Residential Development at Ard an Ghleanna, Mallow, Co. Cork

Architectural Design Statement

prepared by:

Deady Gahan Architects

on behalf of:

Comhairle Contae Chorcaí
Cork County Council

DGA Ref.: 22039

DEADY GAHAN ARCHITECTS

Location: **Ard an Ghleanna, Mallow, Co. Cork**

Prepared for Cork County Council by Deady Gahan Architects

DEADY GAHAN ARCHITECTS

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DEADY GAHAN
ARCHITECTS

00 INTRODUCTION
PROPOSED DEVELOPMENT

This document has been prepared by Deady Gahan Architects on behalf of Cork County Council in support of a proposed residential development at Ard an Ghleanna, Mallow, Co Cork.

The design of the proposed scheme has been directly informed by the relevant planning policy documents at national and local levels. The proposed development has been designed to provide high quality residential units that will contribute positively to Mallow town and deliver much needed housing in the county. The proposed site layout focuses on the creation of distinctive streetscapes with different widths and parking formations that help generate a highly efficient scheme and assists our vision of placemaking.

To ensure the visual integration of the proposed development into the existing context, the scheme seeks to work with the challenging topography of the site to create a scheme which has been carefully considered. The layout has been organised in order to create an urban edge facing onto the western boundary with different scales and feature units dotted throughout the site.

We consider the proposed scheme provides for a wide range of housing types for Mallow and will contribute to the town's sustainable growth into the near future. A Design Team with extensive experience in residential schemes have been appointed. These include Deady Gahan Architects, McCutcheon Halley Planning Consultants, Forestbird Design (Landscape Architects) and Walsh Design Group (Engineering Consultants) to ensure a high quality design and a robust and comprehensive planning application submission is made.

DEADY GAHAN ARCHITECTS

McCutcheon Halley CHARTERED PLANNING CONSULTANTS

Forestbird Design landscape architecture landscape planning environmental design

walsh design group

MALLOW TOWN CENTRE

01 SITE CONTEXT
EXISTING SITE IMAGES

AERIAL VIEW OF SITE (FROM SOUTH-EAST)

SITE ACCESS FROM ST. JOSEPH'S ROAD

AERIAL VIEW OF SITE (FROM WEST)

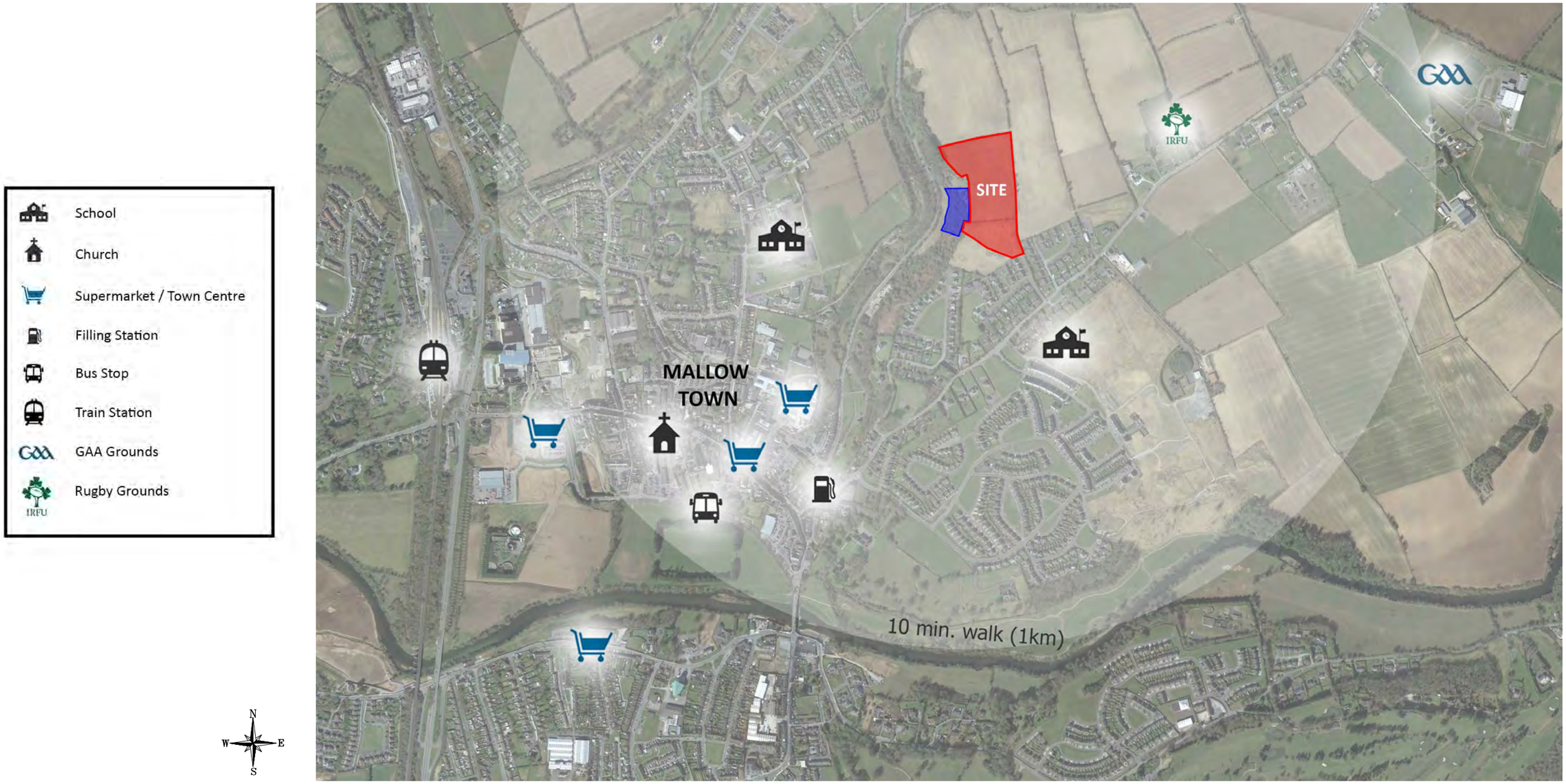
AERIAL VIEW OF SITE (FROM NORTH-WEST)

01 SITE CONTEXT
CONNECTIVITY & EXISTING INFRASTRUCTURE

The subject lands offer a unique opportunity to provide a quality residential development within the locality. Attractive existing and proposed connectivity around the scheme provides desirable connections to the amenities of the town of Mallow.

The land is a greenfield site which slopes downward from east to west. The site is bounded by an existing residential development to the south and agricultural lands to the east and north. To the west the topography slopes significantly down to the N72 Mallow - Fermoy Road.

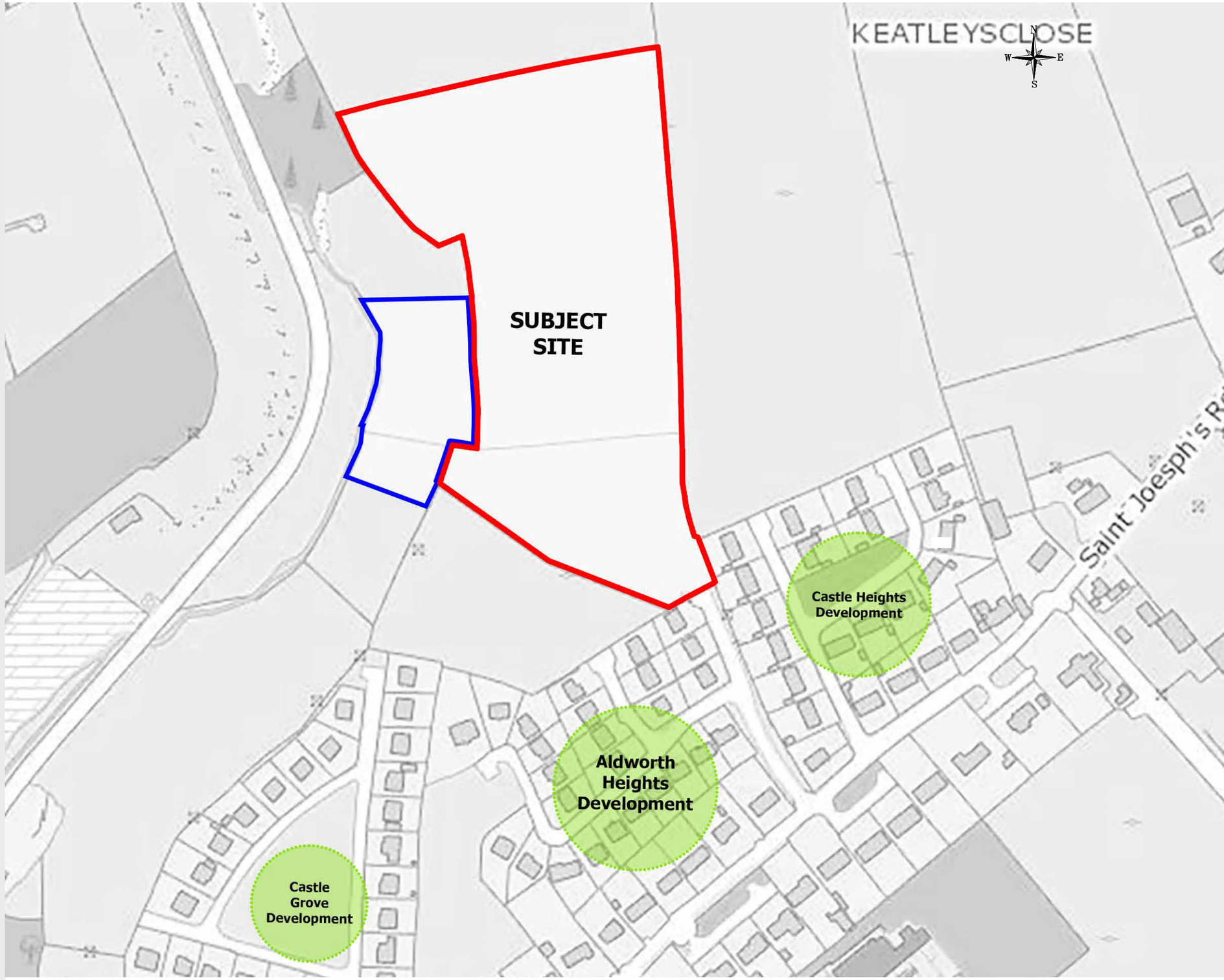
The site is in walking distance of a host of amenities offered by Mallow town such as schools and shops with a thriving town centre and active community groups and clubs.



01 SITE CONTEXT
SURROUNDING CONTEXT

Surrounding Context:

- The proposed development has been designed in such a way to ensure it integrates in a cohesive manner and makes a positive contribution to the surrounding locality.
- To ensure the visual integration of the site, the proposed development will promote the protection and enhancement of areas of biodiversity value where possible, including boundary hedgerows and existing trees.



DEADY GAHAN ARCHITECTS

Residential Development, at Ard an Ghleanna, Mallow, Co.Cork

01 SITE CONTEXT
SURROUNDING TYPOLOGIES

Surrounding Typologies:

- The neighbouring houses within the Aldworth Heights development to the south consist of 1 and 2 storey detached units with a wide variety of materials. The materiality of the existing dwellings include stone, brick and coloured render.
- The dwellings within the wider locality are generally 1 or 2 storey and consist of primarily red brick and render.
- The good mix of housing typologies within the neighbouring schemes allow for a wide array of house types to be potentially included within the proposed development.

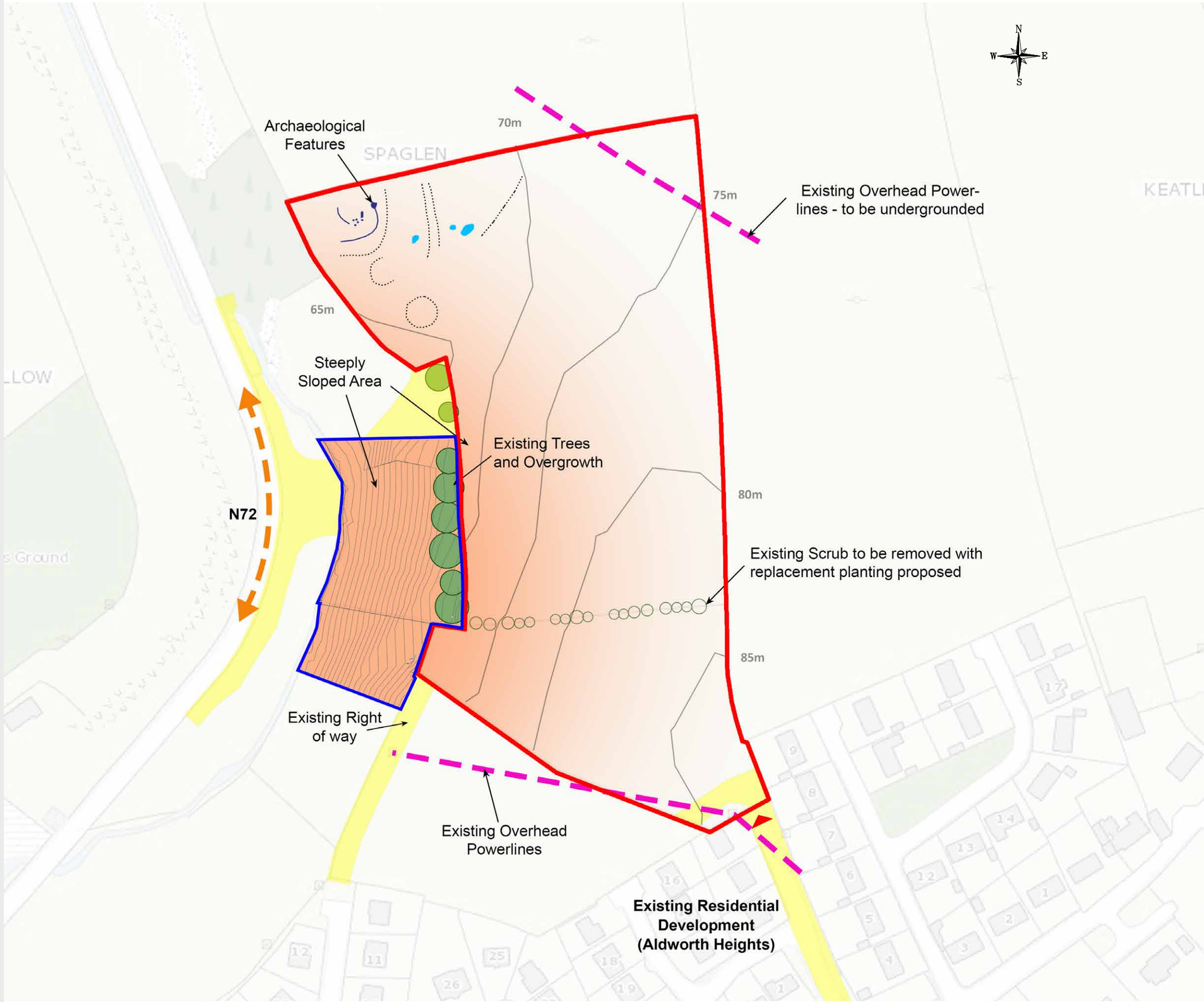
DEADY GAHAN ARCHITECTS

Residential Development, at Ard an Ghleanna, Mallow, Co.Cork

01 SITE CONTEXT
EXISTING SITE FEATURES

Key site features:

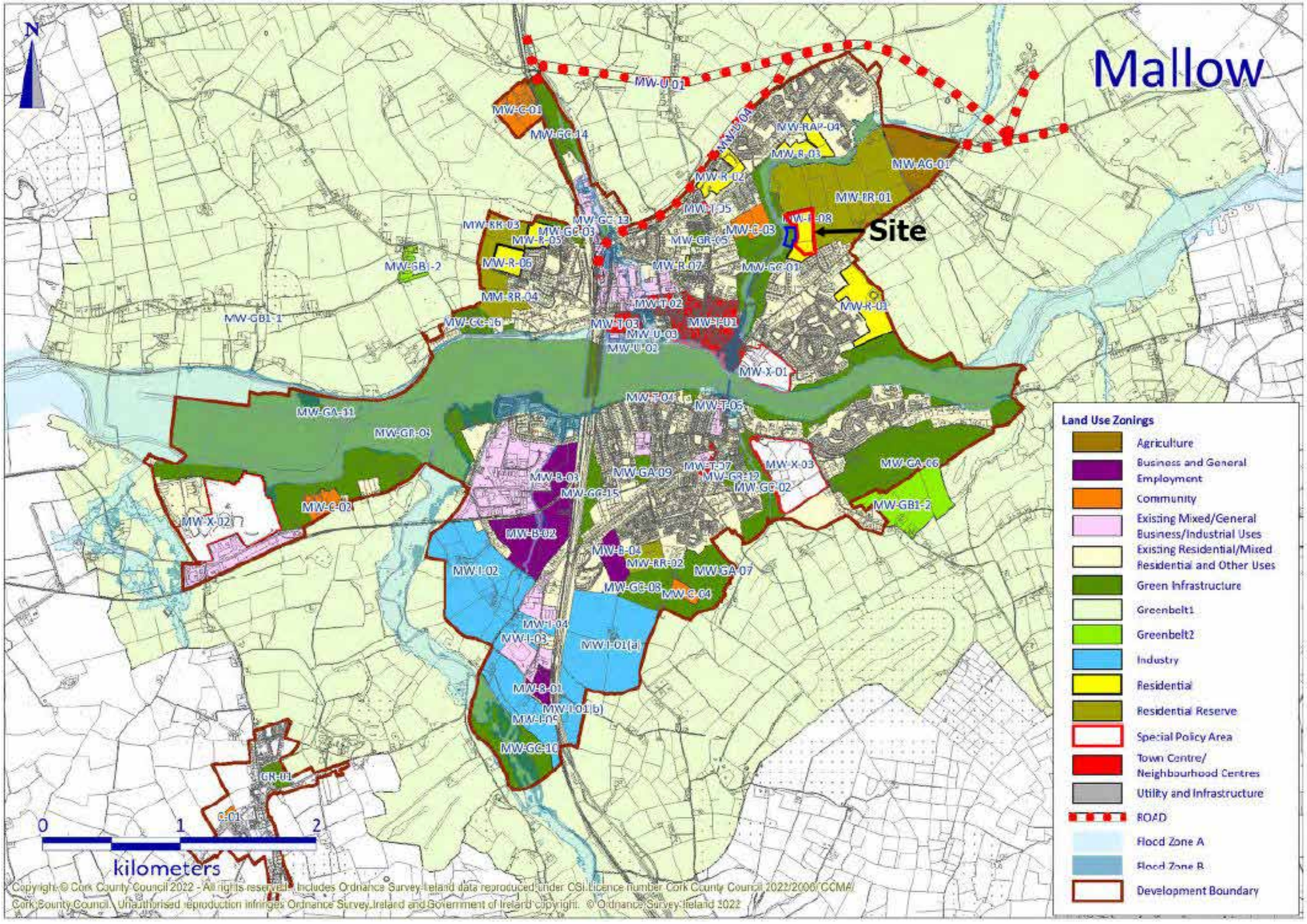
- Existing trees to be retained along western boundary
- Existing line of scrub through centre of site which is to be removed with replacement planting proposed
- Access provided through existing residential development to south
- Steeply sloped topography to west of site
- Archaeological features were identified in the north western corner of the site. An existing meadow with an archaeological buffer zone has been located in this area in order to address and protect these features



DEADY GAHAN ARCHITECTS

Residential Development, at Ard an Ghleanna, Mallow, Co.Cork

01 SITE CONTEXT
SITE ZONING



EXTRACT FROM CORK COUNTY DEVELOPMENT PLAN 2022 - VOLUME 3

01 SITE CONTEXT
PREVIOUS DESIGN ITERATIONS

SITE CONCEPT PLAN
27 / JANUARY / 2023

- UNITS ORIENTATED TO BACK ONTO NORTHERN BOUNDARY TO REDUCE STREET LENGTH
- SHARED PEDESTRIAN / CYCLE PATH INCORPORATED INTO LAYOUT
- INCREASE OF APARTMENTS OVERLOOKING WESTERN BOUNDARY
- CENTRAL OPEN SPACE INCREASED IN SIZE TO INCORPORATE SUDS MEASURES
- CRÈCHE RELOCATED TO OVERLOOK OPEN SPACE
- AN EXISTING MEADOW WITH AN ARCHAEOLOGICAL BUFFER ZONE LOCATED TO NORTH WEST OF SITE
- STREET ALTERED TO FACILITATE PART M ACCESS AND PLAZA
- BIKE STORE PROVISION INCREASED THROUGHOUT SITE

SITE CONCEPT PLAN
9 / NOVEMBER / 2023

02 DESIGN STRATEGY
PROPOSED CONCEPT

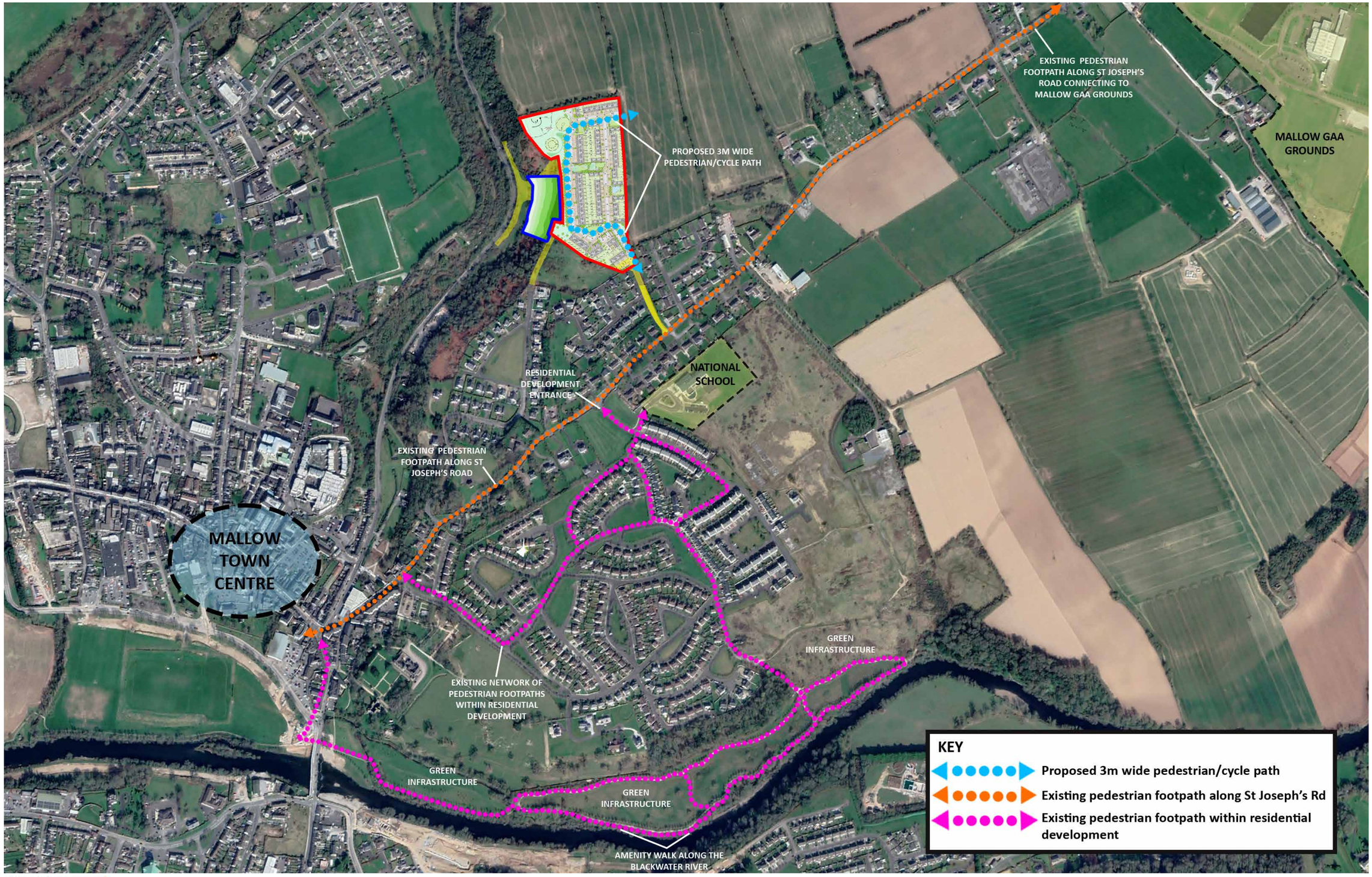
Concept based on the following principles:

- Strategically located open spaces to help scheme integrate with existing topography
- Urban edge provided at western boundary of development overlooking N72
- Built edge fronting onto proposed local streets through site
- Priority pedestrian permeability through site

