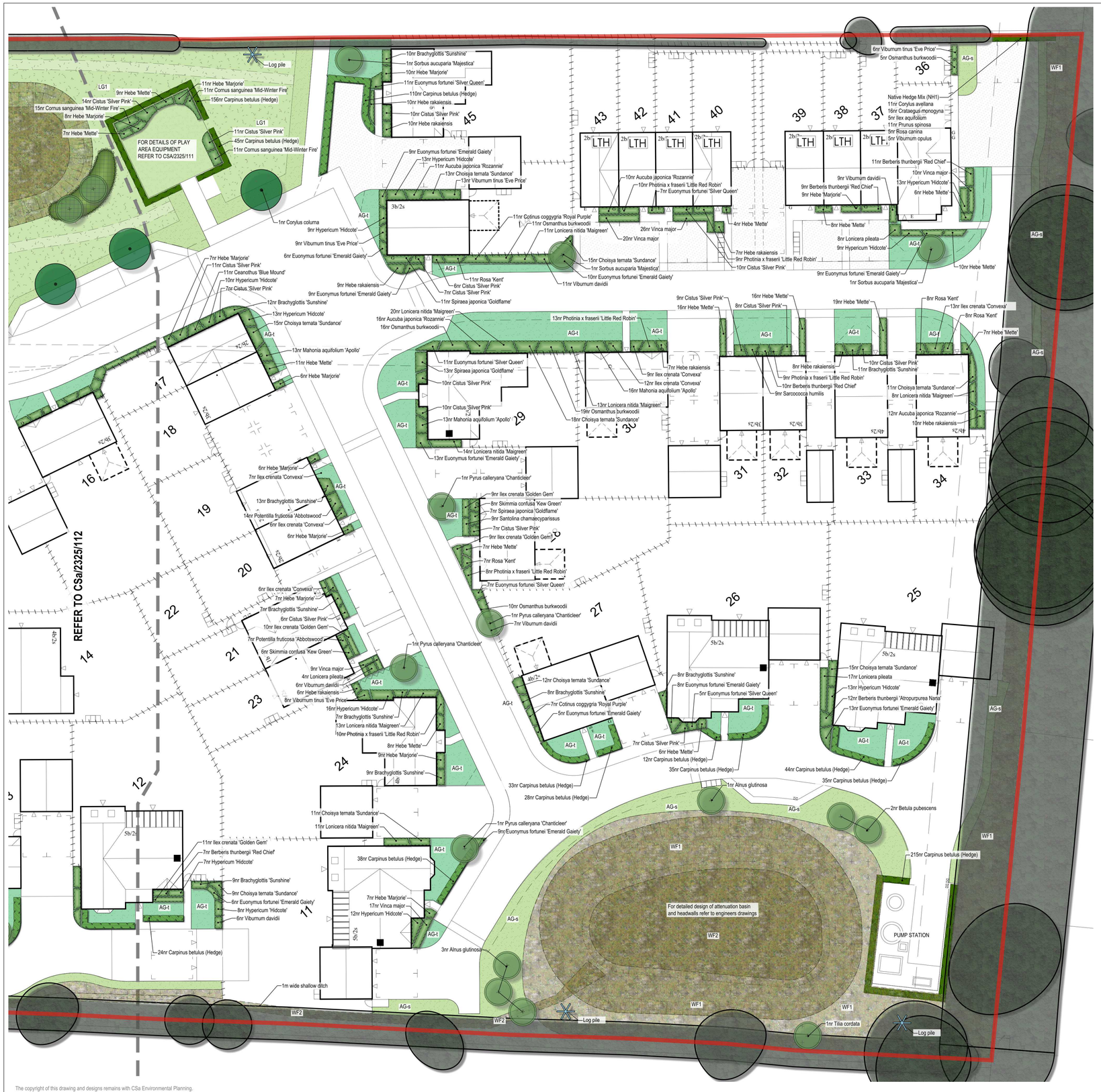

PLANTING SPECIFICATION

General Guidance

All plant handling to be in accordance with the HTA 'Handling and establishing landscape plants' Part I, Part II and Part III (obtainable from the Horticultural Trades Association) and the CPSE publication: 'Plant Handling'.

