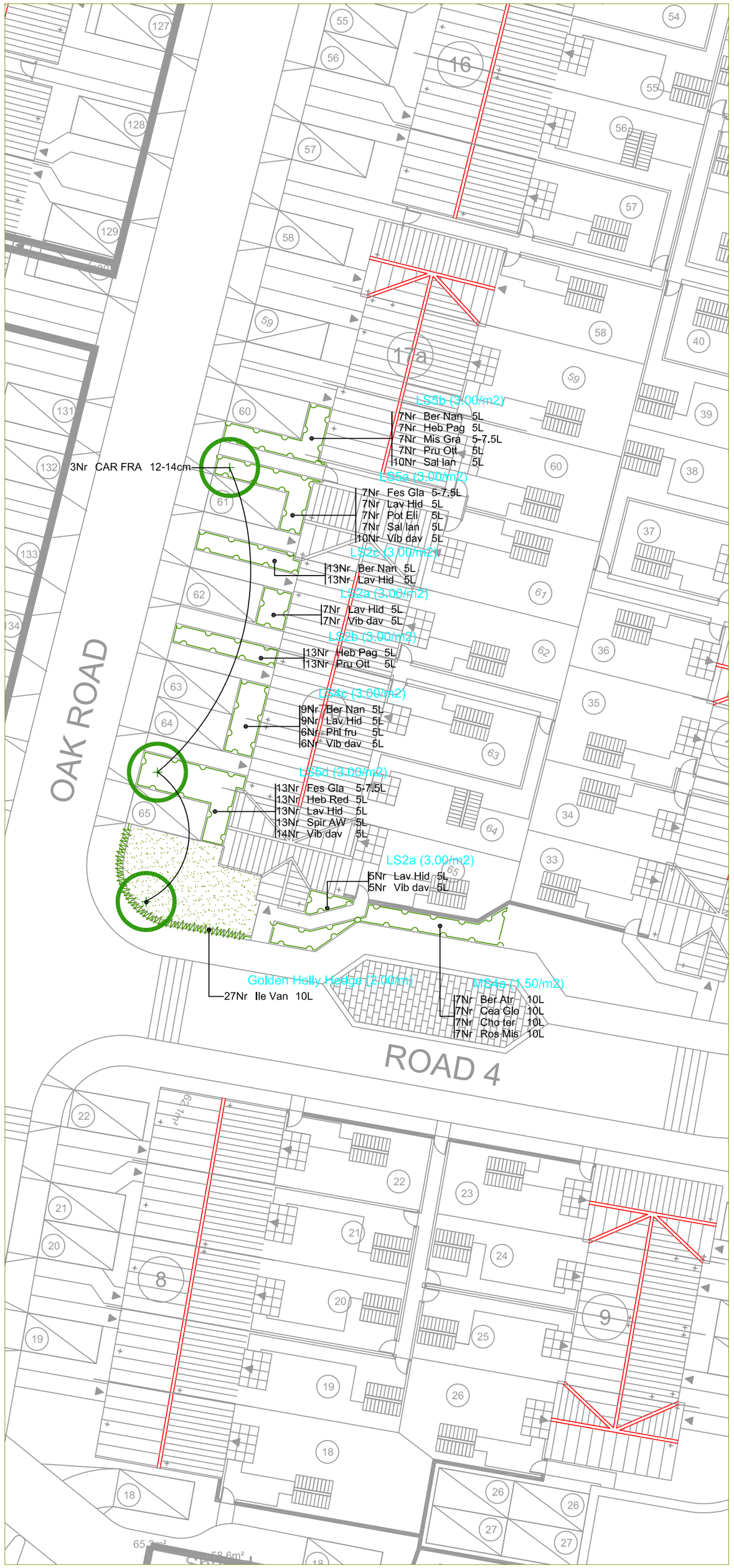


Specification for Soft and Hard Landscape Works.

