

Lock House Developments

**Strategic Housing Development at Bóthar an Chóiste
Castlegar, Co. Galway**

**DMURS – Statement of Consistency
Design Manual for Urban Roads and Streets (2019)**



Strategic Housing Development at Bóthar an Chóiste, Castlegar, Galway

DMURS – Statement of Consistency with Ministerial Guidance DMURS (2019)

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1.0 INTRODUCTION

TOBIN Consulting Engineers were appointed to provide engineering consultancy services for the proposed strategic residential development and road upgrades of the Bothar an Choiste Road, in Galway City (Figure 1.1 – Site Location & Figure 1.2 - Layout).

Planning permission is sought by Lock House Developments for development on a site extending to 3.762 hectares on lands to the north of Bothar an Choiste, Castlegar, Co. Galway.

The development will consist of the following:

- 1) Demolition of an existing house (124.6 m²), a ruined outbuilding (42.8 m²), and a ruined dwelling (41.7 m²)
- 2) Construction of 170 no. residential units comprising:
 - 84 no. two storey houses (34 no. two-beds, 42 no. three-beds, 8 no. four-beds),
 - 1 no. apartment block comprising 17 no. apartments (10 no. one-beds, 7 no. two-beds),
 - 1 no. apartment block comprising 21 no. apartments (12 no. one-beds, 9 no. two-beds),
 - 48 no. duplex units (11 no. one-beds, 24 no. two-beds, 13 no. three-beds).
- 3) Development of a two-storey creche facility with 46 no. child spaces (c. 300.36 sqm), associated outdoor play areas and parking.
- 4) Provision of all associated surface water and foul drainage services and connections including pumping station with all associated site works and ancillary services.
- 5) The upgrade of the existing Bothar an Chóiste road from the proposed development to the junction at L5041 consisting of road improvements, road widening and junction re-alignment.
- 6) Pedestrian, cyclist, and vehicular links throughout the development and access with Bóthar Na Chóiste, and pedestrian and cyclist link to the adjacent Greenway route.
- 7) Provision of shared communal and private open space, site landscaping and public lighting, resident and visitor parking including electric vehicle charging points, bicycle parking spaces, and all associated site development works.
- 8) The application is accompanied by a Natura Impact Statement (NIS).

This statement of consistency confirms that the roads and streets proposed as part of the Residential development off Bothar an Choiste, Castlegar, Co. Galway have been designed in accordance with the principles and guidance as set out in the Design Manual for Urban Roads and Streets (DMURS) 2019.





