

Figure 37. UD unit layouts - Duplex Block J . Source: MCORM, 2024

### 5.3 APPLICATION OF PRINCIPLES OF UNIVERSAL DESIGN

In the proposed Duplex blocks J & R , 5no. units (10% of the overall total Part V units) are designed in accordance with the requirements of the 'Universal Design Guidelines for Homes in Ireland' developed by the Centre for Excellence in Universal Design (National Disability Authority). Accessible parking spaces are located proximate to the front door of the units and universally designed to be accessible to all users with a range of disabilities.

The criteria addressing the design of the internal unit layout are summarised as shown below:

#### A.Kitchen/ Dining/ Living Room

- Large and flexible room with ample unobstructed space to access all areas for everyone with ease of movement thought the kitchen
- (4) Minimum 800mm wide clear route between furniture and in front of windows and routes between doors
- (3) 1200mm clear space on three consecutive sides of a table
- Kitchen is not a thoroughfare. Cooker / hob and sink are in the same run of worktop.
- The kitchen space located next to the dining area to ease access for carrying food and crockery.

#### B.Kitchen/ Dining/ Living Room

- Large and accessible family bathroom (minimum 2100 mm x 2500 mm) door opens outwards, sufficient space is allowed for the future adaptation to a shower room.
- (5) Bathroom adjacent to the main bedroom with flexibility to provide direct access from the bedroom.

#### C.Bedroom

- (4)clear access space of 800mm on both sides and at the end of the double bed.
- (2)Provide a clear space for a turning circle of 1500mm in the double bedroom.

#### Other

- Utility room with space for washer and dryer adjacent to kitchen.
- Doors open into rooms (such as living rooms, bedrooms and kitchens) with hinge-side of the door is adjacent to a return wall and approx. 300mm clear space on the leading edge of doors
- No single steps internally provided





## 5.4 PART V UNITS

Part V units

The adjacent diagram shows the proposed Part V units proposed on the site. The scheme consists of 487 no. units, the total part V allocation is 50 no. units (48 no. Duplexes & 2 no Houses)

The units are as follows:

- 8 no. one bed
- 23 no. two beds
- 19 no. three beds

As detailed in the previous section 5.3 - Universal Design, 10 % of the Part V allocation is proposed to be Universally designed.



5.5 DETAILS OF MATERIALS AND FINISHES

Brickwork and Stonework

The scheme will consist of 4 shades of clay bricks together with pale render. This complementary materials pallet is employed as a coherent family of materials that will run through the different character areas and create an unique identity to Kilternan

High quality buff, grey and red brick elevations align with current developments that are being built in the area, notwithstanding the delivery of a new neighbourhood with its own character at the heart of Kilternan Village.

A varied built character will be achieved by using a combination of brick and render throughout the different character areas envisaged.

The strong distinctiveness of the scheme's higher density edges is reinforced with the design employed on the apartment block facades

The aesthetic design of the Neighbourhood Centre incorporating elements such as the materials (brick and stone), which are sympathetic with the unique character of Kilternan, provides a distinct sense of place at the heart of the scheme and main entrance from the Enniskerry Road.

Main external finishes are illustrated adjacent (fig. 44).

Windows

To deliver visual variety, and variations of perceived wall depth, together with a diversity of detailing different approaches have been applied to the in-wall opes:

Large opes to the commercial spaces in the Neighbourhood centre, Community centre, Creche and the commercial/retail frontages on the ground floor of Duplex block A&D.

Well considered wall openings balanced through different facades creating a rhythm

Window proportion and style vary within the individual character areas to provide visual interest.

In all cases, the aesthetic aim is to play on the contrast between solid and void and between the glass and brick.

Balconies

Cantilevered balconies will project from the apartment blocks with balcony balustrading to be metal with a thin profile to deliver a clean appearance to the overall facades, as shown in the CGI's adjacent.

