Landscape Management Plan

Catalyst Phase 4

18th June 2024 Report Number. LB467_R01c

Laird Bailey Landscape Architects

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Contents:

Section 1: Introduction	2
Section 2: Technical and Environmental Considerations	3
Section 3: Site Overview of Existing Landscape	4
Section 4: Aims and Objectives	5
Section 5: Management Objectives	6
Section 6: Management Regimes	2
Section 7: Soft Landscaping Maintenance Work Schedule	4

Plans:

LB467_D01d - Detailed Soft Landscape Proposals (Sheets 1 - 6)



Section 1: Introduction

Purpose

- 1.1 This Landscape Management Plan (LMP) has been prepared by Laird Bailey Landscape Architects (LBLA) on behalf of Albion Land for the Catalyst Phase 4 development (hereafter referred to as the 'site'). The site is centred on OS grid reference SP572210.
- 1.2 The purpose of this LMP is to provide details of measures to ensure the successful establishment and ongoing maintenance of the soft and hard landscape elements of the development proposals.
- 1.3 This LMP should be read in conjunction with the latest revisions of drawings LB467_D01 Soft Landscape Proposals (Sheets 1-6) and landscape specification (LB467_R02).

Scope of the Landscape Management Plan

- 1.4 This LMP is set out as follows:
 - Section 2 sets out relevant standards and legislation;
 - Section 3 describes the site and provides an overview of the existing landscape and its condition;
 - Section 4 sets out the long-term design objectives;
 - Section 5 describes the proposed soft landscaping specification;
 - Section 6 sets out the long-term design objectives;
 - Section 7 sets out the management regimes and responsibilities;
 - Section 8 sets out the maintenance operations for all the soft landscape areas; and
 - Section 9 sets out the maintenance operations for all the hard landscape areas.



Section 2: Technical and Environmental Considerations

- 2.1 The contractor shall familiarise themselves and their operatives with all British Standards and regulations, as referred to in this document, and any subsequent revisions thereof. All chemical weed control must be carried out by suitably trained staff in accordance with the manufacturers recommendations and the legislation set out below.
- 2.2 The Contractor must only use chemicals specifically approved for the purpose for which it is intended as dictated by the Control of Pesticides Regulations 1986 and the conditions of approval for the chemicals and any relevant code of practice issued by DEFRA. The Contractor will consider in every instance whether the use of chemicals is strictly necessary before application.

Table 2.1: Relevant Standards and Legislation

Relevant Standards and Legislation				
ISO 7851	Classification scheme for fertilizers and soil conditioners			
BS4428	Code of practice for general landscape operations			
BS 8545: 2014	Trees: from nursery to independence in the landscape - Recommendations			
BS 5837	Trees in relation to design, demolition and construction - Recommendations			
3882:2015	Topsoil			
The Food and Environment Protection Act (1985)				
The Control of Pesticides Regulations 1986 (COPR) (as amended 1997)				
The Control of Substances Hazardous to Health Regulations (2002)				
The Environment Protection Act (1990)				



Section 3: Site Overview of Existing Landscape

Site Context

3.1 The site is located to the southern edge of Bicester, Oxfordshire. The site is proposed for three units (Units 13, 14 and 15) with associated landscaping and highways. The site currently comprises a single grassland field that is bound by hedgerows and scattered trees.

Proposed Design

- 3.2 The development proposals comprise 3 employment buildings with car parking. Planting has been proposed to enhance the wider field boundaries and within car parking areas for visual amenity.
- 3.3 The new soft landscaping within the scheme includes the following landscape elements:
 - Tree planting;
 - Amenity planting (shrubs and herbaceous perennials);
 - Ornamental hedges;
 - Native hedgerow;
 - Bulb planting;
 - Wildflower Meadow; and
 - Seeded grassland.
- 3.4 The above landscape works onsite will be maintained by the appointed management company who will be responsible for the replacement of any trees or shrubs removed, dying, damaged or diseased thereafter, ensuring replacement planting is undertaken at the first opportunity and at latest by the end of the next planting season.



Section 4: Aims and Objectives

- 4.1 The landscape proposals have been designed to:
 - Strengthen and enhance the existing site boundaries and existing trees and hedges that are to be retained;
 - Provide and maintain an attractive/visually appealing and robust landscape setting to the development;
 - To create a diverse range of new habitats onsite;
 - To monitor the efficacy of nature conservation management through regular assessment of habitat establishment;
 - Contribute to the value of the green infrastructure onsite and maintain and reinforce the landscape, amenity and ecology structure of the site; and
 - Maintain health and safety requirements to all areas for workers and visitors.
- 4.2 The key management objective is to improve and maintain the new landscape structure in perpetuity. This will be achieved through the implementation of this management plan by an appointed management company.



Section 5: Management Objectives

- 5.1 The landscape works will receive post-installation management and maintenance. This will be undertaken by two separate companies; initially by the landscape contractor and then by the appointed management company, both appointed directly by the developer. All defects resulting from plant loss, disease, or failure to thrive will be replaced.
- 5.2 Set out below are the management objectives for the landscape works.

Maintenance of Existing Trees and Shrubs

Objectives

- 5.3 The overall objective is the management of existing trees for safety, and to maintain healthy growth, attractive form and promote longevity. There are a number of mature trees located within the site, and any management should be minimal and aimed at maintaining health and promoting longevity.
- 5.4 All arboricultural works should be read in conjunction with the detailed Tree Protection Plan that has been undertaken by Tyler Grange Ltd.

Prescriptions

- 5.5 Monitor existing trees for any sign of defects or poor health twice yearly or after severe weather, i.e. winds in excess of 50mph or snowfall >10cm. Report any signs of ill health or damage and take remedial action when instructed.
- 5.6 If trees show signs of poor growth in a heavily trodden area, with no observable pests or diseases, feed and aerate the root area or in severe cases, undertake specialist decompaction, e.g. 'Terravent'.
- 5.7 Similarly, if trees appear to be suffering any signs of nutrient deficiency, a general fertiliser should be applied as appropriate and in accordance with the manufacturer's instructions, and hoed into bare soil beneath canopy line; annually as required.
- 5.8 Routine annual pruning of mature trees should be carried out only in exceptional circumstances if a health and safety issue is identified or for the benefit of the tree's health. Prior to undertaking such works, advice should be sought from the principal designer/principal contractor.
- 5.9 Tree work should be carried out in accordance with BS 3998 and Health and Safety Executive (HSE) '*Forestry and arboriculture safety leaflets*'. Branches should be cut in accordance with the Arboricultural Association Leaflet '*Mature tree management*'. In each case, cut back to live wood using appropriate tools and do not prune during the late winter/early spring period.
- 5.10 Clean out and remove any dead, dying or diseased wood, broken branches or growths, fungal bodies and fruiting bodies. Remove any rubbish or objects/structures that have become



attached or accumulated within the canopy or on the trunk of the tree. Any standing or attached dead wood should be left in situ unless it is causing an obstruction or poses a risk to health and safety.

- 5.11 All tree work should be carried out by a suitably qualified professional tree surgeon a registered member of the Arboricultural Association.
- 5.12 Existing hedges to be flail cut on a three-year rotation to maximise density, flowering and fruiting. Arisings will be removed and it will be ensured that not all hedgerows are managed in a given year. Hedges will be managed to achieve a minimum height of 2.5m above bank height. Trimming will aim to create an 'A' profile. Hedges should be cut and trimmed outside of the bird nesting season to ensure there is no disturbance.

Maintenance of New Tree Planting

- 5.13 Trees are planted at their mature spacing distance. Tree surgery such as crown lifting or dead wood removal will be carried out as required.
- 5.14 Heavy and Extra Heavy Standard Trees to be planted with double stakes, feathered trees with single stakes and whips and transplants with tree shelters and stake supports. Stakes should be inserted on the side of the prevailing wind so that the tree is blown away from the stake.
- 5.15 Single stakes should be inserted either before or after planting at a 45-degree angle, leaning into the prevailing wind and secured with a flexible tree tie.
- 5.16 Double stakes should be equally spaced around the tree outside the root ball and secured to the trunk with two 'Rubber Lock' tree ties and spacers, one immediately below the other.
- 5.17 Check the ties regularly for rubbing and adjust if necessary. Constriction of the stem by ties happens very quickly, so fast-growing trees need frequent checking. After bad weather, check for abrasion and snapped stakes or ties.
- 5.18 At the end of Year 2 post-planting, remove staking if tree has established well and the stakes are no longer required. If tree still requires support, then it should be replaced.
- 5.19 Newly planted trees will be watered throughout May–August months in fortnightly intervals, and weekly intervals during particularly dry weather. For the remainder of the year watering is to be undertaken after any period of 4 weeks without significant rain to thoroughly wet the top 150mm of soil around the tree roots. This will normally include 10 litres for seedling or whip planting and 20 litres for standard trees.
- 5.20 The ground in a 1m diameter circle around the trees will be bark mulched to conserve moisture and reduce weed growth. This mulch is to be retained until there is cover under the trees with shrub/understorey planting, grassland or native hedgerow. This mulch will be topped up annually.
- 5.21 All weeds and grasses that self-seed around the base of the tree are to be removed.



