

PLANTING SPECIFICATION

Native Deciduous Woodland (total area: 1,991m ²)						
No.	% in Mix	Species Name	Grown	Size	Density	Specification
148	30%	<i>Corylus avellana</i>	BR	1+1	2m centres	Notch planted at 1.5m centres. Planted in species groups of 9 to 15 with no same group adjacent. All plants to be planted to same depth as grown in nursery or pot. 1m 1.5m high biodegradable tree protection tube per plant secured with 25mm/25mm timber stake, soft tied in 2 places. Water to saturation. Min 300mm depth topsoil to area.
100	20%	<i>Crataegus monogyna</i>	BR	1+1		
50	10%	<i>Sorbus aucuparia</i>	BR	1+1		
50	10%	<i>Quercus petraea</i>	BR	1+1		
50	10%	<i>Prunus padus</i>	BR	1+1		
75	15%	<i>Betula pendula</i>	BR	1+1		
25	5%	<i>Ilex aquifolium</i>	CG	3L		

BR = Bare Root
CG = Container Grown

Woodland management
First year management:
Water regularly in dry weather (at least 5L per meter² of woodland twice a week).
After heavy frosts check that the soil hasn't lifted to expose the tree roots and firm back in where required.
Thereafter:
Water regularly in dry weather.
Apply approved fertiliser once a year particularly if the woodland shows signs of nutrient deficiency.
Replace any dead, diseased or dying trees and prune back any dead, diseased or dying branches.

Mixed native hedgerow (Total: 809m)						
No.	% in Mix	Species Name	Common name	Grown	Height (cm)	Density
1,011	25%	<i>Corylus avellana</i>	Hazel	BR 1+1	60-80	groups of 3-8
405	10%	<i>Prunus spinosa</i>	Blackthorn	BR 1+1	60-80	groups of 5-9
202	5%	<i>Ilex aquifolium</i>	Holly	1L pot	45-60	individuals
1,012	25%	<i>Crataegus monogyna</i>	Hawthorn	BR 1+1	60-80	groups of 3-8
202	5%	<i>Rosa canina</i>	Dog rose	BR 1+1	45-60	groups of 3-8
202	5%	<i>Malus sylvestris</i>	Crab apple	BR 1+1	60-80	groups of 3-5
202	5%	<i>Viburnum opulus</i>	Gouelder rose	BR 1+1	60-80	groups of 3-5
202	5%	<i>Cornus sanguinea</i>	Dogwood	BR 1+1	60-80	groups of 3-8
405	10%	<i>Acer campestre</i>	Field maple	BR 1+1	60-80	groups of 3-8
202	5%	<i>Lonicera periclymenum</i>	Common honeysuckle	1L pot	45-60	individuals

Mixed native hedgerow management
Year 1-3: Standard hedgerow establishment in accordance with supplier guidelines.
Year 4 onwards: Cut no more than 90% of hedge in February, spread chippings under the hedge. Leave remaining sections to grow for 1 further year. Vary the location of sections which are left for two years each year.

Native scrub (Area: 2,204m ²)						
No.	% in Mix	Species Name	Common name	Grown	Height (cm)	Density
138	25%	<i>Corylus avellana</i>	Hazel	BR 1+1	60-80	groups of 3-8
405	10%	<i>Prunus spinosa</i>	Blackthorn	BR 1+1	60-80	groups of 5-9
28	5%	<i>Ilex aquifolium</i>	Holly	1L pot	45-60	individuals
138	25%	<i>Crataegus monogyna</i>	Hawthorn	BR 1+1	60-80	groups of 3-8
27	5%	<i>Rosa canina</i>	Dog rose	BR 1+1	45-60	groups of 3-8
28	5%	<i>Malus sylvestris</i>	Crab apple	BR 1+1	60-80	groups of 3-5
27	5%	<i>Viburnum opulus</i>	Gouelder rose	BR 1+1	60-80	groups of 3-5
28	5%	<i>Cornus sanguinea</i>	Dogwood	BR 1+1	60-80	groups of 3-8
55	10%	<i>Acer campestre</i>	Field maple	BR 1+1	60-80	groups of 3-8
27	5%	<i>Lonicera periclymenum</i>	Common honeysuckle	BR 1+1	60-80	groups of 3-8