All planting to confirm to National Planting Specification Guidelines.

The individual setting out of the plants on site shall be the responsibility of the contractor and should follow closely the locations shown on the detailed planting proposal drawings supplied by the landscape architect. Contractor to ensure that plants are equally spaced within individual planting groups.

Contractor to ensure that smaller plants are located to the front of plant species groups as shown on detailed planting plans.

Contractor shall maintain existing levels around the base of existing trees and shall undertake all planting works occurring within tree protection zones in accordance with BS5837:2012. Contractor shall not remove or relocate any tree protection fencing without prior consent of the client.

Contractor to check the locations of all underground services, existing and proposed, prior to the excavation of any tree pits or shrub beds and identify any potential conflicts to the client.

All arisings shall be removed from site and the contractor shall at all times, keep the site free from rubbish and debris.

For the duration of the works the contractor shall keep the site free from injurious weeds as listed in the Weeds Act 1959.

All plants should be supplied at the same size and of the same species as specified in the planting schedules on the landscape proposals plan. Any proposed replacement species or deviation from the planting schedules should be highlighted to and agreed with the client prior to installation.

All plants shall be hardened-off at the Contractor's own nursery or at the source prior to planting out.

All field grown and rootballed trees must have been transplanted or undercut in the nursery no less than 18 months prior to supply.

The Contractor shall carry out the work while soil and weather conditions are suitable. Planting is not to take place during periods of frost or strong winds.

The contractor is to ensure that adequate watering and weed control is provided at the time of planting.

Any topsoil retained on site in stockpiles for use in planting works is to be stored in heaps of no greater than 1.2m in height and is to be kept weed free at all times. Vehicles should be prohibited from tracking over any extent of the storage heaps. Apply proprietary herbicide to any perennial weeds and allow a period of time recommended by manufacturer to elapse before disturbing and re-using elsewhere on site.

Do not use peat or peat based products.

Prior to planting, planting areas shall be cleared of grass and weed growth physically and/or chemically with a proprietary translocated herbicide and a period of time shall be allowed to elapse as recommended by the manufacturer before commencement of soil preparation for planting.

All plants are to be watered thoroughly before planting stage to ensure rootball is thoroughly soaked prior to final backfilling.

Tree Planting

Generally plant trees in pits with minimum dimensions of:-

- 1000 x 1000 x 800mm deep for trees in soft, planted areas including; grass/shrub areas and rear gardens.
- Backfill the pits in layers as specified below (from bottom up):-
- 200mm layer of compacted inert free draining gravel or pea shingle, wrapped in geo-textile membrane,
- 600mm layer of retained site sourced topsoil (free from weeds), imported topsoil (Multi-purpose grade to BS3882:2007); 400mm layer for feathered trees or smaller.

Break up bottom of tree pit to a depth of 200mm and ensure ground is free-draining.

Loosen edges of tree pit at time of planting by hand, using a fork to ensure good drainage. Pits should be excavated no greater than 48hrs prior to planting and dewatered as required.

Incorporate a soil conditioner/ameliorant in the form of peat-free tree and shrub compost or well rotted spent mushroom compost into backfill material at the rate of min. 40L per pit.

Backfill topsoil mix in layers of 150mm, firming at each layer and loosening the pit sides to aid drainage. The surface level of the pit should be 50mm above the surrounding ground.

Trees shall be planted in the centre of the excavated pits.

Trees in soft planted areas to be dressed with a minimum 75mm mulch layer, consisting of pine bark fines, particle size 15-50mm to a min. diameter of 1000-1200mm where appropriate.

Extra-heavy standard trees shall be staked and supported with a low, double stake consisting of 2No. 75mm diameter x min. 2000mm length, rounded timber posts driven into the ground, 600mm above ground level and fixed to the tree by a proprietary rubber tree tie / horizontal cross support.

Standard trees shall be staked and supported with a low, single stake consisting of 1No. 75mm diameter x min. 2000mm length, rounded timber post driven into the ground at 45 degree angle to approx. 450mm above ground level and fixed to the tree by a proprietary rubber tree tie.

Trees shall be installed with proprietary flexible perforated irrigation/aeration pipe with integral cap. Pipe to be installed encircling equally around rootball to the full depth of planting pit, with the final cap section installed just above ground level and nailed securely in place to the adjacent timber stake.

