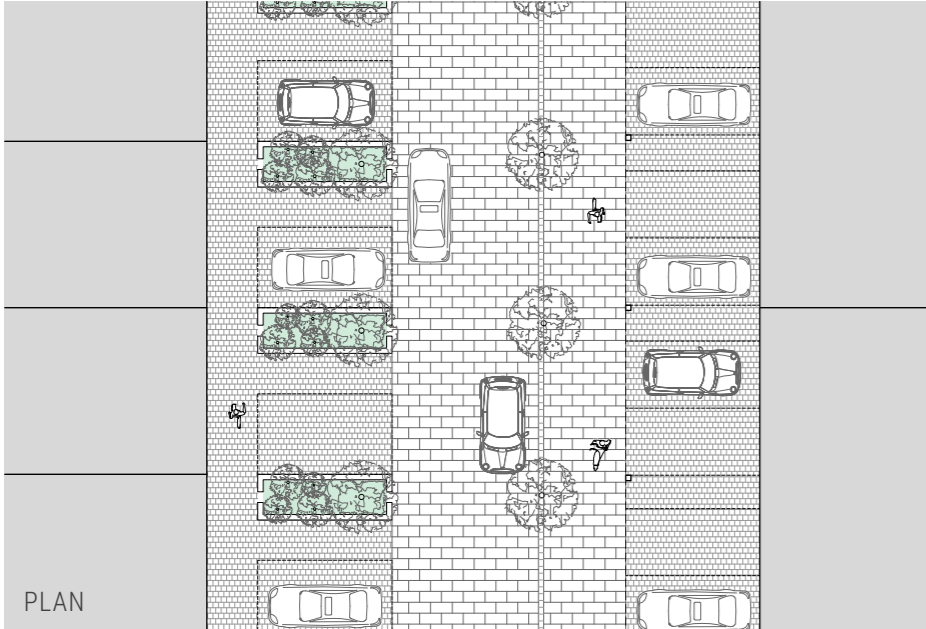
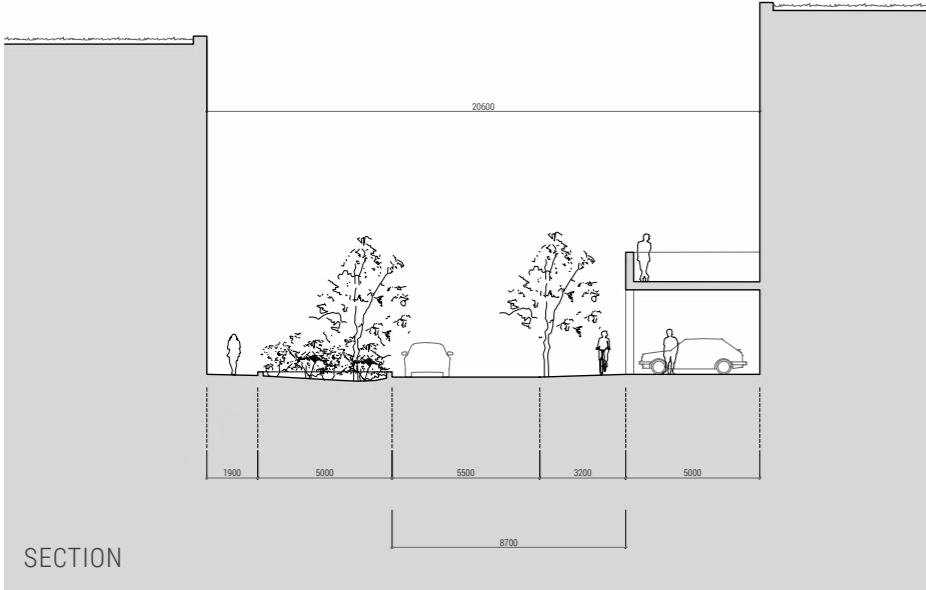


DEVELOPMENT OF STREET TYPES

AREA 3 - THE WOODLAND

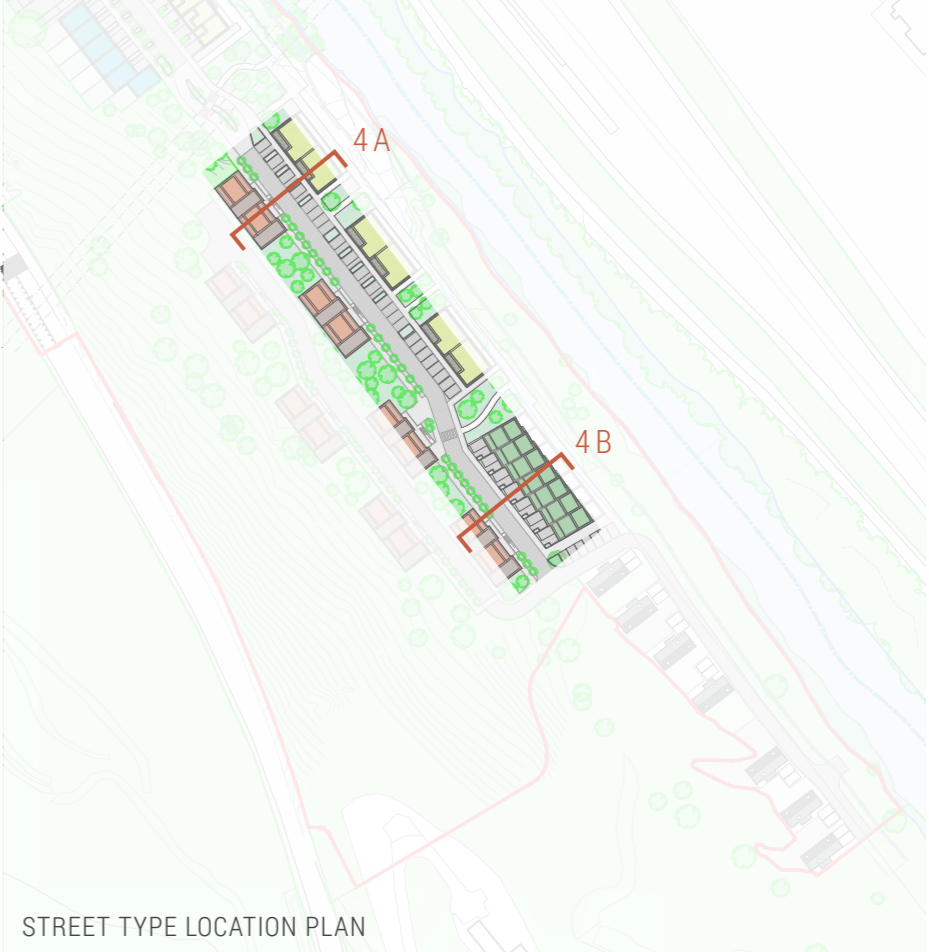
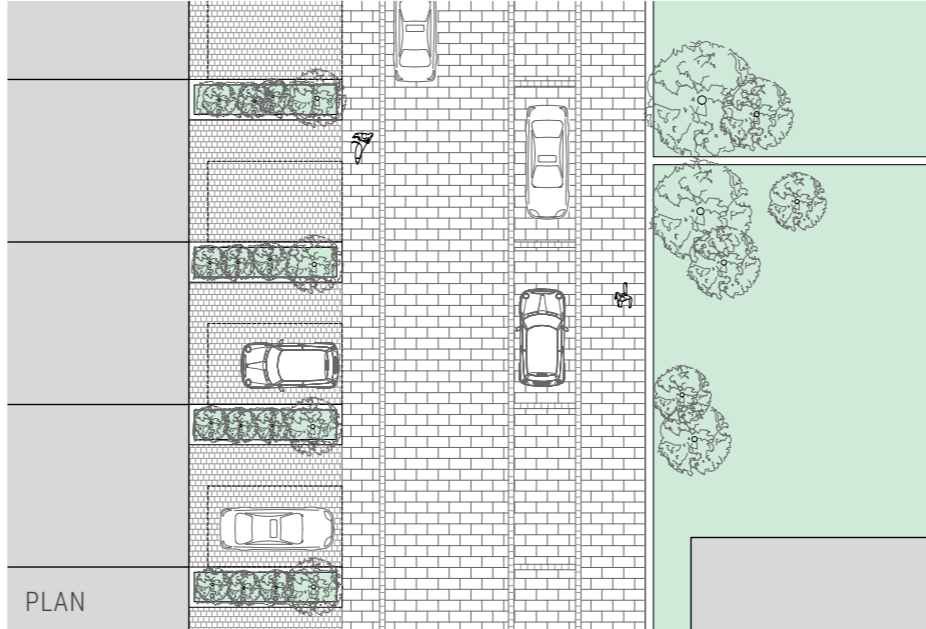
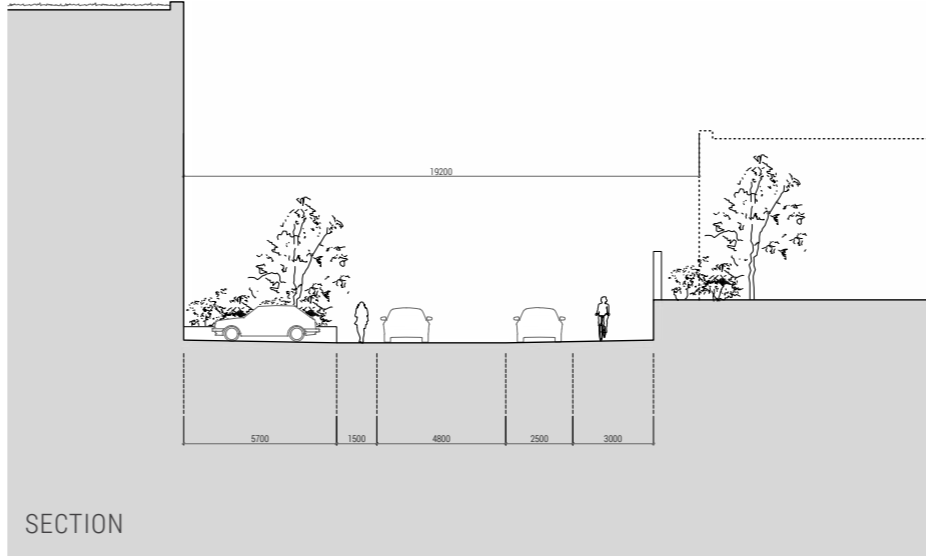
STREET TYPE 4A

On-street and undercroft parking
 Shared cycle and pedestrian route
 Street trees and planters



STREET TYPE 4B

On-street parallel and private driveway parking spaces
 Shared cycle and pedestrian route
 Planters on private driveways