Figure 1 - Location of Proposed Development Site



Figure 2 - Proposed Site Layout



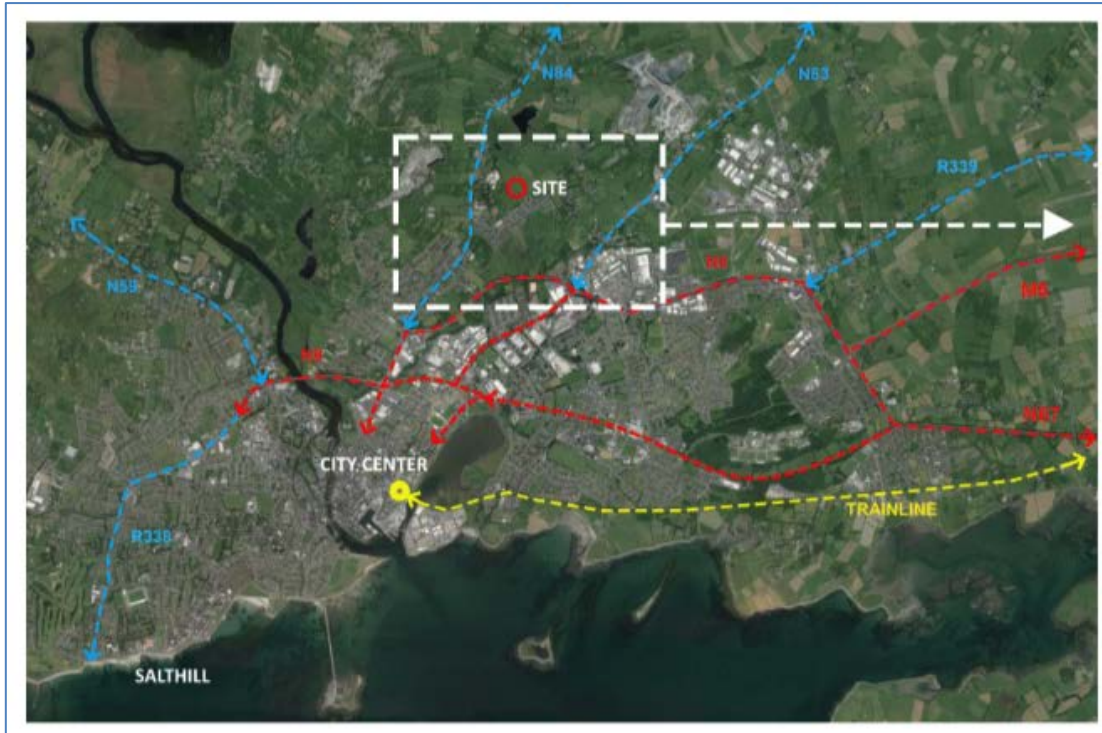


Figure 4 - Site Connectivity Wider Context (ONOM Design Statement).



Figure 5 - Site Connectivity Local Context



The main design objectives of the strategic housing development are as follows:

- Create a series of strong links to the adjacent amenities while providing a new local centre along the Bothar an Choiste road.
- Provide a new community facility/creche, which will be developed alongside an open space to interact with the Bothar an Choiste road and wider area.
- Create green habitat walkway links throughout the site connecting to the Proposed greenway link as per the Galway City development plan.
- Ensure the layout and design allow for pedestrian permeability for access to the larger recreational areas for all residents.
- Ensure site layout is optimised to provide passive surveillance to open areas which will discourage anti-social behaviour.

The above objectives are in accordance with the principles of DMURS and the layout for the proposed housing scheme has been carefully developed to provide residential clusters which centre around open public spaces. The street networks within the development have been designed to maximise connections between local areas and services.

A high degree of permeability and legibility have been provided with the proposed layout creating a legible network of streets and footways which are easy to navigate for both drivers and pedestrians. The overall design delivers a road network that is generally linear in nature. Upon completion, there will be a safe pedestrian connectivity to adjoining public local road (Bothar an Choiste) and proposed greenway link as per Galway City development plan as shown in Figure 6 below.



Figure 6 - Pedestrian and Vehicular Connections



The main pedestrian and cyclist access routes to the proposed development will be from the Bothar an Choiste Road. Pedestrians shall use the new pedestrian footpaths located along the Bothar an Choiste Road which will be extended to the proposed site entrance from the junction at local road L5041. The upgrade works will include a 6.5m carriageway and a 1.8m wide footpath running the full length of the works on the southern side of the road. The new footpath will provide linkage to the existing footpaths along the local road L5041 which will allow pedestrians access bus stops, recreational areas and interact with surrounding residential developments.

Refer to Figure 7 below for the locations of local bus stops in the vicinity of the proposed development and the approximate walking distances and times for each. Similarly, cyclists will utilise the main access route, southeast of the site, and share the main access roads with vehicular traffic in accordance with section 4.3.1 Mixed/ Shared Streets.

