

Notes on the Establishment of Proposed Planting & Post Planting Maintenance for residential development at Lucks Bridge, Spalding Common, Lincs, PE11 3ED.

Messrs Wilson.

June 2022.

Introduction.

These notes should be read in conjunction with the proposed planting plan LUC/22/01 and the accompanying planting schedule. These 3 documents form the submission to discharge the following Conditions of planning consent H16-0193-19.

C3(iv)	Details of tree & landscape planting.
C5	Planting Schedule & Details of post planting maintenance.
C6 (part)	Boundaries including hedges.
C10	Tree survey.

NB In accordance with the relevant guidance the Tree Survey will only include trees with a circumference greater than 100mm at a height of 1.5m.

MANAGEMENT OBJECTIVES & REGIMES

5.1 The following sections provide a description and specific management objectives for each landscape component along with the annual and occasional management regimes required. This section should be cross-referenced with the **Schedule of Management Operations** included in the Appendices.

5.2 Existing/Mature Trees

Description – The trees within the site are located on or near the boundary, some within neighbouring curtilages but with canopies extending into the development site.

Management Objectives

The management objectives for retained trees are to: Maintain the trees in as healthy and attractive condition, to ensure continuity in tree cover and their contribution to the landscape structure, biodiversity, and screening/amenity value of the site; and ensure that trees are healthy and safe, particularly in places close to buildings and private gardens.

Annual Works

- i) Visual Inspection: Trees should be regularly visually checked for the presence of any diseased or rotten wood; fungal or other infections/disease; and stability. Constant monitoring of the horse chestnut (ref. TD4) on the boundary with Plot 9 is advised. If any such issues are identified, e.g. bleeding canker, then the advice of a qualified arboriculturist should be sought immediately.
- ii) Annual Arboricultural Assessment: In any event, an Arboricultural Assessment should be undertaken once annually by a qualified arboriculturist inspecting the condition of existing

trees including any cause of increased risk to people or property. Furthermore, during the Arboricultural Assessment, the health of the trees shall be monitored, and any works required for health and safety or to promote the health and sustainability of existing trees shall be identified, scheduled and actioned at a suitable time of year following application and granting of any necessary consents required by the LPA.

5.3 Existing Hedgerows

Description – Conifer hedge to Northern boundary, owned by the neighbour, and mixed (predominantly Pyracantha) hedge to the southern boundary.

Management Objectives

The management objectives for the existing hedgerows are to: To maintain and enhance where appropriate the screening value, augmenting any hedgerow gaps; and to traditionally manage the hedgerow to develop its structure and to develop its wildlife value, particularly for birds and bats.

Annual Works

- i) Annual Cutting of Native Hedgerows: To maintain a natural profile, hand trim or cut the top and sides of native hedges once annually in late November (outside of the bird nesting season once leaves have started to drop), to an approximate height of 3m to form an even and tidy hedge line, retaining individual hedgerow trees. Cut larger stems and prune any diseased rotten wood back to sound wood. Remove all cut material from site.
- ii) Hedgerow Ground Flora: Leave the vegetation beneath the hedge line uncut to allow ground flora to develop. Avoid the use of herbicides and pesticides near native hedgerows.
- iii) Annual Arboricultural Assessment: An Arboricultural Assessment should be undertaken once annually by a qualified arboriculturist to inspect the condition of existing vegetation. The health of existing hedgerows shall be monitored and any works required for health and safety or to promote the health and sustainability of existing hedgerows shall be identified, scheduled and actioned at a suitable time of year, refer to Occasional Works section.