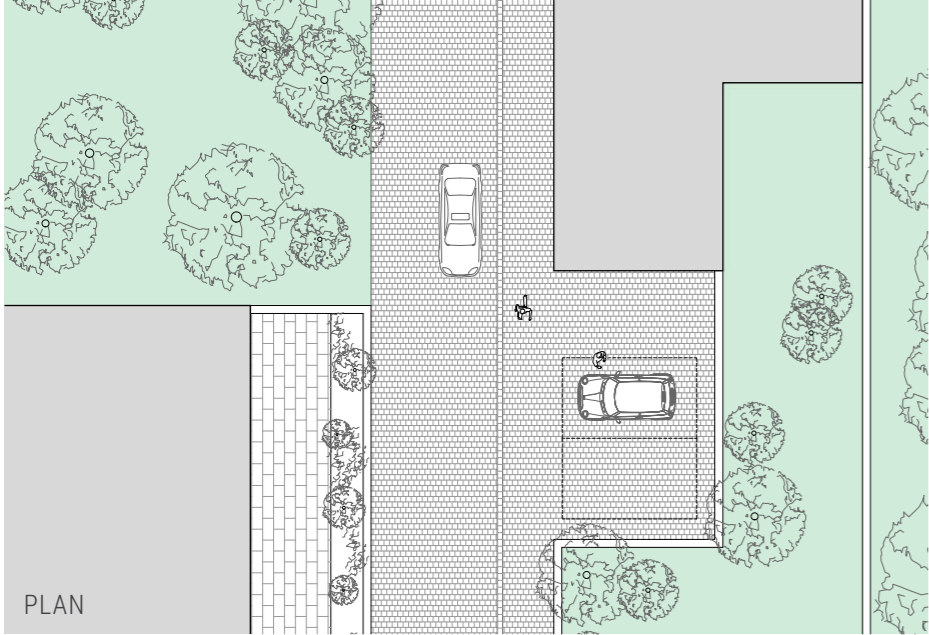
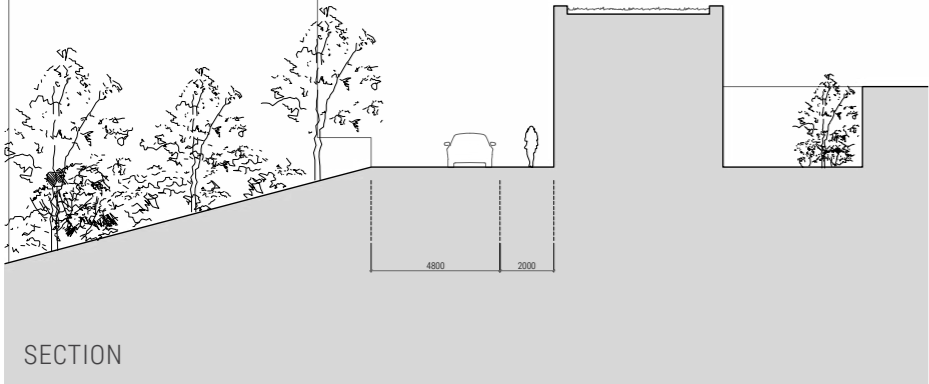


DEVELOPMENT OF STREET TYPES

AREA 3 - THE WOODLAND

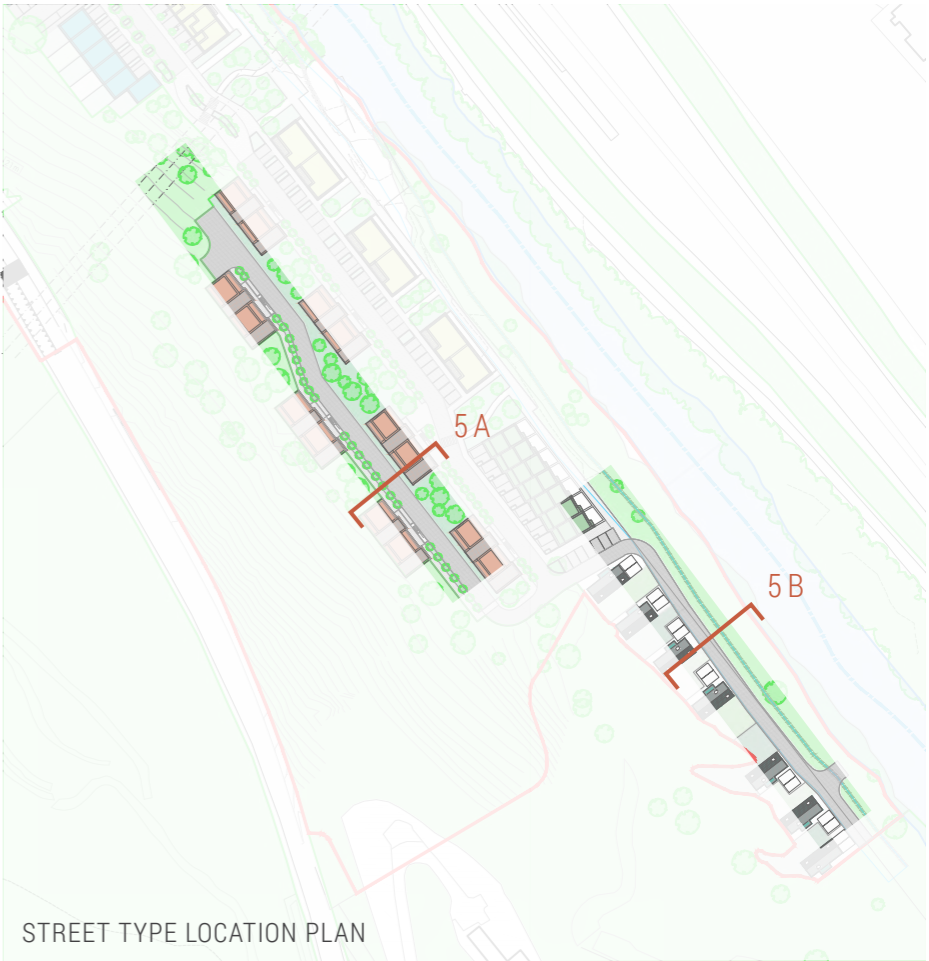
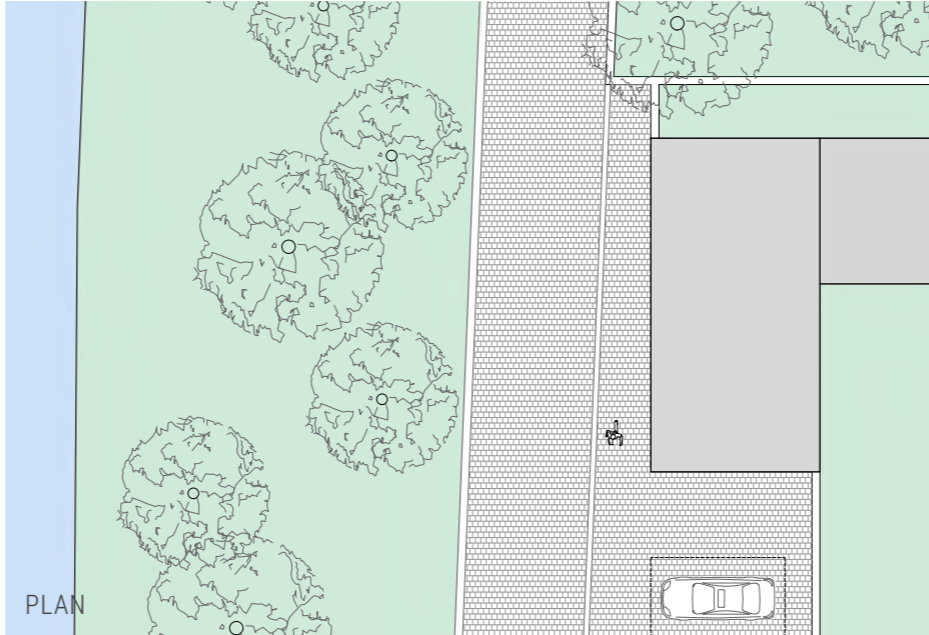
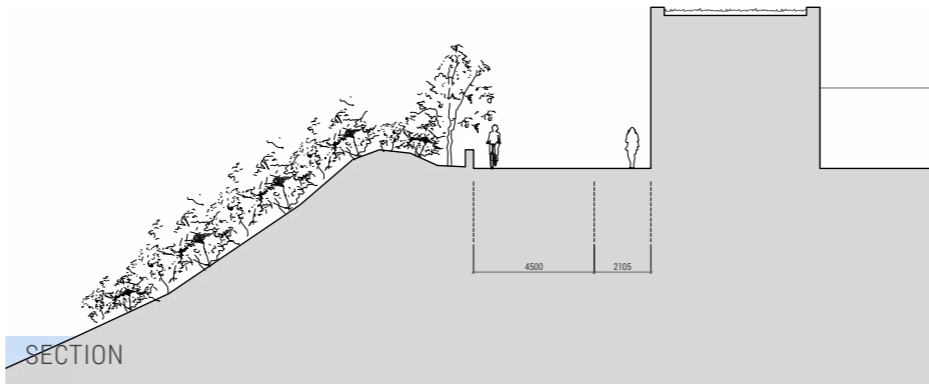
STREET TYPE 5A

Private driveway parking
Shared surface
Hillside woodland backdrop



STREET TYPE 5B

Private driveway parking
Shared surface
Border with riverside



SECTION 4

OVERVIEW OF THE PROPOSAL

A VISION OF QUALITY

The site at Leckwith Quay is situated on a boundary - not only between The Vale of Glamorgan and Cardiff, but also between urban and rural, river and woodland, high density and low density. It is a site 'in-between' conditions, affording it the unique opportunity to become a distinctive place, with its own special character. The design process has been driven by the desire to create high quality places to live. Each dwelling is considered in relation to orientation, views, acoustics, access, amenity space, ecology and the environment.

A CONNECTED PUBLIC REALM

The site is located close to various local amenities, including a retail park, sports facilities and the Ely trail. Its location adjacent to a junction to the A4232 provides fast links by car to the M4 and Cardiff Bay. The proposal seeks to create permeability through the site with dedicated pedestrian and cycle routes. Shared surfaces, rain gardens and street trees are used to calm traffic and create safe routes through the site.

SUSTAINABILITY AT THE HEART OF DESIGN

Environmental sustainability has been key in informing the design process. The development is intended to be low carbon, and this principle has informed decisions in every aspect of the design. For example, building materials with a low embodied energy such as cross-laminated timber should be used and houses have been orientated so that the PV panels on their roof generate energy. The environmental impact on ecology, drainage and water quality have also been considered. 'Green corridors' across the site will help to minimise the impact on habitats, and replace some of the woodland which will be lost. Green roofs will be used in places to encourage biodiversity and help to slow storm water run-off. Attenuation ponds will create new habitats whilst also cleaning water before it is discharged. Rain gardens and tree pits also help to slow and clean storm water.

A CONSTRAINED SITE

The site is constrained by many contextual features, such as the River Ely, the proximity of the A4232, the hillside and woodland, as well as access and acoustic mitigation. Whilst these constraints inevitably limit the proposal in certain aspects, they also provide an opportunity to create a distinctive new development, which provides an attractive and sustainable place to live. The immediate surrounding context does not provide architectural precedent which the development needs to blend in to, and so it must create a character of its own.

A UNIQUE PLACE + DWELLING TYPOLOGY

A unique set of dwelling types have been developed for the site, largely in relation to two key principles of the brief that are also slightly conflicting. Recommendations were that a housing led - as opposed to apartments - masterplan was required. Alongside this the masterplan needed to accommodate a necessary density to ensure that the proposals for this site were still viable to be developed out. We have therefore developed a series of Duplex Dwelling Types which provide 2 storey dwellings at ground and first floor level in plan with the section providing a second dwelling above. In some cases the upper dwelling is a similar typology to the lower floors with a 2 storey duplex with deck access, in other areas the plan of the upper storey dwelling is spread across the footprint of 2 no dwellings at ground floor level to provide an external roof terrace within the same footprint. This typology has been successfully developed across a number of rural sites across the UK, providing a pragmatic response to sites where density and resultant massing are a critical factor in the appropriateness of the proposals.