Unless where otherwise specified:-

A. Setting Out

1. Planting shall be set out exactly as shown on the drawing, and measured from existing fixed points. Curved beds shall be set out using radii scribed on the ground using two pointed stakes and a line between, or with site marker paint. The junction between convex and concave curves shall be cut to form a smooth and even flowing line. Check that all setting out conforms to the plan before cultivation and planting works are carried out. Failure to do so may result in rejection of the work by the landscape architect and may require amendment at the contractor's expense.
2. All planting beds shall be a minimum of 1 metre wide, except where there is insufficient space, due to the constraints of walls and path edgings and their foundations. With narrow beds between walls/fences and path edgings, ensure that the bed has space free from concrete footings before planting. If the bed is sealed with concrete, then the landscape contractor shall contact the site manager or landscape architect to determine if footings are excessive and can be reduced or else, the bed can be paved. The width of all beds will be checked by the inspecting landscape architect and where the width is not as drawn, the contractor shall re-cultivate them to the specified width at his own expense.

B.Ground Preparation.

1. Pre-planting herbicide application shall be applied by suitable spraying apparatus using an approved translocated systemic herbicide to manufacturer's instructions and to 1997 Control of Pesticides Regulations and 2003 COSHH regulations on all beds, except those which are both weed free and are to receive geotextile sheet mulch. Spray immediately if any weeds are present. If none are showing, but there may be a delay before planting, or the area is to be seeded, spray after one month following cultivation, to allow dormant seed to germinate. All spraying shall be carried out by skilled and qualified operatives, using protective clothing, in suitable weather (no wind) and any damage caused by spray drift, from incorrect usage or spillage, shall be rectified at the contractor's own cost. Repeat as necessary to ensure complete kill and rake off all dead material from site.
2. Carry out the following works to the existing topsoil on site to ensure it conforms to BS 3882:2007, being free from rocks larger than 50m diameter, concrete, all roots, wire, brick, and have less than 20% clay. Allow for pre-application of herbicide as above. Fertilise with 100g per metre square of Fisons "Neutrocote" slow release fertilizer, in accordance with the manufacturer's instructions. For beds less than 5 meters in width, fork over thoroughly or machine rotovate soil to a depth of 300mm, ensuring that the subgrade and topsoil are completely broken up and free draining, relieving any compaction. For beds greater than 5 metres in width, break up the subgrade and topsoil using a tractor mounted subsoiler or ripper at 500mm centres to a depth of 500mm, except where there are services, or within 10 meters of tree stems or 3 meters of existing hedges. Do not rip areas where roots greater than 10mm diameter are encountered.
3. Determine before submitting a tender, the extent of support from the site manager with ground preparation: ensure soil of all planting beds is graded to a level 65mm below adjacent grass or paved surfaces, (90mm below where agro-textile set mulch is not specified), within 400-600mm of edges to ensure bark or wood chip mulches are retained. Where grass is proposed, then the soil level shall be flush (maximum 10mm below - but never proud) of adjacent paved surfaces, to receive rain water run-off. The landscape contractor is responsible for ensuring that the final product conforms to the specification even where the developer and/or main contractor have failed to supply and spread topsoil to the recessed level. The landscape contractor shall allow for adjustment of levels, as specified above, including for re-grading subsoil and topsoil. Where beds are sloping, ensure that topsoil is graded to the specified levels below pavement & grass surfaces within 400mm of the edges of the bed. This is to allow for sheet mulch and bark or wood chip mulch so that mulch does not spill out on to pavements and also to allow surface water to drain from paths on to planted areas.
4. For sloping areas to be turfed adjacent to paved areas, topsoil levels shall be graded flush with the finished pavement level (or up to 10mm below), to allow surface water to drain from pavements to soft areas. Soil of grass areas should therefore never be proud of paved areas. Soil levels more than 10 mm below pavement edges will cause mower damage on cutting.
5. Imported topsoil (where specified and sanctioned by the employer) for making up ground, shall conform to BS 3882: 2007, and be free from rocks (over 50mm diameter), concrete, roots, wire and brick, and have less than greater than 20% clay. Such soil shall be cultivated as set out above. Representative samples shall first be approved by the landscape architect before being supplied to site. No imported soil shall be supplied to site without a written instruction.

