

Building Life Cycle Report

RE: Marmalade Lane – Block E

APPLICANT: 1 Wyckham Land Limited

October 2025

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Appendix A

The Team

Applicant	1 Wyckham Land Limited
Architect	Reddy Architecture + Urbanism
Planning Consultant	McGill Planning
Civil & Structural Engineer	Donnachadh O'Brien & Associates
Transport & Traffic Consultant	Traynor Environmental Ltd
Mechanical & Electrical Engineer	Fallon Design
Landscape Architect	NMP Landscape Architects Verified
Views & Visual Impact Assessment	Digital Dimensions
Conservation	Molloy & Associates
Waste Management Consultant	Altemar Limited
Environmental	Traynor Environmental Ltd
Engineer (Fire Consultant)	Daire Byrne & Associates
CGI's	Digital Dimensions

Introduction

The Sustainable Urban Housing; Design Standards for New Apartments – Guidelines for Planning Authorities were published in March 2018 (hereafter referred to as the Apartment Guidelines). The Apartment Guidelines introduced a requirement to include details on the management and maintenance of apartment schemes. This is set out in Section 6.11 to 6.14 – “Operation & Management of Apartment Developments”, Specifically Section 6.13.

Section 6.13 of the Apartment Guidelines 2012 requires that apartment applications shall:

“include a building lifecycle report, which in turn includes an assessment of long term running and maintenance costs as they would apply on a per residential unit basis at the time of application”

“demonstrate what measures have been specifically considered by the proposer to effectively manage and reduce costs for the benefit of residents.”

This Building Life Cycle Report document sets out to address the requirements of Section 6.13 of the Apartment Guidelines. The report is broken into two sections as follows:

Section 01:

An assessment of long term running and maintenance costs as they would apply on a per residential unit basis at the time of application.

Section 02:

Measures specifically considered by the proposer to effectively manage and reduce costs for the benefit of the residents.



Description of the proposed development

This amendment application is submitted following the approval of the original SHD scheme for a 'Build to Rent' (BTR) apartment development consisting of 5 no. blocks ranging in height up to 10 storeys (over basement /undercroft) with 531 no. apartments are proposed comprising studios, 1 -beds, 2-beds & 3-beds.

As part of this application, we propose to replace the previously permitted Block E — which contained 68 apartments — with 8 no. semi-detached houses. This revised proposal offers a more diverse housing mix within the overall scheme and responds to updated design and planning considerations.

Section 01

1.1. Property Management of the Common Areas of the development

A property management company will be engaged at an early stage of the development to ensure that all property management functions are dealt with for the development and that the running and maintenance costs are minimised on a per residential unit basis. The property management company will enter into a contract directly with the Operating Company for the ongoing management of the built development. This contract will be for a maximum period of 15 years and in the form prescribed by the PSRA.

The Property Management Company has a number of key responsibilities for the development that require to be set out with the Operating Company, and as copied below from the Design Standards for New Apartments:

6.14 The Multi-Unit Developments Act, 2011 (MUD Act) sets out the legal requirements regarding the management of apartment developments. In this regard, it is advised that when granting permission for such developments planning authorities attach appropriate planning conditions that require:

- Compliance with the MUD Act,*
- Establishment of an Owners Management Company (OMC) and:*
- Establishment and ongoing maintenance of a sinking fund commensurate with the facilities in a development that require ongoing maintenance and renewal.*

6.15 Build-To-Rent and Shared Accommodation schemes, where there is a commercial entity owning, or operating and maintaining the development, may by their nature have different arrangements and obligations. Planning authorities should provide planning conditions for such developments which ensure the provision of appropriate management and maintenance structures including for the scenario where the BTR nature of a development is altered following specified period under SPPR 7(a) above.

1.2. Service Charge Budget

There would typically be a service charge budget in multi-unit developments to cover items such as cleaning, landscaping, refuse management, utility bills, insurance, maintenance of mechanical/electrical lifts/ life safety systems, security, property management fee, etc, to the development common areas in accordance with the Multi Unit Developments Act 2011 ("MUD" Act);

With Build-to-Rent schemes the management of all of all above items is undertaken by the Management Company operating the facility on behalf of the commercial entity that owns the entire property.