DEADY GAHAN ARCHITECTS

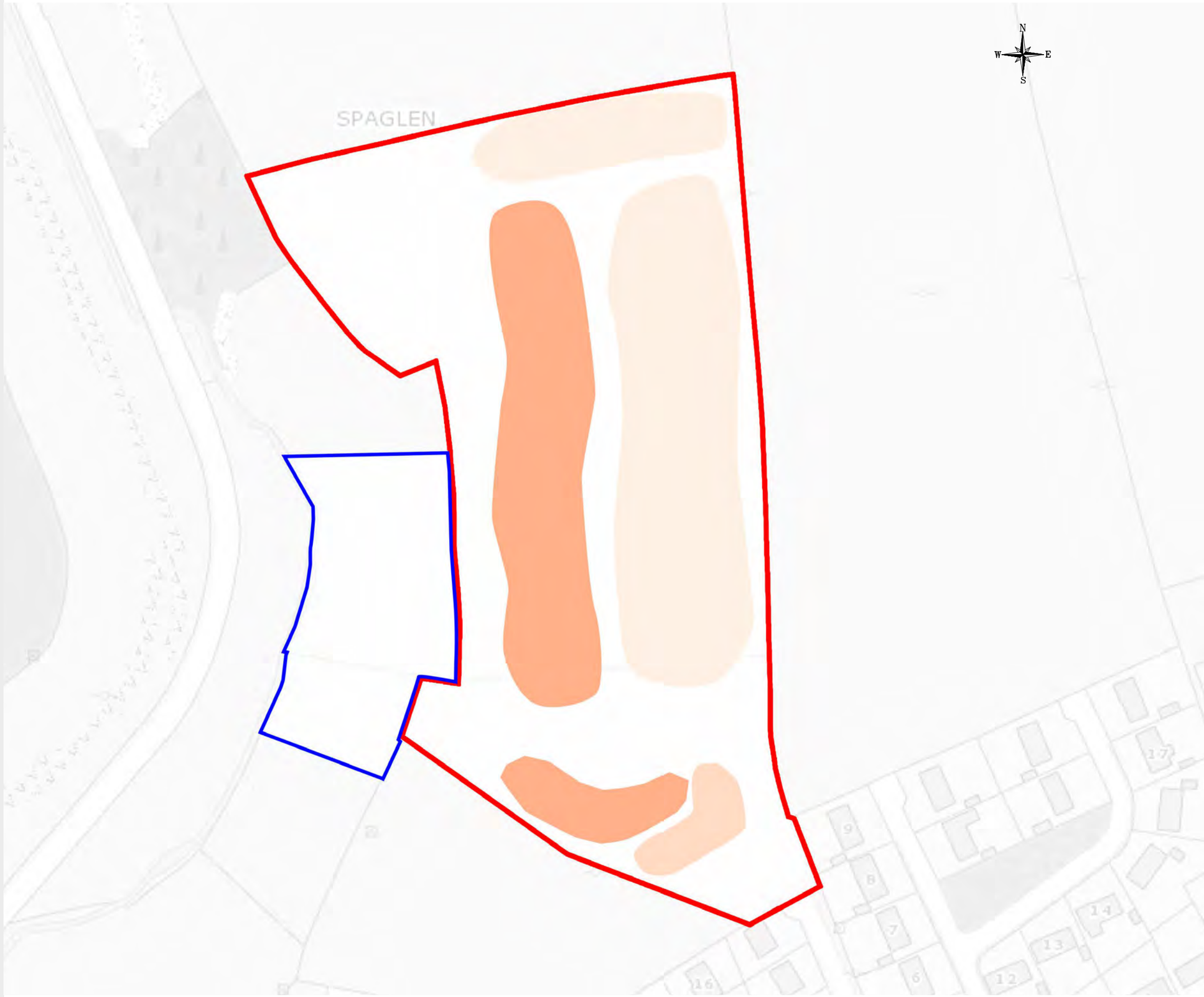
Residential Development, at Ard an Ghleanna, Mallow, Co.Cork

02 DESIGN STRATEGY
WIDER CONTEXT



02 DESIGN STRATEGY
DENSITY ANALYSIS

- Higher density overlooking N72 to west
- Medium - High density to create feature corner elements / node points throughout the site
- Medium density to back onto existing boundaries

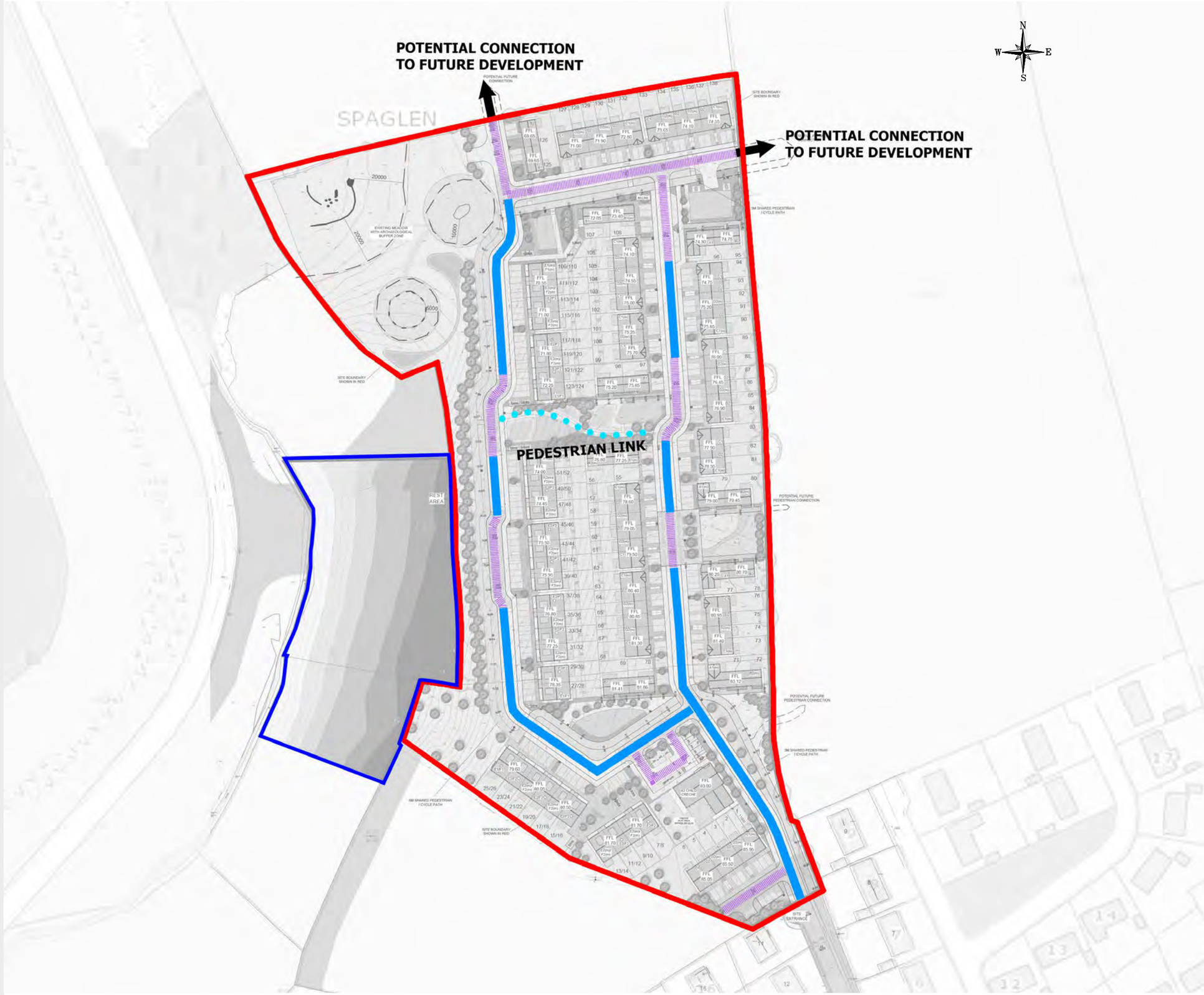


DEADY GAHAN ARCHITECTS

Residential Development, at Ard an Ghleanna, Mallow, Co.Cork

02 DESIGN STRATEGY
STREET HIERARCHY

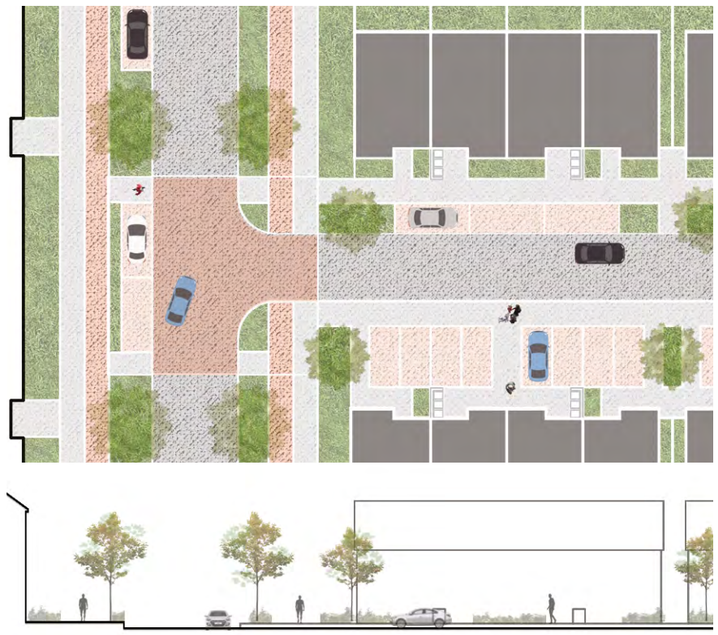
- Local street acts as the main thoroughfare through the site and provides access from the entrance to the south.
- Creates looped system.
- Several shared surfaces stem from this to promote community activity.



DEADY GAHAN ARCHITECTS

Residential Development,
at Ard an Ghleanna,
Mallow, Co.Cork

1. PRIMARY LOCAL STREET

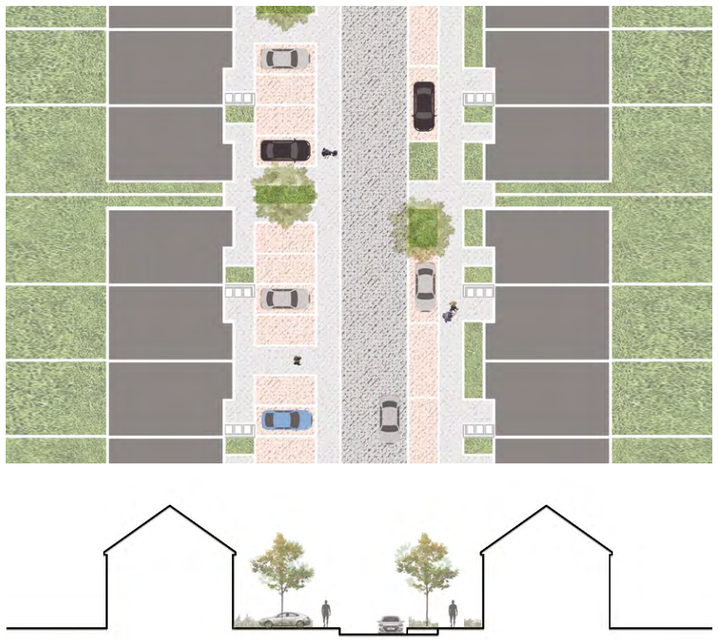


PRIMARY LOCAL STREET FEATURES:

- BOULEVARD/AVENUE STYLE
- 6m ROAD WIDTH
- CYCLE/PEDESTRIAN PATH SEPARATED FROM ROAD
- PARALLEL PARKING
- MINIMAL DIRECT ACCESS TO UNITS

VIEW OF PROPOSED PRIMARY LOCAL STREET

2. SECONDARY LOCAL STREET

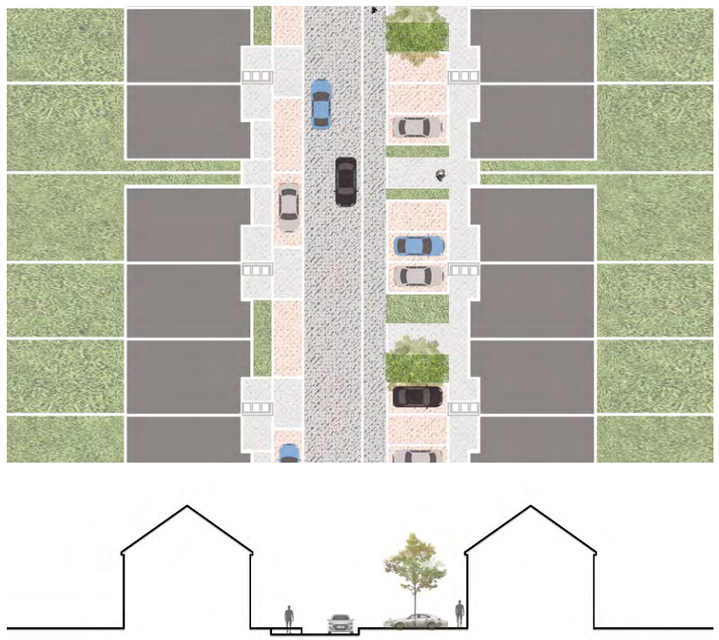


SECONDARY LOCAL STREET FEATURES:

- 5-5.5m ROAD WIDTH
- ROAD-SIDE PEDESTRIAN PATH
- PARALLEL PARKING OR ON-CURTILAGE PARKING
- DIRECT ACCESS TO UNITS
- INCORPORATING LIGHTING, BINS, PARKING & LANDSCAPING

VIEW OF A TYPICAL SECONDARY LOCAL STREET

3. SHARED SURFACE



SHARED SURFACE FEATURES:

- 4.8-5m ROAD WIDTH
- ROAD-SIDE PEDESTRIAN PATH OR SHARED SURFACE
- PARALLEL PARKING OR ON-CURTILAGE PARKING
- DIRECT ACCESS TO UNITS
- INCORPORATING LIGHTING, BINS, PARKING & LANDSCAPING

VIEW OF A TYPICAL SHARED SURFACE

02 DESIGN STRATEGY
INCLUSIVITY, VARIETY & PUBLIC REALM

INCLUSIVITY

We have carefully considered connectivity from the site to the wider context, but also permeability within the development itself by ensuring that internal footpaths link the different spaces on site, and are accessible to all. The public spaces are designed to provide facilities for all age groups and support outdoor activities.

The proposed layout prioritises access for all, with a public realm based on pedestrian connectivity throughout the entire scheme. This principle is facilitated and supported also by the proposed streetscapes and shared surface areas.

VARIETY & PUBLIC REALM

Important to the schemes success is varying the public realm by incorporating play areas, green open spaces, landscaped spaces with amenity walks and shared surfaces, which along with the mix of housing typologies and different architectural treatments help define the different character areas and create small communities/neighbourhoods within the overall development.

Interspersed large and pocket sized open spaces, ranging from gardens to public open spaces, encourage an invaluable sense of community. Safe environments to play and interact are created by orientating houses to allow passive surveillance, creating a sense of community and ownership. Good quality paving with inviting urban furniture transforms play areas and green pockets into socially interactive hubs, creating active and vibrant neighbourhoods. The larger landscaped open spaces allow for different kinds of uses and interactions. The materiality of the buildings is also a vital opportunity to create an unmistakable identity for a distinctive character in different areas within the new neighbourhood, and to realise the project in flexible stages over a phased time period. The location of materials on the respective units is also subject to their durability and visual aesthetic qualities.

The development is structured to enable the creation of neighbourhoods featuring distinct architectural languages. Each of these character areas are grouped around a central space creating a recognisable sense of place by using a mix of landmark housing typologies and blend of materials unique to that location.

Please refer to the landscape report and drawings prepared by Forestbird Design for further information.

PLEASE REFER TO THE LANDSCAPE REPORT PREPARED BY FORESTBIRD DESIGN FOR FURTHER INFORMATION

GREEN OPEN SPACE EXAMPLE

GREEN OPEN SPACES AND PLAZAS

Strategically positioned green spaces throughout the development provide a respite in the urban landscape. To the south, a cluster of three open areas seamlessly connects through the main pedestrian connection, offering not only a retreat but also promoting smooth integration between these spaces. In this area, a square near the creche creates an ideal environment for recreational activities and social interaction among children.

The northern section follows the same approach, featuring two green spaces and a plaza that interlace organically.

In the heart of the urban fabric, an eastward connection plaza links the east and west sides of the development, softening the built landscape and creating a welcoming space for residents and visitors. Heading east, a square oriented towards the surrounding residences stands out as a potential link to future developments, ensuring a harmonious connection with the rest of the urban environment.

PLAZA EXAMPLE

LANDSCAPE BUFFER EXAMPLE

LANDSCAPE BUFFER

The Landscape Buffer has been established to provide an essential buffer space between the development and the steeply sloped area. A Landscape Buffer is a carefully planned zone consisting of natural features such as trees, shrubs, and other vegetation. Its purpose is to create a visual and physical separation between the developed area and the steep slope. This buffer not only enhances the aesthetic integration of the development with its natural surroundings but also serves as a protective measure, helping to mitigate potential impacts and maintain the ecological balance of the site.

LANDSCAPE BUFFER EXAMPLE

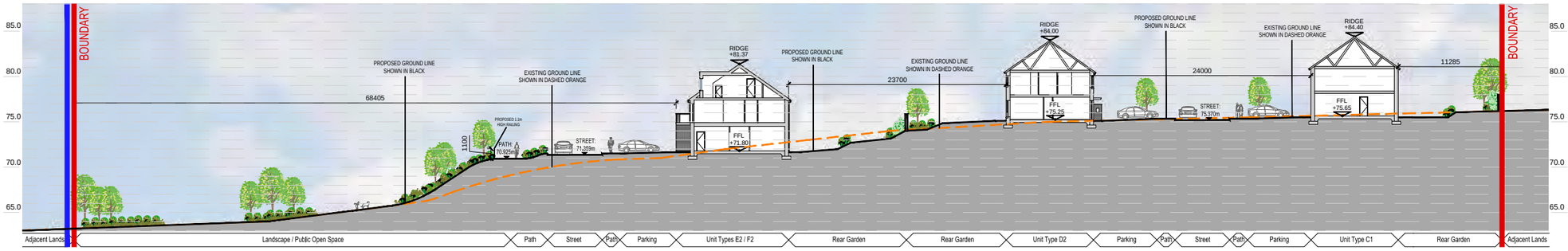
03 PROPOSED DESIGN
SITE LAYOUT & SCHEDULE

ARD AN GHLEANNA - MALLOW						
Unit Type	**Description**	**No. of Bedrooms**	**Bed Space**	**Proposed Unit Area (sq.m.)**		**No. of Unit**
A1	Semi-Detached	4	7	134.44		4
B1	Semi-Detached	3	5	101.11		6
B2	Semi-Detached	3	5	100.98		8
C1	Townhouse	3	5	104.24		20
D1	Townhouse	2	4	84.5		2
D2	Townhouse	2	4	84.5		34
E1	Duplex Apartment	2	4	90.2		5
E2	Duplex Apartment	2	4	90.2		27
F1	Ground Floor Apartment	1	2	56.7		5
F2	Ground Floor Apartment	1	2	55.2		27
4 bed		4		2.9%		
3 bed		34		24.6%		
2 bed		68		49.3%		
1 bed		32		23.2%		
houses		74		53.6%		
duplex-apartments		64		46.4%		
TOTAL NUMBER OF UNITS		**138**				
SITE AREA		**4.52 HA**				
SITE DEVELOPABLE AREA		**3.9 HA**				
DENSITY		**35.4 UNITS / HA**				
OVERALL OPEN SPACE		**26%**				
USABLE OPEN SPACE		**15%**				
42-child CRECHE		**G.I.A.: 359.9 sq.m. / G.A.: 411.6 sq.m.**				
183 no. Car parking Spaces Provided in Total						
(2 no. Spaces per 3 and 4 Bed Unit, 1 no. Space per 2 Bed Unit, 0.7-1 no. Spaces per Apartment Unit, 8 no. Creche Spaces and a modest number of Additional Visitor Spaces are also provided.						

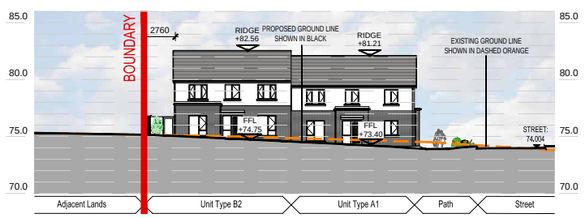
SITE PLAN

03 PROPOSED DESIGN
SITE CROSS SECTIONS

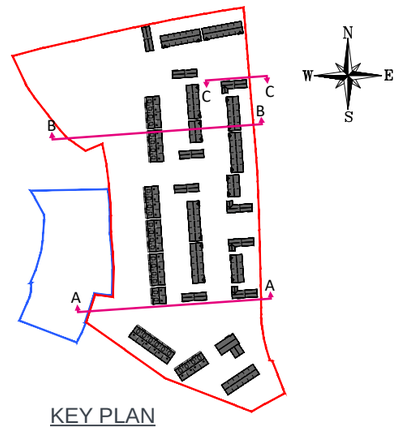
SITE SECTION A-A



SITE SECTION B-B

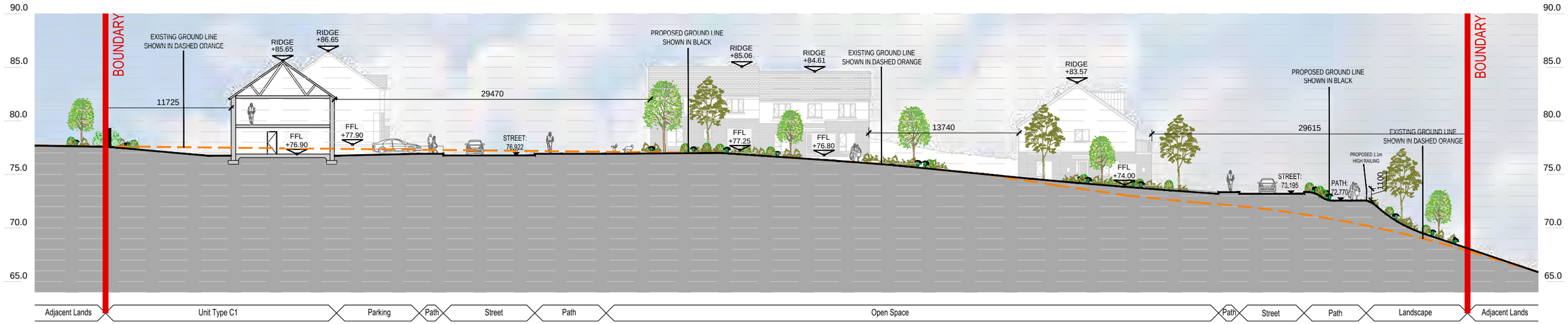


SITE SECTION C-C

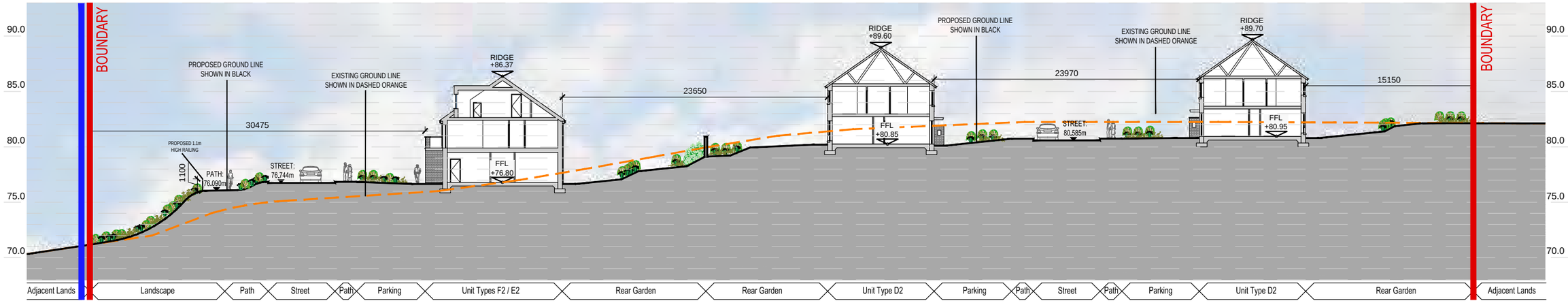


KEY PLAN

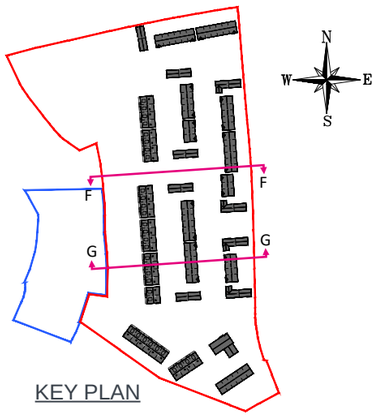
03 PROPOSED DESIGN
SITE CROSS SECTIONS



SITE SECTION F-F



SITE SECTION G-G



KEY PLAN

03 PROPOSED DESIGN
OVERALL DESIGN EFFICIENCY, DISTINCTIVENESS & LAYOUT

DISTINCTIVENESS & LAYOUT OF OVERALL SCHEME

The overall layout proposes no. 138 residential units and no. 1 42-child crèche on site to achieve a density of 35.4 units/HA (calculated on the developable area of 3.9 HA). The no. 138 dwellings consist of: 18 no. semi-detached units (3/4-bed), 56 no. townhouse units (2/3-bed), 64 no. apartment units (1/2-bed). This mix of apartments and housing are proposed to meet density requirements typically required by the Cork County Council Development Plan 2022.

The entrance to the proposed scheme is through the existing Aldworth Heights development which is accessed from St. Joseph's Road. Proposed primary local streets are accessed via this entry point and run though the site forming a looping system. From here, secondary local streets branch off providing access to units around the development. Shared surface streets are located along sections of the development in order to provide additional pedestrian safety and aid in traffic calming.

Proposed public open spaces are scattered around the site to complement the neighbourhoods. Green pockets and larger landscaped areas allow for different kinds of uses and interactions. Shared surfaces will also help in the creation of a vibrant neighbourhood. Natural features, such as the hedgerows, are retained where possible to give a particular and unique character to these areas. Buffer zones have been provided around the archaeological features located to the north west of the site to protect them from any impact the development would have on them while preserving the historical aspects of the site.

The site will be divided into no. 2 areas with specific characters. Each character area will form a different neighbourhood characterised by specific architectural and landscaped treatments.

EFFICIENCY

An imaginative and efficient layout design has enabled us to unlock and maximise the potential of new neighbourhoods, and to achieve the right densities for this area. Economic in Design, a sequence of distinctive streetscapes with different widths and parking formations generate a highly efficient residential scheme and assist our vision of placemaking. The economical use of high-quality materials and design features achieves superb quality homes that are both beautifully crafted and financially viable.