5.22 Where trees are to be planted adjacent to existing planting, existing vegetation must be protected.

Maintenance of New Shrub (Amenity) Planting

Objectives

5.23 The overall objective is to ensure planting within public areas is suitably cared for to enable its successful establishment, to maintain growth and shape of plants and prevent planting beds becoming overgrown and untidy.

Prescriptions

- 5.24 During and following the establishment of the planting ensure that sufficient water is applied to maintain healthy growth as required. Ensure that full depth of topsoil is saturated. Watering programme should be monitored to ensure that at times of water shortage (e.g. drought) sufficient water is applied to meet the conditions.
- 5.25 Prune and re-shape shrub species at the appropriate time according to individual requirements. Remove dead or dying wood in order to promote healthy growth and attractive form. Shrubs should be prevented from becoming overgrown, with particular attention to plants adjacent to windows, footpaths and roads to prevent obstruction. Avoid hard pruning to bare wood.
- 5.26 Keep all beds clear of weeds by cultivating and use of approved herbicides. Fork-over/hoe beds as necessary to keep soil loose, disposing of arisings off-site.
- 5.27 Apply an annual single dose of evenly spread, 11:22:9 NPK slow-release fertiliser at a rate of 60g per m2, in March-April.
- 5.28 Mulch the surface of the planting beds with chipped tree bark following planting to a depth of 75mm. Regularly monitor mulch levels and re-mulch in July to original depth, or when required.
- 5.29 Regularly check for plantings that have been loosened by wind or frost and re-firm any loose plants back into the ground.
- 5.30 Regularly check beds on routine visits to assess whether thinning is required. When plantings are starting to overlap it may be necessary to remove some individual plants to retain the character of the bed. Thinning should take place as required in a logical process over several stages.
- 5.31 Monitor and replace failed planting with new equivalent plants between October and March. All plants should be maintained in a disease- and pest-free state through the application of a suitable proprietary herbicide/pesticide.



5.32 Dead head flowering shrubs following the flowering period to promote further flowering. Remove arisings from site.

Maintenance of New Hedgerow Planting

Objectives

5.33 The overall objective is to ensure newly planted hedges are suitably cared for to enable successful establishment into a deep bushy hedge that can be maintained for ornamental and amenity value.

Prescriptions

- 5.34 During and following the establishment of the planting ensure that sufficient water is applied to maintain healthy growth as required. Ensure that full depth of topsoil is saturated. Watering programme should be monitored to ensure that at times of water shortage (e.g. drought), sufficient water is applied to meet the conditions.
- 5.35 Prune and re-shape hedge species at the appropriate time according to individual requirements to promote good growth and compact form, removing any dead or dying wood.
- 5.36 Allow new hedges to attain a planned height of 1.2m by trimming lateral growth once annually in mid- to late summer. Once established, hedges should be maintained at 1.2m.
- 5.37 Keep all hedge planting trenches clear of weeds by cultivating and use of approved herbicides. Fork-over/hoe beds as necessary to keep soil loose, disposing of arisings off-site.
- 5.38 Apply an annual single dose of evenly spread 11:22:9 NPK slow release fertiliser at a rate of 60g per m2 from March-April.
- 5.39 Top-up the mulch surface (where applicable) with chipped tree bark following planting to a depth of 75mm. Regularly monitor mulch levels and re-mulch in July to original depth, or when required.
- 5.40 Regularly check for plants that have been loosened by wind or frost and re-firm any loose plants back into the ground.
- 5.41 Monitor and replace failed planting with new equivalent plants between October and March.
- 5.42 All plants should be maintained in a disease- and pest-free state through the application of a suitable proprietary herbicide/pesticide.



Maintenance of Amenity Grass, Wildflower Meadow & Bulb Planting

Objectives

- Ensure amenity grass is suitably managed in order to maintain an attractive lawn;
- Maintain meadow areas to encourage diverse flora; and
- Maintain areas of bulb planting to ensure healthy plants and provide seasonal displays of colour.

Prescriptions

Amenity Grass Areas

- 5.42 Allow turf sward or amenity seeded areas to establish to a minimum height of 35mm before first cut. Once established, maintain to a height of 25-30mm by cutting fortnightly or as necessary through the growing season and as required during the winter months (to maintain to approx. 30mm). Arisings to be collected and removed from site.
- 5.43 Remove all litter including fallen leaves from grass areas prior to mowing. Do not use mowers/strimmers within 100mm of tree stems use nylon filament rotary cutters or other hand-held machinery to avoid damage to bark. Strim around any obstructions.
- 5.44 All amenity grassed areas should receive an application of a proprietary granular slowrelease fertiliser twice yearly in the spring and the autumn (refer to schedules).
- 5.45 A selective herbicide should be used in order to suppress any emerging perennial weeds.
- 5.46 Following initial seeding/turfing, provide appropriate signage to discourage entrance for a minimum of six weeks or until the grass sward is suitably established to withstand footfall.
- 5.47 Edges adjacent to footpaths should be reformed and left neat after each maintenance visit.
- 5.48 All amenity grassed areas should be scarified annually in the autumn to remove thatch conditions and the build-up of dead grass. Following annual scarification, grassed areas should be thoroughly spiked to aerate soil and improve drainage.
- 5.49 Bare areas and areas of dead grass that become apparent should be rectified by overseeding and/or turf re-installation at the soonest available planting season.

Wildflower Meadow Areas

5.50 In the first year, wildflower meadow areas should be managed more intensively to prevent the intrusion of invasive ground flora and allow a diverse flora to develop. The first cut



should occur when the plants reach approximately 100mm, down 30mm, followed by subsequent cuts every six weeks down to 50mm throughout the first growing season. Arisings should be removed after the first and last cut of the year, otherwise left on site.

- 5.51 Meadow areas should be monitored to assess the growth of any invasive species and spot treated with an approved herbicide if required.
- 5.52 Meadow areas from Year 2 onwards will be maintained with a biannual cut; cut back any winter growth in spring (subject to bulb flowering (see Bulb section Planting below) and second cut in September. Leave second cuttings for a few days before removing, which will allow seeds to drop and increase the wildflower coverage for subsequent years. Spottreat or remove invasive weeds. All arisings should be allowed to lay in-situ for 24 hours before being removed from site in order to allow any wildlife to disperse.

Bulb Planting

5.53 Grass and meadow cutting will be avoided in areas planted with bulbs during late winter/early spring when bulbs are growing/flowering and for a period of four weeks after flowering to allow bulbs to regain nutrients, after which a normal mowing regime can resume. Areas surrounding bulb planting should still be maintained to keep the space looking clean and tidy.



Section 6: Management Regimes

- 6.1 As a minimum, monthly maintenance visits should be undertaken to inspect and monitor, as well as to carry out routine operations, including weeding and litter picking, with other specific operations being undertaken as scheduled below.
- 6.2 During the growing season (generally late April until the end of October but depending on climatic conditions) further visits will need to be undertaken to ensure that grass areas are kept in a tidy and well-kept condition. This is likely to be on a fortnightly basis. Existing trees and shrubs are to be maintained by:
 - Occasional thinning of understorey scrub planting;
 - Pruning trees to maintain correct shape and prevent plants encroaching on paths or roads;
 - Replacing dead or dying trees and shrubs with similar species;
 - Weed control; and
 - Watering.
- 6.3 Trees, shrubs and hedges are to be maintained by:
 - Fertilising for continued healthy growth;
 - Pruning to maintain correct shape of plant and prevent plants encroaching on paths or roads;
 - Flail cutting of existing hedges on a rotational basis;
 - Weed control;
 - Watering;
 - Check and adjust ties; and
 - Firming up of stakes.
- 6.4 Grass seeded areas are to be maintained by:
 - Periodic cutting; and
 - Weed control through mowing or spot spraying where necessary.
- 6.5 The landscaping works will receive post-installation maintenance for a one-year defects liability period (DLP). All defects resulting from plant loss, disease or failure will be replaced on



a like for like basis at the cost of the contractor. A visit every month, or more frequently should watering be required, is recommended during the DLP. Subsequently a minimum of 12 maintenance visits per annum is recommended.

- 6.6 Maintenance and management activities are set out below (which covers a minimum period of 5 years) to ensure the soft landscaping is managed effectively beyond the time limits of the implementation and establishment works. The responsibility for this management and maintenance is to be agreed. LBLA's recommendation is for the landscape contractor that undertakes the planting works to be engaged to carry out the one-year establishment maintenance.
- 6.7 Management and maintenance operations will be monitored and reviewed annually on an on-going basis and, where required, modified if the operations and frequencies set out do not deliver the required results or meet the specific aims and objectives.
- 6.8 As a minimum, maintenance visits should be undertaken to inspect, monitor as well as to carry out routine operations, including weeding and litter picking, with other specific operations being undertaken as scheduled below.
- 6.9 The appointed Contractor must provide details of all necessary insurances and certifications to carry-out the works specified in this management plan. It is the responsibility of the appointing authority to ensure that all submitted insurances and certificates are up to date and provide the appropriate level of cover for the specified works.
- 6.10 Defects in the landscape are identified early and addressed promptly.



