

Residential Development at
Mount Saint Mary's,
Dundrum Dublin 14,

Ronan Mac Diarmada & Associates

Landscape Architects & Consultants



LANDSCAPE CONCEPT

On behalf of:
Dún Laoghaire-Rathdown County Council

February 2025

CONTENTS

1. SITE CONTEXT

SITE LOCATION 3

2. DESIGN PROPOSAL

LANDSCAPE MASTERPLAN 4
LANDSCAPE MOOD BOARD 5
OPEN SPACE CATEGORIES 6
CONNECTIVITY ROUTES 7
ARBORICULTURAL IMPACT 8
PLAY AMENITY PLAN 9
NATURAL PLAY ELEMENTS 10
BOUNDARY TREATMENT PLAN 11

3. LANDSCAPE FEATURES

PROPOSED PLANTING - SHRUBS 12
PROPOSED PLANTING - HEDGEROWS 13
PROPOSED PLANTING - WILDFLOWER 14
PROPOSED PLANTING - WOODLAND MEADOW MIX 15
SUDS - RAIN GARDEN 16
HARD LANDSCAPE PALETTE 17
HARD LANDSCAPE SURFACES 18

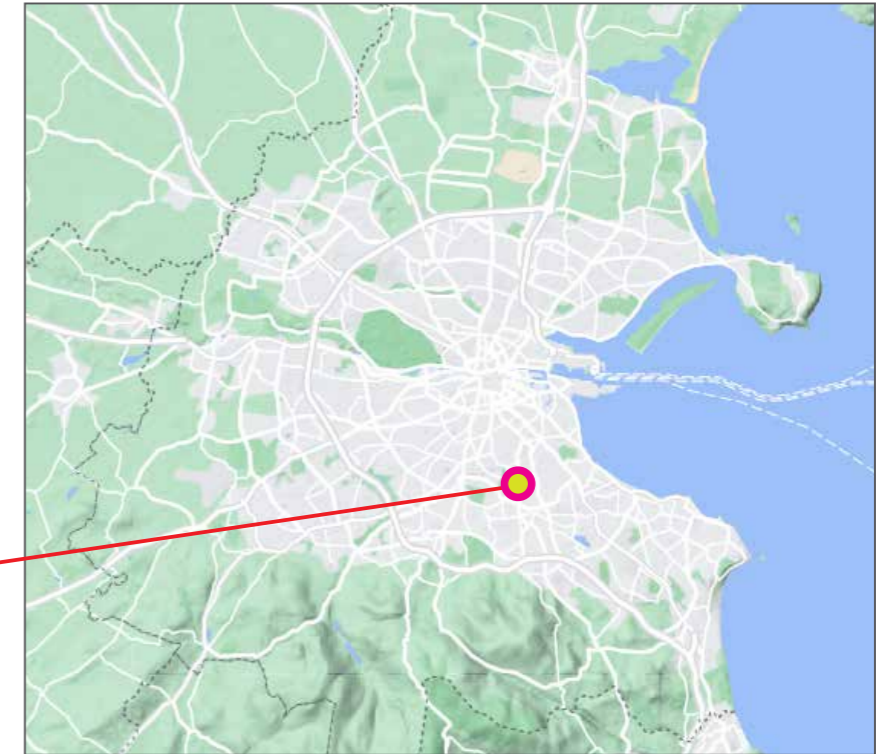
4. DETAIL DESIGN

SOFT LANDSCAPE DETAILS 19
PERMEABLE PAVING 20
DRAINAGE - GREEN / SEDUM ROOF 21



1. SITE CONTEXT

Site Location



Subject Lands



2. DESIGN PROPOSAL

Landscape Masterplan



SOFT LANDSCAPE
Proposed Tree Planting 150cm ht.
Proposed Tree Planting 18-20cm girth

- T1 *Amelanchier lamarckii*
- T2 *Magnolia stellata*
- T3 *Viburnum opulus*
- T4 *Acer palmatum*
- T5 *Rhus typhina*
- T6 *Prunus avium* 'Plena'
- T7 *Arbutus unedo*
- T8 *Malus* 'John Downie'[^]
- T9 *Pyrus calleryana* 'Chanticleer'
- T10 *Betula pendula*
- T11 *Fagus sylvatica*
- T12 *Acer campestre* 'Elsrijk'

Existing Trees Retained **Existing Trees/Hedgerow Removed**

G1 Amenity Grass
300mm min. Topsoil depth

G2 Amenity Grass - Rear Gardens
300mm topsoil depth

M1 - Wild Flower Meadow
An appropriate dry meadow type with wildflowers for these areas would simulate NVC type MG5. Appropriate herbs for this type of meadow include:

S1 - Shrub Planting
450mm topsoil depth

Code	Species Name	Specification	Plant/m2
	<i>Agapanthus africanus</i>	c/g 2L 30-40cm ht.	7m ²
	<i>Allium ursinum</i>	c/g P9 20-30cm ht.	7m ²
	<i>Eryngium</i> 'Bowles' Mauve'	c/g 2L 30-40cm ht.	5m ²
	<i>Libertia grandiflora</i>	c/g 3L 30-40cm ht.	3m ²
	<i>Kniphofia</i> 'Royal Standard'	c/g 2L 30-40cm ht.	7m ²
	<i>Tulbaghia violacea</i>	c/g 2L 30-40cm ht.	3m ²

S2 - Tree Pit Shrub Planting

Species Name	Specification	Plant/m2	%
<i>Persicaria affine</i>	c/g 1L 20-30cm ht.	7m ²	50
<i>Astible</i>	c/g 2L 30-40cm ht.	7m ²	5
<i>Iris siberica</i>	c/g 2L 30-40cm ht.	7m ²	15
<i>Helleborus</i>	c/g 2L 30-40cm ht.	7m ²	10
<i>Kniphofia Red Hot Poker</i>	c/g 2L 30-40cm ht.	7m ²	15
<i>Carex pendula</i>	c/g 2L 30-40cm ht.	7m ²	15

S3 - Woodland Groundcover Planting Mix

Extensive Green Roof

H1 - Native Hedgerow (450mm topsoil depth / 100cm Double Staggered Row)

Species Name	Specification	Centres	%
<i>Ilex aquifolia</i>	100cm ht.	500mm	50
<i>Crataegus monogyna</i>	100cm ht.	500mm	50




H1 - Structural Hedgerow (450mm topsoil depth / 100cm Single Row)

