

**Planting and Aftercare**

**Topsoil - all planting areas**

The rooting depth shall normally be 450mm for grass, 600mm for shrubs and 900mm for trees. This will comprise of both topsoil and subsoil, the depth of topsoil spread shall not normally exceed 300mm. Suitable (loosened) subsoil shall provide the remainder of the minimum rooting depth. Any source of topsoil will be a well structured, clay loam, "as dug" soil with an independent soil analysis backed up with certification of conformity including all current environmental agency legislation and British Standard 3882 (Appendix A).

**a. Shrub planting**

- When inspected visually, plants shall be free from pests and diseases, damage and signs of nutrient deficiency and toxicity.
- Plants will have adequate root systems and flowering plants shall have a reasonable expectation that they will give a good flower display the season following their planting out into open ground.
- All shrubs, hedging plants, climbers, herbaceous plants and bulbs should comply with BS 3936 (Appendix B).
- Planting will be avoided in frozen ground conditions and waterlogged soil.
- All plants will be firmed and watered if they are planted in dry weather.
- Planting holes should be about 150mm wider than the root spread.
- The shrubs should be set in the holes so that the soil level, after settlement, will be at the original root collar level on the stem of the shrub.
- The holes should be backfilled to half their depth then firmed by treading before the remainder of the topsoil is returned and firmed again.

**b. Tree planting - larger trees**

- Sizes/spacing: Light feathered standards in the size range 6 - 8 cm girth.
- All tree stock should be to the specifications detailed in BS3936-1 Nursery Stock
- All trees and shrubs shall conform to the British Standard for Nursery Stock - BS 3936, parts 1, 2, 3, 4, & 5, as published by the BSI.
- They shall be nursery grown, "bare root", "root-balled", or "container grown", unless otherwise specified. No plant shall have a "man made" ball.
- Bare root shrubs or trees may be used where specifically indicated on plans.
- All deciduous street trees or trees adjacent to footpaths shall be free of branches to 2m above ground unless specified.
- Trees with bark included within major branch unions will not be accepted.
- Roots of field-grown trees must be intact and protected from desiccation with plastic wrap, they must be planted as soon as practicable following delivery to site.
- Container grown trees must have the container on the root ball or the root ball must be appropriately protected from desiccation.
- Trees with root balls that have banded or girdled roots are not acceptable and should be rejected.
- The trees within the boundary areas and margins of the site should be protected by staking to windward with suitable stakes and ties at no more than 1/3 height to encourage root development. Trees should be planted in the recommended manner in respect of planting hole size in relation to bare root / root ball size and be in-filled with quality topsoil. See planting diagram on this plan.

**Tree Planting - individual trees**

- Species / size
- Ac: *Acer campestre* (Field Maple): 8 - 10 cm bare root **x3**
  - Qp: *Quercus petraea* (Sessile Oak): 8 - 10 cm bare root **x1**
  - Ag: *Alnus glutinosa* (Alder): 8 - 10 cm bare root **x3**
  - Pa: *Prunus avium* (Cherry): 8 - 10 cm bare root **x3**

