



Landscape Report For:

Gowan House, Carriglea Business Park,
Naas Road, Dublin 12, D12 RCC4

October 2023

STEPHENDIAMONDASSOCIATES
CHARTERED LANDSCAPE ARCHITECTS



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1.0 INTRODUCTION

We have been retained by Malclose Limited the applicant to submit a landscape design rationale and comprehensive and detailed landscape proposals for the proposed development at Gowan House, Carriglea Business Park, Naas Road, Dublin 12, D12 RCC4.

Stephen Diamond Associates is a progressive design orientated landscape architecture consultancy based in Dublin. The practice holds full Membership of the Landscape Institute (CMLI), the professional organisation for chartered landscape architects in the UK and is a Registered Member of the Irish Landscape Institute (ILI), the professional organisation representing landscape architects in Ireland.

The drawings associated with this report which describe and illustrate the landscape architecture proposals are as follows.

• 22-579-SDA-PD-DR-GF-001	Ground Floor Landscape Masterplan	1:250 at A1
• 22-579-SDA-PD-DR-LGF-001	Lower Ground Floor	1:125 at A1
• 22-579-SDA-PD-DR-ZZ-001	Roof Gardens	1:20/ 1:100/ 1:125 at A1
• 22-579-SDA-PD-DR-ZZ-002	Roof Gardens and Green Roofs	1:20, 1:25, 1:200 at A1
• 22-579-SDA-PD-DR-XX-201	Sections 01,	1:25, 1:50 at A1
• 22-579-SDA-PD-DR-XX-202	Sections 02	1:50 at A1
• 22-579-SDA-PD-DR-XX-203	Section 03	1:100, 1:200 at A1
• 22-579-SDA-PD-DR-XX-204	Section 03 , Details 01, 02, 03 & 04	1:25, 1:50 at A1
• 22-579-SDA-PD-DR-XX-205	Section 04	1:100, 1:200 at A1
• 22-579-SDA-PD-DR-XX-206	Section 05	1:25 at A1
• 22-579-SDA-PD-DR-XX-207	Section 06	1:25 at A1
• 22-579-SDA-PD-DR-XX-208	Section 07 -09 & 10	1:50/1:100 at A1
• 22-579-SDA-PD-DR-XX-209	Section 11	1:25/1:50 at A1
• 22-579-SDA-PD-DR-XX-210	Section 12	1:100 at A1
• 22-579-SDA-PD-DR-XX-301	Planting Details and Schedule	1:25 at A1
• 22-579-SDA-PD-DR-XX-302	Relationship Riparian Zone and Open Space	NTS at A1

General hard and soft landscape works typically comprising paving, street furniture, fencing, walls and non-seasonal soft landscape to include topsoiling, shrub planting and roll out turf grass lawn shall be completed as part of the general building and site infrastructure construction works. Seasonal root-balled and bare root tree and transplant planting will be completed within the first suitable planting season leading up to or after completion of construction works. The tender information for the works shall include for a minimum 12-month maintenance period and defects liability period.

2.0 PROPOSED DEVELOPMENT DESCRIPTION

Malclose Limited intend to apply to Dublin City Council for a 7-year permission for a large-scale residential development principally comprising student accommodation at this 0.962 Ha site at Gowan House, Carriglea Business Park, Naas Road, Dublin 12, D12 RCC4.

Works to upgrade of the access road to the west of the site on an area measuring c. 0.081 Ha are also proposed comprising new surfacing to the carriageway, the provision of inbound and outbound bicycle lanes from the development entrance to the Naas Road, the provision of a controlled pedestrian crossing on the access road at the Naas Road junction, and the provision of a further uncontrolled pedestrian and bicycle crossing linking the subject site with the approved Concorde SHD development (ABP Ref: TA29S.312218) to the west.

On the Naas Road, works are proposed on an area measuring c. 0.086 Ha comprising the realignment and widening of the existing pedestrian footpath along the westbound carriageway of the Naas Road and the provision of linkages from the realigned footpath to the development site, and the provision of new controlled pedestrian

crossings across the eastbound and westbound carriages of the Naas Road and the provision of a new uncontrolled crossing of the Luas tracks.

The development site area and roadworks areas will provide a total application site area of c. 1.13 Ha.

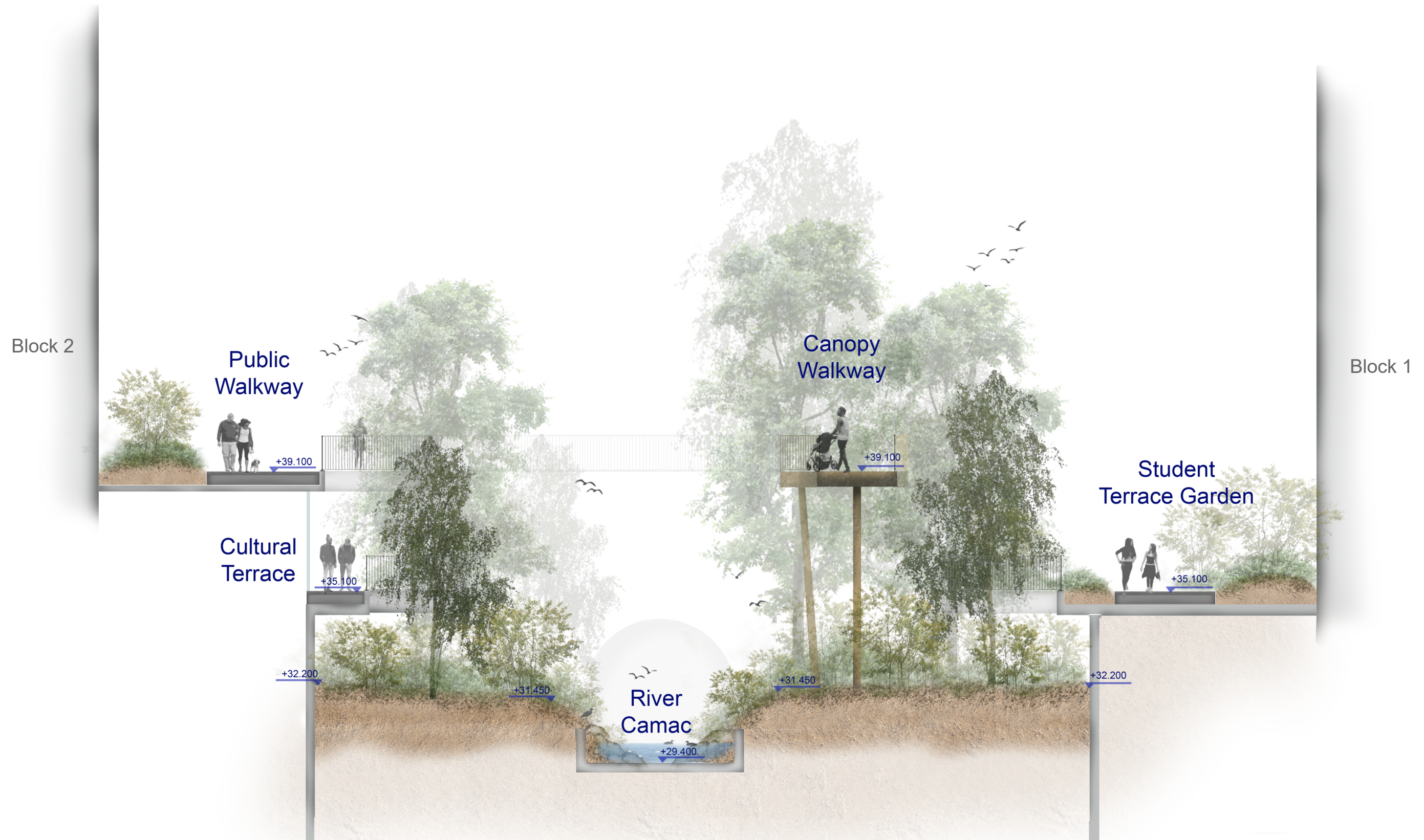
The proposed development will principally consist of: the demolition of the existing two-storey office/warehouse building and outbuilding (5,172 sq m); and the construction of a development in two blocks (Block 1 (eastern block) is part 2 No. storeys to part 15 No. storeys over lower ground floor and basement levels with roof plant over and Block 2 (western block) is part 9 No. storeys to part 11 No. storeys over basement with roof plant over) principally comprising 941 No. Student Accommodation bedspaces (871 No. standards rooms, 47 No. accessible studio rooms and 23 No. studios) with associated facilities, which will be utilised for short-term lets during student holiday periods. The 871No. standard rooms are provided in 123 No. clusters ranging in size from 3 No. bedspaces to 8 No. bedspaces, and all clusters are served by a communal living/kitchen/dining room.

The development also provides: ancillary internal and external communal student amenity spaces and support facilities; cultural and community floor space (1,422 sq m internal and 131 sq m external) principally comprising a digital hub and co-working space with ancillary cafe; a retail unit (250 sq m); public open space; the daylighting of the culverted River Camac through the site; an elevated walkway above the River Camac at ground floor level; a pedestrian bridge link at first floor level between Blocks 1 and 2; vehicular access at the south-western corner; the provision of 7 No. car-parking spaces, 2 No. motorcycle parking spaces and 2 No. set down areas; bicycle stores at ground and lower ground floor levels; visitor cycle parking spaces; bin stores; substations; hard and soft landscaping; green and blue roofs; new telecommunications infrastructure at roof level of Block 1 including antennas and microwave link dishes, 18 No. antennas and 6 No. transmission dishes, together with all associated equipment; boundary treatments; plant; lift overruns; and all associated works above and below ground.

The gross floor area of the development is c. 33,140 sq m comprising c. 30,386 sq m above lower ground and basement level.



(Above): CGI Central Plaza Proposal



(Above): Proposal Concept Section Through the Riparian Zone, Basement and Ground Floor Level

3.0 LANDSCAPE ARCHITECTURE PROPOSALS

Landscape design proposals have been developed on a number of levels to address the integration of proposed architecture, vehicular access, pedestrian circulation, cycle parking, fire tender/service vehicle access, infrastructure, local area planning, context, human scale and a unique sense of place.

The spatial arrangement of the landscape design proposals relates directly to and are informed by the architectural proposals and the presence of the River Camac to create a unified whole and settle the proposed development into the site context. Movement patterns, orientation, context, prospect and microclimate have been considered in the design and detail of the scheme.

Our intention is to enhance the overall public realm along Naas Road and create a unique outdoor environment for the residents of the proposed student accommodation blocks and the wider public. This will be achieved through the development of 3 plazas ('Central Plaza' fronting Naas Road, Cycle Entrance Plaza to the northeast, and Connection Plaza facing Carriglea Development to the south), a Green Route Boulevard (to the west of the site) and many attractive 'Through Routes' that take people on interesting journeys through the entire Gowan House site and promote active recreation connection to Carriglea Development Linear Park which then connects to Lansdowne Vally park and Grand Canal.

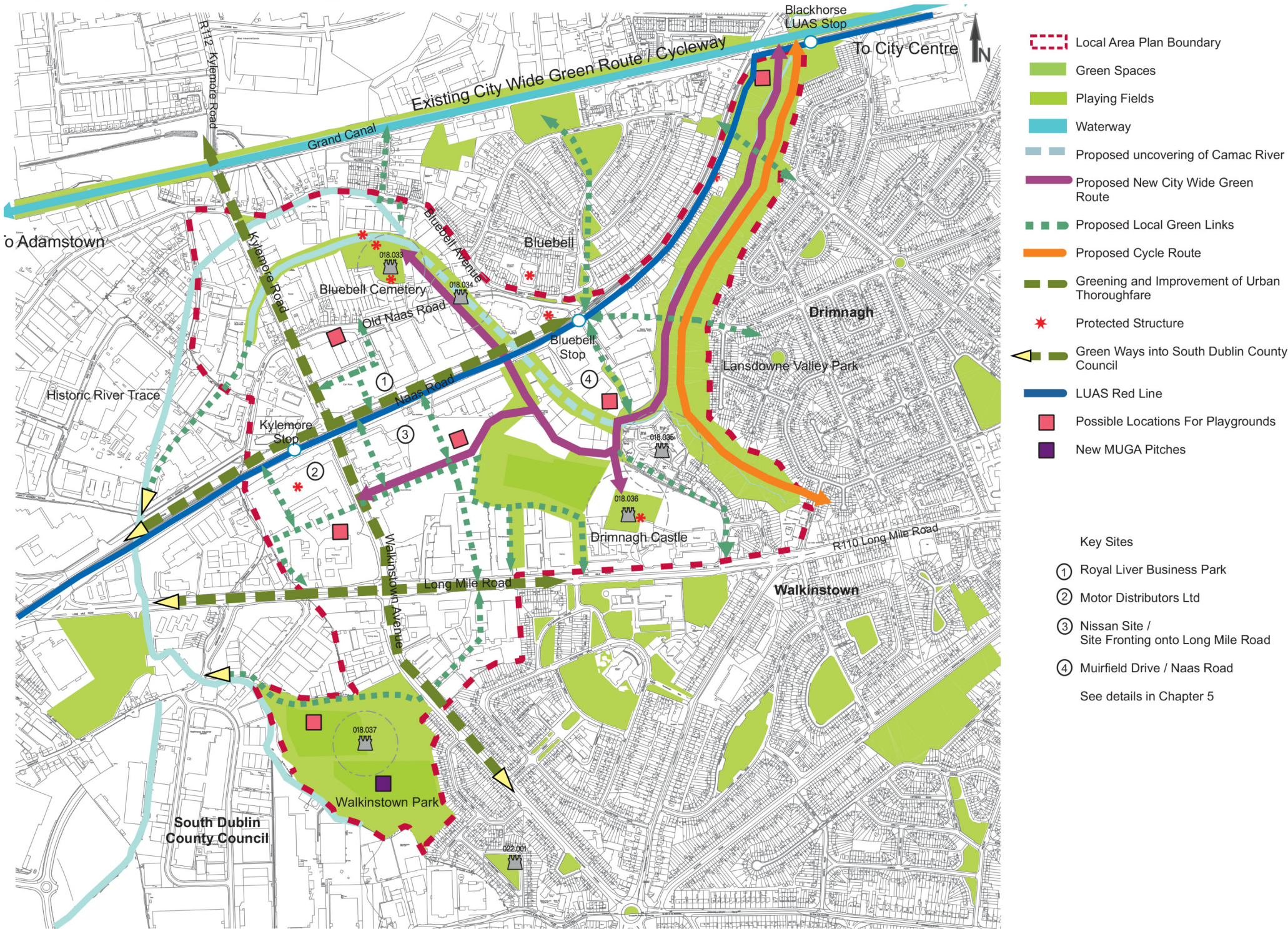
We propose the de-culverting/daylighting of approximately 76m of the river Camac which flows through the centre of the site, between the two new student accommodation buildings.

