



CONTENTS

1.0	Introduction	4.0	Dwelling Design
1.1	Purpose of Report	4.1	Unit Types and Mix
1.2	Description of Development	4.2	Internal Layouts
		4.3	Materials & Architectural Language
		4.4	Daylighting
2.0	Site Assessment	4.5	Sustainability
2.1	Site Location	4.6	Accessibility
2.2	Access to facilities	4.7	Traveller Appropriate Houses
2.3	Site History		
2.4	Topography, Vegetation, Boundaries	5.0	Sustainable Housing Standards
2.5	Ground Conditions	5.1	Housing Quality Assessment
2.6	Site Services	5.2	DMURS
2.7	Neighbouring Buildings		
2.8	Planning Context		Appendices
2.9	Future Development	A	Internal Area Compliance Schedule
		B	Site Area Compliance Schedule
3.0	Overview of Proposal	C	3D views
3.1	Project Objectives		
3.2	Site Strategy Determinants		
3.3	Site Strategic Decisions		
3.4	Density		
3.5	Building Heights		
3.6	Relationship to Context		
3.7	Landscaping and Public Open Space		
3.8	Movement and Accessibility		
3.9	Mix of Activities		
3.10	Privacy and Amenity		
3.11	Car and Bicycle Parking		

1.0 INTRODUCTION

1.1 PURPOSE OF REPORT

This report has been prepared by O'Briain Beary Architects on behalf of Galway City Council (GCC), to describe the architectural design of the proposed development at Headford Road, Galway. This design statement report is prepared in support of a Part 10 application to An Bord Pleanála.

Galway City Council proposes to construct 24no. new dwellings, consisting of 3no. houses and 21no. apartments, at Headford Rd., Galway City. The proposed houses are a mixture of two- and three-storey buildings and are proposed for a site that is currently a small field.

1.2 DESCRIPTION OF DEVELOPMENT

Proposal: Pursuant to the requirements of Section 177AE(4)(a) of the Planning and Development Act 2000 (as amended) notice is hereby given that Galway City Council proposes to seek approval from An Bord Pleanála to carry out the following development at Castlegar, Headford Road, Galway.

Nature of Development: To construct a social housing development of 24 no residential units, comprising

- Provision of a 3.no. storey apartment block comprising 3 no. 1-bedroom units, 14 no. 2-bedroom units, 4 no. 3-bedroom units
- Provision of 3 no. 2-storey, 4-bedroom TAA (Traveller Appropriate Accommodation) units.
- Provision of roof mounted Solar PV panels on proposed apartment block.
- Provision of a foul water pumping station, carparking and bicycle parking, landscaping, children's play area, multi-use games area, connections to existing services and all ancillary/enabling site development works.

A Natura Impact Statement has been prepared in respect of the proposed development. An Environmental Impact Assessment Screening Report has been undertaken in respect of the proposed development and concluded that an Environmental Impact Assessment Report is not required.



Figure 1: Proposed Site Layout plan

2.0 SITE ASSESSMENT

2.1 SITE LOCATION

The site is located 3.7km north of the city centre by road. It is beyond the current edge of denser suburban estate development, the nearest such development being approximately 700m to the south, in an area characterised by low density one-off housing. Access is provided from the N84, a national trunk road. The Galway City Ring Road is planned to pass immediately to the north of the site. The GCRR road level will be elevated at approximately the median height of the sloping site, with the N84 passing below as an underpass.

2.2 ACCESS TO FACILITIES

The entrance to the site is located 8 minutes' walk (650m) from the 407-bus stop at Bothar an Choiste which provides a service at 30-minute intervals. The No. 456 bus from Galway to Castlebar passes the site at approximately 3-hour intervals, with a bus stop in front of the site which will be relocated nearby. The site is remote from neighbourhood/community services.



Figure 2: Satellite view of site in wider context

2.3 SITE HISTORY

The site has been used for agricultural use and there is no evidence of any other use or buildings on the site on the historical maps dating back to 1832. Original dry-stone walls remain on the site in places. The maps distinguish between the flatter grazing areas and the more sloped areas which are shown as overgrown or rocky. Headford Road itself was built in the latter half of the nineteenth century and its construction prompted the subsequent subdivision of the land along the line of the existing field boundaries.

An archaeological assessment of the site was undertaken in 2005 by Arch Consultancy Ltd. It concluded that a pile of stones to the west of the GCC-owned land could be a cairn and that the vegetation should be cut back to facilitate further investigation. This pile of stones is situated outside the development boundary on the higher lands zoned Agriculture & Amenity.

2.4 TOPOGRAPHY, VEGETATION & BOUNDARIES

The fall across the application site from west to east is considerable at approximately 13m, and average slope of 1:7.5. The steepest slopes are to the south-west of the site. Scrub vegetation is present on the steeper slopes with grass elsewhere.

Field boundaries are generally of low dry-stone walls of small limestone boulders & stones. There are overhead electricity lines crossing the site which will be diverted. The Headford Rd boundary is a dense hedgerow which covers a low stone wall. The entrance to the field is via metal agricultural gates.



Figure 3: Boundary wall

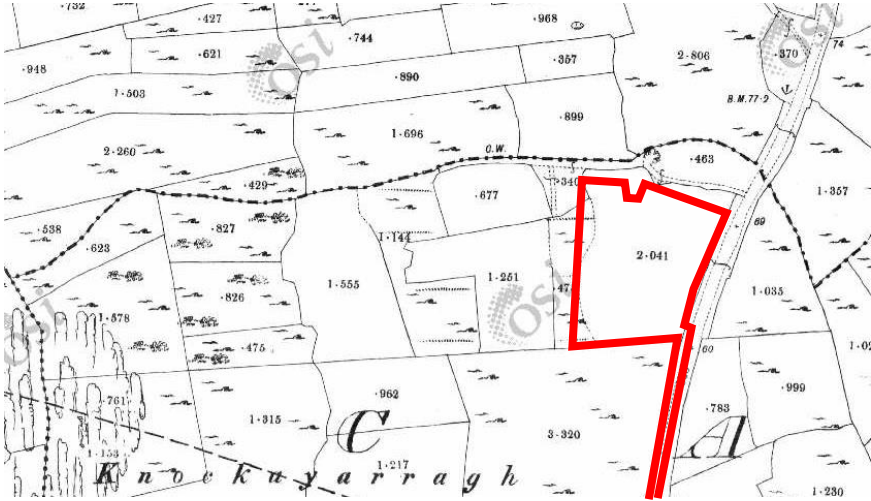


Figure 6: Historic Map of site 1897 - 1913



Figure 4: view from site facing south-east



Figure 7: view from site facing south-west



Figure 5: existing metal entrance gate



Figure 8: view of existing boundary along N84

2.5 GROUND CONDITIONS

Ground investigations have been undertaken and have informed the foundation design, attenuation strategy, and landscape treatment where soil and rock is to be excavated. Reference to the GSI map for the area shows that the site is underlain by Carboniferous Period rocks of the Burren Formation. The formation is described as a pale grey clean skeletal limestone. The Burren Formation limestones are shown to outcrop locally suggesting the overburden cover thins in the immediate area.

The ground investigations found an undulating limestone bedrock with glacial deposits of firm clay or silt generally. Trail pits showed a cover of generally firm to stiff and stiff soils, which become progressively stiffer with depth. It is surmised, that the very stiff cemented clay/silt viewed is a precursor to underlying bedrock, and coring proved bedrock exists at levels below the soil, sometimes up to 5.4m below the ground level. The various levels of bedrock encountered suggests the upper rock surface is undulating or irregular in profile. The Burren Formation is susceptible to karstic weathering and it may be the case that the uppermost surface displays a weathered or pitted profile.

DBFL have prepared a flood risk assessment which concludes that the site is not at risk from tidal, fluvial, pluvial or groundwater flooding due to its geographic location and topography. AA screening found that there is potential for groundwater contamination to the Lough Corrib SAC, and a NIS is required as a result, and accompanies this application.

