

CUNNANE STRATTON REYNOLDS LAND PLANNING & DESIGN



November 2019

Introduction	Page 1
Context & Analysis	Page 2
Key Site Constraints	Page 3
Design Aims and Objectives	Page 4
Landscape Design Concept	Page 5
Concept Development - Primary Pedestrian/Cyclist Green Route	Page 6
Concept Development - Green Infrastructure	Page 7
Site Masterplan	Page 8
Masterplan - Recreation & Amenity Provision	Page 9
Masterplan - Wayleave Park Concept Section	Page 10
Masterplan – Key Features	Page 11
Landscape Materials and Finishes	Page 16
Indicative Planting Pallet	Page 17
Maintenance and Management	Page 18

INTRODUCTION

Lahardane Development Site, Ballyvolane is located 2km, as the crow flies, to the north of Cork City centre in the Cork City North Environs 2 area. The site is positioned at the edge of the northern suburbs of the city where urban and rural landscapes meet. It is accessed along the R614 Ballyhooly Road which extends northwards from the R635 North Ring Road at Ballyvolane Cross.

The site is rural in character, comprised of a series of agricultural fields which are currently devoted to tillage farming. The fields boundaries are made up of a mixture of sod and stone hedge-banks, hedgerows and stone walls. The hedges are native in character and include species such as hawthorn (*Crataegus monogyna*), blackthorn (*Prunus spinosa*), birch (*Betula pendula*), ash (*Fraxinus excelsior*) and willow (*Salix caprea*). The hedgerows vary in size and maturity with the most significant screening provided along the Ballyhooly Road boundary.

One of the main characteristics of the site is it's topography. The site rises from +61m O.D. in the south western corner of the site near Ballyhooly Road to +131m O.D. at its highest point. The physical character of the site gives rise to spectacular views across the surrounding landscape from elevated locations including spectacular panoramic views southward across the city to the south and west of the site.

The site is traversed by a 110kv ESB power line which is aligned on a north-south axis and a 38k line which runs east to west. While the power lines are prominent features on the site, the supporting timber poles help mitigate visual impact.



Proposed development site

Land in applicants ownership

Context map(googlemaps)

NORTH BOUNDARY - Private Gardens

WEST BOUNDARY - Ballyhooly Rd

INTERNAL HEDGEROWS/BERMS

SCREEN PLANTING
Significant screen planting already in place along sections of boundary

HEDGE PLANTING
Partial screening
Proposal: provide additional screening as necessary

TREE AND LOW HEDGE PLANTING
Insufficient screening
Proposal: provide native screen planting

HEDGEROW: Blackthorn, Hawthorn, Sambucus, Ash
Proposal: retain where possible, reintroduce native species in new format

DENSE CONIFER PLANTING AT ADJACENT YARD
Significant screen - add native species where possible

ACCESS TO SITE

SOD AND STONE WALL:
Proposal: retain where possible, reintroduce in new format

SEMI-NATIVE HEDGE ALONG ROAD
Provides good screening from road

HEDGE MOUND
Proposal: reintroduce in open space as feature grass mounds

LOW HEDGE ALONG ROAD
Consider options or boundary treatment along Ballyhooly Road

VIEW FROM SOUTHWEST

SOUTH & EAST BOUNDARY

VIEW FROM HOUSING AREA

VIEW FROM SOUTH

VIEW FROM CITY AND SURROUNDING LANDSCAPE

HEDGEROW: Blackthorn, Hawthorn, Sambucus, Ash
Proposal: retain and extend with additional native woodland planting

PROMINENT VIEW FROM ROAD

PROMINENT VIEW FROM HOUSING AREA

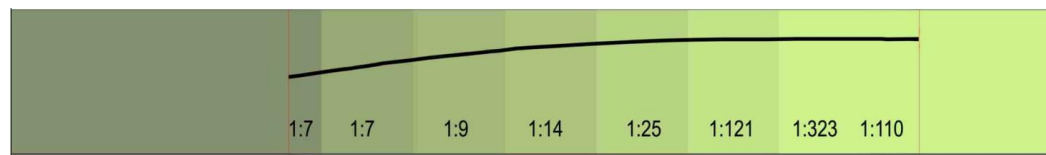
DISTANT VIEW FROM CITY RIDGE

Maximise potential for experience of views

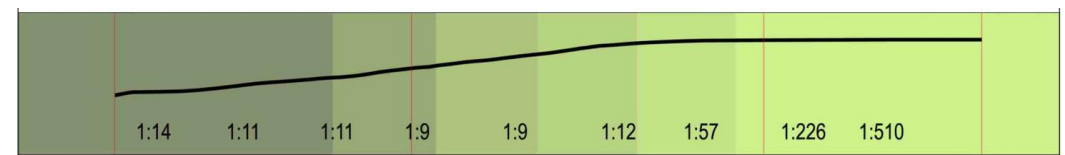
Consider measures for providing planting infrastructure on the site

