

PART VIII STATEMENT

for
CONSTRUCTION OF HOUSING
Caisleán Raithin, Ardrahan
Co. Galway

on behalf of
GALWAY COUNTY COUNCIL



OIBFLA
ARCHITECTS



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1 INTRODUCTION

Executive Summary

The project involves the construction of 10 no. residential units in Caisleán Raithin, Ardrahan for Galway County Council. Our ambition for the site is to create a strong architectural proposal that provides high quality accommodation. The proposed development is located on a greenfield at the end of a cul-de-sac road and faces an existing group of low houses.

The area of the site being developed is approximately 11250 m² (1.125Ha) (GPS Coordinates Irish Grid Reference X-146229, Y-212516). The site is undeveloped and does not have any existing structures, however there is an access track to a wastewater treatment facility to the North of the site.

This report is to be read in conjunction with the planning application drawings and documents as prepared by OBFA Architects. This appraisal has been commissioned by Galway County Council as part of a Part 8 planning submission.



Fig 1.1 Proposed site outlined in red. Position of photograph in Fig. 2.1 indicated with red arrow.

2 DEVELOPMENT CONSIDERATIONS

Guidance Documents

The development is being designed with attention to the following documents:

- GCC Development Plan 2015-2021
- Draft GCC Development Plan 2022-2028
- Department of Housing Guidelines and Standards, including:
Quality Housing for Sustainable Communities & Design Manual for Quality Housing

Land Use Zoning

Zoning is currently not defined as there is not a local area plan, however, the site proposed here forms part of an overall residential development site.



Fig 2.1 Proposed Site.



Fig 2.2 Proposed site with existing estate to the left.



Fig 2.3 Wastewater treatment facility to the rear of the site.

3 SITE

Site Location

The location of this proposed development and its proximity to the town centre (0.6km) makes it ideal for non-car-dependant applicants. Additionally, Ardrahan is served by a train station (1.5km) and Bus Stop. A wide range of community facilities (schools, post office, church, shops potential employment opportunities, and access to public transport etc.) are minutes away on foot.

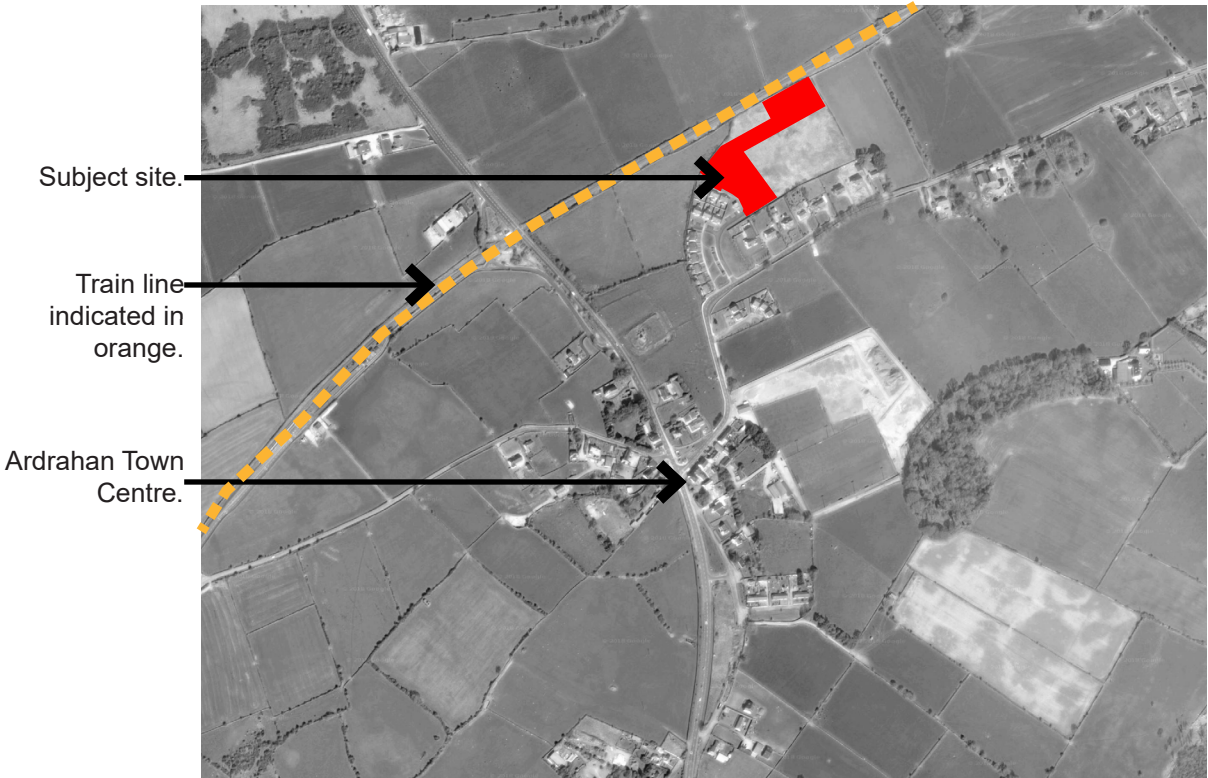


Figure 3.1 Ardrahan Aerial View. Subject Site indicated in red (not to scale)



Existing Site Layout

The site is located within an existing estate. The layout of the existing development on the site lends itself to completion of a cul-de-sac style road, with the row of houses being mirrored in the opposite position. There is an existing wastewater treatment facility 130m away which is accessed by a track on the proposed site.



