KEY

○	EXISTING TREE TO BE RETAINED (REFER TO ARBORICULTURAL IMPACT ASSESSMENT)
✺	PROPOSED TREE PLANTING
⌇	HEDGE PLANTING
▭	ORNAMENTAL SHRUB PLANTING
▒	TURF (CLOSE MOWN)
▨	WILDFLOWER SEED MIX - EM2 GENERAL MEADOW MIXTURE
▩	NATIVE SHRUB PLANTING
▦	NATIVE LARGE TREE AND SHRUB PLANTING
▭	NATIVE HEDGE PLANTING

Planting Schedule

Trees

Abbreviation	Species	Height	Girth	Specification	Pot Size	Number of Plants
ACE	Acer campestre	350-425cm	12-14cm	Heavy Standard: 3x	B	7 -
ACST	Acer campestre 'Street Wise'	350-425cm	12-14cm	Heavy Standard 3x	B	6 -
AG	Alnus glutinosa	350-425cm	12-14cm	Heavy Standard: 3x	B	3 -
BP	Betula pendula	350-425cm	12-14cm	Heavy Standard: 3x	RB	12 -
PCC	Pyrus calleryana 'Chanticleer'	300-350cm	12-14cm	Heavy Standard: 3x	B	11 -
PP	Prunus padus	350-425cm	12-14cm	Heavy Standard: 3x	B	6 -
QRO	Quercus robur	350-425cm	12-14cm	Heavy Standard: 3x	RB	4 -
SA	Sorbus aucuparia	350-425cm	12-14cm	Heavy Standard: 3x	B	9 -
SAR	Sorbus aria	350-425cm	12-14cm	Heavy Standard: 3x	B	3 -
TC	Tilia cordata	350-425cm	12-14cm	Heavy Standard: 3x	B	5 -
						Total :66 -

Hedges

Abbreviation	Species	Specification	Height	Pot Size	Density	Number of Plants
CAR	Carpinus betulus	Double staggered row	60-80cm	B	6/m	1164 -
HRE	Hebe albicans 'Red Edge'	Double staggered row	25-30cm	5L	6/m	90 -
PLO	Prunus laurocerasus 'Otto Luyken'	Double staggered row	60-80cm	5L	4/m	1200 -
						Total :2454 -

Shrubs

Abbreviation	Species	Specification	Density	Height	Pot Size	Number of Plants
AJV	Aucuba japonica 'Variegata'		4/m²	40-60cm	5L	31 -
BCO	Bergenia cordifolia		6/m²	20-30cm	3L	97 -
CAB	Ceanothus 'Autumnal Blue'		4/m²	40-60cm	3L	38 -
EUEG	Euonymus fortunei 'Emerald Gaiety'		6/m²	20-30cm	3L	74 -
HEP	Hebe pinguifolia 'Pagei'		6/m²	30-40cm	3L	74 -
HG	Hebe 'Green Globe'		6/m²	30-40cm	3L	61 -
HH	Hypericum 'Hidcote'		6/m²	30-40cm	3L	27 -
LAV	Lavandula angustifolia 'Vera'		6/m²	30-40cm	3L	91 -
PRR	Photinia x fraseri 'Red Robin'		4/m²	60-80cm	5L	64 -
SKJ	Skimmia japonica		6/m²	30-40cm	3L	77 -
SS	Senecio 'Sunshine'		6/m²	30-40cm	3L	77 -
						Total :711 -

Native Shrub Mix

Abbreviation	Species	Specification	Height	Pot Size	Density	Mix Species Contribution	Number of Plants
CM	Crataegus monogyna	Transplant	60-80cm	B	1/m²	10%	30 -
CORAV	Corylus avellana	Transplant	60-80cm	B	1/m²	20%	58 -
ILEA	Ilex aquifolium	Transplant	60-80cm	3L	1/m²	30%	87 -
PRUSP	Prunus spinosa	Transplant	60-80cm	B	1/m²	20%	58 -
ROSAR	Rosa arvensis	Transplant	60-80cm	B	1/m²	5%	15 -
ROSCA	Rosa canina	Transplant	60-80cm	B	1/m²	5%	15 -
VIBOP	Viburnum opulus	Transplant	60-80cm	B	1/m²	10%	30 -
							Total :293 -