↑ N

Proposed Development Landscape Constraints



Section A-A



Section B-B

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 **planting framework** across the site into which the proposed development will be integrated.
- **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 in 'hub' locations
- **Legibility** – provide legible routes and clear definition of space.
- **Views** - Optimise experience of panoramic views along the wayleave greenway corridor.
- **Biodiversity** – Maximisation of retention of existing hedgerows and provision of new planting measures which enhance the biodiversity potential of the site
- **Maintenance and Management** – Provision of landscape infrastructure which is manageable and promotes long term sustainability



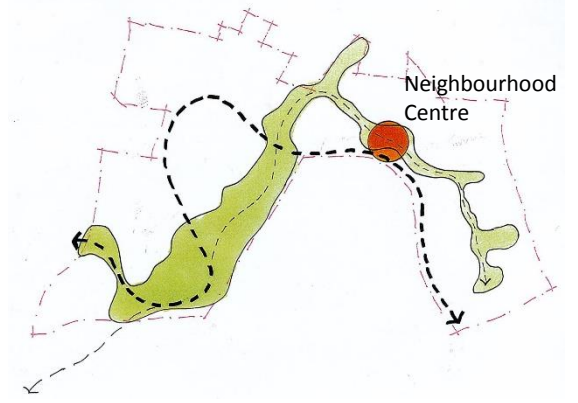
Landscape Strategy Vision
Green Network & Connectivity for Pedestrians and Cyclist

Legend

- Residential clusters with localised open space provision
- Site planting infrastructure including hedgerows
- Distributor road with pedestrian and cyclist provision
- Pedestrian and cyclist links between core site destinations
- Wider network of pedestrian and cyclist connectivity
- Potential landmarks, features, places to stop/rest etc.

Concept Development



Extension of Wayleave Greenway through eastern part of the site



Integrating Greenway through N2 & N5



Legend

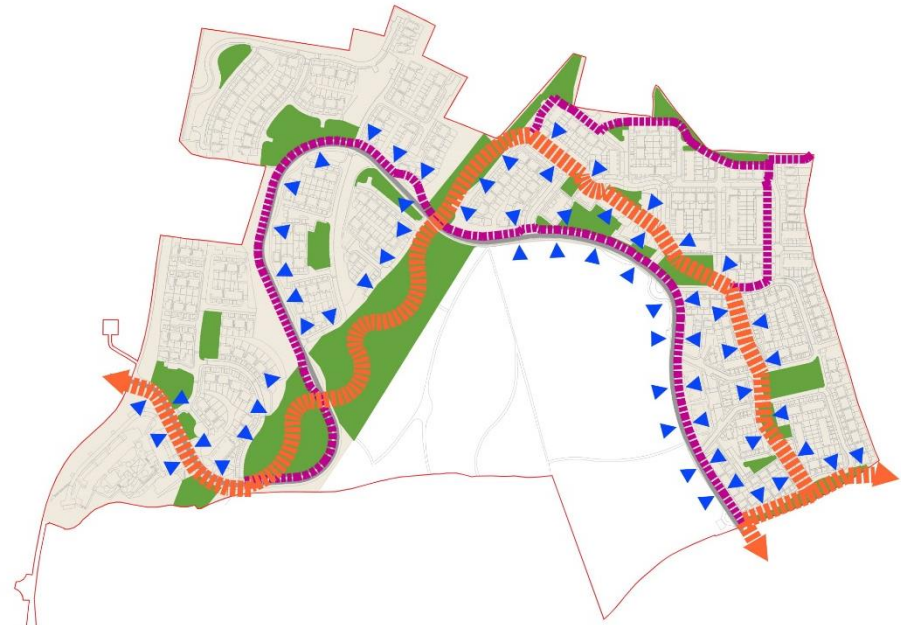
-  Site Boundary
-  Primary pedestrian/cyclist route
-  Secondary pedestrian/cyclist route
-  Green areas
-  Residential neighbourhoods
-  Distributor road
-  Connectivity with neighbourhoods
-  Passive supervision