OVERVIEW + VISION

The proposal at Leckwith Quay seeks to develop an unsightly brownfield site into a distinctive, sustainable and attractive place to live. It will provide up to 250 dwellings of varying typologies, with a new road to replace the part of the B4267 that runs through the site.

Leckwith Quay will become a place of unique character, where people can take a walk along the riverside and through the ancient woodland on the same journey. A variety of dwellings are situated here, from riverside townhouses, to duplex dwellings and family homes.

The site provides legible and well-connected routes for pedestrians and cyclists, with direct links on to the Ely trail leading to Cardiff Bay.

The development sits between the river to the East and the woodland hillside to the West with a series of wooded corridors running between these two elements, helping to divide the site into 3 distinct character areas.

The current scheme is for 228 homes incorporating the mix outlined on the following pages however an alternative proposal with some townhouses switched to the duplex dwelling typology can provide a proposal with up to 250 dwellings. This is a significant reduction in density from the pre application proposal submitted by others in 2016 which proposed 347 new dwellings.

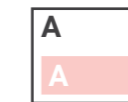
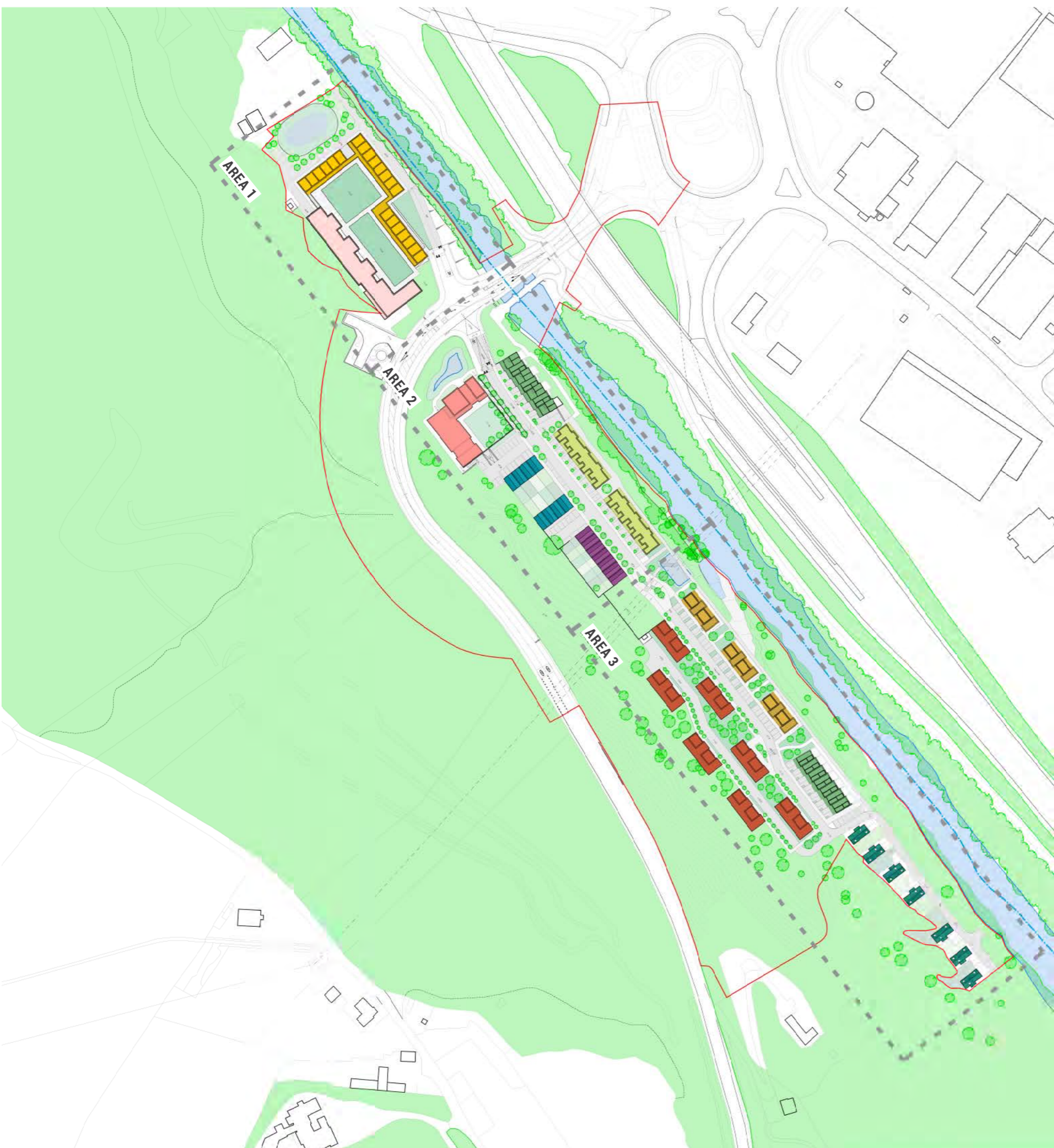
The density of the proposal reduces along the length of the site with each character area providing a lower density than the previous and clearly demonstrating the shift from the urban city district to the East of the site to the rural Vale to the West. The shift also occurs across the width of the site with the plot locations and organisation becoming more fragmented from East to West.

The summary of outcomes outlined at the end of the site analysis helped to generate our first site responses as well as informing the development of the brief and the proposed masterplan. The final masterplan is based on a layout strategy generated in response to the site analysis combined with the density and capacity studies for the site. It is tested and refined against the following design principles, along with input from the wider design team to develop the final proposal:

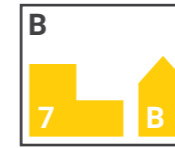
- + The Brief
- + The Pre Application Response
- + Ecology, Water levels and Drainage Strategy
- + Site Circulation and Access
- + Massing and Levels
- + External Space and Surface
- + Acoustics and Orientation
- + Inclusive Design and Community Safety

PROPOSED MASTERPLAN

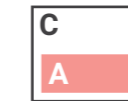
1:2500



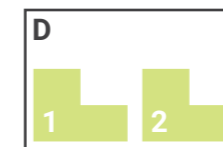
BLOCK A
50no. 2B 4P apartments.
Dwelling size average: 70m²



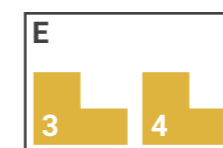
BLOCK B
19no. 3B 5P houses (House Type B)
Dwelling size average: 116m²
18no. 2B 4P apartments (Duplex Apt Type 7)
Dwelling size average: 73m²



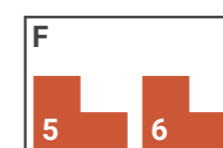
BLOCK C
31no. 2B 4P apartments.
Dwelling size average: 70m²



BLOCK D
28no. 2B 4P Duplex Dwellings
(Duplex Apt Types 1 + 2)
Dwelling size average: 94m²



BLOCK E
18no. 3B 5P Duplex Dwellings
(Duplex Apt Types 3 + 4)
Dwelling size average: 113m²



BLOCK F
14no. 2B 4P apartments
(Duplex Apt Type 5)
Dwelling size average: 81m²
14no. 3B 5P Duplex Dwellings
(Duplex Apt Type 6)
Dwelling size average: 118m²



HOUSE TYPE A
7no. 3B 5P houses
Dwelling size average: 125m²



HOUSE TYPE C
8no. 3B 5P houses
Dwelling size average: 96m²



HOUSE TYPE D
7no. 4B 7P houses
Dwelling size average: 165m²

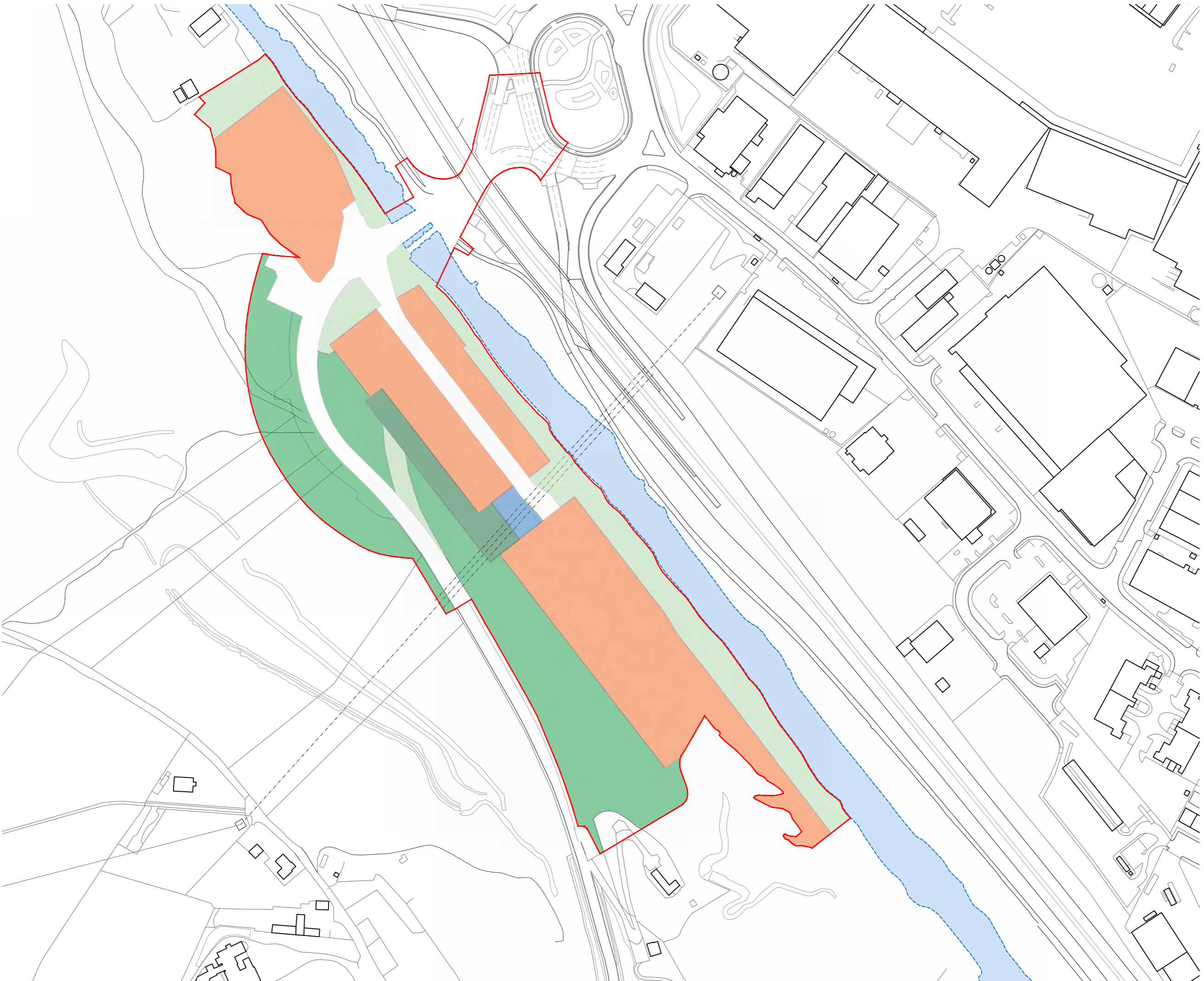


HOUSE TYPE E
14no. 3B 5P houses
Dwelling size average: 178m²

DWELLING MIX:

Apartments	95
Duplex Dwellings	78
Houses	55

TOTAL 228



KEY

- PLANNING SITE BOUNDARY
- RESIDENTIAL
- EQUIPPED PLAY SPACE
- INFORMAL PLAY SPACE
- EXISTING WOODLAND
- GREEN INFRASTRUCTURE

PAC SUBMISSION

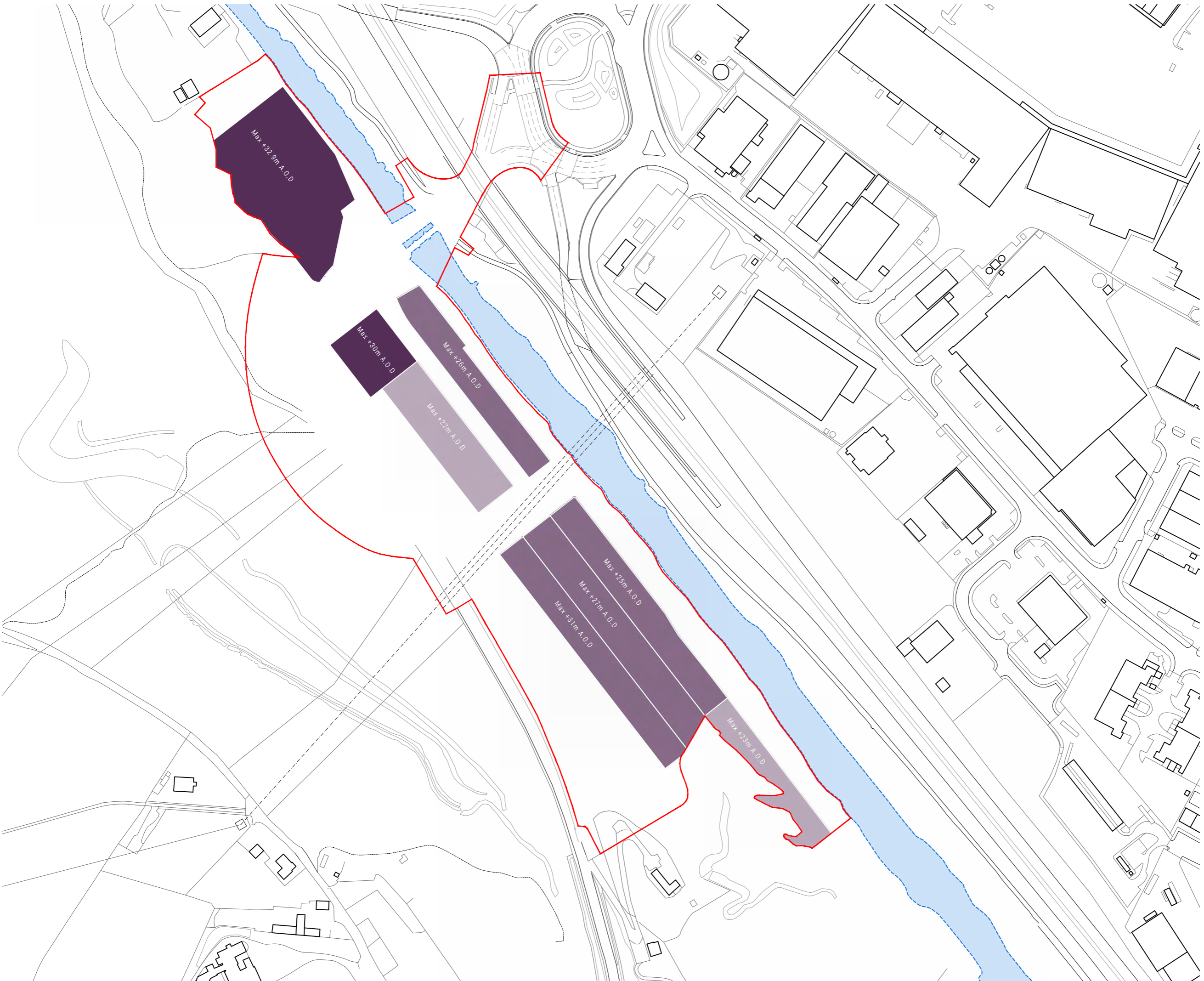
1844/S.120

LECKWITH QUAY
PARAMETER PLAN:
LAND USE

1:2500@A3 FEB 20

LOYN + CO
ARCHITECTS

02920 711432 | architecture@loyn.co.uk
88 Glebe Street Penarth CF64 1EF | loyn.co.uk
Copyright Loyn+Co Architects | Do not scale



NOTES:

1. MAXIMUM BUILDING HEIGHTS FOR EACH AREA SHOWN ON PLAN

KEY

- PLANNING SITE BOUNDARY
- 4-6 STOREYS
- 3-4 STOREYS
- 2-3 STOREYS

PAC SUBMISSION

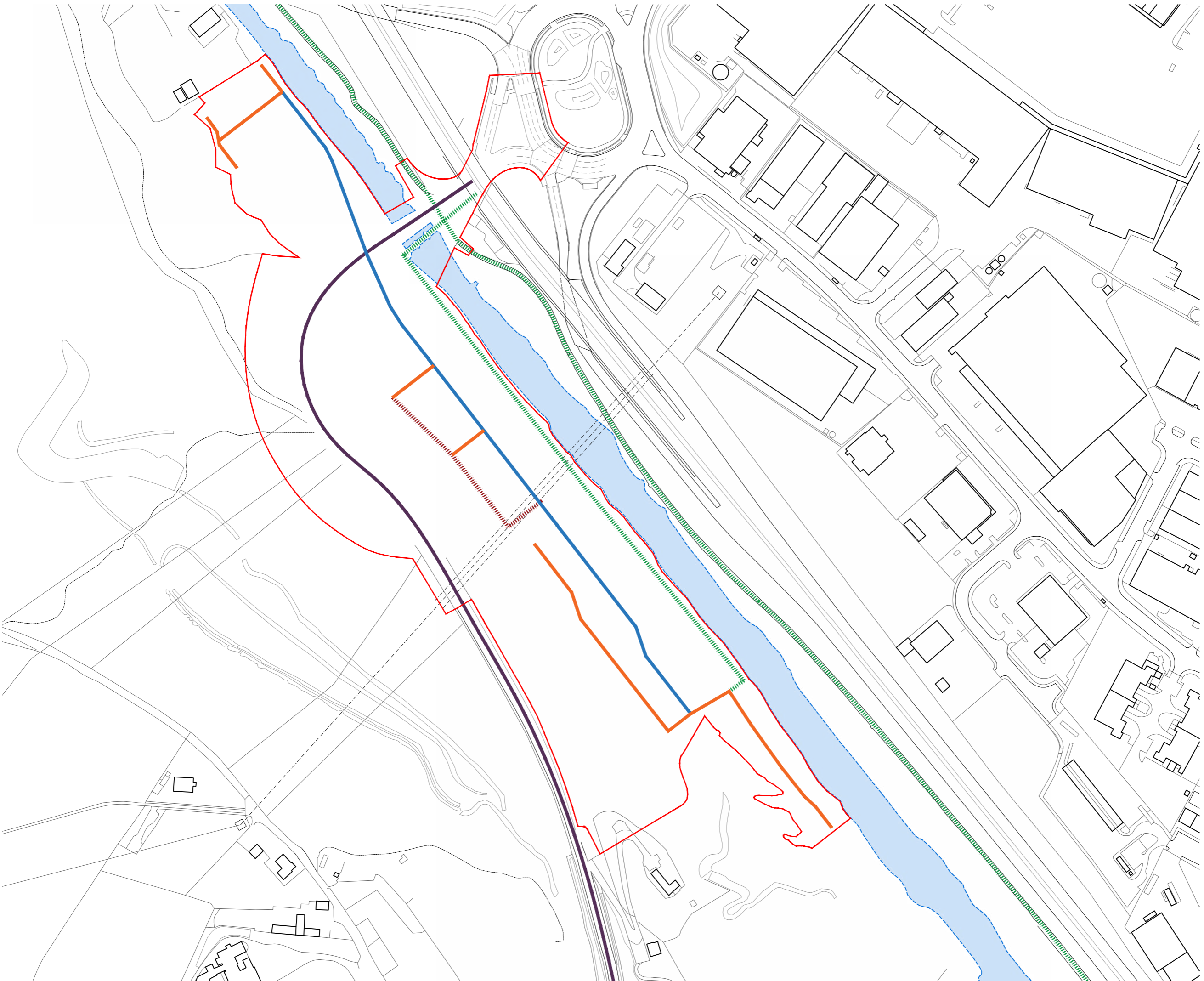
1844/S.121

LECKWITH QUAY
PARAMETER PLAN:
BUILDING HEIGHTS

1:2500@A3 FEB 20

LOYN + CO
ARCHITECTS

02920 711432 | architecture@loyn.co.uk
88 Glebe Street Penarth CF64 1EF | loyn.co.uk
Copyright Loyn+Co Architects | Do not scale



