DN1902 SANDYFORD CENTRAL

Landscape Presentation
Date: 11/11/2019

Bernard Seymour Landscape Architects

CONTEXT

1. Introduction:
   1a. Site Location & Description

2. Design guidance & architecture:
   2.a Sandyford Urban Framework Plan
   2.b The Architectural proposal

3. Site Analysis:

3a. Constraints/Opportunities of site characteristics
3b. Analysis of outdoor activities and re-creative areas in a 1km radius
3c. Extant permission scheme and the key lessons learnt

4. Concept Design & Consultation:
4a. Concept sketch
4b. Concept diagrams
4c. Design development, consultation with DLR
4b. Design Team Coordination

5. Landscape Proposal
5a. Drawing and labelling of the sub-areas.
5b. Character Areas
5c. Level 2 Block A
5d. Rooftop Terrace – Level 17 Block D

6. Boundary Treatments
6a. Boundary plan
6b. Boundary sections

7. Planting/Materials
7.a Material Moodboard
7b. Hard landscape
7c. Soft landscape
7.c Planting analysis

8. Maintenance
8.a. Water Feature
8.b. Planting

1. Introduction

1.a Site Location & Description

Sandyford Central is located in a key location in Sandyford. The site is mapped within the Sandyford Business Park along Blackthorn Avenue, one of the biggest business parks in Ireland, consisting of over 500 companies employing approximately 20,000 people. The area includes key developements of mixed use such as the neighbouring Grand Central and South Central Apartments (Rockbrook), the Beacon and the Forum. The transportation system is well developed with Dublin Bus routes 11, 44 and 47, an Aircoach service links the area with Dublin Airport. There locality is also well connected with the city centre with the LUAS green line all of which are accessible within walking distance from the site.

Figure1: Sandyford Central map location and connections with public transport


Sandyford Central
Site location


Bus
stop sign


LUAS
stop sign

Figure2: Sandyford Central map location and connections with public transport

2. Design guidance & architecture:

2.a Sandyford Urban Framework Plan

Sandyford Central is located to Zone1Mixed core area, Inner core. The Sandyford Urban Framework Plan for Zone1 states: " Zone 1 & 2, the L-shaped area between Blackthorn Drive and Blackthorn Avenue, contains developments including Beacon South Quarter and Rockbrook. These developments which provide high density and high quality architectural finishes, sit uncomfortably against neighbouring underdeveloped and underutilised sites which reinforces the transitional nature of the area. It is the intention of the Plan to promote development of these sites, to consolidate the area by repairing edges and promoting a coherent street pattern and skyline."
Taking precedences from the proposed framework plan we have designed a new urban-quarter in the heart of Sandyford, careful thought is put in the public realm, proposing wide pedestrian paths surfaced with high quality materials and street furniture.

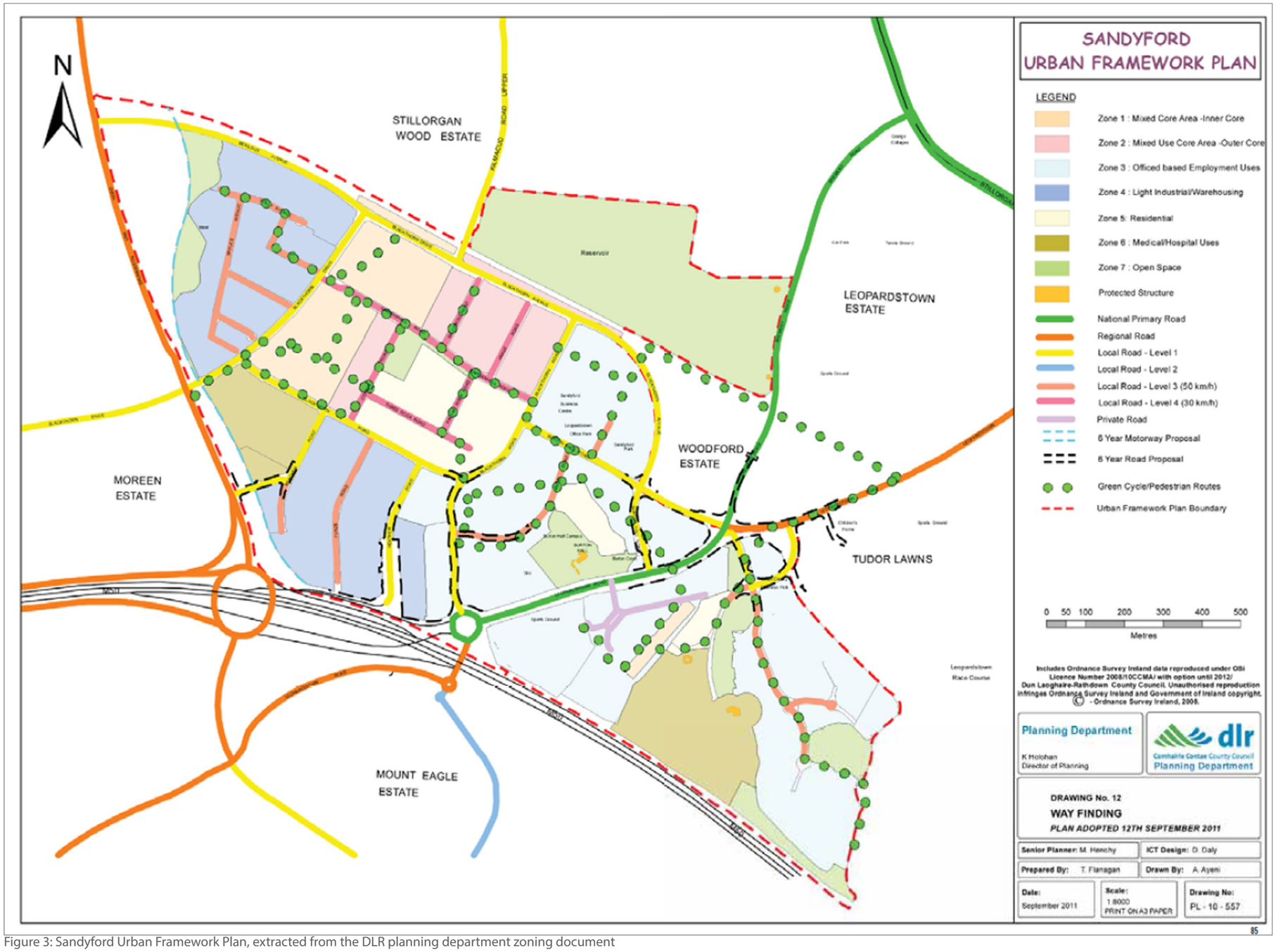

Figure 3: Sandyford Urban Framework Plan, extracted from the DLR planning department zoning document

Residential development within the Sandyford Business District:

Below there is en extract from the DLR County Development Plan 20160-2022 underlining the importance of new residential schemes in the Business District in order to keep it viable:

'The benefit to the primary land use i.e. employment, in providing retailing and residential development is that the retail and retail services cater for employees' and residents' needs. It provides vitality to the area that attracts both employees and employers to an area and also extends the hours of activity in the area beyond the core business hours. The residential population assists in ensuring the economic viability of retail. The residential accommodation provides a choice to the workforce to reside in the immediate area. The mix of uses provides a better return on investment in infrastructure and services. For example, bus services would benefit from inward and outward bound journeys during peak hours and the capacity of the environmental infrastructural network i.e. water and drainage, will provide services more evenly throughout the day and week, thereby providing a greater return on investment'.

2. Design guidance & architecture:

2.b The Architectural Proposal

The development, which will have a Gross Floor Area of 49,342 sq m will principally consist of: the demolition of the existing structures on site and the provision of a Build-to-Rent residential development comprising 564 No. apartments (46 No. studio apartments, 205 No. one bed apartments, 295 No. two bed apartments and 18 No. three bed apartments) in 6 No. blocks as follows: Block A (144 No. apartments) is part 10 to part 11 No. storeys over basement; Block B (68 No. apartments) is 8 No. storeys over basement; Block C (33 No. apartments) is 5 No. storeys over lower ground; Block D (103 No. apartments) is part 16 to part 17 No. storeys over lower ground; Block E (48 No. apartments) is 10 No. storeys over semi-basement; and Block F (168 No. apartments) is 14 No. storeys over semi basement.

The development provides resident amenity spaces (1,095 sq m) in Blocks A, C and D including concierge, gymnasium, lounges, games room and a panoramic function room at Roof Level of Block D; a creche (354 sq m); café (141 sq m); a pedestrian thoroughfare from Carmanhall Road to Blackthorn Drive also connecting into the boulevard at Rockbrook to the west; principal vehicular access off Carmanhall Road with servicing and bicycle access also provided off Blackthorn Drive; 285 No. car parking spaces (254 No. at basement level and 31 No. at ground level); 21 No. motorcycle spaces; set-down areas; bicycle parking; bin storage; boundary treatments; hard and soft landscaping; lighting; plant; ESB substations and switchrooms; sedum roofs; and all other associated site works above and below ground.

Figure 4: Photorealistic impression of the site as you can see it from the Luas stop

2. Design guidance & architecture:
2.b The Architectural Proposal

3. Site analysis:
3.a Constraints/Opportunities of site characteristics

Most of the site's surface is covered by concrete and there is a very small population of existing trees on site. As analysed in the separate tree survey and report prepared by 'The Tree File' there is scope for retaining some of the existing trees along the Eastern Boundary. The in-situ concrete surfacing helps with the design development since there are no constraint and from a landscape point of view the site is an empty canvas with many opportunities for the delivery of a high quality landscape design.
Even though a big portion of the project is on podium there is provision to create concrete 'pockets' to allow for mature tree planting and disguise the on podium landscape.

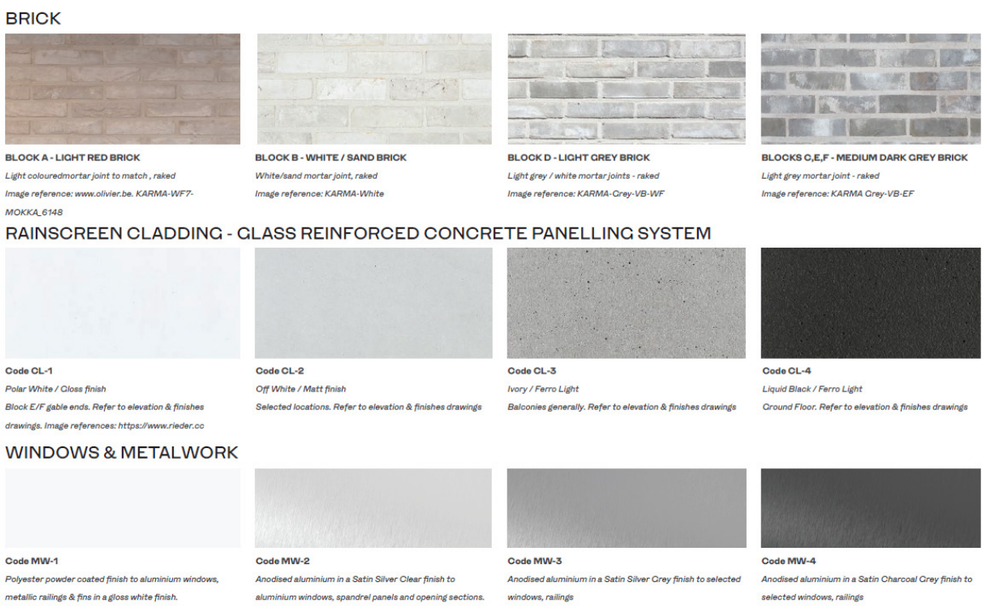

Figure 5: Proposed materials for the buildings proposed by HJL Architects

Figure 6: CGI taken from Carmanhall Rd looking towards Blocks A & F

3. Site analysis:

3.a Constraints/Opportunities of site characteristics

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Figure 7: Extract from the Tree Impact Plan prepared by Andy Worsnop of 'The Tree File'

Figure 8: the site currently, looking toward the Eastern boundary

Figure 9: the site currently, looking toward the Western boundary

3. Site analysis:

3.b Analysis of outdoor activities and recreation areas in a 1km radius

A further study in the wider area reveals several sport facilities (including football pitches, tennis courts, the badminton club and a tennis club),. Existing parks (Clonmore Park and the Benildus Av. park) and outdoor recreation areas. All these recreation fields are sited within 10 minutes walk of the subject site.
Within the Sandyford Central development there are proposed 3 new play/activity corresponding to all the age groups and people with special needs. A sensory park along Carmanhall Rd. A toddler play area and areas with outdoor gym equipment are proposed to the left of the Blackthorn Avenue entrance. In the neighbouring RB central project that has been granted permission there are 3 play areas proposed also.
After studying the Sandyford Urban Framework Plan, there are several areas within the 1km distance of the site that have been underlined as potential outdoor recreation areas, including new pocket parks and parks shown in this diagram.

