

# Kilmoney Road, Carrigaline, Co. Cork

Strategic Housing Development

Statement of Compliance with Principles of Universal Design

Henry J Lyons

**RESIDE INVESTMENTS LTD** 

May 2022

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# 1.0 INTRODUCTION

## PROJECT DESCRIPTION

The development will consist of 224 no. residential units (202 no. apartments and 22 no. own door houses), residential tenant amenity, retail, crèche, car, motorbike and cycle parking, and public realm. Landscaping will include extensive communal amenity areas, playground, a river side pedestrian and cycle link to the main street and significant public open space provision over a total development area of c. 3 ha south of the the Owenabue River at Kilmoney, Carrigaline, Co Cork.

The proposed development has sought to comply with the principles of Universal Design in order to encourage access and use of the development for all. Part M (Access and Use) of the Building Regulations is referenced throughout, and will inform later detail design, as compliance with this is statutory and will be demonstrated through the BC(A)R system and through the Disability Access Certificate for the retail area/ creche/apartment buildings.

#### **DEVELOPMENT INFORMATION**

SITE AREA | 30,701SQM / 3 HA

TOTAL NUMBER OF UNITS | 224

DENSITY | UNITS PER HA - 118 / HA

1 BED UNITS | 101 NO. | 45%

2 BED UNITS | 111 NO. | 50%

3 BED UNITS | 12 NO. | 5%

CAR SPACES | 255

CYCLE SPACES | 503

3

# 2.0 STANDARDS AND GUIDANCE

The Development is required and designed to provide compliance with the following:

- The Building Regulations 1997-2019, Specifically Technical Guidance Document Part M (Access & Use)
- - Cork County Development Plan Non-Residential Development requirement for 5% Part M compliant parking.

The design team has been guided in its approach from preliminary design stage by the following documents:

- - The National Disability Authority in Ireland (NDA) Building for Everyone
- - The National Disability Authority in Ireland (NDA) Principals of Universal Design
- - DMURS Design Manual for Urban Roads and Streets.

# 3.1 APPLICATION OF PART M OF THE BUILDING REGULATIONS

The proposed development scheme must meet the requirements of Part M of the Building Regulations. Part M 2010 came into operation on the 1st January 2012 and the requirements of Part M 2010 must be followed. The requirements of Part M 2010 are as follows:

Access and Use	M1	Adequate provision shall be made for people to access and use a building, its facilities and its environs.
Application of the Part	M2	Adequate provision shall be made for people to approach and access an extension to a building.
	M3	If sanitary facilities are provided in a building that is to be extended, adequate sanitary facilities shall be provided for people within the extension.
	M4	Part M does not apply to works in connection with extensions to and material alterations of existing dwellings, provided that such works do not create a new dwelling.

TGD M 2010 provides guidance in relation to meeting the requirements of Part M of the Second Schedule to the Building Regulations and focuses on Access and Use. It is important to note that the introduction of TGD M 2010 states:

"The materials, methods of construction, standards and other specifications (including technical specifications) which are referred to in this document are those which are likely to be suitable for the purposes of the Regulations. Where works are carried out in accordance with the guidance in this document, this will, prima facie, indicate compliance with Part M of the Second Schedule to the Building Regulations (as amended)."

The Design team is committed to achieving universal access throughout the proposed development within the built environment and the public realm.

# 3.1 APPLICATION OF PART M OF THE BUILDING REGULATIONS

#### **UNIVERSAL ACCESS STRATEGY:**

#### PUBLIC REALM AND APPROACH:

The provision of independently accessible means of approach to the accessible entrance(s) of a building and means of circulation within a building in accordance with Section 1.1 of TGD Part M 2010.

#### The following are provided in accordance with TGD Part M Section 1.1

- Accessible car parking is provided throughout the site including: within close proximity to the Retail units, Creche, apartment buildings and public amenity space.
- Apartments and Dwelling Houses are provided with level access.
- First floor duplex units are provided with Ambulant Disabled stairways in accordance with TCD Part M Section 1.1.3.5 stepped access.

#### INDEPENDENT ACCESSIBILITY:

The provision of entrances to buildings that are independently accessible and avoid segregation based on a person's level of ability in accordance with Section 1.2 of TGD Part M 2010.