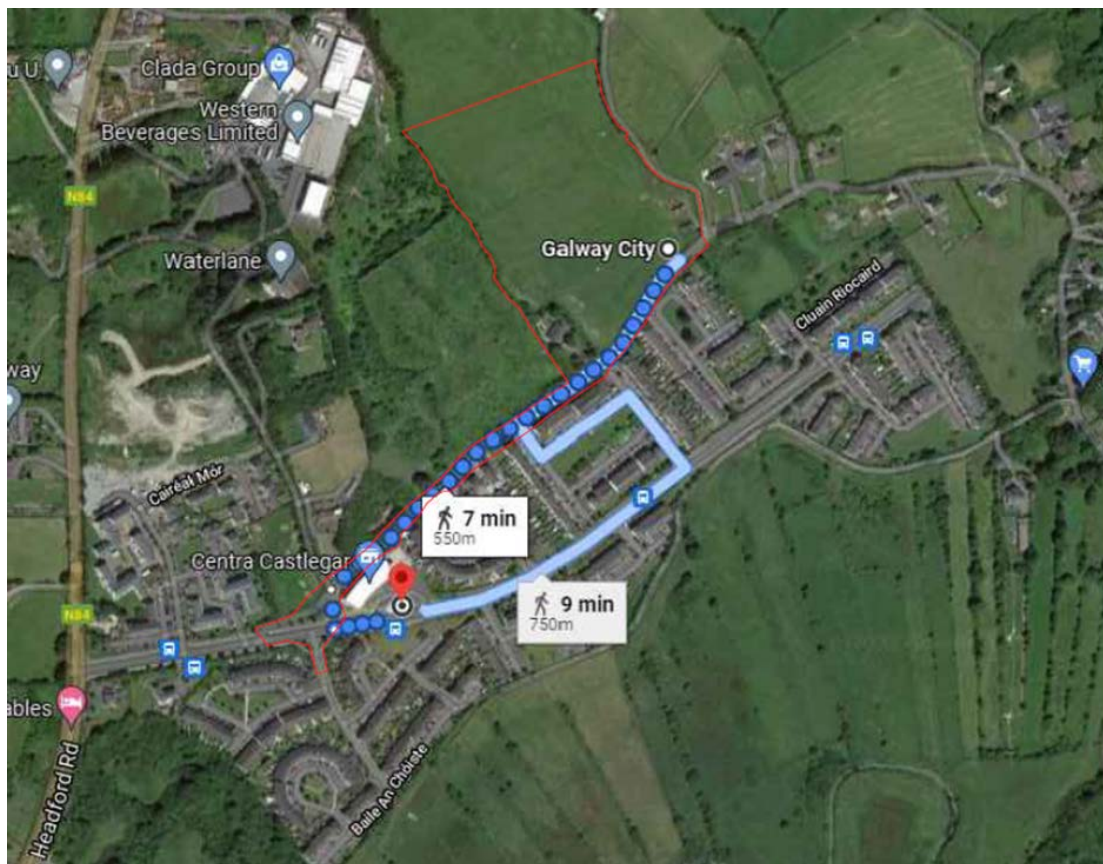


Figure 7 - Walk to Bus Stop (© Google Maps)

The developments apartment blocks are located at the front of the site directly onto Bothar an Choiste road. This will provide activity as residents come and go, thus creating an active area which highlights to vehicle drivers that they are driving through an urban area with a high frequency of pedestrian / cyclist activity.

Vehicular access to the site will be via a new site access from the proposed realigned access route off the Bothar an Choiste road. The Bothar an Choiste road connects to the N84 some 450m to the southwest of the development entrance.

The development incorporates a variety of public open spaces throughout the scheme that will be accessible to all users of the development and for the wider community to enjoy.



2.2 DESIGN PRINCIPLE 2

The promotion of multifunctional streets that balance the needs of all users within a self-regulating environment.

DMURS prioritises pedestrians, with cyclists, public transport and private cars following in order of importance. The road network design throughout the proposed development consists generally of short stretches. These deliberately incorporated road features not only create a pleasing experience for the pedestrians and drivers but creates a passive method for controlling the speed of the vehicular movements throughout the development. The internal road network is also designed to be lightly trafficked and as a low-speed environment where cyclists can share the carriageway with vehicles as identified in Section 4.3.5 of the DMURS document.