ARD AN GHLEANNA - MALLOW

Unit Type	Description	No. of Bedrooms	Bed Space	Proposed Unit Area (sq.m.)		No. of Unit
A1	Semi-Detached	4	7	134.44		4
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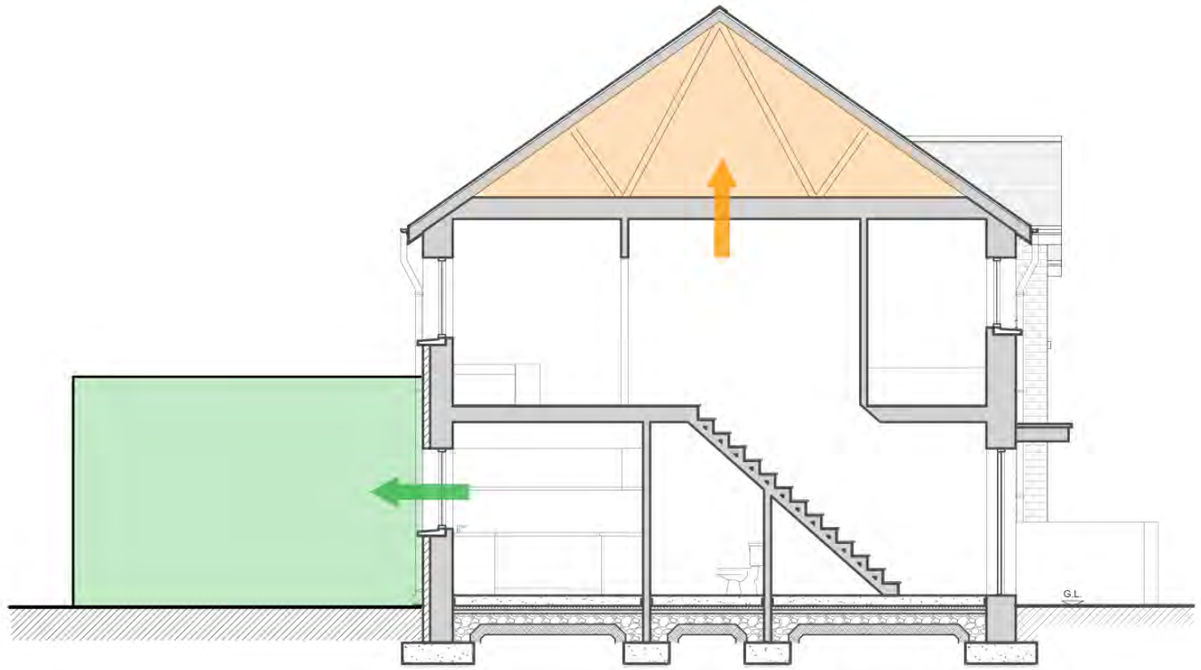
03 PROPOSED DESIGN
LANDSCAPE PROPOSAL (FORESTBIRD DESIGN)

PLEASE REFER TO THE LANDSCAPE REPORT PREPARED BY FORESTBIRD DESIGN FOR FURTHER INFORMATION

03 PROPOSED DESIGN
ADAPTABILITY

The proposed dwellings are adaptable to respond to potential changing needs over their lifetime. The units are strategically designed which allows the owner to extend into the attic and/or to the rear if they wish.

With a selection and distribution of house types reflecting how future market challenges can be used to the advantage of the community, the enhanced distinctiveness of the units will work for the benefit of this scheme.



DGA ADAPTABILITY OPTIONS

03 PROPOSED DESIGN
PRIVACY AND AMENITY

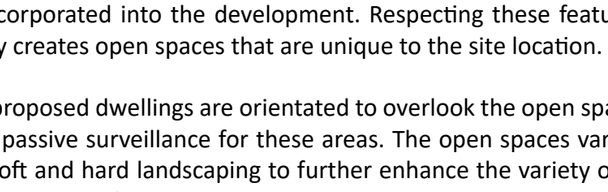
The layout responds to the topography and natural features that exist on site with an existing meadow with an archaeological buffer zone, hedgerows and trees integrated into the overall scheme. Great care has been given in designing the layout to ensure these natural features have been incorporated into the development. Respecting these features also naturally creates open spaces that are unique to the site location.

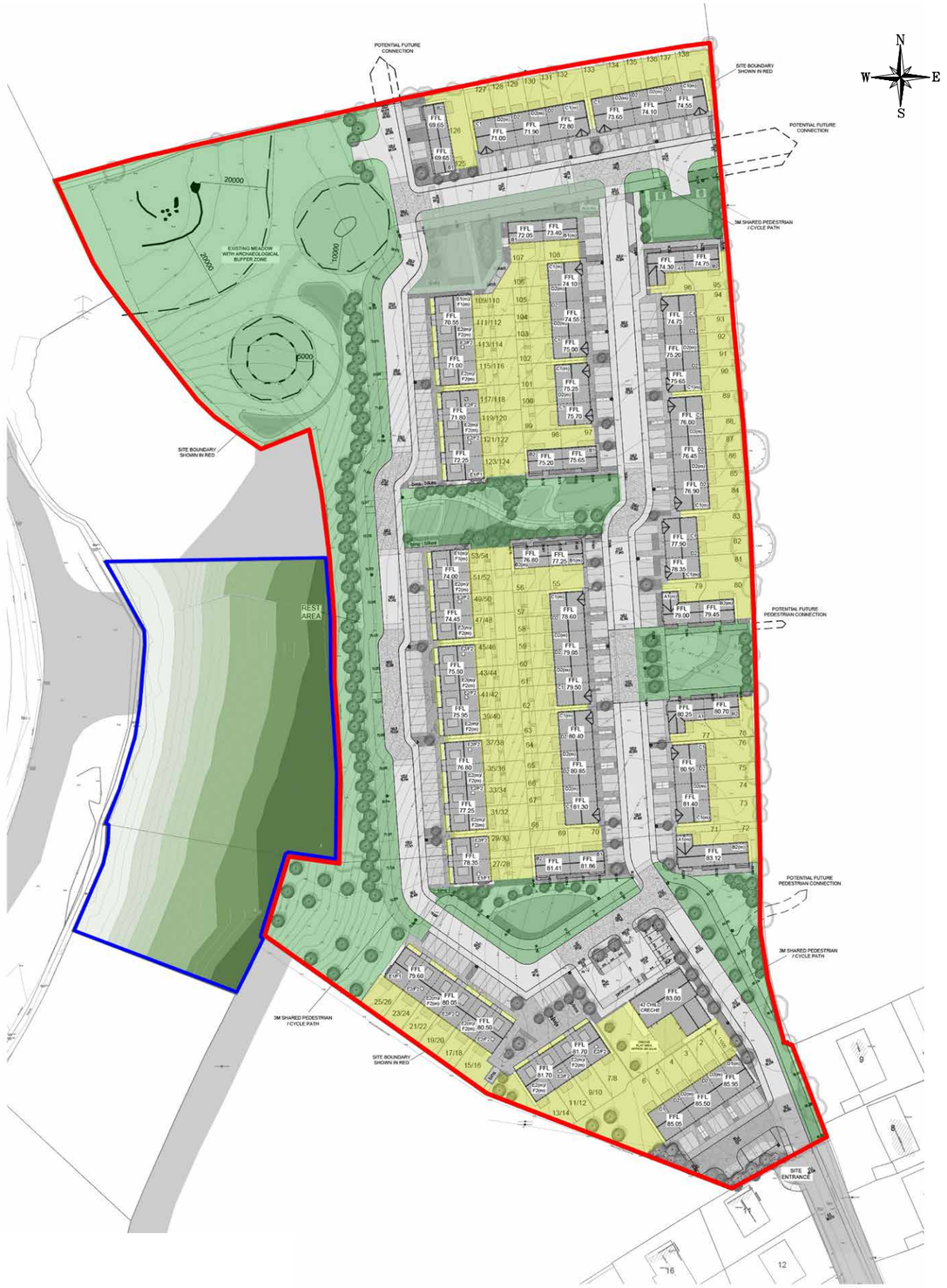
The proposed dwellings are orientated to overlook the open spaces and provide passive surveillance for these areas. The open spaces vary with a mix of soft and hard landscaping to further enhance the variety of spaces and the inclusivity for all residents throughout the year.

Each unit will also have access to a private amenity space in the form of gardens or balconies. The houses and ground floor apartment units have a private rear garden and the majority of the units are placed back to back with a distance greater than 16m to guarantee privacy. Units like the narrow semi-detached A1, B1 and B2 units have been designed with no habitable rooms to the rear at first floor level which prevents overlooking into neighbouring gardens and can accommodate shorter rear gardens as a result of this. The Upper Duplex apartments will have access to a private balcony.

Private Bin and Bicycle stores have been allocated for the mid - townhouse and apartment/duplex units without direct garden access.

All homes will be constructed to prevent acoustic transfer and have been sited to prevent overlooking into adjacent private gardens.



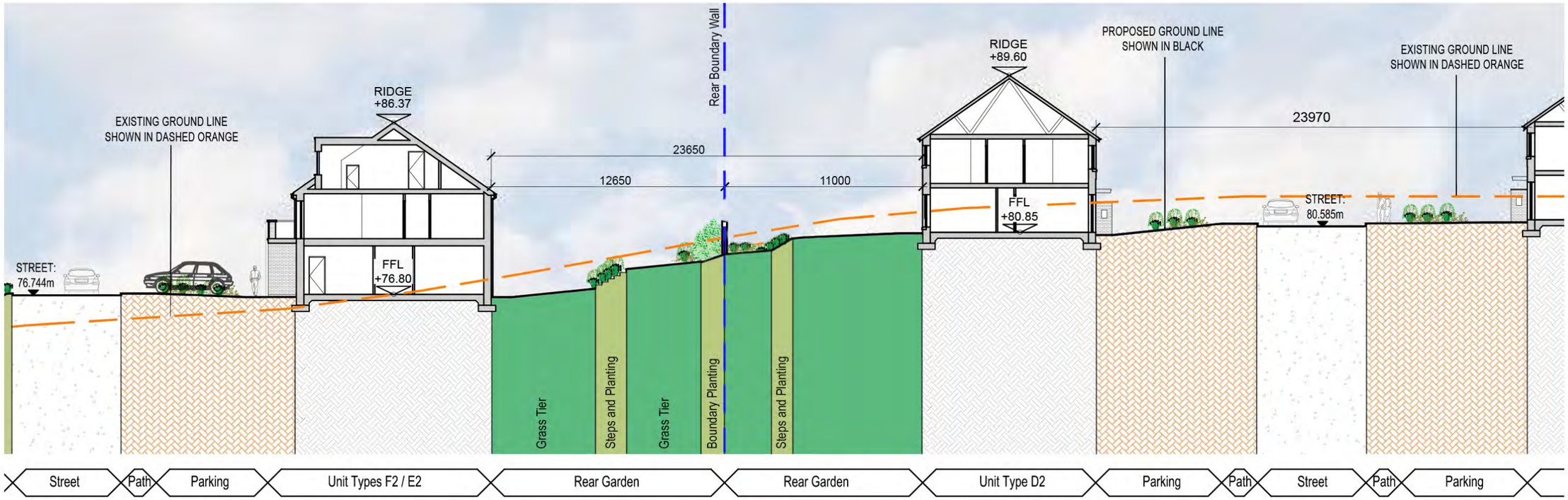


03 PROPOSED DESIGN
PRIVACY AND AMENITY

Due to the steep topographical nature of the site, the layout of the scheme has been orientated in line with the slope of the site in order to achieve part M access to the dwellings while maximising efficiency and minimising cut and fill.

In areas of the site where the existing site levels require an approach that minimises cut and fill, a stepped rear garden arrangement is being proposed. In these areas, the back-to-back separation distances are increased in order to provide adequate usable private amenity space while incorporating a mix of terraced and planted areas within the garden spaces, also minimising the amount of retaining elements required.

EXAMPLE OF STEPS INCORPORATED WITHIN PRIVATE AMENITY SPACE TO HELP MINIMISE CUT AND FILL. IN PLACES, WIDER STEPS CAN BE INCORPORATED AND UTILISED AS INFORMAL PLACES TO SIT



TYPICAL SITE SECTION THROUGH PRIVATE AMENITY SPACES SHOWING THE STEPPED APPROACH REQUIRED TO DEAL WITH EXISTING TOPOGRAPHY

03 PROPOSED DESIGN
MATERIALITY

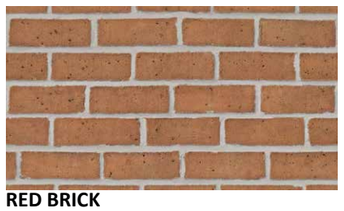
MATERIALITY **Character Area 1**

BEIGE BRICK

OFF-WHITE RENDER

SLATE/ TILE ROOF

Character Area 2



RED BRICK

OFF-WHITE RENDER

SLATE/ TILE ROOF

The materiality of the development has been considered in order to emulate and enhance the urban architecture within the locality. The materials and finishes within the development have been carefully selected for their durability and to ensure the overall efficiency of the design.

The placement of the materials within the elevational treatments have been designed to give a distinctiveness to the proposal. The materials chosen will require little maintenance and allow for attractive and distinct areas for the end user.

S 7543:2015, 'Guide to Durability of Buildings and Building elements, Products and Components' has been referenced in conjunction with the current building regulations. This standard provides guidance on the durability, design life and predicted service life of buildings and their parts and further helps predict and reduce associated costs for the individual resident.

03 PROPOSED DESIGN
CHARACTER AREAS

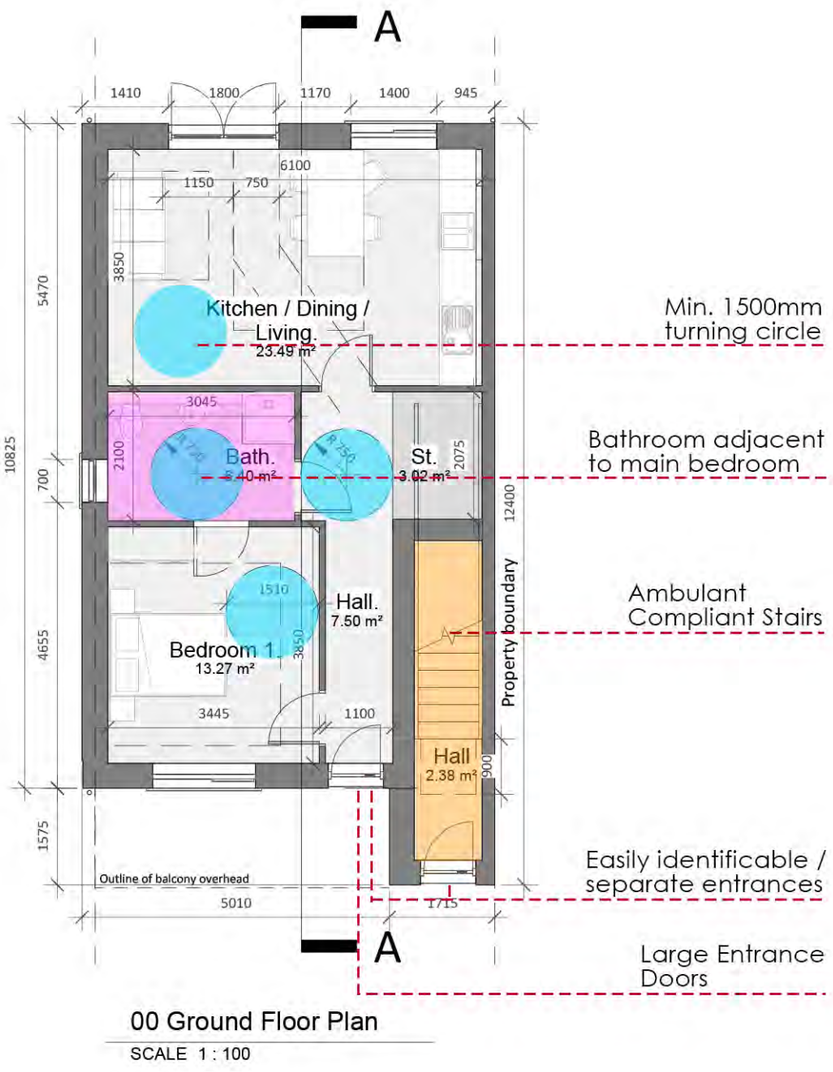
DEADY GAHAN ARCHITECTS

Residential Development, at Ard an Ghleanna, Mallow, Co.Cork

03 PROPOSED DESIGN
UNIVERSAL DESIGN ACCOMMODATION

Providing exceptional New Homes in a sustainable and commercially viable manner, in well connected locations is the ultimate goal of this housing development. The ground floor apartment units in this scheme have been developed with a particular focus on homes that contain internal spaces that can cater for people with mobility issues. Ample space within bedrooms/bathrooms and living areas ensures that the usability of these spaces is at the forefront of the design, with areas for turning within corridors/hallways also considered to ensure ease of movement for residents within dwellings.

The Design Criteria in which these units have been developed has been taken from the **'2023 Sustainable Urban Housing: Design Standards for New Apartments'** and **'Universal Design Guidelines for Homes in Ireland'** documents.



00 Ground Floor Plan
SCALE 1 : 100

03 PROPOSED DESIGN
PROPOSED CRÈCHE

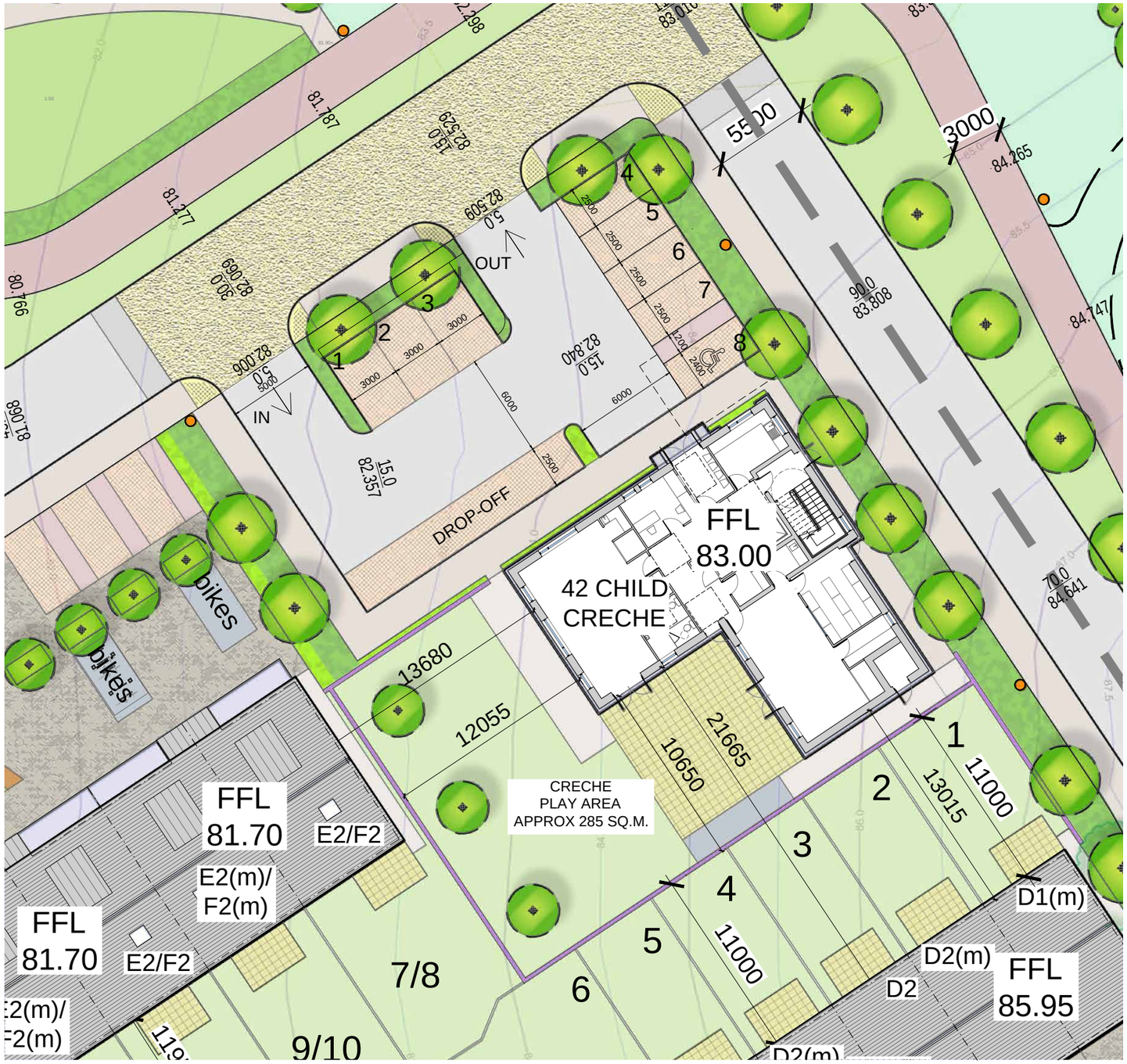
Appendix 2 of the 'Childcare Guidelines for Planning Authorities' establishes an indicative standard of one childcare facility per 75 dwellings in new housing areas (Paragraphs 2.4 and 3.3.1 refer). One facility providing a minimum of 20 childcare places is considered to be a reasonable starting point in this regard. The Guidance acknowledges that other case-specific assumptions may lead to an increase or decrease in this requirement.

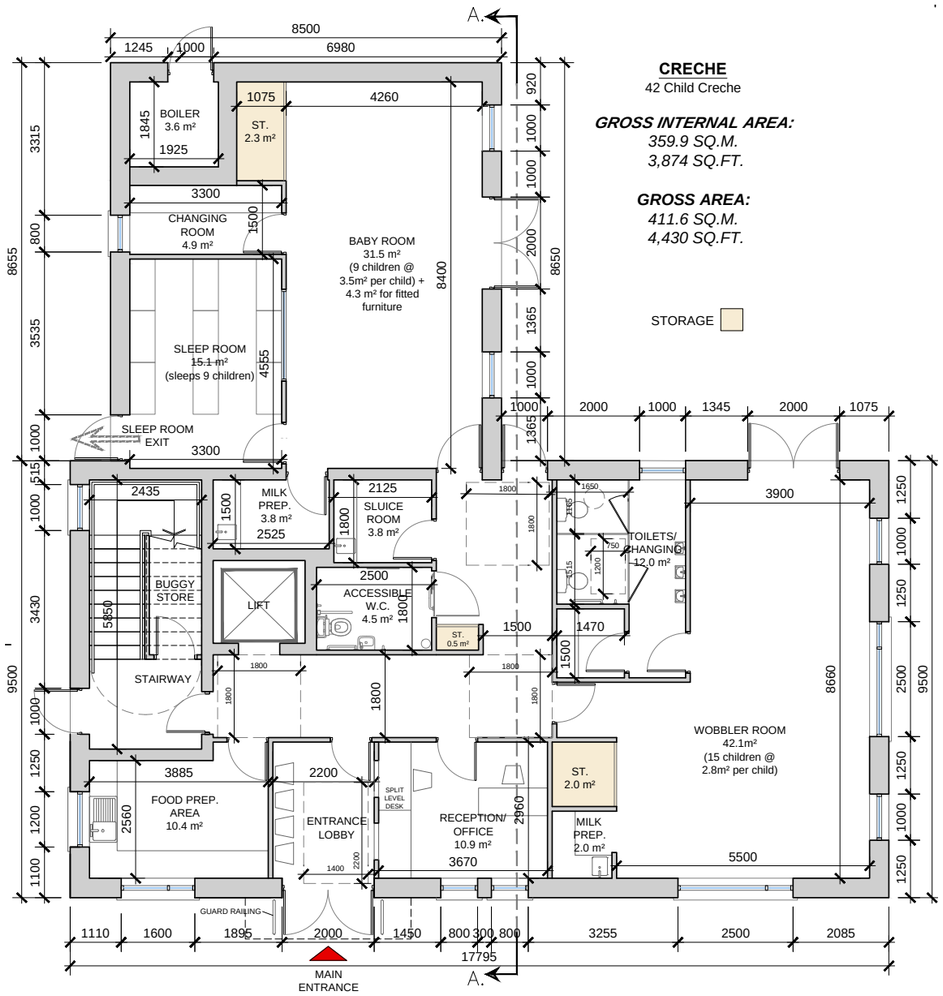
The proposed overall development will result in the provision of 138 no. residential units. The proposed development makes provision for a 42-child crèche of 359.9m² (411.6 m² gross area). This facility is located to the south of the site, in close proximity to the main site entrance. Adequate parking is provided to accommodate both staff and visitors.

Given that many future residents will likely commute to work and therefore are likely to also avail of childcare facilities elsewhere, this facility is considered to be of adequate size to cater for the size and mixed tenure of development as well as the need to safeguard the viability of the identified established service offer locally. The design and the location of the crèche has been carefully considered in a relation to how it fits within the proposed development in order to create a feature building that is in close proximity to entrance.

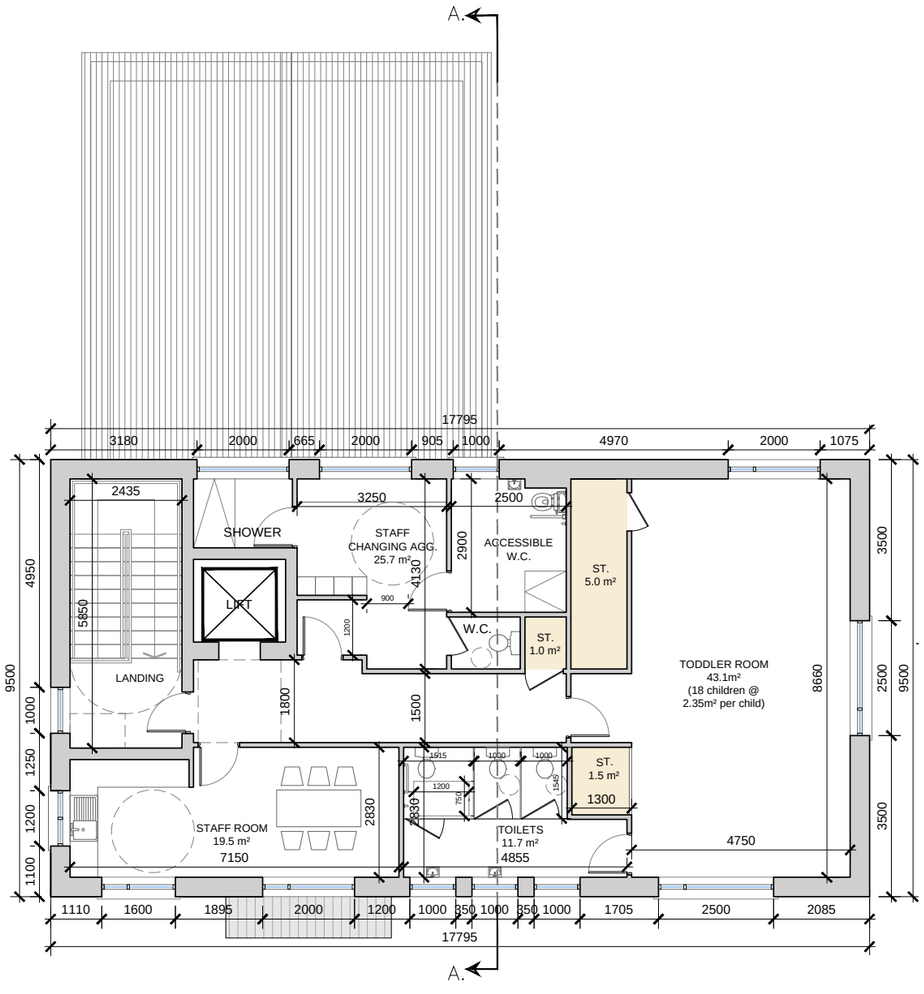
Bin and bike storage for the crèche will be facilitated within the crèche play area.

