3.0 SOFT LANDSCAPE AND RELATED WORKS.

The Contractor will ensure that all site staff have read and understand the Contract Specification and Drawings and that copies are retained by the staff on site.

3.1 Existing Landscape Features.
The Contractor shall be responsible for protecting all existing site features including pavement works, kerbs and edgings, and below-ground services. The Contractor shall allow to plan and implement protection to all paths where trafficking across paths with machines may be required by the Contractors tools or delivery vehicles. Any damage to paths, edgings, services and the like shall be made good at the Contractors own expense and to the satisfaction of the Contract Administrator (CA). If damage appears to be present at the outset it is recommended that these items are brought to the attention of the CA, or photographed with a date camera before works commence. Where excavations shall take place near existing trees or other vegetation the Contractor shall take special care to avoid damage to roots.

3.2 The Contractor shall request information regarding below ground services, such as exist, before works on site commence. Note that all service information supplied should be treated as approximate only and if the Contractor considers that services might be affected by proposed works (eg tree planting), he shall accurately locate services before commencing the work. If the design appears to need modification before works can commence the Contractor shall immediately consult the Landscape Architect to agree revised details.

3.3 The Contractor shall be deemed to have included for the following tasks and activities in the tender price:

- All liaison and coordinating requirements to ensure a successful outcome to the project.
- Working with hand tools or small machinery adjacent to kerbs, features and services and the like and ensuring that these features are not damaged by the works.
- Consulting with the CA about services and undertaking further checks on site.
- Supplying and maintaining temporary fencing, signage, covers and other elements that may be required to ensure required health and safety standards for all parties.

3.4 Weather Conditions
The Contractor shall not undertake ground preparation or planting works when the ground is saturated or frozen or when, in the opinion of the landscape architect, works are likely to have detrimental long-term impacts on soil structure. If landscape works are to take place in very dry weather, when the ground is hard or baked, the Contractor will be required to provide irrigation facilities in order to ensure that plants can be properly watered in.

SOFT LANDSCAPE WORKS – PREPARATION AND LAWNS

3.5 Existing topsoil
The site levels will be raised with imported fill. It is not clear what the quality of soil will be like when construction has ended. Finished topsoil for gardens should be at least 200mm deep and overlying clean, free draining subsoil – refer to specification below. The Landscape Contractor shall liaise with the Main Contractor and ensure soil conditions are suitable for planting and soft landscape establishment before work commences. All parties will ensure that subsoil is free draining and free of compaction, building waste and contaminants before topsoil is imported and spread.

3.6 Imported subsoil (if required)
It is anticipated that existing subsoil on site will be acceptable for retention and use – pending the outcome of soil remediation works. If contaminated subsoil has been removed and more than 200mm of imported soil is required to make up required levels, the Landscape Contractor shall allow to supply and spread approved subsoil. Subsoil shall conform to BS 8601 (2013) and match as near as possible the topsoil presently found on site. It shall be kept clean of building waste or any other construction contaminants. Existing and imported subsoil must be

shown to be clean, non-compacted and naturally draining to the satisfaction of the Landscape Architect before topsoil spreading can commence.

3.7 Imported topsoil

If there are topsoil shortfalls the Landscape Contractor shall allow to supply and spread approved topsoil as necessary to make up levels if required. Soil shall conform to BS 3882 (2015) for the grade of topsoil specified and match as near as possible the topsoil presently found on site. Topsoil should not normally be required more than 300mm deep.

