Donore Project

Building Lifecycle Report

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LDA
Ghníomhaireacht Forbartha Talún
Land Development Agency

Metropolitan Workshop
Architecture + Urbanism

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1. INTRODUCTION

Metropolitan Workshop were instructed by the LDA to provide a Building Lifecycle Report for their proposed residential scheme at the former St. Teresa's Gardens, Donore Avenue, Dublin 8.

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 Lifecycle Report.

This Building Lifecycle Report has been developed on foot of the 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). Within the new guidelines, new guidance is being provided on residential schemes.

Section 6.13 of the Apartment Guidelines 2020 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. DESCRIPTION OF DEVELOPMENT

In accordance with Section 175(4) of the Planning and Development Act, 2000 (as amended) The Land Development Agency, on behalf of Dublin City Council gives notice of its intention to make an application for approval to An Bord Pleanála under Section 175(3) of the Planning and Development Act, 2000 (as amended) for a seven year approval to carry out the following proposed development which is located on a site of c. 3.26 hectares, located on the former St. Teresa's Gardens, Donore Avenue, Dublin 8. The site is bound by Donore Avenue to the north-east, Margaret Kennedy Road to the north-west, The Coombe Women & Infants University Hospital to the west, the former Bailey Gibson factory buildings to the south-west, and the former Player Wills factory to the south-east. The development will consist of the construction of a residential scheme of 543 no. apartments on an overall site of 3.26 ha.

The development (GFA of c. 53,227 sqm) contains the following mix of apartments: 225 No. 1 bedroom apartments (36 no. 1-person & 189 no. 2-person), 274 No. 2 bedroom apartments (including 52 No. 2 bed 3 person apartments and 222 No. 2 bed 4 person apartments), 44 No. 3 bedroom 5-person apartments, together with retail/café unit (168 sq.m.), mobility hub (52 sq.m.) and 952 sq.m. of community, artist workspace, arts and cultural space, including a creche, set out in 4 No. blocks.

The breakdown of each block will contain the following apartments:

- Block DCC1 comprises 111 No. apartments in a block of 6-7 storeys;
- Block DCC 3 comprises 247 No. apartments in a block of 6-15 storeys;
- Block DCC5 comprises 132 No. apartments in a block of 2-7 storeys;
- Block DCC6 comprises 53 No. apartments in a block of 7 storeys;

The proposed development will also provide for public open space of 3,408 sqm, communal amenity space of 4,417 sqm and an outdoor play space associated with the creche. Provision of private open space in the form of balconies or terraces is provided to all individual apartments.

The proposed development will provide 906 no. residential bicycle parking spaces which are located within secure bicycle stores. 5% of these are over-sized spaces which are for large bicycles, cargo bicycles and other non-standard bicycles. In addition, 138 spaces for visitors are distributed throughout the site.

A total of 79 no. car parking spaces are provided at undercroft level. Six of these are mobility impaired spaces (2 in each of DCC1, DCC3 & DCC5). 50% of standard spaces will be EV fitted. Up to 30 of the spaces will be reserved for car sharing (resident use only). A further 15 no. on-street spaces are proposed consisting of:

- 1 no. accessible bay (between DCC5 & DCC6)
- 1 no. short stay bay (between DCC5 & DCC6)
- 1 no. crèche set-down / loading bay (between DCC5 & DCC6)
- 1 no. set-down / loading bay (northern side of DCC5)
- 1 no. set-down/loading bay (northern side of DCC 3)
- 10 no. short stay spaces (north-east of DCC1)

In addition, 4 no. motorcycle spaces are also to be provided.

Vehicular, pedestrian and cyclist access routes are provided from a new entrance to the north-west from Margaret Kennedy Road. Provision for further vehicular, pedestrian and cyclist access points have been made to facilitate connections to the planned residential schemes on the Bailey Gibson & Player Wills sites for which there are extant permissions (Ref. No.'s ABP-307221-20 & ABP-308917-20).

The development will also provide for all associated ancillary site development infrastructure including site clearance & demolition of boundary wall along Margaret Kennedy Road and playing pitch on eastern side of site and associated fencing/lighting, the construction of foundations, ESB substations, switch room, water tank rooms, storage room, meter room, sprinkler tank room, comms room, bin storage, bicycle stores, green roofs, hard and soft landscaping, play equipment, boundary walls, attenuation area and all associated works and infrastructure to facilitate the development including connection to foul and surface water drainage and water supply.