Hierarchy of Primary & Secondary Pedestrian/Cyclist Routes

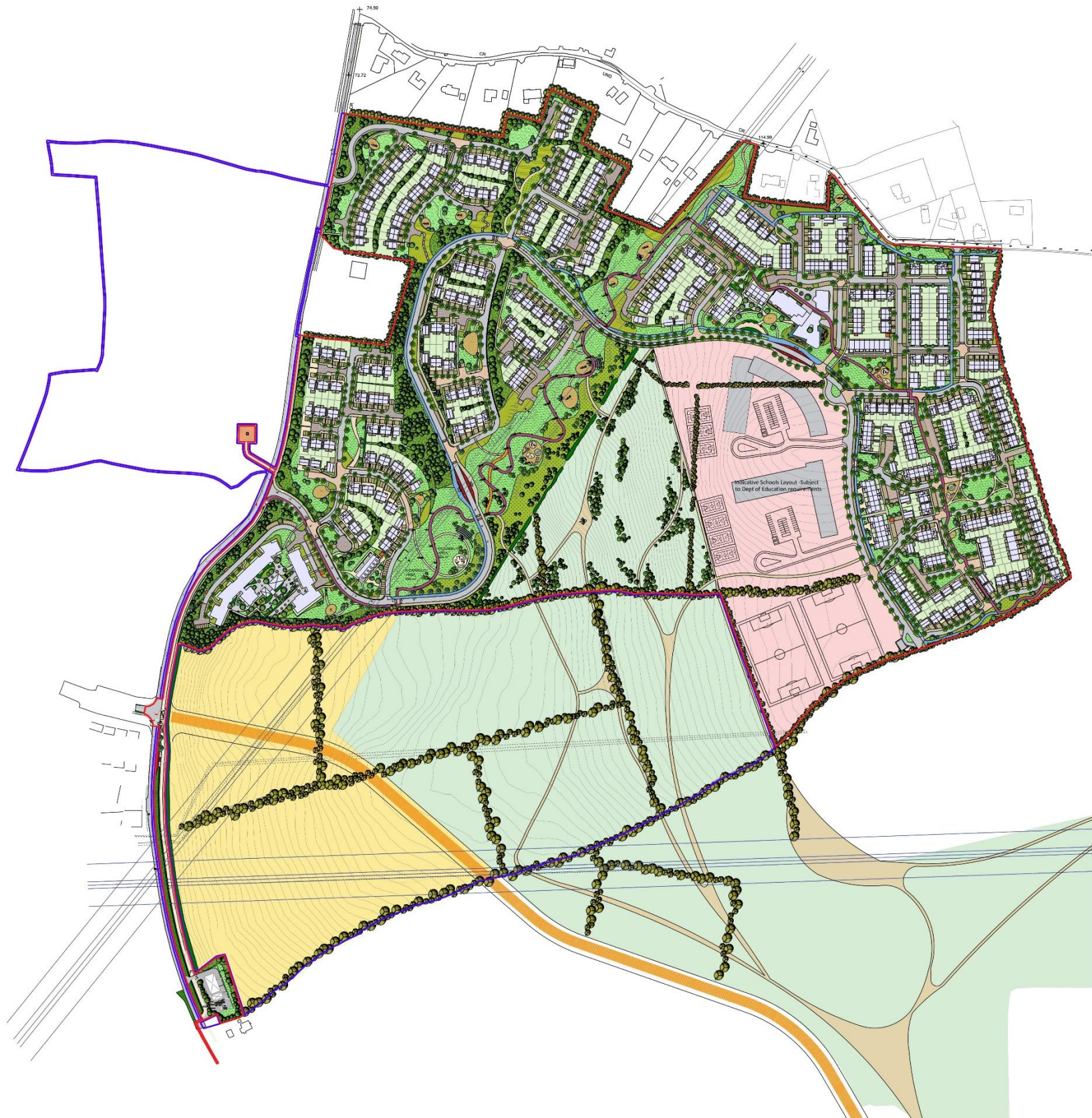


Connectivity to Neighbourhoods



Passive Supervision





- ### Legend
- PUBLIC AMENITY GRASS
 - AMENITY GRASS RESIDUAL LANDS/MEADOWS FUTURE PARK AREA
 - SCHOOL ZONED LAND TO BE RE-PROFILED FOR OVERBURDEN STORAGE
 - ZONED RESIDENTIAL LANDS
 - AREA DESIGNATED FOR PROVISION OF THE MAYFIELD KILBARRY LINK ROAD/BALLYHOOLY ROAD JUNCTION (NOTE STEEPLY SLOPING TOPOGRAPHY TO BE CONSIDERED)
 - PRIMARY CYCLE/PEDESTRIAN ROUTE 1:20 SLOPE
 - SECONDARY CYCLE/PEDESTRIAN ROUTE 1:12 SLOPE
 - GREENWAY CYCLE/PEDESTRIAN TRAIL 1:12 SLOPE
 - MOWN OR GRAVEL PATH THROUGH MEADOW AREA
 - PROPOSED BUS STOP
 - NEIGHBOURHOOD & LOCAL PLAY AREA - compacted ballyusk gravel finish
 - SEATING AREAS
 - WAYLEAVE - 110 KV Constraint Corridor
 - LOCATION FOR 35KV TOWER
 - INDICATIVE LOCATION FOR BIRD BOXES
 - VIEWING POINT
 - AMPHITHEATRE FEATURE
 - OUTDOOR GYM FACILITY
 - PLAY EQUIPMENT
 - CRECHE OPEN SPACE AREA WITH INDICATIVE SAFETY SURFACE, NATURAL PLAY ELEMENTS AND SENSORY PLANTING
 - PROPOSED STREET TREES
 - PROPOSED SPECIMEN TREES
 - PROPOSED WOODLAND PLANTING WITH UNDERSTOREY
 - INDICATIVE OUTLINE OF EXISTING VEGETATION RETAINED
 - HEDGEROW TO BOUNDARY
 - SHRUBS AND GROUND COVER PLANTING
 - SEMI-NATIVE SHRUB PLANTS TO EMBANKMENT
 - WILDFLOWER / MEADOW PLANTING
 - FORMAL HEDGE
 - FOOTPATH
 - ACCESS ROAD
 - RAMPED PEDESTRIAN CROSSING
 - SHARED SURFACE AREA
 - BIN STORE LOCATION
 - SMALL UNIT PAVING TO REAR GARDEN
 - FEATURE PAVING TO FRONT GARDEN
 - PAVING TO CAR PARK
 - FEATURE PAVING TO COURTYARD AND COMMUNITY CENTRE
 - PROPOSED RETAINING WALL
 - PROPOSED 1.8m HIGH WELD MESH FENCE
 - SITE BOUNDARY
 - LAND IN APPLICANT'S OWNERSHIP
- REFER TO ENGINEERS' DRAWINGS FOR SUDS MEASURES
FOR BOUNDARY TREATMENT REFER TO DRG. NO. 17316-2-112.