Occasional Works

- i) Occasional Works to Native Hedgerows: Where identified by the annual Arboricultural Assessment e.g. where native hedgerows have become overgrown or require more extensive work, carry out recommended remedial work, including coppicing or hedge laying (in sections) to thicken and rejuvenate the hedge line. All extensive works shall be carried out by a skilled, qualified and approved Arboricultural Contractor in accordance with BS3998: 2010 'Tree Work - Recommendations'. All arisings that result from such management works shall be removed off site, unless needed to enlarge or renew hibernacula or eco piles.
- ii) Timeframes & Specialist Advice: All works should be completed at an appropriate time of year and in accordance with relevant EU and UK wildlife legislation. Where possible this should be outside of the bird nesting season (i.e. between October through to March inclusive). In any event, according

to the nature of the works, there may be an additional requirement for monitoring or a watching brief by a qualified ecologist to ensure there are no nesting birds or bats present.

iii) Gapping up native hedges: Where sections of hedgerow become, thin or fail, gap up hedgerows with an appropriate mix of native species to an approximate density of 6 plants/linear metre, planted in a double staggered row during the planting season (November through to mid-March inclusively). Plants should be a minimum size of open ground whips 600-900mm high or 3L container grown stock for evergreen species (such as holly). Gap up areas of less dense growth with additional plants as required to achieve a continuous hedge line taking due allowance for natural growth and regeneration of cut material. All plants should be native (from a source of local provenance where possible), appropriate to the character of the area and should be selected to increase the species diversity of the existing hedgerow and maximise ecological value.

Proposed Specimen Trees

Description - New tree planting is incorporated to provide landscape structure, screening and amenity value. The tree planting will provide a soft foil to the new buildings.

Management Objectives

The management objectives for new tree planting are to: Ensure the satisfactory establishment and growth of new tree planting typical of the respective species; Promote conditions so that trees are healthy and safe; and Ensure continuity of the design approach and amenity value of tree planting.

Annual Works

- i) General tree maintenance during establishment: Check all trees for firmness and stability in the ground. Check and adjust tree ties, replacing if necessary. Top up bark mulch levels where necessary around the base of new trees, using the same or similar product to that previously supplied to maintain an approximate depth of 50mm to reduce competition from weeds and retain soil moisture. Where trees are in grass areas, remove weed growth by hand and retain a circle of bark mulch (approximate radius of 500mm) to aid mowing and prevent damage to the main stem. All trees shall be fertilised using a suitable and approved liquid feed (N10:P15: K10) at a rate of 60g/m² during early May and again in late September. Prune back any diseased or rotten wood (including the removal of main stems and limbs) back to sound wood as required. Remove all cut material from site.
- ii) Watering trees: Water trees during dry periods (being any period without substantial rainfall for 14 days or more), until trees are successfully established. Water at a rate of 25 litres per tree position into watering tubes, if installed. Apply water at a frequency of once per fortnight from April to the end of September (to a maximum of 15 visits). Increase watering frequency during any continuous hot weather lasting more than 7 days. The frequency of these visits will vary according to climatic conditions. Where restrictions are placed on the use of water, sources and costs of obtaining second class water shall be investigated. Any tree failures or excessive die back from drought stress will be made good.

Occasional Works

i) Checking and removal of tree stakes and ties: Review the need for tree stakes and ties annually for up to 4 years. Remove stakes and ties between 3 to 4 years after planting, but be sure trees are firm and stable. Stakes and ties removed shall be cut at ground level, below lowest grass height (to prevent snagging mower blades) or pulled from the ground and the post holes filled with suitable topsoil. If the tree is found to be weak or unstable after the stakes have been removed, then check the base of the tree for signs of rot. If rotten or unlikely to stabilise, remove the tree and replace. If the tree is free from rot or other cause of its instability, then reinstate a tree support, using 100mm diameter chestnut stake and single tie. The stake should be pushed into the ground with a post rammer, to a depth of 600mm and cut to one third the height of the tree. Fix the tree stem with a rubber tie and spacing device attached to at a point no more than 25-35mm below the top of the post, to prevent chaffing against the post in high winds. Remove old posts and ties and arisings and dispose off site.