3. EXECUTIVE SUMMARY – BUILDING LIFE CYCLE REPORT

Measures to effectively manage and reduce costs for the benefit of residents:

The following document reviews the outline specification set out for the proposed residential development at the former St. Teresa's Gardens, Donore Avenue, Dublin 8 and explores the practical implementation of the design and material principles which has informed the design of the buildings, roofs, façades, internal layouts and detailing of the proposed development.

Building materials proposed for use on elevations and in the public realm 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, as well as both soft and hardscaping in the public, semi-public and private realm will contribute to lower maintenance costs for future residents and occupiers.

As the building design develops this document will be updated and a schedule will be generated from the items below detailing maintenance and replacement costs over the lifespan of the building. This will enable a robust schedule of building component repair and replacement costs which will be available to the LDA and DCC so that the running and maintenance costs of the development are kept within the agreed annual operational budget. This will take the form of a Planned Preventative Maintenance Schedule (PPM) at operational commencement of the development.

4. OPERATIONAL MANAGEMENT PLAN

The Multi-Unit Development Act 2011 (the "MUD Act") introduced a statutory framework for the operation and governance of multi-unit developments. It focused on issues arising between developers and homeowners, which can include the transfer of common areas, completion of developments, duties of homeowners and developers, service charges and dispute resolution. While the 'MUD' Act's principal focus was on enabling apartment owners to take control of common areas and the management of the complex for the benefit of all residents, it also placed obligations on Developers who were selling these units. In this proposed scheme, all residential units are to be retained under ownership of DCC and the LDA with no onwards sale. The social homes will remain in the ownership of DCC, with the management of these units being provided by or on behalf of DCC also. The ownership of the cost rental homes will be transferred to the LDA, with the management of these units being by the LDA also.

It is the intention of DCC and the LDA to establish a specific onsite entity to manage the shared services elements of the proposed development, such as common areas, shared semi-private open space, cleaning, lighting, landscaping, health and safety, fire system management and maintenance, waste management and insurance etc. . This would include the creation of distinct Estate, Apartment and Commercial budget lines to ensure the transparent and effective operation of the site into perpetuity and fair apportionment of costs. It will follow the format outlined in the MUD Act and will also adopt a life cycle view of site operations and maintenance when budgeting and in the procurement of support services. This will include the establishment of a building investment or 'sinking fund' to pay for refurbishment, improvement, or maintenance of a non-recurring nature. This will be also utilised to fund the planned preventative maintenance strategy, with projected replacement and refurbishment timelines developed for key infrastructure. It will also encompass a professional property manager operating as per the Property Service Regulator standards who will oversee all aspects of the site operations, including the creation and administration of House Rules which will apply across the site and help to create a positive living environment for all residents. Overall, based on the long-term ownership of units, there is an onus on the LDA and DCC as landowners, to ensure that the delivered site operates to best practice and is sustainable in order to create desirable long term rental accommodation.

5. RESPONSE TO SECTION 15.9.14 OF THE DUBLIN CITY DEVELOPMENT PLAN 2022-2028

The Dublin City Development Plan 2022-2028 notes that the Building Lifecycle Report should address the following headings:

Assessment of Long Term Running & Maintenance Costs	
Property / Owner Management Company & Common Areas	Refer to Section 4 Operational Management Plan above.
Service Charge Budget	Refer to Appendix
Measures to Manage and Reduce Costs	
Treatment, Materials and Finishes	As set out in sections 6 and 7 of this document, materials have been selected with consideration for design life. Areas of high exposure, be it due to weather or footfall, will be finished with the most durable materials e.g. brick to external facades, PPC Cast aluminium downpipes at ground floor to all buildings. In addition, consideration has been given to accessibility for maintenance e.g PPC cast aluminium downpipes are proposed to the full height of the 15 storey tower in DCC3 where access is more complex. The materials strategy is described further in Chapter 6 the Architectural Design Statement.
Construction Methodology	At detailed design stage, a variety of construction methods will be considered and the pros and cons of each reviewed with cost management and reduction in mind. Options relating to the construction contract will be considered, including the potential benefits of Design & Build which can bring the experience and knowledge of the contractor to the design process, including construction methodology. A detailed inspection plan will be requested from contractors as part of the tender process to ensure regular inspection of the works to monitor quality and mitigate against the risk of the post-occupancy issues which could incur repair costs.
Material Specification	At detailed design stage a clear set of appropriate performance requirements will be set out as part of the tender Preliminaries to ensure the scheme is constructed in line with design life requirements. The design will be specified at a minimum to comply with national building regulations and where possible to exceed these requirements.
Landscaping	The landscape design has focused on high quality, durable materials (natural stone) in the key areas of the site i.e. Donore Park in response to the expectation of higher footfall in these areas. The incorporation of suds and rain gardens within the design will reduce the cost implication related to maintenance of wider drainage infrastructure required across the site. Proposed planting is native and therefore require less yearly maintenance coupled with the inclusion of suds/raingardens this reduces further the requirement for maintenance.