Section 7: Soft Landscaping Maintenance Work Schedule

A schedule of work is provided in the following tables, giving a timetable for management actions for the first five years post implementation. Before the end of this Management Plan period the management agency shall review these prescriptions in consultation with any interested parties and provide an updated Management Plan for on-going management.

Component	Task	Time of Year	Frequency	
Visits at least once per month and more frequently if required due to prolonged dry weather conditions and the need for watering. Management a maintenance operations will be monitored and reviewed annually on an on-going basis and where required modified if the operations and frequencies set out do not deliver the required results or meet the specific aims and objectives.				
Existing Trees and Boundary Vegetation	Trimming and selective thinning of the canopy by a suitably qualified operative (SQO) where overhanging branches impact on adjacent buildings or canopy structures, pedestrian or vehicular access.	Oct to Feb	As required (annually)	
	Removal of any dead wood in the canopy of overhanging trees.	Oct to Feb	As required (annually)	
	Replace dead or dying trees with similar appropriate species (Standard, min. girth 12cm).	Oct to March	As required (next available planting season)	
	Flail cut existing hedges and remove arisings.	Jan/ Feb	Once in 3 years	
Trees	Prune and repair wounds in accordance with good horticultural and arboricultural practice.	Oct to Feb	As required (annually)	
	Check the ties regularly for rubbing and adjust if necessary. Constriction of the stem by ties happens very quickly, so fast- growing trees need frequent checking. After bad weather, check for abrasion and snapped stakes or ties. Re-firm tree by adjusting tree ties and ensuring soil is re-firmed around the base.	Feb and after strong winds, frost heave and other disturbances.	As required (annually)	
	Hand weed mulched areas around trees.	June to Sept	Every visit	



	Apply suitable non-selective herbicide to control weeds.	April / Oct	Only if required and other methods are unsuccessful
	Replace any failed specimens.	Oct to March	As required during the first 5 years after planting (next available planting season)
	Remove debris/litter.	Throughout	Every visit
	Top up bark mulch around bases of trees to full depth of 75mm.	April	As required (annually)
	Newly planted trees will be watered throughout May – August months after any period of two weeks without significant rain to thoroughly wet the top 150mm of soil around the tree roots.	Throughout	As required after a period of 2 weeks without significant rainfall
	Trimming and selective thinning of the canopy. Trim back growth overhanging adjacent footpaths when required.	Oct to March	Annually if required
	In years 5 and onwards remove staking if tree has established well and the stakes are no longer required.	Any	As required
Shrub (Amenity) Planting	Trimming and reshaping to encourage healthy bushy growth. Trim back growth overhanging adjacent footpaths when required.	Oct to March	Annually if required
	Hand weed.	Throughout	Every visit
	Apply suitable non-selective herbicide to control weeds.	April to Sept	Only if required and other methods are unsuccessful
	Remove debris/litter.	Throughout	Every visit
	Replace any failed specimens.	Oct to March	As required during the first five-years after planting (next available planting season)
	Top up bark mulch around bases of shrubs to full depth of 75mm.	April	As required
	Watering of newly established shrubs and herbaceous perennials.	Throughout	As required after a period of 2 weeks without significant rainfall



Landscape Management Plan Catalyst Phase 4 LB467/R01c

Hedgerows	Re-shaping.	Hard-prune Oct to Feb	Annually if required
	Hand weed.	Throughout	Monthly/every visit
	Apply suitable non-selective herbicide to control weeds.	April to Sept	As required
	Apply fertiliser: Slow release, applied as per manufacturer's recommendations.	Mar / April	Annually
	Remove debris/litter.	Throughout	Monthly/every visit
	Replace any failed specimens.	Oct to March	As required (next available planting season)
	Top up bark mulch hedge base to full depth of 75mm.	April	Annually
	Watering of newly established hedgerows.	Throughout	As required to enable successful establishment
	Trim and top hedgerow as necessary avoiding bird nesting season.	February	As required (annually)
Amenity Grassland	Repair eroded and bare patches – rotovate to 150mm, seed with appropriate mixes as per planting schedule.	May to Sept	As required (annually)
	Remove debris/litter.	Throughout	Monthly (every visit)
	Neat edges - cut with visits every 2 months and remove arisings in areas of close mown grass.	March to Oct	With visits every 2 months
	Cut all amenity grass to no shorter than 25mm throughout the growing season. Do not allow to grow longer than 100mm. Avoid areas of bulb planting for up to 4 weeks following flowering in later winter/early spring before resuming any cutting regimes.	March to Oct	As required.
	Spot treatments of noxious weeds using approved selective herbicides.	Throughout	As required (Annually)



Wildflower Seeded Areas	Cutting – first year Mow every 8 weeks to a height of 40-60mm with cuttings removed. Avoid bulb planting areas for up to 4 weeks following flowering. Cutting – second year Cut twice per year to 40-60mm. Once in March/April and again no earlier than 15th July and only once seeds have dropped. Leave cuttings for up to 7 days to allow for dropping of seed and then remove. Avoid areas of bulb planting for up to 4 weeks following flowering in later winter/early spring before resuming any cutting regimes.	March/April and July	As required. Leave hay cuttings to drop seed for minimum of 3 days (up to 7) before removing.
	Re-seeding (if required).	September	Any bare patches of ground where seed has failed to germinate should be re- seeded as per the original specification.



Plans:

LB467_D01d - Detailed Soft Landscape Proposals (Sheets 1 - 6)



