

Transitional Care Facility at Unit 21  
First Avenue, Cookstown Industrial  
Estate, Dublin 24

Landscape Report

Prepared for:  
Bartra Property Cookstown Limited

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## 1.0 Site Context

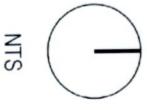
### 1.1 Site Location

The site is situated within the Cookstown Industrial Estate, north of the town centre of Tallaght, Dublin 24, approx. 9km southwest of Dublin City Centre. Cookstown Estate has direct frontage to the Belgard Road and adjacent to the M50 motorway with direct motorway access to all national arterial routes. Located approx. 500m from the site, 'Belgard' Red Line Luas station provides a direct service to Dublin City Centre, with a travel time of about 25 minutes to Heuston Station. Dublin Bus services both the surrounding suburbs and Dublin city centre, while the M50 motorway is situated less than 1.7km from the subject site. There is a wide selection of schools and supermarkets within the local area. The Square Tallaght is an approx. 20min walk from the site, Belgard Retail Park is an approx. 15min walk and TU Dublin Campus is an approx. 15min walk.

### 1.2 Existing Site Condition

The main development site is approximately 1.39 hectares in area and currently comprises of a vacant one / two -three storey commercial unit, a number of smaller structures/ units along the western boundary, the associated car parking to the north and west boundary, and a small cafe to the eastern boundary. Perimeter planting of mature Poplar trees lines the sites boundaries along both adjacent public roadways. The site is bounded by First Avenue to the north, Cookstown Road to the east and neighbouring industrial units to the south and west. The site's existing topography sees a fall across the site from a high point of + 103.81m in the north west corner, to a low of +101.75m in the south east corner, a level difference of some 2 metres.

**Note:** Boundary lines shown for illustrative purposes only



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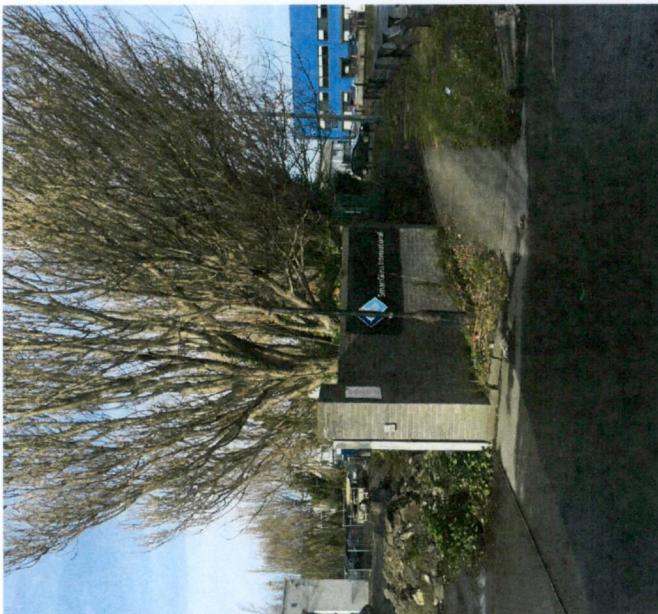
NTS



Overgrown vegetation of bramble, ivy and Buddleia - facing west



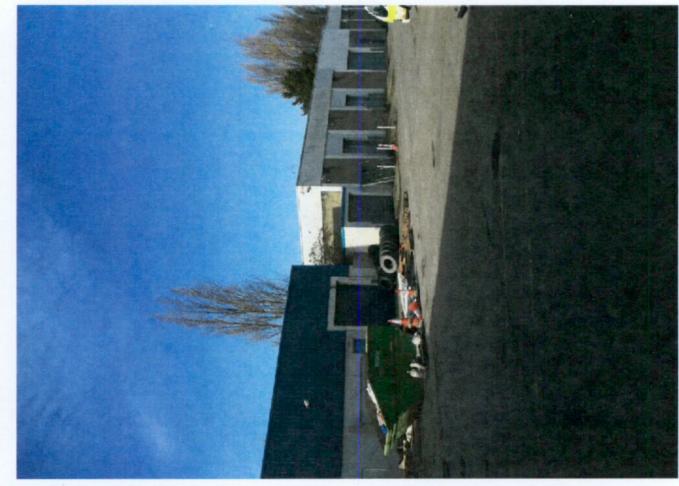
Northern / western car park and boundary tree line - facing west



Eastern gate site entrance / boundary tree line - facing north



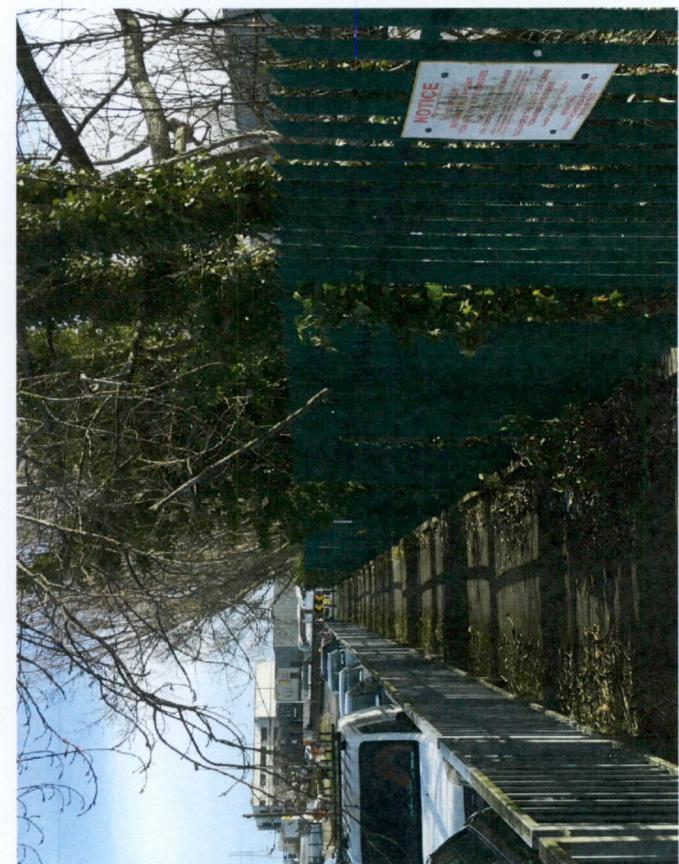
View of site from First Avenue / Cookstown Road roundabout - facing south



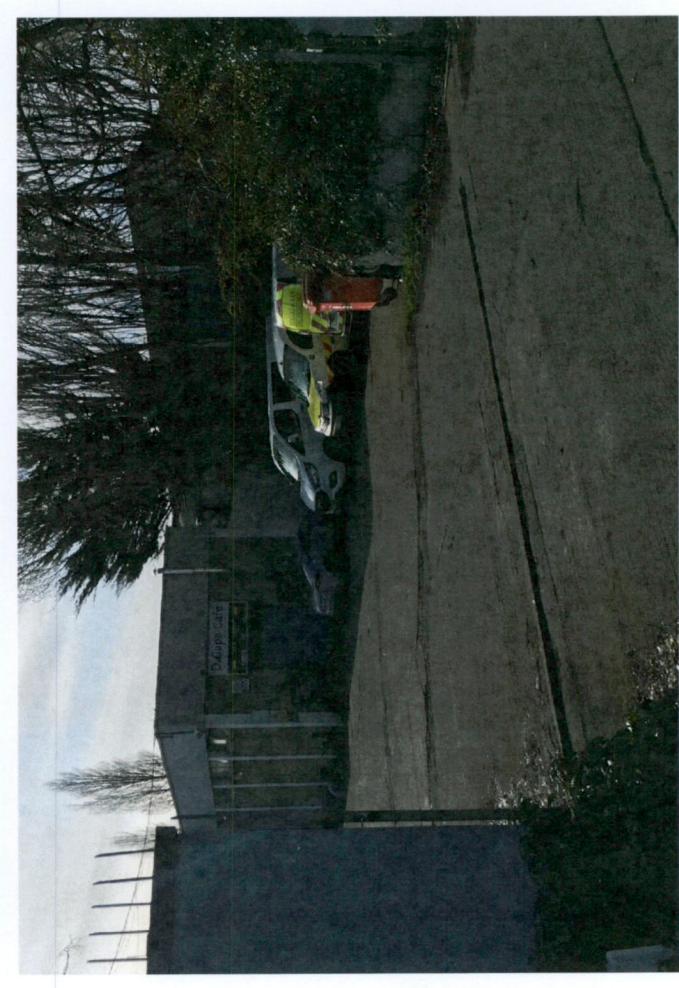
Industrial warehouse units



Former commercial offices unit entrance



Northern flat bar railing boundary - facing east



Northern controlled gate site entrance / on-site cafe

## 2.0 Landscape Proposals

### 2.1. Site Planning

The proposed development lies within the Cookstown Industrial Estate, Tallaght. The Cookstown Estate is predominately low density, commercial development comprising industrial and commercial units lining an internal road network. It has vehicular links to the Belgard Road, which in turn links to the N81 (Tallaght By Pass), the N7 (Naas Road) and the M50 motorway. Tallaght Village and Tallaght Town Centre are a short drive away.

The Cookstown Estate is identified for development within the Tallaght Town Centre Local Area Plan (LAP), 2020-2026. With the primarily commercial uses within the estate being proposed to be replaced on an incremental basis through the development a of new, mixed use urban centre being the objective. The site planning on site has set out two main development blocks, a residential apartment block and a Transitional Care Facility, both with internal, courtyard open spaces. The Transitional Care Facility is to be located to the north west of the site with frontage on to First Avenue, and the residential apartment block to be located to the east of the site, fronting on to Cookstown Road and First Avenue. Both development blocks are proposed to be on an approximate north south alignment. The apartment block is proposed to have active frontage at ground level fronting onto the Cookstown Road. The setting out of the proposed apartments and Transitional Care Facility blocks creates an internal street, which is to be a pedestrian friendly, traffic calmed environment and is to include on street parking and tree planting. The one-way internal street will have a junction with First Avenue in the north of the site and junction with Cookstown Road in the east. In the south west corner of the site is the development's public open space, a pocket park is proposed to be delivered as part of this development application and will in time form part of a larger, local park in this location as outlined in the LAP objectives for Cookstown.

### 2.2 Public Open Space

The proposed development's Public Open Space will comprise a pocket park, planned for the south west corner of the development. The park is anticipated to form part of a larger, local neighbourhood park in this area as the incremental development of the surrounding Cookstown Estate progresses. The proposed pocket park to be delivered as part of this development will be some 1286 sqm in area and comprise a formal lawn area with a framing of tree planting. The lawn will also contain play elements in the form of balance beams and a totter trail on a safety surface of 'Safa' matting set in amongst tree planting. Within the lawn area and tree planting, stone boulders or erratics will be placed, offering another playful dimension to the space. The combined elements catering for a natural, unscripted form of play. The open space will also feature a paved seating area with bespoke, hardwood bench seating, pollinator friendly planting mixes and specimen tree planting.

As a sustainable approach to the site development and referencing the site's present industrial nature, salvaged pieces of insitu concrete are proposed to be broken up and shaped to form playful stepping stones within the border of the formal lawn. Planting of meadow grasses and wildflower amongst the stepping stones being proposed to increase biodiversity within the park.

The proposed park will also feature an east west shared pedestrian and cyclist route some 3 metres wide. This route is anticipated to be continued through the larger neighbourhood park and form a link to the future neighbouring development blocks and streets to the west, as set out within the Tallaght Town Centre LAP. At the public opens space's western edge, at the development site's boundary, it is proposed to form a temporary fixed boundary comprising a paladin fence with hawthorn hedging and a tree line. This boundary will be eventually decamped, with the tree planting proposed to be transplanted for use elsewhere in the neighbourhood park.

Included in this document is an indicative sketch proposal for the wider neighbourhood park which demonstrates how the current development and its Public Open Space can, in time form part of the wider neighbourhood, linking the proposed development and its open space through its circulation network to the adjoining future development blocks and streets, as set out in the LAP. Please see Figures 1 & 2.



Fig. 1 Development Context: Local Area Plan, indicative blocks layout

- Application Site Boundary
- Proposed LAP Tertiary Route
- Existing / Improve LAP Primary Route
- Existing / Improve LAP Secondary Route

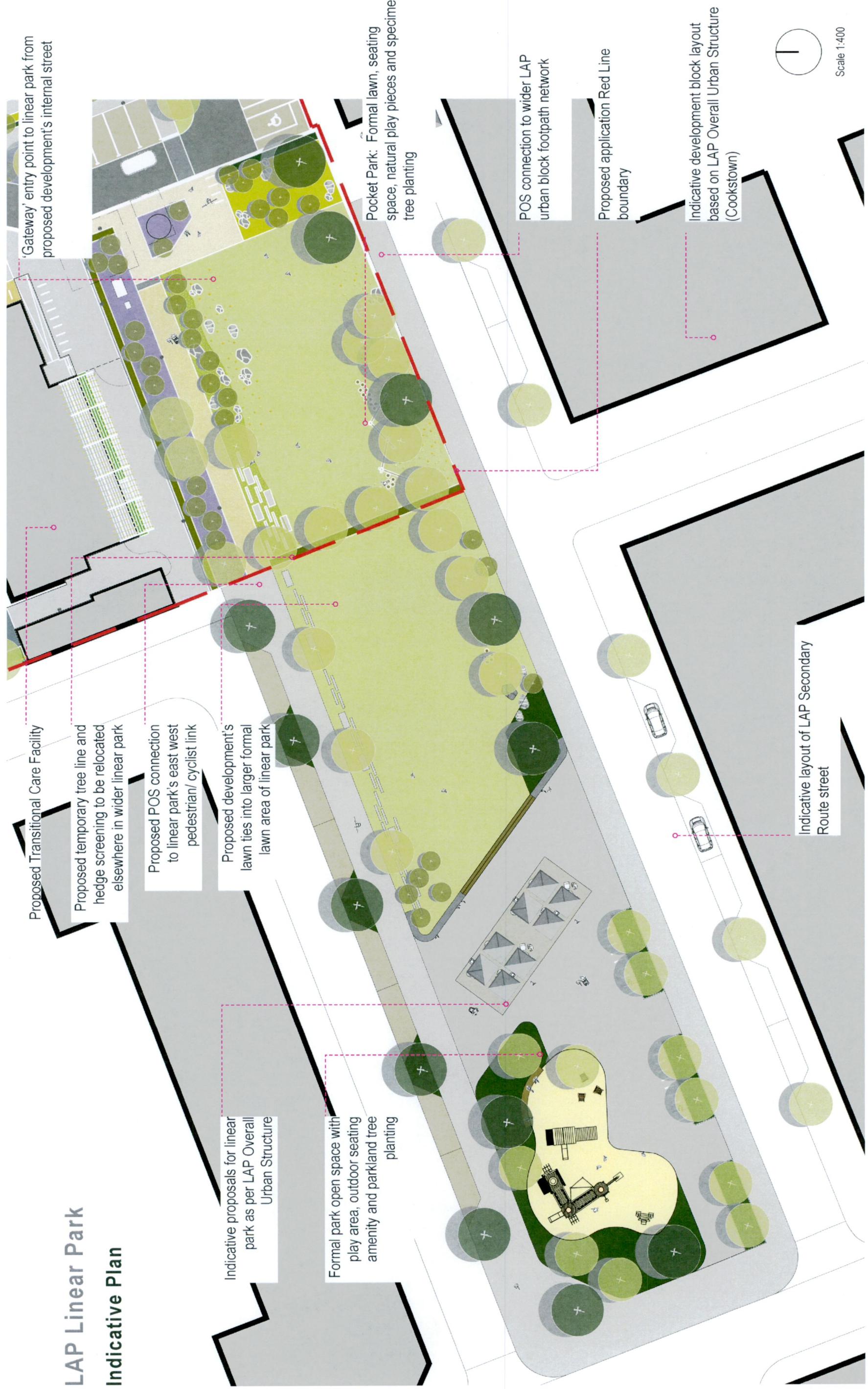


Fig. 2 Local Area Plan - Indicative Pocket Park Sketch Plan

### 2.3 Cookstown Road & First Avenue

Currently the existing Cookstown Estate internal streets of First Avenue and Cookstown Road offer very little to the public realm. The proposed development will seek to create a suitable urban streetscape in line with objectives within the Tallaght Town Centre LAP. Ground floor units are proposed within the apartment block building with frontage on to Cookstown Road and First Avenue offering opportunity for external café seating. On street parking with street tree planting will also contribute to the creation of a comfortable and attractive urban streetscape.

### 2.4 Internal Street

The development's internal street is proposed to lie between the residential and Transitional Care Facility development blocks. The street is proposed as a one-way system and as such is to be a pedestrian & cyclist friendly, traffic calmed environment. The street will have on street parking and be overlooked by the adjoining Assisted Living and future Apartment Residential units. Street trees are proposed amongst the parking bays, the street tree pits are to contribute to the development's SuDS approach with an infiltration type system designed to take run off from the carriageway into the pits.

### 2.5 Transitional Care Facility Courtyard Garden

The development's Transitional Care Facility block is designed with a primary, communal open space at its heart in the form of a courtyard garden. The garden will feature three island planters containing specimen & small flowering tree planting and a planting mix of herbaceous perennials and ornamental grasses providing a planting palette with seasonal colour and movement to be enjoyed by residents. The arrangement of the planters offers a circuitous walking route through the garden space for residents to enjoy the planting. The planting islands will also feature seating edges in the form of benches with arm and back rests for user comfort. The courtyard garden will also provide for break out space from the adjacent common room dining area with moveable outdoor furniture in place. Residential units fronting on to the courtyard garden will enjoy a level of privacy through a border of planting and vertical planting through wire trained climbers will provide further planting interest at the building façade.

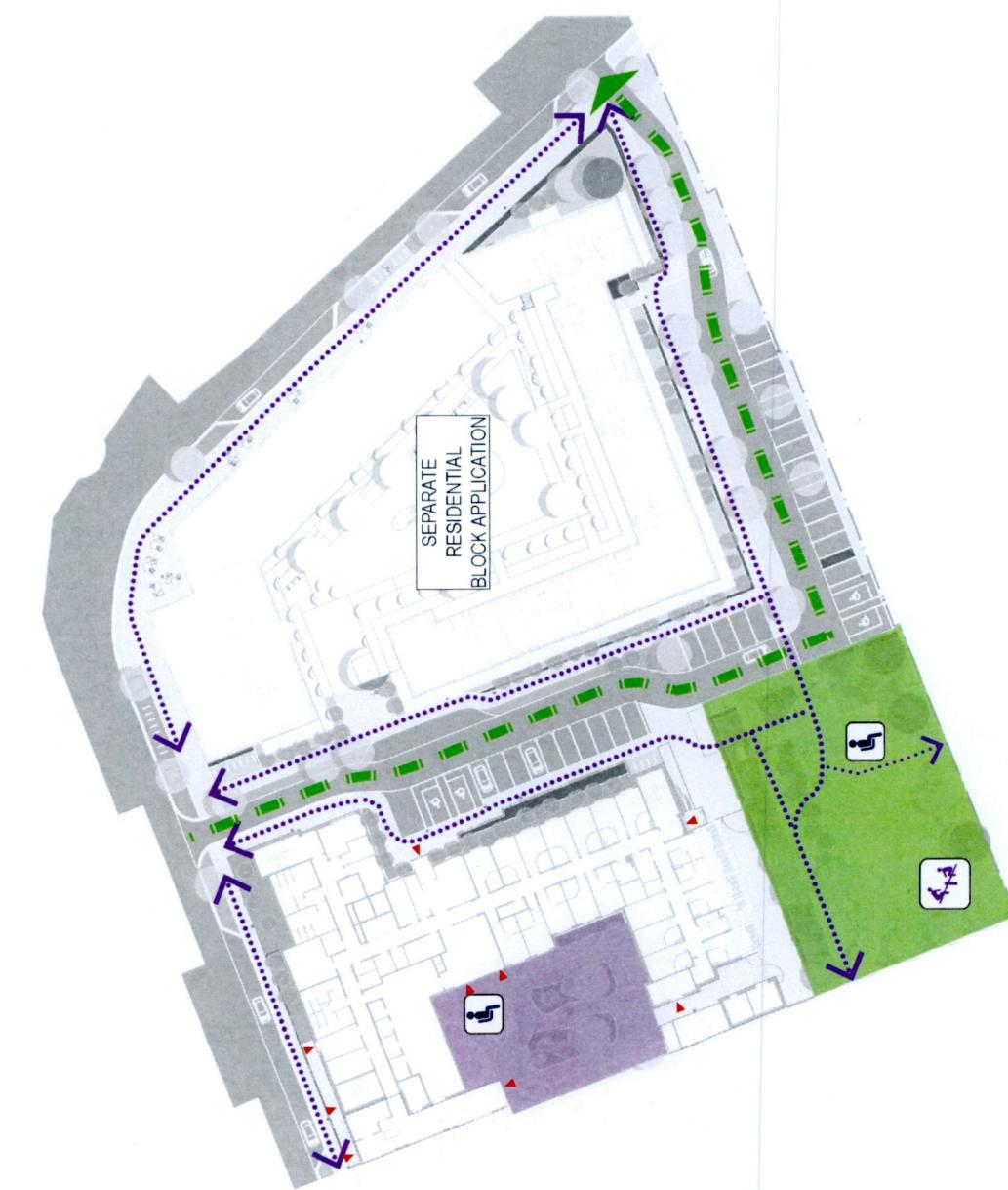
The southern elevation of the Transitional Care Facility will overlook the development's public open space. To soften the view of this façade and make a stronger greening connection with the adjacent public park, an architectural pergola is proposed with vertical posts and steel cable cross cable for planting support. The structure will extend over the first-floor level of the Transitional Care Facility in this location and is proposed to have climbers trained on it.



