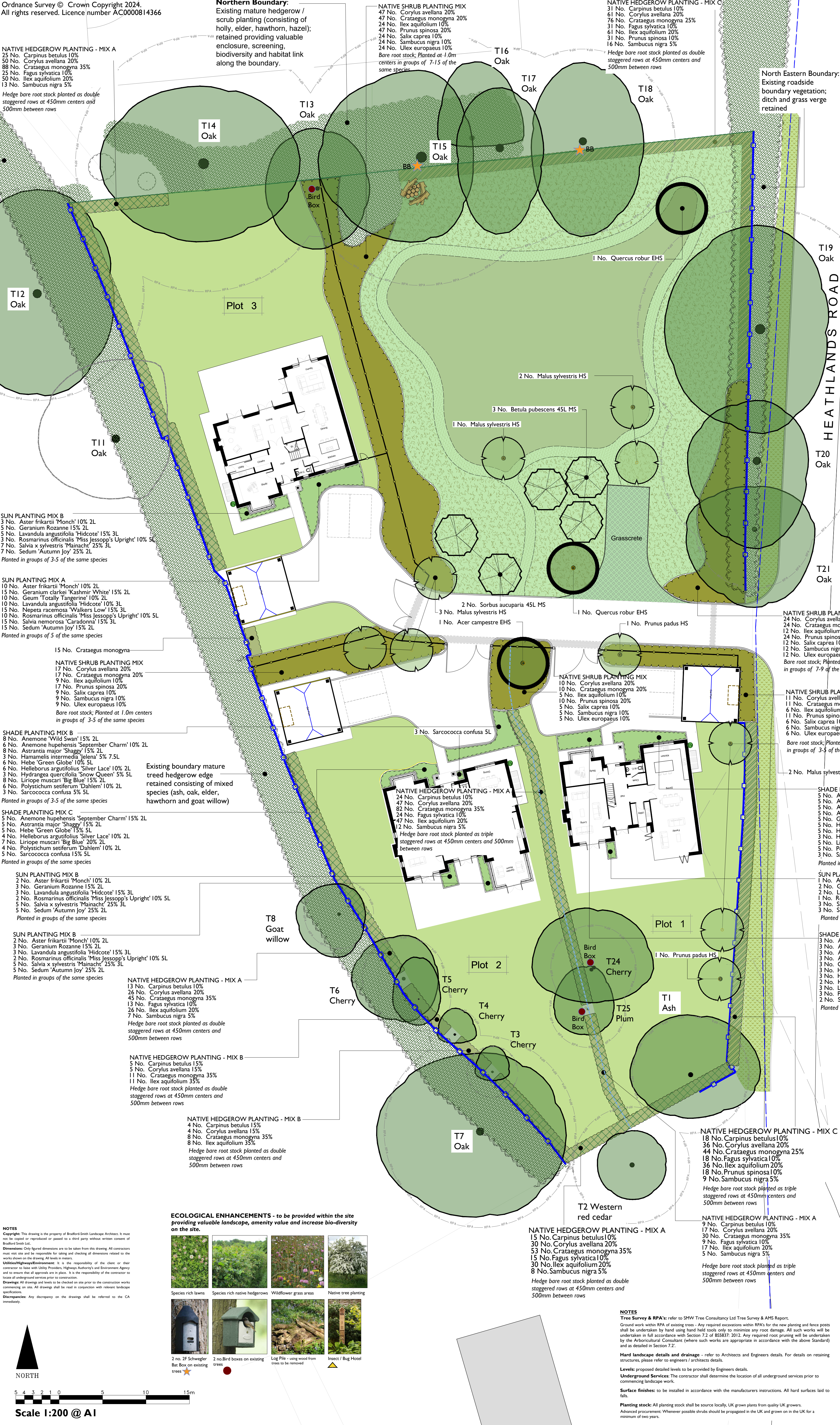




SPECIFICATION NOTES: For Proposed Trees, Hedges, Shrub Planting & Grass Areas - These implementation and maintenance specification notes are for planning purposes only and do not constitute a detailed landscape specification.