KEY

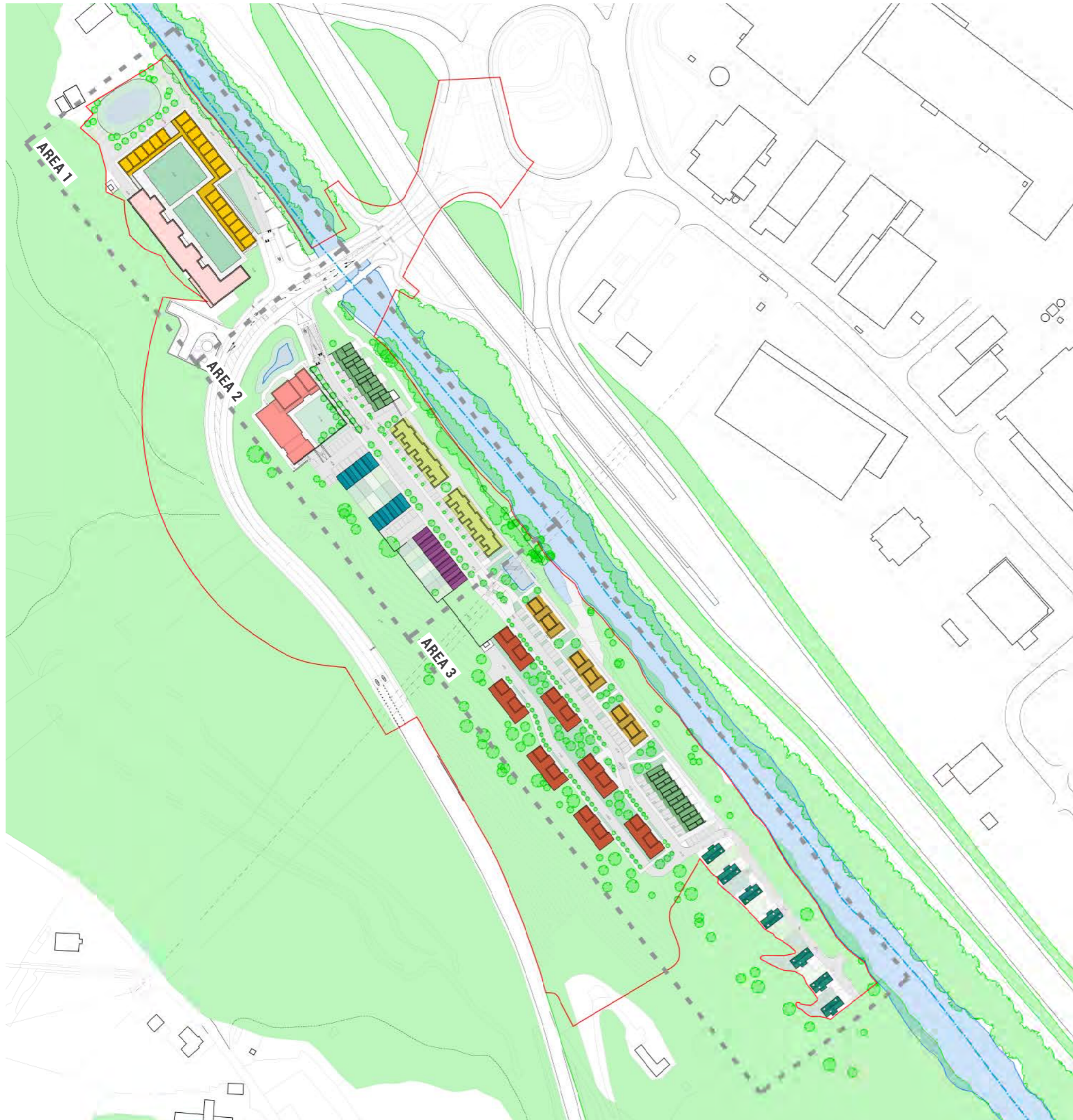
- PLANNING SITE BOUNDARY
- B4267 / LECKWITH ROAD
- PRIMARY RESIDENTIAL ROAD
- SECONDARY RESIDENTIAL ROAD
- - - - OFF-ROAD PEDESTRIAN / CYCLE ROUTE
- - - - WOODLAND WALK

PAC SUBMISSION
1844/S.122
 LECKWITH QUAY
 PARAMETER PLAN:
 MOVEMENT HIERARCHY
 1:2500@A3 FEB 20

LOYN + CO
 ARCHITECTS

02920 711432 | architecture@loyn.co.uk
 88 Glebe Street Penarth CF64 1EF | loyn.co.uk
 Copyright Loyn+Co Architects | Do not scale

SECTION 5
CHARACTER



OVERVIEW OF CHARACTER AREAS

There are three distinct character areas on the site, each one uniquely designed to respond to the existing site conditions. A legible hierarchy of density is created, from apartment living in the Quadrangle to the North (Area 1), to the lower-density detached homes in the Woodland to the South (Area 3).

The boundary conditions of the site are also used to create a unique character to the proposal. For example, the riverside edge provides an opportunity for pedestrian routes along the water, but must also account for the acoustic constraints of the proximity of the link road. As such, dwelling types have been carefully designed to mediate between privacy from the public walkway, acoustic buffering and the desire for riverside views and access.

The woodland edge along the hillside presents a backdrop for dwellings along this boundary. The public realm between dwellings will be planted to encourage the woodland to grow around the buildings, with footpaths weaving through the trees in places.





The three Character Areas are:

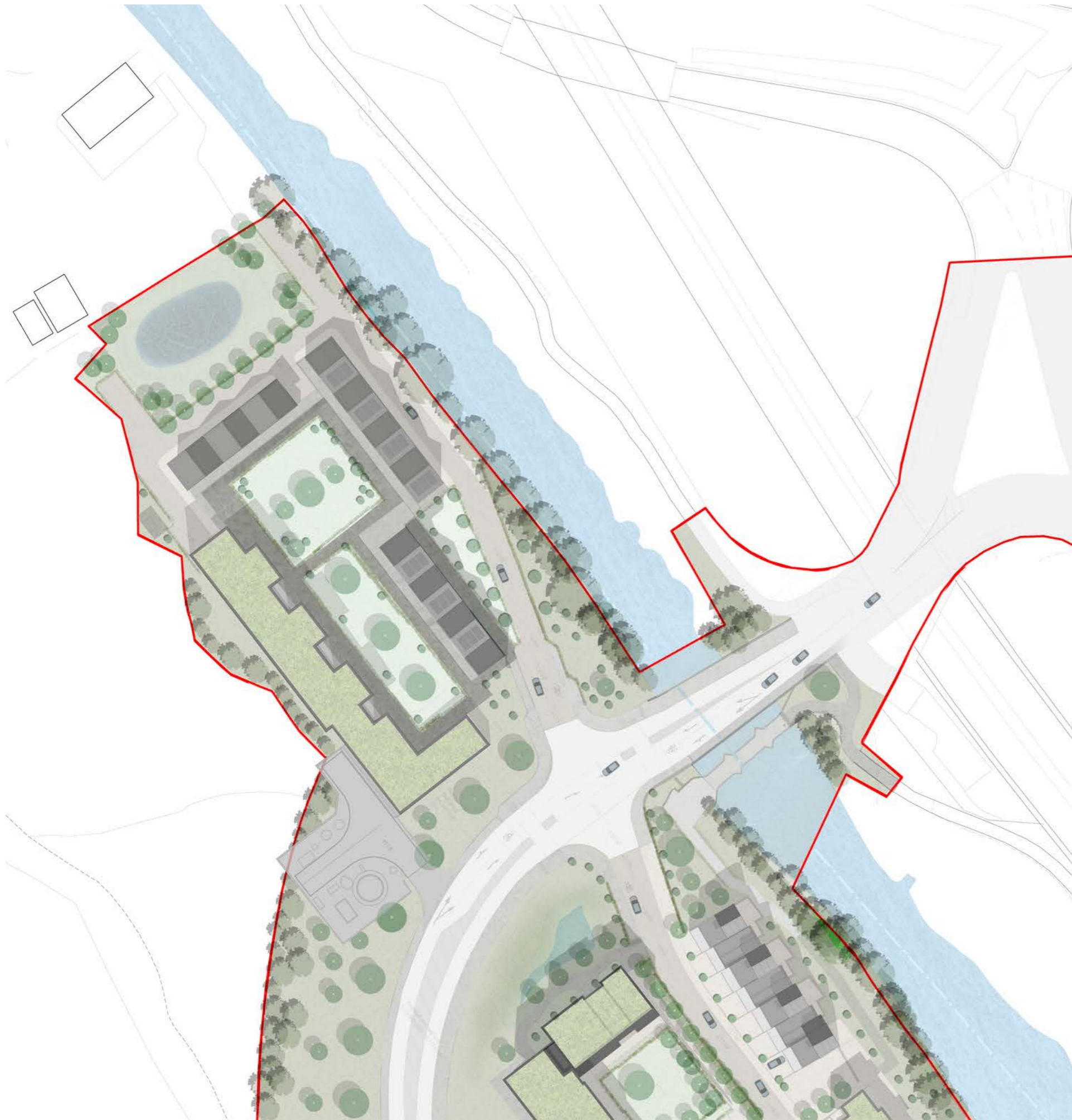
Area 1 - THE QUADRANGLE

Area 2 - THE RIVERSIDE

Area 3 - THE WOODLAND

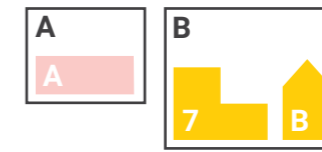
KEY TO DWELLING TYPES:

-  BLOCKS
-  HOUSES
-  APARTMENTS
-  DUPLEX DWELLINGS



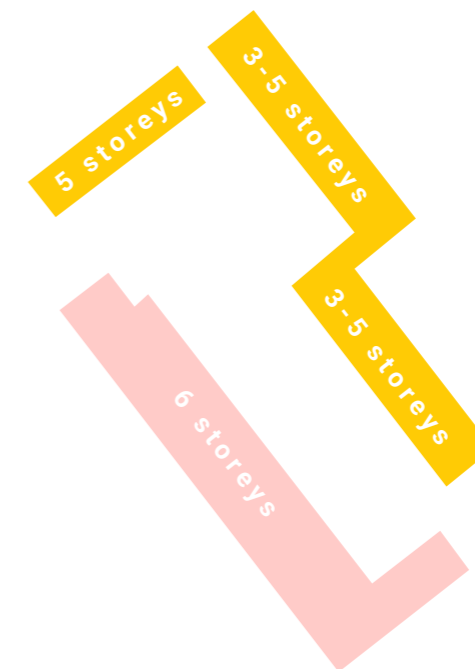
🕒 AREA 1 OVERVIEW: THE QUADRANGLE

Block A + Block B



These apartment blocks address the constrained boundary conditions of the Northern plateau of the site. As such the blocks are largely inward-looking in order to provide a central, shared space and a protected garden at podium level with car parking beneath. The blocks range from four to five storeys.

The blocks are articulated as three distinct volumes. Facing the river the pitched roofs provide South facing areas for PVs and help to create an elevation that suits the domestic scale of housing within the scheme. All apartments are dual aspect with the internal layout and space functions responding to the conditions of the site boundaries, noise levels, orientation and the public realm.



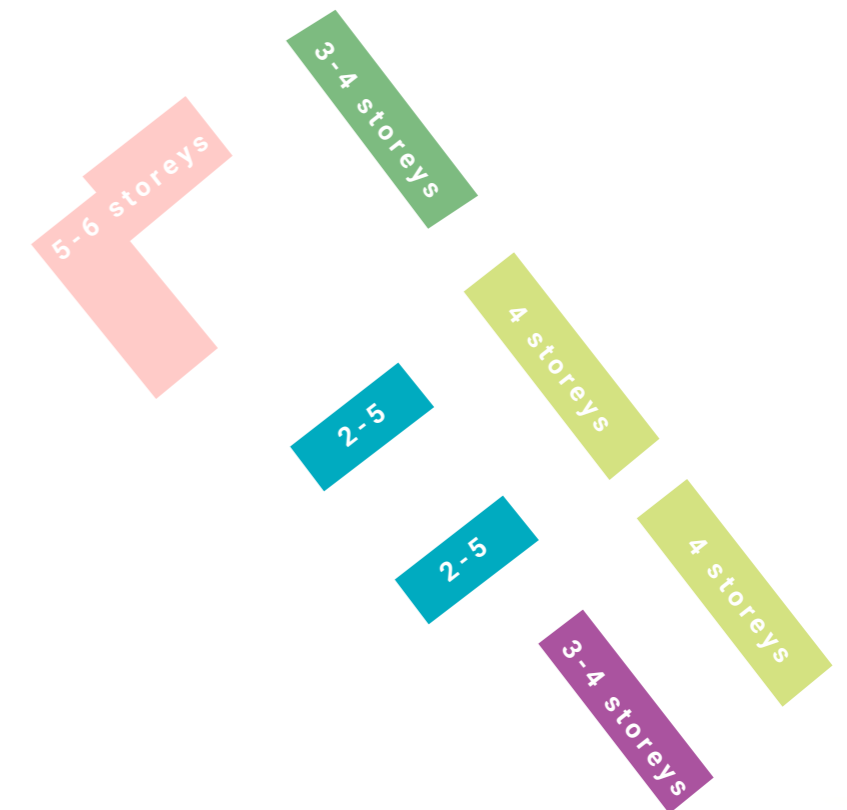


⌚ AREA 2 OVERVIEW: THE RIVERSIDE

Block C + Block D, House Types A, C + E



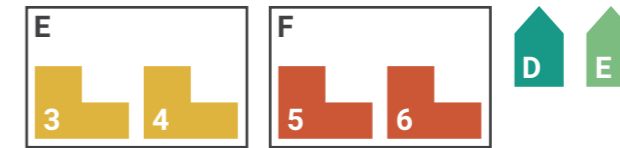
Block C addresses the new road and bridge alignment and the outward facing elevation of Area 01. The housing typologies of the riverside area help define the distinct identity of this site. By responding to the riverside the houses are not required to be urban or rural. In the same way that canal side and similar type housing on the continent has enabled a new vernacular/typology to develop, these dwellings provide a typology unique to Leckwith Quay and their setting.



