

Ryder & Granite Estates Ltd

COMMERCIAL DEVELOPMENT

**ACORNFIELD RD,
LIVERPOOL**

LANDSCAPE MANAGEMENT DOCUMENT

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A INTRODUCTION

This Management Plan sets out the management prescriptions to be adopted for the landscape associated with the commercial development at Acornfield Rd, Liverpool. The works will be carried out by the Management Company appointed by Ryder & Granite Estates Ltd.

The prescriptions cover the works to be carried out over the 5 year period relating to the planning condition with a system in place for reviewing operations at the end of the 5 years to allow the plan to be updated in accordance with site conditions and to put in place an appropriate schedule of works going forward for the 30 year period covered by BNG commitments.

The Landscape Management Plan covers works detailed in the landscape drawings. The following authorities will be responsible for the maintenance of other areas on site:

Drainage: United Utilities

Highway Authority: Knowsley Metropolitan Borough Council

A.1 The Site

The site is located at Acornfield Rd, Knowsley, Liverpool.

The site is a commercial development comprising:

- New tree planting
- New native species planting
- Species Rich Grassland
- Ornamental shrubs

A.2 Documents

The management prescriptions contained in this document are for the future maintenance and management of work detailed on the following drawings:

- R/2883/1B Landscape Masterplan
- R/2883/2A Landscape Details

The Landscape Masterplan and Details are appended to this document in Appendix 3.

A.2.1 In the preparation of this document reference has been made to the following Reports:

- PEA and Preliminary Bat Survey – *by Urban Green (June 2025)*
- Swallow Method Statement – *by Urban Green (January 2026)*

A.3 Timing

This Management Plan will become operational on completion of the landscape construction works.

The operations described cover an initial 5 year period. Longer term management will need to be reviewed at the end of this period to ensure that the management objectives are being met to cover BNG over 30 years.

B MANAGEMENT OBJECTIVES

B.1 Management Responsibilities

B1.1 The purpose of this management plan is two-fold:

1. Setting out of the long term aims and objectives for the site so that all stakeholders and relevant parties can understand how it is intended that the landscape components be developed and establish.
2. Providing a prescriptive series of timed operations which will form a working document to instruct the Management Company / appointed Landscape Contractor on how the objectives will be achieved.

B.1.2 The operations detailed within this management document are intended to instruct the appointed Landscape Contractor and subsequent Management Company to carry out the specified maintenance operations to achieve a healthy, visually attractive landscape structure to the development.

B.1.3 After a 12 month Rectification Period during which the Landscape Contractor will be liable for major failures of planting as directed by the Landscape Architect the management of the site will be handed over to the appointed Management Company.

B.1.5 For ease the Management Company and the original Contractor will both be referred to as The Contractor going forward.

B.2 Management Aims and Objectives

B.2.1 Landscape Vision

The 'Landscape Vision' is the term given to what it is intended will be the outcome of the management of the site. It is made up of various elements (visual, ecological and recreational) which are described separately below but which are intrinsically linked and must work in harmony in order to achieve a satisfactory outcome.

B.2.2 Visual

The site shall be managed to provide a visually attractive landscape setting for the residential development which both frames and filters views into the site and that is in keeping with the landscape character of the area: roads lined with mature trees, existing mature vegetation and groups of maturing vegetation breaking up the building lines.

B.2.3 Ecological

The site shall be managed to ensure that the native species, tree and shrub planting establish well to provide a diverse wildlife habitat.
This shall underpin both what and how operations are carried out throughout the site.

The ecological objectives for the long-term management, maintenance and monitoring of the habitats comprise the requirements to:

- Maintain the existing vegetation and ponds in accordance with the Ecological Reports listed at A.2.1.
- Manage the new planting to develop mature, healthy trees and a strong buffer to the site boundary.
- Maintain any existing vegetation (trees & shrubs) to be safe and in good condition.
- Maintain the new native hedgerows with a bushy growth habit and ensure they remain attractive and provide a rich wildlife habitat.
- Minimise the potentially adverse environmental impacts resulting from any management operations on site including minimising the use of herbicides and pesticides.
- Ensure that pruning and trimming is ONLY undertaken outside the bird nesting season (generally accepted as being 1st March to 31st August but can be longer depending on the species) AND, where feasible, ensuring that the food value of the native vegetation is maximised by aiming to carry out any pruning or trimming in late winter (January or February) or, where ground conditions or other mitigating circumstances prevent this, then as late as possible in the Autumn in order to retain nuts and berries as winter food for the wildlife.
- Maintain and enhance the cultural and landscape value of the site by ensuring that the habitat management incorporates visual amenity benefits.

B.2.4 Recreational

There will be no recreation function on this site.

B.3 SMART Objectives

B.3.1 Public Areas

Planting within Public Areas will be maintained in accordance with best practice guidelines and the specification in subsequent sections and in the Ecological Management Documents.

New Trees – shall be maintained in good health

New Ornamental Planting – shall be maintained to achieve all year round interest and colour. Areas of shrubs shall **not** be maintained at a uniform height with a hedge trimmer but maintained to allow the individual form of the shrub species to develop.

Native Species Planting – shall be managed to create biodiverse habitats which will encourage growth of the existing faunal populations.

Grass – Species rich grass shall be mown to achieve a varied sward. Wildflower meadow areas will be maintained to maximise the diversity and habitat potential.

B.4 Best Practice Guidelines

In order to achieve these aims and objectives in a safe, environmentally responsible and sensitive manner there are a series of good practice guidelines which should be observed. Such good practice seeks to minimise the potential for negative impact on the environment and the general public. They are detailed below, in no order of ranking. Reference should also be made to the relevant legislation set out in Appendix 1.

- Ensuring that all operatives are suitably qualified, certified and competent to carry out the specific task or are supervised by such a person.
- Ensuring that all works are carried out in accordance with all relevant legislation; British and European standards; good horticultural and arboricultural practice and that the required risk assessments are undertaken and documented as necessary before carrying out works.
- Ensuring that all operations are carried out at the appropriate times of year during suitable weather and ground conditions to minimise adverse impacts on the existing vegetation and ground conditions.
- Ensuring that all tools and equipment are fit for purpose and appropriate for the particular job and site conditions. The Contractor shall allow the consultant Landscape Architect to inspect all machinery and tools intended for the Aftercare Works prior to its being brought to site if required. The use of heavy plant or machinery is to be minimised to reduce trampling of vegetation and ground compaction.
- Ensuring the safety of all members of the public during operations on site. Using interpretative signage to inform the public of operations on site where necessary and particularly where those operations are considered sensitive or may pose a danger to the public.
- Ensuring that all waste (not retained or re-used on site and including any arising in connection with the approved use of chemicals) is disposed of in accordance with the relevant Waste Management Regulations.
- Monitoring operations on site and keeping records of what was carried out, when and what observations were noted which may need immediate action or need to feed into future reviews of the management plan.

B.5 Chemical Control

When chemical compounds/herbicides are to be used, the Contractor shall ensure that all operatives have read and follow carefully the instructions on the manufacturer's label.

The Contractor shall also consult the 'Recommendation for Safe Use of Chemical Compounds Used in Agriculture and Food Storage' published by DEFRA, Fisheries and Food: Safety Pesticides and Infestation Control Division, London SW1, and implement recommendations as necessary.

The Contractor shall submit the name of the chemical compound/herbicide, its supplier, a breakdown of its constituents, the mode and recommended rate of application and any species susceptibility for the Landscape Architect's consideration. Approval by the Landscape Architect for the use of a particular

chemical compound/herbicide shall, in no way, relieve the Contractor of his contractual obligations.

All chemical compounds/herbicides used shall be kept safe at all times on site. Empty containers must be removed from site and disposed of safely.

B.6 Control of Invasive Species

B.6.1 No invasive species have been identified on site.

B.6.2 Invasive species should be checked for at each visit in case they become established in the future.

B.6.3 The legal duty placed on land owners does not oblige the land owner to remove or treat the invasive or injurious species but requires that the land owner does not:

- Allow invasive plants to spread onto adjacent land – the owner of that land has the right to take legal action if this occurs.
- Plant or encourage the spread of invasive plants outside your property – this can include moving contaminated soil from one place to another or incorrectly handling and transporting contaminated material and cuttings.