Waste Management	Preventing and minimising waste will be encouraged among residents through the use of resident's handbooks: • Links to sites such as Stop Food Waste https://stopfoodwaste.ie/; and • Promotion of reuse for unwanted household goods / textiles where residents can buy cheaper items – listings of local organisations in the handbook. A detailed Operational Waste Management & Recycling Strategy has been prepared as part of the Part 10 application.
Human Health and Well-being	The site-wide design has been developed with human health and well-being in mind including: • The inclusion of a mobility hub, to share information regarding public transport networks, bike rental schemes and facilities to repair bicycles; • Reduced parking provision to encourage active travel; • Key design changes during design development to improve daylighting to dwellings e.g. offsetting balconies and incorporating full height windows. • Communal amenity space at podium and roof level, providing nearby amenity space to residents throughout the scheme. The Donore Project will be designed and constructed in compliance with Building Regulations, mitigating the risk of issues that could impact negatively on human health such as damp, slips trips and falls and toxins from materials used etc.
Residential Management	Design inclusions that will help to reduced or minimise costs relating to residential management includes: • Appropriate material selection in terms of design life to limit maintenance costs. – refer to 'Treatments, Materials and Finishes' above, Section 6 of this document and the • Consideration of tenure split with Cost Rental and Social being separated by lift core to allow for simplified management strategy • Refer to Section 4 Operational Management Plan above.
Energy and Carbon Emissions	As noted in the Energy and Sustainability Strategy Report which accompanies this Part 10 application *"Passive energy reductions will be maximised through the specification of a high performing building fabric. Active energy reductions include the provision of a high efficiency air to water heat pump systems for space heating & domestic hot water, provision of mechanical heat recovery ventilation, specification of high efficiency lighting & controls and other discrete energy measures. Embodied carbon will be a key consideration in the design. Materials of low embodied carbon, including recycled materials, will be preferred. Where possible locally sourced materials will be used to reduce the embodied carbon associated with transport. A*

	number of sustainable urban drainage systems (SuDS) are to be used to effectively intercept and treat water leaving the site including green roof and permeable paving at roof level, as well as swales, bio-retention, tree pits and porous asphalt at ground level. The green roof will provide matters that will allow local birds and insects to thrive. Native planting will be used to integrate with the local habitat. *The site benefits from local transport links including bus & cycle lanes, which will encourage sustainable transport to and from the development. Cycle parking will be provided to encourage cycling. Limited parking is provided to discourage car use. Electric vehicle charging will be provided in line with the requirements of Part L of the Building Regulations - Conservation of Fuel and Energy (Dwellings) 2021 and Part L of the Building Regulations – Conservation of Fuel and Energy (Buildings other than Dwellings) 2021."* Refer to the Energy and Sustainability Strategy Report for further detail.
Transport and Accessibility	The TTA forming part of this Part X application outlines the transport strategy for the scheme. The design includes reduced parking provision, and it is anticipated that "that commuting will generally be undertaken on foot, bicycle or public transport". In addition, it is proposed to incorporated car club spaces within the scheme, each of which can serve up to 20 properties. The mobility hub will encourage bicycle owners to repair their own bikes. All of the above will serve to reduce costs associated with transport for future residents.
Multi-Unit Development Act 2011	Regard will be had for the provisions of the Multi-Unit Development Act 2011 when developing the detailed design of the Donore Project. Refer to Section 4 Operational Management Plan above for further detail.

