

**CUNNANE STRATTON REYNOLDS**  
**LAND PLANNING & DESIGN**

**CREAMFIELDS KINSALE ROAD**

**Landscape Design Rationale**

PROJECT NO. 20400

February 2022



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## 01. Response to An Bord Pleanála Opinion

The Inspector's Report on Recommended Opinion: 311166-21 (Fiona Fair Senior Planning Inspector 27.10.2021) and Notice of Pre-Application Consultation Opinion: Case Reference: ABP-311166-21 (Tom Rabbette, Assistant Director of Planning, December, 2021) required additional items to be given further consideration. Below are CSR responses to landscape item raised:

**Item no. 5.** *Details of a Green Infrastructure Plan, Landscaping Plan, Arboriculture Drawings, and Engineering Plans that take account of one another.*

**Response:**

**TREE SURVEY REPORT**

A significant part of the existing brownfield CMP Dairy site is concreted over with what remains of circulation yards and buildings, reduced to ground floor level, and is surrounded by a boundary screen of predominantly low value trees/hedging as well as self-seeded willow scrub to interior parts of the site. Refer to 'Existing Site Boundaries & Vegetation' (Pg 9 of this report) in conjunction with the specialist arborist report prepared by Tree Management Services (TMS) *Arboricultural Tree Survey Report and Reference Plan TMS-CSR.01.21.21A* for further information.

**PROPOSED TREE PLANTING STRATEGY**

The proposed development, to deliver an interactive and permeable urban edge to the street along the eastern, northern and southern boundaries requires the removal of the existing industrial security fencing and associated vegetation. The development footprint along the western boundary also requires the removal of existing trees along that edge.

To mitigate the loss of existing site vegetation, the proposed development includes a comprehensive tree and shrub planting strategy aimed at greening the site to enhance the biodiversity potential of the site in line with the All-Ireland Pollinator Plan using a range native and high-value non-native species throughout the development. For further information refer to Landscape Masterplan drawing no. 20400-2-101 and the following pages of this report:

- Landscape Masterplan & Character Areas, Pg 14-18
- Biodiversity and Sustainability, Pg 21
- Pollinator Planting Palette, Pg 22
- Green Infrastructure Strategy/Amenity and Recreation Plan, Pg 27

Landscape Masterplan drawing no. 20400-2-101 has evolved in coordination with the project Engineering and Architecture Plans.

Tree planting proposals have the following key functions:-

- The provision of a long-term landscape framework which will soften the built environment.
- Provision of screening along site boundaries
- Spatial definition across public open spaces and streets.
- The provision of seasonal variation and interest through the site including along pedestrian/cyclist routes.
- Promotion of the biodiversity potential of the site.

Planting beds throughout the scheme will also be adapted as rain gardens to form part of the Sustainable Urban Drainage Strategy (SuDS) for the proposed development.

**Item no. 6.** *Justification of quantum and quality of open space provision, both communal and public open space (POS). Clarity with regard to compliance with Development Plan standards, provision of play spaces, hard and soft landscaping and planting details.*

**Response:**

Public open space requirements for residential developments are outlined in table 16.2 extracted from the current Cork City Development Plan 2015 (as is also the case in table 11.11 of the draft Cork City Development Plan 2022-2028) as follows:

Area	Public Open Space
Greenfield sites / areas for which a local area plan is appropriate	15%
General provision	10%

- 16.61 Public open space in all types of residential development should:
- Be visually as well as functionally accessible to the maximum number of dwellings within the residential area;
  - Be adequately overlooked by residential units;
    - Integrate natural features (for example natural contours, outcrops of rock), where appropriate, as part of the open space;
  - Be viable spaces, linked together where possible, designed as an integral part of the overall layout and adjoining neighbouring communal open spaces;
  - Not include narrow pedestrian walkways, which are not overlooked by house frontages;
  - Create safe, convenient and accessible amenity areas for all sections of the community;
  - Generally no rear boundaries should face onto public open space.

Compliance with Development Plan standards is integral to the design strategy for the site with emphasis on 'Place-Making', the delivery of uplifting and safe environments with overlooked open spaces and streets, easily accessible and well connected outdoor spaces for all ages, sense of contact with nature and avoidance of potentially anti-social spaces. Public and semi-public open space is delivered at 23%.

In addition, the Dept. of Housing, Local Heritage *Sustainable Urban Housing: Design Standards for New Apartments* have been applied with the provision of one dedicated play space 300sq. m. in size and two dedicated play spaces each 100sq. m. in size, located adjacent to communal amenity/social spaces.

Refer to the following pages of this report for additional detail:

- Design Aims, Pg 12
- Design Rationale Statement, Pg 20
- Circulation & Permeability, Pg 25
- Recreation & Amenity, Pg 26-28
- Together with Landscape Masterplan drawing no. 20400-2-101.

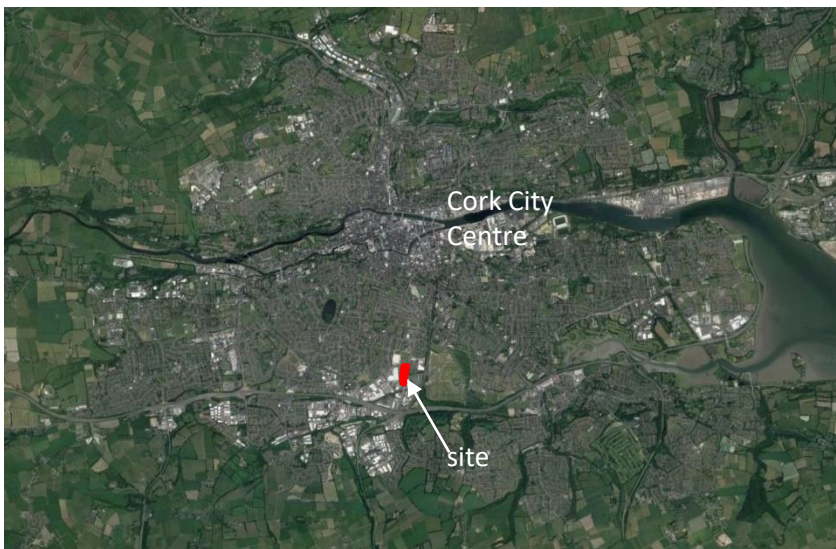


## 02. Context & Introduction

## Introduction: Proposed Development

The proposed development will consist of a Strategic Housing Development of 609no. dwellings (561no. apartments (of which 257no. are Build To Rent) and 48no. townhouses) in 12no. buildings of between 1-15 storeys in height over ground, to include a coffee kiosk; gym; café; retail use; creche and community hub; public square; car parking; cycle parking; and all associated site development, infrastructural, and landscaping works on the site of the former CMP Dairies site, Kinsale Road and Tramore Road, Cork.





Site Context

The proposed site located in a primarily industrial area to the south fringe of Cork City, at the junction of Kinsale Road and Tramore Road. It is a brownfield site of 3.39 hectares in area, and is predominantly level in topography to the centre and south of the site, with the grade rising towards Tramore Road to the North.

The site is surrounded to the South, East and West by commercial property and to the north along Tramore Road, Musgrave Park and Rugby Club. Beyond these to the north and west are residential areas. Tramore River passes close by the south boundary heading west-east.

Kinsale Road, running north-south along the eastern edge of the site runs parallel to the N27 and is linked by Mick Barry Road across to the large amenity of Tramore Park.





Site Context –  
Local Green Network & Amenities



Subject site in the context of wider green infrastructure and amenity.

Tramore Valley Park is located in close proximity to the subject site, providing 160 acres of public amenity space and recreational facilities which is accessible via Mick Barry Road and/or by a proposed/ upgraded Tramore River walk located to the south of site.

LEGEND

- |   |   |   |  |
|---|---|---|--|
|  Proposed Site                 |  Sports Grounds    |  Rivers/Water Bodies |  Proposed New Amenity Routes/Upgrades |
|  Areas of High Landscape Value |  Public Open Space |  Amenity Routes      |  |



## 02. Site Analysis





Analysis : Site Boundaries & Vegetation



- Outline of existing vegetation to be removed to facilitate the proposed development. For mitigation strategy refer to mitigation plan on page 23.
- Location of Japanese Knotweed. For Japanese Knotweed control measures, refer to the Invasive Species Management Plan which is appended to the CEMP for the site.

The existing site is secured by palisade fencing and an inner layer of vegetation for screening and softening the boundary. Site boundary vegetation comprises a mixture of Griselinia/Lawson Cypress hedging and Willow scrub along the northern, eastern and southern boundaries which are interspersed with established trees. The western site boundary has individual specimen trees along the northern half of the site and scrub willow in the southern half.

The site trees are the subject of a specialist arborists report prepared by Tree Management Services. (For full details refer to TMS Arboricultural Tree Survey Report and Reference Plan TMS-CSR.01.21.21A)

There are 148 no. trees on the site which warranted tagging, the majority of which are concentrated along the site boundaries, some of which form sections of coniferous hedging.

The trees comprise 2 no. category A trees, 26 no. category B trees, 61. no category C trees, 52 no. of category C/U and 7 category U trees.

The nature of the high-density development is such that all existing trees will be removed to accommodate the proposed building footprints, access road infrastructure, car parking provision and public realm interface along Kinsale Road and Tramore Road.

Mitigation for this loss is outlined on page 23 of this report. Mitigation measures form an integral part of the design strategy for the site as also described on pages 12, 21,22 & 28.