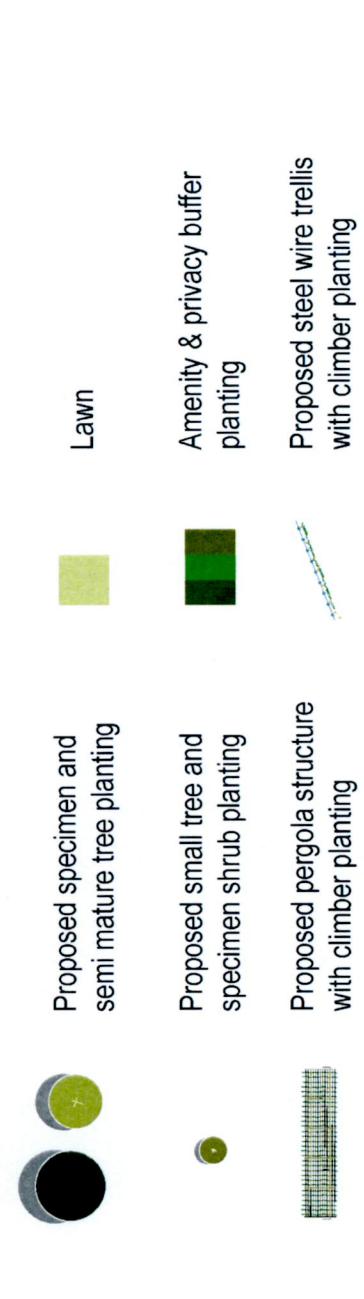
Large format concrete feature steps with salvaged in-situ concrete from existing site

## Landscape Strategies

### First Avenue, Cookstown

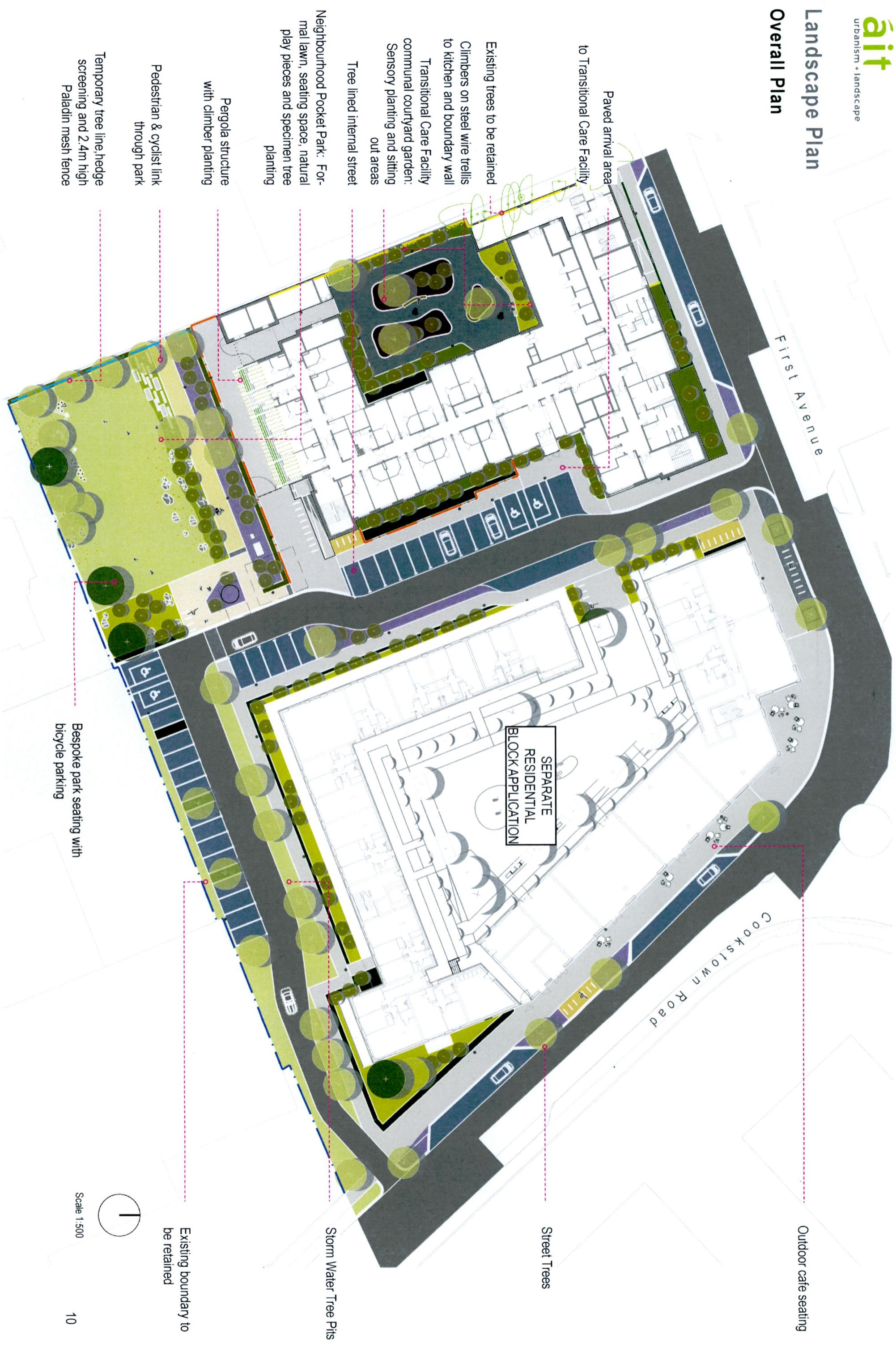


**Primary Circulation & Spaces**



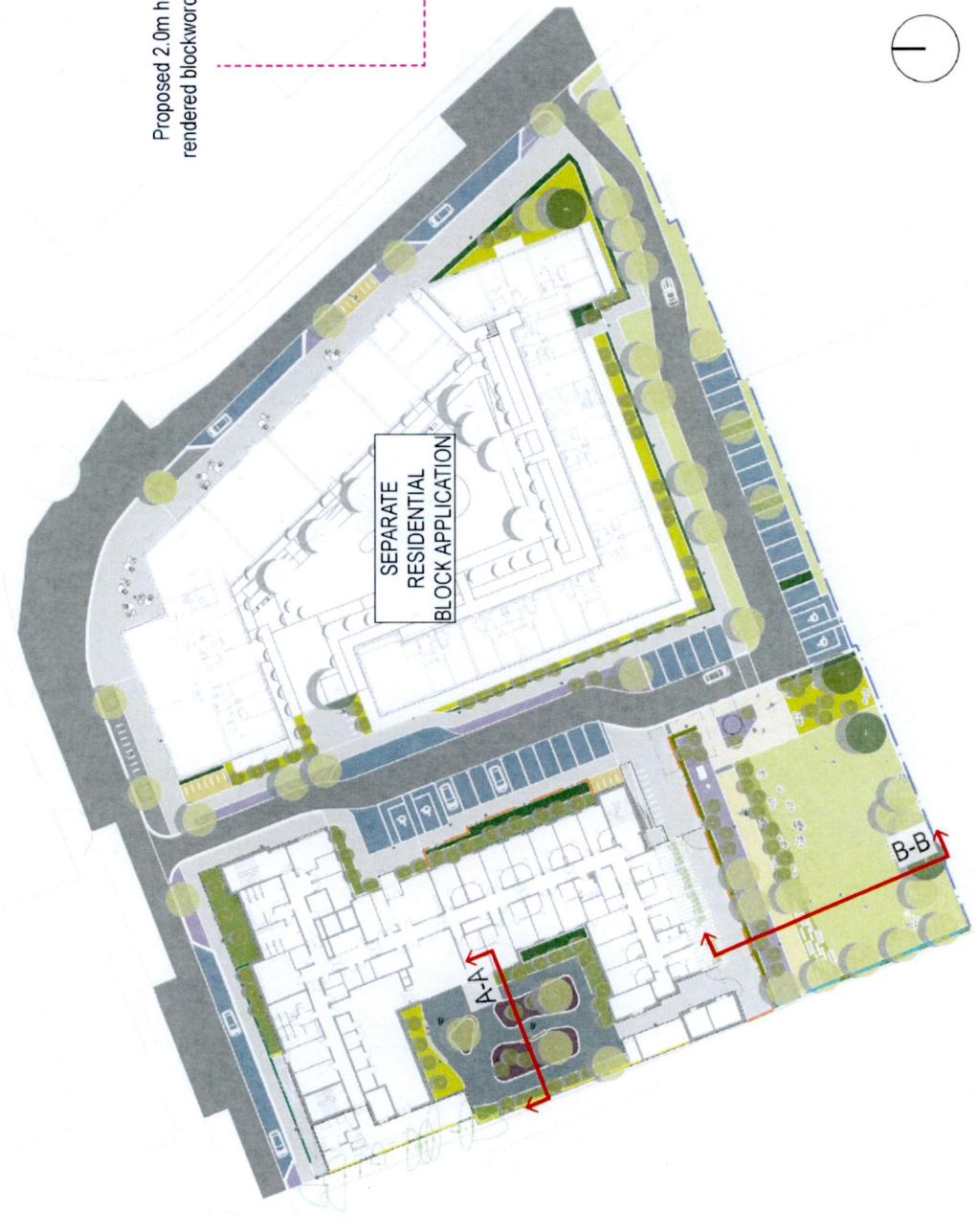
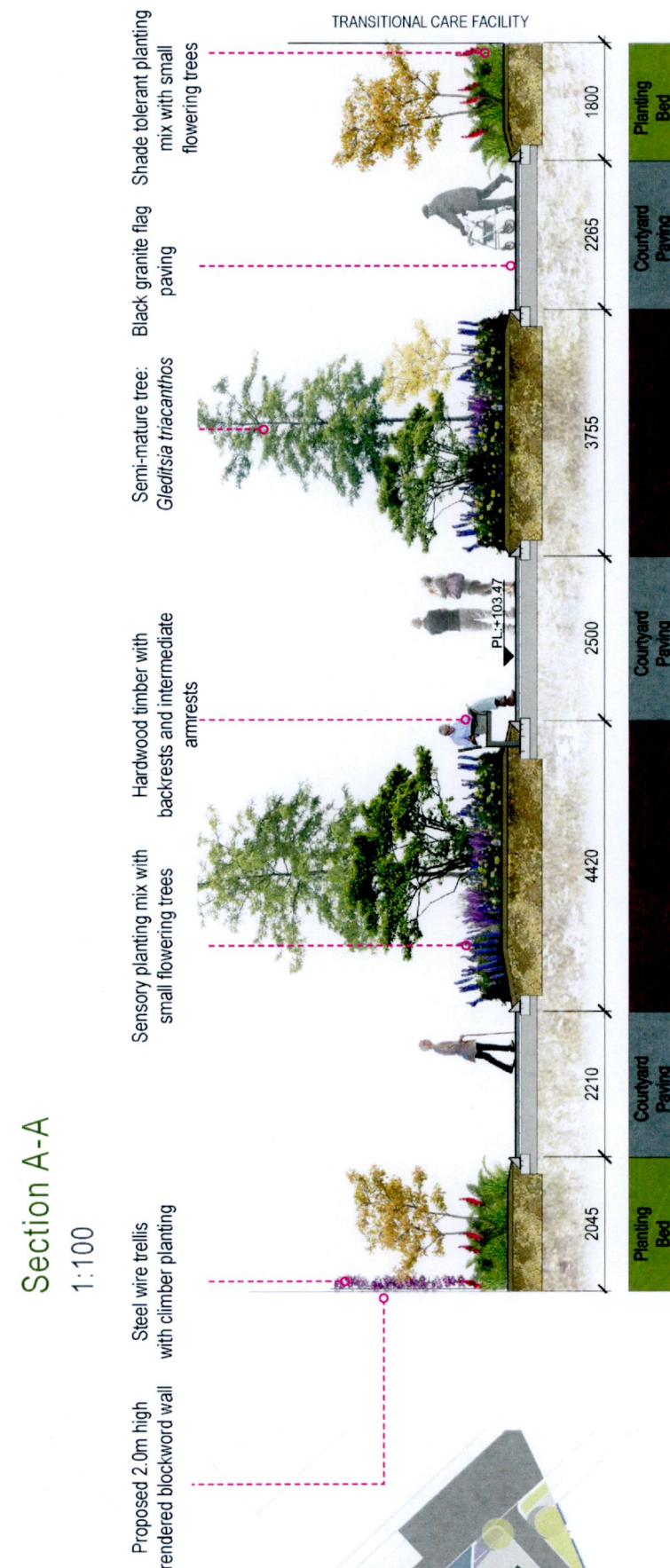
**Proposed Tree Planting & Greening**

## Landscape Plan Overall Plan



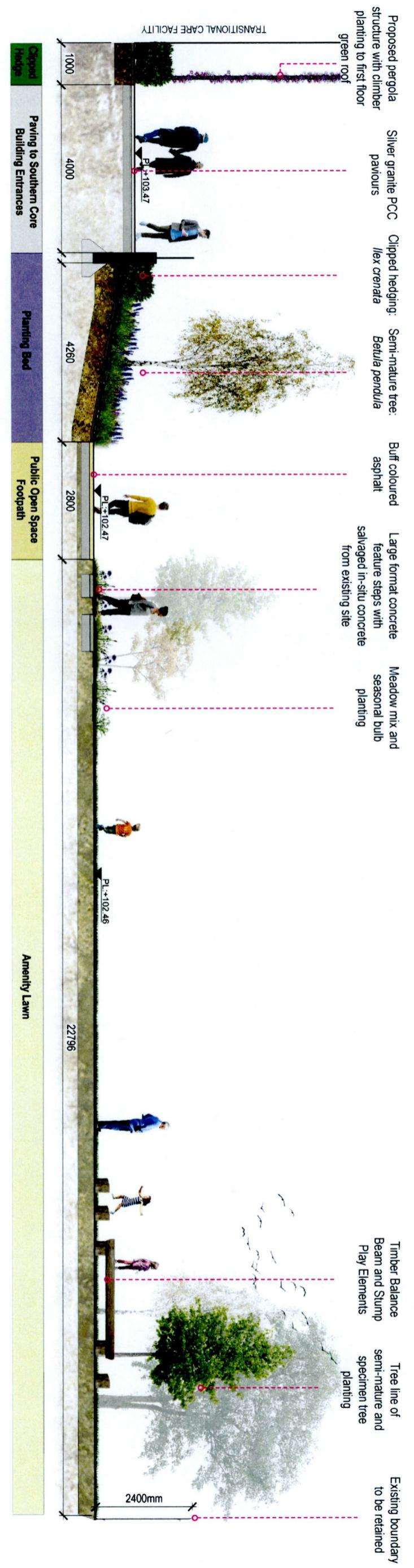
Scale 1:500

## Landscape Cross Sections

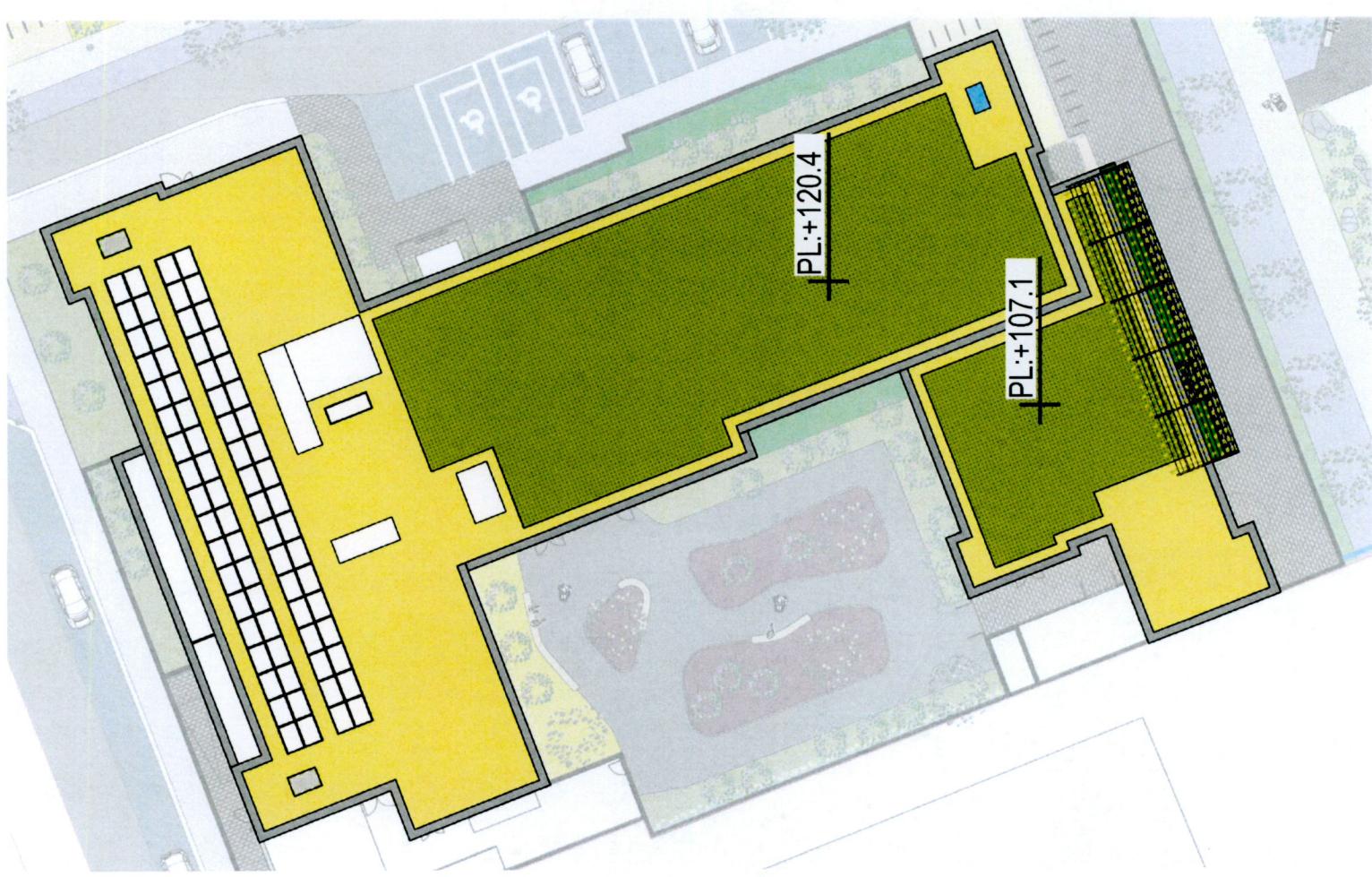


1:1000

**Section B-B**  
1:100



## Green Roof Plan



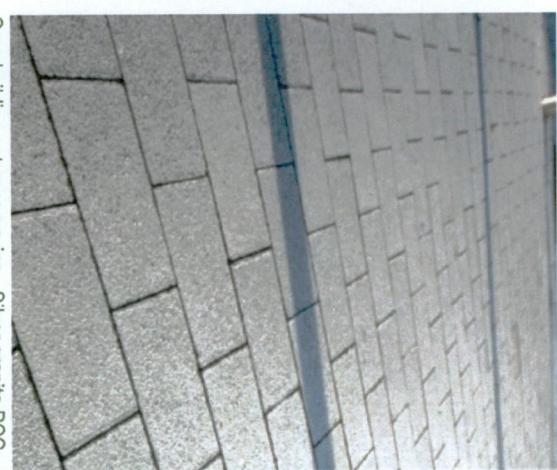
- Sedum green roof
- Gravel - mixed rounded quartzite and granite 20-40mm
- Pergola structure with climber planting

Scale 1:400

### 3.0 Hard Landscape Materials & Furniture



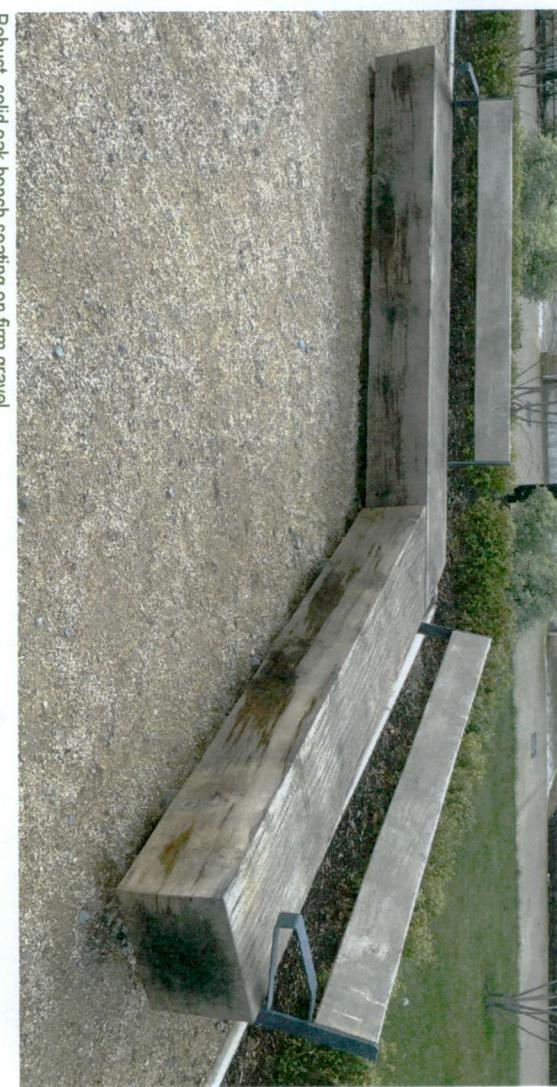
Residential courtyard with exposed aggregate concrete surface and tree planting



Core building entrance paving - Silver granite PCC pavements



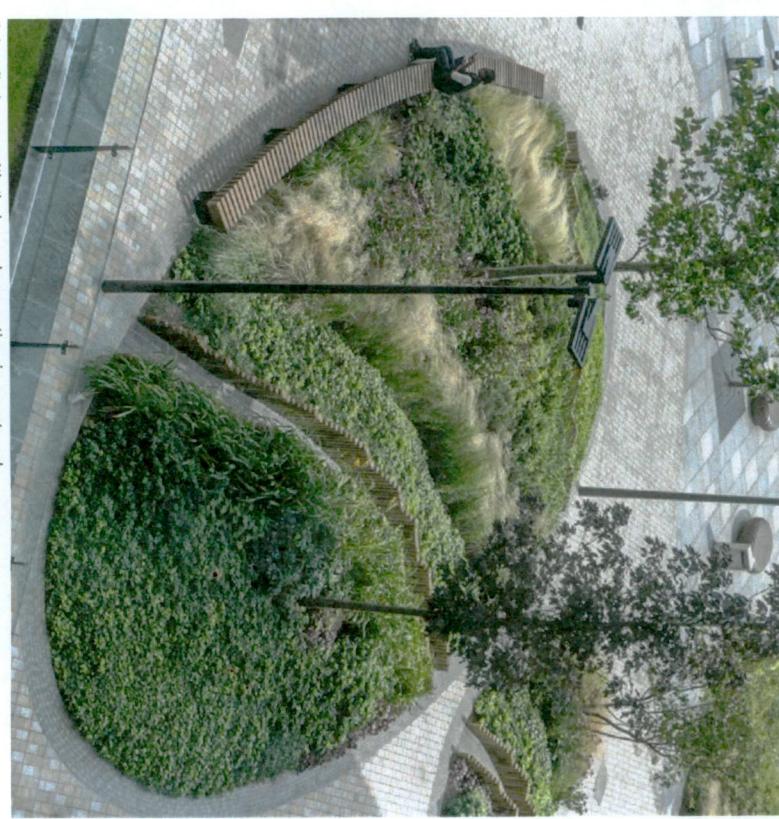
Stainless steel bicycle stands on firm gravel