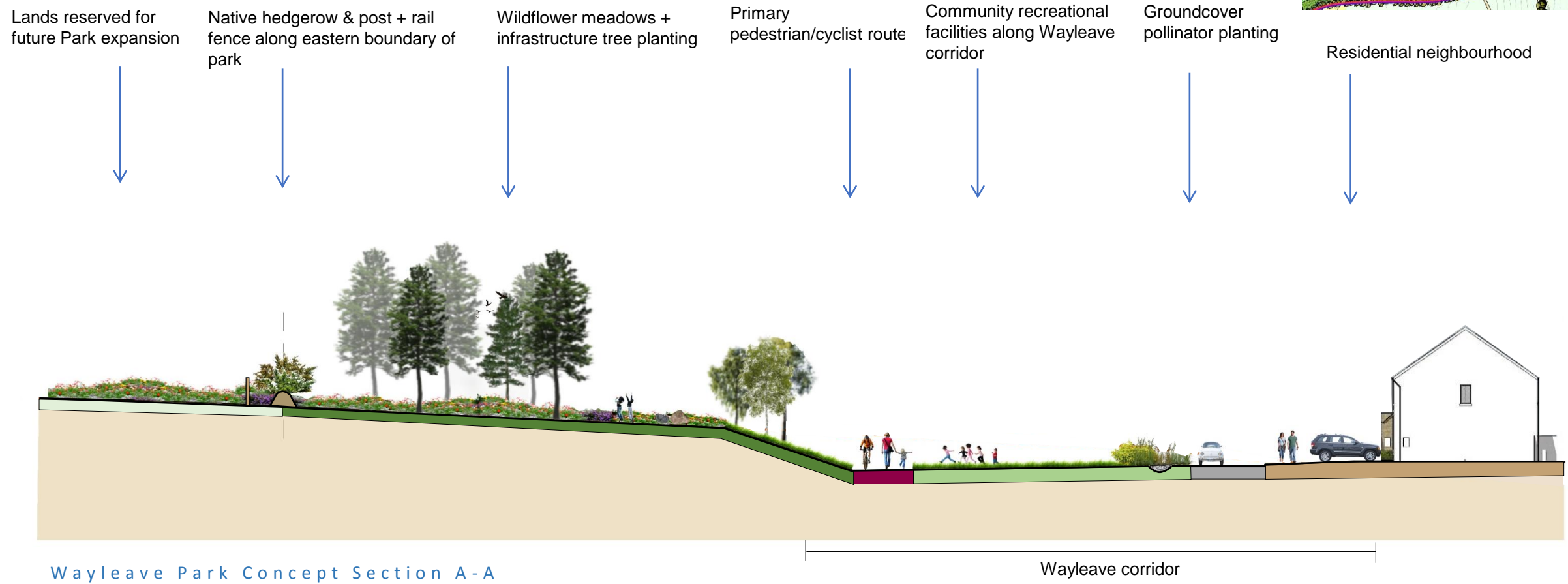
Landscape Masterplan
(Refer also to A0 size drg nos. 17316-2-100 & no.17316-2-101)



Legend

- Site Boundary
- Primary pedestrian/cyclist route
- Secondary pedestrian/cyclist route
- 7no. Local Play Areas
- 8no. Neighbourhood Play Areas
- Usable Open Space within Neighbourhoods
- Square/Plaza Area with Seating at Neighbourhood Centre
- Large Kickabout Areas in Park
- 1no. Courtyard
- 3no. Playgrounds Areas Equipment
- 1no. Outdoor Gym Facility
- 2no. Amphitheatres
- Lands reserved for future Park expansion





Wayleave Park Concept Section A-A

Wayleave corridor



1.0 Recreation and Amenity Provision

Recreation and Amenity provision has been central to the design development process for the development ensuring that facilities are readily accessible, functional and fully integrated as part of individual neighbourhoods and the wider landscape infrastructure of the site. The combined value of recreational and amenity facilities significantly influences the experience of place and the general quality of the residential environments through the site. Recreation and Amenity provision comprises a combination of formal and informal features which are set out in the following categories:

	Recreation & Amenity Provision Summary	Quantity	Comment
1	Green Infrastructure including green areas, wayleave greenway, embankments	38 %	
2	Green Areas within Neighbourhoods 1-6	32,122.26 sq. m	Refer to item 2no. below
3	Local Play Area (LPA)	7 no. (each 400sq. m in size)	Equivalent to minimum of 1 per 100 units as per the R&A policy Refer to item 3no. below
4	Neighbourhood Play Area (NPA)	8 no. (each 100sq. m in size)	Equivalent to minimum of 1 per 100 units as per the R&A policy Refer to item 4no. below
5	Wayleave Public Park (Urban Parkland)	3 hectares approx..	Refer to item 5no. below
6	Primary pedestrian/cyclist greenway route	1.6 kilometres	Refer to item 6no. below
7	Secondary pedestrian/cyclist greenway route	1.5 km (along distributor road) + 0.6 km (N2)	Refer to item 7no. below
8	Outdoor Gym Facility	1 no. (200 sq. m)	Refer to item 8no. below
9	Playground with Equipment	3 no.	Refer to item 9no. below
10	Large kickabout space in the public park	1,500 sq. m	Refer to item 10no. below
11	Amphitheatre Structures	2 no.	Refer to item 11no. below
12	Neighbourhood Centre Public Plaza & Social Hub	785 sq. m	Refer to item 12no. below
13	Home Zone / Shared Use Spaces	11,500 sq. m	Refer to drg. no. 17316-2-10 Refer to item 13no. below
14	N6 Courtyard Recreational Space	3,125 sq. m	Refer to item 14no. below



1.0 Green infrastructure



2.0 Green Areas within Neighbourhood



3.0 Local play area (LPA)

2.0 Green Areas within Neighbourhoods

The six neighbourhood areas provide overlooked green spaces for kickabout and informal play. The spaces also have a number of additional features including connecting footpaths, hardstand areas for use in all weather and tree and shrub planting for seasonal interest. Three of the open spaces have more formalised play facilities.

3.0 Local Play Areas (LPA)

Local play areas are provided in line with Recreation and Amenity policy at 1 per 100 housing units. The play areas consist of compacted Balllylusk gravel surfaces with timber or re-cycled plastic edges located within open spaces. They provide an alternative to grass surfaces for informal play as well as being functional in wet weather.

4.0 Neighbourhood Play Areas (NPA)

Neighbourhood play areas are provided in line with Recreation and Amenity policy at 1 per 100 housing units. The play areas consist of compacted Ballylusk gravel surfaces with timber or re-cycled plastic edges located within open spaces. They provide an alternative to grass surfaces for informal play as well as being functional in wet weather.



4.0 Neighbourhood play area (NPA)

5.0 Wayleave Public Park (Urban Parkland)

The 3ha wayleave park is a significant green corridor comprised of rolling grassland with wildflower meadows which has a destination play area with play equipment, an outdoor gym, 2 no. amphitheatre structures, a large kickabout green space all of which are accessible from the primary pedestrian/cyclist path which runs through the park. The path will be lit to facilitate constant use and seating will be provided intermittently.



5.0 Wayleave public park (Urban Parkland)

6.0 Primary Pedestrian/Cyclist Greenway Path

A 1.6km long pedestrian/cyclist path is provided from the main entrance on Ballyhooly Road through to the south eastern extremity of the site via the Wayleave Park and Neighbourhoods 2 and 5. The greenway provides a safe means of movement which benefits from passive surveillance along its length. It provides access to a range of recreational facilities including kickabout spaces, play areas, neighbourhood centre, home zones, outdoor gym and the larger open spaces and meadows associated with the Wayleave Park.



6.0 Primary pedestrian/cyclist greenway path

The greenway path will also function as a shortcut in negotiating the site from the north-eastern neighbourhoods through to the main entrance on Ballyhooly Road. It will also provide a pleasant and safe trail for exercising, jogging and walking through a variety of landscape character areas including parkland, open spaces, streets and home zones and will be enhanced by associated avenue tree planting.



7.0 Secondary pedestrian/cyclist greenway path

7.0 Secondary Pedestrian/Cyclist Greenway Path

The pedestrian and cyclist paths along the distributor road corridor and through neighbourhood 2 make up the secondary dedicated pedestrian / cyclist greenway. These provide alternative movement options through the site and are directly connected with the primary greenway. The secondary greenway connects neighbourhood 4 with the Wayleave Public Park as well as with the neighbourhood centre.



6.0 Primary pedestrian/cyclist greenway path



8.0 Outdoor gym in the public park

8.0 Outdoor Gym in the public park

The outdoor gym will facilitate individual or group use with the added benefit of App support for the development of appropriate exercise routines. The gym is designed to encourage use by all age groups and is, therefore, a valuable facility for local communities.

9.0 Playground with Equipment

One Local Play Area and two Neighbourhood Play Areas are to be equipped with play facilities to provide an additional layer of play value and sense of destination on the site. The focus will be on natural play encouraging exploration, movement and social interaction. Play features will include stepping stones, balance beams and logs, tunnels and grass mounds will integrated slides.