The Wildlife & Countryside Act 1981 places a legal responsibility on land owners / land managers to control any *invasive, non-native plant* and *animal species* which have been identified as having 'the ability to spread causing damage to the environment, the economy, health or the way we live'. This responsibility also extends to native plants which are deemed to cause a problem to farming productivity. These are termed *injurious weeds*.

The list of plant and animal species which have been identified is listed in Schedule 9 of the ACT.

C MANAGEMENT OPERATIONS

The following operations relate to the maintenance requirements for the various landscape elements on the site. These operations shall be undertaken by the body / group or organisation which is appointed to manage the site hereafter known as The Contractor. The site shall be visited at the appropriate times of year and for a sufficient number of times to ensure that the operations set out below are carried out with the desired outcome stated.

NOTE: All pruning and hedge trimming shall take place outside the nesting season, to prevent the disturbance of nesting birds. In addition, vegetation clearance generally shall be carried out carefully and prior to removal shall be checked for harbouring animals.

Operational schedules, relating to the work items in the following sections are attached at Appendix 2.

C.1 STANDARD TREES

- C.1.1 An area of 1000 mm in diameter shall be kept weed-free around each planted tree. Strimmers shall not be used for weed control around trees planted into grass within 500mm of their trunks. All weed control within 500mm of tree trunks shall be carried out by hand or by chemical means or with the protection of a strimmer guard.
- C.1.2 Where approved chemical compounds/herbicides are used, the Contractor shall remove and dispose of off-site, dead surface matter following application and dieback of weed growth within fourteen (14) days, or as directed by the Landscape Architect.
- C.1.3 The trees shall be maintained at all times and the Contractor shall check all stakes and ties regularly. Adjustment to conform to stem growth and to prevent chaffing and renewal of stakes or ties shall be allowed for in the Contractor's rates (excluding vandalism).
- C.1.4 The Contractor will inspect and ensure that trees remain firm and well secured after frost heave, strong winds and other ground disturbance. 'Collars' at the base of the trunks created by tree movement shall be broken up by forking and backfilling with topsoil as necessary and refirmed.
- C.1.5 The Contractor shall apply a slow release fertiliser shall be applied to the base of each standard tree for the first 3 years after planting. This shall be applied in March/April of each year, at the following rates:
- | | |
|---|--------------|
| a) Advanced Nursery stock, Extra Heavy Standards, Heavy Standards, Selected Standards & Standards | 200 gms/Tree |
| b) Light Standards & Feathered Trees | 100 gms/Tree |
| c) Specimen Plants, Transplants & Shrubs (in pits) | 50 gms/Plant |
| d) Plants in Shrub Beds & Hedge Lines | 25 gms/Plant |

- C.1.6 The Contractor shall prune all dead or damaged branches in accordance with Section C.4. Some wood resulting from these prunings can be left in small piles in areas beneath existing and establishing native hedgerows. Where no suitable locations are found, the arisings shall be removed off site.
- C.1.7 Watering shall be carried out as specified under watering section C.6.
- C.1.8 All failures shall be replaced annually in accordance with section C.7.
- C.1.9 Trees positioned in shrub beds shall have their tree pits maintained as for shrub beds, as specified in section C.2.
- C.1.10 For trees positioned in ornamental lawn areas where tree pits have been returfed or seeded, Aftercare Work shall be as specified in grass maintenance/mowing section C.8.
- C.1.11 Trees planted into grass shall have a 1m diameter mulched circle to base clear of turf. This shall be topped up regularly for a period of 3 years.
- C.1.12 Tree stakes, ties and guards shall be inspected at least every six months and adjusted or replaced as necessary to prevent damage or constriction. Stakes should normally be removed after the first or second growing season, once trees are established and able to stand unsupported. Stakes may be retained for longer periods only where site conditions, such as wind exposure, require additional support, but all shall be removed by the end of year 5.

C.2 ORNAMENTAL SHRUB PLANTING

Use of Chemicals and Machinery

Reference should be made to Section B.5 Chemical Control.

- C.2.1 Shrub beds, including staked trees and specimen plants, shall be kept free from weed or grass. Forking or hoeing shall be carried out to remove noxious annual and perennial weed roots entirely from the shrub bed before the formation of seed heads. Removal of weed foliage only shall not be permitted.

All weed material resulting from the operation described above shall be collected from the shrub beds and removed from site by the Contractor.

- C.2.2 Where herbaceous material or bulbs are incorporated into shrub beds the use of chemical compounds/herbicides shall not be permitted and the Contractor shall allow in his rates for hand cultivations only.

- C.2.3 Following frosty weather and strong winds, the Contractor shall inspect shrub beds and firm any plant that has been loosened.

- C.2.4 The Contractor shall apply a slow release fertiliser (e.g. Enmag or similar approved) over each shrub bed at a rate of 25 gms/shrub once a year in spring (March/April).

- C.2.5 Shrubs shall be pruned once annually to remove all deadwood, broken or damaged or crossing branches as specified in section C.4. Shrubs shall be pruned where appropriate during Years 1-3 to promote bushiness.

All arisings shall be carted off-site.

- C.2.6 The Contractor shall replace all failures shall be replaced in accordance with section C.7.

- C.2.7 The ornamental planting areas shall be assessed in Year 5 prior to the end of the five (5) year management period and any over-mature planting shall be replaced as agreed with the consultant Landscape Architect and Client at the annual walkover prior to the reassessment of the plan moving forward into perpetuity.

C.3 NEW NATIVE SPECIES PLANTING

Native planting on the site comprises areas of new native shrub planting. The following management prescriptions refer to native planting in all areas.

New Planting Generally

- C.3.1 An area of 300 mm diameter around each plant shall be kept free from weed growth. All arisings resulting from weed control shall be removed from site.
- C.3.2 Following frosty weather and strong winds, the Contractor shall inspect planting areas and firm any plant that has been loosened.
- C.3.3 Annually apply a slow release fertiliser (Enmag or similar approved) to each pit in Spring at a rate of 50 gms/pit.
- C.3.4 Prune all damaged or broken branches. Hard prune all shrub and understorey in Year 3 after planting to promote bushiness and thereafter annually in February to remove all deadwood, broken or damaged branches.
Native planting areas should **not** be cut back before February to avoid the loss of valuable food sources for fauna. Remove all arisings from site unless directed otherwise by the Landscape Architect.
- C.3.5 Mixed native species areas shall be thinned as necessary to achieve a healthy and diverse mix of species with an appropriate ratio of tree species to shrub understorey. Areas of dense shade may require selective thinning or coppicing and this will be assessed during the annual walkover. Cutting should be carried out outside of the nesting bird season (1st March to 31st August), in February to avoid the loss of valuable food sources for fauna.
- C.3.6 Replace all failures in Year 1.
- C.3.7 Replace all failures in subsequent years to achieve 80% stocking rate.
- C.3.8 Remove all litter.
- C.3.9 The planting will be reviewed on a 3 year rotation to clear or cut back any taller growing, self-sown, understorey species from the areas of standard trees.

C.4 PRUNING

- C.4.1 All pruning work, whether on newly planted material or existing vegetation, shall be carried out in accordance with BS 3998 where applicable.
- C.4.2 All pruning of trees shall be carried out outside of the bird nesting season (1st March to 31st August). Avoid winter cutting in order to retain nuts and berries as winter food for the wildlife. The following operations shall be carried out:
- a) All diseased tissue and any dieback shall be pruned to the nearest bud with clean wood.
 - b) The removal of unsightly 'water shoots' and epicormic growth from standard, selected standard, heavy standard and extra heavy standard trees.
 - c) Formative pruning to remove branches that cross, are damaged or have malformed shoots, to maintain a balanced tree crown.
- C.4.3 Broken and vandalised branches shall be cut back to the next joint, removing splinter wood and left to heal naturally. If the tree, in the opinion of the Landscape Architect is beyond pruning, it shall be removed by the Contractor, and the ground made good.
- C.4.4 Newly planted shrubs shall only be pruned as required by the Landscape Architect. At the end of the growing season the shrubs shall be checked and all deadwood, broken or damaged or crossing branches shall be cut out.
- C.4.5 Pruning of existing well established shrub material shall be carried out where indicated on the Contract Drawings and shall conform to the following:
- a) Shrubs flowering in Winter shall be pruned in March subject to confirmation that there are no active birds' nests in the vegetation.
 - b) Shrubs flowering in March to July shall be pruned immediately after flowering subject to confirmation that there are no nesting birds in the vegetation.
 - c) Shrubs flowering July to September shall be cut back to old wood in January to February.
 - d) Rose bushes other than Species Roses shall be pruned in February to encourage basal growths and keep plants in a balanced and compact habit.
 - e) Pruning and removal of branches shall be carried out using sharp, clean implements to give a clean cut with one flat face. Any cuts or wounds over 20 mm in diameter are to be painted with an approved sealant, where appropriate.
 - f) The Contractor shall cut newly planted or existing hedges as indicated on the Contract Drawings and in the Schedule of Quantity. Cutting will be such as to encourage a stable shape and remove current growth rather than old wood.
 - g) All arisings from pruning work shall be removed from site to Contractor's own tip.

