 'Trees in relation to construction'

2.6. All pruning / removal works to existing vegetation should be undertaken outside of the bird nesting season to ensure breeding birds are not disturbed. For clarification, the bird-nesting season is taken to be from Feb/Mar to Aug/Sept inclusive.

2.7. Where tree surgery is planned as part of this management plan or in the situation where an approved tree surgeon has recommended remedial work for health and safety reasons, the potential for bats to be present must be assessed before work is carried out. It is recommended that this assessment is to be

conducted by a suitably experienced and licenced bat worker to avoid unlawful harm to these protected species.

3. Landscape Works

3.1. The site can be divided into separate landscape typologies that each requires a specific management regime in order to achieve their full potential to amenity and wildlife.

3.2. This report identifies appropriate measures to ensure the establishment of diverse naturalistic habitats designed to benefit a range of local wildlife and include attractive areas for recreation and amenity use. Target conditions for specific habitats are outlined below:

Aims and Objectives and Target Conditions

All Native Hedgerows

3.3. The target for all hedgerows is to mature into a point where they meet the criteria for consideration as habitat of Principal Importance under S41 of the Natural Environment and Rural Communities (NERC) Act (2006). These criteria are outlined within the former UK BAP1 and include:

- The hedgerow must comprise at least 80% woody UK native shrub/tree species. Climbers such as honeysuckle and bramble are excluded from this figure.
- The hedgerow must be >20m long, and less than 5m wide
- Any gaps in the hedgerow must be <20m. Where gaps are >20m, individual sections are considered separate hedgerows as long as they meet all other criteria above.

Existing Hedgerows

3.4. Native hedgerows provide an important habitat for a wide range of species and have been retained where possible. The hedgerows will be infilled where required with appropriate native hedgerow species (i.e Crataegus monogyna, Corylus avellana, Acer campestre), and form a solid vegetation block, free from

1 http://jncc.defra.gov.uk/page-5706

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non native species and litter and be trimmed on a regime that promotes biodiversity. The hedgerows should aim to be non uniform in depth and height (no greater than 3m highx2m wide) yet be interspersed with the occasional mature tree that provides variety and contributes to the overall appearance of a native hedgerow. The hedgerows will be allowed to grow varying heights and side growths across the site to ensure plenty of berries and fruit.

Existing Trees

3.5. Trees have been retained on site for their amenity value and to conserve their ecological role to the wildlife on the site. The objectives are to retain these trees as far as possible unless they pose a health and safety issue as identified in the arboricultural assessment.

3.6. Recommendations for the short and long term upkeep for these trees should be sought from the arboricultural assessment and works to existing mature trees will require approval from the local authority in advance of any works.

Specimen Trees

3.7. Specimen trees will be positioned within the open space as feature trees (with the potential to become veteran trees), as focal groups, as an avenue or at the entrance of the development to provide distinct character areas. Maintenance of these trees will involve reviewing their surroundings in the future and clearing any other vegetation or trees that may restrict the function of these trees.

3.8. In the first few years of establishment these trees will require special attention and review whilst they take root. Trees will be subject to wind damage and draught if not properly secured or watered.

3.9. Specimen trees are to be kept with a clear stem of 2-3m, cleared of epicormic growth and mulched around the base to keep clear of weeds and trimmed into a formal habit (unlike native trees that can take a more naturalistic appearance).

Native Trees

3.10. Newly planted native trees around the site have been specified in order to create landscape amenity, structure and contribute to local wildlife. In most locations within the landscape of the site, native trees have been chosen to enhance the biodiversity and retain some local landscape character. It is important that these trees are provided for through the first 2-3 growing seasons whilst their roots establish and they can fend for themselves particularly larger specimen trees above 3-4m. Native trees planted around the site should be encouraged to grow wildly, and not take the form of street trees which are trimmed to retain a clear stem and uniform habit.

Native Shrubs

3.11. Along with the native tree planting, the native shrubs have been planted to create a wild and naturalistic environment. These plants should be allowed to grow into large and wild objects in the landscape that provide structure and wildlife havens for birds and foraging mammals. Some species will benefit from coppicing cycles (Hazel) or pollarding (Willows) in order to maintain a shrub like size and encourage young shoots and healthy new growth.

Meadow and Wildflower Areas

3.1. Much of the public open space around the site will have large swathes of meadow. The intension of these meadows is not to be a trimmed and regularly cut playing field, but rather a pleasant meadow full of wildlife and flowers. It is important that the prescriptions are carried out at the correct times of year to achieve a diverse meadowland that allows a vast quantity of species to thrive. Areas that are found to be well trodden should be mown more regularly to allow for informal routes around the site.

Wetland Meadow

3.2. The SUDS that features within the south western corner of the site is to be sown with seed mixes that thrive in soils that are wet or exposed to seasonal flooding. It is important to maintain a variety of these species which will occasionally require the removal of any dominant weed species over the first few planting seasons. The aim of this wetland habitat area is to identify areas that certain

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species may naturalize and promote that species in that location (i.e. clumps of iris might emerge in particularity boggy areas), in which case they should be avoided when it comes to/strimming or mowing. This kind of management discretion should be used to create a wild, naturalistic landscape that is rich in species variety, structure and colour (rather than a monotonous and totally manicured environment).

Amenity Grass Areas

3.3. Amenity grass areas should aim to provide locations that people can use for passive recreation (i.e. picnics, socialising etc.) whilst enjoying the surrounding naturalistic environment provided by other landscape types. These are more intensely managed than the other areas, with grass cut short on a regular basis. These areas should be kept level, flat and free from perennial weeds in order to maximise their recreational potential and site requirements.

Play Areas

3.4. Play equipment will be regularly monitored by the maintenance team to make sure it is safe to use and replace any items where necessary and free from graffiti.