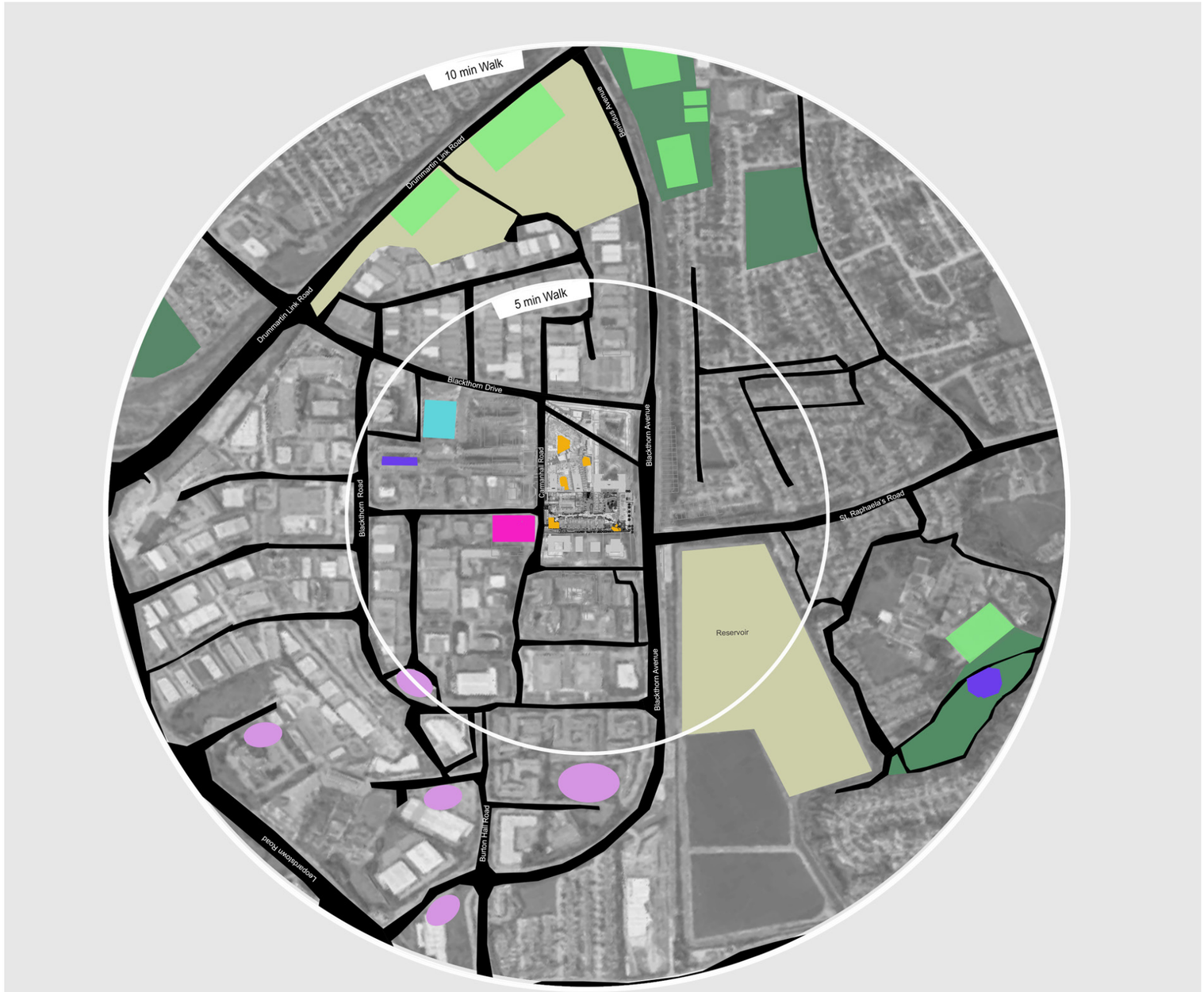


Figure 10: Activity diagram for the wider area within 5 and 10 minute walk from the site

ACTIVITY AREAS LEGEND

- Existing Park
- Existing Playground and outdoor gym
- New proposed playground
- Existing sports field, including soccer pit, tennis court, etc
- New potential park as described on the DLRCoCoDevelopment Plan 2016 - 2022, p79
- Pocket Park as described on the DLRCoCoDevelopment Plan 2016 - 2022, p79
- Existing Civic Space
- Civic Park, Rezoned to Zoning F as described on the DLRCoCoDevelopment Plan 2016 - 2022, p79

3. Site analysis:

3.c Extant permission scheme and the key lessons learnt

Prior to our initial design proposal we had to consult the design team and the client for a brief, by studying the initial landscape proposal of application: ABP ref. PL06D.301428 we felt that the overall landscape proposal was 'static' and very symmetrical and it was not really complimenting the architectural proposal of Sandyford Central because it made it look more 'brutalist'. Our design aim was to bring some movement to the communal spaces with the presence of water and create a more naturalistic landscape design that wraps around the buildings in a more asymmetrical manner.
Moreover we thought that it would be more subtle to separate spaces and uses by changing surfacing materials and planting schemes from a space to another.

Figure 11: Landscape scheme permitted under ABP application reference: PL06D.301428

4. Concept Design & Consultation:
4a. Concept sketch

The hand sketch below shows the new landscape proposal following the review of the extant permission scheme.
The welcoming water feature and the shallow 'rill' gives a direction to the public realm. A new boulevard is now obvious and the paving transition between public and semi private defines different uses for each space.
Another improvement is the increase of the actual soft landscape in comparison to the hard surfaces in order to achieve better framed areas, encourage more wildlife on site and assist with the water discharge on site.

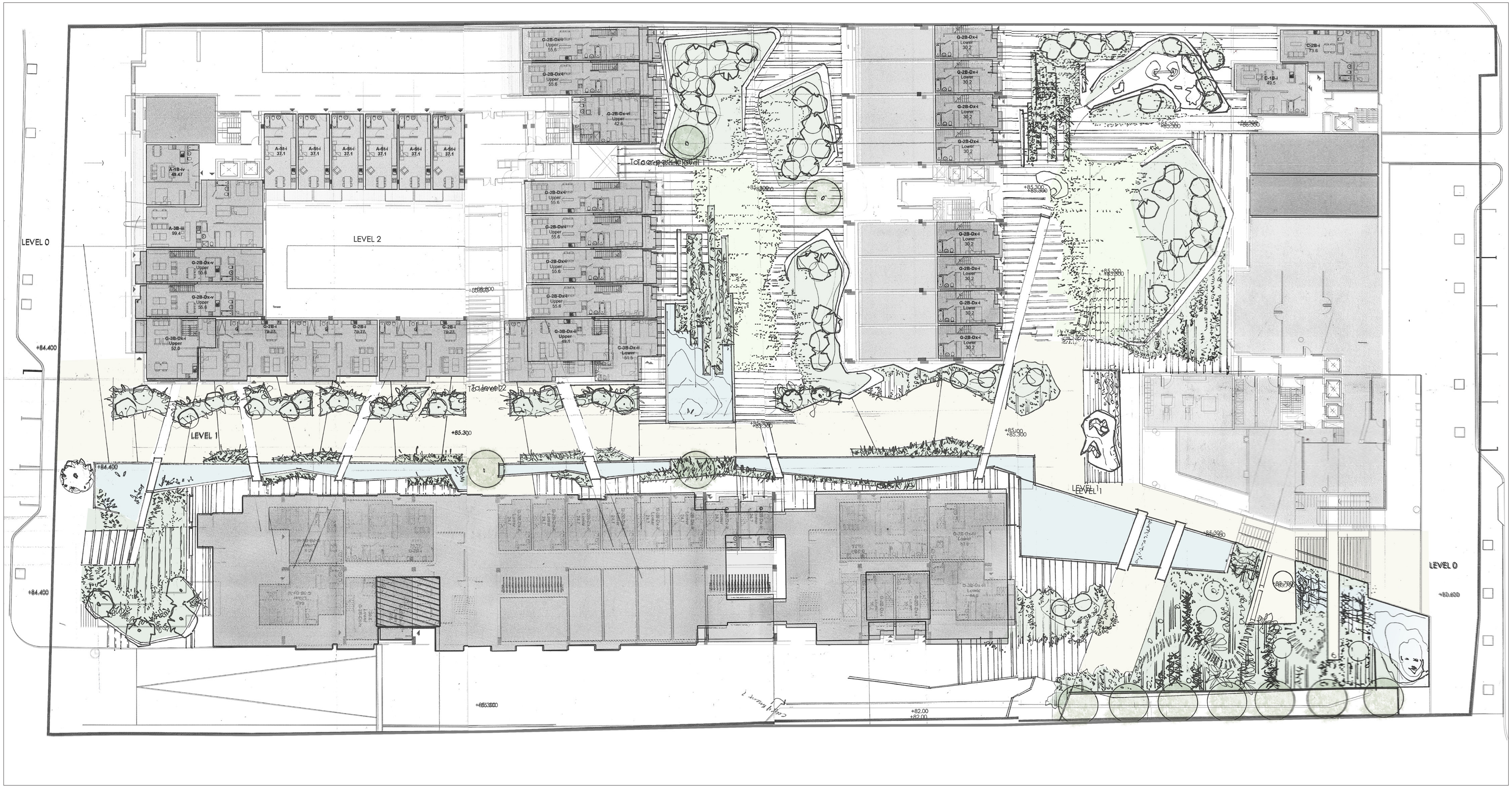


Figure 12: The initial landscape proposal

4. Concept Design & Consultation:

4b. Concept diagrams

The landscape design is taking into account different parameters such as fire tender access, pedestrian circulation and connection with key spaces such the playground, pocket parks and semi private courtyards

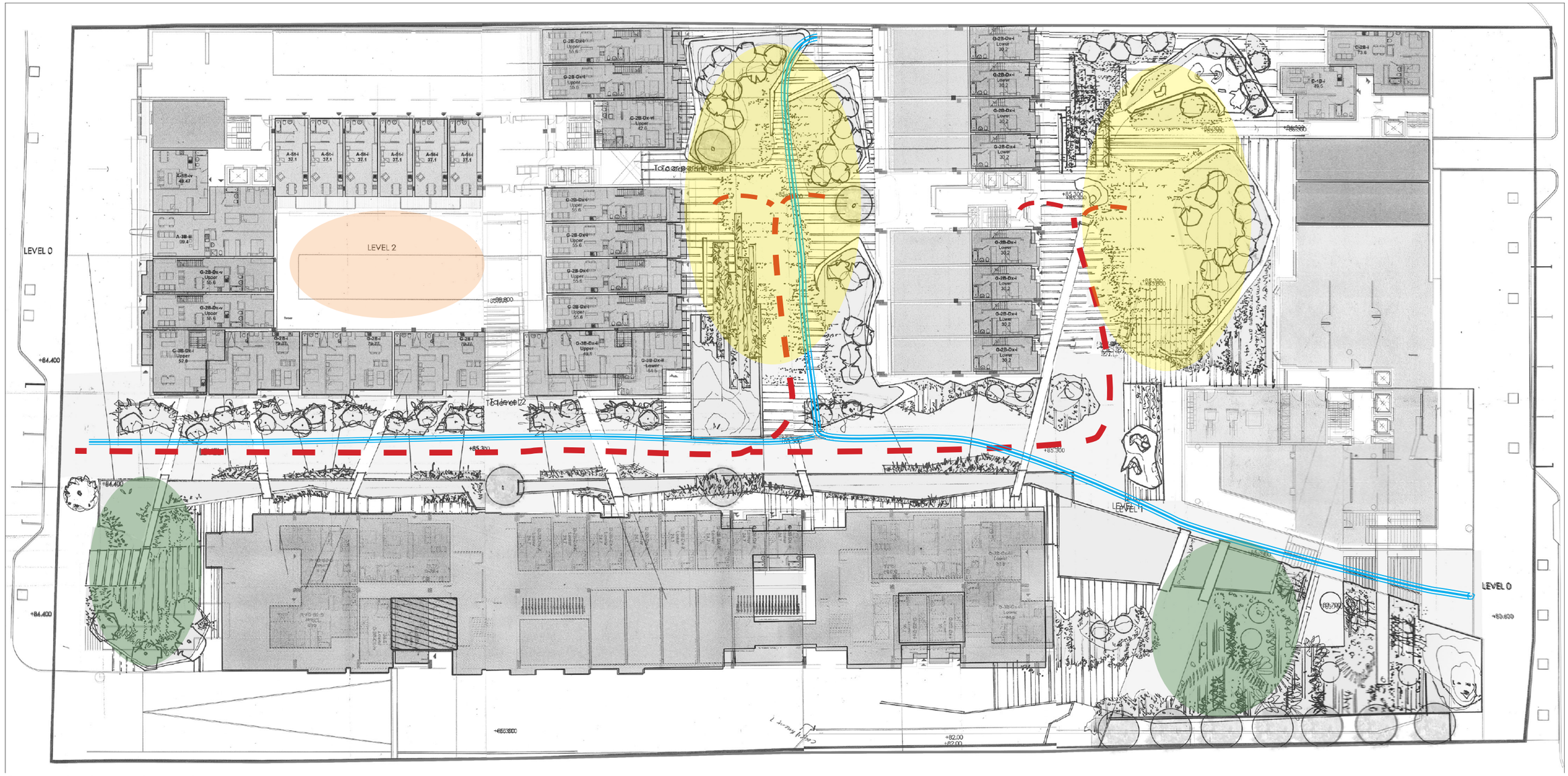


Figure 13: Circulation and spaces diagram

Fire tender route

Public circulation

Semi-private space

Public pocket park

Private space

4. Concept Design & Consultation:

4b. Design Team Coordination

A very important exercise before freezing the landscape design is to coordinate the landscape proposal with the M&E engineers and the civil engineers to ensure that there is no overlap between services and there is a clear route for the fire tender.