Robust, solid oak bench seating on firm gravel



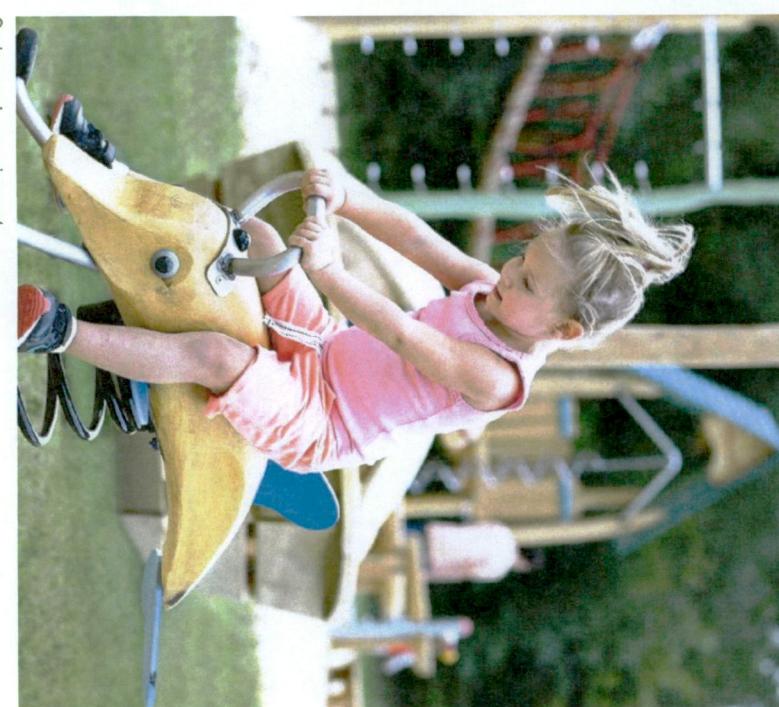
Steel frame bistro style table & chairs sets



'Island' planter with timber edge seating in courtyard



Nature play trail



Springer play equipment

## 4.0 Soft Landscape Materials

Herbaceous & Grasses Mix A

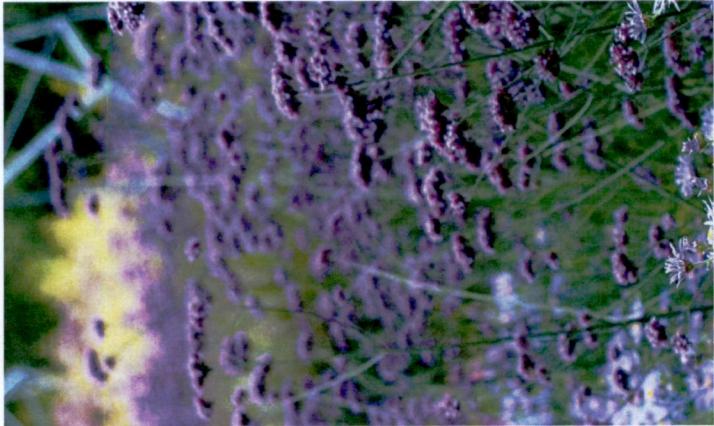


*Calamagrostis x acutiflora 'Karl Foerster'*

Herbaceous & Grasses Mix B



*Luzula sylvatica*



*Verbena bonariensis*



*Digitalis purpurea 'Alba'*



*Allium 'Purple Sensation'* with grasses and  
*Salvia nemorosa*



*Agapanthus africanus 'Albus'*



*Molinia caerulea subsp. Arundinacea*



*Carex morrowii 'Ice Dance'*

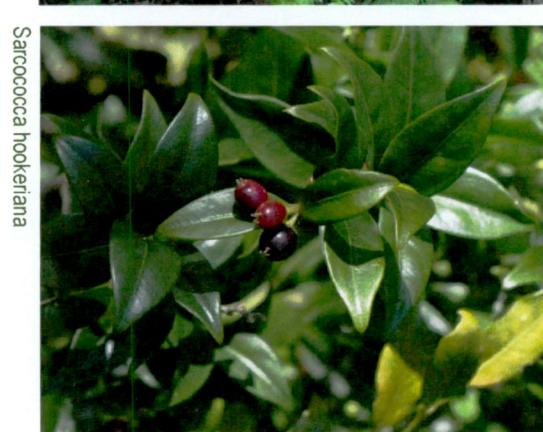


*Salvia nemorosa c. vars*



*Verbena hastata 'Alba'*

## Shade Tolerant Mix



## Sensory Mix



## Climbers



Artemesia absinthium

Helichrysum-italicum

Climbers trained on stainless steel trellis

Salvia argentea

Rosmarinus officinalis c. vars

Climbers trained on stainless steel trellis

Astilbe chinensis

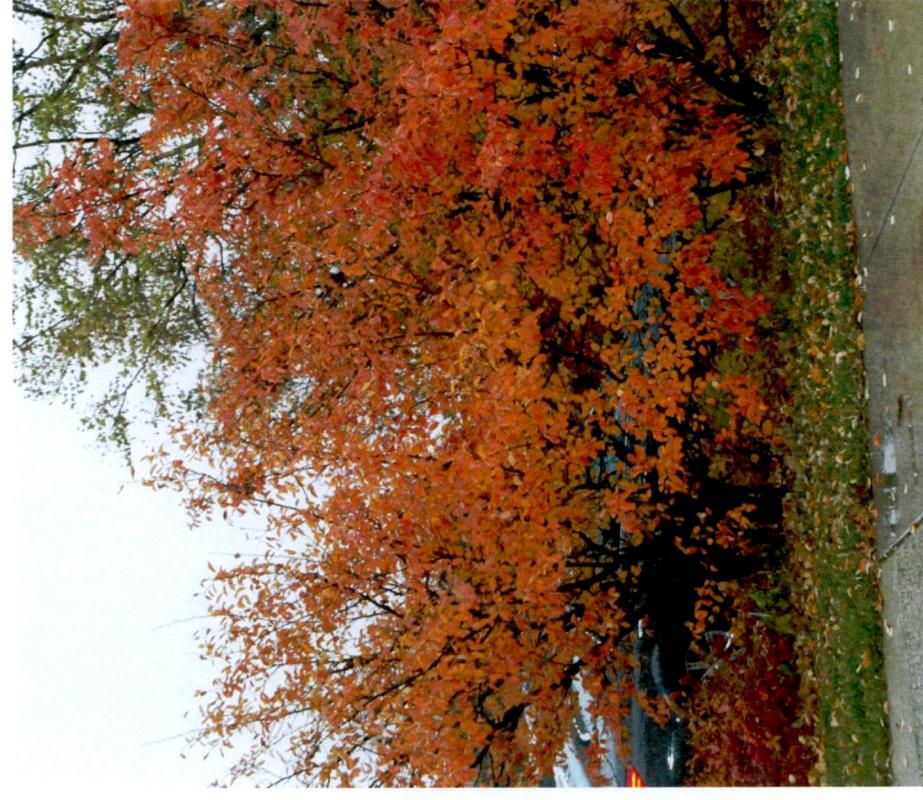
Brunnera macrophylla

Rodgersia pinnata

Athyrium filix-femina

Sarcococca hookeriana

Proposed Small Flowering Trees



*Amelanchier lamarckii*: White flower April & May with great autumn colour Multi stem small flowering tree



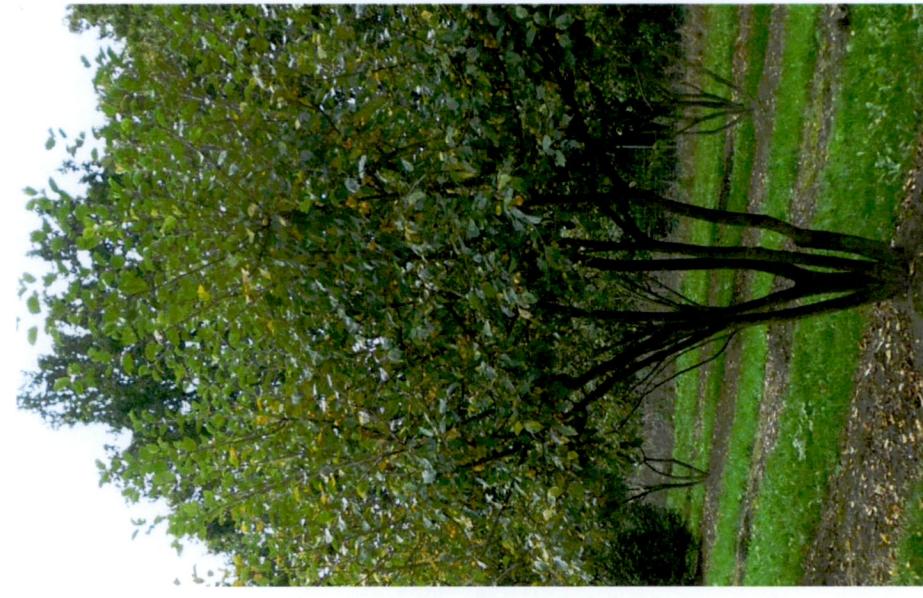
*Magnolia 'Kobus'*: Large white flowers born on bare stems in spring, small flowering tree.



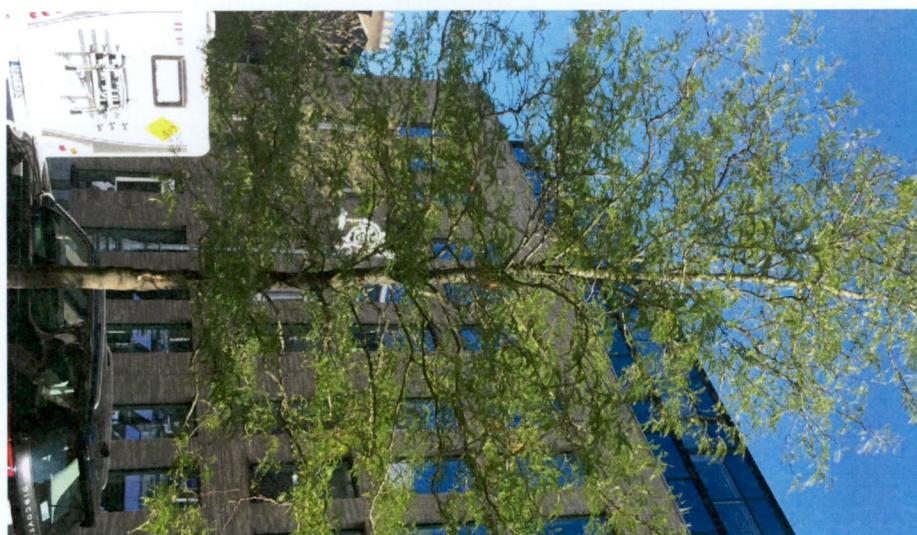
*Prunus serrulata c var. 'Winter Gold'*: Spring flowers born on bare stems textured bark for winter interest.



*Malus 'Winter Gold'*: Its clusters of reddish pink buds open to white flowers in mid spring followed by bright yellow fruit in autumn



## Proposed Semi-Mature Trees



*Gleditsia triacanthos* - Honey Locust  
Leaves bipinnate, with small leaflets, golden-yellow in early summer, becoming greener in summer



*Betula pendula* - Silver Birch  
Native species with small leaf and interesting bark



*Tilia cordata 'Greenspire'* - Lime  
Glossy dark green, heart-shaped leaves to 8cm in length, turning yellow in autumn  
Installation: 4.5-5.0m height, 1.5-2.0m spread



*Prunus avium* - Sweet Cherry  
Bowl-shaped white flowers in April and May. Autumn leaves turn fiery red and orange. Shining reddish-brown bark and a broadly conical shape



*Quercus robur* - Oak  
Broad and spreading crown with sturdy branches beneath and Autumn fruit

## 5.0 Proposed Planting Schedule

### Semi Mature & Extra Heavy Standard Tree Planting

Birch	<i>Betula costata</i> , 2 x tr. / wrb / 30-35cmg.
Honey Locust	<i>Gleditsia triacanthos</i> , 2 x tr. / wrb / 30-35cmg.
Swamp Oak	<i>Quercus palustris</i> , 2 x tr. / wrb / 30-35cmg.
Oak	<i>Quercus robur</i> , 2 x tr. / wrb / 30-35cmg.
Scots Pine	<i>Pinus sylvestris</i> , 2 x tr. / wrb / 30-35cmg.
Maple	<i>Acer campestre</i> , 2 x tr. / wrb / 18-20cmg.
Turkish Hazel	<i>Corylus colurna</i> , 2 x tr. / wrb / 18-20cmg.
Birch	<i>Betula pendula</i> , 2 x tr. / wrb / 18-20cmg.
Honey Locust	<i>Gleditsia triacanthos</i> , 2 x tr. / wrb / 20-25cmg.
Sweet Cherry	<i>Prunus avium</i> , 2 x tr. / wrb / 18-20cmg.
Oak	<i>Quercus robur</i> , 2 x tr. / wrb / 18-20cmg.
Lime	<i>Tilia cordata</i> 'Greenspire', 2 x tr. / wrb / 16-18cmg.

### Small Flowering Trees

<i>Amelanchier lamarckii</i>	multi stem min 5 breaks, 2 x tr. wrb, 2.0-2.5m h., 1.5m s.
<i>Craetagus mongynna</i>	multi stem, min. 5 breaks, 2 x tr. wrb, 2.0-2.5m h., 1.5m s.
<i>Magnolia 'Kobus'</i>	multi stem min 5 breaks, 2 x tr. wrb, 2.0-2.5m h., 1.5m s.
<i>Malus 'Winter Gold'</i>	multi stem, min. 5 breaks, 2 x tr. wrb, 2.0-2.5m h., 1.5m s.
<i>Prunus serrulata</i> c vars,	multi stem, min. 5 breaks, 2 x tr. wrb, 2.0-2.5m h., 1.5m s.

### Clipped Evergreen Hedging

<i>Ilex crenata</i>	
<i>Ilex 'Blue Princess'</i>	
<i>Prunus lusitanica</i>	
<i>Buxus sempervirens</i>	
5 ltr.cg.	planted at 500mm centres

### Ornamental Grass and Herbaceous Mix B

All 2-3 ltr.cg.	planted at 300-500mm centres.
<i>Digitalis purpurea</i> 'Alba'	
<i>Verbena hastata</i> 'Alba'	
<i>Allium hollandicum</i>	
<i>Agapanthus africanus</i> 'Albus'	
<i>Luzula sylvatica</i>	
<i>Campanula carpatica</i> 'White Clips'	
<i>Leucanthemum x superbum</i> 'Snow Lady'	
<i>Viola sororia</i> 'Freckles'	
<i>Carex morrowii</i> 'Ice Dance'	
<i>Miscanthus sinensis</i> 'Morning Light'	

### Ornamental Grass and Herbaceous Mix A

All 2-3 ltr.cg.	planted at 300-500mm centres.
<i>Allium 'Christophii'</i>	
<i>Anemone telephium lessoniana</i> c. vars	
<i>Calamagrostis x acutiflora</i> 'Karl foerster'	
<i>Chionochloa flavicans</i>	
<i>Echinops ritro</i> c. vars	
<i>Eryngium maritimum</i>	
<i>Knautia macedonica</i>	
<i>Libertia grandiflora</i>	
<i>Molinia caerulea</i> subsp. <i>arundinacea</i>	
<i>Pennisetum alopecuroides</i>	
<i>Anthemis 'Sauve Hollandaise'</i>	
<i>Astrantia Gill Richardson'</i>	
<i>Dierama 'Lancelot'</i>	
<i>Digitalis purpurea</i> 'Dalmatian white'	
<i>Iberis sempervirens</i>	
<i>Kniphofia</i> 'Bees Lemon' or <i>Kniphofia Royal Castle'</i>	
<i>Knautia macedonica</i>	
<i>Nepera</i> 'Walkers Low'	
<i>Salvia nemerosa</i> c. vars	
<i>Schizostylus coccineus</i> c. vars	
<i>Sedum spectabile</i> 'Autumn Joy'	
<i>Tulbaghia violacea</i>	
<i>Verbenae bonariensis</i>	
5 Ltr. Shrubs	
<i>Hydrangea paniculata</i>	
<i>Lavandula angustifolia</i>	

### Sensory Planting Mix

<i>Artemesia absinthium</i>	
<i>Helichrysum italicum</i>	
<i>Lavandula angustifolia</i> cvs.	
<i>Rosmarinus officinalis</i> cvs.	
<i>Salvia argentea</i>	
<i>Thulbaghia violacea</i>	
All 2-5 ltr.cg.	planted at 400-500mm centres.

**Shade Tolerant Mix**

All 2ltr cg, planted in drifts of 5-7 plants at 7 per sq

*Rodgersia pinnata*

*Rodgersia podophylla*

*Rodgersia pinnata 'Fireworks'*

*Asplenium scolopendrium*

*Polystichum setiferum*

*Athyrium filix-femina*

*Sarcococca hookeriana*

*Brunnera macrophylla*

*Pulmonaria officinalis*

*Achillea mollis*

*Astilbe chinensis*

**Climbers:**

2.0-2.5m height at installation at 500mm centres across width of trellis & pergola support.

*Clematis armandii*

*Parthenocissus tricuspidata*

*Wisteria sinensis*

**Hedging**

Native Hedging

All bare roots whips or feathered 900-1200 high. Planted in a double staggered row at 600mm centres.

*Craetagus mongynia*

*Ilex aquifolium*

**Lawn**

Turfgrass

'Leinster Grass Seed Mix Grade' by Leinster Lawns Ltd.

Laid as sod roll

**Bulb Planting**

Planted as bulbs, topsize, sown in drifts of 18-20 bulbs per sqm.

*Anemone blanda*

*Narcissus c. vars (3 approx.)*

*Galanthus c vars*

*Tulipa 'White triumphator'*

*Camassia c. vars (3 approx.)*

*Crocus c. vars*

*Hyacinthoides non-scripta*

Wood Anemone

Daffodil

Snowdrops

Tulips

Camas

Crocus

Bluebells

**Abbreviations:**

xtr. number of transplants in nursery

h. height

s. spread

wrb wire root-balled

cmg girth of tree in centimeters measured 1m above ground

cvs. cultivated varieties

2ltr cg plants supplied in 2 litre volume containers

## Pollinator Friendly Planting

The decline of wild bees and pollinators that is evident in Ireland can have implications for food production and gardens, as many plants are reliant upon pollinators for the transfer of pollen from one flower to another and to set fruits and seeds. This makes the planting of pollinator friendly species increasingly important. In order for bees to have a healthy balanced diet and to survive throughout their life cycle, they need to be able to feed on pollen and nectar from a range of different flowers from early spring to autumn. Perennial plants provide good sources of nectar and pollen for bees and can have a strong visual impact with colourful and attractive displays over a long period of time. In addition they also provide habitats and nesting material for birds and insects. Many of the suggested species shown below have been chosen from the plant lists from the Pollinator Friendly Planting Code . It is recommended to also include grass species within the planting mix in order to provide structure and colour throughout the autumn and winter months.