6. EXTERNAL BUILDING FABRIC SCHEDULE

Green Roofs

Location	All flat roof areas (excluding accessible roof terraces, plant spaces, lift overruns etc)
Description	• Green roof; Pre-cultivated Sedum vegetation blanket. • Substrate: Concrete Deck. • Drainage / protection layer: 20 mm drainage / protection layer. • Vegetation blanket: sedum blanket, applied in standard length rolls 2m x 1 m. • Landscaping depth: ca. 48 mm (excluding vegetation). • Vegetation: Mainly Sedum with some moss and grasses. Bauder AL40 Sedum blanket edge trim, fitted to all protrusions and perimeters. Installation as clause 820A. 20 - 40 mm round washed pebble vegetation barrier provided at all perimeters and protrusions.
Lifecycle	Average lifecycle of 15-35 years on most green roofs. Lifecycle will be extended with robust proven detailing to adjoining roof elements and appropriate and regular maintenance of the roof materials.
Required maintenance	Quarterly maintenance visits to include inspection of drainage layer and outlets and removal of any blockages to prevent ponding. Inspection of vegetation layer for fungus and decay. Carry out weeding as necessary. No irrigation necessary with sedum blankets.
Year	Quarterly
Priority	Medium
Selection process	A green roof will add to the character of the overall scheme, as well as providing attenuation to storm water run-off and less burden on rainwater goods, increased thermal and sound insulation to the building and increased bio-diversity. Natural soft finishes can provide visual amenity for residents where roof areas are visible or accessible from within areas of the scheme. Sedum roofs are a popular and varied choice for green roofs requiring minimal maintenance.
Reference	N/A

Roof Terraces

Location	Roof terraces
Description	• Light weight precast concrete / stone paving slabs on support system, or • Timber decking, or • Resin bound gravel surfacing. Roof deck build up to architects' and engineers' instructions.
Lifecycle	• Average lifecycle of 30 years for paving slabs. • Average lifecycle of 10-20 years for timber. • Average lifecycle of 10-20 years for gravel surfacing.
Required maintenance	Quarterly maintenance visits to include: • Inspection of drainage layer and outlets and removal of any blockages to prevent water build up. • Inspection of all metalwork and fixings for loosening or degradation including railings, planters, flashings, decking, drainage channels and repair/replace as necessary. • Check for displacement of slabs and mortar decay and remove organic matter. • Power-washing of hard surfaces. • Timber decking requires cleaning, sanding and recoating with proprietary wood stain on an annual basis to ensure safety, longevity and maintained aesthetic value.
Year	Quarterly / annual
Priority	Medium
Selection process	Paving slabs provide a robust and long-lasting roof terrace surface, requiring considerably less maintenance when compared to timber decking or gravel surfaces.
Reference	N/A

Fall Arrest System for Roof Maintenance Access

Location	Roofs
Description	• Latchways Constant Force B1 Fall Restraint System/B2 Fall Arrest System • Installation in accordance with BS 7883 by the system manufacturer or a contractor approved by the system manufacturer
Lifecycle	25-30 years. Generally steel finishes to skyward facing elements can be expected to maintain this life expectancy.
Required maintenance	• Check and reset tension on the line as per manufacturer's specifications. • Check all hardware components for wear (shackles, eye bolts, turn buckles). • Check elements for signs of wear and/or weathering. • Lubricate all moving parts. • Check for structural damage or modifications.
Year	Annually
Priority	High
Selection process	Fall Protection Systems (FPS) are a standard life safety system, provided for safe maintenance of roofs and balconies where there is not adequate parapet protection. A FPS must comply with relevant quality standards.
Reference	N/A

Roof Cowls

Location	Roofs
Description	• Roof Cowl System to be supplied with weather apron for flat roofs. • Stainless Steel goose neck tube to facilitate power supply to external roof level bolted to roof and weathered using proprietary weather apron.
Lifecycle	25-35 years.
Required maintenance	Check fixings annually, inspect for onset of leading edge corrosion if epoxy powder coat finish and treat.
Year	Annually
Priority	Low
Selection process	Standard fitting for roof termination of mechanical ventilation system
Reference	N/A

Flashings

Location	Roof abutments, roof penetrations and upstand details
Description	Lead to be used for all flashing and counter flashings
Lifecycle	Typical life expectancy of 70 years recorded for lead flashings. Recessed joint sealing will require regular inspections.
Required maintenance	Check joint fixings for lead flashing, ground survey annually and close up inspection every 5 years. Re-secure as necessary.
Year	Ground level inspection annually and close up inspection every 5 years
Priority	Medium
Selection process	Lead has longest life expectancy of comparable materials such as copper (60 years) and zinc (50 years). Lead is easily formed into the required shapes for effective weathering of building junctions according to Lead Sheet Association details.
Reference	N/A

