

SOFT LANDSCAPE SPECIFICATION

MAPLE AND POPLAR
MAPLE ROAD
HAYES
UB4 9NQ

30th MAY 2023



Specification prepared by
PJC Consultancy Ltd
on behalf of
NEILCOTT CONSTRUCTION

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T: 01323 832120
E: contact@pjcconsultancy.com

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LANDSCAPE SPECIFICATION

INTRODUCTION.

A. Contract Documents: the following specification is to be read in conjunction with the wider contract and tender documents supplied during the tender process.

B. Drawings: this specification is to be read in conjunction with the following drawings.

PJC/1136-002 – LANDSCAPE DETAILED PLANTING PLAN

Landscape plans (as above) showing location, orientation of 2 units of flats showing proposed arrangement of parking and pathways along with proposed soft landscape planting for all frontages.

C. Setting Out: Landscape features are to be set out on site as arrangements shown on current (Tender Issue) Landscape General Arrangement Plans.

PJC/1136-002 – LANDSCAPE DETAILED PLANTING PLAN

The project landscape designer should verify any variations in the positions of trees or large shrubs at soft landscaping mobilisation if any unforeseen ground conditions or services are discovered during installation.

D. Contract Administrator (CA): Neilcott Construction (Client)

Creation & Implementation.

1. SITE PREPARATION WORKS

1.1 Site preparation includes the following works;

1.2 Removal of all debris from the site that may be left over from earlier ground works, land forming and the construction phases. Ensure that all temporarily hard standing ground surface material has been removed following the construction phases prior to landscape mobilisation with appropriate depth of BS topsoil applied at planting bed locations as referenced within landscape plans

PJC/1136-002 – LANDSCAPE DETAILED PLANTING PLAN

1.3 **Note.** Based upon Phase 2 Site Investigation Report by **GW Ground & Water – Geotechnical and environmental consultants** the follow extract is offered / stated within this specification regarding the Contamination Recommendations and Remediation Strategy for the proposed site including the provision of **410mm clean capping soils** imported to the soft landscape areas to be check by specialist Ground and water Limited engineer.

GW Ground & Water – Geotechnical and environmental consultants report extract:

GWPR4735/SIR/May 2022
Maple Road, Uxbridge UB4 9NQ
Dated May 2022 – Page 23.



8. CONTAMINATION RECOMMENDATIONS AND REMEDIATION STRATEGY

Based on the results of the intrusive works, chemical analyses and risk assessments undertaken, the following has been identified that requires further action:

- Three contaminants (Copper, lead and Zinc) have been found at unacceptable concentrations within the soils of the south of the site.

An Asbestos Management Strategy should be put in place so that any potentially asbestos containing materials are identified and removed from site in a suitable manner to prevent cross-contamination.

8.1. Soils

The highest exceedance of contaminants has been identified as zinc at ~1.6 times the assessment criteria. Since the exceedances are not considered to be significant (~5-6 times the assessment criteria), the BRE “Cover Systems for Land Generation” can be considered for the design of the cover system and is considered applicable within all soft landscaped areas.

Based on the available information within this report and the calculated thickness of clean cover required, it was proposed that the following remedial methodology should be undertaken within **all soft landscaping to the south of the car park**:

- A 410mm clean capping of soils;
- Validation of the clean capping system by a suitably trained Ground and Water Limited engineer.
- Full liaison must be made with the statutory authority, prior to the implementation of this remediation strategy and/or removal of soils from the site. All works must be undertaken to meet their approval.

8.1.1. 410mm Clean Capping of Soil

The capping system should be at least 410mm in thickness within all soft landscaping to the south of the car park. It is recommended that at least the top 150mm of the clean capping should comprise suitable topsoil for use as a growing medium. It is a requirement that this should be no less than 100mm thick.

All subsoil and topsoil must be fit for purpose to ensure that the receptors cannot come into contact with determinants that could be detrimental to their health. See ‘Imported Material’ Section 8.5. It has been assumed that for the principal contaminant of concern (zinc) a maximum concentration of 143 mg/kg will be present within the capping of soil.

The thickness of the capping system has been calculated based on a mixing zone of 600mm, assuming that they will not be implemented on a slope with a gradient in excess of 1 in 12 and are away from the influence of burrowing animals, such as rabbits and badgers.