ii) Long-term tree surgery works: After 10-20 years of maintenance as above (or earlier if required), newly planted trees will reach semi-maturity and may need corrective surgery. Trees should become subject to the annual Arboricultural Assessment and any works recommended shall be carried out in accordance with previous recommendations.

iii) Tree replacement and enhancement of tree cover: Any tree that dies or is necessarily felled, but which is not removed as part of a programme of tree removals, shall be replaced with a tree of appropriate species and stock size. Such replacement shall be with a tree of either the same or similar species as those existing. The option for replacing with a different species is to allow some flexibility avoiding problems encountered with 'Same Species Disease' and to ensure sustainable tree cover in the interests of visual amenity. Possible damage to drainage/services and adjoining building foundations must be considered before choosing a replacement tree species and location. Where alternative species are being considered, then the species should be suitable to the character of the location and adjoining trees. Once annually the site shall be considered for the need for any strategic replacement or enhancement planting, to broaden the age diversity of trees and tree groups, in the interests of the long-term sustainability of strategically important vegetation. Trees should be a minimum stock size of standards (10-12cm girth) and implemented and maintained in accordance with good horticultural practice. Replacement and enhancement planting are best undertaken during the planting season (November through to March inclusive).

Proposed Ornamental Shrubs/Groundcover

Description – The shrub and groundcover planting are incorporated to provide landscape structure, screening, amenity value and improve biodiversity. This planting will also provide a soft foil to the new buildings and hard surfaces/paving. This planting is chosen as a low maintenance option which is attractive and complimentary to the specimen trees.

Management Objectives

The management objectives for new shrub and groundcover planting are to: Ensure the satisfactory establishment and growth of new ornamental planting; Maintain planting in a healthy and attractive condition and ensure continuity of the design approach and amenity value of planting.

Annual Works

- i) Weeding: Remove all weed growth by hand as necessary to ensure weed free and tidy planting areas. Eight visits are required per growing season. Visits should occur approximately monthly in the growing season, subject to a weather conditions from April to October, with an extra visit outside of the growing season in December or January to inspect the condition of the beds. Take great care not to disturb sheet or bark mulch; top up bark mulch levels where necessary for the first 3 years, using the same or similar product to that previously supplied. Note: For planting using a nonbiodegradable weed suppressant membrane, reduce visits to 4 times per year in the growing season. Where a biodegradable weed suppressant fabric has been used, this will have disappeared within the establishment phase. Weeding frequency should therefore be varied according to the site and density of vegetation cover and in any event, should be between 4 and 8 i.e. whatever is required to achieve a weed free scheme. All weeds shall be removed from the site.
- ii) Spot Herbicides: Where required, persistent perennial weeds can be controlled using herbicide. For planting beds containing herbaceous plants and shrubs, apply a suitable folia-acting systemic translocated herbicide using a weed wiper device to avoid killing wanted plants. The use of herbicides should only be made following a risk assessment to consider potential effects on the environment and on human health, but also spray drift killing the wrong plants. The purchase, transport and storage of herbicides are regulated by Part III of the Food and Environment Protection Act 1985, Control of Pesticides (Amendment) Regulations 1997; the Health and Safety at Work Act 1974; the COSHH Regulations, the product COSHH sheet and EC Directive 91/414/EEC (the "Authorization Directive") and the Plant Protection Products Regulations 1995 as amended by the Plant Protection Products (Basic Conditions) Regulations 1997. All herbicides must have an appropriate full or "off-label" approval for use in a relevant situation. Refer to the Pesticide Safety Directive, for which the website is given here for your assistance: www.pesticides.gov.uk. All pesticides shall be applied in suitable calm weather conditions; allow for repeat spraying as required to achieve a complete kill. Apply herbicide as required and at intervals to ensure no regeneration of weed, usually equating to four sprays per year during the growing season at 6-week intervals, from late April onwards. The timing of visits may vary according to weather conditions. Extreme care must be taken to avoid damage to surrounding plants and grass, and to avoid spray drift. Any damage resulting from incorrect usage, spillage, and spray drift, to be rectified immediately.
- iii) General planting maintenance: At each visit firm in and straighten any loose plants. Top up bark mulch levels where necessary for the first 3 years, using the same or similar product to that previously supplied to maintain an approximate depth of 50mm to reduce competition from weeds and retain soil moisture. All shrubs shall be fertilised using an approved liquid feed (N10:P15:K10) at a rate of 60g/m² during early May and late September.
- iv) Pruning of ornamental planting: Prune back shrubs in the period between October to March in accordance with sound horticultural practices, pruning back to a node, shoot or bud; prune out dead, leggy and broken branches, without damage to the natural habit or appearance of plant without box clipping or rounding off plants. Prune out crossover branches, invasive suckers, dead wood, damaged stems, any spindly growths and any epicormic growth that will weaken the plant. Prune back Rosaceous and quick and leggy growing plants much harder than other species, but prune back by no more than 30% in any one-year. Prune Cornus varieties back to 200mm above ground every 3rd year, but retaining any young growths. Cut back Lavender after flowering. In terms of

