LIDL GREAT BRITAIN LTD

NEW STORE DEVELOPMENT

New Hey Road, Huddersfield

LANDSCAPE AND ECOLOGICAL MANAGEMENT PLAN

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Drawing References Amended Feb 2021 July 2019

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A INTRODUCTION

This Management Plan has been prepared by FDA Landscape Ltd and sets out the management prescriptions to be adopted for the landscape associated with the new Lidl store development at New Hey Road, in Huddersfield.

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. In the absence of a review of operations at the end of the 5 year period the plan will continue in its current form in perpetuity.

In terms of timescale the Landscape Contractor will be responsible for the maintenance of the newly landscaped areas for a period of 12 months following practical completion. During this period the Landscape Contractor will be liable for any defective work. Such defective work, including the replacement of failed plant material, will be rectified within this 12 month period by the Landscape Contractor in accordance with the approved plans and to the satisfaction of the Client and the Consultant Landscape Architect. At the end of this 12 month maintenance period, soft landscaped areas will be handed over to Lidl Great Britain Ltd who will assume responsibility for their ongoing maintenance including an obligation to undertake any replacement planting of failed plant material for a further period of 4 years in order to satisfy the planning condition. At the end of this 5 year period Lidl Great Britain Ltd will retain responsibility for the management of the landscape on site which will be maintained in perpetuity in the interests of visual amenity.

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

R/2175/2F Landscape Details

The drawing is attached to this document as Appendix 3.

A.1 Site Location

The site is located to the western side of Huddersfield City Centre in an area called Oakes. It is positioned to the north of the A640 New Hey Road on the site of a former public house which has now been demolished. There is a new housing development to the west of the site and existing residential to the north (on Deercroft Crescent) and east on New Hey Road itself.

A.2 The Site

- A.3.1 The site is roughly an L shaped space with the bottom of the L running adjacent to the houses on Deercroft Crescent. It is the site of a former public house. There is a mixture hard standing, old stone walls, rough grass and other buildings.
- A.3.2 The site is level on the hard standing up to the grassed space then it slopes quite steeply up to the houses behind on Deer Croft Crescent.
- A.3.3 Once developed, the site will be largely laid out as a new Lidl store with associated roads and parking. There is an area of green space to the north of the site which will act as a soft landscape buffer between the store and the existing housing.

A.3 Documents

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

• R/2175/2F Landscape Details

The Overall Site Landscape Detail plan is appended to this document in Appendix 3.

A.4 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.

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 Contractor and Management Company to carry out the specified maintenance operations to achieve a healthy, landscape structure to the development's public facing areas, with a focus towards visual amenity and the creation of a healthy landscape buffer to the north of the store, which aims to increase the biodiversity of the area.

B.2 Management Aim 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 store development which both frames and filters views into the site and that is in keeping with the landscape character of the area: introduction of standard trees within the car park and groups of maturing vegetation will break up the building lines and hard edge to the site. The buffer zone to the north of the site will also help enhance the visual amenity of the development and is to be planted with native tree and shrub planting and species rich grassland. This will also help reduce the impact of the scheme for the residents who overlook the site on Deercroft Crescent

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:

Manage the new planting to develop mature, healthy trees and a strong

buffer to the site.

- Maintain any existing off site overhanging vegetation (trees & Shrubs) to be safe and in good condition.
- Maintain the new native species 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 is no recreational space as part of this scheme.

B.3 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.4 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.5 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. If any *invasive* or *injurious plants* are identified on site, the appropriate method of control shall be implemented, in accordance with relevant best practice and the Environment Agency recommendations.
- 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 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.

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	200 gms/Tree
	Standards, Selected Standards & Standards	

- 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.5. 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.5.
- C.1.8 All failures shall be replaced annually in accordance with section C.8.
- 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.9.
- C.1.11 Tree stakes and guards shall be inspected at the end of Year 3 and where trees have established sufficiently well they shall be removed. Where trees are still considered to require support, stakes shall be left in place and re-inspected at the

end of Year 4. Ideally all stakes shall be removed by the end of Year 5 so that the trees develop sufficiently robust stems and do not rely on support.