8.1.2. Change in Level

In locations where site levels are to be lowered, Made Ground should be removed from the location to allow the capping of 410mm to be placed. Materials should be removed and stockpiled on an impermeable liner with raised edges and covered at all times. This contamination stockpile destined for removal from site should be stored away from imported soils to avoid cross-contamination. The void should then be backfilled with 410mm of clean certified soil.

Materials to be removed off-site must be classified by carrying out Waste Acceptance Produce (WAP) testing. A registered contractor must undertake the removal of waste. Consignment notes for the removal of waste must be obtained and kept for inclusion within the final validation Report.

If levels are raised, the imported materials should be clean and validated, where the top 410mm within areas of soft landscaping will still need to be covered with a clean capping of soil.

8.1.3. Validation

The remediation works outlined above will need to be inspected and independently validated by a Ground and Water Limited Engineer. All excavations will need to be inspected, documented and photographed. Validation holes should prove the depth of the clean cover and enable the sampling of soils. Due to the design of the proposed development, validation should be undertaken at a rate of 4 validation trial holes across the soft landscaping in the south with a sample taken from each location.

1.4 All waste material is to be removed from site during these preparation works prior to soft landscape installation phases.

1.5 Works Order: The programme for the landscaping works is to be set by the progress of the construction phases. Upon completion of each major construction phase, areas of Hard Landscaping associated with completed structure should be installed following drainage applications. Areas stated as to required BS Topsoil should be applied to correct depths at each location (as referenced within landscape plans)

Once suitably prepared, each area of planting can be installed with its soft landscaping elements. *Seasonal timing dependant due to bareroot hedge stock specified. (Seasonal window between end of November through to end March typically)*

Final surface finishes to pathways and patios should be completed once all 'heavy' soft works are completed where possible. [Tree planting / planting delivery / installation to prevent damage to any newly laid finished surfaces.

Mulch application and final soft works dressing should complete the site works.

2. PLANTING SPECIFICATION

To be read alongside drawings

PJC/1136-002 – LANDSCAPE DETAILED PLANTING PLAN

2.1 PLANTING SCHEDULE

TREES				
QUANTITY	SPECIES	HEIGHT (cm)	GIRTH	FORM / TYPE
3	Acer x freemanii Autumn Blaze	350-400	12-14 cmg	Std/CG
3	Acer platanoides subsp. Globosum	300-350	12-14 cmg	Std/CG
3	Betula utilis var. jacquemontii	300-400	12-14 cmg	Std/CG
3	Sorbus aucuparia	250-350	10-12 cmg	Std/CG

SHRUB & HERBACEOUS PERENNIALS				
QUANTITY	SPECIES	HEIGHT (cm)	POT SIZE (lt)	SPACING
56	Berberis darwinii 'Compacta'	20-30	2	800
14	Berberis thunbergii f. atropurpurea 'Concorde'	20-30	2	800
92	Berberis × carminea 'Pirate King'	20-30	2	800
5	Bergenia 'Rotblum'	20-30	2	400
17	Bergenia cordifolia 'Silberlicht'	15-20	2	400
9	Cistus × hybridus	20-30	2	800
15	Crocosmia × crocosmiiflora 'Emily Mckenzie'	30-40	2	800
25	Euonymus fortunei 'Emerald 'n' Gold'	30-40	2	800
1	Forsythia × intermedia 'Lynwood Variety'	15-20	5	800
7	Geranium macrorrhizum 'Ingwersen's Variety'	15-20	2	800
14	Hypericum × hidcoteense 'Hidcote'	30-40	2	800
12	Mahonia aquifolium 'Apollo'	30-40	2	800
9	Rosa Kent	30-40	3	800
36	Ruscus aculeatus 'John Redmond'	20-30	2	600
9	Skimmia × confusa 'Kew Green'	30-40	2	800
52	Tiarella 'Spring Symphony'	15-20	2	400
35	Verbena bonariensis	30-40	2	800
30	Viburnum davidii	30-40	2	800
25	Viburnum × juddii	30-40	3	800
GRASSES				
QUANTITY	SPECIES	HEIGHT (cm)	POT SIZE (lt)	SPACING
27	Anemanthele lessoniana	30-40	3lt	600
60	Luzula Snowflake	20-30	2lt	600
FERNS				
QUANTITY	SPECIES	HEIGHT (cm)	POT SIZE (lt)	SPACING
17	Dryopteris erythrosora	20-30	2lt	800

Fth: Feathered

Std: Standard

CG: Container Grown

GENERAL INFORMATION / REQUIREMENTS

2.2 SITE CLEARANCE GENERALLY

Remove all rubbish, concrete, metal, dead grass, decayed vegetation and any contaminated topsoil from planting areas.

