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BUILDING LIFECYCLE REPORT

In respect of
LANDS AT DRUMLARK TOWNLAND, CAVAN TOWN

Prepared by
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On behalf of
DRUMLARK INVESTMENTS LTD

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TABLE OF CONTENTS	PAGE NO
1 INTRODUCTION	2
1.1 Overview	2
1.2 Proposed development	3
2 ASSESSMENT OF LONG TERM RUNNING AND MAINTENANCE COSTS	4
2.1 Long-term running costs	4
2.2 Property management of common areas	4
2.3 Service charge budget	5
2.4 Sinking fund	5
3 MEASURES TO MANAGE AND REDUCE COSTS	6
3.1 Treatments, materials and finishes	6
3.2 Buildings	6
3.3 Energy and carbon emissions	7
3.4 Material specification	8
3.5 Landscape specification	8 / 9
3.6 Waste management	9
3.7 Human health and well-being	9/10
3.8 Transport and accessibility	10/11
3.9 Management	11

Appendix A Items in a Building Investment Fund

Appendix B Schedule of proposed systems and building fabric details

Appendix C Phases of Building Life Cycle

1 INTRODUCTION

1.1 Overview

- 1.1.1 The newly adopted *Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities (2022)* provide policy guidance on the operation and management of apartment developments with the stated aim of introducing certainty regarding their long-term management and maintenance structures. This certainty is to be provided via robust legal and financial arrangements supported by effective and appropriately resourced maintenance and operational regimes.
- 1.1.2 The Guidelines state that consideration of the long-term running costs and the eventual manner of compliance of the proposal with the Multi-Unit Developments Act (2011) are matters which should now be considered as part of any assessment of a proposed apartment development to achieve this policy objective. Accordingly planning applications for apartment developments now need to 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, as well as demonstrating what measures have been specifically considered by the proposer to effectively manage and reduce costs for the benefit of residents.
- 1.1.3 Section 6.12 of the Apartment Guidelines 2022 requires that apartment applications shall:
- “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, as well as demonstrating what measures have been specifically considered by the proposer to effectively manage and reduce costs for the benefit of residents.”*
- 1.1.4 In this context this Building Lifecycle Report sets out to address the stated requirements of Section 6.12. of the Apartment Guidelines, and includes an assessment of long term running and maintenance costs as they would apply on a per residential unit basis at the time of this application, as well as demonstrating what measures have been specifically considered by the applicant to effectively manage and reduce costs for the benefit of residents.
- 1.1.5 This report and an overview of particulars is broken into two sections as follows:
- Section 2: 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 3: Measures specifically considered by the proposer to effectively manage and reduce costs for the benefit of residents.

1.2 Proposed Development

- 1.2.1 This report relates to the duplex residential aspect of the proposed development in Drumlark Townland, Cavan Town.
- 1.2.2 The development will principally consist of 145 residential units which include a variety of different housetypes and duplex apartments and a two storey creche.

Description	Number	Percentage
One bed	15	10%
Two bed	64	44%
Three bed	55	38%
Four bed	11	8%
Total	145	100%

Table 1 Schedule of accommodation

- 1.2.3 All apartments have been designed to fully accord with the guidelines 'Sustainable Urban Housing: Design Standards for New Apartments' (2022).
- 1.2.4 The subject site has a gross area of 5.01ha / 12.39 acres and is located 3km from Cavan town.
- 1.2.5 Vehicular access to the proposed development is to be via a newly proposed access point from the L1532 local access road.



Figure 1 Site location

ASSESSMENT OF LONG TERM RUNNING AND MAINTENANCE COSTS

1.3 Long-term running costs

2.1.2 Drumlark Investments Ltd are a local company interested in generating high quality Duplex Apartments to provide the end user with a high-quality living experience with high quality materials which will be well managed and easily maintained.

2.1.3 Full account has also been taken by the developer of previous residential projects with the aim being to manage and minimise potential unnecessarily high running costs on a per residential unit basis.

1.4 Property management of the common areas of the development

1.4.1 A property management company will be appointed at an early stage to ensure that all property management functions are dealt with and that the running and maintenance costs of the common areas are kept within the agreed annual operational budget.

1.4.2 The property management company will enter into a contract directly with the owner's management company (OMC) for the ongoing management of the built development. This contract will be for a maximum period of 3 years and in the form prescribed by the PSRA.