Figure 3.2 Ardrahan Aerial View. Subject Site indicated in red (not to scale)



Site Dimensions: 112m x 40m (approx)

Site Area: 11250m² (approx)

2.78 acre/ 1.125Ha

Existing Site Coverage: 0%

Existing Plot Ratio: 0.00

Existing Urban Forms and Materials

The existing estate has 16 no. single-storey units and 8 no. two-storey units of block construction with a white, rendered finish. The roofs are pitched with a tile finish. The new development will aim to tie-in with the estate by referencing the materiality and urban form of these structures.

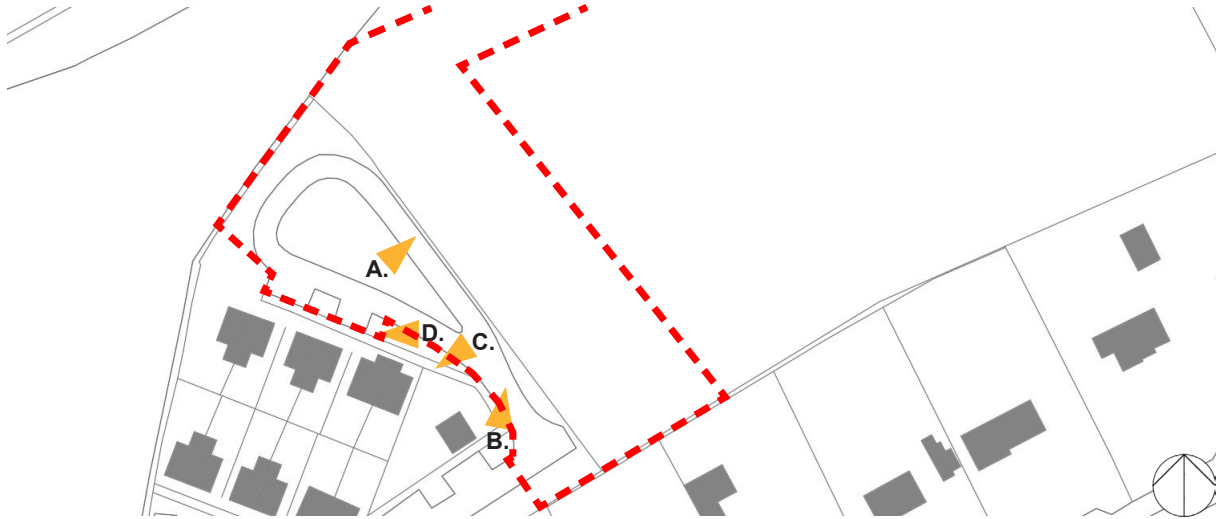


Figure 3.3 Site photograph locations (not to scale)



A. View of subject site.



B. View of subject site.



C. 2-Storey semi-detached houses opposite proposed site.



D. 1-Storey semi-detached houses opposite proposed site.

4 DESIGN DEVELOPMENT

Design Options

Numerous options were explored as part of the design development in terms of both the site layout and individual unit layouts. Iterations were refined over time, with site information such as the location of a waste-water pipe informing the location of the houses on the site.

Site Layout 01

An initial proposal for 2 no. terraces with shared car-parking was developed. It was determined that given the semi-rural setting, this would not be a suitable model of development for the site. This was confirmed during a pre-planning meeting with the local authority.

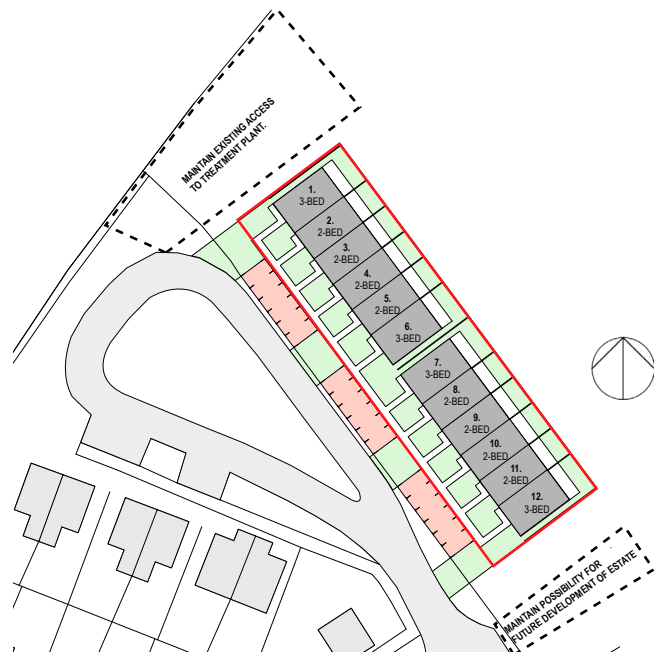


Fig 4.1 Site plan for terrace arrangement (not to scale)

Site Layout 02

An option for semi-detached units with private off-street parking was developed. In a pre-planning meeting, GCC agreed that this was an appropriate development model.



Fig 4.2 Site plan with semi-detached units (not to scale)

Site Layout 03

The next iterations explored moving the access track to the south of the site in order to utilise the full extent of the site and allow sufficient separation between the units.