Section 02

2.1. Energy Performance and Carbon Emissions

A Building energy Rating (BER) certificate will be provided for each house which will provide detail of the energy performance and carbon emissions associated with each of the dwellings. It is proposed to target a BER Rating for each house of A2/A3. This will equate to the following emissions:

A2 – 25-50 kWh/m²/yr. with CO₂ emissions approx. 10 gCO₂/m²/yr.

A3 – 51-75 kWh/m²/yr. with CO₂ emissions approx. 10 kgCO₂/m²/yr.

The following table outlines the proposed passive and active, energy and carbon emission reduction measures which will directly benefit occupants in terms of reducing operational costs.

Measure	Description	Benefit																										
Building Fabric Efficiency	The U-Value of a building element is a measure of the amount of heat energy that will pass through the constituent element of the building envelope. Increasing the insulation levels in each element will reduce the heat lost during the heating season	Reduction in the consumption of fuel and the associated carbon emissions and operating costs.																										
	It is possible to exceed the requirements of the current building regulations. The current target U-Values are identified below:																											
	<table><tr><th rowspan="2">Element</th><th colspan="2">U value (W/m².K)</th></tr><tr><th>Part L 2019 (NZEB)</th><th>Targeted</th></tr><tr><td>Pitched Roof</td><td>0.16</td><td>0.16</td></tr><tr><td>Flat Roof</td><td>0.20</td><td>0.15</td></tr><tr><td>Walls</td><td>0.18</td><td>0.18</td></tr><tr><td>Ground Floors</td><td>0.18</td><td>0.15</td></tr><tr><td>Exposed floors</td><td>0.18</td><td>0.15</td></tr><tr><td>External doors, windows and roof lights</td><td>1.40</td><td>1.30</td></tr><tr><td>Glazing gv (EN410)</td><td></td><td>0.4-0.6</td></tr></table>		Element	U value (W/m².K)		Part L 2019 (NZEB)	Targeted	Pitched Roof	0.16	0.16	Flat Roof	0.20	0.15	Walls	0.18	0.18	Ground Floors	0.18	0.15	Exposed floors	0.18	0.15	External doors, windows and roof lights	1.40	1.30	Glazing gv (EN410)		0.4-0.6
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To avoid excessive heat losses and local condensation problems, consideration will be given to ensure continuity of insulation and to limit local thermal bridging, e.g. around windows, doors and other wall openings, at junctions between elements and other locations. Heat loss associated with thermal can heavily impact the calculated energy use and CO2 emissions. The proposed design is targeting a thermal bridging Ψ value of at least 0.08 to reduce the heat loss due to thermal bridging.																												
Another major consideration in reducing the heat losses in a building is the air infiltration. This essentially relates to the ingress of cold outdoor air into the building																												

	and the corresponding displacement of the heated internal air. With good design and strict on-site control of building techniques, infiltration losses can be significantly reduced. In order to ensure that a sufficient level of air tightness is achieved, air permeability testing will be specified, with the responsibility being placed on the main contractor to carry out testing and achieve the targets identified in the tender documents. A design air permeability target of 2 m³/m²/hr has been identified Air testing specification will require testing to be carried out in accordance with: BS EN 13829:2001 'Determination of air permeability of buildings, fan pressurisation method' CIBSE TM23: 2000 'Testing buildings for air leakage'	
Lighting Efficiency	It is proposed to provide 100% of lighting outlets to be low energy (LED)	Reduction in the consumption of electricity and the associated carbon emissions and operating costs.
Sanitary ware	Showers are proposed with a max flow rate at 3 Bar to be no greater than 6 litres per minute. Bath volume to be no greater than 150 litres	Reduction in the consumption of potable water and energy associated with domestic hot water heating
Energy Labelled White Goods	White goods provided by the developer will be have a high energy rating.	Reduction in the consumption of electricity and the associated carbon emissions and operating costs.

The following Low Energy / Carbon & Renewable Energy Solutions that are being considered for the development.