SITE PREPARATION

Existing trees: All existing trees to be retained shall be protected in accordance with BS 5837:2012 - Trees in Relation to Construction. Existing levels shall be retained around existing trees to be retained. Any tree works pruning to existing trees within the site shall comply with the BS 3998: 2010, Tree Work Recommendations and undertaken by an Arboricultural Association approved Contractor.

Root Protection Area beneath Existing Trees: All new top soiling operations to be undertaken by hand and under the supervision of the arborist (Focus Environmental Consultants) using hand tools only to minimize root damage. If significant roots are encountered, these will be left undamaged and plants locally adjusted.

Building foundation design: All tree and shrub planting proposals are to be referred to by the structural engineer during building foundation design.

Existing & Proposed Services: (electric, water, gas etc) in all landscape areas should be installed as a minimum below the required topsoil depths and clearly identified in accordance with service / utility requirements.

Existing topsoil and subsoil: the onsite topsoil and subsoil from site is to be stripped for reuse a Soil Stripping and Stockpiling Specification to be produced by a recommended soil scientist. Retained top soil (free of subsoil, pernicious weeds, demolition or construction rubbish, roots or other contaminants) should be loose tipped in linear heaps on to the agreed & prepared storage site, ensuring the heaps do not exceed 1.5 -2.0m in height and 3m in width.

Existing subsoil and topsoil for general planting areas: the onsite topsoil and subsoil shall be tested and checked to comply with the British Standards recommendations and undertaken by an approved independent laboratory (such as Tim O'Hare Associates or equivalent approved soil scientist).Provide subsoil and imported topsoil as necessary to make up any deficiency on site.

Natural or imported subsoil (from and approved source), tested to determine suitability for use for landscape planting areas. Test report submitted for approval and any deficiencies identified to enable ameliorant's recommendations. Subsoil shall comply with BS 8601:2013 - Specification for subsoil and requirements for use supplied from an approved source.

Imported Topsoil : Provide imported topsoil as necessary to make up any deficiency on site. Imported topsoil shall be to BS 3882:2015: *Specification for topsoil and requirements for use*, Multi-purpose grade - (Landscape 20) and be of medium texture with a high proportion of loamy material. It shall be free from subsoil, rubbish, roots of perennial weeds (including couch grass) and other injurious to plant growth. Imported topsoil shall be from an approved source and a sample submitted and analyzed/tested at an independent approved laboratory.

Soil Handling: The soils shall be handled in accordance to the Good Practice Guide for Handling Soils. Soil handling shall only take place during the driest parts of the year to prevent compaction of the insitu soils. All topsoil used for planting shall be tested by an approved Topsoil Analysts and any required amelioration or soil improver required shall be carried out in accordance with the topsoil Analyst Report.

The topsoil shall be free from harmful trace elements, including phytotoxic and zootoxic elements harmful both to plant growth and man. The topsoil should be tested by physical and chemical analysis and should state clearly the physical characteristics of the soil, levels of micro-nutrients and chemical content. All fertilizers and added nutrients shall be applied by a qualified staff or supervised so the correct application is is undertaken.

Ameliorant's: Fertilizers & composts: Landscape contractor responsible to submitting imported topsoil analysis to inform requirements. All topsoil ameliorant's (compost & fertilizers), approved peat - free to PAS100 & incorporated during backfilling & cultivation at required rate to full depth of growing medium. No fertilizers applied within proposed wildflower grass areas.

Preparation for Topsoil Re-spread

Existing and or imported topsoil shall be spread following completion of all hard landscape building works, following a thorough clearance and removal of building debris. Tree pits: min. 300mm depth of topsoil. Shrub beds: min. 300mm depth of topsoil. Hedgerows & Scrub Areas: 300mm depth of topsoil.

Backfilling with Topsoil

Topsoil thoroughly mixed with planting organic compost and slow release fertilizer shall be used to plant all trees, shrubs and hedges. All finished levels shall be 25mm above adjacent paving. All backfilled material shall include an organic compost and slow release fertilizer.

Cultivation

Topsoil shall be cultivated to a minimum of 400mm deep on planting areas and 150mm deep on grass areas to a medium tilth, removing all rubbish, vegetation, perennial weeds, roots, stones over 50mm in any one dimension and raked to even levels.