A GIS survey was conducted which provided the exact location of the waste-water treatment pipe. In order to provide an adequate separation from the pipe, the site layout was revised with a narrow 2-bed unit typology devised for the end unit.



Figure 4.3 Site plan with access track to the South (not to scale)

Site Layout 04

The final agreed iteration reduces the number of proposed units and retains the original access track at the North of the site.

This revision is in response to the max. capacity of the wastewater treatment plant which allows for additional 10no. units only (or 32no. additional occupants).

The driveways are replaced with frontyard and on-street parking.

Housing typologies become more varied, providing both semi-detached and detached, 1 and 2 storey units.



Figure 4.4 Site plan with detached & semi-detached houses (not to scale)

Unit Layout Options

The following is a selection of the various unit typologies that were explored.

Unit Layouts Option 01

This layouts had the ground floor WC in the centre of the unit and kitchen to the front. It was determined that this was not the ideal location for the WC due to the lack of natural light and ventilation. Furthermore, the window to the store of the 2-Bed unit meant that there was potential for this to be used as a habitable room.

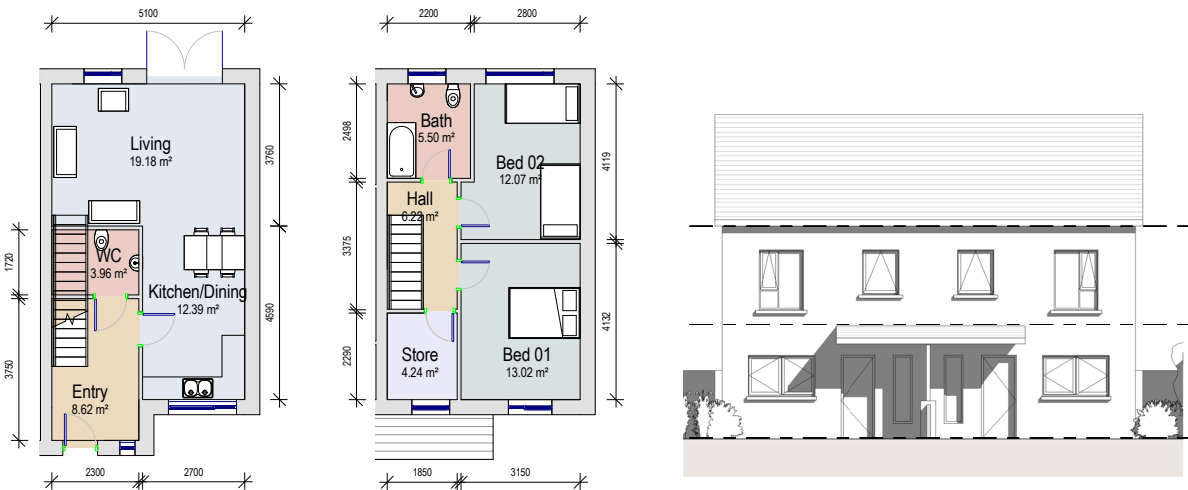


Figure 4.5 2-bed unit typology with ground floor WC in the centre of the unit and kitchen to the front (not to scale)

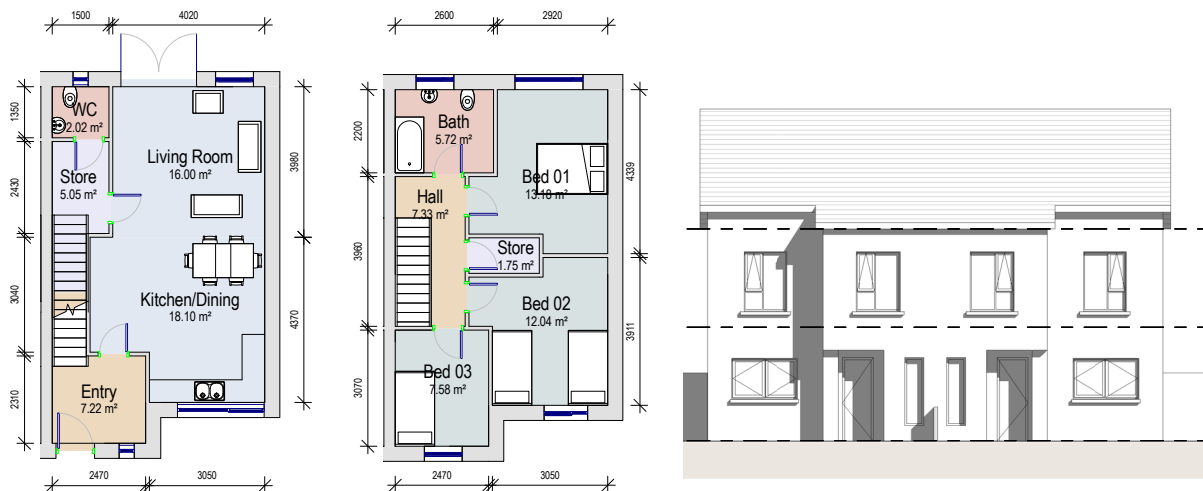


Figure 4.6 3--bed unit typology with ground floor WC in the centre of the unit and kitchen to the front (not to scale)

Unit Layout Option 02

This option moved the WC and kitchen to the rear of the Unit, with an open plan Kitchen/Living/Dining. Following assessment of this proposal, it was determined that an arrangement with a separation between the kitchen/dining and living room should be pursued.