C.Planting

1. All planting must be carried out in accordance to the specification and schedule of quantities accompanying these drawings. Refer to the specification for the preparation of existing topsoil and required depths for planting, turfing, and standard trees, and also for maintenance requirements.
2. No substitutions will be accepted without the prior agreement of the inspecting landscape architect. The contractor shall replace at once at his own cost any stock size, species or variety of plant which has not been specified on the planting plan and schedule, unless prior agreement to a substitution by the landscape architect has been received. All plants shall be true to size specified in the schedule of plants and associated notes, (3L pots are 19cm diameter and 15cm deep). All shrubs, (other than ground cover), shall be 400-600mm height and spread, or otherwise specified for the pot size by the HTA National Plant Specification and be bushy, healthy, disease free stock, not pot bound, leggy or spindly. There should be a minimum of 5 breaks per shrub. This specification is the minimum standard required and any stock falling below this standard, in the sole opinion of the inspecting landscape architect, shall be lifted and replaced at the contractor's expense.
3. All shrubs, herbaceous plants, whips and transplants shall be watered in on planting with 20 litres per square metre. Trees shall be watered in with 25 litres per tree position. Water thereafter during the contract period at weekly intervals with 30 litres of water.
4. Proposed large feathered or standard trees to be true to the species, variety and size as specified on the planting plan, to include 1.6m chestnut stake 600mm above ground and 1000mm below ground) and 1No.tie with spacing device positioned 25mm maximum from the top of the post.
5. Turf to be of cultivated grade such as Rowlawn "Medallion", or other of similar quality and source, approved by the landscape architect. The contractor shall replace at once any turf rejected by the landscape architect at his own cost.
6. Self-clinging climbing shrubs or wall shrubs shall be trained to the wall/fence with heavy duty, plastic coated garden wire. Training wires shall be attached vertically to the wall/fence by means of 125mm long stainless steel eye screw fittings. Position 1No. at 250mm from ground, and 1No. 250mm from top of the wall/fence, and string the wire tightly between the fixings. Train the climber to the wire with plastic coated garden wire tags.
7. Twining varieties of climber shall be trained to walls/fences by mounting ready-made trellis panels 1.8 x 1.8m generally (but 1.8 x 0.6m for corners or where space is restricted). Include for adapting any panels for locations where walls or fences are lower than 1.8m. Fix trellis panels to the walls/fences using non rusting screws 125mm long (to be approved), incorporating 50mm cube wood spacing blocks to ensure that the panel is mounted sufficiently far from the wall/ fence to allow twining of stems. Ensure that all timber is pressure impregnated with a non phyto-toxic preservative and then painted with a dark brown non phyto-toxic preservative wood stain such as Sadolin "Classic" walnut or similar and approved. Ensure that the trellis is not in contact with the ground. Train the climbing shrub to the trellis with plastic coated garden wire tags.
8. Climbers specified outside proposed shrub beds shall have specially prepared climber pits. Climber pits shall be 400mm x 400mm and 600mm deep (minimum size), and be backfilled with topsoil (from site - unless otherwise agreed). Ensure the base of the pit is thoroughly broken up and free draining before back filling with topsoil. Ensure no damage to foundations and services, and make good all structures and surfaces disturbed. Fertilise with 50g of Fisons "Neutrocote" slow release fertiliser. Water with 15 litres of water per climber pit.

D. Mulch

1. When specified by the additional specification notes on this plan, supply and spread agrotextile "Weedstop Fabric" sheet mulch over planting beds, previously, cultivated, graded and fertilized topsoil before planting, and peg down with Weedstop pegs at a minimum of 500mm centres, (300mm at edges) and beds less than 1m wide. Pegging this densely is essential to prevent flaps of material becoming exposed. Refer to the specification for "Weedstop Fabric" sheet mulch on plan.
2. Following planting supply and spread evenly Melcourt Industries "Rustic Biomulch" to a depth of 50mm, (75mm if no sheet mulch specified), over all planted areas. Finished mulch levels shall be no higher than 15mm below pavement or grass levels to avoid any spillage onto pavements or lawns. N.B. no substitution of mulch type will be acceptable. It is essential to have a no-fines, large particled, brown wood chip to reduce weed growth, reduce wind blow and prevent rapid break down.