Species Name	Specification	Centres
<i>Prunus lusitanica</i>	100cm ht.	500mm



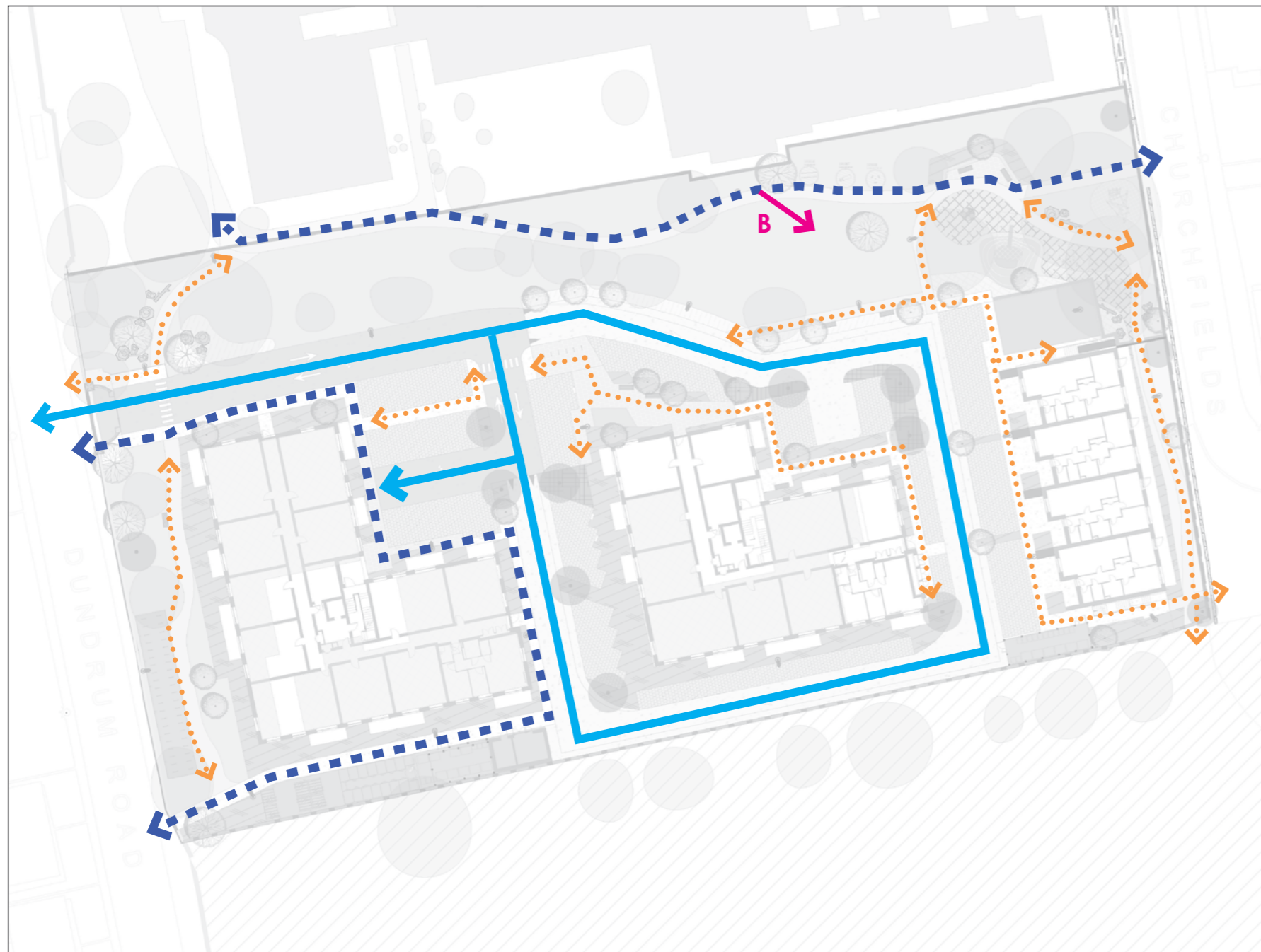
Open Space Categories



-  Public Open Space - 2481m²
Public realm, linear park, congregation areas, recreation
25% of total site area (9826.3sqm)
-  Communal Open Space - (736m² required)
Gathering/seating space, visual amenity, sensory planting, roof terrace
-  Play Space - 438m² (included in P.O.S.)



Proposed Linear Park - CGI - View A



---> Primary Route

.....> Secondary Route

→ Streetscape

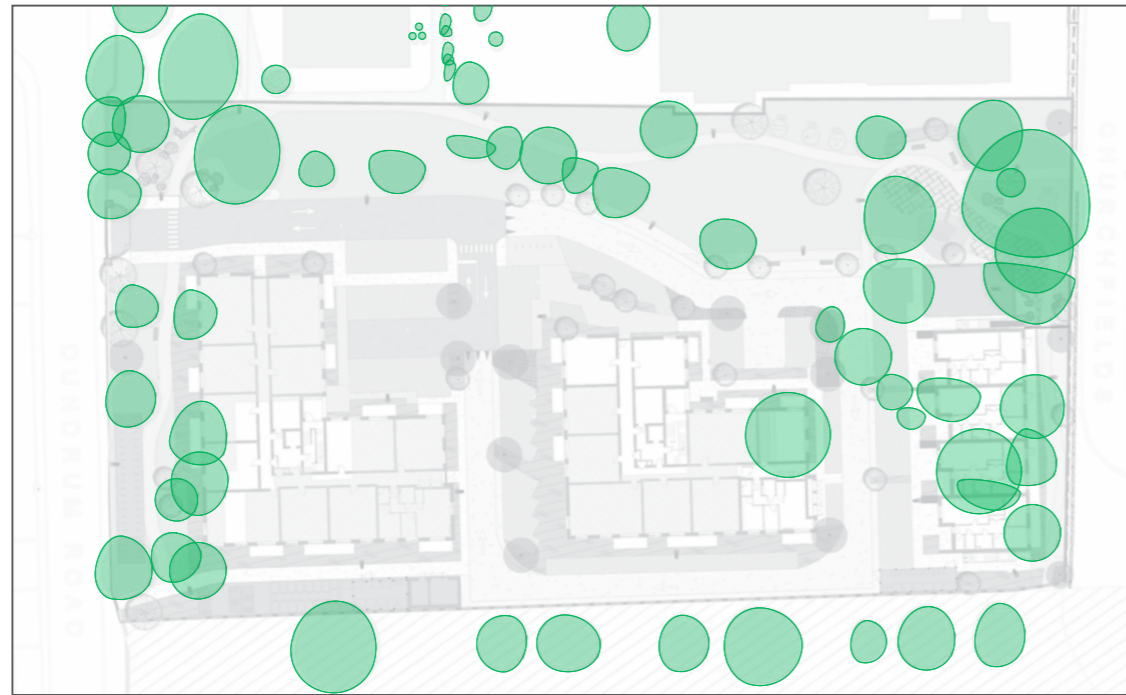
Connectivity

A key objective of the scheme to reduce car dependency by providing high quality pedestrian and cycle networks. The provision of green infrastructure integrates the new development with the existing greenway.

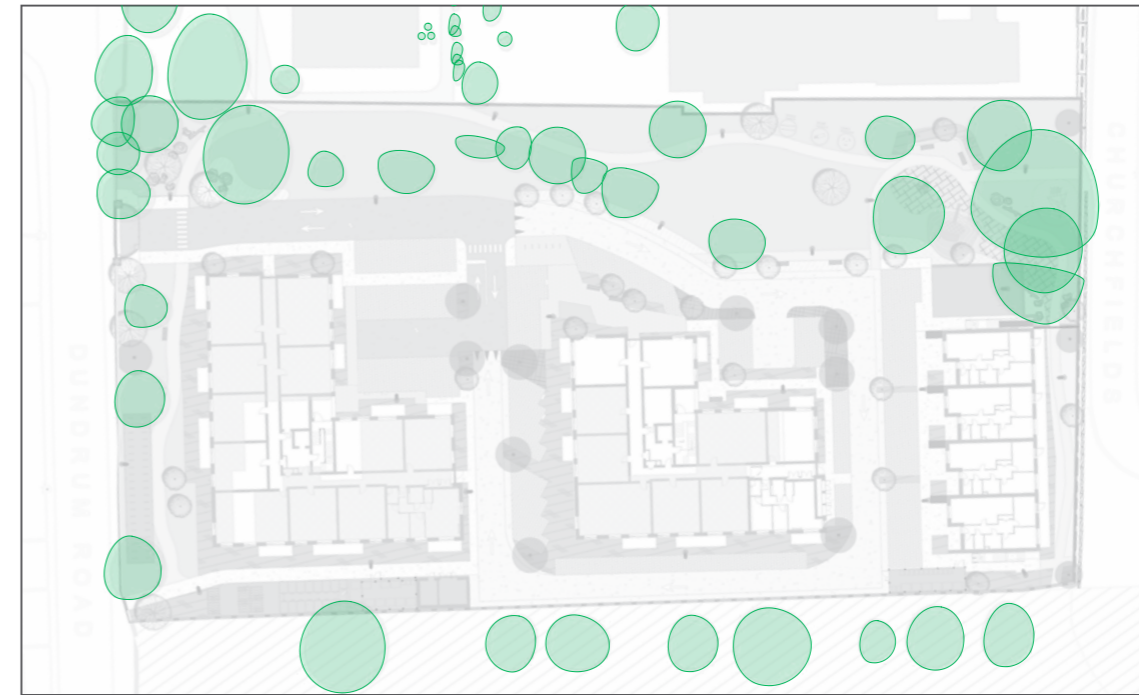
The increased permeability of the development it's context is important to connect residents to surrounding opportunities.