C.5 MULCHING

- C.5.1 The mulch to all ornamental shrub beds shall be topped up in the first Spring after planting after the completion of the early Spring maintenance visit (ie March/April) to achieve an overall depth of 50 mm.
- C.5.11 Trees planted into grass shall have a 1m diameter mulched circle to base clear of turf. This shall be topped up regularly for a period of 3 years.

C.6 WATERING

C.6.1 New planting shall be watered regularly for the first three (3) years during April, May, June, July and August and should comply with *BS8545:2014 Trees from Nursery to Independence*.

C.6.2 The following rates are given as a guideline for the volume of water required per visit:

Plant Type	Water Quantity
Trees	50 litres per tree
Specimen Plants	15 litres per plant
Transplants, Shrubs, Hedging and Herbaceous Material	10 litres per plant

(NB 4.5 litres = Approximately 1 gallon)

C.6.3 New trees shall be watered weekly for the first year and fortnightly during Year 2.

C.6.4 From Year 3 onwards, watering shall be carried out during extended dry periods when there has been less than 10 mm of rainfall over a 10-day period, or when soil moisture assessments indicate that the upper 100 mm of soil has dried out and trees show signs of water stress.

C.6.5 The Landscape Contractor shall allow for bringing to site sufficient water carts, hoses or sprinklers to provide adequate water to fulfil the above Specification and shall also be responsible for paying all charges in connection with the supply of water required unless otherwise instructed in writing by the Client.

C.7 FAILURE OF PLANT MATERIAL

- C.7.1 The Contractor shall replace, at his own expense, any tree, transplant, specimen plant, shrub or herbaceous material which has died or has not developed full foliage throughout its branches during the twelve (12) months following planting. Replacements shall take place as early as possible during the planting season following the original planting period.
- C.7.2 The Contractor shall subsequently make good any further failures during the following twelve (12) months if the Aftercare period is two (2) years.
- C.7.3 Replacement plant material required as a result of vandalism shall be identified separately and provided by the Contractor at the rates indicated in the Schedule of Rates (if provided) or as agreed in writing between the Contractor and the Landscape Architect.
- C.7.4 All replacement plant material shall conform to the original Specification unless otherwise agreed in writing between the Contractor and the Landscape Architect.
- C.7.5 The Contractor shall make good at his own expense all necessary repairs to levels, grassed areas and paving required because of plant replacements.
- C.7.6 Once the areas are handed over to the Management Company they will assume responsibility for replacement failures into perpetuity.
- C.7.7 Any damage to surrounding landscaped areas as a result of the replacement planting shall be repaired and reinstated as required to the satisfaction of the Client or consultant Landscape Architect.

C.8 GRASSED AREAS

C.8.2 Species Rich Grass

To be successful, initial maintenance on species rich grass areas must be carefully managed to ensure successful establishment conditions without being outcompeted by the stronger grasses and weeds.

Seeded areas shall be maintained as follows:

Year 1 – To be mown fortnightly during the first growing season in order to exclude weed growth. Sward should be cut to a height of 40-60mm and all arisings removed from site.

Year 2 onwards – Mow regularly from April-June maintaining a height of 25-40mm. Mowing can be relaxed from June – August to allow flowering species to flower and set seed.

C.8.3 Long grass / wildflower grass areas

C.8.4 Weedkiller

The Contractor shall supply and apply a suitable selective herbicide to grassed areas, to be applied only on the written instruction of the Landscape Architect. The herbicide shall be approved by the Landscape Architect and applied at the rate and in accordance with the manufacturer's instructions. The Contractor shall only spray during calm conditions, when rain is not imminent and not during drought conditions. Three days shall elapse before recommencement of mowing operations.

C.8.5 The Contractor shall be responsible for remedial works on grassed areas within the Contract boundary, disturbed by cultivations, planting or other operations carried out by the Contractor in the execution of the Works.

In Spring and Autumn, or otherwise as instructed by the Landscape Architect, the Contractor shall re-seed any areas which fail to germinate, with approved grass seed mix. Topsoil shall be cultivated and aerated by forking as necessary to tie in with adjacent levels to promote good sward establishment.

Returfing of damaged or bare areas identified by the Landscape Architect shall comply with all good horticultural practice. The Contractor shall remove or make up all areas to a level sufficient to take replacement turves. The base of the area will be lightly broken up and levelled prior to final placement of the turf.

C.9 LITTER

- C.9.1 Litter shall be collected from all areas and carted off-site during each maintenance visit.

C.10 ECOLOGICAL CONSIDERATIONS

C.10.1 Invasive Weeds

The site shall be monitored at each maintenance visit for evidence of invasive weed growth. Should any such species be identified the Management Company shall prepare a plan of action for the treatment of the weeds which shall be implemented immediately.

C.10.2 Habitat Protection

Site operative should be made aware of the habitats that are to be .

D REASSESSMENT OF SCHEDULES OF WORKS

- D.1 Monthly monitoring visits by the Management Company will be made to determine whether the Management Objectives (Section B) are being met. Any operations falling short of the objectives will be brought to the attention of the Supervisor for the Management Company's operatives.
- D.2 An annual walkover assessment will be made by the Management Company in conjunction with a qualified Arboriculturist, Ecologist and Landscape Architect as required. Any recommendations shall be carried out within three (3) months of the report, unless any trees are identified as potentially dangerous and in need of urgent attention. In this instance, works shall be carried out Immediately.
- D.3 Re-assess the need for adjustment of the operational schedules annually following the annual walkover and undertake to amend the document as required.
- D.4 At the end of the first 5 year period the management operations will be reviewed and assessed by all parties for their appropriateness and revised as necessary to provide an effective plan going forward into perpetuity.

APPENDIX 1

Relevant Legislation

WILDLIFE LEGISLATION

Breeding Birds

All wild birds are protected under the **Wildlife & Countryside Act 1981** (as amended) during the breeding season (which is normally assumed to be from the 1st March to 31st August).

Bat species

All British bat species and their roosts are legally protected under the **Wildlife & Countryside Act 1981** (as amended), through inclusion in Schedule 5 and under the **Conservation of Habitats and Species Regulations 2010** which implements the EC Directive 92/43/EEC in the UK. Under the legislation, it is an offence to intentionally kill, injure or capture bats, deliberately disturb bats and damage, destroy or obstruct access to bat roosts. Since the introduction of the **Countryside and Rights of Way (CROW) Act** in **2000** it is also an offence to recklessly harm or disturb bats in their roosting places.

Reptile species

The four common reptile species (Common Lizard, Grass Snake, Adder and Slow-worm) are listed under Schedule 5 of the **Wildlife & Countryside Act 1981** (as amended), in respect of Section 9(5) and part 9(1). This protection was extended by the Countryside and Rights of Way (CROW) Act 2000. This legislation makes it an offence to:

Intentionally or recklessly, kill or injure any of the above species and / or;
Sell, or attempt to sell, any part of the species, alive or dead.

The Sand Lizard and Smooth Snake receive greater protection under both the **Wildlife & Countryside Act 1981** (as amended) and from the Conservation of Habitats and Species Regulations 2010 which gives them full protection under Regulation 39.

The legislation protects these species from:

deliberately or intentionally killing and capturing (taking) or intentional injuring;
deliberately disturbing;
deliberately taking or destroying eggs;
damaging or destroying a breeding site or resting place, or intentionally damaging a place used for shelter and protection;
intentionally obstructing access to a place used for shelter; and
keeping, transporting, selling or exchanging; offering for sale or advertising.

Water Vole

Since April 2008 the Water Vole has received full protection under Section 9 of the **Wildlife & Countryside Act 1981** (as amended). Legal protection makes it an offence to:-

intentionally kill, injure or take (capture) a water vole;
possess or control a live or dead water vole or any part of a water vole;
intentionally or recklessly damage, destroy or obstruct access to any structure or place which water voles use for shelter or protection or disturb a water vole while they are using such a place;
sell, offer for sale or advertise for live or dead water voles.