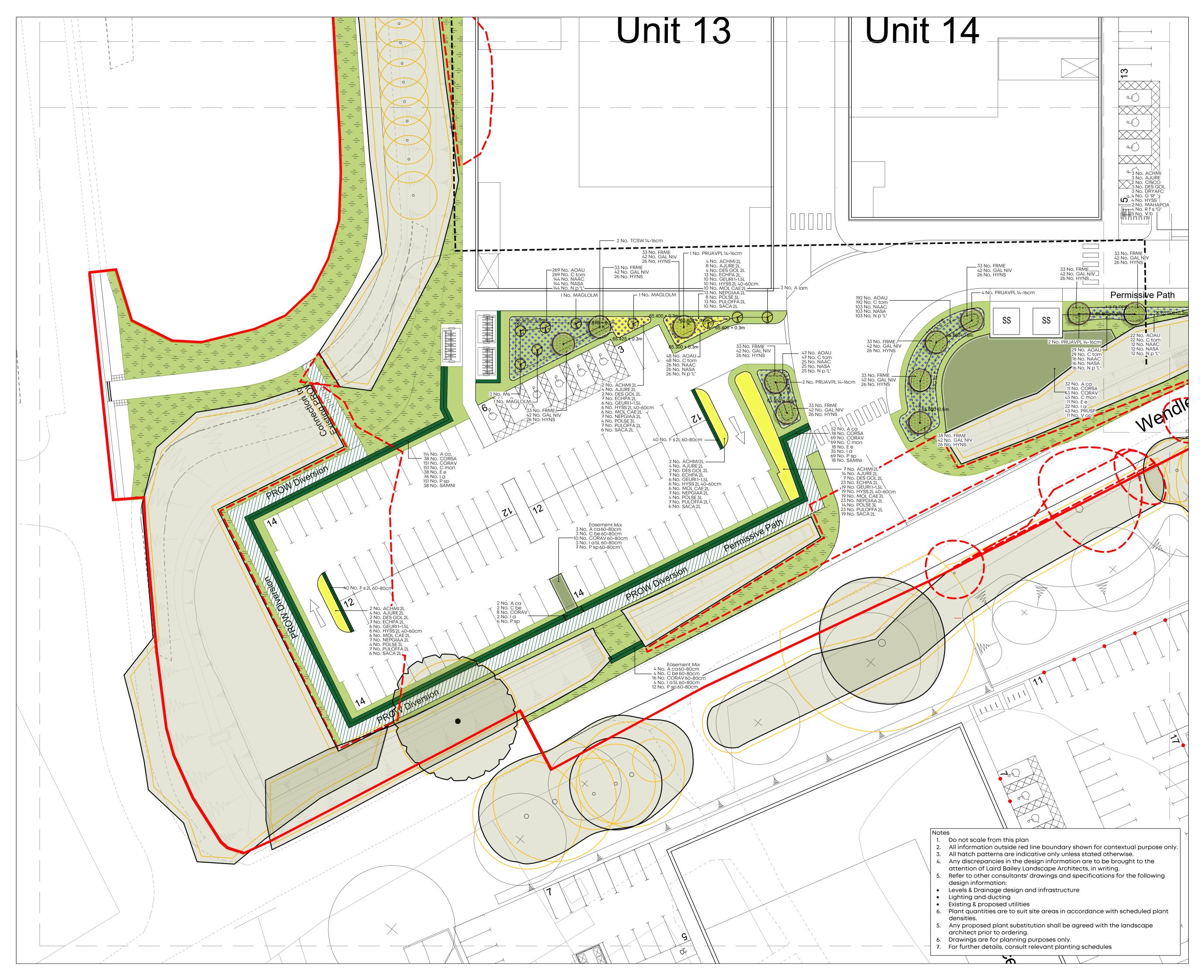


	Application Boundary
	Retained Trees and Vegetation
니는다	Removed Vegetation
	Root Protection Areas
$\overline{}$	Proposed Tree
\bigcirc	Proposed Specimen shrub
	Proposed Native Shrub Planting
	Proposed Native Hedgerow
	Proposed Ornamental Hedgerow
	Proposed Amenity Grassland
:	Proposed Wildflower Grassland Seed Mix Open Areas - Emorsgate EM2 Under Canopies - Emorsgate EH1 Ditches - Emorsgate EM8
	Proposed Amenity Planting
	Public Right of Way - Amenity Grass
	Archeological Protection Area Boundary
13 51 OFF x 65.40070.2m	Mounds with Gradient at 1:3 and Height not Exceeding 0.6m Above Adjacent Ground Level. Horizontal Root Barriers to be Included at Base for Archeological Area Protection
c Gra b Laya a Laya	nting Labels and Shedule Shown 18.06.24 ssland Update 13.05.24 out Update - Final Issue 09.05.24 out Update - Draft Issue 19.03.24 nment Date
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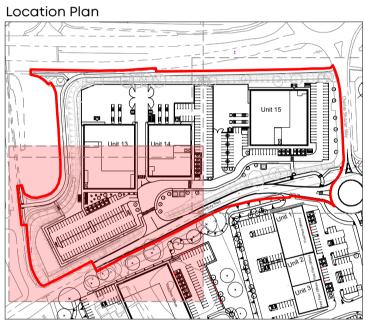
Project Title: Catalyst Phase 4

Drawing Title: Detailed Soft Landscape Proposal (Sheet 1 of 6)

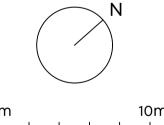
Date: 8 March 2024 Drawing Number: LB467_D01 Scale: 1:500 at A1 Status: Final



Application Boundary
Retained Trees and Vegetation
Removed Vegetation
Root Protection Areas
Proposed Tree
Proposed Specimen Shrub
Proposed Native Shrub Planting
Proposed Native Hedgerow
Proposed Ornamental Hedgerow
Proposed Amenity Grassland
Proposed Wildflower Grassland Seed Mix Open Areas - Emorsgate EM2 Under Canopies - Emorsgate EH1 Ditches - Emorsgate EM8
Proposed Amenity Planting
Native Bulb Planting - Under Tree Canopies
Native Bulb Planting - Open Areas
Public Right of Way - Amenity Grass
Archeological Protection Area Boundary



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d c b a Rev	Planting Labels and Shedule Shown Grassland Update Layout Update - Final Issue Layout Update - Draft Issue Comment	18.06.24 13.05.24 09.05.24 19.03.24 Date
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LAIRD BAILEY LANDSCAPE ARCHITECTS t: 0330 043 4883 e: hello@lbla.co.uk Costwolds | Somerset | South Wales

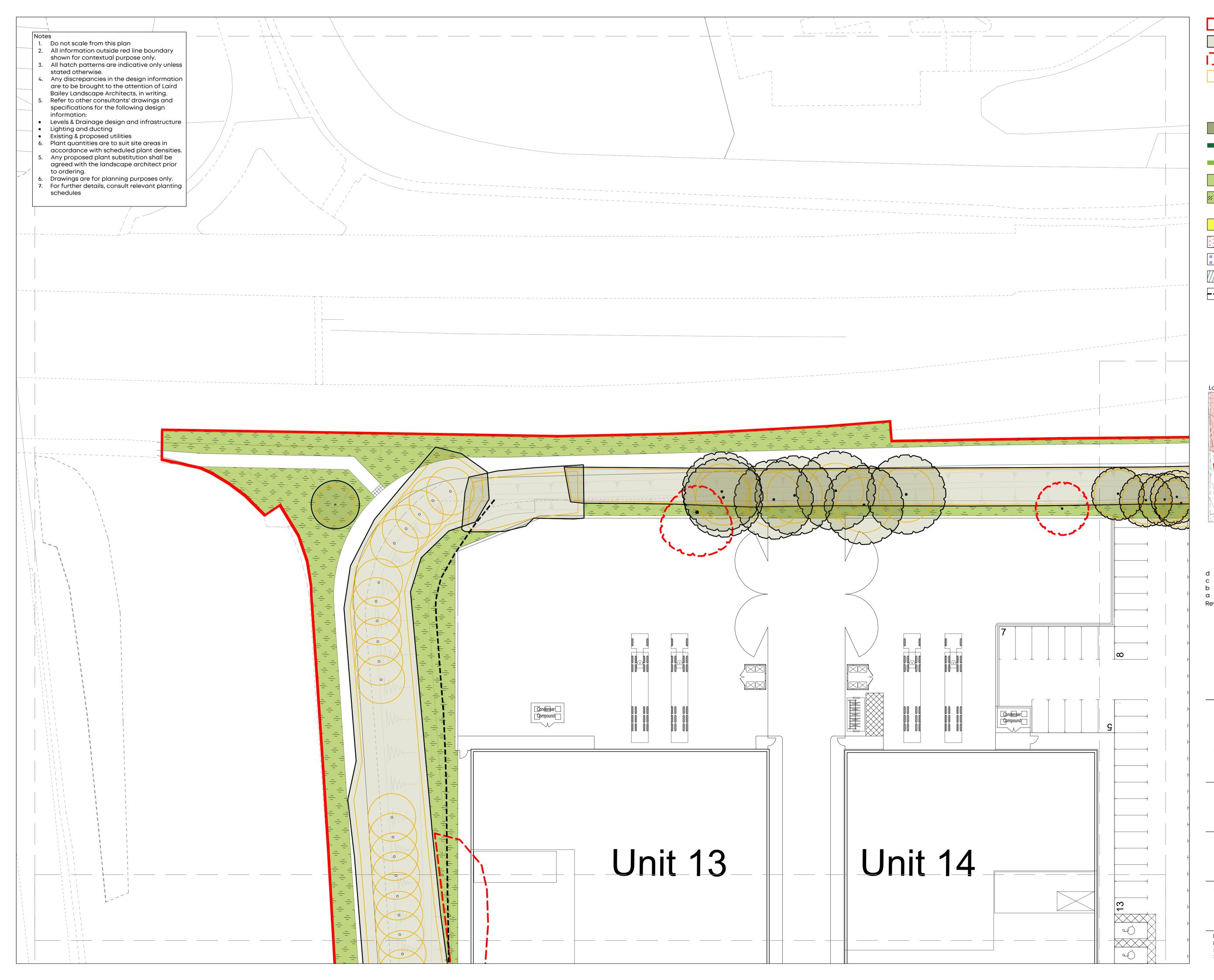
Client:

Project Title: Catalyst Phase 4

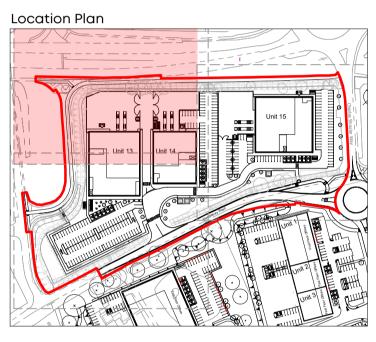
Albion Land

Drawing Title: Detailed Soft Landscape Proposal (Sheet 2 of 6)

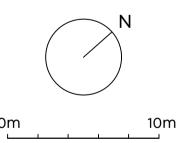
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	Application Boundary
	Retained Trees and Vegetation
こじ	Removed Vegetation
	Root Protection Areas
$\overline{\mathbf{\cdot}}$	Proposed Tree
\bigcirc	Proposed Specimen Shrub
	Proposed Native Shrub Planting
	Proposed Native Hedgerow
	Proposed Ornamental Hedgerow
	Proposed Amenity Grassland
11. 11. 11.	Proposed Wildflower Grassland Seed Mix Open Areas - Emorsgate EM2 Under Canopies - Emorsgate EH1 Ditches - Emorsgate EM8
	Proposed Amenity Planting
	Native Bulb Planting - Under Tree Canopies
<i>** ** ** **</i> ** ** ** **	Native Bulb Planting - Open Areas
	Public Right of Way - Amenity Grass
	Archeological Protection Area Boundary