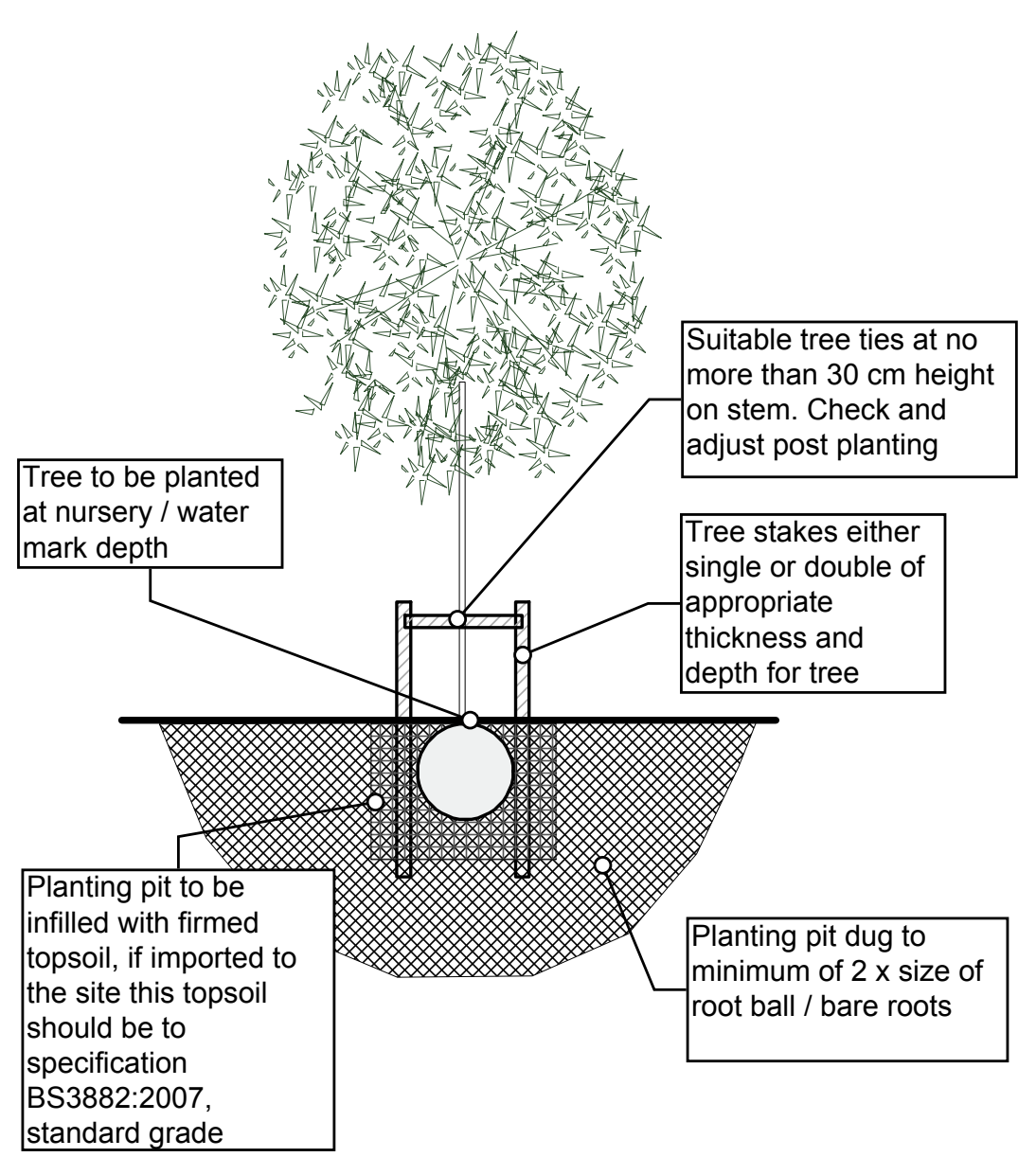
**Mass Planting: Larger Trees - see notes for planting densities**

- Species / size: as detailed
- Qp: *Quercus petraea* (Sessile Oak): 90 - 120 cm bare root
  - Bp: *Betula pendula* (Silver Birch): 90 - 120 cm bare root
  - Ac: *Acer campestre* (Field Maple): 90 - 120 cm bare root
  - Ms: *Malus sylvestris* (Crab Apple): 90 - 120 cm bare root
  - Ag: *Alnus glutinosa* (Alder): 90 - 120 cm bare root
  - Pt: *Populus tremula* (Aspen): 90 - 120 cm bare root
  - Sa: *Sorbus aucuparia* (Rowan): 90 - 120 cm bare root