All trees in grass areas to be protected by min. 225mm high x 12-15mm diam. proprietary plastic strimmer/vole guards. Where trees have a basal trunk diameter greater than 12mm e.g. semi-mature, then two or more guards should be joined together using jointing tape and then secured in place.

Root Barrier Membranes

Where trees are proposed in close proximity to hard paved areas or proposed service runs, a root barrier membrane is to be installed in accordance with the guidance contained in Table 3 of BS 5837:2005 'Trees in Relation to Construction - Recommendations' and Appendix 4.2F of the NHBC Standards 'Trees in Relation to Construction'.

For all proposed trees centred in a location within 3m of an adjacent hard standing/footpath or carriageway kerb line, a proprietary root barrier membrane will be installed to protect the hard standing and any underground services located beneath from future damage by tree roots.

Root barrier membrane(s) to be installed on the tree side along the back edge of the kerb / edging restraint to the adjacent hard standing and are to extend a minimum 3m in each direction from a point taken perpendicular from the tree trunk to the kerb/edging face.

Root barrier membranes are to extend to a depth as outlined below:-

- For trees adjacent to hard standings only (no underground services); install 'Reroot 300' by GreenBlue Urban (01424 717797) or equal and approved, ribbed root barrier membrane, to a depth of 300mm, ribs facing tree, joints fixed with jointing tape, install 10mm above final surface level of soft landscaping.
- For trees adjacent to hard standings incorporating underground services; install the following dependant on the depth of underground services;

For services 450mm deep

- 'Reroot 600' by GreenBlue Urban (01424 717797) or equal and approved, ribbed root barrier membrane, to a depth of 600mm, ribs facing tree, joints fixed with jointing tape, install 10mm above final surface level of soft landscaping.

For services 800mm deep

- 'Reroot 1000' by GreenBlue Urban (01424 717797) or equal and approved, ribbed root barrier membrane, to a depth of 1000mm, ribs facing tree, joints fixed with jointing tape, install 10mm above final surface level of soft landscaping.

For services deeper than 800mm

- 'Reroot 2000' by GreenBlue Urban (01424 717797) or equal and approved, ribbed root barrier membrane, to a depth of 2000mm, ribs facing tree, joints fixed with jointing tape, install 10mm above final surface level of soft landscaping.

For locations where a hard standing with or without underground services exists on both sides of the tree e.g. grass verge, then a root barrier is to be installed against both kerb / edging faces.

Shrub Planting

Plant shrubs and groundcover into pre-prepared planting beds consisting of topsoil to a depth of no less than 400mm, overlying clean subsoil, mixed with soil conditioner as specified below.

Subsoil to be fully broken-up by main contractor to ensure adequate decompaction and alleviate free-drainage.

Topsoil to be either; existing retained site sourced topsoil (free from weeds) or imported topsoil imported topsoil (Multi-purpose grade to BS3882:2007) or a combination of the two as necessary.

Incorporate a soil conditioner/ameliorant in the form of peat free general-purpose shrub compost or well rotted spent mushroom compost across planting bed in a 50mm layer at the rate of 300g per m2, and incorporate to a depth of 225mm.

Dig planting holes for shrubs to be a depth of 200mm and a width or 150mm greater than the source pot size, ensuring that pit walls are loosened to ensure good drainage.

Install a proprietary geo-textile weed suppressant membrane onto the surface of the pre-prepared shrub planting beds with minimum 300mm laps. Cover with a nominal 50mm layer of topsoil (as 4.2 above) prior to commencing planting and the installation of the mulch layer.

Ensure planting appears random / natural and not formal in accordance with the planting proposal layouts as supplied by the Landscape Architect.

All shrub areas to be dressed with a minimum 50mm mulch layer, consisting of medium chipped tree bark, composted for 2-4 weeks, particle size 15-50mm.

The contractor shall take the necessary precautions to ensure all shrub areas are protected throughout the establishment period by temporary fencing.

Hedge Planting

Plant hedges into pre-prepared planting trenches, 500-600mm wide for double rows. Planting strips to consist of topsoil to a depth of no less than 450mm, mixed with soil conditioner as specified below.