Hard and soft landscape and streetscape elements will be fully detailed and completed to the required level to meet current building regulations and best practice provided by the relevant guidance documentation e.g. Technical Guidance Document Part M – Access and Use Building Regulations (2022) and 'Building for Everyone: A Universal Design Approach' by the National Disability Authority, and current DMURS publication.

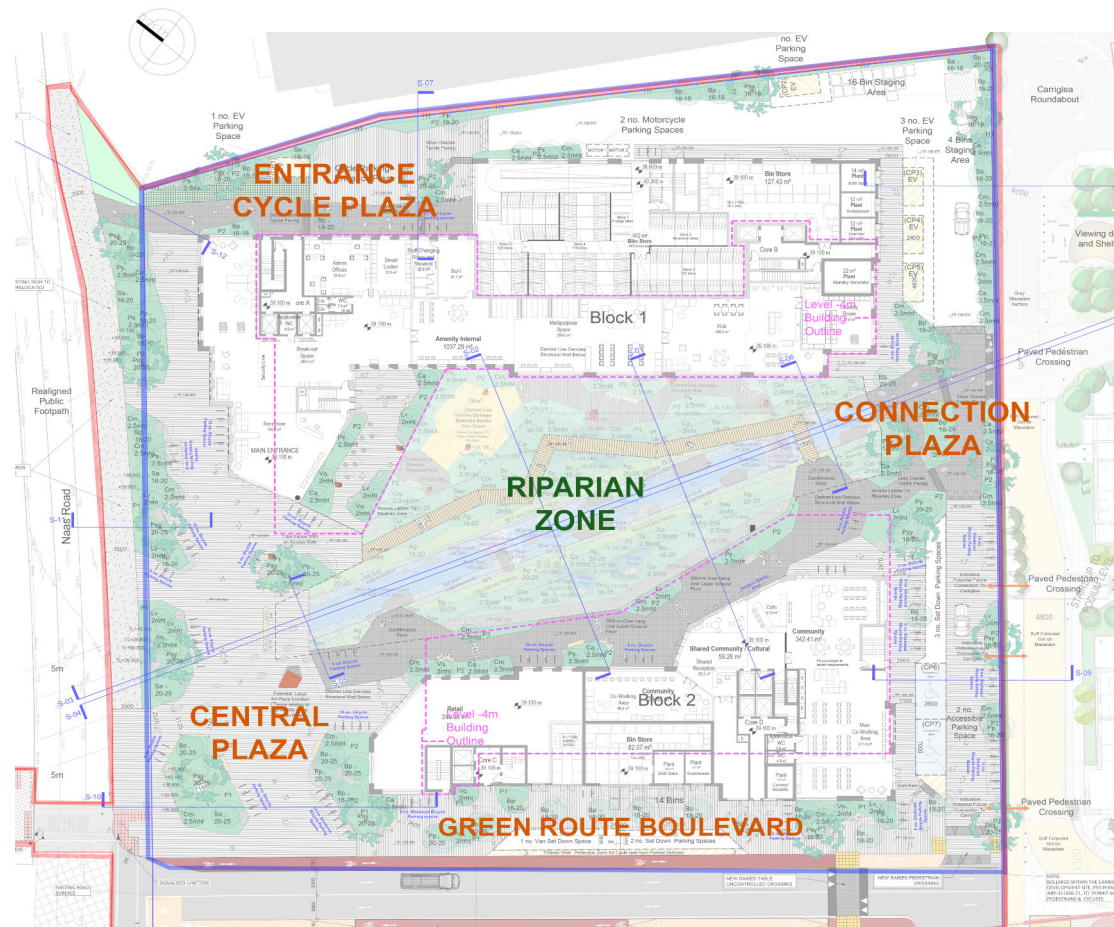
All external areas are universally accessible to encourage people of all abilities and ages including wheelchair users to take part fully in the outdoor areas created as part of this development.

The de-culverting of the river creates a continuation of the linear green space concept depicted in the recently expired Local Area Plan (LAP) along the Naas Road from the Carriglea Development site through to Naas Road. The daylighting of the river will reintroduce riparian vegetation and a Riverscape identity along the River Camac and establish a new nature hub within this heavily urbanized area.

Map 4.12 Proposed Green Infrastructure Strategy



(Above): Extract from Naas Road LAP Part 3 page 48 (Recently Expired)



Above: Conceptual Division of Spaces

Landscape proposals for the site are intended to address and contribute positively towards:

- Local Area Planning;
- A unique sense of place;
- A site-specific design proposal generated from existing landscape elements and context;
- A high-quality environment;
- A permeable layout that assists ease of movement for pedestrians and vehicular traffic;
- A development that acknowledges the local landscape character and integrates well into the receiving environment;
- A development that promotes beneficial effects on biodiversity by providing new habitats and improving existing ecosystems..

Issues that have been considered throughout the landscape design are:

- The appropriate selection of hard and soft landscape materials;
- Specification of tree and shrub species to enhance biodiversity, visual amenity and promote native and pollinator friendly species
- Boundary treatments that are in keeping with the surrounding landscape and provide high permeability for pedestrians but also a degree of privacy to Gowan development and neighbouring developments.
- Ecological implication on de-culverting a river

To help us to address the above intentions and outlined issues, this site is conceptually divided into 5 distinctive areas (Central Plaza, Entrance Cycle Plaza, Connection Plaza, Riparian Zone and Green Route Boulevard). These areas are interconnected through a series of transitional routes

The overall site area is 9620m². 3000m² (31%) of the overall site is usable public open space area excluding Riparian Zone. 1261m² (13%) of the site is set aside for nature within the Riparian Zone. Note access to the Riparian Zone by the public/students/visitors etc. will not be permitted as requested by Dublin City Council. Maintenance access only to Riparian Zone to protect the sensitive wetland habitats.



Above: Accessible Public Open Space



Above: Inaccessible Public Riparian Zone



Above: Combined Plan Highlighting Accessible Public Open Space and Inaccessible Public Riparian Zone



Above: Ground Floor Layout

SPECIFICATION KEY	
	Modular Silver Granite Paving Slabs
	Paving Grey Granite Setts
	Anti-Slip Iroko Hardwood Decking
	Iroko Hardwood Benches
	Sheffield Bicycle Stands
	Riparian Zone Planting (P4)
	Perennial Planting Beds (P1,P2 and P3) <ul style="list-style-type: none">Planting to B10382 multi-purpose topped on free-draining sub-base, topped with 100mm black landscape fabric and 50mm depth medium-grade bark mulch.Ornamental perennial planting to comprise ornamental grasses, flowering perennials and climbers to soften the visual impact of the development.Apply non-woven Weed-guard type filter geotextile membrane landscape fabric, black colour, 90gsm Weedguard by Terram or EGA.
	Grass Lawn
	Grass Pave
	CLEAR-STEMMED TO 2M HEIGHT AND MULTI-STEMMED SEMI-MATURE TREES <ul style="list-style-type: none">Semi-mature trees provided with 1200mm multi-purpose grade topped to BS 3882, topped with black 90gsm landscape fabric secured with plastic pegs at 300mm c/c & 75mm depth medium-grade bark mulch.Trees double-staked & supplied with planting accessories, and provided with root protectors within 2m of paving, underground services and foundations.Apply non-woven Weed-guard type filter geotextile membrane landscape fabric, black colour, 90gsm Weedguard by Terram or EGA.
	SEMI-MATURE FEATURE TREES <ul style="list-style-type: none">Semi-mature native species provided with 1200mm multi-purpose grade topped to BS 3882, topped with black 90gsm landscape fabric secured with plastic pegs at 300mm c/c & 75mm depth medium-grade bark mulch.Trees double-staked & supplied with planting accessories, and provided with root protectors within 2m of paving, underground services and foundations.Apply non-woven Weed-guard type filter geotextile membrane landscape fabric, black colour, 90gsm Weedguard by Terram or EGA.
	Granite Boulders
	1000L Bins (Staging Areas)
	Sculptures

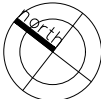
- TREE NOTES:
- Py *Pinus sylvestris* (scot's pine)
Bp *Betula pubescens* (downy birch)
Pp *Prunus padus* (bird cherry)
Pt *Populus tremula* (aspen)
Ag *Alnus glutinosa* (alder)
Sa *Sorbus aucuparia* (rowan)
- Sc *Salix caprea* (goat willow) multi-stemmed
Sau *Salix aurita* (osier willow) multi-stemmed
Cm *Crataegus monogyna* (hawthorn) multi-stemmed
Ca *Corylus avellana* (hazel) multi-stemmed
Ps *Prunus spinosa* (sloe) multi-stemmed
Lv *Ligustrum vulgare* (wild privet) multi-stemmed
Vo *Viburnum opulus* (guelder rose) multi-stemmed
Ee *Euonymus europaeus* (spindle tree) multi-stemmed

Total of 225 New Native Irish Trees are proposed to be planted throughout all of the levels within this scheme

- 218 no. Bicycle Parking Spaces at Ground Level
7 no. Car Parking Spaces
(CP1-CP5 EV Car Parking Spaces)
(CP6 & CP7 Accessible Car Parking Space)
2 no. Set Down Bays
2 no. Motorcycle Parking Spaces

- 2 Designated areas for Bin Staging Areas and refuse Truck
Set Down
- 20 x 1000L (East of Block 1)
- 14 x 1000L (South-West Block 2)

- Level Notes:
EX+ Existing Level
TL+ Top of Landscape Finish
TP+ Top of Paving
TK+ Top of Kerb
TW+ Top of Walls
TE+ Top of Edging
TR+ Top of Railing
TB+ Top of Bench
TS+ Top of Slab



STEPHEN DIAMOND ASSOCIATES
CHARTERED LANDSCAPE ARCHITECTS

68 Pearse Street Dublin 2 tel: 01 6775670
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Client: Malclose Limited Project No: 22-579

Project: Gowan House
Title: Ground Floor Masterplan Date Issued: 2023-10-09
Dwg No: 22-579-SDA-PD-DR-GF-001
Drawn: BS Purpose: Planning Checked: SD

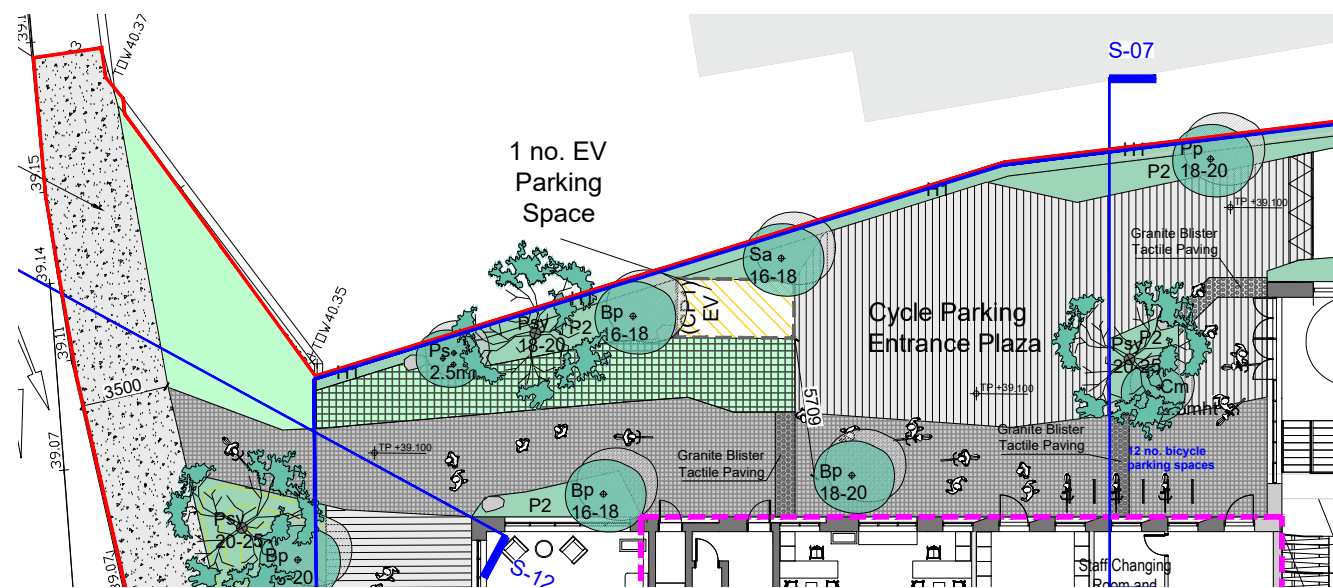


Above: Precedent Image for the Cental Plaza

3.2 CYCLE ENTRANCE PLAZA

The second large space along Naas Road on site is the Cycle Entrance Plaza. This area is designed to be an attractive outdoor entrance to the bicycle indoor storage inside Block 1 for the students with occasional members of the public using this plaza as a transitional space on route to and from of the surrounding places such a Carriglea development. Majority of this plaza is designed as a shared surface to give pedestrians and cyclists the right of way but also to facilitate a vehicle turning area, 1 parking spaces and clear fire tender access.

Silver and grey granite blister tactile paving is provided to help visually impaired individuals navigate the shared surface area and notify them of the presence of vehicles. These tactile paving locations comply with the specifications in the DMURS publication.