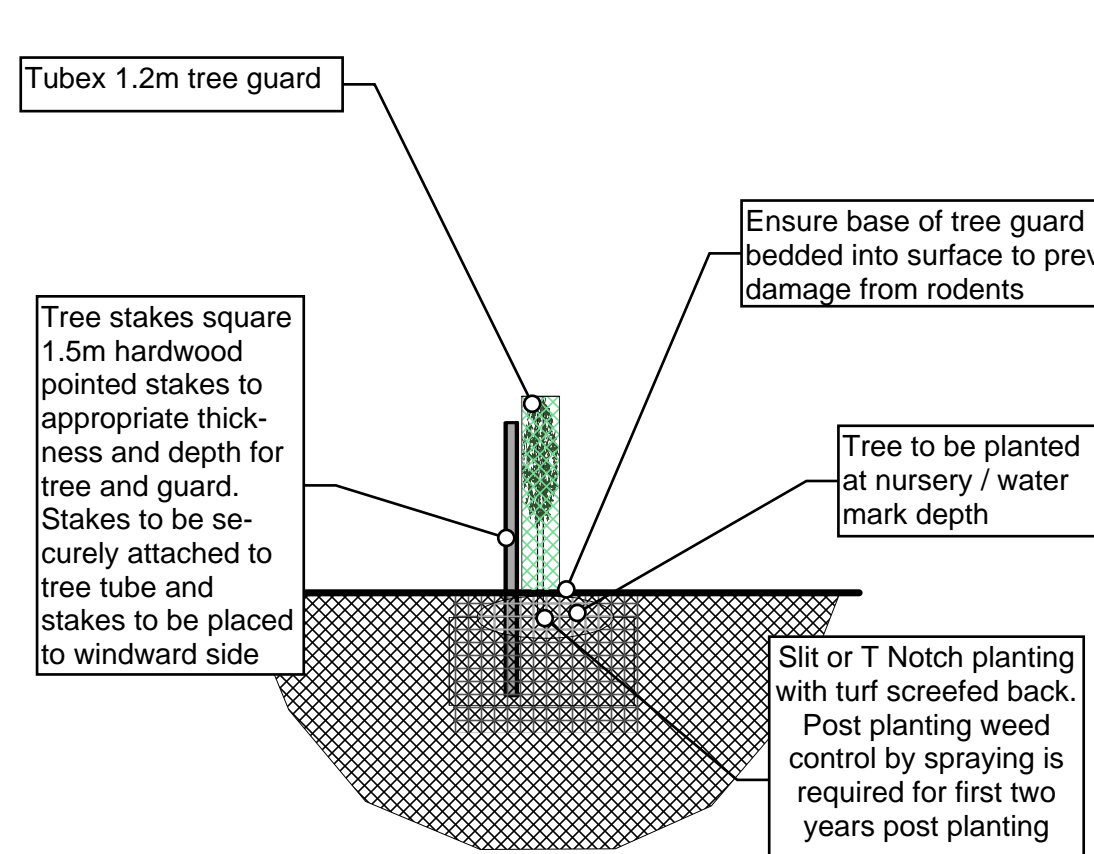
**Mass Planting: Smaller Trees / Shrub Planting - see notes for planting densities**

- Species / size: all feathered stock
- Ca: *Corylus avellana* (Hazel): 1+1 60-90 bare root
  - Eu: *Euonymus europaeus* (Spindle): 1+1 60-90 bare root
  - Ia: *Ilex aquifolium* (Holly): 2L container 60-90
  - Cm: *Crataegus monogyna* (Hawthorn): 1+1 60-90 bare root