Native Hedge Mix - Double Staggered row

Abbreviation	Species	Specification	Height	Pot Size	Density	Mix Species Contribution	Number
ROSAR	Rosa arvensis	Transplant 1+1	60-80cm	B	6/m	5%	32 -
ROSCA	Rosa canina	Transplant 1+1	60-80cm	B	6/m	5%	32 -
ILEA	Ilex aquifolium	Container	60-80cm	5L	6/m	10%	61 -
CORAV	Corylus avellana	Transplant 1+1	60-80cm	B	6/m	20%	121 -
PRUSP	Prunus spinosa	Transplant 1+1	60-80cm	B	6/m	20%	121 -
CRAMON	Crataegus monogyna	Transplant 1+1	60-80cm	B	6/m	40%	238 -
						Total :100%	Total :605 -

Native shrub & large tree mix

Abbreviation	Species	Pot Size	Height	Specification	Density	Percentage Contribution	Number
BP	Betula pendula	B	60-80cm	Transplant :1+1	1/m²	10%	132 -
CORAV	Corylus avellana	B	60-80cm	Transplant :1+1	1/m²	15%	198 -
CRAMON	Crataegus monogyna	B	60-80cm	Transplant :1+1	1/m²	10%	132 -
FAGSY	Fagus sylvatica	B	60-80cm	Transplant :1+1	1/m²	10%	132 -
ILEA	Ilex aquifolium	5L	60-80cm	Container	1/m²	10%	132 -
Pav	Prunus avium	B	60-80cm	Transplant :1+1	1/m²	5%	66 -
PRUSP	Prunus spinosa	B	60-80cm	Transplant :1+1	1/m²	5%	66 -
QRO	Quercus robur	B	60-80cm	Transplant :1+1	1/m²	10%	132 -
ROSAR	Rosa arvensis	B	60-80cm	Transplant :1+1	1/m²	5%	66 -
ROSCA	Rosa canina	B	60-80cm	Transplant :1+1	1/m²	5%	66 -
SORAU	Sorbus aucuparia	B	60-80cm	Transplant :1+1	1/m²	10%	132 -
VIBOP	Viburnum opulus	B	60-80cm	Transplant :1+1	1/m²	5%	66 -
							Total :1320 -

WILDFLOWER SEED MIX - To be sown at a rate of 4g/M².

