

Landscape Specification and Planting Methods for 21/1798/FUL

To be read in association with Landscaping Strategy

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Landscape Specification and Planting Methods for 21/1798/FUL

To be read in association with Landscaping Strategy

In respect of Livestock Collection Centre at Honiton

January 2024

Tree, Hedge & Traditional Orchard Tree Planting Methods

To be read in association with Planting Plan in respect of Class Q Betterment Scheme at Moredon

Landscaping Plan

- 1 The following document provides the hedge planting and management guidelines and methodology to support the Landscaping Strategy Plan. In addition, the proposals include for the excavation of a strip of hardcore and compacted aggregate against the boundary of the site.
- 2 The purpose of the planting is to:
 - Provide visual context to the proposed development; and
 - Create a new hedge with landscape and ecological benefits.
- 3 The details of this part of the long-term landscaping plan include:
 - A landscape planting plan
 - Written specifications (including cultivation and other operations associated with plant establishment)
 - Schedules of plants, noting species, planting sizes and proposed numbers /densities where appropriate, and
 - Implementation timetables including a 5 year management plan.
- 4 All landscaping, including hedge planting works, shall be carried out in accordance with the approved details and to a reasonable standard in accordance with the relevant recommendations of appropriate British Standards or other recognised Codes of Good Practice, as set out in the specification below.
- 5 Any trees or hedge plants that, within a period of five years after planting, are removed, die or become defective, shall be replaced as set out below.
- 6 The unique context of this former farm shed site, with its established farm building character Set within hedges and the context of farmed fields means that there is very little that can be achieved within the boundary of the site. In this regard, traditional hedges on hedge banks will make a positive contribution to the context of the site as well the gapping up of the existing hedges on the boundary of the site.

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INTRODUCTION

- 7 Plants are living things, even when dormant and transplanting and establishment involves them in considerable stress.
- 8 If the process is to be successful it must be planned, managed and supervised to satisfy the basic biological requirements of the plants.
- 9 To achieve this, the planting must be followed by a period of planned aftercare, covering at least five growing seasons.
- 10 These recommendations set out the requirements that should be followed and specified in detail according to the situation on each particular site. They assume that the nurseryman supplying the stock has adhered to the "*Recommendations for Plant Handling from lifting until Dispatch*" and the purchaser has specified, and the nurseryman has adhered to, the "*Specification for Packaging and Transporting Nursery Stock*¹".

Hedge planting along the eastern boundary around the perimeter of the site

- 11 The boundaries facing onto open farmland to the east and north are to be planted with a traditional hedge with an agrarian rural character. This hedge is to be composed of mixed native species. Blackthorn has not been included because of its tendency to sucker.

PLANTING SCHEDULE: New Hedges

Height (cm)	Species	% of each mix	No.
New Hedge Planting c 200m @ 7 plants /m run			
40-60	Crataegus monogyna (Hawthorn)	25%	350
40-60	Ilex aquifolium (Holly)	5%	70
30-40	Lonicera periclymenum (Honeysuckle)	5%	70
40-60	Corylus avellana (Hazel)	25%	350
40-60	Acer campestre (Field Maple)	15%	210
40-60	Euonymus europaeus (Spindle)	15%	210
60-80	Quercus robur (English Oak)	10%	140
Total		100%	1400

¹ <https://www.csdhub.com/wp-content/uploads/2014/12/The-National-Plant-Specification-Handling-and-Establishment.pdf>

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Individual Trees

- 12 A small transplant left undisturbed in its final location will produce a better root system than a pot-grown standard tree. Although standard trees produce instant results, they are expensive and less windfirm than transplants. Accordingly, all of the individual hedgerow trees proposed are to be planted as whips or transplants and be allowed to establish a strong root system to support the tree through its life².

PLANTING SCHEDULE: Individual Hedgerow trees

Height (cm)	Species	% of each mix	No.
PLANTING SCHEDULE: Individual trees 1/20m of new hedge length			
40-60	Acer compestrae (Field Maple)	50%	3
40-60	Quercus robur (English Oak)	50%	3
Total		100%	6

External Pressures

- 13 Even when the work is properly specified, there are many outside pressures that provide strong incentives to set aside or compromise the biological and other principles and factors. In order to counter these pressures, it is essential that:
- The planting specifications are prepared in detail to suit the requirements of the site.
 - The planting is planned, as far as possible in advance of the planting season and plants are ordered, in the normally available sizes. (For guidance see National Plant Specification).
 - The planting area is adequately prepared when soil conditions are suitable, preferably in advance of the actual planting.
 - Arrangements are made for close liaison with the nurseryman during the planting season so that the supply of plants can be co-ordinated with the planting on site.
 - Adequate facilities are available for the receipt and storage of plants, including a conveniently situated water supply.
 - The receipt and care of the plants and the planting is only carried out by appropriately skilled operatives under the control of competent management and with adequate supervision.
 - After care is properly specified in advance and the finance secured as part of the overall planting and establishment cost.