#### The following are provided in accordance with TGD Part M Section 1.2

- Entrances to Apartment buildings, Creche facility, Retail units, Community Room, Duplex/ Apartments including:
- Entrances close to designated parking and set down areas.
- The design including materials and lighting of entrance doors makes them easily identifiable.
- Level access landings measuring a minimum 1800 mm x 1800mm are provided externally to each door.
- Entrance doors are a minimum clear width of 1000mm.
- Entrance doors are provided with a minimum leading edge of 300mm.
- Entrance lobbies to Apartment buildings, Creche facility, Retail units, Community Room are designed to comply with 1.2.5 & Diagram 11.

#### HORIZONTAL & VERTICAL CIRCULATION:

The objective for people to travel horizontally and vertically within a building conveniently and without discomfort in order to make use of all the relevant facilities in accordance with Section 1.3 of TGD Part M 2010.

#### The following are provided in accordance with TGD Part M Section 1.3

- Within Apartment buildings, car parks, Creche facility, Retail units, Community Room Internal doors are minimum widths as required by Table 2 & Diagram 10 All internal circulation doors are provided with 300mm leading edges.

  Corridors are designed to have minimum widths of 1.20m (Generally in excess of same) as required by 1.3.3.3.
  - Turning heads are provided at the ends of corridors as required by 1.3.3.3 (biii)
- Passenger lifts are provided within apartment complex`s and to the Creche as per section 1.3.4
- First floor duplex units are provided with ambulant disabled stairs from entrance to the level containing the primary habitable room as per Section 1.3.4.3.

#### **SANITARY FACILITIES:**

The objective to provide independently accessible sanitary facilities that meet the needs of people with a wide range of abilities in accordance with Section 1.4 of TGD Part M 2010.

#### The following are provided in accordance with TGD Part M Section 1.4

- Within the Creche facility, Retail units, and Community Room
   Independently accessible sanitary facilities, that meet the needs of people with a wide range of abilities, will be provided including wheelchair accessible, unisex and ambulant toilets are provided.
- Staff changing facilities in accordance with Section 1.4.3.5 within the Creche facility

#### OTHER FACILITIES IN BUIDLINGS:

The objective to ensure that all facilities within a building are accessible to and useable and that they are designed and constructed to facilitate active participation where appropriate in accordance with Section 1.5 of TGD Part M 2010.

#### The following are provided in accordance with TCD Part M Section 1.5

- Other facilities within communal areas, the Creche facility, Retail units, Gym and Community Room will be accessible and useable, designed and constructed to facilitate active participation where appropriate
- Light switches controls and sockets will be designed in accordance with Section 1.5.7 & Diagram 30.

#### AIDS TO COMMUNICATION:

The objective to provide adequate aids to communication to ensure people can independently access and use a building and its facilities in accordance with Section 1.6 of TGD Part M 2010.

#### The following are provided in accordance with TCD Part M Section 1.6

- Adequate aids to communication will be provided within the common areas of Apartment buildings, Creche facility, Retail units, Gym, Community Room, Duplex/Apartments to ensure people can independently access and use buildings and their facilities in accordance with Section 1.6 of TGD M 2010 including the following:
  - Signage in accordance with 1.6.3
  - Visual Contrast as per section 1.6.4
  - Lighting as per Section 1.6.5
  - Audible aids as per Section 1.6.6

#### **APARTMENTS AND DUPLEX UNITS:**

The objective to provide adequate means of approach to the main entrance of a dwelling to facilitate visitors from a point of access as well as providing accessible WC`s suitable for visitors etc, approach to the main entrance of a dwelling to in accordance with Section 3.0 of TGD Part M 2010. The following are provided in accordance with TGD Part M Section 1.4

#### Apartment and Duplex Apartments will be provided with the following:

- Adequate entrances for visitors including ambulant disabled stairs.
- Accessible toilets for visitors at first floor level/ habitable room level.
- Adequate circulation within the entrance storey.