CRÈCHE PLAY AREA EXAMPLE

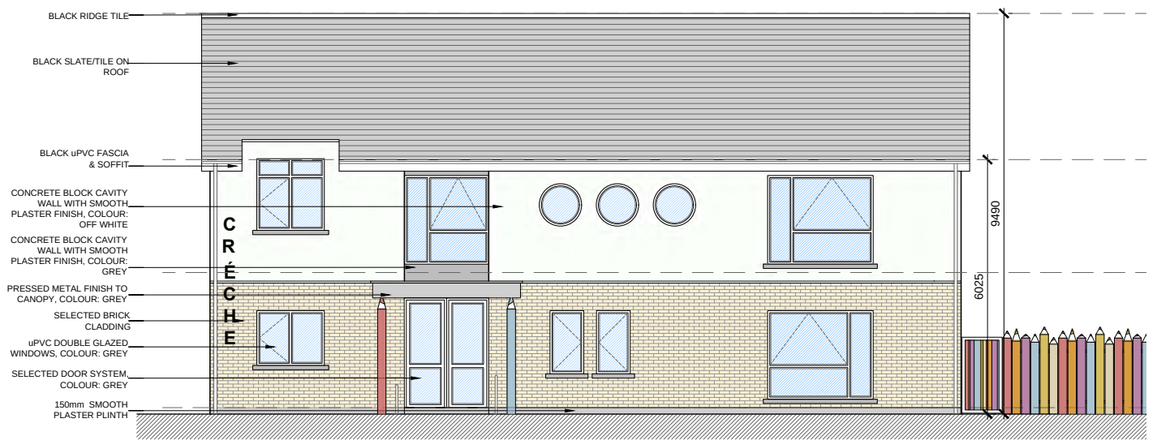




Ground Floor - Créche

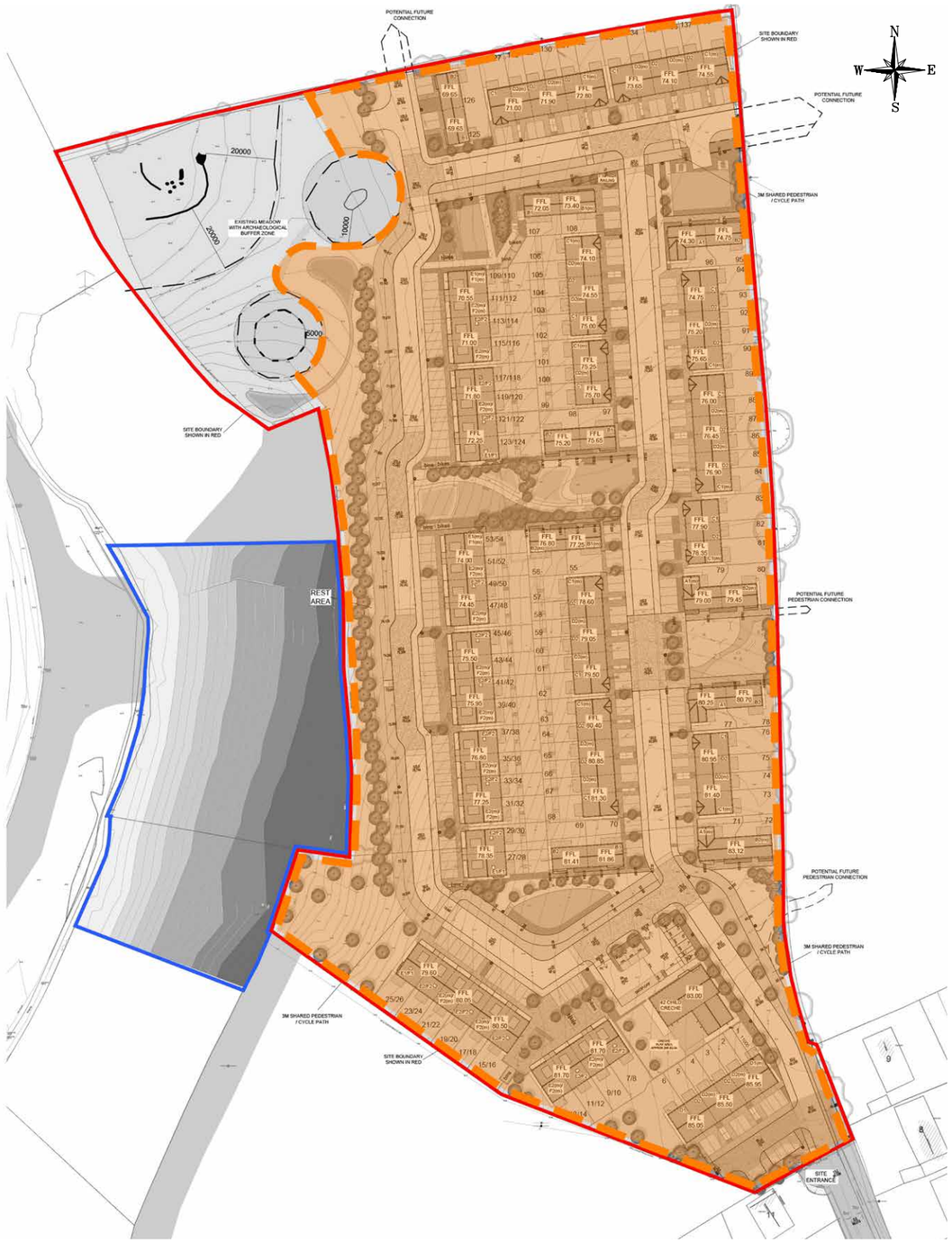


First Floor - Créche



Front Elevation

03 PROPOSED DESIGN
DEVELOPABLE AREA



The total site area comprises 4.52 hectares.

We have considered a net developable area of 3.9 hectares. Due to the nature of the Archaeological features on the site and the required buffer zones, this area has been discounted from the developable area calculation. The overall layout proposes no. 138 residential units, for a density of 35.4 units/HA calculated on the net developable area:

- No. 18 3/4-bed semi-detached units,
- No. 56 2/3-bed townhouse units,
- No. 64 1/2-bed apartments (own-door access),
- There is also a 42-child creche on site.

DEADY GAHAN ARCHITECTS

Residential Development, at Ard an Ghleanna, Mallow, Co.Cork

03 PROPOSED DESIGN
USABLE OPEN SPACE

COMMUNAL OPEN SPACE CALCULATION

Total no. of 1 bed Apts. = 32

Total no. of 2 bed Apts. = 32

Required Communal Open Space per 1 Bed Apt = 5 sq.m.

Required Communal Open Space per 2 Bed Apt = 7 sq.m.

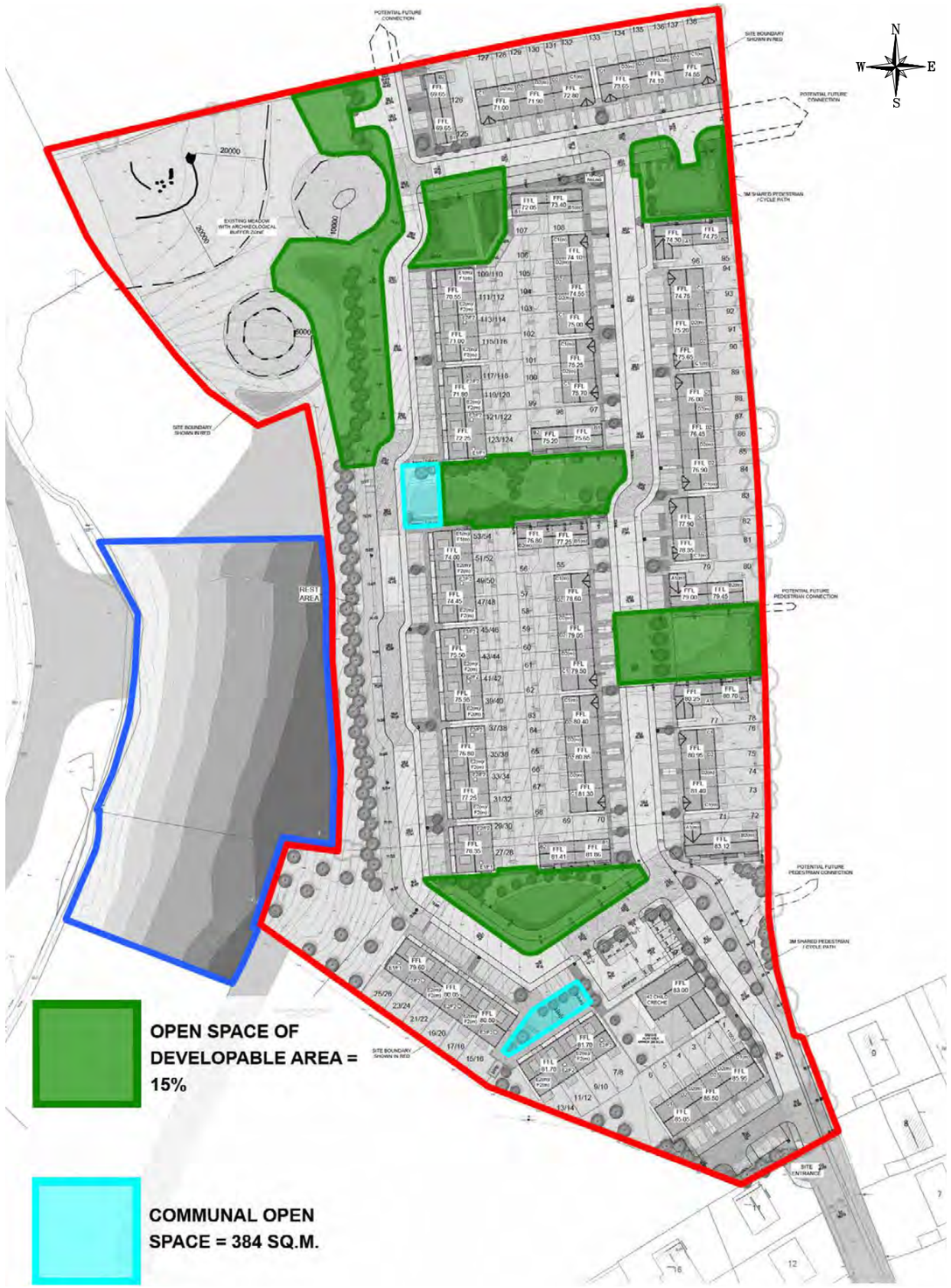
32 X 5 sq.m. = 160 sq.m.
32 X 7 sq.m. = 224 sq.m.

Total no. of Communal Open Space Required = 384 sq.m.

Total no. of Communal Open Space Provided = 384 sq.m.

DEADY GAHAN ARCHITECTS

Residential Development, at Ard an Ghleanna, Mallow, Co.Cork

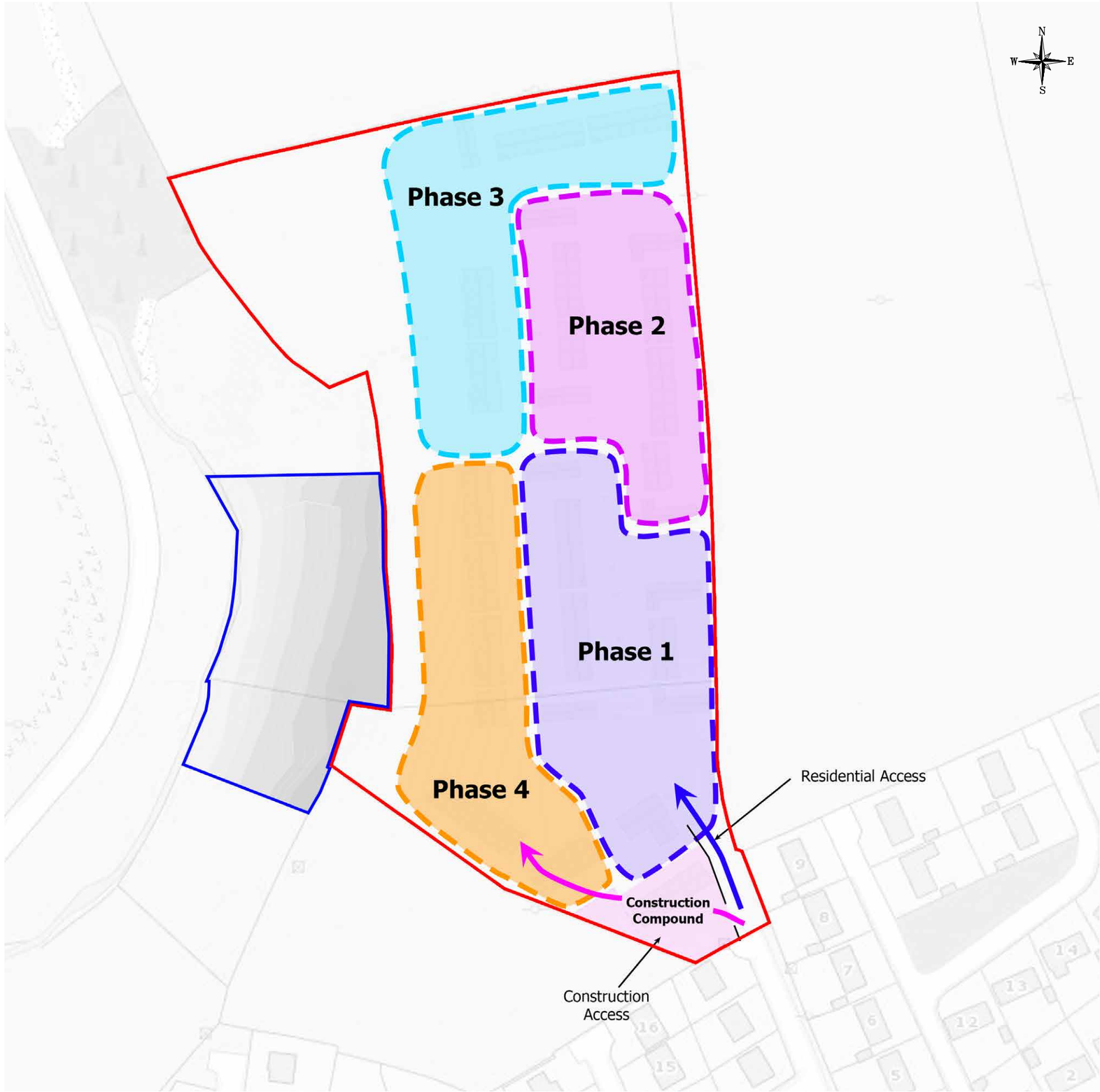


15% of the site developable area (which comprises of 3.9 hectares) has been allocated as usable public open space. This equates to approximately 5,850 sq.m. of usable open space.

Due to the steep topography of the site which yields sections of the site undevelopable, and the existing meadow with an archaeological buffer zone located to the north west of the site, areas of public open space had to be deemed unusable and excluded from the usable public open space calculation, while still providing a visual amenity.

These usable public open spaces have been designed to create a sense of community and ownership, with designated play areas and amenity walks integrated into the design.

03 PROPOSED DESIGN
PHASING



DEADY GAHAN ARCHITECTS

Residential Development, at Ard an Ghleanna, Mallow, Co.Cork

03 PROPOSED DESIGN
BIKE STORE PROVISION

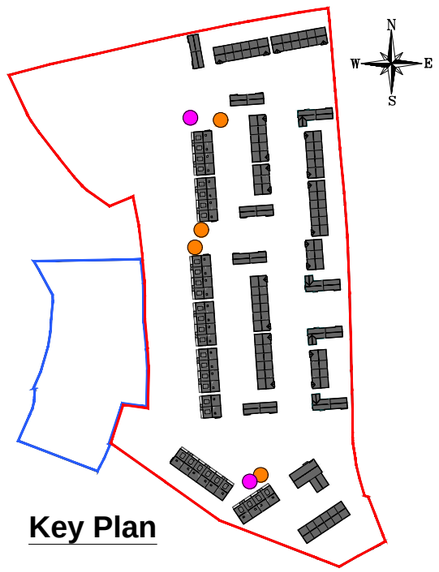
APARTMENTS
BIKE PARKING SCHEDULE

16no GF 1B apartment units x 1.5 spaces = 24
32no FF 2B apartment units x 2.5 spaces = 80
(these are apartments without direct access to a GF private amenity space for bike storage)
- 104no. bike spaces required in total

1. 80 no. spaces (In secure enclosure)
2. 24 no. visitors spaces (Covered)

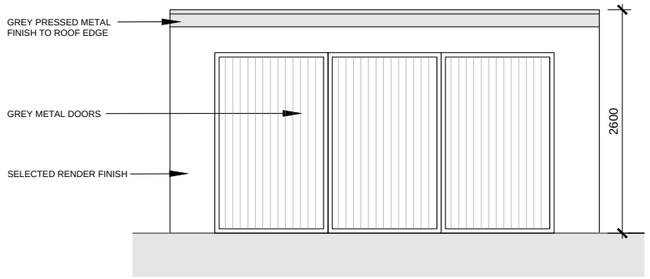
TOTAL APARTMENT BIKE PARKING SPACES PROVIDED = 104no.

**This is in line with the bike parking standards in the 2023 Apartment Guidelines

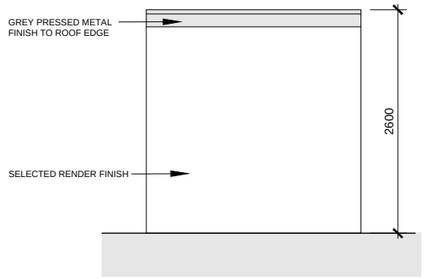


Key Plan

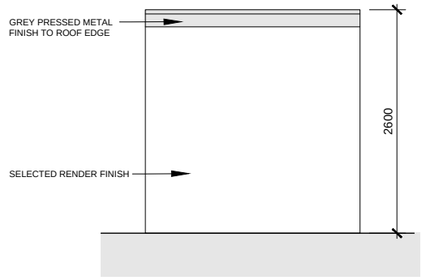
TYPICAL BIKE STORE



FRONT ELEVATION

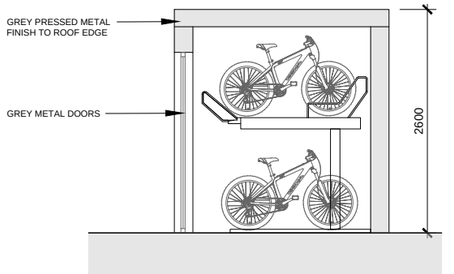


SIDE ELEVATION

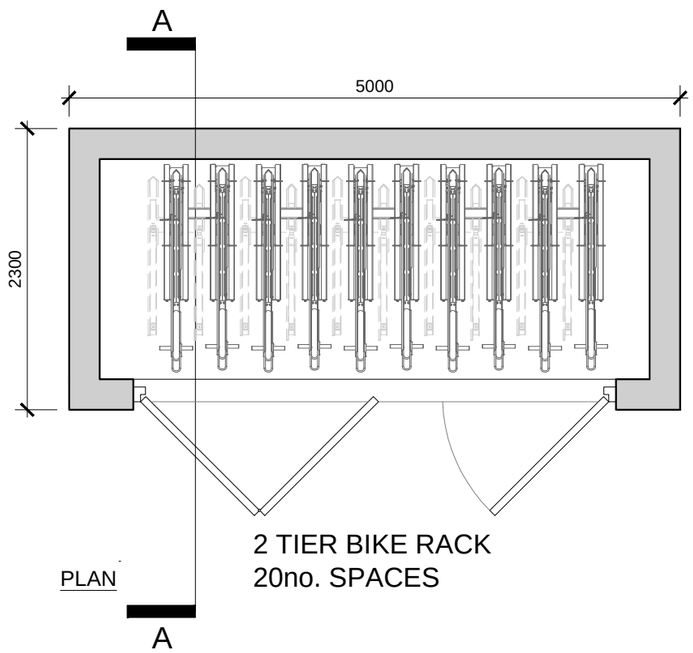


SIDE ELEVATION

REAR ELEVATION



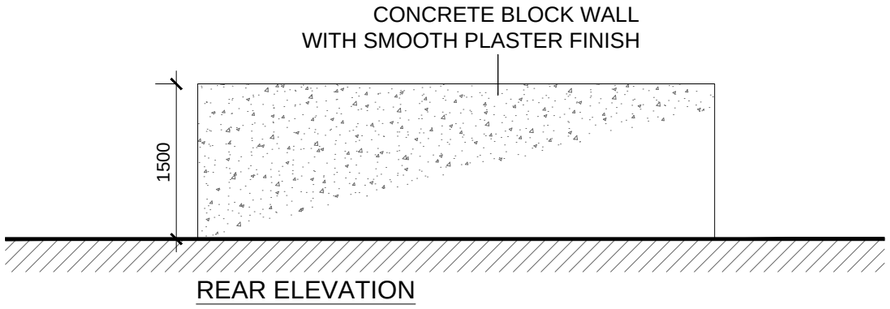
SECTION A-A



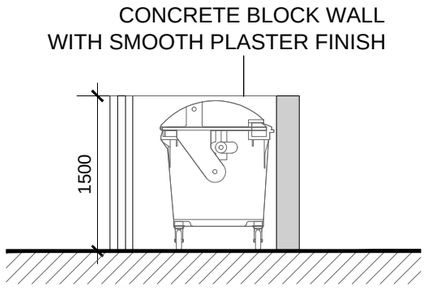
PLAN

2 TIER BIKE RACK
20no. SPACES

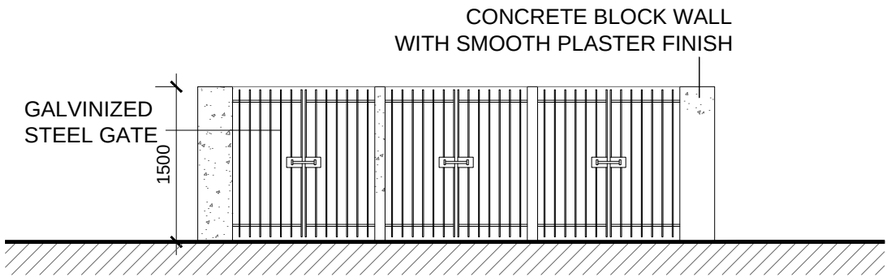
03 PROPOSED DESIGN
BIN STORE PROVISION



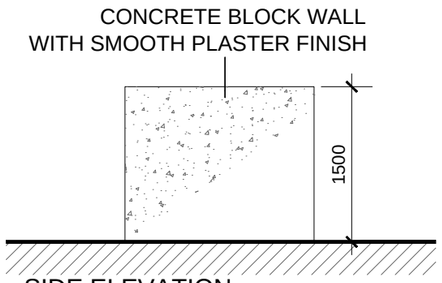
REAR ELEVATION



SECTION A-A



FRONT ELEVATION



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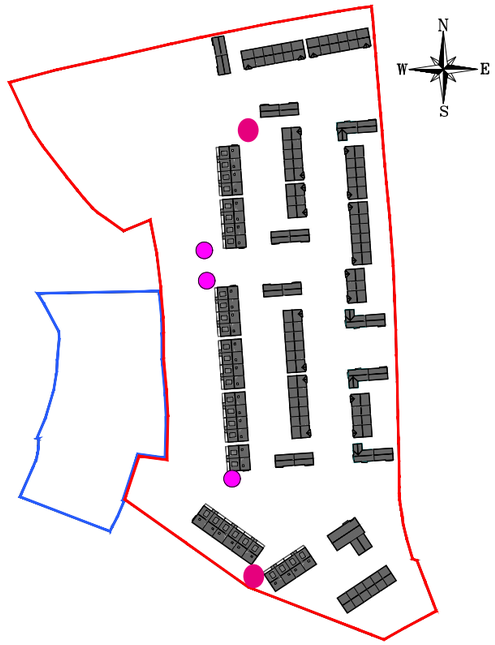
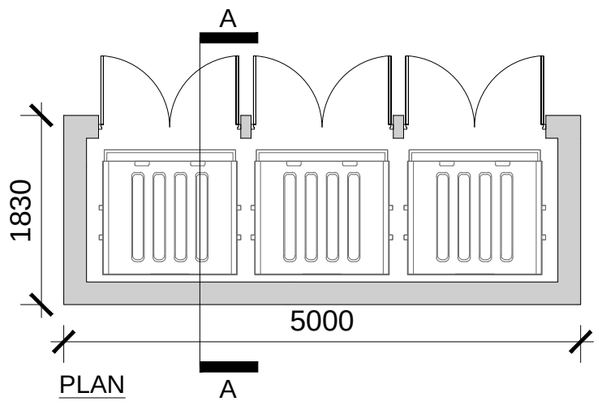
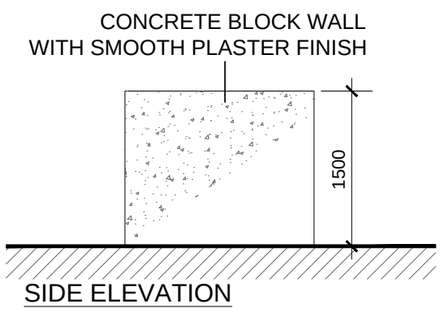