Species proposed within the pollinator planting mix are:

### Perennials

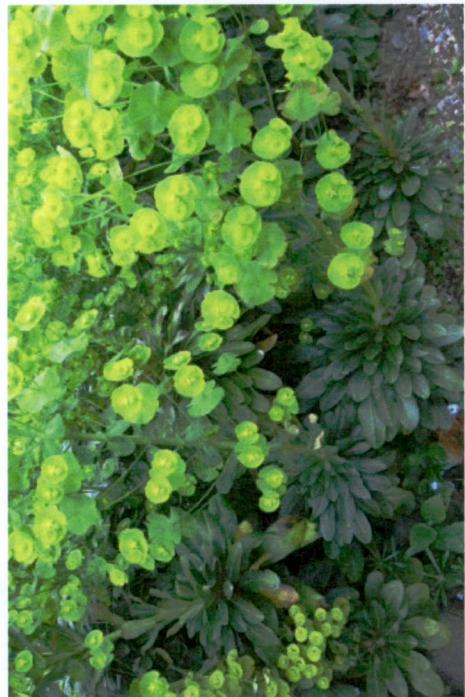
- Aster var.
- Allium schoenoprasum
- Campanula rapido*
- Cirsium rivulare 'Atropurpureum'*
- Echinops var.
- Euphorbia amygdaloides*
- Echinacea purpurea*
- Helleborus foetidus
- Knautia macedonica*
- Nepeta faassenii
- Rudbeckia fulgida*
- Salvia var.
- Sedum telephium*

### Shrubs

- Hebe var.
- Hydrangea paniculata*
- Lavandula angustifolia*

### Trees

- Malus sylvestris*
- Prunus avium*
- Pyrus calleryana*



*Euphorbia amygdaloides*



*Knautia macedonica*



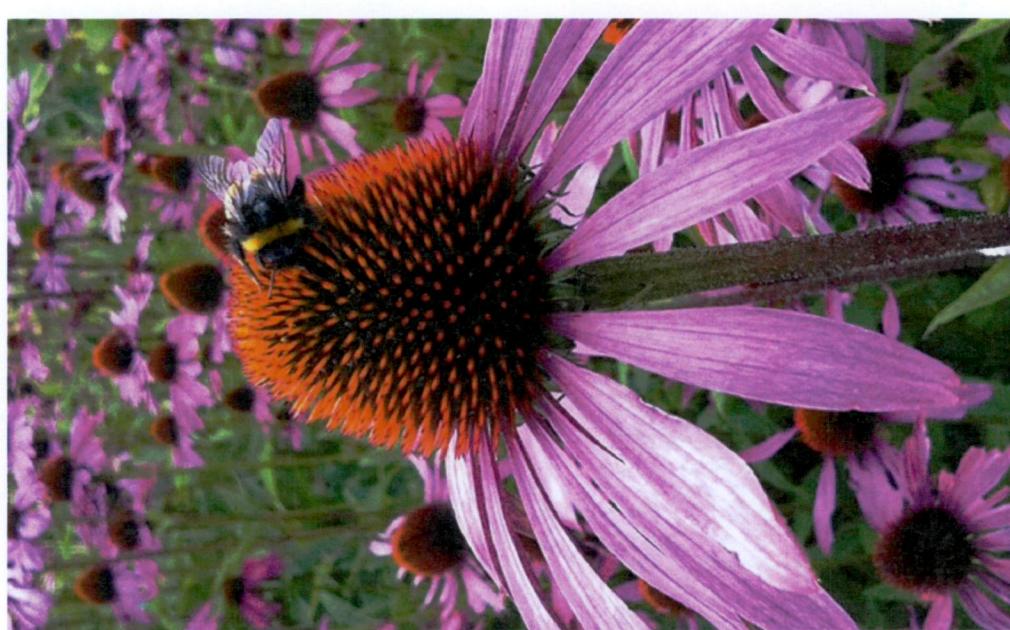
*Crocus var.*



*Echinops var.*



*Rudbeckia fulgida*



*Echinacea purpurea*



*Nepeta faassenii*



*Hydrangea paniculata*



*Sedum telephium*



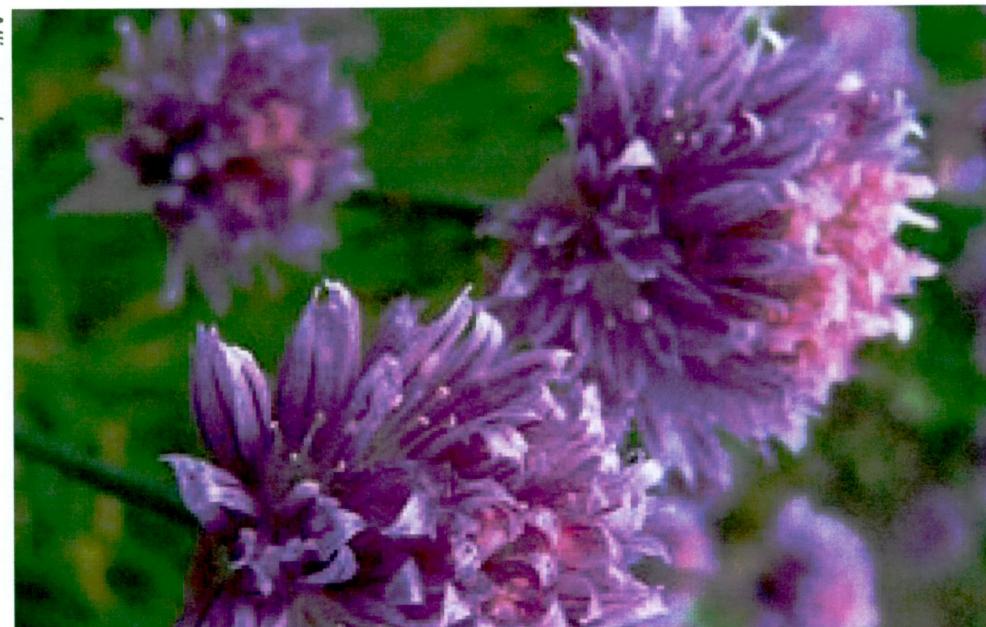
*Aster var.*



*Salvia var.*



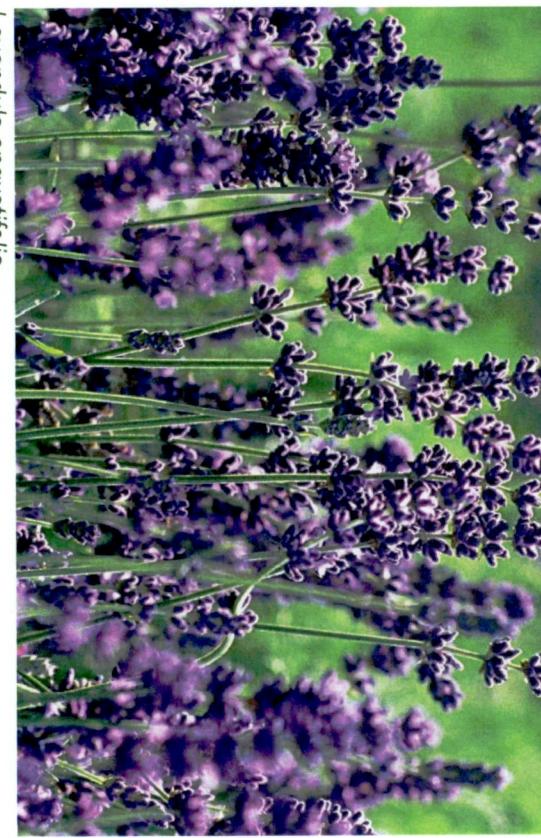
*Hebe var.*



*Allium schoenoprasum*



*Cirsium rivulare 'Atropurpureum'*



*Lavandula angustifolia*

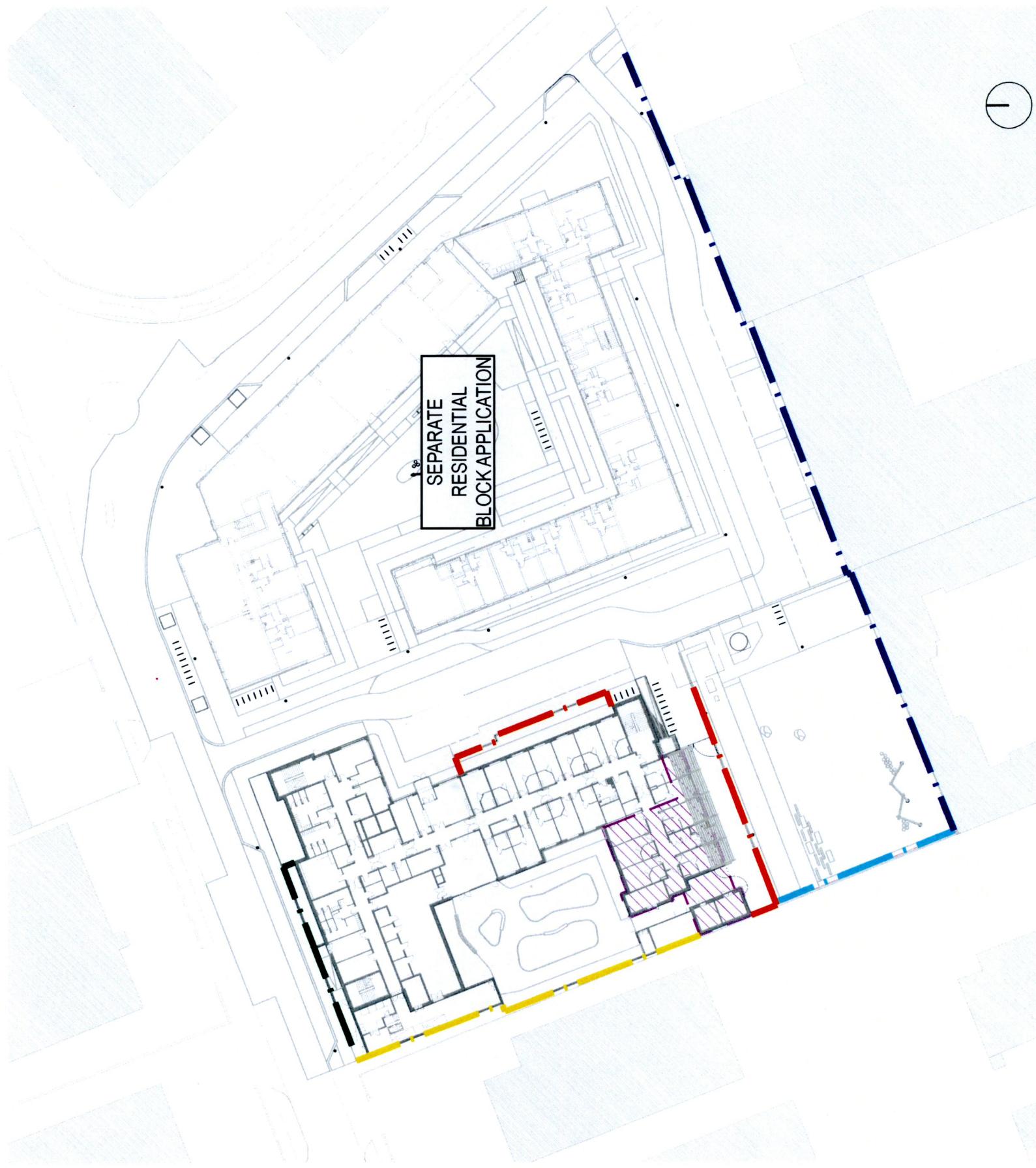


*Helleborus foetidus*

## 6.0 Boundary Treatments

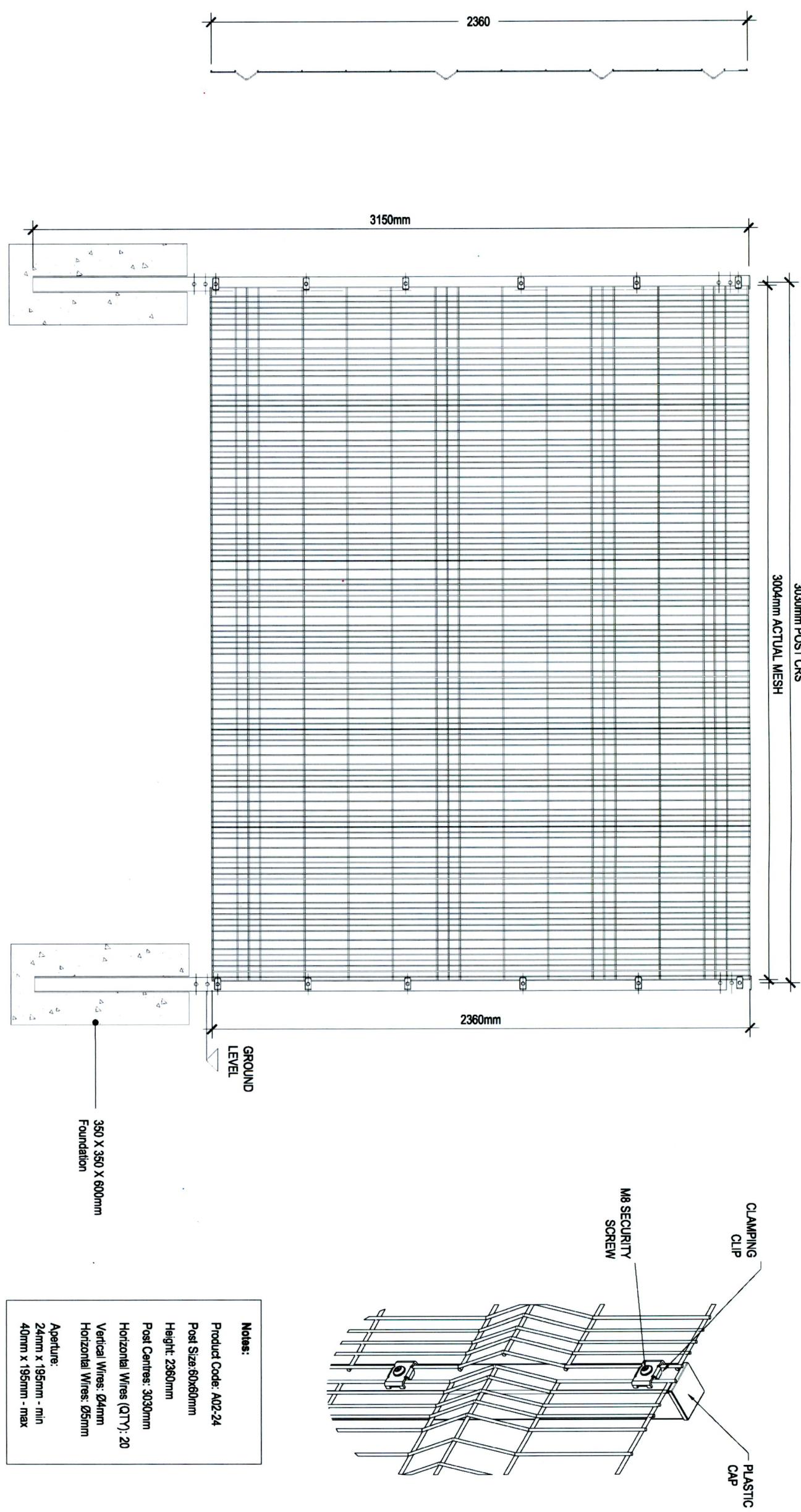
### Boundaries

-  2.4m high Paladin striped mesh fencing. To be screened with tree and hedge planting.
-  Proposed low level wall and galvanised and painted mild steel railing.  
See Consulting Architect's Elevation drawings.
-  Low level brick wall.  
See Consulting Architect's Elevation drawings.
-  Proposed 2.0 m high rendered block work wall.
-  Existing boundary to be retained.

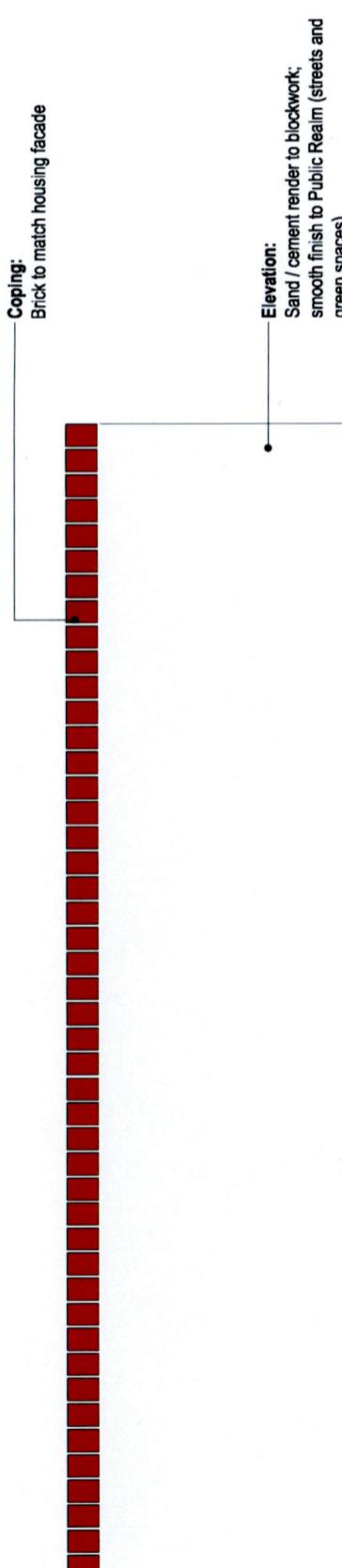


Scale 1:750

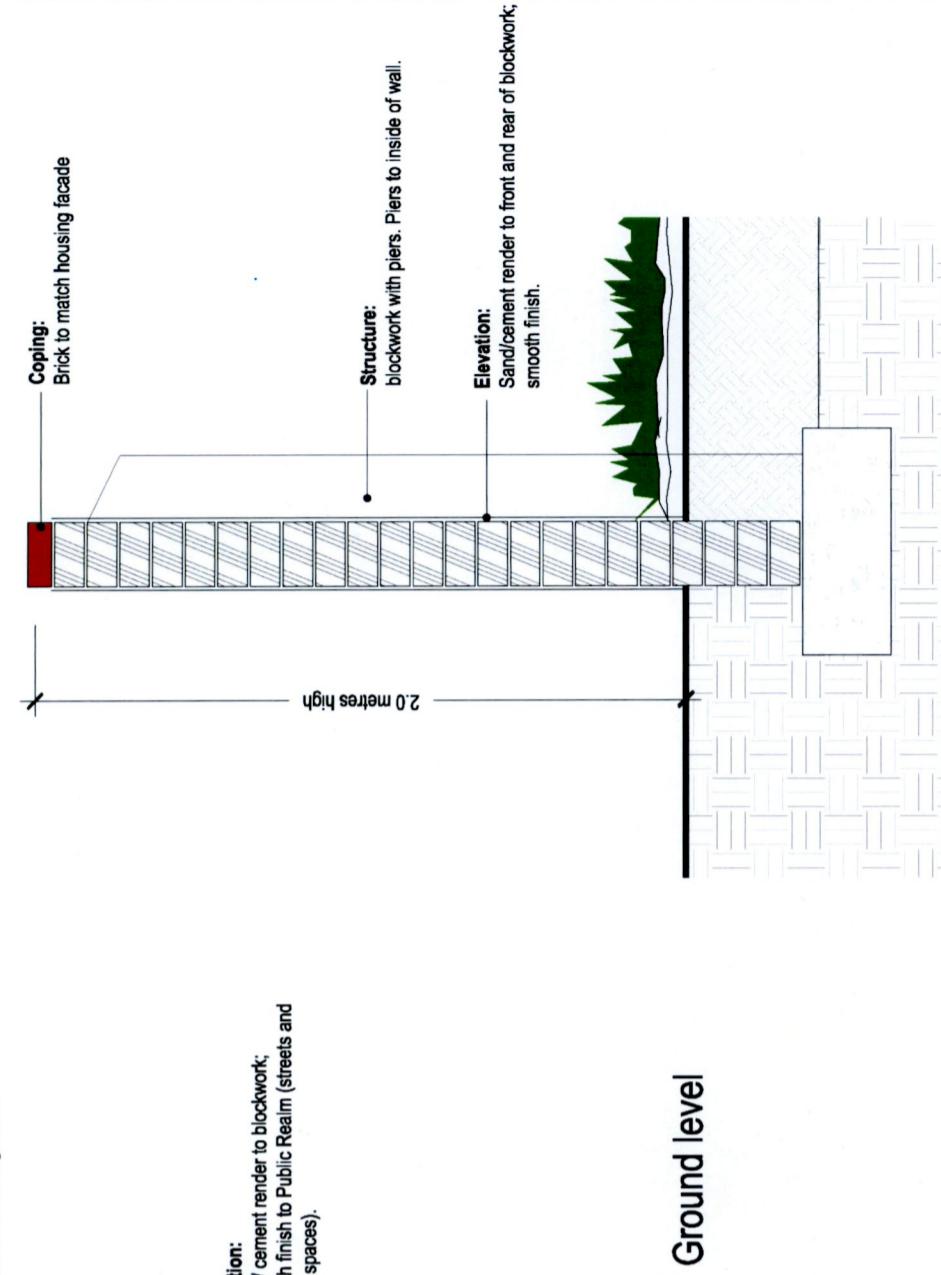
01  
**2.4m high Paladin Striped Mesh Fencing**  
 Scale 1:25



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ELEVATION



SECTION

## 7. Soft Landscape Details

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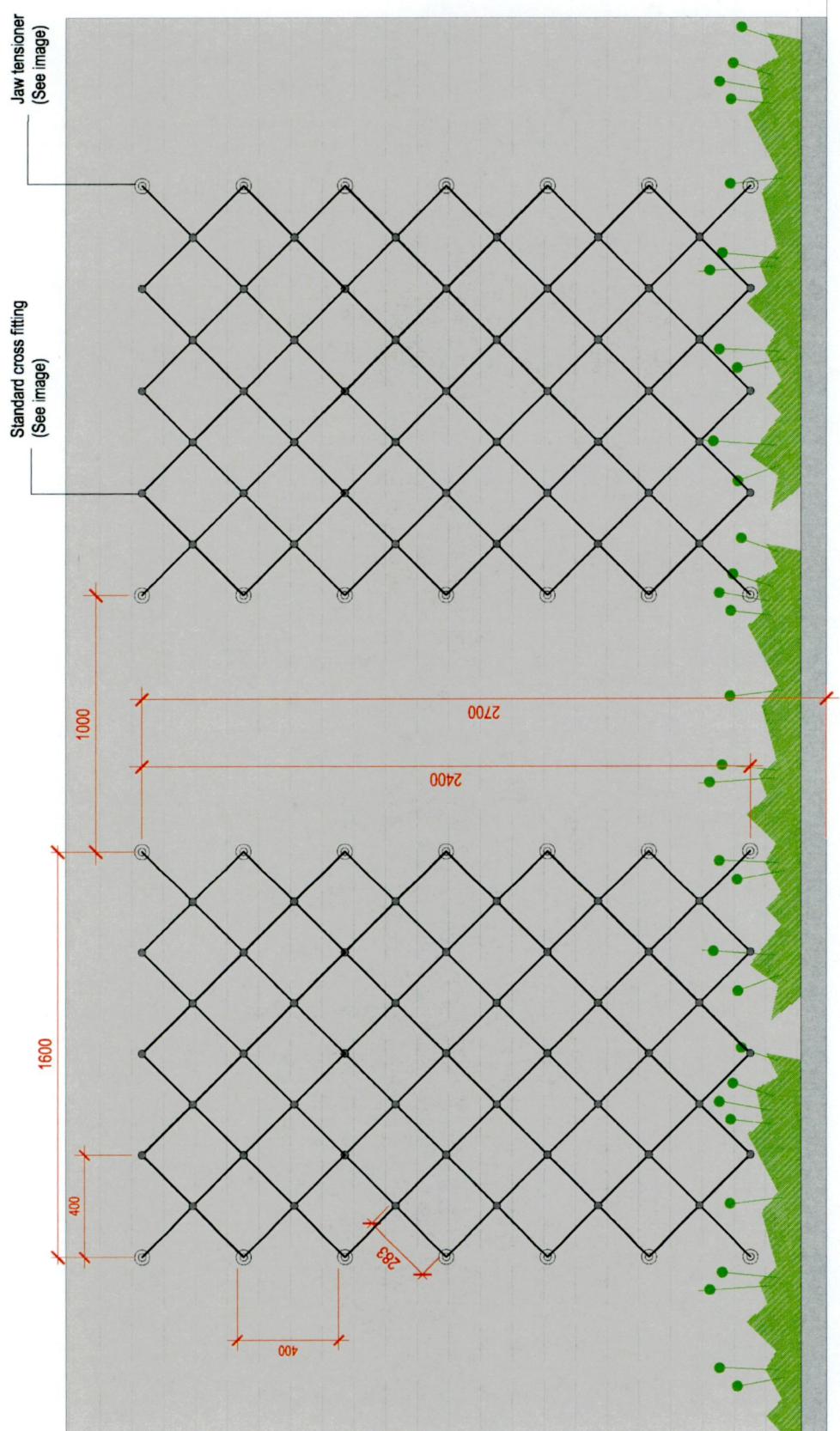
- Notes**
- Techni 'Standard' Trellis System by <http://www.techni-cable.co.uk> or equivalent.
  - Standard Grid System, composed of 4mm 7x7 stainless steel wire hand tensioned between SG2.5 fittings (product code: 208.025.070).
  - PVC end caps on exposed wire ends.
  - Installed as per manufacturers recommendations, supplied in kit form based on above detail.
  - Dimensions of trellis panels to be confirmed upon survey of wall.



