

BUILDING LIFECYCLE REPORT

Redevelopment of 25 Mountpleasant Ave Lower, Rathmines, Dublin 6, D06 X392

Prepared by:

Kevin Tiernan

Planning Consultant & Architectural Designer
19 Aranleigh Gardens, Rathfarnham, Dublin 14

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Contents

1. Introduction
 2. Description of Development
 3. Assessment of Long-term Running and Maintenance Costs
 4. Measures to Manage and Reduce Costs
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1. Introduction

This report pertains to the proposed apartment development at 25 Mountpleasant Avenue Lower. As required under Section 15.9.14 of the Dublin City Development Plan 2022-2028, a Building Lifecycle Report must be submitted to outline the long-term management and maintenance strategy for the scheme.

2. Description of Development

The development involves the demolition of an unused, derelict building and the construction of a new three-story apartment building. The proposed layout is as follows:

- **Ground Floor:** Two studio apartments
- **First Floor:** One two-bedroom apartments.
- **Second Floor:** One two-bedroom apartment.

Each unit will include provisions for bicycle and refuse bin storage. The main entrance will be retained at its current location on Lower Mountpleasant Avenue, accessible via a landscaped courtyard.

3. Assessment of Long-term Running and Maintenance Costs

3.1 Property Owner Management Company for Common Areas

The long-term durability of materials has been prioritized, and cost-saving measures have been incorporated from the early design stages. A Property Management Company (PMC) will be engaged early in the process to oversee all property management functions. The operational and maintenance costs for the building will be ensured to remain within the agreed annual budgets by the PMC.

3.2 Service Charge Budget

The PMC will manage the service charge budget, which will cover expenses such as cleaning, landscaping, refuse management, utilities, insurance, life safety systems, and property management fees. A sinking fund will be established for future maintenance and upgrades, with a 10-year preventative maintenance strategy in place to determine the required level of contributions. The PMC will also be responsible for preparing an annual budget for common areas, managing third-party maintenance contractors, and ensuring compliance with the Multi-Unit Development Act (MUD) 2011.

4. Measures to Manage and Reduce Costs

This section outlines the key measures considered to manage and reduce costs associated with the development:

4.1 Material Specifications

The building materials have been selected with careful consideration of the Building Regulations, specifically referencing BS 7543:2015, *Guide to Durability of Buildings and Building Elements, Products, and Components*. This standard offers comprehensive guidance on the durability, design life, and predicted service life of both the building and its components. The materials chosen adhere to best practice principles and align with the recommendations outlined in BS 7543:2015, including the mitigations detailed in its annexes: Annex A (Climatic Agents Affecting Durability), Annex B (Guidance on Materials and Durability), Annex C (Examples of Material or Component Failures), and Annex D (Design Life Data Sheets). These references ensure the building's longevity and durability under various environmental and operational conditions.

External Materials

Material	Location	Benefit
Clay Bricks	Exterior Walls	Minimal ongoing maintenance, lifespan of over 100 years.
High-Performance Aluminum	External Fascia	Strong and durable, minimal maintenance, lifespan of 25+ years.

Material	Location	Benefit
Granite Cladding	External Fascia	Lifespan of over 100 years, no maintenance needed.
Concrete, Stainless Steel, Glass	Balconies	Lifespan over 25 years, minimal maintenance.
Slate Tiles	Sloped Roof	Lifespan of over 100 years, excellent roof covering.
Trocal	Flat Roof	25+ years lifespan, minimal maintenance.
Powder-Coated Metal	Rainwater Goods	Low maintenance, life expectancy of 40-50 years.

Internal Materials

Material	Location	Benefit
Plaster-Finished Concrete	Walls (Common Areas)	Durable and hard-wearing.
Skimmed Plasterboard	Ceilings (Common Areas)	Durable and hard-wearing.
Porcelain	Floor Covering	Durable and hard-wearing, lifespan over 25 years.
Stainless Steel	Stair Handrail	Lifespan of over 50 years.

4.2 Landscaping

Measure	Description	Benefit
Site Layout and Design	Pedestrian and cyclist-friendly courtyard with hedging	Provides safe, high-quality access to natural spaces.
Hard Landscape Materials	Durable, sustainable materials with high slip resistance	Minimizes maintenance costs and reduces carbon footprint.
Soft Landscape Materials	Low-maintenance plants	Reduces maintenance costs.
Green/Blue Roof	Green/blue flat roof for water attenuation	Reduces burden on rainwater systems.
Maintenance and Management	Simplified planting to reduce maintenance demands	Lowers ongoing maintenance costs.

4.3 Waste Management

Measure	Description	Benefit
Waste Storage	Grey, brown, and green bin distinction for recycling	Reduced waste management costs.
Operational Waste	Tendering for waste collection services	Cost-effective waste

Measure	Description	Benefit
Plan		collection

4.4 Human Health & Wellbeing

Measure	Description	Benefit
Daylight & Sunlight	Most apartments are dual-aspect with large windows and glass doors	Reduces reliance on artificial lighting, improving mental health.
Accessibility	Compliance with TGD Part M and K	Supports residents with reduced mobility, lowering future adaptation costs.
Security	Natural surveillance, CCTV, and access control	Reduces security management costs.
Natural Amenities	Proximity to parks, sports facilities, and walkways	Promotes social interaction and active lifestyles.
Central Location	Close to public transport, parks, and workplaces	Encourages use of local amenities and reduces transport costs.