C.2 ORNAMENTAL SHRUB PLANTING

Use of Chemicals and Machinery

Reference should be made to Section B.4 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 25gms/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.5. 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.8.
- C.2.7 The ornamental planting areas within the POS areas of a development, 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.

C.3 NEW NATIVE SPECIES PLANTING

Native planting on the site comprises areas of new native tree and shrub planting within the northern part of the site. 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 50gms/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 <u>not</u> 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. Alder should be coppiced on a 15-20 year rotation. Coppicing shall be carried out in phased areas to provide as diverse a range of habitat as possible.
 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 in accordance with Section C.8.
- 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 EXISTING WOODY VEGETATION

- C.4.1 All existing trees & Hedgerows within and on the boundaries of the site shall be maintained in a safe condition and as reasonable visual amenity.
- C.4.2 This will be done with the minimal of intervention.
- C.4.3 The trees shall be inspected on an annual basis by a suitably qualified Arboriculturist and any recommendations for tree work shall be undertaken as required all in accordance with British Standards.
- C.4.4 Any vegetation which is damaged or failing to thrive and which constitutes either a health and safety risk or which is visually detrimental in the situation shall be removed. If this involves an off-site tree then the neighbouring land owner must be informed

C.5 PRUNING

- C.5.1 All pruning work, whether on newly planted material or existing vegetation, shall be carried out in accordance with BS 3998 where applicable. Resultant wounds shall be treated with approved fungicidal sealant, where appropriate.
- C.5.2 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.5.3 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.5.4 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.5.5 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.
 - q) All arisings from pruning work shall be removed from site to Contractor's own tip.

C.6 MULCHING

C.6.1 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 (i.e. March/April) to achieve an overall depth of 50 mm.

C.7 WATERING

- C.7.1 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.7.2 The following rates are given as a guideline for the volume of water required per visit:

Plant Type	Water Quantity
Trees	30 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.7.3 New trees shall be watered weekly for the first year and fortnightly during Year 2.
- C.7.4 From Year 3 onwards watering shall be carried out during periods of dry weather when the temperature is ≥25°C for a period of 10 days.
- C.7.5 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 or consultant Landscape Architect.

C.8 FAILURE OF PLANT MATERIAL

- C.8.1 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.8.2 The Contractor shall subsequently make good any further failures during the following twelve (12) months if the Aftercare period is two (2) years.
- C.8.3 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.8.4 All replacement plant material shall conform to the original Specification unless otherwise agreed in writing between the Contractor and the Landscape Architect.
- C.8.5 The Contractor shall make good at his own expense all necessary repairs to levels, grassed areas and paving required because of plant replacements.
- C.8.6 Once the areas are handed over to the Management Company or householder they will assume responsibility for replacement failures for a further period of four (4) years, or until the end of the 5 year period covered by the Planning Condition whichever is soonest, to achieve eighty (80) per cent or original numbers.
- C.8.7 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.9 GRASSED AREAS

There are submerged water storage tanks beneath the Central POS area. The Management Company must ensure that the weight of machinery riding over the areas of the tanks as defined on the drawings is no greater than 27 tonnes.

C.9.1 Short mown Amenity Grass

Grassed areas shall be mown as indicated on the Contract Drawings and in the Schedule of Quantity. Litter shall be collected prior to each cut. The disposal of grass cuttings by the chosen machine shall not result in cut grass being left in rows; rather the mowers shall reduce the cuttings to fine particles to be spread around to decompose rapidly. Works around newly planted trees shall be carried out by hand-tool rather than mechanically.

The Contractor should note that mowing includes for cutting the grass, trimming grass edges, trimming around the base of trees, manholes, street lights, signposts, up to the edges of paving, fencing and other boundaries etc. to keep the total area in a neat and tidy condition at all times.