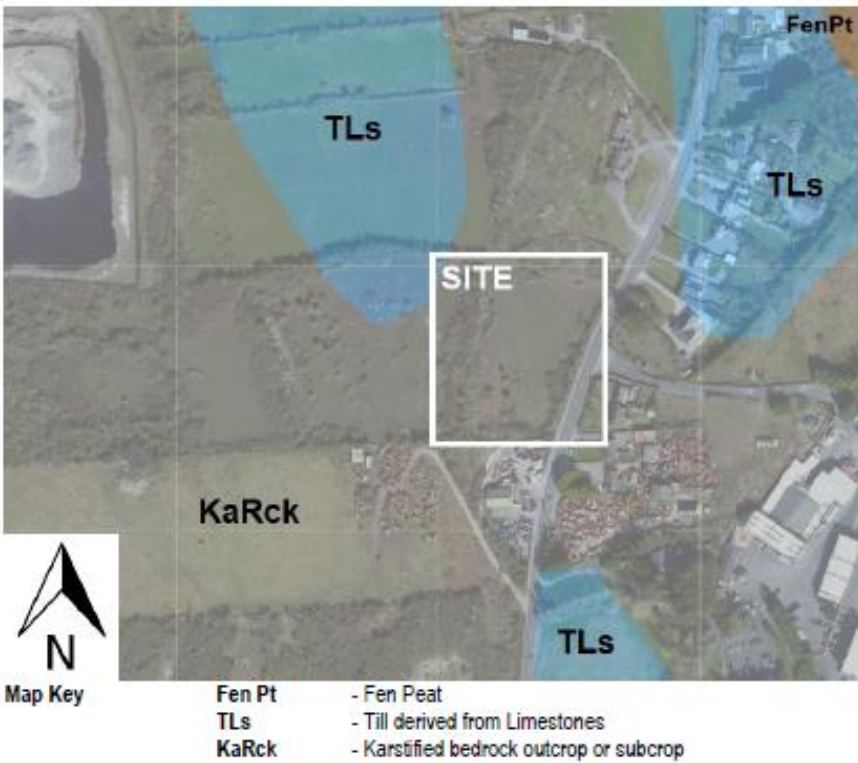


Figure 9: Quaternary Soils Plot Map

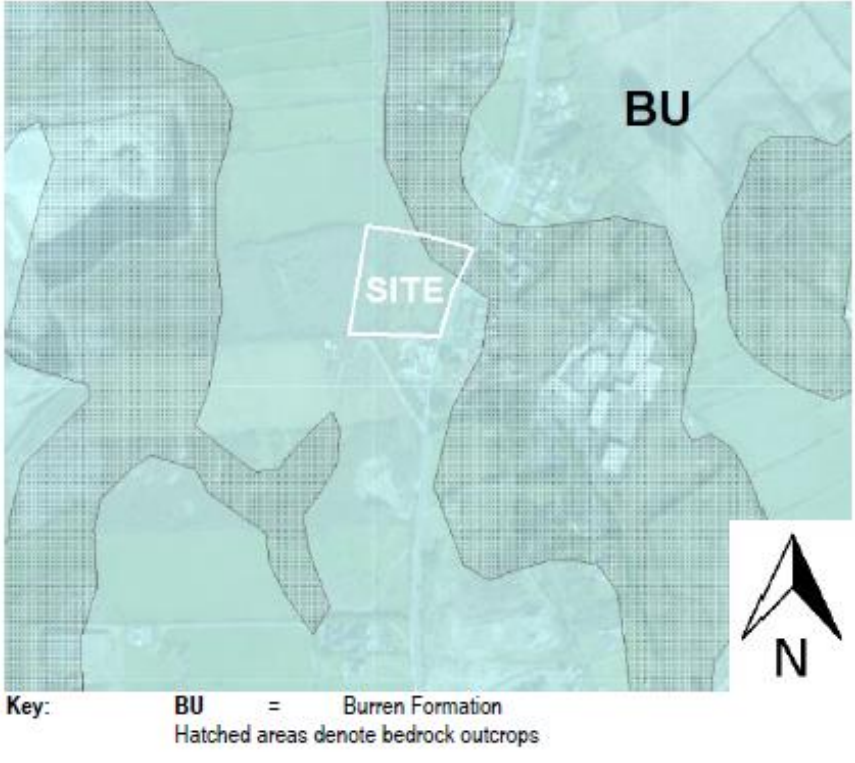


Figure 12: Bedrock Geological Map

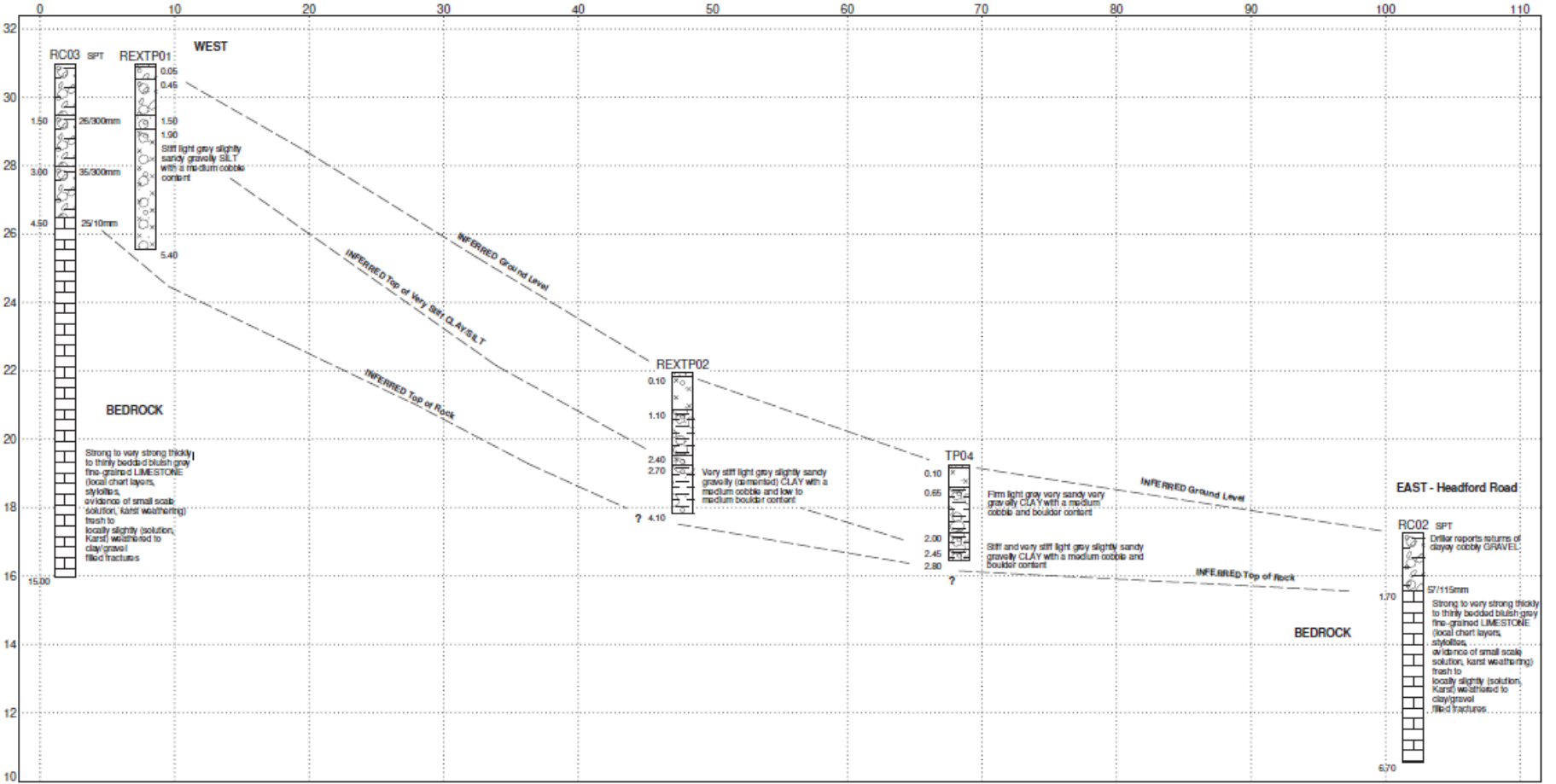


Figure 10: Site subsurface section W-E

2.6 SITE SERVICES

A foul water connection is available at 535m to the south of the main part of the site, and the foul water connection will require pumping. The site boundary includes the part of the N84 which will require works to facilitate this connection. Mains water is available in a 100mm main to the front of the site. A surface water connection is not available due to the existing topography, and attenuation and soakaways will be required for the development.

There are existing above-ground MV & LV ESNB services running within the boundary of the Site. A new standalone unit sub-station will be required to serve the new development and the above-ground services will have to be diverted via new below-ground ducting within the development. Diversion works will also be required to reconnect all the existing dwellings in the vicinity that are served from this existing above ground network.