Smoke vents and access hatches

Location	Roofs
Description	Companionway Access Roof Hatches hinged to act as Automatic Opening Vent in the event of the activation of the fire alarm system
Lifecycle	25-35 years
Required maintenance	Check fixings annually, inspect for onset of leading edge corrosion if epoxy powder coat finish and treat
Year	Annually
Priority	Medium
Selection process	Manufactured with anti-corrosive composite materials to give long low maintenance life
Reference	N/A

Rainwater Drainage

Location	All buildings
Description	• Rainwater outlets: Suitable for specified roof membranes • Pipework: PPC Cast aluminium downpipes (to ground floor)/uPVC downpipes. PPC Aluminium (recessed) downpipes to towers as indicated on the drawings. • Below ground drainage: To M&E/ Civil Engineers design and specification • Disposal: To surface water drainage to Civil Engineers design • Controls: To M&E/ Civil Engineers design and specification • Accessories: allow for outlet gradings, spigots, downspout nozzle, hopper heads, balcony and main roof outlets Note: strategy includes for all balconies draining to downpipe regardless of surface area.
Lifecycle	Aluminium gutters and downpipes have an expected life expectancy of 50 years in rural and suburban conditions (25 years in industrial and marine conditions), this is comparable to cast iron of 50 years and plastic, less so at 30 years.
Required maintenance	As with roofing systems routine inspection is key to preserving the lifecycle of rainwater systems. Regular cleaning and rainwater heads and gutters, checking joints and fixings and regularly cleaning polyester coated surfaces (no caustic or abrasive materials). Expected maintenance on surface water network: • Gullies & rainwater pipes (every 6-months) • Hydrobrake (every 6-monhts) • Attenuation Tank (every 6-months) • SuDS Systems (every 6-months)
Year	Annually, cleaning bi-annually
Priority	High
Selection process	As above, aluminium fittings compare well against cast iron (in terms of cost) and plastic (in terms of lifespan and aesthetic)
Reference	N/A

External Wall

Brick

Location	Façades
Description	Facing brickwork infills to selected colour
Lifecycle	While bricks have a high embodied energy, they are an extremely durable material. Brickwork in this application is expected to have a lifespan of 50- 80 years. The mortar pointing however has a shorter lifespan of 25-50 years.
Required maintenance	In general, given their durability, brickwork finishes require little maintenance. Most maintenance is preventative: checking for hairline cracks, deterioration of mortar, plant growth on walls, or other factors that could signal problems or lead to eventual damage.
Year	Annual
Priority	Low
Selection process	Aesthetic, lightweight, cost-efficient and low maintenance cladding option, indistinguishable from traditional brick construction.
Reference	N/A

External windows and doors

Location	Façades
Description	• Composite windows/doors.; Thermally broken Alclad double glazed windows 1.22 W/m2k; ID handle with childproofing; foam filled insulation to gaps around windows; including all required ironmongery; including extruded aluminium sill flashing screw fixed to underside of window frame sealed at jambs with similar coloured silicone; • All opening sections in windows to be fitted with suitable restrictors. Include for all necessary ironmongery; include for all pointing and mastic sealant as necessary; fixed using stainless steel metal straps screwed to masonry reveals; include for all bends, drips, flashings, thermal breaks etc.
Lifecycle	PPC Aluminium has a typical lifespan of 45-50 years.
Required maintenance	Check surface of windows and doors regularly so that damage can be detected at early stage and remedial action taken. Silicone seals and gaskets should be checked to ensure they are intact and secure. Check fixings and furniture and lubricate at least once a year. Ensure regular cleaning regime. Check for condensation on frame from window and ensure ventilation louvres are operable.
Year	Annual
Priority	Medium
Selection process	Aluminium is low maintenance with good effective lifespan
Reference	N/A

Structure

Location	Façades
Description	• Powder-coated steel frame balcony system to engineer's detail • Thermally-broken farrat plate connections to main structure of building.
Lifecycle	• Metal structure has a typical life expectancy of 70 years dependent on maintenance of components. • Concrete structures have a high embodied energy, however it is an extremely durable material. Concrete frame has a typical life expectancy of over 80 years.
Required maintenance	Relatively low maintenance required. Check balcony system as per manufacturer's specifications. Check all hardware components for wear. Check elements for signs of wear and/or weathering. Check for structural damage or modifications.
Year	Annual
Priority	High
Selection process	Engineered detail; designed for strength and safety.
Reference	N/A