E.BS Codes

1. All workmanship and materials shall conform to the following codes:-
   - General landscape operations (excluding hard surfaces) - BS 4428:1989.
   - Trees in relation to construction- BS 5837:2012 and BS 6549:1990.
   - BS 3998:2010 (recommendations for tree works) unless otherwise specified.
   - Arboricultural Association - Standard Conditions of Contract and Specifications of Tree Works 1996.
   - Nursery stock in accordance with latest horticultural trade association nursery stock specification entitled "National Plant Specification 2001 ".
   - Plants shall conform to:
   - BS 3969- 1:1992 Nursery Stock - Specification for trees and shrubs.
   - BS 3969- 2:1990 Nursery Stock - Specification for roses + AMD 6628.
   - BS 3969- 4:1984 Nursery Stock - Specification for forest trees.
   - BS 3969- 5:1985 Nursery Stock - Specification for poplars and willows.
   - BS 3936- 9:1998 Nursery Stock - Specification for bulbs, corms and tubers.
   - BS 3936-10:1990 Nursery Stock - Specification for ground cover shrubs. CPSE-Committee for Plant Establishment, Handling and establishing landscape plants 1996, Part 3.
   - Glossary for Landscape Works BS 3975 Pt 4:1966
   - Turf - BS 3969:1998- recommendations for turf for general purposes.
   - Seeding - EEC Regulations 1974. Use blue labelled certified varieties to EC purity and germination regulations. When requested, submit an official seed Testing Station Certificate of germination, purity and composition.
   - Topsoil - BS 3882:2007
   - Pesticides: Control of Pesticides Regulations 1997; The Health and Safety at Work Act 1974; the COSHH Regulation 2003, the product COSHH sheet Water Supply (Water Quality) Regulations amended 1991;Control of Pollution Act 1974; Hedgerow ACT 1997; Wildlife and Countryside Act 1981.

F.General Notes for the Developer.

1. Tree Protection
   - Any existing trees to be retained, are the responsibility of the main contractor on site who shall take all necessary protective measures set out in BS 5837:2012 to ensure no damage to stems or roots, to prevent compaction from vehicles or storage of materials, contamination of soil from spillages, scorching from fires and instability or stress from changes of soil level. The landscape contractor is however responsible for ensuring that neither plant, materials or labour are cause of any damage to existing trees, and like the employer, the landscape contractor shall replace at once any tree damaged on site, supplying and planting a tree of the same species and size, at his own cost. Suitable protective measures shall be chestnut paling fixed firmly to a rigid timber or scaffolding frame, positioned no closer to the trunk than the drip line of the tree's canopy.

2. Ground Work
   - Soil levels for shrub beds and grass areas should have any compacted subgrade thoroughly broken up by machine before instructing the ground worker to spread topsoil or the landscape contractor to commence work or the beds will become waterlogged in wet weather and the plants and turf.
   - Top soil spread from on site should be to the following minimum depths:- Shrub beds: 350mm. Grass areas 150mm. allow for excavation of 415mm of the subgrade for shrub beds to leave beds 65mm below finished pavement or grass areas in order to receive sheet and bark mulch, (90mm below where sheet mulch is not to be used). Tree pits will be dug by the landscape contractor. Top soil shall be spread for grass areas flush with any areas of paving and after settlement, the soil level should be no greater than 10mm below paved areas to allow for turf. For areas to be grass seeded, the soil level shall be flush with any finished paved surfaces after settlement (or to a maximum of 5mm below) to allow for rain water to drain onto soft surfaces. Settlement shall be no greater than the tolerances given or problems will be encountered with mowing (the blades in danger of touching concrete edgings) or where soil is proud of pavements, then drainage problems will be encountered.
   - Existing topsoil and imported soil shall conform to BS 3882:2007, and be free from compaction, rocks/bricks greater than 50mm diameter, concrete, wire, roots, debris, oil, cement and builders rubble. Soil shall have a clay content of less than 20%.