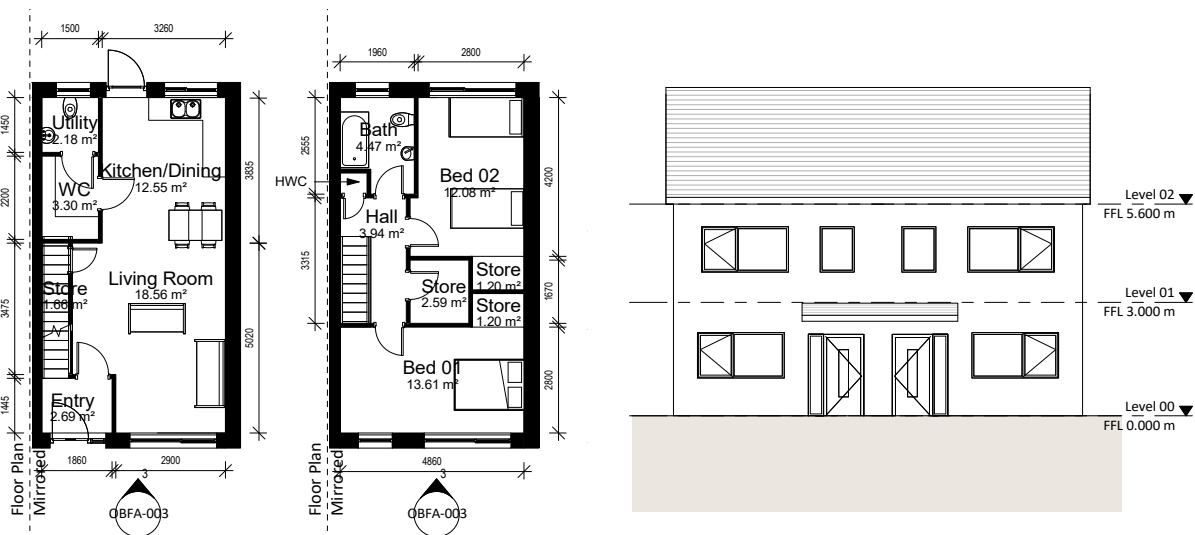


Figure 4.7 2-bed unit typology with ground floor WC in the centre of the unit and kitchen to the front (not to scale)

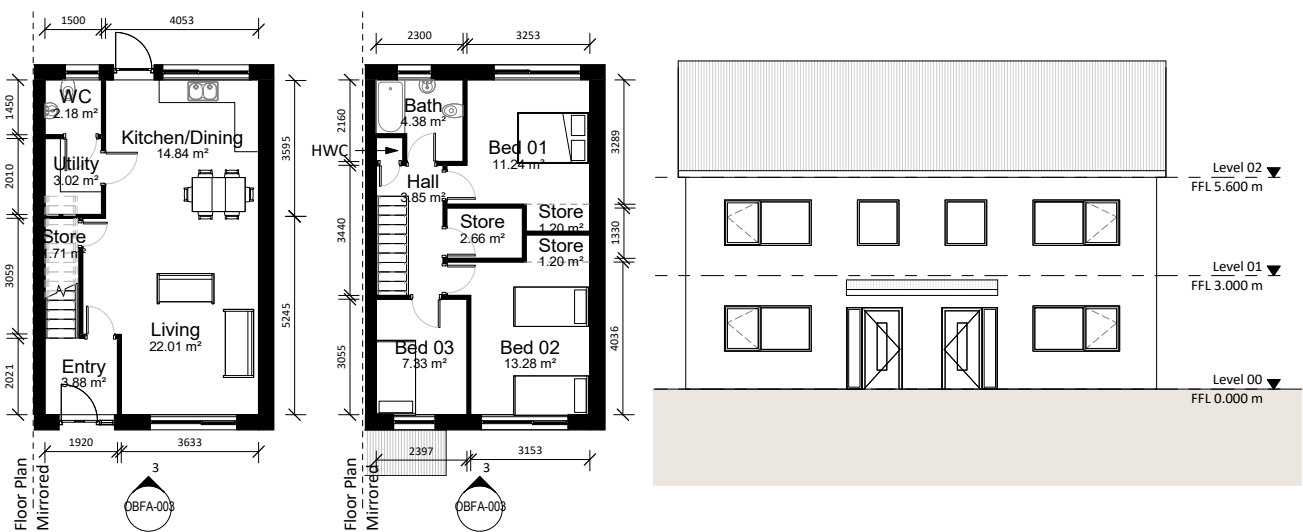


Figure 4.8 2-bed unit typology with ground floor WC in the centre of the unit and kitchen to the front (not to scale)

Unit Layouts Option 03

Similarly to a previous arrangement, the 2-bed moves the kitchen to the front of the Unit and connects to the Living/Dining area. The WC is separated from these living/eating spaces by locating it in the hallway and reserving under the stairs as storage space.

The arrangement of the 3-bed unit features a larger kitchen/living space but they are separated from each other and the WC is pushed to the rear of the plan, with further storage space is located upstairs.