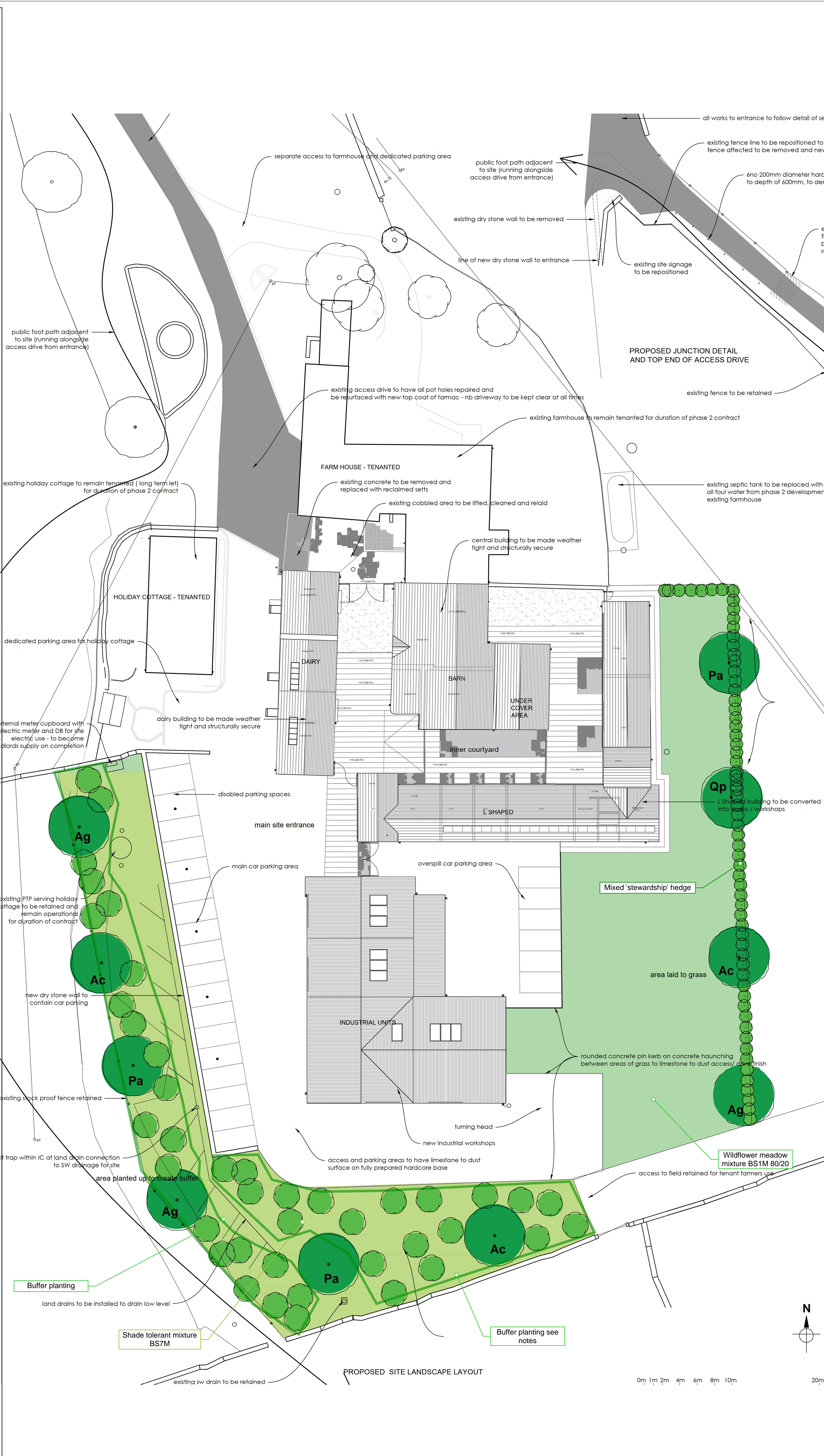
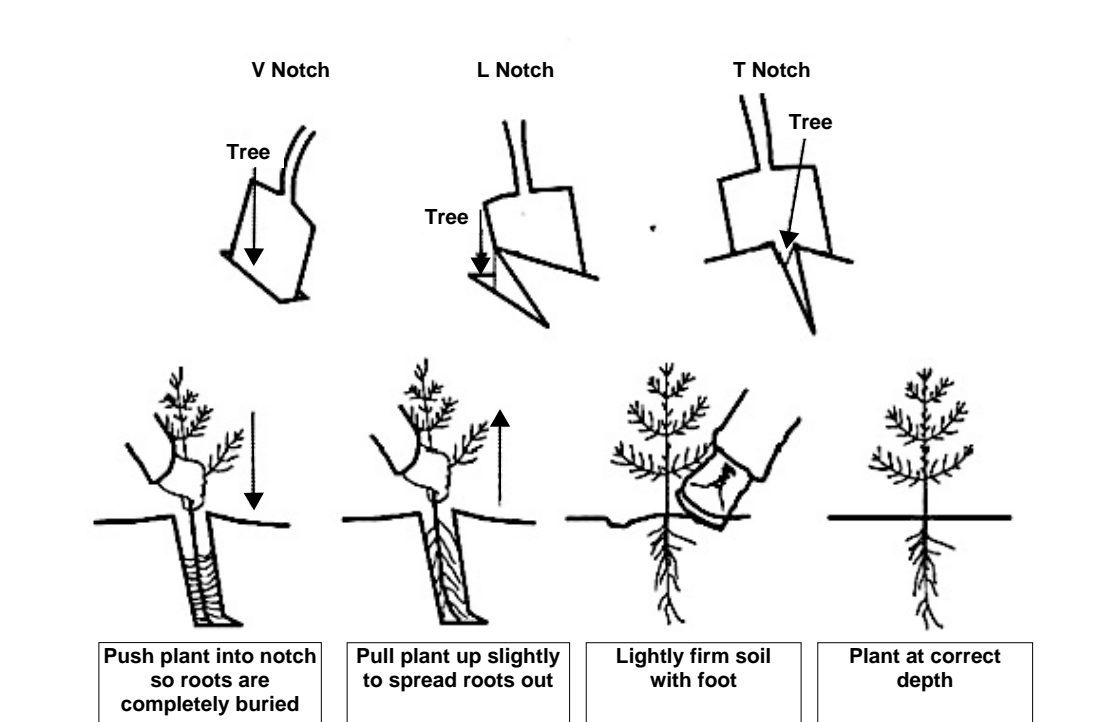
**Individual trees 8 - 10 cm girth size**