Stone picking: Remove stones from planting areas, which exceed 75mm

Contamination: Remove any material containing toxins, pathogens, controlled species or other extraneous substances harmful to plant, animal or human life.

Vegetation: Clear all / any scrub within planting areas to ground level by flail mowing with all arisings removed from the area prior to planting.

Remove any remnants of old fence posts, wire and mesh disturbed by scrub clearance.

2.3 SOIL CONDITIONS

Topsoil within planting beds should be cultivated prior to planting to ensure moist, friable and not waterlogged conditions for planting.

Frozen or snow covered ground. Ensure planting pit sides and backfill materials are NOT frozen at time of planting. See planting plans for required subsoil and topsoil removal depths and replacement clean subsoil and topsoil depths as stated within contamination report.

2.4 CLIMATIC CONDITIONS

General: Only carry out planting works while weather and soil conditions are favourable for healthy establishment of planted stock.

Waterlogged soils: Do not plant within waterlogged ground conditions to prevent soil structure damage.

2.5 TIMES OF YEAR FOR PLANTING

Deciduous trees and shrubs: Late October to late March. (Root stock dependant)

Conifers and evergreens: September / October to April.

Herbaceous plants September / October or March / April.

Container grown plants: Year round, providing ground and weather conditions are favourable.

Note: Additional watering and weed control may be required. Provide as necessary,

2.6 MECHANICAL TOOLS

Proximity restrictions around existing and newly planted trees, shrubs, herbaceous plants.

Exclusion zone of 150mm.

2.7 WATERING

Water application to full-saturated depth of topsoil.

Method: Apply evenly and without damage to soils around plants root.

Frequency: Weather dependant.

2.8 WATERING RESTRICTIONS

If emergency legislation restricts water supply, seek instruction from contract administrator prior to likely watering requirements.

2.9 NOTICE

Give notification to contract administrators prior to the following actions.

Herbicide application

Setting out

Delivery of plant / machinery and planting stock to site

Planting operations

Watering

Maintenance visits.

Period of notice: One full working week at a minimum.

2.10 PLANTS / TREES – GENERAL

Condition: Sturdy, Healthy – free of pests and diseases, signs of vigorous growth and undamaged.

Appearance: Good uniform shape with no elongated ‘leggy’ shoots showing signs of stressful growth.

Hardiness: Grown in a suitable environment and hardened off prior to supply.

Health: No sign of discolouration, growing medium free from weed growth and free from pests.

Root system: Signs of balanced root system with good form branch structure.

Species: Label true match to species.

Origin / Provenance:

- **Region 405** where reasonably possible.
- **British provenance.** Trees Must have 12 months confirmed quarantine.

2.11 PLANTS / TREES – SPECIFIC.

Name, form, dimensions and root type to match specified schedules within Landscape Planting Plan.

2.12 CONTAINER GROWN PLANTS / TREES

Growing Medium: Supplied with nutrients to allow plant to thrive until permanently planted into the landscape.

Plants: Centred centrally within containers, firmed and well watered.

Root growth: Good substantial pot filling and in a condition allowing successful removing from pot and planting. Not Root Bound.

Hardiness: Grown in the open at nursery for a minimum of 2 months prior to supply.

Containers: Grown and supplied in containers with adequate drainage holes.

2.13 PLANT / TREE SUBSTITUTIONS

Approval to be sought from contract administrator prior to any substitutions.

Alternatives to be proposed with any cost difference highlighted.

2.14 PLANT HANDLING, STORAGE, TRANSPORT AND PLANTING

Frost: Suitable protection from frost to be in place during storage and transport.

Handling: Plant stock to be handled with care to reduce shock and damage. Protect from mechanical damage during transport – loading / unloading.

Packaging of bulk quantities: Box pallets sealed with polyethylene and shrink wrapped for short time frames only. Maximum wrapped duration of 48 hours if possible.