1.4.3 The property management company also has the following responsibilities for the apartment development once constructed:

- Timely formation of an Owner's Management Company (OMC) – which will be a company limited by guarantee having no share capital. All future purchasers will be obliged to become members of the OMC.
- Preparation of annual service charge budget for the development common areas.
- Fair and equitable apportionment of the annual operational charges in line with the Multi Units Development Act 2011 (MUDS Act).
- Engagement of independent legal representation on behalf of the OMC in keeping with the MUDS Act-including completion of developer OMC agreement and transfer of common areas.
- Transfer of documentation in line with Schedule 3 of the MUDS Act.
- Estate Management to include third party contractors procurement and management.
- OMC Reporting/Accounting Services/ Corporate Services/ Insurance management.
- Staff Administration/after hours services.

1.5 Service charge budget

- 1.5.1 The property management company has a number of key responsibilities, primarily the compiling of the service charge budget for the development for agreement with the OMC.
- 1.5.2 In accordance with the Multi Unit Developments Act 2011 (MUDS Act), the service charge budget typically covers items such as cleaning, landscaping, refuse management, utility bills, insurance, maintenance of mechanical/electrical lifts/ life safety systems, security, property management fee and the development's common areas.
- 1.5.3 This service charge budget also includes an allowance for a sinking fund and this allowance is determined following the review of the Building Investment Fund (BIF) report prepared by for the OMC.
- 1.5.4 The BIF report once adopted by the OMC determines an adequate estimated annual cost provision requirement based on the needs of the development over a 30-year cycle period.
- 1.5.5 The BIF report will identify those works which are necessary to maintain, repair, and enhance the premises over the 30 year life cycle period, as required by the MUDS Act. In line with the requirements of the MUDS Act, the members of the OMC will determine and agree each year at a general meeting of the members, the contribution to be made to the sinking fund, having regard to the BIF report produced.
- 1.5.6 Notwithstanding the above, it should be noted that the detail associated with each element heading in the BIF report, can only be determined after detailed design and the procurement and construction of the development.
- 1.5.7 In line with the requirements of the MUDS Act, at each general meeting the members of the OMC will determine and agree each year the contribution to be made to the sinking fund, having regard to the BIF report produced.

1.6 Sinking Fund

- 1.6.1 As with any mult-unit apartment development it is expected that a sinking fund allowance will account for future major maintenance and upgrade costs. A 10-year Planned Preventative Maintenance (PPM) strategy will determine the level of sinking fund required.

2 MEASURES TO MANAGE AND REDUCE COSTS FOR RESIDENTS BENEFITS

2.1 Treatments, materials and finishes

- 2.1.1 The practical implementation of the design and material principles has informed design of building facades, internal layouts and detailing of the proposed apartment building. The facade materials will consist of brick, glazing and powder coated metal finishes.
- 2.1.2 Of relevance it is noted that in recent years the large increase in building costs that has been independently assessed by the Society of Chartered Surveyors, has been due to improvements required in building standards. Therefore, the apartment guidelines' cognisance of long term maintenance and running costs for future residents is very welcome – i.e. materials that require less maintenance and are easier to repair are not always considered acceptable to planning authorities – e.g. the use of PVC windows versus hard wood windows.
- 3.1.2 In response the developer has reviewed the building materials proposed for use on the elevations and in the public realm and based on our experience of comparative schemes, the proposed materials achieve a durable standard of quality that will not need regular fabric replacement or maintenance outside general day to day care. The choice of high quality and long-lasting materials such as the hardscape in the public realm that is proposed will contribute to lower maintenance costs for future residents and occupiers.
- 3.1.3 Also, as previously detailed it is envisaged that there will also be a sinking fund allowance to account for any major works that may be required into the future. The level of this sinking fund will be guided by the 10 year PPM strategy.

2.2 Buildings

- 2.2.1 The proposed apartment building are designed in accordance with the Building Regulations, in particular Part D 'Materials and Workmanship', which includes all elements of the construction.
- 2.2.2 The design principles and specification are applied to both the apartment units and the common parts of the buildings and specific measures taken include:

Design measures	Description	Benefits
Daylighting to apartments and circulation areas	As per the 2022 apartment guidelines and BRE guide, all apartments and circulation areas designed to maximise daylight provision	Avoids the need to continuous artificial lighting
Natural/passive ventilation systems to circulation areas	Natural lighting to be provided	Avoids costly mechanical ventilation systems and associated maintenance
Natural ventilation to common areas such as bin store and bicycle store)	Natural ventilation grids	Avoids costly mechanical ventilation systems and future replacement/maintenance