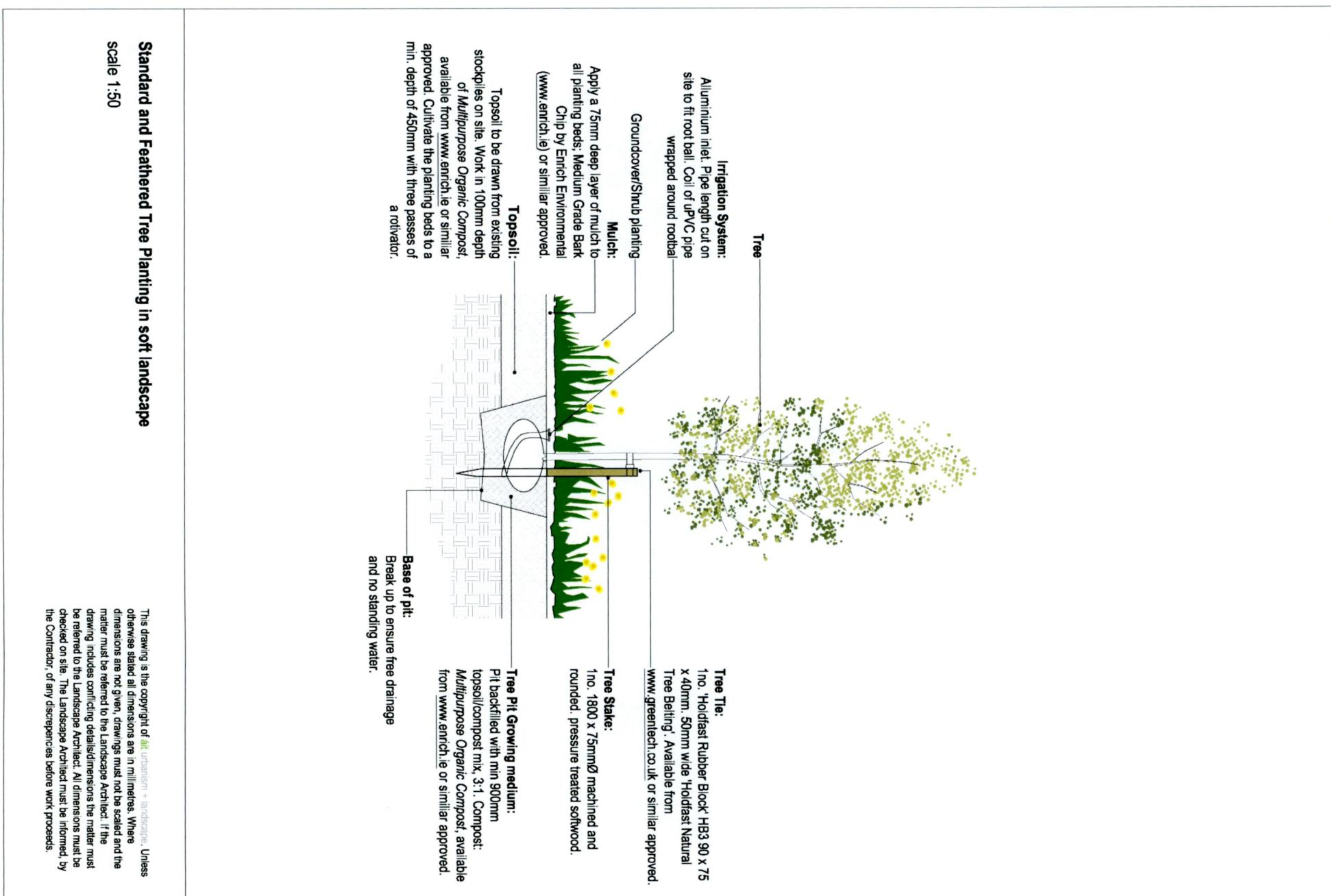
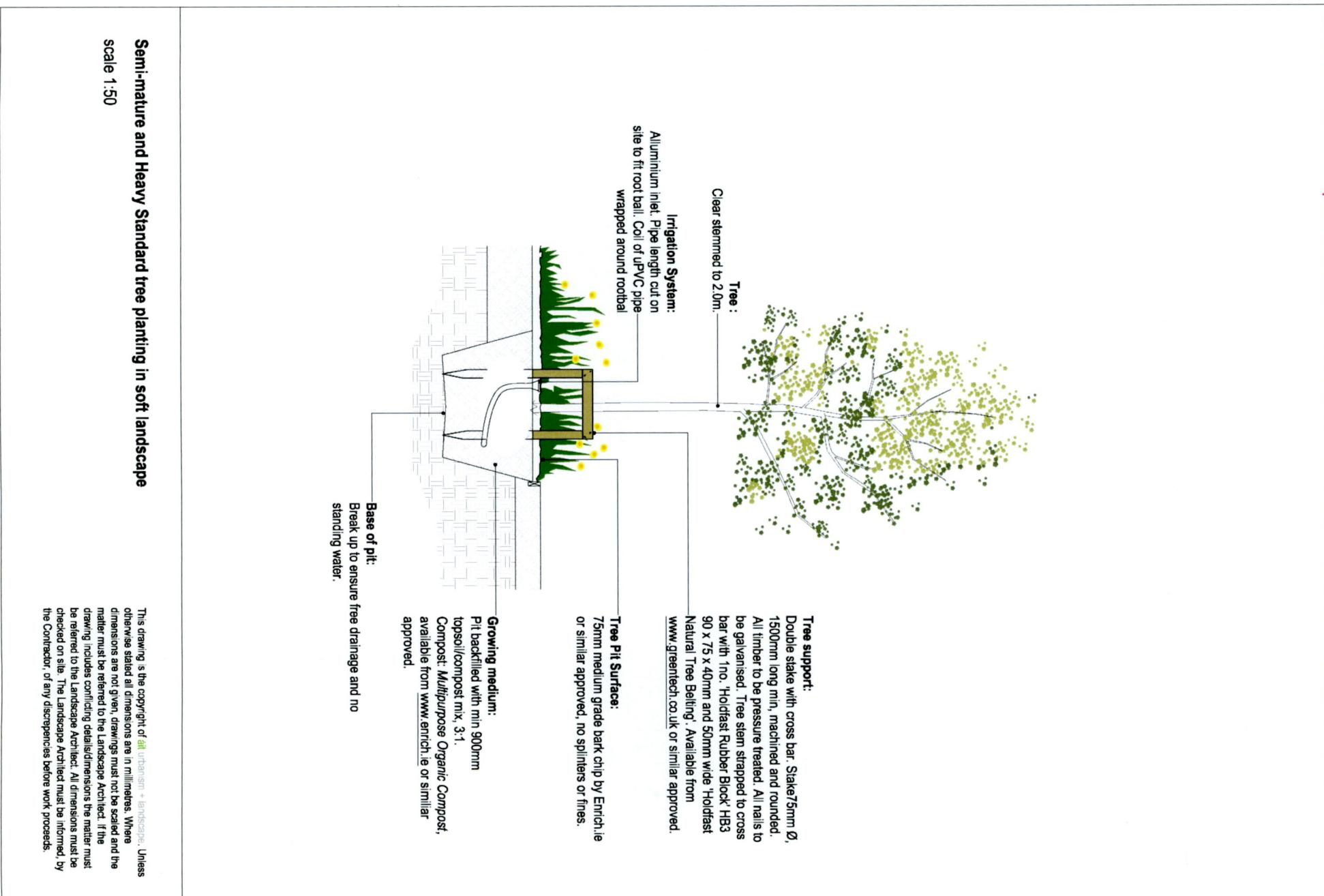
Jaw tensioner attached to  
pro-eye fitting

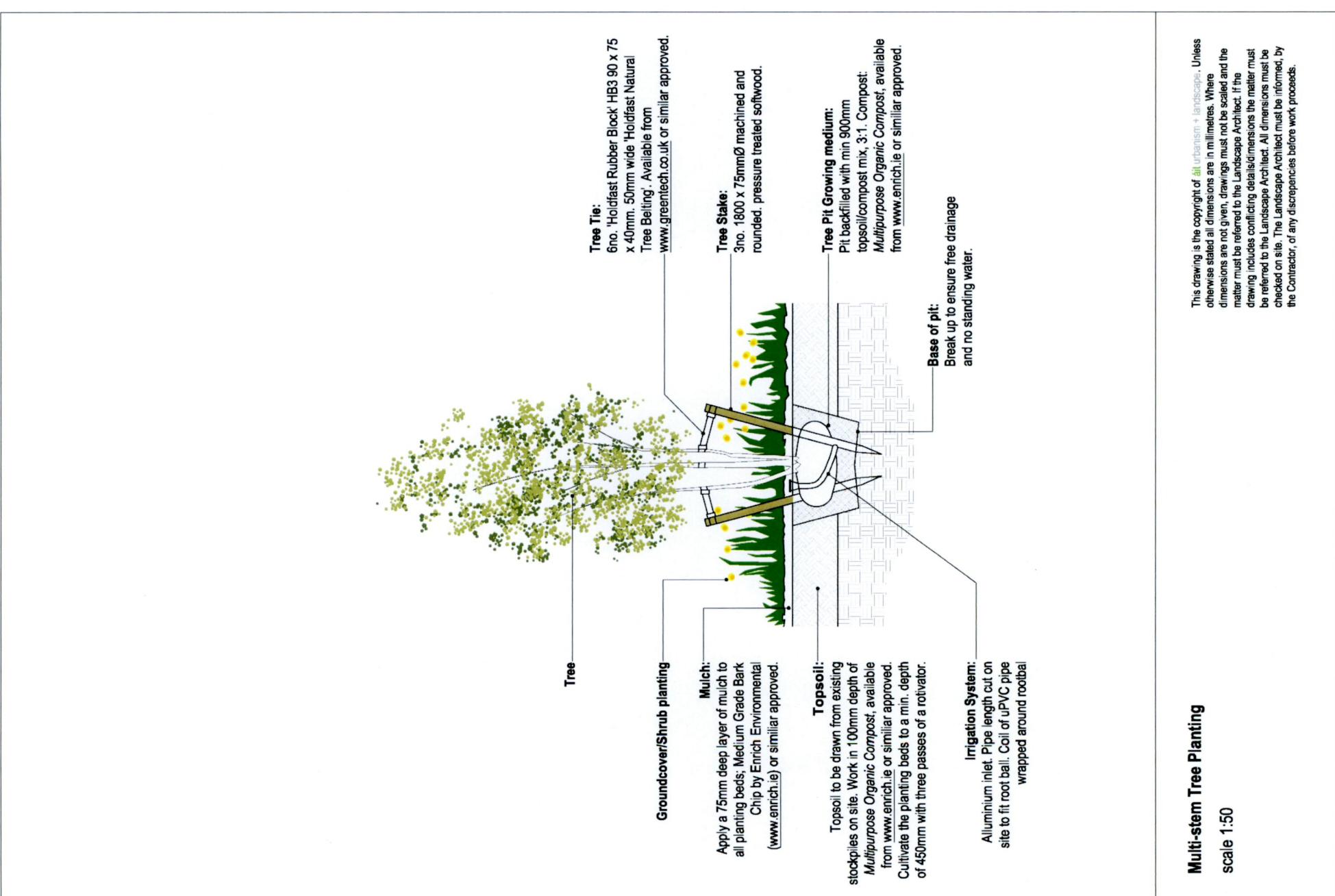
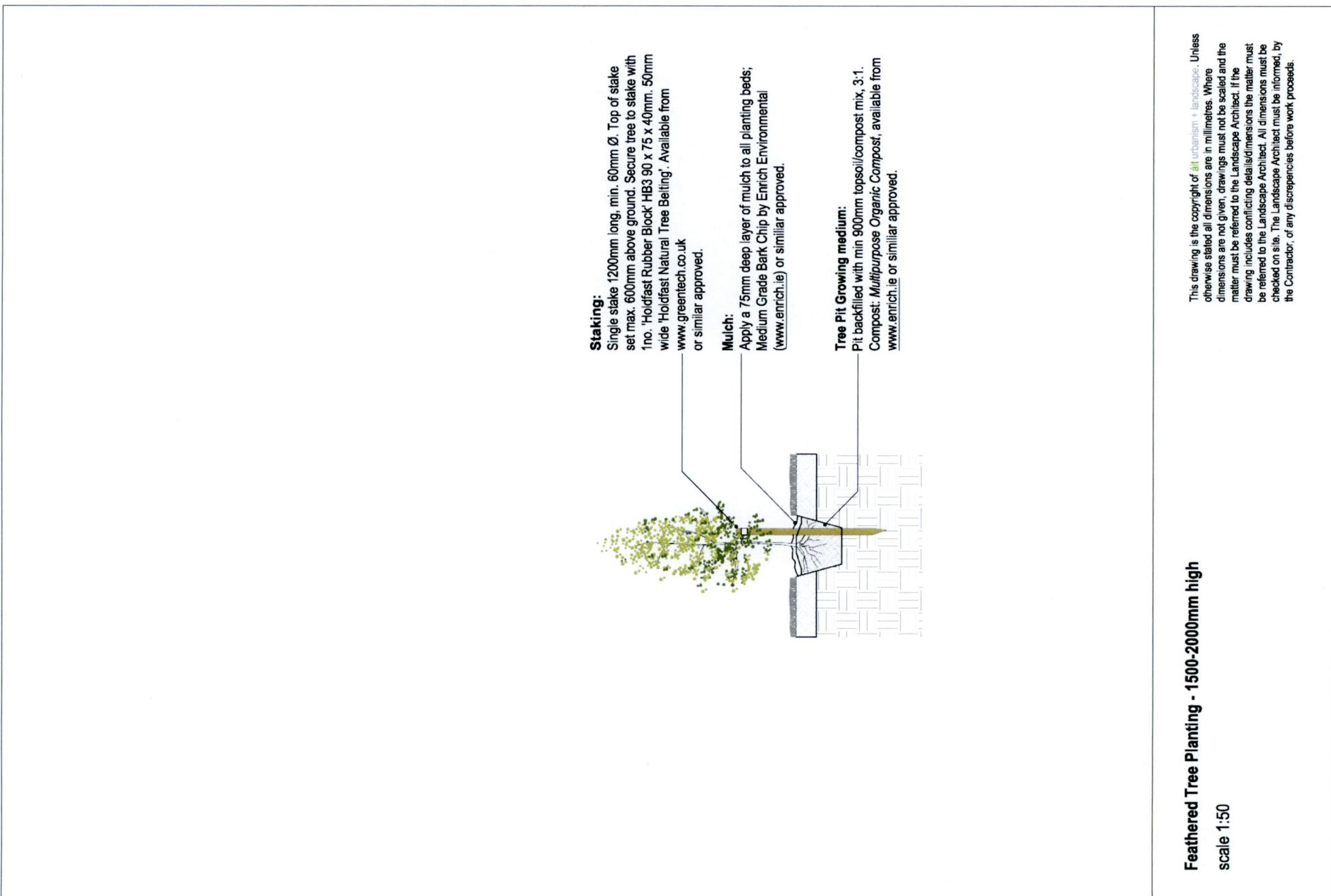


Pro Cross Fitting - SG2.5



**Steel Wire Trellis Typical Detail**





## Groundcover Planting

**Mulch:**  
Apply a 75mm deep layer of mulch to all planting beds.  
Medium Grade Bark Chip by Enrich Environmental  
([www.enrich.ie](http://www.enrich.ie)) or similar approved

**Topsoil:**

To be drawn from existing stockpiles on site.  
Work in 100mm depth of Multipurpose Organic  
Compost, available from [www.enrich.ie](http://www.enrich.ie) or similar  
approved. Cultivate the planting beds to a min. depth  
of 450mm with three passes of a rotovator.

**Subsoil:**

Rip subsoil to a depth of min. 750mm from finished  
surface. Min. depth of subsoil 450mm.

## Lawn

**Grass Seeding:**  
Area to be grass seeded. Grade 2, Mixture: 80%  
Fescue species, 20% Brown top bent.

**Topsoil:**  
To be drawn from existing stockpiles on site.  
Cultivate grass seeding areas to a min. depth of  
300mm with three passes of a rotovator.

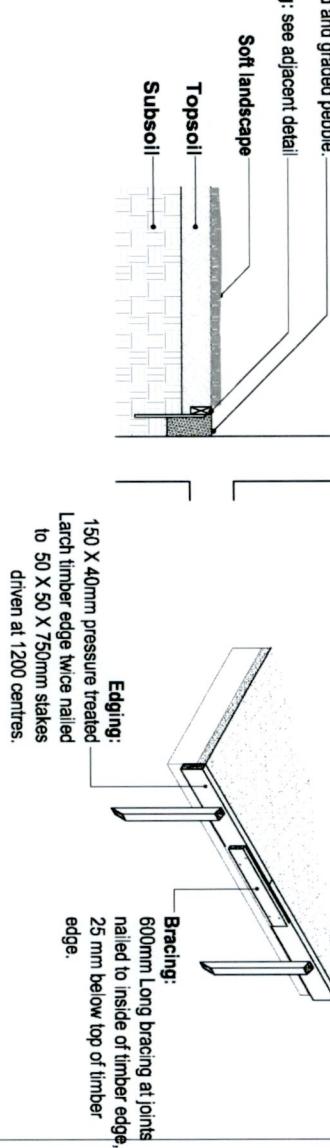
**Subsoil:**  
Rip subsoil to a depth of min. 600mm from finished  
surface. Min. depth of subsoil 450mm.

## Gravel trim building facades

**NOTE:**  
- All timber to be pressure treated Larch.  
- Double stakes at change of direction and corners.  
- All nails to be twice galvanised.

**Gravel trim:**  
min. 300mm depth layer of 10-20mm  
washed and graded pebble.

**Timber edging:** see adjacent detail

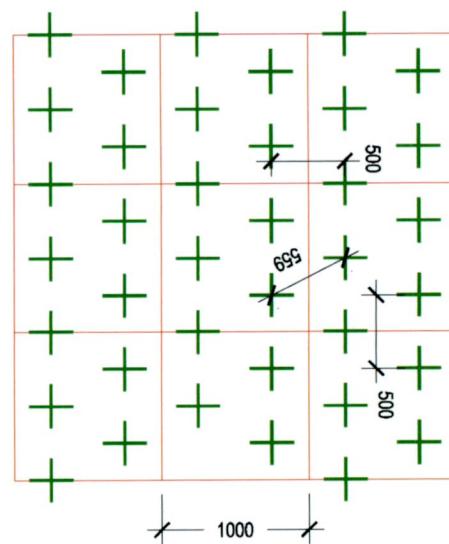


## Groundcover planting beds, lawn and gravel trims

scale 1:50

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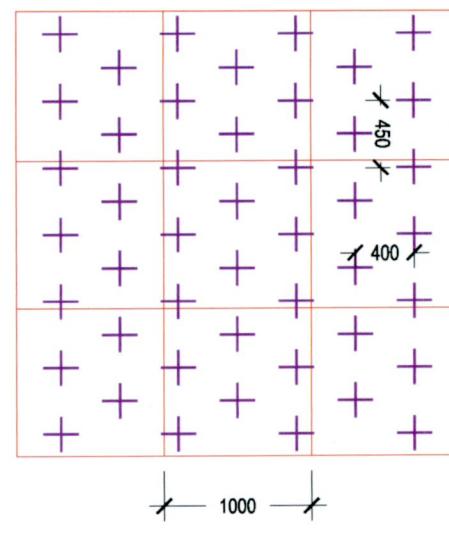
+ 1000 +



Clipped shrubs:  
Density of plants typically 4 per sqm, all 2ltr cq. min.

## Clipped Planting - Taxus, Buxus

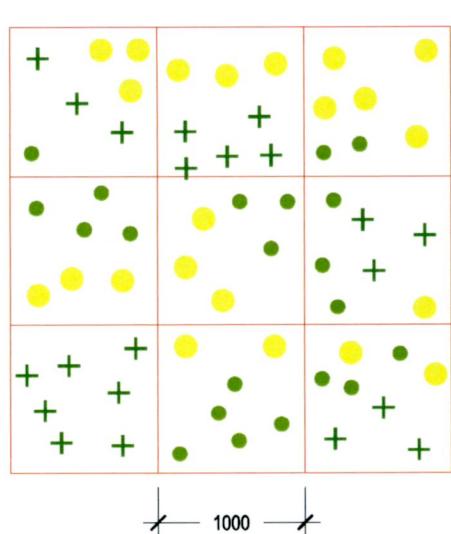
+ 1000 +



Groundcover shrubs:  
Planted at 5 per sqm, all 2ltr cq. min.

+ 1000 +

+ 1000 +



Groundcover - mix of grasses and perennials:  
Density of plants typically 7 per sqm, all 2ltr cq. min.  
Plants to be mixed randomly in clumps of 3-9.

