PLANT SCHEDULES

NATIVE SHRUB PLANTING

Species	Common Name	Height	Root Condition
Cornus sanguinea	Dogwood	60-90cm	1+1 transplant seedling
Corylus avellana	Hazel	60-90cm	1+1 transplant seedling
Crateagus monogyna	Hawthorn	60-90cm	1+1 transplant seedling
Prunus spinosa	Blackthorn	60-90cm	1+1 transplant seedling
Viburnum opulus	Guelder Rose	60-90cm	1+1 transplant seedling

Planting shall be carried out on a 1.5m staggered grid. Shrubs shall be planted in single species groups of 5-7no in equal number within each plot.

NATIVE HEDGEROW PLANTING

Species	Common Name	%	Height	Root Condition
Shrub Species				
Acer campestre	Field Maple	7.5	60-90cm	1+1 transplant seedling
Corylus avellana	Hazel	10	60-90cm	1+1 transplant seedling
Crateagus monogyna	Hawthorn	50	60-90cm	1+1 transplant seedling
Ilex aquifolium	Holly	2.5	60-90cm	3 litre container grown
Prunus spinosa	Blackthorn	20	60-90cm	1+1 transplant seedling
Viburnum opulus	Guelder Rose	10	60-90cm	1+1 transplant seedling

NATIVE TREE PLANTING

Native Species	Common Name	Girth	Height	Root
Acer campestre	Field Maple	8-10cm Std	250-300cm	Bareroot
Crateagus monogyna	Hawthorn	8-10cm Std	250-300cm	Bareroot
Malus sylvestris	Crab Apple	8-10cm Std	250-300cm	Bareroot
Prunus avium	Wild Cherry	8-10cm Std	250-300cm	Bareroot
Sorbus aucuparia	Rowan	8-10cm Std	250-300cm	Bareroot

ORNAMENTAL TREE PLANTING

Ornamental Species	Girth	Height	Root
Acer campestre 'Elegant'	16-18cm EHS	min 450cm	Rootball
Betula ermanii	16-18cm EHS	min 450cm	Rootball
Pyrus calleryana 'Chanticleer'	16-18cm EHS	min 450cm	Rootball
Sorbus aria 'Lutescens'	16-18cm EHS	min 450cm	Rootball