PLANTING

Plant Stock and Timing

Plant material shall conform to BS 3936 Part 1: 1992, Part 2: 1990; Part 9: 1998; Part 10: 1990 and BS4043: 1989 and shall be protected at all times in transit to the site. The planting season shall be from

1st October to the 31st March. Planting shall not be carried out during periods of frost, drought, cold drying winds, or when the soil is waterlogged.

The planting shall be carried out in the first planting season following practical completion of the building and hard landscaping.

Planting outside the planting season will require adequate watering to ensure establishment.

Planting

All trees, hedges & shrub planting shall be planted upright at the same depth as the nursery soil level and evenly spaced, leaving room for growth. Allow at least 300mm clearance between the rootball and the edge of the pit to facilitate staking and to allow adequate amount of backfill around the root ball.

Trees shall be planted upright and at the same depth as the grown nursery soil level with the root collar being at finished soil level, and evenly spaced, leaving room for growth. Allow at least 150-300mm clearance between the rootball and the edge of the pit to facilitate staking and to allow adequate amount of backfill around the rootball. All new tree planting in accordance with BS8545:2014 *Trees: From Nursery to Independence in the Landscape - Recommendations*. Trees shall be pit planted and supported by either staking or underground guys. Underground guying to be in accordance with the manufacture's recommendations. Refer to drawing for tree pit detail. Stakes for 14 -16cm girth: two untreated softwood stakes double tree staked. Stakes shall be softwood, peeled chestnut or larch, free from projections and large knots, with one end pointed. Drive stakes vertically at least 300mm into bottom of the pit either side of rootball. Stakes above ground level - approximately one third of the total height of the tree above ground level. Each stake secured to tree using flexible webbing / loops or natural hessain tree ties. Each tree to be supplied with a Treegator Watering Bag. Immediately following planting, all plants shall be watered-in to field capacity. Hedgerows: refer to drawing and locations for planting centers and spacings.

Root barriers: trees planted adjacent to kerbs; soakaways and underground services - install linear Re-root 600 barriers supplied by Green Blue Urban, or similar approved in accordance with manufacturer's instructions. **Underground Services:** All pipe work shall be protected with Terram Root Guard or similar approved in the vicinity of trees.

Protection

All native tree and shrub planting protected with rabbit guards. All new tree planting protected with a spiral rabbit tree guard supported by a wooden stake. All native hedge plants protected by rabbit guards supported by canes.

Rabbit guards for native hedgerow and scrub planting: Each plant within the native hedge mix shall be individually protected with a spiral shrub biodegradable rabbit guard - NexGen Spiral Guard, supplied by Green-tech www.green-tech.co.uk or similar equivalent.

All spiral rabbit guards shall be secured with square softwood stakes, driven well into the ground by a minimum of 300mm to resist strong winds. The base of each shelter shall be buried by soil to a sufficient depth to ensure there is no gap between the soil level and the shelter.

MULCH

Mulching: Prior to the application of mulch, the planting areas shall be completely weed free and watered sufficiently to achieve field capacity. The surface of the planting areas shall be mulched with a layer of fine composted bark mulch supplied by AHS Ltd - Composted Bark composted for 2-4 weeks with a particle size of 8-35 mm, to a depth of 50-75mm, ensuring that the low branches of shrubs and herbaceous plants are not smothered. Supplied by AHS Ltd or similar approved.

The mulch shall be topped-up to maintain, after settlement, a depth of not less than 50mm.

IMPLEMENTATION

All new planting shall be carried out in the first planting season after all the building works and the hard landscaping areas have been set out and completed.

GRASS AREAS

Seeded Grass Areas - Refer to legend on drawing.

Species Rich Grass Area: WFG20 Eco Species Rich Lawn supplied by Germinal Seeds or similar equivalent.

Sowing rate: 10 grams per m2

Wildflower Seeded Areas: Acidic Soils Wildflower Seeds LW11 M 80/20; supplied by Landlife Flowers or similar equivalent

Sowing rate: 5 grams per m2.

Grass Verge - Hedgerow and Light Shade Wildflower Seeds LW7M 80/20 ; supplied by Landlife Flowers or similar equivalent

Sowing rate: 5 grams per m2

All seeded areas shall be seeded in accordance with the manufacturers instructions. Prior to sowing, the site condition on the proposed wildflower grass areas will be reviewed by a suitably qualified ecologist and the following specification adapted if necessary to maximize the ecological benefits arising from the work.