The nearest point to the existing Virgin Media Network is approximately 650m south of the site at the junction of the N84 & the L5041. Virgin Media have advised that they would consider extending their current network to this proposed new residential development either via a cable or wireless service. The existing Open Eir Network passes along the front of the site above ground on the N84. As there is a fibre exchange relatively close by in the “Baile an Chóiste” estate in Ballinfoyle, we would anticipate that a fibre service would therefore be available to this proposed development via the above ground and underground network. A gas main is available at approximately 450m to the south of the site.

2.7 NEIGHBOURING BUILDINGS

Neighbouring properties are generally single-storey detached dwellings in a low-density ribbon pattern along the main road. The site to the immediate south is a commercial premises (recovery and van hire) with forecourt and warehouse. The site to the immediate north is a single-storey detached dwelling, which will be demolished to facilitate construction of the future Galway City Ring Road. The suburb of Castlegar is 500m south along the N84, with recent 3 storey apartment buildings in An Caireal Mór and Baile an Choiste.



Figure 13: Satellite view of immediate context



Figure 14: Neighbouring property to the north



Figure 16: Neighbouring properties to the east, across the N84



Figure 15: Neighbouring property to the south



Figure 17: Recent residential development approx. 200m south of site

2.8 PLANNING CONTEXT

2.8.1 Zoning

The site is zoned Residential (R) in the current Galway City Development Plan. The objective for zoning R Residential is *to provide for residential development and for associated support development, which will ensure the protection of existing residential amenity and will contribute to sustainable residential neighbourhoods*. Uses permitted in principle under this objective include housing as the primary use. Recreation, accommodation for Travellers, education, creche / playschool, community buildings and local retail / hospitality are also permissible.

2.8.2 Density & Plot Ratio

The GCDP defines the site as “Outer Suburbs”. The density for new residential development within this zoning is recommended to be 35-50 units per hectare. The plot ratio should not exceed 0.46. The proposed density is 26.4 units per hectare and the plot ratio is 0.22. The proposed density is outlined in more detail in Section 3.4.

2.8.3 Public Open Space

The GCDP requires that public open space is provided at a minimum rate of 15% of the site area for greenfield sites. The communal amenity space requirement for apartments is set out in Sustainable Urban Housing: Design Standards for New Apartments 2020 as follows:

- 1 bedroom apartment – 5 sqm
- 2 bedroom apartment (3 person) – 6 sqm
- 2 bedroom apartment (4 person) – 7 sqm
- 3 bedroom apartment – 9 sqm

The GCDP requires that all developments with more than 10 units provide a specific recreational facility within the communal open space. For developments of 21-50 units, examples of suitable facilities provided are Play Equipment, Kick About Area, and Formal Garden.

A total of 1432 sqm of public open space is proposed, which equates to 15.7% of the site area. Section 3.7 outlines the nature of the public open space in more detail.

2.8.4 Private Amenity Space

The private open space requirements for dwelling houses are set out in the GCDP as being not less than 50% of the gross floor area of the residential unit. The private open space requirements for apartments are set out in Sustainable Urban Housing: Design Standards for New Apartments 2020 as follows:

- 1 bedroom apartment – 5 sqm
- 2 bedroom apartment (3 person) – 6 sqm
- 2 bedroom apartment (4 person) – 7 sqm
- 3 bedroom apartment – 9 sqm

The quality of private amenity space for apartments is specifically set out in section 3.35 of Sustainable Urban Housing: Design Standards for New Apartments 2020. It requires that private amenity space at ground floor should be provided in the form of gardens or patio/terrace and at upper floors in the form of balconies. The guidance notes that the private amenity space should have appropriate boundary treatments to provide security and privacy, and orientated to avail of sunlight. It should be directly connected and accessible from the main living area and should have a minimum depth of 1.5m.

These quantitative and qualitative standards are achieved throughout, as demonstrated on the Appendix A Compliance schedule and floor plans.

2.8.5 Car and Bicycle Parking

The GCDP sets out car parking standards that should not be exceeded in the design of residential developments:

- 2 spaces per dwelling and 1 grouped visitor space per 3 dwellings, or
- 1 on-site space per dwelling and 1 grouped visitor space per dwelling, or
- 1.5 grouped spaces per dwelling and 1 grouped visitor space per 3 dwellings, or
- 3 spaces for dwellings over 200m² and 1 grouped visitor space per 3 dwellings, or
- 1 space for one bedroom residential dwellings and 1 grouped visitor per 3 dwellings

The proposed car and bicycle parking provision is outlined in Section 3.11.

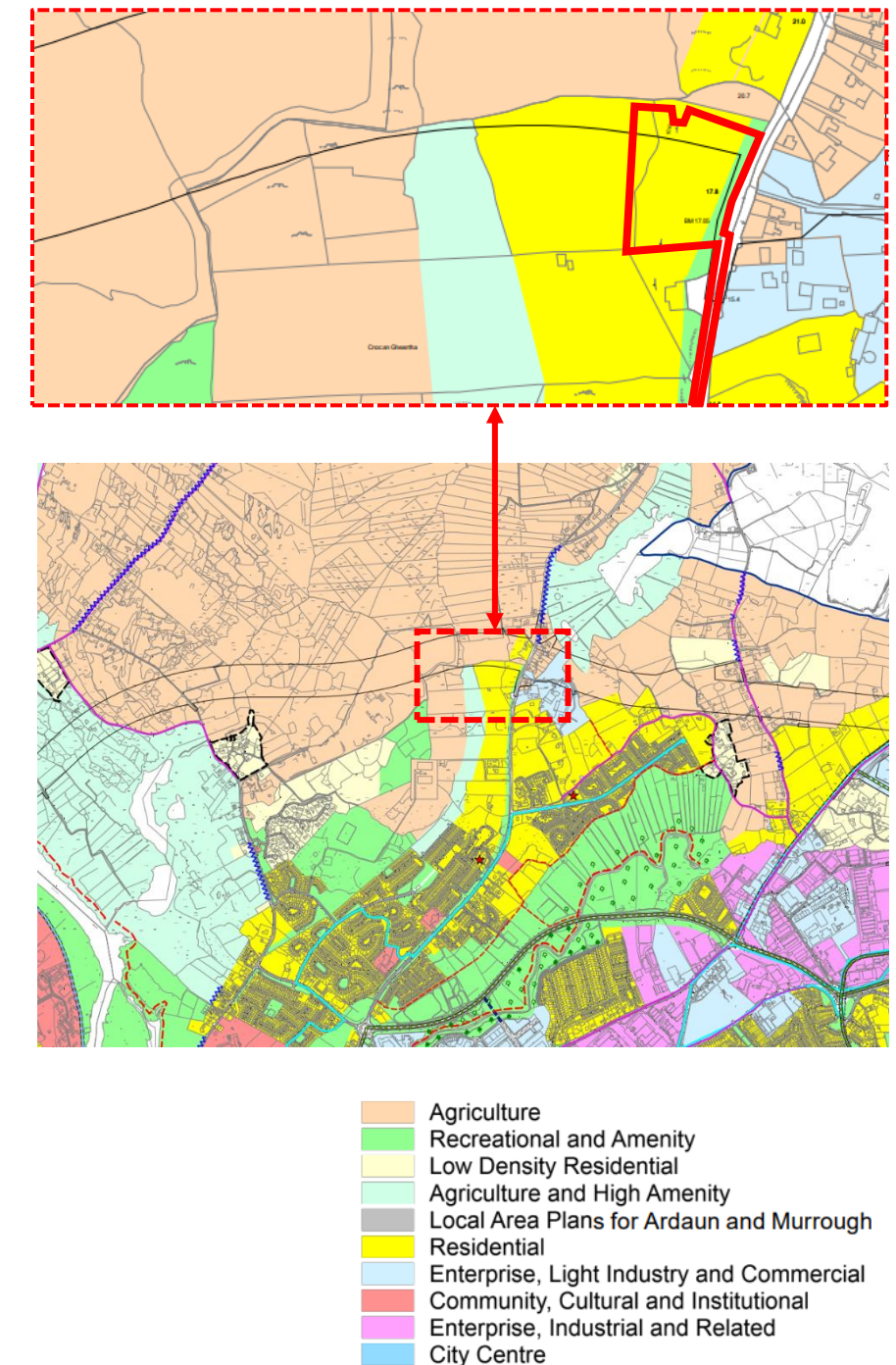


Figure 19: Extract from GCDP Zoning Map

2.9 FUTURE DEVELOPMENT

The Galway City Housing Strategy 2017-2023 has estimated the present and likely future demand for housing in the city and has ensured that sufficient zoned and serviced land is available within the Local Authority's Development Plan to meet such existing and future needs. There are a number of sites in close proximity to the subject site which are zoned residential in the Development Plan, including greenfield sites along the N84 to the south. Future development on these sites will significantly change the character of the area to one of a suburban neighbourhood and extend the city outwards along the N84.