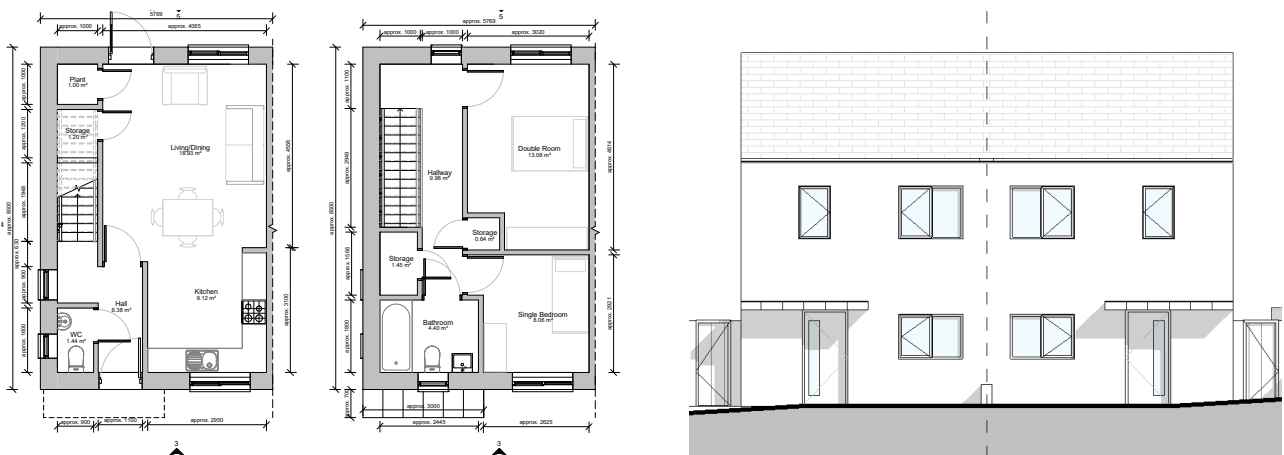


Figure 4.9 2-bed unit typology with ground floor WC in the hallway and kitchen to the front (not to scale)

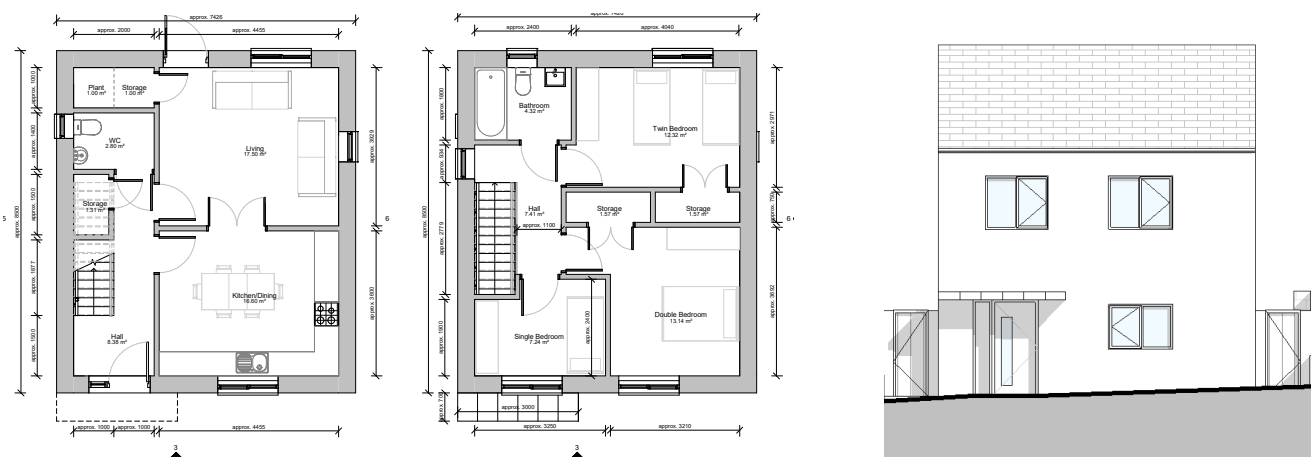


Figure 4.10 3-bed unit typology with ground floor WC to the rear of the unit and kitchen to the front (not to scale)

A single storey 2-bed unit is introduced at the south end of the site to reflect the neighbouring semi detached cottages.

Internally the kitchen is located at the front of the house, with storage and plant rooms creating a sense of separation from the living/dining room to the rear of the house which leads out to the garden. The WC is placed in the centre of the plan to free up facades for bedrooms to maximise light.

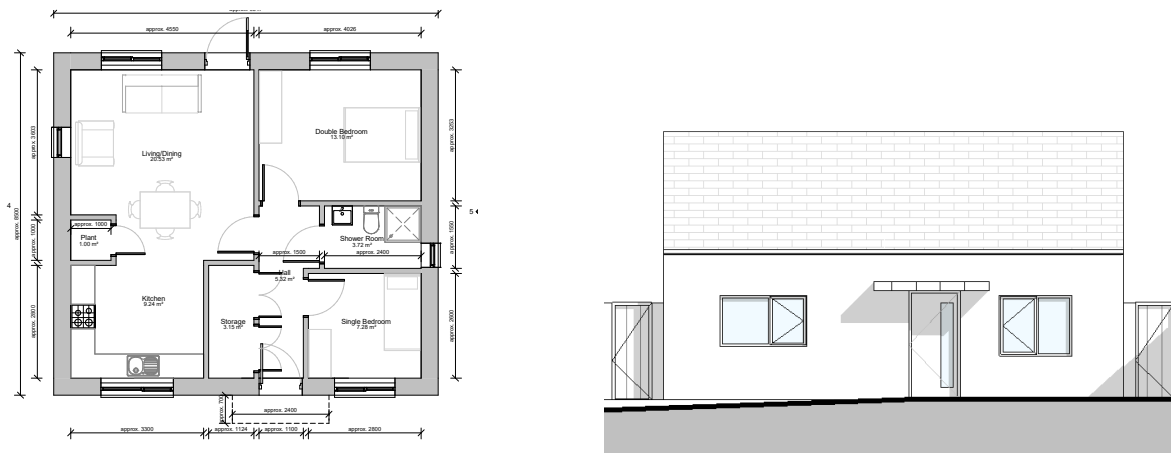


Figure 4.11 2-Bed Unit Ground Floor (not to scale)