**Smaller tree / shrub planting 90 - 120 cm and 60 - 90 cm size**



**Notch planting hedges**



**Hedge planting**

Hedge species planting to provide screening and increase range of habitat within the site.

Native hedge - minimum plant size 2+1yr bare rooted age range  
Planted in 2 x staggered rows at a rate of 5 plants per metre.  
Estimated metreage : 87m

Native Hedge mix:  
60% *Crataegus monogyna* (Hawthorn) (40-60cm tall, two years old)  
10% *Corylus avellana* (Hazel)  
10% *Acer campestre* (Field maple)  
5% *Cornus sanguinea* (Common dogwood)  
5% *Viburnum opulus* (Guelder rose)  
5% *Viburnum lantana* (Wayfaring tree)  
5% *Euonymus europaeus* (European spindle)  
Plus occasional *Ilex aquifolium* (Holly)

The ground should be prepared by the screening back of any vegetation prior to planting. Planting within the site should be within topsoil to a made up depth of 300 mm if existing ground conditions do not include sufficient topsoil. This topsoil should be to specification BS3882:2007, standard grade. All plants should be protected by appropriate guards i.e. Planetec shrub guards staked with 2 x bamboo canes or Tubex 0.6m Easywrap guards staked with 1x bamboo cane. Plants should be planted at a rate of 6 plants per metre in 2 staggered rows

**Mass buffer tree planting 790m<sup>2</sup>**

Tree and shrub species planting to provide screening and amenity to the west of the site.

These trees should be planted from bare-rooted feathered stock in the size range 90-120 cm at minimum spacings of 2m. The trees should be protected by 1.2m Tubex Standard tubes or similar and staked to windward with hardwood stakes. All turf should be screened back prior to planting to reduce competition from field grasses. Additional 60 - 90 cm bare rooted size range shrub species should be distributed around the edge of the planting.

Species mixture as shown on species list.  
Numbers: approximately 200 trees, even distribution of species with 25% volume made up of shrub species total.

**Tree planting Groups and Individuals**

This planting is intended to provide individual amenity / landscape trees within the mass planting buffer and as hedgerow standards in the new hedge planting.

Trees are at the 8 - 10 cm girth size, where planted in the buffer area they should be spaced so as to provide an element of screening softening in the period that the main volume of planting is establishing.

Tree types: Species selection. As detailed on planting plan

Sizes/spacing: Standards in the size range 8 - 10 cm girth bare root and root balled stock dependent upon location and species.

**Grass seeding areas**

Area of meadow grass cover to be used where remediation of site is required post construction. Low maintenance with annual cut in late summer.

**Wild Grass area BS1M 1200 m<sup>2</sup>**

This area of grass /wildflower (80/20) planting to be sown from seed directly onto appropriately leveled, firmed and prepared seed beds.