	Planting Labels and Shedule Shown	18.06.24
	Grassland Update	13.05.24
	Layout Update - Final Issue	09.05.24
	Layout Update - Draft Issue	19.03.24
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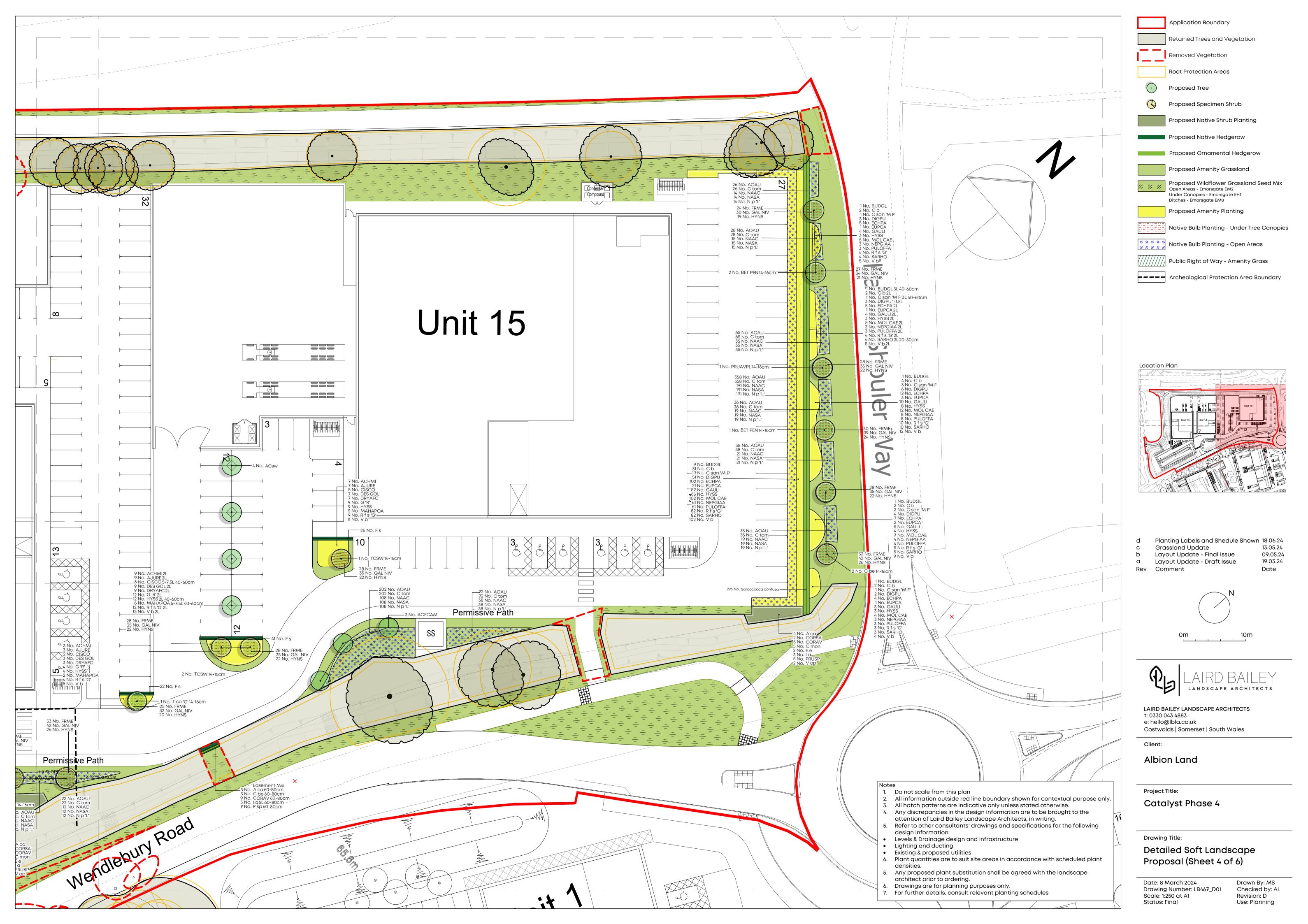
Client:

Albion Land

Project Title: Catalyst Phase 4

Drawing Title: Detailed Soft Landscape Proposal (Sheet 3 of 6)

Date: 8 March 2024 Drawing Number: LB467_D01 Scale: 1:250 at A1 Status: Final



Planting Schedule

Trees						
Number	- Abbreviation				Specification	
3						/ Standard; clear stem minimum 200cm; 5 breaks
4			400-450cm	14-16cm		/ Standard; clear stem minimum 200cm; 5 breaks
3	A lam		250-300cm			bushy; 3 stems minimum
3	BET PEN	Betula pendula	400-450cm	14-16cm	RB; 3x; Extra Heavy	/ Standard; clear stem minimum 200cm; 5 breaks
2	C be	Carpinus betulus				/ Standard; clear stem minimum 200cm; 5 breaks
10	PRUAVPL	Prunus avium 'Plena'				/ Standard; clear stem minimum 200cm; 5 breaks
1	T co 'G'	Tilia cordata 'Greenspire'	400-450cm	14-16cm	RB; 3x; Extra Heavy	/ Standard; clear stem minimum 200cm; 5 breaks
5	TCSW	Tilia cordata 'Street Wise'	400-450cm	14-16cm	RB; 3x; Extra Heavy	/ Standard; clear stem minimum 200cm; 5 breaks

Total :31

Specimen Shrubs

	Abbroviation	Cracico	Uniobt	Dot Cizo	Coopification	Donoity
INDUMDER	Abbreviation	species	неідпі	POUSIZE	Specification	Density
3	MAGLOLM	Magnolia loebneri 'Leonard Messel'	175-200cm	35L	RB; Branched; 5 breaks	Counted
3	Ms	Magnolia stellata	150-175cm	35L	C; Branched; 5 breaks	Counted
Total :6						

Native Structure Planting Number Abbreviation Species

Number	Abbreviation	Species	Height	Pot Size	Specification	Density	%
36	Aca	Acer campestre	60-80cm		1+1 :Bushy :5 brks :E	3R 1/m²	15%
13	CORSA	Cornus sanguinea	60-80cm		1+1 :Bushy :5 brks :E	3R 1/m²	5%
48	CORAV	Corylus avellana	60-80cm		1+1 :Bushy :5 brks :E		20%
48	C mon	Crataegus monogyna	60-80cm		1+1 :Bushy :5 brks :E	3R 1/m²	20%
13	Ee	Euonymus europaeus	60-80cm		1+1 :Bushy :5 brks :E	3R 1/m²	5%
25	la	llex aquifolium	60-80cm	3L	Bushy :5 brks :C	1/m²	10%
48	PRUSP	Prunus spinosa	60-80cm		1+1 :Bushy :5 brks :E	3R 1/m²	20%
13	V ор	Viburnum opulus	60-80cm		1+1 :Bushy :BR	1/m²	5%
Total :244							

Native Mix Over Easement

	IN OVEL LUSEL							
Number	Abbreviation	Species	Height	Pot Size	Specification	n Density	/	%
9	Aca	Acer campestre	60-80cm		1+1 :Bushy :BF	0.3Ctr I	Double Staggered at 0.5m offset	: 10%
3	Aca	Acer campestre	60-80cm		1+1 :Bushy :BF	2/m²		10%
9	C be	Carpinus betulus	60-80cm		1+1 :Bushy :BF	0.3Ctr I	Double Staggered at 0.5m offset	: 10%
3	C be	Carpinus betulus	60-80cm		1+1 :Bushy :BF	2/m²		10%
33	CORAV	Corylus avellana	60-80cm		1+1 :Bushy :BF	0.3Ctr I	Double Staggered at 0.5m offset	: 40%
10	CORAV	Corylus avellana	60-80cm		1+1 :Bushy :BF	2/m²		40%
9	la	Ilex aquifolium	60-80cm	5L	1+1 :Bushy :C	0.3Ctr l	Double Staggered at 0.5m offset	: 10%
3	la	llex aquifolium	60-80cm	5L	1+1 :Bushy :C	2/m²		10%
25	Psp	Prunus spinosa	60-80cm		1+1 :Bushy :BF	0.3Ctr I	Double Staggered at 0.5m offset	: 30%
7	Psp	Prunus spinosa	60-80cm		1+1 :Bushy :BF	2/m²		30%
T		•						

Total :111

Ornamanetal Hedgerow

Number Abbreviation Species Pot Size Specification Density 296 SARCO Sarcococca confusa 2L Bushy; 4 breaks 4/m