Key Plan

BINS



PLAN



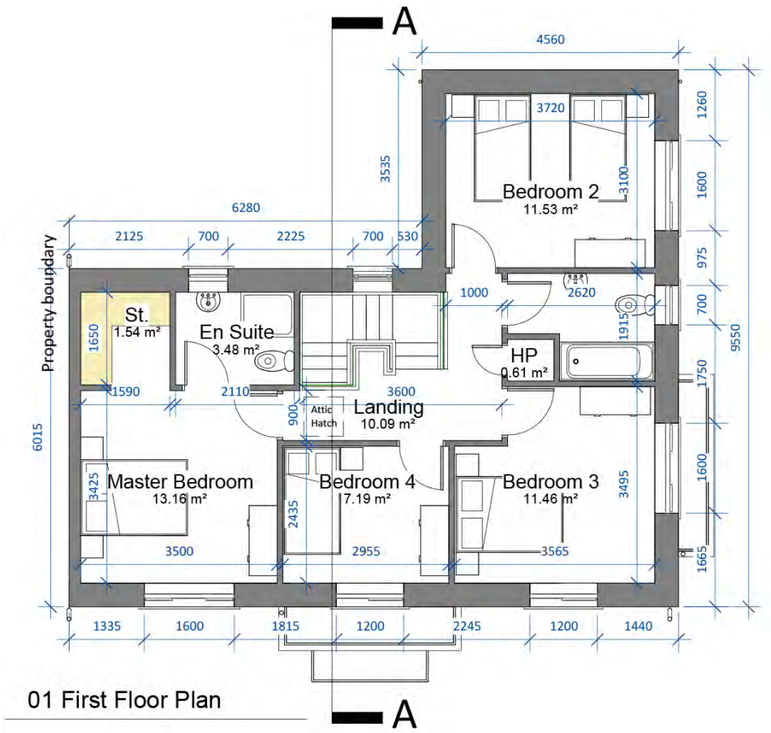
SIDE ELEVATION

TYPICAL BIN STORE

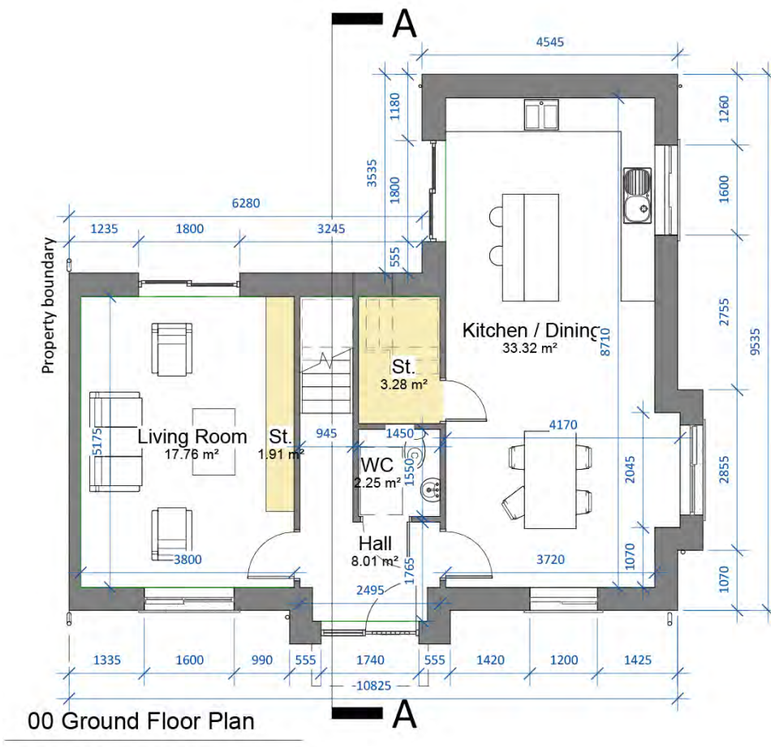
03 PROPOSED DESIGN
UNIT TYPE EXAMPLES

HOUSE TYPE A1

Front Elevation

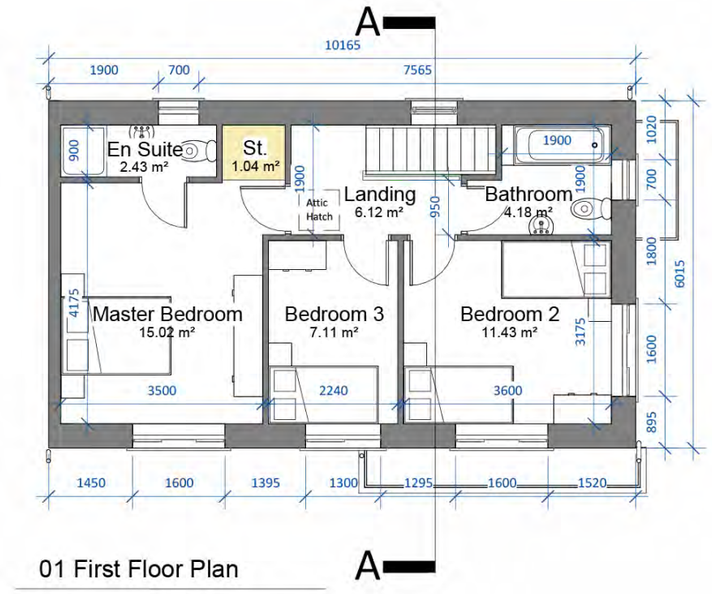


01 First Floor Plan



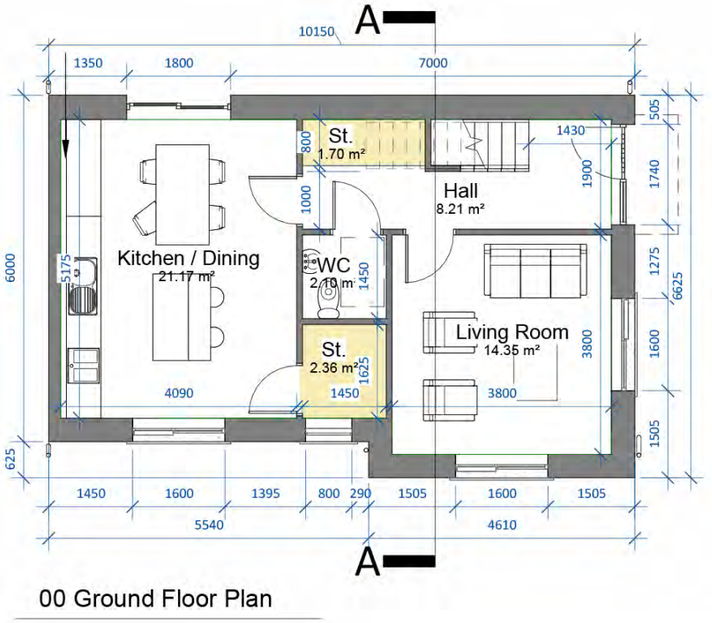
03 PROPOSED DESIGN
UNIT TYPE EXAMPLES

HOUSE TYPE B1



01 First Floor Plan

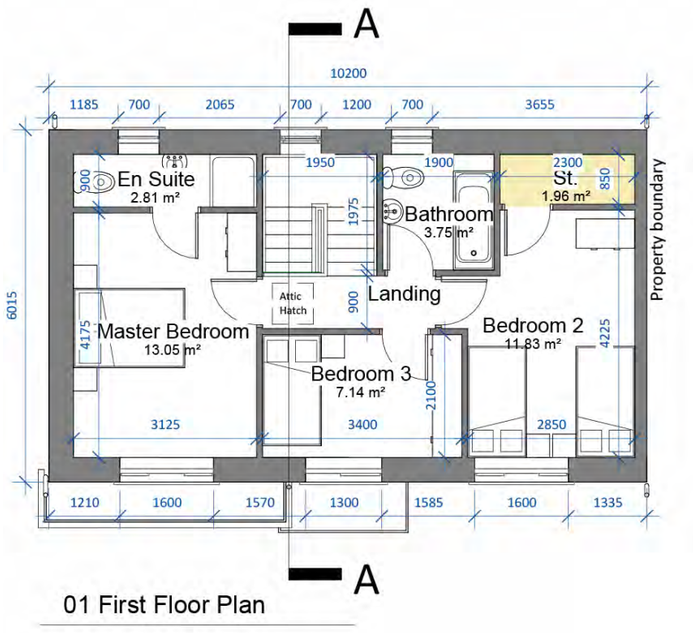
Side Elevation



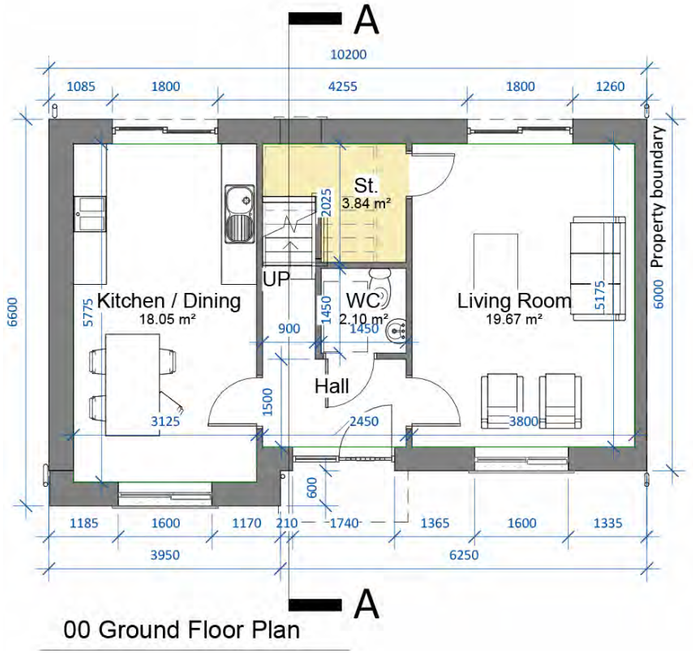
00 Ground Floor Plan

03 PROPOSED DESIGN
UNIT TYPE EXAMPLES

HOUSE TYPE B2



01 First Floor Plan

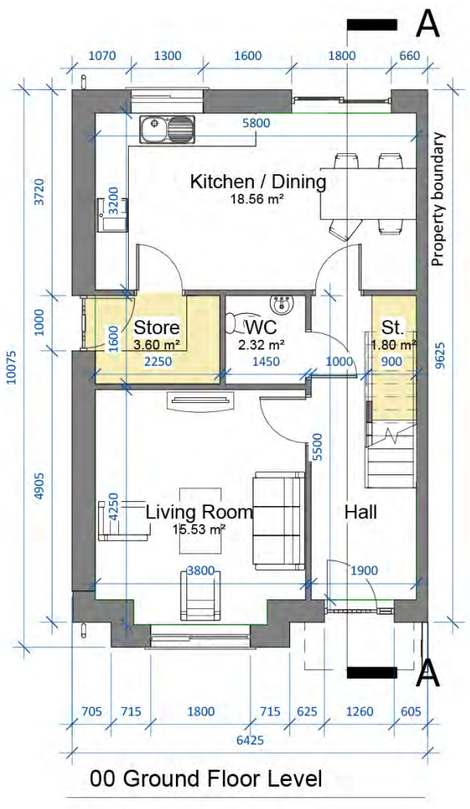


00 Ground Floor Plan

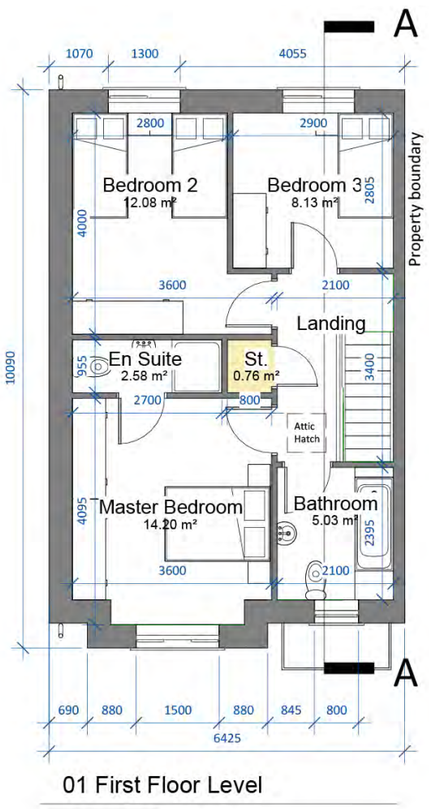
Front Elevation

03 PROPOSED DESIGN
UNIT TYPE EXAMPLES

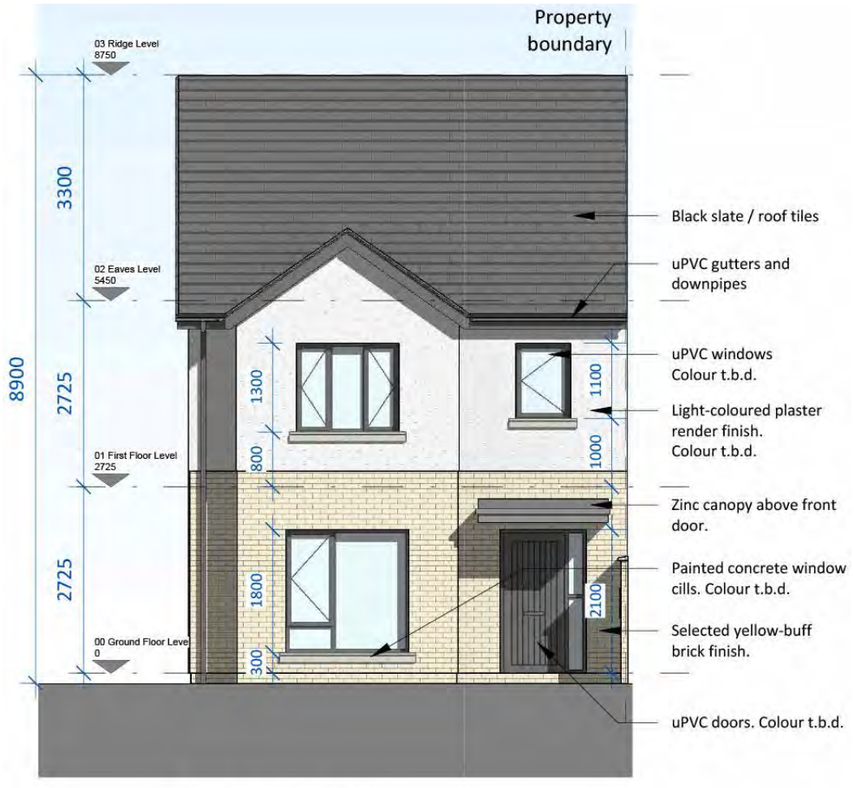
HOUSE TYPE C1



00 Ground Floor Level



01 First Floor Level

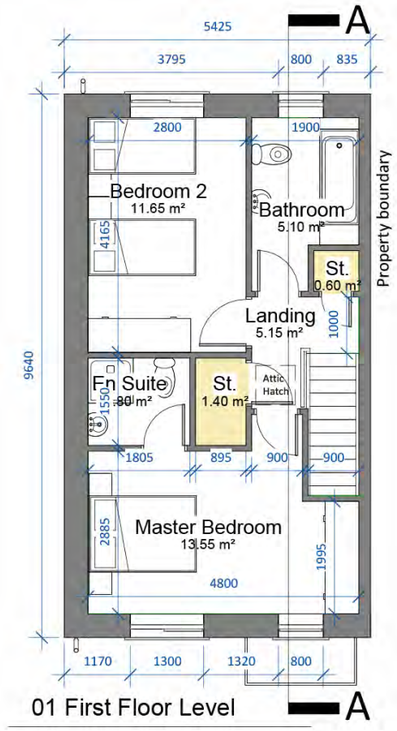


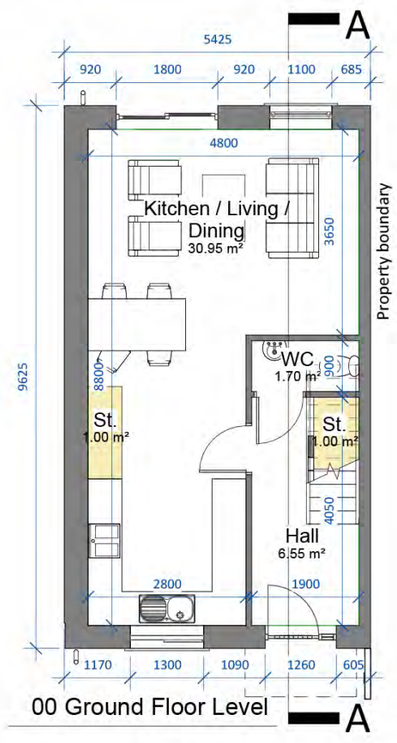
Front Elevation

03 PROPOSED DESIGN
UNIT TYPE EXAMPLES

HOUSE TYPE D1

Front Elevation

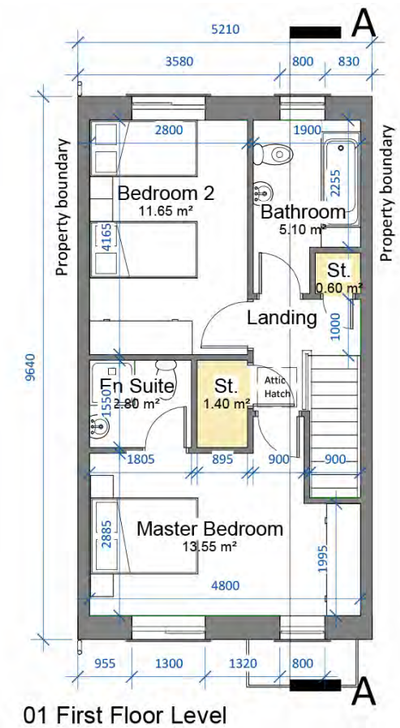




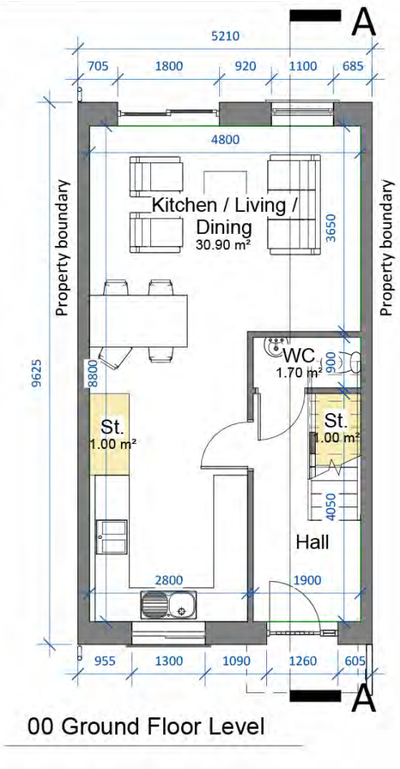
03 PROPOSED DESIGN
UNIT TYPE EXAMPLES

HOUSE TYPE D2

Front Elevation



01 First Floor Level

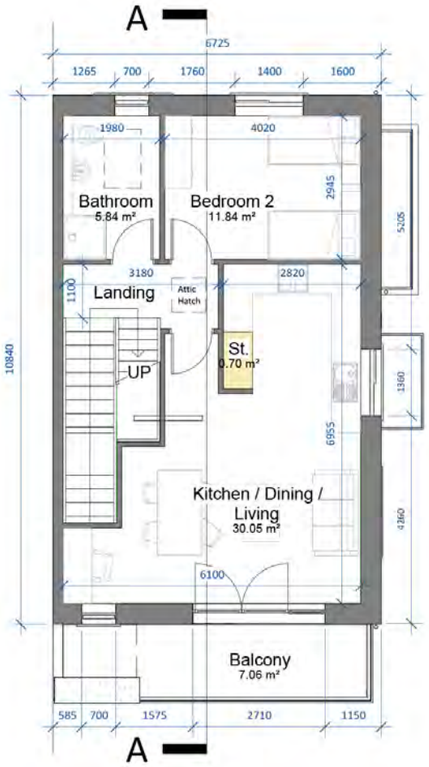


00 Ground Floor Level

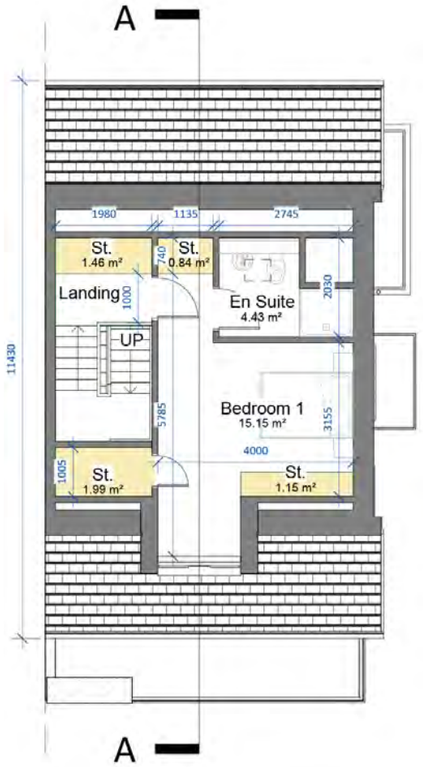
03 PROPOSED DESIGN
UNIT TYPE EXAMPLES

APARTMENT TYPES E1 & F1

00 Ground Floor Plan



01 First Floor Level

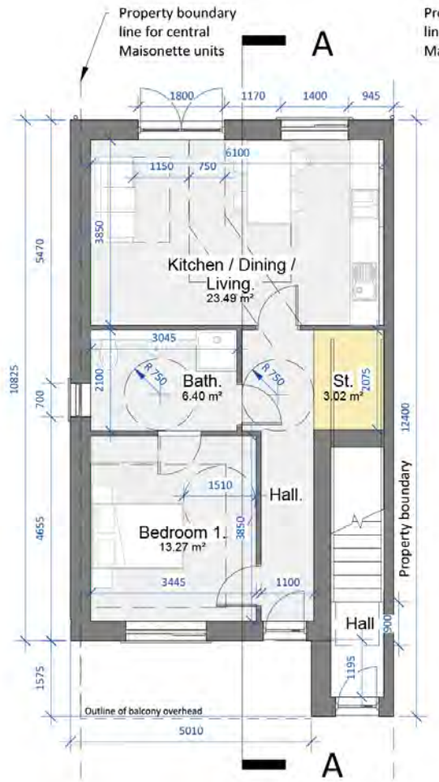


02 Second Floor Plan

Side Elevation

03 PROPOSED DESIGN
UNIT TYPE EXAMPLES

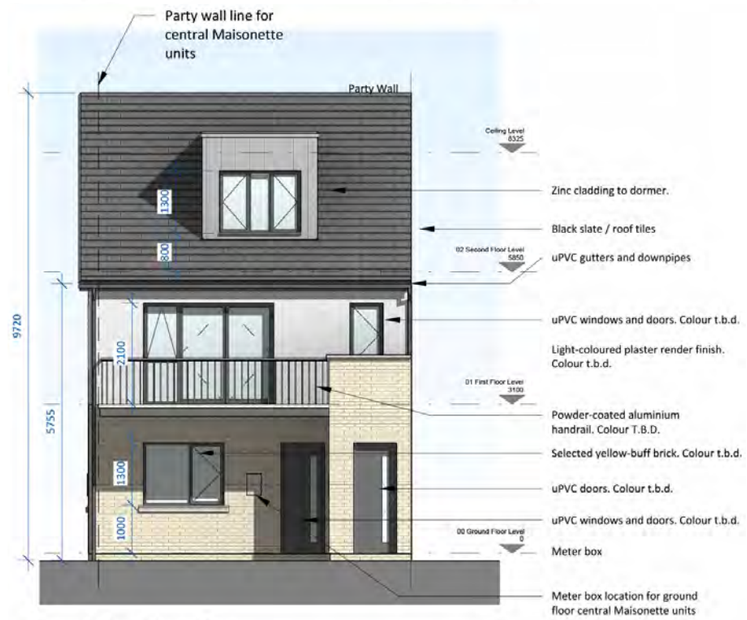
APARTMENT TYPES E2 & F2



00 Ground Floor Plan

01 First Floor Level

02 Second Floor Plan



Front Elevation

04 CGI's (GNET)

VIEW 1 - Northeast public amenity space and picnic lawn

04 VISUALS

VIEW 2- Northwest public amenity space with active amenity lawn

04 VISUALS

VIEW 3- Eastern open space with formal and natural play areas

04 VISUALS

VIEW 4- Southern open space, shared pedestrian / cycle path and orchard walk

04 VISUALS
VIEW 5- Duplex units facing west

04 VISUALS
VIEW 6- View towards Crèche

05 SUMMARY
SITE LAYOUT AND SCHEDULE

ARD AN GHLEANNA - MALLOW						
Unit Type	**Description**	**No. of Bedrooms**	**Bed Space**	**Proposed Unit Area (sq.m.)**		**No. of Unit**
A1	Semi-Detached	4	7	134.44		4
B1	Semi-Detached	3	5	101.11		6
B2	Semi-Detached	3	5	100.98		8
C1	Townhouse	3	5	104.24		20
D1	Townhouse	2	4	84.5		2
D2	Townhouse	2	4	84.5		34
E1	Duplex Apartment	2	4	90.2		5
E2	Duplex Apartment	2	4	90.2		27
F1	Ground Floor Apartment	1	2	56.7		5
F2	Ground Floor Apartment	1	2	55.2		27
4 bed		4		2.9%		
3 bed		34		24.6%		
2 bed		68		49.3%		
1 bed		32		23.2%		
houses		74		53.6%		
duplex-apartments		64		46.4%		
TOTAL NUMBER OF UNITS		**138**				
SITE AREA		**4.52 HA**				
SITE DEVELOPABLE AREA		**3.9 HA**				
DENSITY		**35.4 UNITS / HA**				
OVERALL OPEN SPACE		**26%**				
USABLE OPEN SPACE		**15%**				
42-child CRECHE		**G.I.A.: 359.9 sq.m. / G.A.: 411.6 sq.m.**				
183 no. Car parking Spaces Provided in Total						
(2 no. Spaces per 3 and 4 Bed Unit, 1 no. Space per 2 Bed Unit, 0.7-1 no. Spaces per Apartment Unit, 8 no. Creche Spaces and a modest number of Additional Visitor Spaces are also provided.						

SITE PLAN

Mallow, Co. Cork

Housing Quality Assessment

at Ard an Ghleanna, Mallow, Co. Cork

Planning Application - July 2024

Document prepared by Deady Gahan Architects on behalf of:

DEADY GAHAN ARCHITECTS

Comhairle Contae Chorcaí
Cork County Council

Table of contents

1.0 Introduction and Project Description

This Housing Quality Assessment report has been prepared by Deady Gahan Architects to provide information on the proposed residential development at Ard an Ghleanna, Mallow, Co. Cork.

The total site area comprises 4.52 hectares with a net developable area of 3.9 hectares (site area minus an existing meadow with an archaeological buffer zone located to the north west of the scheme). The existing topography of the site is steeply sloped from east to west. The site is bounded by an existing residential development to the south and agricultural lands to the east and north. To the west the topography slopes significantly down to the N72 Mallow - Fermoy Road. The site is in walking distance of a host of amenities offered by Mallow town such as schools and shops with a thriving town centre and active community groups and clubs.

The proposed development will consist of the development of 138 no. residential units, consisting of 64 no. 1/2 bed apartments and 74 no. houses (ranging from 2 - 4 bedrooms). The scheme will also include for car parking, cycle parking, new pedestrian/cycle links, storage, services and plant areas. Landscaping will include for high quality private open space, communal amenity areas and public open space provision.

Deady Gahan Architects are the designers of the proposed scheme and the units have been specifically designed to meet the demands of the housing market. All the proposed units will be assessed in this report against the relative regulations.