Above: Cycle Entrance Plaza Layout

3.3 DAYLIGHTING/ DECULVERTING RIVERS

There are many benefits to daylighting rivers. De-culverting a river improves the quality of water and biodiversity. Daylighting a river does not only bring benefits to nature and the environment but also to people. People are naturally drawn towards water. Unearthing a buried river creates a focal point within a cityscape giving people seeking connection with natural elements and encourages them to spend more time outdoors which contributes positively towards their well-being and mental health.

Inspiration was taken from several daylighting projects around the world, these three projects shown are most relevant examples how daylighting a river in different heavily urbanised areas of the world improved the economic, cultural, social and environmental status of those cities.

PRECEDENT SCHEMES OF DAYLIGHTING RIVERS

Porter Brook Sheffield UK

De-culverting Porter Brook in Sheffield, UK is an example of how opening up a river can positively impact the environment and community through the creation of a pocket park. 85m of the river was daylighted.



Above: Porter Brook Before Daylighting



Above: Porter Brook After Daylighting

Saw Mill River NY, USA

Daylighting of the Saw Mill River in Yonkers, New York, USA was part of a revitalization initiative in this area of New York. The river was de-culverted and re-directed for 160m and brought huge ecological, social, cultural and economic significance since it was daylight. The culvert still remains in place and is utilised to manage the excess of water during heavy rainfalls.



Above: Saw Mill River Before Daylighting



Above: Saw Mill River After Daylighting

Cheonggyecheon River, Seoul, South Korea

Cheonggyecheon River in Seoul was culverted in 1960s to create a road and a motorway. This river began to see daylight again in the early 2000s. Since then, kilometres of the river were de-culverted and the river became a huge linear park throughout the city.



Above: Cheonggyecheon Before Daylighting



Above: Cheonggyecheon After Daylighting



Above: CGI Representation of Riparian Zone

3.4 RIPARIAN ZONE GOWAN HOUSE

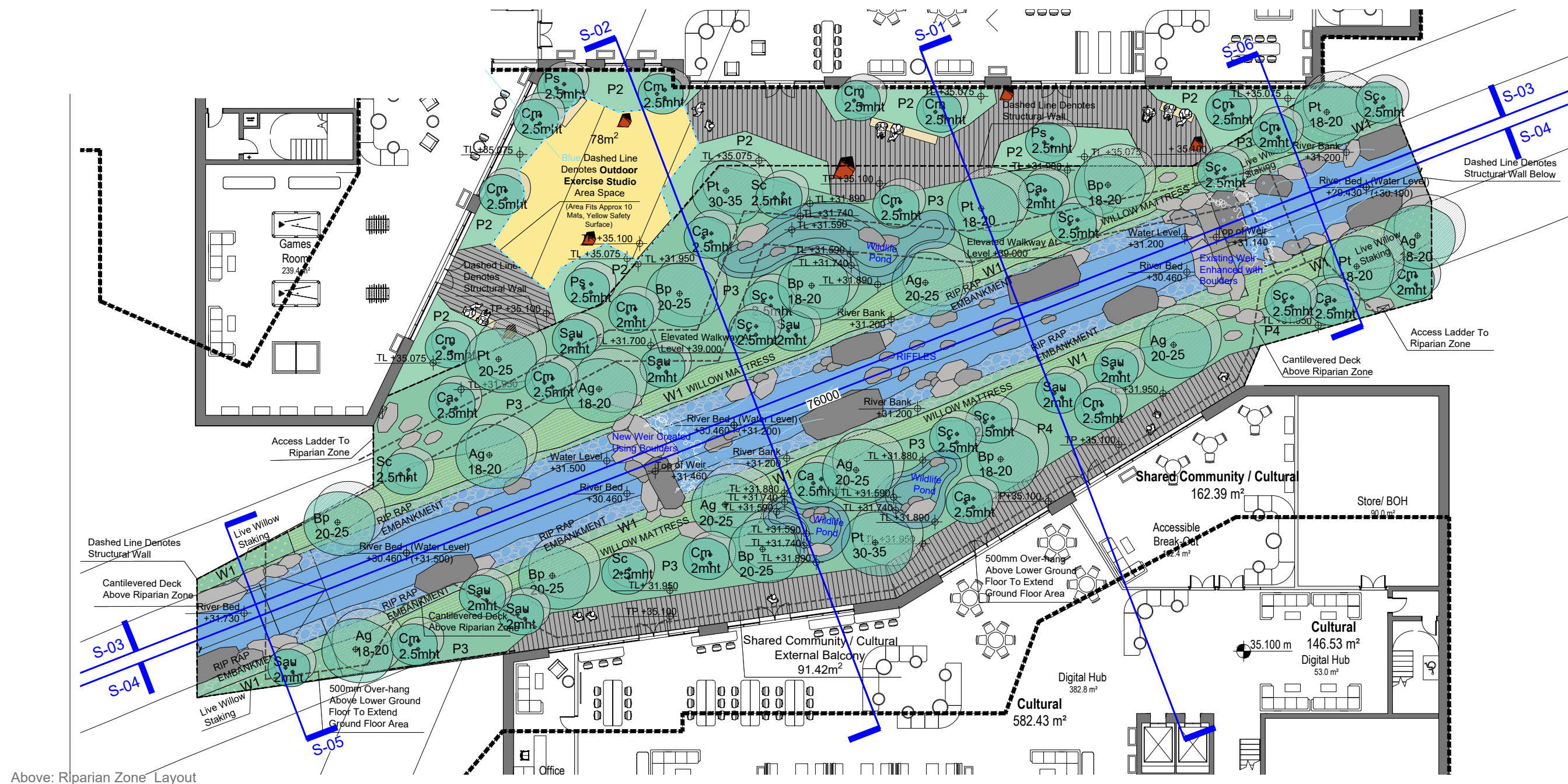
Approximately 76m of the River Camac is proposed for daylighting. Daylighting of the River Camac opened up a unique opportunity within this site to create a green heart from which vegetation and life can emerge into the wider landscape in this heavily built-up area along the Naas Road.

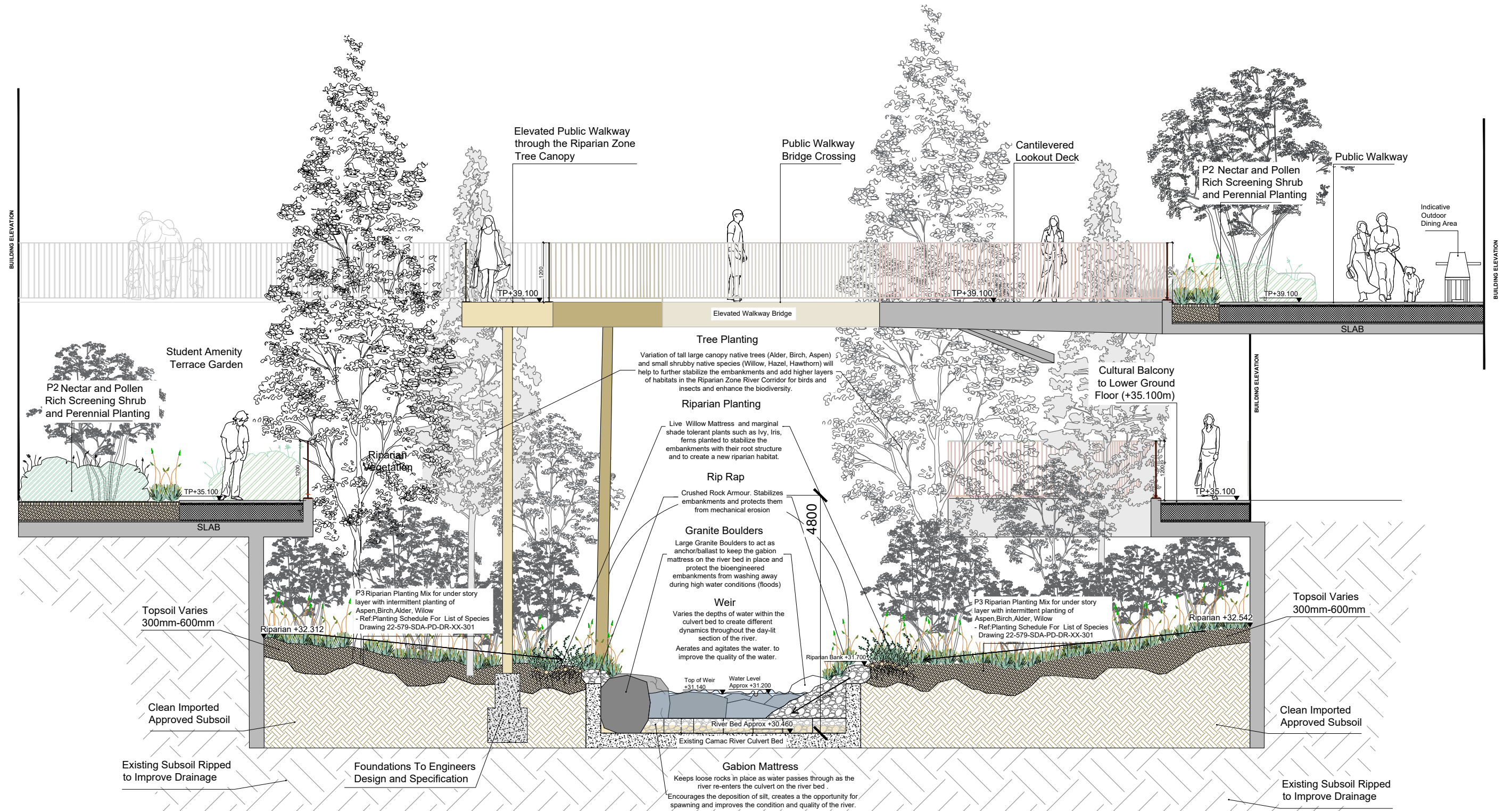
13% (1261m²) of the site is allocated for the Riparian Zone. The culvert bed is approximately 7-10m below the ground floor level (+39.100) of this development.

The Riparian Zone is set aside for nature and the planted lower level is inaccessible to the public and students which was a specific request of the Parks Department of Dublin City Council. The only access proposed down to the Riparian Zone is for maintenance using two ladders (one at each side of the river corridor).

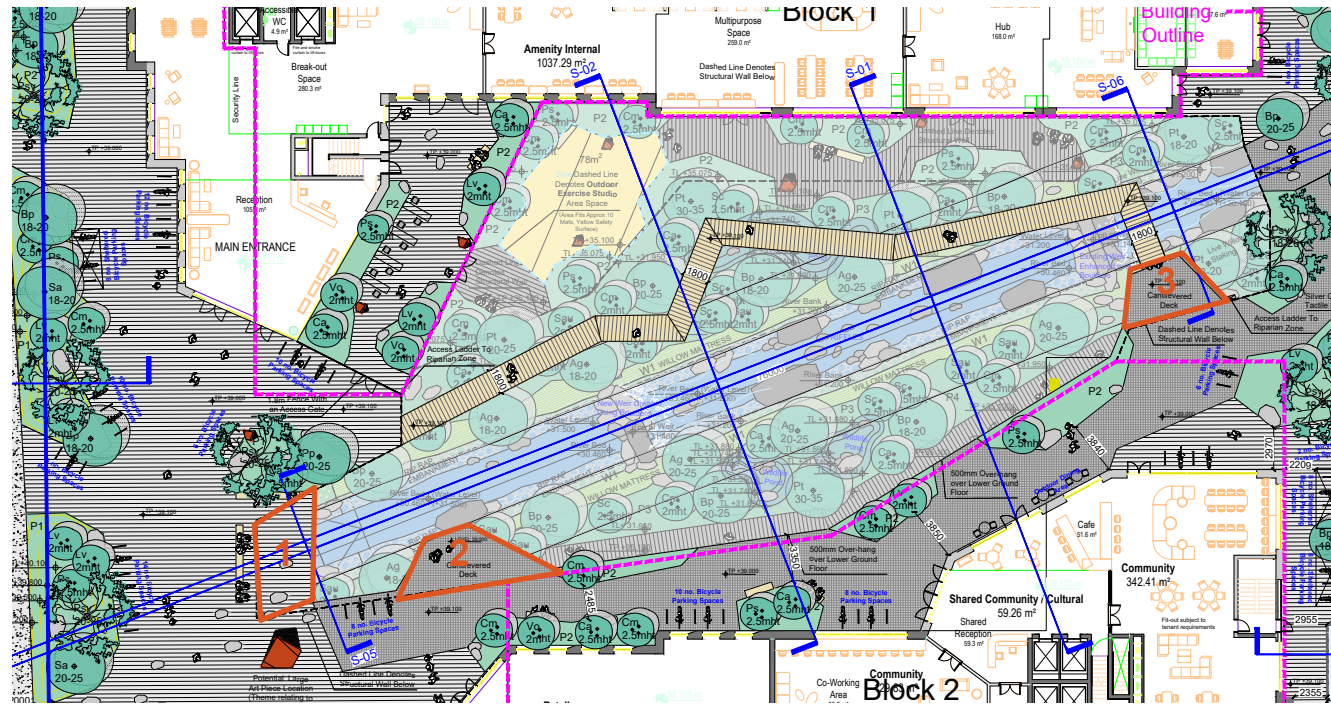
Though access to the actual riverbed and embankments is limited, people can still experience the riparian zone at the canopy level. Elevated walkways through the riparian vegetation allows a special close-up bird's eye view experience for people to have a direct connection with nature but protect the sensitive riparian environment and wildlife below.

The feature Canopy Elevated Walkway through the Riparian Zone has been designed to be offset a minimum of 1.5m from the Student Terrace at the lower level to create privacy for the users at the lower level. The arrangement of the proposed large trees within the Riparian Zone further enhances privacy, and the canopy acts like a screen, obstructing views from the walkway down in certain areas to prevent overlooking the student external amenity space below.





Above: Section 01



Above: Cantilevered Viewing Decks Location

3 no. cantilevered viewing decks project outwards from the edges of the Riparian Zone to enhance the connection with the river within the public realm at the ground floor level.

3.5 BIOENGINEERED APPROCHES

The riparian vegetation along the river will develop on a layered landscape of newly approved imported clean topsoil and subsoil. The existing subsoil free from contaminants on site will be ripped to improve drainage and support plant growth within the Riparian Zone following the excavation to the culvert level and construction.