herbaceous plants cut back all deciduous grasses in spring by removing dead stems before new growth starts to appear. Prune Geraniums hard after flowering to reduce foliage by 80%.

- v) Watering: Water both shrubs and specimens during dry periods (being any period without substantial rainfall for 14 days or more). Water all shrubs to field capacity (minimum 10 litres per m²) and water all large specimens at 10 litres each. Apply water at a frequency of up to 2 times per week from April to the end of September (to a maximum of 15 visits in any one calendar year) as required during any continuous hot weather lasting more than 7 days. The frequency of these visits shall be dependent upon an assessment of climatic conditions. Where restrictions are placed on the use of water, sources and costs of obtaining second class water shall be investigated. Any plant failures or excessive die back from drought stress shall be made good.

Occasional Works

Replacement and enhancement planting: Cut back any shrubs and herbaceous plants where they have become old, misshapen, leggy or they have lost their vigour. Also, prevent encroachment onto carriageway or parking bays. Specimens, shrubs or herbaceous plants that fail to show growth or develop full foliage (including plants damaged during management operations), where such plant failure leaves a gap in the foliage not filled by adjacent plants, shall be replaced with stock of the size, species and quality originally specified. Include any plants that are destroyed by vandalism, theft or similar cause. Specimens, shrubs or herbaceous plants so replaced shall be the same as those specified, previously supplied and approved. Nursery stock shall be container grown and shall be a minimum stock size of a 1L pot. Planting should be implemented and maintained in accordance with good horticultural practice. Include any works necessary to enable planting to be properly carried out i.e. removal and disposal of dead material off site and for topping up/replacement of bark mulch. Once annually the site shall be considered for the need for any strategic replacement or enhancement planting, to broaden the age class of vegetation in the interests of the long-term sustainability of strategically important vegetation.

Proposed Native Hedgerows

Description - New mixed native hedgerows (A & B) are proposed at the site entrance. Beech hedges will be planted to extend the existing hedges to the north and south, providing enclosure and acting as a leafy back drop to specimen tree planting. New hedgerows will consist of a mix of native species providing optimum value to wildlife, providing both shelter and food.

Management Objectives - The management objectives for new hedgerow planting is to: Ensure the satisfactory establishment and growth of new hedgerow planting with specified heights (see below), form and density according to species; Maintain planting in a healthy and attractive condition of value to wildlife.

The following hedge heights are recommended: Hedges A & B - 1.8-2.1m.

