

IMPLEMENTATION AND MAINTENANCE GUIDELINES

1.0 GENERAL

All plants shall conform to BS 3038 and be in accordance with the National Plant Specification. Supplying nurseries shall be registered under the HTA Nursery Certification Scheme. All plants shall be packed and transported in accordance with the Code of Practice for Plant Handling as produced by CPSE. Planting shall not be carried out when the ground is waterlogged, frostbound or during periods of cold drying winds. All bare root stock shall be root dipped in an approved water-retaining polymer.

If the formation level is impacted it should be replaced through before topsoiling.

Topsoil depths to be 400mm for shrub beds and 150mm for grass areas.

2.0 ORNAMENTAL SHRUBS AND TREES

2.1 Ground Preparation

Where necessary treat existing weeds with a glyphosate based herbicide and allow a suitable period as recommended by the manufacturer for this to take effect. A general purpose slow release fertiliser at the rate of 75g/m² and Tree Planting and Mulching Compost at the rate of 200g/m² are to be incorporated into the top 150mm of topsoil during final cultivation. All extraneous matter such as plastic, wood, metal and stones greater than 50mm in any dimension shall be removed from site.

Tree pits are to be excavated and the base banked up a further 150mm with the sides well scarified to prevent smearing. All trees up to and including selected standards are to be supported with single 75mm diameter stakes. All rootball, container grown and trees over heavy standard size shall be double or triple staked. Any feature trees undersized mature 180/200cm girth or greater in size to be secured with a below ground anchoring system (such as a deadman anchor). Stakes should be driven 500mm into undisturbed ground before planting the tree, taking care to avoid underground services and cables etc.

2.2 Planting

Shrubs and hedges are to be set out as shown on the drawing and pit planted into the prepared soil at the specified centres with minimal disturbance to the rootball and well firmed in.

Trees are to be placed into the pits and backfilled with topsoil incorporating slow release fertilizer and Tree Planting and Mulching Compost as specified. Firm trees in well and secure with proprietary rubber tree ties and spacers.

Water in all trees and shrubs at the end of each day of planting.

Spread ornamental pine bark mulch to a depth of 75mm across all new planting areas, ensuring groundcover plants are not buried

2.3 Maintenance

The landscape contractor shall maintain all areas of new planting for a period of 12 months following practical completion. All stock deemed to be dead, dying or diseased within the defects period shall be replaced by the contractor at his own cost.

The site is to be visited monthly throughout the year to undertake the following operations.

Weed clearance: All planting areas are to be kept weed free by hand weeding or herbicide treatment.

Litter clearance: All litter is to be removed from planting beds.

Watering: Planting areas are to be brought up to field capacity at each visit and each tree is to receive 20 gallons. Semi-mature tree planting to be watered weekly through June/September and per-visit thereafter.

Checking trees: All tree ties and stakes are to be checked and adjusted if too loose, too tight or if chaffing is occurring. Any broken stakes are to be replaced.

Formative pruning: Any damaged shoots/branches are to be pruned back to healthy wood. Plants are to be pruned in accordance with good horticultural practice to maintain healthy well-shaped specimens.

3.0 NATIVE SHRUB PLANTING

3.1 Ground Preparation

The extent of the planting area shall be set out using 38x28x1200mm timber stakes at each change in direction and at a maximum of 50m intervals.

Either: for notch planting

All herbaceous material within the proposed planting area shall be sprayed out using an approved herbicide at least two weeks before planting and the ground shall be graded to a depth of 150mm.

or: for pit planting

A 900mm diameter circle shall be sprayed out at each planting station using an approved herbicide at least two weeks before planting

3.2 Planting

All bare rooted stock is to be root dipped in water retaining polymer. Proposed planting is to be planted on an informal grid. To avoid straight lines each planting station can be moved by up to 300mm in any direction.

Either: for shelter or b for rabbit fence

a. All stock to be protected from rabbit damage using approved proprietary tree and shrub shelters, 900mm and 400mm high respectively, secured with stakes and ties as advised by the manufacturer.

b. All stock to be protected from rabbit damage by 900mm high rabbit fencing erected in accordance with the manufacturers recommendations.

3.3 Maintenance

Using approved herbicides a 900mm diameter circle centred on each planting station shall be kept weed free throughout the maintenance period.

Each Autumn after planting and until handover to the adopting authority, the contractor will prepare a list of all plants which are dead, dying or diseased and will replace these during the following planting season.

3.4 Native Hedge Planting

Each Autumn after planting and until handover to the adopting authority, the contractor will prepare a list of all plants which are dead, dying or diseased and will replace these during the following planting season.

3.5 Grass

The area to be seeded shall be sprayed out with a glyphosate herbicide and cultivated to a depth of 100mm removing all weeds, debris and stones over 25mm diameter. The surface shall be raked to smooth flowing contours with a fine silt, incorporating pre-seeding fertiliser at 70g/m².