1. Existing gated entrance on Tramore Road



2. Existing site boundary vegetation along Kinsale Road



3. View southward across site showing trees and scrub vegetation



4. Existing boundary with adjoining Musgraves site, showing trees and scrub vegetation.



Analysis : Landscape Heritage



Layers of time periods



CMP (Cork Milk Producers) Dairy –remaining floor pattern on site



Mick Barry -Irish Road Bowler

**Cork Bandon and South Coast Railway**  
*One of the greatest problems was the construction of the Ballyphehane embankment. It was just over nine metres high and crossed the Tramore River's floodplain. The track crossed the river initially on a wooden bridge, which in time was replaced by a stone culvert.*



## 03. Landscape Concept

## Concept : Design Aims

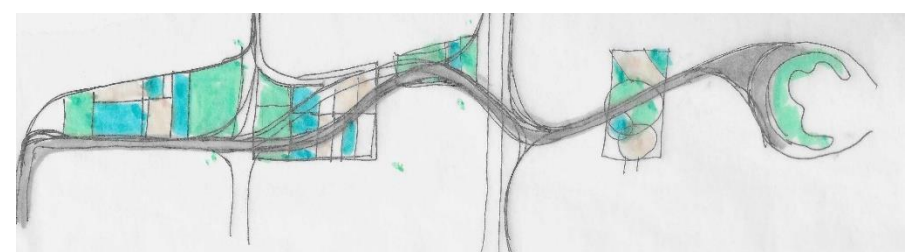
### DESIGN AIMS

- Prioritisation of **'Place Making'** in the evolution of the site layout. Delivery of sense of place/distinctiveness through the site.
- Provision of a **green framework** across the site into which the proposed development will be integrated and which will mitigate the loss of existing site vegetation.
- **Connectivity/Permeability** – prioritisation of pedestrian/cyclist movement in line with DMURS principles.
- **Recreation and Amenity** - provision of safe, overlooked open spaces, routes and facilities through the site with access for all.
- **Open Space** – provision of a hierarchy of accessible and overlooked open spaces through neighbourhoods with well-defined connectivity to wider green infrastructure
- **Play Provision** – promotion of a child-centred approach, based, where appropriate, on 'home-zone' principles that enable children of all ages to: Move freely and safely around their neighbourhood; Play within sight of their home; Play in naturalistic environment; Play at purposefully designed play elements; and Encourage interactive play.
- **Communal Space** – provision of multi-functional and flexible communal spaces logically distributed throughout the development scheme.
- **Legibility** – provide legible routes and clear definition of space.
- **Views** - Optimise experience of long sweeping views along circulation routes.
- **Biodiversity** – provision of new planting measures to enhance the biodiversity potential of the site
- **Maintenance and Management** – Provision of landscape infrastructure which can be managed with relative ease.

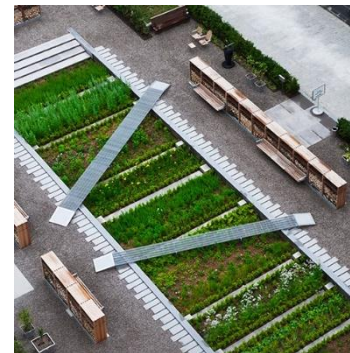




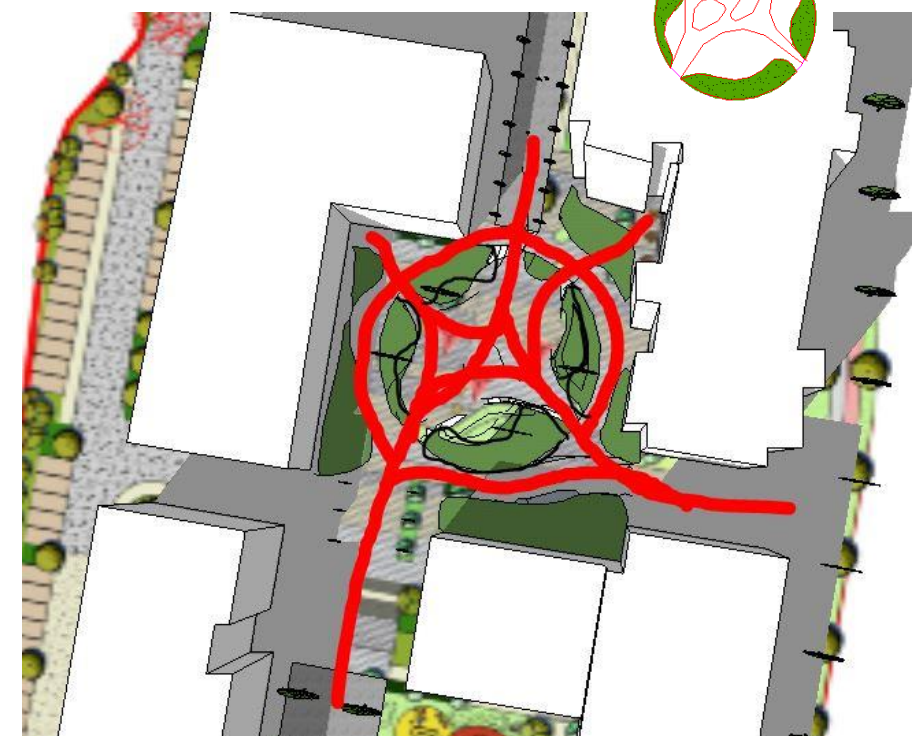
Concept : Inspiring Images & Sketch Ideas related to Heritage Review



Dairy 'splash' and nursery beds inform spatial definition and planting layouts



Review of patterns created by historic land-use layers of the site, as a former garden nursery, railway route & milk dairy, inform the design of open spaces





## Concept : Masterplan

Character areas & streetscape creating a sense of place from a prominent public realm/town square, to residential Garden Court & Meadow Parkland areas are reflective of the site's garden nursery and dairy heritage.

Green infrastructure/ biodiversity edge to boundary



### Key Features:

- Kinsale Road/Tramore Road Interface
- Boundary buffer treatments
- Spatial Hierarchy/Circulation/Connectivity through courtyards
- Town Square Public Realm
- Recreation & Amenity
- Biodiversity/Pollinator Planting
- Roof Terrace Gardens

### Technical Aspects:

- Natural Ground v's Podium – Implications for Planting
- Levels & Universal Access
- Ventilation to Underground Car Parking
- Defensible space to apartments at podium/ground level
- SuDS



Concept : Town Square





Concept : Garden Court

Tree-lined pedestrian entrance







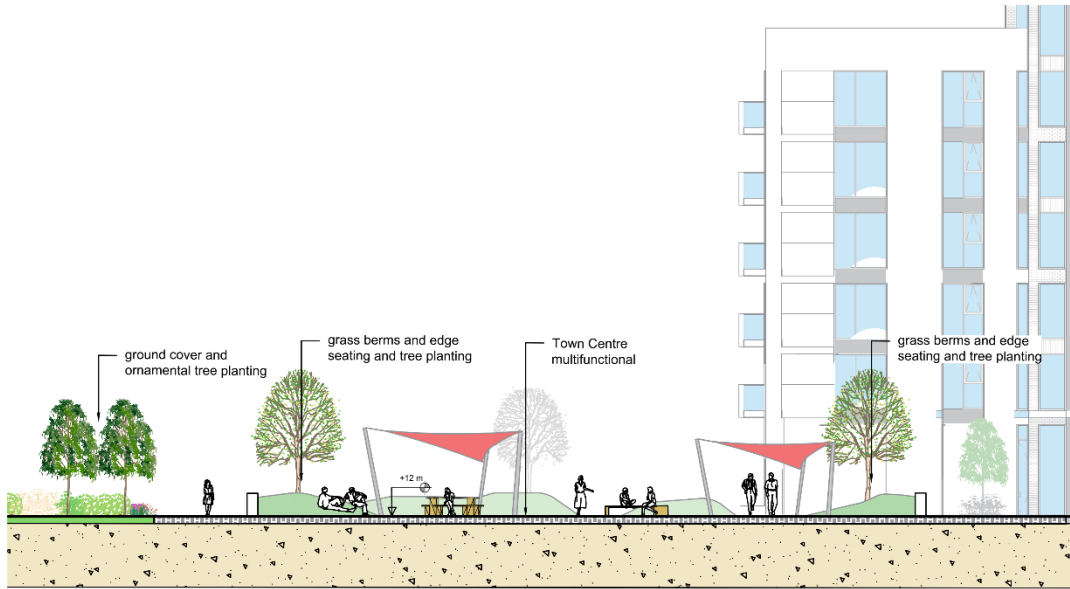


Concept : Lower Meadow Park

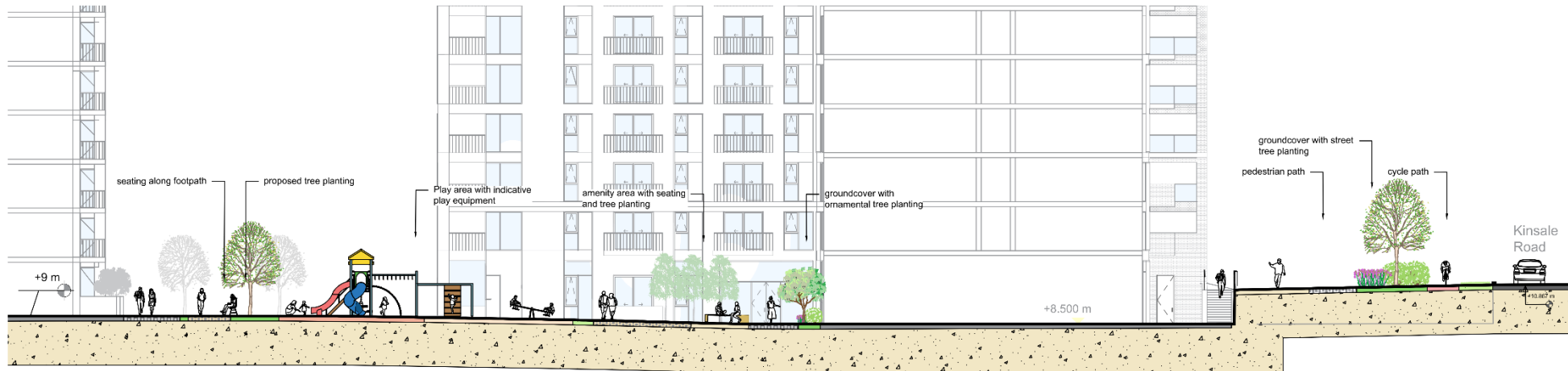




Concept : Site Sections



Refer to Section F-F, drg no. 21400-2-200



Refer to Section G-G, drg no. 21400-2-200



Refer to Section E-E, drg no. 21400-2-200

**Design Rationale Statement**

The design intent for the proposed development of the Creamfield site is for the prioritisation of **‘Place Making’** in the evolution of the site layout and delivery of a sense of place/distinctiveness through the site in the form of character areas. Patterns reflective of the sites historic land use as former garden nursery, railway tracks & milk dairy inform the design.