Annual Works

- i) Weeding and general maintenance: Remove all weed growth by hand as necessary to ensure weed free and tidy planting areas. Seven visits are required per growing season. Visits should occur approximately monthly in the growing season, subject to weather

conditions from April to October, with an extra visit outside of the growing season in December or January to inspect the condition of the beds. Take great care not to disturb sheet or bark mulch; top up bark mulch levels where necessary for the first 3 years, using the same or similar product to that previously supplied to maintain an approximate depth of 50mm to reduce competition from weeds and retain soil moisture. Note: For planting using a non-biodegradable weed suppressant membrane, reduce visits to 4 times per year in the growing season. Where a biodegradable weed suppressant fabric has been used, this will have disappeared within the establishment phase. Weeding frequency should therefore be varied according to the site and density of vegetation cover and in any event, should be between 4 and 8 i.e. whatever is required to achieve a weed free scheme. All weeds shall be removed from the site.

- ii) Cutting / trimming of hedges: Cut native hedgerow is no more than once a year, outside the bird nesting season. Cut larger stems, and prune any diseased rotten wood back to sound wood. Remove all cut material from site.
- iii) Watering of hedgerows: Water hedges during dry periods (being any period without substantial rainfall for 14 days or more). Water shrubs to field capacity (minimum 10 litres per m²) applying water in the morning or early evening to reduce evaporation. Apply at a frequency of up to 2 times per week from April to the end of September (to a maximum of 20 visits in any one calendar year) as required during any continuous hot weather lasting more than 7 days. The frequency of these visits will depend on an assessment of climatic conditions. Where restrictions are placed on the use of water, sources and costs of obtaining second class water shall be investigated. Any transplant/tree failures or excessive die back from drought stress shall be made good.

Occasional Works

Gapping up and replacement of hedgerows: Remove failed plants and replace with a plant of the same species, and appropriate size. Gap up areas of less dense growth with additional plants as required planted in a single row to achieve a continuous hedge alignment, taking due allowance for the natural growth and regeneration of cut material. Include any works necessary to enable planting to be properly carried out i.e. removal and disposal of dead material off site and for topping up/replacement of bark mulch.

INTEGRATED PEST (WEED, INSECT, AND DISEASE) MANAGMENT

“Integrated Pest Management, or IPM, is an approach to pest control [weeds, insects, and diseases] that uses regular monitoring to determine if and when treatments are needed, and employs physical, mechanical, cultural, and biological tactics to keep pest numbers low enough to prevent intolerable damage or annoyance. Least-toxic chemical controls are used as a last resort.”

As well as the benefits to biodiversity there are significant cost savings to be gained by this approach. General IPM Steps and Methods IPM Steps Include:

- 1) Prevention first: plant vigorous, pest-resistant, site-adapted varieties. Plan cultural practices to minimize pests (watering, mulching, pruning, etc.).
- 2) Identify/know the pest (weed, etc.) life cycle.

- 3) Set action thresholds – tolerate some damage.
- 4) Monitor regularly (keep records of monitoring).
- 5) When pests exceed threshold, use control method with the least non-target impact. (Try cultural, physical, or biological methods first. Avoid using pesticides if practicable. Any pesticides used must be non-residual/biodegradable. As a last resort, use spot applications of least toxic chemical.) Only treat when the pest is most vulnerable and its natural enemies are in their least susceptible life stage.
- 6) Keep records of control methods and results, evaluate, and adapt cultural practices.
- 7) Replace problem plants/designs with more pest, disease, and weed-resistant varieties.

Integrated Pest Management techniques for controlling weeds include mulching, pulling, allowing plantings to grow densely and shade ground, heat and hot water controls. As a preventative measure control all weeds before they go to seed. If herbicides must be used, choose the least toxic available and spot apply on weeds. **The use of Pre-emergent herbicides is to be discouraged** – maintaining a thick mulch layer combined with mechanical weeding is as effective.

Jonathan Biggadike PG Dip LA CMLI

Chartered Landscape Architect

Dragonfly Building Conservation & Landscape Design Ltd

Registered office: 6 Scoldhall Lane, Surfleet, Lincolnshire, PE11 4BJ.

m: (07772) 509351 e-m: jbiggadike@outlook.com

Appendices

SOFT LANDSCAPE SPECIFICATION

1.General Matters

All works, materials and operations will be in accordance with relevant legislation, British Standards, Regulations (including the CDM Regulations) and Codes of Practice.