## 3.2 PRINCIPLES OF UNIVERSAL DESIGN

#### **UNIVERSAL ACCESS STRATEGY:**

#### PRINCIPLE 1: EQUITABLE USE

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

#### **Guidelines:**

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

- 1b. Avoid segregating or stigmatizing any users.
- 1c. Provisions for privacy, security, and safety should be equally available to all users.
- 1d. Make the design appealing to all users.
- The same means of access to buildings within the scheme is provided for all.
- All dwellings are designed to provided Part M compliant level access via the front door for visitors.
- The reception area for the creche facility, and community center are at first floor level, with passenger lift access from the north and ramp access from the south. Located close to the front door and will be provided with communication aids.
- Amenity outdoor space within the Creche and Community Room is provided with level access.
- External amenity spaces are designed in accordance with TGD Part M 2010.
- The topography of the site it challenging. The design has endeavoured to negotiate the conditions to provide equitable use for persons/users with a wide range of abilities. The intention is to make the design appealing to all end users/residents. There are a wide variety of unit types within the development to cater for this, particularly split level Town Houses responding to the sloping site constraints, with most types catering for level ground floors.

#### PRINCIPLE 2: FLEXIBILITY IN USE

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

- 2a. Provide choice in methods of use.
- 2b. Accommodate right- or left-handed access and use.
- 2c. Facilitate the user's accuracy and precision.
- 2d. Provide adaptability to the user's pace.

The proposed development provides for a wide variety of house and apartment types including:

- 1,2 & 3 bedroom apartments
- 1 & 2 bedroom Town Houses



SITE PLAN WITH EXTENSIVE PEDESTRIAN AND CYCLE PATHS

### 3.2 PRINCIPLES OF UNIVERSAL DESIGN

#### **UNIVERSAL ACCESS STRATEGY:**

The Development is designed to comply with the Building Regulations, in particular TGD Part M Access and Use and TGD Part D, Materials and workmanship. Providing an emphasis and to facilitate, access and use, user mobility, accuracy and precision among others.

- Dwelling houses and apartments have been designed to provide for adaptability as resident requirements change over time. Reference to The National Disability Authority in Ireland
- Stairwells and lifts are located centrally and close to the front door. Distances between
- entrance stairwells is kept to a minimum.
- Internal spatial design is such as to provide adequate space for wheelchair turning.
- The majority of living rooms are located at entrance level.
- Duplex units have a ground floor bedroom.
- Glazing to living room windows commences a maximum of 450mm above floor level with easy openings at a maximum 900mm above floor level.
- Entrance doors to Apartment stairwells are covered.
- Generally Internal walls within apartments constructed in lightweight stud partitions providing for future adaptability.
- Apartment car parking is provided with a percentage of designated car parking spaces in accordance with TGD Part M Diagrams 8 & 9 as required under the Cork County Development plans.

#### PRINCIPLE 3: SIMPLE AND INTUITIVE USE

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

#### **Guidelines:**

- 3a. Eliminate unnecessary complexity.
- 3b. Be consistent with user expectations and intuition.
- 3c. Accommodate a wide range of literacy and language skills.
- 3d. Arrange information consistent with its importance.
- 3e. Provide effective prompting and feedback during and after task completion.
- The language of the design is simple, with simple features to identify access points (e.g. porches/material changes) and clear visual (physical) links into and around the site.
- Internally dwellings have straightforward and familiar layouts to easilynavigate, while split level units have been designed to cater for accessible requirements at ground floor level.
- Designated parking is being provided for in close proximity to all accommodation types as well as the crèche, retail units and community space.



MAIN APPROACH WAY TO APARTMENT BUILDINGS AND RETAIL

## 3.2 PRINCIPLES OF UNIVERSAL DESIGN

#### **UNIVERSAL ACCESS STRATEGY:**

- The apartment blocks are readily identifiable on approach to the site.
- A lift to upper level apartments is easily located from the entrance doors of each block
- Internally, there are a variety of apartment typologies, but all use clear & simple layouts, with bedrooms located off a central corridor.
- The living area is located at the end of the corridor, which makes navigating them easy for all users.
- Their main entrances are clearly visible from the car parking areas and are identified using signage.
- The creche which is located at level 1 in Block 2 shares an entrance foyer with the apartments and will be clearly identified at the entrance.
- Pedestrian and bicycle routes throughout the development provide direct connectivitybetween destination points on desire lines. For example a pedestrian and bicycle priority corridor on the river side greenway provides a desire line route between the development and the exisitng town centre.