HEALTH & SAFETY LEGISLATION

Health & Safety at Work Act 1974 (and amendments)
HSE's Managing Health and Safety in Forestry

PESTICIDES, BIOLOGICAL CONTROL AGENTS LEGISLATION

Control of Pesticides Regulations 1986 (COPR), as amended by the Control of Pesticides (amended) Regulations 1997 (COP(A)R)
Control of Substances Hazardous to Health 2002 (COSHH)
Waste Management (Duty of Care) Regulations 2002
Waste Management Regulations 1996
Waste Management Licensing Regulations 1994 (plus carious amendments)
Environment Protection Act 1990

APPENDIX 2

Operational Schedules

Operation	Year					Proposed Frequency	Restrictions
	1	2	3	4	5		
Standard Trees - Section C.1							
Maintain tree pits weed free	✓	✓	✓	✓	✓	6 visits per year	Avoid the use of chemicals in sensitive / nature conservation areas
Fertilise trees	✓	✓	✓			Once annually	In March or April
Water trees	✓	✓	✓			Weekly / as required	April to September and weekly during prolonged dry weather (See Section C.6)
Check firmness of trees in tree pits and re-firm as required	✓	✓	✓			At each visit	Carry out additional checks after exceptionally windy or frosty weather during early establishment years (Year 1-2)
Prune damaged branches	✓	✓	✓	✓	✓	As required	Prune as soon as identified (See Section C.4)
Check tree stakes & ties & repair / replace	✓	✓	✓			Every 3 months in perpetuity	Replace with materials to existing specification and replace as soon as identified
Check establishment of trees and remove stakes as required			✓	✓		As required. Aim to remove all stakes by end of initial 5 year period	
Replace defective & failed trees	✓	✓	✓	✓	✓	Once annually in planting season	In nearest available planting season, replacing all failures in Year 1 (the first year planting) and thereafter as agreed at the annual walkover (See Section D)
Top up mulch to tree pits in grassed areas	✓	✓				Once annually in perpetuity	In March or April (See Section C.5)
Litter pick and remove all arisings	✓	✓	✓	✓	✓	At each visit in perpetuity	Dispose of to tip in accordance with relevant Waste Management Regulations

Ornamental Shrub Planting - Section C.2							
Maintain shrub beds weed free	✓	✓	✓	✓	✓	6 visits per year in perpetuity	Avoid the use of chemicals in areas containing herbaceous plant material or bulbs
Apply slow release fertiliser	✓	✓	✓	✓	✓	Once annually	In March or April
Check firmness of shrubs in shrub bed and re-firm as required	✓	✓	✓	✓	✓	At each visit	Carry out additional checks after exceptionally windy or frosty weather during early establishment years (Year 1-2)
Water as required	✓	✓	✓			Weekly / as required	April to September and weekly during prolonged dry weather (See Section C.6)
Prune damaged shrubs	✓	✓	✓	✓	✓	As required	Prune as soon as identified
Replace defective & failed plant material	✓	✓	✓	✓	✓	Once annually in planting season	Varied responsibility and replacement requirements dependant on Year of replacement & area (See Section C.7)
Top up mulch	✓	✓	✓	✓	✓	Once annually in perpetuity	In March or April (See Section C.5)
Litter pick / remove flytipping and remove all arisings	✓	✓	✓	✓	✓	At each visit in perpetuity	Check for harbouring wildlife

New Native Species Planting - Section C.3							
Maintain 300mm diameter area around each plant weed free and remove undesirable herbaceous or woody species	✓	✓	✓	✓	✓	Four times annually	Avoid the use of chemicals in areas within the catchment area of water bodies and hand pull to avoid disturbing hedge roots and other ground flora particularly as hedge establishes
Control the spread of any invasive or undesirable weed	✓	✓	✓	✓	✓	As required in perpetuity	Before flowering / seeding and in accordance with specific requirements for the particular weed species
Check firmness of plant material in ground and re-firm as required	✓	✓	✓	✓	✓	At each visit	Carry out additional checks after exceptionally windy or frosty weather during early establishment years (Year 1-2)

Carry out thinning and coppicing works to native planting as determined during site assessment					✓	On a 15-20 year rotation.	Thinning to be carried out in Phases to spread the impact of coppicing and thinning. Out of bird nesting season
Water as required	✓	✓	✓			Weekly / as required	April to September and weekly during prolonged dry weather (See Section C.6)
Replace all defective & failed plant material	✓				✓	Once annually in planting season	In nearest available planting season, replacing all failures in Year 1 (the first year planting) and thereafter as agreed at the annual walkover (See Section D)
Top up mulch	✓	✓	✓	✓	✓	Once annually	In March or April
Litter pick / remove flytipping and remove all arisings	✓	✓	✓	✓	✓	At each visit in perpetuity	Check for harbouring wildlife and dispose of arisings to tip in accordance with relevant Waste Management Regulations

Grassed Areas - Section C.18							
Maintain species rich grass areas during the early establishment period	✓					To be mown fortnightly during the first growing season (as specified)	Remove arisings
Maintain species rich grass areas		✓	✓	✓	✓	Mow regularly from April – June and then relaxed from June- August (as specified)	Remove arisings
Apply selective herbicide as required	✓	✓	✓	✓	✓	Once annually in perpetuity	As required and instructed by the Landscape Architect
Reinstate any damaged areas of grass as required by re-seeding or re-turfing		✓	✓	✓	✓	Annually in season in perpetuity	

Litter - Section C.9

Collect all litter and remove from site	✓	✓	✓	✓	✓	On each visit in perpetuity	

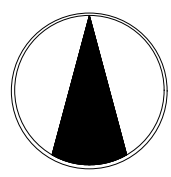
Management Plan Review – Section D

Carry out Monthly Monitoring visit	✓	✓	✓	✓	✓		Assess the need for actions and instruct operators
Carry out annual walkover	✓	✓	✓	✓	✓		Act on recommendations for works as required and adjust the operational schedules where required.
Undertake necessary survey work with specialist consultants, review this document and prepare a new plan as required					✓	Once	Consult with Client, consultant Landscape Architect, Ecologist, Arboriculturalist and Management Company

APPENDIX 3

R/2883/1B Landscape Masterplan

R/2883/2A Landscape Details



NOTES

PROTECTION OF EXISTING VEGETATION

Existing vegetation to be retained on site shall be protected where necessary during works by a tree protective barrier, secured to a scaffold tubing framework with fluorescent tape to the top rail. Protective fencing shall be erected on the canopy drip line wherever possible. Laminated, waterproof A4 signs shall be fixed to the fence posts at 10m intervals bearing the words 'PROTECTED TREE ZONE - NO STORAGE OR OPERATIONS WITHIN FENCED AREA'.

Tracking of machinery, storage of chemicals and building materials shall not be permitted within the protected area. Leaks or spills should be removed immediately and the contaminated soil replaced. No bonfires shall be lit within 5m of the canopy spread. Any excavation work beneath the canopy spread shall be carried out by hand. All works affecting trees within the development shall be subject to BS 5837:2012.

TREE PLANTING

Tree planting to the front gardens of selected plots will break up the hard lines of the buildings and create focal points within the development. The tree species selected will maximise food and nectar sources for birds and invertebrates. Trees will be planted as Select and Heavy Standards to provide a reasonable degree of instant maturity to the development. Foundation design of new buildings shall accommodate proposed tree planting in accordance with Engineers details.