9.0 Playground facilities

10.0 Large kickabout space in the public park

In addition to the useable open spaces within each neighbourhood, the urban park provides a significant area of flat green space in the vicinity of the outdoor gym which provides ample opportunity for kickabout and other recreational pursuits.



10.0 Large kickabout space

11.0 Amphitheatre style structures in the Wayleave Park

These amphitheatre style structures consist of concentric rows of seating built into the landform of the wayleave park. They will function as informal play structures and meeting points within the 3 hectare park. One of the structures is located at the southern end of the park adding value to the outdoor gym facility and large kickabout area.



11.0 Amphitheatre style structures

12.0 Neighbourhood Centre Public Realm Plaza

The neighbourhood centre plaza is a valuable public realm space which will make an important contribution towards defining sense of place and identity for the development. A combination of high quality hard and soft landscape treatments provide breakout spaces for meeting and socialising at this community hub. The primary pedestrian/cyclist greenway is directly connected with the neighbourhood centre plaza.



12.0 Neighbourhood centre public realm plaza

13.0 Home Zone / Shared Use Spaces

Homes zones and shared use spaces provide opportunity for localised informal play in environments where the emphasis is on traffic calming and accommodating and prioritising the pedestrian and cyclist in line with the principles of DMURS.



13.0 Home zone/shared use space

14.0 N6 Courtyard Recreational Space

The courtyard space will be a valuable amenity for the apartment blocks in N6. High quality breakout spaces will be provided by means of a combination of hard and soft landscape treatments aimed at providing seasonal interest and opportunities for localised informal play, sitting out and socialising.



14.0 N6 courtyard recreational space

15.0 Sustainability and Biodiversity

Landscape design proposals for green infrastructure elements such as the wayleave park, site boundary treatments and planting throughout the site (including woodland screen planting on embankments, boundary planting, hedgerow planting, street trees, shrub and groundcover planting and grassland/wildflower meadow establishment) have been developed in conjunction with the project ecologist to maximise the biodiversity potential of the site. Specific recommendations from the ecologist such as the provision of bird boxes through the wayleave park have been accommodated.



15.0 Wildflower meadow



15.0 Flowering native shrubs

The overall emphasis is on the use of native and polliniferous species wherever possible in order to deliver green infrastructure which is appropriate to the landscape setting.

16.0 Sustainable Urban Drainage Systems (SuDS)

The SuDS strategy for the site is set out in a specialist report by MHL & Associates Ltd. which accompanies the planning application. SuDS measures are to be incorporated within open spaces, the wayleave park and along roadside verges in the form of swales and shallow basins. Some of the swales will be planted to increase their biodiversity potential. The location of SuDS measures is shown on Drg. no. xxxx

17.0 Site Boundaries

Existing trees and hedges along site boundaries will be retained and protected during site works. A range of site boundary treatments are to be applied, the details of which are shown on Site Boundary Treatments drg. no. 17316-2-112

The range of site boundary proposed treatments includes the following walling and fence details typically combined with tree and hedgerow planting:-

- 2.0m high, block rendered wall along northern boundary
- 600-800mm high, natural stone wall along north-eastern boundary
- 2.0 m high concrete post with timber infill panels along eastern boundary
- The existing stone ditch maintained
- 800mm high natural stone wall surmounted with decorative railings along Ballyhooly Road
- 2.4m high paladin mesh fence along boundary with adjacent yard on the western boundary
- 1200mm high post and rail fence along a section of Ballyhooly Road north of the pump station

18.0 Hard Landscape Treatments

The specification of materials and finishes for the site have been carefully considered to deliver a combination of :-

- Robustness and fitness for purpose
- Quality in respect of visual effect and function
- Definition of place such as key public spaces (neighbourhood centre), home zones and recreational destinations
- Legibility in terms of changes of function of space, contribution towards traffic calming and guidance for the visually impaired.
- Cost effectiveness
- Visual cohesion which is achieved by using a limited but effective palette of materials.

Proposed materials and finishes are as follows:

- Roads – hot rolled asphalt.
- Home zones/Shared Surfaces – hot rolled asphalt with variations in colour and texture provided by the inclusion of coloured aggregates or resin bonded surface finishes.
- Neighbourhood Footpaths – Smooth concrete surface finish
- Greenway Shared Pedestrian / Cyclist Paths - Bitumen macadam with coloured aggregate
- Local and Neighbourhood Play Areas – Ballylusk self-compacting gravel
- Neighbourhood Centre Plaza – Combination of large and small unit quality concrete paving products from Tobermore or similar.
- Neighbourhood 6 Apartment Blocks Courtyard Space – Combination of quality large and small unit concrete paving products from Tobermore or similar.
- Pedestrian Crossings - hot rolled asphalt with variations in colour and texture provided by the inclusion of coloured aggregates or resin bonded surface finishes.



16.0 SUDS swale



16.0 SUDS basin



19.0 Conifer bosquet



19.0 Birch bosquet



19.0 Berries native hedgerow



19.0 Street trees

19.0 Soft Landscape Treatments

Planting proposals have generally been formulated to complement the local landscape setting. Native trees have been selected in significant numbers for planting along boundaries and across open spaces, while a mixture of native and non-native species have been chosen to be compatible with available spaces such as along roads or in close proximity to houses.

