

1. General.
This plan is to be read in conjunction with the following documents:

- Risk Register by terra firma
- Ecological Appraisal and Protected Species Surveys by Lindsay Carrington Ecological Services
- Arboricultural report by Barrell Tree Consultancy

- i. Existing levels to be preserved around retained existing trees and vegetation. Existing trees and vegetation to be retained are to be protected in accordance with BS5837: 2012 during construction or as detailed in Tree Protection Plan.
- ii. All landscape works to be undertaken by competent persons, with appropriate training and equipment.
- iii. All arisings to be removed from site at contractor's expense unless noted otherwise. (e.g. woodchip, gravel, topsoil, timber sleepers).

The contractor must ascertain for himself/herself the exact location of underground services before commencing work.

- i. Pests: Such as beet from roots, stolons, rhizomes, propagules of perennial or invasive weeds such grass, bindweeds, daisies, Japanese knotweed, giant hogweed and horsetails/marssalis (Equisetum averse).
- ii. Foreign matter: visual inspection, free from non-soil material, brick and other building materials, stones, pebbles, glass, metal, plastic, other foreign matter or material or substance that would render the soil or soil amendment unsuitable for use.
- iii. Contamination: Do not use topsoil, subsoil, sand or compost contaminated with rubbish or other materials that are:
 - Corrosive, explosive or flammable;
 - Hazardous to human or animal life;
 - detrimental to healthy plant growth.
- iv. Give notice: If any evidence or symptoms of soil contamination are discovered on the site or in topsoil, subsoil, sand or compost or other planting media to be used.

Management of soils to be in accordance with the Construction Code of Practice for the Sustainable Use of Soils on Construction Sites

- i. Topsoil and subsoil are to be handled in a excavated area imported, stored, spread, cultivated and compacted in a separate area. Topsoil and subsoil are to be stored in a separate area.
- ii. All topsoil and subsoil areas shall be thoroughly cultivated by hand or suitable machinery to the full depth of the topsoil layer, incorporating amendments as required. If compaction is suspected in sub-grade, subsoil or topsoil surfaces, these should be repaired as necessary to decompress and compact the surface.
- iii. Hand cultivation shall be carried out to achieve the required finish on areas where cultivation is impossible in adjacent to berms, manholes and footpath junctions, around retained trees etc. Surface plant material, rubbish and surface stones having any greater than 100mm diameter shall be removed from the area. The surface shall be smoothed to a maximum of 10mm, a maximum of 2m in height; providing soil is reasonably dry and friable during turning and handling - using a tracked excavator. To protect from wet weather once final height is achieved, an excavator should grade the sides and top of stockpile to form surface by tracking the excavator's bucket.
- iv. Final topsoil depth (allowing for settlement) to be 300mm for tree pits and general planting areas and 150mm for grass. Finished soil levels to be 25mm above lowest adjoining paving or kerbs, not less than 150mm below edge of adjoining buildings; subsoil areas to be higher than topsoil areas.
- v. Final subsoil depth (allowing for settlement) to be 150mm for tree pits and general planting depth, firm each layer before spreading the next.

Plant handling shall be in accordance with 'Handling and establishing landscape plants', published by the CPSE through the JCLI. The contractor shall comply with Part 3: Recommendations for plant handling from delivery to site to ensure successful establishment.

Details for fire, hedge and general planting to be finalised once final site conditions are known (e.g. composition of soil, etc.). General planting schedule to conform to BS 3358, advanced nursery stock to BS 8545, and planting to BS 4248. Plants shall be first class examples of their species or variety, free from all pests and diseases, with good fibrous root systems and materially undamaged. All planting operations to be in general compliance with BS4248: "Code of Practice for general landscape operations".

- Only carry out all planting in mild and weather conditions are suitable.
- Do not plant during periods of frost or strong winds. Plant only during the following periods
- Deciduous and conifer trees: Late October to late March (rootball and bare root)
- Broadleaved grown plants: All year round, provided weather conditions are favourable. Ensure that adequate watering is provided
- Bulbs: September/October

5. All tree pits, tree circles in lawn and planting beds are to be mulched with approved bark mulch to 75 mm depth after planting.

8. Tree planting

Any proposed substitutions of species to comply with BS8545: As a guide all trees to be planted must be of a minimum size of 100 mm diameter at breast height (DBH) and be planted in square pits with base undisturbed unless drainage / compaction problems known. Plant at a depth where the root flare is clearly visible at the soil surface. Where trees have been supplied with the root flare too deep and soil or fibrous root growth should be removed before planting. All trees to be planted in square pits must be installed as specified by Plantwise DT177 762000 <http://www.plantwise.govt.nz/plantwise/anchors> or approved equivalent. Water-in heavily after planting and mulch square, ensuring mulch is not in contact with trunk of tree. Tree support to comply with BS8545: 100 mm diameter trees to be supported by 25 mm diameter x 2 m long stakes. Larger trees to be supported by 50 mm diameter x 2 m long stakes. Bare root trees to have a single upright stake. RB or CG trees to have double stake and brace with 25 mm diameter x 2 m long stakes. All trees to be supported by 25 mm diameter x 2 m long stakes. Trees to be planted in pits or in the ground, in windy locations or for large trees, install wired guying. Trees to be underground guying shall have suitable guying systems installed as supplied by Plantwise DT177 762000 <http://www.plantwise.govt.nz/plantwise/anchors>. All trees to be planted in pits or in the ground, in windy locations or for large trees, shall be carried out by an approved tree surgeon to BS 3998. Trees planted within grass areas to be set in mulched earth circles. 1m diameter around tree trunk, with turf turned nearby to form circle.

the diameter of the rootball (75mm min. from rootball edge to tree pit side). Pits to be backfilled with 300mm depth of specified topsoil over subsoil as per spec.