The proposed development will accommodate no. 138 residential units:

- No. 74 Standard Housing
- No. 64 Apartments

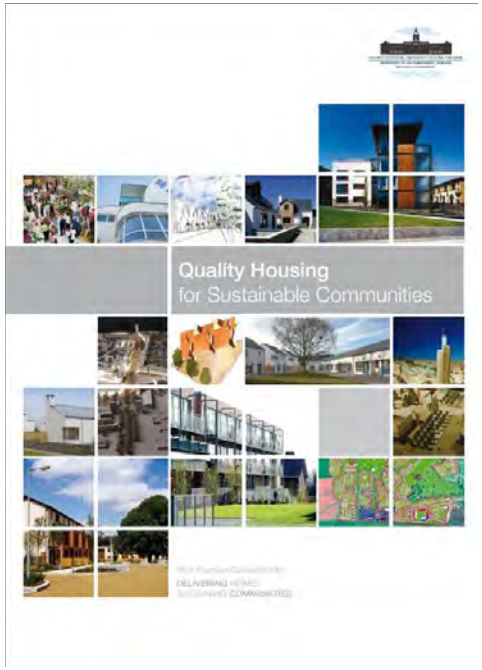
2.0 Policy Overview

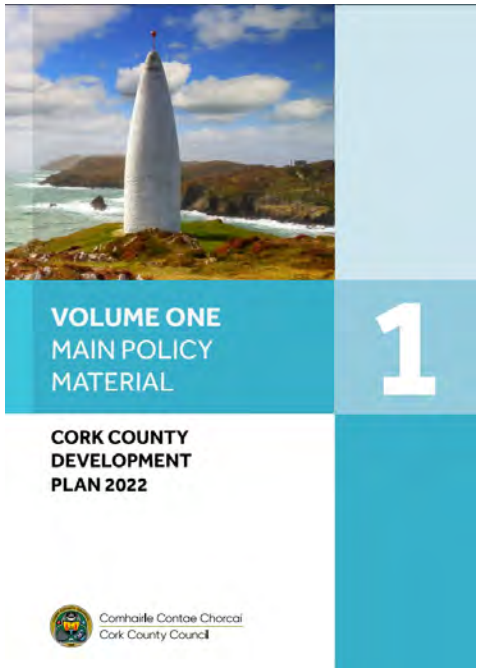
Deady Gahan Architects have been appointed to produce this Housing Quality Assessment to accompany the planning application for the proposed development which consists of:

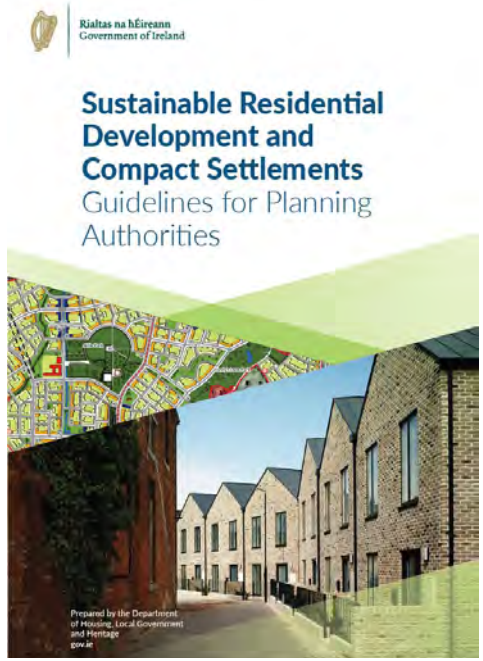
138 no. residential units (74 no. houses and 64 no. apartments) and associated site works at Ard an Ghleanna, Mallow, Co. Cork.

This report demonstrates the proposed residential houses and apartments against the provisions of:

- Quality Housing for Sustainable Communities, Department of the Environment, Heritage and Local Government (2007)
- Sustainable Urban Housing: Design Standards for New Apartments. Guidelines for Planning Authorities (2023)
- Cork County Development Plan 2022-2028
- Sustainable Residential Development and Compact Settlements. Guidelines for Planning Authorities (2024)







3.0 Proposed Site Layout

3.1 Summary Schedule

ARD AN GHLEANNA - MALLOW						
Unit Type	**Description**	**No. of Bedrooms**	**Bed Space**	**Proposed Unit Area (sq.m.)**		**No. of Unit**
A1	Semi-Detached	4	7	134.44		4
B1	Semi-Detached	3	5	101.11		6
B2	Semi-Detached	3	5	100.98		8
C1	Townhouse	3	5	104.24		20
D1	Townhouse	2	4	84.5		2
D2	Townhouse	2	4	84.5		34
E1	Duplex Apartment	2	4	90.2		5
E2	Duplex Apartment	2	4	90.2		27
F1	Ground Floor Apartment	1	2	56.7		5
F2	Ground Floor Apartment	1	2	55.2		27
4 bed		4		2.9%		
3 bed		34		24.6%		
2 bed		68		49.3%		
1 bed		32		23.2%		
houses		74		53.6%		
duplex-apartments		64		46.4%		
TOTAL NUMBER OF UNITS		**138**				
SITE AREA		**4.52 HA**				
SITE DEVELOPABLE AREA		**3.9 HA**				
DENSITY		**35.4 UNITS / HA**				
OVERALL OPEN SPACE		**26%**				
USABLE OPEN SPACE		**15%**				
42-child CRECHE		**G.I.A.: 359.9 sq.m. / G.A.: 411.6 sq.m.**				
183 no. Car parking Spaces Provided in Total						
(2 no. Spaces per 3 and 4 Bed Unit, 1 no. Space per 2 Bed Unit, 0.7-1 no. Spaces per Apartment Unit, 8 no. Creche Spaces and a modest number of Additional Visitor Spaces are also provided.						

3.2 Developable Area & Open Spaces

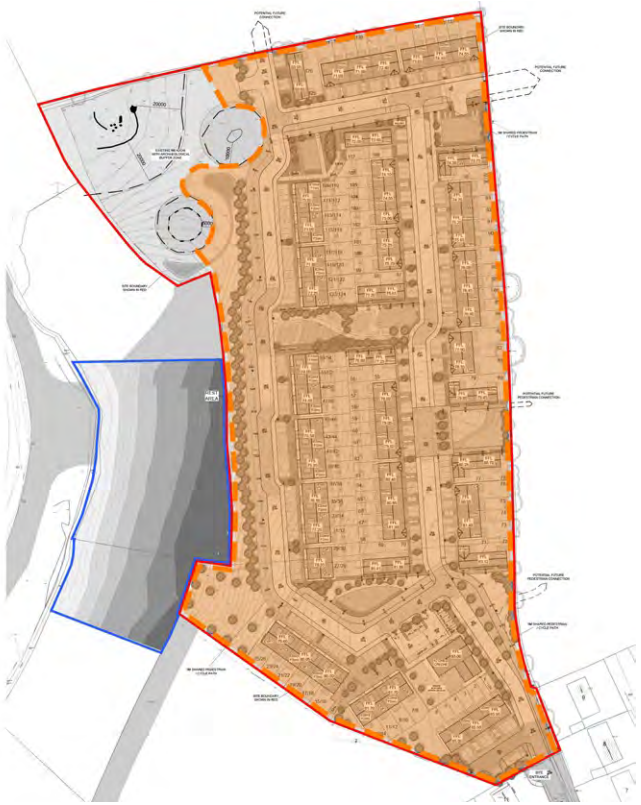
The total **SITE AREA** comprises **4.52 HA**, with a net **DEVELOPABLE AREA** of **3.9 HA**.

The areas excluded from the total site area to provide a net developable area are: the existing meadow with an archaeological buffer zone located to the north west of the site.

0.585 HA Usable Public Open Space is provided which equates to the **15%** of the developable area. We have also omitted the area required to facilitate the development of the adjacent lands to the north west from the public open space calculation.

384 sq.m. of communal open space is required to facilitate the communal open space requirements for the apartments units and 2 no. spaces have been allocated in close proximity to these units.

DEVELOPABLE AREA STRATEGY



OPEN SPACE STRATEGY

4.0 Housing Quality Assessment - Houses

For the housing element, this Housing Quality Assessment provides a framework which quantifies each of the criteria required by the *"Quality Housing for Sustainable Communities (2007)"*, the *"Sustainable Residential Development and Compact Settlements, Guidelines for Planning Authorities (2024)"* and the *"Cork County Development Plan 2022-2028"*. Qualitative aspects such as the residential conceptual design approach are covered within the accompanying "Architectural Design Statement". Please see schedule on the following pages showing the house typologies proposed within the development compared with the relative legislation.

The size and depth for private amenity spaces are dictated by the Compact Growth Guidelines issued in 2024, the depth of the gardens are reduced from 11m to 8m and the minimum area requirements are as follows;

- Minimum 30 sq.m. for 2 bed houses
- Minimum 40 sq.m. for 3 bed houses.
- Minimum 50 sq.m. for 4 bed houses.

*Note, the rear garden sizes of the houses have been over-allocated to include the possible banking required due to the steep topographical nature of the site. Each garden has been designed to provide adequate usable private amenity space in line with or above the minimum required areas.

DWELLING TYPE	TARGET GROSS FLOOR AREA	MINIMUM - MAIN LIVING ROOM	AGGREGATE LIVING AREA	AGGREGATE BEDROOM AREA	STORAGE
	(m²)	(m²)	(m²)	(m²)	(m²)
Family Dwellings - 3 or more persons					
4BED/7P House (3 storey)	120	15	40	43	6
4BED/7P House (2 storey)	110	15	40	43	6
4BED/7P House (1 storey)	100	15	40	43	6
4BED/7P Apartment	105	15	40	43	11
3BED/6P House (3 storey)	110	15	37	36	6
3BED/6P House (2 storey)	100	15	37	36	6
3BED/6P House (1 storey)	90	15	37	36	6
3BED/6P Apartment	94	15	37	36	10
3BED/5P House (3 storey)	102	13	34	32	5
3BED/5P House (2 storey)	92	13	34	32	5
3BED/5P House (1 storey)	82	13	34	32	5
3BED/5P Apartment	86	13	34	32	9
3BED/4P House (2 storey)	83	13	30	28	4
3BED/4P House (1 storey)	73	13	30	28	4
3BED/4P Apartment	76	13	30	28	7
2BED/4P House (2 storey)	80	13	30	25	4
2BED/4P House (1 storey)	70	13	30	25	4
2BED/4P Apartment	73	13	30	25	7
2BED/3P House (2 storey)	70	13	28	20	3
2BED/3P House (1 storey)	60	13	28	20	3
2BED/3P Apartment	63	13	28	20	5
1BED/2P House (1 storey)	44	11	23	11	2
1BED/2P Apartment	45	11	23	11	3

Extract from Quality Housing for Sustainable Communities (2007)

Schedule of Accomodation and Housing Quality Assesment

UNIT NO.	UNIT TYPE	DESCRIPTION	BED SPACES	DUAL ASPECT	MIN. UNIT AREA (m^2)	UNIT AREA (m^2)	MIN. AGG. LIVING AREA (m^2)	AGG. LIVING AREA (m^2)	BED 1 (m^2)	BED 2 (m^2)	BED 3 (m^2)	BED 4 (m^2)	MIN. AGG. BED AREA (m^2)	AGG. BED AREA (m^2)	MIN. STORAGE (m^2)	STORAGE (m^2)	MIN. PRIVATE AMENITY SPACE (m2)	PRIVATE AMENITY SPACE (m^2)
1	D1(m)	2 Bed Townhouse	4	Yes	80.0	84.50	30.0	30.95	13.55	11.65	/	/	25.0	25.20	4.0	4.00	30.0	59.8
2	D2(m)	2 Bed Townhouse	4	Yes	80.0	84.50	30.0	30.90	13.55	11.65	/	/	25.0	25.20	4.0	4.00	30.0	57.4
3	D2	2 Bed Townhouse	4	Yes	80.0	84.50	30.0	30.90	13.55	11.65	/	/	25.0	25.20	4.0	4.00	30.0	57.4
4	D2(m)	2 Bed Townhouse	4	Yes	80.0	84.50	30.0	30.90	13.55	11.65	/	/	25.0	25.20	4.0	4.00	30.0	57.4
5	D2	2 Bed Townhouse	4	Yes	80.0	84.50	30.0	30.90	13.55	11.65	/	/	25.0	25.20	4.0	4.00	30.0	57.4
6	D1	2 Bed Townhouse	4	Yes	80.0	84.50	30.0	30.95	13.55	11.65	/	/	25.0	25.20	4.0	4.00	30.0	110.6
55	B1(m)	3 Bed Semi-detached	5	Yes	92.0	101.11	34.0	35.52	15.02	11.43	7.11	/	32.0	33.56	5.0	5.10	40.0	75.1
56	B2(m)	3 Bed Semi-detached	5	Yes	92.0	100.98	34.0	37.72	13.05	11.83	7.14	/	32.0	32.02	5.0	5.80	40.0	90.5
57	C1(m)	3 Bed Semi-detached	5	Yes	92.0	104.24	34.0	34.09	14.20	12.08	8.13	/	32.0	34.41	5.0	6.16	40.0	92.5
58	D2	2 Bed Townhouse	4	Yes	80.0	84.50	30.0	30.90	13.55	11.65	/	/	25.0	25.20	4.0	4.00	30.0	57.7
59	D2(m)	2 Bed Townhouse	4	Yes	80.0	84.50	30.0	30.90	13.55	11.65	/	/	25.0	25.20	4.0	4.00	30.0	57.5
60	D2	2 Bed Townhouse	4	Yes	80.0	84.50	30.0	30.90	13.55	11.65	/	/	25.0	25.20	4.0	4.00	30.0	57.6
61	D2(m)	2 Bed Townhouse	4	Yes	80.0	84.50	30.0	30.90	13.55	11.65	/	/	25.0	25.20	4.0	4.00	30.0	57.8
62	C1	3 Bed Semi-detached	5	Yes	92.0	104.24	34.0	34.09	14.20	12.08	8.13	/	32.0	34.41	5.0	6.16	40.0	92.7
63	C1(m)	3 Bed Semi-detached	5	Yes	92.0	104.24	34.0	34.09	14.20	12.08	8.13	/	32.0	34.41	5.0	6.16	40.0	92.4
64	D2	2 Bed Townhouse	4	Yes	80.0	84.50	30.0	30.90	13.55	11.65	/	/	25.0	25.20	4.0	4.00	30.0	57.5
65	D2(m)	2 Bed Townhouse	4	Yes	80.0	84.50	30.0	30.90	13.55	11.65	/	/	25.0	25.20	4.0	4.00	30.0	57.6
66	D2	2 Bed Townhouse	4	Yes	80.0	84.50	30.0	30.90	13.55	11.65	/	/	25.0	25.20	4.0	4.00	30.0	57.3
67	D2(m)	2 Bed Townhouse	4	Yes	80.0	84.50	30.0	30.90	13.55	11.65	/	/	25.0	25.20	4.0	4.00	30.0	57.4
68	C1	3 Bed Semi-detached	5	Yes	92.0	104.24	34.0	34.09	14.20	12.08	8.13	/	32.0	34.41	5.0	6.16	40.0	92.5
69	B2	3 Bed Semi-detached	5	Yes	92.0	100.98	34.0	37.72	13.05	11.83	7.14	/	32.0	32.02	5.0	5.80	40.0	93.5
70	B1	3 Bed Semi-detached	5	Yes	92.0	101.11	34.0	35.52	15.02	11.43	7.11	/	32.0	33.56	5.0	5.10	40.0	77.7
71	A1(m)	4 Bed Semi-detached	7	Yes	110.0	134.44	40.0	51.08	13.16	11.53	11.46	7.19	43.0	43.34	6.0	6.73	50.0	60.0
72	B2(m)	3 Bed Semi-detached	5	Yes	92.0	100.98	34.0	37.72	13.05	11.83	7.14	/	32.0	32.02	5.0	5.80	40.0	97.3
73	C1(m)	3 Bed Semi-detached	5	Yes	92.0	104.24	34.0	34.09	14.20	12.08	8.13	/	32.0	34.41	5.0	6.16	40.0	120.2
74	D2(m)	2 Bed Townhouse	4	Yes	80.0	84.50	30.0	30.90	13.55	11.65	/	/	25.0	25.20	4.0	4.00	30.0	77.2
75	D2	2 Bed Townhouse	4	Yes	80.0	84.50	30.0	30.90	13.55	11.65	/	/	25.0	25.20	4.0	4.00	30.0	78.5
76	C1	3 Bed Semi-detached	5	Yes	92.0	104.24	34.0	34.09	14.20	12.08	8.13	/	32.0	34.41	5.0	6.16	40.0	126.7
77	A1	4 Bed Semi-detached	7	Yes	110.0	134.44	40.0	51.08	13.16	11.53	11.46	7.19	43.0	43.34	6.0	6.73	50.0	60.0
78	B2	3 Bed Semi-detached	5	Yes	92.0	100.98	34.0	37.72	13.05	11.83	7.14	/	32.0	32.02	5.0	5.80	40.0	116.9
79	A1(m)	4 Bed Semi-detached	7	Yes	110.0	134.44	40.0	51.08	13.16	11.53	11.46	7.19	43.0	43.34	6.0	6.73	50.0	60.0
80	B2(m)	3 Bed Semi-detached	5	Yes	92.0	100.98	34.0	37.72	13.05	11.83	7.14	/	32.0	32.02	5.0	5.80	40.0	125.8
81	C1(m)	3 Bed Semi-detached	5	Yes	92.0	104.24	34.0	34.09	14.20	12.08	8.13	/	32.0	34.41	5.0	6.16	40.0	129.4
82	D2	2 Bed Townhouse	4	Yes	80.0	84.50	30.0	30.90	13.55	11.65	/	/	25.0	25.20	4.0	4.00	30.0	82.1
83	C1	3 Bed Semi-detached	5	Yes	92.0	104.24	34.0	34.09	14.20	12.08	8.13	/	32.0	34.41	5.0	6.16	40.0	128.4
84	C1(m)	3 Bed Semi-detached	5	Yes	92.0	104.24	34.0	34.09	14.20	12.08	8.13	/	32.0	34.41	5.0	6.16	40.0	101.9
85	D2	2 Bed Townhouse	4	Yes	80.0	84.50	30.0	30.90	13.55	11.65	/	/	25.0	25.20	4.0	4.00	30.0	61.4
86	D2(m)	2 Bed Townhouse	4	Yes	80.0	84.50	30.0	30.90	13.55	11.65	/	/	25.0	25.20	4.0	4.00	30.0	61.3
87	D2	2 Bed Townhouse	4	Yes	80.0	84.50	30.0	30.90	13.55	11.65	/	/	25.0	25.20	4.0	4.00	30.0	60.7
88	D2(m)	2 Bed Townhouse	4	Yes	80.0	84.50	30.0	30.90	13.55	11.65	/	/	25.0	25.20	4.0	4.00	30.0	60.8
89	C1	3 Bed Semi-detached	5	Yes	92.0	104.24	34.0	34.09	14.20	12.08	8.13	/	32.0	34.41	5.0	6.16	40.0	96.4
90	C1(m)	3 Bed Semi-detached	5	Yes	92.0	104.24	34.0	34.09	14.20	12.08	8.13	/	32.0	34.41	5.0	6.16	40.0	95.1
91	D2	2 Bed Townhouse	4	Yes	80.0	84.50	30.0	30.90	13.55	11.65	/	/	25.0	25.20	4.0	4.00	30.0	58.5
92	D2(m)	2 Bed Townhouse	4	Yes	80.0	84.50	30.0	30.90	13.55	11.65	/	/	25.0	25.20	4.0	4.00	30.0	57.9
93	D2	2 Bed Townhouse	4	Yes	80.0	84.50	30.0	30.90	13.55	11.65	/	/	25.0	25.20	4.0	4.00	30.0	57.8
94	C1	3 Bed Semi-detached	5	Yes	92.0	104.24	34.0	34.09	14.20	12.08	8.13	/	32.0	34.41	5.0	6.16	40.0	93.2
95	B2	3 Bed Semi-detached	5	Yes	92.0	100.98	34.0	37.72	13.05	11.83	7.14	/	32.0	32.02	5.0	5.80	40.0	89.5
96	A1	4 Bed Semi-detached	7	Yes	110.0	134.44	40.0	51.08	13.16	11.53	11.46	7.19	43.0	43.34	6.0	6.73	50.0	60.0
97	B1	3 Bed Semi-detached	5	Yes	92.0	101.11	34.0	35.52	15.02	11.43	7.11	/	32.0	33.56	5.0	5.10	40.0	60.2
98	B2	3 Bed Semi-detached	5	Yes	92.0	100.98	34.0	37.72	13.05	11.83	7.14	/	32.0	32.02	5.0	5.80	40.0	74.0
99	C1	3 Bed Semi-detached	5	Yes	92.0	104.24	34.0	34.09	14.20	12.08	8.13	/	32.0	34.41	5.0	6.16	40.0	94.3
100	D2(m)	2 Bed Townhouse	4	Yes	80.0	84.50	30.0	30.90	13.55	11.65	/	/	25.0	25.20	4.0	4.00	30.0	55.8
101	C1(m)	3 Bed Semi-detached	5	Yes	92.0	104.24	34.0	34.09	14.20	12.08	8.13	/	32.0	34.41	5.0	6.16	40.0	95.5
102	C1	3 Bed Semi-detached	5	Yes	92.0	104.24	34.0	34.09	14.20	12.08	8.13	/	32.0	34.41	5.0	6.16	40.0	92.7
103	D2(m)	2 Bed Townhouse	4	Yes	80.0	84.50	30.0	30.90	13.55	11.65	/	/	25.0	25.20	4.0	4.00	30.0	57.8
104	D2	2 Bed Townhouse	4	Yes	80.0	84.50	30.0	30.90	13.55	11.65	/	/	25.0	25.20	4.0	4.00	30.0	57.1
105	D2(m)	2 Bed Townhouse	4	Yes	80.0	84.50	30.0	30.90	13.55	11.65	/	/	25.0	25.20	4.0	4.00	30.0	57.4
106	C1(m)	3 Bed Semi-detached	5	Yes	92.0	104.24	34.0	34.09	14.20	12.08	8.13	/	32.0	34.41	5.0	6.16	40.0	92.2
107	B1	3 Bed Semi-detached	5	Yes	92.0	101.11	34.0	35.52	15.02	7.11	11.43	/	32.0	33.56	5.0	5.10	40.0	60.0
108	B1(m)	3 Bed Semi-detached	5	Yes	92.0	101.11	34.0	35.52	15.02	7.11	11.43	/	32.0	33.56	5.0	5.10	40.0	60.1

Schedule of Accomodation and Housing Quality Assesment

UNIT NO.	UNIT TYPE	DESCRIPTION	BED SPACES	DUAL ASPECT	MIN. UNIT AREA (m^2)	UNIT AREA (m^2)	MIN. AGG. LIVING AREA (m^2)	AGG. LIVING AREA (m^2)	BED 1 (m^2)	BED 2 (m^2)	BED 3 (m^2)	BED 4 (m^2)	MIN. AGG. BED AREA (m^2)	AGG. BED AREA (m^2)	MIN. STORAGE (m^2)	STORAGE (m^2)	MIN. PRIVATE AMENITY SPACE (m2)	PRIVATE AMENITY SPACE (m^2)
125	B1	3 Bed Semi-detached	5	Yes	92.0	101.11	34.0	35.52	15.02	11.43	7.11	/	32.0	33.56	5.0	5.10	40.0	65.5
126	B2	3 Bed Semi-detached	5	Yes	92.0	100.98	34.0	37.72	13.05	11.83	7.14	/	32.0	32.02	5.0	5.80	40.0	87.4
127	C1	3 Bed Semi-detached	5	Yes	92.0	104.24	34.0	34.09	14.20	12.08	8.13	/	32.0	34.41	5.0	6.16	40.0	101.0
128	D2(m)	2 Bed Townhouse	4	Yes	80.0	84.50	30.0	30.90	13.55	11.65	/	/	25.0	25.20	4.0	4.00	30.0	58.0
129	D2	2 Bed Townhouse	4	Yes	80.0	84.50	30.0	30.90	13.55	11.65	/	/	25.0	25.20	4.0	4.00	30.0	58.4
130	D2(m)	2 Bed Townhouse	4	Yes	80.0	84.50	30.0	30.90	13.55	11.65	/	/	25.0	25.20	4.0	4.00	30.0	58.7
131	D2	2 Bed Townhouse	4	Yes	80.0	84.50	30.0	30.90	13.55	11.65	/	/	25.0	25.20	4.0	4.00	30.0	58.7
132	C1(m)	3 Bed Semi-detached	5	Yes	92.0	104.24	34.0	34.09	14.20	12.08	8.13	/	32.0	34.41	5.0	6.16	40.0	97.5
133	C1	3 Bed Semi-detached	5	Yes	92.0	104.24	34.0	34.09	14.20	12.08	8.13	/	32.0	34.41	5.0	6.16	40.0	96.9
134	D2(m)	2 Bed Townhouse	4	Yes	80.0	84.50	30.0	30.90	13.55	11.65	/	/	25.0	25.20	4.0	4.00	30.0	57.9
135	D2	2 Bed Townhouse	4	Yes	80.0	84.50	30.0	30.90	13.55	11.65	/	/	25.0	25.20	4.0	4.00	30.0	57.7
136	D2(m)	2 Bed Townhouse	4	Yes	80.0	84.50	30.0	30.90	13.55	11.65	/	/	25.0	25.20	4.0	4.00	30.0	57.6
137	D2	2 Bed Townhouse	4	Yes	80.0	84.50	30.0	30.90	13.55	11.65	/	/	25.0	25.20	4.0	4.00	30.0	56.9
138	C1(m)	3 Bed Semi-detached	5	Yes	92.0	104.24	34.0	34.09	14.20	12.08	8.13	/	32.0	34.41	5.0	6.16	40.0	135.9

5.0 Housing Quality Assessment - Apartments

Extract from Sustainable Urban Housing: Design Standards for New Apartments. Guidelines for Planning Authorities (2023)

For the apartments, this Housing Quality Assessment provides a framework which quantifies each of the criteria required by the "*Sustainable Urban Housing: Design Standards for New Apartments. Guidelines for Planning Authorities (2023)*".

Qualitative aspects such as the residential conceptual design approach are covered within the accompanying "Architectural Design Statement".

Please see schedule on the following pages showing the apartment typologies proposed within the development against the relative legislation.