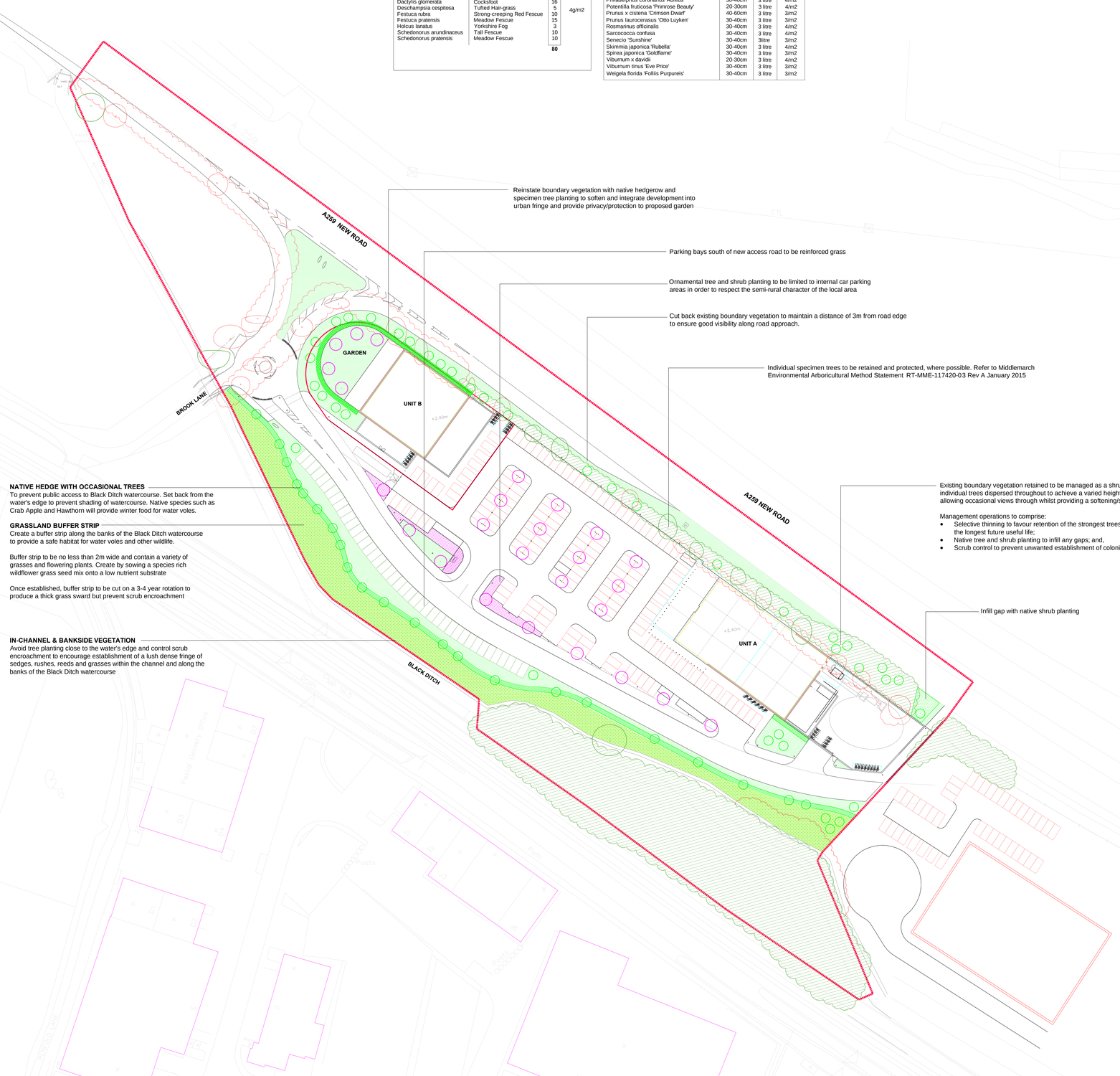
SEEDING TO GRASSLAND BUFFER STRIP

Seed Mix: Emorsgate EM10 Tussock Grass Mixture with Wildflowers

Species	Common Name	%	Density
Wildflowers			
Achillea millefolium	Yarrow	0.5	4g/m2
Agrimonia eupatoria	Agrimony	1	
Arctium minus	Lesser Burdock	0.5	
Centaurea nigra	Common Knapweed	1.5	
Centaurea scabiosa	Greater Knapweed	2	
Daucus carota	Wild Carrot	1.3	
Dipsacus fullonum	Wild Teasel	1	
Galllium mollugo	Hedge Bedstraw	2	
Geranium pratense	Meadow Cranesbill	0.5	
Leucanthemum vulgare	Oxeye Daisy	1.5	
Plantago lanceolata	Ribwort Plantain	1.5	
Silene dioica	Red Campion	1	
Silene vulgaris	Bladder Campion	1	
Tanacetum vulgare	Tansy	0.2	
Torilis japonica	Upright Hedge Parsley	2	
Tragopogon pratensis	Goat's-beard	0.5	
Verbascum thapsus	Great Mullein	0.5	
Vicia cracca	Tufted Vetch	1.5	
		20	
Grasses			4g/m2
Alopecurus pratensis	Meadow Foxtail	6	
Cynosurus cristatus	Crested Dogstail	20	
Dactylis glomerata	Cocksfoot	16	
Deschampsia cespitosa	Tufted Hair-grass	5	
Festuca rubra	Strong-creeping Red Fescue	10	
Festuca pratensis	Meadow Fescue	15	
Holcus lanatus	Yorkshire Fog	3	
Schedonorus arundinaceus	Tall Fescue	10	
Schedonorus pratensis	Meadow Fescue	10	
		80	