Topsoil will be provided to varying profile depths of approximately 300-600mm depth to facilitate a varied range of native riparian vegetation to comprise groundcover and scrub through to large trees.



Above: Gabion Mattress Baskets



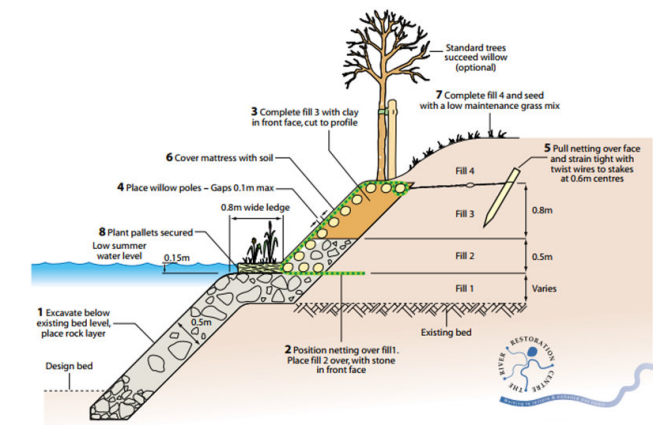
Above: Large Boulder Rip-Rap

To establish a softer, more natural river corridor that aims to improve the quality of the River Camac, prevent erosion, enhance biodiversity at the river level, conceal and address the straight geometrical design of the existing culvert bed that is retained, a combination of grey and green bioengineering solutions are proposed such as large boulder rip-rap, gabion mattresses and live willow staking/mattressing.

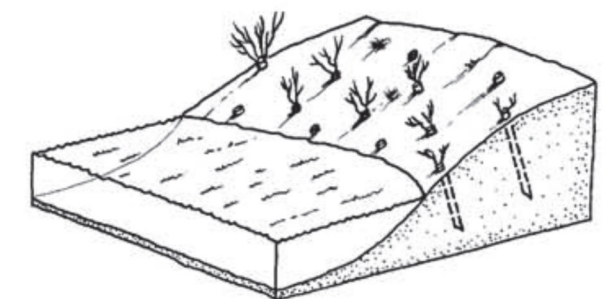
Rip-Rap is the use of rock armour along water bodies to prevent mechanical erosion of moving water and aims to trap sediment, reduce the speed of water and gradually build banks along water courses. This technique is proposed for the retained culvert embankments to create a varied naturalistic river profile, and conceal the walls of the retained culvert bed.

Gabion Mattress on the culvert bed is proposed to enhance the concrete riverbed and to also slow down water as it passes through the channel like the rip-rap technique. The purpose of introducing the gabion floor is to create favourable conditions for sedimentation with the aim to provide a break within the hard concrete culvert channel and create a naturalistic environment on the bed for various plant and animal species to establish and thrive and encourage fish spawning.

Live Willow Staking and Mattress are proposed to stabilise the embankments through the growth of intricate and dense root structures of willow species. The roots will bind the stone in the Rip-Rap with the soil and hold the landscape interventions in place during floods. The difference between live willow staking and mattressing is how the dormant live willow rods are initially planted. Dormant live willow rods are positioned upright and for staking and for the willow mattress, a series of parallel rods are laid horizontally and secured with a mesh to keep them in place for the initial establishing period. Willow stakes are proposed at the two openings of the culvert and the mattress in between.



Above (Left and Right): Live Willow Mattress Bioengineering Technique



Above(Left and Right): Live willow Staking BioengineeringTechnique

In addition to the bioengineering techniques mentioned above large boulders of various sizes greater than 1m diameter confirmed by the engineer to stay in place have been placed along the water corridor as anchors/ballast to keep all of the bioengineering elements and other proposed landscape items in place. The huge size of the boulder provides landings for wildlife, a great place for basking, feeding and preening.



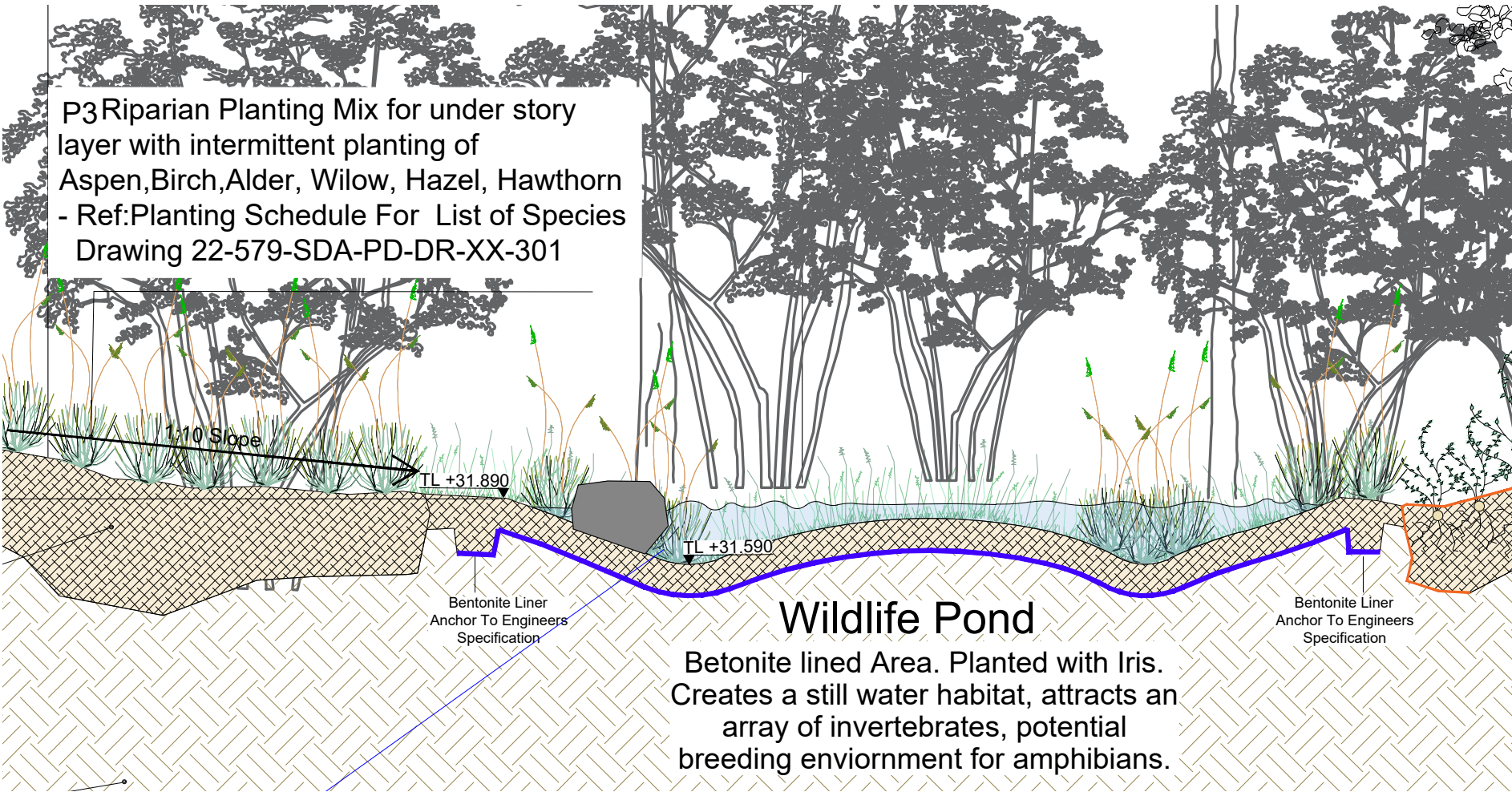
Above: Precedent Image Boulders- Large Boulders Minimum of 1m in Diameter up to 2m in Diameter and 5m Length

Boulders are also positioned in more central locations on the culvert bed. These boulders purposefully obstruct the route of the flowing water to vary the dynamics as it passes through the channel. This variation of speed creates riffles within the river corridor and aerates the water improving the water quality and habitat.

Boulders are also positioned in straight lines perpendicularly to the embankments in two locations. The first straight arrangement of boulders creates a new weir to aerate the water, increase the water depth and create pools. The second location is at the existing concrete weir to soften the harsh engineered initial design.

The ultimate purpose of daylighting a portion of any river is to improve the overall health of the entire river ecosystem. The river channel is mostly fast-moving water habitat. To further enhance the variety of wetland habitats and complement the fast-moving nature of the river, three ponds have been introduced within the Riparian Zone to create boggy still water conditions. This type of wetland habitat is provides to create potential breeding grounds for amphibians such as frogs.

Please refer to Drawing 22-579-SDA-PD-DR-XX-201 to 22-579-SDA-PD-DR-XX-207 Sections 01-06 and Plan Drawing 22-579-SDA-PD-DR-LGF-001 for full details and visual representation of the Riparian Zone and bioengineered approaches.



Above: Section Through one of the Wildlife Ponds



Above: Frog Partially Submerged in Water



Above: Duck Resting on a Rock



To aid visually impaired people with navigation through this shared surface, grey granite tactile paving or a kerb has been specified where there is a change from a pedestrian-only area to a shared pedestrian-vehicle area. These tactile paving locations comply with the specifications in the most recent DMURS publication.

3.7 GREEN ROUTE BOULEVARD

A bin staging area for 14 bins against the building elevation of Block 1 is highlighted on plans within this area, where the bins can be placed temporarily on collection days without obstructing the primary pedestrian route along this elevation between Carriglea Development and Naas Road.

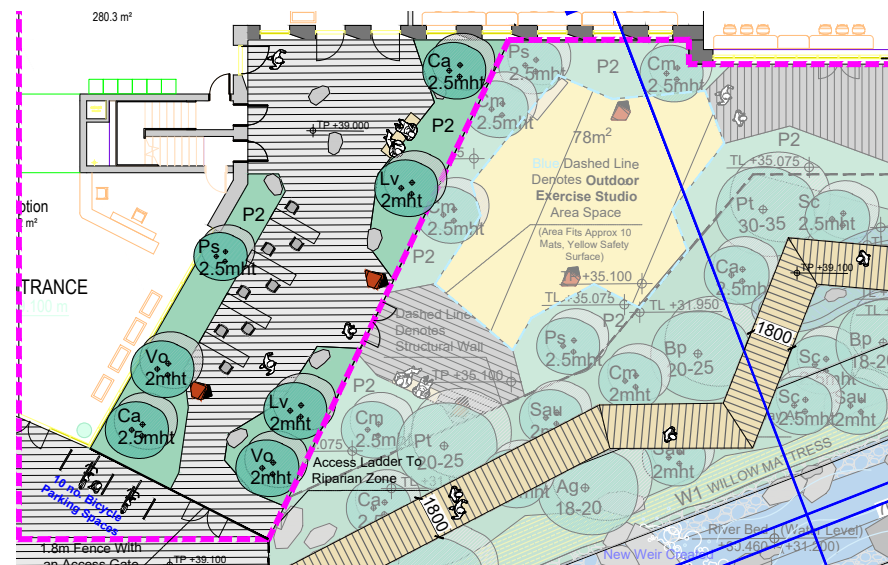


3.8 GROUND FLOOR STUDENT AMENITY AREA

One of 4 student external amenity spaces is located adjacent to the Riparian Zone connected to Block 1. This space has been designed as an Outdoor Study room. Outdoor desks and chairs paired with benches create study hubs where students can take out their college work and learn in the fresh air.

The planting within this area creates a comfortable and interesting study environment. Students can also use these spaces to clear their heads and contemplate and enjoy direct views of the river and Riparian Zone.

A 1.8m high fence with a gate and planting buffer separates this student communal area from the public realm on the ground floor.



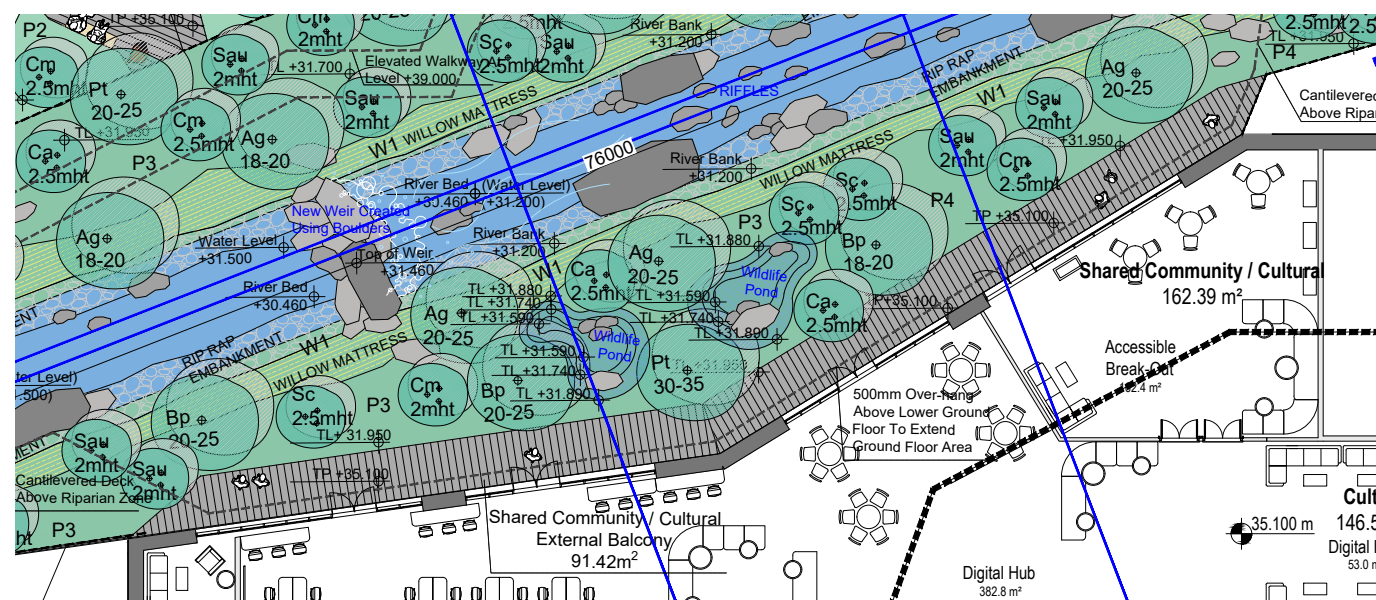
Communal External Amenity Student Area on Ground Floor