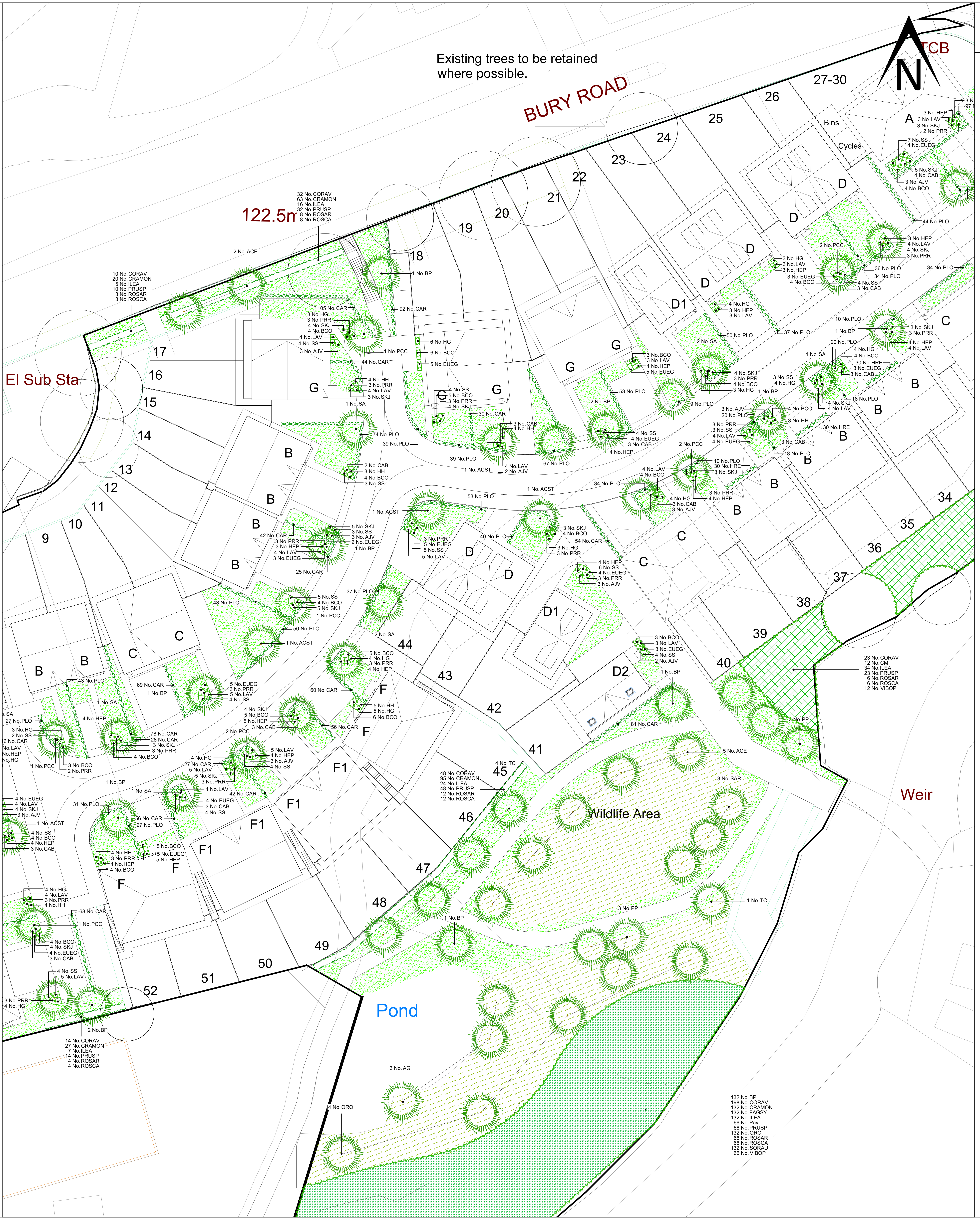
EM2 - Standard General Purpose Meadow Mixture.
www.wildseed.co.uk/product/mixtures/standard-general-purpose-meadow-mixture

Available from Emorsgate Seeds. Tel: 01553 829 028 or similar approved.
All wildflower areas to have 1M wide close mown grass edge adjacent roads and footpaths. Seeded with grass mix A22.

AMENITY GRASS SEED MIX - To be sown at a rate of 50g/M².

A22 - Hard Wearing, Low Maintenance.
www.germinalamenity.com/a22-low-maintenance

Available from Germinal GB Ltd. Tel: 01522 868714 (or similar approved)



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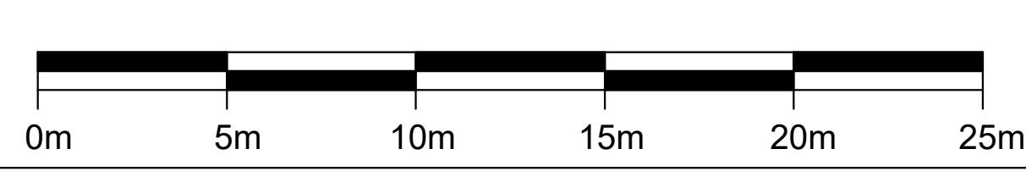

SPECIFICATION

GROUND PREPARATION - GENERAL

Preparing for topsoiling
Grading and cultivation shall be in accordance with BS 4428:1989 section 4. Subsoil that is to receive topsoil shall, whether obviously overcompacted or not, be thoroughly broken up by hand, by heavy rotovator, by subsoiler or tined equipment with adequate passes made to thoroughly break up the surface to a depth of 150mm, cleared of all large stones, bricks, perennial weeds, tree roots (excluding living tree roots), coarse vegetation and other extraneous matter.

Subsoil grading
Subsoil shall only be graded after loosening as above, and this shall be undertaken by the use of a tractor and blade grader on large areas and by a small mechanical grader or by hand on small areas. Ground shall at no time be traversed by heavy machinery, for grading or any other purpose after subsoiling and/or topsoiling has taken place.