Topsoil to be either; existing retained site sourced topsoil (free from weeds) or imported topsoil (Multi-purpose grade to BS3882:2007) or a combination of the two as necessary.

Incorporate a soil conditioner/ameliorant in the form of peat free general-purpose shrub compost or well rotted spent mushroom compost along planting trench in a 50mm layer at the rate of 300g per m2, and incorporate to a depth of 225mm.

Ensure planting strips are deep enough as to be 200mm greater than the root depth of the supplied plant stock.

All hedge planting areas to be dressed with a minimum 50mm mulch layer, consisting of medium chipped tree bark, composted for 2-4 weeks, particle size 15-50mm.

Hedges to be supported by min. 1000 high timber post and wire fence, consisting of min. 75mm diameter x 2000mm long, rounded timber posts, driven in at 2000mm centres with 3No. galvanised wire supports evenly spaced along the vertical axis of the post. Corner posts and/or straining posts are to be additionally supported by 45° angled, 50mm diameter timber struts.

Thicket Planting / Woodland Planting

Generally clear any surface vegetation in proposed woodland and thicket areas, utilising proprietary herbicide where appropriate and install plants into isolated pre-prepared planting pits, generally 300 x 300 x 450mm deep or 200mm greater than the rootstock, whichever is greater, backfilling with either existing retained site sourced topsoil (free from weeds) or imported topsoil (sandy loam, General Purpose grade to BS3882:2007) or a combination of the two as necessary.

Incorporate a soil conditioner/ameliorant in the form of peat free tree and shrub compost or well rotted spent mushroom compost into backfill material at the rate of 5L per pit, incorporating a slow release fertiliser e.g. Enmag (or similar approved) at a rate of 5g per pit.

Ensure planting conforms to planting matrix where appropriate and in all other areas appears random / natural and not formal in accordance with the planting proposal layouts.

Plant Protection

All woodland and thicket areas to be fully enclosed by min. 900mm high rabbit proof fencing, supplied as min. 19 Gauge (1.2mm) galvanised mesh with max. 31mm openings, nailed with galvanised 20mm staples to 50-75mm diameter treated timber stakes at 1.5m centres, incorporating 3No. horizontal galvanised straining wires. Mesh fence to be heeled into ground 150mm below ground level. Straining posts of 100mm diam. timber should be installed every 50m or at every turn of direction 90 degrees or greater.

If additional deer protection fencing is required, all woodland and thicket areas are to be fully enclosed by min. 1.8m proprietary plastic mesh fencing (50mm x 45mm gauge) secured to min. 100mm rounded, treated softwood posts, driven min. 750mm below ground level at 3.5m centres. Mesh fence to be heeled into ground 150mm below ground level. NB:- In areas where rabbits are also a known problem, an additional 300mm high section of min. 19 Gauge galvanised mesh (chicken wire) with max. 31mm openings to be fixed to the lower portion of the deer fencing and attached using proprietary plastic cable ties.

All standard trees to be protected by min. 225mm high x 12-15mm diam. proprietary plastic strimmer/vole guards.

All small / feathered trees to be protected by min. 1200mm high x 80-110mm diam. proprietary plastic mesh tree guard/shelter and secured in place with min. 25mm square treated softwood timber stake and fixed with plastic cable ties. NB:- Should red or fallow deer reside in the locality the tree guards/shelters should be increased in height to 1.8m.

Any coniferous trees and/or beech trees (Fagus sylvatica) must only be protected by open mesh tree guards.

All bushy thicket shrubs to be protected by min. 600mm high x 170-200mm diam. proprietary plastic mesh shrub shelters / guards and secured in place with treated softwood timber stake and plastic cable ties.

All single stem thicket transplants to be protected by min. 450mm high x 50mm proprietary plastic spiral guards secured with min. 12-14lb x 900mm long bamboo cane.

All trees and thicket plants to be installed with a min. 500mm square, woven polypropylene mulch mat securely pegged in place.

Amenity Turf Planting

Areas to be turfed are to be 'dug over' or rotovated to ensure decompaction of any existing substrate and then finely graded to bring to a uniform and even grade at the correct finished level, removing all minor hollows and ridges. Light rolling may be required to consolidate any loose substrate.