ORNAMENTAL SHRUBS

Species	Height	Size	Density
Aucuba japonica 'Crotonifolia'	30-40cm	3 litre	3/m2
Buxus sempervirens	30-40cm	3 litre	4/m2
Caryopteris x clandonensis 'Heavenly Blue'	30-40cm	3 litre	4/m2
Ceanothus 'Blue Mound'	30-40cm	3 litre	4/m2
Choisya ternata 'Aztec Pearl'	30-40cm	3 litre	3/m2
Cistus 'Silver Pink'	30-40cm	3 litre	4/m2
Cornus sanguinea 'Midwinter Fire'	40-60cm	3 litre	3/m2
Cotoneaster conspicuus 'Decorus'	30-40cm	3 litre	3/m2
Daphne odora 'Aureomarginata'	30-40cm	3 litre	4/m2
Elaeagnus x ebbingei 'Gilt Edge'	30-40cm	3 litre	3/m2
Escallonia 'Crimson Spire'	40-60cm	3 litre	3/m2
Escallonia 'Red Elf'	40-60cm	3 litre	4/m2
Euonymus fortunei 'Coloratus'	20-30cm	2 litre	4/m2
Euonymus fortunei 'Silver Queen'	20-30cm	2 litre	4/m2
Hebe albicans	20-30cm	3 litre	5/m2
Hebe 'Marjorie'	20-30cm	3 litre	4/m2
Hebe 'Mrs Winder'	20-30cm	3 litre	4/m2
Hypericum 'Hidcote'	30-40cm	3 litre	4/m2
Lavandula angustifolia 'Vera'	20-30cm	3 litre	4/m2
Lonicera pileata	20-30cm	3 litre	4/m2
Mahonia aquifolium	20-30cm	3 litre	3/m2
Olearia x haastii	20-30cm	3 litre	3/m2
Osmanthus decorus	30-40cm	3 litre	3/m2
Philadelphus 'Belle Etoile'	30-40cm	3 litre	4/m2
Philadelphus coronarius 'Aureus'	30-40cm	3 litre	4/m2
Potentilla fruticosa 'Primrose Beauty'	20-30cm	3 litre	4/m2
Prunus x cistena 'Crimson Dwarf'	40-60cm	3 litre	3/m2
Prunus laurocerasus 'Otto Luyken'	30-40cm	3 litre	3/m2
Rosmarinus officinalis	30-40cm	3 litre	4/m2
Sarcococca confusa	30-40cm	3 litre	4/m2
Senecio 'Sunshine'	30-40cm	3litre	3/m2
Skimmia japonica 'Rubella'	30-40cm	3 litre	4/m2
Spirea japonica 'Goldflame'	30-40cm	3 litre	3/m2
Viburnum x davidii	20-30cm	3 litre	4/m2
Viburnum tinus 'Eve Price'	30-40cm	3 litre	3/m2
Weigela florida 'Foliis Purpureis'	30-40cm	3 litre	3/m2



NOTES

Any trees and shrubs on site, or overhanging the site, which are to be retained shall be protected in accordance with BS 5837: 2012 'Trees in relation to design, demolition and construction - recommendations' and in accordance with NJUG Volume 4 (2007).
Protection shall be installed prior to the commencement of any works on site **. Refer to Middlemarch Environmental Arboricultural Method Statement RT-MME-117420-03 Rev A**

All plants supplied shall comply with the National Plant Specification. Supplying nurseries shall be registered under the Horticultural Trade Association (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.

Where available, all native trees, shrubs, and wildflowers to be obtained from local provenance sources (Forestry Commision Zone 405).

Good Horticultural Practice
All landscaping work to adopt good horticultural practices. Compost, mulch and soil conditioners shall be peat-free. The use of pesticides (herbicides, insecticides, fungicides, slug pellets etc) shall be discouraged. Any pesticides used shall be non-residual. i.e. glyphosate.

Nesting Birds
To ensure compliance with the Wildlife & Countryside Act 1981 (as amended), vegetation clearance shall be undertaken outside the bird nesting season, which generally extends between March and September inclusive, dependent on weather. If birds are found to be nesting any works which may affect them shall be stopped until the young have fledged and the nest abandoned naturally.

Ground Preparation
All soft landscaped areas shall be suitably excavated, cleared of rubbish and large stones, prepared and finished with a minimum depth of 150mm topsoil for turfed/seeded areas, 400mm for shrub and hedge planting areas, and 1m3 per standard tree. If insufficient topsoil is available on site, imported topsoil in accordance with BS 3882:2007 shall be obtained from an approved source.

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.

Services
Minimum distance between young trees or new planting and structures/services to avoid direct damage from future tree growth shall be in accordance with BS 5837:2012 'Trees in Relation to Design, Demolition & Construction - Recommendations' Table A.1. Trees planted closer than the minimum distance shall be fitted with an appropriate root management system.

IMPLEMENTATION PROGRAMME
- New planting shall be carried out in the first planting season following the first occupation.
- Turf may be laid at any time during favourable weather and soil conditions
- Seed shall be sown in autumn or spring during calm weather and not when the ground is frost bound or waterlogged.
- Container grown plants may be planted at any time during favourable weather and soil conditions. Watering and weed control to be provided as necessary.
- Planting of bare-rooted deciduous trees and shrubs (transplants and cuttings) shall be carried out from late October to late March. All bare root stock shall be root dipped in mycorrhizal inoculant such as Alginure, or similar and approved, applied in accordance with the manufacturer's recommendations.