Proposed Open Space - CGI - View B



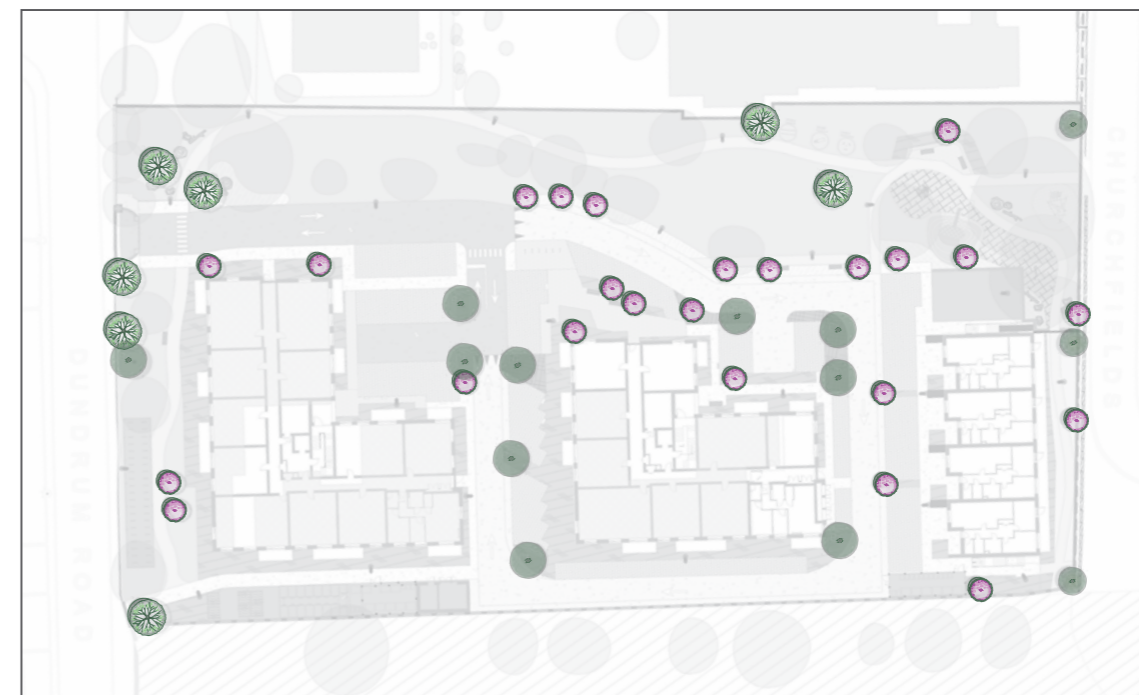
EXISTING TREES



RETAINED TREES





REMOVAL TREES

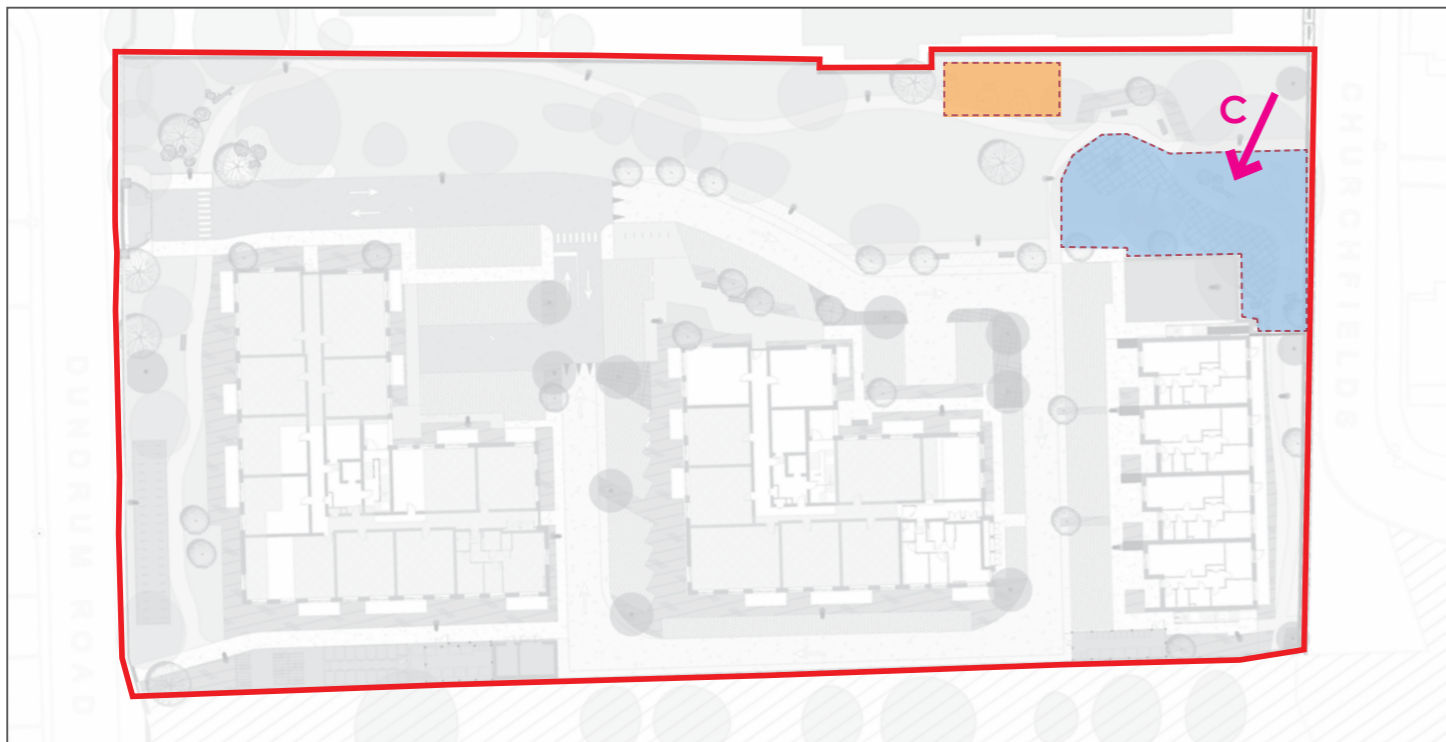


PROPOSED TREES



Proposed Play Space - CGI - View C

-  Natural Play Space
-  Calisthenics Space



Benefits of natural play spaces:

- Development of social skills, cooperation, and problem-solving abilities
- Stimulates imagination and creativity more than traditional playgrounds
- Adapts to natural topography and environment for sustainability



Calisthenics Workout Spaces:

- Allows residents to engage in calisthenics exercises for physical fitness
- Encourages a healthy and active lifestyle within the residential community



Structured Play Space:

- Promotes physical development, coordination, and motor skills in children
- Provides a safe and engaging play environment for children within the residential development



Communal Play Spaces:

- Fosters social interaction, community bonding and sense of belonging among residents
- Creates shared spaces for children and families to play and connect

Natural Play Elements

Junior Play - Under 5 years of age

All surfaces manufactured and installed to EN 1176 and all play equipment manufactured and installed to EN1177



Junior Play - Over 6 years of age

All surfaces manufactured and installed to EN 1176 and all play equipment manufactured and installed to EN1177.



