

# BUILDING LIFE CYCLE REPORT

for

**Shanganagh Castle Residential**  
At Shanganagh Castle  
Shankill  
Co. Dublin

PLANNING APPLICATION

**ABK** architects

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## Introduction

The Building Life Cycle Report sets out to address the requirements of 6.13 of Sustainable Urban Housing: Design Standards for New Apartments – Guidelines for Planning Authorities; Department of Housing, Planning and Local Government 2018

### ***Operation and Management of Apartment Developments***

*6.13....building life cycle 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.*

## PART 01

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

### Property Management of the Common Areas of the development

A property management company will be engaged to ensure that all property management functions are dealt with for the development and that the running and maintenance costs of the common areas of the development are kept within the agreed annual operational budget.

The property management company will enter into a contract directly with the OMC for the ongoing management of the built development.

The Property Management Company also has the following responsibilities for the apartment development once constructed:

- Timely formation of an Owners Management Company (OMC) – which will be a company limited by guarantee having no share capital. All future purchasers will be obliged to become members
- Preparation of annual service charge budget for the development common areas
- Apportionment of the Annual operational charges in line with the MUD Act
- Engagement of independent legal representation on behalf of the OMC in keeping with the MUD Act - including completion of Developer OMC Agreement and transfer of common areas
- Transfer of documentation in line with Schedule 3 of the MUD Act
- Estate Management
- Third Party Contractors Procurement and management
- OMC Reporting
- Accounting Services / Corporate Services
- Insurance Management
- After Hours Services and Staff Administration

### Taking in Charge/Management of parkland and stand of trees

Dún Laoghaire Rathdown County Council Parks Department will be responsible for the maintenance of the Parkland surrounding the pond and the stand of trees along the eastern and north-eastern perimeter of the development.

### Service Charge Budget

The property management company has a number of key responsibilities, with one of the main items being the compiling of the service charge budget for the development for agreement with the OMC.

In accordance with the Multi Unit Developments Act 2011 (“MUD” Act), the service charge budget covers items such as insurance, general maintenance, repairs, waste management, cleaning, gardening/landscaping, security services, etc, to the development common areas.

This service charge budget 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. 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. The BIF report will identify those works which are necessary to maintain, repair, and enhance the premises over the 30year life cycle period, as required by the Multi Unit Development Act 2011.

In line with the requirements of the MUD 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.

## PART 02

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

Table 2.1 below outlines the proposed measures to enable reduced running costs for the occupants.

Measure	Description	Benefit
Fabric Energy Efficiency	A 'fabric first' approach will be utilised on the project aiming for a high degree of air tightness and lower U-value performance than the current requirements in TGD Part L 2019.  Thermal bridging will at construction junctions will be minimised in line with TGD Part L.	Energy Efficient Design with reduced space heating demand by minimising heat losses ensuring lower energy consumption.
Building Energy Rating (BER) Certificate	A BER Certificate will be provided for each dwelling. An analysis of a sample of 27 no. apartments has been carried out with an estimated minimum BER of A3, with the majority achieving A2.	Higher BER ratings reduce running costs and energy usage
Mechanical Ventilation Heat Recovery (MVHR)	MVHR is proposed for each dwelling.	MVHR provides ventilation with low energy usage.
Heating Centre	Each unit will be served by a dedicated Exhaust Air Heat Pump	
Internal Lighting	Automatic lighting controls will be deployed through-out the common areas where it is safe to do so.	This will reduce energy consumption and running costs.
External Lighting	A combination of low voltage LED pole fittings and recessed low level down-lighters will be utilised, as per the External Lighting Layout.	Low voltage fittings will reduce energy consumption and running costs within the development.
White Goods	White goods will not be provided by the Developer, but minimum ratings will be set within the Home User Guide to ensure that high ratings are achieved.	Highly rated white goods will reduce the running costs for the residents.
Electrically Operated Vehicle Charging Points	Electric Vehicle Charging Points will be provided from the Landlord's distribution board. Options for a number of types of chargers are being reviewed. 10% of spaces will be provided for as per DLR Development Plan 8.2.4.12. Ducting to all parking spaces will be provided to allow for future charging points.	This will encourage the use of electric vehicles in line with Council and National Policy.

## Materials

Materials have been selected to ensure the long-term durability and maintenance taking into account TGD Part D Materials and Workmanship 2013 and with reference to BS 7543:2015 'Guide to Durability of Buildings and Building elements, Products and Components.

### 2.2 Material Specification

Location	Material	Benefit
External walls	Use of brickwork, render and precast concrete to external envelope.	Requires a low level of maintenance.
External walls	Factory finished aluminium clad windows and doors. Glass replacement from the interior. Powder coated steel balconies.	Requires a low level of maintenance.
Roof	Proprietary green roof system.	Improved U-value with additional build-up. Attenuation reduces
Structure	Prefabricated concrete (GGBS)	Long design life requiring no maintenance and speed of installation.
Internal party walls	215mm blockwork or 200mm in-situ concrete (GGBS)	Durable and requires a low level of maintenance.
Landscape		
Paving	Use of high quality and robust paving materials.	Requires a low level of maintenance.
Benches	Use of high quality concrete/pre-cast elements.	Requires a low level of maintenance.