**Public Realm & Town Square**

The interface with Kinsale Road will be bustling with own door entrances, ample pedestrian and cycle circulation routes strengthened by an avenue of trees cumulating at a public plaza at the junction of Tramore & Kinsale Roads. The proposed landmark building will capture attention at the highest point of the site adjacent to a strategic junction. It will define the corner of Kinsale Road and Tramore Road and anchor the development as a key destination in the locality.

The proposed public realm wraps around the buildings along Kinsale Road and due north an avenue of trees leads to the new town square. Built on podium, a mixture of raised planters and mounds provide growing substrate for trees and shrubs to soften and enhance the space. Seating opportunities are maximised on planter edges and low walls.

Protected within the public realm square is a circular flexible and permeable destination space for visitors, residents and workers defined by planters and seating. The arrangement provides opportunity for stopping, resting and socialising and can be adapted for local markets, fetes and exhibitions. The arrangement allows for ease of movement and legibility of routes to adjoining courtyard spaces and links to public transport on Kinsale Road.

The new facilities will be an attraction to residents from the surrounding neighbourhoods of Ballyphelane, Togher, Turners Cross and the Lough with facilities such as the restaurant, coffee kiosk, and corner shop together with health care facilities, gym, creche, and space for gathering/meetings on match days at the adjoining rugby grounds.

**Garden Court**

Moving south from the town square, a change in level defines a separation between the public realm and semi-private space. This first courtyard space offers areas for residents and visitors to play and relax with a balance of soft and hard landscape treatments. Community & creche facilities adjoin this courtyard and ample multi-functional space is available for parents to interact and for community events. Pathways for connectivity & permeability continue south to the central east to west cross-connecting street where shared surface and raised tables are provided for priority pedestrian/cyclist movement in line with DMURS principles.

**Meadow Park**

Upper and Lower Meadow Park are a sequence of spaces, accessible and overlooked, through the new neighbourhoods with well-defined connectivity to wider green infrastructure in the locality. These spaces positioned to catch the midday to evening sun offer opportunities for all-weather play, passive and active pursuits, and social gatherings. Pattern, form, texture and colour create attractive spaces of multifunctional use along the open space meadows. Buildings and planting combine to clearly define a series of character areas through the development as well as providing legible and safe routes.

Throughout the development a child-centred approach is promoted, based on ‘home-zone’ principles that enable children of all ages to: move freely and safely around their neighbourhood; play within sight of their home; play in naturalistic environment; play at purposefully designed play elements; and encourage interactive play within their neighbourhood.

Provision of new planting measures to enhance the biodiversity potential of the site will form a strong green framework across the site assisting integration of the site in the local setting.





Planting proposals for the site will provide sustainable design solutions which will enhance the residential environment contribute towards local biodiversity potential.



Wildflower meadow



Liquidambar – seasonal interest



Evergreen grass



Beech hedge



Birch (*Betula*)



Raised planters on podium



Feature grass



Lavender

BIODIVERSITY

The biodiversity potential of the site will be enhanced by the following measures:-

- Significant specimen tree planting across the site including open space trees, street trees, garden trees and site boundary trees
- Native hedge planting along site boundaries
- Ornamental hedge planting within the site
- Shrub and groundcover planting on open spaces, along streets and within gardens.
- Bulb planting
- Wildflower meadow planting along fringes and amenity grass areas

The emphasis is on the use of native tree species while ensuring that selected trees are suitable for each location in respect of ultimate size and crown spread. Otherwise, the selection of non-native trees, shrubs and groundcover species will make a valuable contribution towards the promotion of biodiversity on the site in line with the aims and objects of the All-Ireland Pollinator Plan.

Concept: Biodiversity & Sustainability

SUSTAINABILITY

Sustainability aspects of the proposed development are:-

- The planting of trees and shrubs to mitigate the loss of existing site vegetation and which will be suitable for the long term site objectives such as definition of space, screening, seasonality etc.
- Careful consideration of maintenance and management requirements through design development
- Access for All - the delivery of optimal access and circulation-routes for pedestrians and cyclists in the context of the site topography.
- The provision of safe and healthy recreational spaces which promote activity, exploration and social interaction
- SuDS strategy for dealing with surface water run-off and measures for avoiding contamination of water and erosion
- Promotion of biodiversity
- Provision of quality residential environments through the site which make for sustainable communities. Key considerations include sense of arrival, sense of place, distinctiveness, sense of well being and safety.
- The provision of a range of accommodation typologies which provide choice for residents across all age groups.

The principles of sustainability can be extended into the detailed design of the site as follows:-

- Specification of environmentally friendly materials and products with a low carbon footprint
- Minimisation of the use of herbicides and pesticides



Planting scheme to include the following:  
 Note: Planting selection in line with the All Ireland Pollinator Plan

**Landscape Concept :  
 Select Planting Palette**

SPECIES	SIZE	SPACING	%
<b>STREET AND AVENUE TREES - All trees to have straight, unsupported leaders with symmetrical crowns.</b>			
<i>Tilia cordata</i> 'Greenspire'	20-25cm girth RB	as shown	30
<i>Pyrus calleryana</i> 'Chanticleer'	20-25cm girth RB	as shown	30
<i>Sorbus aucuparia</i>	20-25cm girth RB	as shown	20
<i>Prunus padus</i>	20-25cm girth RB	as shown	20
<b>SPECIMEN ORNAMENTAL TREES</b>			
<i>Amelanchier x grandiflora</i> 'Robin Hill'	2-2.5m RB	as shown	30
<i>Malus tschonoskii</i>	2.5-3m RB	as shown	40
<i>Prunus serrulata</i>	4-4.5m RB	as shown	30
<b>OPEN SPACE &amp; NATIVE TREES.</b> to be under-planted with bulbs & perennials			
<i>Quercus petraea,</i>	14-16cm gth, 4.25-6m ht.	as shown	25
<i>Sorbus Aucuparia</i>	14-16cm, 3-4m.	as shown	15
<i>Prunus avium</i>	12-16cm gth.	as shown	10
<i>Corylus avellana,</i>	MS 2.5-3.5m ht.	as shown	10
<i>Alnus glutinosa,</i>	14-16cm gth.	as shown	10
<i>Pinus sylvestris,</i>	120-150cm, RB.	as shown	20
<i>Larix decidua,</i>	120-150cm, RB.	as shown	10
<b>NATIVE HEDGEROW TRANSPLANT MIX-</b>			
<b>Whips</b>	<b>SIZE</b>	<b>SPACING</b>	<b>%</b>
<i>Crataegus monogyna</i>	60-90cm high, BR	3/m	40
<i>Prunus spinosa</i>	60-90cm high, BR	3/m	20
<i>Viburnum opulus</i>	60-90cm high, BR	3/m	10
<i>Ilex aquifolium</i>	60-90cm high, PG	3/m	5
<i>Sambucus nigra</i>	60-90cm high, PG	3/m	10
<i>Euonymus europeus</i>	60-90cm high, BR	3/m	10
<i>Rosa canina</i>	60-90cm high, BR	3/m	5