Seeding: grass areas to be seeded in accordance with BS 4428:1989 during March, April or September. Unimproved or low fertility topsoil to be imported, cultivated and leveled to remove all minor hollows or ridges as required with any debris or stones greater than 20mm diameter removed to provide a fine weed free tilth . Do not apply fertiliser. Weeds to be eradicated by herbicide or repeated cultivation prior to sowing. Lightly rake areas after sowing and keep

well watered. Areas to be kept free from unwanted plants and mown every 6 - 8 weeks during establishment year removing arisings. In subsequent years cut in early spring and autumn after setting seed (in accordance with manufacturers recommendations) removing arisings.

IMPLEMENTATION

All new planting shall be carried out in the first planting season after all the building works and the hard landscaping areas have been set out and completed.

AFTER CARE PERIOD

Maintenance The Aftercare Period shall extend for a five period. During the Aftercare Period maintenance visits shall be carried out, at least monthly from April to September and twice during the dormant season to carry out the following operations to establish healthy growing plants in weed free areas. Maintenance operations shall include: watering, firming-up, pest and disease control, hedge cutting, general pruning, checking stakes and ties, grass cutting to wildflower areas (as per manufacturer's instructions aftercare instructions First year grass sward guidance (2-3 cuts a year), weed control, top up mulch and autumn tidying.

Replacement Planting

All trees, hedge, shrub planting and wildflower grass areas which have died, are missing or have failed to thrive, shall be noted and replaced with the same size and species as originally planted, in the following planting season.