Planting: Plant stock to be positioned with best side to front to an upright angle.

2.15 SURPLUS MATERIAL

Subsoil, stones, debris, wrapping material, canes, ties, labelling, rubbish, prunings and any other arisings to be removed from the area upon planting completion.

PREPARATION OF PLANTING BEDS / PLANTING MATERIALS

2.16 CULTIVATION

Compacted topsoil: Break up and cultivate all soil to full depth prior to planting.

Cultivation: Aerate soils with particles broken to approx. 2-8mm where possible.

Timing: within 48 hours of planned planting.

Weather: Suitably dry.

Undesirable material brought to the surface: Roots, large stones, weeds to be removed as waste.

Soil with root spread. Do not dig or cultivate existing roots.

PLANTING SHRUBS & HERBAIOUS PERENNIALS

2.17 SHRUB & HERBAIOUS PLANTING PITS

Timing: excavate a maximum of 48 hours prior to planting.

Pit sizes: 150mm wider than root ball and a minimum of 300mm in depth.

Pit bottom: Improved with 25g of slow release fertilizer per planting pit and soil broken up.

2.19 AFTER PLANTING

Watering: Immediately following planting.

Firming: Firm soil around plants with a gentle camber. Ensure no Air hollows are present.

2.20 MULCHING

Material: Medium grade organic ornamental bark mulch.

Free from debris and foreign materials.

Preparation: Clear all weeds prior to mulch application.

Water ground thoroughly. Depth: 75mm

PLANTING TREES

BS8545:2014

Trees: from nursery to independence in the landscape – Recommendations.

2.22 See

PJC/1136-002 – LANDSCAPE DETAILED PLANTING PLAN

TREE PIT POSITIONS

Approx. positioning of tree pit system below ground dependant on local ground conditions and services.

M&E engineer & site contractor to have final positioning.

2.23 TREE SUPPORT

As specified within **PJC/1136-002 – LANDSCAPE DETAILED PLANTING PLAN**

Staking System:

12 x Large kits required in total:

12 x Double round stake kits with half round cross bar, rubber Arb block and strapping.

2.24 TREE PIT ACCESSORIES

As specified within **PJC/1136-002 – LANDSCAPE DETAILED PLANTING PLAN**

Tree Pit Irrigation System:

12 x RootRain Urban: The RootRain Urban is a large capacity irrigation system with a fixed grid inlet, particularly suited to open space and roadside verge tree planting in softscape.

Spec. Length: 3m Diameter: 60mm Inlet (Stainless Steel) 80mm Weight: 1kg.

Manufacturer: Green Blue Urban. www.greenblue.com 0800 018 7797 (or similar)

Approx. positioning of tree pit system below ground dependant on local ground conditions and services.

M&E engineer & site contractor to have final positioning.

2.25 TREE PIT BACKFILL MATERIAL

Backfill material: Incorporated organic composting materials and slow release feed.

Fertilizer: Organic

Application: to manufacturers / suppliers recommendations.

2.26 MULCHING TREES

Material: Medium grade organic ornamental bark mulch.

Free from debris and foreign materials.

Preparation: Clear all weeds prior to mulch application.

Water ground thoroughly.

Depth: 75mm

PROTECTING / MAINTAINING / MAKING GOOD DEFECTS

2.27 MAINTENANCE

Duration of maintenance: From the completion of planting until the end of the rectification period. 12 months.

2.28 FAILURES OF PLANTING

Defects due to materials or workmanship not in accordance with Contract:

Trees, shrub and *herbaceous perennial* plantings that have failed to thrive within first 12 months following planting.

Exclusions: Theft or malicious damage after completion.

Rectification: Replace with equivalent tree / shrub / whip.

Replacements: To match size of adjacent plants of same species.

Timing: Make good failures during the next suitable planting season.

2.29 CLEANLINESS

Soil and risings: Remove from surrounding grass areas.

General: Leave the works area in a clean tidy condition at completion and after any maintenance operations.

2.30 PLANTING MAINTENANCE GENERALLY

Weed Inc. Grass control: Maintain a weed free area around each planted tree / shrub.

Diameter: a min of 1 metre from each stock item.

Precautions: Ensure that no damage is caused to planted stock by the use of mowers, nylon cord or similar powered tools.