Making up levels
When subsoil is deposited in low lying areas to raise formation levels, it shall be lightly consolidated and left broken up ready to receive topsoil. Imported fill material shall be natural subsoil free from metal, concrete or organic material with any one dimension greater than 100mm. All imported fill material shall be approved by the Landscape Architect prior to spreading on site.

Supply of topsoil
Topsoil to be supplied shall be approved by the Landscape Architect and details of the source of supply shall be provided in order that inspection may be made before delivery commences. Topsoil shall conform to BS 3882: 2015, Recommendations and classification for topsoil, clause 4.1a. The soil shall be free of weeds, roots or perennial weeds, pests, diseases, debris, tree roots, sticks, subsoil and foreign matter and shall be capable of being broken down to a fine tilth.

Temporary topsoil heaps
The depositing of temporary heaps of topsoil shall be so arranged that possible damage to existing grass, plants, tarmacadam, paving etc, is avoided. Unless otherwise agreed by the Landscape Architect, temporary spoil heaps shall be on protected ground. Such protection shall take the form of tarpaulins, plastic sheets, boards or similar covering. If damage does occur, it shall be made good at the contractor's own expense. Areas excavated to receive topsoil but have not had the base loosened shall not be used as temporary off loading areas. If the bottom of the excavation has been loosened off, loading on these areas is permissible.

Spreading topsoil
Prior to topsoil replacement the formation level shall be cleared of all stones, rubbish, debris with any one dimension greater than 75mm. Areas to be seeded or turfed shall be covered by topsoil 100mm thick and areas to be planted shall be covered by topsoil 300mm thick. Topsoil shall be spread in an evenly consolidated layer and shall be left cleared of all roots, stones and debris with any one dimension greater than 50mm throughout its depth. Unless otherwise stated the finished level shall be 25mm above adjacent hard areas. No topsoil shall be spread until the subsoil grade has been inspected by a Landscape Architect.

PLANTING

Cultivation
Planting areas shall be rotovated to a depth of 225mm in the original ground, or where the ground is compacted, ripped and rotovated. Pick off stones, bricks, timber and all other debris arising which have any dimensions greater than 50mm and remove off site to tip. Do not cultivate across any drain where the stone is flush with the ground surface.

Soil improvers
Where directed composts, fertilisers or other additives shall be incorporated into the soil. Spent mushroom compost or similar shall be spread to the specified thickness and incorporated, by rotovating, into the top 150mm. Fertilisers, organic or inorganic, shall be raked into the top 25mm.

Rejection of plants
All plant material should comply with the minimum requirements in BS 3936-1: 1992 Specification for trees and shrubs and BS 3936-4: 2007 Specification for forest trees and BS 8545: 2014 Trees from Nursery to Independence in the Landscape. Any plant material, which in the opinion of the Landscape Architect, does not meet the requirements of the Specification, or is unsuitable, or defective in any other way, will be rejected. The minimum specified sizes in the plant schedule will be strictly enforced. The contractor shall replace all plants rejected at his own cost.

Planting
All plant material shall generally be planted between November and March in open cool weather. Planting shall not take place in frosty, snowy or waterlogged conditions. Where approved, pot or container grown plants may be planted outside the described season, but adequate watering shall be supplied. Torn or damaged roots and branches shall be cleanly pruned prior to planting.

Planting of whips, transplants and shrubs
The nature of the material to be planted is variable and the contractor shall allow for planting to be properly carried out in all cases as described in BS 4428: 1989 section 7 Amenity tree planting, section 8 Woodland planting and section 9 Planting of shrubs, herbaceous and bulbs. All plants shall be planted at same depth, or very slightly deeper, as they were grown. Roots shall not be bent, broken or forced into inadequate pits or notches. Plants shall be upright, firmed in and wind resistant, with no air pockets around roots. All pots and root wrappings shall be carefully removed prior to planting. All pots and wrappings arising shall immediately be picked up and stored ready for removal to tip. Plants shall be planted at the specified centres. On steep slopes this shall be in the horizontal measure.