Short amenity grass shall be maintained at a height between 25 and 65mm.

In drought conditions mowing operations shall continue only so long as grass growth continues to reach maximum allowable height. In very wet conditions all operations shall cease until conditions allow operations to continue without either damaging the surface levels and contours of the grassed areas or leaving divots from mowing machines. Alterations required to the Aftercare Programme due to special weather conditions shall be agreed with the Landscape Architect in writing.

C.9.2 Long grass / Species rich grassland

To be successful, initial maintenance on species rich grass areas must be carefully managed to ensure the creation of suitable conditions for the seeds to establish without being outcompeted by the grass nurse crop. The following cutting regime is a guideline and the actual cutting programme adopted will dependant on the growth in each situation, this in turn being directly by soil fertility, rainfall and ground temperature. The cutting regime will differ, depending on whether the sward is established in Autumn or Spring.

C.9.3 Spring Establishment:

Year 1

1st cut to 4-7 cm approx. 6 weeks after sowing if sufficient material has established

2nd cut to 4-7 cm approx. in May (when sward height exceeds 10 cm)

3rd cut to 4-7 cm in September/October

All arisings to be removed from site.

Year 2 (where cutting is carried out)

1st cut to 4-7 cm March/April

Final cut to 4-7 cm end September/October.

All arisings to be removed from site.

C.9.4 Autumn Establishment:

Year 1

1st cut to 4-7 cm in March (if sufficient material)

2nd cut to 4-7 cm in early May

3rd cut to 4 cm in September

All arisings to be removed from site.

Year 2 (where cutting is carried out)

1st cut to 4-7 cm March/April

Final cut to 4-7 cm end September/October.

Years 2/3 to 5

Subsequent maintenance of species rich grass areas shall be undertaken to manage grass at different heights to create a diversity of habitats which will enable the colonisation of a range of plant, bird, small mammal, invertebrate and insect life. Alterations to the cutting regime will ultimately be dependent on the sward composition and how the various areas are establishing and being used and will include:

Cutting in Autumn (end September/October) once grasses and flora has seeded. Removing all arisings from any grass maintenance operations from the grass surface and ensuring that clippings / grassy material do not enter the pond or the overflow channel. Leaving small piles of grass clippings no more than 1500mm x 1500mm² x 300mm deep maximum on site in suitable locations within the grass areas to provide suitable habitat for insects and reptiles.

C.9.5 **Fertiliser** (short mown amenity grass areas only)

The Contractor shall supply and evenly spread over the specified areas with an approved distributor, a post-emergent fertiliser. The fertiliser shall be compounded granular free flowing material and shall supply the ratio of plant nutrients N:P:K at 2:1:1 for Spring Dressings and N:P:K at 1:1:1½ for Autumn Dressings. They shall be spread at a rate of 35gms/m². No fertiliser with the insoluble phosphate representing more than 10% of the total phosphate will be acceptable.

C.9.6 Weed killer

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.9.7 Remedials

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.10 PUBLIC AREAS

C.11.1 Fencing, Walls and Gates

Inspect all fences, walls and gates for any necessary repair on each maintenance visit and obtain approval / instruction from the Client to undertake repairs as required.

C.11.2 Footpaths

Where indicated on the Contract Drawings and in the Schedule of Quantity, footpaths shall be treated with a total weed killer in accordance with the manufacturer's instructions. The chemical compound/herbicide shall be approved by the consultant Landscape Architect and be of an appropriate type for the conditions on site applied in accordance with the specific requirements of the herbicide type.

C.11 LITTER

C.11.1 Litter shall be collected from all areas and carted off-site during each maintenance visit.

C.12 ECOLOGICAL CONSIDERATIONS

C.12.1 Tree Replacement

In the event that any of the existing mature trees require to be replaced, such replacements shall be native and of a suitable species, size and form for the location, all as agreed between the Client, consultant Landscape Architect, Ecologist and Arboriculturist and Local Authority as required.