² <http://www.calu.bangor.ac.uk/Technical%20leaflets/050205%20parkland%20trees.pdf>

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PLANTING SEASON

Receipt and Unloading

- 14 **Deciduous plants** - The natural planting season is during the dormant period which is normally from mid October to the end of March, but early planting, before the end of the year, is generally more successful than planting from January onwards. Late plantings are particularly vulnerable to spring droughts and should be avoided unless watering can be carried out, or planting can be done with cold stored plants.
- 15 **Evergreens** establish more readily if planted in early autumn or late spring; provided water can be applied in dry spells of weather; however, these may be planted throughout the year in appropriate weather conditions provided they are regularly watered.
- 16 The nurseryman shall give adequate notice of the date and time of delivery within the agreed programme, and the purchaser shall ensure that adequate numbers of staff with mechanical lifting aids, where previously notified, are available to assist the off-loading without delay. During unloading damage in handling shall be avoided.

TEMPORARY STORAGE ON SITE

Bare Root Plants and Root-Wrapped Plants

- 17 The purchaser shall inspect and check the plants as quickly as possible after unloading to ensure each requirement has been complied with by the supplier.
- 18 Whenever possible the deliveries should be planned so that the plants can be planted as soon as possible. If this is not possible the plants shall be moved into temporary storage.
- 19 Where the daytime air temperature is under 10°C plants may be stored in their packaging, under cover and away from sunlight, for a maximum of 7 days after receipt from the nurseryman but this may be extended to 14 days if temperatures are under 5°C. During this time the roots must be kept moist.
- 20 Bare root plants and plants root-wrapped in porous material should be heeled-in or plunged into moisture retentive material. Any non-porous root wrappings shall be removed before heeling in.
- 21 The roots of all plants shall be moist and placed so that all are in contact with the plunge medium. In order to achieve this, a free moving medium is required, such as a 50/50 mixture of coarse sand and peat, or sawdust, and care must be taken to ensure no degradation or heating up of the material occurs. Bundles of plants will require cutting open and spreading out so that intimate contact between the roots and the plunging medium is achieved. The plunging site shall be well drained and sheltered, and stout rails will be needed to support standard trees and other large stock. An adequate supply of water points is essential and the plunge medium must be kept moist at all times.
- 22 If necessary, plants may remain heeled-in from November to mid March, but the period shall be kept as short as possible. Beyond this period, plants required for late plantings shall be kept in cold store. Any other plants shall be planted out in nursery beds for a further season or containerised prior to the start of new growth.

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- 23 Root-balled plants in porous material shall be supported upright with the ball immersed in a deep layer of moist straw, hay, sand, peat, pulverised bark, sawdust, suitable soil or other suitable material. Watering may be essential to prevent the ball drying out.
- 24 Containers shall be stood upright on well-drained, weed-free ground. Sufficient watering will be required for container grown stock at any time of the year to prevent the compost drying out. Tall plants will require support to prevent them blowing over.
- 25 Container grown stock and root-balled plants shall be well watered before transportation to the planting site. The roots of bare-root stock shall be moist before removal from the heeling-in or plunge medium and the roots shall be placed directly into black polythene bags to prevent drying-out and kept in them until immediately before planting. Consignments supplied in bulk shall be split up and wrapped in black polythene bags to minimise the length of time plants are exposed to drying during the planting process. (The use of co-extruded black and white polythene bags is recommended.). Plants shall be re-labelled as necessary.