Shrub and groundcover planting provides additional sense of seasonality, diversity and visual interest and includes pollinator species to enhance site biodiversity.

20.0 Maintenance and Management

Consideration of management and maintenance issues has been integral to the design development process. Tree species selection has focused on providing species suitable for size for the available garden, street and public open spaces thus avoiding onerous management operations in future years .

Groundcover planting arrangements are visually effective and will enhance biodiversity but will not overly complex. Excessive shrub and groundcover planting is also avoided with a view to aiding the maintenance and management process and maintaining good visibility across all public areas of the site.

Hard landscape materials have also been selected with quality, robustness and ease of maintenance in mind as outlined under item 18.0 above.



19.0 Woodland



19. Hedgerow boundary



19.0. Hedgerow and boundary wall

All materials will be designed to a high standard, be robust and withstand a long life, as well as meet the CE standard.



Driveways tegula paving



Hot rolled asphalt with variations in colour and texture provided by the inclusion of coloured aggregates or resin bonded surface finishes.



Seating (indicative)

Road Finish
Hot rolled asphalt and selected paving setts
Pedestrian Footpath Paving
Smooth concrete and Resin bounded surface finish
Open Space Paths
Play Spaces on Public Open Spaces
Ballylusk self-compacting gravel or bitumen macadam



Bike Stands (indicative)



Front gardens sandstone paving



Concrete/Reconstituted Stone Paving



Permeable Pavers to Parking



Concrete path



Resin bonded path



Stone Paving in feature areas



Recessed service covers and slot drains in plaza

Street Trees – typically 16-18/18-20cm girth 4-6m ht:



Acer platanoides 'Emerald Queen' *Prunus padus* *Ulmus* 'Lobel' *Acer campestre* *Tilia cordata* *Sorbus aucuparia*

Hedgerow Mix – 60-90cm



Prunus spinosa *Crataegus monogyna*

Small to Medium Ornamental Trees – typically 14-16cm girth 3-4m ht:



Prunus var. *Betula utilis* *Amelanchier* *Magnolia soulangia* *Liquidamber* *Fagus sylvatica* *Pyrus calleryana* 'Chanticleer'



Corylus avellana *Ilex aquifolium*

Typical Low Shrub planting – typically 2L pot size at 4/sq.m:



Aster novi-beigii *Berberis* 'Amstelveen' *Carex* spp. *Miscanthus* sp.' *Spirea japonica* *Lavendula angustifolia* *Hypericum* "Hidcote"

Hedges -formal



Buxus sempervirens



Choisya ternata *Continus coggygria* *Rosa Noaschee* *Fuchsia* "Riccartonii"

Typical Sensory Shrubs

Helianthus annuus, *Beta vulgaris* 'Bright Lights', *Heuchera*, *Mentha spicata*, *Rosmarinus officinalis*, *Hemerocallis*, *Helichrysum italicum*, *Lavandula angustifolia*, *Origanum vulgare*, *Melissa officinalis*, *Briza maxima*, *Pennisetum alopecuroides*, *Stachys byzantina*, *Salvia argentea*, *Phomis frucosa*



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/m².
- 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 m²; and 150g/m² 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/m² and 10:10:10 NPK slow release fertiliser at 150g/m².
- 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 EEuropean 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 administrating 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/m², 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. 18 grass cuts proposed (indicative number).

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 designed 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 1st March to 31st 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

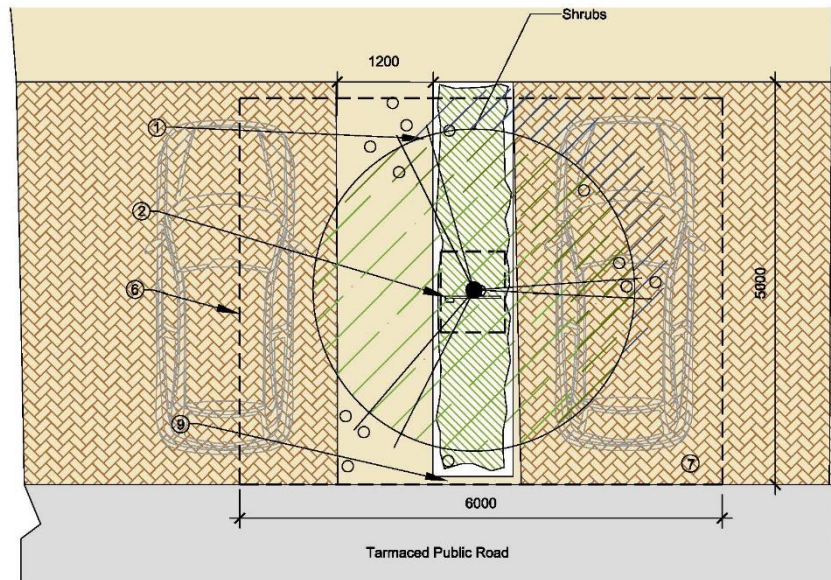
The contractor shall maintain all areas free from litter. This shall mean the removal of all extraneous litter, rubbish and any other debris from all areas, which will include grass areas, planted areas, carparks, footpaths as well as woodlands and tree canopies.