The Contractor shall arrange for the CA to inspect a representative sample of the soil before making further deliveries to site. The CA will retain this for comparison with subsequent loads. The soil shall conform to the following requirements:

- Texture: Medium loam
- pH 5.0 – 8.0
- Organic matter: minimum 5%
- Nutrient content: Nitrogen, phosphorus, potassium and magnesium minimum index values to be as for general purpose grade of BS 3882
- The soil shall have a discernible crumby structure. Finely sieved or graded soils with no structure are not recommended.
- Maximum stone size: 50mm in any dimension
- Maximum stone content: 5% by dry weight

3.7 Herbicide Treatment. (Provisional)

If planting beds are left open before planting and weeds have established - apply a glyphosate based herbicide to all areas as directed by the CA. Ensure that sprays are applied in dry, still weather conditions, using a spray guard. All spraying shall be as per the manufacturers instructions and best practice guidelines and at least 2 weeks before planting works commence. Avoid contact with trees and other vegetation that is to be retained. Ensure areas to be sprayed are carefully marked out and agreed by the CA before spraying commences.

3.8 Cultivation.

All proposed planting and lawn areas shall be cultivated to ensure that soil compaction is relieved and a fine tilth is prepared suitable for planting and grass seeding as required. It is recommended that a small tractor or large rotovator scale of machine may be the most appropriate sized equipment for this site. Use a small tractor mounted harrow or similar implement to ensure free draining soils and compaction relief to a depth of at least 250mm. The Contractor shall allow to separate out any building waste or other deleterious material that might arise during the cultivation works and remove to the Contractors off site tip.

3.9 Soil Conditioner – Planting beds. (Provisional)

The Contractor shall supply and spread 50mm of approved soil conditioner to all planting beds (not lawn areas) and incorporate into the topsoil. This equates to a rate of 5 cubic metres of conditioner per 100sqm of planting bed. The conditioner shall be free of perennial weed seeds, bulbs or rhizomes or any deleterious material larger than 25mm in any dimension. The conditioner will be a peat free, well composted organic material, with a nominal pH of between 6.0 and 7.0 and free of detrimentally high salt or other chemical properties. The conditioner shall be free of odours. The Contractor shall ensure the conditioner is free of plant pathogens and should produce a representative sample and evidence of origin for consideration by the CA prior to bulk deliveries to site. (**Note** – soil conditioner will not be required where 150mm or more of imported topsoil has been imported as specified as per clause 3.6 above).

3.10 Fine Grading.

Work-in the soil conditioner and bring the soil to a fine tilth. The Contractor shall ensure that there are no mounds or hollows across lawn areas and that any required falls are even and will not result in surface water ponding in future. The Contractor shall ensure finished levels marry appropriately with adjoining surfaces and edges and clear away all surplus soil.

Finished soil levels should be left slightly proud of adjacent edges and paths to allow for settlement. The Contractor shall ensure that there are no mounds or hollows across proposed lawn areas and that any required falls are even and will not allow ponding in future.

3.11 Sown Grass – Lawn Areas.

It is recommended that the areas proposed for species rich seeding to are sprayed with glyphosate at least 3 weeks prior to seeding. The Contractor shall allow a rate to supply and sow, by drill, hand broadcast or fiddle, grass seed to all prepared meadow areas as shown on the plans or directed by the CA. Areas will be sown with Emorsgate 'General Purpose' meadow mix (Ref. EM3) sown at 4 grams per square metre. (Emorsgate – 01553 829028) or similar approved. Sow the seed in dry windless conditions and where possible roll in afterwards. We recommend that the meadow mix, which includes fine seeds, is evenly mixed with slightly damp sand to assist the spread.

3.12 Sown Grass Establishment – Lawn Areas. (Provisional)

When the grass sward reaches a height of 35-40mm the Contractor shall allow to pick off any larger stones or detritus on the site and remove to the Contractors tip before rolling the sward in two directions with a light roller. When the grass reaches a height of 75-100mm and in suitable weather conditions, the Contractor shall mow (or strim) the sward to a height of approximately 35-40mm, preferably collecting the cuttings in a box (or raking off) and removing from site.

3.13 Turfing – Ground preparation. (Provisional)

To prepare those areas proposed for new lawn the Contractor shall cultivate the soil to produce an even, free draining, fine tilth. Grade the soil to provide a firm, level surface that will allow the new turf to marry with adjacent pavements, fences and planting beds. To finish, the Contractor shall roll or rake the soil to obtain an even, well consolidated surface.