GROUND PREPARATION

- 26 The planting site shall:
- a. Be naturally or physically drained, or raise by mounding so that the plants will not be subjected to waterlogging at any time.
 - b. Have a soil texture and structure that will retain and release moisture and nutrients to the plant and a crumb structure that will promote root growth to at least 3 times the width and 1.5 times the depth of the roots of the plants to be planted.
- 27 The following are essential points that should be considered and specified as necessary if these properties are to be achieved:
- a. Any ground preparation is best carried out in advance of the planting season, when the weather is more reliable and less soil structure damage is likely to be caused. This will allow more time for the planting operations but it is essential to ensure that the soil is protected from construction traffic or other compaction or pollution.
 - b. Extremely heavy and poorly structured soils may need to be improved by the thorough incorporation of suitable organic matter and special drainage arrangements. Extremely light soils may also need added organic matter to improve their water holding capacity and avoid the need for frequent irrigation. (Peat based composts or similar are not suitable for these purposes).
- 28 Where planting is proposed on imported soil or made up ground or where the soil structure has been impaired, a good soil structure needs to be established before planting takes place. This may involve deep soil cultivation and draining, followed by grassing or herbaceous cover, and the delay of planting for at least one growing season.
- 29 If ground preparation as specified in para 28 above is necessary it shall be carried out over an area at least 3 times the diameter of the root spread, and 1.5 times the depth of the roots, of the plants to be planted.

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PLANTING

Soil Conditions for Planting

30 At the time of planting, the soil shall be moist and friable and not frozen, excessively dry, or water-logged.

31 Hedge plants should be planted in groups of 5-7 of the same species.

Planting Requirements

Stabilising Support and Protection

32 The excavated hole shall be of sufficient size to accommodate the spread roots and the stock shall be planted so that after any settlement it is at the same depth as it was grown in the nursery. If the sides of the planting hole become smeared during digging, particularly on heavy clay soils, the smearing shall be broken up before planting.

33 Most plants above 1m high will need a support to hold them secure at ground level either by stakes or by cables for very large stock. Stakes or stout canes as specified, shall be inserted before planting. Plants shall be held secure against the stake by the use of a proprietary tie, or similar method, ensuring that the stem shall not chafe against the stake and there is space for stem expansion. Short stakes to hold the base of the stem are preferable.

Treatment of Plants immediately Prior to Planting

34 Bare root plants shall be kept in polythene bags until immediately before planting. They shall be kept out of direct sunlight unless co-extruded bags are used. Similarly, all containers and wrapping, unless fully biodegradable, shall be removed at the latest point before planting.

35 Root-balled plants and plants in root control bags shall be placed in the planting pit before the hessian or other protective material is removed to avoid disturbance of the root-ball. Wire netting shall be left on the root ball provided that there is only biodegradable porous material between the wire netting and the root-ball. Root control bags should be removed.

36 Damaged or torn roots and stems shall be cut back cleanly with a knife or secateurs and, particularly with container-grown plants, any coiled roots shall be spread out or cut to prevent future stability problems.

AFTER-CARE

37 During backfilling around the plant, the soil shall be lightly firmed to ensure intimate contact with the roots, but with large material, successive layers of soil will need to be firmed as backfilling proceeds. The layers of soil shall be firmed separately so that the plant is securely held but penetration of moisture is not restricted. Snow must not be allowed to become mixed with the backfill material. Plastic perforated pipe for irrigation should be installed as part of the back filling, where specified. (see para 45 below).

38 After planting, any damaged, dead, diseased or crossing branches shall be removed by pruning.

39 Opinions differ on whether the size of the head of a standard tree should be reduced after planting, but if it is decided to do so, do not prune the central leader if it is intended that the tree should grow to full stature. (see BSI 3936 Part I Appendix Table 4 for guidance).

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- 40 If the roots of newly planted plants are loosened, they shall be re-firmed as soon as practicable. This is readily achieved with the toe of the boot, to exclude air pockets from around the roots and particularly next to the base of the stem.
- 41 Weeds and grass compete for moisture and nutrients and shall be eliminated until the plants are well established, usually for at least 2 years. Cutting or mowing weeds does not prevent this competition. Pre-planting site preparation may give a weed-free start. A minimum of a 1.2m diameter weed-free area shall be maintained around each transplant, by herbicide applications, mulches or hoeing three times per year / throughout the whole of the first three years, decreasing to once per year for years 4 and 5. Larger weed-free areas are appropriate for larger plants and should at least cover the surface of the original planting pit.
- 42 Mechanical strimmers and mowers must not be used near the stems of the plants as they can seriously damage the bark.