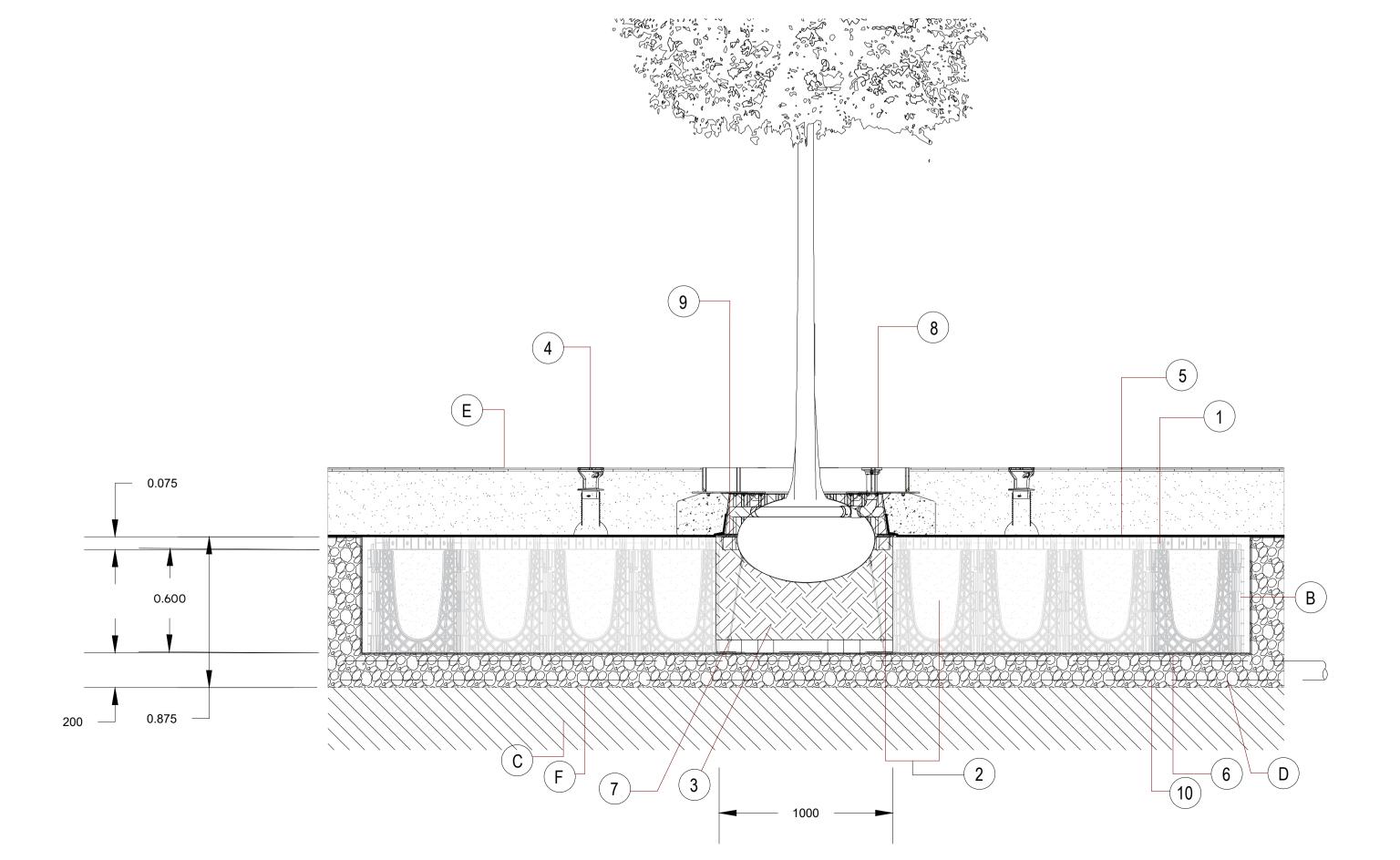
Single Species Native Hedgerow

Height Girth Specification Number Abbreviation Species 169 Fs Fagus sylvatica 60-80cm 1+2; Transplant - seed raised; 2 breaks

Mixed Native Hedgerow Number Abbreviation Species

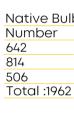
Number	Abbreviation	Species	Heiaht I	Pot Size Specification	Density	%
166	Аса	Acer campestre	60-80cm		0.3Ctr Double Staggered at 0.5m offse	t 15%
56	CORSA	Cornus sanguinea	60-80cm		0.3Ctr Double Staggered at 0.5m offse	
220	CORAV	Corylus avellana	60-80cm	1+1 :Bushy :5 brks :BR	0.3Ctr Double Staggered at 0.5m offse	t 20%
220	C mon	Crataegus monogyna	160-80cm	1+1 :Bushy :5 brks :BR	0.3Ctr Double Staggered at 0.5m offse	t 20%
56	Еe	Euonymus europaeus	60-80cm	1+1 :Bushy :5 brks :BR	0.3Ctr Double Staggered at 0.5m offse	t 5%
111	la	Ilex aquifolium	60-80cm 3	3L Bushy :5 brks :C	0.3Ctr Double Staggered at 0.5m offse	t 10%
220	P sp	Prunus spinosa	60-80cm	1+1 :Bushy :5 brks :BR	0.3Ctr Double Staggered at 0.5m offse	t 20%
56	SAMNI	Sambucus nigra	60-80cm	1+1 :Bushy :5 brks :BR	0.3Ctr Double Staggered at 0.5m offse	t 5%

Total :1105



Number 19 19 Total :208

Onament	C
Number	A
14	E
43	(
27	C
69	Ľ
135	E
29	E
108	(
86	H
135	Λ
82	Ν
82	F
108	F
108	S
135	١
Total :1161	



Ornamental Mix 1 - Central Car Park Islands

-	Abbreviation	Species	Pot Size	Specification	Density	%
	ACHMI	Achillea millefolium	2L	Full pot	3/m²	10%
	AJURE	Ajuga reptans	2L	Full pot; Sept to April planting; British native-origin	3/m²	10%
	CISCO	Cistus corbariensis	5-7.5L	Bushy; 6 breaks	2/m²	10%
	DES GOL	Deschampsia cespitosa 'Goldtau'	2L	Full Pot	3/m²	10%
	DRYAFC	Dryopteris affinis 'Crispa'	2L	Full pot	3/m²	10%
	G 'R'	Geranium Rozanne	2L	Full pot	4/m²	10%
	HYSS	Hyssopus officinalis	2L	Full pot	4/m²	10%
	MAHAPOA	Mahonia aquifolium 'Apollo'	5-7.5L	Branched; 3 breaks	2/m²	10%
	Rfs'G'	Rudbeckia fulgida sullivantii 'Goldsturm'	2L	Full pot	4/m²	10%
	Vb	Verbena bonariensis	2L	Full pot	5/m²	10%
20						

Onamental Mix 2 - NE Cark Park Abbr

r	Abbreviation	Species	Pot Size	Specification	Density	%
	BUDGL	Buddleia globosa	3L	Branched; 4 breaks	2/m²	2%
	Cb	Calamagrostis brachytricha	2L	Full pot	3/m²	5%
	C san 'M F'	Cornus sanguinea 'Midwinter Fire'	3L	Branched; 3 breaks	3/m²	3%
	DIGPU	Digitalis purpurea	1-1.5L	Full pot	5/m²	5%
	ECHPA	Echinacea pallida	2L	Full pot	5/m²	10%
	EUPCA	Eupatorium cannabinum	2L	Full pot; Sept to April planting; British native-origin	2/m²	5%
	GAULI	Gaura lindheimeri	2L	Full pot	4/m²	10%
	HYSS	Hyssopus officinalis	2L	Full pot	4/m²	8%
	MOL CAE	Molinia caerulea	2L	Full pot; Sept to April planting; British native-origin	5/m²	10%
	NEPGIAA	Nepeta 'Six Hills Giant'	2L	Full pot	5/m²	6%
	PULOFFA	Pulmonaria officinalis 'Sissinghurst White'	2L	Full pot	5/m²	6%
	Rfs'G'	Rudbeckia fulgida sullivantii 'Goldsturm'	2L	Full pot	4/m²	10%
	SARHO	Sarcococca hookerana	3L	Bushy; 6 breaks	4/m²	10%
	Vb	Verbena bonariensis	2L	Full pot	5/m²	10%

Ornamental Mix 3 - Southern Car Park

eı	$101701 \times 5 = 300$					
r	Abbreviation	Species	Pot Size	Specification	Density	%
	ACHMI	Achillea millefolium	2L	Full pot	3/m²	5%
	AJURE	Ajuga reptans	2L	Full pot; Sept to April planting; British native-origin	3/m²	10%
	DES GOL	Deschampsia cespitosa 'Goldtau'	2L	Full Pot	3/m²	5%
	ECHPA	Echinacea pallida	2L	Full pot	5/m²	10%
	GEURI	Geum rivale	1-1.5L	Full pot; Sept to April planting; British native-origin		10%
	HYSS	Hyssopus officinalis	2L		4/m²	10%
	MOL CAE	Molinia caerulea	2L	Full pot; Sept to April planting; British native-origin	4/m²	10%
	NEPGIAA	Nepeta 'Six Hills Giant'	2L	Full pot	5/m²	10%
	POLSE	Polystichum setiferum	3L	Full pot	3/m²	10%
	PULOFFA	Pulmonaria officinalis 'Sissinghurst White'	2L	Full pot	5/m²	10%
	SACA	Salvia nemorosa 'Caradonna'	2L	Full pot	4/m²	10%