Species to be selected from:

Acer campestre (Ac)	Prunus subhirtella 'Autumnalis Rosea' (PiAR)
Acer platanoides 'Laciniatum' (Apl)	Prunus calleryana 'Chanticleer' (PcC)
Alnus incana (Al)	Quercus robur (Qr)
Betula pubescens (Bpu)	Sorbus aria (Sa)
Betula utilis var. jacquemonti (Buj)	Sorbus aucuparia (Sau)
Carpinus betulus (Cb)	Sorbus 'Embley' (SE)
Malus sylvestris (Ms)	Sorbus 'Joseph Rock' (SJR)
Malus tschonoskii (Mt)	Tilia x euchlora (Te)
Prunus padus (Pp)	Tilia cordata 'Green Spire' (TcGS)
Prunus serotina (Ps)	

SHRUB PLANTING

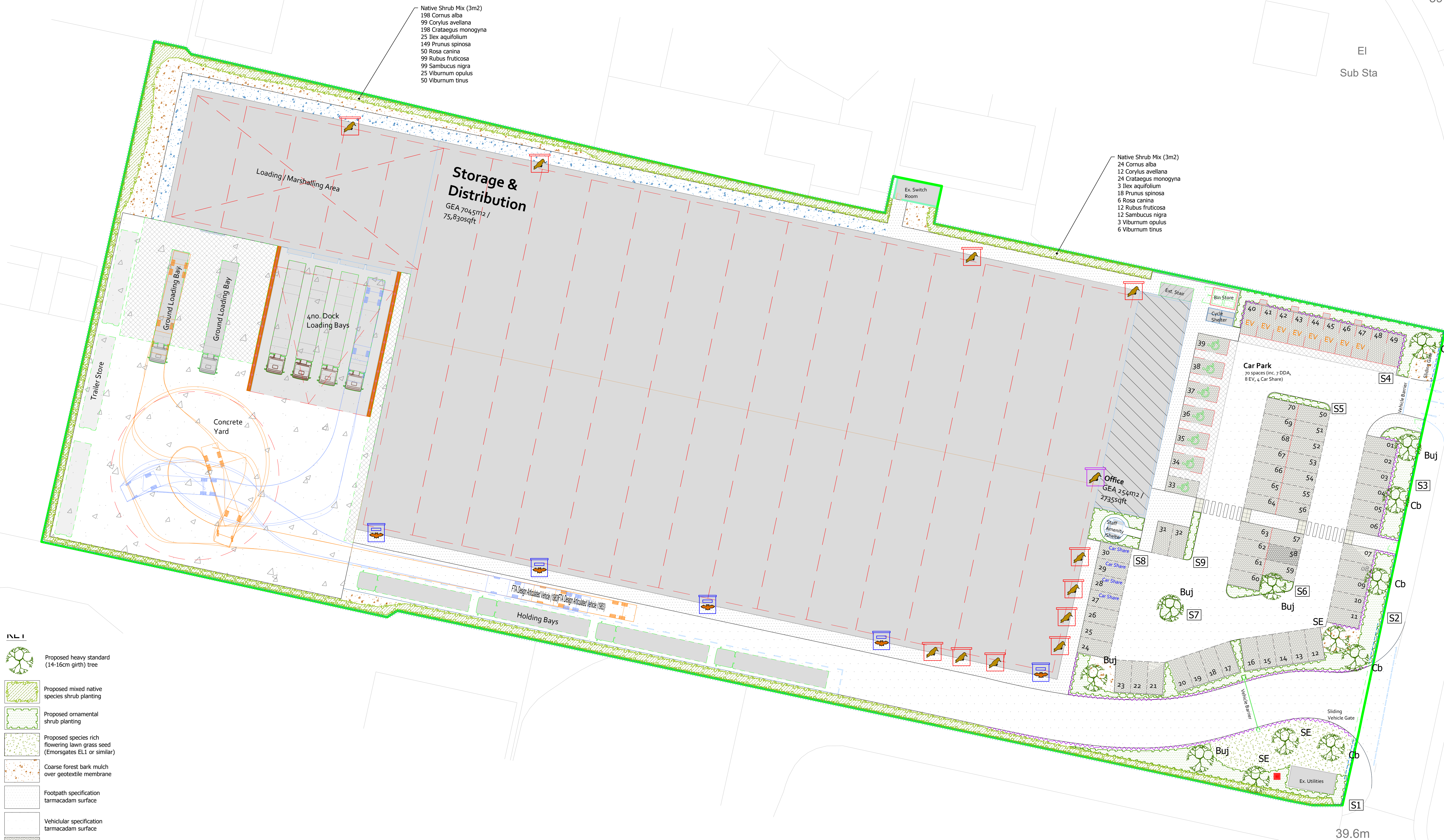
A mix of evergreen and deciduous shrubs will be planted in selected front gardens to soften the development and to provide a valuable food source for birds and invertebrates. A mix of medium/low shrubs will be planted to shrub beds with medium/large varieties used for informal hedging.

Species to be selected from: () density/m2

Berberis pinnatifida 'Amstelvelen' (S), Berberis thunbergii 'Atropurpurea Nana' (S), Berberis cordifolia 'Silverlight' (S), Camellia japonica 'Nana' (S), Chaenomeles superba 'Jet Trail' (4), Cornus alba 'Spaethii' (2), Cornus stolonifera 'Flaviramea' (2), Cytisus 'Allgold' (4), Elaeagnus pungens 'Maculata' (3), Escallonia 'Apple Blossom' (4), Euonymus fortunei 'Emerald Gaiety' (S), Festuca spp (S), Geranium 'Johnson's Blue' (4), Hebe albertana 'Red Edge' (4), Hebe 'Autumn Glory' (4), Hypericum x moserianum (4), Juniperus sabina 'Tamariscifolia' (3), Lavandula 'Hidcote' (6), Lonicera 'Maygreen' (4), Lonicera 'Silver Beauty' (4), Nepeta 'Assensini' (4), Perovskia 'Blue Spire' (6), Prunella var. Potentilla 'Red Ace' (S), Prunus laurocerasus 'Zabelliana' (3), Pyracantha 'Orange Charm' (3), Rubus x 'Betty Ashburner' (4), Spiraea 'Gold Flame' (4), Spiraea 'Shirobana' (4), Viburnum tinus 'Eve Price' (3)

NATIVE PLANTING

Native species shrub mix to be planted to the perimeter of the site. This native planting mix will help improve the ecological value of the site and improve wildlife foraging opportunities. Species to be planted in random groups to create a 'natural' effect.



- Legend**
- Proposed heavy standard (14-16cm girth) tree
 - Proposed mixed native species shrub planting
 - Proposed ornamental shrub planting
 - Proposed species rich flowering lawn grass seed (Emorsgate EL1 or similar)
 - Coarse forest bark mulch over geotextile membrane
 - Footpath specification tarmacadam surface
 - Vehicular specification tarmacadam surface
 - Permeable pavers Marshalls Priors - Charcoal/Natural colour
 - Maintenance Access - Loose gravel
 - Proposed 2000mm high timber bin store fence (detailed by others)
 - Existing 2400mm Paladin fence retained
 - Proposed 2400mm high paladin fence with gates (detailed by others)
 - Proposed 900mm dock wall steel railing (detailed by others)
 - Proposed 400mm timber knee rail (detailed by others)
 - Bat boxes (Envisage code 0612 or equivalent)
 - Swallow CUPS to Ecologists specification
 - Ridge/Eaves Swallow Box to Ecologists specification
 - Swallow Shed to Ecologists specification