All the apartments are dual or triple-aspect (Design Standards for New Apartments, paragraph 3.17).

Minimum overall apartment floor areas

Studio	37 sq m (n/a)*
One bedroom	*45 sq m (38 sq m)**
Two bedrooms (3 person)**	*63 sq m (n/a)**
Two bedrooms (4 person)	*73 sq m (55 sq m)**
Three bedrooms	*90 sq m (70 sq m)**

Minimum aggregate floor areas for living/dining/kitchen rooms, and minimum widths for the main living/dining rooms

Apartment type***	Width of living/dining room	Aggregate floor area of living / dining / kitchen area*
Studio	4m**	30 sq m**
One bedroom	3.3 m	23 sq m
Two bedrooms (3 person)	3.6m	28 sq m
Two bedrooms (4 person)	3.6 m	30 sq m
Three bedrooms	3.8 m	34 sq m

Minimum bedroom floor areas/widths***

Type	Minimum width	Minimum floor area
Studio	4m**	30 sq m**
Single bedroom	2.1 m	7.1 sq m
Double bedroom	2.8 m	11.4 sq m
Twin bedroom	2.8 m	13 sq m

Minimum aggregate bedroom floor areas

One bedroom	11.4 sq m
Two bedrooms (3 person)	13 + 7.1 sq m = 20.1 sq m
Two bedrooms (4 person)	11.4 + 13 sq m = 24.4 sq m
Three bedrooms	11.4 + 13 + 7.1 sq m = 31.5 sq m

Minimum storage space requirements

Studio	3 sq m
One bedroom	3 sq m
Two bedrooms (3 person)	5 sq m
Two bedrooms (4 person)	6 sq m
Three or more bedrooms	9 sq m

Minimum floor areas for private amenity space

Studio	4 sq m
One bedroom	5 sq m
Two bedrooms (3 person)	6 sq m
Two bedrooms (4 person)	7 sq m
Three bedrooms	9 sq m

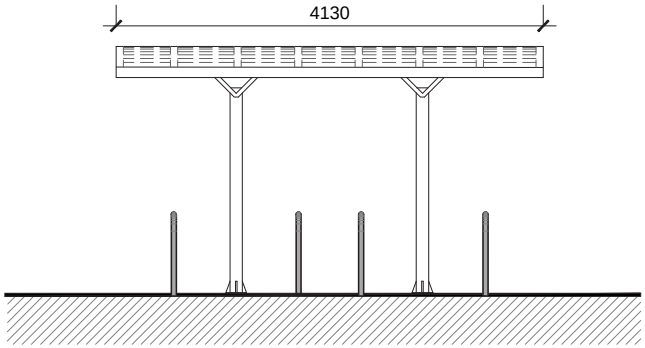
Schedule of Accomodation and Housing Quality Assesment

UNIT NO.	UNIT TYPE	DESCRIPTION	BED SPACES	DUAL ASPECT	MIN. UNIT AREA (m^2)	UNIT AREA (m^2)	MIN. AGG. LIVING AREA (m^2)	AGG. LIVING AREA (m^2)	BED 1 (m^2)	BED 2 (m^2)	BED 3 (m^2)	BED 4 (m^2)	MIN. AGG. BED AREA (m^2)	AGG. BED AREA (m^2)	MIN. STORAGE (m^2)	STORAGE (m^2)	MIN. PRIVATE AMENITY SPACE (m2)	PRIVATE AMENITY SPACE (m^2)
7	E2	2 Bed Duplex	4	Yes	73.0	90.20	30.0	30.05	15.15	11.84	/	/	24.4	26.99	6.0	6.14	7.0	7.1
8	F2	1 Bed Apartment	2	Yes	45.0	55.20	23.0	23.49	13.27	/	/	/	11.4	13.27	3.0	3.02	5.0	120.0
9	E2(m)	2 Bed Duplex	4	Yes	73.0	90.20	30.0	30.05	15.15	11.84	/	/	24.4	26.99	6.0	6.14	7.0	7.1
10	F2(m)	1 Bed Apartment	2	Yes	45.0	55.20	23.0	23.49	13.27	/	/	/	11.4	13.27	3.0	3.02	5.0	78.9
11	E2	2 Bed Duplex	4	Yes	73.0	90.20	30.0	30.05	15.15	11.84	/	/	24.4	26.99	6.0	6.14	7.0	7.1
12	F2	1 Bed Apartment	2	Yes	45.0	55.20	23.0	23.49	13.27	/	/	/	11.4	13.27	3.0	3.02	5.0	78.0
13	E2(m)	2 Bed Duplex	4	Yes	73.0	90.20	30.0	30.05	15.15	11.84	/	/	24.4	26.99	6.0	6.14	7.0	7.1
14	F2(m)	1 Bed Apartment	2	Yes	45.0	55.20	23.0	23.49	13.27	/	/	/	11.4	13.27	3.0	3.02	5.0	184.3
15	E2	2 Bed Duplex	4	Yes	73.0	90.20	30.0	30.05	15.15	11.84	/	/	24.4	26.99	6.0	6.14	7.0	7.1
16	F2	1 Bed Apartment	2	Yes	45.0	55.20	23.0	23.49	13.27	/	/	/	11.4	13.27	3.0	3.02	5.0	106.0
17	E2(m)	2 Bed Duplex	4	Yes	73.0	90.20	30.0	30.05	15.15	11.84	/	/	24.4	26.99	6.0	6.14	7.0	7.1
18	F2(m)	1 Bed Apartment	2	Yes	45.0	55.20	23.0	23.49	13.27	/	/	/	11.4	13.27	3.0	3.02	5.0	72.5
19	E2	2 Bed Duplex	4	Yes	73.0	90.20	30.0	30.05	15.15	11.84	/	/	24.4	26.99	6.0	6.14	7.0	7.1
20	F2	1 Bed Apartment	2	Yes	45.0	55.20	23.0	23.49	13.27	/	/	/	11.4	13.27	3.0	3.02	5.0	72.6
21	E2(m)	2 Bed Duplex	4	Yes	73.0	90.20	30.0	30.05	15.15	11.84	/	/	24.4	26.99	6.0	6.14	7.0	7.1
22	F2(m)	1 Bed Apartment	2	Yes	45.0	55.20	23.0	23.49	13.27	/	/	/	11.4	13.27	3.0	3.02	5.0	72.8
23	E2	2 Bed Duplex	4	Yes	73.0	90.20	30.0	30.05	15.15	11.84	/	/	24.4	26.99	6.0	6.14	7.0	7.1
24	F2	1 Bed Apartment	2	Yes	45.0	55.20	23.0	23.49	13.27	/	/	/	11.4	13.27	3.0	3.02	5.0	72.9
25	E1	2 Bed Duplex	4	Yes	73.0	90.20	30.0	30.05	15.15	11.84	/	/	24.4	26.99	6.0	6.14	7.0	7.1
26	F1	1 Bed Apartment	2	Yes	45.0	56.70	23.0	24.77	16.65	/	/	/	11.4	16.65	3.0	4.16	5.0	75.3
27	E1	2 Bed Duplex	4	Yes	73.0	90.20	30.0	30.05	15.15	11.84	/	/	24.4	26.99	6.0	6.14	7.0	7.1
28	F1	1 Bed Apartment	2	Yes	45.0	56.70	23.0	24.77	16.65	/	/	/	11.4	16.65	3.0	4.16	5.0	87.2
29	E2	2 Bed Duplex	4	Yes	73.0	90.20	30.0	30.05	15.15	11.84	/	/	24.4		6.0	6.14	7.0	7.1
30	F2	1 Bed Apartment	2	Yes	45.0	55.20	23.0	23.49	13.27	/	/	/	11.4	13.27	3.0	3.02	5.0	115.7
31	E2(m)	2 Bed Duplex	4	Yes	73.0	90.20	30.0	30.05	15.15	11.84	/	/	24.4	26.99	6.0	6.14	7.0	7.1
32	F2(m)	1 Bed Apartment	2	Yes	45.0	55.20	23.0	23.49	13.27	/	/	/	11.4	13.27	3.0	3.02	5.0	115.6
33	E2	2 Bed Duplex	4	Yes	73.0	90.20	30.0	30.05	15.15	11.84	/	/	24.4	26.99	6.0	6.14	7.0	7.1
34	F2	1 Bed Apartment	2	Yes	45.0	55.20	23.0	23.49	13.27	/	/	/	11.4	13.27	3.0	3.02	5.0	84.8
35	E2(m)	2 Bed Duplex	4	Yes	73.0	90.20	30.0	30.05	15.15	11.84	/	/	24.4	26.99	6.0	6.14	7.0	7.1
36	F2(m)	1 Bed Apartment	2	Yes	45.0	55.20	23.0	23.49	13.27	/	/	/	11.4	13.27	3.0	3.02	5.0	84.7
37	E2	2 Bed Duplex	4	Yes	73.0	90.20	30.0	30.05	15.15	11.84	/	/	24.4	26.99	6.0	6.14	7.0	7.1
38	F2	1 Bed Apartment	2	Yes	45.0	55.20	23.0	23.49	13.27	/	/	/	11.4	13.27	3.0	3.02	5.0	115.0
39	E2(m)	2 Bed Duplex	4	Yes	73.0	90.20	30.0	30.05	15.15	11.84	/	/	24.4	26.99	6.0	6.14	7.0	7.1
40	F2(m)	1 Bed Apartment	2	Yes	45.0	55.20	23.0	23.49	13.27	/	/	/	11.4	13.27	3.0	3.02	5.0	114.8
41	E2	2 Bed Duplex	4	Yes	73.0	90.20	30.0	30.05	15.15	11.84	/	/	24.4	26.99	6.0	6.14	7.0	7.1
42	F2	1 Bed Apartment	2	Yes	45.0	55.20	23.0	23.49	13.27	/	/	/	11.4	13.27	3.0	3.02	5.0	84.8
43	E2(m)	2 Bed Duplex	4	Yes	73.0	90.20	30.0	30.05	15.15	11.84	/	/	24.4	26.99	6.0	6.14	7.0	7.1
44	F2(m)	1 Bed Apartment	2	Yes	45.0	55.20	23.0	23.49	13.27	/	/	/	11.4	13.27	3.0	3.02	5.0	84.9
45	E2	2 Bed Duplex	4	Yes	73.0	90.20	30.0	30.05	15.15	11.84	/	/	24.4	26.99	6.0	6.14	7.0	7.1
46	F2	1 Bed Apartment	2	Yes	45.0	55.20	23.0	23.49	13.27	/	/	/	11.4	13.27	3.0	3.02	5.0	114.8
47	E2(m)	2 Bed Duplex	4	Yes	73.0	90.20	30.0	30.05	15.15	11.84	/	/	24.4	26.99	6.0	6.14	7.0	7.1
48	F2(m)	1 Bed Apartment	2	Yes	45.0	55.20	23.0	23.49	13.27	/	/	/	11.4	13.27	3.0	3.02	5.0	114.4
49	E2	2 Bed Duplex	4	Yes	73.0	90.20	30.0	30.05	15.15	11.84	/	/	24.4	26.99	6.0	6.14	7.0	7.1
50	F2	1 Bed Apartment	2	Yes	45.0	55.20	23.0	23.49	13.27	/	/	/	11.4	13.27	3.0	3.02	5.0	84.8
51	E2(m)	2 Bed Duplex	4	Yes	73.0	90.20	30.0	30.05	15.15	11.84	/	/	24.4	26.99	6.0	6.14	7.0	7.1
52	F2(m)	1 Bed Apartment	2	Yes	45.0	55.20	23.0	23.49	13.27	/	/	/	11.4	13.27	3.0	3.02	5.0	84.8
53	E1(m)	2 Bed Duplex	4	Yes	73.0	90.20	30.0	30.05	15.15	11.84	/	/	24.4	26.99	6.0	6.14	7.0	7.1
54	F1(m)	1 Bed Apartment	2	Yes	45.0	56.70	23.0	24.77	16.65	/	/	/	11.4	16.65	3.0	4.16	5.0	87.1
109	E1(m)	2 Bed Duplex	4	Yes	73.0	90.20	30.0	30.05	15.15	11.84	/	/	24.4	26.99	6.0	6.14	7.0	7.1
110	F1(m)	1 Bed Apartment	2	Yes	45.0	56.70	23.0	24.77	16.65	/	/	/	11.4	16.65	3.0	4.16	5.0	87.4
111	E2(m)	2 Bed Duplex	4	Yes	73.0	90.20	30.0	30.05	15.15	11.84	/	/	24.4	26.99	6.0	6.14	7.0	7.1
112	F2(m)	1 Bed Apartment	2	Yes	45.0	55.20	23.0	23.49	13.27	/	/	/	11.4	13.27	3.0	3.02	5.0	84.9
113	E2	2 Bed Duplex	4	Yes	73.0	90.20	30.0	30.05	15.15	11.84	/	/	24.4	26.99	6.0	6.14	7.0	7.1
114	F2	1 Bed Apartment	2	Yes	45.0	55.20	23.0	23.49	13.27	/	/	/	11.4	13.27	3.0	3.02	5.0	85.0
115	E2(m)	2 Bed Duplex	4	Yes	73.0	90.20	30.0	30.05	15.15	11.84	/	/	24.4	26.99	6.0	6.14	7.0	7.1
116	F2(m)	1 Bed Apartment	2	Yes	45.0	55.20	23.0	23.49	13.27	/	/	/	11.4	13.27	3.0	3.02	5.0	113.9
117	E2	2 Bed Duplex	4	Yes	73.0	90.20	30.0	30.05	15.15	11.84	/	/	24.4	26.99	6.0	6.14	7.0	7.1
118	F2	1 Bed Apartment	2	Yes	45.0	55.20	23.0	23.49	13.27	/	/	/	11.4	13.27	3.0	3.02	5.0	113.8
119	E2(m)	2 Bed Duplex	4	Yes	73.0	90.20	30.0	30.05	15.15	11.84	/	/	24.4	26.99	6.0	6.14	7.0	7.1
120	F2(m)	1 Bed Apartment	2	Yes	45.0	55.20	23.0	23.49	13.27	/	/	/	11.4	13.27	3.0	3.02	5.0	85.6
121	E2	2 Bed Duplex	4	Yes	73.0	90.20	30.0	30.05	15.15	11.84	/	/	24.4	26.99	6.0	6.14	7.0	7.1
122	F2	1 Bed Apartment	2	Yes	45.0	55.20	23.0	23.49	13.27	/	/	/	11.4	13.27	3.0	3.02	5.0	83.9
123	E1	2 Bed Duplex	4	Yes	73.0	90.20	30.0	30.05	15.15	11.84	/	/	24.4	26.99	6.0	6.14	7.0	7.1
124	F1	1 Bed Apartment	2	Yes	45.0	56.70	23.0	24.77	16.65	/	/	/	11.4	16.65	3.0	4.16	5.0	86.9

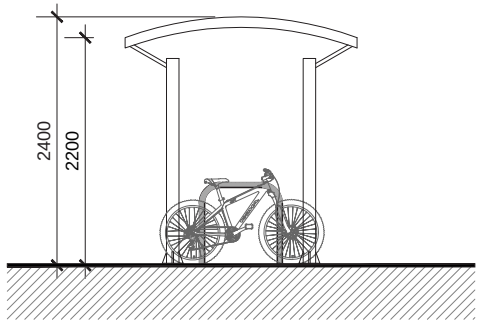
SCHEDULE - Apartment/Duplex Typologies - Legislation

6.0 Bicycle Spaces

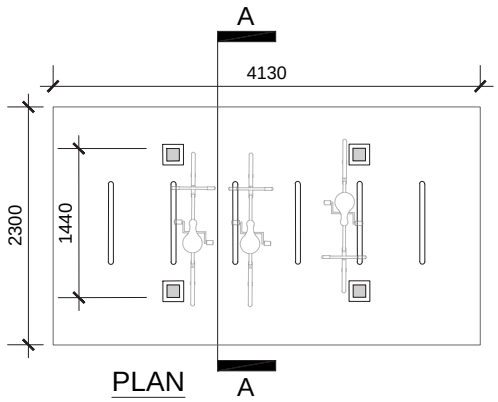
CYCLE PARKING



FRONT/REAR ELEVATION
SCALE 1:50 @ A3



SECTION A-A
SCALE 1:50 @ A3



PLAN
SCALE 1:50 @ A3

TYPICAL BIKE STORE

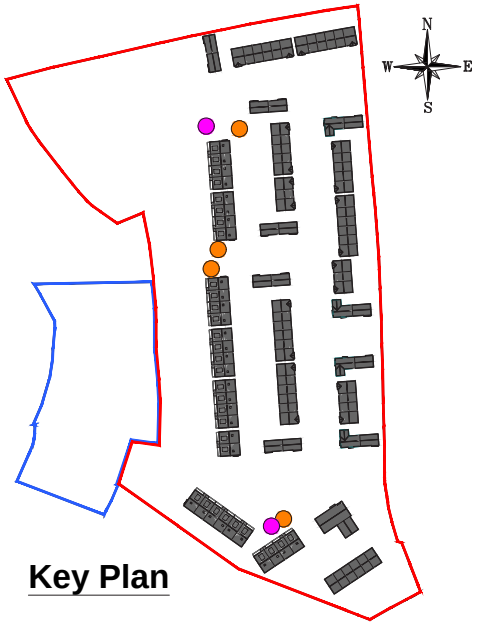
APARTMENTS
BIKE PARKING SCHEDULE

16no GF 1B apartment units x 1.5 spaces = 24
32no FF 2B apartment units x 2.5 spaces = 80
(these are apartments without direct access to a GF private amenity space for bike storage)
- 104no. bike spaces required in total

1. 80 no. spaces (In secure enclosure)
2. 24 no. visitors spaces (Covered)

TOTAL APARTMENT BIKE PARKING SPACES PROVIDED = 104no.

**This is in line with the bike parking standards in the 2023 Apartment Guidelines



Key Plan

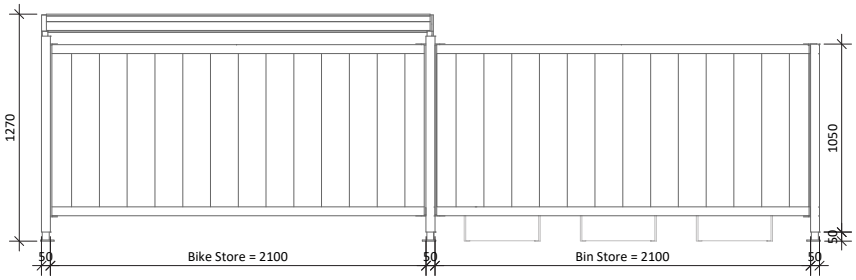
7.0 Waste Management

The use of refuse bin stores will be minimised where possible.

The stock housing and apartment units that have access to a rear-garden via a side-gate will be able to utilise this area for refuse bin storage. The mid-terrace units will have small private bin storage area near the entrance door. The apartment units without direct access to their private amenity space will utilise communal bin stores located nearby.

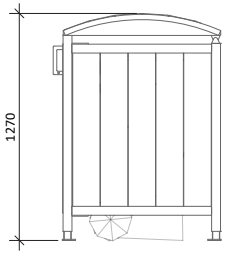
Bin stores will be built from durable materials (in keeping with the design palate) and located in appropriate areas of the development.

The dimensions of bin storage areas for the houses have been designed to satisfy the three-bin system.



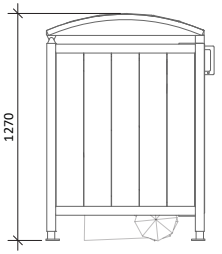
Rear Elevation

Scale 1:25@A3



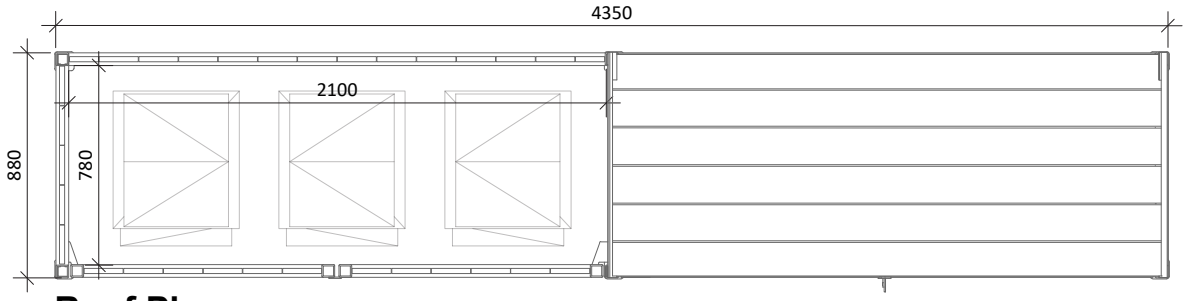
Side Elevation

Scale 1:25@A3



Side Elevation

Scale 1:25@A3



Roof Plan

Scale 1:25@A3

Mallow, Co. Cork

Universal Design Statement

Proposed Residential Development at
Ard an Ghleanna, Mallow, Co. Cork

DEADY GAHAN
ARCHITECTS

Table of contents

1.0 Introduction

> *Universal Design is the design and composition of an environment so that it can be accessed, understood and used to the greatest extent possible by all people, regardless of their age, size or disability. This includes public places in the built environment such as buildings, streets or spaces that the public have access to; products and services provided in those places; and systems that are available including information and communications technology (ICT).*
>
> (Disability Act, 2005)

Deady Gahan Architects have been appointed by Cork County Council to produce this Statement of Compliance with Universal Design to accompany the planning application for the proposed development of 138 no. residential units consisting of 74 no. houses and 64 no. apartments and associated site works at Ard an Ghleanna, Mallow, Co. Cork.

There is also a childcare facility in the form of a 42-child crèche near the entrance of the site. It has been placed adjacent the site entrance to allow for convenient accessibility to Saint Joseph's Road.

2.0 Summary of Proposed Development

The proposed development has been designed to provide high-quality houses and apartments that will contribute positively to Mallow and deliver much needed housing to Cork. The proposed residential development is located in Mallow, which is north of Cork City. The subject site is situated approximately 35 kilometres north of Cork City.

The housing mix will focus on providing affordable homes for both individuals and families alike and it includes 138 no. residential units comprising:

- 32 No. 1 bed / 2-person (own door) ground floor apartments
- 32 No. 2 bed / 4-person (own door) duplex apartments
- 36 No. 2 bed / 4-person townhouses
- 20 No. 3 bed / 5-person townhouses
- 14 No. 3 bed / 5-person semi-detached units
- 04 No. 4 bed / 7-person semi-detached units

The proposed residential scheme of 138 units has a density of 35.4 units/HA considered on a net developable area of 3.9 Ha. There is also a childcare facility in the form of a 42-child crèche near the entrance of the site. It has been placed adjacent the site entrance to the south to allow for convenient accessibility to Saint Joseph's Road.

Connectivity, legibility and permeability are some of the main key themes of the scheme and develops from the wider surrounding area to the local environment. Permeability and connections between the development and Saint Joseph's road to the south has been prioritised along with the future potential connections to the east and north of the site. Existing trees and hedgerows along the boundaries will be kept and integrated into the landscaping concept where possible.

In the local context, the provision for connections from the proposed development to Mallow town centre will foster a sense of identity and community for the area. The site is accessed via the existing Ard an Ghleanna development to the south and is connected to Mallow town centre via Saint Joseph's road. The internal connections within the proposed development will provide easy access from the dwellings to the proposed amenities and are a crucial element in providing passive surveillance and promote active neighbourhoods. As the proposed scheme is designed to create permeable connections with the surrounding context, a range of pedestrian routes and potential street connections have been incorporated into the layout connecting the proposed site to the neighbouring lands to the east and west.

The existing topography of the site is steeply sloped to the west and the site is accessed from the highest point to the south east. Existing trees are located along the western boundary and are to be retained where possible. An existing meadow with an archaeological buffer zone is located to the north west of the scheme.

To ensure the visual integration of the site, the proposed development will promote the protection and enhancement of natural features on site, including trees and hedgerows. These features are integrated within the development to emboss the identity of the proposal. Particular attention was placed in the design of the public open spaces in the centre of the site to create a strong and well connected network of usable and enjoyable green areas, pedestrian paths, play areas. These features will enhance/contribute in creating a sense of place.

The trees and hedgerows within the site have been incorporated into the boundaries to create visual and physical connections between the dwellings and act as way points on the site.

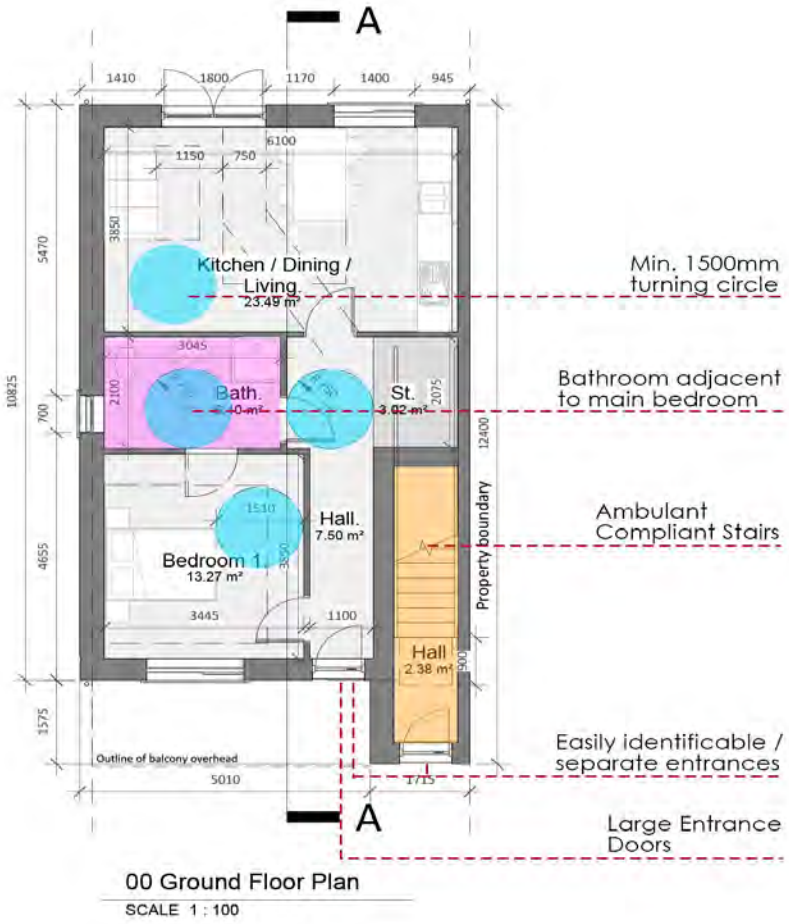
Large open spaces are located in various locations around the site and act as node points as you progress through the development. These open spaces are carefully positioned in order to take full advantage of the sites natural features and to expand upon the existing smaller public open spaces on the boundaries. There are also some green areas and a pocket parks along the other boundaries to address the steep topography, existing trees and hedgerows.