All works shall be carried out in accordance with BS4428, Code of Practice for General Landscape Operations. Where the specification below contradicts forms of any British Standards, the specification below shall take precedence.

2. Herbicides and Pesticides

a. Herbicides and Pesticides shall be listed in the current Agricultural Chemical Approval Scheme, approved under the Control of Pesticide Regulation 1986 treated. All applications of herbicide shall be undertaken in strict accordance with the Control of Substances Hazardous to Health (COSHH) regulations and be applied in accordance with current legislation (FEPA) by licensed operators. Rates shall be as recommended by the manufacturer.

b. The estate must take all reasonable precautions to protect the health of human beings, creatures and to safeguard the environment. Care must be taken not to damage shrubs, trees, bulbs, grass surfaces or other planted material, whether owned by the Employer, or other parties and damage caused shall be made good at the Contractor's expense. To these ends maximum precautions must be taken to obtain accurate application of herbicides during suitable weather conditions.

3. Ground Preparations, Topsoil

a. Imported topsoil – Topsoil whether retained or imported shall comply with BS3882.1994.

b. Subsoil treatment – Prior to spreading topsoil, the subsoil shall be cleared of all rubbish, stones, bricks, concrete and other foreign matter. The subsoil shall then be thoroughly cultivated so that it is loose and free draining to a depth of 300 mm.

c. Finished levels of topsoil in beds after settlement shall be 50 mm below paving level to allow for mulch and 150 mm below the damp proof course level of any adjoining buildings. Turf shall be 50 mm above adjoining pavements, inspection covers and kerbs.

4. Plant Material

Plant material shall be good quality, well-shaped and with an adequate root system in compliance with the relevant British Standards BS3936 and BS4043.

5. Handling of Plant Material

To be in accordance with the Plant Handling Code by HTA and BS4043 for root balled trees. Adequate protection shall be given to all trees and plants to preclude failure due to lack of moisture of exposure during temporary storage on site. Bare root plants must be heeled in on the day of arrival and no bare roots shall be exposed at any time. All plants be moist at the time of planting.

6. Planting, Staking Protection

All work shall be carried out in accordance with BS4428 and BS5236 by qualified or experienced staff in accordance with recognised good horticultural practice.

7. Trees

a. Tree planting shall be done before shrub planting commences.

b. Tree pits shall have a width 300 mm greater than the width of the root ball and a depth of at least 200 mm greater than the root ball depth. Bare root tree pits shall be 600 mm cube for standard. The topsoil excavated shall be left alongside the pits for re-use. Any subsoil arising from pit excavations

shall be removed off site. Sides of pits shall be roughened and the bottom loosened to a depth of 150 mm.

c. Staking – Stakes to be peeled, 75 mm diameter pointed with no snags or projections as per BS4428. All trees below 10 cm girth shall be single staked, driven in the ground to 900 mm below finished levels, tops to be just below the canopy. Ties to be Rainbow type or similar approved product with a buffer.

d. Trees above 10 cm girth shall be double staked with 50 – 75 mm diameter staked driven vertically into the bottom of the pit close to either side of the root ball to a depth of at least 900 mm below finished level. The tops of the stakes shall be 150 mm below the canopy. Each tree shall be securely fixed to the stakes with two reinforced 2.5 cm wide rubber or Hessian tree tie loops, fixed to the stakes with galvanised clout nails. Along roads the stakes shall be positioned parallel to the kerbs.

8. Mulch

All planted areas and 1 m² around the stem of all trees in grass shall be mulched with a 50 mm layer of graded bark (15 – 50 mm diameter). Bark should be capable of good stability and be subjected to wind blow. Mulch shall be applied after watering. The final level after soil settlement, planting and mulching shall be even with adjacent kerbs and paved surfaces and 50 mm above adjacent lawns.