Tree planting within soft landscape areas
Trees shall conform to BS: 3936-1: 1992 and be planted in tree pits of the following sizes unless directed otherwise:
Feathered trees - 900 x 900 x 450
Selected standards - 1000 x 1000 x 600
Heavy standards/Extra heavy standards - 1200 x 1200 x 600
Excavated subsoil or stone shall be carted off site to tip. The bottom 250mm of the pit shall be dug and broken up. The bottom of the pit shall be backfilled with subsoil (site or imported) to comply with BS 8601: 2013. The top 300mm of the pit shall be backfilled with imported topsoil as specified unless directed otherwise.

Compost for planting pits
Compost shall be a proprietary product, bark based incorporating fertilisers and improving additives. The type of compost shall be approved before its delivery on site, and the details of the product shall be supplied. Cambark planting compost is approved. Where directed compost shall be added to and mixed with topsoil backfill at the following rates:
Feathered trees - 40 litres
Selected standards - 60 litres
Heavy standards/Extra heavy standards - 80 litres

Stakes for trees
Stakes shall be peeled round softwood, pointed, minimum diameter 75mm. The stakes shall be driven into the base of the tree pit prior to placing the tree and backfilling.
Stakes shall in general have a clear height above the finished ground level as follows unless directed otherwise:
Feathered trees - 750mm (1 stake)
Selected standards - 900mm (2 stakes)
Heavy standards/Extra heavy standards - 1200mm (2 stakes)
The stake shall be long enough to drive until they hold the tree firmly without rocking.

Tree ties
Ties for trees shall be the environmentally friendly 'NATURETIE' tree ties sourced through Green-tech, or other equal and approved. Ties shall not be over tight on the tree stems. Ties available from Green-tech, Rabbit Hill Business Park, Great North Road, Arkendale, HG5 0FF. There shall be a tie per stake.

Planting of trees
The tree shall be set upright and at the same depth as grown in the nursery, the roots shall be spread out (bareroot) and the soil followed by compost topsoil mixture, backfilled. Backfilling should be done to ensure close contact between roots and by firming in layers (bareroot). The soil shall be left level and tidy, any subsoil clods, bricks or stones over 50mm arising, collected and carted off site.

Mulching
A 75mm compacted layer of medium grade pulverised bark, with a particle size of not more than 100mm and containing no more than 10% fines, shall be spread to form a continuous layer covering the whole of the bed, or in the case of standard trees within grass shall be in the form of a circle of 600mm diameter around the base of the tree. Whips and transplants shall be mulched in the form of a 300mm diameter circle around the base of the tree. Where trees are planted within grass a circular hemp mulch mat is required beneath the layer of mulch at the diameters stated above, secured with fixing pegs. The tree pit surface shall be as big as possible.

Planting of Bulbs
Bulbs shall not be allowed to dry out and shall be free of pests, diseases and fungus. Bulbs should be planted immediately upon delivery to site, if stored, this shall be for the minimum period in a dark, well-ventilated, protected area at 18-21 degrees Celsius. Certificates of purchase shall be provided upon inspection. Bulbs are to be planted, according to species and in the areas shown on the soft landscape plan. Where planting is required 'in drifts', bulbs are to be scattered randomly over the allocated area and planted where they fall at the depth stated and shall be in contact with the soil at the base of the hole. The hole shall be backfilled with topsoil and lightly firmed in place. If bulbs are to be planted into existing turf areas, turf it to be neatly removed and replaced after planting and re-firmed.

TURFING

Soil preparation and cultivation
All areas to be turfed shall be cultivated to a depth of at least 100mm, all weeds, stones and refuse larger than 50mm shall be removed to Contractor's tip, and shall be brought to a fine tilth. Allow for hand cultivation where machine work is not possible.

Turf
Turf shall be extra-quality meadow turf and shall comply to BS 3969: 1998 +A1: 2013 and shall be laid in accordance with BS 4428: 1998, section 6, Turfing. The Contractor shall supply a sample of the turf he proposed to use for approval of the Landscape Architect and shall ensure that all turves are similar to the approved sample. The Contractor shall inform the Landscape Architect of the location of the supply, so that turf can be inspected prior to lifting.

Season
Turf shall be laid when weather and soil conditions are suitable and, where possible, preference should be given to autumn and early winter operations. No turf shall be laid in exceptionally dry or frosty weather or in other unsuitable weather conditions.