SPECIES	SIZE	SPACING	%	
<b>FORMAL HEDGE</b>				
<i>Sarcococca confusa</i>	90-120cm 1+2	3/m	35	
<i>Elaeagnus pungens</i>	90-120cm 1+2	3/m	25	
<i>Viburnum tinus</i>	90-120cm 1+2	3/m	40	
<b>SHRUB AND GROUND COVER PLANTING- plant in groups of same species ranging from 5-15no.</b>				
<i>Rosmarinus officinalis</i>	3L, PG	5m2	5	
<i>Hebe sp.</i>	3L, PG	5/m2	10	
<i>Prunus tenella</i>	3L, PG	5/m2	15	
<i>Potentilla fruticosa</i>	3L, PG	5/m2	10	
<i>Skimmia japonica</i>	3L, PG	5/m2	10	
<i>Lavandula angustifolia</i> 'Hidcote'	3L,PG	5/m2	15	
<i>Allium sp.</i>	3L,PG	5/m2	5	
<i>Stachys byzantina</i>	3L,PG	5/m2	10	
<i>Erysimum 'Bowles's Mauve'</i>	3L,PG	5/m2	10	
<i>Pachysandra terminalis</i> 'Green Carpet'	3L,PG	5/m2	10	
<b>BLUBS &amp; PERENNIALS</b>				
Typical species will include: <i>Anemone nemorosa, Allium triquetrum, Dryopteris filix-mas, Geranium robertianum, Hyacinthoides non-scripta, Hypericum androsaemum, Muscari 'Blue Spike', Oxalis acetosella, Primula vulgaris, Viola riviniana. Colchicum sp., Crocus sp., Galanthus nivalis, Salvia sp., Anemone x hybrida, Anemone hupehensis, Aster sp., Chrysanthemum sp., Dahlia sp., Helleborus sp., Rudbeckia 'Goldstrum' Calamagrostis 'Karl Foerster', Stipa 'Ponytails'</i>		bulbs, corms, & p9's	planted in drifts	100
<b>IRISH WILDFLOWER CONSERVATION GRADE MIX</b>				
Species List: Black Meddock, Centaury, Corn Marigold, Corn Poppy, Cornflower, Corncockle, Cowslip, Devil's Bit Scabious, Eyebright, Kidney Vetch, Lady's Bedstraw, Marjoram, Scented Mayweed, Ox-eye Daisy, Red Bartsia, Red Campion, Red Clover, Selfheal, Sorrel, St Johnswort, Yarrow, Yellow Rattle		Seed mix		100
RB = Rootball, BR = Bare root, PG = Pot grown, std. = standard, ftd. = feathered				

**Implementation of Planting**

Planting within red line area and along boundaries to be carried out in the first available season after the completion of construction works.  
 For the longevity of the existing and newly planted landscape, the landscaping will be maintained by the contractor for a minimum 18 months defects liability period, and there after for 12 month running periods or as approved.  
 All landscaping will be carried out by a competent landscape contractor and in accordance with the BS3936.

**Indicative Images**



*Tilia cordata* 'Greenspire'



*Prunus padus*



*Pyrus calleryana* 'Chanticleer'



*Malus tschonoski*



Amelanchier 'Robin Hill'



Prunus sp.



**Concept : Mitigation Strategy for Loss of Existing Site Vegetation**



Site Vegetation to be Removed



Proposed Mitigation Planting



LEGEND

-  Proposed Street/ Avenue Trees
-  Proposed Specimen Pollinator Trees
-  Proposed Native Trees
-  Outline of Lawson screen trees
-  Griselinia hedging
-  Outline of scrub vegetation (mainly willow and buddleia)
- X 011** Tree tag number

Trees To Be Removed	
Category A Trees	2 no.
Category B Trees	26 no.
Category C Trees	61 no.
Category C/U Trees	52 no.
Category U Trees	7 no.
<b>Total</b>	<b>148 no.</b>

Mitigation (Replacement) Tree Planting	
Specimen Pollinator Trees	331 no.
Native Boundary and Open Space Trees	91 no.
Street/Avenue Trees	83 no.
<b>Total</b>	<b>505 no.</b>

For full details refer to arborist's report & arborist's Tree Location drawing ref. TMS.CSR.01.21A

For full details refer to Landscape Masterplan drg. no. 20400-2-100



**Concept : Sustainable Urban Drainage**

*Indicative images*



Swales



Permeable paving



Soft landscaped areas



Cellular tree pits

Landscape Sustainable Drainage Systems (SuDS) measures for the proposed development will focus on the provision of rainwater gardens as an integral part of the overall engineering SuDS strategy for the site. Planting beds shown on Landscape Masterplan drawing no. 20400-2-101 will be adapted as rain gardens to fulfil this role.

Sustainable Drainage Systems (SuDS) are designed to maximise the opportunities and benefits from surface water management by managing rainwater close to where it falls. Some types of SuDS include planting, others include proprietary products.

SuDS measures contribute to developments and urban spaces by making them more vibrant, visually attractive, sustainable and more resilient to change, by improving urban air quality, helping to regulate temperatures, reducing noise and delivering recreation and education opportunities.

Examples of SuDS include:

Bioretention systems, including rain gardens, collect runoff, allowing it to pond temporarily on the surface before filtering through vegetation and underlying soils.

- Bioretention systems, including rain gardens, collect runoff, allowing it to pond temporarily on the surface before filtering through vegetation and underlying soils.
- Swales, detention basins, ponds and wetlands
- Pervious pavements
- Trees capture rainwater and provide evapotranspiration, biodiversity and shade
- Soakaways and infiltration basins
- Rainwater harvesting systems



Rain garden



Concept : Circulation & Permeability of Proposed Scheme



- Main pedestrian/cycle internal circulation
- ← Main shared surface cycle/pedestrian access route
- External cycle routes
- ↖ Pedestrian/cycle access
- ↗ Main vehicle access





Concept : Recreation & Amenity

RECREATION AND AMENITY OF DIFFERENT AGE GROUPS/USERS



The proposed development provides generous open spaces, a home zone, street and footpath hierarchy which ensures passive supervision of the spaces and ease of movement through the site.

It is proposed to providing easy accessible play spaces, inclusive for toddlers, young children and teenager/young adults within the communal open space. The emphasis is on natural play so little or no proprietary play equipment will be provided but the allocation of strategically positioned Play Areas for the more junior children carefully sited in easily accessible locations and well overlooked by adjacent residential units, while not causing a nuisance to nearby residences.

The optimum arrangement is for play to be accommodated within each character area. Space in varying shapes and sizes will be provided to allow for active or quiet play and socialising for all ages, for whole families, neighbours and friends to interact. This arrangement facilitates recreational use for all age groups.

**Children 2-12 years old** are catered for in each of the amenity spaces and home zone/shared surface roads which are distributed throughout the site to ensure ease of access within a short distance of the home. The finish on these areas facilitates year-round play and kickabout, together with adjoining natural play elements and amenity grass areas.

**Teenagers** are also catered for in each of the open spaces in respect of circuit routes, meeting spaces & grass kickabout/ amenity space. In addition it proposed to providing a large play space in upper meadow park with seating and equipment suitable for the age.

**Adults of All Ages** can use the street and footpath hierarchy for walking and jogging around the site while the open spaces and home zones provide opportunities for sitting and socialising. Quiet seating areas are provided in close proximity to the activity areas for more vulnerable residents.

Safety note:

Any furnishings and surfaces if included within the children's play spaces will be to ISEN 1176/ISEN 1177 standards and meeting the RoSPA, NSC and other appropriate health and safety requirements.

RECREATION & AMENITY

we are providing:

- 3no. small play spaces (about 85 – 100 sq. metres) for the specific needs of toddlers and children up to the age of six, with suitable play equipment, seating for parents/guardians, and within sight of the apartment building, as required in a scheme that includes 25 or more units with two or more bedrooms
- 1no. play area (210 sq. metres) for older children and young teenagers, in a as required for a scheme that includes 100 or more apartments with two or more bedrooms.
- All-weather play spaces & grass amenity/kick-about space
- High quality, accessible, and suitable proportioned areas of usable public open space
- Connectivity to other open spaces
- Suitably overlooked and passively supervised
- Opportunities for informal play and passive amenity

Resident External Amenity Space

7865 m2 (23%) public and semi-public open space, to include:

Town Square: 3,025m2

Garden Court; 1,650m2

Upper Meadow 01: 1,840m2

Lower Meadow 02: 1,350m2

Communal roof garden  
with SuDS measures: 598m2

Creche Garden: 242m2

Together with pedestrian access points, shared surfaces, pedestrian walkways and cycle paths throughout the site.





**PROPOSED TREE & SHRUB PLANTING STRATEGY**

The development proposal for the site includes a significant programme for tree and shrub planting which is shown on Landscape Masterplan drg. no. 20400-2-101.

Planting proposals have the following key functions:-

- The provision of a long-term landscape framework which will soften the built environment.
- Provision of screening along site boundaries.
- Spatial definition and defensible space across public open spaces and along streets.
- The provision of seasonal variation and interest through the site including along pedestrian/cyclist routes.
- Promotion of the biodiversity potential of the site.
- Provision of defensible planting around buildings
- Provision of rain gardens/ SuDS measures

**Concept : Green Infrastructure Strategy/Amenity and Recreation Plan**

**LEGEND**

- Public and semi-public open space :
- 1 - Town square 3025 m<sup>2</sup>
  - 2 - Garden Court 1650 m<sup>2</sup>
  - 3 - Upper Meadow 1840 m<sup>2</sup>
  - 4 - Lower meadow 1350 m<sup>2</sup>
  - 5 - Communal Roof Gardens with SuDS measures 598 m<sup>2</sup>

**AMENITY AND RECREATION PROVISION INCLUDES:**

- All-weather play area
- Older children and young teenagers play area
- Communal area
- Communal Roof Gardens with SuDS measures
- Town square
- Shared surface

**SITE GREEN INFRASTRUCTURE STRATEGY INCLUDES:**

- Proposed Street/ Avenue Trees
- Proposed Specimen - Pollinator Trees
- Proposed Native Trees (including boundary trees and open space trees)
- Shrub/groundcover/rain garden planting (to form part of the SuDS strategy for the site)
- Existing vegetation along Mick Barry Road
- Amenity Grass
- Amenity Grass Meadow



Refer to drg. no. 20400-2-103  
Green infrastructure  
Strategy-Recreation &  
Amenity Plan