Existing hedgerows to be retained will be gapped up as necessary using a similar palette of species. New sections of native hedgerow, native scrub planting around the site will consist of locally appropriate planting mixes and within the housing development itself ornamental species have been selected which have wildlife value in the form of berries, fruits and flowers.

C.12.2 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.12.3 Habitat Protection

Site operative should be made aware of the habitats that are to be protected and understand the Tree Protection methods that are to be employed during construction.

C.12.4 Erection of Faunal Boxes

A single Schwegler 1FF bat box will be installed on the indicated tree along the eastern boundary of the site, situated at least 3m in height on the main trunk of the tree, facing southwards



1FF Schwegler Bat Box

A single Eco Starling Nest Box will be installed on the indicated tree along the eastern boundary of the site, situated at least 3m off the ground on the main trunk of the tree, facing north-north eastwards.

Eco Starling Nest Box Three Vivaro Pro Woodstone House Sparrow boxes will be incorporated within the stonework of the gabion retaining wall in the north east corner of the site and will sit flush. The boxes will be situated at least 3m in height and the final location of each will be decided on the ground by a suitable experienced ecologist



Vivaro Pro Woodstone House Sparrow boxes

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.

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

Year Proposed Datasticus									
Operation	1	2	3	4	5	Frequency	Restrictions		
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.7)		
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.5)		
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.6)		
Litter pick and remove all arisings	✓	✓	✓	✓	√	At each visit in perpetuity	Dispose of to tip in accordance with relevant Waste Management Regulations		
Ornamental Shrub Plantin	ng - S	ecti	on C	:. 2		<u> </u>	1		
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.7)
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.8)
Top up mulch	✓	✓	√	✓	✓	Once annually in perpetuity	In March or April (See Section C.6)
Litter pick / remove fly tipping and remove all arisings	✓	✓	✓	✓	✓	At each visit in perpetuity	Check for harbouring wildlife
New Native Species Planti	ing -	Sec	tion	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
Identify suitable native tree species for retention as standards. Tag for identification				√	√		
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

Carry out clearance of any		1					
Carry out clearance of any self-sown shrubs or tree species within the open space areas			✓			Every 3 years	Out of bird nesting season
Water as required	√	✓	✓			Weekly / as required	April to September and weekly during prolonged dry weather (See Section C.7)
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
Top up maion	•	•	Ť	1	, ·	Office affilially	III March of April
Litter pick / remove fly tipping 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
Existing Woody Vegetation	n – S	Secti	on C	2.4			
Carry out recommendations made by Arboriculturist at annual walkover	√	✓	✓	✓	✓	As required / agreed in perpetuity	Out of bird nesting season
Identify suitable species of naturally regenerating plant material and allow to develop	✓	✓	✓	✓	✓	As required	Tag as necessary to identify
Coppice any native vegetation as required	✓				✓		Out of bird nesting season
Remove any failing / dead material for Health & Safety or visual reasons (otherwise leave in situ)	✓	✓	✓	✓	✓	As required	Out of bird nesting season
Remove any non-native or undesirable native species	✓	✓	✓	✓	✓	As required	Out of bird nesting season
Carry out initial management to existing boundary hedgerows	√						
Carry out ongoing annual trimming of existing hedgerows until handover to occupant	√	✓	✓	✓	✓		