Natural Play Equipment

Natural playgrounds help children to develop other beneficial behaviors in addition to physical skills. These behaviors include social skills, cooperation, and the ability to solve problems.



Boundary Treatment Plan



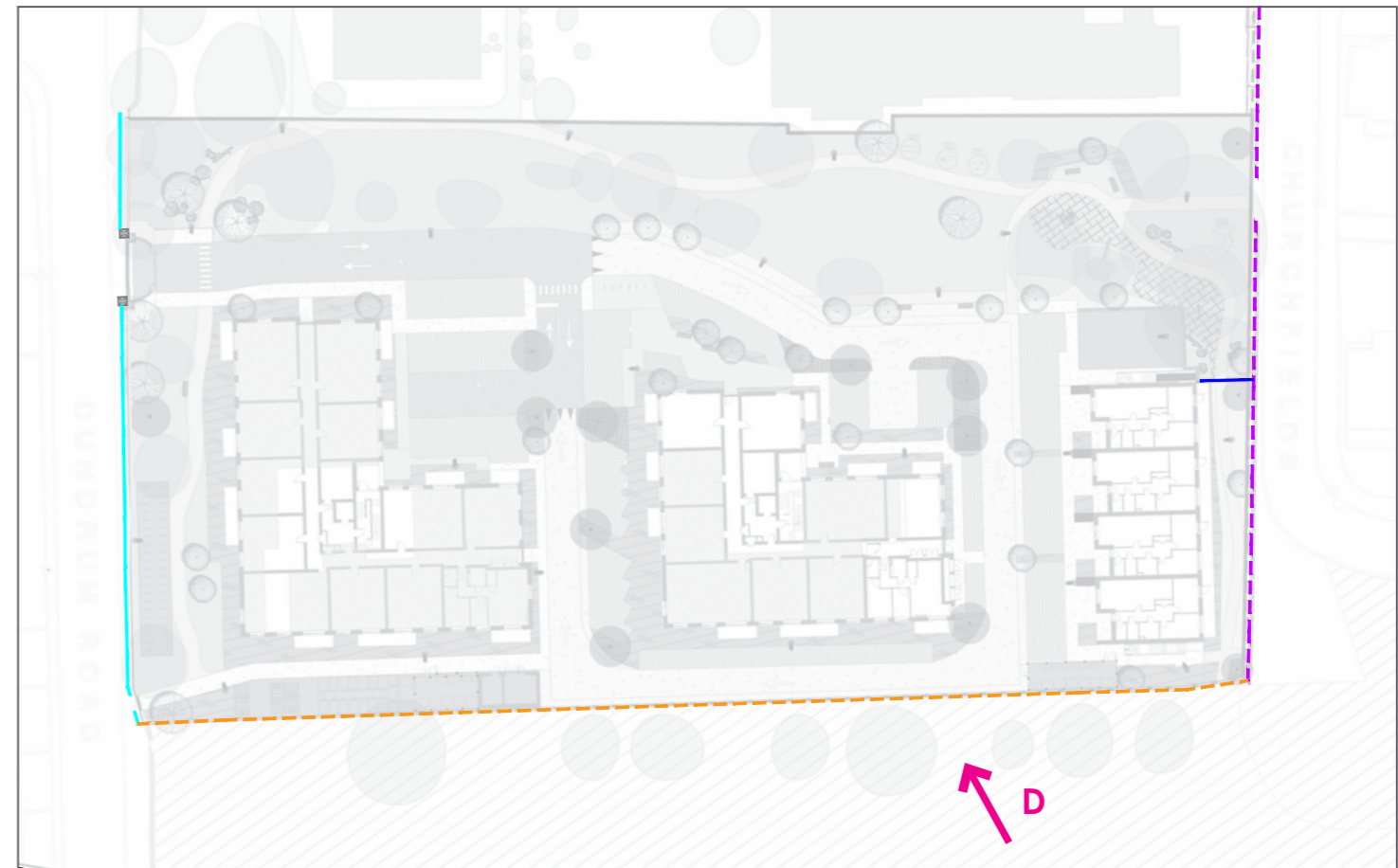
Retained Existing Parkland Fence



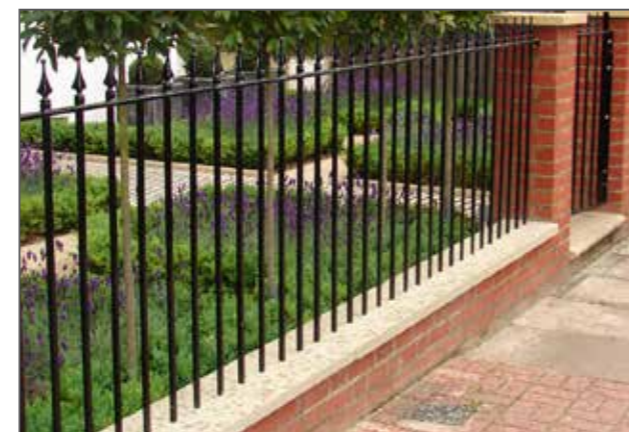
Parkland Railing



Stone Wall Pier
Varies in Height according to wall



Existing Wall Retained



Butt Wall & Upright Bar Fence
1.8m high



Southern Boundary - CGI - View D

3. LANDSCAPE FEATURES

Proposed Planting - Shrubs



Persicaria affine



Bergenia cordifolia



Libertia grandiflora



Aucuba japonica



Prunus 'Otto luyken'



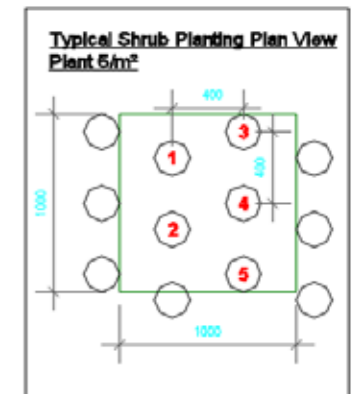
Lavandula angustifolia



Hypericum hidcote



Astelia 'Silver Spear'



Agapanthus 'Blue Giant'



Kniphofia 'Royal standard'