3.5. The play surface is a loose material that provides children with adequate fall protection. As this is a non-bound product it is important to retain an even surface around the play area, especially around play equipment. It is also important to remove debris from this surfacing including unwanted plant growth, leaf litter, sweet wrappings and any animal mess as required. The play surfacing has been selected to comply with relevant British Standards to play areas and should be replaced when needed with the same material.

Footpaths

3.6. Within areas of public realm there are several footpaths surfaced in hoggin. These paths should be kept free from potholing with adequate repair, edges should be maintained where failings occur (i.e. due to vehicle damage). Any areas that are uneven and cause puddles to occur should be taken up and reinstalled to a flat and even surface with the same material.

Fences

3.7. Fences should be kept in a suitable condition for their specific use, damaged fence materials should be replaced where necessary with the same material. Fences should be kept free from weed growth at their base and any damage replaced appropriately.

Lighting

3.8. All lighting across the site should be maintained in a suitable working condition (and fixed by a suitable contractor should the event occur). Lighting in public highway will be the responsibility of the local highway authority.

4. MONITORING AND REVIEW

4.1. Relevant, appropriately timed monitoring is important to i) ensure that habitats created within the site reach and maintain their maximum value to nature conservation, and ii) identify opportunities for further development of management tasks. The landscape areas described within this document will be subject to biennial monitoring by a representative from the parish council to make sure that they are suitably managed in line with this report.

4.2. Monitoring will specifically consider:

- Whether tree and hedgerow planting is establishing satisfactorily, and is free from disease and damage, including ground compaction;
- Whether hedgerows are maturing to form dense linear features suitable to serve as wildlife corridors;
- Whether the intensity of management of native grassland areas is appropriate for maintaining a diverse sward structure and species diversity;
- Whether undesirable plant species are being controlled.

4.3. The results of monitoring will be reported following each review and will be used to inform any remedial works (see below), or possible revisions to this document in order to improve and enhance the ecology and biodiversity of the site. Any permanent alterations to the management details will be agreed in consultation with the LPA prior to implementation. The prescriptions provided here should therefore not be set in stone and can be subject to further iteration if required to adapt and improve this plan.

4.4. An outline programme of landscape maintenance works is detailed in section 05 and should initially run for two years under a private maintenance company and then the parish council thereafter. Following this period subsequent reviews will be completed by the Parish Council/ LPA or appointed consultees.

REMEDIAL MEASURES

4.5. Biennial reviews will assess the prevailing conditions on site and identify where apprioriate any necessary replacement planting or other remedial works required in order to acheive the objective stated above.

4.6. The following will be undertaken, together with any appropriate remedial measures identifed at the time of the review, and dependent on the nature of the issue identified:

Trees and hedgerows:

- Replace any broken, missing or damaged stakes, ties or guards as necessary.
- During the initial 2-year establishment period any failed tree or hedgerow standards will be replaced with the same or equivalent species of a size to match the original specification during the next suitable planting season.

Native grassland and wildflower areas:

- Remove any encroaching scrub using hand tools on an annual basis, ideally during January/February, avoiding the bird nesting season.

SUDs and ponds:

- Remove any encroaching scrub using hand tools on an annual basis, ideally during January/February, avoiding the bird nesting season.

General:

- Remove any non-native invasive plant species in accordance with the Environmental Permitting (England and Wales) regulations 2018
- Litter should be collected and removed from site regularly, including before each grass cut.
- Signage should be inspected during every maintenance visit, and repaired / replaced as necessary.

5.MAINTENANCE SCHEDULE

Existing (mature) Landscape Features

Existing hedgerows	***Frequency***	***Location***	***Notes***
Manage all existing and established hedgerows on a 2 year rotation each winter (Dec-Feb) by cutting each side (unless ownership and access restricts) with a tractor mounted flail (or other appropriate hedge cutting device should access be restricted) in alternate years. Cut Hedge into an 'A' shape- maximum 3m high and 2m wide. Allow trees to establish every 10m or so if they begin to establish as standards in the hedgerow.	2 year rotation each winter (Dec-Feb).	Boundaries and through centre of site where hedgerows have been retained as landscape feature.	
Existing trees	***Frequency***	***Location***	***Notes***
Refer to the Arboricultural Statement for specific recommendations on existing trees. Work to be carried out by Arboricultural Consultant who is a member of the Arboricultural Association or Institute of Chartered Foresters.	As required	Site wide	

Proposed Planting

Landscape planting (generic)	***Frequency***	***Location***	***Notes***
All failed plants to be replaced with ones of identical size and species during defect /establishment period.	As required	Site wide	
Pest and disease monitoring to be carried out alongside standard maintenance works.	As required	Site wide	

All accumulated rubbish to be removed from planting areas.	1 per month	Site wide	
Monitoring of the meadow should occur on an annual basis to ensure the wild meadow areas will continually; establish and thrive; be free from perennial weeds; monitor natural germination and that grasses are not out-competing wildflower; prevent bare soil patches.	On going annual monitoring and remedial measures triggered by monitoring.	Meadow areas	In compliance with the objectives and aims of the landscape maintenance and the landscape masterplan.
Specimen Trees with Rootballs (Above Standards 12cm Girth)	***Frequency***	***Location***	***Notes***
Watering to maintain healthy growth as required.	15-20x whilst tree is in leaf from spring-Autumn. It is anticipated that beyond Yr.3 watering will only be required in drought conditions.	Site wide	Monitoring trees is essential during establishment period. Signs of underwatering are described in *BS 8545:2014.*
Formative pruning to follow the recommendations provided in Section 7 of *BS 3998:2010 Tree Works – Recommendations* and *Section 11 of BS 8545:2014 Trees: from nursery to independence in the landscape – Recommendations*.	Once a year	Site wide	
Regular checks of any tree support systems, stakes and ties and adjustment as required.	3x per year during establishment phase with additional check after any major weather event to ensure trees remain upright, firm and well secured.	Site wide	Report vandalism immediately. It is common for young trees to be snapped over their supports- these will require full replacement.