PROPOSED PLANTING SCHEDULE									
TREES									
Number	Species	Height	Pot Size	Density	Specification				
1	Acer campestre	400-450cm		Counted	Extra Heavy Standard -Clear Stem	175-200	RB		
3	Betula pubescens	250-300cm	45L	Counted	Multi-Stemmed -C				
8	Malus sylvestris	350-400cm		Counted	Heavy Standard -Clear Stem	175-200	RB		
2	Prunus padus	350-400cm		Counted	Heavy Standard -Clear Stem	175-200	RB		
2	Quercus robur	400-450cm		Counted	Extra Heavy Standard -Clear Stem	175-200	RB		
2	Sorbus aucuparia	200-250cm	45L	Counted	Multi-Stemmed -C				
Total :18									
SHRUBS									
Number	Species	Height	Pot Size	Density	Specification				
15	Crataegus monogyna	90-120cm		0.45Ctr	Double Staggered at 0.5m offset	Hedging stock	Feathered to base	RB	
3	Sarcococca confusa	40-60cm	5L	3/m²		Bushy -C			
Total :18									
NATIVE SHRUB PLANTING MIX I									
Number	Species	Height	Density	Specification				% Contr.	
109	Corylus avellana	100-125cm	1/m²	Hedge stock	Feathered Whip	-BR	20%		
109	Crataegus monogyna	100-125cm	1/m²	Hedge stock	Feathered Whip	-BR	20%		
56	Ilex aquifolium	100-125cm	1/m²	Hedge stock	Feathered Whip	-BR	10%		
109	Prunus spinosa	100-125cm	1/m²	Hedge stock	Feathered Whip	-BR	20%		
56	Salix caprea	100-125cm	1/m²	Hedge stock	Feathered Whip	-BR	10%		
56	Sambucus nigra	100-125cm	1/m²	Hedge stock	Feathered Whip	-BR	10%		
56	Ulex europaeus	100-125cm	1/m²	Hedge stock	Feathered Whip	-BR	10%		
Total :551									
NATIVE HEDGE PLANTING MIX A									
Number	Species	Height	Density	Specification				% Contr.	
53	Carpinus betulus	90-120cm	0.45Ctr	Double Staggered at 0.5m offset	Hedging stock	Feathered Whip	-BR	10%	
106	Corylus avellana	90-120cm	0.45Ctr	Double Staggered at 0.5m offset	Hedging stock	Feathered Whip	-BR	20%	
186	Crataegus monogyna	90-120cm	0.45Ctr	Double Staggered at 0.5m offset	Hedging stock	Feathered Whip	-BR	35%	
53	Fagus sylvatica	90-120cm	0.45Ctr	Double Staggered at 0.5m offset	Hedging stock	Feathered Whip	-BR	10%	
106	Ilex aquifolium	90-120cm	0.45Ctr	Double Staggered at 0.5m offset	Hedging stock	Feathered Whip	-BR	20%	
28	Sambucus nigra	90-120cm	0.45Ctr	Double Staggered at 0.5m offset	Hedging stock	Feathered Whip	-BR	5%	
Total :532									
NATIVE HEDGE PLANTING MIX A1									
Number	Species	Height	Density	Specification				% Contr.	
33	Carpinus betulus	90-120cm	0.45Ctr	Triple Staggered at 0.5m offset	Hedging stock	Feathered Whip	-BR	10%	
64	Corylus avellana	90-120cm	0.45Ctr	Triple Staggered at 0.5m offset	Hedging stock	Feathered Whip	-BR	20%	
112	Crataegus monogyna	90-120cm	0.45Ctr	Triple Staggered at 0.5m offset	Hedging stock	Feathered Whip	-BR	35%	
33	Fagus sylvatica	90-120cm	0.45Ctr	Triple Staggered at 0.5m offset	Hedging stock	Feathered Whip	-BR	10%	
64	Ilex aquifolium	90-120cm	0.45Ctr	Triple Staggered at 0.5m offset	Hedging stock	Feathered Whip	-BR	20%	
17	Sambucus nigra	90-120cm	0.45Ctr	Triple Staggered at 0.5m offset	Hedging stock	Feathered Whip	-BR	5%	
Total :323									
NATIVE HEDGE PLANTING MIX B									
Number	Species	Height	Density	Specification				% Contr.	
9	Carpinus betulus	90-120cm	0.45Ctr	Double Staggered at 0.5m offset	Hedging stock	Feathered Whip	-BR	15%	
9	Corylus avellana	90-120cm	0.45Ctr	Double Staggered at 0.5m offset	Hedging stock	Feathered Whip	-BR	15%	
19	Crataegus monogyna	90-120cm	0.45Ctr	Double Staggered at 0.5m offset	Hedging stock	Feathered Whip	-BR	35%	
19	Ilex aquifolium	90-120cm	0.45Ctr	Double Staggered at 0.5m offset	Hedging stock	Feathered Whip	-BR	35%	
Total :56									
NATIVE HEDGE PLANTING MIX C									
Number	Species	Height	Density	Specification				% Contr.	
49	Carpinus betulus	90-120cm	0.45Ctr	Double Staggered at 0.5m offset	Hedging stock	Feathered Whip	-BR	10%	