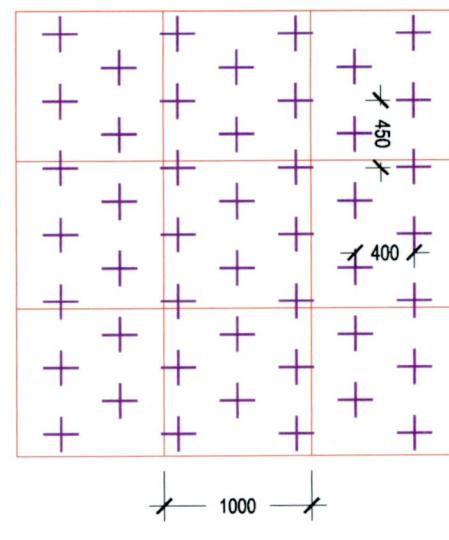
## Groundcover Mixes

## Setting out - clipped shrub planting, groundcover planting and bulbs

scale 1:50

## Bulb drifts in grass

+ 1000 +



Bulb drifts in grass:  
Density of bulbs typically 15-20 per sqm.

## Groundcover mixes

scale 1:50

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## 8. Soft Landscape Specification

## **Q28 Topsoil and soil ameliorants**

To be read with Preliminaries/ General conditions.

### **SYSTEM OUTLINE**

115     **SOIL SYSTEM FOR GRASS SWARDS FOR ALL GRASSED AREAS**

Composition:

- Soil: Imported topsoil to BS 3882.
- Ameliorants: Sanitized and stabilized composted materials.

Accessories: None.

125     **GREEN ROOF GROWING MEDIA SYSTEM TO INTENSIVE GREEN ROOF**

Composition:

- Topsoil: Imported topsoil from a specified source.
- Ameliorants: as per specified product.
- Accessories: as per specified product.

135     **PLANTING BED SOIL SYSTEM FOR EXTERNAL PLANTING**

Composition:

- Topsoil: Imported topsoil to BS 3882.
- Ameliorants: Sanitized and stabilized composted materials.

Accessories: None.

145     **PLANT PIT BACKFILLING SOIL SYSTEM FOR EXTERNAL PLANTING**

Composition:

- Topsoil: Imported topsoil to BS 3882.
- Ameliorants: Organic materials and Sanitized and stabilized composted materials.

Accessories: None.

155     **MULCHING AND TOP DRESSING SYSTEM For external planting beds and tree pits**

Composition:

- Material: Fine grade bark mulch.

### **PRODUCTS**

300     **PREPARATION MATERIALS GENERALLY**

- Purity: Free of pests and disease.
- Foreign matter: On visual inspection, free of fragments and roots of aggressive weeds, sticks, straw, subsoil, pieces of brick, concrete, glass, wire, large lumps of clay or vegetation, and the like.
- Contamination: Do not use topsoil contaminated with subsoil, rubbish or other materials that are:

- Corrosive, explosive or flammable.
- Hazardous to human or animal life.
- Detimental to healthy plant growth.
- Subsoil: In areas to receive topsoil or planting media, do not use subsoil contaminated with the above materials.
- Objectionable odour: None.
- Give notice: If any evidence or symptoms of soil contamination are discovered on the site or in topsoil or planting media to be imported.

310     **MATERIALS NOT PERMITTED**

- Materials: Peat and Products containing peat.

315     **IMPORTED TOPSOIL TO BS 3882 FOR EXTERNAL CONTAINER PLANTING, GRASS SEEDING, TURFING, PLANTING BEDS AND TREE PITS**

- Quantity: Provide as necessary to make up any deficiency of topsoil existing on site and to complete the work.
- Standard: To BS 3882.
- Classification: Multipurpose.
- Soil textural class to BS 3882, Figure 1:
  - Any class;
  - Clay loam; or
  - Sandy loam.
- Source: Submit proposals.
- Product reference: Submit proposals.

345     **AGGREGATES FOR SITE MADE TOPSOIL**

- Source: Contractor's choice.
- Product reference: Submit proposals.
- Reference, description and grading:
  - Sand: Coarse grained, sharp sand with neutral pH.
  - Grit: 2 mm single size pea shingle.
  - Crushed materials: Not required.
  - Other aggregates or particles: Light expanded clay aggregate.
- Recycled content: 10% (minimum) to BS EN ISO 14021.

360     **SANITIZED AND STABILIZED COMPOSTED MATERIALS CERTIFIED TO PAS 100 FOR SITE MADE TOPSOIL**

- Standard: In accordance with PAS 100.
- Source: Submit proposals.
- Product reference: Enrich Compost.
- Horticultural parameters:
  - pH (1:5 water extract): 7.0-8.7.
  - Electrical conductivity (maximum, 1:5 water extract): 200 mS/m.
  - Moisture content (m/m of fresh weight): 35-55%.
  - Organic matter content (minimum): 25%.
- Grading (air dried samples): 99% passing 25 mm screen, and 90% passing: 10 mm screen mesh aperture.
- Carbon:Nitrogen ratio (maximum): 20:1.
- Texture: Friable.
- Objectionable odour: None.
- Compost Certification Scheme certification: Required.
- Declaration of analysis: Submit.
- Additional analyses: Not required.
- Samples: Supply 5 kg sample before ordering.

**EXECUTION**

- 610 **TOPSOIL ANALYSIS**
- Soil to be analysed: Imported topsoil.
  - Soil analyst: Submit proposals.
  - Samples: Collect in accordance with BS 3882.
  - Submit:
    - Declaration of analysis: In accordance with BS 3882, clause 6 and Table 1.
    - Additional analysis: Not required.
    - Report detailing soil analyst's recommendations.
- 620 **IMPORTING TOPSOIL**
- Give notice: Before stripping topsoil for transfer to site.
  - Notice period: 7 days.
- 625 **SAMPLE LOADS FOR IMPORTED TOPSOIL**
- Deliver to site a sample load: of 5 kg.
  - Give notice: Allow inspection before making further deliveries to site. Retain for comparison with subsequent loads.
  - Notice period: 7 days.
- 630 **DOCUMENTATION FOR IMPORTED TOPSOIL FOR PLANTING BEDS**
- Timing: Submit at handover.
  - Contents:
    - Full description of all soil components.
    - Record of source for all soil components.
    - Record drawings showing the location and depth of all soils by type and grade.
    - Declaration of analysis: in accordance with BS 3882, clause 6 and Table 1.
    - Number of copies: Three.
- 635 **DOCUMENTATION FOR COMPOST AND COMPOSTED MATERIALS FOR COMPOST**
- Timing: Submit at handover.
  - Contents:
    - Full description of all compost components.
    - Record of source for all compost components.
    - Analyst's report for each test carried out.
    - Declaration of compliance: in accordance with PAS 100 and BSI PD CR 13456.
    - Quality Compost Protocol certification: Not required.
    - Number of copies: Three.
- 640 **DOCUMENTATION FOR PREPARATION MATERIALS FOR IMPORTED SOIL IMPROVERS**
- Timing: Submit at handover.
  - Contents:
    - Full description of all components.
    - Record of source for all components.
    - Analyst's report for each test carried out.
    - Supplier's declaration of compliance with BSI PD CR 13456.
    - Number of copies: Three.
- 650 **NOTICE**
- Give notice before:
    - Setting out.
    - Spreading topsoil.
    - Applying herbicide.
    - Applying fertilizer.
    - Visiting site during maintenance period.
  - Period of notice: 2 weeks.
- 655 **MECHANICAL TOOLS**
- Restrictions: Do not use within 100 mm of tree and plant stems.
- 660 **GRADING SUBSOIL FOR**
- GRASSED AREAS;
  - WILDFLOWER AREAS;
  - ORNAMENTAL PLANTING BEDS;
  - AMENITY PLANTING AREAS; and
  - WOODLAND PLANTING AREAS
- 665 **SUBSOIL SURFACE PREPARATION FOR**
- GRASSED AREAS;
  - WILDFLOWER AREAS;
  - ORNAMENTAL PLANTING BEDS;
  - AMENITY PLANTING AREAS; and
  - WOODLAND PLANTING AREAS
- 670 **INSPECTING FORMATIONS**
- Give notice: Before spreading topsoil for areas to receive landscape planting.
  - Notice period: 7 days.

675	PREPARATION OF UNDISTURBED TOPSOIL	<ul style="list-style-type: none"> <li>Standard: In accordance with BS 4428.</li> <li>- Grading and cultivation: To suit cultivation operations specified in Q30.</li> <li>- Hard ground: Break up thoroughly.</li> <li>- Clearing: Remove visible roots and large stones with a diameter greater than 50 mm.</li> <li>- Areas covered with turf or thick sward: Plough or dig over to full depth of topsoil.</li> <li>- Fallow period (minimum): Two months.</li> <li>- Weed control: At appropriate times treat with a suitable translocated nonresidual herbicide.</li> </ul>	
680	SURPLUS TOPSOIL TO BE RETAINED	<ul style="list-style-type: none"> <li>Generally: Spread and level on site:</li> <li>- Locations: As directed by Landscape Architect.</li> <li>- Protected areas: Do not raise soil level within root spread of trees that are to be retained.</li> </ul>	
685	SURPLUS MATERIALS TO BE REMOVED	<ul style="list-style-type: none"> <li>Topsoil removal from site: Topsoil remaining after completion of all landscaping work.</li> <li>- Subsoil, stones, debris, wrapping material, canes, ties, temporary labelling, rubbish, prunings and other arisings: Remove.</li> </ul>	
690	TOPSOIL STORAGE HEAPS	<ul style="list-style-type: none"> <li>Location: Contractor's choice.</li> <li>- Height (maximum): 1.0 m.</li> <li>- Width (maximum): 2.0 m.</li> <li>- Formation: Loose tip and shape from the side only, without running machinery on the heap at any time.</li> <li>- Protection: <ul style="list-style-type: none"> <li>- Do not place any other material on top of storage heaps.</li> <li>- Do not allow construction plant to pass over storage heaps.</li> <li>- Prevent compaction and contamination, by fencing and covering as appropriate.</li> </ul> </li> </ul>	
700	GRADING OF TOPSOIL	<ul style="list-style-type: none"> <li>Standard: In accordance with BS 3882.</li> <li>- Topsoil condition: Reasonably dry and workable.</li> <li>- Contours: Smooth and flowing, with falls for adequate drainage.</li> <li>- Hollows and ridges: Not permitted.</li> <li>- Give notice: If required levels cannot be achieved by movement of existing soil.</li> </ul>	
705	HANDLING TOPSOIL	<ul style="list-style-type: none"> <li>Standard: In accordance with BS 3882.</li> <li>- Aggressive weeds: Give notice and obtain instructions before moving topsoil.</li> <li>- Plant: Select and use plant to minimize disturbance, trafficking and compaction.</li> <li>- Contamination: Do not mix topsoil with: <ul style="list-style-type: none"> <li>- Subsoil, stone, hardcore, rubbish or material from demolition work.</li> <li>- Other grades of topsoil.</li> </ul> </li> <li>- Multiple handling: Keep to a minimum. Use or stockpile topsoil immediately after stripping.</li> <li>- Wet conditions: Handle topsoil in the driest condition possible. Do not handle during or after heavy rainfall or when it is wetter than the plastic limit less 3%, to BS 1377-2.</li> </ul>	
710	SPREADING TOPSOIL ON GRASSED AREAS and WILDFLOWER AREAS	<ul style="list-style-type: none"> <li>Standard: In accordance with BS 3882.</li> <li>- Temporary roads/ surfacing: Remove before spreading topsoil.</li> <li>- Layers: <ul style="list-style-type: none"> <li>- Depth (maximum): 150 mm.</li> <li>- Gently firm each layer before spreading the next.</li> <li>- Depth after firming and settlement: 200mm.</li> </ul> </li> <li>- Crumb structure: Do not compact topsoil. Preserve a friable texture of separate visible crumbs wherever possible.</li> </ul>	
710A	SPREADING TOPSOIL ON SHRUB & PERENNIAL PLANTING BEDS	<ul style="list-style-type: none"> <li>Standard: In accordance with BS 3882.</li> <li>- Temporary roads/ surfacing: Remove before spreading topsoil.</li> <li>- Layers: <ul style="list-style-type: none"> <li>- Depth (maximum): 150 mm.</li> <li>- Gently firm each layer before spreading the next.</li> <li>- Depth after firming and settlement: 450mm.</li> </ul> </li> <li>- Crumb structure: Do not compact topsoil. Preserve a friable texture of separate visible crumbs wherever possible.</li> </ul>	
710B	SPREADING TOPSOIL ON TREE PITS	<ul style="list-style-type: none"> <li>Standard: In accordance with BS 3882.</li> <li>- Temporary roads/ surfacing: Remove before spreading topsoil.</li> <li>- Layers: <ul style="list-style-type: none"> <li>- Depth (maximum): 150 mm.</li> <li>- Gently firm each layer before spreading the next.</li> <li>- Depth after firming and settlement: 1000mm.</li> </ul> </li> <li>- Crumb structure: Do not compact topsoil. Preserve a friable texture of separate visible crumbs wherever possible.</li> </ul>	
715	LOOSE TIPPING OF TOPSOIL	<ul style="list-style-type: none"> <li>Standard: In accordance with BS 3882.</li> <li>- General: Do not firm, consolidate or compact topsoil when laying. Tip and grade to approximate levels in one operation with minimum of trafficking by plant.</li> </ul>	
718	FINAL CULTIVATION FOR GRASS SEEDING & EXTERNAL PLANTING GENERALLY	<ul style="list-style-type: none"> <li>Compacted topsoil: Break up to full depth.</li> <li>- Tilth: Loosen, aerate and break up topsoil to a tilth suitable for blade grading.</li> <li>- Depth: 150 mm.</li> <li>- Particle size (maximum): 15 mm.</li> <li>- Timing: After grading and fertilizing, and within a few days before seeding.</li> <li>- Weather and ground conditions: Suitably dry.</li> <li>- Surface: Leave regular and even.</li> <li>- Levels: 25 mm above adjoining paving or kerbs.</li> <li>- Undesirable material brought to the surface: <ul style="list-style-type: none"> <li>- Remove visible weeds.</li> <li>- Remove roots and large stones with any dimension exceeding 50 mm.</li> </ul> </li> </ul>	

**FINISHED LEVELS OF TOPSOIL AFTER SETTLEMENT**

720

- In relation to adjoining paving, kerbs or hard surfaces: 25 mm above.
- In relation to dpc of adjoining buildings: Not less than 150 mm below.
- In relation to adjacent grass areas: 50 mm above.
- Seeded areas: Extend cultivation into existing adjacent grassed areas sufficient to ensure full marrying in of levels.
- Sportsfields: To even levels and within the following permitted deviations:
  - From levels or gradients shown on drawings:  $\pm 75$  mm.
  - From line between boning rods 30 m apart:  $\pm 25$  mm.
  - Within root spread of existing trees and shrubs to be retained: Do not dig or cultivate.
  - Adjoining soil areas: Marry in.
  - Thickness of turf or mulch: Included.

**GREEN ROOF GROWING MEDIUM INSTALLATION**

730

- Handling: Minimize.
- Conditions: Handle in the driest condition possible. Do not handle or install when wet or frozen.
- Layers:
  - Depth (maximum): 150 mm.
  - Sequence: Gently firm each layer before spreading the next.

**APPLYING COMPOST TO IMPORTED OR SITE SOURCED TOPSOIL FOR EXTERNAL PLANTING**

810

- Application rate for trees and shrubs: 50 mm thick.
- Timing: Apply prior to cultivation.
- Application rate for grass: 25 mm thick layer.
- Timing: Apply prior to cultivation.
- Application rate for planters: 50 mm thick layer.
- Timing: Apply prior to cultivation.
- Other requirements: Submit 5kg sample before ordering.

**APPLYING FERTILIZER TO PROPOSED GRASS AREAS TO SEEDED AREAS EXCEPT WILDFLOWER MEADOWS**

825

- Application: Before final cultivation and three to five days before seeding/ turfing.
- Coverage:
  - Spread evenly, in transverse directions.
  - Rate: 70 g/m<sup>2</sup>.

**APPLYING TOP DRESSING TO GRASS SEEDING**

830

- Rate: 2-4 kg/m<sup>2</sup>.
- Timing: Apply prior to cultivation.

**APPLYING LOOSE MULCH FOR PLANTING BEDS AND TREE PITS IN SOFT LANDSCAPING**

845

- Timing: Immediately after planting.
- Preparation: Water soil thoroughly.
- Coverage of mulch (minimum):
  - Planting beds (depth): 75 mm depth.
  - Trees: 75 litres per tree position, 75 mm depth.
  - Container planting: 75 mm depth.
- Finished level of mulch: 30 mm below adjacent grassed or paved areas.

**COMPLETION**

910

**APPLYING MAINTENANCE FERTILIZER TO GRASS SWARDS TO ALL GRASSED AREAS EXCEPT WILDFLOWER MEADOWS**

910

- Duration: Carry out the following operations from completion of seeding/turfing until the end of the rectification period.
- Time of year: During April and May.
- Application: Evenly spread, carefully incorporating below mulch materials.
- Rate: To manufacturer's recommendations.

**APPLYING MULCH**

920

- Timing: At end of the rectification period.
- Watering: Ensure that soil is thoroughly moistened prior to mulching, applying water where necessary.
- Planting beds: Re-mulch.
  - Depth (minimum): 75 mm.
- Trees: Remulch.
  - Depth (minimum): 75 mm.
- Container planting: Remulch.
  - Depth (minimum): 75 mm.

## Q30 Seeding/turfing

To be read with Preliminaries/General conditions.

### GENERAL INFORMATION/REQUIREMENTS

#### SEEDED AND TURFED AREAS

- Growth and development: Healthy, vigorous grass sward, free from the visible effects of pests, weeds and disease.
- Appearance: A closely knit, continuous ground cover of even density, height and colour.

#### CLIMATIC CONDITIONS

- General: Carry out the work while soil and weather conditions are suitable.

#### WATERING

- Quantity: Wet full depth of topsoil.
- Application: Even and without displacing seed, seedlings or soil.
- Frequency: As necessary to ensure the establishment and continued thriving of all seeding/turfing.

#### WATER RESTRICTIONS

- Timing: If water supply is or is likely to be restricted by emergency legislation do not carry out seeding/turfing until instructed. If seeding/turfing has been carried out, obtain instructions on watering.

#### NOTICE

- Give notice before:
  - Setting out.
  - Applying herbicide.
  - Applying fertilizer.
  - Preparing seed bed.
  - Seeding or turfing.
  - Visiting site during maintenance period.
- Period of notice: 1 week.

#### SETTING OUT

- Boundaries: Mark clearly.
- Delineation: In straight lines or smoothly flowing curves as shown on drawings.

### PREPARATION

#### HERBICIDE FOR LAWNS

- Type: Suitable for suppressing perennial weeds.
- Timing: Allow fallow period before cultivation.
- Duration: As manufacturer's recommendation.

#### SOIL REQUIREMENTS

- Type:
  - Seeded areas: Soil for grass swards, as section Q28.
  - Turfed areas: Soil for grass swards, as section Q28.
  - Reinforced grass areas: As section Q28.

#### PREPARATION FOR HYDRAULIC SEEDING

- Clearance: Remove rubbish, and stones with any dimension exceeding: 50 mm.
- Herbicide:
  - General weeds: Selective contact herbicide.
  - Pernicious weeds: Selective hormone herbicide.
- Grading: Smooth, flowing levels.
- Cultivation: Ensure grass roots can penetrate substrate.
- Finished surface: Ribbed or rough textured.
- Reinforcement: As specialist contractor's recommendation.
- Fixing: As specialist contractor's recommendation.

### SEEDING

#### GRASS SEED FOR LAWNS

- Supplier: Submit proposals.
- Mixture reference: 'Utility/Play' mix by Coburns.
- Application rate: 34-50 g/m<sup>2</sup>.

#### QUALITY OF SEED FOR ALL GRASSED AREAS

- Freshness: Produced for the current growing season.
- Certification: Blue label certified varieties.
- Standard: EC purity and germination regulations.
- Official Seed Testing Station certificate of germination, purity and composition: Submit when requested.
- Samples of mixtures: Submit when requested.

#### QUALITY OF WILDFLOWER SEED FOR WILDFLOWER MEADOWS

- Standard: Seed to be sourced from a Department of Agriculture, Food and the Marine registered seed grower and harvester.
- Germination testing: Not required.
- Freshness of seed: Produced for the current growing season.
- Samples: Submit when requested.

#### SOWING

- General: Establish good seed contact with the root zone.
- Method: Manually broadcast, raked and rolled.
- Distribution: As instructed by seed supplier.

#### WILDFLOWER SOWING SEASON

- Grass seed generally: April to October.

#### PRE-EMERGENT HERBICIDE FOR LAWNS

- Standard: Pesticide Safety Directorate approved.
- Application rate: In accordance with manufacturer's written recommendation.
- Timing: Immediately after sowing.

#### SOIL REQUIREMENTS

- Type:
  - Seeded areas: Soil for grass swards, as section Q28.
  - Turfed areas: Soil for grass swards, as section Q28.
  - Reinforced grass areas: As section Q28.

**350 TURF EDGING TO SEDED AREAS ADJACENT TO PAVEMENT**

- Standard: To BS 3969, with no perennial ryegrass.
- Seed mix: Similar to seeded area.
- Timing: Before sowing.
- Preparation: Rake back a 750 mm wide margin around prepared seed beds.
- Level of seed bed: Married in with turf.
- Placement: Single row laid end to end and trimmed to a line.
- Watering: On completion.

**352 EDGES TO SEDED AREAS ADJACENT TO PLANTING BEDS AND TREE PITS**

- Timing: After seeded areas are well established.
- Edges: Clean straight lines or smooth curves.
- Mulch and soil: Draw back to permit edging.
- Arisings: Remove.
- Compaction: Respread soil and mulch.

**TURFING**

**405 CULTIVATED TURF FOR LAWNS**

- Supplier: Turfgrass Growers Association (TGA) member, to TGA quality standards.
- Seed mixture: 35% Chewings fescue, 35% Slender red fescue, 20% Smooth stalked meadow grass, 10% Brown top bent.
- Properties of soil used for turf production: Peat-free, well drained sandy loam.