Figure 14: Proposed drainage & services layout diagram by OCSC

Figure 15: Proposed fire tender route diagram by OCSC

4. Concept Design & Consultation:
4c. Design development, consultation with DLR

Before moving forward with the landscape design availaed of the opportunity to meet the parks department of Dun Laoghaire Rathdown County Council and detail our landscape proposal.
It was important to take into account their comments / inputs for this scheme when the design was still under developement and reflect them into the scheme developement

Date of Meeting: 30.05.2018
Location: Site
Time: 15:00 am
Present: Ruairi O'Dulaing, DLRCoCo
Donal Kearny, DLRCoCo
Kenneth Bernie, Richmond Homes
Bernard Seymour, BSLA
Periklis Tsoukalas, BSLA

After the site meeting and walk through the site, the following points were observed by Ruairi O'Dulaing and Donal Kearny,

1. Eastern boundary: large tree planting and underplanting with species suitable for rain gardens and wildlife friendly. A new railing along this boundary 1.8m high would be suitable to allow for future permeability.

2. Western Boundary: BSLA to provide further information (sectional treatments) on how this boundary is joining the adjacent property, between podium level & blocks C&D. The stepped ventilation grilles and boundary treatment to the Rockbrook Phase 1.

3. Western Boundary: The joint thinking was well received (proposal of a paving mat, same material as the Tivway site) for connecting through the sites.

4. BSLA to provide additional details (sections) through the main entrances to Carmanhall Rd and Blackthorn Ave.

5. Parks Department were happy with the link treatment of the boulevard to the existing Rockbrook scheme – existing hard landscape to ' bleed into' the new proposal.

6. Permanent access through development to be guaranteed no later gated development.

7. Parks Department wants the landscaped podium to be completed ASAP /prior to all blocks finished if possible

8. Level 2 landscape area to remain for residents only and to be treated as a private space.

9. Roof top garden Block D to be developed in full.

10. The 2m taking in charge to Carmanhall Road and Blackthorn Avenue could be demarcated with a brass strip in ground.

11. Disabled access/lift/bike ramp/stepped access design confirmed by Parks Department to be acceptable to Blackthorn Avenue

12. Landscape proposal for Block A raised courtyard was well received.

5. Landscape Proposal

5a. Drawing and labelling of the sub-areas.

The drawing below is the development of the initial hand sketch into an Autocad drawing, showing key areas on site

Figure 16: CAD landscape plan and key areas

1. Blackthorn Avenue stepped access with trees, seating and bicycle rail on steps integrated
2. Boulevard connecting Blackthorn Avenue & Carmanhall Road
3. Ramped access from Carmanhall Road
4. 5. Private courtyards
6. Connection with adjacent site
7. Eastern boundary planted with mature trees
8. Western boundary, stepped planters to 'meet' the adjacent development
9. Horizontal ventilated area in planting
10. South facing pocket park to Carmanhall Road
11. Pocket park and toddler play area to Blackthorn Avenue

Figure 17: CGI of the Carmanhall Rd. entrance

5. Landscape Proposal
5b. Character Areas / Entrances

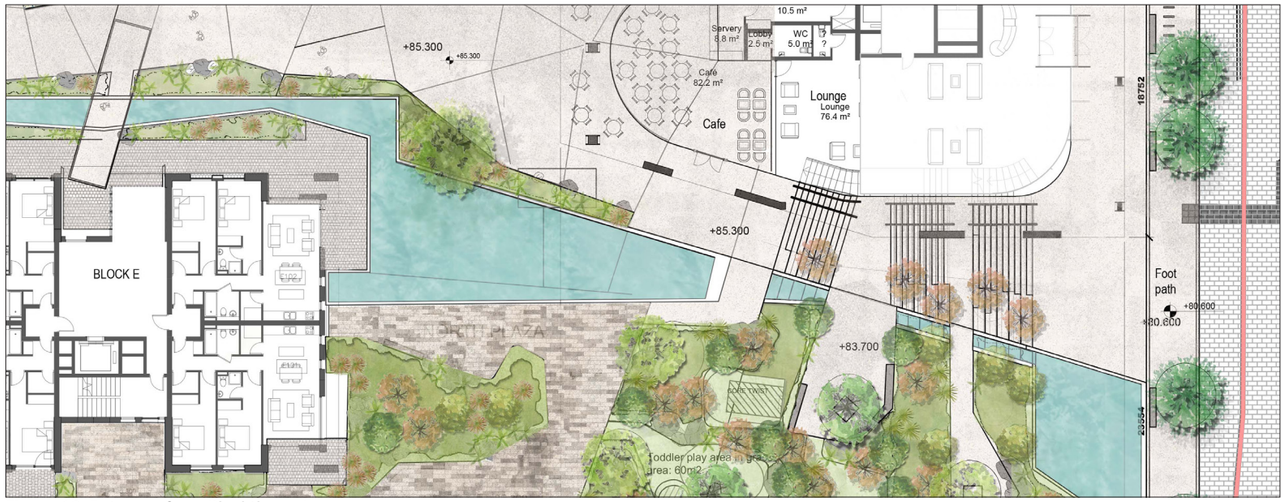


Figure 18: Entrance from Blackthorn Avenue

Figure 19: Entrance from Carmanhall Road

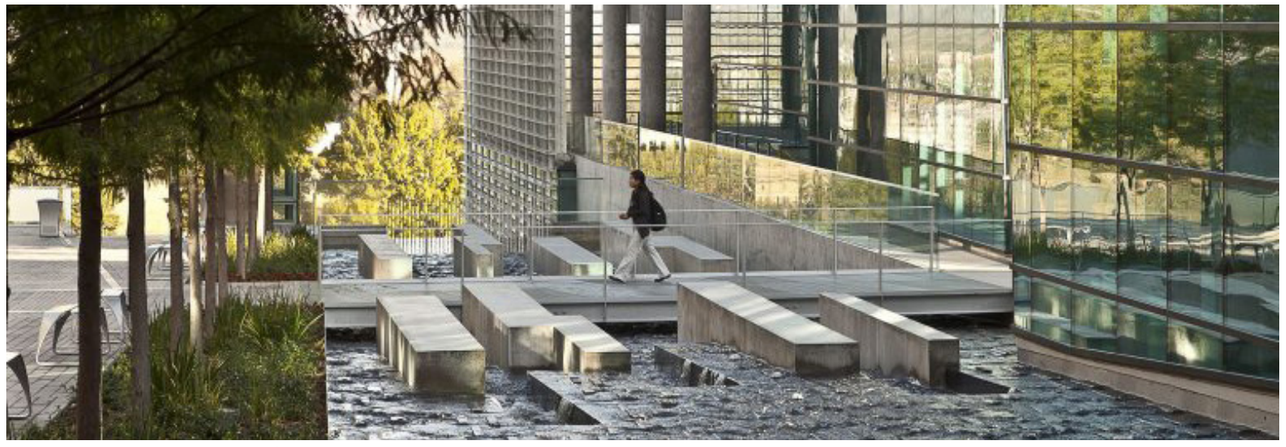


Figure 20: Bridging over water feature

ENTRANCES
Splayed entrances at either end of the main route are designed to invite the pedestrian through and the introduction of water at either end offers animation and movement. As you enter the site, there is a potential to have a fountain feature with the water becoming more shallow and still taking the role of an element that slows down the users of the space.

Figure 21: Stepped entrance with manipulated ground morphology

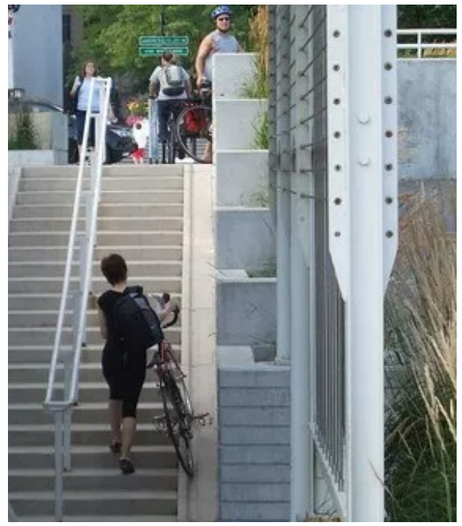


Figure 22: Stair channel to accommodate bicycles

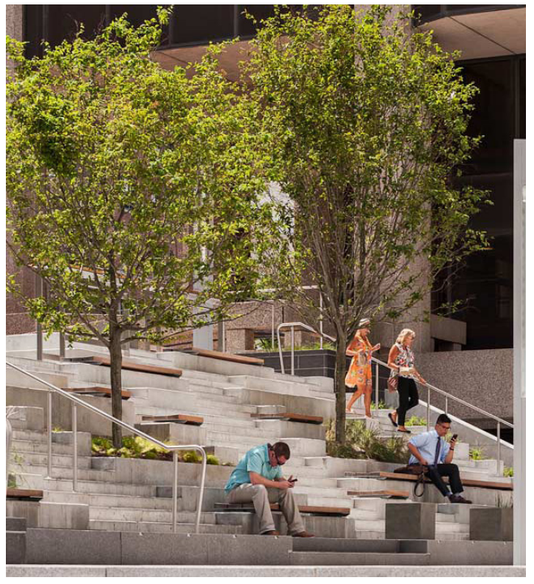


Figure 23: Steps incorporating seating and tree planting

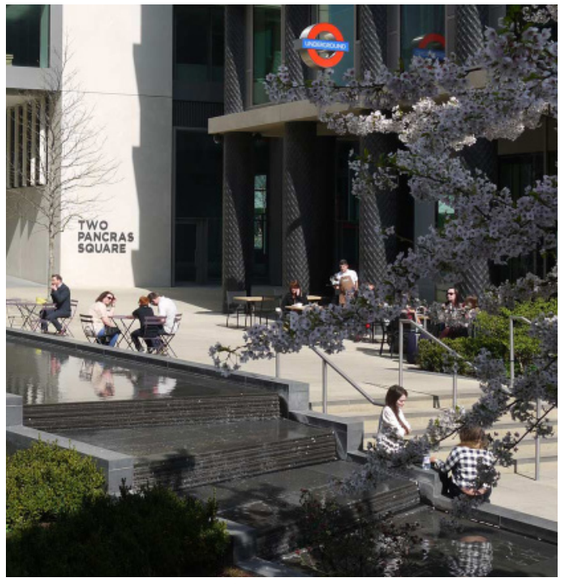


Figure 24: Stepped water feature with gradual level drop

Figure 25: CGI taken from the boulevard looking towards Block D

5. Landscape Proposal
5b. Character Areas / Boulevard

Figure 26: Boulevard zoom-in plan

BOULEVARD
The asymmetry of the water rill shape and its sense of engaging on the pedestrian route gives a feeling of the space being configured mainly for the pedestrian, not withstanding this a swept path analysis establishes that the fire tender requirements are fully developed here too. Moreover, it creates a clear division between the public and the private terraces along Blocks E &F