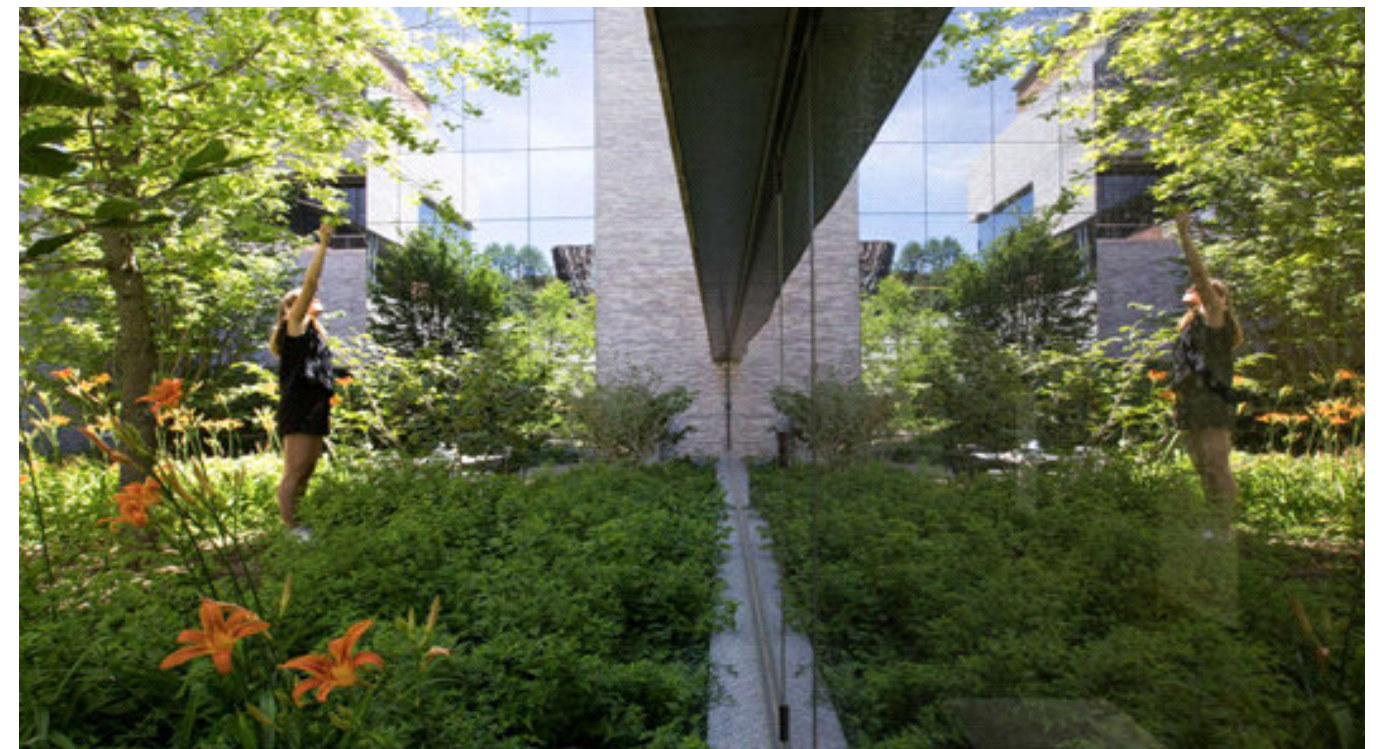
Students Studying Outdoors

3.9 BASEMENT LEVEL CULTURAL/COMMUNITY BALCONY

A balcony projecting out from Block 1 provides an area for an immersive experience for people midway down the Riparian Zone. This area is 91msq and is an extension to the cultural/community interior space. This area is a place for a short pause for some fresh air and a spectacular snapshot into a forest/river landscape hovering above the low growing vegetation on riparian zone floor and under the tree canopy. It allows people to step into nature without disrupting it.



Above: Cultural/Community External Balcony, Block 1, Basement Level



Above: Proximity to Nature

3.10 Basement Level Student Amenity Terrace Garden

Second of 4 outdoor student communal amenity spaces is located on the lower ground floor. This area like the balcony provides a unique experience for students to spend time outdoors part-way the Riparian Zone.

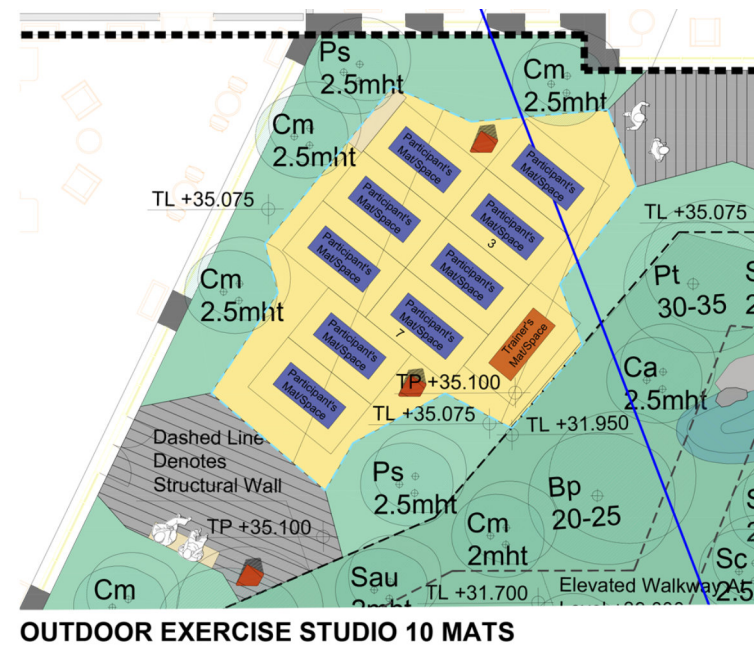
Separating measures such as a minimum 1.5m planted buffer between the public open space and this student amenity space on the lower ground floor level have been provided along Block 01 to ensure privacy to this space.

The Student Terrace area is conceptually divided into two sub-spaces Outdoor Gallery and Exercise Studio.

Students can spend their time strolling and relaxing in the Outdoor Gallery. They can sit down to contemplate and/or socialise with each other surrounded by the wilderness setting of the Riparian Zone and artwork portraying the concept of man and nature co-living in balance with each other.

Students can engage in more physically active recreation in the Outdoor Exercise studio. This large open area covered with a yellow (uplifting energetic colour) rubber safety surface creates a place where students can get creative with types of exercises. They can perform routines they find on the internet, can bring out a selection of weights such as barbells or kettlebells to perform weighted exercises. They can use this area for stretching and yoga etc. Exercises within this area can be preformed by the dtudents individually or in groups hosting various sessions with a professional trainer.

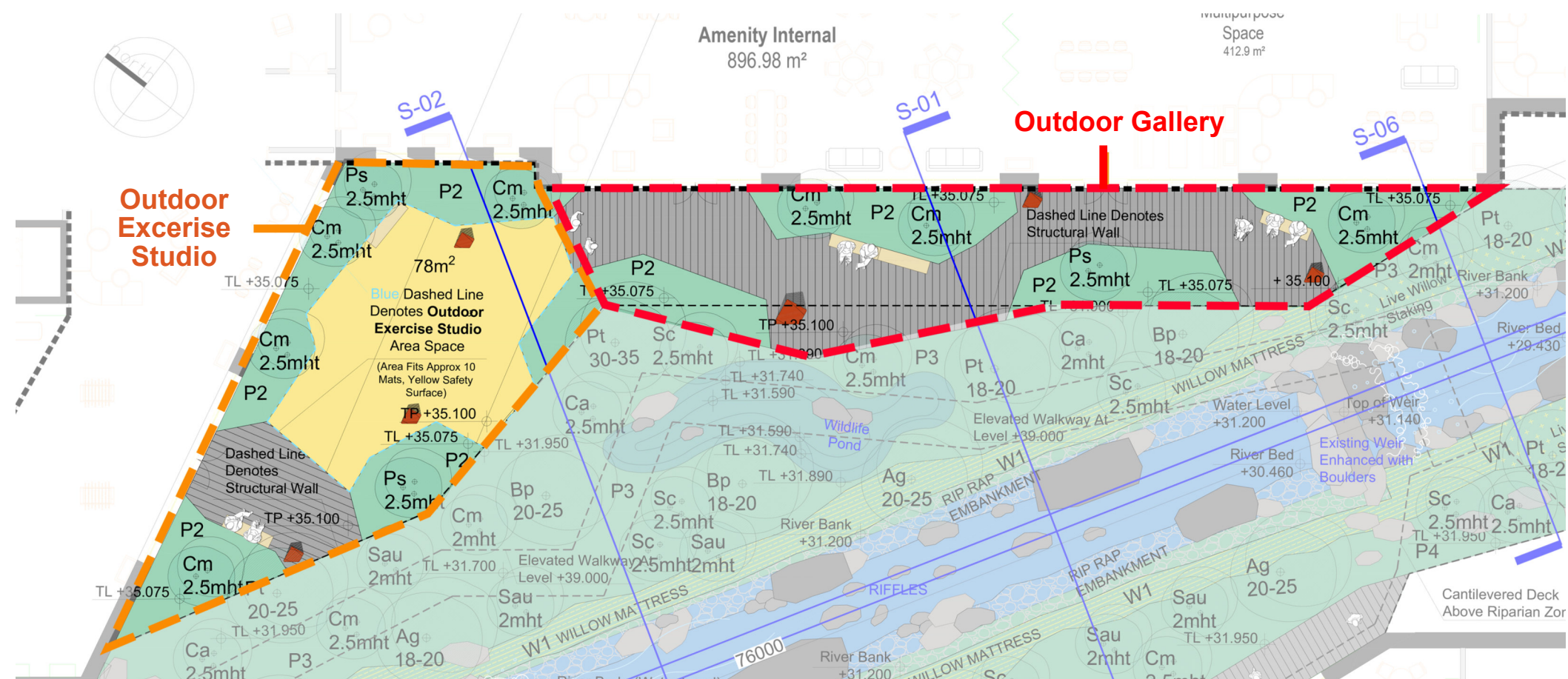
At one time 10 (2m x 0.8m) mats can fit comfortably with a 0.5m protection space around each mat.



Above: Possible Arrangement of 10 Exercise Mats



Above: A group of People Performing Yoga Outdoors on a Roof Garden



Above: Student Amenity Terrace Garden on the Basement Level, Block 2 Overlooking the Riparian Zone

3.11 EXTENSIVE AND INTENSIVE GREEN ROOFS

Altogether there are eight extensive rooftops (Block 1 and 2) covered with sedum-type planting. Two further intensively planted roofs (Level 09 and L10 Block 1) with a minimum of 400mm topsoil locally mounded to a minimum of 800mm for small tree planting. A drainage board and reservoir harvests rainwater which than will be released back into the growing medium during dry conditions.

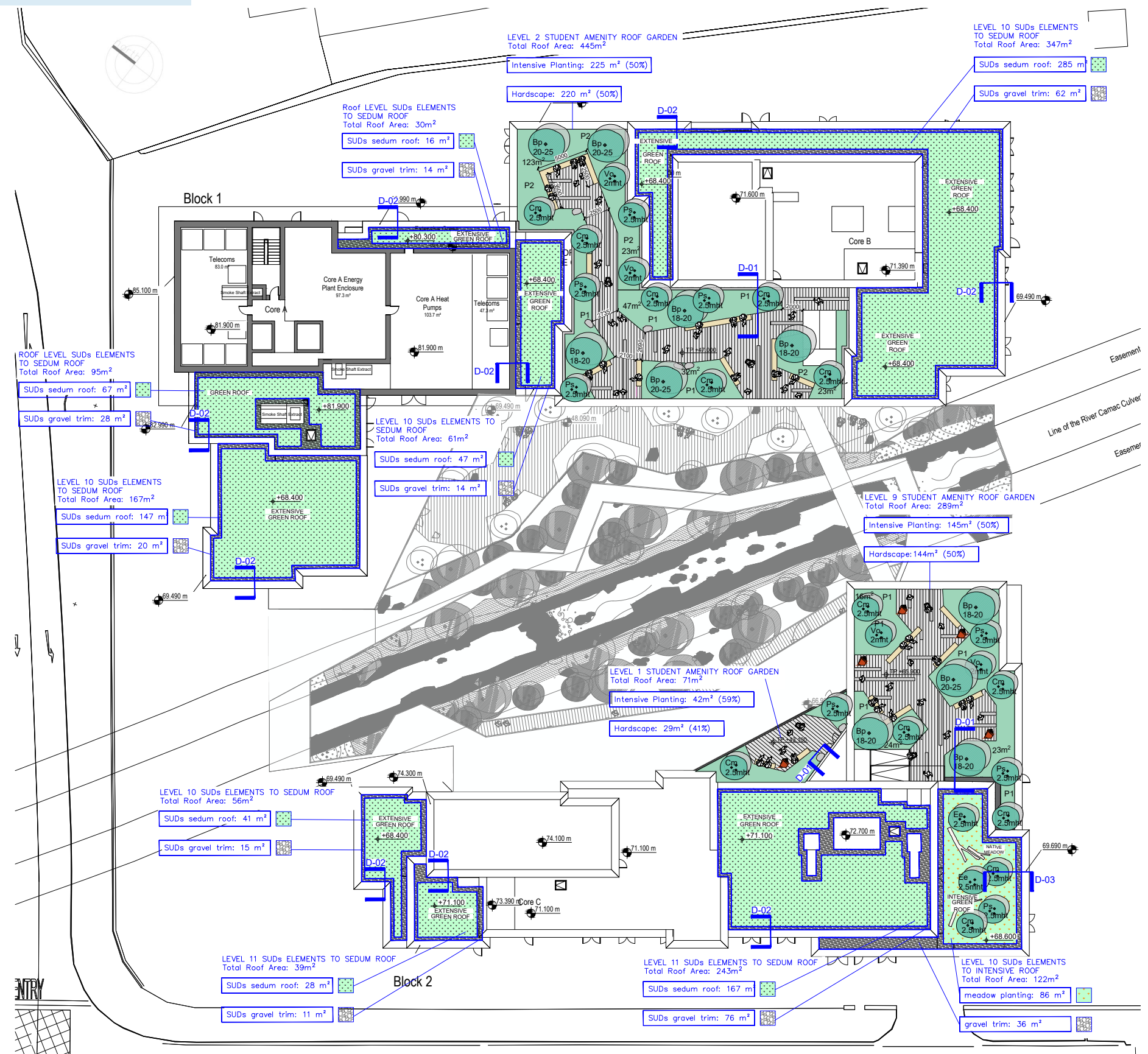
The intensively planted roofs are planted with a native approved meadow mix. The meadow is filled with species to attract various pollinators. Several felled logs are proposed to be placed within levels 09 and 10 of a maximum 300mm diameter and 3.5m length with branches less than 100mm diameter removed. The log will gradually decompose over time and create a habitat for tiny insects and other living micro organisms invisible to the eye but who are crucial within our environment.