**420 DELIVERY AND STORAGE**

- Timing: Lay turf with minimum possible delay after lifting. If delay occurs, lay turf out on topsoil and keep moist.
- Frosty weather or waterlogged ground: Do not lift turf.
- Delivery: Arrange to avoid need for excessive stacking.
- Stacking height (maximum): 1 m.
- Dried out or deteriorated turf: Do not use.
- Certification:
  - Standard: To BS 3969.
- Declaration: Species mix, including percentage of specified species.

**423 INSPECTION OF TURF FOR LAWNS**

- Sampling method: To BS 3969.
- Give notice: Before lifting turf.
- Period of notice: 1 week.

**PROTECTING/CUTTING**

**530 FIRST CUT OF GRASSED AREAS**

- Timing: When grass is reasonably dry.
- Height of initial growth: 75 mm.
- Preparation:
  - Debris and litter: Remove.
  - Stones and earth clods larger than 25 mm in any dimension: Remove
- Height of first cut: 50 mm.
- Mower type: Contractor's choice.
- Arisings: Remove from site.

**550 AREAS NOT TO BE CUT**

- Do not cut:
  - Meadow grass containing wildflowers.

**430 TURFING GENERALLY**

- Time of year: To be agreed.
- Timing of laying:
  - Spring and summer: Within 18 hours of delivery.
  - Autumn and winter: Within 24 hours of delivery.
- Weather conditions: Do not lay turf when persistent cold or drying winds are likely to occur or soil is frost bound, waterlogged or excessively dry.
- Working access: Planks laid on previously laid turf. Do not walk on prepared bed or newly laid turf.
- Jointing: Laid with broken joints, well butted up. Do not stretch turf.
- Edges: Whole turfs, trimmed to a true line.
- Adjusting levels: Remove high spots and fill hollows with fine soil.
- Consolidating: Lightly and evenly firm as laying proceeds to ensure full contact with substrate. Do not use rollers.
- Dressing: brushed well in to completely fill all joints. Mulching and top dressing system, as section Q28.
- Watering: Thoroughly water completed turf immediately after laying. Check that water has penetrated into the soil below.

- 565     **TIMBER/ PLASTICS EDGINGS**
  - Material: Pressure treated softwood board.
  - Size: 150 mm x 38 mm.
  - Fixings: Nailed.
  - Pegs: 50 mm x 50 mm x 450 mm long.
  - Centres: 1200 mm.
  - Installation height: Flush.
  - Curved boards: Closely spaced vertical grooves cut in the back to achieve smooth flowing lines.
  - Preservative treatment: As section Z12 and Wood Protection Association commodity specification C4.
  - Type: To provide a 15 year service life.
- 590     **CLEANLINESS**
  - Soil and arisings: Remove from hard surfaces.
  - General: Leave the works in a clean, tidy condition at Completion and after any maintenance operations.
- MAINTENANCE**
- 610     **FAILURES OF SEEDING/TURFING**
  - Duration: Carry out the following operations from completion of seeding/ turfing until: the end of the rectification period.
  - Defective materials or workmanship: Areas that have failed to thrive.
  - Exclusions: Theft or malicious damage.
  - Method of making good: Recultivation and reseeding/ returfing.
  - Timing of making good: The next suitable planting season.
- 620     **MAINTAINING LAWNS**
  - Duration: Carry out the following operations from completion of seeding/ turfing until: the end of the rectification period.
  - Maximum height of growth at any time: 100 mm.
  - Preparation: Before each cut remove all litter and debris.
  - Cutting: As and when necessary to a height of 50 mm.
  - Arisings: Remove.
  - Bulb planting areas: Do not cut until bulb foliage has died down.
  - Trimming: All edges.
  - Arisings: Remove.
  - Weed control: Substantially free of broad leaved weeds.
  - Method: Application of a suitable selective herbicide.
  - Stones brought to the surface: Remove regularly.
  - Size: Exceeding 25 mm in any dimension.
  - Areas of settlement: Make good.
  - Watering: As clause Q30/145.
- 650     **MAINTAINING GRASSED AREAS WITH PERENNIAL WILD FLOWERS**
  - Duration: Carry out the following operations from completion of seeding/ turfing until: the end of the rectification period.
  - Preparation: Before each cut remove all litter and debris.
  - Height and frequency of cut in first growing season:
    - Time of first cut: June/ July.
    - Height of first cut: 100 mm.
    - Frequency of subsequent cutting (minimum): Every 6-8 weeks until autumn.
    - Height of growth permitted (maximum): 100 mm.
  - Height and frequency of cut in second growing season:
    - Time of cut: October, March and August.
    - Height of cut: 100 mm.
  - Trimming: All edges.
  - Arisings: Remove.
  - Watering: When instructed.

### **Q31 External planting**

To be read with Preliminaries/General conditions.

#### **GENERAL INFORMATION/ REQUIREMENTS**

- 112 SITE CLEARANCE GENERALLY
- General: Remove rubbish, concrete, metal, glass, decayed vegetation and contaminated topsoil.
  - Stones: Remove those with any dimension exceeding 50 mm.
  - Contamination: Remove material containing toxins, pathogens or other extraneous substances harmful to plant, animal or human life.
  - Vegetation: Clear scrub to ground level by flail mowing and remove arisings; retain and protect trees indicated on drawings.
  - Large roots: Grub up and dispose of without undue disturbance of soil and adjacent areas.
  - Additional requirements: none.
- 118 SOIL CONDITIONS
- Soil for cultivating and planting: Moist, friable and (except in aquatic/ marginal planting) not waterlogged.
  - Frozen or snow covered soil: Give notice before planting. Provide additional root protection. Prevent planting pit sides and bases and backfill materials from freezing.
- 120 CLIMATIC CONDITIONS
- General: Carry out the work while soil and weather conditions are suitable.
  - Strong winds: Do not plant.
- 125 TIMES OF YEAR FOR PLANTING
- Deciduous trees and shrubs: Late October to late March.
  - Conifers and evergreens: September/ October or April/ May.
  - Herbaceous plants (including marginal): September/ October or March/ April.
  - Container grown plants: At any time if ground and weather conditions are favourable.
    - Watering and weed control: Provide as necessary.
  - Dried bulbs, corms and tubers: September/ October.
  - Colchicum (crocus): July/ August.
  - Green bulbs: After flowering in spring.
  - Wildflower plugs: Late August to mid November or March/ April.
  - Aquatic plants: May/ June or September/ October.
- 130 MECHANICAL TOOLS
- Restrictions: Do not use within 100 mm of tree and plant stems.
- 146 WATERING
- Quantity: Wet full depth of topsoil.
  - Application: Even and without damaging or displacing plants or soil.
  - Frequency: As Soft Landscape Pricing Schedule.
- 150 WATER RESTRICTIONS
- General: If water supply is or is likely to be restricted by emergency legislation, do not carry out planting until instructed. If planting has been carried out, obtain instructions on watering.
- 160 NOTICE
- Give notice before:
    - Setting out.
    - Applying herbicide.
    - Applying fertilizer.
    - Delivery of plants/ trees.
    - Planting shrubs.
    - Planting trees into previously dug pits.
    - Watering.
    - Visiting site during maintenance period.
  - Period of notice: Two weeks.
- 170 SOIL REQUIREMENTS
- Type
    - Planted beds: Planting bed soil system, as section Q28.
    - Tree pits, shrub pits and other backfilling: Plant pit backfilling soil system, as section Q28.
    - External container planting: Container planting growing media system, as section Q28.
    - Mulch applied after planting: Mulching and top dressing system, as section Q28.
- 200 PLANTS/ TREES - GENERAL
- Condition: Materially undamaged, sturdy, healthy and vigorous.
  - Appearance: Of good shape and without elongated shoots.
  - Hardiness: Grown in a suitable environment and hardened off.
  - Health: Free from pests, diseases, discoloration, weeds and physiological disorders.
  - Budded or grafted plants: Bottom worked.
  - Root system and condition: Balanced with branch system.
  - Standard: The relevant parts of BS 3936.
  - Species: True to name.
  - Origin/ Provenance: Irish Grown.
- Definition: Origin and Provenance have the meaning given in the National Plant Specification.
- 216 PLANTS/ TREES - SPECIFICATION CRITERIA
- Name, forms, dimensions and other criteria: To the relevant part of BS 3936.
- 225 BULBS/ CORMS/ TUBERS
- Condition: Firm, entire, not dried out or shrivelled.
  - Health: Free from pests, diseases and fungus.
  - Handling: Remove from packaging immediately.
  - Storage: Permitted only when necessary.
    - Location: Well ventilated, dark, covered, rodent proof container, away from exhausts and fruit.
    - Duration: Minimum period.
    - Temperature: 18-21°C.
- 235 CONTAINER GROWN PLANTS/ TREES
- Growing medium: With adequate nutrients for plants to thrive until permanently planted.
  - Plants: Centred in containers, firmed and well watered.
  - Root growth: Substantially filling containers, but not root bound, and in a condition conducive to successful transplanting.
  - Hardiness: Grown in the open for at least two months before being supplied.
  - Containers: With holes adequate for drainage when placed on any substrate commonly used under irrigation systems.

- 246 LABELLING AND INFORMATION
  - Standard: To BS 3936.
- 255 PLANTS/ TREES RESERVED AT SUPPLIER'S PREMISES
  - Types/ Species: As plant schedule.
  - Predelivery inspection: Give notice.
  - Labelling: Identify inspected plants/ trees as reserved for use on this project.
- 260 PLANT/ TREE SUBSTITUTION
  - Plants/ trees unobtainable or known to be likely to be unobtainable at time of ordering:
    - Submit alternatives , stating:
    - Price.
    - Difference from specified plants/ trees.
    - Approval: Obtain before making any substitution.
- 265 PLANT HANDLING, STORAGE TRANSPORT AND PLANTING
  - Standard: To CPSE 'Handling and establishing landscape plants'.
  - Frost: Protect plants from frost.
  - Handling: Handle plants with care. Protect from mechanical damage and do not subject to shock, e.g. by dropping from a vehicle.
  - Plant packaging: Black polyethylene bags.
  - Packaging of bulk quantities: Pallets or bins sealed with polyethylene and shrink wrapped.
  - Planting: Upright or well balanced with best side to front.
- 280 TREATMENT OF TREE WOUNDS
  - Cutting: Keep wounds as small as possible.
    - Cut cleanly back to sound wood using sharp, clean tools.
    - Leave branch collars. Do not cut flush with stem or trunk.
    - Set cuts so that water will not collect on cut area.
    - Fungicide/ Sealant: Do not apply unless instructed.
- 285 PROTECTION OF EXISTING GRASS
  - General: Protect areas affected by planting operations using boards/ tarpaulins.
    - Excavated or imported material: Do not place directly on grass.
    - Duration: Minimum period.
- 290 SURPLUS MATERIAL
  - Subsoil, stones, debris, wrapping material, canes, ties, temporary labelling, rubbish, prunings and other arisings: Remove.
- PLANT CONTAINERS**
- PREPARATION OF PLANTING BEDS/ PLANTING MATERIALS**
- 300 HERBICIDE TO CLEAR EXISTING VEGETATION
  - Locations: All planting areas.
  - Type: Suitable for suppressing perennial weeds.
  - Timing: Allow fallow period before cultivation.
    - Duration (minimum): As manufacturer's recommendation.

**550 DOUBLE STAKING FOR Trees as indicated drawing 18KE01-DR-670**

- Staking:
  - Position: Either side of tree position and perpendicular to wind direction.
  - Driving: Vertically at least 300 mm into bottom of pit before planting.
  - Backfilling: Consolidate material around stake.
  - Firming: Sufficiently firm to prevent movement of the rootball/ rootstock.
  - Height of stakes: Cut off to approximately 600 mm above ground level.
  - Horizontal bracing: Timber cross bar, 75 mm x 38 mm x 900 mm.
  - Fixing: Firmly fix using nails on windward side of tree and as close as possible to the stem without making contact with the bark. Position cross bar horizontally and 25 mm from top of stakes.
  - Ties: Product Reference - SRC Tree Strap 38mm available from [www.landscapedepot.ie](http://www.landscapedepot.ie).
  - Tying: Secure tree firmly but not rigidly to cross bar. Prevent tree from touching cross bar using spacer blocks - product reference: SRC Cushion 38mm available from [www.landscapedepot.ie](http://www.landscapedepot.ie).

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- TREE PIT SURFACING - LOOSE FILL**
- Surfacing material: Mulch, as section Q28.
  - Area: Full extent of tree pit surface.
  - Depth: 75 mm.
  - Watering: Water soil thoroughly before laying.
  - Installation: Ensure the base of the tree stem is kept free from loose filled material.

**WOODLAND/ MATRIX/ BUFFER ZONE PLANTING**

**600 WOODLAND WORK GENERALLY**

- Services: Check for below and above ground services, including land drainage, in the vicinity. Give notice if they may be affected and obtain instructions before proceeding.
- Safety: Comply with Arboriculture and Forestry Advisory Group Safety leaflets.

**625 CULTIVATION**

- General: Rotary cultivate to full depth of topsoil.
- Consolidation: Leave for two months.
- Soil within root spread of trees to be retained: Do not plough or cultivate.

**680 SETTING OUT**

- Planting density: As drawing 18KE01-DR-671.
- Layout: Random groups of no less than 3 or more than 7 of the same species, ensuring that no three plants are aligned in any one direction.

**PROTECTING/ MAINTAINING/ MAKING GOOD DEFECTS**

**710 MAINTENANCE**

- Duration: Carry out the operations in the following clauses from completion of planting until the end of the rectification period.
- Frequency of maintenance visits: In accordance with the agreed maintenance schedule.

**720 FAILURES OF PLANTING**

- Defects due to materials or workmanship not in accordance with the Contract: Plants/ trees/ shrubs that have failed to thrive.
  - Exclusions: Theft or malicious damage after completion.
  - Rectification: Replace with equivalent plants/ trees/ shrubs.
  - Replacements: To match size of adjacent or nearby plants of same species or match original specification, whichever is the greater.
- Timing of making good: During the next suitable planting season.

**740 CLEANLINESS**

- Soil and arisings: Remove from hard surfaces and grassed areas.
- General: Leave the works in a clean tidy condition at completion and after any maintenance operations.

**750 PLANTING MAINTENANCE GENERALLY**

- Weed control: Maintain weed free area around each tree and shrub.
- Diameter (minimum): The larger of 1 m or the surface of original planting pit.
- Keep planting beds clear of weeds: By maintaining full thickness of mulch.
- Planted areas: Fork over beds as necessary to keep soil loose, with gentle cambers and no hollows. Take care not to reduce depth or effect of mulch.
- Precautions: Ensure that trees and shrubs are not damaged by use of mowers, nylon filament rotary cutters and similar powered tools.
- Firming up: Gently firm loosened soil around trees/ shrubs. Straighten leaning trees/ shrubs.
- Trees: Spray crown when in leaf during warm weather.
- Timing: After dusk.
- Tree accessories: Check condition of stakes, ties, guys, guards and irrigation and ventilation systems.
- Broken or missing items: Replace.
- Loose stakes: Re-firm in the ground or replace as necessary to provide support to the tree.
- Loose guys: Re-firm anchor points and adjust as necessary to provide support to the tree.
- Ties: Adjust to accommodate growth and prevent constriction or abrasion.
- Damage to bark: Cut back neatly with sharp knife. Prevent further damage.
- Frequency of checks: In accordance with the agreed maintenance schedule.
- Watering: In accordance with the agreed maintenance schedule.

**760 PLANTING MAINTENANCE - PRUNING**

- General: Prune to promote healthy growth and natural shape.
- Dead, dying, diseased wood and suckers: Remove.
- Timing: In accordance with the agreed maintenance schedule.
- Trees: Favour a single central leading shoot.

Arisings: Remove.

**780 MAINTENANCE INSTRUCTIONS**

- General: Before end of the maintenance period, submit printed instructions recommending procedures to be established by the Employer for maintenance of the planting work for one full year. Provide a schedule of any ongoing maintenance problems experienced during the rectification period.

- 790      FINAL MULCHING
  - Timing: At end of the maintenance period.
  - Watering: Ensure that soil is thoroughly moistened prior to remulching, applying water where necessary.
  - Planting beds: Remulch.
    - Depth (minimum): 75 mm.
  - Trees: Remulch.
    - Depth (minimum): 75 mm.

### **Q35 Landscape maintenance**

- To be read with Preliminaries/ General conditions.
- GENERALLY**
- 105      MAINTENANCE OBJECTIVES
  - Location: All planting beds.
  - Duration: 18 months.
  - Aims: Enhanced landscape quality and Improved landscape visual amenity.
  - Restrictions: Refer to the agreed maintenance schedule.
  - Results: Refer to the agreed maintenance schedule.
- 110      NOTICE
  - Give notice before:
    - Application of herbicide.
    - Application of fertilizer.
    - Watering.
    - Each site maintenance visit.
  - Period of notice: 2 weeks.
- 130      REINSTATEMENT
  - Damage or disturbance to soil structure, planting, grass, fencing, hard landscaping, structures or buildings: Reinstate to original condition.
- 140      CONTROL OF MAMMALIAN PESTS
  - Specialist firms: Submit proposals.
  - Method: Submit proposals.
- 152      PERFORMANCE CRITERIA FOR CONTROL OF INVASIVE PLANT SPECIES
  - Specialist firms: Submit proposals.
  - Species: Japanese knotweed.
  - Location: Whole site.
  - Requirement: Less than 10% cover.
  - Timing: As detailed in Local Biodiversity Action Plan.
- 155      WATERING
  - Supply: Potable mains water or rainwater from storage tank.
  - Quantity: Wet full depth of topsoil.
  - Application: Do not damage or loosen plants.
  - Compacted soil: Loosen or scoop out, to direct water to rootzone.
  - Frequency: As necessary for the continued thriving of all planting.
- 160      WATER RESTRICTIONS
  - General: If water supply is, or is likely to be, restricted by emergency legislation, submit proposals for an alternative suitable source of water. Obtain instructions before proceeding.

- 170 DISPOSAL OF ARISINGS
- General: Unless specified otherwise, dispose of arisings as follows:
    - Biodegradable arisings: Remove to recycling facility.
    - Grass cuttings: Remove to recycling facility.
    - Tree roots and stumps: Remove from site.
    - Shrub and tree prunings: Remove to recycling facility.
    - Litter and nonbiodegradable arisings: Remove from site.
- 180 CHIPPING OR SHREDDING
- General: Not permitted on site.
- 190 LITTER
- Extraneous rubbish not arising from the contract work: Collect and remove from site.
- 195 PROTECTION OF EXISTING GRASS
- General: Protect areas affected by maintenance operations using boards/tarpaulins. Do not place excavated or imported materials directly on grass.
- 197 CLEANLINESS
- Soil and arisings: Remove from hard surfaces.
  - General: Leave the works in a clean, tidy condition at completion and after any maintenance operations.
- 210 MAINTENANCE OF GRASSED AREAS
- General: Maintain turf in a manner appropriate to the intended use.
  - Soil and grass:
    - Condition: Maintain a healthy vigorous sward, free from disease, fungal growth, discolouration, scorch or wilt.
    - Waterlogging and compaction: Prevent.
    - Damage: Repair trampling, abrasion or scalping.
  - Ornamental lawns: Maintain reasonably free from moss, excessive thatch, weeds, frost heave, worm casts and mole hills.
  - Edges: Neat and well defined, in clean straight lines or smooth flowing curves.
  - Litter and fallen leaves: Remove regularly to maintain a neat appearance.
- 220 GRASS CUTTING GENERALLY
- Before mowing: Remove litter, rubbish and debris.
  - Finish: Neat and even, without surface rutting, compaction or damage to grass.
  - Edges: Leave neat and well defined. Neatly trim around obstructions.
  - Adjoining hard areas: Sweep clear and remove arisings.
  - Drought or wet conditions: Obtain instructions.
- 226 TREE STEMS
- Precautions: Do not allow nylon filament rotary cutters and other mechanical tools closer than 100 mm to the stem of any tree.
  - Operations close to stems: Complete using hand tools.
- 235 BULBS AND CORMS IN GRASSED AREAS
- Before flowering: Do not cut.
  - Interval between end of flowering and start of grass cutting (minimum): 6 weeks.
- 250 LEAF REMOVAL
- Operations: Collect fallen leaves.
  - Special requirements: None.
  - Disposal: Remove from site for recycling.
- 255 FIRST CUT OF ALL GRASSED AREAS
- Height of initial growth: 75 mm.
  - Preparation:
    - Debris and litter: Remove.
    - Stones and earth clods larger than 25 mm in any dimension: Remove
  - Height of first cut: 50 mm.
  - Mower type: Contractor's choice.
  - Arisings: Remove.
- 270 MOWING ROUGH GRASSED AREAS
- Grass height: Maintain between 50 and 75 mm.
  - Arisings: Spread evenly over cut areas.
- 272 MAINTAINING GRASSED AREAS WITH PERENNIAL WILD FLOWERS
- Preparation: Before each cut remove litter and debris.
  - Height and frequency of cut in first growing season:
    - Time of first cut: March/ April.
    - Height of first cut: 75 mm.
    - Frequency of subsequent cutting (minimum): Every 6–8 weeks until autumn.
    - Height of growth permitted (maximum): 150 mm.
  - Height and frequency of cut in second growing season:
    - Time of cut: October, March and August.
    - Height of cut: 75 mm.
    - Trimming: All edges.
    - Arisings: Remove.
    - Watering: As schedule and when instructed.
- 275 CUTTING SUMMER FLOWERING WILD FLOWER MEADOWS
- Times of year/ Frequency of cutting: July and September.
  - Height of cut: 75 mm.
  - Arisings: Leave for 2–3 days after cutting then remove.
- 285 TOP DRESSING
- Location: All lawns.
  - Timing: Following scarification and aeration.
  - Material: Compost/ sand/ loam mix.
  - Supplier: Submit proposals.
  - Product reference: '80/20 Fine Turf Top Dressing' by Pitchcare Ireland.
  - Declaration of analysis: Submit.
  - Additional analyses: Not required.
  - Samples: Supply 5 kg sample before ordering.
  - Application rate: 2–4 kg/m<sup>2</sup>.
- 295 SPIKING
- Location: All lawns where waterlogging occurs, to be used as an initial remediation measure. Where problems persist see clause 307.
  - Timing: As necessary to relieve compaction and waterlogging.
  - Operations: Aerate the soil and improve surface water penetration.
  - Depth (minimum): 100 mm into soil.