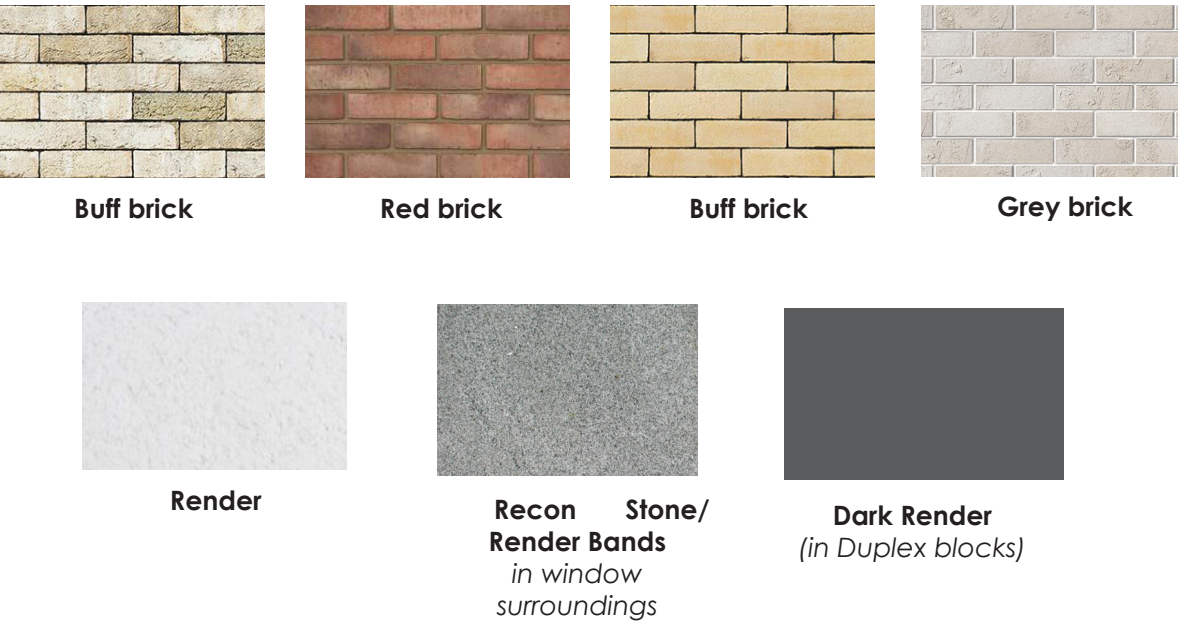


Figure 38. Palette of materials.



Figure 39. CGI of Apartment Block. Source 3DDB 2024.





Figure 40. Aerial of NC Block, Creche, Community centre, Duplex block A&D surrounding the Village Green . Source 3DDB 2024.



Figure 41. CGI of Duplex block G and the pedestrian priority street . Source 3DDB 2024.



Figure 42. CGI of Houses & P.O.S no. 5 (character area 3). Source 3DDB 2024.

## 5.6 MATERIALS AND FINISHES

### NEIGHBOURHOOD CENTRE

The Neighbourhood Centre is designed having regard to the Kilternan Local Area Plan for this subject site in terms of high level architectural quality and urban design. It proposes a contemporary language with a rational rhythm of openings and material choices that will enhance the special character of the traditional built fabric of Kilternan.

### APARTMENT BLOCK 1-3

Apartment blocks 1-3 which are located on the eastern lands that front onto the future GLDR create a strong distinctiveness to the scheme's edge which is reinforced with the incorporation of scale at this location.

The combination of glazed and solid surfaces is controlled, with the intention of creating visual interest while negotiating the volume of the buildings across the development. Stone detailing is used on the Neighbourhood centre block, Community centre, Creche and on the ground floor units of Duplex blocks A & D to emphasise the commercial uses behind adding to the visual interest to the overall development.

### DUPLEX BLOCKS

Duplex blocks that front the Enniskerry road incorporate vernacular elements in terms of style (pitched roofs) and materials (brick & stone), which are sympathetic with the unique character of Kilternan, and provides a distinct sense of place when entering the scheme from the Enniskerry Road. Throughout the scheme there are 7 duplex typologies, these use legible unique features to create a sense of identity and place while applying coherent window types, balcony treatments, stone surrounds and canopies.

### HOUSES

The houses in character area 1,2 & 3 are designed with a more traditional style and materials pallet, using three brick types complemented by reconstituted stone/ render details around door and window reveals.

The houses proposed are primarily finished with a high-quality brick finish on all primary elevations facing the street or other public realm areas. As a low maintenance material, a variety of different bricks chosen for different character areas will ensure that the streetscapes created will endure and retain a high-quality feel for longer. The roofs of the houses will be completed with a dark coloured roof tile to complement the brickwork & U-PVC windows add to the high thermal efficiency of each unit and will also be very low maintenance components.



5.7 CAR AND BICYCLE PARKING

Car parking as proposed will not dominate the visual character of the street. In all cases where either on street or in curtilage parking is proposed, a strong street planting scheme has been detailed by NMP Landscape Architects.

Undercroft arrangements by their nature take the car out of the public realm for the apartment building. The developer will provide car charging points at the outset to the quantity required by a planning authority - a ratio of 1 in every 5 spaces as been provided.

All houses will also be “charger ready”.

This is covered in more detail in the Traffic and Transport Assessment document prepared by Atkins Consulting Engineers attached to this application.