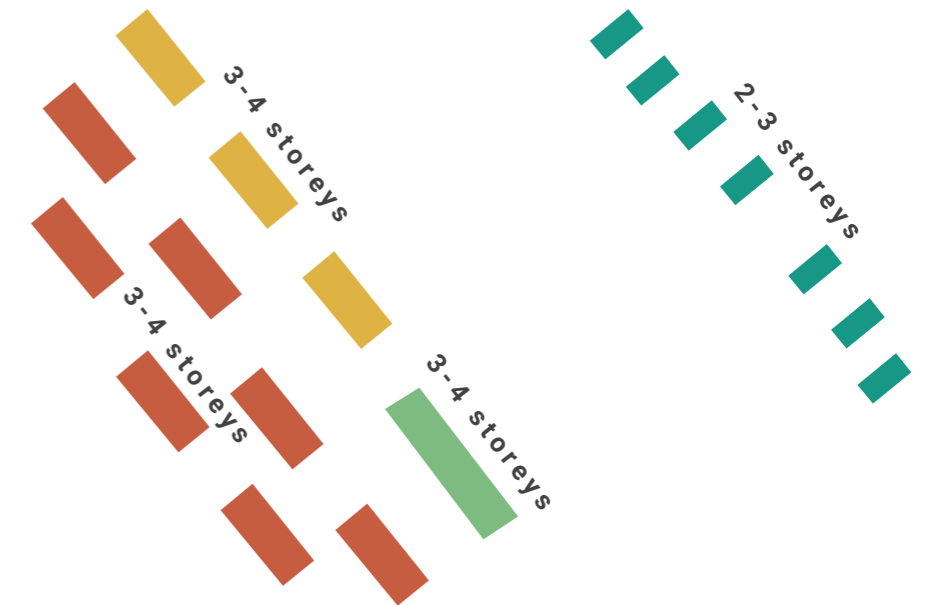


🕒 AREA 3 OVERVIEW : THE WOODLAND

Block E + Block F, House Types D + E



The Woodland Area addresses the need for a reduction in density at the Southern end of the site. Blocks are smaller in this area, allowing the wooded landscape to extend into public space and hillside around the buildings. The waterside dwellings enjoy a visual connection to the water whilst addressing the acoustic constraints of the road on the other side of the river. Block F comprises a series of duplex dwelling blocks, which are clustered within a wooded hillside. Privacy is maintained through the careful arrangement of windows and internal spaces. House Type D (Detached Barnhouse) is situated at the end of the site, providing the lowest density of dwellings. These houses enjoy their own plot with driveway and private garden.



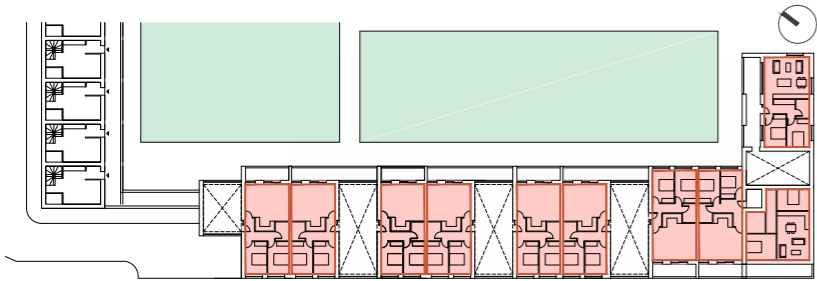
SECTION 6

INDICATIVE DWELLING LAYOUTS

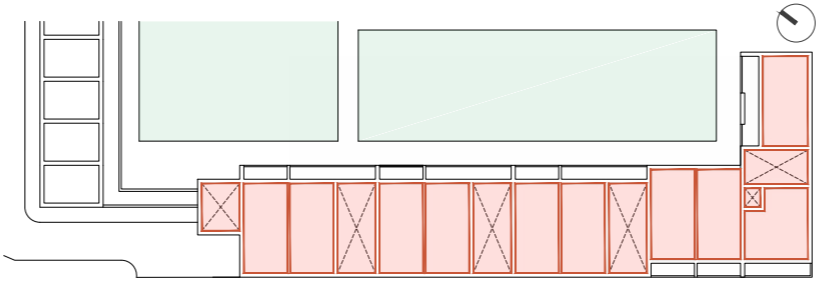
AREA 1: BLOCK A



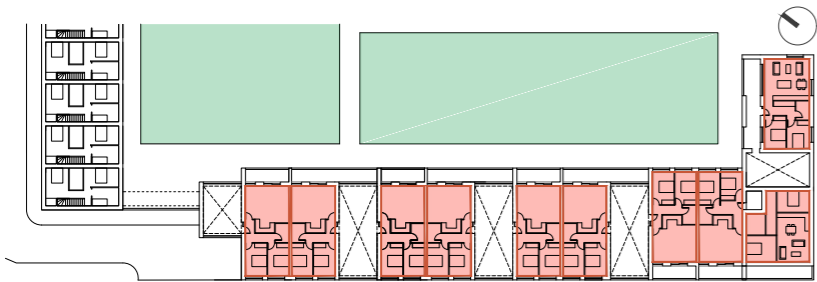
Apartment Type A:
 50no. 2 Bed 4 Person apartments.
 Dwelling size average: 70m²



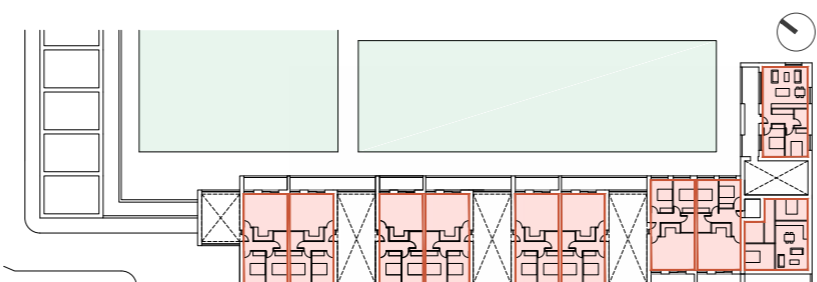
SECOND FLOOR LEVEL PLAN
 1:1000



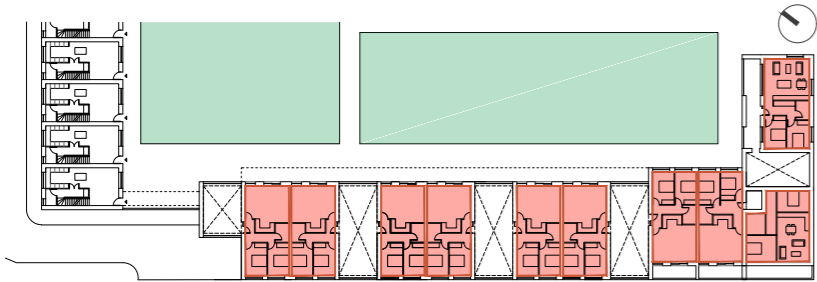
ROOF LEVEL PLAN
 1:1000



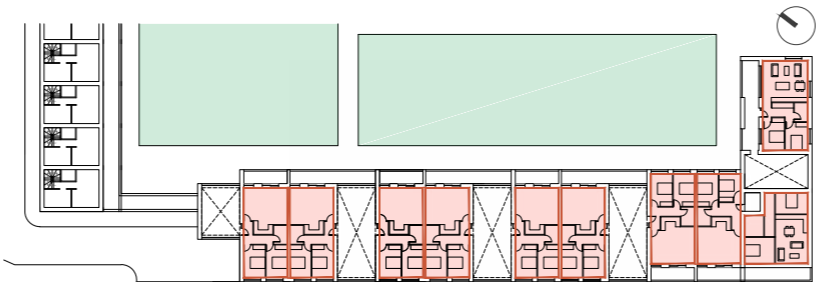
FIRST FLOOR LEVEL PLAN
 1:1000



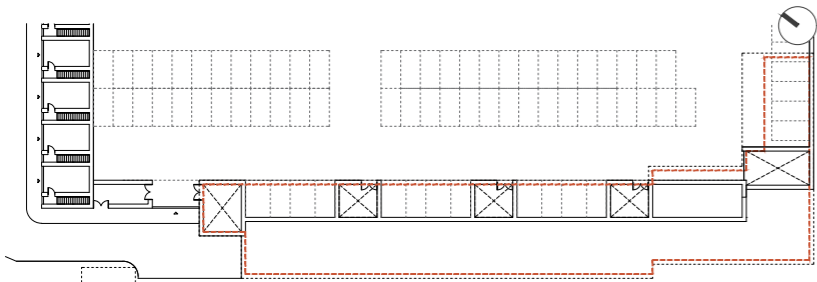
FOURTH FLOOR LEVEL PLAN
 1:1000



PODIUM LEVEL PLAN
 1:1000



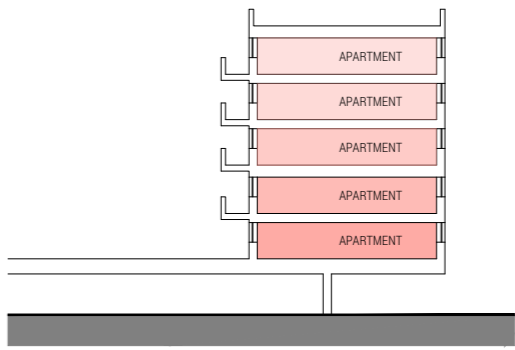
THIRD FLOOR LEVEL PLAN
 1:1000



UNDERCROFT LEVEL PLAN
 [PARKING]
 1:1000



BLOCK A LOCATION PLAN
 1:2000

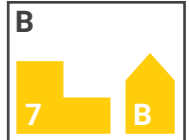


INDICATIVE SECTION
 1:500



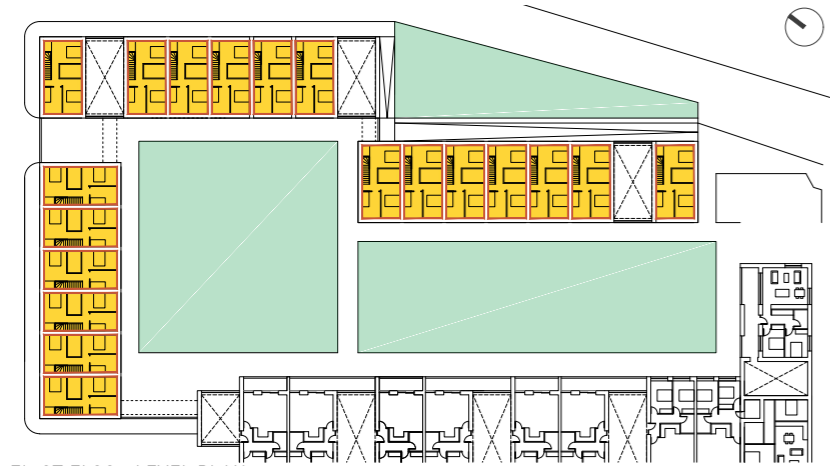
Precedent: Eddington, Cambridge, Mole Architects