Measure	Description	Benefit
Heat Pumps	The general principal of heat pump technology is the use of electrical energy to drive a refrigerant cycle capable of extracting heat energy from one medium at one temperature and delivering this heat energy to a second medium at the desired temperature. The efficiency of any heat pump system is measured by its coefficient of performance (CoP). This is a comparison between the electrical energy required to run the heat pump and the useful heat output of the heat pump, e.g. a heat pump requiring 1kW of electrical power in order to deliver 3kW of heat energy has a CoP of 3.0. This operating principle can be applied to different situations, making use of the most readily available renewable heat source on any given site. The most common types are. • Ground Source • Water Source • Air Source Air source heat pumps are being considered.	Reduction in the consumption of fuel and the associated carbon emissions and operating costs.
Mechanical Ventilation Heat Recovery	Mechanical heat recovery ventilation (MVHR) will provide ventilation to each apartment. MVHR provides tempered external fresh air to occupied spaces and extract ventilation from rooms with “Bad Air” such as Bathrooms, utility stores etc. Heat is recovered from exhaust air streams and transferred to the fresh air stream negating the requirements to use heating energy to heat incoming cold external fresh air.	Reduction in the consumption of fuel and the associated carbon emissions and operating costs. Increases comfort conditions for occupants Prevents mould growth.
Photovoltaic (PV) Panels	PV Panels are capable of generating direct current electricity from the sun’s energy, which can then be converted to alternating current and used within the building. They are generally a “maintenance free” technology as there are no moving parts. They also typically have a 20-year manufacturer’s guarantee on electrical output and can be expected to operate effectively for 30 years or more. Capital costs have also reduced significantly in recent years due to worldwide increase in production levels. They are adaptable and scalable in that the amount installed can be selected to suit the budget available.	Reduction in the consumption of electricity and the associated carbon emissions and operating costs.
ECAR Charging Points	All houses will be given the provision to install electrical charging points	Providing the option for E-Car charging points will futureproof the development.

2.2. Materials

The practical implementation of the Design and Material principles has informed design of building facades, internal layouts and detailing of the proposed houses.

2.2.1. Buildings

The Buildings are designed in accordance with the Building Regulations, in particular Part D 'Materials and Workmanship', which includes all elements of the construction. The Design Principles and Specification are applied and specific measures taken include:

Measure Description	Benefit
Daylighting to circulation areas where possible	Avoids the requirement for artificial lighting
Natural/Passive ventilation system	Avoids costly mechanical ventilation systems and associated maintenance and future replacement.

2.2.2. Material Specification

Measure Description	Benefit
Consideration is given to the requirements of the Building Regulations and includes reference to BS 7543:2015, 'Guide to Durability of Buildings and Building elements, Products and Components', which provides guidance on the durability, design life and predicted service life of buildings and their parts. The proposed buildings are designed and specified in accordance with Figure 4; Phases of the Life Cycle of BS7543; 2015. (Please see Appendix A for this figure). The buildings are designed to incorporate the guidance, best practice principles and mitigations of Annexes of BS 7543: 2015.	Ensures that the long-term durability and maintenance of materials is an integral part of the Design and Specification of the proposed development.
Use of brickwork and aluminium rainscreen	Requires no on-going maintenance.
Use of factory finished and alu clad/aluminium windows and external doors.	Requires no on-going maintenance.

2.3 Landscape

Measure	Description	Benefit
Site Layout & Landscape design	Generous and high-quality landscaping utilising semi-mature to mature tree species, shrub planting and dense groundcovers. Species are chosen for compatibility with available root and canopy space, aspect is also a guiding consideration. The objective is to enhance biodiversity whilst providing year-round visual interest and high-quality residential environments.	Natural attenuation, reduced surface water runoff from site and increased biodiversity.
Paving and Decking materials	Use of robust, high-quality and high slip- resistance materials throughout the development.	Required ongoing maintenance significantly reduced through use of robust materials installed with proven details.
Materials	Sustainable, robust materials with high slip- resistance to be used for paving. Durable and robust street furniture used throughout	Robust materials and elements reduce the frequency of required repair and maintenance.
Planting details	Proven tree-staking and underground guying details provided. Shrub, hedging, herbaceous and lawn installation details also provided.	Correctly installed planting will develop into well established and robust soft landscaping, reducing future maintenance and replacement of failures.

2.4 Waste Management

The following measures describe the intentions for the management of Waste.

Measure	Description	Benefit
Operational Waste Management Plan	This application complies with the sitewide Operational Waste Management Plan	The scheme has been designed to comply with local, regional, and national waste legislation along with current best practice.
Storage of Non-Recyclable Waste and Recyclable Household Waste	Domestic waste management strategy: On plot general waste, mixed recyclable, and organic bin separation.	Helps reduce potential waste charges and does not restrict waste contractor selection.
Composting	Organic waste containers to be provided	Helps reduce potential waste charges.

