

## NOTES

All planting to be carried out in the first planting season unless an alternative phasing scheme has been approved by the local authority.

The following standards shall apply;

General landscape operations:

- BS 4428:1989 CoP for general landscape operations

Trees:

- BS 3998:2010 Tree work
- BS 8545:2014 Trees: from nursery to independence in the landscape.
- NHBC Chapter 4a - Building near trees

Ground preparation:

- BS 3882:2015 Specification for topsoil and requirements for use
- BS 8601:2013 Specification for subsoil and requirements for use
- Construction Code of Practice for the Sustainable Use of Soils on Construction Sites 2009. (Issued by Defra)

## Topsoil

Unless otherwise specified all 'topsoil' for planting, turfing or seeding shall comply with the following criteria.

- Compliance with the general requirements of BS3882:2015, Grade - Multi purpose. However the following additional constraints apply;
- pH Value: 5.5-7.5
- Textural classification: 'Loam soils' are acceptable within the following parameters
  - Silt = 0-65%
  - Sand = 30-70%
  - Clay = 5-30%

'Topsoil' is deemed to include imported, and existing reclaimed or manufactured growing medium.

Topsoil amelioration to be undertaken subject to analysis and recommendations of a suitably qualified soil scientist. General amelioration will utilise PAS 100 Green waste compost unless an alternative is specifically recommended by the soil scientist.

Standard depth of topsoil layer, placed over 300mm decompacted and free-draining subsoil, to be as follows (subject to completion of ground preparation proposals):-

All grass sward types	- 150mm
Ornamental planting	- 300mm
Native mix planting	- 300mm
Tree pits	- 400m topsoil layer

Additional growing medium required to meet recommended tree planting volumes will be achieved using approved subsoil or washed sand.

Cultivation

All cultivation to be carried out in accordance with good practice and appropriate to the planting type, ground conditions and risk assessments/method statements. Incorporate proprietary non peat compost to BSI PAS 100 to 50mm depth evenly worked into soil and a general purpose slow release fertiliser at the rate of 75gm/m2

No cultivation of soil to be undertaken within RPA of retained trees and hedgerows.

## Tree Planting

All trees to be in accordance with BS 3936 and The National Plant Specification - 'Rootballed Trees' recommendations. Trees to be planted in accordance with BS 4428:1989 and double staked. Tree pits in open field / un-compacted ground conditions to be 1000mm x 1000mm (at least 75mm greater than that of the root system) with pit depth to be based on the planting depth of the tree (distance from root flare to underside of rootball) in accordance with BS 8545:2012. Topsoils and subsoils to be excavated and stored separately for reuse. Tree pit to be backfilled with stored subsoil and topsoil at depths to replicate the existing soil horizons. Topsoil to be mixed enriched with 40L of peat free tree planting compost. Root balls to be encircled by Root Rain Metro or similar irrigation pipe. Well water after planting. The base of trees to planted in grass areas are to be covered with 75mm amenity grade bark mulch to 1.0 metre diameter and kept weed free.

Tree pits in poorly draining soils are to be positively drained, connecting into the surface water drainage system to engineers details. Suitable foundations are to be provided to accommodate proposed tree planting and retained trees in accordance with the NHBC Standards. In locations close to footpaths and roadways linear root barriers are to be installed in accordance with manufacturers instructions. Where proposed tree locations conflict with services, trees are to be relocated in accordance with the appropriate utilities guidance notes subject to client / local authority approval.

## Scrub Planting

Plants to be in accordance with BS 3936 and planted in accordance with BS 4428:1989, subgrade to be cross ripped at 1.2m intervals prior to planting to alleviate compaction. Transplants to be planted at 2m centres in random groupings of 7-10 shrub species. Transplants to be root dipped with Alginur prior to planting. Planted areas to be kept weed free and protected from rabbits, with individual mesh tree guards securely fixed to timber stake(s).

## Shrub and Herbaceous Planting

Plants to be in accordance with BS 3936 and handled in accordance with CPSE guidelines and planted in accordance with BS 4428:1989. Nursery stock supplier to be approved by the Landscape Architect. Well water plants immediately after planting and prior to spreading of mulch. Planting areas to be covered with 75mm depth amenity grade bark mulch and kept weed free.

## Hedge Planting

Plants to be in accordance with BS 3936 and handled in accordance with CPSE guidelines and planted in accordance with BS 4428:1989. Hedge plants to be pit planted in double staggered rows 300mm apart at 450mm centres. Well water plants immediately after planting and prior to spreading of mulch. Planted areas to be covered with 75mm depth bark mulch and kept weed free.