AREA 1: BLOCK B

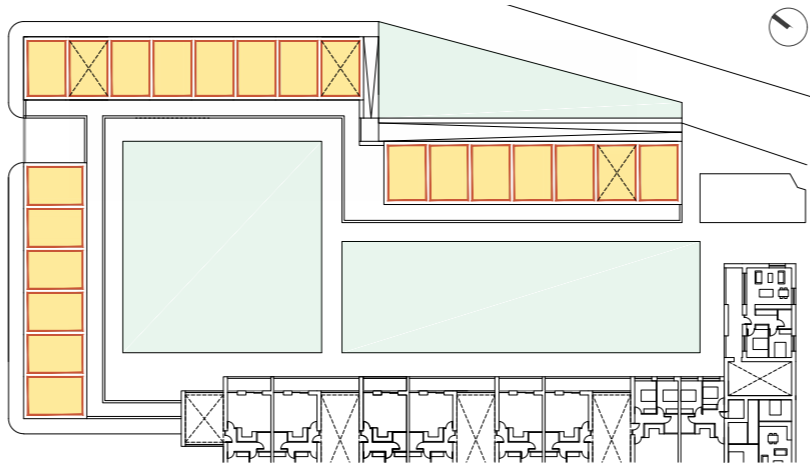


House Type B:
19no. 3 Bed 5 Person houses
Dwelling size average: 116m²

Duplex Dwelling Type 7:
18no. 2 Bed 4 Person apartments
Dwelling size average: 73m²



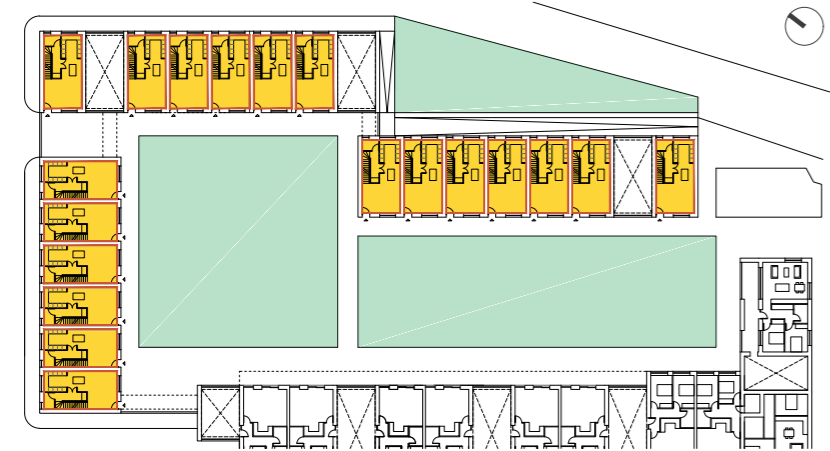
FIRST FLOOR LEVEL PLAN
[HOUSE TYPE B]
1:1000



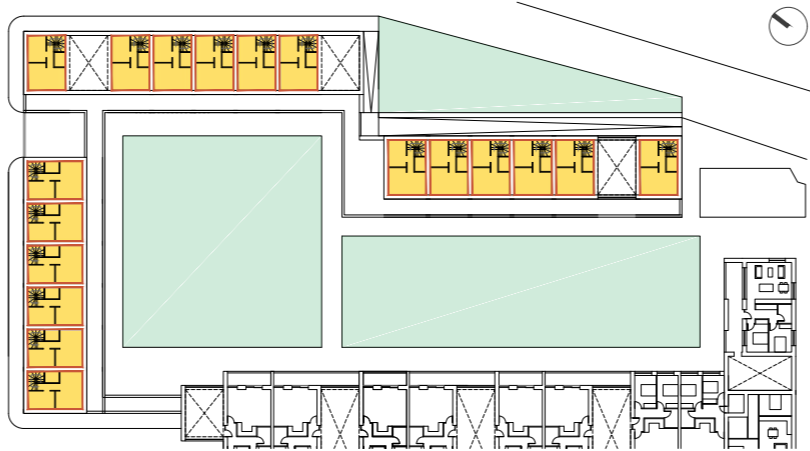
ROOF LEVEL PLAN
1:1000



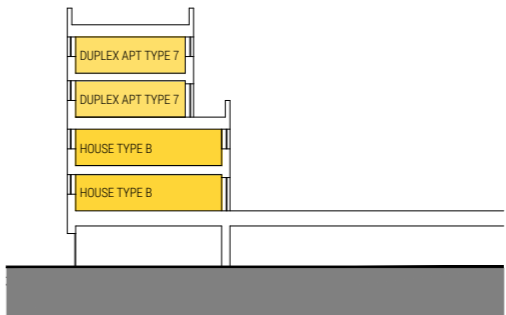
BLOCK B LOCATION PLAN
1:2000



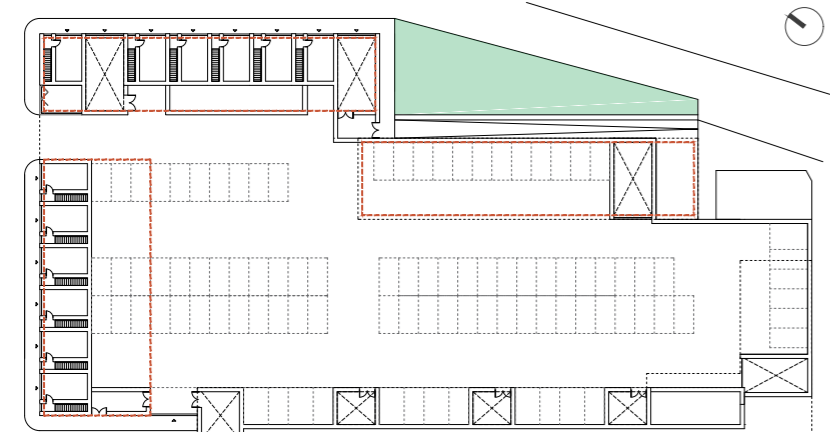
PODIUM LEVEL PLAN
[HOUSE TYPE B]
1:1000



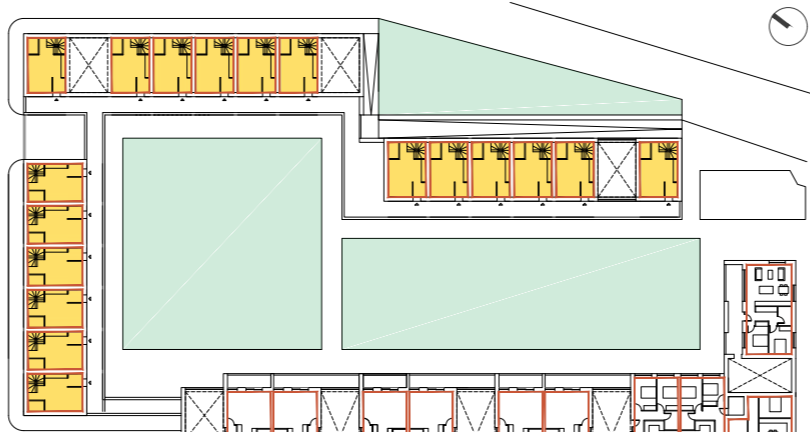
THIRD FLOOR LEVEL PLAN
[DUPLEX DWELLING TYPE 7]
1:1000



INDICATIVE SECTION
1:500



UNDERCROFT LEVEL PLAN
[HOUSE TYPE B GARAGE LEVEL + APARTMENT PARKING]
1:1000

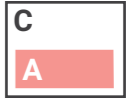


SECOND FLOOR LEVEL PLAN
[DUPLEX DWELLING TYPE 7]
1:1000

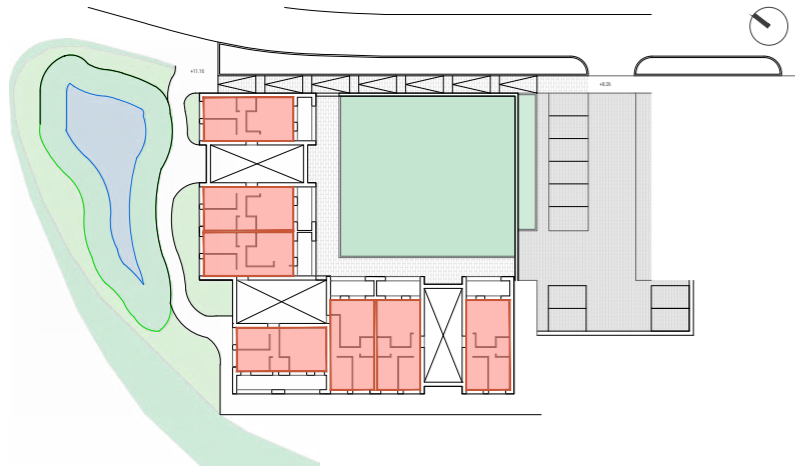


Precedent: Brentford
Lock West, Morris + Co
Architects

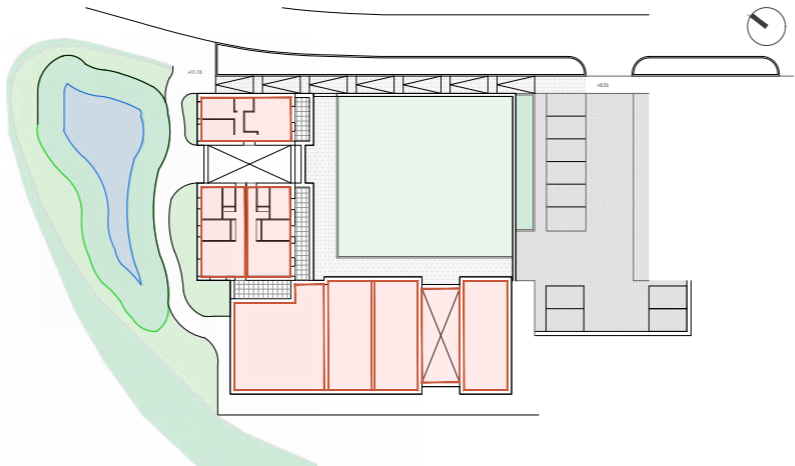
AREA 2: BLOCK C



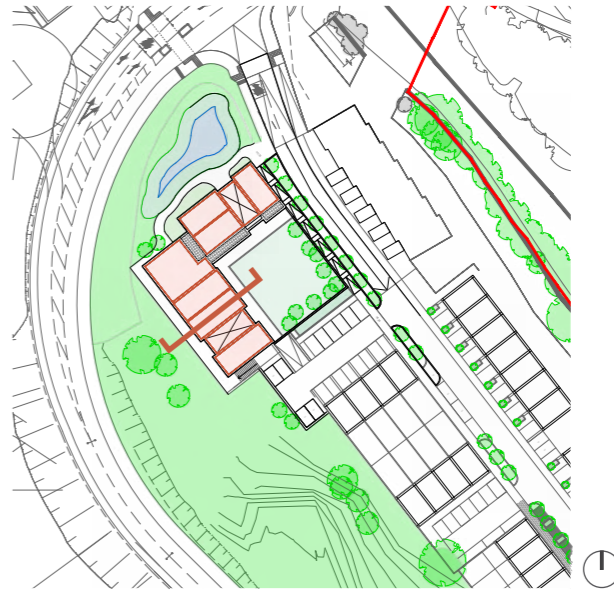
Apartment Type A:
 31no. 2 Bed 4 Person apartments.
 Dwelling size average: 70m²