All stones and debris greater than 50mm in size to be removed and disposed of off-site.

Turfed areas are to consist of min. 150mm topsoil; either existing retained site sourced topsoil (free from weeds) or imported topsoil (Multi-purpose grade to BS3882:2007) or a combination of the two as necessary.

Unless otherwise stated, finished levels of turfed areas to be 30mm above adjoining paving and kerbs.

Final preparation of the turfed areas shall be carried out as to create a fine tilth surface suitable for laying of turves.

Prepared areas to be watered thoroughly to a depth of 75mm and lawn establishment fertiliser should be applied at a rate of 40g/m2, 48hours prior to turfing. Fertiliser to be raked into top 25mm of the surface.

a. The area(s) are to be turfed between April and October with turf, as specified in the planting schedules (Appendix A).

b. Turves should be laid in a series of straight rows, with staggered joints. All joints are to be closely butted together. Timber planks should be used to spread the load of the installer during laying and areas are to be tamped down to ensure good contact between turves and the soil.

c. All turves should be laid within 24hours of delivery.

d. The contractor shall ensure that all turfed areas are watered fully at the time of installation to the full cultivated depth, and that sufficient subsequent watering is carried out to ensure healthy establishment of the grass sward.

Amenity Grass / Meadow Grass Seeding

Areas to be seeded are to be finely graded to bring to a uniform and even grade at the correct finished level and to remove all minor hollows and ridges. All stones and debris greater than 50mm in size to be removed and disposed of off-site.

Seeded areas are to consist of min. 150mm topsoil; either existing retained site sourced topsoil (free from weeds) or imported topsoil (sandy loam, General Purpose grade to BS3882) or a combination of the two as necessary.

Unless otherwise stated, finished levels of seeded areas to be 30mm above adjoining paving and kerbs; 150mm below the dpc of adjoining buildings.

Final preparation of the seeded areas shall be carried out as to create a fine tilth surface suitable for seeding.

For amenity grass areas only, a pre-seeding fertiliser shall be applied at a rate of 250kg/ha approx. 7 days prior to seeding and raked into top surface e.g. GroRight Lawn Establishment fertiliser by Rolawn Ltd, slow-release granular fertiliser, 7:10:10 NPK; or equal and approved by Landscape Architect.

The area(s) is to be seeded between April and October with approved grass seed mix, as specified in the planting schedules at the specified rate. Following seeding, areas are to be hand raked and lightly rolled.

The contractor shall take the necessary precautions to ensure all grass areas are protected throughout the establishment period, with the use of chestnut pale fencing where appropriate.

The contractor shall ensure that all seeded and turfed areas are watered fully at the time of installation to the full cultivated depth, and that sufficient subsequent watering is carried out to ensure healthy establishment of the grass sward.

Wildflower Meadow Grass Seeding

Kill off any existing vegetation by spraying off with proprietary herbicide and allow a time to elapse as recommended by the manufacturer before commencing any cultivation works.

If time permits, a 'stale seed bed' is to be established, by allowing the graded meadow area to colonise with weeds from the existing soil seed bank following initial cultivation / rotovation and an additional application of proprietary herbicide applied to remove any weed growth.

Areas to be seeded are to be finely graded to bring to a uniform and even grade at the correct finished level and to remove all minor hollows and ridges. All stones and debris greater than 50mm in size to be removed and disposed of off-site.

Wildflower seeded areas are to consist of min. 300mm deep existing retained topsoil (free from weeds)/subsoil mix (50:50) over existing site subsoil layer. No imported topsoil should be used in the formation of wildflower meadows.

Final preparation of the seeded areas shall be carried out as to create a fine tilth surface suitable for seeding.

No pre-seeding fertiliser shall be applied.

Wildflower seeded is to be undertaken preferably in Spring (Early March to late June) or if not feasible in Autumn (Mid August to October). Where sowing rates are low and sowing is to be undertaken by hand broad-casting, the contractor should mix the seed evenly with a fine, dry sand to bulk up the sowing mixture. Seeding by this method should only be undertaken on calm days with no wind, after seeding, areas are to be hand raked and lightly rolled.

The contractor shall take the necessary precautions to ensure all grass areas are protected throughout the establishment period, with the use of chestnut pale fencing where appropriate.