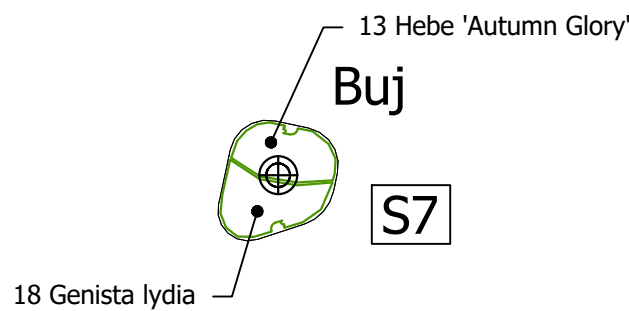
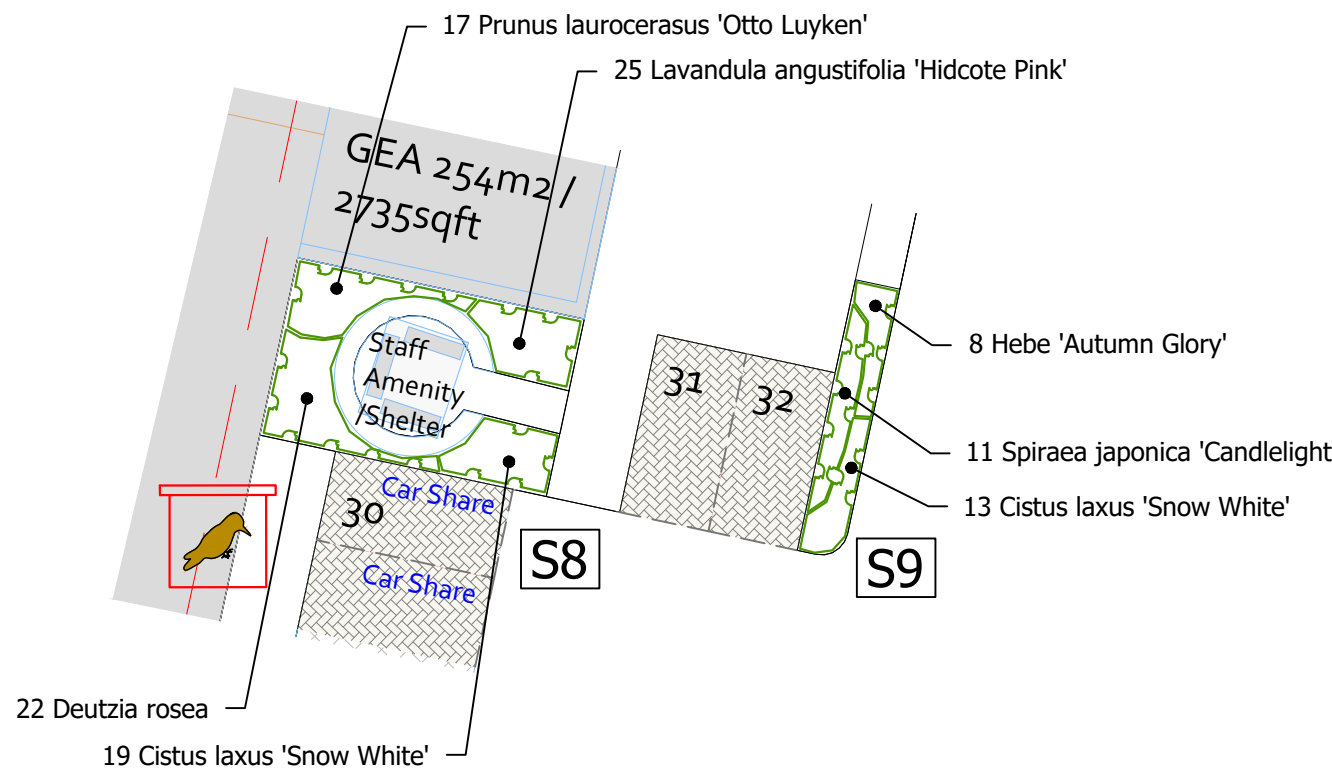
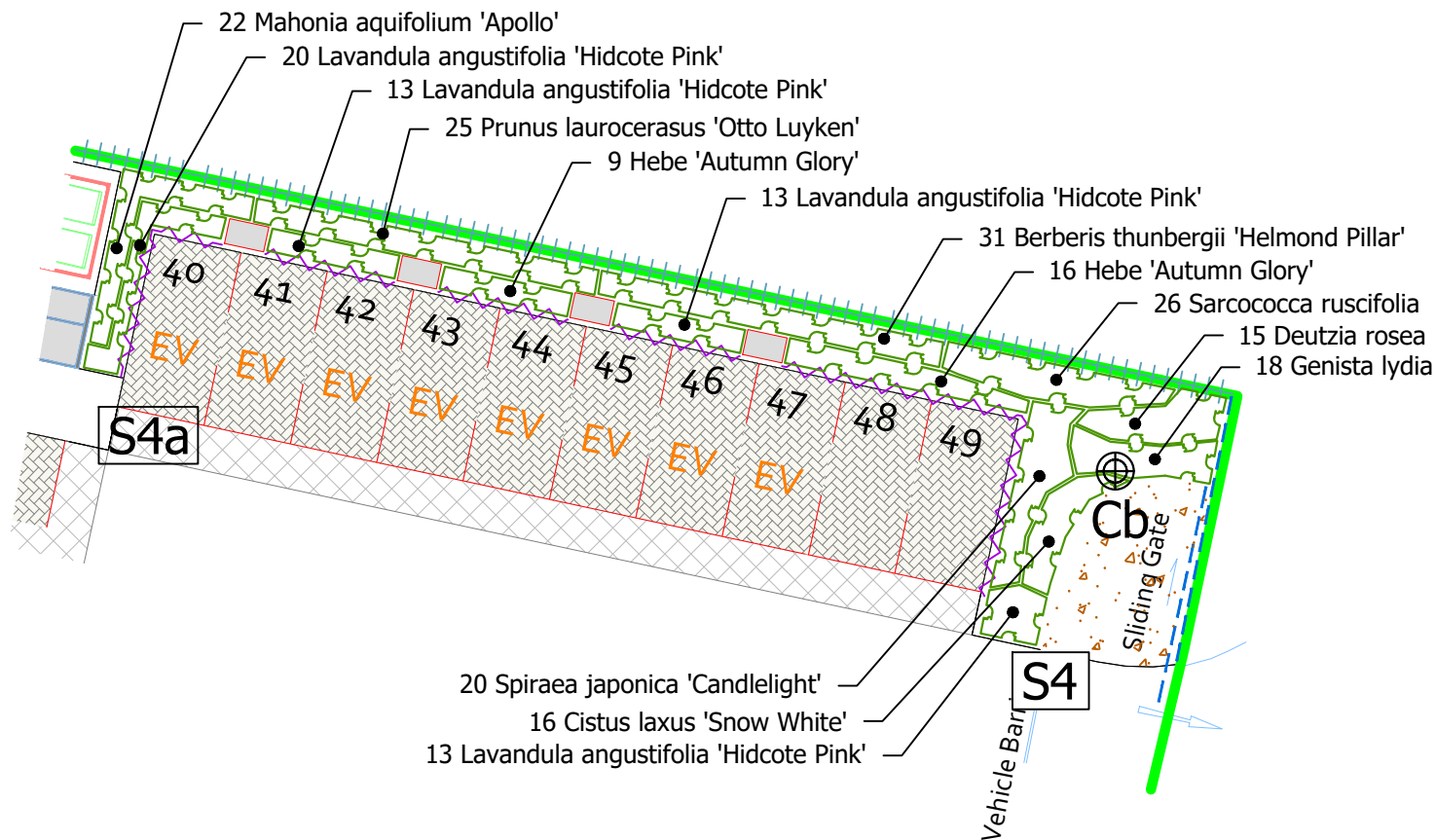
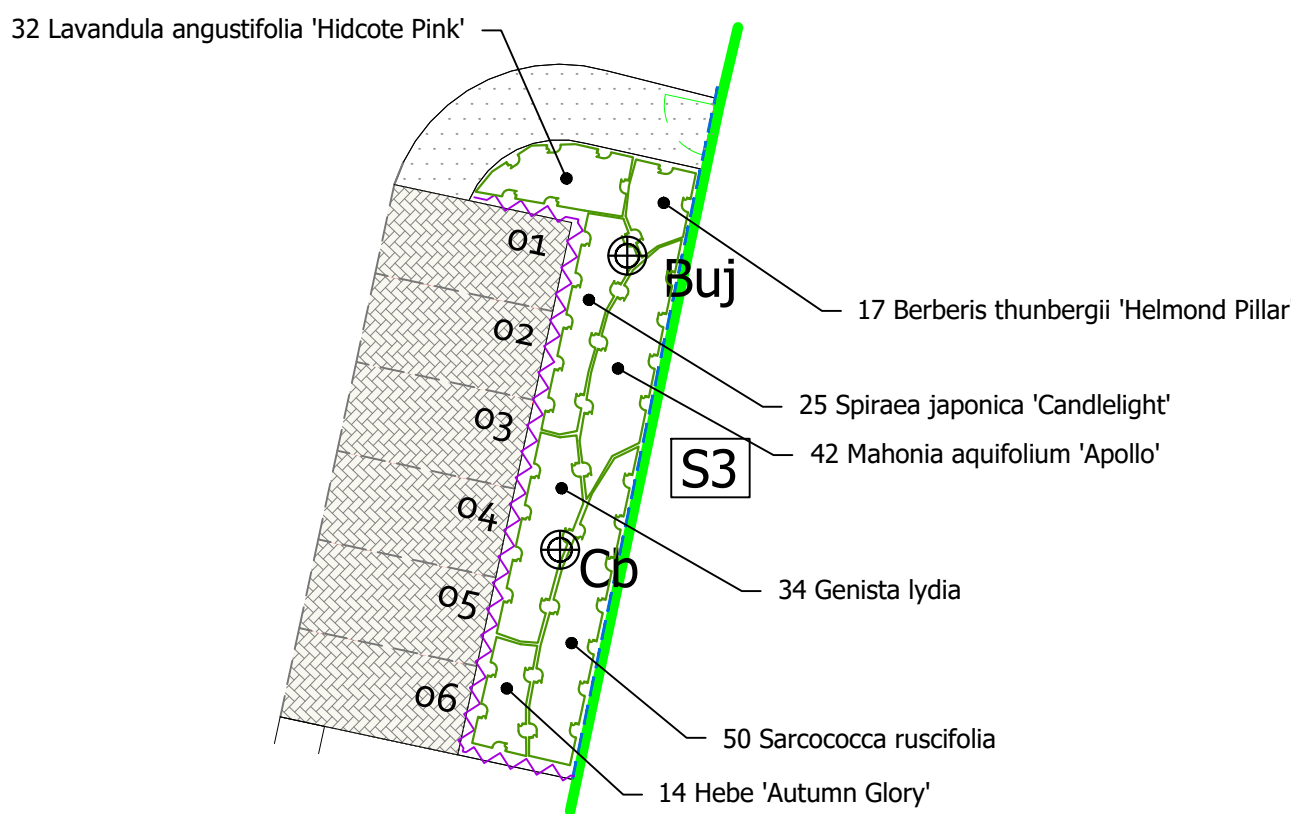