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.

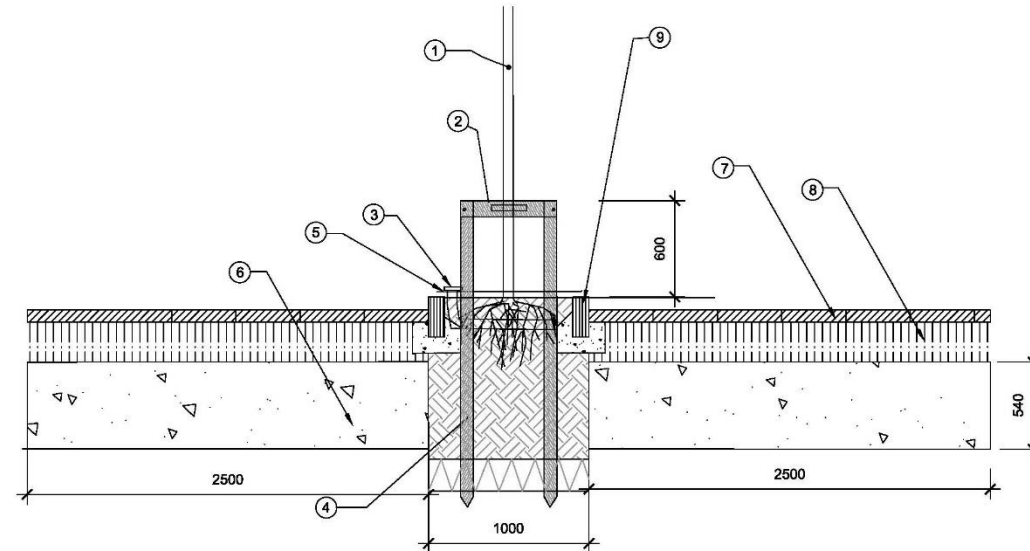
In addition to removal of litter from footpaths, planted areas, etc., the contractor shall make provision for the immediate (within 1 days of notification) arrangement for collection and removal of all extraneous matter which has been deliberately been deposited on site by persons known or unknown (fly-tipping).

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.



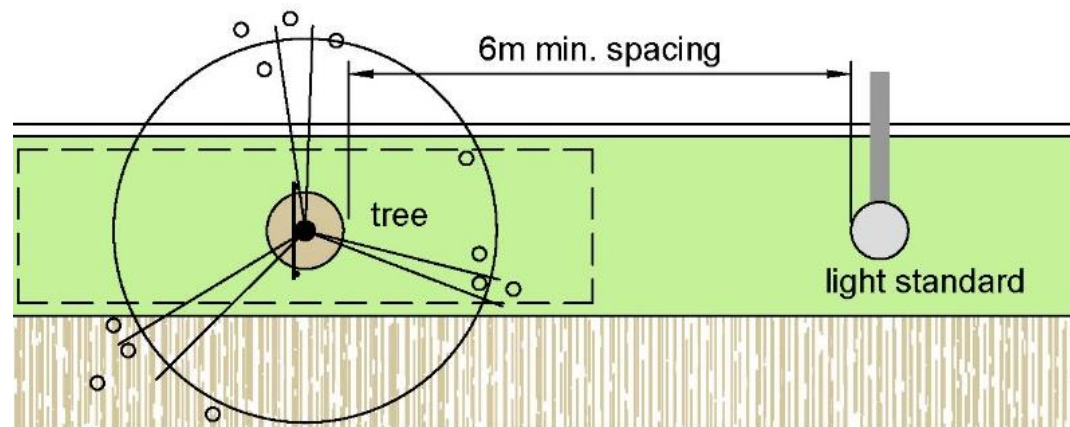
VO1: Street Tree Pit Detail – Plan



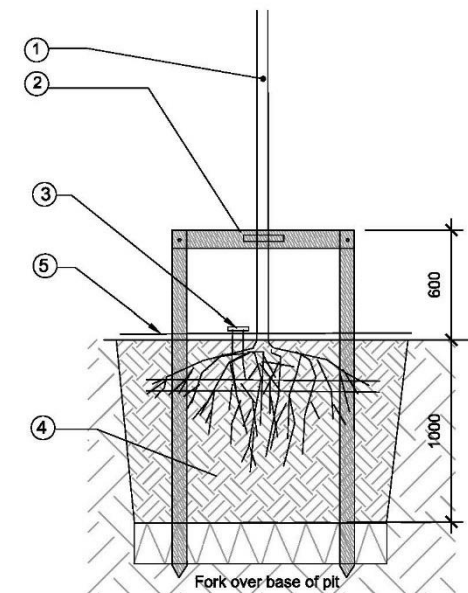
VO1: Street Tree Pit Detail – Section

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 16m3 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 1x1x1mm 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 18 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	***	***	***	***	***	***	***	***	***	***	***	***