2.3 Energy and carbon emissions

Measure	Design measures	Benefits
BER certificates	A Building Energy Rating (BER) certificate will be provided for each apartment in the proposed development which will provide detail of the energy performance of the dwellings. A BER is calculated through energy use for space and hot water heating, ventilation, and lighting and occupancy. It is proposed to target an A2/A3 rating for the apartments and be compliant with the new NZEB requirements.	A BER rating is a reduction in energy consumption and running costs
Fabric energy efficiency	The U-values being investigated will be in line with the requirements set out by the current regulatory requirements of the Technical Guidance Documents Part L, 'Conservation of Fuel and Energy Buildings other than Dwellings'.	Lower U-values and improved air tightness is being considered to help minimise heat losses through the building fabric, lower of energy consumption and thus minimise carbon emissions to the environment.
Air source heat pump	An exhaust air heat pump system is proposed for heating, hot water and ventilation of the apartment units.	Heat pumps operate with efficiencies >400%. This will recycle the heat from the apartments ventilation system. These machines are ideal for apartments and more compact air-tight low energy or passive homes. Additional heat generated internally from lighting, people and domestic appliances is also utilised through heat recovery from outgoing exhaust air.
Electric car charging points for residents	Infrastructure for E-car charging points to be provided to all units.	Providing the option of E-car charging points will allow occupants to avail of the ever-improving efficient electric car technologies.

2.4 Material specification

Design measures	Benefits
<p>The design is informed having regard to the requirements of the Building Regulations and includes reference to BS7543:2015 '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.</p> <p>All common parts of the apartment building, and the durability and performance of these are designed and specified in accordance with BS7543:2015. The common parts are designed to incorporate the guidance, best practice principles and mitigations of annexes of BS 7543:2015 including:</p> <p>Annex A: Climatic agents affecting durability Annex B: Guidance on materials and durability Annex C: Examples of UK materials or component failures Annex D: Design life data sheets</p>	<p>Ensures that the long term durability and maintenance of materials is an integral part of the design and specification of the proposed development.</p>
Use of high quality brickwork and cladding to external building envelope	Requires no on-going maintenance.
Use of robust factory finished and alu-clad windows and doors, and powder coated steel balconies with glass balconies	Requires no on-going maintenance.

2.5 Landscape specification

Measure	Design measures	Benefits
Paving materials	Sustainable, robust materials, with high slip resistance to be used for paving. Durable and hardwearing equipment (e.g. play, exercise, fencing etc.) to be used throughout.	Requires no ongoing maintenance

Materials	Sustainable robust materials for use in paving and walkways.	Robust materials and elements reduce the frequency of required repair and maintenance
Site layout and design	Generous and high-quality landscaping proposed via adequate soft landscaping works to complement the local setting.	Natural attenuation Provision for cyclists and pedestrians Wheelchair and children pushchair friendly

2.6 Waste Management

Measure	Description	Benefits
Project construction and waste management plan	Best practice, pollution prevention, minimisation of waste	The PCMP demonstrates how the project has been designed to comply with best practice.
Storage of non-recyclable waste and recyclable household waste	Inclusion of a covered & locked bin storage area on the site. Domestic waste management strategy: Grey, Brown and Green bin distinction. Competitive tender for waste management collection.	Easily accessible by all residents and minimises potential littering of the scheme and minimises the waste going to landfill
Composting	Addition of organic waste bins to be provided throughout the development	Helps to reduce waste charges and the amount of waste going to landfill.

3.7 Human health and well being

Measure	Description	Benefits
Natural daylight	The design, separation distances and layout of the apartments have been optimised for the ingress of natural daylight/sunlight to the proposed apartments to provide good levels of natural light.	Reduces reliance on artificial lighting thereby reducing costs
Accessibility	All units, including access and egress, will comply with part M of the building regulations	Reduces the level of adaptation, and associated costs, potentially necessitated by residents' future circumstances
Private open space	Provision of private open space	Facilitates interaction with outdoors, increasing health benefits

Security	The scheme is designed to incorporate good passive surveillance with the following security strategies likely to be adopted: <ul style="list-style-type: none"> • Secure bicycle storage area located. 	Access to all residents to reduce the risk of crime, littering within the scheme and reduction of potential waste charges
Natural amenity	Public Amenity Spaces provides spaces for residents to gather, relax and exercise. There is a 4 no. public amenity space located around the site to encourage social interaction amongst the residents. There is also a walkway provided to the rear of the site which will connect with the existing greenway.	Facilitates community interaction, socialising and play – resulting in improved wellbeing.