Native Bulb Planting - Open Areas Number Abbreviation Species

	Abbreviation		Density	%
	AOAU	Colchicum autumnale	15/m²	20%
	C tom	Crocus tommasinianus	15/m²	20%
	NAAC	Narcissus 'Actaea'	8/m²	20%
	NASA	Narcissus 'Sailboat'	8/m²	20%
	Np'L'	Narcissus pseudonarcissus 'Lobularis'	8/m²	20%
00				

Native Bulb Planting - Under Tree Canopies

Number	Abbreviatio	on Spacios	Density	, 0/
NULLDEL	ADDIEVIULI	JII Species		
642	FRME	Fritillaria meleagris	10/m²	35%
814	GAL NIV	Galanthus nivalis	15/m²	30%
506	HYNS	Hyacinthoides non-scri	pta 8/m²	35%
Total 104	2			

Tree pit detail 1 - Trees within Car Parking Areas (Scale: 1:20)

Required soil volume for Acer campestre 'Streetwise' 3.2m³ (Sandy Clay Loam) Trees and Design Action Group

1. Rootspace @600mm depth (1 unit deep) c/w twin walled geonet & open reinforcing mesh - gburs61a -

- 2. Topsoil for use within top 600mm of soil profile
- 3. Subsoil for use within soil profiles 600mm or deeper

4. Rootrain arborvent cast aluminium trafficable aeration inlet with 150mm square top and manifold - rrarbv150b (or acceptable equivalent)

5.Twin walled structural geonet (or acceptable equivalent)

- 6. 20mm Open reinforcing mesh
- 7. Arborguy anchorplate strapped anchor system sasap06a (or acceptable equivalent)
- 8. Rootrain arborvent irrigation system castle12a (or acceptable equivalent)

9. Medium rootdirector with root deflecting ribs - rd1000-rsa (or acceptable equivalent) set at edge of planting area

10.10 - 20mm Clean angular drainage aggregate - gbudrsa (or acceptable equivalent) Notes:

A. Allow 20% additional for geotextile and reinforced geogrid for ovelap and cutting requirements

B. Install rootspace side panels to installation as directed by engineer

- C. Existing ground
- D. Positive drainage pipe (110mm perforated pipe)
- E. Build-up to suit engineer designs and requirements

Structural engineer's note:

Additional twinwall geonet (gltwgna) to be installed where sub-base is installed below 3% cbr - minimum 2% cbr of formation level to be assessed by engineer

To be coordinated and approved by project engineer at technical design stage

Notes

- 1. Do not scale from this plan
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- 3. All hatch patterns are indicative only unless stated otherwise.
- 4. Any discrepancies in the design information are to be brought to the attention of Laird Bailey Landscape Architects, in writing.
- 5. Refer to other consultants' drawings and specifications for the following design information:
- Levels & Drainage design and infrastructure Lighting and ducting
- Existing & proposed utilitiesPlant quantities are to suit site areas in
- accordance with scheduled plant densities. 5. Any proposed plant substitution shall be
- agreed with the landscape architect prior to ordering. 6. Drawings are for planning purposes only.
- 7. For further details, consult relevant planting schedules

d c b q	Planting Labels and Shedule Shown Grassland Update Layout Update - Final Issue Layout Update - Draft Issue	18.06.24 13.05.24 09.05.24 19.03.24
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Rev	Comment	Date



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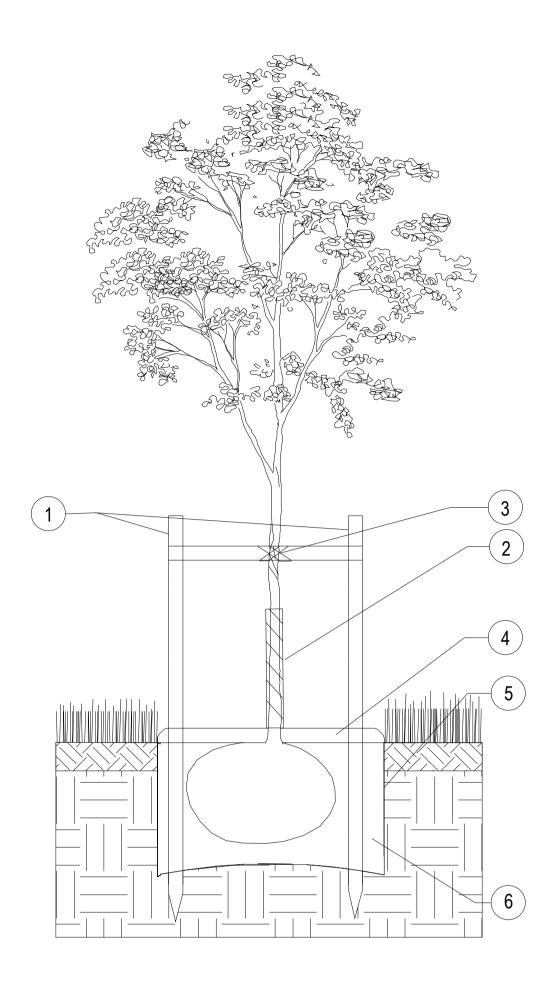
Client:

Albion Land

Project Title: Catalyst Phase 4

Drawing Title: Detailed Soft Landscape Proposal (Sheet 5 of 6)

Date: 8 March 2024 Drawing Number: LB467_D01 Scale: See Details Status: Final



Tree Pit Detail 2 - Trees in Open Space (Scale: 1:20)

1. 2x tanalised timber tree stakes 2m, 75mm ϕ and crossbar driven into backfilled pit to provide support to the tree.

2. Clear spiral guard to be fitted to trunk to protect against animal browsing.

3. Use 2x Tree Ties GLB25A with GLPFA spacer sleeves or similar to secure tree to support post.

4. 75mm deep bark mulch layer to be spread evenly over a circular area 1000mm ϕ around the tree to prevent weed growth and retain moisture. Alternatively, a suitable mulch mat can be used covering the same area.

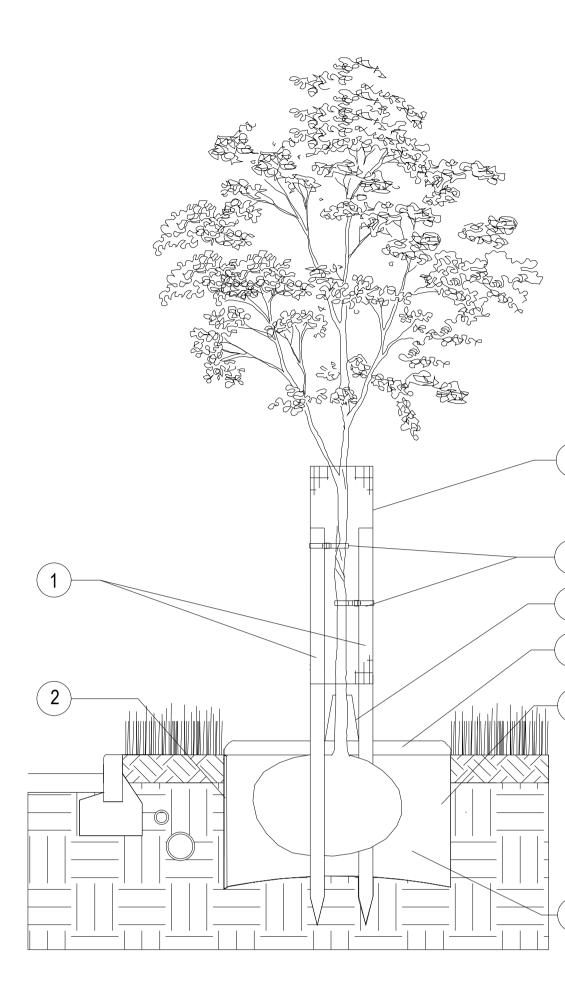
5. Excavate tree pit to sufficient size to accommodate tree root ball. Loosen any compaction in base of excavated pit to aid drainage. The tree should be planted at a depth where the root flare is still visible. just breaching the soil surface, following backfilling.

6. Backfill tree pit with subsoil and topsoil excavated from pit if this is regarded as of sufficient quality to promote the healthy establishment of the tree. If either the top soil or sub soil excavated from the pit is of poor quality, then soil ameliorants may be used sparingly or imported topsoil compliant with BS3882 should be used.

Immediately after planting, water the tree, saturating the tree pit to field capacity. Allow for a strimmer guard for all trees in open space.

The notes above are intended as a basic guide only. For further guidance on tree planting refer to BS 8545:2014 Section 10.

Products underlined above are available from Green Blue Urban (http://greenblueurban.com/).



Tree Pit Detail 3 - for Trees in Proximity to Hard Landscaping and/or Services (Scale: 1:20)

1. 2x tanalised timber tree stakes 2m, 75mm ϕ driven into backfilled pit to provide support to the tree.