Depth of planting trench to be same as rootball, overall width 150mm wider than rootball (75mm min. from rootball edge to sides of trench). Trench to be backfilled with 300mm depth of specified topsoil over subsoil as per spec. Fertiliser to be incorporated as required to ensure establishment and continued thriving of plants - type and application rate to be determined by analysis. 1m Ht central post and wire supporting to be provided with two line wires and plants to be tied in using horticultural plastic ties. On planting, hedges to be trimmed to height specified on plan and sides trimmed to neat shape where necessary.

Species to be randomly mixed for natural effect, and planted in groups of 3-5 plants of any one species. Depth of planting trench to be same as root system, overall width space 150mm wider than root system (75mm min. from root system edge to sides of trench). Trench to be backfilled with 300mm depth of specified topsoil over subsoil as per spec. Provide and install each plant with an appropriate sized recyclable stake green shrub shelter (available from Tubex Ltd, phone 01621 874201 or similar approved). Position shelter stake on windward side of plant, drive vertically into bottom of pit before planting, to a min. depth of 300mm and consolidate backfill material around stake; attach shelter to stake with a minimum of two ties.

All plants to be planted in cultivated planting beds with species randomly mixed for natural effect, and planted in groups of 3-5 plants of any one species. Plants to be notch- or pit-planted. Plant on grid at spacing given in schedule. Provide and install each plant with an appropriate sized recyclable staked green tree or shrub shelter (available from Tubex Ltd phone 01621 874201 or similar approved). Position shelter stake on windward side of plant, drive vertically into bottom of pit before planting, to a min. depth of 300mm and consolidate backfill material around stake; attach shelter to stake with a minimum of two ties.

Depth of planting pit to be same as rootball, overall width space 100mm wider than rootball (50mm min. from rootball edge to sides of pit). Pit to be backfilled with 300mm depth of specified topsoil over subsoil as per spec. Fertiliser to be incorporated as required to ensure establishment and continued thriving of plants - type and application rate to be determined by analysis.

All plants to be planted into cultivated planting beds (with 300mm depth specified topsoil) at densities shown in plant schedule, backfilled with same topsoil. Fertiliser to be incorporated as required to ensure establishment and continued thriving of plants - type and application rate to be determined by analysis.

All climbers to be planted as 19, above and provided with steel line wires attached to the wall/fence (min 3 no.) at 300mm vertical spacing with climbers spread out and tied to wires using appropriate horticultural ties. Fertiliser to be incorporated as required to ensure establishment and continued thriving of plants - type and application rate to be determined by analysis.

All bulbs to be planted at the rate given in the schedule, in random mixed drifts of single species in areas indicated on the plan, minimum 15 bulbs per drift of single species. For planting, naturalized bulb positions by dropping bulbs from waist height. Neatly remove a plug of turf and replace after planting. Plant so that the top of the bulb is at a depth of approximately twice its height with base in contact with bottom of hole. Bulbs should be no closer together than approximately twice the width of a single bulb.

Turfing and seeding shall be carried out only during appropriate seasons and while soil and weather conditions are suitable for the relevant operations. Only machinery and tools suitable for the site conditions and the work to be carried out shall be used. Hand tools shall be used around trees,

plants and in confined spaces where it is impractical to use machinery. The soil shall be weed free prior to turling and seeding. Contact herbicide as specified should be applied to all areas of weed growth 4-6 weeks before grassing and repeated if necessary to maintain a weed free bed. Where deep rooted weeds are present (docks, thistles etc.) approved Glyphosate-based herbicide should be applied as a spot treatment. Turf or seed shall be laid on prepared, leveled soil (minimum 150mm depth) in the areas indicated on the drawings in accordance with BS 4428:1989 'Code of practice for general landscape operations'. All grass areas to be approved landscape quality turf for general amenity areas or lawn turf for garden areas, or equivalent seed.

Establish seed mix & soil requirements from supplier

Root barrier system to be used in locations determined by engineers in order to protect services. To be supplied by GreenBlue Urban 01424 717797 or other approved supplier. Thickness, size and depth of installation of root barrier to be to manufacturer's recommendations for particular circumstances.

Establishment maintenance for all planting for 5 years from Practical Completion to include weed control, watering and replacement of failures to original specification in the planting season following failure.

- All plant material to receive annual pruning and hedges and groundcover to be trimmed and edged with minimum 2 times per year.
- Check for pests and diseases and remove them as soon as possible.
- Check shrub shelters at least twice annually to remove weeds and any soil build up inside bushes. Shelters to be removed in year 3 and recycled.
- Weave straw plaits to be trimmed during winter just after planting, then twice annually in summer and autumn to remove any branching and dense growth.
- Lawn & amenity grass areas - Mowing is to be carried out using approved machinery to maintain the vegetation length within the limits of 30 mm and 50 mm during April to August inclusive and between 50 mm and 70 mm during the rest of the year.
- Exposed areas of bare soil to be covered with straw or mulch.
- Main summer hay cut in combination with autumn and spring mow. Leave grass to flower from spring through to late July/Aug to give sown species the opportunity to flower and set seed. Hay cut in July/Aug cut with a sickle bar mower. Leave to dry and shed seed for 17 days then removed from site. Mow growth through to late autumn to 50mm and again in spring then remove.