3.8 Transport and accessibility

Measure	Description	Benefits
Access to public transport	The existing Local Link bus service stop is located approx. 300m from the application site. This route provides access to Cavan Town.	The availability, proximity and ease of access to high quality public transport services contributes to reducing the reliance on the private motor vehicle for all journey types.
Permeable connections	The Main L1532 Road contains a dedicated cycle lane. There is provision of dedicated pedestrian infrastructure within the site. The upgrading and provision of new high quality pedestrian facilities are part of the proposal. These connect with the existing footpaths and provide convenient access to local services	Ensures long-term attractiveness of walking, and cycling to a range of local facilities. This strong infrastructure ensures that there will be a balance of transport modes used by future residents of the proposed development.

3.9 Management

Measure	Description	Benefits
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 for any management owned building.	Residents are as informed as possible so that any issues can be addressed in a timely and efficient manner.

Appendix A

Items included in typical Building Investment Fund (BIF)

Ref	Element	Life Expectancy (Years)	Cost
1.0	Roofs		
1.1	Replacement of flat roof covering including insulation to warm roof build ups.	20 (40 for tiled roofs)	
1.2	Replacement parapet details	20	
1.3	Replacement/ repairs to facias	20	
2.0	Elevations		
2.1	Repairs & preparation for decorations of rendered areas	20	
2.2	Replace exit/ entrance doors	25	
2.3	Replace rainwater goods	25	
2.4	Recoat powder coated finishes to balconies	15	
2.5	Periodic replacement and overhauling of external fixings	5	
2.6	Replace balcony floor finishes	25	
3.0	Stair Cores and Lobbies		
3.1	Decorate ceilings & walls (stairwells & lobbies)	2	
3.2	Decorate Joinery (stairwells & lobbies)	2	
3.3	Replace fire doors (stairwells & lobbies)	25	
3.4	Replace carpets (stairwells & lobbies)	10	
3.5	Replace entrance mats (stairwells & lobbies)	10	
3.6	Replace nosings (stairwells)	10	
3.7	Replace ceramic floors tiles (stairwells & lobbies)	20	
3.8	Fixed Furniture & Equipment (Provisional Sum)	18	

4.0	M&E Services		
4.1	General - Internal re-lamping (stairwells & lobbies)	5	
4.2	Replace Internal light fittings (stairwells & lobbies)	15	
4.3	Replace external light fittings (at entrance lobbies)	15	
4.4	Replace smoke detector heads	18	
4.5	Replace manual break glass units/ disabled refuge call points	18	
4.6	Replace fire alarm panel	18	
4.7	Replace AOV's	25	
4.8	Replace security access control installation	15	
4.9	External mains water connection	20	
4.10	Electrical mains and sub mains distribution.	20	
4.11	Emergency lighting	20	
4.12	Overhaul and/or replace waste pipes, stacks & vents	20	
5.0	Exterior		
5.1	External boundary treatments - recoat powder coated finishes to railings	40	
5.2	Replace external signage	15	
5.3	Replace cobble-lock areas	20	
5.4	15-year cutback & thinning of trees & general overhaul of the landscaping	15	
5.5	Replace CCTV provision	10	
5.6	External handrails and balustrade	15	
5.7	Replace Bicycle Stands	25	

Appendix B

Schedule of proposed systems and building fabric details

Item	Specification
Primary Heat Source	Daikin ERGA06DV3 Air to Water Heat Pump.
Secondary Systems	None
Chimneys	None
Heating element	Radiators – Design flow temperature of 40° max.
Central Heating Pump	1no. central heating pumps – Energy Label Category A
Heating controls	Individual time and temperature zone control (A minimum of two heating zones and one hot water zone)
Hot Water Storage Tank	180 Litre Daikin EHVH04S18D6W with a declared loss factor of 1.10 kWh/day
Lighting	All lamps must be A-Rated low energy type.
Ventilation Heat	Natural Ventilation with Mechanical extract in Bathroom & Kitchen
Air Tightness Results	Max. Result of air tightness test of 3 m ³ /m ² /hr @ 50 Pascals
Thermal Bridging Factor	0.08 W/m ² K (All new construction details shall be in compliance with Acceptable Construction Details as set out in "Limiting Thermal Bridging & Air Infiltration – Acceptable Construction Details")
Thermal Mass	Medium High
Floor	U-value 0.18 W/m ² K or better
Flat Roof	U-value 0.20 W/m ² K or better
Wall	U-value 0.18 W/m ² K or better
Window, Glazed Doors	U-value 1.4 W/ m ² K, Solar Trans – 0.64, Frame Factor – 0.7

Appendix C

Phases of a building life cycle as per BS7543