3.6 Turf

Turfing operations shall be in accordance with BS 428.

White curves shall be laid around the perimeter of the area to be turfed. The central area shall be laid in rows with staggered joints, well butted together, working from planks positioned on tines already laid. The turf shall be watered on completion. Any unevenness shall be made good by lifting the turf and adjusting the tines. Should shrinkage occur, fine topsoil shall be brushed into the joints.

3.7 Seeding

Grass seed shall be sown in April during calm weather and not when the ground is frost bound or waterlogged. Seed shall be sown in two equal sowings in transverse directions at 35 g/m². After sowing the contractor shall lightly rake the seed into intimate contact with the soil. All seed mixes to be specified in accordance with those set out in the approved management plan.

3.8 Initial cut

When newly seeded areas reach 50mm they should be cut back to a height of 30mm and then cut twice annually in early Spring and late Summer. All arisings shall be removed or spread evenly across grassland. Any bare patches shall be made good at this time.

3.9 Topsoil

Existing Topsoil

The pre-planting herbicide application:-

Apply by suitable spraying apparatus, an approved translocated systemic herbicide to the manufacturer's instructions and to 1997 Control of Pesticides Regulations and 2003 COSHH regulations on all beds, except those which are both weed free and are to receive agrotextile sheet mulch. Spray immediately if any weeds are present. If none are showing, but there may be a delay before planting, or the area is to be seeded, spray after one month following cultivation, to allow dormant seed to terminate. All spraying shall be carried out by skilled and qualified operatives, using protective clothing, in suitable weather (no wind) and any damage caused by spray drift, from incorrect usage or spillage, shall be rectified at the contractor's own cost. Repeat as necessary to ensure complete kill and rake off all dead material from site.

Carry out the following works to the existing topsoil on site to ensure it conforms to BS 3882:2015, being free from rocks larger than 50mm diameter, concrete, all trees, wire, brick, and tree less than 20% clay. Allow for pre-application of herbicide as above. Fertilise with 100g per meter square of Vista 'Nutricote 180' slow release fertiliser, in accordance with the manufacturer's instructions. For beds less than 5 meters in width, fork over thoroughly or machine rotate soil to a depth of 300mm, ensuring that the subgrade and topsoil are completely broken up and free draining, relieving any compaction. For beds greater than 5 metres in width, break up the subgrade and topsoil using a tractor mounted subsoiler or ripper at 500mm centres to a depth of 500mm, except where there are services, or within 10 meters of tree stems or 3 meters of existing hedges. Do not rip up areas where roots greater than 10mm diameter are encountered.

3.10 Imported Topsoil

Any imported topsoil for making up ground, shall conform to BS 3882:2015, and be free from rocks (over 50mm diameter), concrete, roots, wire and brick, and have less than 20% clay.

3.11 Soft Landscape Proposals

Refer to plant schedule for details.

3.12 Bench seating

Ref: BX17 400011 'Roslin Bench' steel framed timber slat version, as supplied by Broxap or similar approved. Bench to be installed with submerged fixing set in concrete footings to manufacturers specification.

3.13 3.00m wide self-binding breedon gravel footpath/cycleways

3.00m wide Breedon golden amber self-binding gravel, timber edged footpaths/cycleways as supplied by Breedon Group or similar approved.

3.14 2.00m wide self-binding breedon gravel footpaths

2.00m wide Breedon golden amber self-binding gravel, timber edged footpaths, as supplied by Breedon Group or similar approved.

3.15 Root barriers

Root barriers to hard surfaces within 3m of tree planting. ReRoot 1000 as supplied by Green Blue Urban or similar approved. Exact location and specification subject to reviewed by drainage engineer and to be agreed with the site engineer.

3.16 Western Boundary Woodland Planting

For details please refer to the latest revision of Pegasus drawing P16-1141_24.

3.17 For hedge layout to plot frontages

Please refer to the latest revision of Pegasus drawing P16-1141_11.

3.18 Levels to existing ditch

course to be re-graded in order to ensure sufficient cover to culvert passing under highway

3.19 Levels to existing ditch

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3.20 Levels to existing ditch

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NOTE: Tree soil volume guidance has been provided by GreenBlue Urban. Tree pits based on 1m depth but may vary dependent on soil volume required. Tree pit to be backfilled to existing soil profile, using excavated soil as backfill followed by 300mm depth topsoil in the upper layer. Assume 10% settlement. Any imported topsoil will meet the specification set out in BS 3882:2015 'Specification for topsoil'. Tree pit backfill to comprise of a previously prepared thorough mixture of: 75% by volume good quality topsoil; 25% by volume good quality proprietary tree planting compost. After backfilling apply Emnag slow release fertilizer at a rate of 400g / cubic metre and supply a minimum of 54 litres of water at the time of tree planting.