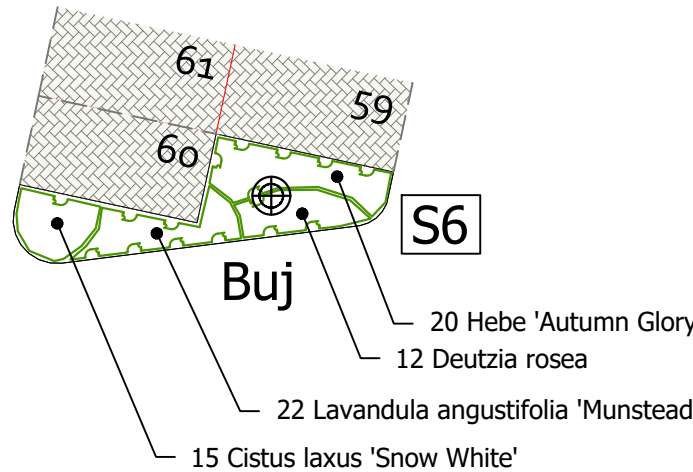
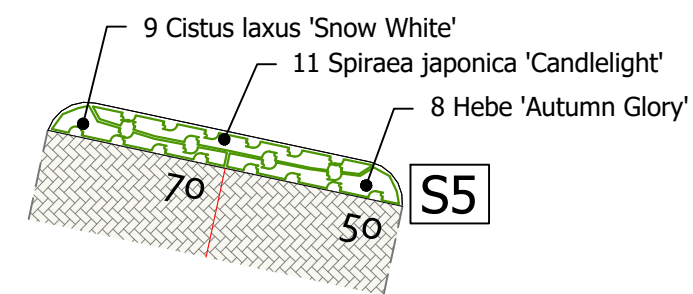
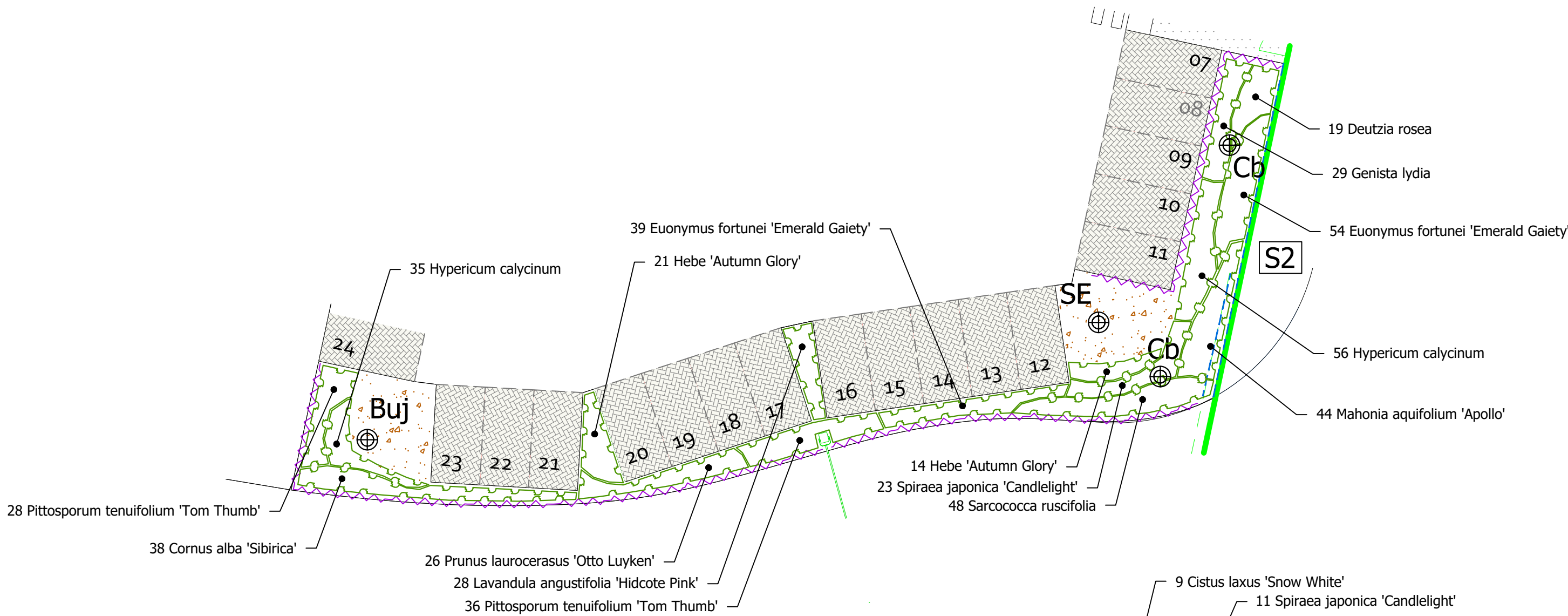
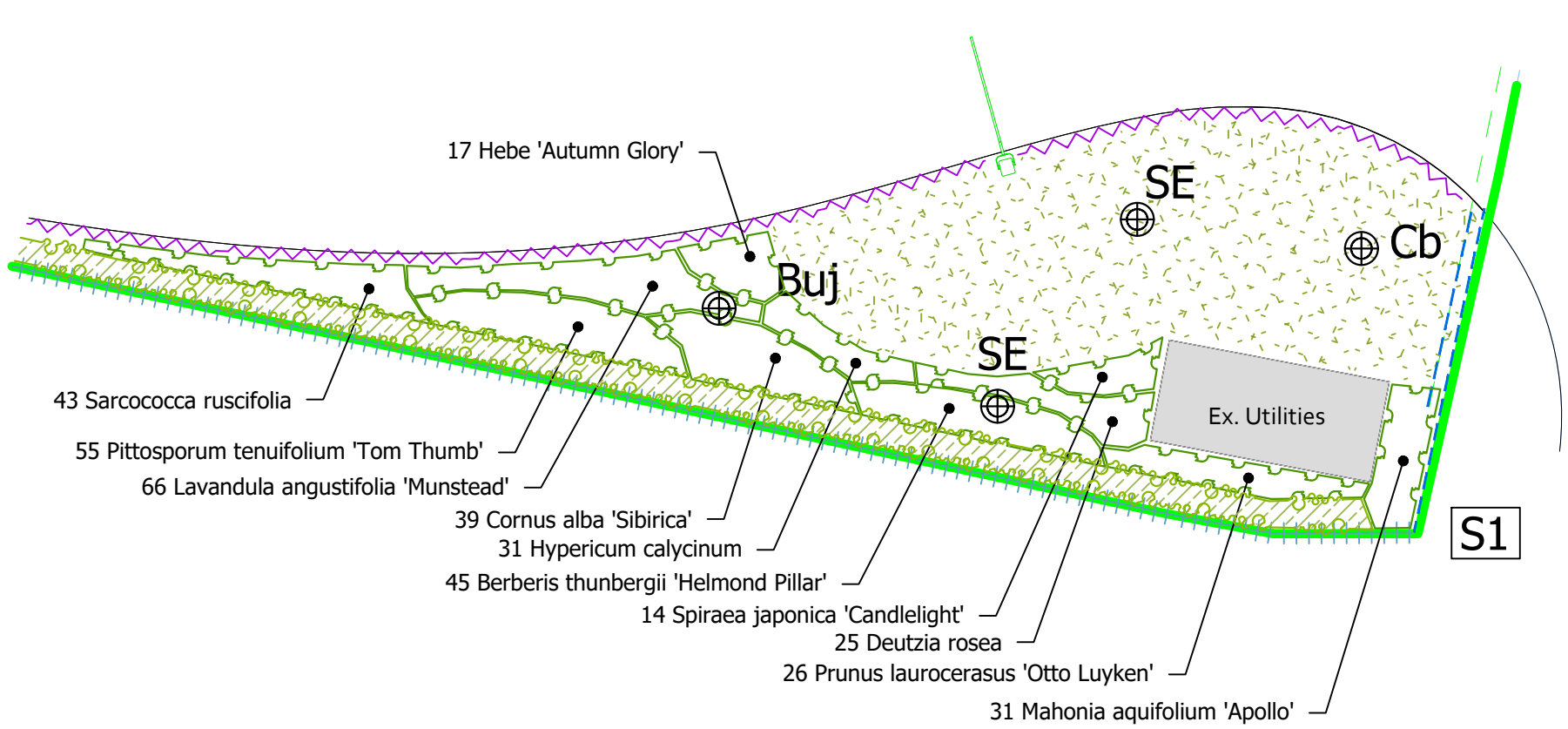
REV B: Swift boxes and shed added (SF)