Indicative images

**Concept : Kinsale Road Interface**



Seasonal effect



Defined cycle / pedestrian corridor & green infrastructure



Transition in scale to street level



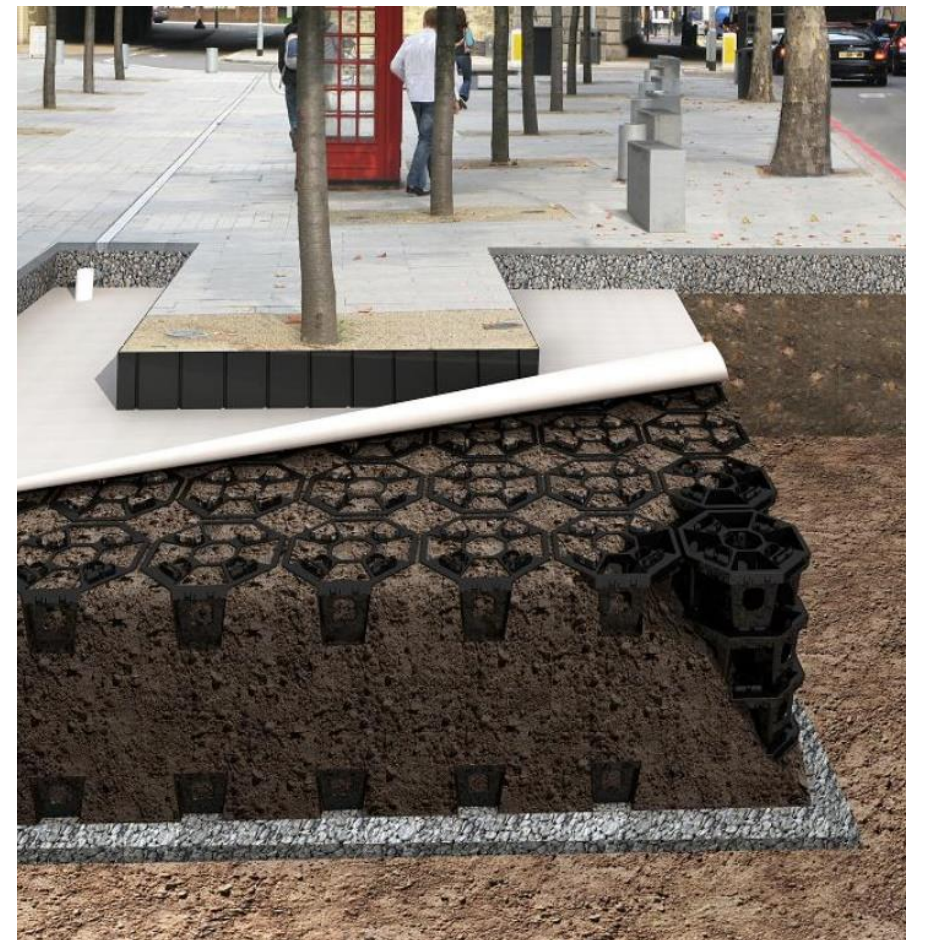
Accent planting



Suds feature

Kinsale Road as part of the CMATS plan will have improved bus and cycle lanes. With the proposed development scheme there is scope to create an attractive urban edge with generous pedestrian and cycle path widths together with a strong line of avenue trees for biodiversity and definition to this connection route. The tree planting will aid in visually reducing the proportional width of the roadway, assisting in traffic calming and as sustainable urban drainage. Trees in hard surface will have space for the roots to expand below the paved surface by use of an urban tree system and root directors can be utilised within close proximity to sensitive service lines.

Own door access will provide a live and active edge to the street with a clearly defined thresholds with private front walls and planting providing defensible space to residents.



Cellular urban tree system



**Concept : Plaza/Public Realm**

*Indicative images*

Town Square & Interface with Kinsale Road & Tramore

A new public plaza formed at the junction of Tramore and Kinsale Roads and expanding into an internal town square courtyard will define the character of the northern part of the proposed development. The new public realm will be an enhancement to the area for people who work, shop and live here and attractive to visitors, with opportunities for restaurant / café and corner shop together with health care facilities, gym, creche, and space for gathering/meetings on match days at the adjoining rugby grounds.

Soft & hard landscape detailing will focus on delivering a range of quality surface finishes which will enhance the overall experience of the new development while also providing suitable definition at key nodes and entrances. Fitness for purpose, including durability, ease of maintenance and sustainability will be key factors in determining suitability.



Distinctive Hard & Soft Detailing



Integrated tree grilles and drainage



Sculpture / Artwork



Dairy Theme



Meeting Place



Furniture



Bespoke elements



Café kiosk & seating



**Concept : Residential Courtyards**

*Indicative images*



Parkland



Edible landscape

The residential courtyards will function as communal break-out spaces for residents and include areas for relaxation, localised informal play for young children and social engagement. The courtyards will include tree and groundcover planting along with hardstand areas with excellent connectivity to the wider environment. Opportunities for maximising biodiversity can be found along fringes, defensible planting to buildings, natural play areas and wildflower meadow strips, and the incorporation of fruiting and flowering tree and shrub planting .



Fringes of Biodiversity Meadow Areas/Family Friendly Spaces



Quiet Seating Area



Pollinator Planting



Natural Play Spaces



Seating edges



Social Spaces



Maintenance & Management



**INTRODUCTION**

This document sets out the proposed maintenance and management plans for the establishment and ongoing maintenance of the landscape element of the proposed development. There will be a minimum 18 months defects period on all soft landscape works implemented. Thereafter the landscaping will be maintained in perpetuity consecutive 12 months periods.

**1.0 SOFT LANDSCAPE WORKS SPECIFICATIONS**

**1.1 Site Clearance Generally**

- General: Remove rubbish, concrete, metal, glass, decayed vegetation and contaminated topsoil.
- Stones: Remove those with any dimension exceeding 25mm.
- Contamination: Remove material containing toxins, pathogens or other extraneous substances harmful to plant, animal or human life. In accordance with current Health and safety legislation.
- Vegetation: remove all weed growth.
- Large roots: Grub up and dispose of without undue disturbance of soil and adjacent areas.

**1.2 Weed Control**

Remove all noxious and undesirable weeds from the sit. Weeds shall include: Ragwort, Himalayan Balsam, Giant hogweed & Japanese knotweed, Thistle, Dock, Common Barberry, Male Wild Hop and Spring Wild Oat, or any other noxious species identified by the Department of Environment. For the removal of certain species such as Japanese Knotweed a method statement is to be prepared and submitted to the Department of Environment.

**1.3 Standards**

In preparing the landscaping, supplying plants and maintaining the landscaping the following standards are to be adhere to:

- BS 3882 Specification for topsoil and requirements for use
- BS 3936-1 to 10 Specification for the supply of nursery stock
- NPS National Plant Specification
- BS 3998 Tree Works: Recommendations
- BS 4428 Code of Practice for general Landscape Operations
- BS 5837 Tree in relation to Construction
- BS 7370-1 to 5 Grounds Maintenance
- BS 8545 Trees: from nursery to independence in the landscape-recommendations
- BS 8601 Specification for subsoil and required use
- BS EN 1722-9 Fences Specification for mild steel - low carbon steel - fences with round or square verticals and flat horizontals

The latest publications for each document are to be used.

**1.4 Soil Conditions**

- Soil for cultivating and planting: Moist, friable and do not plant if 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.

**1.5 Climatic Conditions**

- General: Carry out the work while soil and weather conditions are suitable.
- Strong winds: Do not plant.

**1.6 Times of year for planting**

- Deciduous trees and shrubs: Late October to early March.
- Evergreens/Conifers: October/November or Feb/ March.
- Container Grown plants: Any time of years.

**1.7 Mechanical Tools**

Restrictions: Do not use within 100mm of tree and plant stems.

**1.8 Watering**

- Quantity: Wet full depth of topsoil.
- Application: Even and without damaging or displacing plants or soil.
- Frequency: As necessary to ensure establishment and continued thriving of planting.

**1.9 Preparation, Planting and Mulching Materials**

General: Free from toxins, pathogens or other extraneous substances harmful to plant, animal or human life.

**1.10 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.
- Species: True to name.

**1.11 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.



### 1.12 Labelling And Information

General: Provide each plant/ tree or group of plants/ trees of a single species or cultivar with supplier's labelling for delivery to site, showing:

- Full botanical name., Total number, Number of bundles, Part bundles.
- Supplier's name, Employer's name and project reference.
- Plant specification, in accordance with scheduled National Plant Specification categories and BS 3936.

### 1.13 Plant/ Tree Substitution

Plants/ trees unobtainable or known to be likely to be unobtainable at time of ordering. Submit alternatives, stating the price and difference from specified plants/ trees. Obtain approval before making any substitution.

### 1.14 Plant Handling, Storage Transport and Planting

- Standard: To HTA '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.
- Planting: Upright or well balanced with best side to front.

### 1.15 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.

### 1.16 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.

### 1.17 Surplus Material

Subsoil, stones, debris, wrapping material, canes, ties, temporary labelling, rubbish, pruning's and other arising's: Remove.

### 1.18 General Planting/Seeding

- Planting shall be carried out within the contract period but not during periods of frost, drought, cold drying winds or when the soil is waterlogged, or when the moisture of the soil exceeds field capacity.
- All containers and protective coverings including biodegradable coverings to root systems shall be removed prior to planting. Roots, except for emergent vegetation, shall be teased out from the root-ball, spread evenly and not twisted.  
All plant material shall be planted upright or placed so as to be well-balanced. Extreme care is to be taken to avoid damage to the root system, stem and branches when planting. The plant shall be positioned such that after planting the original soil mark on the stem is at finished ground level.
- Following completion of planting, grass seeding and turf laying, the soil over the whole of the planted, seeded or turfed area shall be sufficiently watered to achieve its field capacity.