## Turfing

Grass turf areas to be Tillers 'Arena' or similar approved cultivated turf, laid in accordance with BS 4428:1989. Topsoil to be rotavated and levelled as required and any debris or stones greater than 50mm diameter removed. Pre-turfing fertiliser to be applied in accordance with manufacturers instructions. Turf to be laid from planks with broken joints well butted up, pegged to slopes where required. Well water after laying to avoid shrinkage.

## Seeding

Grass areas to be seeded in accordance with BS 4428:1989 during March, April or September. Topsoil to be rotovated and levelled as required and any debris or stones greater than 20mm diameter removed. Pre-seed fertiliser to be applied in accordance with manufacturers instructions. Lightly rake areas after sowing.

## Species Rich Grassed Areas

Grass areas to be seeded in accordance with BS 4428:1989 during March, April or September. Unimproved topsoil to be imported, rotovated and levelled as required and any debris or stones greater than 20mm diameter removed. Lightly rake areas after sowing. Seed to be as per the planting schedule.

## Maintenance

To be carried out at approximately monthly intervals to include the following:

- Eradicate weeds by hand or appropriate chemical means.
- Cut out dead or / and damaged stock or branches, prune as required.
- Ensure all shrubs and trees are firmed in, securely staked and tied.
- Collect litter, sweep and tidy site.
- Apply suitable non-residual pesticides, fungicides, fertilisers and water as required.
- Carry out grass mowing to turf when attained 100mm, cut to 35mm (50mm for shaded areas).
- All hedges to plot frontages be maintained at a max height of 1.0m. Hedges and shrub planting within visibility splays to be maintained in accordance with current highways design guidelines.
- Species Rich Grass Areas:

First Year management

Mow all plant growth (sown grasses and weeds) regularly to 40-60mm throughout the first growing season to prevent weeds smothering the slower-growing grasses. Remove cuttings if dense, more frequent and regular topping will minimise the amount of toppings produced each time so they can be left to disperse.

Management Once Established

In the second and subsequent years 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 with a scythe, petrol strimmer to c 50mm. Leave the 'hay' to dry and shed seed for 1-7 days then remove from site. Mow the re-growth through to late autumn/winter to c 50mm and again in spring if needed.

## Watering

All plant material to be watered in dry periods until established during April through to September with a fine rose until the water penetrates the topsoil to at least 5cm depth and achieves field capacity. Frequency of watering regime to be determined by weather conditions, soil conditions and underlying geology, all plant beds to be watered to ensure soil is consistently moist to promote successful establishment. As a guide only it is suggested that during hot, dry periods, plants are to be watered every six to ten days. For individual trees it is suggested that 18 watering visits per year are carried out commencing late March (prior to budburst) and utilising a minimum of 50 litres of water per tree. Soil probe to be used to determine soil saturation to full depth of root ball.

## PLANTING SCHEDULE

Trees	Number	Species	Height	Girth	Specification	Density
2	Acer campestre 'Elsrijk'	3.0-4.0m	12-14cm	Heavy Standard	:Clear Stem	150-175 :3/5 brks :2x :RB Counted
4	Betula pendula	175-200cm	4-6cm	Light Standard	:BR :Feather	Counted
6	Crataegus monogyna	175-200cm	4-6cm	Light Standard	:BR :Feather	Counted
3	Magnolia kobus	3.0-4.0m	12-14cm	Heavy Standard	:Clear Stem	150-175 :3/5 brks :2x :RB Counted
3	Malus 'Evereste'	3.0-4.0m	12-14cm	Heavy Standard	:Clear Stem	150-175 :3/5 brks :2x :RB Counted
7	Malus sylvestris	175-200cm	4-6cm	Light Standard	:BR :Feather	Counted
2	Prunus 'Sunset Boulevard'	3.0-4.0m	12-14cm	Heavy Standard	:Clear Stem	150-175 :3/5 brks :2x :RB Counted
3	Prunus padus	175-200cm	4-6cm	Light Standard	:BR :Feather	Counted
1	Prunus sargentii 'Rancho'	3.0-4.0m	12-14cm	Heavy Standard	:Clear Stem	150-175 :3/5 brks :2x :RB Counted
6	Quercus robur	175-200cm	4-6cm	Light Standard	:BR :Feather	Counted
10	Sorbus aucuparia	175-200cm	4-6cm	Light Standard	:BR :Feather	Counted