4.5 Residential Management

Measure	Description	Benefit
Home User Guide	A comprehensive Home User Guide will be provided to all residents. It will include a user information manual containing important details such as MPRN and GPRN, guidelines for connecting with utility and communication providers, and contact information for all relevant suppliers. It will also provide instructions for using appliances and devices within the property.	Ensures residents have all necessary information, enabling efficient handling of any issues related to utilities, appliances, or general building operations.
Residents' Pack	Prepared by the OMC, the pack will offer contact details for the managing agent, emergency contacts, local transport links, and a clear set of building rules and regulations.	Keeps residents informed and organized, promoting a smooth and well-managed living environment while allowing any concerns or inquiries to be addressed swiftly and efficiently.

4.6 Energy and Carbon Emissions

Measure	Description	Benefit
BER Certificates	Each dwelling will receive a Building Energy Rating (BER) certificate, detailing the energy performance of the units. The BER is calculated based on energy use	A higher BER rating will reduce energy consumption and running costs, leading

Measure	Description	Benefit
	for space and water heating, ventilation, lighting, and occupancy. It is anticipated that all units will achieve an A2 rating, with primary energy consumption ranging between 25 and 50 kWh/m ² /yr and CO ₂ emissions around 10 kg CO ₂ /m ² /year.	to improved efficiency and lower environmental impact.
Fabric Energy Efficiency	Thermal bridging will be minimized through design. The proposed fabric U-values will exceed the current regulatory requirements as outlined in the Technical Guidance Documents Part L, "Conservation of Fuel and Energy in Buildings Other than Dwellings." The proposed U-values are: - Walls: 0.13 W/m ² K - Windows: 0.8 W/m ² K (solar factor of 0.65 or greater, frame factor of 0.7 or better) - Roof: 0.12 W/m ² K - Doors: 1.2 W/m ² K (including frame) - Ground floor slab: 0.11 W/m ² K - Thermal Bridging: 0.08 - Airtightness: 3 m ³ /m ² /hr @ 50Pa	Lower U-values and improved airtightness will reduce heat losses, decrease energy consumption, and minimize carbon emissions.
Lighting	All lighting will be LED, with common areas equipped with PIR (passive infrared) sensors.	LED lighting will result in reduced energy consumption and longer lifespan, contributing to lower running costs.
Heating	Space and water heating will be provided by heat pumps installed in each apartment, offering efficiencies greater than 400%.	Heat pumps will provide a cost-effective and efficient method of heating, reducing overall energy costs.
PV Solar Panels	Each apartment will be equipped with photovoltaic (PV) solar panels to generate green electricity.	Reduces reliance on grid electricity, lowering energy costs and enhancing sustainability.
HRV	Heat Recovery Ventilation (HRV) systems will be considered to provide fresh air to habitable rooms and extract air from wet rooms, recovering up to 90% of otherwise lost heat.	HRV will significantly reduce heating costs by conserving heat energy.
Water Butts	The use of water butts for collecting rainwater for gardening and cleaning will be considered.	Saves water consumption and reduces demand on mains water supply.

4.7 Transport and Accessibility

Measure	Description	Benefit
Access to Public Transport (Train)	4-minute walk to Luas station, 10 minutes to new Metro station	Reduces need for private vehicles.
Access to Public Transport (Bus)	Located near multiple bus routes	Reduces reliance on cars.
Cycling Facilities	High-quality cycle lanes and secure bike parking	Encourages cycling, reducing car use.

Appendix 1: Typical Sinking Fund Items

Element	Life Expectancy (Years)
Exterior	
Mortar Joints	50
Windows/Doors	25
Rainwater Goods	25
Balconies Railings	25
Courtyard Area	15
Boundary Railings and Gate	20
Electrical Fittings	10
Roof	
Green Roof	25
Parapet Finishes	25
Roof Valleys	20
AOV	25
Slates	60
Stairs Core & Lobbies	
Decoration	7
Flooring	10
Entrance Mat	6
Stairs Nosing	12
Fire Doors	25
Lift Replacement	35
M&E Services	
Light Fittings	20
Fire Alarm Fittings	20

Element	Life Expectancy (Years)
Emergency Lights	20
PV Panels	25
Distribution Network	40
Booster Pump	15
Water Tank	25

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Conclusion

In conclusion, the proposed development at 25 Mountpleasant Avenue Lower has been designed with a strong emphasis on long-term sustainability, cost efficiency, and compliance with building regulations. Through the careful selection of durable materials, adherence to BS 7543:2015 guidelines, and the implementation of a comprehensive management and maintenance strategy, the development will ensure reduced operational costs and enhanced durability over its lifespan. The involvement of a Property Management Company from the early stages further ensures that the building will be maintained to high standards, with a clear plan for ongoing costs and future upgrades.

Additionally, the integration of energy-efficient systems, sustainable landscaping, and waste management practices highlights the commitment to minimizing the environmental impact of the development. This focus on energy efficiency, human health, and accessibility promotes a high quality of life for residents while also reducing overall running costs. Ultimately, the project aims to create a well-managed, cost-effective, and environmentally responsible residential building that will meet the needs of its occupants and the community for many years to come.