2.5. Health & Well Being

The following are illustrations of how the health and well-being of future residents are considered.

Measure	Description	Benefit
Natural / Day Light	The design, layout and separation distances of the houses have been designed to optimise the ingress of natural daylight/ sunlight to the proposed dwellings to provide good levels of natural light.	Reduces reliance on artificial lighting thereby reducing running costs.
Accessibility	All units will comply with the requirements of Building regulations Parts M and K.	Reduces the level of adaptation, and associated costs, potentially necessitated by residents' future circumstances.
Security	The scheme is designed to incorporate passive surveillance with the following security strategies available for adaptation into the design: • Sitewide CCTV monitoring • Visitor bicycle stands – covered by CCTV • Controlled access between Public Spaces and Residents Communal Spaces • Routine access fob audits • Appropriately lit external spaces.	Aids in reducing potential security/management costs. Enhances safety for residents and visitors.
Natural Amenity	Multiple roof top garden spaces are provided with a variation in their design to provide active and passive use of the spaces. Roof level spaces provide excellent solar access for residents and panoramic views high above the busy streets and railway line. The top floor of the building has a Residents lounge space and terrace that will be particularly spectacular in terms of its views and visual connectivity across Dublin Bay, with the City of Dublin and the Mountains inland from Dun Laoghaire. The proposed scheme also has a ground level semi public courtyard which is the centerpoint for the residents shared internal services and amenities.	Facilitates community interaction and socialising resulting in improved wellbeing. Proximity and use of external green spaces promotes a healthy lifestyle. External spaces being provided separately for residents (communal courtyards & private balcony's) and public (Quality Public open Space)

2.6 Management

Consideration has been given to ensuring the residents have a clear understanding of the subject property.

Measure	Description	Benefit
Home User Guide	A Residents Pack prepared by the Operations and Management Company (OMC) which will typically provide information on contact details for the Managing agent, emergency contact information, transport links in the area and a clear set of rules and regulations.	Residents are kept as informed as possible so that any issues can be addressed in a timely and efficient manner.

2.7 Transport

Measure	Description	Benefit
Access to Public Transport (Bus Services)	The proposed development site is located ca. 1,000 metres (ca. 15-minute walk) from the Luas Balally stop, providing access to frequent and rapid services northbound to the City Centre and southbound to employment areas at Sandyford, Stillorgan, and Leopardstown. Luas services also function as a gateway to regional and national transportation hubs, facilitating interchange for trips across Ireland. In addition, the site is served by a number of bus routes serving stops located on Wyckham Way, ca. 450 metres or a 7-minute walk away, and on Sandyford Road, ca. 350 metres or a 5-minute walk away.	These bus services provide access to a range of destinations nearby and in Dublin city centre transport hubs such as Busáras and Dublin Airport. The proximity, frequency and range of destinations served by these local bus services enhance the accessibility levels of the proposed residential development in addition to providing a viable and practical sustainable alternative to journeys undertaken by private motor car.
Access to Public Transport (DART/Irish Rail)	Main railway stations in Dublin (i.e. Heuston and Connolly) can be accessed by light rail either directly or via an interchange between the Green and Red Line.	The availability, proximity, and ease of access to the DART service contribute to reducing the reliance on the private motor vehicle for all journey types.
Permeable Connections	Current proposed development will benefit from the permitted transport network within the wider Marmalade Lane site, including multiple connections to adjacent lands.	Ensures the long-term attractiveness of walking and cycling to local shopping districts and employment locations within the city centre.
Bicycle Storage	Each house will feature an accompanying back garden with sufficient space for 4 no. or more resident bicycles, whereas visitor cycle parking will be accommodated in 16 no. dedicated visitor cycle parking spaces provided for shared use.	Accommodates the uptake of cycling and reduces the reliance on the private motor vehicle for both residents and guests.
ECAR Facilities	All houses will be given the provision to install electrical charging points.	To accommodate the growing demand for ECARS which assist in decarbonising society and reducing oil dependency.
Car Sharing	As part of the permitted Marmalade Lane scheme, 28 no. car sharing vehicles will be provided for use by residents. Car club membership will be available to the proposed development's residents.	Reduces the reliance on the private motor Vehicle.

Appendix A

BS 7543:2015



BSI Standards Publication

Guide to durability of buildings and building elements, products and components

Figure 4 Phases of the life cycle