Bike parking spaces are provided in different configurations, depending on the necessity of each area. All bike parking areas in undercroft locations will be well demarcated and properly secured. Bike parking for visitors will be provided in some cases on surface where they are designed to be well integrated to the proposed landscaped areas and public realm.

Please refer to MCORM's drawing PL601 Car parking plan for further details.



Figure 43. Car parking plan. Sourse MCORM 2024



Figure 44. Plan of non - residential uses . Source MCORM 2024.

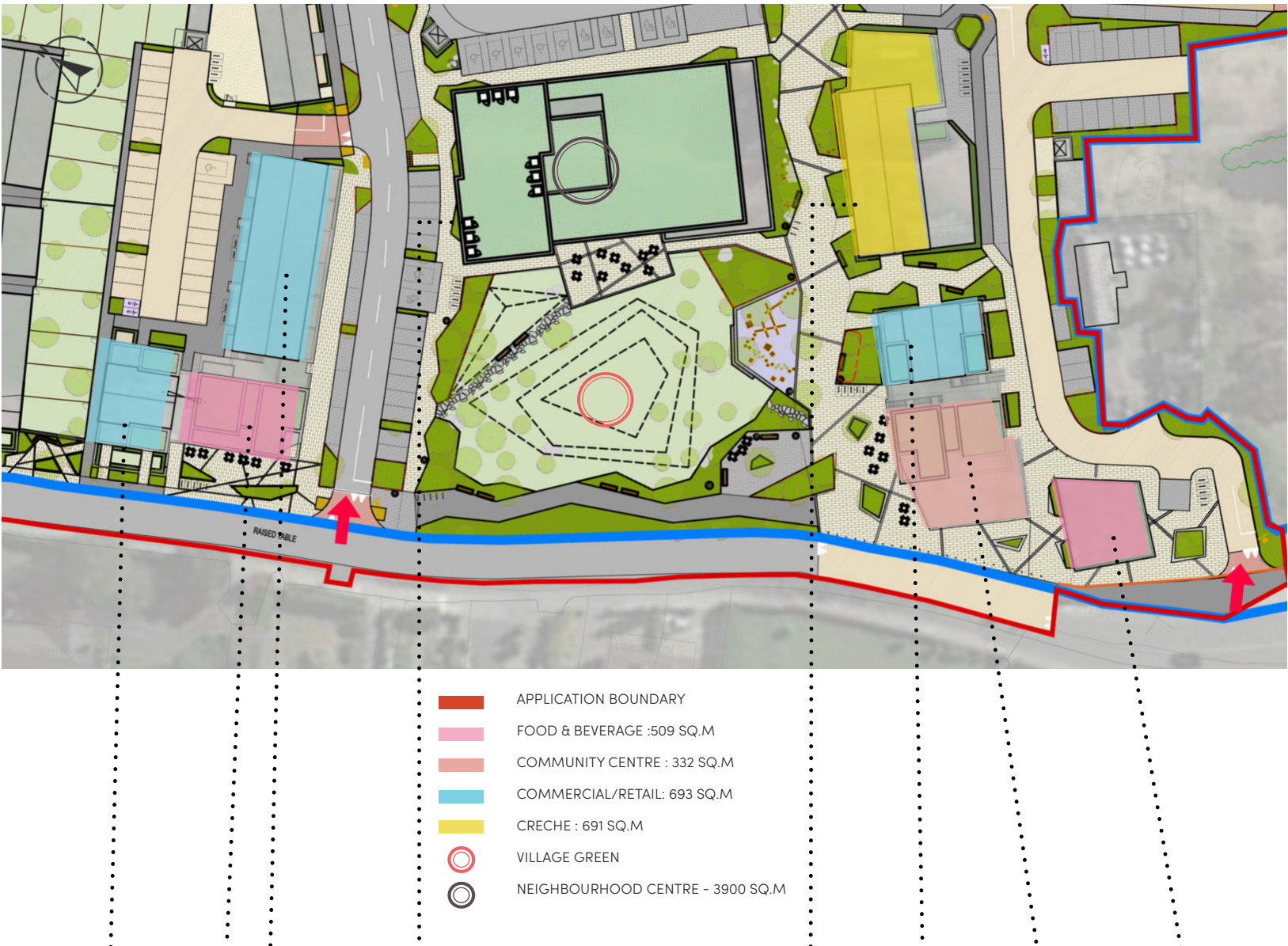


Figure 45. CGI Aerial View of Enniskerry Road Frontage. Source 3DDB 2024.