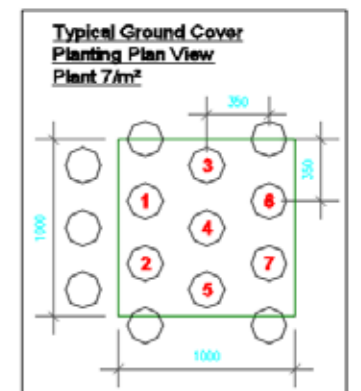
Nerine bowdenii



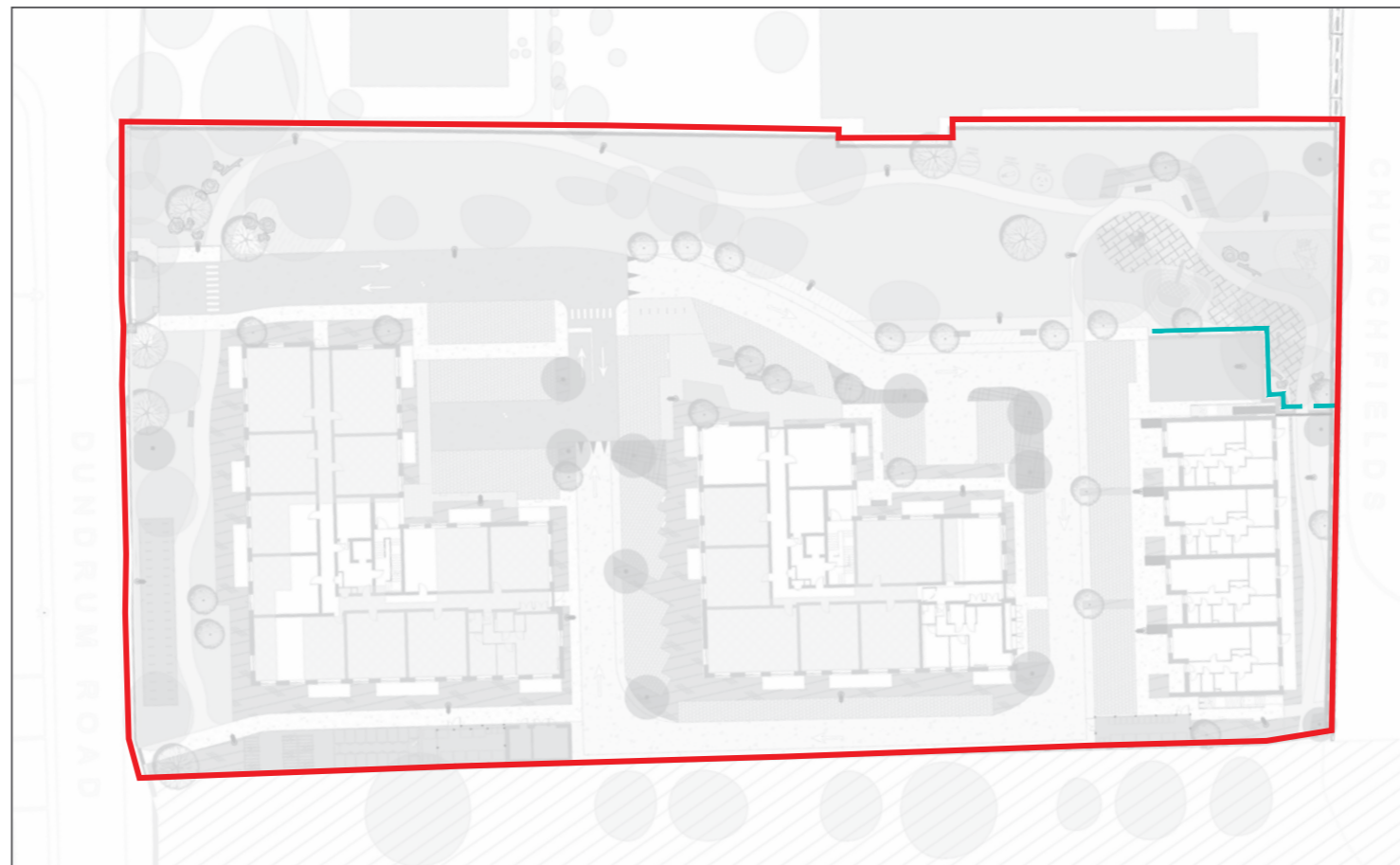
Sedum spectabile



Miscanthus sinensis



Proposed Planting - Hedgerows



Ilex aquifolium



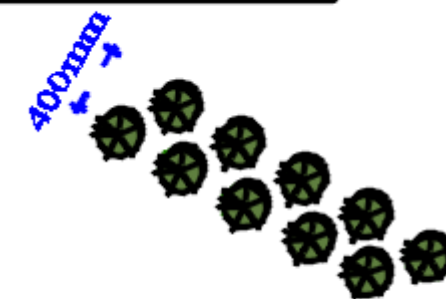
Crataegus monogyna



Prunus lusitanica

Hedgerow Planting Detail

Hedge mix
60-90mm



50 x 50 stake tied with a
single rubber gut tie.
2 rows @ 500mm centres -400mm
apart,

Proposed Planting - Wildflower



Yellow Rattle
Rhinanthus minor



Ribwort plantain
Plantago lanceolata



Red clover
Trifolium pratense



Bird's-foot trefoil
Lotus corniculatus



Proposed Wildflower Meadow



Meadow buttercup
Ranunculus acris



Lady's-bedstraw
Galium verum



Cowslip
Primula veris



Oxeye daisy
Leucanthemum vulgare



Common knapweed
Centaura nigra



Common sorrel
Rumex acetosa



Burnet saxifrage
Pimpinella saxifraga



Autumn hawkbit
Leontodon autumnalis



Rough hawkbit
Leontodon hispidus

Note: The Wildflower Meadow will need to be cut once in Autumn (Late August/Early September) with a tractor and mower. Leave the mowings for a few days to allow seed to drop to the ground. Then it should be baled and bales removed.