- On completion of planting, watering and mulching, all areas shall be left tidy and weed-free and shall be maintained in a tidy and weed-free state until completion of the works.
- For shrub and transplant pit planting, notch planting and ordinary planting, the plant positions shall be set at equal centres in order to obtain a natural dense cover when mature. For notch and pit planting plants shall be planted in parallel lines. Planting positions in each row shall be staggered with the previous row.
- Finely-broken backfill material shall be carefully spread around roots and root trainers of all plants and the plants given slight shake to ensure that all interstices/ gaps are filled with soil, which shall then be consolidated by heeling. Careful filling and heeling shall continue as necessary at 150mm layers.

### 1.18.1 Mulching

Newly planted shrub areas shall be mulched immediately after planting to a depth of 50mm or in accordance with the details indicated on the drawing. Mulch shall be coarse chipped tree bark, composted for 2-4 months. Particle size 25-75mm diameter. No Fines.

### 1.18.2 After Planting & Mulching

- Watering: Immediately after planting, thoroughly and without damaging or displacing plants or soil.
- Firming: Lightly firm soil around plants and fork and/ or rake soil, without damaging roots, to a fine tilth with gentle cambers and no hollows.
- All areas shall be left tidy and weed-free and shall be maintained in a tidy and weed-free state until completion of the works.

### 1.19 Tree Planting

Attached in the appendix are typical tree planting details for this site.

### 1.19.1 Tree Pits

- Sizes: at least 300mm greater than rootball in all directions.
- Sloping ground: Maintain horizontal bases and vertical sides with no less than minimum depth throughout.
- Pit bottoms: With slightly raised centre. Break up to a depth of 100mm.
- Pit sides: Scarify.

### 1.19.2 Semi-Mature Trees

- Standard: Prepare roots and transplant to BS 8545.
- Planting shall be carried out by positioning the tree in the centre of the pit closely against the tree stake and spreading the tree roots to their fullest extent.
- Backfilling material: Previously prepared mixture of topsoil excavated from pit and additional compost as required.
- Immediately following planting, trees with stakes shall be secured with tree ties. Tree ties shall be fixed so that movement of the tree shall not cause damage or abrasion to the bark, top tie to be 50mm below top stake.



**1.19.3 Staking Generally**

Softwood, peeled chestnut, larch or pine, straight, free from projections and large or edge knots and with pointed lower end. Adjustable rubber ties to be fixed to all trees and at the correct size for the tree.

**1.19.4 Mulch Circles/Squares**

All existing trees/newly planted trees within open grass areas or grass verges shall have 50mm depth mulch circle/square of a maximum 1m diameter or as allowed by verge width.

**1.20 Shrub Planting**

- All shrubs are to be pit planted. General pit dimensions are to be wide enough to accommodate roots when fully spread and 75mm deeper than root system.
- Break up base of pit to a depth of 150 mm, incorporating soil ameliorant/ conditioner at 50 g/m<sup>2</sup>.
- Pits to be backfilled with previously excavated material. Backfilling to be done in layers of 150mm depth; at each stage the filling to be firmly consolidated.
- Soil ameliorants can be premixed with the soil applied or mixed in during planting.
- Soil ameliorants to consist of an approved compost at 10L per m<sup>2</sup>; and 150g/m<sup>2</sup> of 10:10:10 NPK slow release fertilizer, or as approved.
- All shrub areas to be finished, with 75mm of medium grade bark mulch.

**1.21 Hedgerow Planting**

- Preparation: Dig trench to 500mm width for single staggered row, ensuing pit base is broken up 100mm deeper than plant rootball.
- Ameliorants: Compost at 10lt/m<sup>2</sup> and 10:10:10 NPK slow release fertiliser at 150g/m<sup>2</sup>.
- Planting: Mix in soil ameliorants with excavated topsoil, or if there is poor topsoil then mix in with imported new topsoil. Firm down topsoil lightly in layers of 150mm by treading.
- Additional Requirements: If there is no existing fencing or barrier, install a protective fence to stop people walking through it until hedge is established. If there is livestock adjoining hedge install a stockproof fence or electrical fence 1m from hedge line until hedge is established.
- Prior to new growth cut the hedge back by 300mm to encourage new growth from base.

**1.23 Removing Trees and Shrubs**

- Identification: Clearly mark trees and hedges to be removed.
- Work near retained trees: Where canopies overlap, take down trees carefully in small sections to avoid damage to adjacent trees that are to be retained.

**1.24 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.

**1.25 Green Roofs**

Due care is to be taken when planting in gardens to ensure no damage occurs to the waterproof membranes. All planting is to be laid over a green-roof system that complies with European Federation of Green Roof Associations, ( EFB), or equivalent, and in accordance with the drawings provided.

**1.26 Grass Seeding****1.26.1 Herbicide Application**

- Type: Suitable for suppressing perennial weeds and existing grass.
- Glyphosate and other controlled chemical pesticides will not be used under any circumstances.
- Suitable herbicide use to the instruction of a registered professional user.
- Timing: Allow fallow period before cultivation.
- Duration: As manufacturer's recommendation.

**1.26.2 Seedbed cleaning before sowing**

Operations: Herbicides as per registered professional user only.

**1.26.3 Cultivation**

- Compacted topsoil: Break up to full depth.
- Soil ameliorant/ Conditioner/ Fertilizer are to be used to boost late seeding only. Type to be used is to be agreed with the administering body depending on the time of year and the condition of the soil.
- Tilth: Reduce topsoil to a tilth suitable for blade grading.
  - Depth: 75 mm.
  - Particle size (maximum): 20 mm.
- Material brought to the surface: Remove stones and clay balls larger than 50 mm in any dimension, roots, tufts of grass, rubbish and debris.

**1.26.4 Topsoiling**

- Areas to be reinstated shall be top-soiled to a min. depth of 150mm.
- Quantity: Provide as necessary to make up any deficiency of topsoil existing on site and to complete the work.
- General: Do not use topsoil contaminated with subsoil, rubbish or other materials that are:
  - Corrosive, explosive or flammable;
  - Hazardous to human or animal life;
  - Detrimental to healthy plant growth.

**1.26.5 Grading**

- General appearance to be achieved: A fine graded finish to bring the ground to a uniform and even grade at the correct finished levels with smooth, flowing contours.
- Topsoil condition: Reasonably dry and workable.
- Contours: Smooth and flowing, with falls for adequate drainage.
- Hollows and ridges: Not permitted.
- Finished levels after settlement: 25 mm above adjoining paving, kerbs, manholes etc.
- Blade grading: May be used to adjust topsoil levels provided depth of topsoil is nowhere less than 150mm.
- Give notice: If required levels cannot be achieved by movement of existing soil.



**1.26.6 Fertilizer for Seeded Areas**

- Types: Apply both:
  - Superphosphate with a minimum of 18% water-soluble phosphoric acid.
  - A sulphate of ammonia with a minimum of 20% nitrogen.
- Application: Before final cultivation and three to five days before seeding/turfing.
- Coverage: Spread evenly, each type at 70 g/m<sup>2</sup>, in transverse directions.

**1.26.7 Final Cultivation**

- Timing: After grading and fertilizing.
- Seed bed: Reduce to fine, firm tilth with good crumb structure.
- Depth: 50-100mm.
- Surface preparation: Rake to a true, even surface, friable and lightly firmed but not over compacted.
- Remove surface stones/earth clods exceeding:
  - Pastoral areas: 50mm.
  - Fine lawn areas: 10mm.
- Adjacent levels: Extend cultivation into existing adjacent grassed areas sufficient to ensure full marrying in of levels.

**1.26.8 Grass Seed**

- All seeds shall carry appropriate certificates.
- Seed shall be purchased fresh for each growing season and seed purchased impervious sowing seasons is not to be used.
- Seed shall be stored under non-transparent wrapping, off the ground, in a dry, shaded place, in well ventilated conditions under cover and shall be protected from vermin and contamination until required for use.
- No seeding shall take place until the seedbed is completed. All seeding shall be carried out within the sowing season.

**1.26.9 Sowing**

- General: Establish good seed contact with the root zone.
- Method: To suit soil type, proposed usage, location and weather conditions during and after sowing.
- Distribution: 2 equal sowings at right angles to each other.
- Protection: fence off areas with suitable fencing to stop people or animals from trampling new growth.

**1.26.10 Grass sowing season**

Grass seed generally: April to June or August to November.

**1.27 Cleanliness**

After completion of all works remove all debris and waste material from site.

- 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.



## 2.0 MAINTENANCE

The maintenance programme will be organised on the basis of specific **performance standards** which must be met by the contractor at all times and will be the basis on which this contract will be assessed. Along with these performance standards a monthly report sheet shall be filled out and returned each month. Details of the performance standards are outlined below.

Remove all noxious and undesirable weeds from the site. Weeds shall include: Ragwort, Himalayan Balsam, Giant hogweed & Japanese knotweed, Thistle, Dock, Common Barberry, Male Wild Hop and Spring Wild Oat, or any other noxious species identified by the Department of Environment. For the removal of certain species such as Japanese Knotweed a method statement is to be prepared and submitted to the Department of Environment.

### Performance Standards and Maintenance Operations

#### 2.1 Grassed Areas

##### 2.1.1 Fine-Cut Grass Areas

Fine cut grass areas shall achieve an even cover of vegetation of uniform height and colour comprising predominantly of grass species. No more than 5% of the grass areas shall contain dicotyledonous (dicots) weeds, except clover. Grass cutting shall not be carried out during excessively wet or waterlogged conditions. Contractor to inform administrative authority if conditions are unsuitable.

##### *Fine-Cut Mowing*

Where practical fine grass areas shall be cut using a cylinder mower, otherwise a rotary mower shall be used. All grass clippings shall be collected and removed off-site after each cut.