Above: Roof planted with Sedum with a Gravel Edge



Above: Regrading Tree Log and Stump



Above: Roof Plan Sedum, Intensive and Accessible Student Roof Gardens

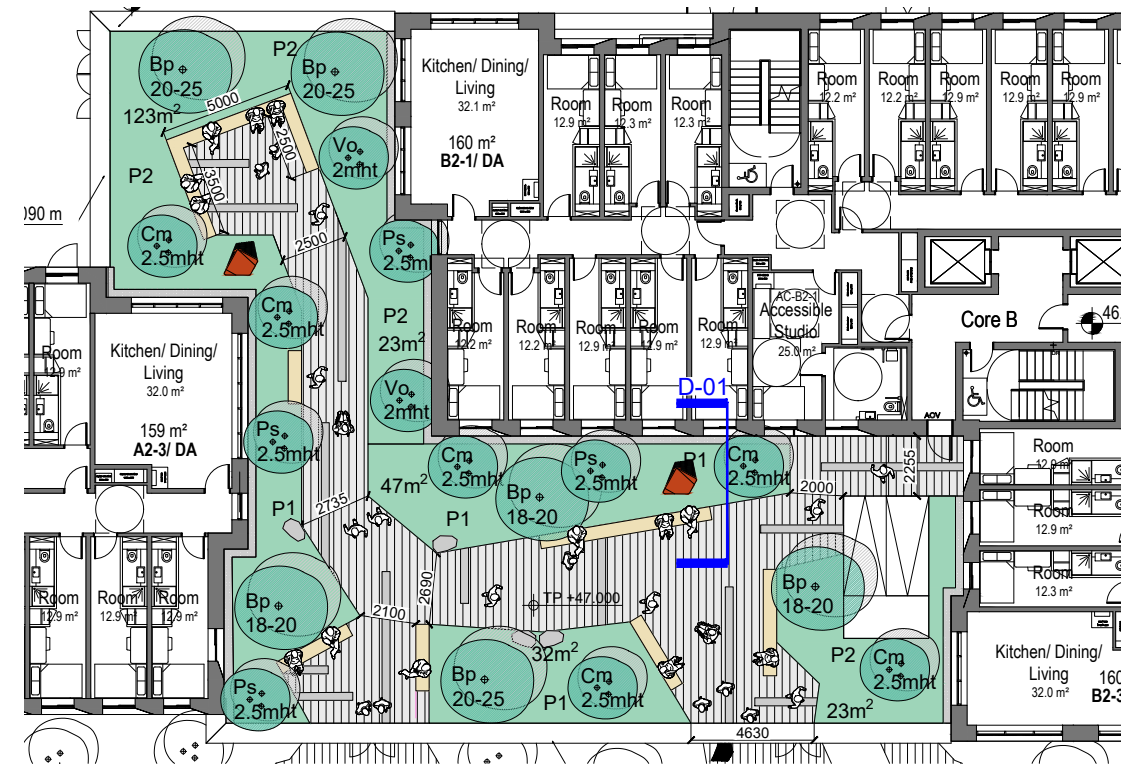
3.12 UPPER LEVEL STUDENT AMENITY ROOF GARDENS

Two large communal amenity roof gardens at Level 02 Block 1 and Level 09 Block 2 provide a one-of-a-kind bird's-eye view of the Riparian Zone for the students. These gardens allow students to get a different viewing perspective of the green heart of this development and the surrounding context.

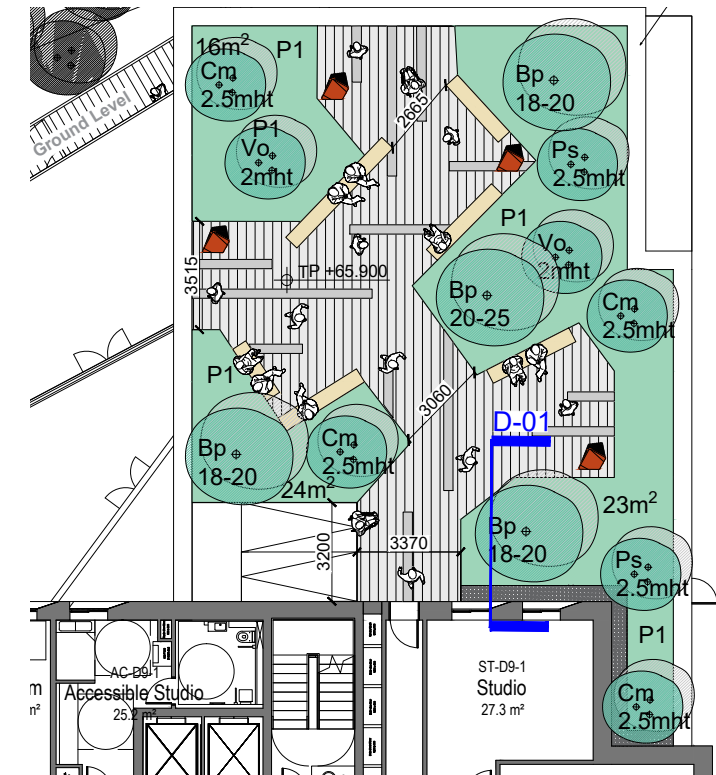
50% of the gardens are covered with intensive planting improving the microclimate within the elevated gardens for users and promoting biodiversity at the upper levels of the buildings. The pollen and nectar-rich perennial plants will attract various pollinators such as butterflies and bees which will create a lively atmosphere within the roof gardens.

These gardens will create social hubs and provide meeting places where students living on various levels and in different blocks can meet and get to know each other. Students can socialise in groups or sit on their own, read a book, sketch, or study surrounded by nature taking in the view of the Riparian Zone and the urban setting.

Students can also have access to an additional small roof garden at Level 01 of Block 2.



Above: Block 1, Level 2 Student Accessible Amenity Roof Garden



Above: Block 2, Level 29 Student Accessible Amenity Roof Garden

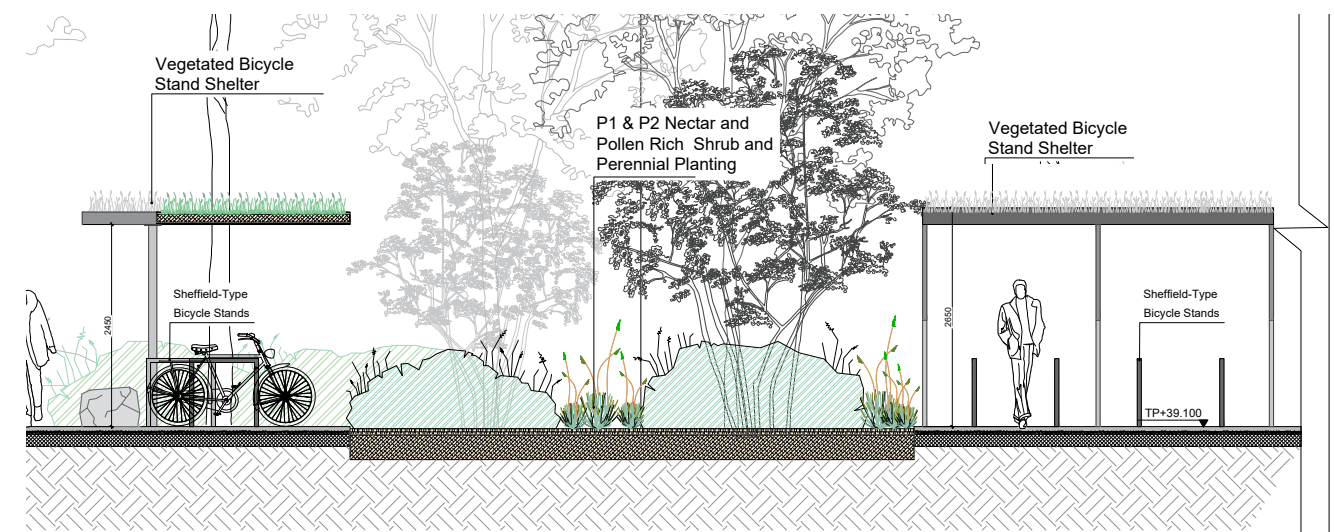
3.13 TRANSPORT AND SERVICING

To promote sustainable forms of travel within this development a total of 218 visitor bicycle parking spaces (109 Sheffield-type Stands) have been located within this site externally on the ground floor level within the public realm. Comprising of 196 no. visitor bicycle parking spaces (98 Sheffield-type Stands) 4 no. commercial bicycle parking spaces (2 Sheffield-type Stands) and 18 Community bicycle parking spaces (9 Sheffield-type Stands). 50% of these spaces are covered by the Buildings' overhangs or by Bicycle Stand Shelter with sedum roofs.

There are 7 car parking spaces. 5 no. (CP1-CP5 on plan) are designated as EV parking spaces. One Space is located within the Entrance Cycle Plaza, another along the eastern boundary of this site and the remaining 3 no. along the elevation of block 1 facing Carriglea. The EV Spaces are 2.4m x 4.8m. CP6-CP7 are two designated accessible parking spaces along the southern elevation of block 2. The accessible parking spaces measure 3.6m x 7m. 2 no. Set-Down areas, one along No-Name-Lane (Space for a small lorry/van and 2 cars), and another along the southern elevation of block 2 (Space for 3 Cars) are present on site.

Two ramps have been provided within the vehicular access route to enforce pedestrian priority and slow-down vehicles.

Two bin staging areas are located on the eastern elevation of Block 1 (20 no. x 1,000L Bins) and the western elevation of Block 2 within Green Route Boulevard (14 no. x 1,000L).



Above: Bicycle Stand Shelters with Sedum Roofs

4.0 HARDSCAPE MATERIALS



Above: CGI Bird's Eye View from level 9 Roof Top

4.1 PAVING

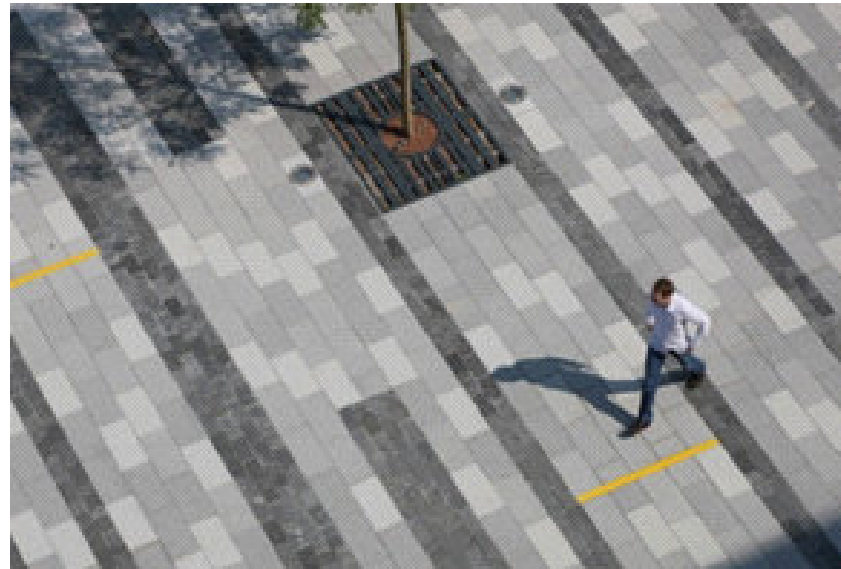
For this scheme, two distinctive paving patterns have been chosen. Silver slab granite paving has been selected to reflect the formal straight forms of the urban setting and architecture of the site.

The second paving pattern is informal and more fluid. This pattern references nature and the River Camac. This second pattern is composed of grey granite setts. The use of smaller pavers will allow for achieving more fluvial forms and convey the nature of a flowing river over the ground through the paving.

For roof gardens silver granite slabs are proposed to match the ones at the ground floor and lower ground floor levels with contrasting grey granite bands that direct people to key views and suggest movement through the gardens.

A combination of rigid paving and permeable open-jointed paving with suds spacers will be integrated into this development to manage rainwater sustainably and responsibly.

To facilitate vehicle access (Fire Tender) to certain areas of the site but to reduce the amount of hard landscape, grass-pave will be utilized.



Above: Grey and Silver Granite Slab Paving Pattern



Above: Grass Pave

4.2 STREET FURNITURE

Furniture elements and where they are placed are important considerations in terms of how the development landscape will be perceived, places of interest can be indicated by the placement of the furniture in that location, views can be emphasised in the same way and so furniture should therefore correspond to places of high amenity value and routes that traverse long distances. Function or intended purpose is indicated through a hierarchy of furniture types, the best views warrant a bench with a backrest - a place that is suitable for long pauses, a simple rest-stop along the pedestrian path may only necessitate a perch style bench suitable for short pauses before continuing along the route.