The recently permitted Galway City Ring Road development passes directly north of the subject site. This proposal also involved the realignment of the N84 along the extent of the application site. The N84 will pass through an underpass at the junction of the GCRR, and on/off slip roads will be provided. The GCRR proposal is a significant infrastructural project and will involve considerable earthworks in the vicinity of the site, and will alter the terrain to the north of the application site. The geometries of the realigned N84 and new ring road have informed the site strategy and proposed building layouts. The projected noise levels from the new road have been analysed to ensure internal comfort levels are achieved, and an acoustic impact assessment accompanies this application.



Figure 21: Extract from Galway City Housing Strategy – map showing lands zoned residential (yellow)

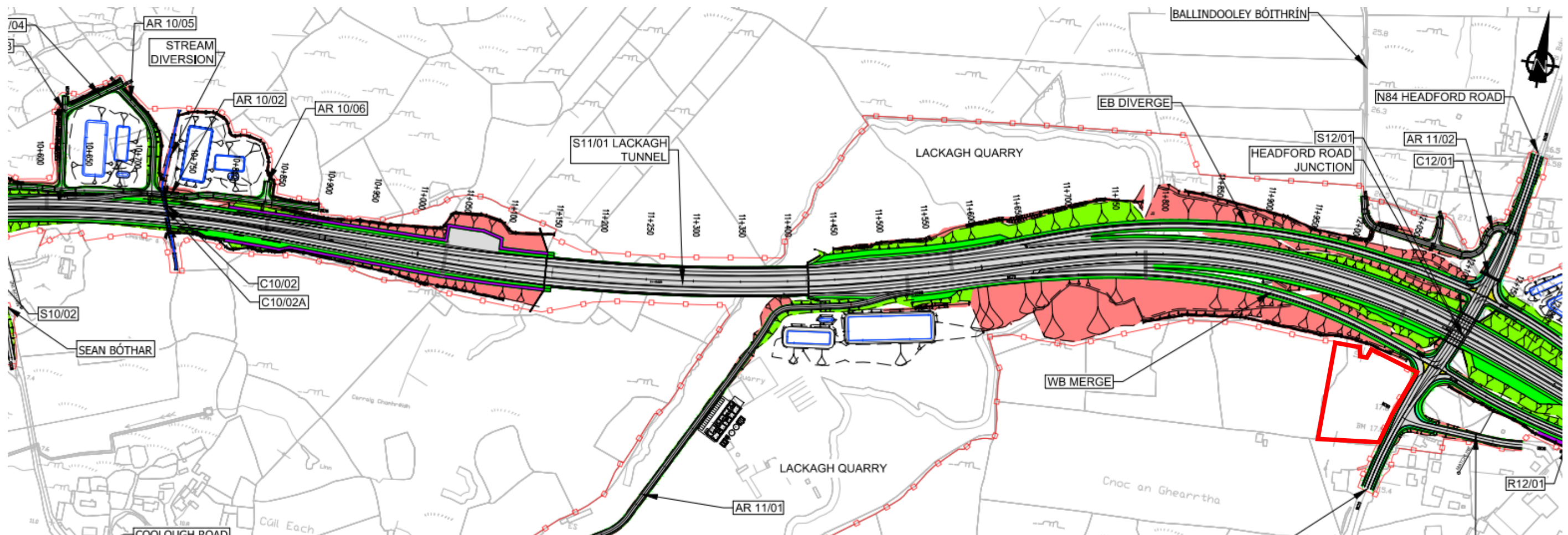


Figure 20: Extract from N6 Ring Road Planning Application

3.0 OVERVIEW OF PROPOSAL

3.1 PROJECT OBJECTIVES

Our design objective is to make a residential settlement that has a distinctive and rich sense of place, that ages well, that gives pleasure to its residents and that enriches its immediate context. In so doing we aim to meet the criteria outlined in the DoHLGH guideline document Quality Housing for Sustainable Communities, namely *“the main considerations underpinning the approach to the overall design of a housing scheme should be the need to facilitate a good quality of life for the residents, secure long-term sustainability of the development and enhance the environment of the area as a whole”*.

We also seek to work with the advice outlined in the above document and DoHLGH documents Sustainable Residential Development in Urban Areas, the Urban Design Manual: A Best Practice Guide for Planning Authorities 2009, and Sustainable Urban Housing: Design Standards for New Apartments regarding passive surveillance, permeability, design of home zones, and the design of quality open space as the focus of neighbourhood communities.



Figure 22: View along internal street facing north



Figure 23: View of public open space at main site entrance

3.2 SITE STRATEGY DETERMINANTS

The principal determinants of the site layout, other than normal Development Plan standards, are the requirements to:

- Provide a foul water pumping station located at a low point on the site (1), allowing a minimum distance of 10m from the pumping station to housing or adjacent sites
- Provide significant surface water soakaway on site (2) as storm water mains are not accessible
- Locate the vehicular site entrance as far as possible from the future traffic lights at the GCRR slip roads (3), and allow space for the future road alignment (4)
- Allow for future vehicular & pedestrian access to the lands to the south (5), and maintenance access to the lands to the west (6)
- Provide fire tender access to the courtyard (7)

3.3 SITE STRATEGIC DECISIONS

The principal strategic decisions made for the site layout are to:

- Provide future access to the upper lands through a junction with the adjoining site on the southern boundary
- To slope the roads at the maximum permissible for Part M compliant pedestrian access including landings (= approx. 1:24)
- To place the Traveller appropriate houses in the in the southern half of the site closest to the vehicular entrance and backing onto the excavated soil face (A)
- To accommodate the smaller residential units in an apartment building to maximise the use of the land and to give a presence to mark the prominent corner of the site, when the GCRR proceeds (B)

3.4 DENSITY

The proposed site density is 26.4 units per hectare, which is lower than the maximum prescribed for the site in the GCDP. Site Coverage is 12.5% and the plot ratio is 0.22. The lower density is due to the site topography and other constraints previously mentioned – single non-central point of access, foul pumping station, fire tender turning circle and surface water attenuation.