Litter pick / remove fly tipping 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.9									
Maintain private garden lawns	✓					As required between height tolerances as specified	To be maintained until handover at time of purchase. Responsibility then moves to the homeowner.		
Maintain amenity grass	✓	✓	✓	✓	✓	As required between height tolerances as specified in perpetuity			
Maintain wildflower grass areas during the early establishment period	✓	✓				Up to 3 times for newly established areas in Year 1. Twice in Year 2 (as specified)	Remove arisings		
Maintain wildflower meadow areas			✓	✓	✓	Once annually Sept/October in perpetuity	Remove arisings		
Apply fertiliser to amenity grass areas only	✓	✓	✓	✓	✓	Once annually in perpetuity	Spring or Autumn		
Apply selective herbicide to amenity grass areas only	✓	✓	√	√	✓	Once annually in perpetuity	As required and instructed by the Landscape Architect		
Reinstate any damaged areas of amenity grass as required by re-seeding or re-turfing		✓	✓	✓	✓	Annually in season in perpetuity			
Public Areas - Section C.	10								
		1		1	1	I			
Assess success of planting around public areas	✓					After first 6 months	Replace any area of vulnerable planting with more robust species, grass or hard surfacing as appropriate		
Apply weed killer to footpath and paved areas	✓	✓	✓	✓	✓	April-June in perpetuity	Weed killer to be approved by Landscape Architect.		
Collect all litter and remove from site	✓	✓	✓	✓	✓	On each visit in perpetuity			

	1	ı			1	T		
Litter - Section C.11								
Collect all litter and remove from site	✓	✓	√	✓	✓	On each visit in perpetuity		
Ecological Considerations - Section C.12								
Carry out recommendations made by Arboriculturist at annual walkover	✓	✓	✓	✓	✓	As required / agreed in perpetuity	Out of bird nesting season	
Assess the full site for the presence of any invasive species or undesirable weed and treat/remove as necessary	✓	✓	✓	✓	√	As required in perpetuity	Before flowering / seeding and in accordance with specific requirements for the particular weed species	
Management Plan Review	– Se	ectio	n 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

Landscape Details R/2175/2F



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.

PLANTING SCHEDULES

	SCRUE	B PLANTING SCHED	ULE		
Nr	Name	Height/cm	Age	Root	Pol/L
115	Crataegus monogyna	60-80cm	1/1	В	
86	Cytisus scoparius	40-60cm		С	2L
115	Prunus spinosa	60-80cm	1/0	В	
29	Rosa canina	30-40cm	1/0	В	
29	Rubus fruticosa	30-40cm	1/0	В	
86	Ulex europaeus	30-40cm		С	3L
115	Viburnum opulus	60-80cm	1/1	В	

CLIMBERS PLANTING SCHEDULE									
Nr	Name	Ht in cm	Pot(L)						
37	Clematis montana	40-60cm	2L						
37	Hedera helix 'Green Ripple'	40-60cm	2L						
37	Hydrangea anomala petiolaris	40-60cm	2L						
37	Lonicera japonica	40-60cm	2L						
37	Parthenocissus tricuspidata 'Veitchii'	50-60cm	3I.						

	ORNAMENTAL PLANTIN	G SCHEDULE		
Shrub				
Nr	Name	Ht in cm	Pot(L)	Density
93	Berberis thunbergii 'Atropurpurea Nana'	20-25cm	3L	5.00
49	Ceanothus thyrsiflorus repens	30-40cm(D)	3L	5.00
16	Choisya 'Aztec Pearl'	30-40cm	3L	5.00
84	Choisya ternata 'Sundance'	30-40cm	3L	5.00
61	Cistus 'Silver Pink'	30-40cm	3L	5.00
144	Escallonia 'Apple Blossom'	30-40cm	3L	5.00
59	Escallonia 'Donard Radiance'	40-60cm	3L	5.00
143	Euonymus fortunei 'Emerald Gaiety'	20-30cm(D)	3L	5.00
83	Euonymus fortunei 'Emerald n Gold'	20-30cm(D)	3L	5.00
87	Hebe albicans 'Red Edge'	20-25cm	3L	5.00
48	Hebe pinguifolia 'Sutherlandii'	20-25cm	3L	5.00
52	Hebe 'White Gem'	30-40cm	3L	5.00
165	Lavandula angustifolia 'Hidcote'	20-25cm	3L	5.00
77	Pachysandra terminalis	20-30cm(D)	3L	5.00
126	Philadelphus 'Manteau d'Hermine'	30-40cm	3L	5.00
191	Prunus laurocerasus 'Otto Luyken'	30-40cm	3L	5.00
100	Santolina chamaecyparissus nana	20-25cm	3L	5.00
66	Skimmia japonica 'Rubella'	30-40cm	3L	5.00

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 (To BS BS3882:2015) incorporating organic compost and slow release fertiliser in accordance with all good horticultural practice.