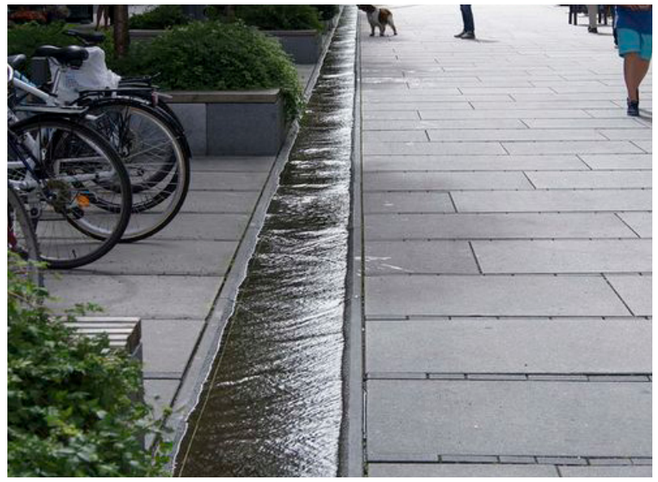


Figure 29: Street boulevard with trees & seating


Figure 27: Water edge with rough stone and planting

Figure 28: Shallow water film in busy shopping street, Belgium


Figure 30: Water rill for direction

5. Landscape Proposal

5b. Character Areas / Carmanhall Road Sensory Park

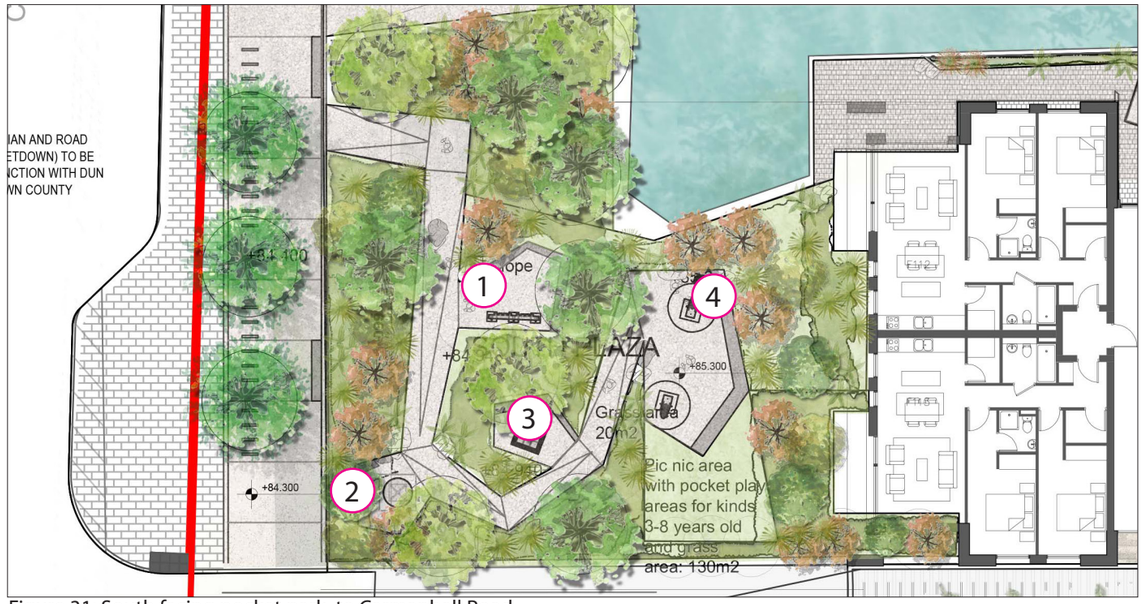


Figure 31: South facing pocket park to Carmanhall Road

A SENSORY EXPERIENCE PARK

The south facing park along Carmanhall Rd is 400m2 including ramped access, pocket play areas with seating surrounded by lush woodland type planting and a grassed area with seating for various activities. This park also provides areas for guardians or elderly people to site and enjoy the sun with ample seating provided.

Having studied several play areas we have noticed that a successful areas should be safe, very durable and attract children all year round. In this schematic pocket play areas we are proposing a different play equipment that incorporates movement and sound and responds well to all the age groups, even the adults. Moreover this equipment is used in therapy gardens for people that have special needs, in rehab clinics and retirement homes. The pockets along the ramp enhance the sense of explore.

Figure 32: Play pockets in lush planting

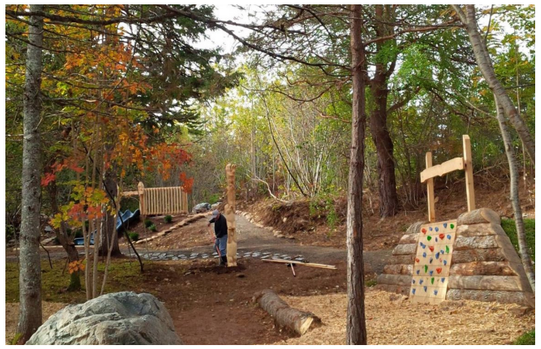
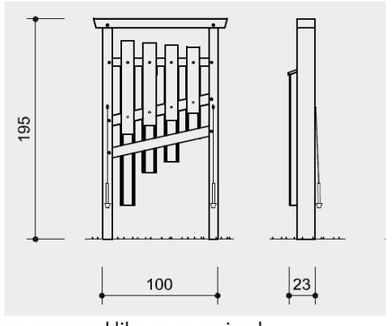


Figure 33: Play areas set in woodland

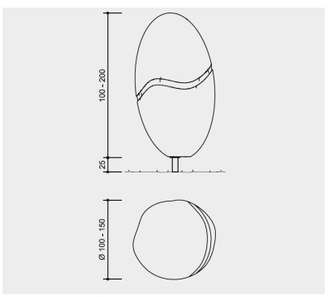
Proposed play equipment schedule

1 Dendrophone



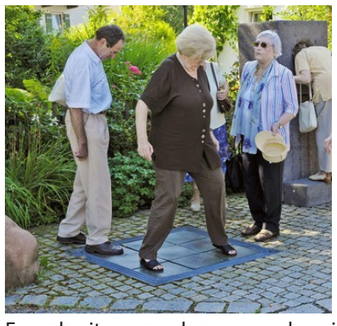
The Dendrophone is made up of harmoniously tuned sound boards which have been arranged like an oversized xylophone. If the lengths of the sound elements are changed, different tones are produced, and these are tuned and amplified with resonators. Hitting it, either with a percussion hammer or by hand, produces warm sounds

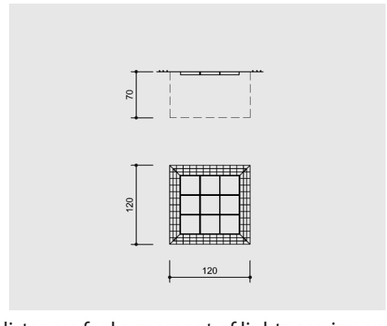
2 Turning Stone



Two possibilities exist of bringing the large mass of the Turning Stone into motion: first, it can be achieved by means of extreme effort over a short period of time. The second possibility however: merely by exercising a slight force it is possible to set the massive stone block into a rotating movement which becomes faster and faster, provided that the stone continues to be pushed long enough.This can even be achieved merely by using your finger.

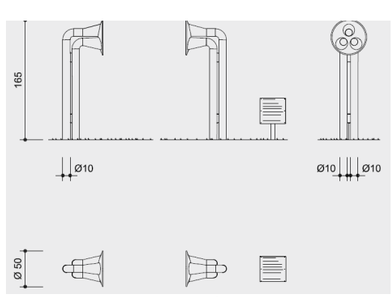
3 Dance Chimes





Few play items produce so much smiling as this one. Both the spectators and listeners feel a moment of lightness, joy and harmony. The strong motivation produced by the Dance Chimes helps people to overcome physical inhibitions and to harmonise uncoordinated movements

4 Echo Game



Speak into the acoustic cone and listen to the multiple echo. The further the sound travels, the more it changes, and dark sounds will disappear. The reverberation becomes rhythmical. The echo allows you to experience the limiting effect of space : differing times between echoes create various impressions of space. It is alsopossible to communicate with each other by speaking into the acoustic cones.

5. Landscape Proposal

5b. Character Areas: Blackthorn Road Park / Toddler Play Area

Figure 34: Keyfor play equipmentto the top of entrance in Blackthorn Road

TODDLER PLAY AREA

After proposing the sensory experience park on the Carmanhall Road, we felt that we should provide a play area that corresponds to younger children and it is less exposed to the public.

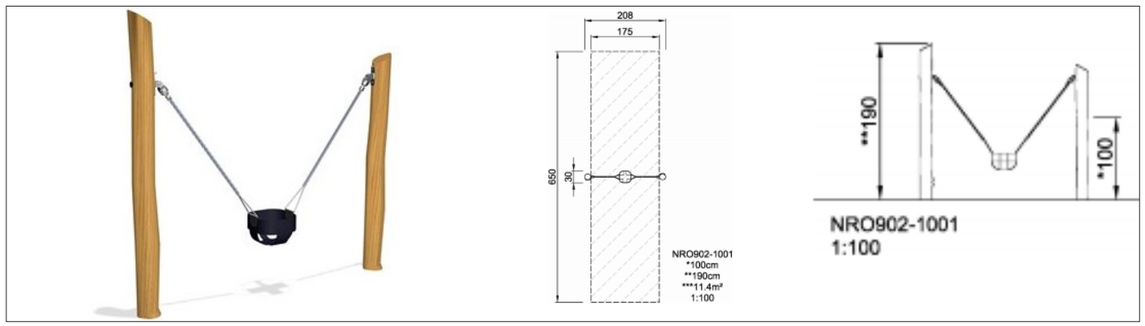
The new proposed toddler area of total 60m2 is located on the top of the stairs as you enter the site from the Blackthorn Avenue. It includes toddler soft play equipment (made with natural materials ethically sourced) in grass and safety fencing to be disguised in a peripheral hedge.

The proposed equipment is made of organic Robinia wood and it corresponds to ages from 3-8 years old