## 5.8 NON - RESIDENTIAL SPACES

A new Neighbourhood Centre for Kilternan forms the hub of the proposed development, together with a creche, a cafe, a restaurant, a community centre, and additional commercial/retail uses located in blocks A & D. The spaces are proposed to satisfy the needs within the scheme and adjacent residential developments. Located at the entrance to the scheme surrounding the Village Green on three sides (see figure 44), these new spaces will be fully accessible from all locations and will enhance the existing commercial amenities that are situated in the surrounding area. The incorporation of this facilities at the heart of the scheme will have a positive contribution to Kilternan Village as it enhances the local community infrastructure and in addition brings a new public open space as the new centrality of the village.

The retail anchor unit will be located at the ground floor level with retail/commercial space on the floors above. The exact layout and uses will be subject to future tenant agreement and will be dependent on market conditions at the time of construction. The flexibility will ensure that a viable scheme can be provided which will be vital for this village centre site. The proposed NC block is 3-4 storeys in height. The central cell comprises the NC building to the south facing the Village green. Car parking is provided in a parking court to the rear of the block and some on street parking to the north west of the Village green.

In addition to the Neighbourhood centre , the ground floor of the duplex block D consists of a new community facility c 330 sq.m that fronts the Village Green and Dingle way to the west and a stand- alone coffee shop c. 326 sq.m fronting the Enniskerry road. Together these buildings contain a plaza space that faces Our Lady of the Wayside Church. The angling of the built forms of the blocks creates this plaza space which encapsulates the dingle way creating a pedestrian and cycle friendly zone to be enjoyed by all residents and those in the surrounding community. A multi- purpose space is proposed for the community facility and will form a diverse range of social activities in this new vibrant community at this prominent corner of the site. The Residential units above provide passive surveillance onto the Village green and Dingle way.

The crèche is proposed north of Duplex block D. It is 1-2 storeys in height and has its own private play area to the eastern side of the block. This crèche block will front the dingle way again providing passive surveillance onto the Dingle way and Village Green.

There is dedicated car parking for community, coffee, crèche uses as well as residential car parking is provided in grouped surface parking arrangements.

Duplex block A contains further additional retail/ commercial spaces. and will contain the third side of the Village Green to the north. A restaurant use is also proposed within this block, adding to the variety of uses in this village hub.

All non - residential uses are located on NC zoned lands. Please see Figure 46 overleaf for diagram.