Removal of damaged, dead or diseased branches as required, including removal of sucker/ epicormic growth where necessary. Street trees to be managed with minimum 2m clear stems.	Once a year during winter (unless damage occurred during summer requires immediate rectification (i.e. as a result of vandalism)	Site wide	
Tree pits in streetscape to be kept weed free by hand. Spot treatment with selective herbicide should be a last resort. Particular attention should be paid to the five 'injurious weeds' listed under the Weeds Act 1959.	Allowance for three visits per year during establishment phase. Gravel/ Bark mulch in tree pits to be topped up annually (in early Spring)	Site wide	
Native shrubs (including matrix planting)	***Frequency***	***Location***	***Notes***
Area under and around native shrubs to be maintained free of any pernicious weeds that may affect their establishment. Spot treatment with selective herbicide should be a last resort. The five 'injurious weeds' listed under the Weeds Act 1959 should be removed at all times.	4 visits per year for the first 2 years after planting, thereafter annually	Site wide	Once established the aim of weeding is low maintenance, removing only dense cover of plants that are effecting shrub growth.
Watering to maintain healthy growth as required.	Allowance should be made for weekly visits during the first year. Water dry ground around plants in weeks with no rainfall to prevent young plants dying out.	Site wide	Native shrubs should be planted early in the planting season and therefore establish in the spring with ease.
Amenity grass	***Frequency***	***Location***	***Notes***

Mow regularly during main mowing season (at least 12 times between March and November) when established as a lawn to 30-40mm, removing all arisings. Remove perennial weeds by hand if required. Selective herbicides should be used as a last resort.	12 times between March and November	Mown grass paths and Amenity Lawns.	Take care not to mow emerging bulbs or areas designated as Wildflower meadow. Relax mowing from July where possible to encourage a 'Daisy Lawn' until sward becomes untidy (4-8 weeks).
Maintain a grass free area of c.500mm radius around the trunk of all parkland trees and mulch to limit growth of grass/weeds. Replenish mulch as required.	4 times a year	Around all trees	
Repair turf works to be carried out in autumn or early spring- Areas of Amenity lawn that are bare in the spring should be raked over to create a loose top surface layer of soil and seeded at 20-25grams of amenity grass seed per metre, and watered immediately. Large areas should be fenced off to avoid footfall damage.	March – April. Grass seeding should be carried out in rainy periods to help seeds germinate.	Amenity Grass Areas, lawns, around play grounds and mown grass paths.	Where standard turf maintenance such as scarification and thatch removal is required this will carried out in winter. The application of fertiliser should be avoided where possible.
Wildflower meadow	***Frequency***	***Location***	***Notes***
Wherever footpaths run through areas of meadow a 500mm border of cut grass will be maintained to demark meadows, create a sense of care/management and provide over run space from pathways.	Regularly cut these borders to min. 50mm height from March until summer meadow cut (see below). Remove all arisings.	Wildflower meadow and grassland areas adjacent to mown grass path.	

Within the first year growth and establishment of wild grasses may be slow initially. Mow regularly throughout the first year of establishment until the sown grasses are well established and to control weed growth. Mowing can start as soon as there is enough growth of either weeds or sown species to take a cut.	First year after planting	Meadow Areas	Cut areas of grassland with bulbs once the spring foliage has begun to die back. Maintain thereafter in accordance with the cutting regime for amenity grassland and wildflower meadows (see below).
Meadow mowing When established do not cut from spring through to July/August to allow plants to flower and set seed.	The exact time of cut will be determined by growing conditions and could vary each year. Cut during period of dry weather in August to min. 50mm height. (Summer cut) Following the Summer Cut, mow re-growth once per month through to late autumn/winter to c.50mm and again in early spring.	Meadow Areas	Where possible, leave the 'hay' to dry and shed seed for at least 24hrs. Remove all arisings.
Remove perennial weeds by hand if required. Spot treatment with selective herbicide should be used as a last resort. Particular attention should be paid to the five 'injurious weeds' listed under the Weeds Act 1959.	As required. Attention 'injurious' weeds should be paid particularly in the spring when it is easier to remove them from the landscape.	Meadow Areas	
Maintain a grass free area of c.500mm radius around the trunk of all parkland trees and mulch to limit growth of grass/weeds. Replenish mulch as required.	Remulch annually	Meadow Areas around trees	

Avoid using strimming devices or mowing devices near to trees to avoid stem damage. Yet maintain an area of no vegetation 1m around the trees and remulch annually until tree is established.	Each mow	All tree and specimen shrub planting	
Wetland planting	***Frequency***	***Location***	***Notes***
Swales and detention basins to be inspected annually to check if they require desilting.	Any de-silting to be carried out on a rotational basis, avoiding the breeding season for amphibians (Feb-June) and birds (Mar-Aug).	Swales and Attenuation Basin	
Once established, marginal and emergent vegetation in open water of detention basins is to be left in its natural state *inter alia*. Dead stems of larger plants such as angelic, water figwort, yellow iris and purple loosestrife to always to be left overwinter, but annual removal of dead stems in spring can be carried if build-up of organic matter is affecting overall SuDS function.		Swales and Attenuation Basin	
Where safe access permits, upper grass banks (EM8 – Meadow Mixture for Wetlands) of detention basins and swales to be cut once per year to minimum height 50mm. When established do not cut from spring through to July/August to allow plants to flower and set seed.	The exact time of cut will be determined by growing conditions and could vary each year. Where possible, leave the 'hay' to dry and shed seed for at least 24hrs. NB: where flowering times of adjacent wildflower meadows are similar cutting could be combined.	Swales and Attenuation Basin	