Balustrades and handrails

Location	Balconies
Description	• Metal balustrades • Fixing in accordance with manufacturer's details
Lifecycle	General metal items with a 25-45 year lifespan
Required maintenance	Regular visual inspection of connection pieces for impact damage or alterations
Year	Annual
Priority	High
Selection process	Long low maintenance lifespan versus timber options
Reference	N/A

7. INTERNAL BUILDING FABRIC SCHEDULE

Common Areas

Location	Entrance lobbies / Reception areas / corridors
Description	• Selected large format anti-slip porcelain or ceramic floor tile • Inset matwell with Forbo Nuway Tuftiguard or similar
Lifecycle	Lifespan expectancy of 20-30 years in heavy wear areas, likely requirement to replace for modernisation within this period also
Required maintenance	Visual inspection, intermittent replacement of chipped / loose tiles
Year	Annual
Priority	Low
Selection process	Durable, low maintenance floor finish. Slip rating required at entrance lobby, few materials provide this and are as hard wearing.
Reference	N/A

Common Areas

Location	Stairwells, landings / half landings
Description	Selected carpet tiled covering. Approved anodised aluminium nosings to stairs.
Lifecycle	• 10-15 year lifespan for carpet. Likely requirement to replace for modernisation within this period also. Using carpet tiles allows for localised replacement thus extending the life of the overall installation 20 year lifespan for aluminium nosings.
Required maintenance	Visual inspection with regular cleaning.
Year	Annual
Priority	Low
Selection process	Durable, low maintenance floor finish. Slip rating required at entrance lobby, few materials provide this and are as hard wearing.
Reference	N/A

Floors - Common Areas

Location	Entrance lobbies / Reception areas / corridors
Description	• Selected large format anti-slip porcelain or ceramic floor tile • Inset matwell with Forbo Nuway Tuftiguard or similar
Lifecycle	Lifespan expectancy of 20-30 years in heavy wear areas, likely requirement to replace for modernisation within this period also
Required maintenance	Visual inspection, intermittent replacement of chipped / loose tiles
Year	Annual
Priority	Low
Selection process	Durable, low maintenance floor finish. Slip rating required at entrance lobby, few materials provide this and are as hard wearing.
Reference	N/A

Lifts

Location	Entrance lobbies / Reception areas / corridors
Description	• Lift car floor: tiles to match adjacent apartment lobbies.
Lifecycle	Lifespan expectation of 20-25 years in heavy wear areas for the tiling.
Required maintenance	Visual inspection, intermittent replacement of chipped / loose tiles
Year	Annual
Priority	Low
Selection process	Durable, low maintenance floor finish. Slip rating required at entrance lobby, few materials provide this and are as hard wearing.
Reference	N/A

Walls

Common Areas

Location	Entrance lobbies / Reception areas
Description	• Selected paint finish with primer to skimmed plasterboard
Lifecycle	2-10 years for finishes; 40 years for plasterboard
Required maintenance	Regular maintenance required, damp cloth to remove stains and replacement when damaged
Year	Bi – annually
Priority	Low
Selection process	Decorative and durable finish.
Reference	N/A

Common Areas

Location	Lobbies / corridors / stairs
Description	Selected paint finish with primer to skimmed plasterboard
Lifecycle	2-10 years for finishes; 40 years for plasterboard
Required maintenance	Regular maintenance required, damp cloth to remove stains and replacement when damaged
Year	Bi – annually
Priority	Low
Selection process	Decorative and durable finish.
Reference	N/A

Ceilings

Location	Common areas & tenant amenity areas
Description	Selected paint finish with primer to skimmed plasterboard ceiling on M/F (metal furring) frame. Perforated plasterboard acoustic ceiling to lift core and apartment lobbies. Moisture board to wet areas.
Lifecycle	2-10 years for finishes; 40 years for plasterboard
Required maintenance	Regular maintenance required, damp cloth to remove stains and replacement when damaged
Year	Bi – annually
Priority	Low
Selection process	Decorative and durable finish.
Reference	N/A