Lawn grass cutting shall be carried out every 10-14 days during the growing season, (throughout the period of March to October), but will need to be adjusted according to season's weather conditions. Grass shall be kept at a maximum height of 50mm and minimum height of 35mm. A minimum of 24 cuts shall be carried out annually.

##### *Weed Control*

Lawn grass areas shall be treated using an approved selective Glyphosate-free herbicide according to a registered professional user and manufacturer's instructions. Areas of invasive and noxious species in the lawn or areas, shall be mechanically removed or spot sprayed by a registered professional user.

##### *Fertilizer*

Approved fertilizer shall be applied 2no. times per year to lawn areas if required due to poor grass growth / establishment or yellowing. Spring fertilizer application of NPK ratio 9:7:7 shall be applied in May of each year and Autumn/Winter fertiliser of NPK ratio 3:12:12 shall be applied in October of each year to all fine cut grass areas.

##### 2.1.2 Amenity Grass Areas

Amenity grass areas shall achieve an even cover of vegetation of uniform height and colour comprising predominantly of grass species. Unless otherwise agreed with the landscape architect no more than 15% of the grass areas shall contain dicotyledonous (dicots) weeds, except clover. Grass cutting shall not be carried out during excessively wet or waterlogged conditions. Contractor to inform administrative authority if conditions are unsuitable.

##### *Amenity Grass Mowing*

Where practical grass areas shall be cut using a cylinder mower, otherwise a rotary mower shall be used. Unless excessive or unsightly, or likely to cause a nuisance or damage to the sward, arisings shall be spread evenly over sward areas collected.

Lawn grass cutting shall be carried out every 10-14 days during the growing season, (throughout the period of March to October), but will need to be adjusted according to season's weather conditions. Grass shall be kept at a maximum height of 75mm and minimum height of 35mm. A minimum of 24 cuts shall be carried out annually.

##### *Weed Control*

Areas of invasive and noxious species in lawns, shall be mechanically removed. Glyphosate and other chemical pesticides will not be used under any circumstances unless otherwise instructed by a registered professional user. Weed infestations shall be reviewed in the context of the aesthetic and amenity functioning of the grass and if necessary controlled or eradicated.

##### *Fertilizer*

Approved fertilizer shall be applied 2no. times per year to lawn areas if required due to poor grass growth / establishment or yellowing. Spring fertilizer application of NPK ratio 9:7:7 shall be applied in May of each year and Autumn/Winter fertiliser of NPK ratio 3:12:12 shall be applied in October of each year to all fine cut grass areas.

##### 2.1.4 Edging and Strimming

Grass edges along pathways, planting borders, roadways, trees, lampposts, signs and any other obstacle shall be kept neat and tidy at all times.

Between the months of March and October inclusive edging shall be carried out to all areas of grass abutting isolated/ specimen trees or shrub borders or mulch circles. These areas shall be maintained using a half moon tool or similar to maintain straight or curved defined line and shall be carried out a minimum of 2 - 3 times per year.

Mowing strips against permanent obstacles shall be a max. width of 150mm and shall be maintained using a hand strimmer. Large areas of desiccated/ burnt off grass are not permitted. Strimming shall be carried out a min. of 12 times per year.

Grass clipping and all arisings shall be swept up and removed off site.



### 2.1.5 Spring Bulbs in Grassed Areas

Only cut grassed areas populated by spring bulbs after the leaves of the bulbs have died down and/or yellowed completely. Initially reduce height by one third, followed by a 2-3 stage further reduction over two weeks to achieve desired grass height.

### 2.1.6 Failed areas

Areas of grass which fail or are damaged or worn shall be reinstated by re-turfing or re-seeding in accordance with the original specification.

### 2.2 Shrub Planting

Shrub areas shall be kept litter and weed free, particularly of perennial weeds. Healthy growth shall be maintained to cover as much as possible of the planting area and allowing the individual plants to achieve as near as possible their natural form. With the exception of hedges, boxing or pruning to shapes is prohibited. Plants shall be contained within designated planting areas and pruned to avoid obstructing pathways or sightlines. Climbers are to be pruned and tied into trellises as required, with two main inspections annually to check trellis system is intact and anchor points are secure.

### 2.3 Pruning

In general pruning shall be done only to enhance natural growth. Dead, damaged and diseased portions of the plant will be removed. All cuts shall be flush and clean, leaving no stubs or tearing of bark. All major pruning shall be done following flowering or during plant's dormant season. Emergency or minor pruning shall be done when needed.

Pruning shall be carried out to maintain proper size in relationship to adjacent plantings and intended function. Remedial attention and repair to shrubs shall be provided as appropriate by season or in response to incidental damage.

Groundcover plants shall be pruned as required to restrain perimeter growth to within planting bed areas where adjacent to walks and curbs. Tip prune selected branches of low growing shrub or groundcover masses to maintain even overall heights and promote fullness.

Certain plants, such as Cornus spp. will require heavy annual pruning in order to maintain healthy colourful stems and healthy leaves. All arising's from pruning shall be removed of site.

### 2.4 Weed Control

Planting beds shall be maintained relatively weed free (no more than 10% of weed cover at maximum) by hand weeding or spot spraying any emergent weeds during the growing season with Glyphosate-free herbicide or approved equivalent. Saplings shall be removed from all planting areas on emergence or immediately after to prevent establishment.

Specific weed control operations shall be carried out a min of 9no. times per year, however it will be the contractor's duty to control weeds by hand weeding or other accepted method if weed cover exceeds 10% of the planting area.

### 2.5 Mulching

Shrub beds shall contain a min. depth of 50mm bark mulch throughout the year. Contractor to top-up as 2 times per year or as appropriate to maintain depth. Mulch is not required in areas where plant foliage completely covers the soil surface, such that the soil is not visible through the foliage. The contractor shall spot treat to remove emergent weeds as specified above but do not cultivate or incorporate the mulch into the soil. Any mulch outside of designated planting areas shall be returned to the planter on a weekly basis.

Mulch shall be uniform in colour and appearance, and free of leaves, sticks, or trash. Mulch may be chipped or shredded wood, bark. When replacing existing mulch, use a mulch product that is similar in appearance to that already at the site.

### 2.6 Tree Planting Care

Trees shall be maintained in a healthy, vigorous growing condition with a well-shaped framework for future growth.

### 2.7 New Tree Planting

Spring and autumn of each year during the maintenance period the trees, double-stakes, rabbit guards and ties shall be checked and adjusted, the soil firmed, any dead wood removed back to healthy tissue and mulch adjusted to original levels. Any broken stakes or ties evident throughout the maintenance period shall be replaced.

A 1m-diameter mulch circle/square shall be maintained at the base of each tree located in open grass areas or grass verges. Top up bark mulch to 75mm where required and make good any mulch mats.

During the first growing season all standard trees / semi-mature trees shall be watered at least five times during the growing season - in April, May, June, July and August unless otherwise directed by the Landscape Architect. During the second growing season trees will be kept well watered, particularly during June, July and August.

The edge of the mulch circle shall be maintained in a neat and tidy condition as above.

The surface of all planting pits is to be kept free of weeds during the maintenance period by mechanical weeding of annual weeds and perennial weeds - to be carried out on three visits during the growing season.

### 2.9. Tree Stakes and Ties

Check tree stakes and ties on each maintenance visit. Repair, strengthen and adjust (loosen / tighten) to ensure optimum functioning and trees not being damaged by poor fixings. If trees no longer require stake / tie remove. Prior to handover, check all tree stakes and ties and remove those no longer required.



## 2.8 Woodland/Scrub Area Management

Woodland areas specified shall be maintained in a healthy, vigorous condition and free from litter and noxious weeds throughout the year.

Certain areas of woodland may require thinning over the 5-year period. These areas shall be thinned by no more than 10%, removing only the weaker tree specimens. Thinning shall be carried out as directed onsite by administrative authority.

Weed control around trees bases and in shrub areas will be achieved by mulches and mulch top ups only. Contractor to ensure that no damage is caused to trees by herbicide application.

Areas of natural scrub as indicated on the maintenance plans shall be contained by trimming back once per year. The contractor shall control noxious weeds. This shall be carried out 2no. times per annum.

All clearance operations within woodland and scrub areas shall be carried out outside of the bird-nesting season to preserve the bird life in the area. This season extends from the 1<sup>st</sup> March to 31<sup>st</sup> August.

## 2.9 Green Roof System and Irrigation

Care is to be taken not to damage any fleeces or waterproof membranes during maintenance. Irrigations systems are to be blown-out and a full pressure test carried out annually and monitored for leaks. Remove soil and dead foliage from irrigation pipes to ensure they do not get blocked. Cut back root systems if they become entangled in the irrigation system. Regular monitoring (bi-monthly) should occur to ensure the timer system and moisture monitoring system, are working efficiently and make adjustments to suit the weather conditions, if required.

## 2.10 Litter Clearance/Pick-up

The contractor shall maintain all areas free from litter. This shall mean the removal of all extraneous litter, rubbish and any other debris from all areas, which will include grass areas, planted areas, carparks, footpaths as well as woodlands and tree canopies.

Notwithstanding the above it is expected that the contractor and his staff shall take sufficient pride in the appearance of the site and that they would pick up all visible litter during every site visit.