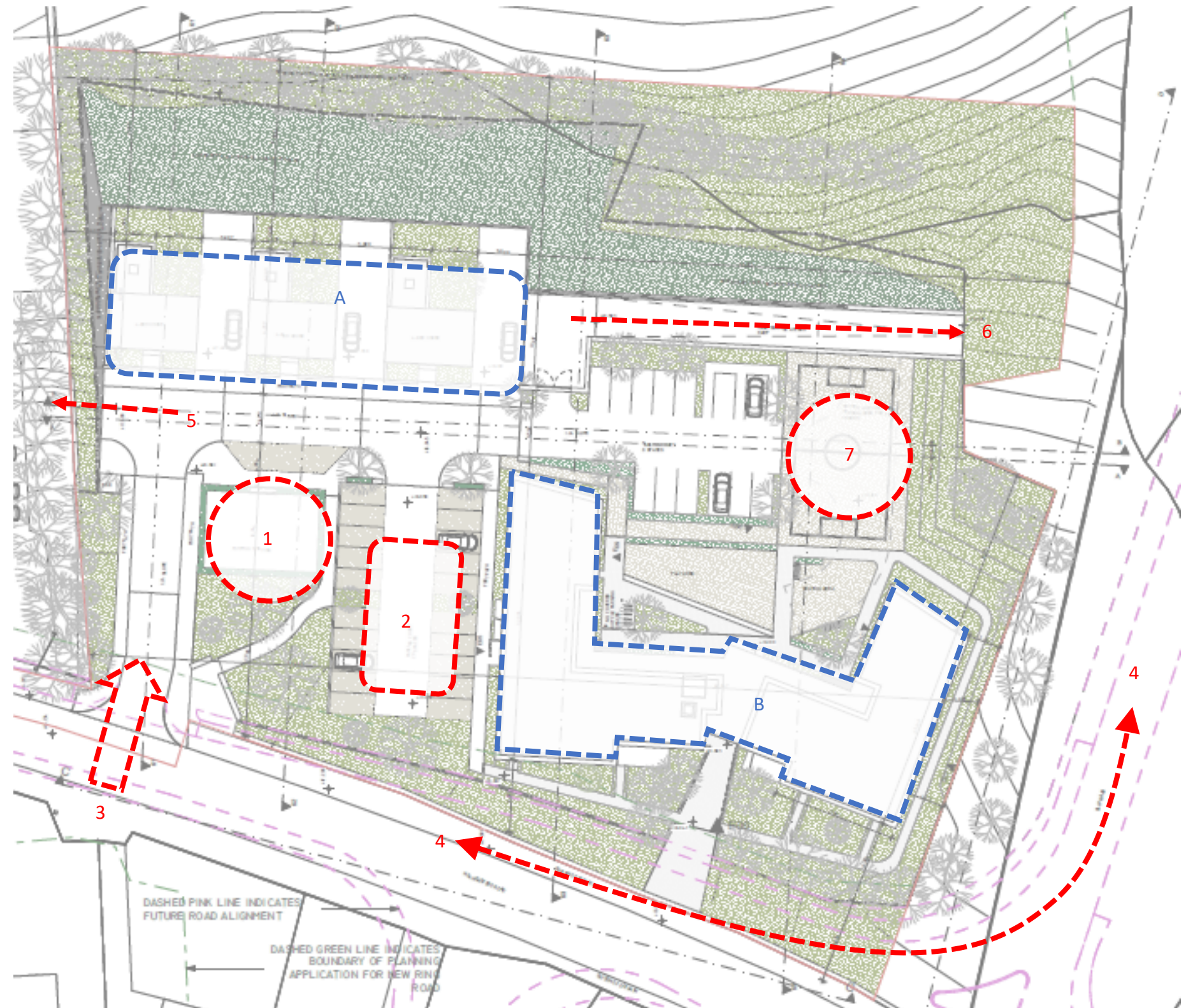


Figure 24: Site layout diagram – determinants and key decisions

3.5 BUILDING HEIGHTS

Given the relatively small area of site left once the site entrance and access road are allowed for, and taking into account its prominent location marking the entry to the city on what will be the busiest access road to the city, it is proposed that the apartment building be 3 storeys high. Its appropriate scale is determined in part by the height of the future ring road which will be raised several storeys above ground level at this point. Additional storeys are not feasible due to the associated additional carparking that would be required on the site.

The two-storey houses are a very common height and typology found throughout Galway city, and similar in scale to house types used in previous social housing projects by GCC. The nearby residential developments in Castlegar have a similar mix of 2 and 3 storey buildings.

3.6 RELATIONSHIP TO CONTEXT

The building form responds to the recently permitted ring road and N84 realignment proposal. Part of the GCC owned lands to the east and north will be required to allow for the future road/footpath network, and the site strategy allows for this – the proposed boundary wall/railing along the N84 will be aligned with the rear of the future footpath and a temporary green area is provided in the intermin. The area to the north of the GCC owned lands required for the ring road has been excluded from the application site area for this application.

The future slip road, speed limits, and traffic signals have also been factored into this proposal and the site entrance and sight lines have been designed accordingly. The turning circle for fire tender vehicles and bin lorries within the site means that there is minimal potential for interruption with the traffic along the N84. A detailed road safety audit has been prepared which refers to the future road layout in more detail, and accompanies this report.

The projected noise levels from the new ring road have been modelled and the proposal addresses this issue. Internal decibel levels are achieved and the noise levels to the play area is compliant. A detailed noise impact assessment has been prepared as part of this application and provides more detail on the projected noise levels and how the proposal addresses the issue.



Figure 26: Aerial view from South-east showing proposal in context of future ring road

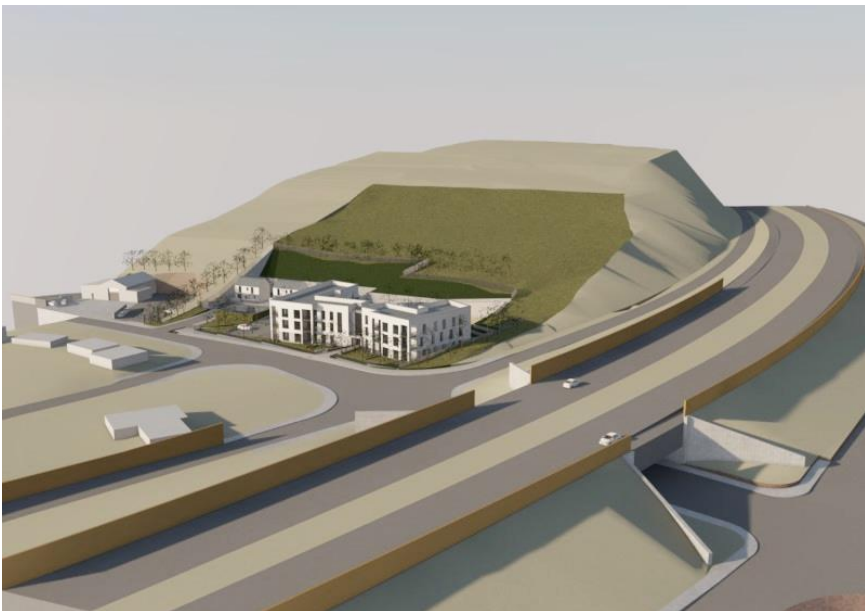


Figure 27: Aerial view from North-east showing proposal in context of future ring road



Figure 25: Contiguous elevation along N84

3.7 LANDSCAPING AND PUBLIC OPEN SPACE

The proposal includes a range of informal spaces to cater for all age groups including seating areas, walking loops, a play area, and a large kick-about area. The landscaping and public open space will contribute to creating a safe, secure and enjoyable environment for all users. The landscape proposal has been reviewed with GCC Parks Department, and GCC criteria for the design of open space and specification preferences and maintenance requirements have been incorporated into the proposal. Cunnane Stratton Reynolds have prepared a landscape layout based on these conversations and the architectural and civils layouts.

The landscape design aims to create a high-quality functional amenity / landscape setting for the residents. Central to this is the provision of a Play Area in conjunction with substantial amenity landscape planting proposals to enhance the setting visually and environmentally. Proposed semi mature trees, native hedgerow, native wildflower meadow and ornamental shrub planting will introduce seasonal interest and a high proportion of native species and pollinator friendly species – greatly increasing the sites currently limited ecological and biodiversity value. Three separate sheltered paved seating spaces have been incorporated into the landscape setting, two at pedestrian entrance/arrival points from the Headford Road, and a third linking the play area to the rear of the apartment block. The provision of hard surfaced seating areas facilitates social interaction between residents – helping forge a sense of community.

The availability of sunlight in public spaces, including those between buildings, plays an important role in the overall appearance and ambience of a development along with making outdoor activities more pleasant. Varming Engineers have carried out an evaluation of the play area for compliance with BRE guidance, which states that at least 50% of the area should receive at least 2 hours of sunlight on March 21st. This study adhered to quantitative performance approaches to sunlight provision set out in BRE 209, 'Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice', Second Edition 2011 and has shown that the space meets the BRE recommended criteria. The current design has carefully considered maximizing solar access to the amenity spaces within the development and minimising any potential impact from the dwellings.

An overshadowing study concluded that there will be limited adverse impact on the surrounding area or amenity areas and only transient overshadowing over amenity areas within the development.

The sites challenging topography requires a variety of engineered slope retention systems to be employed. A continuous native hedgerow and tree group will be planted along the sites western boundary at the upper field level – this will visually soften the 2.1m high palisade security fence and prevent access from the field side as well as creating a biodiverse linear plantation that will be both visually and ecologically attractive. The lower slopes will use low maintenance native meadow grass and ivy ground cover to ensure a quick stabilization of surface topsoil. A stepped 'crib - wall' retaining system will be used on the northern boundary which will allow interplanting with native hedgerow and woodland understory species. Landscaped swales will be incorporated along both the northern and southern boundaries to manage surface water run off in a sustainable and attractive manner.



Figure 29: Extract from landscape architects' plan



Figure 28: view from pedestrian entrance to site along N84

3.8 MOVEMENT & ACCESSIBILITY

Accommodating vehicular and pedestrian movement on this sloping site has been a prime driver in the development of the scheme design. The site layout has been developed in line with Urban Design Manual and universal design guidelines. Footpath gradients are gently sloped at no greater than 1:20, and the proposed paving surface is concrete. Off curtilage car parking has been provided for apartments with designated universal access spaces. Dished kerbs with tactile paving to footpaths are proposed at road crossings. All buildings are wheelchair-accessible from the entrance to the site.