Proposed Planting - Woodland Meadow Mix



Dryopteris filix mas



Luzula nivea



Anemone nemerosa



Athyrium filix-femina



Proposed Woodland Meadow



Briza media



Carex sylvatica

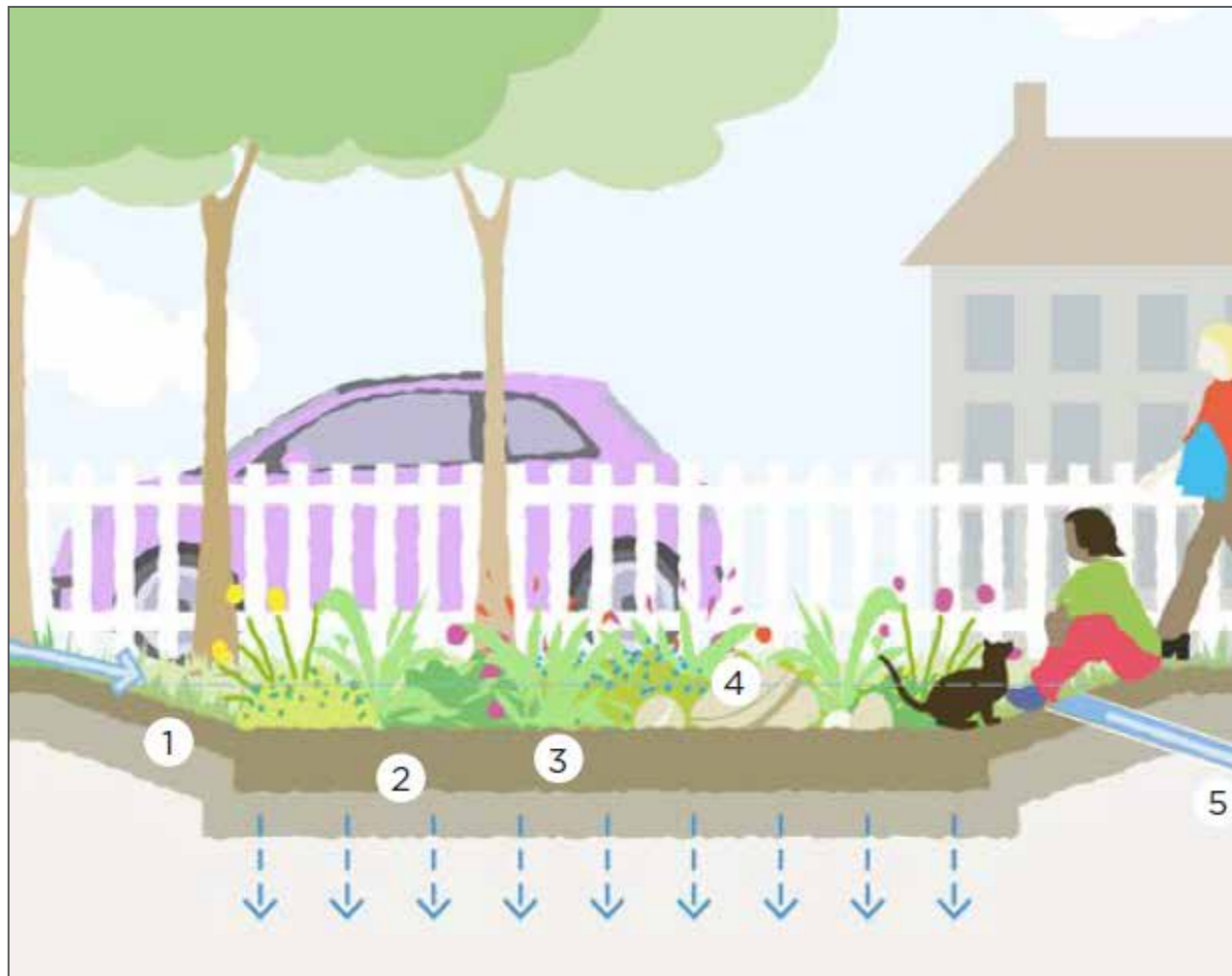


Deschampsia cespitosa



Polystichum setiferum

SUDs - Rain Garden



Rain Garden Locations

Raingardens are designed to collect and manage reasonably clean water from roofs and low pollution risk drives and pathways. They are generally installed where community or private maintenance is available to upkeep these attractive features.

Key aspects of raingarden design include:

1. gentle side slopes with water collected at the surface
2. a free-draining soil, sometimes with an underdrain to avoid permanent wetness
3. a minimum of 450mm improved topsoil with up to 20% coarse compost
4. garden plants that can tolerate occasional submersion and wet soil – this includes most garden plants other than those particularly adapted to dry conditions
5. an overflow in case of heavy rain or impeded drainage.

Furniture Palette



Wooden seating

Play Equipment Palette



Play Equipment

- Wooden Log
- Stepping logs
- Balance Beam
- Mound & Slide
- Bird's nest
- Rope nest swing



Calisthenics Equipment

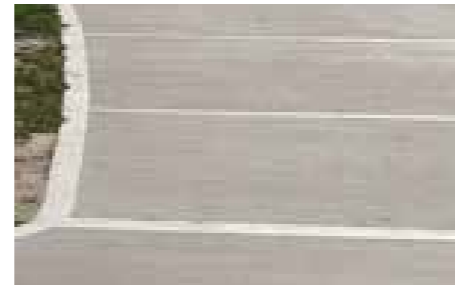
- incline press
- decline bench
- dip bench
- in shape step up