5 THE PROPOSAL

Site Layout

The layouts and sizes of the 2 and 3-bedroom units are in response to the housing need as confirmed by Galway County Council.

All of the units are south-west facing and have dual aspect with private open space directly accessible from the main living space.

Different typologies were developed for the 2-bed units in response to possible different user's needs with a 1 and a 2 storey version and to reflect the diversity of the neighbouring existing dwellings.

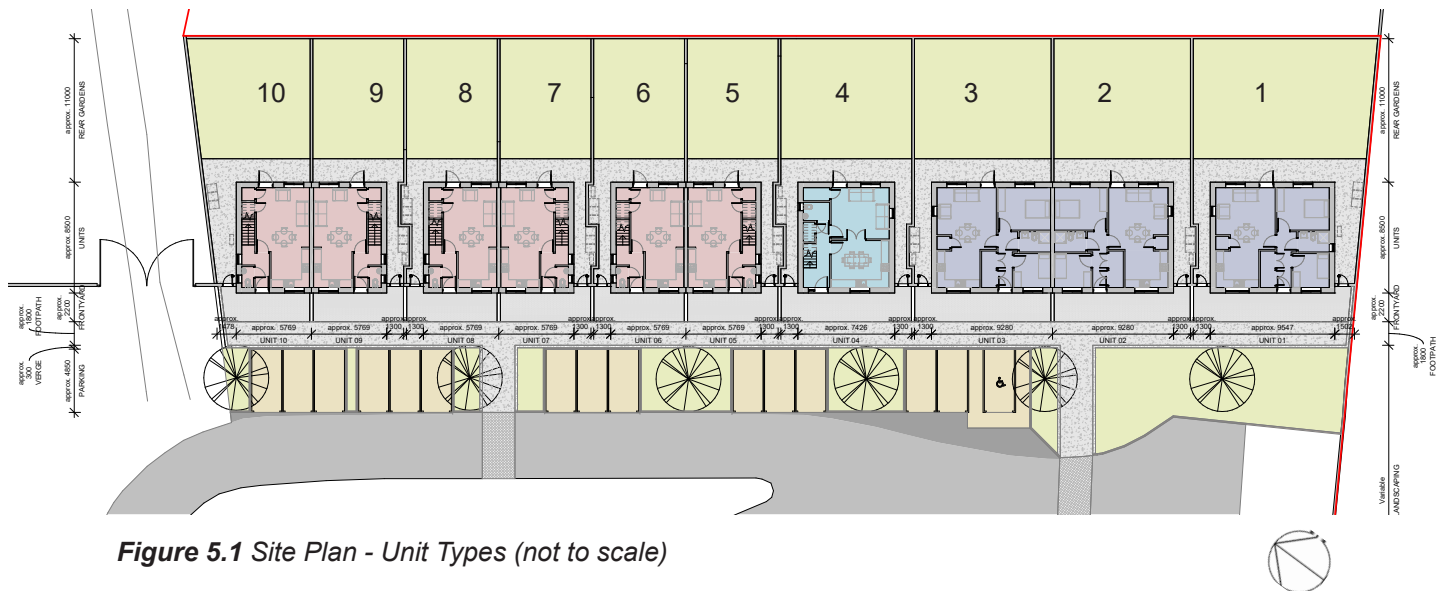


Figure 5.1 Site Plan - Unit Types (not to scale)

- 2-Bed Unit - Type A1/A2
- 3-Bed Unit - Type B
- 2-Bed Unit - Type C

Area Schedule

Unit No.	Unit Type	Area
1	(A1) 2-Bed - 3P	66 m ²
2	(A2) 2-Bed - 3P	66 m ²
3	(A2) 2-Bed - 3P	66 m ²
4	(B) 3-Bed - 5P	99 m ²
5	(C) 2-Bed - 3P	78 m ²
6	(C) 2-Bed - 3P	78 m ²
7	(C) 2-Bed - 3P	78 m ²
8	(C) 2-Bed - 3P	78 m ²
9	(C) 2-Bed - 3P	78 m ²
10	(C) 2-Bed - 3P	78 m ²

2 Bed Units - Type A

There are 3 no. 2-Bed Units with a GIA of 66 m²

These single storey units have the kitchen to the front, with storage and plant rooms creating a sense of release when entering the living room to the rear. The WC is positioned in the centre of the plan allowing the bedrooms to take advantage of the longer facades which bring it sunlight. The master bedroom and living room face onto the rear garden.