Providing Moisture

- 43 Though local climate and soil types will vary the requirements, as a guide it is recommended that during the growing season, newly planted trees and shrubs shall be irrigated following any four week period without appreciable rainfall. This may not apply to forestry planting but is particularly important for amenity trees in harsh urban or exposed positions.
- 44 For reasonable growth, irrigation shall be applied at fortnightly intervals to moisten the soil so that the full rooting depth of soil is saturated. The amount of water required will vary considerably according to the texture and structure of the soil but as a guide a heavy standard tree will require at least 20 litres and a small transplant approximately 10 litres for each watering. Soils with low water holding capacity will only need smaller amounts of water but with irrigation carried out more frequently.
- 45 Container grown stock using soil-less compost may require more frequent watering in the early stages as once the compost dries out it can be very difficult to re-wet.
- 46 Water must always be applied so that the soil is moistened to the depth of the root zone. For large nursery stock this can be facilitated by installing lengths of perforated plastic drainage pipe, or similar devices, in the planting pit at the time of planting.
- 47 Overwatering is wasteful, both of water and other resources, and will only serve to leach nutrients away from the soil.

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Protection – Stake Maintenance

- 48 Plants may be damaged by voles, mice, hares, rabbits, deer, farm stock and vandals and suitable protection shall be considered at the planning stage. Regular inspections, say once a month, are essential so that appropriate action may be taken. Local circumstances will dictate whether it is best to fence a large area, use individual guards, or use poison for rodents. Maliciously damaged plants shall be replaced as soon as possible.
- 49 Stakes and ties must be maintained to prevent damage to trees. Stakes shall be inspected regularly to ensure they remain secure and ties shall be adjusted at least once a year to ensure they are not cutting into the stem. As soon as they are no longer necessary, stakes shall be removed to encourage the trees to develop naturally. This should normally be up to 3 years after planting.

HEDGE CREATION METHOD STATEMENT

- 50 The new hedges will be planted with native species. Individual field maple and oak are included to grow into tree groups, as occurs in the locality.
- 51 The contractor will plant whips (40-60cm) in a double row (rows approx. 50cm apart) with plants staggered in the rows (plants approx. 35cm apart in the rows) as per the planting plan.
- 52 New plants will have to be protected from livestock or browsing rabbits, hare or deer. Tree guards should be spiral guards with a suitable stout cane / stake support. Minimise weed competition in the first 3-5 years after planting with mulch of muck, wood chip or proprietary mats.
- 53 The hedge, when newly planted, will look very similar to the example on the Devon Hedge Group website:

Example of newly created, seeded and planted hedge bank



New hedge, Wonnacott Farm 2, 30 Apr 2014, Rosie Yells

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Method statement

Hedge planting

- 54 A hedge will be planted as per the planting schedules above.
- 55 The plants should be purchased from a local nursery. This will add to the local ecological value of the planting and enhance establishment. Planting: The line of the hedge on the new hedge bank will already be cultivated and topped with topsoil. Plant between November and March, ideally before December. Do not allow roots to dry out before planting.
- 56 A mulch (a layer of material laid over the surface of the ground to suppress weed growth and retain moisture) will be required to suppress weeds and retain moisture. Suitable mulches include straw, composted bark, and woodchips. Apply a mulch immediately after planting.
- 57 The proposed new field maple and oak tree planting needs to be incorporated when the hedgerow is being planted. Two field maples need to be included at approximately every 10m, and an oak on each of the two main north-south running hedges and be established in exactly the same way as the other hedge plants. Try and keep trees at irregular spacing to make for a more natural landscape. The advice on this from Natural England is to take cues from the local surroundings as to what is most appropriate. Mark the locations of these trees with a simple fabric tie on the stem (remove when maturing) and ensure that these are not trimmed or laid with the adjacent plants.
- 58 Watering: As the hedge establishes it will require watering. Either lay a hosepipe with perforations or an irrigation hose into the bank to enable semi-automatic watering, or water on planting and regularly during dry periods for the first two years until well-established. The principle of the watering method is to encourage deep rooting, and therefore a weekly heavy soak is far better than a daily light misting.
- 59 Protection: If the hedge adjoins agricultural land grazed by stock, fencing needs to be provided far enough away to ensure that sheep / cattle / horses do not browse the tops of the hedge plants.
- 60 New hedges may be vulnerable to damage by grazing stock, rabbits, hares or deer and so need protection. Fencing and other protection like rabbit guards are, however, expensive so do spend time making sure they are necessary. Unless there is a known problem with rabbits or hares, spiral guards may prove counter-productive, encouraging spindly growth and being difficult to remove as well as unsightly. Netting is an alternative form of protection, either on its own or in conjunction with stock fencing. To be effective against rabbits the bottom 25cm must be laid out in the direction of attack and securely pegged to the ground. Fencing is not included in the specification and will be undertaken in accordance with the normal agricultural management practices of the farm.
- 61 Maintenance: Some weed control will be needed. The line of the new hedge must be kept weed free for 3-4 years to allow the plants to establish. Any plant which competes with the hedgerow plants for nutrients, moisture and light, including brambles, nettles and grasses, is likely to reduce growth rates. Any dead plants need to be replaced like-for-like for the first five years.
- 62 Trim and shape the hedge without cutting the leading shoots until the required length is reached (1.4m for stock-proof hedge, 1.8m for shelter hedge).