#### PRINCIPLE 4: PERCEPTIBLE INFORMATION

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

#### **Guidelines:**

- 4a. Use different modes (pictorial, verbal, tactile) for redundant presentation of essential information.
- 4b. Provide adequate contrast between essential information and its surroundings.
- 4c. Maximize "legibility" of essential information.
- 4d. Differentiate elements in ways that can be described (i.e., make it easy to give instructions or directions).
- 4e. Provide compatibility with a variety of techniques or devices used by people with sensory limitations.
- Road crossings, pedestrian and bicycle priority routes, Creche, Retail and Apartment entrances are provided with visual and tactile variations.
- Variations in materials and architectural expression assist in providing legibility between
- Apartment blocks, the town houses and the retail units among others assists in way finding and placemaking.
- Clear signage will assist in way finding and be provided in compliance with TGD Part M



VIEW OF TOWN HOUSES ON INNER WESTERN RELIEF ROAD

## 3.2 PRINCIPLES OF UNIVERSAL DESIGN

#### **UNIVERSAL ACCESS STRATEGY:**

#### PRINCIPLE 5: TOLERANCE FOR ERROR

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

#### **Guidelines:**

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

eliminated, isolated, or shielded.

5b. Provide warnings of hazards and errors.

5c. Provide fail safe features.

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

- Visual contrasts to surface and footpaths within the development provides for a pedestrian and cyclist priority environment, designed to encourage low vehicular speed.
- Traffic barriers are provided roadside and footpath side, where deemed beneficial to minimize hazards where variations in levels arise.
- The topography of the site is sloping in nature, so some external routes do need to contain steps and ramps. However, assistance is provided in the form of railings, complaint steps/ramps and landing areas in order to minimise effort
- Landscaping is used to minimise risk at embankments.
- 3m high impermeable gate and fencing and landscape screening is utilised to secure the service and delivery yard to the retail unit

#### PRINCIPLE 6: LOW PHYSICAL EFFORT

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

- 6a. Allow user to maintain a neutral body position.
- 6b. Use reasonable operating forces.
- 6c. Minimize repetitive actions.
- 6d. Minimize sustained physical effort.
- As described at Principal 1, notwithstanding the nature of the topography, pedestrian and bicycle pathways have been designed to minimise gradient and mitigate the requirement for extensive excavation / change of levels.
- The majority of pedestrian and bicycle priority routes are provided with a gradient of less than 1:20.
- All entrance doors (dwelling houses, apartment entrances and commercial entrances) are provided with an external level landing in accordance with TGD Part M.
- Lift access is provided to all upper floor apartments within the development.



PEDESTRIAN WALKWAY BETWEEN TOWN HOUSES & APARTMENT

## 3.2 PRINCIPLES OF UNIVERSAL DESIGN

#### **UNIVERSAL ACCESS STRATEGY:**

#### PRINCIPLE 7: SIZE AND SPACE FOR APPROACH AND USE

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

#### **Guidelines:**

- 7a. Provide a clear line of sight to important elements for any seated or standing user.
- 7b. Make reach to all components comfortable for any seated or standing user.
- 7c. Accommodate variations in hand and grip size.
- 7d. Provide adequate space for the use of assistive devices or personal assistance
- All entrance doors and lobbies (dwelling houses, apartment entrances, creche,
- community centre and commercial entrances) are provided with an external level landing in accordance with TGD Part M in conjunction with flush access (max. 15mm upstand).
- All entrance and internal doors are designed in accordance with TGD Part M 1.3.3.2 & 3.3.1.
- All internal corridors are design to comply with TCD Part M 1.2 & 3.3.2.1.
- Internal stairways, landings and lifts are designed to comply with TCD Part M.



VIEW OF LANDSCAPED PODIUM

# 4.0 CONCLUSION

The development has been designed to so that it can be accessed, understood and used to the greatest extent possible by all people, regardless of their age, size or disability. This includes public places in the built environment such as buildings, streets or spaces that the public have access to.

The Building Control (Amendment) (No.2) Regulations 2015 (S.I. No. 365 of 2015) BCAR, will be applicable to all Residential Apartments, Dwelling houses, Creche, Community Centre, Gym and retail units. Evidence of compliance withthe Building Regulations will be provided to the Local Authority under this process.