The entry road rises at a slope of 1:12.5. A loading bay is provided for servicing of the pumping station. The road then turns north and continues to slope at 1:21, giving access to the houses and two parking courts for residents of the apartment building. Future road access to the upper part of the site is envisaged to be provided via the neighbouring site to the south, and a future link has been included in the proposed road layout. Maintenance access to the upper part of the site is provided by way of an access road, which is not for public access.

Pedestrian routes follow the road layout throughout. Additional pedestrian-only routes are provided from the main entrance and circling the apartment building. The entrance courtyard to the east of the apartments is also a pedestrian zone, accessible from the N84 at grade. The courtyard levels run through into the apartment block courtyard. The apartment courtyard is designed to be accessible to fire tenders. A detailed mobility management plan has been prepared by DBFL Engineers.

3.9 MIX OF ACTIVITIES

The public open space provides a range of safe, secure environments for a varied demographic envisaged in varied apartment unit types. The public open space is broken into different areas, with different amenities for different age groups:

- play area for young children
- kick-about space for adolescents with flexibility for multi-purpose use
- seating area next to the play area for adults to congregate or supervise children
- footpaths and pedestrian loop with informal seating areas

3.10 PRIVACY & AMENITY

Private amenity spaces at ground floor achieve a sense of comfort and privacy by employing planted privacy strips and level changes between the amenity space and public realm. Passive surveillance and direct visual connection from apartments to the public open spaces is also provided. The building perimeter at ground floor is 'activated' by providing direct access to apartments along each elevation where possible.

3.11 CAR AND BICYCLE PARKING

10 sheltered bike spaces are provided to the courtyard of the apartment building, to comply with the requirements of the Galway City Development Plan. The design of the own-door access to ground floor units with large protected terraces will also accommodate safe storage of bicycles.

A total of 39 car parking spaces are provided, which is a shortfall of 3 spaces from the standard outlined in the GCDP. This reduced provision has been agreed with GCC and the spaces per unit are still achieved, while visitor spaces are provided at approx. 50% of the standard.



Figure 30: View along N84 looking north-west

4.0 DWELLING DESIGN

4.1 UNIT TYPES AND MIX

A mix of 1-bedroom, 2-bedroom and 3-bedroom apartment units are proposed. Houses have 4 bedrooms. The variety of unit types will accommodate a mix of demographic types representing a cross-section of the community. A breakdown of the unit mix is as follows:

TYPE	AMOUNT	% MIX
1 bed apartment	3	12.5%
2 bed apartment (3 person)	6	25%
2 bed apartment (4 person)	8	33.3%
3 bed apartment	4	16.7%
4 bed house	3	12.5%

4.2 INTERNAL LAYOUTS

A deck access scheme is proposed for the apartment building. This approach was adopted as GCC wish to avoid as far as possible the maintenance and management issues arising from internal corridor spaces. The deck access arrangement has been used on recent schemes undertaken by Dublin City Council for rapid-build projects with a kitchen window facing the deck access, and living spaces and bedrooms on the other side of the unit with balconies/terraces accessed via the living room. The proposal allows for 7 units per level to be accessed via a single central stair and lift core, which allows good efficiency and relatively low running and maintenance costs for GCC.

Apartments are accessed directly from outside via an entrance hallway, which gives access to all other rooms. This arrangement facilitates day to day family life by providing a separation between bedrooms and living spaces, and also providing a threshold from the public realm. Storage and plant rooms are typically accessed via the hallway. Floor to ceiling heights are 2.7m at ground level, and 2.4m on upper floors.



Figure 31: View of courtyard

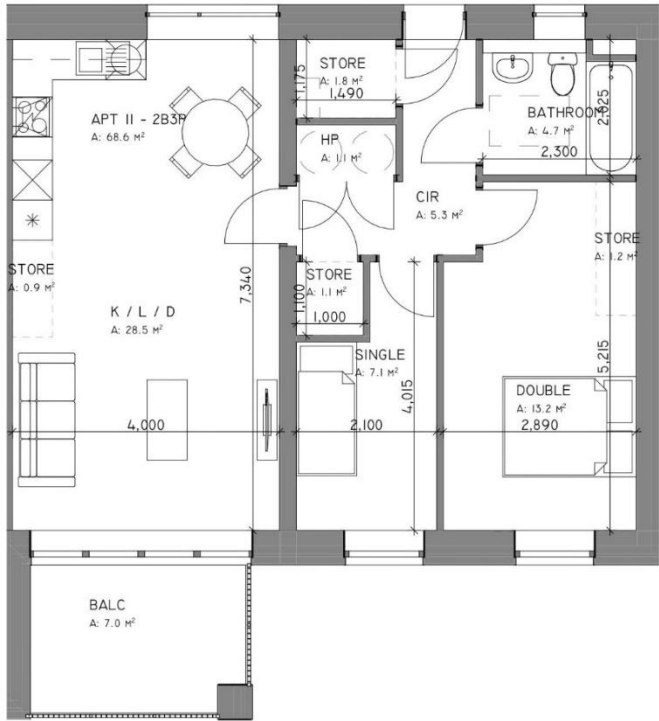


Figure 32: Typical apartment layout



Figure 33: 3D axo showing relationship of ground floor units to public realm

4.3 MATERIALS & ARCHITECTURAL LANGUAGE

The proposed building language, in its vertical window openings, parapet and eaves architecture, and material simplicity, consciously refers to the traditional vernacular of both city and countryside in the west of Ireland.

The buildings will have a painted render finish over a brick plinth. Mineral paints with biocidal properties are proposed to ensure durability of the finish over time and low maintenance (20-30 years generally advised, may be less given exposure). Brick is proposed for the plinths, garden walls and enclosures to the front and is envisaged as being of a grey colour (referring to the grey limestone of east Galway) which has appropriate durability for pedestrian level use. Windows will be aluminium with a light grey colour externally which will match the colour of rainwater goods and other trims. A single ply membrane of dark-grey colouring is proposed to the houses, with a false standing seam detail. Balconies to the apartment building will be painted aluminium.

Construction will be of conventional cavity wall construction with timber upper floors and roof structure to houses, and precast concrete floors and roof to the apartment building. All windows will be of an alu-timber type. Fenestration is proposed to be as simple as possible while also allowing some degree of variation to the elevation. Elevations are repeated in each house for simplicity, permitting slightly larger glazing areas than would be affordable with non-repetitive glazing of multiple configurations. Building envelopes are intended to be simple in configuration, avoiding an excessive number of features (corner windows, bay windows, projecting balconies etc.) that add to building costs.