Edge Mix

Number	Species	Specification	Height	Density	Percentage
461	Corylus avellana		60-80cm	1/m <sup>2</sup>	25%
736	Crataegus monogyna		60-80cm	1/m <sup>2</sup>	40%
187	Ilex aquifolium	C :Bushy	40-60cm	1/m <sup>2</sup>	10%
187	Lonicera periclymenum	3/5 brks	60-80cm	1/m <sup>2</sup>	10%
278	Rosa canina		60-80cm	1/m <sup>2</sup>	15%

Native Hedgerow Mix

Number	Species	Specification	Height	Density	Percentage
6	Acer campestre	BR	60-80cm	5/m	10%
15	Corylus avellana	BR	60-80cm	5/m	25%
15	Crataegus monogyna	BR	60-80cm	5/m	25%
3	Euonymus europaeus	BR	60-80cm	5/m	5%
3	Ilex aquifolium	C :Bushy	40-60cm	5/m	5%
3	Lonicera periclymenum	3/5 brks	60-80cm	5/m	5%
12	Prunus spinosa	BR	60-80cm	5/m	20%
3	Viburnum opulus	BR	60-80cm	5/m	5%

Hedges

Number	Species	Specification	Height	Density
205	Escallonia 'Apple Blossom'	C	40-60cm	5/m
502	Griselinia littoralis	Bushy :3/5 brks :C	40-60cm	5/m

Shrubs

Number	Species	Height	Pot Size	Specification	Density
7	Brachyglottis 'Sunshine'	30-40cm	3L	Bushy :3/5 brks :C	4/m <sup>2</sup>
18	Euonymus fortunei 'Emerald 'n' Gold'	20-25cm	3L	C :5 brks	4/m <sup>2</sup>
11	Euonymus fortunei 'Emerald Gaiety'	20-30cm	3L	5 brks :C	4/m <sup>2</sup>
13	Euonymus fortunei 'Harlequin'	20-30cm	3L	5 brks :C	4/m <sup>2</sup>
9	Euonymus fortunei 'Silver Queen'	20-30cm	3L	Bushy :3/5 brks :C	4/m <sup>2</sup>
10	Fuchsia 'Tom Thumb'	20-25cm	3L	Bushy :3/5 brks :C	4/m <sup>2</sup>
19	Hebe 'Purple Pixie'	20-30cm	3L	Bushy :3/5 brks :C	4/m <sup>2</sup>
20	Hebe 'Red Edge'	20-30cm	3L	Bushy :3/5 brks :C	4/m <sup>2</sup>
42	Hebe 'Wiri Mist'	20-30cm	3L	Bushy :3/5 brks :C	4/m <sup>2</sup>
9	Hebe pinguifolia 'Pagei'	15-20cm	3L	5 brks :C	4/m <sup>2</sup>
4	Lavandula angustifolia 'Hidcote'	20-30cm	3L	C :5 brks	4/m <sup>2</sup>
15	Pachysandra terminalis	20-30cm	3L	Bushy :3/5 brks :C	4/m <sup>2</sup>
5	Pieris japonica 'Little Heath'	20-30cm	3L	Bushy :3/5 brks :C	4/m <sup>2</sup>
14	Pittosporum tenuifolium 'Golf Ball'	20-30cm	3L	5 brks :C	4/m <sup>2</sup>
4	Pittosporum tenuifolium 'Tom Thumb'	20-30cm	3L	5 brks :C	4/m <sup>2</sup>
17	Santolina chamaecyparissus	20-25cm	3L	Bushy :3/5 brks :C	4/m <sup>2</sup>
8	Sarcococca confusa	20-30cm	3L	5 brks :C	4/m <sup>2</sup>
7	Spiraea japonica 'Goldflame'	30-40cm	3L	Bushy :3/5 brks :C	4/m <sup>2</sup>
14	Vinca major	20-30cm	3L	Bushy :3/5 brks :C	4/m <sup>2</sup>
5	Vinca minor 'Alba'	20-30cm	3L	Bushy :3/5 brks :C	4/m <sup>2</sup>
7	Vinca minor 'Gertrude Jekyll'	20-30cm	3L	3/5 brks :Bushy	4/m <sup>2</sup>