2. ReRoot root barrier with root deflecting ribs installed between tree root ball and hard surfaces/services where there is a risk of root damage as the tree grows outward. As a general rule, root barriers should be installed in locations where hard surfaces and/or services are located within three metres of the tree stem. Install closer to the paving/service than the tree, to allow space for the tree roots to grow into the space available, with the ribs facing the tree. Note this may mean not placing the barrier within the tree pit, but further away within its own trench. Root barriers must extend a minimum of 2m lengthways beyond the expected canopy of the mature tree. The top of the root barrier should be set as close to the soil surface as possible without being visible.

3. Tubex Treegaurd Mesh Roll or similar approved. 12mm mesh roll cut to size and bent in circle 320mm ϕ and tied to tree stake to protect tree from damage by people and animals. Bottom of mesh should be 300mm above ground level to allow strimmer guard to be fitted and prevent litter and grass/weeds building up around the base of the tree. Top of mesh should be below the first lateral branch.

4. Use 2x Tree Ties GLB25A with GLPFA spacer sleeves or similar to secure tree to support post.

5.75mm deep bark mulch layer to be spread evenly over a circular area 1000mm ϕ around the tree to prevent weed growth and retain moisture. Alternatively, a suitable mulch mat can be used covering the same area.

6. Excavate tree pit to sufficient size to accommodate tree root ball. Loosen any compaction in base of excavated pit to aid drainage. The tree should be planted at a depth where the root flare is still visible, just breaching the soil surface, following backfilling.

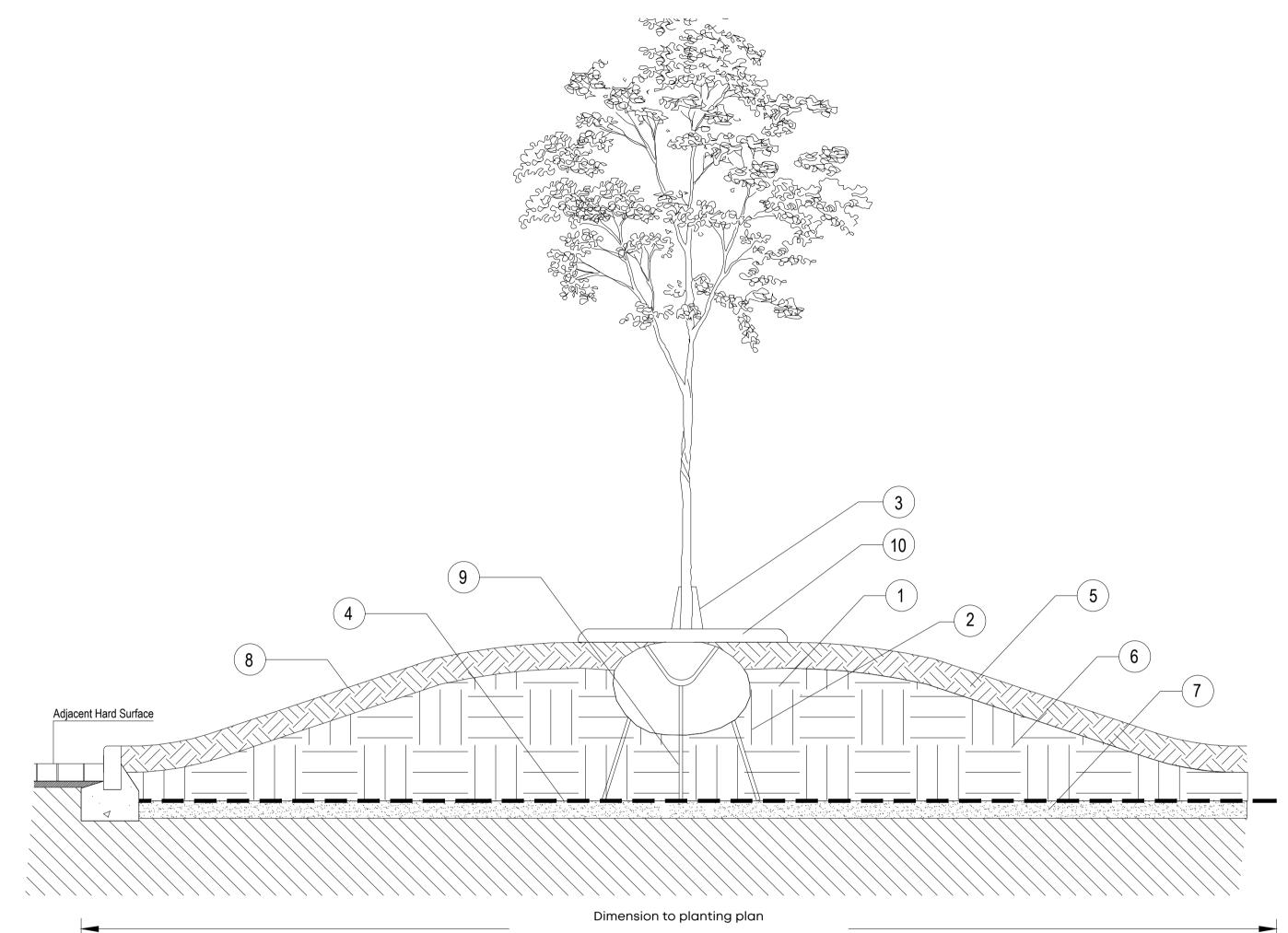
7. Backfill tree pit with subsoil and topsoil excavated from pit if this is regarded as of sufficient quality to promote the healthy establishment of the tree. If either the top soil or sub soil excavated from the pit is of poor quality, then soil ameliorants may be used sparingly or imported topsoil compliant with BS3882 should be used.

8. Strimmer guard by Arbortech or similar to be fitted around base of tree to protect from damage by grass maintenance machinery primarily, but also to provide an additional layer of defense against animal browsing.

Immediately after planting, water the tree, saturating the tree pit to field capacity.

The notes above are intended as a basic guide only. For further guidance on tree planting refer to BS8545:2014 Section 10.

Products suggested in italics above are available from Green Blue Urban (http://greenblueurban.com/) and Arbortech (www.arbortech.co.uk).



Tree pit detail 4 - Trees in Mounded Areas (Scale: 1:20)

1. Following construction of mounding. Excavate tree pit to sufficient size to accommodate tree root ball. Loosen any compaction in base of excavated pit to aid drainage. The tree should be planted at a depth where the root flare is still visible, just breaching the soil surface, following backfilling.

2. Backfill tree pit with subsoil (600mm) and topsoil (300mm) excavated from the mound. If either the top soil or sub soil excavated from the pit is of poor quality, then soil ameliorants may be used sparingly or imported topsoil compliant with BS3882 should be used.

3. Strimmer guard by Arbortech or similar to be fitted around base of tree to protect from damage by grass maintenance machinery primarily, but also to provide an additional layer of defense against animal browsing.

4. Proposed Horizontal Root Barrier (min depth of 900mm, exact depth to vary depending on location)

5. Approved BS3882:2015 topsoil to min 150mm for amenity grassed areas and min 900mm depth to tree planting areas.

6. Approved BS8601:2013 subsoil under proposed topsoil

7. 100mm Granular Drainage Layer, to engineering specification

8. Amenity grass areas set on 1:3 slope or less

9. Tree rootball secured using an underground guying system -Arborguy SAS-L strap anchor system c/w ground anchors (or similar approved)

10. 75mm deep bark mulch layer to be spread evenly over a circular area 1000mm around the tree to prevent weed growth and retain moisture.

Immediately after planting, water the tree, saturating the tree pit to field capacity.

The notes above are intended as a basic guide only. For further guidance on tree planting refer to BS8545:2014 Section 10.

Products suggested in italics above are available from Green Blue Urban (http://greenblueurban.com/) and Arbortech (www.arbortech.co.uk).

Dimensions vary depending on specific locations

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- attention of Laird Bailey Landscape Architects, in writing. 5. Refer to other consultants' drawings and specifications for the following
- design information: • Levels & Drainage design and infrastructure
- Lighting and ducting Existing & proposed utilities
- densities.
- architect prior to ordering.
- 6. Drawings are for planning purposes only.
- 7. For further details, consult relevant planting schedules

	Planting Labels and Shedule Shown	
	Grassland Update	13.05.24
	Layout Update - Final Issue	09.05.24
	Layout Update - Draft Issue	19.03.24
€V	Comment	Date



LAIRD BAILEY LANDSCAPE ARCHITECTS t: 0330 043 4883 e: hello@lbla.co.uk Costwolds | Somerset | South Wales

Client:

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Albion Land

Project Title: Catalyst Phase 4

Drawing Title: Detailed Soft Landscape Proposal (Sheet 6 of 6)

Date: 8 March 2024 Drawing Number: LB467_D01 Scale: See Details Status: Final

Drawn By: MS Checked by: AL Revision: D Use: Planning

2. All information outside red line boundary shown for contextual purpose only. 4. Any discrepancies in the design information are to be brought to the

6. Plant quantities are to suit site areas in accordance with scheduled plant

5. Any proposed plant substitution shall be agreed with the landscape