Figure 34: Material reference - Ballymoneen Road Housing Galway, OBB Architects



Figure 36: Material reference - Southill Housing Limerick, ABK Architects

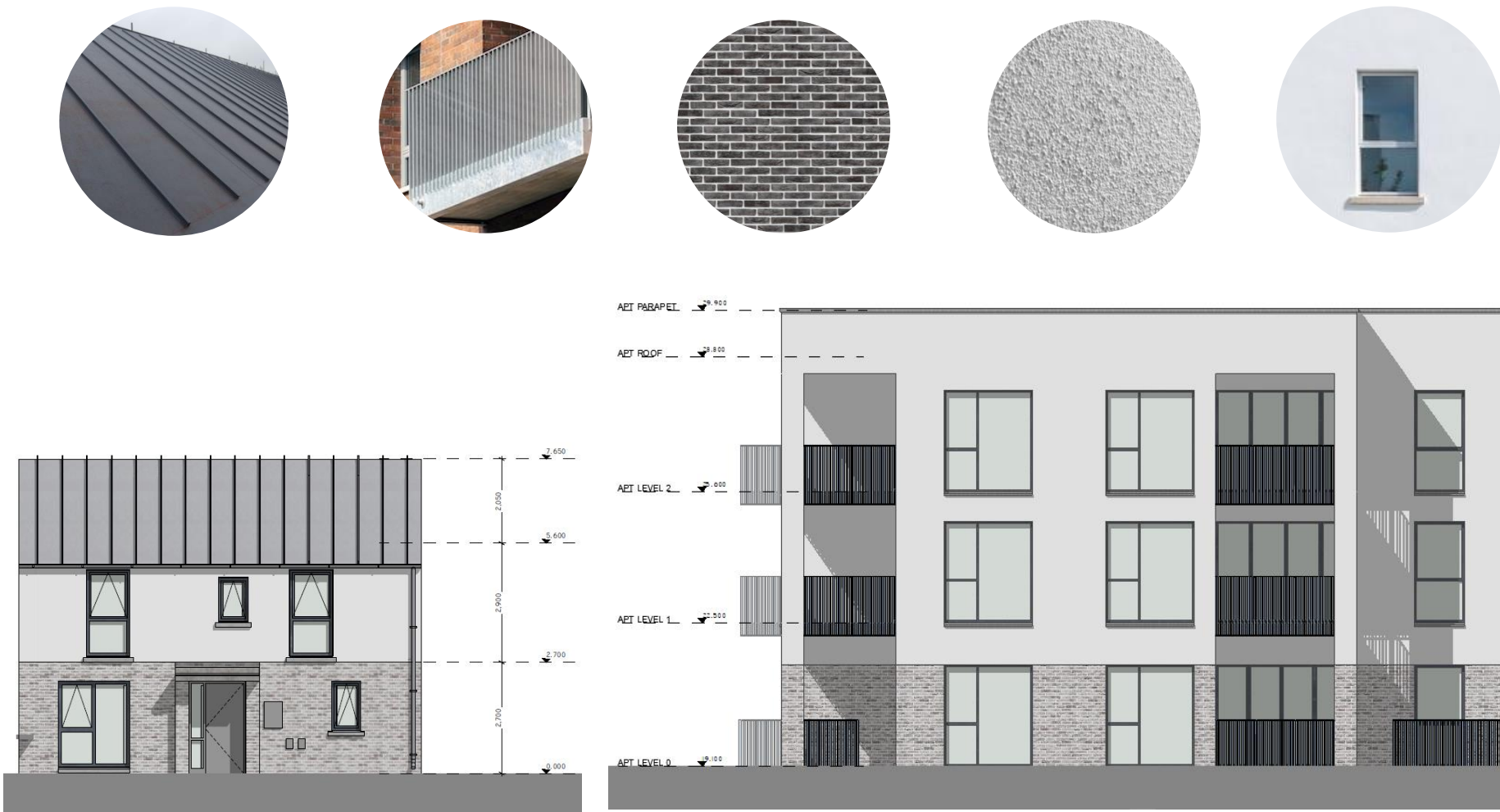


Figure 35: Elevations and material palette

4.4 DAYLIGHTING

A sunlight/daylight study was undertaken on the ‘worst-case’ house and apartments, based on the guidance contained in BRE guide ‘Site Layout Planning for Daylight and Sunlight’ (2nd edition) and BS 8206-2: 2008 – ‘Lighting for Buildings – Part 2: Code of Practice for Daylighting’. Full ADF compliance with BS 8206 is achieved in 100% of the rooms evaluated and the results of the NSL analysis demonstrate that all of the habitable rooms will have good daylight distribution. The report concludes that the proposed building massing results in good quality light and maximises daylight within the units. The internal layouts have been designed to locate the Kitchen/living spaces in the best location to maximise daylight within the space. Balcony locations also allow good levels of sunlight into the units.

The “No-Sky Line” (NSL) was evaluated to determine the distribution of diffuse daylight within each space. BS8206 states that in new developments no more than 20% of the working plane should lie beyond the NSL. The results of the NSL analysis demonstrate that all of the habitable rooms will have good daylight distribution with 100% meeting the BRE numerical criteria. Of the 09 rooms with more than one activity (Kitchen/Dining/Living) and one Living space, 100% will meet the target values and receive daylight to at least 80% of their floor area, meaning that daylight will be well distributed across the open plan arrangement, while 100% of bedrooms also comply.

4.5 SUSTAINABILITY

The proposed development will comply with the requirements of TGD Part L. All buildings in the proposed development shall be designed and constructed so as to ensure that the energy performance of each building is such as to limit the amount of energy required for the operation of the building and the amount of carbon dioxide emissions associated with this energy use insofar as is reasonably practicable.

Detailed energy rating analysis will be performed on each of the dwelling units in addition to the common landlord area. The range of measures & technologies being considered in order to achieve compliance with building regulations are outlined in a building energy statement which accompanies this document. These measures are related to the building fabric,

ventilation, airtightness, space heating, water heating, lighting, and renewable energy sources.

4.6 ACCESSIBILITY

All dwellings are designed to be compliant with Part M of the Building Regulations. Entrance doors will be level access and all units will have visitable W.C.s. The common stairs serving upper floor apartment units will comply with the requirements of Part M. An elevator will also serve upper floors.

Two Universal Design apartment units are provided at ground floor level, which take into account the guidance in *Universal Design Guidelines For Homes in Ireland*, including a larger than normal gross internal area provision.

The 4 bedroom houses include a ground floor bedroom, which responds to the multi-generational demographic of the residents.

4.7 TRAVELLER APPROPRIATE HOUSES

The Traveller appropriate accommodation element of the project has been informed by consultation between GCC Housing Department and Traveller representatives.

The key concerns of the Traveller representatives identified through this consultation process were in relation to achieving a sense of community and a sense of security/privacy. The location of the houses on the site responds to these concerns. The three houses are located together in a row to the south-west of the site, facing the main entrance. The houses are clearly distinct from the social housing apartment building, while also a part of the overall development. The aim of this is to retain a sense of community among the group and reduce the potential impact of relocating to an unfamiliar location, such as isolation or loss of identity.

The houses are detached, and back gardens are facing onto the excavated soil and rock face to the west of the site. This is the preference of the group as alleviates the concerns in relation to security, privacy and overlooking which would occur in a back-to-back arrangement. A concrete retaining wall is required for the excavations, and this is tall enough to prevent

climbing to the upper part of the slope. The slope itself will be planted with maintenance-free planting which will provide a good visual amenity to the houses. A small front garden with low boundary walls will give a buffer between habitable rooms at ground floor and the public realm, while still retaining passive surveillance. A hard-standing area within the curtilage of each house will facilitate a car, van and horse-box for each house.

The houses contain 4 bedrooms, which respond to the needs of the group. A bedroom is located at ground floor level which will cater for older generations. Kitchen and living spaces are large enough to facilitate large family gatherings. The living space has good visual connections and direct access to the rear garden. Garden walls are high enough to give a sense of privacy to rear gardens.

The primary material palette of grey brick and painted render will be the same as on the social housing apartment building. The intention is to achieve a coherent overall aesthetic for the whole development, while the location and form of the houses will achieve a respectful separation and distinct typology. The house design also incorporates the current fire prevention measures that prevent spread of fire from a caravan to the house by ensuring the house walls close to the caravan are fire resisting.