300	SCARIFYING	<ul style="list-style-type: none"> <li>Location: All lawns.</li> <li>Timing: October or November, before top dressing.</li> <li>Operations: Relieve thatch conditions and remove dead grass.</li> <li>Depth (maximum): 25 mm into soil.</li> <li>Arisings: Remove.</li> </ul>	
305	HARROWING	<ul style="list-style-type: none"> <li>Location: All lawns.</li> <li>Timing: October or November, after top dressing.</li> <li>Operations: Aerate soil and remove worm casts.</li> <li>Type of harrow: Chain harrow or drag mat.</li> </ul>	
307	HOLLOW TINING	<ul style="list-style-type: none"> <li>Location: Where drainage problems persist on recreational lawn areas.</li> <li>Timing: As necessary to relieve compaction.</li> <li>Depth: 100 mm.</li> </ul>	
310	RE-FORMING GRASS EDGES	<ul style="list-style-type: none"> <li>Location: Where damage occurs.</li> <li>Edges: Draw back soil and re-form edges to clean straight lines or smooth flowing curves, sloping slightly back from vertical.</li> </ul>	
320	LEVELLING HOLLOW AND BUMPS IN TURF	<ul style="list-style-type: none"> <li>Standard: To BS 7370-3, clauses 12.4 and 12.5.</li> </ul>	
325	RELIEVING SURFACE COMPACTION IN TURF	<ul style="list-style-type: none"> <li>Standard: To BS 7370-3.</li> <li>Method: Spiking.</li> <li>Top dressing: Medium to fine sand.</li> <li>Depth: 2-3 mm.</li> </ul>	
330	SELECTIVE HERBICIDE	<ul style="list-style-type: none"> <li>Location: All lawns.</li> <li>Herbicide: Suitable for suppressing perennial weeds.</li> <li>Areas not to be sprayed: Bulb and corm planted areas when in leaf.</li> </ul>	
345	CONTROL OF JAPANESE KNOTWEED	<ul style="list-style-type: none"> <li>Operations: Spot treat in June and September during suitable weather conditions and when plants are growing vigorously.</li> <li>Herbicide: In accordance with the Environment Agency 'Managing Japanese knotweed on development sites. The knotweed code of practice'.</li> <li>Application: In accordance with the Environment Agency 'Managing Japanese knotweed on development sites. The knotweed code of practice'.</li> <li>Arisings: In accordance with the Environment Agency 'Managing Japanese knotweed on development sites. The knotweed code of practice'.</li> </ul>	
350	FERTILIZER - SPRING APPLICATION	<ul style="list-style-type: none"> <li>Type: Organic.</li> <li>Application rate: 60 g/m<sup>2</sup>.</li> </ul>	
375	PEST CONTROL	<ul style="list-style-type: none"> <li>Location: Ornamental lawns.</li> <li>Treatment: Fungicide. <ul style="list-style-type: none"> <li>- Manufacturer: Submit proposals.</li> <li>- Product reference: Submit proposals.</li> </ul> </li> <li>Timing: As manufacturer's recommendation.</li> </ul>	
381	REINSTATEMENT OF WORN OR DAMAGED LAWNS	<ul style="list-style-type: none"> <li>Worn or damaged areas: Make good by returfing or reseeding. <ul style="list-style-type: none"> <li>- Returfing standard: To BS 7370-3, Clause 12.2.</li> <li>- Reseeding standard: To BS 7370-3, Clause 12.6.</li> </ul> </li> <li>Turf or seed: To match existing in appearance and quality.</li> <li>Protection and watering: Provide as necessary to promote successful germination and/or establishment.</li> </ul>	
460	BEDS OF PERENNIALS OR PERENNIALS AND ANNUALS	<ul style="list-style-type: none"> <li>Plant supports: Stake and tie plants using bamboo canes and flower canes where required. <ul style="list-style-type: none"> <li>- Length: To suit plant height.</li> </ul> </li> <li>Maintain throughout the growing season.</li> <li>Gaps in planting: Refill by replanting.</li> <li>Watering: <ul style="list-style-type: none"> <li>- New plants: Before and after planting out.</li> <li>- Ongoing: As necessary for the continued thriving of all planting.</li> </ul> </li> <li>Operations at end of growing season: <ul style="list-style-type: none"> <li>- Trim: Older flowering stems of herbaceous perennials.</li> <li>- Remove: Redundant plant supports, litter, debris and arisings.</li> <li>- Cultivate: Fork over the soil, taking care not to cause undue disturbance to plants.</li> <li>- Top dress: Apply fertilizer at a rate of 60 g/m<sup>2</sup>.</li> </ul> </li> </ul>	
470	FLOWER BEDS GENERALLY	<ul style="list-style-type: none"> <li>Operations: <ul style="list-style-type: none"> <li>- Remove: Dead flower heads, fallen leaves, litter and debris.</li> <li>- Weeds: Thoroughly hand weed.</li> <li>- Cultivate: Lightly hoe.</li> <li>- Trim: Clip grass edges.</li> <li>- Fungicide: Not required.</li> <li>- Insecticide: Not required.</li> </ul> </li> </ul>	
500	ESTABLISHMENT OF NEW PLANTING	<ul style="list-style-type: none"> <li>Weed control: <ul style="list-style-type: none"> <li>- Method: Keep planting beds clear of weeds by maintaining full thickness of mulch.</li> <li>- Area: Maintain a weed free area around each tree and shrub, minimum diameter the larger of 1 m or the surface of the original planting pit.</li> <li>- Soil condition: Fork over beds to keep soil loose, with gentle cambers and no hollows. Do not reduce depth or effect of mulch.</li> </ul> </li> <li>Duration: 18 months.</li> <li>Arisings: In accordance with the agreed maintenance schedule.</li> </ul>	

510

**TREE STAKES AND TIES**

- Inspection/ Maintenance times: As scheduled and immediately after strong winds.
- Stakes:
  - Replace loose, broken or decayed stakes to original specification.
  - If longer than half of clear tree stem height, cut to this height in spring. Retie to tree firmly but not tightly with a single tie.
  - Ties: Adjust, refix or replace loose or defective ties, allowing for growth and to prevent chafing.
  - Where chafing has occurred, reposition or replace ties to prevent further chafing.
  - Removal of stakes and ties: When instructed.
  - Fill stake holes with lightly compacted soil.

515

**PRUNING OF EXCESSIVE OVERHANG**

- Timing: As instructed.
- Operations: Remove growth encroaching onto grassed areas, paths, roads, signs, sightlines and road lighting luminaires.
- Special requirements: None.

550

**PRUNING OF EXCESSIVE HEIGHT**

- Timing: As instructed.
- Operations: Remove excessive height As instructed.

555

**PRUNING TREES AND SHRUBS**

- Standard: To BS 7370-4.
- Special requirements: Growth retardants not permitted.

570

**FORMATIVE PRUNING OF YOUNG TREES**

- Standard: Type and timing of pruning operations to suit the plant species.
- Time of year: Do not prune during the late winter/ early spring sap flow period.
- Young trees up to 4 m high:
  - Crown prune by removing dead branches and reducing selected side branches by one third to preserve a well balanced head and ensure the development of a single strong leader.
  - Remove duplicated branches and potentially weak or tight forks. In each case cut back to live wood.
  - Whips or feathered trees: Do not prune.
- Operatives: Approved specialist contractor.

575

**PRUNING ORNAMENTAL SHRUBS**

- General: Prune to encourage healthy and bushy growth and desirable ornamental features, e.g. flowers, fruit, autumn colour, stem colour.
- Suckers: Remove by cutting back level with the source stem or root.

580

**PRUNING FLOWERING SPECIES OF SHRUBS AND ROSES**

- Time of year:
  - Winter flowering shrubs: Spring.
  - Shrubs flowering between March and July: Immediately after the flowering period.
  - Rose bushes: Early spring to encourage basal growths and a balanced, compact habit.

540

**PRUNING GENERALLY**

- Pruning: In accordance with good horticultural and arboricultural practice.
- Removing branches: Do not damage or tear the stem or bark.
- Wounds: Keep as small as possible and cut cleanly back to sound wood.
- Cutting: Make cuts above and sloping away from an outward facing healthy bud, angled so that water will not collect on cut area.
- Larger branches: Prune neither flush nor leaving a stub, but using the branch bark ridge or branch collar as a pruning guide.
- Appearance: Thin, trim and shape each specimen appropriately to species, location, season, and stage of growth, leaving a well balanced natural appearance.
- Tools: Use clean sharp secateurs, hand saws or other approved tools. Trim off ragged edges of bark or wood with a sharp knife.
- Disease or infection: Give notice if detected.
- Growth retardants, fungicide or pruning sealant: Do not use unless instructed.

600

**TRIMMING RAPIDLY ESTABLISHING HEDGES**

- General: Allow to reach planned height as rapidly as possible.
- Form: Trim back lateral branches moderately.

605

**TRIMMING SLOWLY ESTABLISHING HEDGES**

- Operations:
  - Timing: Cut back hard in June and September to encourage bushy growth down to ground level.
  - Form: Allow to reach planned dimensions only by gradual degrees, depending on growth rate and habit.

610	TRIMMING TAPERING ESTABLISHED HEDGES	<ul style="list-style-type: none"> <li>Time of year: Trim once in July or August.</li> <li>Operations:           <ul style="list-style-type: none"> <li>- Form: Trim carefully and neatly to regular line and shape, with the width at the top less than that at the base.</li> <li>- Trim: Remove current growth rather than old wood.</li> <li>- Tools/ Cutting: Suitable mechanical cutters.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>657 HERBICIDE TO KILL REGROWTH           <ul style="list-style-type: none"> <li>Type: Suitable foliar acting herbicide to kill regrowth.</li> <li>Timing: Allow recommended period for herbicide to take effect before clearing dead weeds.</li> </ul> </li> </ul>
611	TRIMMING NONTAPERING ESTABLISHED HEDGES	<ul style="list-style-type: none"> <li>Time of year: Trim once in July or August.</li> <li>Operations:           <ul style="list-style-type: none"> <li>- Form: Trim carefully and neatly to regular line and shape with vertical sides.</li> <li>- Trim: Remove current growth rather than old wood.</li> <li>- Tools/ Cutting: Suitable mechanical cutters.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>655 WEED CONTROL WITH WINTER HERBICIDE           <ul style="list-style-type: none"> <li>Type: Suitable residual soil acting herbicide.</li> <li>Time of year: Unless otherwise agreed, complete before end of March.</li> <li>Timing: Allow recommended period for herbicide to take effect before clearing dead weeds.</li> </ul> </li> </ul>
620	REMOVAL OF DEAD PLANT MATERIAL	<ul style="list-style-type: none"> <li>Operations: At the end of the growing season, check all shrubs and remove all dead foliage, dead wood, and broken or damaged branches and stems.</li> </ul>	<ul style="list-style-type: none"> <li>665 WEED CONTROL WITH WINTER HERBICIDE           <ul style="list-style-type: none"> <li>Type: Suitable residual soil acting herbicide.</li> <li>Time of year: Unless otherwise agreed, complete before end of March.</li> <li>Timing: Allow recommended period for herbicide to take effect before clearing dead weeds.</li> </ul> </li> </ul>
625	CLIMBING PLANTS	<ul style="list-style-type: none"> <li>Pruning: Remove excess growth, to ensure that signs, light fittings, doors and windows are kept clear at all times.</li> <li>Insecure growth: Attach to supporting wires or structures using Stainless steel wire.</li> <li>Supporting structures: Check and repair as necessary.</li> </ul>	<ul style="list-style-type: none"> <li>670 WEED CONTROL WITH SUMMER HERBICIDE           <ul style="list-style-type: none"> <li>Type: Suitable foliar acting herbicide.</li> <li>Timing: Allow recommended period for herbicide to take effect before clearing dead weeds.</li> </ul> </li> </ul>
635	REINSTATEMENT OF SHRUB/ HERBACEOUS AREAS	<ul style="list-style-type: none"> <li>Dead and damaged plants: Remove.</li> <li>Mulch/ matting materials:           <ul style="list-style-type: none"> <li>- Carefully move to one side and dig over the soil, leaving it fit for replanting.</li> <li>- Do not disturb roots of adjacent plants.</li> </ul> </li> <li>Replacement plants:           <ul style="list-style-type: none"> <li>- Use pits and plants: To original specification or to match the size of adjacent or nearby plants of the same species, whichever is the greater.</li> <li>- Additional requirements: None.</li> </ul> </li> <li>Dressing: Slow release fertilizer:           <ul style="list-style-type: none"> <li>- Type: Organic.</li> <li>- Application rate: As manufacturer's recommendations.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>680 SOIL AERATION           <ul style="list-style-type: none"> <li>Compacted soil surfaces:               <ul style="list-style-type: none"> <li>- Prick up: To aerate the soil of root areas and break surface crust.</li> <li>- Size of lumps: Reduce to crumb and level off.</li> <li>- Damage: Do not damage plants and their roots.</li> </ul> </li> </ul> </li> </ul>
645	WEED CONTROL GENERALLY	<ul style="list-style-type: none"> <li>Weed tolerance: At all times, weed cover less than 5% and no weed to exceed 100 mm high.</li> <li>Adjacent plants, trees and grass: Do not damage.</li> </ul>	<ul style="list-style-type: none"> <li>685A SOIL LEVEL ADJUSTMENT           <ul style="list-style-type: none"> <li>Level of soil/mulch at edges of beds: Reduce to 25 mm below adjacent grass or hard surface.</li> <li>- Arisings (if any): Spread evenly over the bed.</li> </ul> </li> </ul>
650	HAND WEEDING	<ul style="list-style-type: none"> <li>General: Remove weeds entirely, including roots.</li> <li>Disturbance: Remove the minimum quantity of soil, and disturb plants, bulbs and mulched surfaces as little as possible.</li> <li>Completion: Rake area to a neat, clean condition.</li> <li>Mulch: Reinstate to original depth.</li> </ul>	<ul style="list-style-type: none"> <li>690 MAINTENANCE OF LOOSE MULCH           <ul style="list-style-type: none"> <li>Thickness (minimum): 75 mm.</li> <li>- Top up: Twice per year.</li> <li>- Mulch spill on adjacent areas: Remove weeds and rubbish and return to planted area.</li> <li>- Weeding: Remove weeds growing on or in mulch by hand weeding.</li> </ul> </li> </ul>
655	WEED CUTTING BY HAND OR MACHINE	<ul style="list-style-type: none"> <li>Undesirable grass, brambles and herbaceous growth: Cut down cleanly to a maximum height of 25 mm.</li> <li>Herbicides: Remove arisings before application.</li> </ul>	<ul style="list-style-type: none"> <li>700 SNOW REMOVAL FROM SHRUBS/ TREES           <ul style="list-style-type: none"> <li>Standard: To BS 7370-4.</li> <li>Plants subject to snow removal: As instructed.</li> <li>Timing: Within 24 hours of snowfall.</li> </ul> </li> </ul>
660	TREE WORK		<ul style="list-style-type: none"> <li>705 WINTER LEAF REMOVAL           <ul style="list-style-type: none"> <li>Operations: Take down temporary leaf fences. Collect accumulations of drifted leaves from the vicinity and from planting beds.</li> <li>Arisings: Remove to recycling facility.</li> </ul> </li> </ul>
670	TREE WORK GENERALLY		<ul style="list-style-type: none"> <li>810 TREE WORK GENERALLY           <ul style="list-style-type: none"> <li>Identification: Before starting work agree which trees, shrubs and hedges are to be removed or pruned.</li> <li>Protection: Avoid damage to neighbouring trees, plants and property.</li> <li>Standards: To BS 3998 and Health &amp; Safety Executive (HSE) Forestry and arboriculture safety leaflets'.</li> <li>Removing branches: Cut vertical branches similarly, with no more slope on the cut surface than is necessary to shed rainwater.</li> <li>Appearance: Leave trees with a well balanced natural appearance.</li> <li>Chain saw work: Operatives must hold a Certificate of Competence.</li> <li>Tree work: To be carried out by an approved member of the Arboricultural Association.</li> </ul> </li> </ul>

815

**ADDITIONAL WORK**

- Defective, diseased, unsafe or weak parts of trees additional to those scheduled for attention: Give notice if detected.

820

**PREVENTION OF WOUND BLEEDING**

- Standard: To BS 3998.

825

**PREVENTION OF DISEASE TRANSMISSION**

- Standard: To BS 3998.

830

**CLEANING OUT AND DEADWOODING**

- Remove:
  - Dead, dying, or diseased wood, broken branches and stubs.
  - Fungal growths and fruiting bodies.
  - Rubbish, wind blown or accumulated in branch forks.
  - Wires, clamps, boards and metal objects, if removable without causing further damage and not part of a support structure that is to be retained.
  - Other unwanted objects, e.g. tree houses, swings.
  - Climbing plants, ivy where instructed.

**CUTTING AND PRUNING GENERALLY**

- Tools: Appropriate, well maintained and sharp.
- Final pruning cuts:
- Chainsaws: Do not use on branches of less than 50 mm diameter.
- Hand saws: Form a smooth cut surface.
- Anvil type secateurs: Do not use.
- Removing branches: Do not damage or tear the stem.
- Wounds: Keep as small as possible, cut cleanly back to sound wood leaving a smooth surface, and angled so that water will not collect on the cut area.
- Cutting: Cut at a fork or at the main stem to avoid stumps wherever possible.
- Large branches: Remove only with prior approval.
- Remove in small sections and lower to ground with ropes and slings.
- Dead branches and stubs: When removing, do not cut into live wood.
- Unsafe branches: Remove epicormic shoots and potentially weak forks that could fail in adverse weather conditions.
- Disease or fungus: Give notice if detected. Do not apply fungicide or sealant unless instructed.

**CROWN REDUCTION/ SHAPING**

- General: Cut back selectively to lateral or sublateral buds or branches to retain flowing branch lines without leaving stumps.
- Operations: Reduce crown by 15%.

**CROWN LIFTING**

- Clearances: Remove branch systems to give clearance.
- Height: 2.5 m above footpaths.
- Removing branches: Remove whole branches back to the stem, or cut lower portions of branches back to lateral or sublateral buds or branches. Do not leave stumps.

850

**CROWN THINNING**

- Removing branches: Remove inward growing, crossing, rubbing, dead and damaged branches.
- Thinning: Selectively remove secondary and small live branch growth evenly throughout the crown.
  - Quantity: 20 %.
- Cutting: Make no cuts of more than 50 mm diameter.
- Branches: Cut back to lateral or sublateral buds or branches without leaving stumps.
- Appearance: Leave a uniform and well balanced structure of branches and foliage.

**CUTTING TREE ROOTS**

- Excavating: Use hand tools only.
- Protected area: Do not cut roots within an area which is the larger of:
  - The branch spread of the tree.
  - An area with a radius of half the tree's height, measured from the trunk.
- Outside protected area: Give notice of roots exceeding 50 mm in diameter. Do not cut without approval.
- Cutting:
  - Cutting: Make clean smooth cuts with a hand saw.
  - Wounds: Minimize. Avoid ragged edges.
  - Finishing: Pare cut surfaces smooth with a sharp knife.
- Backfilling:
  - Protection: Cover cut roots with clean sharp sand.
- Material: Backfill with original topsoil.

**REMOVING TREES, SHRUBS AND HEDGES**

- Standards: To BS 3998 and Health & Safety Executive (HSE)/ Arboricultural and Forestry Advisory Group Safety Leaflets.
- Existing services: Check for below and above ground services. Give notice if they may be affected.
- Shrubs and smaller trees: Cut down and grub up roots.
- Tree stumps:
  - Treatment: Remove mechanically to a minimum depth of 300 mm below ground level.
  - Removal by winching: Give notice. Do not use other trees as supports or anchors.
- Protection: Avoid damage to neighbouring trees, plants and property.
- Work near retained trees: Where tree canopies overlap and in confined spaces generally, take down trees carefully in small sections to avoid damage to adjacent trees that are to be retained.
- Filling holes:
  - Material: Use as-dug material and/or imported soil as required.
  - Finishing: Consolidate and grade to marry in with surrounding ground level.

**BARK DAMAGE**

- Wounds:
  - Do not attempt to stop sap bleeding.
  - Bark: Remove ragged edges using a sharp knife.
  - Wood: Remove splintered wood from deep wounds.
  - Size: Keep wounds as small as possible.
  - Liquid or flux oozing from apparently healthy bark: Give notice.

- 870 CAVITIES IN TREES
- Investigation: Remove rubbish and rotten wood. Probe the cavity to find the extent of any decay, and give notice.
  - Water filled cavities: Do not drain.
  - Sound wood inside cavities: Do not remove.
  - Cavity openings: Do not cover.

#### HARD LANDSCAPE AREAS/FENCING

- 900 SNOW CLEARANCE
- Clearance: When instructed.
  - Deicing: To footpaths.
  - Material: Rock salt to BS 3247.
  - Timing: When freezing precipitation is forecast.
  - Application rate: Spread evenly at a rate of As manufacturer's recommendations.
- 910 HARD SURFACES AND GRAVEL AREAS
- Herbicide: Apply a suitable foliar acting or residual herbicide. Allow recommended period for herbicide to take effect before clearing arisings.
  - Hard surfaces: Remove litter, leaves and other debris.
  - Surface gutters and channels: Remove mud, silt and debris.
  - Drainage gullies: Empty traps and flush clean.
  - Gravel areas: Rake over. Remove weeds, litter, leaves and debris, and level off.
  - Repairs to flexible bituminous pavings: In accordance with the original paving specification or BS 7370-2, clause 4.12.
  - Stain removal: In accordance with BS 7370-2, table 4.
- 915 PAVING SEALANT
- Type: Clear solvent based polymer sealer.
  - Manufacturer: Adseal.
  - Product reference: Heavy Duty Sealer.
  - Application method: Spray.
  - Coats: Two coats applied at right angles to each other.
  - Coverage: 5-9 m<sup>2</sup>/L.
- 920 FENCING
- Fences: Inspect and repair to maintain protection against stock.
- 930 GRAFFITI REMOVAL
- Method: Chemical poultice.
  - Subsequent treatment: Not required.
  - Finish: n/a.



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