Location	Apartments
Description	Emulsion paint finish with primer to skimmed plasterboard ceiling on M/F frame. Moisture board to wet areas.
Lifecycle	2-10 years for finishes; 40 years for plasterboard
Required maintenance	Regular maintenance required, damp cloth to remove stains and replacement when damaged
Year	Bi – annually
Priority	Low
Selection process	Decorative and durable finish.
Reference	N/A

Internal handrails and balustrades

Location	Stairs & landings
Description	• PPC welded steel balusters, steel/timber balustrade fixed to steel sub-plate.
Lifecycle	25-30 years typical lifecycle
Required maintenance	Regular inspections of holding down bolts and joints
Year	Annually
Priority	High
Selection process	Hard-wearing long-life materials against timber options
Reference	N/A

Carpentry and Joinery

Internal doors and frames

Location	All buildings
Description	• Selected white primed and painted/varnished solid internal doors, or hardwood veneered internal doors • All fire rated doors and joinery items to be manufactured in accordance with B.S. 476. Timber saddle boards. • Brushed aluminium door ironmongery or similar
Lifecycle	30 years average expected lifespan
Required maintenance	General maintenance in relation to impact damage and general wear and tear
Year	Annual
Priority	Low priority except in the case of fire doors (which would be high priority).
Selection process	Industry standard
Reference	N/A

Skirtings and architraves

Location	All buildings
Description	• Painted timber/MDF skirtings and architraves
Lifecycle	30 years average expected lifespan
Required maintenance	General maintenance in relation to impact damage and general wear and tear
Year	Annual
Priority	Low
Selection process	Industry standard
Reference	N/A

Window boards

Location	Residential blocks
Description	• Painted timber/MDF window boards
Lifecycle	30 years average expected lifespan
Required maintenance	General maintenance in relation to impact damage and general wear and tear
Year	Annual
Priority	Low
Selection process	Industry standard
Reference	N/A

Kitchen Fittings

Location	Residential blocks
Description	• 18 mm MFC (melamine faced chipboard) carcasses and units
Lifecycle	30 years average expected lifespan
Required maintenance	• General maintenance in relation to impact damage and general wear and tear. • Overhaul and lubricate hinges and fixings on annual basis
Year	Annual
Priority	Low.
Selection process	MFC offers good resistance to scouring and impact damage.
Reference	N/A

Sanitary ware

Location	Residential blocks
Description	• High quality acrylic sheet with glass reinforced polymer reinforcement bath and shower bases • Vitreous china ceramic wash basins and W.C's • Chrome plated brass taps and wastes
Lifecycle	30 years average expected lifespan
Required maintenance	Regular cleaning with non-aggressive pH neutral agents. Annual overhaul and lubrication of fittings. Replacement of valves and seals when defective
Year	Annual
Priority	Low
Selection process	Robust and durable products offering low maintenance and long effective life incorporating water saving design and features.
Reference	N/A

Building services

Mechanical plant

Locations	Roof Plant Area Centralised Mechanical Plant Room Water Tank Rooms Sprinkler Tank Rooms Carpark Areas Apartment Service Cupboards
Description	1. Heating & Domestic Hot Water - Centralised Heating Network providing the primary heat input to the apartment HIUs (Heat Interface Units) which subsequently provide both the heating and domestic hot water to the apartment. The centralised system will also be providing heat to communal areas. The primary plant heat pumps will be installed at roof level to serve the Centralised System. All secondary sub-circuits (apartments and commercial units) and the main block supplies (DCC1, DCC3, DCC5 & DCC6) will be metered. 2. Domestic Water - Mains and Cold Water Services – Each Block has a Mains Water Tank and Booster Set and a Cold Water Tank and Booster Set which subsequently serve each apartment and commercial unit. All supplies are to be metered. 3. Ventilation - Apartments and commercial units will be served by MVHRs (Mechanical Ventilation Heat Recovery Units). 4. Localised Heat Pumps – Commercial units are to be served by localised high efficiency heat pumps providing both heating and cooling. 5. BMS (Building Management System) – The BMS system will manage and control all landlord devices including energy and domestic water meters. 6. Sprinkler Systems – The centralised plant in Block DCC3 serves the DCC1, DCC3 and DCC6 sprinkler systems via a below ground service network.
Lifecycle	1. Heating & Domestic Hot Water - 3 Monthly and Annual maintenance checks/actions for Centralised Heat Pumps at Roof Level - Range of 3 Monthly, 6 Monthly and Annual maintenance checks/actions for primary and secondary plant within the Centralised Mechanical Plant Room - Annual Maintenance / Inspection to Apartment HIUs (Heat Interface Units)