Native scrub management
Year 1-3: Standard native scrub establishment in accordance with supplier guidelines.
Year 4 onwards: Thin 30% of the area to open the canopy. Leave remaining sections to grow for 1 further year. Vary the location of sections which are thinned and sections which are left for two years.

Species rich grassland			
Emorsgate Seed Mix EM2 Standard Meadow Mix Ground preparation Break up subsoil to a depth of 300mm and remove any rubbish or material greater than 50mm in any dimension. Remove perennial weeds using repeated cultivation. Apply 50mm topsoil.	Sowing rate: 40kg/ha 16kg/acre 4g/m² Sowing Seed is best sown in the autumn or spring but can be sown at other times of the year if there is sufficient warmth and moisture. The seed must be surface sown and can be applied by machine or broadcast by hand. To get an even distribution and avoid the seed into two or more parts and sow in overlapping sections. Do not incorporate or cover the seed but firm with a roll, or by treading, to give good soil/seed contact	Area: 13,141m² Aftercare First year management Most sown meadow wild flower and grass species are perennial: they will be slow to germinate and grow and will not usually flower in their first growing season. There will often be a flush of annual weeds from the soil in the first growing season which may grow up and obscure the meadow seedlings beneath. This annual weed growth is easily controlled by topping or mowing. Mow newly sown meadows regularly throughout the first year of establishment to a height of 40-60mm, removing cuttings if dense. This will control annual weeds and help maintain balance between faster growing grasses and slower developing wild flowers. Carefully dig out or spot treat any residual perennial weeds such as docks.	Quantity: 52,564g Management once established In the second and subsequent years EM2 sowings can be managed in a number of ways which, in association with soil fertility, will determine the character of the grassland. The best results are usually obtained by traditional meadow management based around a main summer hay cut in combination with autumn and possibly spring mowing. Meadow grassland is not cut from spring through to late July/August to give the sown species an opportunity to flower. After flowering in July or August take a 'hay cut': cut back to dry and shed seed for 1-7 days then remove from site. Now the re-growth through to late autumn/winter to c 50mm and again in spring if needed.

Reed dominated swale planting			
Emorsgate Seed Mix EP1 Pond Edge Mixture Ground preparation Break up subsoil to a depth of 300mm and remove any rubbish or material greater than 50mm in any dimension. Remove perennial weeds using repeated cultivation. Apply 50mm topsoil.	Sowing rate: 40kg/ha 16kg/acre 4g/m² Sowing Seed is best sown in the autumn or spring but can be sown at other times of the year if there is sufficient warmth and moisture. The seed must be surface sown and can be applied by machine or broadcast by hand. To get an even distribution and avoid running out divide the seed into two or more parts and sow in overlapping sections. Do not incorporate or cover the seed but firm with a roll, or by treading, to give good soil/seed contact	Area: 619m² Aftercare First year management In the first year, annual weed growth may be cut back to encourage the development of a good perennial ground cover. Establishment on sites prone to flooding may be patchy and may take several years to fully colonise. Carefully dig out or spot treat any residual perennial weeds such as docks.	Quantity: 2,471g Management once established Where the water levels in the soil are never more than 50cm below the surface, but only occasionally submerge the plants growing there, cut back and remove short sections of vegetation every 2-3 years in rotation to achieve a variation in structure. Remove vegetation as a wedge, like removing a slice of cake, between September and Nov ember. If the marginal planting is only occasionally or seasonally wet, it can be managed as EM2 standard meadow mix.