All the open spaces will be enhanced by the creation of active and architecturally appropriate urban frontages, designed having particular regard to the site context and the topographical nature of the site. The proposed dwellings are also orientated to overlook the open spaces, provide opportunities for passive surveillance of these areas and create strong edges within the scheme. The open spaces vary with a mix of soft and hard landscaping to further enhance the quality of life in the area. Distinct corner units with individual features address the main corners along the main streets and on the open spaces to provide distinctiveness to the site. The variety and quality of the proposed open spaces support active neighbourhoods within the site as well as promoting connections and integration with the adjacent new and proposed settlements of Mallow.

32 no. ground floor apartment units have been incorporated along the western section of the scheme in order to satisfy the Universal Design Guidelines for Homes in Ireland. These units have been designed to cater for a range of end users of any age, size, ability or disability. These units have been designed to allow for flexibility and ease of adaptability to meet peoples changing needs over time in a cost effective and sustainable way. These units are located on the ground floor with level access and are fully Universal Design compliant. The location of the units along the western section of the site allow for ease of access and approach, while being integrated within the community in smaller sections of the site to identify the units easily.

Proposed Ground Floor Apartment and Duplex Units

Apartment Layout with U.D. elements incorporated



3.0 The 7 Principles of Universal Design

Care has been taken in the design of the proposed development to address each Principle of Universal Design. Each Principle has been addressed below and references the Technical Guidance Documents Part M regarding Access and Use.

3.1 Equitable Use

The design is useful and marketable to people with diverse abilities.

Guidelines:

1a. Provide the same means of use for all users: identical whenever possible; equivalent when not.

1b. Avoid segregating or stigmatizing any users.

1c. Provisions for privacy, security, and safety should be equally available to all users.

1d. Make the design appealing to all users.

DESIGN APPROACH

- The same means of access to buildings within the scheme is provided around the development where possible.
- All dwellings are accessed via the ground floor and are designed to provide Part M compliant access via front door for visitors.
- The majority of dwelling houses are provided with on curtilage car parking located in close proximity to the front door.
- All the apartments have own door access at the ground floor, are designed to provide Part M compliant access and have the car parking located nearby.
- The majority of the streets and footpaths are designed in accordance with TGD Part M: Min 1:21 gradient pathways with tactile and visual aids at street crossing and seating and rest areas which assist with passive security.
- External amenity spaces have been designed in order to appeal to all users and in accordance with TGD Part M.
- The crèche is located to the south of the site and it is situated near the entrance of the scheme. It has been placed adjacent to the site entrance to allow for convenient accessibility for the development and the wider community. It has a pedestrian entrance easily accessible from the main access street to promote accessibility.

3.2 Flexibility in Use

The design accommodates a wide range of individual preferences and abilities.

Guidelines:

2a. Provide choice in methods of use.

2b. Accommodate right- or left-handed access and use.

2c. Facilitate the user's accuracy and precision.

2d. Provide adaptability to the user's pace.

DESIGN APPROACH

- The proposed development provides for a wide variety of house and apartment types including: 3/4 bed semi-detached units, 2/3 bed townhouse units and 1/2 bed apartment units.
- Each of these unit types are compliant with the Building Regulations, in particular TGD Part M Access and Use and TGD Part D Materials and Workmanship.
- Houses and apartments have been designed to provide for adaptability as resident requirements change over time. Provisions includes for:
    - Level access or gently sloping (max 1:21) is provided from car parking space to front door
    - The majority of living rooms are located at entrance level
    - Two storey houses are designed to allow for horizontal and vertical extension for the provision of additional space if so required
    - Internal spatial design is such as to provide adequate space for wheelchair turning and all units have an accessible bathroom.

3.3 Simple and Intuitive Use

Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level.

Guidelines:

3a. Eliminate unnecessary complexity.

3b. Be consistent with user expectations and intuition.

3c. Accommodate a wide range of literacy and language skills.

3d. Arrange information consistent with its importance.

3e. Provide effective prompting and feedback during and after task completion.

DESIGN APPROACH

- Pedestrian and cycle routes throughout the development provide direct connectivity between destination points on desire lines. Particularly important are the connections of this internal network with the pedestrian paths on Saint Joseph's Road.
- The majority of pedestrian and cycle routes are provided with a gradient of less than 1:20. All streets and footpaths are DMURS compliant.
- A clear street hierarchy provides a consistent appreciation of place and way finding.
- Node houses that well address the corners are situated at prominent positions to provide landmark points to assist way finding.
- The entrance doors are easily located with familiar features such as entrance canopies and pop-out front doors.
- Each unit is designed in such a way as to eliminate unnecessary complexity. Typical layout are designed in order to promote easy access to each unit and intuitive navigation within.
- Each apartment with own door access has defined entrances to provide clearly established ingress points.
- The crèche is located near the entrance of the scheme to provide easy access from both the entire development and from adjoining developments. The entrance and reception area are easily accessible from Saint Joseph's Road and has adequate drop off space, with allocated parking and a disabled parking space.

3.4 Perceptible Information

The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.

Guidelines:

4a. Use different modes (pictorial, verbal, tactile) for redundant presentation of essential information.

4b. Provide adequate contrast between essential information and its surroundings.

4c. Maximize "legibility" of essential information.

4d. Differentiate elements in ways that can be described (i.e., make it easy to give instructions or directions).

4e. Provide compatibility with a variety of techniques or devices used by people with sensory limitations.

DESIGN APPROACH

- A selection of different coloured surfaces and sections of raised tables have been introduced to the design to clearly identify hazards such as street crossing, the variations will be visual and tactile.
- Variation in materials, architectural expressions and colours assist in providing legibility between the different character areas and the neighbourhoods.
- Clear signage will assist in way finding and be provided in compliance with TGD Part M.

3.5 Tolerance for Error

The design minimizes hazards and the adverse consequences of accidental or unintended actions.

Guidelines:

5a. Arrange elements to minimize hazards and errors: most used elements, most accessible; hazardous elements eliminated, isolated, or shielded.

5b. Provide warnings of hazards and errors.

5c. Provide fail safe features.

5d. Discourage unconscious action in tasks that require vigilance.

DESIGN APPROACH

- Different coloured surfaces and sections of raised tables have been introduced to clearly identify hazards such as street crossing and level changes.
- The streets have been designed in accordance with DMURs to aid in traffic calming and the use of Shared Surfaces increase pedestrian priority within the development.
- Landscaping is used to minimise risk at embankments.

3.6 Low Physical Effort

The design can be used efficiently and comfortably and with a minimum of fatigue.

Guidelines:

6a. Allow user to maintain a neutral body position.

6b. Use reasonable operating forces.

6c. Minimize repetitive actions.

6d. Minimize sustained physical effort.

DESIGN APPROACH

- Pedestrian routes have been designed to minimise gradient and mitigate the requirement of extensive excavation/change of levels.
- The majority of units have parking provided within its curtilage or in close proximity to allow for easy access to the unit.
- All apartments are designed with Part M ambulant compliant stairs to minimise sustained physical effort while accessing the units.

3.7 Size and Space Approach and Use

Appropriate size and space is provided for approach, reach, manipulation, and use regardless of user's body size, posture, or mobility.

Guidelines:

7a. Provide a clear line of sight to important elements for any seated or standing user.

7b. Make reach to all components comfortable for any seated or standing user.

7c. Accommodate variations in hand and grip size.

7d. Provide adequate space for the use of assistive devices or personal assistance.

DESIGN APPROACH

- Each unit has been designed in accordance with TGD Part M and allow for easy access and use both internally and externally.
- All open spaces will be provided with public seating in order to appease all users.

4.0 Conclusion

The proposed development has been designed so that it can be accessed, understood and used by the widest possible extent of people, regardless of their age, size, and disability. This includes buildings, houses, apartments, streets, footpaths, pedestrian routes and open spaces.

Mallow, Co. Cork

Building Life-Cycle Report

at Ard an Ghleanna, Mallow, Co. Cork

Planning Application - July 2024

Document prepared by Deady Gahan Architects
on behalf of

Comhairle Contae Chorcaí
Cork County Council

Table of contents

1.1 Overview of Planning Policy

Deady Gahan Architects have been appointed to produce this Building Life-Cycle Report to accompany the planning application to Cork County Council for the proposed development at Ard an Ghleanna, Mallow, Co. Cork. This Building Life-Cycle Report also meets requirement for a Sustainability Assessment Report.

The aim of this document is to assess the long term running and maintenance costs of the development and demonstrate the provisions put in place as to reduce this cost as per the 2023 Sustainable Urban Housing; Design Standards for New Apartments - Guidelines for Planning Authorities (hereafter referred to as the Apartment Guidelines). The Apartment Guidelines introduced a requirement to include details on the management and maintenance of apartment schemes. This is set out in Section 6.10 to 6.14 - "Operation & Management of Apartment Developments", specifically Section 6.12.

Section 6.12 of the 2023 Apartment Guidelines requires that apartment applications shall:

- "include a building life-cycle report, which in turn includes an assessment of long term running and maintenance costs as they would apply on a per residential unit basis at the time of application"
- "demonstrate what measures have been specifically considered by the proposer to effectively manage and reduce costs for the benefit of residents."

This Building Life-Cycle Report document sets out to address the requirements of Section 6.12 of the Apartment Guidelines. This report is broken into two sections as follows:

Section 02:

An assessment of long term running and maintenance costs as they would apply on a per residential unit basis at the time of application.

Section 03:

Measures specifically considered by the proposer to effectively manage and reduce costs for the benefit of residents.

1.2 Proposed Development

It is proposed that the site will accommodate a total of 138 no. residential units and a 42 child crèche.

The layout approach taken is to provide a mix of dwellings ranging from; 1/2 bed ground floor apartment and duplex units, 2/3 bed townhouse units as well as 3/4 bed semi-detached units. This proposed mix will provide a good range of residential units to meet the varying requirements of the end user and satisfy the housing requirements of the area.

The ground floor apartment and duplex units act as important feature units, and will be the main focus of this report.

ARD AN GHLEANNA - MALLOW						
Unit Type	Description	No. of Bedrooms	Bed Space	Proposed Unit Area (sq.m.)		No. of Unit
A1	Semi-Detached	4	7	134.44		4
B1	Semi-Detached	3	5	101.11		6
B2	Semi-Detached	3	5	100.98		8
C1	Townhouse	3	5	104.24		20
D1	Townhouse	2	4	84.5		2
D2	Townhouse	2	4	84.5		34
E1	Duplex Apartment	2	4	90.2		5
E2	Duplex Apartment	2	4	90.2		27
F1	Ground Floor Apartment	1	2	56.7		5
F2	Ground Floor Apartment	1	2	55.2		27
4 bed		4		2.9%		
3 bed		34		24.6%		
2 bed		68		49.3%		
1 bed		32		23.2%		
houses		74		53.6%		
duplex-apartments		64		46.4%		
TOTAL NUMBER OF UNITS		**138**				
SITE AREA		**4.52 HA**				
SITE DEVELOPABLE AREA		**3.9 HA**				
DENSITY		**35.4 UNITS / HA**				
OVERALL OPEN SPACE		**26%**				
USABLE OPEN SPACE		**15%**				
42-child CRECHE		**G.I.A.: 359.9 sq.m. / G.A.: 411.6 sq.m.**				
183 no. Car parking Spaces Provided in Total						
(2 no. Spaces per 3 and 4 Bed Unit, 1 no. Space per 2 Bed Unit, 0.7-1 no. Spaces per Apartment Unit, 8 no. Creche Spaces and a modest number of Additional Visitor Spaces are also provided.						

2.1 Establishment of an Owners Management Company

The applicant has placed the future long term running and maintenance costs as a central component in the design process. They have utilised the recommendations as set out in the Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities (2023) to inform these costs.

As per section 6.13 of Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities – The Multi-Unit Developments Act, 2011 (MUD Act) sets out the legal requirement for the "Establishment of an Owners Management Company (OMC)". Common areas of the development are to be transferred to the OMC. Such common areas include external walls, footpaths and landscaped areas. These all contribute to the overall long term running and maintenance costs. It will ultimately be the OMC, or those engaged by the OMC that will have responsibility for the long term running and maintenance costs as examined at design stage. All apartments will be under the OMC.

The OMC will engage a Property Management Company (PMC), as a matter of priority, to carry out the ongoing management of the completed development. The contract between the OMC and the PMC will be for a maximum period of c. 3 years and in the form prescribed by the PSRA. The Property Management Company will have the responsibility for dealing with all property management functions including the maintenance and running costs of the above mentioned common areas and that same adhere to the agreed Annual Operational Budget.

The appointed Property Management Company also has other responsibilities including the following:

• The preparation of an annual service charge budget relating to the common areas of the development

• Fair and equitable apportionment of the annual operational charges in line with the MUD Act

• Transfer of documentation in line with Schedule 3 of the MUD Act

• Estate Management and the procurement/management of third party contractors for the upkeep of common areas

• Engagement of independent legal representation on behalf of the OMC in keeping with the MUD Act - including completion of Developer OMC Agreement and transfer of the common areas

• Staff administration

• Insurance management

• Accounting services

2.2 Residents Service Charge Budget

The long term running and maintenance costs on a per residential unit basis are reflected in the annual service charge payable by each residential unit. The compiling of the service charge budget is one of the key responsibilities of the Property Management Company, which in turn, must be agreed with the Owners Management Company by means of a general meeting of the members concerned.

Section 18 (3) of the The Multi-Unit Developments Act, 2011 (MUD Act) breaks the service charge budget down into the following categories:

a) Insurance

b) General maintenance

c) Repairs

d) Waste management

e) Cleaning

f) Gardening and landscaping

g) Concierge and security services

h) Legal services and accounts preparation

i) Other expenditure arising in connection with the maintenance, repair and management of the common areas anticipated to arise

The MUD act also stipulates the establishment of building investment fund (sinking fund) as part of the service charge budget. This sinking fund covers reasonable expenditure incurred on the refurbishment, improvement and maintenance of a non-recurring nature or advice from a suitably qualified person in relation to same. A Building Investment Fund report should be prepared and regularly updated by the OMC to help determine the annual contribution to sinking fund. Section 19 (5) of the MUD Act apportions a nominal figure of €200 per unit for the sinking fund or "*such other amount as may be agreed by a meeting of the members as the contribution in respect of the year concerned*".

The next section of this report examines the "*measures specifically considered by the proposer to effectively manage and reduce costs for the benefit of residents*". These measures, considered at early design stage by the applicant have a major bearing on the day to day service charges incurred in the finished development and also on potential non-recurring costs covered by the sinking fund. Examples that will be highlighted include the considered use of landscaping finishes to reduce day to day service charges and the considered selection of building materials to reduce potential non-recurring costs affecting the sinking fund.

3.1 Design Efficiency Considerations

The life-cycle cost of the developments is determined by the overall efficiency of the design, the durability of the materials used, and the maintenance requirements of the common spaces within the development. The ground floor apartment and duplex units have been specifically designed to maximise the efficiency of the common space while providing comfortable access for the end user.

Maintenance costs can only be evaluated after the detailed design and construction of the development and will not be included within this document.

Apartment and Duplex Units

3.1.1 Building Form

The ground floor apartment and duplex units come under the umbrella of the Owners Management Company and have been designed in accordance with all aspects of current building regulations and particular measures have been implemented at the early stage of design to reduce potential costs for the effective functioning of the completed development. Some of these specific design measures have been included in the following schedule:

MEASURE DESCRIPTION	BENEFIT
Internal circulation areas have been minimised	To maximise the use of space and to avoid unnecessary expense in cleaning and renewal of finishes
Access to the units is via own door to avoid lifts	This eliminates the need for lifts
All circulation areas receive natural daylight	To avoid the requirement for continuous artificial lighting and reduces associated costs of same
All circulation areas have natural/passive ventilation	To avoid mechanical ventilation systems, maintenance and future replacement
Dual or triple aspect glazing where possible	To increase natural light and to add the benefit of passive solar gain to reduce heating costs.

3.1.2 Material Specification

BS 7543:2015, 'Guide to Durability of Buildings and Building elements, Products and Components' has been referenced in conjunction with the current building regulations. This standard provides guidance on the durability, design life and predicted service life of buildings and their parts and further helps predict and reduce associated costs for Operational Management Company and thus, the individual resident.

The performance and durability of common areas of the proposed apartments as discussed previously are designed in accordance with Figure 4; Phases of the Life Cycle of BS7543; 2015. (Please see Appendix B for this figure). The common parts are designed to incorporate the guidance, best practice principles and mitigations of Annexes of BS 7543: 2015 including: Annex A Climatic Agents affecting Durability; Annex B Guidance on materials and durability;

Annex C Examples of UK material or component failures and Annex D Design Life Data sheets.

Some of these specific design measures have been included in the following schedule:

MEASURE DESCRIPTION	BENEFIT
EXTERNAL BUILDING ENVELOPE	
Use of brickwork for large amounts of facades	Brick requires no on-going maintenance
Adequate amount of painted render	Painted render requires minimum maintenance of washing and repainting
Use of selected double glazed alu clad / Upvc windows	They requires no maintenance to upkeep the visual appearance
Use of durable roof coverings (slate / tile) with proven detailing to roof elements.	To reduce on-going maintenance requirement
Secure ground level refuse storage areas near the building	To avoid access lifts/ramps and any handling/moving equipment

3.2 Energy and Carbon Emissions

By taking due consideration of the energy and carbon emissions associated with the individual units of the proposed development, this will reduce the overall impact of the development on the environment, whilst reducing individual unit running costs for residents.

Measures taken, in particular in relation to the construction stage, include the following:

MEASURE DESCRIPTION	BENEFIT
BER CERTIFICATION A Building Energy Rating (BER) certificate will be provided for each dwelling in the proposed development which will provide detail of the energy performance of the dwellings. A BER is calculated through energy use for space and hot water heating, ventilation, and lighting and occupancy. It is proposed to target a min. A2 rating for the apartments.	Higher BER ratings reduce energy consumption and running costs.
FABRIC ENERGY EFFICIENCY The U-values being investigated will be in line with the requirements set out by the current regulatory requirements of the Technical Guidance Documents Part L, titled "Conservation of Fuel and Energy Buildings other than Dwellings". Thermal bridging at junctions between construction elements and at other locations will be minimised in accordance with Appendix D within the Technical Guidance Documents Part L.	Lower U-values and improved air tightness is being considered to help minimise heat losses through the building fabric, lower of energy consumption and thus minimise carbon emissions to the environment.
WHITE GOODS The white good package planned for provision in the apartments will be of a very high standard and have a high energy efficiency rating. It is expected that the below appliance ratings will be provided: • Oven - A plus • Fridge Freezer - A plus • Dishwasher - AAA • Washer/Dryer - B	The provision of high rated appliances in turn reduces the amount of electricity required for occupants.
EXTERNAL LIGHTING Latest design standards and technologies to be utilised, including low level lighting with minimal upward light spill and low voltage LED lights, all approved by the local authority The operation of the lighting shall be on a dusk-dawn profile to reduce unnecessary artificial light usage.	As well as the aim of reducing lighting costs apportioned to the service charge budget, the external lighting plan will ensure safety for pedestrians, motorists and cyclists alike whilst deterring any potential anti-social behavior.

3.3 Low Energy Technologies

To achieve the best possible BER rating, as discussed above, the following low energy technologies will be considered to achieve the required NZEB (Near Zero Energy Building) standards:

MEASURE DESCRIPTION	BENEFIT
AIR TO WATER HEAT PUMPS Air to Water Heat Pumps will be considered to provide space heating & domestic hot water with low energy usage.	Air to Water Heat Pumps offer the benefit of reducing fossil fuel consumption and carbon emissions to the environment. Although a certain amount of electricity is used to power an air to water heat pump, the high efficiencies of such system means they are classed as a renewable heating source and running costs can typically be up to one third of a conventional heating system.
VENTILATION Natural/passive ventilation is being evaluated as one ventilation strategy to minimise energy usage and noise levels.	No mechanical parts or associated noise, maintenance etc. for occupants. Provides a supply of fresh air which is essential in modern well insulated and airtight buildings.
MECHANICAL VENTILATION HEAT RECOVERY Mechanical heat recovery ventilation will be considered to provide ventilation with reduced energy consumption.	Reduced energy consumption and lower operational costs.
ELECTRIC CAR CHARGING POINTS Electric vehicle parking spaces will been spread through-out the development to cater for the Maisonette Units.	Providing the option of electric car charging points will allow occupants to avail of electric car ownership and use.

3.4 Human Health and Wellbeing

The built environment has been designed in order to maximise the quality of life within the development.

The following are illustrations of how the health and well-being of future residents are considered:

MEASURE DESCRIPTION	BENEFIT
NATURAL / DAY LIGHT The design, separation distances and layout of the apartment units have been designed to optimise the ingress of natural daylight/ sunlight to the proposed dwellings to provide good levels of natural light.	Reduces reliance on artificial lighting thereby reducing costs.
ACCESSIBILITY Compliance with Parts M and K of the current Building Regulations.	Reduces the potential need/cost for changes in design to accommodate resident's future changing circumstances.
PUBLIC OPEN SPACES / AMENITY SPACES Generous open spaces have been placed throughout the site and especially close to the apartment units.	Encourages improved wellbeing through social interaction, exercise and play.
SECURITY The layout of the development is designed to incorporate passive surveillance. The ground floor apartments and duplex units are designed with secure, passively surveyed, own door access.	Reduction in potential security / management costs.

3.5 Management

Consideration has been given to the ensuring the homeowners have a clear understanding of their property:

MEASURE DESCRIPTION	BENEFIT
On purchase, a homeowner pack will be provided for the occupants which will includes: A Homeowner manual which will provide important information for the purchaser on details of their new property / dwelling. It typically includes details of the property such as the MPRN and GPRN, information in relation to connections with utilities and communication providers, contact details for all relevant suppliers, and user instructions for appliances, devices and system in the dwelling. A Residents' pack prepared by the owners management company which will typically provide information on contact details for the managing agent, emergency contact information, information on transport links in the area, and a clear set of regulations and rules associated with the development.	Information provided to residents will allow them to be as informed as possible so that any issues can be addressed in an efficient and convenient manner.

4.0 Conclusion

In conclusion, various aspects of the ground floor apartment and duplex units within this development contain measures to reduce the life-cycle cost.

These high density buildings have been situated primarily in the central part of the site in order to provide an adequate density, give distinctiveness to the layout, maximise building efficiency and reduce maintenance cost per person.

Energy reducing methods such as Air Source Heat Pumps have been considered to reduce energy consumption and reduce energy cost for the end user.

The 2023 Sustainable Urban Housing; Design Standards for New Apartments - Guidelines for Planning Authorities, has been utilised in order to effectively manage and reduce costs for the benefit of the residents.

Appendix A: ITEMS INCLUDED IN A TYPICAL BIF

The BIF table below illustrates what would be incorporated for the calculation of a Sinking Fund.

	BUILDING INVESTMENT FUND (SINKING FUND) CALCULATIONS	
Ref	**Element**	**Life Expectancy**
1.00	Roofs	
1.01	Replacement felt roof covering incl. insulation to main roofs/ overhaul to green roofs.	18
1.02	Replacement parapet details	18
1.03	Replacement/ repairs to facias	18
1.04	Replace roof access hatches	25
1.05	Specialist Roof Systems - Fall arrest	25
1.06	Overhaul waterproofing details to penthouse paved areas	12
2.00	Elevations	
2.01	Recoat metal panels to penthouse apartments	25
2.02	Minor repairs and preparation for decorations of rendered areas	18
2.03	Replace exit/ entrance doors	25
2.04	Replace Rainwater goods	25
2.05	Recoat powder coated Finishes to balconies / Grills to Basement vents	20
2.06	Periodic replacement and overhauling of external fixings	5
2.07	Replace Balcony floor finishes	25
3.00	Stair cores & lobbies (3No. Cores)	
3.01	Decorate Ceilings	7
3.02	Decorate Walls	7
3.03	Decorate Joinery	7
3.04	Replace fire doors	25
3.05	Replace carpets (stairwells & lobbies)	12
3.06	Replace entrance mats	10
3.07	Replace nosing's	12
3.08	Replace ceramic floors tiles Entrance lobbies	20
3.09	Fixed Furniture & Equipment - Provisional Sum	18

4.00	Basement & Car Parking	
4.01	Remove/ Replace ceiling insulation	25
4.02	Repaint parking spaces & Numbering	7
4.03	Replace store doors, ironmongery & digi-locks	15
4.04	Replace Bike stands	25
4.05	Replace basement access control at entrance & core entrances	12
5.00	M&E Services	
5.01	General - Internal re-lamping	7
5.02	Replace Internal light fittings	18
5.03	Replace External light fittings (lights at entrance lobbies)	18
5.04	Replace smoke detector heads	18
5.05	Replace manual break glass units/ disabled refuge call points	18
5.06	Replace Fire alarm panel	18
5.07	Replace lift car and controls	25
5.08	Replace AOV's	25
5.08	Replace security access control installation	15
5.09	Sump pumps replacement	15
5.10	External Mains Water connection	20
5.12	Electrical Mains and Sub Mains distribution	20
5.13	Emergency Lighting	20
5.14	Overhaul and/or replace Waste Pipes, Stacks & Vents	20
6.00	Exterior	
6.01	External boundary treatments - Recoat powder coated Finishes to railings	60
6.02	Replace external signage	18
6.03	Replace cobblelock areas	18
6.04	15-year cutback & thinning of trees. Overhaul landscaping generally	20
6.05	Replace CCTV provision	12
6.06	External Handrails and balustrade	18

Appendix B: PHASES OF THE LIFE CYCLE OF BS7543; 2015

Table 1 - Categories of Design Life for Buildings (from BS 7543:1992)			
Category	**Description**	**Building Life**	**Examples**
1	Temporary	Up to 10 yrs	Site huts; temporary exhibition buildings
2	Short life	Min. 10 yrs	Temporary classrooms; warehouses
3	Medium Life	Min. 30 yrs	Industrial buildings; housing refurbishment
4	Normal life	Min. 60 yrs	Health, housing and educational buildings
5	Long life	Min. 120 yrs	Civic and high quality buildings