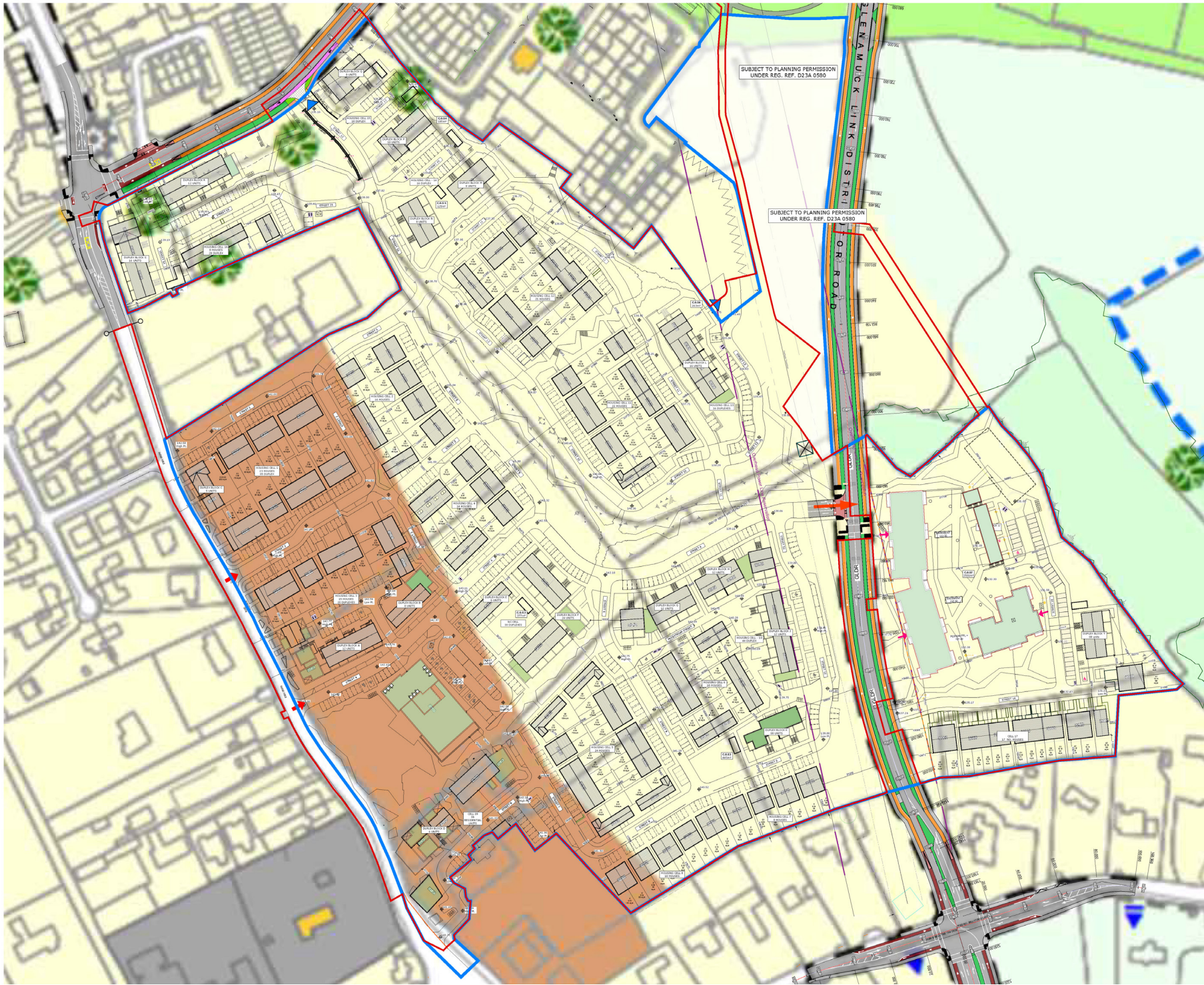


Figure 46. Site layout overlay with DLR development plan Zoning. Source MCORM 2024.



5.9 SUSTAINABILITY

OVERALL STATEMENT

All of the units will be subject to the NZEB (Nearly Zero Energy Building) requirements of the updated Part L Regulations, from 2021 that are in effect. In terms of energy ratings all of the units on site will have a Building Energy Rating (BER) of A2 / A3.

The measure of compliance with Part L of the Regulations is demonstrated using the Dwelling Energy Assessment Procedure (DEAP) software.

RENEWABLE ENERGY

Since 2008 and the introduction of the European Performance of Building Directive it has been mandated that each dwelling unit must generate a portion of their energy demand. The proposed buildings supply the renewable energy contribution in order to meet the Energy Performance Criteria of 0.3 as compliance hinges around either the ability to generate hot water (for sanitary purposes) using a heat pump with a related COP of over 230% or providing sufficient photovoltaic capacity to lower the imported energy into the unit.

A summary of the renewable solutions to be adopted on site are:

- Solar Photovoltaic (PV)
- Combined Heat and Power
- Heat pumps

All components proposed to achieve the renewable energy requirements were considered from the early stages of the design process and incorporated within the landscaping and built fabric to minimise any negative visual impact.

U-PVC WINDOWS

PVC framing is proposed at Kilternan for its energy efficiency and low maintenance characteristics compared with aluminium windows.

When assessing the energy efficiency of a window the frame has a bigger impact on the U value than the glass, effectively it is the weakest link in the thermal performance of the overall assembly. PVC framing material performs better than aluminium, having improved insulation qualities. At the point of manufacture the embodied energy of uPVC is 80 MJ/kg whereas the equivalent aluminium figure is 170 MJ/kg, a reduction of over 50%. Although the lifespan of both aluminium and PVC is similar at circa 35 years, aluminium frames depend on their paint cover, minimum of 70 microns, for protection whereas the PVC frame material is designed to be exposed and does not require an outer protective layer, and therefore require less up-keeping.

BUILDING FABRIC

The building fabric elements that will be used in the construction of the dwellings will achieve a high level of performance meeting the current Part L standards.

The specified air tightness for the unit is to achieve an air tightness level of 3 air changes an hour or better. Based on previous project experience with Liscove Limited we expect that this figure will be comfortably exceeded within the houses and duplex types proposed.

GREEN ROOFS

We are providing green Sedum roof on all flat roofs. This type of green roof requires little maintenance compared to other green roofs as they have shallow roots and only need a small amount of rain water and nutrients to survive. Upkeeping is mostly related to periodic gutters and edge cleaning but the meadow itself requires little attention.

Sedum roof systems have been shown to have benefits for a range of insects. Sedum flowers do provide foraging for pollinators, especially bees in late June, providing much needed habitats and food sources for wildlife and insects.



Figure 47. Sample image of similar building finishes. Comparable development delivered by Liscove Ltd.. Source MCORM 2024.



Figure 48. Sample image of biodiversity at sedum roof. Source MCORM 2024.



Figure 49. Sample image of biodiversity. Source MCORM 2024.