Sheffield-Style Bicycle Stand

218 Visitor/Commercial/Community bicycle parking spaces are accommodated through the placement of (109) Sheffield-style bicycle stands. These stands are mainly positioned near doorways. 50% of bicycle stands are covered either by a shelter or the overhang of the building.

Waste Receptacle

Waste receptacles have been specified and set out to relate to the layout of the various open spaces, pathways car parking, and building access points. The 's50WA' by Omos has been selected as the external waste receptacle, with a zintec and zinc plated steel body with powder coated finish. 'Letter box' style aperture with stainless steel trims to eliminate paint scuffing. Omos patented ashtray. Front opening with concealed hinge and slam latch.

2-5m Iroko Clad Hardwood Benches

The iroko-clad hardwood benches allow for both long and short pauses. These benches are scattered strategically throughout the development to create rejuvenating spaces and social hubs on this site. Bench sizes range from 2-5m in length. Different sizes of the benches allow for a variety of group sizes to meet and interact. 50% of the bench will include an arm and backrests to facilitate the needs of various types of people and improve comfort.



Above: Cultural/ Community External Balcony, Block 1, Basement Level

4.3 ELEVATED CANOPY WALKWAY

Anti-Slip Iroko Hardwood Decking

Anti-slip iroko hardwood decking is used for the elevated walkways over the Riparian Zone. Support structure to engineers' specification and design.



Above: Precedent image :Wooden Elevated Walkway Avondale Forest Co. Wicklow

4.4 OUTDOOR ARTWORK

A Large totem-style sculptural piece is proposed in the public open space within the Central Plaza. Sculptures are also placed in Outdoor Gallery Lower basement level in the Student Amenity Terrace Garden and Roof Garden.

The proposed theme for these sculptures is 'Wildlife of River Camac'. These sculptures will relate to the creatures

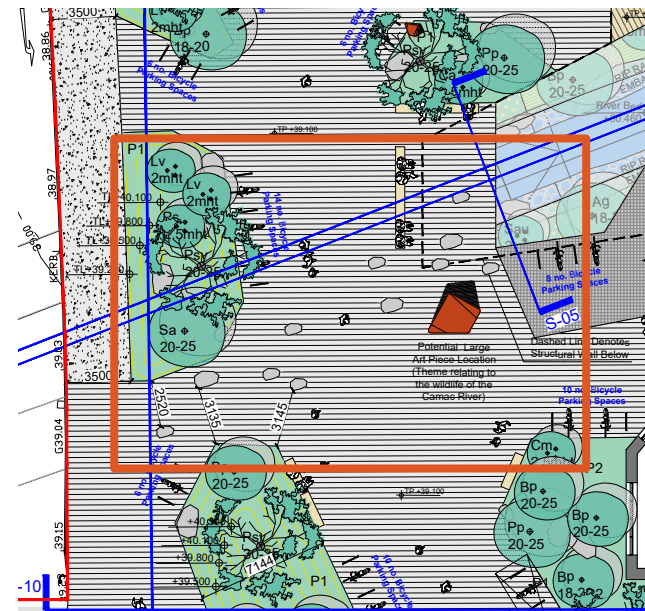


Above: Precedent images of Wildlife Themed Sculptures

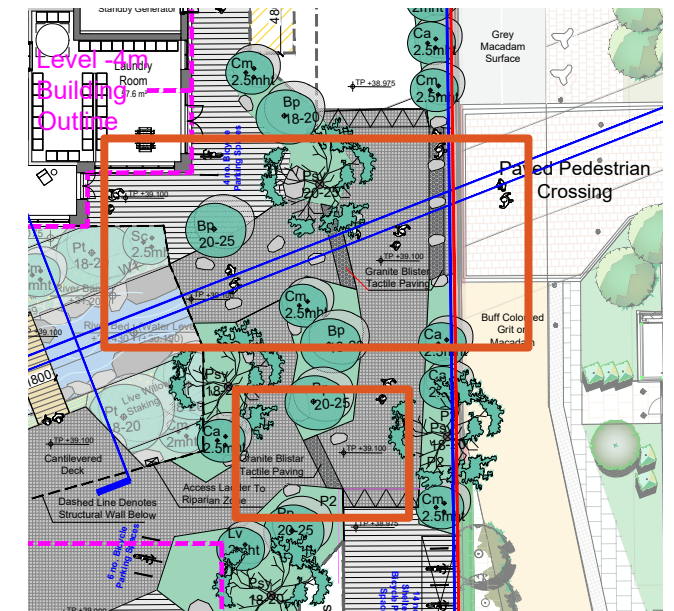
(eg, birds such as herons, grey-wagtails, kingfishers, fish like the brown trout, insects such as dragonflies and amphibians like frogs) that are found within the riparian corridor.

Large granite boulders have also been introduced as part of outdoor public artwork to enhance the riparian identity of this site in the form of a land art constellation within this scheme. Granite boulders spill out of the Riparian Zone into the public open space from both sides of the newly opened portion of the river. Boulders at the Ground Level can be used as informal seats and create an excellent environment for spontaneous play for people of all ages.

These large sculptural boulders are also placed in other areas of the site (main threshold between Carriglea and Gowan site) as a vehicle-stopping measure instead of standard bollards to allow pedestrian access but stop vehicles from driving into pedestrian-only Zones.



Above: Boulders Emerging From the River (Naas Rd)



Above: Boulders Emerging From the River (Carriglea)



Above: Boulder

5.0 SOFTSCAPE MATERIALS

The use of native species is maximised to promote Irish native flora and fauna. The detailed specification of planting – trees, ornamental grasses, flowering perennials - attempts to recreate the sensory experience of lush Irish nature. Trees and shrubs will be used to provide a counterpoint to the hard landscape and built elements so as to provide dynamic and sensual external spaces. The Riparian Zone is a greenheart from which vegetation and life emerges and spills out to the entire site and vicinity.

The shape of the irregular in-to-ground planting pockets relates to the form of semi-smooth stones that have been sanded down over time and have been deposited by a river along the embankments. This relationship enabled the creation of an intricate network of routes and frame key features on-site surrounding people with nature. Plants specified to these planters have been chosen based on their pollinator xx and for their texture.

5.1 PERENNIAL PLANTING

P1 planting is a full-sun nectar and pollen-rich perennial planting mix. It is specified to various planters in the roof gardens and ground floor level.

P2 is a shade-tolerant planting mix containing native ferns, foxgloves and shade-loving shrubs.

P3 is a planting mix which makes up the understory shrub layer of the riparian zone. Shade-loving plants which naturally occur along any Irish river such as the 3 native Irish ferns have been specified as part of this mix. This mix is limited as this proposed planting mix has been introduced to protect the topsoil in the early development stage of the riparian zone from being washed away during floods. This planting mix is the catalyst for natural succession of species that will colonise the new river banks.



Above: Precedent image :Elevated



Above: Precedent image :Elevated



Above: Wetland Vegetation



Above: *Iris pseudacorus* Planting near a Water Body

5.2 TREE PLANTING

Tree species proposed in the Riparian Zone are aspen (*Populus tremula*), birch (*Betula pubescens*), alder (*Alnus glutinosa*), goat willow (*Salix caprea*), eared willow (*Salix aurita*). Hazel (*Corylus avellana*) and hawthorn (*Crataegus monogyna*) have been only specified in the perimeter near the structural walls. Though these plants enjoy damp and shaded conditions they do not do well in constantly flooded zones.

Refer to the planting schedule on drawing 22-579-SDA-PD-DR-XX-301 for the full list of proposed species.

Existing tree planting is of low quality and is proposed for complete removal. Some due to their current health condition, some to facilitate the daylighting of the river and development of the site. Please refer to the arborist survey and report provided in the submission for full details of the condition of the trees and the impact of the development.

To compensate for the loss of 34 existing trees, 225 native trees have been proposed within the site. 54 within the Riparian Zone. 142 within the Public Realm on the ground floor and 29 within the lower and upper student external terrace and roof gardens.

A planting buffer is also proposed between Carriglea access road and Gowan development to subtly create a separation without losing the visual connection between the two developments. It is very important to create unity with the neighbouring site but also maintain a level of privacy. The planting also mitigates the perception of a dual road scenario. Carriglea access road runs along the boundary with Gowan. This planting is a way to give priority to pedestrians and create a human-oriented landscape rather than a vehicle-dominated one.



Corylus avellana
(Hazel)



Crataegus monogyna
(Hawthorn)



Prunus spinosa
(Blackthorn)



Ligustrum vulgare
(Wild Privet)



Salix caprea
(Eared Willow)



Salix aurita
(Goat Willow)



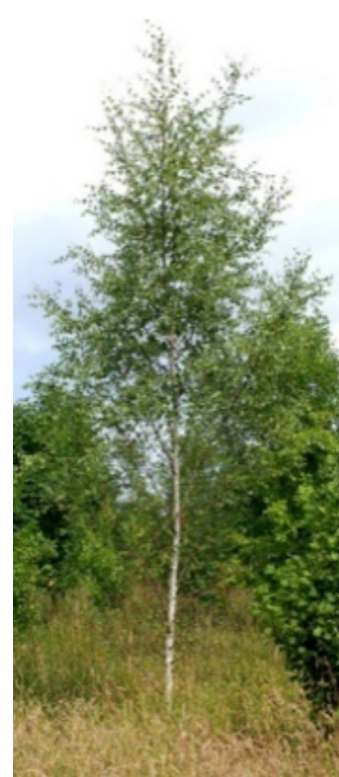
Viburnum opulus
(Guelder Rose)



Pinus sylvestris
(Scots Pine)



Alnus glutinosa
(Alder)



Betula pubescens
(Downy Birch)



Populus tremula
(Aspen)



Prunus padus
(Bird Cherry)



Above: CGI Representation of Connection Plaza

6.0 ANTICIPATED PROGRAM OF WORKS:

- (i) The planting programme shall generally be carried out during the following periods;
- All root-balled trees early November – late March
 - Bare Root Shrubs, Whips etc, mid November – early March
 - Container Grown shrubs perennials at any time

Planting outside of the above periods must be agreed with the Landscape Architect, with appropriate container grown stock used and an additional watering programme enforced.

7.0 ESTABLISHMENT MAINTENANCE:

Generally:

- (i) Establishment maintenance will form part of the landscape contractors works. The period of establishment maintenance and defects liability will be 12 months post Practical Completion.
- (ii) Prior to handing over all plant failures shall be replaced, and all defects made good to the satisfaction of the project landscape architect.
- (iii) The landscape architect will be retained by the developer to inspect all planting works until handover to the management company.

7.1 LANDSCAPE MAINTENANCE:

Planting Preparation Specification and Management Notes For Soft Landscaped Areas - General Information

- Area: Soft landscape areas to include the following elements:
- Grassed areas;
 - Perennial shrub planting;
 - Tree Planting.

7.2 MANAGEMENT RESPONSIBILITY:

Following the completion of the one year's defects liability period for the main works contract, responsibility for the day to day maintenance of all areas in the site curtilage will be passed to a landscape management company.

The management company will engage a landscape sub-contractor. It will be the management company's responsibility to monitor and review the works of the sub-contractor to ensure the management objectives as outlined below are attained.

7.4 MANAGEMENT OBJECTIVES:

The objectives of the management company will be as follows;

- To maintain all areas in a neat, tidy and substantially weed free condition,
- To ensure that all seeded areas are maintained in a condition that contributes to the visual amenity of the development,
- To establish and maintain tree and shrub planting to provide an overall landscape framework for the development.

7.5 PERFORMANCE CRITERIA:

Performance criteria are indicators for assessing the quality and success of the particular plant mixtures used for a purpose i.e. structure/ screen planting, specimen planting, tree planting etc. Such indicators will be based upon aspects such as;

- Health and condition of planting
- Plant growth
- Achievement of desired effect

The achievement of the performance criteria and the monitoring of the landscape contract will be under the direction and supervision of the developer's landscape architect. As previously stated the management company will monitor longer-term performance criteria.

Response to Landscape related items raised in the LRD Opinion for Gowan House, Carriglea Business Park, Naas Road, Dublin 12, D12 RCC4

Planning Authority Reference No: 6034/23-S2

4. Planning Application Documentation - Planning Thresholds

- b) A Landscape Design Report having regard to Section 15.6.8 of the Dublin City Development Plan 2022-2028.

A comprehensive Landscape Design Report having regard to Section 15.6.8 of Dublin City Development Plan 2022-2028 has been produced as part of this submission illustrating boundary treatments, public realm improvements and depicting daylighting proposal for a section of the culverted River Camac underneath the development site.

- c) In accordance with Policy CU025, a specific use for the community/cultural space should be identified from an evidence base/audit of the area and the space must be designed to meet the identified need. Visual and physical linkages between the community/cultural space and the area of public open space should be demonstrated. Operational details and a management plan for the community/cultural space should be submitted.

Special arrangements of landscape elements such as planters against the building elevation have been carefully considered to act as frames where people passing through the site get a glimpse into the activity happening inside of the buildings behind windows. The form of each planter guides and encourages individuals to come inside the buildings and join in.

Outdoor dining areas (Tables and Seats) near the cafe act as a linking welcome card between the community/cultural indoor spaces and the outdoor open space.

6. The following requirements of the Parks and Landscape Services Department should be addressed:

- a) Public Open Space (POS):
- I. A key plan showing typology of open space areas and respective calculations of provision shall be provided in the landscape submission. POS shall include the daylighted riparian corridor for calculations as it performs ecological services.

A key plan showing the typology of the open space areas and respective calculation breakdowns have been provided and is found on drawing 22-579-SDA-PD-DR-XX-302

13% (1261m²) is the Riparian Zone - (Inaccessible to the public or students only for maintenance purposes, a wildlife river corridor)

31% (3000m²) of the site has been identified as usable accessible Public Open Space (Includes Plazas, Boulevard, Transitional Spaces and Elevated Walkway over the riparian zone) Excludes Riparian Zone.

- II. The POS area to be clearly defined and separate from COS provision to maintain residential privacy/security within the scheme, e.g. use of materials to define the public areas as well as fencing, gates and wayfinding signage. The landscape report shall state what specific measures are used for POS legibility.