Hard Landscape and Furniture

Play area	***Frequency***	***Location***	***Notes***
Monitoring and maintenance visits will identify required actions, including litter collection, removal of graffiti, checking equipment for being clean and structurally sound, with no missing or broken parts, loose or missing fittings. Paintwork / finish to be fully protected, bearing pivots and moving parts are not worn, are correctly adjusted and lubricated and function smoothly and noiselessly. Consumable items; chain links, ropes, tyres and rubberised items such as swing seats are not worn. There are no sharp edges or protruding foreign bodies (nails, glass, sticks) able to cut skin or clothing.	Visually monitored weekly with comprehensive “nuts & bolts” checks monthly	Play area	
Areas of play bark to be replenished as necessary and evenly spread around areas that have been reduced in depth to less than 300mm	Weekly, particularly after weekends in summer	Play areas	Particular attention paid around areas beneath falls, swings etc where disturbance is likely.
Hoggin Paths	***Frequency***	***Location***	***Notes***
Monitoring will identify any structural weakness, damage to surfacing and edges and identify any remedial works required, which are to be carried out as soon as practical following the monitoring visit. Paths are to be checked for weed growth on each visit, with any weeds removed immediately	To be monitored 2 times per year for the first 2 years, and annually thereafter	Site wide	
Lighting			

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Monitoring and maintenance visits will identify required actions, including checking the structure, and ensuring the lighting is in good working condition (by a suitably qualified professional).	Weekly monitor If lights do not work then they will need fixing/ replacing immediately.	Site wide	

6. Maintenance Programme

Description of Works	Appropriate Timing of Works											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Retained Hedgerows												
Appropriately protect from damage during construction works	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Annual cut with an 'A; shaped profile.	✓	✓							✓	✓	✓	✓
Weed control/ removal of weeds at hedgerow base. Spot spray with a herbicide, or remove by hand undesirable and persistent weed growth.			✓	✓	✓	✓	✓	✓	✓	✓		
New Hedgerows												
Plant native hedgerow species and water well.	✓	✓	✓							✓	✓	✓
Replace failed specimens on a like-for-like basis.	✓	✓	✓							✓	✓	✓
Formative pruning of new hedgerows until established to keep tidy. Prune any diseased or rotten wood back to sound wood. Remove all cut material from site.	✓	✓							✓	✓	✓	✓
Retained / established mixed species hedgerows cut on a 2-4 year rotation to create an 'A' shaped profile.	✓	✓								✓	✓	✓

Description of Works	Appropriate Timing of Works											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Examine all tree stakes and ties, replace or adjust as appropriate.	✓	✓							✓	✓	✓	✓
At least three years after planting bases of new hedgerows to be kept free of weeds through spot spraying or strimming				✓		✓						
During establishment water during prolonged dry periods.				✓	✓	✓	✓	✓	✓			
Remove shelters/stakes/ ties once established.	After approximately 3 years, as necessary											
Retained Trees												
Appropriately protect from damage during construction works	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Biennial inspection by a qualified tree surgeon to asses condition and inform management. Inspection also after each major storm event.	✓	✓							✓	✓	✓	✓
New Tree Planting												
Plant and water well.	✓	✓	✓							✓	✓	✓
Replace failed specimens on a like-for-like basis.	✓	✓	✓							✓	✓	✓
Biennial inspection by a qualified tree surgeon to asses condition and inform management. Inspection also after each major storm event.	✓	✓							✓	✓	✓	✓

Description of Works	Appropriate Timing of Works											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Examine all tree stakes and ties, replace or adjust as appropriate.	✓	✓							✓	✓	✓	✓
Prune any diseased or rotten wood back to sound wood. Remove all cut material from site.	✓	✓							✓	✓	✓	✓
During establishment remove weeds through spot spraying or strimming.				✓		✓						
During establishment fertilise using an approved liquid feed (N10:P15:K10) at a rate of 60g/ m²				✓								
During establishment water during prolonged dry periods.				✓	✓	✓	✓	✓	✓			
Remove shelters/stakes/ ties from established plants	After approximately 3 years, as necessary											
Native Grassland/ Meadow/ Wildflower (excluding attenuation basins)												
Sow areas with agreed native grassland mix during autumn, winter or spring. Protect newly seeded areas.	✓	✓	✓	✓	✓				✓	✓	✓	✓
Reseed, as required	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Description of Works	Appropriate Timing of Works											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mow in first year when sward reaches c.100mm during dry conditions. Remove arisings. Do not mow grassland adjacent to hedgerow/ tree bases.			✓						✓	✓	✓	
From year 2 onwards mow in early March and/or late September. Arisings left for 48 hours prior to removal.			✓	✓	✓	✓	✓	✓	✓			
Margins adjacent to paths may be mown 3-4 times year to a width of 0.5m and minimum height of 25mm.			✓	✓	✓	✓	✓	✓	✓	✓		
Remove undesirable and persistent weed growth through spot spraying, strimming or hand pull.			✓	✓	✓	✓	✓	✓	✓	✓		
Collect and remove all litter, stones or other debris prior to grass cutting operations.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Grassland within / surrounding attenuation basins												
Sow areas with agreed native wetland mix during autumn, winter or spring. Protect newly seeded areas.	✓	✓	✓	✓	✓				✓	✓	✓	✓
Reseed, as required	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Description of Works	Appropriate Timing of Works											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mow in first year when sward reaches c.100mm during dry conditions. Remove arisings. Do not mow grassland adjacent to tree bases.			✓	✓	✓	✓	✓	✓	✓	✓	✓	
Mow on rotational basis from year 2 onwards late September to a minimum height of 100mm. Arisings left for 48 hours prior to removal.			✓						✓			
Reseed, as required.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Remove undesirable and persistent weed growth through spot spraying, strimming or hand pull.			✓						✓			
Collect and remove all litter, stones or other debris prior to grass cutting operations or as required.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Amenity Grassland												
Cut grass and remove arisings from site			✓	✓	✓	✓	✓	✓	✓	✓	✓	
Control/remove weeds.			✓	✓	✓	✓	✓	✓	✓	✓	✓	
Repair worn areas.			✓	✓	✓	✓	✓	✓	✓			
Collect and remove all litter, stones or other debris prior to grass cutting operations.			✓	✓	✓	✓	✓	✓	✓	✓	✓	