3.14 Turf Supply. (Provisional)

Obtain turf from a specialist grower. All turf shall be supplied to the standards set out by the Turf Growers Association (TGA). The preferred turf shall be a hard-wearing multi-purpose type with a variety of grass species and suitable for amenity situations. Provide a sample prior to delivery for approval by the CA. Lay the turf carefully, close butting adjacent turves and cutting to provide the best fit if required. Brush in fine soil to any cracks and consolidate with wooden beaters to provide even grades to the finished lawn.

3.15 Watering In.

After laying, the turf shall be irrigated with a fine sprinkler system so that the turves are well moistened but ensuring that the ground does not become waterlogged and that surface water runoff does not occur. Check that water has penetrated the turf and saturated the soil underneath.

3.16 Seeding rear gardens. (Provisional)

Cultivate, in suitable weather conditions, to remove any weed growth before seeding. The Contractor shall allow a rate to supply and sow, by drill, hand broadcast or fiddle, grass seed to all prepared rear garden areas as shown on the plans or directed by the CA. Areas will be sown with Emorsgate strong lawn grass mixture (Ref. EG22) sown at 25 grams per square metre. (Emorsgate – 01553 829028) or similar approved. Sow the seed in dry windless conditions and where possible roll in afterwards.

3.17 Care, Maintenance and Establishment of the Lawn Areas:

It is the Contractor's responsibility to, weed, mow and fully maintain the grassed areas during the 12 month establishment period – or as otherwise agreed with the Main Contractor. The Contractor shall mow the grass when it has a general height of 40mm and shall maintain a regular mowing program thereafter. It is recommended that the first cut for the new turf areas is left until the grass is around 60-70mm tall. Where areas of grass are vulnerable to disturbance by garden users the Contractor shall protect the newly grassed areas from trespass and traffic by the supply and erection of temporary fencing. The Contractor shall allow for supply, maintenance and removal of temporary protective fencing within the lump sum tender price.

PLANTING WORKS:

3.18 Plants Quality.
Material to be sturdy, healthy, vigorous, of good shape and without elongated shoots.
Grown in suitable environment and properly hardened off.
Free from pests diseases, discoloration, weeds and physiological disorders.
Budded or grafted plants to be bottom worked unless otherwise specified or approved.
All plants to have balanced root and branch systems and all in accordance with relevant parts of the National Plant Specification and BS 3936.
True to name origin and provenance: UK grown where possible or otherwise to be stated.
Name, forms, dimensions and other criteria as scheduled and defined in the National Plant Specification and BS 3936.

3.19 Pre-selection / Substitutes.
If specified plants are unobtainable or known to be likely to be unobtainable at the time of ordering, submit alternatives to the CA stating the price and how they differ from the specification. Such substitutions may not be acceptable and submission of further alternatives may be required. Obtain approval from CA before making any substitution on site.

3.20 Tree Handling.
Comply with CPSE 'Handling and Establishing Landscape Plants' (obtainable from the Horticultural Trades Association) Parts I, II and III.

3.21 Planting Pits and Fertiliser.
The Contractor shall ensure that the ground is cultivated, friable and suitable for easy planting.
The Contractor shall supply blood and bonemeal for all planting at the following rates:
Fertilise during maintenance period only. (See Establishment maintenance).

Pit sizes shall be at least one and a half times bigger than rootballs, with friable, free-draining soil to the walls and floor of each planting pit. On bare root stock carefully arrange roots in the pit before backfilling and firming down the soil.

3.22 Stakes and Ties.
Staking of trees shall utilise the following stakes and ties unless otherwise specified in the drawings. Stakes will be softwood or other approved, and free from all cracks, shakes or bends. A sample of adjustable tree ties should be submitted for comment prior to site commencement.

Tree Size	Staking	Ties
45-100 litres	2 x 75 x 1400mm round section stakes 600mm above grd. and 50x25mm cross bar.	Adjustable plastic ties fixed to cross bar

3.23 Watering System. (Provisional)
Provide each tree with a 75 litre 'hydration bag' by Barcham Trees Ltd of Ely (01353 720 950) or similar approved.