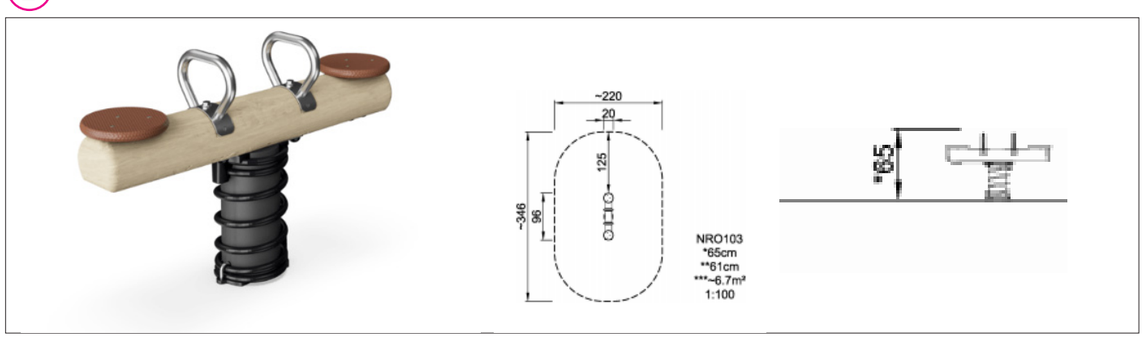
Figure35: Play areas set in woodland

Proposed play equipment schedule

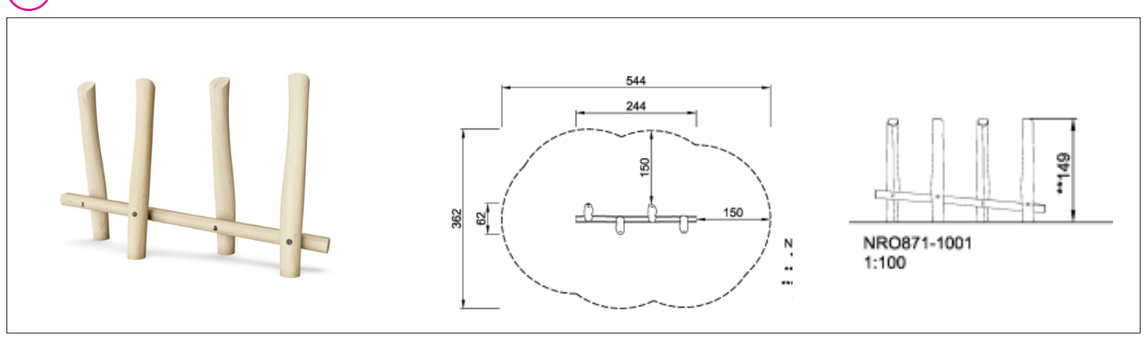
1 One Seat Swing



2 Double Springer



3 Double Springer



5. Landscape Proposal
5b Character Areas / Blackthorn Avenue Park / Outdoor Gym Area

Figure 36: Outdoor gym area equipment to the top of entrance in Blackthorn Road

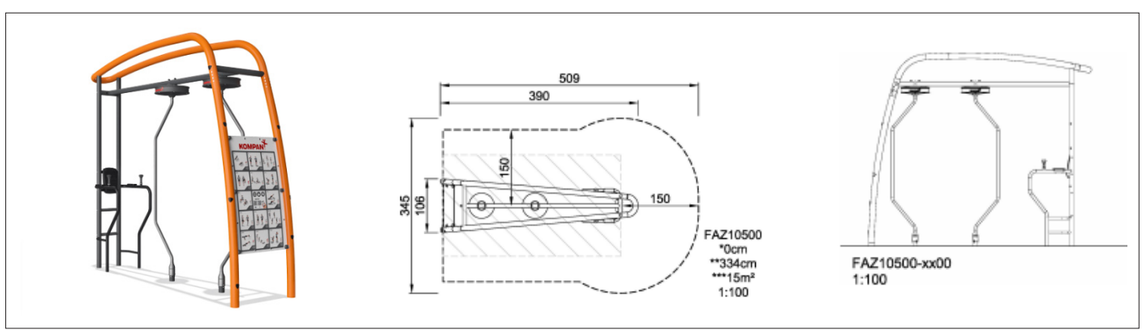
OUTDOOR GYM AREAS:
Adjacent to the toddlers play area we are proposing an outdoor gym area set in planting for young professionals and older people. We have seen previously that outdoor gyms are becoming more and more popular and people prefer to exercise outdoors because of the natural light, especially when the weather is warmer and the days longer.
Below there is a schedule of the outdoor gym equipment proposed.


Figure 37: Proposed outdoor gym equipment


Figure 39: Outdoor gym equipment in park setting

Proposed play equipment schedule

1 Core Twist



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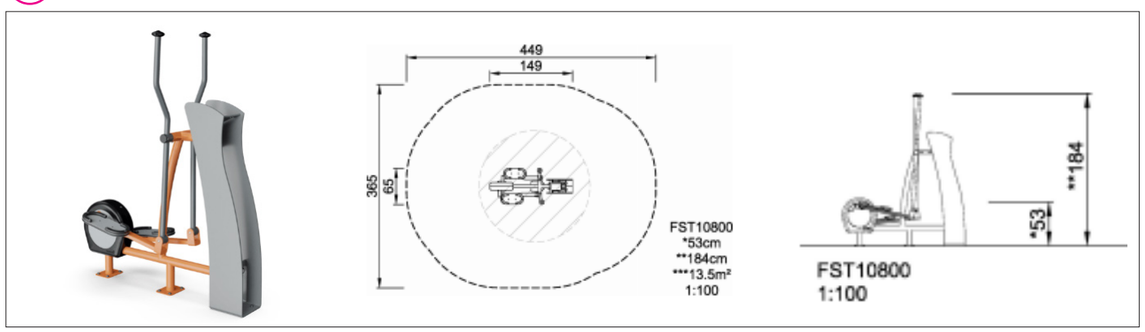



Figure 40: Outdoor gym equipment surrounded by planting

5. Landscape Proposal

5.b Character Areas / Courtyard Lawn / activity space

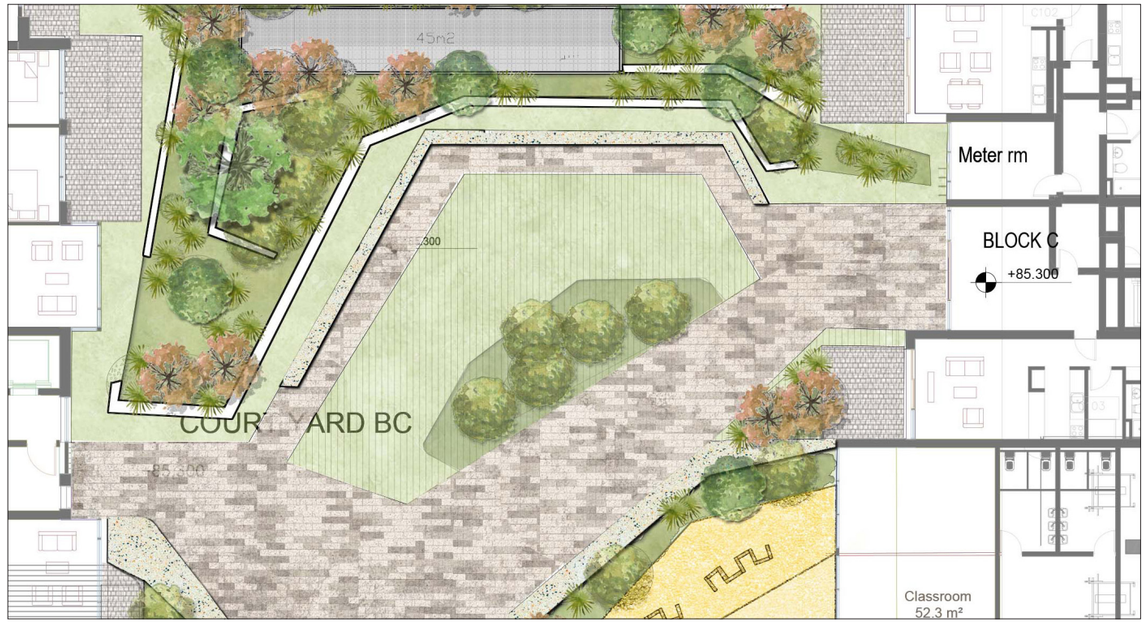


Figure 41: Lawn area between Blocks, B,C,D

Figure 42: Lawn area between and soil mounding to the sides on podium.

In the courtyard enclosed by the blocks B,C,D, a formal lawn of total 80m2 surface is proposed. It offers a space that could be used for several activities like picnic, reading and working from home. The edge of this lawn will be mounded to allow for deeper planting with trees and underplanting to screen and filter the sound of the Crèche playground and the terraces of the block C apartments.

Figure 43: Lawn area between and soil mounding to the sides on podium.

Figure 44: Lawn area between and soil mounding to the sides on podium.

5. Landscape Proposal
5b. Character Areas / Semi Private Courtyards

Figure 45: CGI showing semi-private courtyard between Blocks A & B

5. Landscape Proposal
5b. Character Areas / Semi Private Courtyards

Figure 46: Semi private courtyards

SEMI PRIVATE COURTYARDS
The green courtyards can be experienced either as glimpses, as destinations of repose off the main thoroughfares, places where occasional play and recreational structures (exercise stations, play areas, slides, and seating) encourage a variety of active users of all age groups. Passive enjoyment by less physically inclined park users is facilitated by plentiful sheltered seating.

The two main courtyards at ground level are accommodating big areas of planting with the paving material pixelating in planting. In order to create deeper planting zones, we are proposing a tilted arrangement where a raised and modulated edge can be used as a seat, with capacity for soil depths and grading within these areas.

As part of the design coordination between our site and the adjacent site, to the north of courtyard between block A & B there is a new proposed paving mat reflecting the materials of the adjacent site (buff granite) to give a smooth transition to the public users.

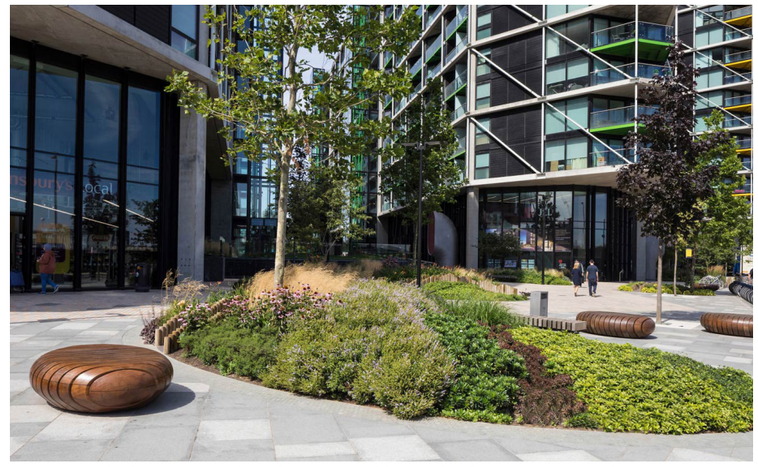


Figure 49: Soil mounting for planting and bespoke furniture on podium


Figure 47: Transition between paving, low planting and raised planters


Figure 48: Landscape composition with paving pixelating in planting


Figure 50: Landscape composition with raised planting and water on podium

5. Landscape Proposal
5c. Level 2 Block A

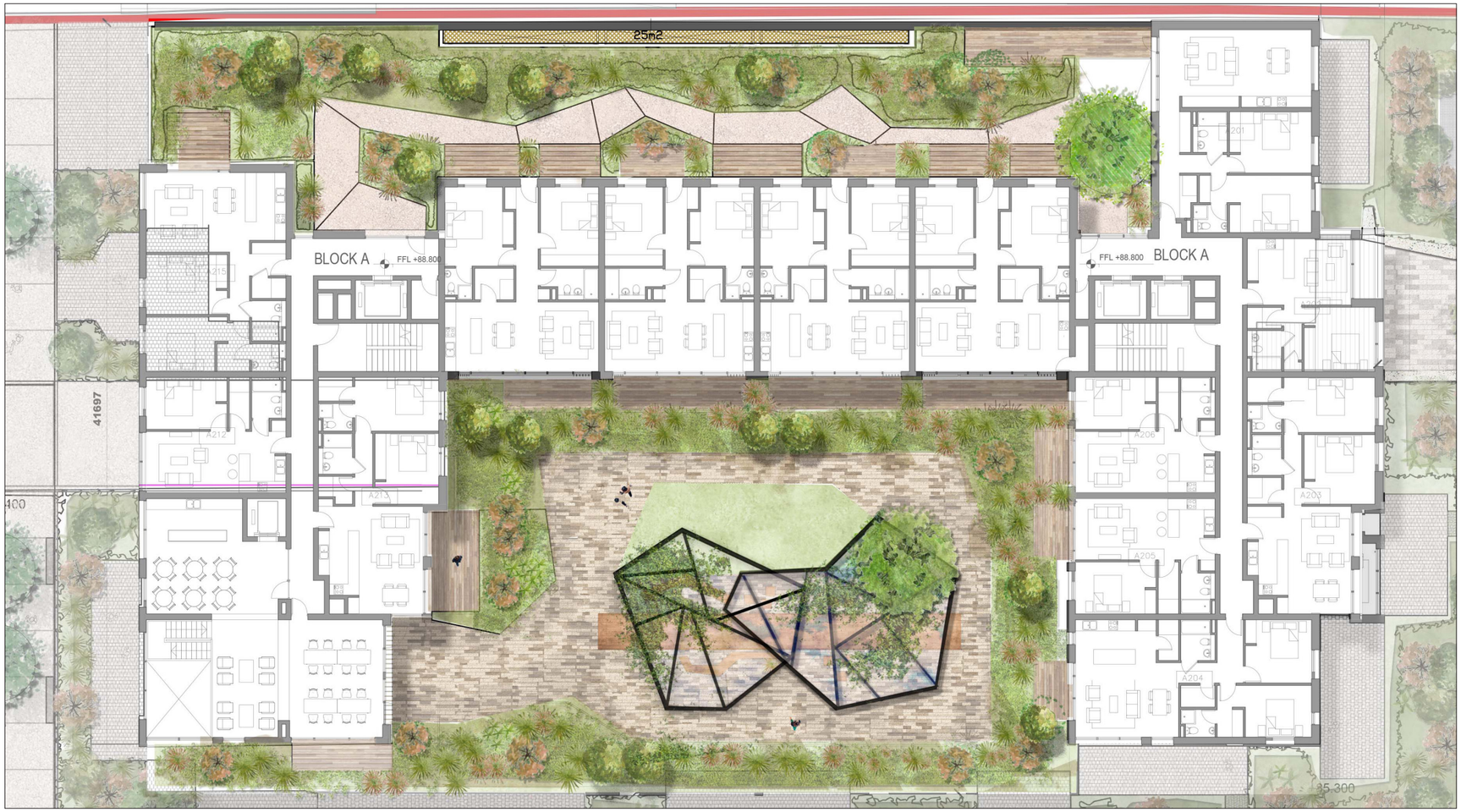


Figure 51: Block A level2 courtyard Landscape Plan

BLOCK A LEVEL2 COURTYARD
On the second floor of Block A there is a new proposed courtyard that will be accommodating several activities.