7. Maintenance Quantities

Landscape Item	Quantity
Specimen Trees:	224no
Native Trees:	124no
Native Shrubs:	198no
Orchard Trees:	25no
Ornamental Shrubs:	449no
Area of amenity grass (not including paddocks as these will be grazed):	21900m2
Area of grass crete:	2370m2
Area of meadow grass:	33352m2
Area of wetland grass:	1115m2
Length of hedgerow:	1710m
Length of existing boundary vegetation:	1297m
Length of existing vegetation within site:	263m
Length of footpaths:	1509m
Play Bark:	423m2
Number of pieces of equipment:	20
Area of ornamental planting:	8964m2
Area of bulb planting:	4485m2
Area of allotments (to be managed by independent allotment organisation):	4487m2

APPENDIX 1

DEFINE

LEGEND

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DEFINE

LEGEND

Application boundary

Red line land ownership

Trees to be removed (dead, poor PRZA Tree Retention Strategy 2020 values)

Protected Vegetation

Vegetation to be removed

Site Furniture

Suitable outdoor gym equipment such as the following (not shown to scale) comprising:
SG119 Low Fence, Monument Bow Bench, Height Bar Bench, Overhead Crossing and Double Push Up Bar

Street Bin (Replacement standard Rotherham timber bin to be used as standard. Square Bin, Cantilever Timber)

Bench (to Replacement to suite Replacement timber to be used as standard. Square Bin, Cantilever Timber)

Bike Bin and Dog waste bin (Replacement Street Furniture Scheme (Dome Bin, Dog and Litter) standard. To replace approved symbol)

Bicycle Locker (Replacement for cycle mounted locker to be the approved Sheffield Cycle Locker Timber)

Bespoke Picnic bench seat, Timber Top and Oak frame. Natural wooden seat and oak frames

Chain link fencing and gate to allotment area. 2m high

Wooden post and panel fencing

Knee rail steel fencing and gates to play area. 1.2m high

Metal Fencing mini goals. 3m high

Bat Tower wood boxes. Timber wood box on post wood frame outside of SAC Ancient Woodland buffer zone. Wooden Bat Box and Bird Box

Residential play equipment

Timber play equipment comprising:

Timber Log

Timber play boulders

Timber play frame/play tower, number & details to be confirmed

Timber play equipment comprising: Timber play boulders, timber play frame, number & details to be confirmed

Landscape

Boulders / Gravelly Soil feature / gravel / Stream bed natural / in Wooden Chips or similar

Type 1B mix and 6F062 or equal to be to Ancient woodland, Mix within buffer zone/tree zone mixed with deer fencing. To be installed and installed by specialist BS3936 contractor

Hay field to rear and to BS 4050 and BS 4428 1989 - 2008

Wood chips

Localised replanting / tree replanting to provide tree replacements and diversity

Retaining grass bio-ditch to provide open space, attractive habitat, such as Ecological SAC Ancient woodland Swallow Museum or similar approved. Planted at 4x4m2

Wetland Planting Seed Mix Ecological EM 5 Tussock Mixture to be used in ponds. Sown at 4g/m2

Area left to naturally re-establish and allow succession of existing meadow and grassland with minimum disturbance. Maintain the area subject to annual cuts. Arisings to be managed by composting or removed to designated tip

Ornamental mixture and herbaceous perennial planted 4/5 # plants per m2

Bulb mix planted at 4 # bulbs per m2. Minimum 4 varieties/species to be approved

Hedgerow planted in 2 row staggered arrangement at 5 plants per m2 minimum. Species details to be confirmed. Tree type to be confirmed. Mixed hedge.

Native Hedgerow planted in 1 row mixed native shrub planted at 5 plants per m2 minimum. Species details to be confirmed. Tree type to be confirmed. Mixed hedge.

Native Hedgerow planting mixed in a gap of two

Species to include:
20% Crataegus monogyna
20% Corylus avellana
20% Prunus spinosa
20% Acer campestre
20% Ilex aquifolium

Proposed Native Hedge to replace existing hedgerow

Species to include:
20% Crataegus monogyna
20% Corylus avellana
20% Prunus spinosa
20% Ilex aquifolium
20% Acer campestre

Specimen Trees (See detailed landscape drawings for further specifications

Common Trees: Semi-mature / 4-5 years old, of stable, of robust species, and of strong specimen. Extra Heavy Standard

Specimen Street Tree Planting

Symbol	Tree Species	Height	Girth (cm)	Clear Stem (CS)	Notes
	Tilia cordata 'Greenspire'	4-5m	16-18	CS min 2.2m	Extra Heavy Standard, Straight, robust single leader
	Quercus petraea	4-5m	16-18	CS min 2.2m	Specimen, Straight, robust single leader
	Liquidambar styraciflua	4-5m	16-18	CS min 2.2m	Specimen, Straight, robust single leader
	Carpinus betulus 'Fastigiata'	3-4m	10-12	-	-
	Prunus 'Accolade'	3-4m	10-12	-	-
	Prunus 'Amanogawa'	4-5m	16-18	-	Fastigiate
	Malus 'Evereste'	3-4m	10-12	-	-
	Acer platanoides 'Drummondii'	3-4m	10-12	-	-
	Acer campestre	3-4m	10-12	-	-
	Prunus sargentii	3-4m	10-12	-	-
	Betula pendula	3-4m	10-12	-	-