Surface Palette

In-situ Surfaces



SMA w/ Black Chip



Brushed exposed aggregate concrete

Paths

Surfacing for high impact areas across the development



Ballylusk Dust Path



Play Surfacing

Paving Palette

Feature Paving

Light coloured flags to maximum light w/ contrasting paving blocks



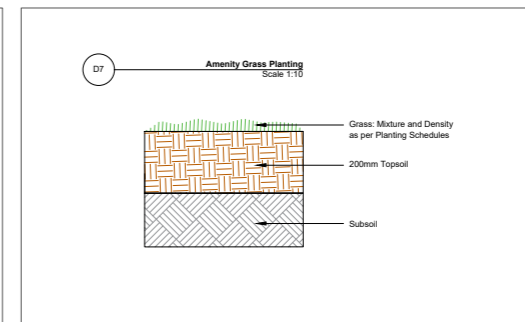
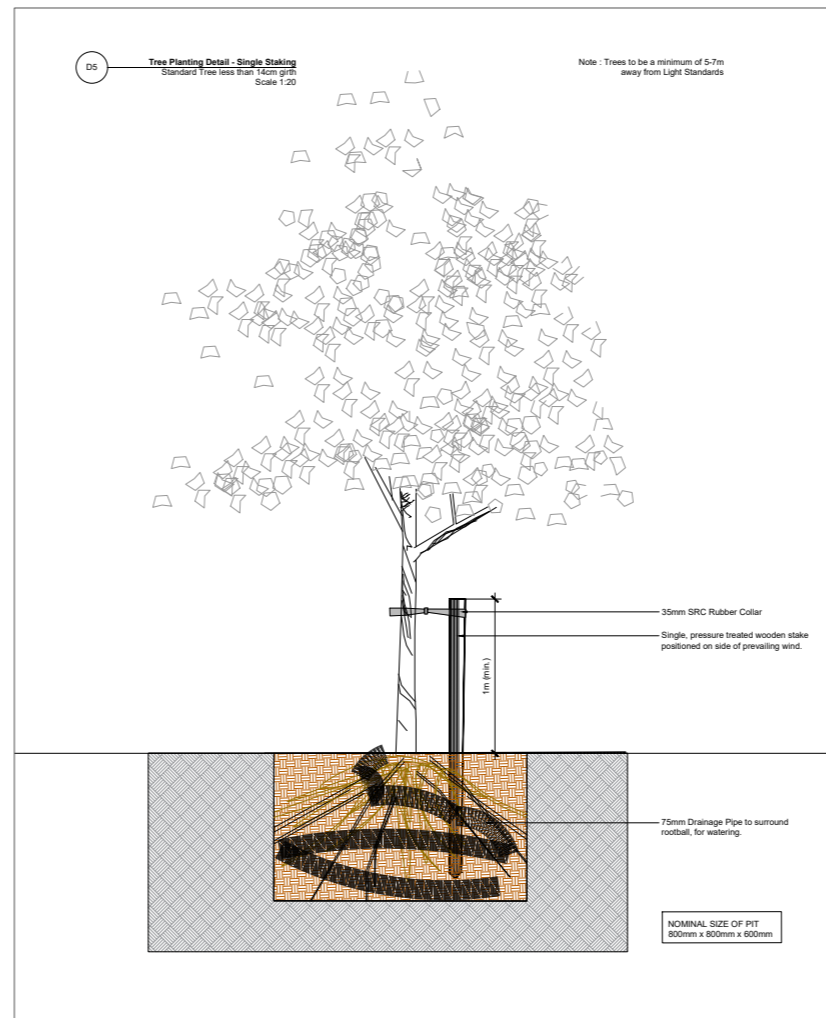
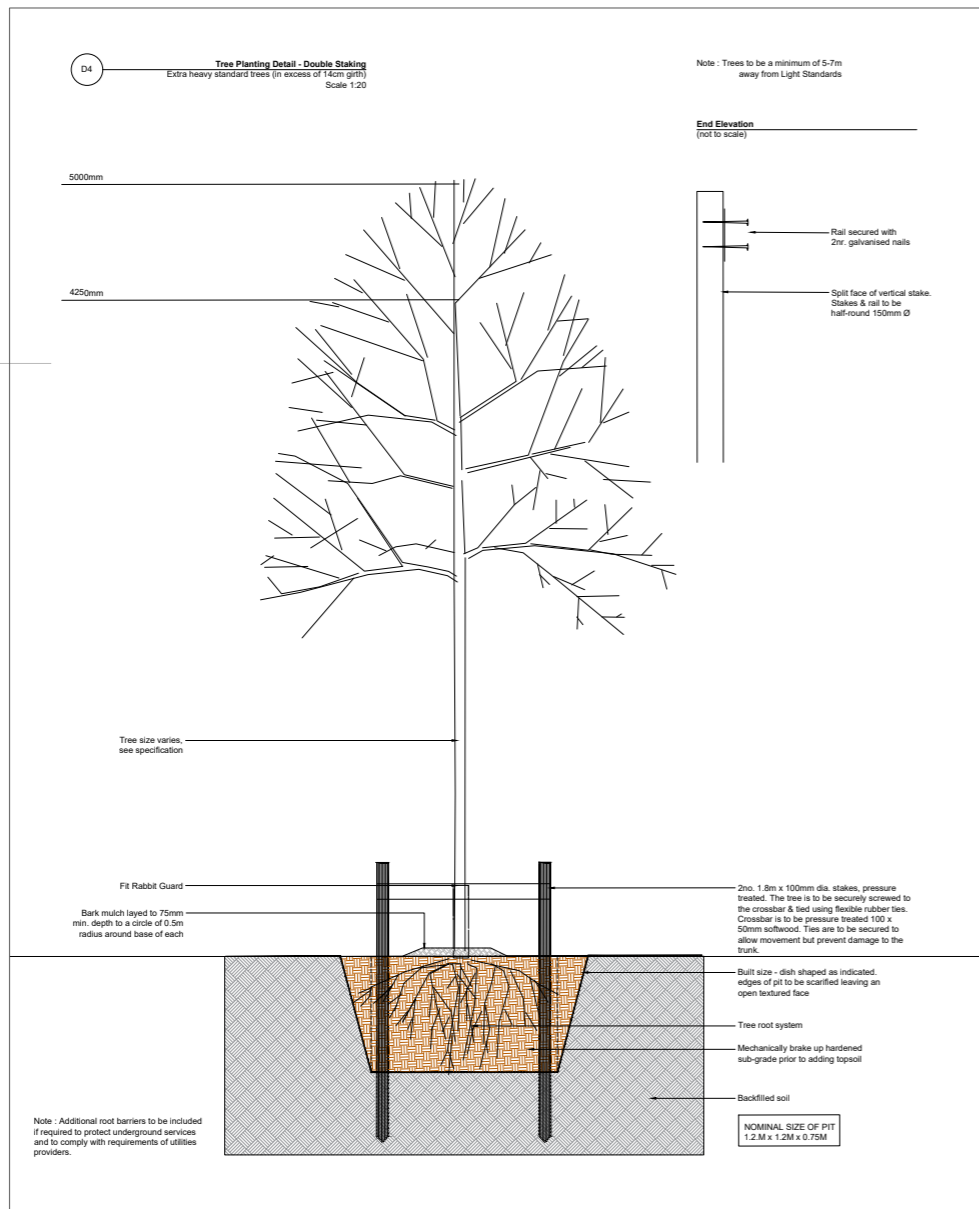
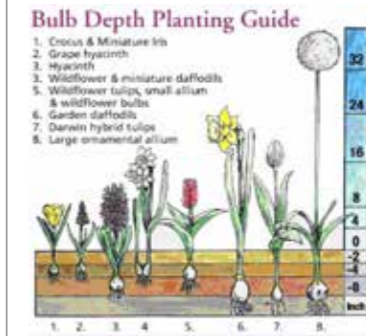
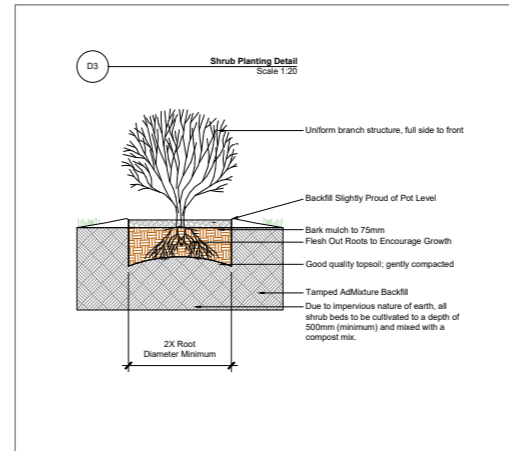
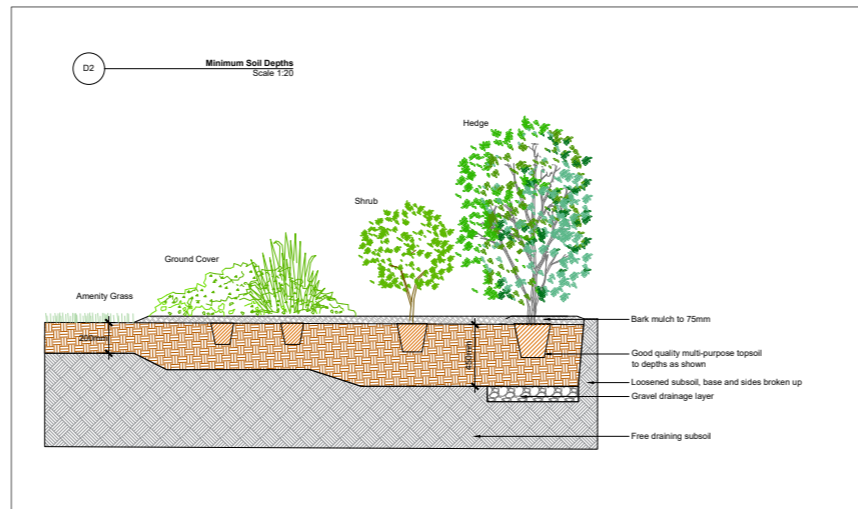
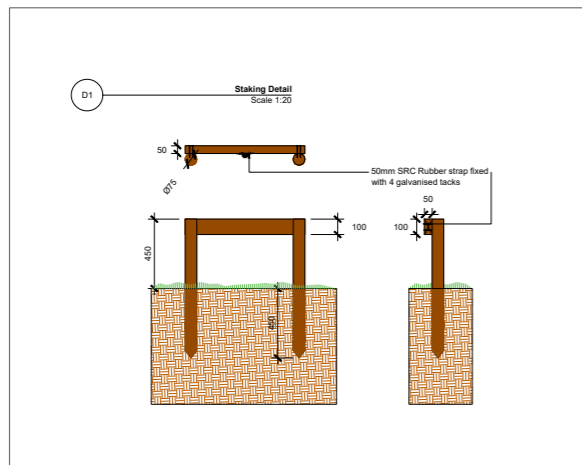
Permeable Paving



Feature Paving

4. DETAIL DESIGN

Soft Landscape Details



Permeable Paving

Permeable surfaces direct rainfall straight into a SuDS structure for cleaning and storage or infiltration into the ground. Utilising:

1. pervious surface to allow water through the pavement surface
2. an open-graded sub-base layer that provides structural strength to the pavement with about 30% by volume available for water storage. The subbase designed structurally and hydraulically.
3. to avoid silt washing off adjacent landscape areas and leading to localised surface clogging., the following measures have been considered:
 - sloping adjacent landscape areas away,
 - using paved or turfed surfaces to adjacent areas,
 - proposing soil in adjacent planting beds at min. 50mm below the top of kerb with dense ground cover to bind the soil.