Trees											
Code	Name	Age	Girth (cm)	Root Type	Habit	Height (cm)	No	Spacing	Preparation and planting	Maintenance requirements	
T-Ag	<i>Alnus glutinosa</i> (Alder)	2x	10-12	RB	Select Standard	300-350	8	As plan	Multipurpose Topsoil to comply with BS 3882. Remove any general rubbish, stones, large roots and existing weed vegetation from the planting site. Plant in the dormant season between late October to late March. Plant immediately upon delivery from the supplier. Roots must be well soaked prior to planting. Dig a planting pit larger than the root ball (at least 150mm wider in all directions) and level the soil surface. Place the tree into the planting pit and backfill with top soil, firming in to hold the root ball in place. Water immediately. Trees will require staking place two stakes driven 500mm into the base of the tree pit with 600mm clearance above ground directly opposite each other with the tree in between the two. Using cross bracing and soft tree ties to secure the tree loosely to the stakes. Apply 75mm settled depth of chipped bark to an area 1m radius from the tree trunk.	During the first growing season, water regularly until new roots have established. Thereafter water regularly in hot weather - trees will show signs of stress by discoloration and wilting of the leaves and leaf die back. Allow 10L per tree per day in dry weather. Top up bark mulch to 75mm settled depth annually. After the fifth year remove the stakes from the trees.	
T-Bpe	<i>Betula pendula</i> (Silver Birch)	2x	10-12	RB	Select Standard	300-350	14	As plan			
T-Bpu	<i>Betula pubescens</i> (Downy Birch)	2x	10-12	RB	Select Standard	300-350	9	As plan			
T-Pa	<i>Prunus avium</i> (Wild Cherry / Bird Cherry)	2x	10-12	RB	Select Standard	300-350	9	As plan			
T-FPP	<i>Prunus avium</i> 'Piena' (Double Gean)	2x	12-14	RB	Heavy Standard	400-450	13	As plan			
T-MRS	<i>Malus x robusta</i> 'Red Sentinel' (Crab Apple)	2x	12-14	RB	Heavy Standard	400-450	11	As plan			
T-FMs	<i>Malus sylvestris</i> (Crab Apple)	2x	12-14	RB	Heavy Standard	400-450	10	As plan			
T-Sc	<i>Salix cinerea</i> (Grey Willow)	2x	10-12	RB	Select Standard	300-350	10	As plan			
T-Sc	<i>Sorbus aucuparia</i> (Rowan)	2x	12-14	RB	Heavy Standard	400-450	24	As plan			
T-Fc	<i>Filix cordata</i> (Small-leaved Lime)	2x	10-12	RB	Select Standard	300-350	11	As plan			

Shade tolerant species rich grassland - Hedgerow Mixture					
Emorsgate Seed Mix EH1 Hedgerow Mixture Ground preparation Break up subsoil to a depth of 300mm and remove any rubbish or material greater than 50mm in any dimension. Remove perennial weeds using repeated cultivation. Apply 50mm topsoil.	Sowing rate: 40kg/ha 16kg/acre 4g/m² Sowing Seed is best sown in the autumn or spring but can be sown at other times of the year if there is sufficient warmth and moisture. The seed must be surface sown and can be applied by machine or broadcast by hand. To get an even distribution and avoid running out divide the seed into two or more parts and sow in overlapping sections. Do not incorporate or cover the seed but firm with a roll, or by treading, to give good soil/seed contact	Area: 1,585m² Aftercare First year management Most sown meadow wild flower and grass species are perennial: they will be slow to germinate and grow and will not usually flower in their first growing season. There will often be a flush of annual weeds from the soil in the first growing season which may grow up and obscure the meadow seedlings beneath. This annual weed growth is easily controlled by topping or mowing. Meadow grassland is not cut from spring through to late July/August to give the sown species an opportunity to flower. After flowering in July or August take a 'hay cut': cut back to dry and shed seed for 1-7 days then remove from site. Now the re-growth through to late autumn/winter to c 50mm and again in spring if needed.	Quantity: 6,340g Management once established In the second and subsequent years EM2 sowings can be managed in a number of ways which, in association with soil fertility, will determine the character of the grassland. The best results are usually obtained by traditional meadow management based around a main summer hay cut in combination with autumn and possibly spring mowing. Meadow grassland is not cut from spring through to late July/August to give the sown species an opportunity to flower. After flowering in July or August take a 'hay cut': cut back to dry and shed seed for 1-7 days then remove from site. Now the re-growth through to late autumn/winter to c 50mm and again in spring if needed.		