A number of passive speed control measures such as raised junctions, raised pedestrian crossings and changes in surface material are proposed throughout the development. There is 3No. raised junction areas along the main spine road of the development to ensure slowing of vehicles. The raised junction areas lead into shared surface areas to lower the speed of vehicles further and increase pedestrian priority. This measure, along with strategically located raised pedestrian crossings create further traffic calming measures throughout the development. This allows easy accessibility for all pedestrians to access all areas of the development.

There are in total 260 car parking spaces provided. These are broken down as following:

- 48 no. apartment spaces
- 5 no. creche spaces
- 154 no. house spaces
- 53 no. duplex spaces
- 17 no. disabled spaces
- 53 no. EV charging spaces – (All grouped and dwelling spaces will be ducted to allow for future connection to provide electrical charge points)

The on-street parking proposed largely follows the proposed mix of parallel and perpendicular model as noted in the section 4.4.9, 'on-street parking and loading' of DMURS 2019. See Figure 8 for a typical example of parallel and perpendicular parking.



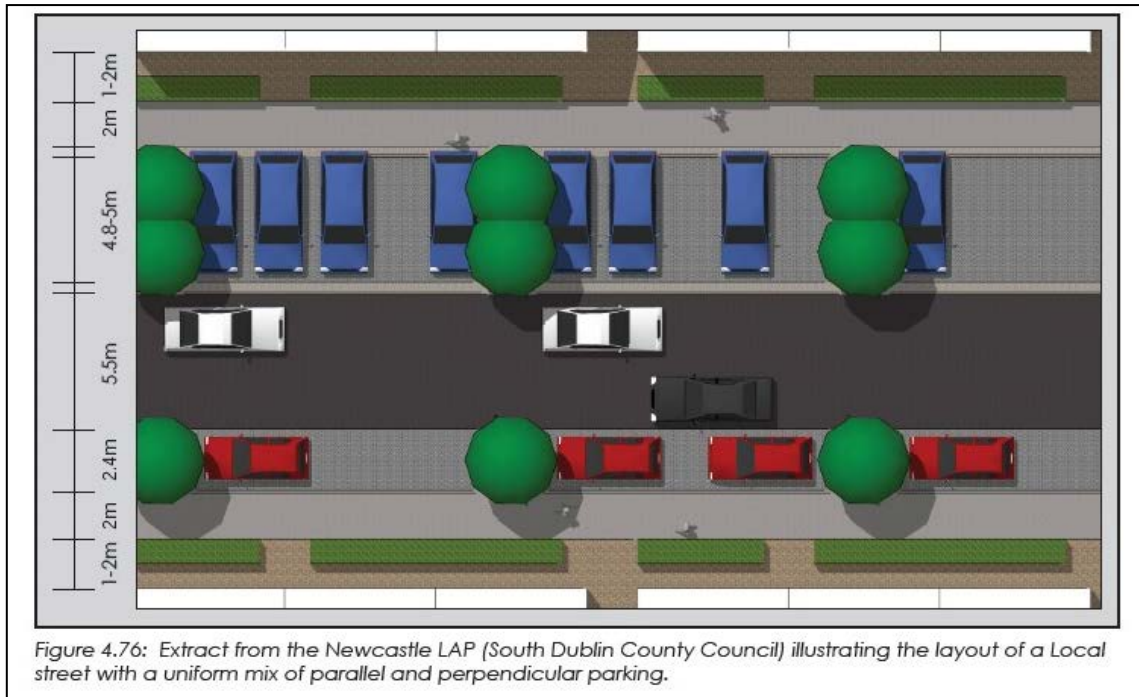


Figure 8 - Extract from Section 4.4.9 DMURS 2019

Adequate on street parking is provided near the apartment block and creche facility in the south-eastern corner of the site. This was purposefully designed to allow enough car parking spaces at all times during the day/night.