REV A: Native hedge removed and replaced with native shrubs (MN)

Feb 26

Sept 25

fdalandscape Westleigh Hall Westleigh Road Dunstable Huddersfield HD8 8QJ Telephone 01484 666661 Fax 01484 666660 Email info@fdalandscape.co.uk www.fdalandscape.co.uk	Client BDN Ltd	Project Commercial Development ACORNFIELD ROAD, LIVERPOOL, L33 7UG	
	Drawing title LANDSCAPE MASTERPLAN	Scale 1:250 @A0	
	Date Jul 25	Drawn by SF	Drawn no R/2883/1B



PLANTING NOTES

All trees to be planted and procured in accordance with BS 8545:2014. The providing nursery shall demonstrate Plant Healthy Certification and/or an adopted biosecurity policy and plant passport scheme. Aftercare shall be in accordance with the approved Landscape Management Document.

GROUND PREPARATION

- Where required all existing topsoil and subsoil shall be stripped and stored separately on site. Heaps must not exceed 3m in height and should be used within 12 months in accordance with BS 4425 (Code of practice for general landscape operations).
- Existing topsoil and inert sub soils, shall be analysed in accordance with BS 3882 to determine available nutrients, texture, organic matter content and pH. Where required, existing soils are to be improved in accordance with BS 3882:2015. Subsoils shall conform to BS 8601:2013
- In all instances, where soil is to be retained and relatively undisturbed for the purposes of planting new vegetation on site, then it must be alleviated to avoid compaction, must be tested for pH for specific species suitability, and may require the addition of biochar + compost + organic fertiliser + native soil.
- Imported topsoil and site won soils shall be to British Standards BS 3882 - Multipurpose Grade. Spread to 300mm depth over areas to be planted with trees and shrubs. Remaining minimum rooting depth to be provide by a good quality subsoil to BS 8601:2013, free of building material debris to achieve the following overall rooting depths:
 - Grass - 450mm
 - Shrubs - 600mm
 - Trees - 900mm

GRASS SEEDING

MEADOW AND SPECIES RICH GRASS SEEDING

A variety of grassland habitats will be created incorporating species to attract locally important species and enhance the biodiversity of the site. Where appropriate the seeds should be of local provenance and locally sourced but based on the mixed specified below:

SPECIES RICH GRASS (Emorsgate EL1 or similar approved)
Mixture EL1 is to be sown at a rate of 4g/m² and contains slow growing grasses with a selection of wild flowers that respond well to regular short mowing.

PLANTING SCHEDULES

TREE SCHEDULE

		NUMBERS REQUIRED
SPECIES	Ht in m	3.5-4.25
	Girth in cm	⊕ 12-14
Betula utilis var. jacquemontii (Buj)		5
Carpinus betulus (Cb)		5
Sorbus 'Embley' (SE)		3

All trees to have clear stems to 1.8m above ground level with well developed branching heads with a single, central leader and healthy, fibrous root systems. Trees shall be either container grown or rootballed in accordance with season of planting. Trees shall be planted into pits of an appropriate size to accommodate the root system without restriction, backfilled with a 3:1 topsoil:compost mix and shall be secured to a machine rounded stake using 1 no. tree tie with rubber spacer. Finished height of stake shall not exceed 1/3 height of staked tree above ground. Foundation design of new buildings shall accommodate proposed tree planting in accordance with Engineers details.

SHRUB SCHEDULE

ORNAMENTAL PLANTING SCHEDULE				
Shrub				
Nr	Name	Ht in cm	Pot(L)	Density
93	Berberis thunbergii 'Heldmond Pillar'	30-40cm	3L	5.00
72	Cistus laxus 'Snow White'	30-40cm	3L	5.00
77	Cornus alba 'Sibirica'	50-60cm	3L	4.00
93	Deutzia rosea	50-60cm	3L	4.00
93	Euonymus fortunei 'Emerald Gaiety'	20-30cm(D)	3L	6.00
99	Genista lydia	30-40cm(D)	3L	5.00
140	Hebe 'Autumn Glory'	25-30cm	3L	4.00
122	Hypericum calycinum	15-20cm	3L	7.00
144	Lavandula angustifolia 'Hidcote Pink'	25-30cm	3L	6.00
88	Lavandula angustifolia 'Munstead'	25-30cm	3L	6.00
139	Mahonia aquifolium 'Apollo'	25-30cm	3L	5.00
119	Pittosporum tenuifolium 'Tom Thumb'	30-40cm	3L	5.00
94	Prunus laurocerasus 'Otto Luyken'	50-60cm	3L	4.00
167	Sarcococca ruscifolia	25-30cm	3L	5.00
104	Spiraea japonica 'Candlelight'	30-40cm	3L	4.00

All shrub material shall be first quality, sturdy, well rooted non-refridgerated stock with well branched heads and fibrous root systems. Shrubs shall be planted into 450mm good quality fibrous topsoil incorporating organic compost and slow release fertiliser in accordance with all good horticultural practice. All plant material shall be a minimum of 3L pot size unless otherwise specified and conform to BS3936 Part 1 and BS 4428. Finished beds shall be lightly forked over and dressed with 50mm coarse forest bark mulch.

NATIVE SHRUB SCHEDULE

Native species shall be planted at 0.75m centres (3/m²) into 450mm depth, good quality clean topsoil incorporating organic compost and slow release fertiliser, over un-compacted sub-grade. Prior to planting all bareroot plant stock shall be dipped into a suitable mychorrhizal plant dip in accordance with the manufacturers recommendations. Plants shall be planted in groups of 3-11 of a single species with the taller growing species to the back of the areas of the areas and the lower growing species to the edges of the areas. Planted areas to be mulched after planting with coarse grade forest mulch to a uniform depth of 50mm.

NATIVE SHRUB MIX SCHEDULE					
Nr	Name	Height/cm	Age	Root	Pot/L
232	Cornus alba	40-60cm		B	
116	Corylus avellana	40-60cm		B	
232	Crataegus monogyna	30-40cm		B	
29	Ilex aquifolium	30-40cm		C	2L
175	Prunus spinosa	40-60cm		B	
59	Rosa canina	40-60cm		B	
116	Rubus fruticosus	30-40cm		B	
116	Sambucus nigra	40-60cm		B	
29	Viburnum opulus	30-40cm		B	
59	Viburnum tinus	20-25cm		C	2L

REV A Native hedge removed and replaced with native shrubs (MN) SEPT 25

Sue Farmer BA MAUD MLI Landscape Architect fdalandscape Westleigh Hall Wakefield Road Denby Dale Huddersfield HD8 8QJ telephone 01484 861611 fax 01484 861616 isdn 01484 866900 email info@fdalandscape.co.uk www.fdalandscape.co.uk	client	BDN Ltd		
	project	Commercial Development ACORNFIELD ROAD, LIVERPOOL, L33 7UG		
	drawing title	LANDSCAPE DETAILS SHRUB BED S1-S9		
	scale	date	drwn by	drawing no
1:200 @A1	Jul 25	MBN	R/2883/2A	