3. Hardworks
   - Hard works, unless otherwise agreed, shall be carried out by the developer or main contractor. All materials and workmanship shall be in accordance with the construction details and the layout plan.
   - All paths and edgings shall be set out properly to lines and radii, with all curves scribed on the ground using pointed pegs and string or site marker paint, achieving flowing natural arcs. Setting out shall be agreed with the landscape contractor and subsequently the landscape architect.
   - Hard surfaces shall be constructed after suitable base courses have been laid, taking full account of local site conditions, soft spots and substrate. The indicative depths of base courses are minimum depths assuming suitable substrate conditions.
   - All metalwork shall be finished hot dipped galvanized in accordance with BS EN ISO1460. The galvanizer shall be responsible for the thorough removal of all galvanizing smuts (fettling) to the complete satisfaction of the Landscape Architect. The decorating contractor shall prepare the galvanized surface by washing with detergent and water and scrubbing with a scouring pad until all dirt, grease, white rust & sulphates have been removed & then allowed to dry thoroughly. Supply and paint 'Icosit 6630' from Sika Ltd (tel. 01707 374444) applied with a turkhead brush strictly in accordance with the manufacturer's instructions, COSHH regulations and the product COSHH sheet. Apply 2No. coats of paint with a dry film thickness of 100 microns per coat. Apply paint only when galvanized surface is thoroughly dry at temperatures above five degrees Celsius and in any event above the current dew point temperature. Paint work will be subject to inspection by experts and if found wanting, shall be stripped off, re-prepared and applied entirely at the decorating contractors own cost.
   - All wood work to use ACQ water based wood preservative applied by vacuum pressure by Permawood or other similar and approved company. The timber shall then be stained with 3No. coats of Sadolin 'Classic,' colour 'Walnut' strictly in accordance with the manufacturer's instructions, COSHH Regulations 2003 and product COSHH sheet.

For all other units, please refer to SLR drawings 415.2893.00001.003 to 007.

Proposed shrub planting in mixes and hedges

Nr	Abbreviated Text	Plant Name	Ht/Sprd/Gr	Container
29	Ber Nan	Berberis thunbergii 'Atropurpurea Nana'	30-40cm	5L
7	Ber Atr	Berberis thunbergii 'Atropurpurea'	60-80cm	10L
7	Cea Glo	Ceanothus delilianus 'Gloire de Versailles'	60-80cm	10L
7	Cho ter	Choisya ternata	40-60cm	10L
20	Fes Gla	Festuca ovina "Glauca"		5-7.5L
13	Heb Red	Hebe albicans 'Red Edge'	30-40cm	5L
20	Heb Pag	Hebe pinguifolia 'Pagei'	30-40cm (D)	5L
27	Ile Van	Ilex aquifolium 'J C Van Tol'	60-80cm	10L
54	Lav Hid	Lavandula angustifolia 'Hidcote'	30-40cm	5L
7	Mis Gra	Miscanthus sinensis 'Gracillimus'		5-7.5L
6	Phl fru	Phlomis fruticosa	40-60cm	5L
7	Pot Eli	Potentilla fruticosa 'Elizabeth'	40-60cm (D)	5L
20	Pru Ott	Prunus laurocerasus 'Otto Luyken'	40-60cm	5L
7	Ros Mis	Rosmarinus officinalis 'Miss Jessopp's Upright'	40-60	10L
17	Sal lan	Salix lanata	30-50cm	5L
13	Spir AW	Spiraea bumalda 'Anthony Waterer'	40-60cm	5L
42	Vib dav	Viburnum davidii	30-40cm	5L

303 Individual species within each mix to be grouped together within planting bed.

Proposed tree planting

Nr	Abbreviated Text	Plant Name	Form	Girth	Ht/Sprd/Gr	Root
3	CAR FRA	Carpinus betulus "Frans Fontaine"	Standard (Extra heavy)	12-14cm	350-425cm	RB

3

Heavy standard tree planting in grassed or planted areas. Tree pits to measure a minimum of 900mm x 900mm x 750mm deep, and at least 600mm wider that the root spread. To include single 1.6m timber stake, 600mm above ground, spacer and tie.

Ornamental shrub planting, including 50mm depth no-fines bark mulch.

Ornamental hedge planting, including 50mm depth no-fine bark mulch.

Areas to be turfed.

PDP Associates
15 Kings Head Court
Bridge Street
Appleby in Westmorland
Cumbria
CA16 6QH
017683 54130
info@pdpassociates.org.uk

Client
Keepmoat Homes Yorkshire

Project
Thurnscoe Housing Renewal

Drawing title
Detailed landscape proposals, plots 61-67

Scale	Drawn by	Date
1:250 @ A1	PDP	May 2014

Drawing No.
c-1175-01