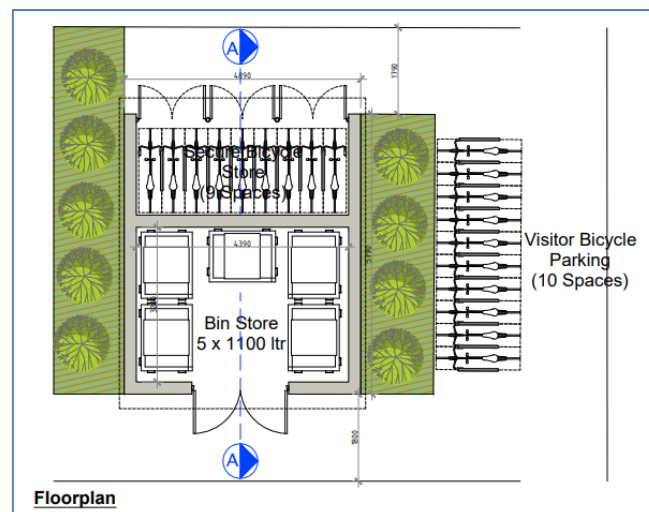


Figure 9 - Typical Bike Storage

There are in total 417 bicycle spaces provided. These are broken down as following:

- 168 no. house spaces
- 184 no. apartment & duplex spaces
- 65 no. public area spaces

All bicycle stores are abutting footpaths or roads for accessibility. Refer to Figure 9 for a typical example of the secure bicycle parking store. Refer to drawing no. 10750- 2109 and architectural layout drawings for the location of the bicycle parking locations.



Pedestrians can gain access to all areas of the proposed development by way of the pathways and formal and informal crossings. This results in a continuous pedestrian route from all locations within the proposed development and in connections to the other local developments and amenities.

In accordance with section 4.3.5 of DMURS, which refers to the National Cycle Manual, (NCM), this proposed development promotes cycling as a sustainable form of transport and seek to rebalance design priorities to promote a safer and more comfortable environment for cyclists. To achieve these goals, the NCM recognises the importance of slowing vehicular traffic within cities, villages, and the design advocates many of the measures contained within this manual, such as narrow vehicular carriageways and tighter corner radii.

Figure 10 below, from the NCM, provides an overview of the integration and segregation of cycle traffic within the carriageway based on vehicle speeds and traffic volumes. On lightly trafficked/low speed streets, as proposed on this development, designers are generally directed to create shared streets where cyclists and motor vehicles share the carriageway, as shown by the green symbol in the figure below.

