

19th June 2020



Balrath Engineering Consultants

BUILDING SERVICES LIFE CYCLE REPORT

DANESWELL PLACE, FORMER PRINTWORKS / SMURFIT SITE,
BOTANIC ROAD, GLASNEVIN,

DUBLIN 9

Year of Construction: 2020

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1. Introduction

The purpose of this report is to provide an initial 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 to effectively manage and reduce costs for the benefit of the residents. This is achieved by producing a Building Services Lifecycle Report.

The Building Services Lifecycle Report has been developed on foot of newly revised guidelines for Sustainable Urban Housing: Design Standards for New Apartments (Guidelines for Planning Authorities) under Section 28 of the Planning and Development Act 2000 (as amended). These guidelines supersede the previous 2015 document.

Within the new guidelines, new guidance is being provided on residential schemes.

Section 6.13 of the Apartment Guidelines 2018 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, as well as demonstrating what measures have been specifically considered by the proposer to effectively manage and reduce costs for the benefit of the residents.”

2. Proposed Development

The development, which will have a Gross Floor Area of 23,859 sq m (excluding 3,800 sq m basement carparking) will principally consist of the construction of a residential development comprising 240 No. apartments (97 No. one bed apartments, 137 No. two bed apartments and 6 No. three bed apartments) in 5 No. blocks as follows: Block A (36 No. apartments) is part 3 to part 5 No. storeys; Block B (44 No. apartments) is part 5 to part 6 No. storeys over basement; Block C (54 No. apartments) is part 5 No. storeys to part 7 No. storeys over basement; Block D (54 No. apartments) is part 5 to part 7 No. storeys over basement; and Block E (52 No. apartments) is part 5 No. storeys to part 6 No. storeys over basement. Balconies and Winter Gardens are provided to all blocks, facing north, south, east, and west.

The development provides resident amenity spaces (727 sq m) including gymnasium, swimming pool, cinema and flexi space at basement level and a concierge (82 sq m) at ground floor level in Block B. There are 4 No. commercial units proposed including a creche (197 sq m); café (234 sq m), management suite (76 sq m) and medical consulting unit (119 sq m) at ground floor level in Block A.

The proposed development also comprises the: extinguishment of the existing secondary vehicular access to Botanic Road at the south-west corner; 148 No. car parking spaces (140 No. at basement level and 8 No. at ground level); 8 No. motorcycle spaces (at basement level); bicycle parking; bin storage; boundary treatments; hard and soft landscaping; lighting; plant; ESB substations and switchrooms; photovoltaic panels; green roofs; and all other associated site works above and below ground.

3. Mechanical Systems

3.1 Water Services

Location	Plant Rooms
Description	Centralised Heating Plant / – Specification to be further detailed by M&E Design Consultants.
Lifecycle	<p>Annual Maintenance / Inspection to Heating System</p> <p>Annual Maintenance / Inspection to Heating and Water Pumps.</p> <p>Annual Maintenance / Inspection to Water Tanks.</p> <p>Annual Maintenance / Inspection to Booster-sets.</p> <p>Annual Maintenance / Inspection to DHS Tanks.</p> <p>Annual Maintenance / Inspection of district heating system pipework, valves, accessories and insulation.</p> <p>Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.</p> <p>Replacement of equipment at (End of Life) EOL to be determined at detailed design stage.</p>
Maintenance	Annual Service Inspections to be included as part of Development Planned preventative maintenance program
Year	Annually
Priority	Medium
Selection process	All equipment to be detailed as part of the detailed design section of the development. This equipment will be selected in conjunction with the design and management team to meet and exceed the CIBSE recommended lifecycles.
Reference	N/A

3.2 Water Services

Location	All Areas
Description	PVC / Cast iron Soils and Wastes Pipework
Lifecycle	Annual inspections required for all pipework within landlord areas. Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.
Maintenance	Annual Service Inspections to be included as part of Development Planned Preventative Maintenance Program
Year	Annually
Priority	Medium
Selection process	All equipment to be detailed as part of the detailed design section of the development. This equipment will be selected in conjunction with the design and management team to meet and exceed the CIBSE recommended lifecycles.
Reference	N/A

3.3 Water Services

Location	Apartments, Kitchens, etc
Description	Copper Water Services Pipework and associated fittings and accessories.
Lifecycle	Annual inspections required for all pipework within landlord areas. Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.
Maintenance	Annual Inspections, including legionella testing to be included as part of Development Planned Preventative Maintenance Programme

Year	Annually
Priority	High
Selection process	All equipment to be detailed as part of the detailed design section of the development. This equipment will be selected in conjunction with the design and management team to meet and exceed the CIBSE recommended lifecycles.
Reference	N/A

3.4 Gas Services

Location	Plant Room
Description	Gas Detection Systems.
Lifecycle	Annual Maintenance / Inspection Gas detection systems within landlord plant rooms. Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.
Maintenance	Annual Service Inspections, testing and certification to be included as part of Development Planned Preventative Maintenance Program
Year	Annually
Priority	High
Selection process	All equipment to be detailed as part of the detailed design section of the development. This equipment will be selected in conjunction with the design and management team to meet and exceed the CIBSE recommended lifecycles.
Reference	N/A