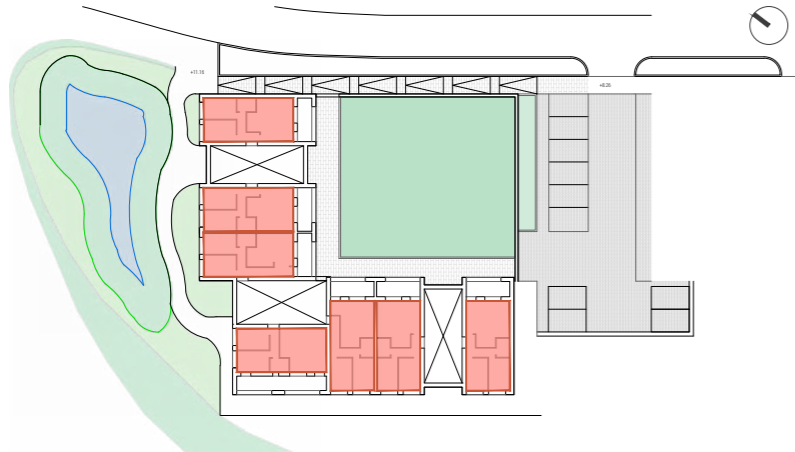
FIRST FLOOR LEVEL PLAN
 1:1000



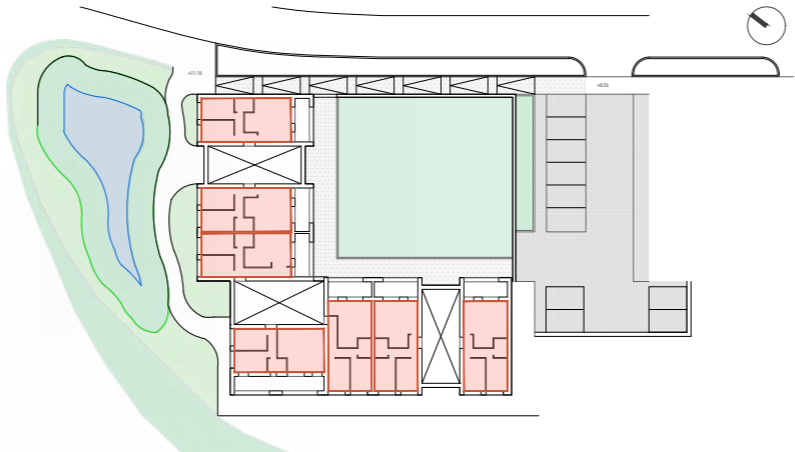
FOURTH FLOOR LEVEL PLAN
 1:1000



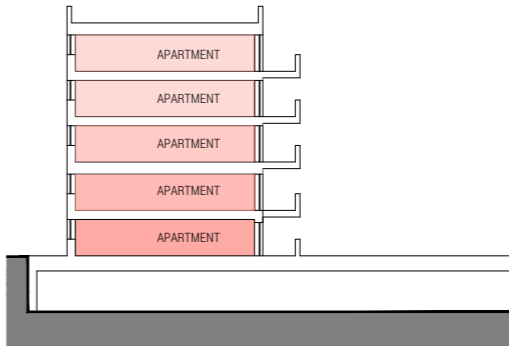
BLOCK C LOCATION PLAN
 1:2000



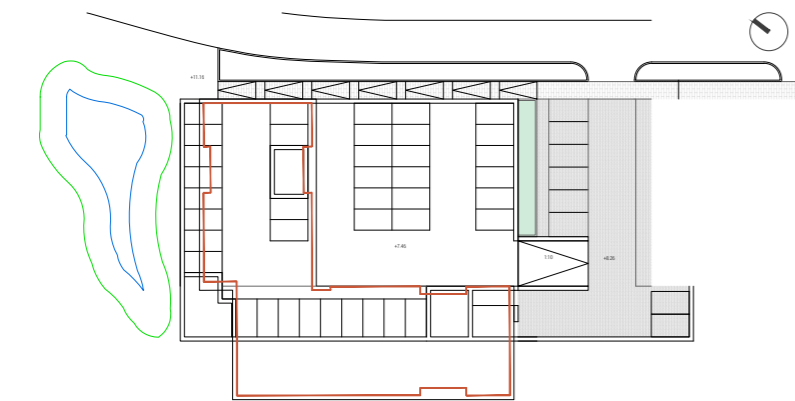
PODIUM LEVEL PLAN
 1:1000



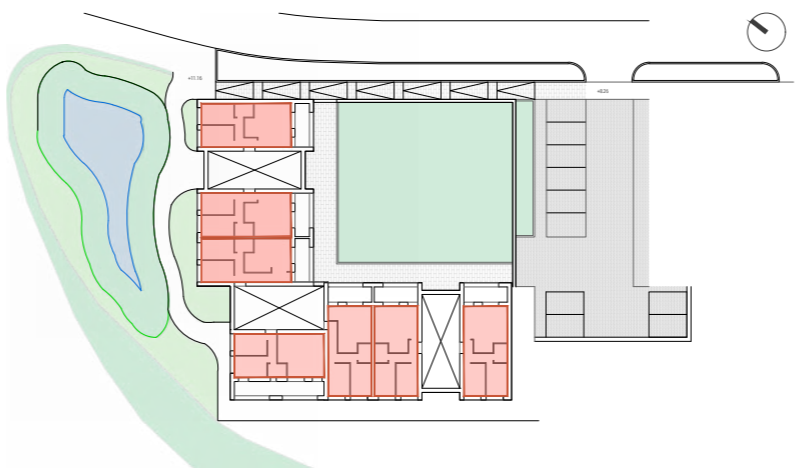
THIRD FLOOR LEVEL PLAN
 1:1000



INDICATIVE SECTION
 1:500



UNDERCROFT LEVEL PLAN
 [PARKING]
 1:1000

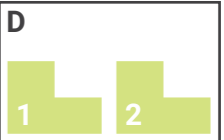


SECOND FLOOR LEVEL PLAN
 1:1000



AREA 2: BLOCK D

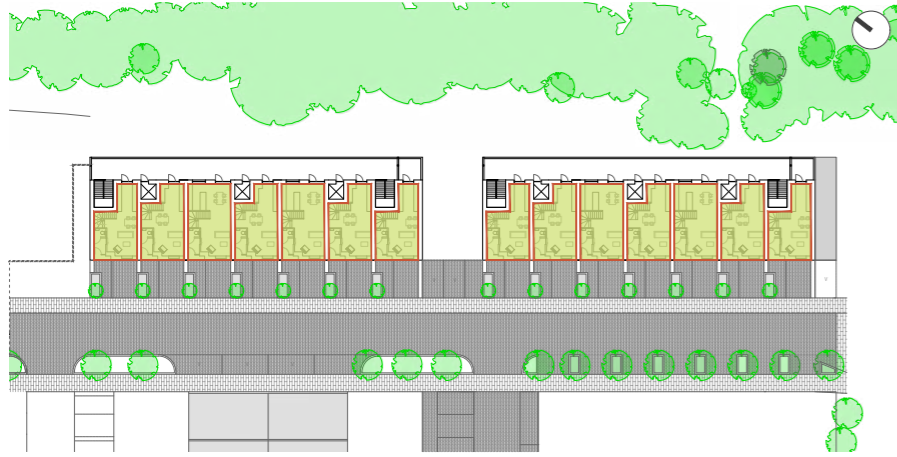
Duplex Dwelling Type 1 + Duplex Dwelling Type 2:
 28no. 2 Bed 4 Person Duplex Dwellings
 Dwelling size average: 94m²



FIRST FLOOR LEVEL PLAN
 [DUPLEX DWELLING TYPE 1]
 1:1000



THIRD FLOOR LEVEL PLAN
 [DUPLEX DWELLING TYPE 2]
 1:1000



GROUND FLOOR LEVEL PLAN
 [DUPLEX DWELLING TYPE 1]
 1:1000

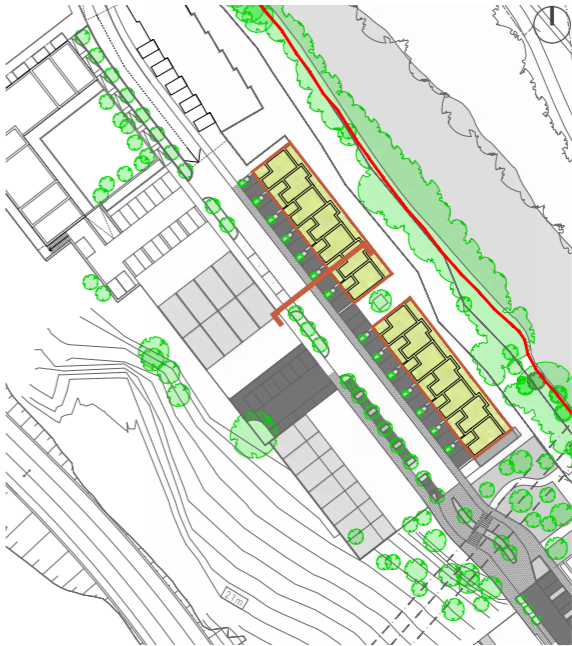


SECOND FLOOR LEVEL PLAN
 [DUPLEX DWELLING TYPE 2]
 1:1000

INDICATIVE STREET ELEVATION
 1:1000



INDICATIVE RIVERSIDE ELEVATION
 1:1000



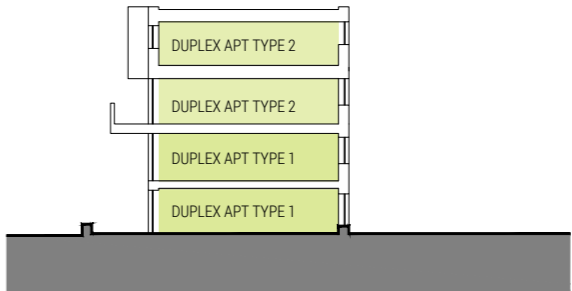
BLOCK D LOCATION PLAN
 1:2000



Precedent: Old Ford Road,
 London, pH+ Architects



Precedent: Residential
 Building, Tehran,
 Fundamental Approach
 Architects



INDICATIVE SECTION
 1:500