Staking / Guying: Check condition of canes, rabbit guards / guying at each maintenance visit. Broken or missing items should be replaced at time of discovery.

Rubbing: prevent any rubbing or restrictions caused by guards. Adjust or prune where required. Frequency: at each scheduled maintenance visit.

Firming: Gently firm any loosened soil around the base of planted stock.

Straighten any leaning stock.

Watering: as required allowing plants to thrive.

2.31 PLANTING MAINTENANCE – PRUNING

General: prune to promote healthy growth and natural shape.

Dead, dying, diseased wood and suckers should be removed.

Timing: In accordance with best practice guidelines and maintenance schedules.

Arisings: to be removed from site.

3. GRASSWORKS

GENERAL INFORMATION / REQUIREMENTS

3.1 GRASS AREAS

Growth and development: Healthy, vigorous grass sward, free from the visible effects of pests, diseases and weeds.

3.2 CLIMATIC CONDITIONS

General: Carry out the works while weather conditions are suitable and soil temperatures are within manufacturers / suppliers guidelines.

3.3 WATERING

Water application to full-saturated depth of topsoil.

Method: Apply evenly and without damage to soils level.

Frequency: As necessary to ensure healthy establishment and continued development of all seeding.

3.4 WATERING RESTRICTIONS

If emergency legislation restricting water supplies are applied, seek instruction from contract administrator prior to likely watering requirements.

3.5 NOTICE

Give notification to contract administrators prior to the following actions.

Herbicide application

Setting out

Delivery of plant / machinery and planting stock to site

Watering / Maintenance visits.

Period of notice: One full working week at a minimum.

3.6 SETTING OUT

Boundaries: Clearly defined and marked prior to turfing area cultivation / preparation / application.

Delineations: Smoothly flowing curves as shown on Landscape General Arrangement Plan and Soft Landscape Detailed Planting Plan.

PJC/1136-002 – LANDSCAPE DETAILED PLANTING PLAN

PREPARATION OF GRASS AREAS – TURF

3.7 CLEARANCE BEFORE GRASS / TURF APPLICATION

Operations: Clear all ground debris and evenly level across all directions.

3.8 FINAL CULTIVATION

Timing: After grading of surface material.

Turf Areas: Reduce to fine, firm tilth with good crumb structure suitable for direct turf application. Depth: 25mm

Surface preparation: Rake to a true, even surface, with no compaction.

Removal: Clear surface stones over 50mm in diameter.

Adjacent levels: Extend cultivation into existing adjacent grassed areas to sufficient grade to ensure full marriage of levels. (where appropriate)

3.9 GENERAL LANDSCAPE TURF

Coverage Area: 665m²

Supplier: DLF Trifolium – 01386 791102 – www.dlf.co.uk

PRO TURF 3 (WITH RYE ECONOMY) - DLF TRIFOLIUM - or approved similar

30%	Stravinsky	- perennial ryegrass
45%	Rossinante	- strong creeping red fescue
25%	Wagner	- chewings fescue

3.10 QUALITY OF TURF FOR ALL GRASSWORK AREAS

Certification: Seed /Turf supplied with certificate of quality from suppliers.

3.11 CLEANLINESS

General: Leave the works area in a clean tidy condition at completion and after any maintenance operations.

3.12 FAILURES OF GRASSWORKS – TURF

Duration: Carry out the following operations from completion of turfing until: The end of 12 months defects / maintenance period.

Defective materials or workmanship: Areas that have failed to thrive.

Exclusions: Theft or malicious damage.

Method of making good: Recultivation and seed patching as required.

Timing of making good: Next suitable planting season.

BRITISH STANDARDS OF NOTE.

- BS 4428:1989 Guide of practice for general landscape operations (excluding hard surfaces)
- BS 3936-1:1992 Nursery stock specification for trees and shrubs
- BS8545: 2014 Trees: From nursery to independence in the landscape.
- BS 5837:2012 Trees in relation to design, demolition and construction. Plus conforming to arboricultural method statements.
- Standard Specification for Topsoil Used for Landscaping Purposes

Contact details

PJC Consultancy Ltd
PJC Sussex Office
Rocks Yard,
Victoria Road,
Herstmonceux,
Hailsham,
East Sussex,
BN27 4TQ

Tel: 01323 832120

E-mail: Contact@pjcconsultancy.com



Author: Tim Ruffles

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