Specimen Orchard Tree Planting

Symbol	Tree Species	Height	Girth (cm)	Clear Stem (CS)	Notes
	Mixed Orchard trees	3-4m	10/12	-	To include a different varieties (apple, pear, plum and cherry). To include both dwarf and standard trees
	Mixed orchard trees	3-4m	10/12	-	To include a different varieties (apple, pear, plum and cherry). To include both dwarf and standard trees

Native tree planting

Symbol	Tree Species	Height	Root (cm)	Form / Habit	Root type
	Acer campestre	3-4m	10-12	Feathered	Bare root
	Betula pendula	4-5m	16-18	Feathered	Bare root
	Betula pubescens	3-4m	10-12	Feathered	Bare root
	Acer platanoides	3-4m	10-12	Feathered	Bare root
	Acer pseudoplatanus	3-4m	10-12	Feathered	Bare root
	Acer rubra 'Scanlon'	3-4m	10-12	Feathered	Bare root
	Acer rubra 'Scanlon'	3-4m	10-12	Feathered	Bare root
	Quercus robur	3-4m	10-12	Feathered	Bare root

Notes:
1. All specimen street trees to be fixed in position with underground root guying system and be supplied with irrigation system for initial watering. Root barrier to be installed adjacent to all trees within pavement and/or kerb. See plan for specific location. Root barrier shall be Green Infrastructure Ltd Root Trainer Root Deflector panel 10 mm thick and 2m long. Installed further to the drainage channel to protect water supply.
2. Root protection zones to be established around trees in accordance with BS5837:2012 Trees in relation to design, demolition and construction. Barriers to be erected prior to commencement of any development works and shall remain in place until all construction work is complete. No storage of materials, equipment or machinery shall take place within the root protection zone.
3. Refer to engineers drawings and road plans for arrangement, treatment and size for all road and footway crossings.

Native shrub planting

These native shrubs and small trees are to be supplied as bare rooted, this can be economic where the plant species is used in a mixture and naturalistic landscape. These native species will provide shelter to your animals. Ideal for wild and mixed hedges.

Symbol	Tree Species	Height	Girth (cm)	Form / Habit	Root type
	Corylus avellana	1-2m	-	Multi-stem / bushy	Bare root
	Acer campestre	1-2m	-	Multi-stem / bushy	Bare root
	Ilex aquifolium	1-2m	-	Multi-stem / bushy	Bare root
	Ilex aquifolium	1-2m	-	Multi-stem / bushy	Bare root
	Rosa canina	1-2m	-	Multi-stem / bushy	Bare root
	Sambucus nigra	1-2m	-	Multi-stem / bushy	Bare root
	Salix caprea 'Pendula'	1-2m	-	Multi-stem / bushy	Bare root
	Crataegus monogyna	1-2m	-	Bushy	Bare root
	Viburnum opulus	1-2m	-	Bushy	Bare root

Ornamental shrub planting

Symbol	Tree Species	Height	Girth (cm)	Form / Habit	Root type
	Hydrangea 'Annabelle'	1-2m	-	Clumped / bushy	10 litre
	Cornus sanguinea	1-2m	-	Clumped / bushy	10 litre
	Cotoneaster horizontalis	1-2m	-	Clumped / bushy	10 litre
	Viburnum tinus 'Eve Price'	1-2m	-	Clumped / bushy	
	Cornus sanguinea 'Midwinter Fire'	1-2m	-	Clumped / bushy	
	Viburnum tinus 'Gwenllian'	1-2m	-	Clumped / bushy	