NATIVE BOUNDARY MIX

ABBR	SPECIES	MIX(%)	SUPPLY	SIZE(cm)	BREAKS	CTRS(m)
CORSA	Cornus sanguinea	10	T 1+1	60/80	3	0.75
CORAV	Cornus avellana	30	T 1+1	60/80	3	0.75
CRAMON	Crataegus monogyna	10	T 1+1	60/80	3	0.75
ILEAQ	Ilex aquifolium	10	2L	60/80	3	0.75
PRUSP	Prunus spinosa	20	T 1+1	60/80	3	0.75
SAMNI	Sambucus nigra	10	T 1+1	60/80	3	0.75

All shrubs to be planted in accordance with the implementation and maintenance guidelines. The landscape proposals must be referred to by the Structural Engineer during foundation design. No shrub species, size or location should be altered without prior approval from the Landscape Architect. Individual species to be planted in groups of 5-9.

AMENITY SHRUB MIX 1 - To Rear Garden Boundaries

ABBR	SPECIES	SUPPLY	SIZE(cm)	HABIT	CTRS(m)
AUCJA	Aucuba japonica	3L	40/60	Bushy	0.70
CORALE	Cornus alba 'Elegantissima'	3L	40/60	Bushy	0.70
ELAPUMA	Elaeagnus pungens 'Maculata'	5L	40/60	Bushy	0.70
FATJA	Fatsia japonica	5L	40/60	Bushy	0.70
PHOFRRR	Photinia fraseri 'Red Robin'	5L	40/60	Bushy	0.70
PRULU	Prunus lusitanica	5L	40/60	Bushy	0.70

All shrubs to be planted in accordance with the implementation and maintenance guidelines. No shrub species, size or location should be altered without prior approval from the Landscape Architect.

PLANT SCHEDULE

TREES - To Highway Verges

REF	SPECIES	SUPPLY	SIZE(cm)	GIRTH(cm)	CTRS(m)
AT1	Carpinus betulus 'Frans Fontaine'	SM	500+	20/25	as shown
AT2	Tilia cordata 'Green Spire'	SM	500+	20/25	as shown

TREES - To POS off Radbourne Lane

REF	SPECIES	SUPPLY	SIZE(cm)	GIRTH(cm)	CTRS(m)
PT1	Acer campestre	EHStd	450/425	18/20	as shown
PT2	Acer platanoides	EHStd	450/425	18/20	as shown
PT3	Betula pendula	EHStd	450/425	18/20	as shown
PT4	Castanea sativa	EHStd	450/425	18/20	as shown
PT5	Quercus robur	EHStd	450/425	18/20	as shown
PT6	Tilia cordata	HStd	350/425	12/14	as shown

TREES - To POS adjacent to Rural Edge and Green Corridor

REF	SPECIES	SUPPLY	SIZE(cm)	GIRTH(cm)	CTRS(m)
PT7	Acer campestre	Std	250/300	8/10	as shown
PT8	Betula pendula	Std	250/300	8/10	as shown
PT9	Tilia cordata	Std	250/300	8/10	as shown
PT10	Fagus sylvatica	Std	250/300	8/10	as shown
PT11	Quercus robur	Std	250/300	8/10	as shown
PT12	Acer campestre	EHStd	350/425	12/14	as shown
PT13	Betula pendula	EHStd	350/425	12/14	as shown
PT14	Tilia cordata	EHStd	350/425	12/14	as shown

TREES - To POS adjacent to Rural Edge and Green Corridor

REF	SPECIES	SUPPLY	SIZE(cm)	GIRTH(cm)	CTRS(m)
PT15	Quercus rubra	SH	300	25/30	as shown
PT16	Fagus sylvatica 'Dawson Purple'	Fhd	450/500	14/18	as shown
PT17	Acer platanoides 'Emerald Queen'	EHStd	450/500	18/20	as shown
PT18	Acer platanoides 'Crimson King'	EHStd	450/500	18/20	as shown
PT19	Liquidambar styraciflua	EHStd	450/500	18/20	as shown
PT20	Liriodendron tulipifera	EHStd	450/500	18/20	as shown
PT21	Betula utilis jacquemontii - (Multi-stem)	MS	250/300	-	as shown

All trees to be planted in accordance with the implementation and maintenance guidelines. The tree planting schedule and landscape proposals must be referred to by the Structural Engineer during foundation design. No tree species, size or location should be altered without prior approval from the Landscape Architect.

