

Memorandum



To Chris Bolton

From C Williams

Reference

Checked N Jones

4791.S.201.MMB.06.XX.ME.NX.19040

Approved C Probert

Office Cardiff

Date 07/06/16

Subject Five Fords WwTW AAD Planting Schedule

The following sets out the required planting schedule for the screening bund at Five Fords Wastewater Treatment Works, the location of which is shown on Drawing DCWW-46791-S-201-06-XX-DR-XX-19127.

Soil Preparation

The ground will be prepared prior to planting to optimise the success rate of the new plants. The planting area will not be trafficked by vehicles and no materials will be stored in this area to prevent soil compaction.

The area will be cleared and the soil de-compacted, the hedge trench and tree pits will then be dug to the appropriate depths as per Table 1.

Table 1 Planting Depths

Plant Specification	Dimension of excavation W x W x D (mm)	Depth of cultivation at the base of pits or trenches (mm)
Feathered 0.9m – 1.2m	600 x 600 x 600	200
Transplant 40cm – 60cm	300 x 300 x 300	150

Unless the soil is naturally free draining the planting trenches and pits will be laid with a thick layer of washed gravel or crushed stone (0-25mm) to facilitate drainage. The topsoil will be mixed with mulch/compost prior to backfilling at a ratio of 4:1 compost:soil to improve the nutrient content and water retention of the soil as well as serving to protect the new plant roots from frost damage.

Planting

All planting is to be carried out between the months of November and March and in accordance with BS 4043, BS 4428 and BS 5837. No planting or preparatory operations will take place when the ground is frost bound, covered by snow, excessively wet or waterlogged or in excessively dry or windy conditions. For exact species and numbers of plants for each location, please refer to Table 2.

Table 2 Planting Schedule

Species		%age mix	Height (cm)	Form	No. / m ²	Specification
<i>Corylus avellana</i>	Hazel	30	45-60	Br	0.61	Transplant 1 + 2
<i>Crataegus monogyna</i>	Hawthorn	30	45-60	Br	0.61	Transplant Cut back to 45cm before planting
<i>Prunus spinosa</i>	Blackthorn	10	45-60	Br	0.64	Transplant 1 + 2
<i>Ilex aquifolium</i>	Holly	5	45-60	Ctr	0.64	Minimum three breaks in lower third

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Species		%age mix	Height (cm)	Form	No. / m ²	Specification
<i>Quercus robur</i>	Oak	5	45-60	Br	0.64	Transplant 1 + 2
<i>Fagus sylvatica</i>	Beech	5	45-60	Br	0.61	Transplant Cut back to 45cm before planting
<i>Sambucus nigra</i>	Elder	5	45-60	Br	0.64	Transplant 1 + 0
<i>Corylus avellana</i>	Hazel	5	90-120	Br	0.64	Feathered. Staked and tied
<i>Quercus robur</i>	Oak	5	90-120	Br	0.64	Feathered. Staked and Tied

BR = Bare Rooted

CG = Container Grown

All plants to be supplied will comply with BS 3936 Parts 1 to 10 as relevant, BS 4043 and the National Plant Specification, published by the Horticultural Trades Association. Plants are to be lifted, packed and handled in accordance with the aforementioned standards.

The provenance of all plants will be in accordance with the Forestry Commission Practice Note 8: Using Local Stock for Planting Native Trees and Shrubs.

During the period subsequent to the receipt of the plants and prior to planting, the nursery stock will be treated in accordance with the measures specified below:

- Bare-root plants. Prior to despatch or on arrival at site, plants will be stored for up to 3 days in bundles with a covering of freely draining, moisture-retentive material such as wet sacking or straw which is moistened periodically. For a storage period of more than three days, bundles will be opened and the plants spread out and heeled into trenches in topsoil, minimum depth 30cm, with the roots fully in contact with the soil.
- Bare-root plants transported in plastic bags. Plants in bags will be stored no more than one layer deep and be protected from direct sunlight at all times. Where delay of more than one day occurs, the bags will be stored upright, not stacked, in a cool shady position or shed, or placed in a cold store. If cold store facilities are not available, plants will be removed from bags and heeled into soil with all roots covered.
- Container or cell grown plants. Containers will be maintained upright, watered as required, sheltered and protected from frost, and will not be packaged or stored more than one layer deep. Degradable pots, cells or root-trainers that may disintegrate in transit will be enclosed in polythene film (250 gauge) and firmly secured.

Maintenance

Plants and planting areas are to be maintained for five years from the completion of planting. To ensure that new plants are given the best chance to become established, a 1m diameter weed free area will be maintained around all new planting for the first three years following planting. The new hedgerow will be checked annually during the months of August and September for the first four years after planting and any failed plants will be replaced within the subsequent planting season (November to March). At the end of the five years initial maintenance programme, a minimum of 90% of the original plant numbers will persist.

The need for maintenance works at each location will be reviewed by the Mott MacDonald Bentley Arboriculturalist each year and highlighted to DCWW. Following inspection, any plants that are missing, damaged, dead or failing to make satisfactory extension growth will be replaced in the next planting

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season immediately following the inspection. Replacement plants species and size should be as directed by the arboriculturalist.

In each year a minimum of four maintenance visits are to be carried out by the designated maintenance team (as contracted by DCWW).

In each year, maintenance activities are to be carried out as follows:

March

- Weeding to clear planted areas;
- Checking of stakes, ties and tubes;
- Removing dead species; and
- Pruning / Coppicing (as required) to promote a healthy bushy plant.

May to July

- Weeding to clear planted areas;
- Checking of stakes, ties and tubes;
- Removing dead species; and
- Pruning / Coppicing as directed by an arboriculturalist.

November

- Planting replacement species (if required);
- Weeding to clear planted areas;
- Checking of stakes, ties and tubes;
- Removing dead species; and
- Pruning / Coppicing (as required) to promote a healthy bushy plant.