3	Corylus avellana	90-120cm	0.45Ctr	Double Staggered at 0.5m offset	Hedging stock	Feathered Whip	-BR	20%	
120	Crataegus monogyna	90-120cm	0.45Ctr	Double Staggered at 0.5m offset	Hedging stock	Feathered Whip	-BR	25%	
49	Fagus sylvatica	90-120cm	0.45Ctr	Double Staggered at 0.5m offset	Hedging stock	Feathered Whip	-BR	10%	
97	Ilex aquifolium	90-120cm	0.45Ctr	Double Staggered at 0.5m offset	Hedging stock	Feathered Whip	-BR	20%	
64	Prunus spinosa	90-120cm	0.45Ctr	Double Staggered at 0.5m offset	Hedging stock	Feathered Whip	-BR	10%	
25	Sambucus nigra	90-120cm	0.45Ctr	Double Staggered at 0.5m offset	Hedging stock	Feathered Whip	-BR	5%	
Total :486									
SHADE PLANTING MIX A									
Number	Species	Height	Pot Size	Density	Specification			% Contr.	
8	Anemone 'Wild Swan'		2L	3/m²	C -Full Pot	-	10%		
8	Anemone hybrida 'Honorine Jobert'		1L	3/m²	C -Full Pot	-	10%		
8	Astrantia Roma'		2L	3/m²	C -Full Pot	-	10%		
8	Astrantia major 'Shaggy'		2L	3/m²	C -Full Pot	-	10%		
8	Geranium Rozanne		2L	3/m²	C -Full Pot	-	10%		
8	Hebe 'Green Globe'		30-40cm	5L	3/m²	Bushy -C	10%		
8	Helleborus argutifolius 'Silver Lace'		2L	3/m²	C -Full Pot	-	10%		
5	Hydrangea arborescens 'Annabelle'		40-60cm	5L	3/m²	Bushy -C	5%		
8	Liriope muscari 'Big Blue'		2L	3/m²	C -Full Pot	-	10%		
8	Polystichum setiferum 'Herrenhausen'		2L	3/m²	C -Full Pot	-	10%		
5	Sarcococca confusa		40-60cm	5L	3/m²	Bushy -C	5%		
Total :82									
SHADE PLANTING MIX B									
Number	Species	Height	Pot Size	Density	Specification			% Contr.	
8	Anemone 'Wild Swan'		2L	3/m²	C -Full Pot	-	15%		
6	Anemone hephehensis 'September Charm'		2L	3/m²	C -Full Pot	-	10%		
6	Astrantia major 'Shaggy'		2L	3/m²	C -Full Pot	-	10%		
3	Hamamelis intermedia 'Jelena'		60-90cm	7.5L	3/m²	Bushy -C	5%		
6	Hebe 'Green Globe'		30-40cm	5L	3/m²	Bushy -C	10%		
6	Helleborus argutifolius 'Silver Lace'		2L	3/m²	C -Full Pot	-	10%		
3	Hydrangea quercifolia 'Snow Queen'		40-60cm	5L	3/m²	Bushy -C	5%		
8	Liriope muscari 'Big Blue'		2L	3/m²	C -Full Pot	-	15%		
6	Polystichum setiferum 'Dahlem'		2L	3/m²	C -Full Pot	-	10%		
3	Sarcococca confusa		40-60cm	5L	3/m²	Bushy -C	5%		
Total :57									
SHADE PLANTING MIX C									
Number	Species	Height	Pot Size	Density	Specification			% Contr.	
5	Anemone hephehensis 'September Charm'		2L	3/m²	C -Full Pot	-	15%		
5	Astrantia major 'Shaggy'		2L	3/m²	C -Full Pot	-	15%		
5	Hebe 'Green Globe'		30-40cm	5L	3/m²	Bushy -C	15%		
4	Helleborus argutifolius 'Silver Lace'		2L	3/m²	C -Full Pot	-	10%		
4	Liriope muscari 'Big Blue'		2L	3/m²	C -Full Pot	-	20%		
4	Polystichum setiferum 'Dahlem'		2L	3/m²	C -Full Pot	-	10%		
5	Sarcococca confusa		40-60cm	5L	3/m²	Bushy -C	15%		
Total :35									
SUN PLANTING MIX B									
Number	Species	Height	Pot Size	Density	Specification			% Contr.	
8	Aster frikarii 'Monch'		2L	4/m²	C -Full Pot	-	10%		
13	Geranium Rozanne		2L	4/m²	C -Full Pot	-	10%		
13	Lavandula angustifolia 'Hidcote'		30-40cm	3L	4/m²	Bushy -C	15%		
8	Rosmarinus officinalis 'Miss Jessopp's Upright'		40-60cm	5L	4/m²	Bushy -C	10%		
20	Salvia x sylvestris 'Mainacht'		3L	4/m²	C -Full Pot	-	25%		
20	Sedum Autumn Joy		2L	4/m²	C -Full Pot	-	10%		
Total :82									
SUN PLANTING MIX A									
Number	Species	Height	Pot Size	Density	Specification			% Contr.	
10	Aster frikarii 'Monch'		2L	4/m²	C -Full Pot	-	10%		
15	Geranium clarkii 'Kashmir White'		2L	4/m²	C -Full Pot	-	15%		
10	Geum 'Totally Tangerine'		2L	4/m²	C -Full Pot	-	10%		
10	Lavandula angustifolia 'Hidcote'		3L	4/m²	Bushy -C	10%			
15	Nepeta racemosa 'Walkers Low'		3L	4/m²	C -Full Pot	-	15%		
10	Rosmarinus officinalis 'Miss Jessopp's Upright'		5L	4/m²	Bushy -C	10%			
10	Salvia nemorosa 'Caradonna'		2L	4/m²	C -Full Pot	-	15%		
15	Sedum 'Autumn Joy		2L	4/m²	C -Full Pot	-	15%		
Total :100									