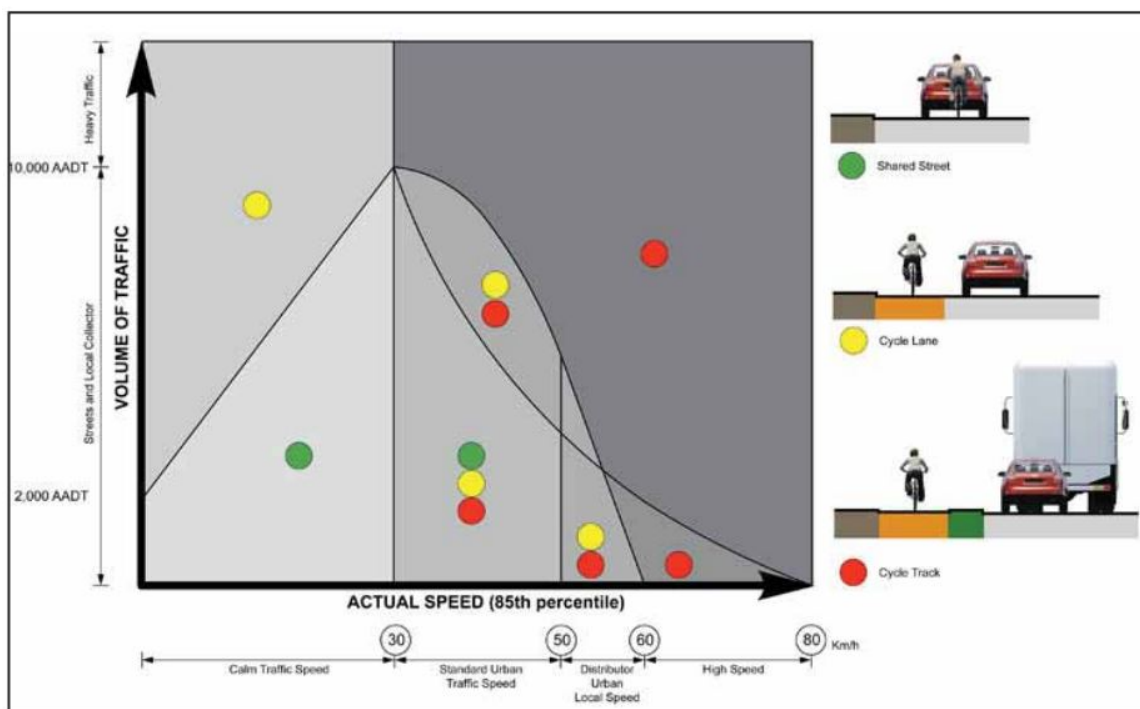


Figure 10 - Guidance Graph (extract from National Cycle Manual)

Therefore, shared cycle and vehicle surface shall be provided within the proposed development in line with the guidelines. For commuter journeys, cycling can be considered as a feasible means of transport for those working within 8km of the development. Parkmore is located approximately 5.0km from the proposed development representing a 18min cycle. The city centre (Eyre Square) is located approximately 3.5 km to the South-West of Bothar an Choiste. This represents a 11min cycle time for the average cyclist from the proposed development (Figure 11 - Cycle time from Bothar an Choiste to Parkmore Business & Technology Park & Figure 12 - Cycle time from Bothar an Choiste to Eyre Square, Galway).