The contractor shall ensure that all seeded areas are watered fully at the time of installation to the full cultivated depth, and that sufficient subsequent watering is carried out to ensure healthy establishment of the grass sward.

General Planting Maintenance

All soft landscape areas to be maintained to BS7370-4:1993.

Sufficient watering should be undertaken by the contractor to establish and maintain healthy plant growth.

The first cut / mow of all amenity grass seeded areas should be undertaken when the established sward reaches 50mm in height down to a height of 25mm, after which all amenity grassed areas should be maintained at a nominal height of 25mm (March to October). All arisings are to be removed from site and composted.

The first cut / mow of all meadow and wildflower areas to be undertaken when the established sward reaches 150mm in height or weeds colonise to a height of 300mm (whichever is sooner), to a nominal height of 150mm.

For spring sown meadows/wet meadows, the second cut should take place about 16 weeks after sowing or in September (whichever is sooner), after which all meadow and long grass areas should be cut annually in September, to a nominal height of 100mm, once any wildflowers have set seed, with an additional spring cut in March / April to remove winter growth if necessary.

For autumn sown meadows/wet meadows, the second cut should take place in April, after which all meadow grass and long grass areas should be cut in September, to a nominal height of 100mm, once any wildflowers have set seed, with an additional cut in March / April to remove winter growth if necessary. All arisings should be left lying for 48hrs before being removed from site and composted.

Meadow areas should be hand-weeded or spot swiped for any perennial weeds such as docks, nettles and ragwort.

All failed / defective plants identified within the first 5 years of installation should be replaced by the contractor at the soonest available planting season to ensure a continued coverage of growth. Replacement plants should be of the same species and specification of the failed specimens.

Bare areas and areas of dead grass which become apparent should be rectified by overseeding and/or turf re-installation at the soonest available planting season.

All amenity grassed areas and planting beds should receive an application of a proprietary slow release fertiliser twice yearly in the spring and the autumn.

All shrub planting and formal hedges shall be pruned at least twice per annum, removing dead or dying wood, to maintain a healthy, natural shape and promote good form.

Dead heading of herbaceous plants including flowering marginal aquatic plants, should be undertaken following flowering.

All planting areas should be kept tidy and free from weeds, trimmings, debris and litter. Weeds should be removed by hand unless where it is unfeasible; whereby weeds can be treated by the application of a suitable proprietary herbicide.

NB:- Herbicide usage to be limited to spray usage on calm days (no wind) and undertaken by suitably qualified operatives in accordance with current legislation.

Tree stakes, ties and guards should be checked annually for adjustment and/or replacement/removal as required.

All amenity grassed areas should be scarified annually in the autumn to remove thatch conditions and the build-up of dead grass. Following annual scarification, grassed areas should be thoroughly spiked to aerate soil and improve drainage. NB:- Within tree root protection areas (RPA's) as indentified on drawing 6081.01, all scarifying/spiking should be carried out sensitively by hand and the use of vehicular mounted machinery will not be permitted within these areas.

All plants should be maintained in a disease and pest free state. In all instances, 'natural' methods of pest control are to be undertaken prior to any chemical application. In the event that natural methods of eradication are unsuccessful, plants should be treated through the application of a suitable proprietary herbicide/pesticide.

Areas of shrub planting with a bark mulch layer should be topped up annually in the spring to retain moisture and limit weed growth, to a nominal depth of 50-75mm.

NOTE;
1. Refer to CSa/2325/112 for Planting Schedule and Legend
2 Refer to document CSa/2325_06 for Management Plan
3. Refer to CSa/2325/110-111 for Hard Landscape Proposals

Revision	Date	By	Description
E	13.04.16	AB	General updates following LPA comments
D	22.03.16	AB	Minor updates to plant species
C	03.01.16	AB	Updates to specification
B	15.12.15	AB	Minor updates

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Project	Land West of Chesterton, Oxfordshire
Title	Soft Landscape Proposals Sheet 2 of 2
Client	Taylor Wimpey UK Ltd

Scale @ Size	1:250@ A1	Drawn	AB
Date	July 2015	Checked	GC
Drawing Number	CSa/2325/113	Revision	E