3.24 Pruning.
After planting and mulching, the Contractor shall allow to lightly prune trees, shrubs, and perennials to improve shape and encourage vigorous healthy growth. Discuss the extent of pruning with the CA before commencing. (See also the specification for maintenance).

3.25 Replacements.
The Contractor will replace at his own expense any trees or shrubs that, in the opinion of the CA, fail to thrive within the 12 months establishment / defects liability period. The CA will make a decision based on the considered quality of tree stock at the time of planting; tree pit preparation and plant handling and subsequent maintenance. Plants lost through obvious

vandalism or theft shall be recorded and photographed by the Contractor for consideration by the CA.

3.26 Mulch.

The Contractor shall supply and spread 50mm of coarse bark mulch to all planting beds at completion of the planting works and after approval to proceed from the CA. The Contractor shall provide a sample of mulch for approval before commencing these works.

3.27 Completion Works/Practical Completion

Allow to clear the site and ensure the removal of all waste materials after each planting operation on site. Remove or cultivate temporary access pathways, brush or wash earth from paved areas and make good any damage to existing surfaces to the satisfaction of the CA. Remove any signage or temporary boundary markers. Clean all surfaces and remove rubbish and contract arisings. When the CA is satisfied that contract works have reached practical completion stage, the Contractor will be permitted to invoice for works completed.

ADDITIONAL WORKS:

3.27 Bulb Planting

The Contractor shall supply and plant all bulb material as scheduled in the documents and illustrated on the plans. The bulb planting works shall be undertaken in the period between October and early December. It is recommended that if this does not coincide with the other planting works on site that the bulb planting is undertaken at the appropriate time of year during the establishment period. Bulbs should be planted at a depth of between 50 and 100mm in informal groups and drifts in the areas indicated on the plans. Carefully clear bark mulch, plant the bulbs and replace the mulch avoiding mixing soil and mulch. Recommended suppliers are:

Gedney Bulb Co Ltd
Middle Drove, Gedney Dyke
Spalding, Lincolnshire
PE12 0AR
Tel: 01406 550341
Fax: 01406 550340
Email: sales@gedneybulb.co.uk

Gee Tee Garden Products
Field Works, Common Road,
Moulton Seas End
Spalding, Lincolnshire,
PE12 6LF
Tel: 01205 260412

O A Taylor & Sons (Bulbs) Ltd
Washway House Farm,
Washway Road, Spalding,
Lincolnshire, PE12 7PP.
Tel : 01406 422266
Fax : 01406425468

3.28 Hedge Planting

The Contractor shall ensure that the ground is cultivated to provide a deep free-draining tilth prior to planting. Plant the hedge plants in a double row, each plant at 500mm centres. Spread a 50mm deep, 1000mm wide strip of coarse bark mulch around the planted hedge at completion. (Cultivation may not be possible in gapping up the existing boundary hedges – but clear the planting area where possible without undermining the existing hedge plants).

3.29 Spiral guards (Provisional)

Provide clear plastic biodegradable spiral guards, 600x50mm with bamboo cane (e.g from Tom's Tree Ties (01233 770066) or similar approved to all transplants. Provide a suitable alternative biodegradable tree shelter for the conifers. These are to be provided for all hedge planting and for transplants in the scrub planting area and might be removed after 2 years or so at the discretion of the landscape manager.

4.0 LANDSCAPE MAINTENANCE: 12 month Establishment Period

4.1 Period of Maintenance.

The Landscape Contractor shall provide a 12 month period of establishment maintenance to the planting and boundary areas, commencing at the date of practical completion as confirmed in writing by the CA.

4.2 Payment Certification.

The Contractor shall be paid for maintenance works in three instalments, the last one coinciding with the Final Completion certificate. The CA shall provide a site progress report

at 4 month intervals, outlining any areas that need the Contractors attention and a valuation certificate recommending payment by the Client on presentation of the Contractors invoice. Payment shall only be recommended on completion of the tasks and duties outlined below.