BS1M General Purpose Wildflower Meadow or similar: Boston Seeds

Bedstraw, Lady's Galium verum 1.2% Jun - Sep 50 - 80cm Perennial  
Black Medick *Medicago lupulina* 1.4% May - Oct 15 - 80cm Annual  
Burnet, Salad Sanguisorba minor 1.6% Jun - Sep 15 - 50cm Perennial  
Buttercup, Meadow Ranunculus acris 1.2% May - Jun 30 - 100cm Perennial  
Campan, Red Silene dioica 1.2% Apr - Sep 60 - 90cm Perennial  
Campan, White Silene alba 1% May - Oct 50 - 100cm Perennial  
Carrot, Wild Daucus carota 0.8% Jun - Oct 30 - 100cm Perennial  
Catchfly, Night-Flowering Silene noctiflora 1% Jun - Aug 20 - 100cm Annual  
Clary, Wild Salvia verbenaca 1% May - Aug 30 - 40cm Perennial  
Cowslip *Primula veris* 0.2% Apr - May 15 - 30cm Biennial  
Daisy, Ox-eye *Leucanthemum vulgare* 0.6% May - Sep 20 - 100cm Perennial  
Forget-me-not, Field *Myosotis arvensis* 0.8% May - Jul 20 - 40cm Annual  
Foxglove, Wild *Digitalis purpurea* 0.8% Jun - Aug 50 - 100cm Biennial  
Goat's-beard *Thapsogon pratensis* 0.8% Jun - Sep 20 - 60cm Biennial  
Knapweed, Common *Centaurea nigra* 1.2% Jun - Sep 30 - 80cm Perennial  
Knapweed, Greater *Centaurea scabiosa* 0.8% Jun - Sep 50 - 90cm Perennial  
Musk Mallow *Malva moschata* 0.6% May - Sep 20 - 150cm Perennial  
Self-heal *Prunella vulgaris* 1% Jun - Sep 15 - 30cm Annual  
Sorrel, Common *Rumex acetosa* 1% May - Jul 30 - 100cm Perennial  
St John's-wort, Common *Hypericum perforatum* 0.4% Jun - Sep 30 - 90cm Perennial  
Yarrow *Achillea millefolium* 0.4% Jun - Oct 20 - 100cm Perennial  
Yellow Rattle *Rhinanthus minor* 1% Jun - Sep 20 - 50cm Annual  
Bent, Common *Agrostis castellana* 4% 50 - 100cm Grass  
Crested Dogtail *Cynosurus cristatus* 20% 30 - 60cm Grass  
Fescue, Sheep's *Festuca ovina* 16% 15 - 50cm Grass  
Fescue, Slender Creeping *Festuca rubra, litoralis* 24% 10 - 20cm Grass  
Meadow Grass, Smooth *Poa pratensis* 6.4% 30 - 90cm Grass  
Timothy, Small Leaved *Phleum pratense* ssp *Bertolinii* 9.6% 50 - 100cm Grass

Sowing rate 5 gms/m<sup>2</sup>.

**Wild Grass area BS7M 1300 m<sup>2</sup>**

Area of shade tolerant meadow grass cover in one section of site beneath tree planting. Low maintenance with annual cut in late summer. To be sown from seed directly onto appropriately prepared areas.

Underplanting of bulbs - native species

Underplanting of *Galanthus nivalis* (Snowdrop) and *Hyacinthoides non-scripta* (Bluebell) to be completed prior to seeding of grass area.

*Galanthus nivalis* (Snowdrop): Planting rate - 80 per m<sup>2</sup> in random groups of 2 to 3 per m<sup>2</sup>  
*Hyacinthoides non-scripta* (Bluebell): Planting rate - 20 per m<sup>2</sup> per m<sup>2</sup> in random groups of 2 to 3 per m<sup>2</sup>

BS7M Hedgerow & Light Shade Wildflower Meadow or similar: Boston Seeds

Sowing rate 5 gms/m<sup>2</sup>.