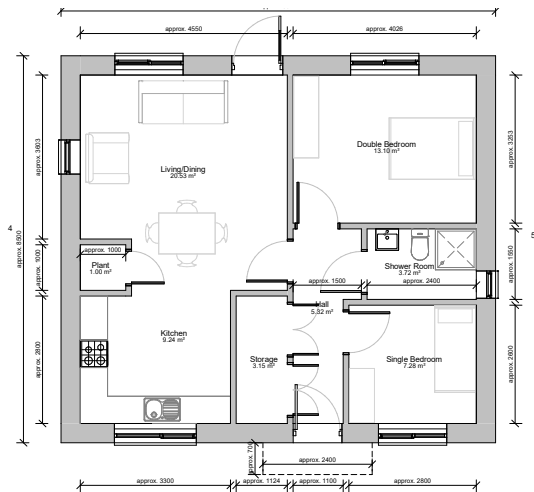


Figure 5.2 2-Bed Unit Ground Floor (not to scale)

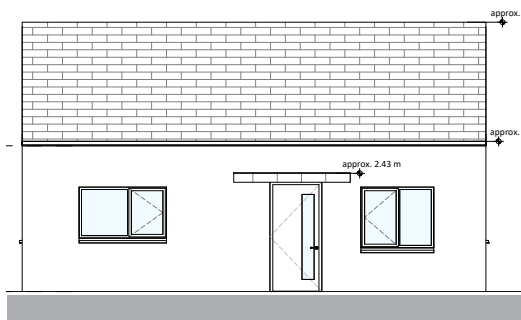


Figure 5.3 2-Bed Unit Front Elevation (not to scale)

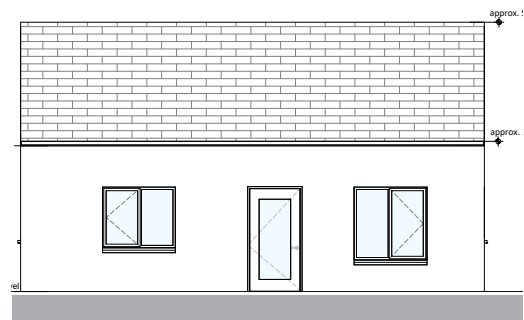


Figure 5.4 2-Bed Unit Rear Elevation (not to scale)

3 Bed Unit - Type B

There is 1 no. 3-Bed Unit with a GIA of 99 m²

This unit has a front kitchen/dining room separate from the living room to the rear which provides access to the private outdoor space. On the first floor the bathroom is located to the rear of the unit, and the storage to the centre.

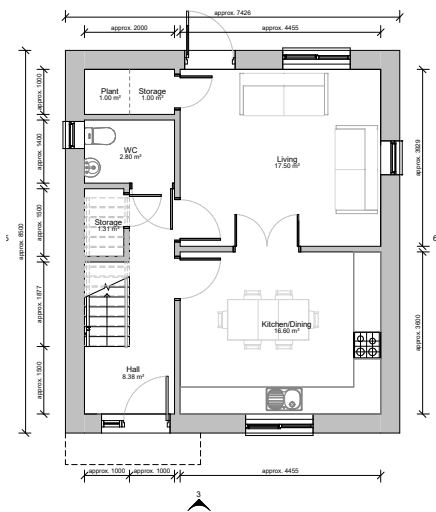


Figure 5.5 3-Bed Unit Ground Floor (not to scale)

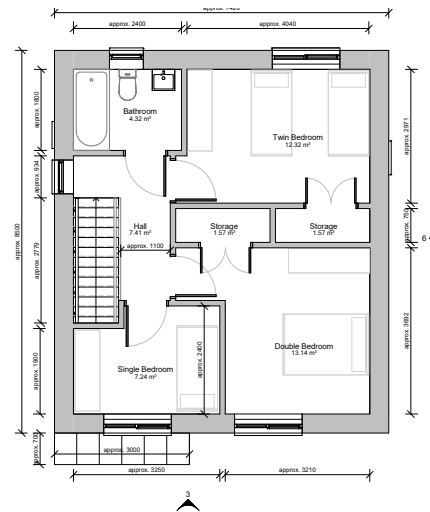


Figure 5.6 3-Bed Unit First Floor (not to scale)

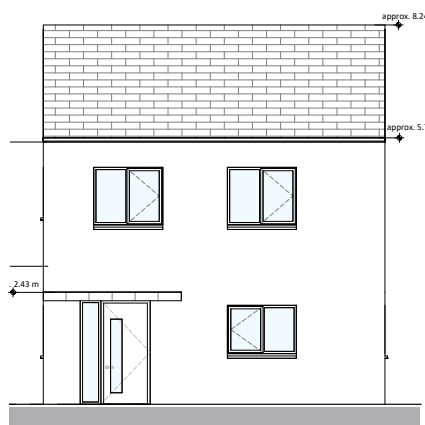


Figure 5.7 3-Bed Unit Front Elevation (not to scale)

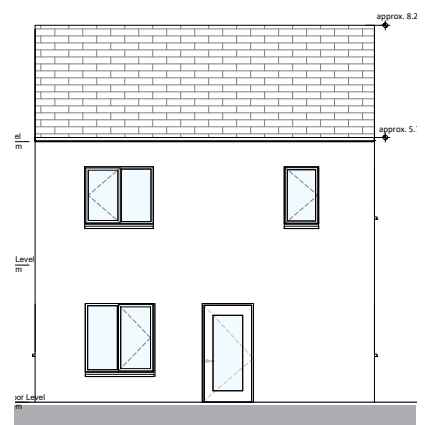


Figure 5.8 3-Bed Unit Rear Elevation (not to scale)

2 Bed Units - Type C

There are 6 no. 2-Bed Units with a GIA of 78 m²

This type comprises the majority of units on the site and features a long kitchen/living room leading out to the rear garden. The downstairs WC is positioned at the entrance to the front and stacks with the WC above. Upstairs, the store is again positioned in the middle, between the two bedrooms freeing up facades for maximum solar gain.