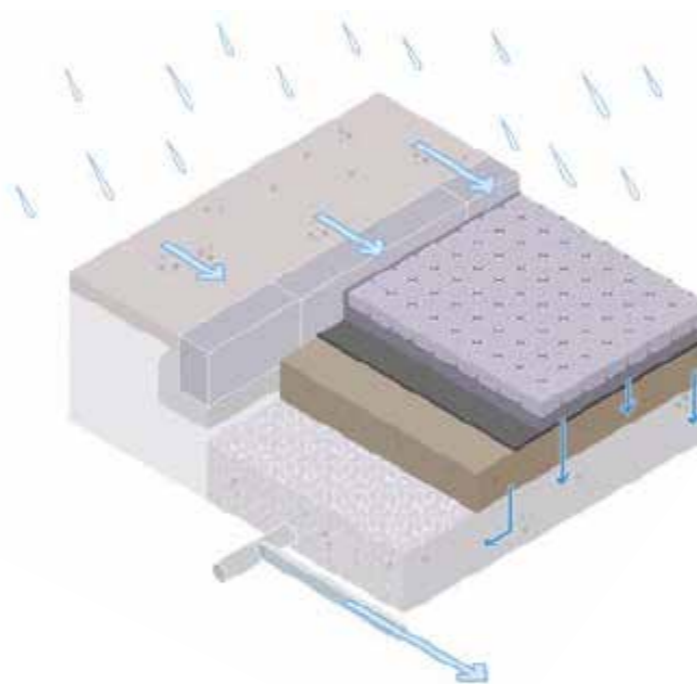


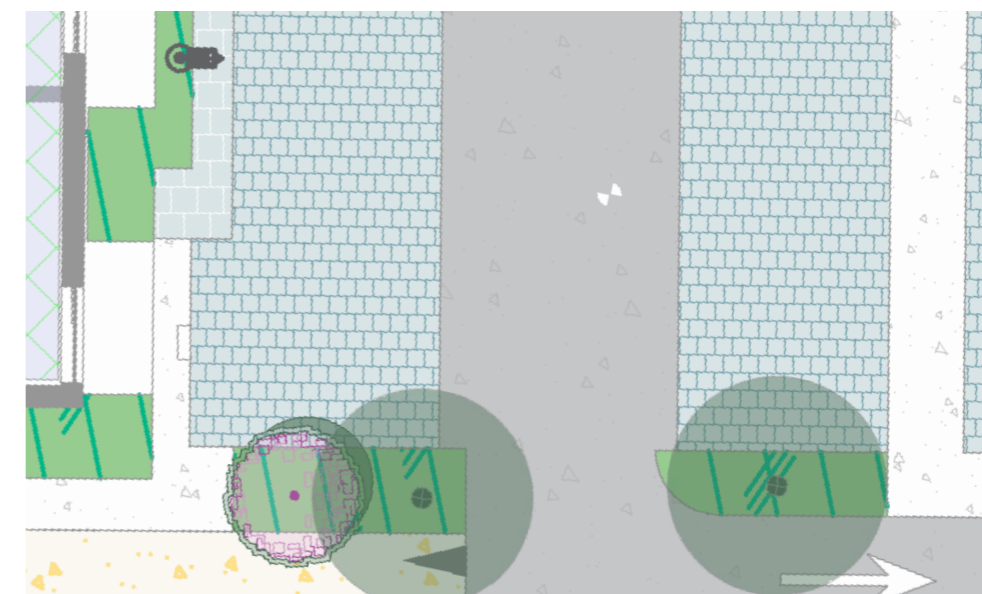
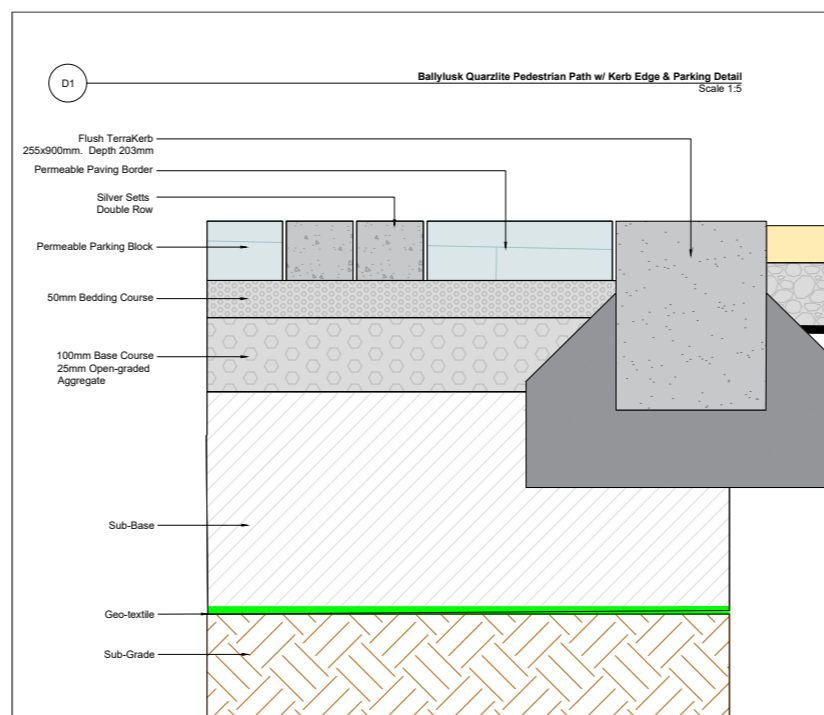
Diagram of Permeable Paving in parking bays



Permeable parking surfaces



Permeable Parking Pavers



Permeable Parking Pavers

Drainage - Green / Sedum Roof

- The root system: Sedum has very shallow roots, a key requirement for an extensive green roof, considering the modest depth of the substrate layer.
- Sedum is also drought-resistant
- Sedum needs relatively little nutrients and maintenance compared to other types of plant
- Sedum is very resilient to diseases and insects
- Sedum is also very adaptable: due to its capacity to adapt its metabolic system in periods of drought, it can survive in extremely dry conditions where other types of plants would die. And furthermore, Sedum recovers remarkably quickly as soon as water becomes available again.



Green Roof/Sedum Roof



Option 1.

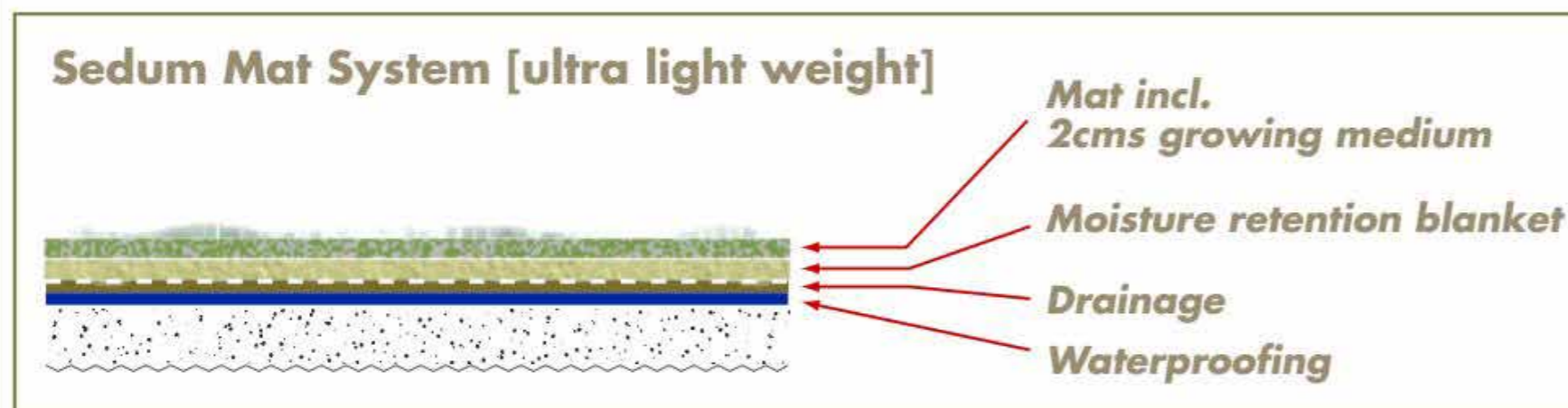


- Extensive Vegetation (Sedums, etc.)
- Growing Media
- Filter Fabric
- Moisture Retention / Drainage Panel
- Insulation
- Root Barrier
- Protection Course and Capillary Break
- Waterproofing Membrane (hot rubberized asphalt depicted)
- Substrate (concrete deck depicted)

Option 2.



- Extensive Vegetation (Sedums, etc.)
- Growing Media
- Filter Fabric
- Moisture Retention / Drainage Panel
- Insulation
- Root Barrier
- Protection Course and Capillary Break
- Waterproofing Membrane (hot rubberized asphalt depicted)
- Substrate (metal deck with gypsum board depicted)



MULTIDISCIPLINARY DESIGN TEAM



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