6.0 SUSTAINABLE HOUSING STANDARDS

6.1 HOUSING QUALITY ASSESSMENT

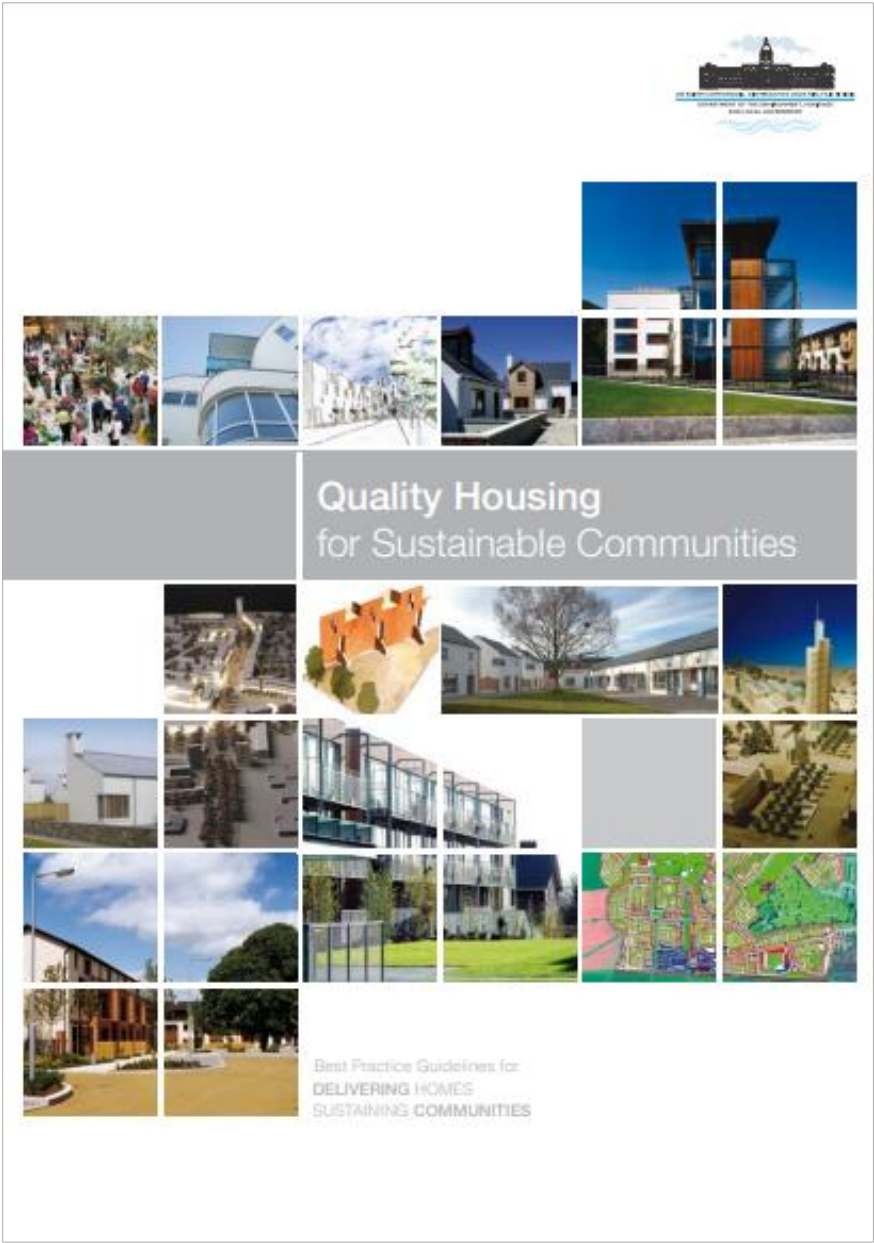
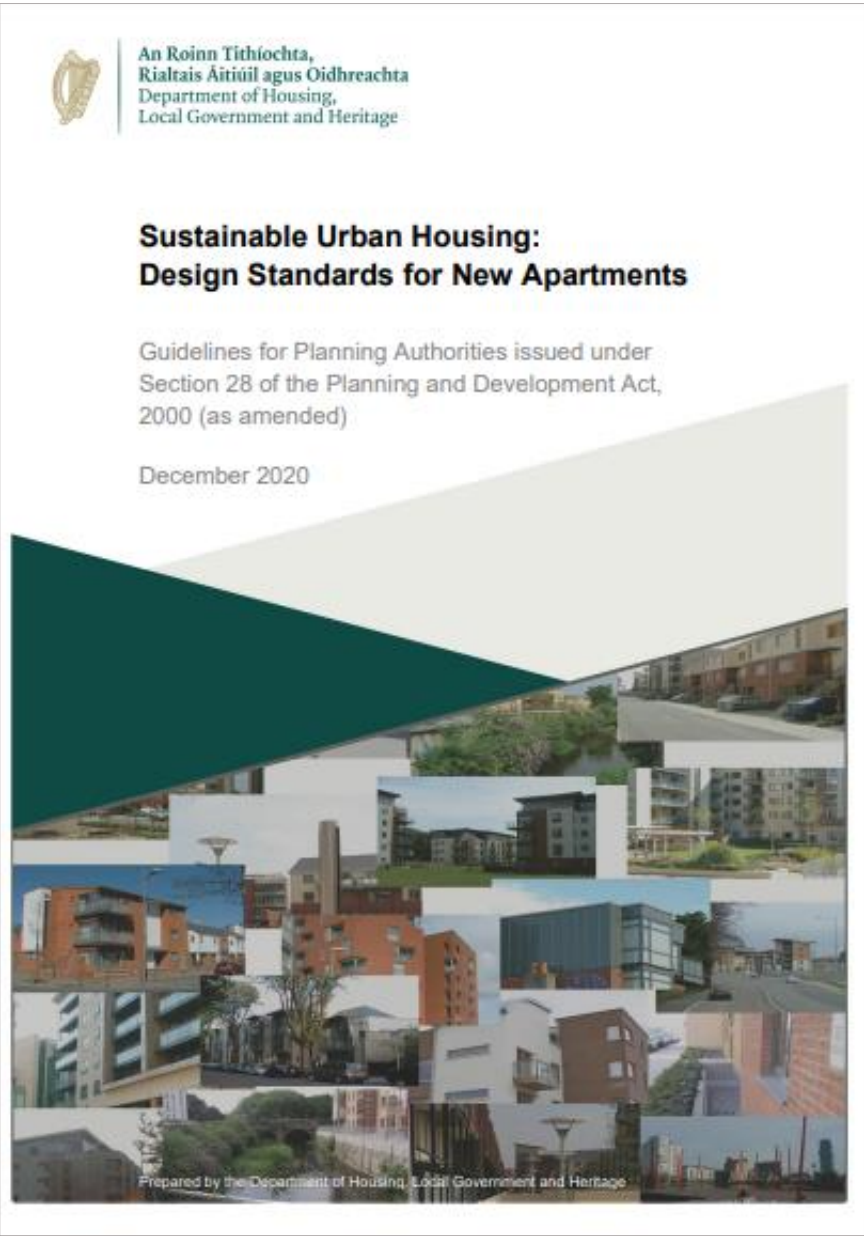
The design of the houses complies with the guidance outlined in the *Quality Housing for Sustainable Communities*, published by the DoHLGH in 2007. A schedule of areas is included in Appendix A which demonstrates compliance.

The design of the apartments complies with the guidance outlined in *Sustainable Urban Housing: Design Standards for New Apartments*, published by the DoHLGH in 2020. A schedule of areas is included in Appendix A which demonstrates compliance.

6.2 DMURS

The proposal is the outcome of an integrated design approach that seeks to deliver a sustainable residential community, connected by a well-designed internal street with assimilated open spaces which together deliver safe, secure, convenient, and attractive networks in addition to promoting a real and viable alternative to car-based journeys.

In response to the site’s characteristics and associated accessibility characteristics it is the design teams view that the design presented for the proposed residential development has maximised every opportunity to ensure consistency with both the principles and design guidance outlined within the *Design Manual for Urban Roads and Streets* (DMURS).



APPENDIX A INTERNAL AREA COMPLIANCE SCHEDULE

TYPE	TYPE	GROSS INTERNAL AREA	K / L / D	BEDROOM 1	BEDROOM 2	BEDROOM 3	BEDROOM AGGREGATE	STORAGE	PRIVATE AMENITY
1A	1 Bed 2 Person Apt	57.7	27.6	11.6	-	-	11.6	3.1	9
1B	1 Bed 2 Person Apt	50.4	23	11.4	-	-	11.4	3	8
2A	2 Bed 4 Person UD Apt	90.3	34.2	13.5	13.2	-	26.7	7.7	18.1
2B	2 Bed 4 Person Apt	82.2	30	13.8	11.6	-	25.4	6	7
2C	2 Bed 3 Person Apt	68.6	28.5	13.2	7.1	-	20.3	5	36.3
2D	2 Bed 3 Person Apt	68.6	28.5	13.2	7.1	-	20.3	5	24.8
2E	2 Bed 4 Person Apt	83	32.4	13.3	11.8	-	25.1	6.4	7
2F	2 Bed 4 Person UD Apt	90.4	34	13.9	11.9	-	25.8	6.1	17
2G	2 Bed 3 Person Apt	68.6	28.5	13.2	7.1	-	20.3	5	7
2H	2 Bed 3 Person Apt	68.6	28.5	13.2	7.1	-	20.3	5	7
3A	3 Bed 5 Person Apt	97.3	34.2	13.5	11.7	7.2	32.4	9	13.8
3B	3 Bed 5 Person Apt	96.6	34	13.9	11.5	7.1	32.5	9.1	11.9
H	4 Bed House	116.2	42.7	-	-	-	47	6.2	68.6

APPENDIX B SITE AREA COMPLIANCE SCHEDULE

SITE AREAS			
Site area	9080	sqm	
Public Open Space Required	1362	sqm	15% site area
Public Open Space Provided	291	sqm	Entrance Green Area
	601	sqm	Kickabout Space and Play Area
	383	sqm	Pedestrian Footpath Route
	157	sqm	Communal Amenity Seating Area
	1432	sqm	TOTAL
Communal Amenity Space Required	143	sqm	
Communal Amenity Space Provided	157	sqm	Communal Amenity Seating Area
DENSITY / COVERAGE / PLOT RATIO			
Site Coverage	12.5	%	
Plot Ratio	0.22		
Site Density	26.4	units/ha	
DUAL ASPECT			
Dual Aspect	100%		
PARKING			
Car Parking Spaces	39		
Bicycle Parking Spaces	10		

APPENDIX C 3D VIEWS