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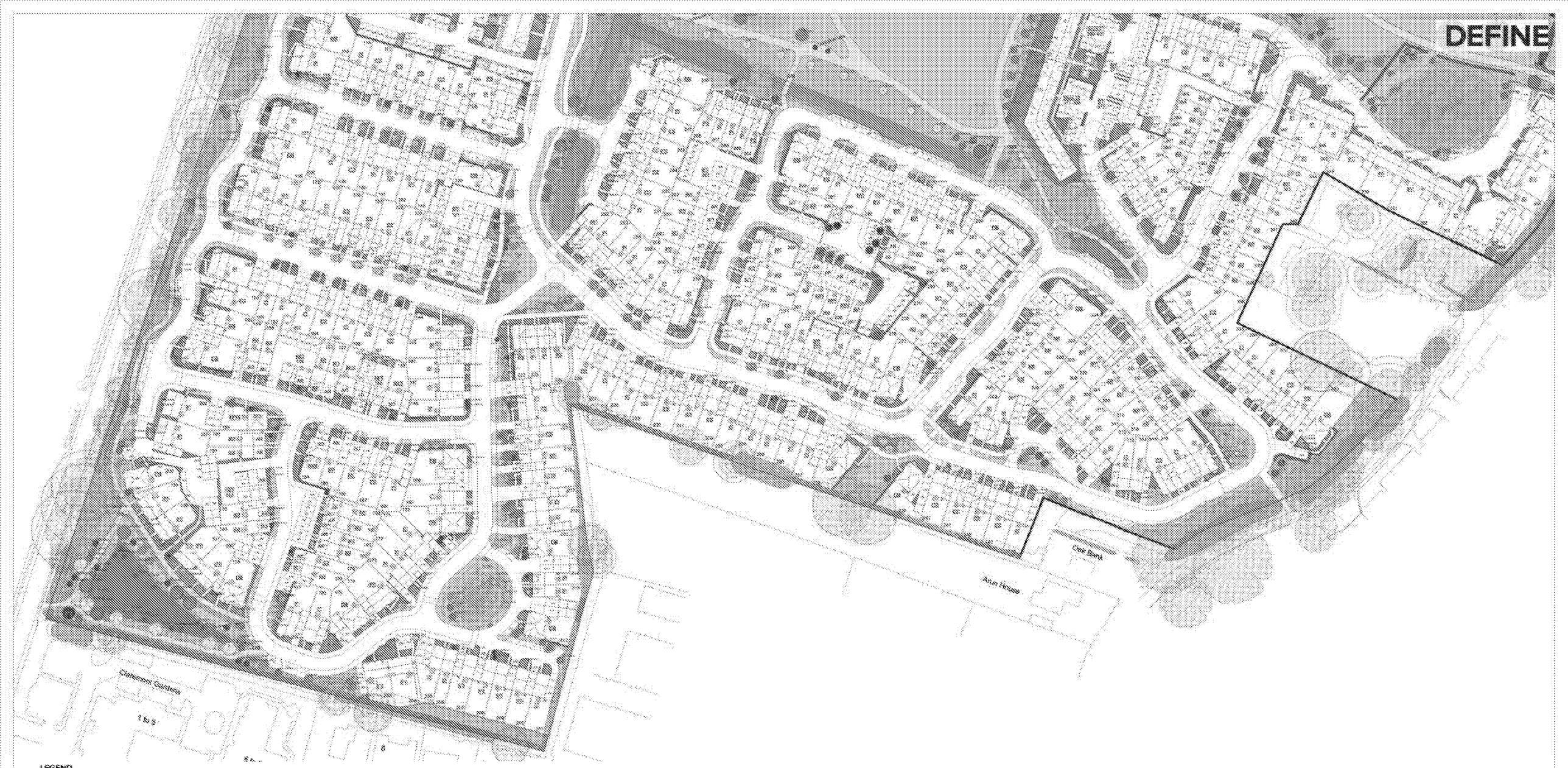

LEGEND

Application boundary

Retained tree and hedge protection zone

Trees to be removed (tree type PRUN Tree Protection drawings 4393-TPP-01)

Proposed footprint

Vegetation to be removed

Site furniture

Bollard (or other type of approved style as the following may change as design progresses)
Bollard Type A
Bollard Type B (Recessed Bollard, Bench, Cycle Rack, Bench, Overhead Lighting and Double Flush Up Bin)

Bench (to be discussed with Arun Parks Arboricultural Officer to ensure appropriate species are selected)
Bench (to be discussed with Arun Parks Arboricultural Officer to ensure appropriate species are selected)
Bench Type A
Bench Type B

Litter Bin and Dog waste bin (Environmental Street Furniture Centre Ltd Bin No. FCB or similar accepted by street scene officer)

Recycle Iceberg Wastebase (or other equivalent timber or metal recycling bins) Height 1.2M, Diameter 750mm

Bespoke Picnic bench type Timber Top and Cast Metal Timber seats and Arm Rests

Cycle hoop and gate to allocated area (to be)

Wooden gate with pedestrian fastening

Knee rail, steel fencing and gates to allocated area (to be)

Metal fencing and gates, 1m high

Metal fencing and gates, 2m high

Lighting (see lighting plan 4393-LP-01 and street lighting details 4393-LP-02 and Plan 4393-LP-03 and Plan 4393-LP-04)

Key (identify each access, utilities point etc and specify if new or existing)

Boundary treatment (see boundary treatment plan 4393-BTP-01)

Boundary fencing

Timber clad Substation, Refuse Collection Chamber or similar approved

Landscaping

Proposed Orchard, Wild meadow grass mixture 4m wide (i.e. 2m either side of centre line)

Type 1M (see also 4393-BA-01 schedule for details of specimens, Structure planting and Tree Pit Detail drawing 4393-TPP-01)

Hedgerow to be planted to the south 4393-BA-01 and 4393-TPP-01

Shrub area

Ornamental planting / wild meadow to provide year round colour and structure

Amenity grass (according to public open spaces and verges, including embedding adjacent footpath / cycle surfacing) 1800 Material, subject to Officer agreement, Plan ref 4393-LP-01

Recreation grass (according to public open space, shadow mixture, such as Barenbrug SR7 Shadow Extreme Seed Mixture or similar approved) Plan ref 4393-LP-01

Surface Material (see the Surrogate Mix 5 Grass Mixture for the area to be dense, Town or Agent)

Area left unplanted for additional tree, shrub planting or landscape and connect with adjacent planting (the tree species, numbers and locations shown on the landscape proposals plans are subject to change by subsequent detailed discussion)

Ornamental shrubs and herbaceous perennial planted as a group (per m²)

SuDS area (please refer to 4393-SUDS-01 and 4393-SUDS-02 for details) as detailed (subject to Officer approval)

Proposed footpath or cycle route (refer Proposed Surface Finishes Plan 4393-LP-01)

Proposed hedgerow planting as 2 per linear metre (equivalent to double staggered row) Species subject to similar approval. Plan ref 4393-LP-01 Landscape Master Plan

Native Hedgerow planting as per the following species mix (per linear metre):
30% Crataegus monogyna
20% Corylus avellana
20% Prunus spinosa
15% Acer campestre
15% Ilex aquifolium

Proposed Native Mixture as per the tree species/species planting proposals

Native hedgerow planting as per the following species mix (per linear metre):
30% Crataegus monogyna
20% Corylus avellana
20% Prunus spinosa
15% Acer campestre
15% Ilex aquifolium

Specimen Tree (See detailed drawings for further specifications)