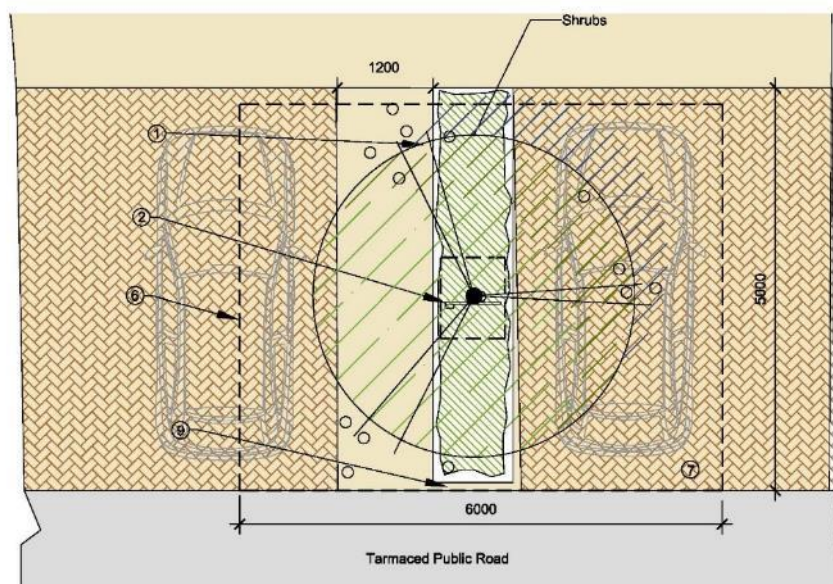
In addition to removal of litter from footpaths, planted areas, etc., the contractor shall make provision for the immediate (within 1 days of notification) arrangement for collection and removal of all extraneous matter which has been deliberately been deposited on site by persons known or unknown (fly-tipping).

## 2.11 Replacements

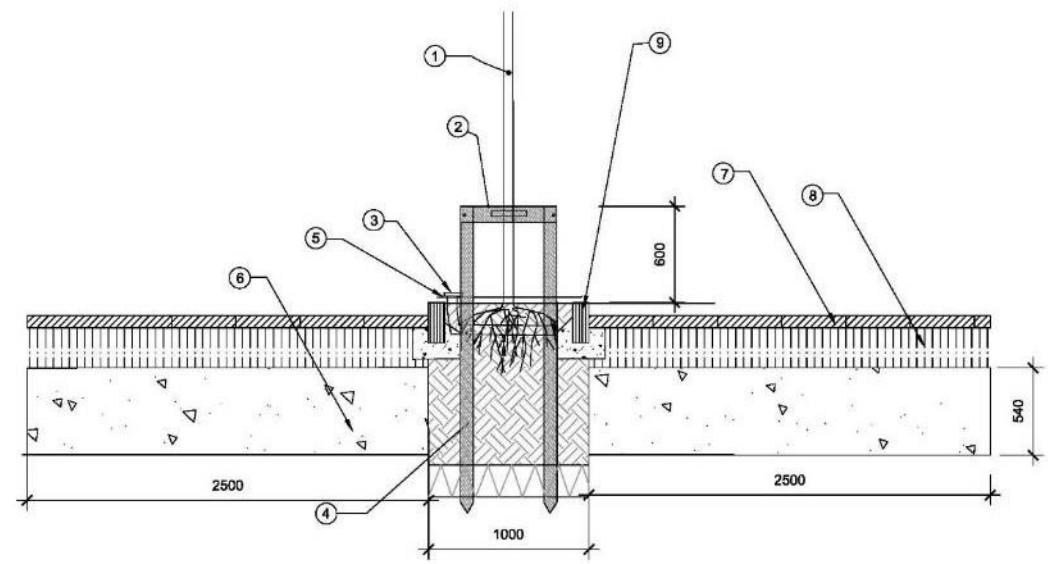
Any tree, hedge or shrub that is removed, uprooted, destroyed or becomes seriously damaged, defective, diseased, or dead shall be replaced in the same location with another plant of the same species and size as that originally planted within the defect period after planting. All such replacements shall be carried out in the first available planting season after the requirement to do so is recognised.



Tree planting detail



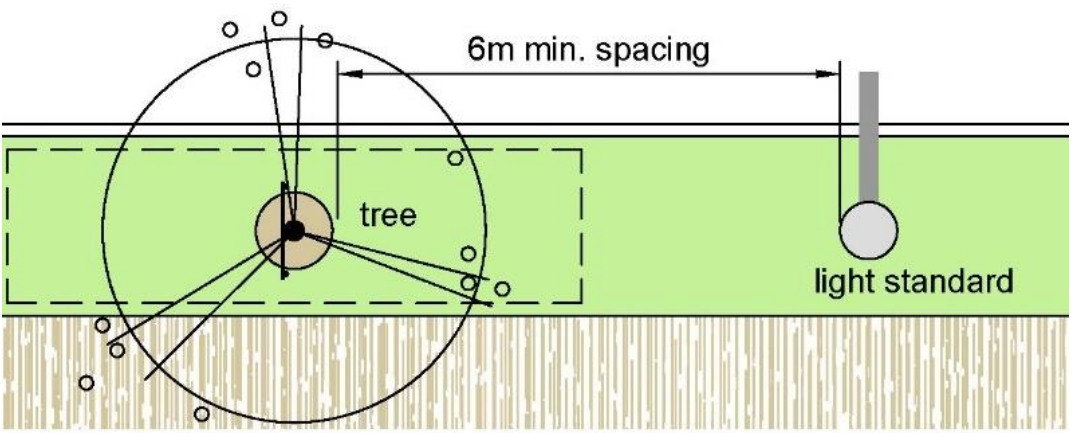
VO1: Street Tree Pit Detail – Plan



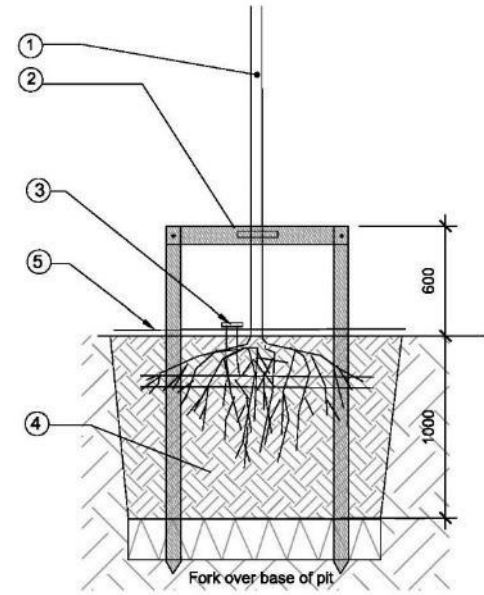
VO1: Street Tree Pit Detail – Section

NOTES

- ① Tree to have a clear stem height of 2000mm.
- ② 2no. 75mm diameter stakes pressure treated driven 1300mm below ground 600mm above ground with specified biodegradable adjustable tie affixed to tree & stake.
- ③ 6cm diameter perforated flexible plastic drainage pipe positioned as shown over rootball with one end open to surface to facilitate watering.
- ④ Pits to be size 80x125x100cm. Remove the full depth of topsoil and set aside for reuse. Scarify sides, break up base of pit to a depth of 200mm and incorporate a soil ameliorant into base. Back fill pit with topsoil mixed with soil ameliorants in 150mm firmed-in layers. All planting to receive a minimum of 25lit water per m2 immediately after planting.
- ⑤ 50mm bark mulch in 80cm dia circle to base of trunk.
- ⑥ 16m<sup>3</sup> area root zone under permeable paving for parking bays, made up of 50% 70-100mm aggregate sizes, 30% multipurpose topsoil and 20% grit (20mm down).
- ⑦ Permeable parking paving to engineers spec.
- ⑧ Sub base to parking to engineers spec.
- ⑨ Kerb to engineers spec.



VO2: Street Tree Pit and Light Standard Detail – Plan



VO2: Street Tree Pit Detail – Section

NOTES

- ① To have a clear stem height of 2000mm.
- ② 2no. 75mm diameter stakes pressure treated driven 1300mm below ground 600mm above ground with specified biodegradable adjustable tie affixed to tree & stake.
- ③ 6cm diameter perforated flexible plastic drainage pipe positioned as shown over rootball with one end open to surface to facilitate watering.
- ④ Pits to be size 1x1x1m or 15cm wider than rootball which ever is greater. Remove the full depth of topsoil and set aside for reuse. Scarify sides, break up base of pit to a depth of 200mm and incorporate a soil ameliorant into base. Back fill pit with topsoil mixed with soil ameliorants in 150mm firmed-in layers. All planting to receive a minimum of 25lit water per m2 immediately after planting.
- ⑤ 50mm bark mulch in 80cm dia circle to base of trunk.



**3.0 Maintenance Programme**

This programme is a guideline only and times of operations may vary on approval by landscape architect.



ONGOING REQUIREMENTS:	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Lawn grass cutting (Min 24 cuts)		*	**	**	***	***	***	***	***	**	**	
Edging to lawn grass areas				*			*			*		
Rough Grass							*					
Fertiliser application to lawn grass areas.					*		*			*		
Hedge pruning/cutting					*			*			*	
Shrubs pruning and feeding				*		*			*			
Weed control of hedge and shrub planting areas		*	*	*	*	*	*	*	*	*	*	
Tree pruning											*	*
Removal of tree stakes (3-5yr)				*								
Mulch top-up to tree circles/ squares						*				*		
Weed control to tree mulch circles				*			*			*		
Weed control to shrubs & hedgerow				*			*			*		
Watering of new trees (or after 3 weeks of no rain)				*	*	*	*	*				
Trimming of scrub areas												*
Weed control of scrub areas				*					*			
Weed control to footpaths, cycle paths.				*								
Litter Clearance/pick up	***	***	***	***	***	***	***	***	***	***	***	***