Due to the fact that this courtyard is on podium the planting will have to be on raised soil, apart from a mature tree that is proposed to be in a deep planter leading to basement below, in order to give the sense of maturity.
A long linear table is proposed to be installed on top of the ventilation in order to disguise it and used as worktop or dinning space from the residents.
Moreover a new lawn area is proposed for outdoor picnics.
Raised planters are framing the terraces of the apartments to provide a layer of green screening.


Figure 55: Rooftop pavilion and activity table combined with raised planting, BSLA project, Dublin

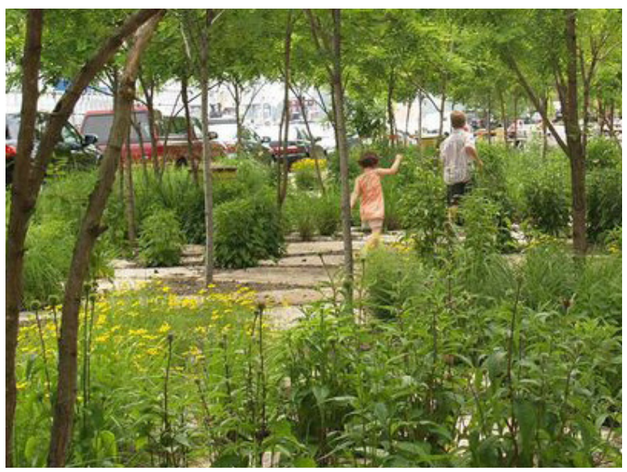


Figure 52: Naturalistic landscape with a combination of planting and hardscape

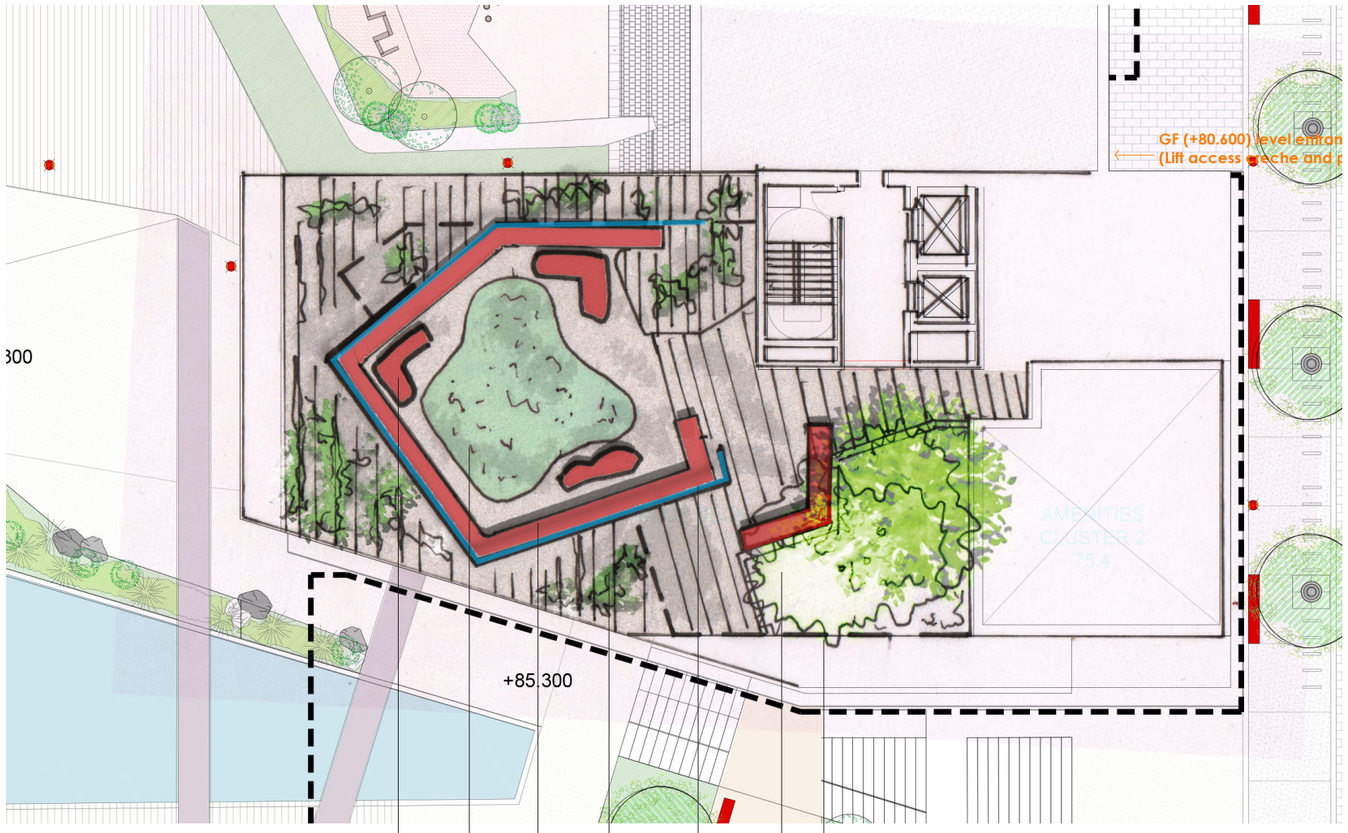

Figure 53: Example of cantilever canopy


Figure 54: Frieze art pavilion semi sheltered under the canopy of a mature tree


Figure 56: Timber pavilion with transparent roof for light penetration

5. Landscape Proposal
5d. Rooftop Terrace – Level 17 Block D

Figure 57: Block D rooftop terrace sketch



To cater for a more intimate setting to a communal space, the development also allows for the inclusion of an intensive green roof on the 17th floor of block D. This space takes cognisance of its setting and provides for wind barriers in the form of a 2m high glass balustrade to provide for protection against prevailing winds and allow for a certain level of comfort and shelter when using the proposed seating area.

Keeping with the overall approach to the landscape design, the arrangement and design of the seating elements pays homage to the ones located in the courtyards. The roof also provides a lush setting through the inclusion of local mounding and planters to facilitate the inclusion of trees and unusual planting between the sedum proposed.

Figure 58: Chamomile lawn, BSLA project in Cork

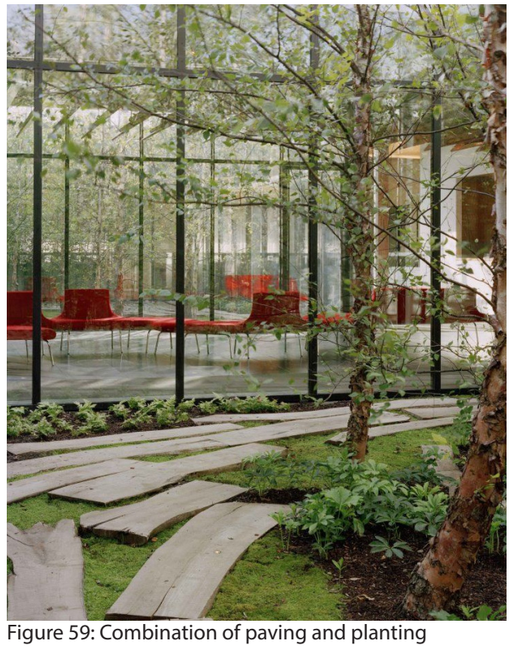


Figure 59: Combination of paving and planting

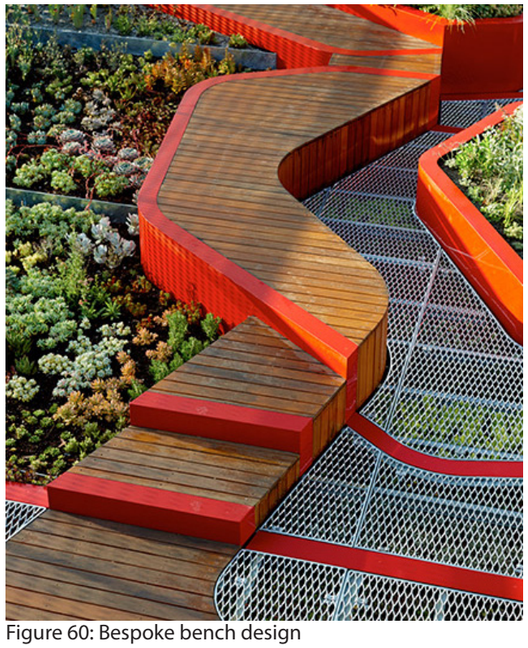


Figure 60: Bespoke bench design

5. Landscape Proposal

5d. Rooftop Terrace – Level 17 Block D

Figure 61: Block D rooftop terrace landscape plan

6. Boundary Treatments

6a. Boundary plan

Figure 62: Proposed boundary plan

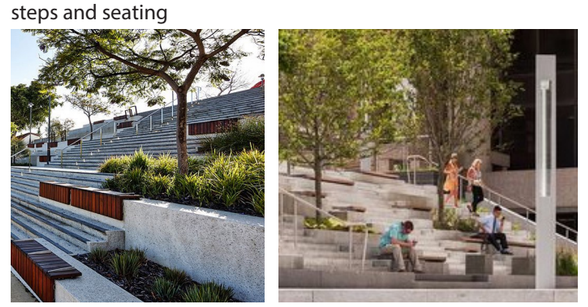
	Eastern Boundary A: Retaining wall, profile to follow the topography
	Eastern Boundary B: Middle section, dense planting and a new proposed railing 1800mm to the boundary, Section AA
	North Western Boundary : Stepped landscape treatment to meet adjacent development and accommodate horizontal vents, Section BB
	Western Boundary : New proposed paving matt material same as Rockbrook site (buff granite) as part of joint design thinking
	Southern Boundary : New proposed ramped access slope < 1/21. New proposed south facing park with ramped access as well
	Northern Boundary : New proposed stairs with seating and flowering trees, Section CC