### 2.3 Waste Management

Measure	Description	Benefit
Operational Waste Management Plan	Plan prepared by AWN Consulting.	Report to demonstrate how the scheme has been designed to comply with best practice.
Storage of Waste and Recyclable Household Waste	Waste Management Strategy:  Grey, Brown and Green bin distinction Competitive Tender for waste management collection	Aids in reducing potential waste charges
Composting	Organic waste bins provided through-out	Reduces potential waste charges

### 2.4 Health & Well being

Measure	Description	Benefit
Natural light and views	Site layout, separation distances and apartment layouts are designed to optimise natural light and views. Day-lighting and views provided to communal corridors	Reduces reliance on artificial lighting.
Accessibility	Apartments to be designed to comply with Part M and Part K.	Reduces the requirement for future adaptation.
Security	The project is designed to encourage passive surveillance. Internal and external CCTV coverage and centralised monitoring point to be provide. Secure cycle parking covered by CCTV.	Aids in reducing potential security/management costs.

## 2.5 Management

Measure	Description	Benefit
Home User Guide	Homeowner Manual to be provided to the occupant.	Occupants/Tenants are informed.

## 2.6 Transport

Measure	Description	Benefit
Public Transport	<p>QBC on Dublin Road with high frequency 145 and 155 Bus Routes. A number of other Dublin Bus routes in close proximity to the site – 45a, 45b, 84, 84a.</p> <p>Dart Station in Shankill. Proposed new Dart Station at Woodbrook.</p> <p>Bus Éireann no. 133 and Aircoach no. 700.</p> <p>Proposed Bus Connects Bray to City Centre</p>	<p>Services provide access to a number of destinations. Proximity, frequency and ease of access in relation to the proposed development provides a viable and practical alternative to private car use.</p>
Cycle storage	Robust and high quality cycle storage for long and short term use.	Accommodates cycle use and reduces the reliance on private car ownership.
Cycle Network	C3 cycle track on the R119 Dublin Road	Allied with cycle storage, creates an alternative to private car ownership.
Site permeability	Site layout encourages pedestrian and cycle permeability with links through to Shanganagh Park and Castle Farm.	Promotes cycling and walking.
Car Share	Provision for Car Sharing – Go Car or similar – spaces on site	Provides alternatives to private car ownership
Electric charging facilities	Provision of electric charge facilities for 10% of parking spaces with ducting for future provision of remainder of spaces	Promotes use of low carbon transport

## PART 03

## Building Investment Fund (Sinking Fund) Life Cycle

Ref	Element	Life Expectancy
1.0	ROOF	
1.1	Replacement of vegetation layer, substrate, drainage and separation layer	20
1.2	Replacement parapet details	18
1.3	Replace roof access hatches / AOV	20
1.4	Specialist Roof Systems - Fall arrest	20
2.0	ELEVATIONS	
2.1	Replace exit/ entrance doors	15
2.2	Replace windows	40-60
2.3	Recoat powder coated finishes to balconies	10
2.4	Periodic replacement and overhauling of external fixings	5
2.5	Replace Balcony floor finishes	25
2.6	Replace rainwater goods	25
3.0	STAIR CORES AND LOBBIES	
3.1	Decorate Ceilings	5
3.2	Decorate Walls	5
3.3	Decorate Joinery	5
3.4	Replace fire doors	25
3.5	Replace carpets (stairwells & lobbies)	10
3.6	Replace entrance mats	5
3.7	Replace nosing	12
3.8	Replace ceramic floors tiles	20
3.9	Letter boxes	10
4.0	GROUND FLOOR CAR PARK	
4.1	Repaint parking spaces & Numbering	7
5.0	M&E SERVICES	
5.1	General - Internal relamping	7
5.2	Replace Internal light fittings	18
5.3	Replace External light fittings (lights at entrance lobbies)	18
5.4	Replace smoke detector heads	18
5.5	Replace manual break glass units	18
5.6	Replace Fire alarm panel	18
5.7	Replace lift car and controls	25
5.8	Replace AOV's	25
5.9	Replace security access control installation	15
5.10	Sump pumps replacement	15
5.11	External Mains Water connection	20
5.12	Electrical Mains and Sub Mains distribution	20
5.13	Emergency Lighting	20
5.14	Overhaul and/or replace waste pipes & vents System designed for 60 year life.	20
5.15	MVHR Fan	15
5.16	MVHR Heat Exchanger	40
5.17	Centralised Heat Pump Plant	20
5.18	Centralised Gas Boiler Plant	20
5.19	Centralised Heating Pumps	15



5.20	Centralised Buffer Vessels	40
5.21	Centralised Motor Control Centres	20
5.22	Centralised Pressurisation Units	..15
5.23	Per Block Cold Water Storage Buts	40
5.24	Per Block Mains Water Storage Buts	..40
5.25	Per Block Cold Water Booster Pumps	..15
5.26	Per Block Mains Water Booster Pumps	15
5.27	Per Block Sprinkler Storage Tank	40
5.28	Per Block Sprinkler Booster Pumps	15
5.29	Per Block Sprinkler Heads	30
5.30	Apartment Heat Interface Unit	25
5.31	Apartment Radiators	30
6.0	EXTERIOR/SITE	
6.1	External boundary treatments - Recoat powder coated Finishes to railings	12
6.2	Bin store, cycle store and plant - redecoration	6
6.3	15 year cutback and thinning of trees	15
6.4	Replace CCTV	12
6.5	External handrails and balustrades	18
6.6	Replace external signage	18

Note: Specification to be finalized at Detail Design Stage