4.3 Normal Maintenance Duties.

The Contractor shall visit regularly to:

- Remove weeds and maintain the planting areas in a clean and tidy state
- Prune and trim trees and shrubs and perennials.
- Remove litter and other detritus.
- Remove plants that fail to thrive and replace with new stock.
- Maintain mulch levels and top up as to maintain a 50mm layer
- Mow lawn areas as specified
- Other works and items as identified by the CA.

4.4 Site visits / Notices to the CA.

The Contractor shall be expected to visit the site every 2-4 weeks to undertake the maintenance duties. He shall provide 2 days notice of the visits to give the CA the opportunity of being present.

4.5 Litter collection.

Collect and remove all extraneous rubbish and remove to the contractors tip.

4.6 Weed control.

Maintain the planting areas in a weed free state generally by hand hoeing and weeding. Only use spot treatment of a translocated herbicide after prior permission from the CA. The Contractor will not use pre-emergent or hormonal herbicides on the site.

4.7 General Pruning.

Except where specified otherwise, prune as recommended by BS7370: Part 4, clauses 3.6.2 to 3.6.5. Prune in accordance with good horticultural practice. Prune larger branches and woody stems in accordance with good arboricultural practice.
Thin, trim and shape appropriately to each species, location, season and stage of growth, leaving a well-balanced natural appearance.
Do not prune spring flowering plants in the winter/early spring period, unless specified otherwise, but prune them lightly after the flowering period. Avoid the nesting season, flowering periods or other ‘display’ times where possible.
When using handsaws cut in one continuous operation to form a smooth cut surface. Remove branches without damaging or tearing the stem.

4.8 Failures of planting.

Excepting theft or malicious damage after practical completion any trees/shrubs/plants that have failed to thrive during the defects liability period will be regarded as defects due to materials or workmanship not in accordance with the contract. Unless otherwise instructed they must be replaced by approved equivalent trees/shrubs/plants during the next suitable planting season. Replacements must match the size of adjacent or nearby plants of the same species, or should match the original specification, whichever is the greater.

4.9 Theft or Malicious damage.

Where the Contractor believes that theft or malicious damage has resulted in plant losses or damage to other contract works he shall record all damage and losses along with the date and location in the site maintenance record. He shall then submit all details to the CA for further consideration.

4.10 Mulch.

The Contractor shall monitor mulch levels and allow in his price to supply and spread additional mulch to beds at the end of the maintenance period to ensure that there is a 50mm layer of mulch to beds at the time of handover.

4.11 Fertilising.

The Landscape Contractor shall allow to fertilise shrubs and planting areas towards the end of the first growing season (eg September). Allow for one application of a general slow release fertiliser, blood and bone or a manure as per manufacturers instructions, best practice guidelines and BS7370: Part 4, clause 3.5.11. Confirm the fertiliser to be used with the CA prior to spreading.

4.12 Disposal of arisings / Cleanliness

Dispose of all weeds, prunings, trimmings and non bio-degradable materials (litter etc) at the Contractors off - site tip. At each maintenance visit remove soil and other debris from all hard surfaces and grassed areas and leave the works in a clean tidy condition.

4.13 Watering.

The contractor shall adjust and maintain the gator bags on trees and replace them if stolen or damaged. In notable periods of drought, where trees and shrubs are showing signs of stress, allow to fill gator bags and give other planting along site frontages a prolonged soak using a bowser, once every 7-10 days. The onus will be on the Contractor to ensure successful establishment of all planting.

4.14 Additional work.

Note any damage to planting, pavements, fences and the like and include in the four monthly report.

4.15 Final Completion.

At the end of the 12 month maintenance period the Contractor shall arrange a date for a Final Completion meeting. After all outstanding items have been completed to the satisfaction of the CA, the CA shall issue a Final Completion certificate and a final payment certificate which shall include release of any retention monies.