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- 63 The existing western boundary hedge is to be maintained at over 1.5m of woody growth as part of the planning condition.
- 64 It must be decided at an early stage whether the hedge will be laid. A well laid hedge is stock-proof and attractive and after 3-4 years forms a better habitat for birds than a trimmed hedge.
- If to be laid: The Plants will need to be sided up until the leaders have reached pleaching height (2.5-3.5m). Usually laid after 8-15 years.
 - If not laid: All the shoots should be trimmed from the first year to produce dense bush growth.
- 65 The hazel will be coppiced in short sections on a 7 year rotation such that there remains a broadly continuous along the length of the bank.

Gapping Up of Existing hedges - Hedge Restoration

- 66 Hedge restoration is specifically included in the Landscaping Plan, mainly because the hedges along the roadside boundary hedge sections adjacent to the lay-bys are in need of bolstering. The restoration plan is to ensure the long-term good health of hedges, and the following standard advice is included.
- 67 The brambles within these hedge sections are to be hooked out and the sections are to be planted with the same planting mix as specified for the new hedge. Hedgerow trees are to be included in the mix equating to one tree per 20 metre run of hedge. Once planted, the hedge is to be let up and then to be trimmed at a height 25cm higher each year for 5 years, after which it is to be maintained at the new height 1.25m above the current hedge height.

Remedial work to western boundary

Bank and field margin seeding

- 68 A 1.25 metre wide strip of compacted hardcore and aggregate is to be removed to a depth of 300 millimetres and this replaced with uncompacted topsoil.
- 69 The 1m wide margins alongside the existing hedgebanks to the west of the site, are then to be tilled to produce a suitable seedbed.
- 70 These 1m wide margins and any areas of bare topsoil on the banks will then be planted with a field margin / heritage grass mix such as the following example from a local seed company, sown as per the seed supplier's instructions. As a guide to getting a good establishment, 70 grams of seed per m² (2 oz per square yard) is recommended. Measure the bare-topsoil area and allow a little bit extra for subsequent filling in or patching that may be necessary at a later stage:

- 30% Creeping Red Fescue (*Festuca rubra*)
- 20% Hard / Sheep's Fescue (*Festuca ovina*)
- 20% Tall Fescue (*Festuca arundinacea*)
- 15% Cocksfoot (*Dactylis glomerata*)
- 15% Timothy (*Phleum pratense*)

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- 71 Ideally sow in August – September prior to the hedge planting season; but it is possible to establish grass between late March to mid-October when the air temperatures are over 10-degrees centigrade.
- 72 Either roll or rake the ground and then tread well before sowing. Sow the grass seed as evenly as possible. Rake to aid distribution, and to bury the seeds to a depth of 3-6 mm (1/4-1/8 inch).
- 73 Water until grass plants are established. The species already present on the site will migrate into the newly seeded areas such that over time the established and newly seeded areas blend.

5-Year After-care Management

- 74 A landscape or arboricultural consultant shall make an annual inspection of new and existing trees, hedgerows and woodland and any beating up and other necessary measures to maintain healthy growth of plants and eliminate hazards, pests and disease shall be carried out in accordance with recommendations made.
- 75 Any trees or plants that, within a period of five years after planting, are removed, die or become, in the opinion of the landscape / arboricultural consultant or Local Planning Authority, seriously damaged or defective, will be replaced as soon as is reasonably practicable with others of species, size and number as originally approved, unless the Local Planning Authority gives its written consent to any variation.
- 76 The reason for this is to ensure the provision, establishment and maintenance of a reasonable standard of landscape in accordance with the approved designs.

Anne Priscott (CMLI) January 2024