HEDGEROWS

ABBR	SPECIES	SUPPLY	SIZE(cm)	HABIT	CTRS(m)
OSMBU	Osmanthus x burkwoodii	10L	40/80	Bushy	0.50
PRULU	Prunus lusitanica	10L	60/80	Bushy	0.40
VIBTIEP	Viburnum tinus 'Eve Price'	10L	40/60	Bushy	0.50

All hedgerow shrubs to be planted in accordance with the implementation and maintenance guidelines. No hedgerow shrub species, size or location should be altered without prior approval from the Landscape Architect. Hedgerow shrubs to be planted in a single row within a 50cm wide bed and mulched in accordance with implementation and maintenance guidelines.

NATIVE MIX HEDGEROW - Infill to Site Boundary

ABBR	SPECIES	SUPPLY	SIZE(cm)	Mix(%)	CTRS(m)
ACECAM	Acer campestre	T1+1	60/80	10	0.50
CORSA	Cornus sanguinea	T1+1	60/80	10	0.50
CRAMON	Crataegus monogyna	T1+1	60/80	70	0.50
PRUSP	Prunus spinosa	T1+1	60/80	10	0.50

All hedgerow shrubs to be planted in accordance with the implementation and maintenance guidelines. The landscape proposals must be referred to by the Structural Engineer during foundation design. No hedgerow shrub species, size or location should be altered without prior approval from the Landscape Architect. Hedgerow shrubs to be planted in a double staggered 250mm apart within a 80cm wide bed and mulched in accordance with implementation and maintenance guidelines.

TRANSLOCATED HEDGEROW - Repositioned

Section of removed existing hedgerow from the site frontage along Radbourne Lane, Mackworth to be translocated to the position as shown, subject to local authority approval. Hedgerow to be trimmed to a maintainable height.

MARGINAL PLANTING

ABBR	SPECIES	SUPPLY	M ²
ACCAL	Acorus calamus (Sweet Flag)	plug	10
CARAC	Carex acutiformis (Lesser pond sedge)	plug	10
LYCFL	Lychis flos-cuculi (Ragged Robin)	plug	10
LYCOEUR	Lycopus europaea (Gypsywort)	plug	10
LYTSA	Lythrum salicaria (Purple loosestrife)	plug	10
MENQA	Mentha aquatica (Water mint)	plug	10

Pond marginal planting to be sourced from certified local provenance plant stock.

BULBS

SPECIES	No./m ²
Crocus Dutch Collection (50% of area)	
'Queen of the Blues'	10
'Golden Yellow'	10
'Jeanne D' Arc'	10

Dwarf Daffodils (50% of area)

'February Gold'	10
'Jet Fire'	10
'Canaliculatus'	10

All bulbs to be planted in accordance with the implementation and maintenance guidelines. No bulb species or location should be altered without prior approval from the Landscape Architect. Crocus and Daffodil bulbs to alternate every 2 linear metres.

SPECIAL GENERAL PURPOSE MEADOW GRASSLAND (EM3)

Special General Purpose Meadow Mixture - EM3 as supplied by Emorsgate Seeds or similar approved. Sown at 4g/m² and implemented as set out below.

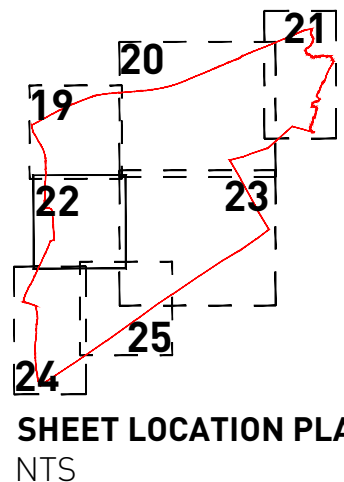
MEADOW MIXTURE FOR WETLANDS (EM8)

Meadow Mixture for Wetlands - EM8 as supplied by Emorsgate Seeds or similar approved. Sown at 4g/m² and implemented as set out below.

TUSSOCK GRASSLAND MIXTURE (EM10)

Tussock Mixture - EM10 as supplied by Emorsgate Seeds or similar approved. Sown at 4g/m² and implemented as set out below.

Grass seed mixtures to be sourced from certified local provenance seed stock. Ground surface will be cleared of weed growth either removed by hand or through the application of an approved Glyphosate based herbicide (all herbicides should only be handled by certified users and in accordance with the COSHH Regulations 2002). The ground will then be ploughed and raked to produce a medium tilth. Sowing operations will be carried out in Spring or late Autumn at a rate indicated. The grassland will be mown regularly throughout the first year of establishment, to encourage basal growth and reduce weed competition. On-going mowing operations will be carried out either once annually in the Spring, or twice annually in Spring and Autumn if grass species become dominant. Grass will not be cut during late Spring and Summer months to allow flower and herb species time to germinate.



Hackwood Farm,
Mickleover
Detailed POS Proposals
(sheet 4 of 7)
Drawing Ref: P16-1141_22C
Client: Miller Homes/Redrow