181 Viburnum davidii

approved sample.

20-25cm

3L

5.00

A proprietary geotextile membrane (colour: Black) is to be installed between the soil and mulch of the planted areas cut with T or X slits to fit around the plants as required. 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 dressed with a coarse amenity grade forest bark mulch (nominal particle size 5-75mm), to

SPECIES	Ht in m	4.5+
	Girth in cm	16-18
Acer campestre (Ac)		3
Acer campestre 'Elsrijk' (AcE)		5
Betula pendula (Bp)		5
Betula utilis 'Jacquemontii' (BuJ)		6
Pyrus calleryana 'Chanticleer' (PcC)		5
Sorbus aucuparia (Sau)		2
Sorbus aucuparia 'Sheerwater Seedling' (SaSS)		3

All trees to have clear stems to 2.0m above ground level with well developed branching heads with a single, central leader and healthy, fibrous root systems. 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.

Where trees are proposed next to any existing or proposed boundary, root barrier such as Greentech Rootbarrier 360 is to be run along the face of the wall/fence for 3m in length, in both directions, from a perpendicular line drawn from the trunk to the boundary. This will prevent tree roots from affecting any footings/foundations or encroaching into any adjacent gardens.

TURFED AREAS

The topsoiled area to be turfed, is to be grade and cross-graded to even running falls, to allow the finished levels of the turf to be 40mm above the adjoining paved areas. The surface should be lightly and uniformly firmed by rolling or treading and reduced to a fine tillth up to 25mm in depth. All rubbish, stones greater than 50mm in diameter etc, shall be removed from the surface. Apply an even application of approved fertiliser at a rate of 70g/m² and rake in. No turves shall be laid in exceptionally frosty weather or in other unsuitable weather conditions.

The turves shall be laid in a stretcher bond pattern, closely butted and firmed into position, to the correct levels. The turves should be laid off planks, working over turves previously laid. A dressing of fine, sifted topsoil (complying with BS 3882) should be applied to the laid turf and brushed well into the joints.

Turves shall be watered regularly to prevent them drying out before they establish.

Ensure all weeds have been removed using repeated cultivation or a herbicide. Then plough or dig to bury the surface vegetation, harrow or rake to produce a medium tilth, and roll or tread to produce a level firm surface. Seed is best sown in the autumn or spring but can be sown at other times of the year if there is sufficient warmth and moisture. The seed must be surface sown and can be applied by machine or broadcast by hand. To get an even distribution and avoid running out, divide the seed into two or more parts and sow in overlapping sections. Do not incorporate or cover the seed, but firm in with a roll, or by treading, to give good soil/seed contact. Sowing rate 4g/m2.

Rev F: Amended in line with Proposed Site Plan Rev AD (SEL) Rev E: Note added to tree schedule re root barrier (SEL) Rev D: Amended in line with proposed Site Plan Rev AC (SEL) Rev C: Amendment to climbing mix and habitat boxes added (SEL) Rev B: Amended in line with client comments (SEL) Rev A: Boundaries amended in line with client comments (SEL)

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Lidl GmBH UK Retail Development Sept 20

Jan 20

Nov 19

Jun 19

Apr 19

New Hey Road HUDDERSFIELD

drawing title LANDSCAPE DETAILS

date drwn by drawing no scale

1:250 SEL Mar 19 R/2175/2F