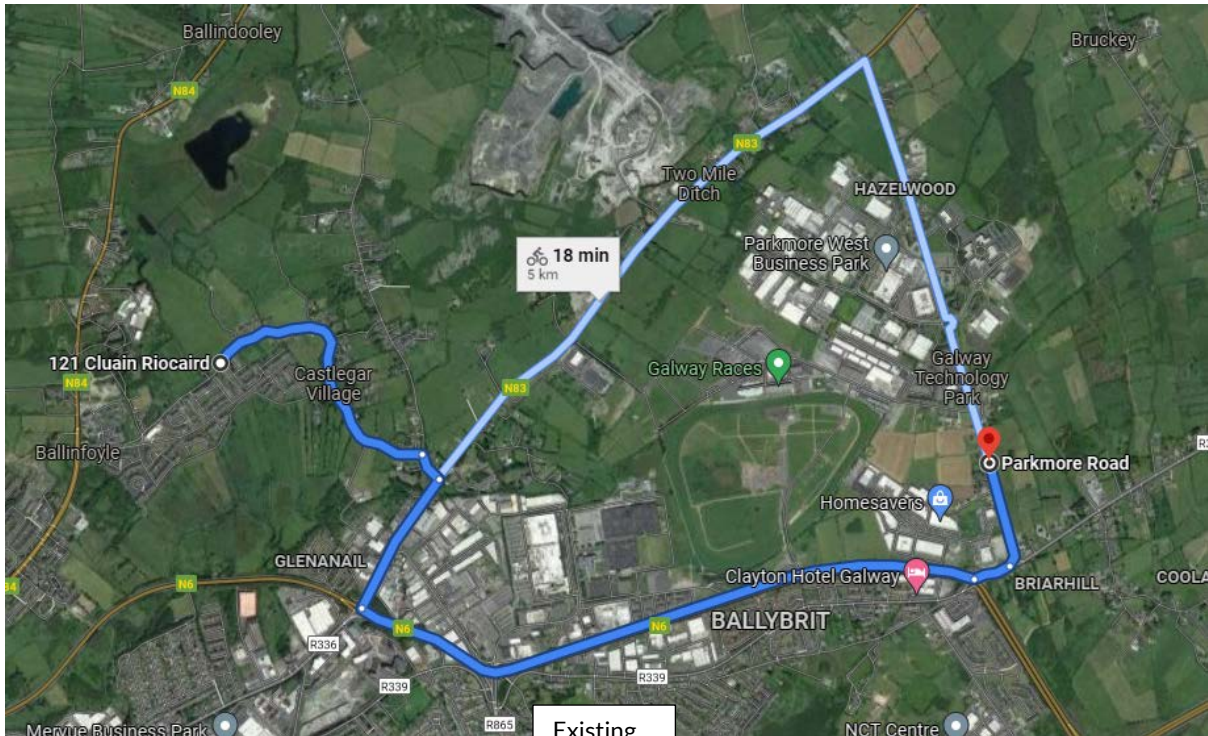


Figure 11 - Cycle time from Bothar an Choiste Business & Technology Park (© Google Maps)

Existing Bus Stops

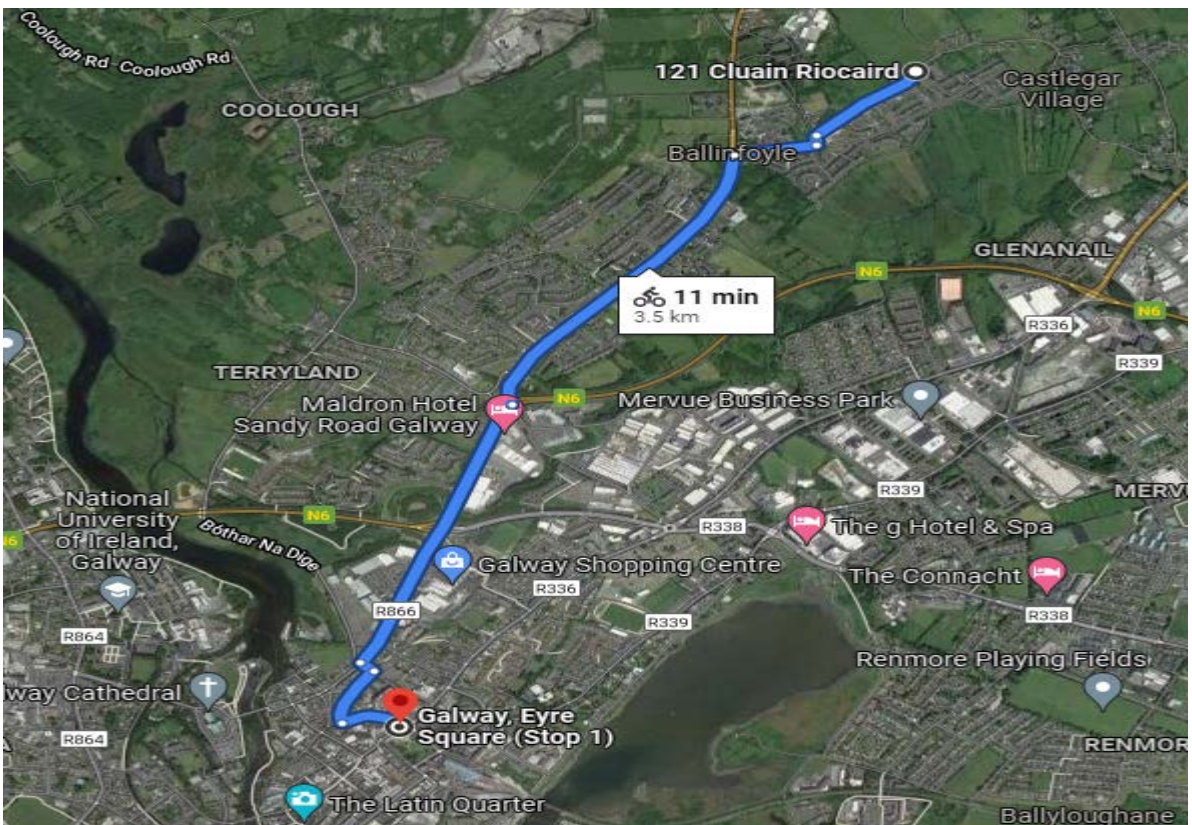


Figure 12 - Cycle time from Bothar an Choiste to Eyre Square, Galway (© Google Maps)



2.3 DESIGN PRINCIPLE 3

The quality of the street is measured by the quality of the pedestrian environment.