3.5 Heating Services

Location	Apartment
Description	Heat interface Units (HIU) / Heat Pump /Boiler Specification to be Confirmed
Lifecycle	Annual Inspection of Heat Interface Unit / Heat Pump / Boiler in each unit. Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.
Maintenance	Annual Service Inspections to be included as part of Development Planned Preventative Maintenance Program
Year	Annually
Priority	Medium
Selection process	All equipment to be detailed as part of the detailed design section of the development. This equipment will be selected in conjunction with the design and management team to meet and exceed the CIBSE recommended lifecycles.
Reference	N/A

3.6 Ventilation Services

Location	Apartment
Description	Heat Recovery Units, Ducting & Grilles
Lifecycle	Annual inspection of extract fan and grilles. Annual Inspection of BMS link and operation of fan and boost / setback facility. Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.

Maintenance	Annual Service Inspections to be included as part of Development Planned Preventative Maintenance Program
Year	Annually
Priority	Medium
Selection process	All equipment to be detailed as part of the detailed design section of the development. This equipment will be selected in conjunction with the design and management team to meet and exceed the CIBSE recommended lifecycles.
Reference	N/A

4. Electrical Systems

4.1 Electrical Infrastructure

Location	Switch rooms / Risers
Description	Maintenance of Electrical Switchgear
Lifecycle	Annual Inspection of Electrical Switchgear and switchboards. Thermographic imagining of switchgear 50% of switchgear every 3 years. Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.
Maintenance	Annual / Every three years to be included as part of Development Planned Preventative Maintenance Program
Year	Annually
Priority	High
Selection process	All equipment to meet and exceed ESB, ETCI, CIBSE recommendations and be code compliant in all cases.
Reference	n/a for this item.

4.2 Lighting Services Internal

Location	All Areas – Internal
Description	Lighting
Lifecycle	Annual Inspection of All Luminaires Quarterly Inspection of Emergency Lighting. Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.

Maintenance	Annual / Quarterly Inspections certification as required per above remedial works.
Year	Annually / Quarterly
Priority	High
Selection process	All equipment to meet requirements and be in accordance with the current IS3217
Reference	n/a for this item.

4.3 Lighting Services External

Location	All Areas – Internal
Description	Lighting
Lifecycle	Annual Inspection of All Luminaires Quarterly Inspection of Emergency Lighting Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.
Maintenance	Annual / Quarterly Inspections certification as required as per the PPM schedule.
Year	Annually / Quarterly
Priority	High
Selection process	All equipment to be detailed as part of the detailed design section of the development. This equipment will be selected in conjunction with the design and management team to meet and exceed the CIBSE recommended lifecycles.
Reference	N/A

4.4 Protective Services – Fire Alarm

Location	All areas – Internal
Description	Fire alarm
Lifecycle	Quarterly Inspection of panels and 25% testing of devices as per IS3218 requirements.
	Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.
Maintenance	Annual / Quarterly Inspections certification as required as per the PPM schedule.
Year	Annually / Quarterly
Priority	High
Selection process	All equipment to meet requirements and be in accordance with the current IS3218
Reference	N/A

4.5 Protective Services – Fire Extinguishers

Location	All areas – Internal
Description	Fire Extinguishers and Fire Blankets
Lifecycle	Annual Inspection
Maintenance	Annual with Replacement of all extinguishers at year 10
Year	N/A
Priority	Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.

Selection process	All fire extinguishers must meet the requirements of I.S 291:2015 Selection, commissioning, installation, inspection and maintenance of portable fire extinguishers.
Reference	N/A

4.6 Renewable Services

Location	Roof / Boilerhouse
Description	PV Array on roof Supporting the Part L requirements in conjunction with the CHP installation in the plantroom
Lifecycle	Quarterly Clean Annual Inspection Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.
Maintenance	Quarterly / Annual
Year	Annually
Priority	Medium
Selection process	All equipment to be detailed as part of the detailed design section of the development. This equipment will be selected in conjunction with the design and management team to meet and exceed the CIBSE recommended lifecycles.
Reference	N/A

5. Building Investment Fund

Ref	Element	Life Expectancy
3.1	General - Internal re-lamping	7
3.2	Replace Internal light fittings	18
3.3	Replace External light fittings (lights at entrance lobbies)	18
3.4	Replace smoke detector heads	18
3.5	Replace manual break glass units/ disabled refuge call points	18
3.6	Replace Fire alarm panel	18
3.7	Replace lift car and controls	25
3.8	Replace AOV's	25
3.9	Replace security access control installation	15
3.10	Sump pumps replacement	15
3.11	External Mains Water connection	20
3.12	Electrical Mains and Sub Mains distribution	20
3.13	Emergency Lighting	20
3.14	Overhaul and/or replace Waste Pipes, Stacks & Vents	20