A 1.8m fence with a gate and a planting buffer of a minimum of 1.5m separates the COS from The POS on the ground floor level. This separation provides a high level of security and privacy for the users of COS and clearly defines the boundary between public and communal spaces.

The feature Elevated Walkway through the Riparian Zone has been designed to be offset a minimum of 1.5m from the COS Student Terrace at the lower level. The arrangement of the proposed large trees within the Riparian Zone further provides privacy screening with their canopies between POS and COS.

- III. The POS Plaza design requires strengthening of its buffering function to the Naas Rd corridor to mitigate noise, visual impact and air quality. Cross sections from the plaza to the road corridor shall be submitted to indicate effectiveness of landscape berms.

Buffer planting has been provided along the interface between the proposed development and Naas Road in the form of four large mounded in-to-ground planters. Openings with footpaths create permeability for pedestrians to give them the opportunity to walk along the inside of buffer planting and separating building elevation and provide a protected route to mitigate the noise, visual and air quality from the oncoming traffic along Naas Rd.

Berms of approximately 1m in height have been introduced within the four planters along the busy road. The understory is planted with a mix of dense pollen and nectar-rich plants to attract pollinators and improve biodiversity on site and in the vicinity.

A combination of large and small native Irish tree species further separates and mitigates noise, visual impact and air quality and provides protection from Naas Rd and the POS on site.

- IV. The plaza space requires activation with surrounding ground level building uses such as café/restaurants/ coffee docks, please indicate on master landscape plan.

To activate space surrounding ground-level building uses such as the café in Block 02, designated outdoor dining spaces have been provided shown on the master landscape plan with a round tables and chairs symbol.

Response to Landscape related items raised in the LRD Opinion for Gowan House, Carriglea Business Park, Naas Road, Dublin 12, D12 RCC4

Planning Authority Reference No: 6034/23-S2

- V. **Public artwork to enhance identity of space of the plaza shall be required. Please indicate potential location and possible theme within the landscape submission. The plaza shall deploy the use of natural stone surfaces throughout.**

A Large totem-style sculptural piece is proposed in the location the Central Plaza within the POS. A Sculptural Walk is created on the Lower Ground Floor within the Student Terrace Garden.

The proposed theme for these sculptures is 'Wildlife of River Camac'. These sculptures will relate to the animals that are found within the riparian corridor. (Birds-Heron, grey wagtail, kingfisher; Fish-brown trout; Insects and Pollinators- butterflies dragonflies; Amphibians- frogs)

Large granite boulders have been also introduced as a public artwork to enhance the riparian identity of this site as land art constellation within this scheme. Granite boulders spill out of the Riparian Zone into the POS from both sides of the newly opened portion of the river. Boulders at the Ground Level are informal seats and create an excellent environment for spontaneous play for people of all ages.

- VII. **River channel design: The overall daylighting of this section of Camac is welcomed and this will contribute positively to the ecological quality of the river. There is however concern on use of an extensive concrete subsurface as indicated on the submitted drawings. A bioengineering approach is required for the riparian corridor that permits both natural vegetation establishment and protects against flooding erosion. The possible use of stone mattress gabions or other methods to allow riverside vegetation to root into the ground and mitigate expected flooding erosion should be reviewed and further details submitted.**

The initial proposal for the Riparian Zone floor has been redesigned. The concrete bed previously extended underneath the planting at either side of the culvert channel approximately 10m below the ground floor level has now been designed out, to remove the hard separation between the planting in the Riparian Zone and the existing subsoil. Longer vertical walls to the Architects' and Engineers' design and specification have been provided. The culvert bed is still retained.

To prevent flooding erosion and create a more natural functioning and looking river corridor in the day-lit section of the river, various bioengineering solutions are utilised. 'Rip-Rap' embankments conceal and address the straight geometrical design of the existing culvert bed that is retained.

Live Willow Staking and Mattress are proposed to stabilise the embankments through the use of intricate and dense root structures of willow species. The roots will bind the stone in the Rip-Rap with the soil and hold the landscape interventions in place during floods.

A Gabion Mattress on the culvert bed is proposed to enhance the concrete riverbed and to slow down water as it passes through the channel. The purpose of introducing the gabion floor is to create favourable conditions for sedimentation with the aim to provide a break within the hard concrete

culvert channel and create a naturalistic environment on the bed for various plant and animal species to thrive.

Large granite boulders of various sizes greater than 1m in diameter confirmed by the engineer to stay in place have been positioned along the water corridor as anchors/ballast to keep all of the previously mentioned bioengineering techniques in place. The huge size of the boulder provides landings for wildlife, to bask feed and preen.

Please refer to Drawings 22-579-SDA-PD-DR-LGF-001, 22-579-SDA-PD-DR-XX-201 to 22-579-SDA-PD-DR-XX-207 Sections 01 to 06 for full details and visual representation of the Riparian Zone and bioengineered approaches.

- VIII. **The retained soil conditions following excavation to culvert level will require amelioration to support plant growth, details of this issue shall be presented.**

New approved imported clean topsoil and subsoil will be provided on-site. The existing subsoil free from contaminants on site will be ripped to improve drainage and support plant growth within the Riparian Zone following the excavation to the culvert level and construction.

Topsoil will be provided to varying profile depths approximately 300-600mm depth to facilitate a varied range of native riparian vegetation to comprise ground cover and scrub through to large trees

- b) **Communal open space (COS):**

- I. **(5-7m² per bed space) -4900m² minimum required and adequate proposed at 5595m²**

We have provided 1174m² of external COS for this scheme.

- II. **Active recreation requires enhancement in both POS and COS. e.g. external gyms, half basketball, table tennis and yoga spaces. These should be located to avoid disturbance to residential facades. The master landscape plan shall be updated with these provisions.**

A large unobstructed space has been provided on the lower ground floor of Student Terrace Garden to facilitate active recreation in the form of an outdoor exercise studio. This open space is accessed through the internal amenity space on the lower floor and is set within the scenery of the Riparian Zone.

This area is a multifunctional space whose primary use is an outdoor gym studio where students can bring out mats for yoga sessions or various types of free weights such as kettlebells for conditioning and strengthening classes/exercises.

Response to Landscape related items raised in the LRD Opinion for Gowan House, Carriglea Business Park, Naas Road, Dublin 12, D12 RCC4

Planning Authority Reference No: 6034/23-S2

c) Materials:

- I. Planting design shall include the use of large canopy trees (e.g. Oak, Lime, and Beech) where space allows for canopies, such as at the plaza. 50% of external bicycle parking shall include weather covers and 50% of external seats/benches shall include arm and back-rests.

Native species of trees provide extensive canopy cover within this scheme to promote Irish nature within urban areas. We have specified large evergreen scots pine trees and deciduous trees like the native rowan, silver birch and bird cherry.

50% of bicycles stands are covered by the building overhang or by a vegetated bicycle stand shelter planted with sedum and 50% of benches will have an arm and backrest.

d) Arboriculture:

- I. Existing trees are preferably retained on development sites. The tree survey & impact plan submitted indicates the development impact, which as proposed, removes all 34 existing trees, the majority of which have been previously heavily pruned. This is a high impact and amendments to the layout and seeking retention where proposed open space includes existing trees should be reviewed. The tree impact plan shall include a key/legend for proposed development components for clarity. Compensatory tree planting under the landscape scheme shall equal or preferably exceed the tree quantities removed.

All existing trees (34 no.) are required to be removed on-site. Some due to their current health condition, some to facilitate the daylighting of the river and development of the site. Please refer to the arborist survey and report provided in the submission for full details of the condition of the trees and the impact of the development.

To compensate for the loss of the existing trees 225 native trees have been proposed within the site. 54 within Riparian Zone. 142 within the Public Realm on the ground floor and 29 within the Lower and Upper student external terrace and roof gardens.

- III. A biodiversity enhancement plan shall be submitted, indicating measures for proposed architecture and landscape to create urban habitats.

Only native tree species have been specified as part of the new proposed planting to promote Irish plants. Nectar and pollen-rich understory plants have been chosen to create a favourable environment for pollinators such as bees and butterflies at various levels in the POS and COS areas.

A simple planting mix is proposed for the riparian zone to protect the topsoil and allow the natural gradual colonisation of plant species to this area.

The river is a fast-moving water habitat. Three ponds within the riparian planting complement the dynamic nature of the river and create a boggy still-water habitat to further enhance biodiversity within the Riparian Zone and create a potential breeding area for amphibians. Large boulders provide areas for wildlife to bask, feed and preen on.

- IV. The ecological design of the day-lighted Camac requires coordination between the project ecologist, landscape architect and engineers to create new habitat within the retained culvert base river bed and surrounds. A detailed plan of the river with proposed features, (e.g. riffles and gravel beds for spawning etc.) should be presented.

Please refer to all of the landscape drawings and report for full details regarding the river habitat enhancement and improvement measures proposed within the culvert bed.

Different bioengineering solutions have been implemented to create a new habitat within the daylighted section of the Camac Culvert. Gabion Mattress is proposed to be placed on the existing culvert bed to create conditions for sediment deposition and mimic gravel beds found in natural rivers and slow down the water flow. Large boulders placed in various locations within the bed (River banks, weirs, in the centre of the culvert bed etc.) create riffles and vary the speed of the river. A new and existing weir aerate the water and improved its quality.

8. The following requirements of the Transportation Planning Division should be addressed:

Access – External

Naas Road

The public footpath in front of the site on Naas Road is relatively narrow c. 2m, there is a landscaped strip between the public footpath and the site boundary. Bollards are placed between the footpath and the grass to prevent vehicles from illegally parking on the grass strip. Proposed changes to public footpath in front of the site on Naas Road are noted, these changes are located outside the red line boundary and requires further detail to be provided for review. There appears to be a diversion of the public footpath within the site and landscaping proposed along the road verge, this would not be acceptable. It should be noted, that pedestrians within the site should generally be directed towards the main road junctions (east and west), and as such access point onto the Naas Road footpath should be reviewed. A widening of the footpath may be acceptable, however this as noted above should be reviewed in terms of cycle lane proposals coming forward on Naas Road.

The public footpath along Naas Road has been reconfigured and realigned. The footpath is now 3.5m wide.

Response to Landscape related items raised in the LRD Opinion for Gowan House, Carriglea Business Park, Naas Road, Dublin 12, D12 RCC4

Planning Authority Reference No: 6034/23-S2

The remaining existing grass lawn has been combined with the planters within the site to create berms as a further safety measure and allow large tree planting to contribute positively towards biodiversity enhancement contributions and greening strategy along this heavily trafficked road.

The pedestrians are directed towards the main junctions through the spatial configuration of two straight pedestrian parallel routes (newly realigned public footpath and along the building elevation) with a few thresholds connecting the two paths. The openings between the planters are necessary landscape features and provide prospect and refuge to people walking along this area. The openings are visual corridors in and out of the development along Naas Road.

The proposed cycle ramp off the Naas Road and associated changes to the footpath, including a shared pedestrian and cyclist surface, are also noted, this division has concerns that this may lead to cyclist/pedestrian/vehicular conflict. There is currently no cycle lane in this location and cyclists should not be encouraged to dismount within the carriageway or to access the footpath at speed. Cyclist should be directed to the road junctions. As above, a RSA is required.

The initially proposed cycle ramp off Naas Road has now been removed from the design proposal for this site. A new configuration of the public pathway and soft landscape is proposed. Please refer to the landscape Masterplan drawing 22-579-SDA-PD-DR-GF-001 for further details.

Carriglea Industrial Estate Access Road

The Access Road is a private road, it is partially shown within the blue line boundary. The applicant should be requested to clarify the extent of their ownership and to include this within the redline boundary and for upgrades to be included within the application boundary. There is footpath provision along both the eastern side of the Access Road, in front of the site. There is no provision of street lighting. The Access road provides the main vehicular access to the proposed development, as well as pedestrian and cyclist access.

Please refer to drawings 22-579-SDA-PD-DR-GF-001 showing the red and blue line boundary outline.

Please refer to M&E drawings for the lighting plan on site.

Internal Road

The junction with the Access Road should be pedestrian priority. Clarity required on measures to prevent general vehicular access via the emergency entrance. The internal road appears to be shared surface, but clarification required. Submitted auto tracking for refuse, fire engine and cars noted. Sightlines not provided.

A Raised Pedestrian Crossing has been introduced at the junction with the Access Road as a measure to enforce pedestrian priority. Tactile paving is also provided as a warning measure to visually impaired people. Please refer to drawing 22-579-SDA-PD-DR-XX-302 diagram showing shared surface areas and Drawing 22-579-SDA-PD-DR-GF-001 for warning measures such as tactile paving and kerbs.

Cycle Parking

The site is located in Zone 2 of Map J of the Development Plan. Appendix 5, Table 1 sets out cycle parking standards for: student accommodation of 1 no. cycle space per bedroom and 1 visitor space per 5 no. bedrooms; retail of 1 per 5 staff 1 per 100 sq.m. Gross Floor Area (GFA); and cultural and community uses of 1 per 5 staff 1 per 100 sq.m. GFA. The total proposed cycle parking is 1198 no. spaces. 980 no. secure resident spaces are provided and 196 no. visitor spaces. 5 no. retail spaces are proposed and 17 no. cultural and community use spaces. The secure parking is provided in a two level store with an internal ramp for accessing the upper level, located on the western side of the development. **Visitor parking is located across the development in the form of Sheffield stands. The location of the visitor cycle parking is generally acceptable, however it is noted there is cycle parking located in front of the entrance to Block 1, this should be relocated.**

As per the Appendix 5, Section 2.5 of the Development Plan, where large bicycle stores are proposed i.e. in excess of 100 spaces in a single store, consideration shall be given at an early design stage to providing additional measures within these stores where further segregation of bicycle storage could occur e.g. provision of bicycle cages that would hold a smaller number of bicycles and could be effectively numbered/labelled for ease of use. This would provide a greater sense of security to students parking their bicycles in the store.

The external bicycle parking layout has been reviewed and bicycle stands have been relocated. None of the stands obstructs any doorways.

Full responses to LRD Opinion Items and Policies can be found within the Planners' Reports.