Figure51: Eastern Boundary A: Rendered wall and planting

Figure 63: Eastern Boundary B: Rendered wall and planting

Figure 64: Western boundary with raised planters

Figure 65: Blackthorn Drive entrance, composition of trees, steps and seating



6. Boundary Treatments

6b. Boundary sections, SECTION AA, Eastern Boundary, Scale: 1/50

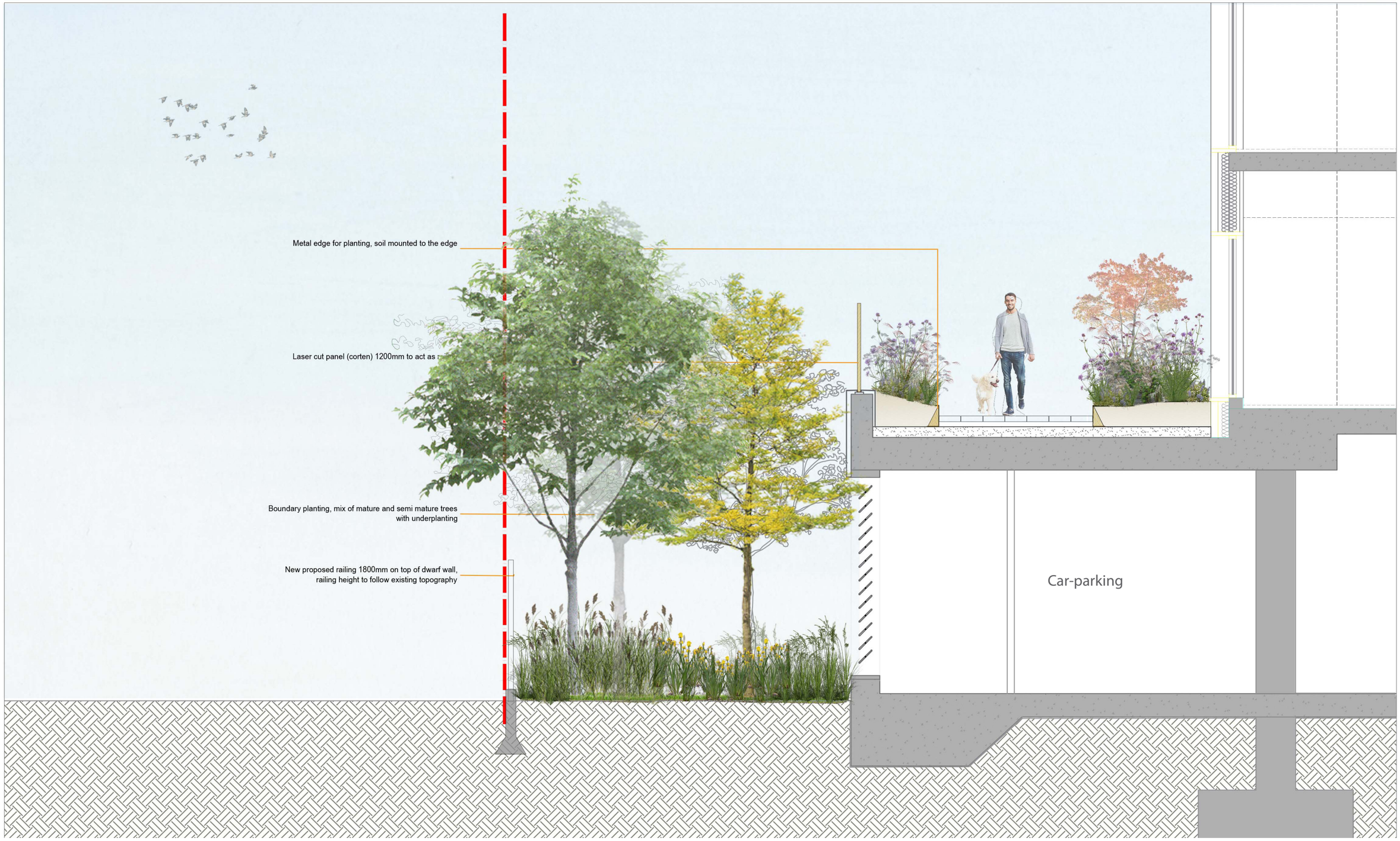


Figure 66: Section AA

6. Boundary Treatments

6.b Boundary sections, SECTION BB, North Western Boundary, Scale: 1/50

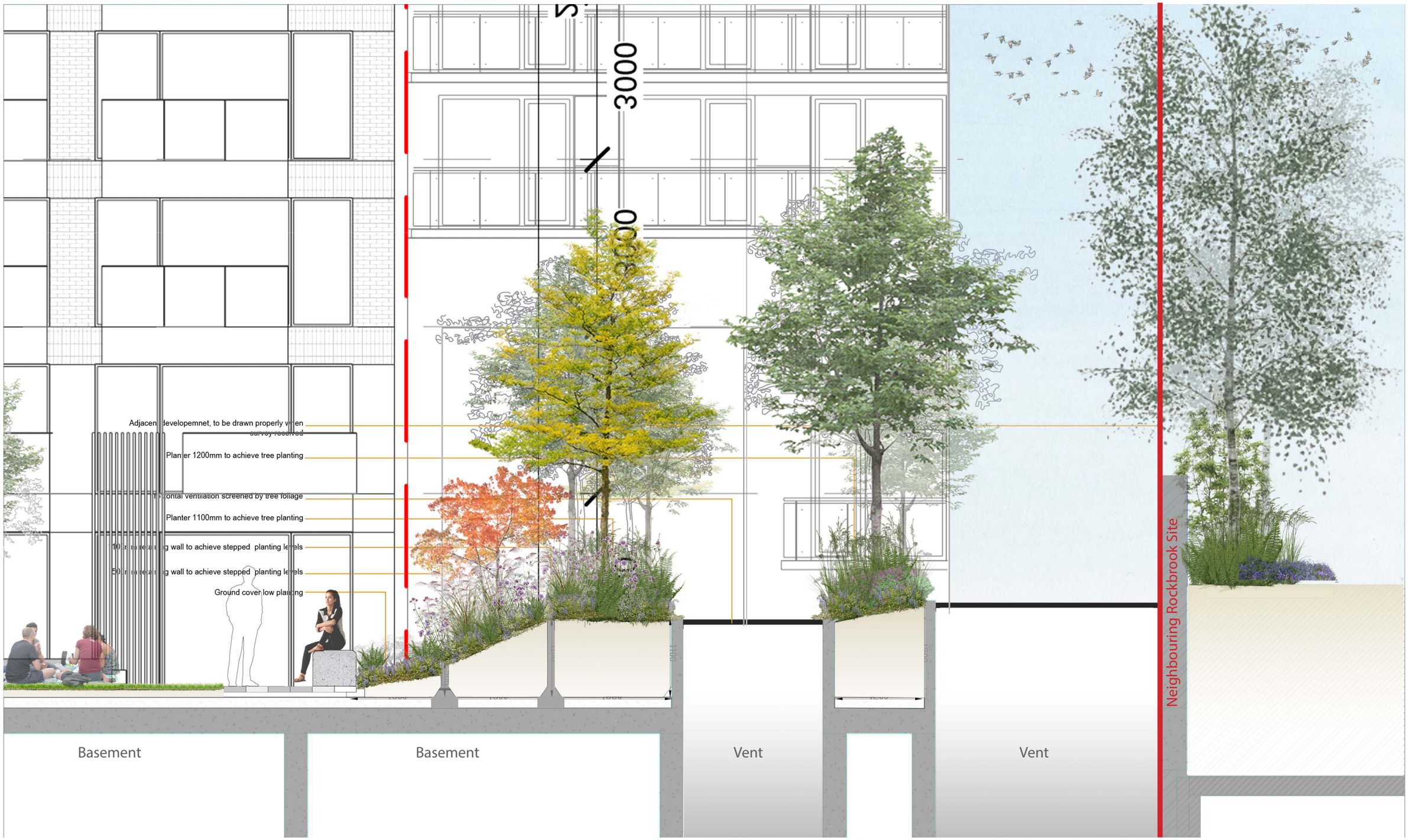


Figure 67: Section BB

6. Boundary Treatments
6.b Boundary sections, SECTION CC, Blackthorn Drive stepped access, Scale: 1/50

Figure 68: Section CC

7. Planting/Materials:

7.a Material Moodboard

Figure 69: Material reference plan

1 Residential courtyards:

Figure 74: Imported grey granite in 3 different shades

Figure 75: Raised concrete edge for deeper planting

3 Metal works for Screening/Planting edges

Figure 70: Cor-ten steel laser cut panels for screening or railing

Figure 72: Cor-ten steel planter edge

2 Boulevard:

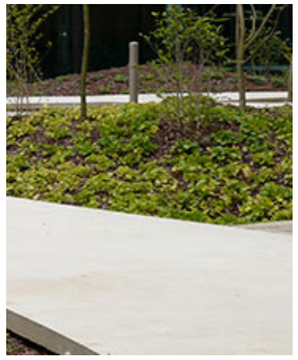


Figure 76: Smooth concrete light mix

Figure 77: Exposed aggregate concrete mixes

Figure 78: Raised metal edges for deep planting

4 Main entrances steps

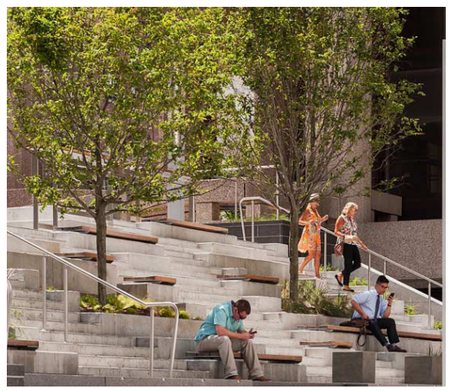


Figure 71: Steps as seating and tree planting

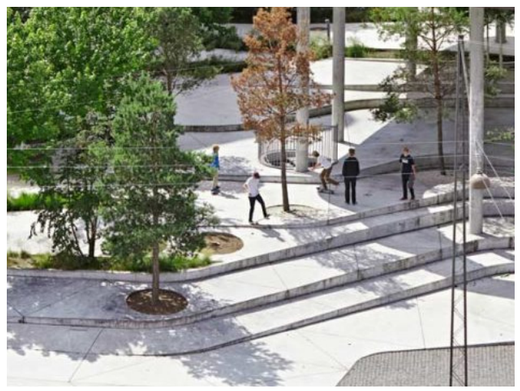


Figure 73: Big organic shaped steps and tree planting

5 Public realm

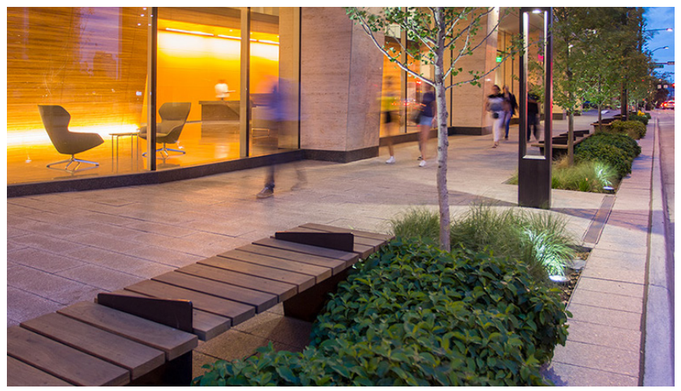
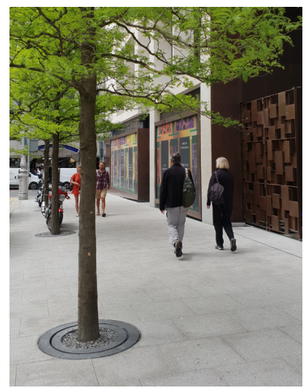


Figure 79: Composition of lighting, trees and seating



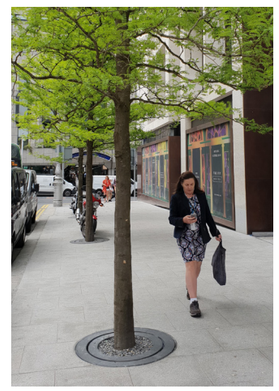


Figure 80: Dublin, mature Gleditsia trees and paving as per DCC standards. BSLA project

7. Planting/Materials:
7.b Hard Landscape

Division treatment to private terraces & soil mounding strategy for deep planting