TIMING
- No planting or preparatory operations shall take place when the ground is frost bound, covered by snow, excessively wet or waterlogged, or in excessively dry or windy conditions
- No planting or preparatory operations shall be carried out until all building works are complete

ESTABLISHMENT AFTERCARE FOR PLANTING

All planting to be maintained for a period of 5 years from the date of planting. Maintenance operations to include:
- Weed Control - maintain a weed free circle (600-800mm diameter) around each tree and shrub planted into grass. Hand pull weeds from within shelters. Maintain weed control membrane to newly planted hedges. Ornamental shrub planting beds to be kept weed free by hand weeding or herbicide treatment. Top up mulch as required to maintain a minumum depth of 75mm
- Firming & Pruning - firm and prune all newly planted trees and shrubs in accordance with good horticultural practice to maintain healthy, well-shaped specimens. Any damaged shoots or branches to be pruned back to healthy wood
- Guards, Stakes & Ties - maintain in good condition where fitted. Adjust as required and replace where missing or damaged
- Watering - All shrubs to be watered from May to September following any dry periods of 7 days.
- At completion of the 5 year establishment aftercare period all Tubex Netguards shall be removed.

Individual Trees
Individual trees planted as specimens shall be inspected annually during the growing season and maintained as follows:
- Maintain irrigation system in working order. Irrigation pipes shall be checked and repaired as necessary
- All tree stakes and ties 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 to include: removal of epicormic shoots, deadwood, competing secondary leader shoots, and closely spaced, duplicated branches with potentially weak or tight forks
- Application of slow release fertiliser during March and April at a rate of 50g per tree
- Watering - Water as required to ensure establishment and survival (see below)

All tree works to be carried out in accordance with BS 3998:2010 and the Health & Safety Executive (HSE) 'Forestry & Arboriculture safety leaflets'.

Watering
A monitored watering regime should commence from the end of March/early April to the end of October - depending on weather conditions. Apply water when there has been no appreciable rain for 7 days or when there has been drying winds or very high temperatures.

Replacement of Failed or Defective Plants
Any trees or plants which within a period of 5 years from the completion of the development are missing, found dead, or are seriously damaged or diseased shall be replaced in the next planting season.

GRASSLAND ESTABLISHMENT & MANAGEMENT

Establishment (first year after sowing)
- Overseeding - as required where grass areas fail to germinate or establish
- Weed Control - Spot treatment with an approved translocated herbicide to control noxious weeds throughout the site to include docks, thistle, and ragwort. Cut any unwanted tree and shrub saplings at ground level that are encroaching into open grassland areas, and stump treat to prevent regrowth
- Grass Cutting Amenity Grass - all areas to receive 2 establishment cuts; first cut carried out once height of initial growth reaches 50mm, with grass cut to a finished height not exceeding 30mm. Second cut to be carried out when the grass once again reaches 50mm. All arisings to be removed.
- Grass Cutting Species Rich Meadow Grass - topping/cutting will be required to control annual weeds during the first growing season. First cut in March/April after autumn sowing, or June/July after spring sowing, with a a second cut carried out 6-8 weeks later.

Management once established
- Grass Cutting Amenity Grass - cut to a height between 25-30mm throughout the growing season (March to October inclusive) to maintain a neat tidy appearance. Remove all arisings
- Grass Cutting Areas of Planting - strim grass and herbage within areas of tree and shrub planting to 1m outside of plots three times a year in May, July and September until planting is established
- Species Rich Meadow Grass - once established tussocky grassland requires minimal maintenance. cut every 3-4 years between October and February on a rotation basis so that no more than 50% is cut in any one year to leave part as an undisturbed refuge for wildlife

KEY

Existing Trees & Vegetation Retained

Existing Trees & Vegetation Removed

Ornamental Tree Planting
Planted as extra heavy standards. Tree pits shall be 1800 x 1800 x 750mm, with loose soil to base.

Native Tree Planting
Individual trees planted as standards. Tree pits shall be 1800 x 1800 x 750mm, with loose soil to base.
Tree pits shall be 1400 x 1400 x 600mm for standard trees, with loose soil to base.