Herbaceous

Number	Species	Pot Size	Specification	Density
22	Ajuga reptans 'Burgundy Glow'	3L	Full Pot	4/m <sup>2</sup>
11	Ajuga reptans 'Catiin's Giant'	3L	Full Pot	4/m <sup>2</sup>
16	Alchemilla mollis	3L	Full Pot	4/m <sup>2</sup>
7	Astilbe 'Deutschland'	3L	Full Pot	4/m <sup>2</sup>
34	Astilbe 'Sprite'	3L	Full Pot	4/m <sup>2</sup>
7	Astrantia major 'Roma'	3L	Full Pot	4/m <sup>2</sup>
11	Astrantia major 'Shaggy'	3L	Full Pot	4/m <sup>2</sup>
16	Bergenia 'Silberlicht'	3L	5 Buds :Full Pot	4/m <sup>2</sup>
9	Bergenia cordifolia	3L	Full Pot :5 Buds	4/m <sup>2</sup>
11	Brunnera macrophylla 'Jack Frost'	3L	Full Pot	4/m <sup>2</sup>
6	Campanula poscharskyana	3L	Full Pot	4/m <sup>2</sup>
7	Epimedium grandiflorum 'Roseum'	3L	Full Pot	4/m <sup>2</sup>
4	Epimedium x perralchicum 'Frohneiten'	3L	Full Pot	4/m <sup>2</sup>
14	Epimedium youngianum 'Roseum'	3L	Full Pot	4/m <sup>2</sup>
12	Erysimum 'Bowles Mauve'	3L	Full Pot	4/m <sup>2</sup>
10	Geranium 'Johnson's Blue'	3L	Full Pot	4/m <sup>2</sup>
4	Geranium clarkei 'Kashmir White'	3L	Full Pot	4/m <sup>2</sup>
20	Geranium macrorrhizum	3L	5 Buds :C	4/m <sup>2</sup>
6	Geranium macrorrhizum 'Album'	3L	Full Pot	4/m <sup>2</sup>
6	Geranium sylvaticum 'Album'	3L	Full Pot	4/m <sup>2</sup>
18	Geum 'Totally Tangerine'	3L	Full Pot	4/m <sup>2</sup>
18	Hakonechloa macra 'Aureola'	3L	Full Pot	4/m <sup>2</sup>
39	Helleborus orientalis	3L	Full Pot	4/m <sup>2</sup>
4	Heuchera 'Coral Bells'	3L	Full Pot	4/m <sup>2</sup>
6	Heuchera 'Marmalade'	3L	Full Pot	4/m <sup>2</sup>
13	Heuchera 'Plum Pudding'	3L	Full Pot	4/m <sup>2</sup>
12	Hosta 'Halcyon'	3L	Full Pot	4/m <sup>2</sup>
7	Hosta 'June'	3L	Full Pot	4/m <sup>2</sup>
3	Hylotelephium spectabile	3L	Full Pot	4/m <sup>2</sup>
18	Liatis spicata 'Kobold'	3L	Full Pot	4/m <sup>2</sup>
6	Liriope muscari	3L	Full Pot	4/m <sup>2</sup>
15	Nepeta racemosa 'Walker's Low'	3L	Full Pot	4/m <sup>2</sup>
5	Persicaria bistorta 'Superba'	3L	5 Buds :Full Pot	4/m <sup>2</sup>
6	Pulmonaria officinalis 'Sissinghurst White'	3L	Full Pot	4/m <sup>2</sup>
14	Salvia sylvestris 'Mainacht'	3L	Full Pot	4/m <sup>2</sup>
9	Sanguisorba officinalis 'Tanna'	3L	Full Pot	4/m <sup>2</sup>
11	Sisyrinchium striatum	3L	CL	4/m <sup>2</sup>
27	Stachys byzantina	3L	Full Pot	4/m <sup>2</sup>
10	Tolmiea menziesii	3L	5 Buds :Full Pot	4/m <sup>2</sup>

Revision

Rev. A 31.05.24 Schedule updated.

Rev. B 04.07.25 Schedule updated.

## Designer Notes Under CDM Regs 2015

- The design information presented on this drawing has been prepared with due regard to the role of the designer under the CDM Regs 2015.
- Contractor to provide method statement for undertaking works within service zones and easements.
- Where possible, this design has taken due care to eliminated hazards and reduced risks.

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Client

Martin Walsh Architectual

Project Name

Headlands Works, Liversedge

Project No.

LDP-24-P218

Dwg. No.

1002

Dwg. Title

Landscape Schedule

Revision

B

Status

PLANNING

Date

31.05.24

Scale

NTS

Drawn By

MJB

Reviewed

Filepath

Filepath

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