Underplanting  
*Galanthus nivalis*: Planting rate - 80 per m<sup>2</sup> in random groups of 2 to 3 m<sup>2</sup>  
*Hyacinthoides non-scripta*: Planting rate - 20 per m<sup>2</sup> per m<sup>2</sup> in random groups of 2 to 3 m<sup>2</sup>

Angelica, Wild *Angelica sylvestris* 1% Bedstraw, Hedge *Galium mollugo* 1.8% Buttercup, Meadow *Ranunculus acris* 1% Campan, Red *Silene dioica* 1.4% Campan, White *Silene alba* 0.6% Cowslip *Primula veris* 0.2% Foxglove, Wild *Digitalis purpurea* 0.4% Hedge Parsley, Upright *Tonina japonica* Knapweed, Common *Centaurea nigra* 1.8% Knapweed, Greater *Centaurea scabiosa* 1% Mullein, Dark *Verbascum nigrum* 0.4% Mullein, Great *Verbascum thapsus* 0.4% Musk Mallow *Malva moschata* 0.8% Mustard, Garlic *Alliaria petiolata* 1.4% Self-heal *Prunella vulgaris* 0.8% St John's-wort, Common *Hypericum perforatum* 0.4% Teasel *Dipsacus fullonum* 1% Vetch, Common *Vicia sativa* 1.2% Vetch, Tufted *Vicia cracca* 0.4% Woundwort, Hedge *Stachys sylvatica* 1.4% Yarrow *Achillea millefolium* 0.6% JBent, Common *Agrostis castellana* 4% Fescue, Cheatings *Festuca rubra, commutata* 21.6% Fescue, Slender Creeping *Festuca rubra, litoralis* 32% Meadow Grass, Wood *Poa nemoralis* 8% Sweet Vernal-grass *Anthoxanthum odoratum* 2.4% Tufted Hair-grass *Deschampsia cespitosa* 12%

10 year post planting schedule:

OPERATION	ADDITIONAL INFORMATION	FREQUENCY & TIMING
Inspection	Inspection of condition of trees while carrying out other operations	2 per year approximately All year round
Checking and adjusting stakes, ties and guys	Inspection and adjustment to allow for tree growth. Inspection of stakes, ties and guy, with repair or replacement if defective	2 per year April and October
Weed control in tree planting areas	Weed control carried out around trees within planted areas. Hand-weed preferable within 0.5 radius of tree trunks.	2 per year April and October
Application of slow release fertiliser	Only required if plant growth is poor	1 per year April or May
Pruning for safety considerations	To remove encroachment onto paths and roads; to maintain sightlines and effectiveness of lights; includes crown lifting	1 per year or more frequently As required for tree species
Pruning for plant health and structure	Includes removal of dead wood and crossing stems to create sound structure. Removal of extraneous growth from trunks/roots.	1 per year As required for tree species
Pest and disease control	Reporting of infestation with pests or signs of disease, diagnosis and treatment e.g., application of appropriate pesticide	1 every 3 years or less frequently As determined by problem
Replacement of failed trees	Remedy of problem and replacement with appropriate planting	1 per year
Watering	Post planting watering.	As determined by weather conditions

**BS7M and BSM1 grass areas**

Annual maintenance

**Autumn sown (First year)**  
March Cut to 40-70mm if there is sufficient material and bulbs have flowered (ward above 100mm).  
May Cut to 40-70mm.  
August/September Cut to 40mm after flowering. In all cases remove clippings.

**Maintenance thereafter**  
April Cut to 40-70mm.  
August/September Cut to 40mm after flowering. In all cases remove clippings.

**Spring sown (First year)**  
6 weeks after sowing Cut to 40-70mm if there is sufficient material (ward above 100mm).  
May Cut to 40-70mm if there is sufficient material (ward above 100mm).  
August/September Cut to 40mm after flowering. In all cases remove clippings.

**Maintenance thereafter**  
May Cut to 40-70mm.  
August/September Cut to 40mm after flowering. In all cases remove clippings.

**Project - Root Farm**  
Dunsop Bridge, Lancashire

**Farm Development**

**Date - 10/05/2023**

**Scale 1:200**

**Version - 3**  
**Created - A.W.**

**Reference -**

**File amends -**

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