Delivery and stacking
For large areas, turf shall be delivered at appropriate intervals throughout the work so as to avoid stacking for long periods.

Laying
No turf shall be laid until the soil preparation has been satisfactorily completed by being brought to an even tilth and firmness. Turves from the stack shall be wheeled to turf layers on planks laid closely side by side. Adequate timber planks shall be used to support operatives and barrows, and provide access. The turves shall be laid in consecutive rows with broken joints (stretcher bond), closely butted and to the correct levels. The turf shall be laid off planks working over turves previously laid. Where necessary, the turves shall be lightly and evenly firmed with wooden beaters, the bottom of the beaters being frequently scraped clean of accumulated soil or mud. A dressing of finely sifted topsoil shall be applied and well brushed into the joints. Any inequalities in finished levels owing to variation in turf thickness or uneven consolidation of soil shall be adjusted by raking and/or packing fine soil under the turf. A roller shall not be used. The finished levels of the turf shall conform to the levels indicated, allowing for final settlement. Turf edges and margins shall be laid with whole turves. Turves adjoining buildings, walls or fences shall be taken to the face of the structure, giving complete soil cover.

Laying around trees
Turf shall not be laid to within 300mm of any tree trunk.

Watering
The Contractor shall be responsible for the replacement of any scorched turf. All necessary watering shall be carried out with sprinklers or oscillating sprays so as not to wash soil out of joints. If shrinkage occurs and the joints open, fine topsoil shall be brushed in and well watered.

PROTECTION TO EXISTING TREES

The recommendations in BS 5837: 2012, *Trees in Relation to Design, Demolition & Construction* must be complied with at all times.

MAINTENANCE
All maintenance to be carried out up to handover to the adopting authority/ householder from the date of planting and turfing to ensure successful establishment. All dead, diseased, damaged plants must be replaced during this time unless the local Planning Authority states, in writing, any variation to this.

Weeding
All beds to be kept weed free by hand weeding. Beds to be forked over as necessary to keep soil loose to approved cambers with no hollows.

Pruning
At appropriate time, prune plants to remove dead, dying or diseased wood and suckers to promote healthy growth and natural shape.

Watering
The Contractor shall ensure that sufficient water is applied to maintain healthy growth.

Litter
Site to be kept free of litter.

Grass cutting
The initial cut shall be carried out when first growth is apparent, blades set 20mm above ground. The Contractor shall continue cutting at appropriate intervals during the growing season and maintain 40mm high sward until grass areas are handed over. Watering, weeding, cutting, repair of all erosion and settlement and re-seeding as necessary to establish a uniform and healthy stand of grass shall continue until handover to the householder.

GRASS SEEDING AND MAINTENANCE

Soil Preparation and Cultivation
Final grading of topsoil shall be agreed by the Landscape Architect before cultivation and seeding. All areas to be seeded shall be cultivated to 150mm depth and all weeds, stones, and refuse larger than 50mm shall be removed to tip. Cultivated soil shall be rolled and raked to produce a tilth 25mm deep. Allow for hand cultivation where machine work is not possible. Seed sowing must immediately follow the preparation of the seed bed.

Seeding
Sowing shall be carried out during calm weather. All sowing is at the contractor's own risk and any areas where germination fails shall be re-seeded at the contractor's own expense. The operation should be carried out in equal sowings and transverse directions and the seed shall be raked or harrowed in. Sowing shall be at the rate of 50 grammes per sq.m. and overseeding shall be at a rate of 20 grammes per sq.m.

Seed Mix
The seed mix shall be A22 mix, obtainable from Germinal Seeds GB.
Grass seed shall be of the composition, purity and germination as specified in BS 4428: 1989. Certificates of purchase shall be provided for all deliveries prior to the sowing of grass seed stating source, mixture, purity and germination percentage.
Alternative cultivars of the above species may only be used if approved by the landscape architect.

Protection of Newly Seeded Areas
All reasonable precautions shall be taken to ensure that pedestrian and other traffic does not cross the grass areas during cultivation, seeding or until grass is established. Where obvious 'Short cutting' is occurring, the contractor shall erect an approved temporary fence so as to minimise the maintenance period or until such time as it is no longer necessary, or as directed.