Figure 81: Roughen treatment to reduce accessibility

Figure 82: Soil mounting and planting, BSLA project, Cork

Figure 83: Precast concrete elements for soil mounding & seating

Paving

Figure 84: Paving transition public to private

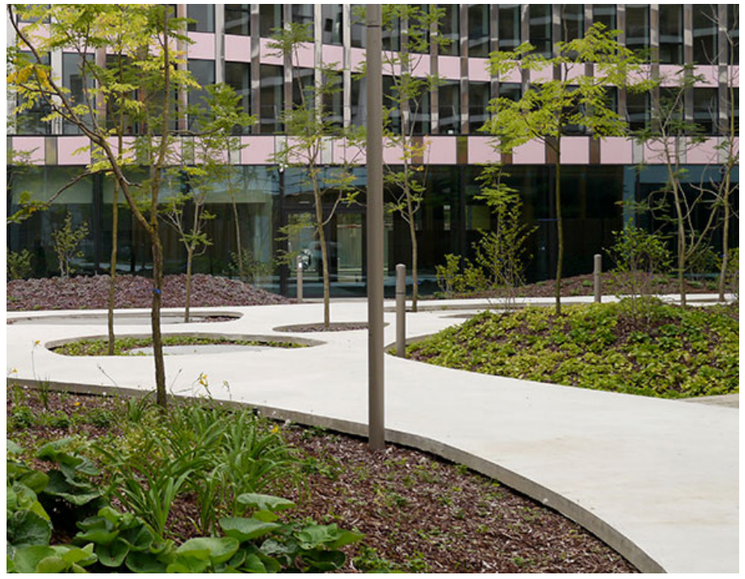


Figure 85: Long span bespoke concrete paving with light colour pigments

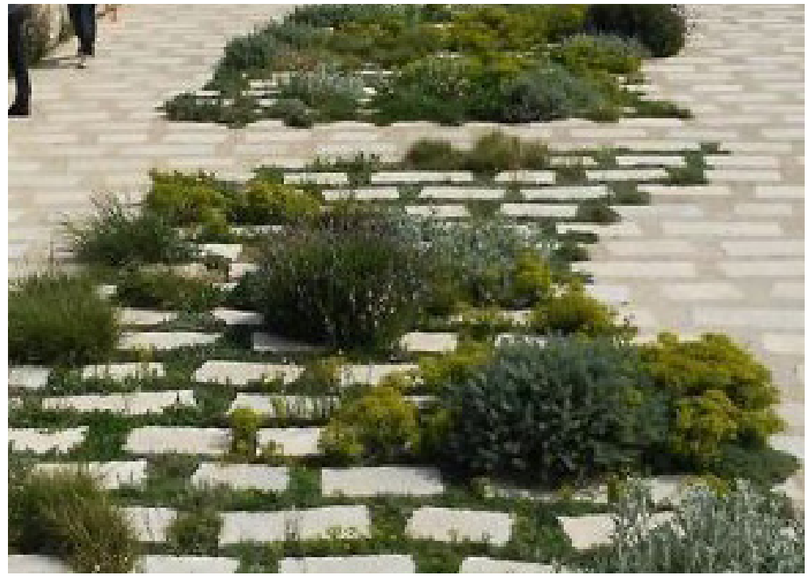


Figure 86: Composition of paving and low scrub type planting to create routes

7. Planting/Materials:
7.b Soft landscape

Figure 87: Boulevard flowering trees in a simplistic setting

Figure 88: Naturalistic private courtyards

Figure 89: Strips of semi aquatic planting

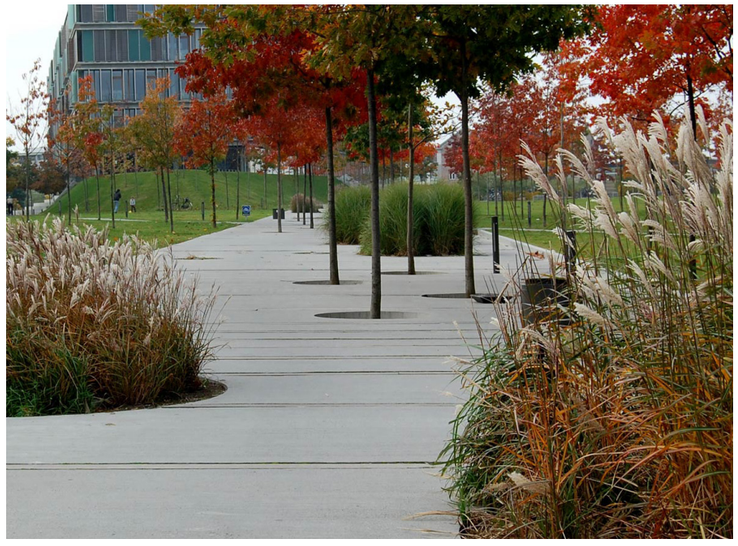


Figure 90: Composition of smooth ornamental grasses and autumn colour trees

Figure 91: Mix of multistem and single stem trees and herbaceous perennials

Figure 92: Naturalistic planting in raised concrete planters

Figure 93: *Planting Palette: proposed mix of native and non native drought tolerant and nectar rich plants through the seasons for visual interest and biodiversity*

7. Planting/Materials:
7.c Planting analysis

Daylight Analysis Diagrams

In order to choose the right plant mixes we had to consult the sunlight/daylight analysis tables. In general the site receives quite a lot light during the spring and summer months which is the growing period for the planting. Studying the diagrams below, it is clear that we will need different planting mixes for different areas.

A planting mix that will correspond well in shady areas mostly in the semi-private courtyards between blocks A,B and C including part of the level 2 courtyard at Block and the Eastern boundary.

Another mix of plants will consist of species that thrive in part shade. Such part shade conditions are in the middle of the boulevard and the 2 pocket parks that in future will become darker as the canopies of the planted trees will be spreading.

Finally a thrid mix of species that thrive in full sun and they are drought tolerant is proposed along the boulevard, the rear of blocks E,F and along Carmanhal Road.

Figure 94: Communal Amenity Spaces-Hours of Sunlight on March 21st

Figure 95: Communal Amenity Spaces-Hours of Sunlight on June 21st

The diagrams above have been extracted from the Daylight Sunlight report produced by O'Connor Sutton Cronin.

The diagram to the left shows the total hours of sunlight in the grounds at the 21st of May:
The red squares in Figure 21 highlight the areas that receive a minimum of 2 hours of sunlight on the 21st of March for the proposed development. It is evident at least 50% of the overall communal amenity spaces receive 2 hours or more of sunlight on March 21st. The excellent daylight and sunlight access can also be attributed to the sunlight reflection from the building façades that have been carefully designed with light materials, thus creating comfortable and desirable spaces for the residents.

The diagram to the right shows the total hours of sunlight the grounds receive at the 21st of June:
The sunlight access for the proposed development has also been assessed on June 21st, showing that summer sunlight access is excellent, with the majority of all residential amenity spaces achieving more than 2 hours of sunlight.

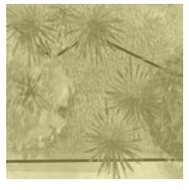
7. Planting/Materials:

7.c Planting analysis / Planting specification

Figure 95: Communal Amenity Spaces-Hours of Sunlight on June 21st

Mix A:
Mix of shade loving perennials

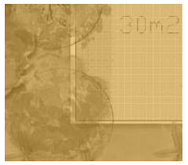
Mix B:
Mix of plants that thrive in part shade conditions



Mix C:
Mix of plants that thrive in full sun and are drough tolerant

7. Planting/Materials:

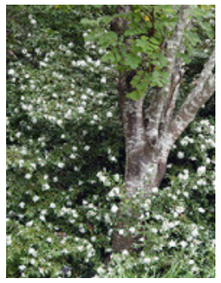
7.c Planting analysis / Planting specification



Mix A:
Mix of planting that thrives in shade conditions. The plants below were selected due to their longevity and low maintenance requirements.
Moreoever the plan selection is composed by a mix of native and non native species that promote biodiversity on site and year round interest.

SHRUBS


Aesculus parviflora


Camellia japonica


Hydrangea aspera v.


Fatsia japonica

HERBACOUS PERENNIAL


Hosta sp.


Carex pendula


Dryopteris filix-mas

GROUND COVERS


Helleborus hybridus


Vinca minor


Gallium


Geranium phaeum

Mix B:
Mix of plants that thrive in part shade conditions.

SHRUBS


Acer osakuzuki


Callicarpa

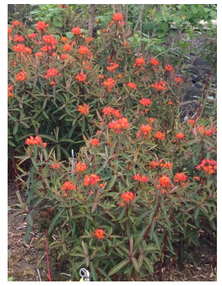

Cornus kousa


Hamamelis mollis

HERBACOUS PERENNIAL


Acanthus mollis


Hakonechloa macra


Euphorbia grifithii


Actaea simplex


Digitalis alba

GROUND COVERS


Saxifraga


Fragaria vesca

Mix C:
Mix of plants that thrive in full sun and are drough tolerant.

SHRUBS


Yucca filamentosa


Rhus typhina

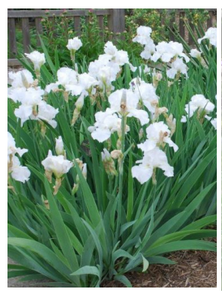

Stewartia

HERBACOUS PERENNIAL


Carpenteria


Amsonia ‘Blue ice’

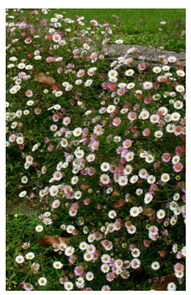

Pennisetum


Iris germanica


Miscanthus sp.

GROUND COVERS


Aster monch


Erigeron


Leptinella

7. Planting/Materials:

7.c Planting analysis / New trees specification

Figure 96: Proposed tree planting plan

MATURE TREES

Street trees

Ls

Liquidambar styraciflua, 20-25cm girth, min 6m high, rootball,15no

Trees on podium

Gt

Gleditsia triacanthos, 50cm girth, min 10m high, rootball, 12no

Pt

Paulownia tomentosa, 20-25cm girth, min 5m high. rootball, 6no

Ps

Pinus sylvestris 20-25cm girth, min 5m high. 100l pot, 13no

Mg

metasequoia glyptostroboides, min 4m high. rootball, 11no

SEMI MATURE TREES

Bp

Betula pendula 18-20cm girth, min 4m high. rootball, 47no

Ap

Acer palmatum species multistem, min 2.5m high. rootball, 61no

Al

Amelanchier lamarckii, multistem, min 2m high. 40l pot, 62no

Rt

Rhus typhina, multistem, min 3m high. 50l pot, 21no

Me

Malus 'Evereste', multistem, min 3m high. rootball, 12no

Mbt

Malus 'Evereste', multistem, min 3m high. rootball, 12no

8. Maintenance:

8.a Water Feature

The proposed water feature will provide a clear directional and placemaking organization within the public realm. The system will consist of several zones within it. There will be differing characteristics legible in the way the water is treated and circulated. Most parts will read as a continuous shallow flow of clear water and others with have a deeper volume, sometimes still and sometimes turbulent and splashy where for example, it cascades towards Blackthorn Drive.

The system will comprise of both a closed and treated main section with smaller more natural ponds just off it finding a natural balance and largely separated from the main circuit. Reading as one waterbody with crystal clear qualities in the main flow , it will have planted turbid areas off it, like lacunae on a stream. These latter areas can be planted (for example with reeds and waterlilies) and there will also be pockets of planting at other key areas within the treated system.

The mechanical plant will consist of pumps, filters and strainers and will be located within the basement in a bespoke plant room. The water will flow from Carmenhall Rd to Blackthorn Drive with a small gradient provided in the shallow rill, but will cascade dramatically once of the podium on the Blackthorn Drive side down to the lowest pool alongside the steps onto Blackthorn Drive where it will be exit the system to the basement in order to be cleaned, algae removed and recirculated to Carmenhall Rd. The system will monitor overflows and any water wastage.

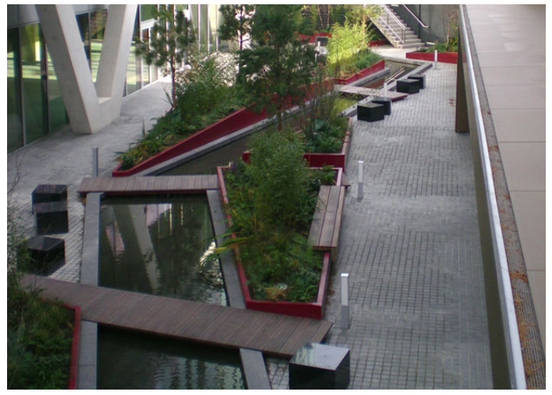
Litter collection from items randomly thrown in will be removed daily by netting. Dead plant material in the more natural lacunae will be maintained at monthly intervals under the landscape maintenance contract and any muddy growing media that spills over into the main system cleaned by the filters.

If an algal bloom or algae grows on the enclosing stone or the underwater light fixtures of the rills, despite the water treatments, the system can be partially drained (into the bioretention areas) and the affected areas power washed. It is planned to use non biotoxic chemical treatment for the water purification either through a UV, Charcoal or bacterial treatment system. The water feature will deploy the latest technology for reducing flow in adverse conditions and reporting on water quality at regular intervals.

The system will be maintained by experienced waterfeature technical teams, usually as “an add on” maintenance by the same installers. There are currently four experienced contractors serving the Dublin Area in this field.

Figure 97: Irish Life Centre by BSLA , water feature in the public realm still functions without any technical issues, date of completion: May 2017

Figure 98: Irish Life Water Feature being frozen, Winter 2017



Figures 99,100: Burlington Road water feature by BSLA, built 2010 and still is functioning without any issues

Figure 101: Nano Nagle Place, Cork water feature by BSLA, built spring 2017

8. Maintenance:
8.b Planting

For a succesfull planting scheme it is not the planting selection that matters but the careful maintenance plays a very important role.
While selecting the right planting species to suit the different micro environments is an important planting strategy the contiuous maintenance is the key aspect of having lush and well looked after the planting time for many years.
In previous projects that we completed apart from the standard maintenance documents whuch are included in a contract and they normally last up to 2 years, we are always producing maintenance manuals and maintenance calendars that explain in a very simple way what jobs need to be done in every month of the year in every planted area. Apart from issuing such maintenance documents we are arranging workshops with the property maintenance companies at the completion of the project.
Below are some examples of the neighbouring Rockbrook properties: Grande Central and South Central Apartments tha we completed in 2010. These are good examples that show how the planting matured in a neighbouring enviroment almost identical to our site.


Figure 102: Grande Central apartments, 2012


Figure 103: Grande Central apartments, September 2018


Figure 104: Rockbrook Square 2012

Figure 105: Rockbrook Square 2012, November 2018


Figure 106: Rockbrook Square 2012


Figure 107: Rockbrook Square July 2018


Figure 108: Blackthorn Drive, 2012


Figure 109: Blackthorn Drive, July 2018