Specimen Trees, Evergreen / Fruit species or native / Acer species, and Flowering species. Specimen trees (see drawings)

Specimen Street Tree Planting

Symbol	Tree Species	Height	Girth (cm)	Clear Stem (CS)	Notes
	Tilia cordata 'Greenspire'	4.5m	16-18	CS min 2.0-2.5m	Semi-mature, standing crown, single height
	Quercus petraea	3.5m	20-25	CS min 2.0-2.5m	Semi-mature, standing crown, single height
	Liquidambar styraciflua	3.5m	20-25	CS min 2.0-2.5m	Semi-mature, standing crown, single height
	Carpinus betulus 'Fastigiata'	3.5m	16-18	-	-
	Prunus 'Accolade'	3.5m	16-18	-	-
	Prunus 'Amanogawa'	3.5m	16-18	-	Fastigiate
	Malus 'Evereste'	3.5m	16-18	-	-
	Acer platanoides 'Drummondii'	3.5m	16-18	-	-
	Acer rubrum	3.5m	16-18	-	-
	Prunus sargentii	3.5m	16-18	-	-
	Prunus serrulata	3.5m	16-18	-	-

Specimen Orchard Tree Planting

Symbol	Tree Species	Height	Girth (cm)	Clear Stem (CS)	Notes
	Malus domestica 'Jo'	3.5m	16/+	-	To include 3 different varieties (Mixed timber stake and rubber tie, protected with mesh)
	Prunus domestica	3.5m	16/+	-	To include 3 different varieties (Mixed timber stake and rubber tie, protected with mesh)

Native tree planting

Symbol	Tree Species	Height	Girth (cm)	Fence mesh	Root type
	Acer campestre	3.5m	10-12	Protected	Rooted
	Betula pendula	3.5m	10-12	Protected	Rooted
	Betula pubescens	3.5m	10-12	Protected	Rooted
	Quercus petraea	3.5m	10-12	Protected	Rooted
	Salix alba 'Vitellina'	3.5m	10-12	Protected	Rooted
	Salix caprea 'Sekka'	3.5m	10-12	Protected	Rooted
	Sorbus aucuparia	3.5m	10-12	Protected	Rooted

Notes:
1. All specimen street trees to be fixed in position with underground root guying system and be supplied with irrigation system for watering/feeding. Final details to be submitted/agreed as part of the Arboricultural Method Statement. Tree pits to contain hydrogel. Tree species above 'Species Street Tree' and 'Orchard Tree' species mixes subject to similar approval.
2. All trees over 3.5m in height and adjacent with a double fence and rubber tie, and supplied with underground root guard with a 6m radius around base of tree. Tree pit backfill per trees specified with rubber mulch.
3. Refer to schedule drawings and tree pits for arboricultural statement and plan to plot landscaping information.

Native shrub planting

These native shrubs and small trees are to be supplied as bare bushes and can be scattered around the open spaces to create a diverse and naturalistic landscape. These native species will likewise provide for year round food and shelter for birds.

Symbol	Tree Species	Height	Girth (cm)	Fence mesh	Root type
	Cornus sanguinea	1.5m	-	Protected	Bare root
	Corylus avellana	1.5m	-	Protected	Bare root
	Ilex aquifolium	1.5m	-	Protected	Bare root
	Malus sylvestris	1.5m	-	Protected	Bare root
	Prunus spinosa	1.5m	-	Protected	Bare root
	Salix cinerea 'Atrocinerea'	1.5m	-	Protected	Bare root
	Salix viminalis	1.5m	-	Protected	Bare root
	Sambucus nigra	1.5m	-	Protected	Bare root
	Viburnum opulus	1.5m	-	Protected	Bare root

Ornamental shrub planting

Symbol	Tree Species	Height	Girth (cm)	Fence mesh	Root type
	Berberis thunbergii 'Atropurpurea'	1.5m	-	Unprotected	Bare root
	Cornus mas	1.5m	-	Unprotected	Bare root
	Cotinus coggygria	1.5m	-	Unprotected	Bare root
	Viburnum tinus 'Eve Price'	1.5m	-	Unprotected	Bare root
	Cornus sanguinea 'Midwinter Fire'	1.5m	-	Unprotected	Bare root
	Viburnum tinus 'Gwenllian'	1.5m	-	Unprotected	Bare root

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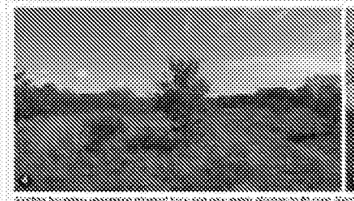
Existing boundary vegetation trimmed back at boundary and infill gaps with native hedge

Existing hedge and boundary retained as it is suitable for rear garden boundary

New native hedge planted to site boundary

Existing boundary vegetation trimmed back, new native hedge planted to fill gaps, and gates maintained to provide maximum open space



Existing boundary vegetation trimmed back where new native planting to fill gaps. Existing northern fencing removed, new native hedge planted and gates installed to perimeter.

Existing boundary vegetation trimmed back, new native hedge planted to fill gaps, and gates maintained to provide maximum open space

Existing fences, vegetation trimmed back. No infill as new boundary required.

Existing vegetation retained as informal barrier and new native hedge planted behind to be trimmed to optimise view opportunities

Existing vegetation retained to provide separation between the site and Woodgate Lane

New formal tarmac access maintained to new pavilion, open car parking and Woodgate Lane

Pavilion

Trees and vegetation retained along site boundary between Woodgate Lane and pavilion carpark

New close board fence between rear gardens and open space

Existing boundary vegetation trimmed back and native hedge backfilled and to fill gaps

New close board fence backdrop to adjoining property boundaries

DEFINE

Unit 6
133-137 Newhall Street
Birmingham B3 1SF

[redacted]