First Cut
When the grass is 100mm high, it shall be cut down to 50mm so as to avoid root pulling. If the grass has been allowed to grow any longer than 100mm then the cuttings shall be raked off and taken off site.

Second Cut
When the grass is 65mm high a second cut shall be carried out using a rotar mower. No more than one third of the foliage must be removed.

Subsequent Cuts
Thereafter, when the grass grows to 100mm high, it shall be cut down to 50mm with a flail type mower, until the end of the maintenance period, or longer if so directed. The grass shall be cut on a regular basis if so directed.

Making Good
Any defects such as shrinkage, ponding, sparse germination or disease shall be made good and re-seeded all as above.

Damage to Existing Grass
The contractor will be responsible for cultivating, seeding and maintaining, as above all areas of existing turf that are damaged during the course of the works for reasons of storage, working areas, transport of materials excepting those areas which are specifically defined and measured in the contract.
Any areas, which in the opinion of the Landscape Architect, are consolidated during the course of these works, shall be loosened with a ripper or other suitable implement to ensure adequate drainage through the sub soil.

WILDFLOWER SEEDING & MAINTENANCE

Preparation for seeding
No topsoil shall be imported in to the wildflower areas and seed should be sown into good quality, clay free sub-soil.
The area shall be cultivated to 150mm depth and all weeds, stones and refuse larger than 50mm shall be removed to tip (Cultivation of soil not to occur beneath existing tree canopies). Cultivated soil shall be rolled and raked to produce a tilth 25mm deep and left for 2-3 weeks to allow existing weeds in the seed bank to germinate. After 2-3 weeks, a spray off of the newly germinated weeds will be carried out, allowed to die back and then raked off. Seed sowing must be undertaken immediately after the area has been prepared and weeds removed, lightly watering area before seeding. Seed shall be sown during late August or September or, if this is not possible, during April to May.

Wildflower seeding
Sowing shall be carried out during calm weather. All sowing is at the contractor's own risk and any areas where germination fails shall be re-seeded at the contractor's own expense. The operation should be carried out in equal sowings and transverse directions. The contractor must ensure that the grass and wildflower seed is thoroughly mixed throughout sowing. The seed mix shall be sown at the rate specified by the manufacturer and then raked into the soil surface and lightly rolled.

Wildflower seed mix
Sow the wildflower seed available from Emorsgate Wild Seeds. Certificates of purchase shall be provided for all deliveries prior to the sowing of the wildflower mix, stating source, mixture, purity and germination percentage. Sources must be of indigenous stock.

Protection of newly seeded wildflower areas
All reasonable precautions shall be taken to ensure that pedestrian and other traffic does not cross the wildflower areas during cultivation, seeding or establishment. Where obvious short cutting is occurring, the contractor shall erect an approved temporary fence so as to minimise the maintenance period or until such time as it is no longer necessary, or as directed.

First cut of wildflower meadow
Areas seeded during August to September shall be cut lightly in the spring using a flail mower, or strimmer, when the meadow reaches a height of 100mm. Areas seeded during April to May shall be cut in September/October when flowering is over. In both cases, all cuttings shall be raked up and removed from site.

Subsequent cuts
Hereafter cutting shall be undertaken, with a flail mower or strimmer, when flowering is over in September to October. All cuttings shall be raked up and removed.

Managing Fertility
Where there is species dominance or vigorous growth, carry out a second cut at the end of May to early June. The cut shall be to a height of 200-250mm to remove flower heads but retain most of the stems. Remove all cuttings. After cutting, water thoroughly to encourage new growth. If this cut is carried out the second cut of the year shall be undertaken during October.

Making good
Any defects such as sinkage, ponding, sparse germination or disease shall be made good and re-seeded all as above.

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Landscape Architecture
Arboriculture

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Project
OAKENROD SCHOOL SITE, ROCHDALE

HALLMARK DEVELOPMENTS

Title
LANDSCAPE PROPOSAL

Date	Scale(s)	Dwg no	Rev
JUN'23	1:200 @ A0	7188.02	

Dwn	Chkd
KR	NC