Ornamental planting									
Code	Name	Size	Habit	Height (cm)	% in Mix	No	Spacing	Preparation and planting	Maintenance requirements
Mixed border planting - total area 3m²									
S-AC	<i>Aucuba japonica</i> 'Crotinifolia'	3L	C	40-60	10	140	4/m ²	Multipurpose Topsoil to comply with BS 3882. Remove any general rubbish, stones, large roots and existing weed vegetation from the planting site. Break up subsoil and cultivate to a depth of 300mm. Add top soil to a further settled depth of 300mm. Plant in the dormant season between late October to late March. Plant immediately on delivery from the supplier and ensure to retain moisture to the roots. Roots shall be well soaked prior to planting. Dig a planting pit larger than the root ball (at least 100mm wider in all directions), add pelleted chicken manure or similar to the planting pit prior to planting in accordance with manufacturer's instructions. Back fill top soil into the planting pit to bring the root ball level with the soil surface. Place the plant into the planting pit and backfill with top soil, firming in to hold the root ball in place. Water immediately. Apply 75mm settled depth of bark chippings to the shrub bed post planting to suppress weed growth.	During the first growing season, water regularly until new roots have established. Thereafter water regularly in hot weather. Prune back the previous year's growth just before the growing season. At the end of the growing season cut away any dead, damaged, diseased or dying growth to maintain plant health but otherwise leave the leaves and seedheads to provide foraging and shelter opportunities for wildlife. For the first 5 years feed all new plants with a pelleted chicken manure or similar in accordance with the manufacturers guidelines, once a year at the beginning of the growing season and water in. Thereafter a mulch of organic matter such as well rotted manure or leaf manure or compost at the beginning of the growing season will maintain a healthy supply of nutrients for each plant. Top up annually to 75mm settled depth of bark chippings to the shrub bed to suppress weed growth. Remove and replace any diseased plants to prevent the spread of disease.
S-BA1	<i>Berberis thunbergii</i> 'Atropurpurea'	3L	C	40-60	5	71	4/m ²		
S-BAU	<i>Berberis thunbergii</i> 'Aurea'	3L	C	40-60	5	71	4/m ²		
S-CB	<i>Ceanothus</i> 'Burkwoodi'	3L	C	40-60	10	140	4/m ²		
S-CA	<i>Cytisus x praecox</i> 'Allgold'	3L	C	40-60	10	144	4/m ²		
S-EAB	<i>Escallonia</i> 'Apple Blossom'	3L	C	40-60	5	71	4/m ²		
S-Ha	<i>Hebe x andersonii</i>	3L	C	40-60	5	71	4/m ²		
S-KI	<i>Kalmia latifolia</i>	3L	C	40-60	10	140	4/m ²		
S-POL	<i>Prunus laurocerasus</i> 'Otto Luyken'	3L	C	40-60	10	140	4/m ²		
S-Sc	<i>Sarcococca confusa</i>	3L	C	40-60	5	71	4/m ²		
S-SI	<i>Salix lanata</i>	3L	C	40-60	5	71	4/m ²		
S-Ue	<i>Ilex europaeus</i>	3L	C	40-60	10	145	4/m ²		
S-Vc	<i>Viburnum cersilei</i>	3L	C	40-60	10	140	4/m ²		