With the exception of extra heavy standard trees planted within paved areas, all tree pits shall be backfilled with a 50/50 mix of good quality topsoil and a non peat based compost. 140gms of Enmag granular slow-release fertiliser shall be incorporated into the fill mixture. Trees shall be double staked and fixed to horizontal crossbar using rubber strapping, with rubber block positioned between the tree and cross bar. Stakes shall be 60mm diameter treated softwood, driven firmly into ground either side, and not through the rootball, with tree central between the stakes. The above ground height of the stake should be a minimum of a third of the stem height. All trees to receive perforated watering pipes surrounding root ball.

For trees planted within paved areas, tree pits shall incorporate a complete root management, irrigation, and aeration system, such as Greenleaf Arborsystem GR1011, or similar. System to include underground guying, resin bound surfacing/tree grille, and tree guard.

Native Hedgerow Planting
Double staggered row hedging at 400mm between rows and 450mm centres within each row. Transplants shall be distributed in groups of 1 to 5, spaced irregularly along the entire length of the hedge. Hedge to have a minimum 450mm depth good quality topsoil. Prior to planting a 600mm wide strip shall be cultivated to a depth of 450mm. All weeds, roots, and stones larger than 50mm brought to the surface shall be removed off site. All planting shall be using pit planting techniques with backfill mixed with 70gms of Enmag slow release fertiliser. After planting hedge to be fitted with weed control membrane laid in 3 strips to extend 300mm beyond both sides of hedge line. Secure membrane in place with plastic or metal pegs at 300mm intervals along all edges and overlapping joins. Membrane to be black, brown or olive green in colour made from 100-110g/m2 woven or spun-bonded polypropylene with UV inhibitor.

Native Shrub Planting
Areas for native shrub planting shall be treated with a translocated herbicide such as Glyphosate to clear existing weeds and herbage prior to planting. All transplants shall be pit planted with backfill mixed with 70gms of Enmag slow release fertiliser. After planting plots shall be seeded with a woodland flora grass mix appropriate to site and soil conditions.

All transplants shall be fitted with a Tubex Netguard, 60cm high and 150mm diameter, dark green in colour. Guards shall be fixed to firmly anchored softwood stakes using 2 cable ties.

Ornamental Shrub Planting
Block planting of robust, mainly evergreen, species to car parking areas. Species selected for their attractiveness to wildlife. Areas to be planted shall be sprayed out with a glyphosate herbicide and cultivated to a depth of 300mm. All weeds, roots, and stones larger than 50mm brought to the surface shall be removed off site and the surface raked to smooth flowing contours with a medium tilth. A soil conditioner / ameliorant shall be incorporated into the top 150mm of topsoil during final cultivations. All planting shall use pit planting techniques with 25g general fertiliser such as Osmocote Standard 5-6 months 15+9+12, or equivalent, applied to the base of each plant. Water thoroughly immediately after planting and evenly spread a layer of organic bark mulch to a depth of 75mm over all planting beds.

Species Rich Meadow Grass
Seeded with a tussock grass mixture with wildflowers such as Emorsgate EM10. Sowing rate 4g/m2

Amenity Grass
Cultivated lawn turf to BS 3936: 1998 & 4428 or seeded with a low maintenance wear tolerant turfgrass mixture such as Emorsgate EG22, or similar. Sowing rate 25g/m2.

Areas to be seeded shall be sprayed out with a glyphosate herbicide and cultivated to a depth of 100mm taking care to protect roots of existing trees retained. All weeds, debris, and stones over 25mm in diameter shall be removed off site and the surface raked to smooth flowing contours with a fine tilth. Seed shall be sown in two equal sowings in transverse directions at the rates stated. Sow in autumn or spring during calm weather and not when the ground is frost bound or waterlogged.

planning

This drawing is based on Add Architects Planning Site Plan 1117-P-11 Preliminary 27.11.14
DO NOT SCALE THIS DRAWING
Use only figured dimensions
Contractor to verify all dimensions on site prior to start of works

C: Site layout updated	LK	09.01.15
B: Native hedgerow added for access control to ditch	LK	05.12.14
A: Site layout updated	LK	01.12.14
Revisions:	Dwn:	Date:

Project: New Road/Brook Lane, Rustington, Littlehampton, West Sussex

Drawing: Proposed Soft Landscaping

Date:	11.11.14	Drawn:	LK
Dwg No:	KL.264.001	Scale:	1:500 @ A0
Revision:	C	Revision Date:	09.01.15

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ARUN DISTRICT COUNCIL ACCESS OUT