Vertical deflections or raised table areas have been positioned throughout the proposed development at specific considered locations to promote lower speed limits in addition to providing suitable crossing points for pedestrian at-grade reference drawing number 10750-2109 for these locations. These raised crossings shall provide the pedestrian with a sense of priority over vehicular movements at these interfaces. While footways adjacent to the roads have been provided through the development, a further independent network of footways is included alongside the open spaces away from vehicular routes. Additional crossings have been provided on secondary routes within the development and include tactile paving and drop kerbs, as illustrated on 10750-2109.

The pedestrian crossings located throughout the development are strategically positioned along key travel desire lines with the crossings having a minimum width of 2.0m wide in accordance with DMURS 2019 guidelines. Pedestrian footways adjacent to the carriageways are min 1.8m wide and road widths throughout the development are predominantly 5.5m wide in accordance with the guidance in DMURS Section 4.4.1.



Figure 13 - Example of pedestrian crossing and shared surfaces

DMURS suggests that measures should be considered that reduce the dominance of the vehicle in favour of pedestrian and cyclists having dominance within a street. The internal layout of the proposed development incorporates a number of design features such as distinctive surface materials and colours which will establish a sense of place while increasing the overall safety of providing a shared surfacing for all road users. The inclusion of a shared paved vehicular and pedestrian areas and an abundance strategically positioned planting/vegetation will also lower

vehicle speeds throughout the development and give the pedestrian a sense of priority as shown in the context of the site in Figures 14 to 17 below which demonstrates the quality of the pedestrian environment.

Strategically placed planting is known to have a positive effect on drivers to help reduce speeds through residential areas and this philosophy has been adopted during the detailed landscaping design.



Figure 14 - Example of Raised Pedestrian Crossings



Figure 15 - Example of Pedestrian Crossings

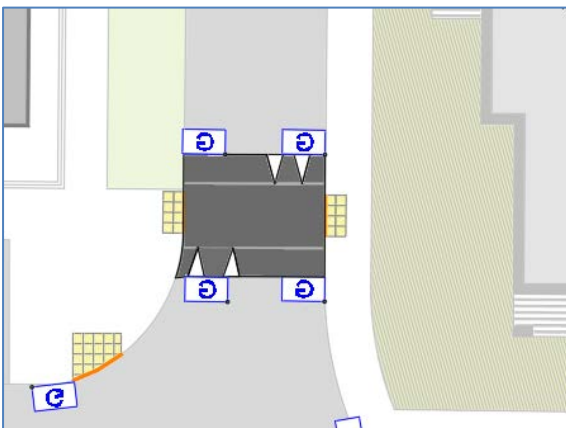


Figure 16 - Example of raised pedestrian crossing



Figure 17 - Example of street surfaces



2.4 DESIGN PRINCIPLE 4

Greater communication and cooperation between design professionals through the promotion of a plan led, multidisciplinary approach to design.

The design of the proposed housing development has been carried out taking into account considerations from many disciplines including Town planning, architecture, landscape architecture, engineering and environmental specialists.

The design team have progressed through several iterations of the layout in line with comments received from each discipline while also taking into consideration comments received from the Galway City Council to arrive at a solution which meets the guidance outlined in the DMURS.

Discussions were held with Galway City Council and An Bord Pleanala during the formal Stage 1 and Stage 2 meetings. Feedback received during these meetings was brought through to subsequent revisions of the site layout. The design team has strived to work in a collaborative manner to culminate in proposals that ultimately reflect a positive design which both satisfies the Developer's objectives and meets the Council's requirements.

The resulting layout provides a development of high standard which incorporates spatial requirements and considers relevant plans and policies.



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