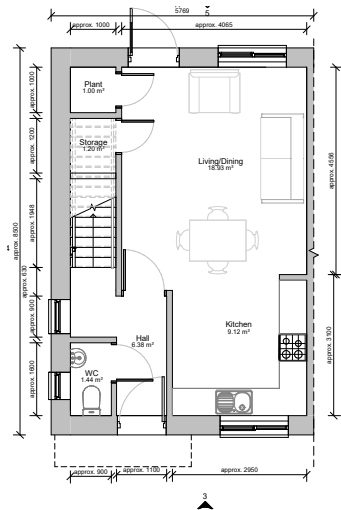


Figure 5.9 2-Bed Unit Ground Floor (not to scale)

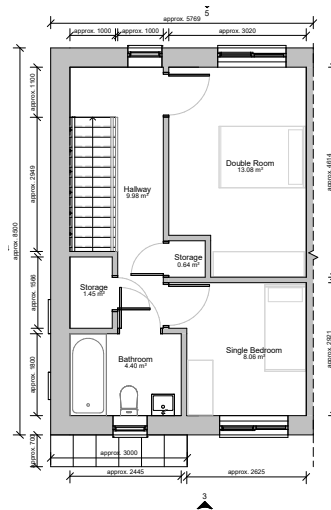


Figure 5.10 2-Bed Unit First Floor (not to scale)

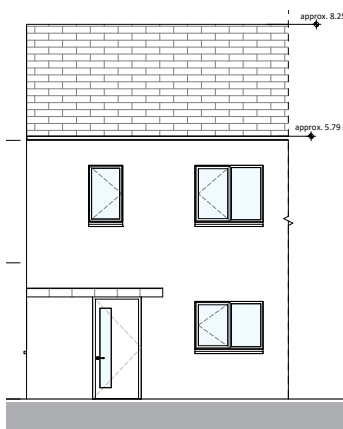


Figure 5.11 2-Bed Unit Front Elevation (not to scale)

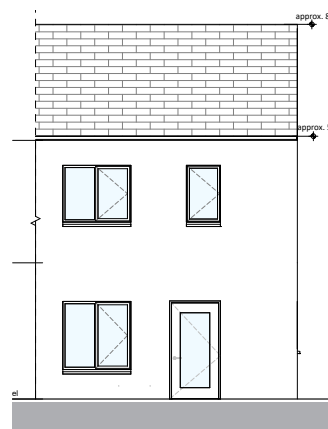


Figure 5.12 2-Bed Unit Rear Elevation (not to scale)

Remedial Works to the Existing Wastewater Treatment Plant

It is proposed to increase the total area of the polishing filter by digging out the existing percolation area. The new tertiary filter system will be designed in accordance with current EPA standards.

The proposal also includes the installation of a secondary filtration prior to disposal to the polishing filter, which can be achieved by way of peat fibre modules, or coconut fibre modules.

Either system will fit in the space between the Existing Treatment Plant and the proposed polishing filter.

Based on calculated loadings (100PE), the existing treatment plant is considered suitably sized to cater for the additional 10 No. dwelling.

On-going monitoring will be undertaken by Galway County Council in order to ensure efficient operation of the plant.



Figure 5.13 Location of wastewater treatment plant and access track (not to scale)

Open Space

Each unit is provided with a back-garden which has a length of 11m and average area of 107sqm. All rear and side garden walls will be 2m high fairfaced blockwork. This private open space is accessed directly from the main living area. There will be a timber gate in a 2m high rendered wall between the front garden and side passage.

A concrete path with a width of 1.3m is provided around the units. Adjoining paved front yard 2.2m deep, with rendered low wall defining the units boundaries at the front. The remaining area to the rear and sides will be grassed.

Parking is located along the street perpendicularly and is set back from the frontyards by a public foot-path 2.1m wide.

Car Parking

15no. Car-parking spaces are located on street and calculated to provide an average of 1.5 no. car spaces per each household.

Waste Management

Provision has been made in the design for individual general, green and brown bins at the side of each dwelling. Side access to the rear gardens is provided by a timber gate.



Figure 5.154 3D views of proposed development 's street elevation

APPENDICES

Part VIII Drawings

OBFA Architects

Civils Drawings

McKenna Consulting Engineers

Outdoor Lighting Report

Healy Consulting Engineers

Preliminary Examination (EIA Pre-Screening)

OBFA Architects

Appropriate Assessment Screening

Ciaran Ryan Ecologist (for OBFA Architects)

Road Safety Audit

Bruton Consulting Engineers (for McKenna Consulting Engineers)

Tier 2 Hydrogeological Assessment

BlueRock Environmental (for McKenna Consulting Engineers)

Percolation Polishing Filter Design Report

Robert Gannon Site Services (for McKenna Consulting Engineers)

Flood Risk Assessment Report

Jennings O'Donovan & Partners Limited (for McKenna Consulting Engineers)