	2. Mains and Cold Water Services - Range of 3 Monthly, 6 Monthly and Annual maintenance checks/actions 3. Ventilation – MVHRs (Mechanical Ventilation Heat Recovery Units). - 6 Monthly check of units and clean of filters - Annual change of filters 4. Localised Heat Pumps (By registered maintenance specialist) - 3 Monthly – System check of operation as per manufacturer recommendations - 3 Monthly - Indoor Units - Cleaning of filters - 3 Monthly - Outdoor Units - Check of unit for damage 5. BMS (Building Management System) - Annual maintenance and operation check of the Landlord BMS system 6. Sprinkler System - Range of 3 Monthly, 6 Monthly and Annual maintenance checks/actions Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage. Replacement of equipment at (End of Life) EOL to be determined at detailed design stage.
Required maintenance	The range of Mechanical Service Inspections to be included as part of Development Planned Preventative Maintenance Programme
Year	Range of 3 Monthly, 6 Monthly & 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

Soils and Wastes

Location	All Areas – Residential
Description	PVC Soils and Wastes Pipework
Lifecycle	PVC Soils and Wastes Pipework • Pipework: uPVC pipework as per Irish Water Standards Details and Code of Practice • Below ground drainage: To M&E/ Civil Engineers design and specification • Disposal: To foul water drainage to Civil Engineers design
Required maintenance	Annual Service Inspections to be included as part of Development Planned Preventative Maintenance Programme
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

Water services

Location	All Areas – Residential
Description	Exhaust Air Heat Pump for Domestic Hot Water Copper Water Services Pipework and associated fittings and accessories. • External network pipework: HPDE as per the Irish Water Standard Details and Code of Practice. • Below ground drainage: To M&E/ Civil Engineers design and specification • Water Supply: to Civil Engineers design
Lifecycle	Annual Maintenance / Inspection of EAHP. 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.
Required maintenance	Annual Inspections, including legionella testing to be included as part of Development Planned Preventative Maintenance Programme Annual inspection of watermain fittings Annual water pressure tests on proposed hydrants on site.
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

Ventilation services

Location	All Areas – Residential
Description	Mechanical Whole House Extract Ventilation System, Ducting & Grilles (MVHR)
Lifecycle	Annual inspection of Extract Ventilation System and grilles Annual Inspection of 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.
Required maintenance	Annual Service Inspections to be included as part of Development Planned Preventative Maintenance Programme
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

Electrical infrastructure

Location	Switch rooms / Risers
Description	Maintenance of Electrical Switchgear
Lifecycle	Annual Inspection of Electrical Switchgear and switchboards. Thermographic imagining of LV switchgear every 3 years. Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.
Required maintenance	Annual / Every three years to be included as part of Development Planned Preventative Maintenance Programme
Year	Annually
Priority	High
Selection process	All equipment to meet and exceed ESB, IS 10101:2020, CIBSE recommendations and be code compliant in all cases.
Reference	N/A

Lighting services – internal

Location	All Areas – Residential - Internal
Description	Lighting – LED throughout with Presence detection in circulation areas and locally controlled in apartments.
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.
Required maintenance	Annual / Quarterly Inspections certification as required per above.
Year	Annually / Quarterly
Priority	High
Selection process	All equipment to meet requirements and be in accordance with the current IS 3217:2013 +A1 2017, Part M and DAC Requirements.
Reference	N/A

Lighting services – external

Location	All Areas – Residential – External
Description	Lighting – All LED with Vandal Resistant Diffusers where exposed. Controlled via solar dial timeclock / photocell & manual override.
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.
Required 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 IS 3217:2013+A1 2017, Part M and DAC Requirements.
Reference	N/A

Protective services – fire alarm

Location	All Areas – Residential –– Landlord / common areas
Description	Fire alarm
Lifecycle	Quarterly Inspection of panels and testing of devices as per IS 3218:2013 +A1 2019 requirements. Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.
Required maintenance	Annual / Quarterly Inspections certification as required per above
Year	Annually / Quarterly
Priority	High
Selection process	All equipment to meet requirements and be in accordance with the current IS3218 and the Fire Cert
Reference	N/A

Protective services – fire extinguishers

Location	All Areas – Residential – External
Description	Fire Extinguishers and Fire Blankets
Lifecycle	Annual Inspection
Required maintenance	Annual with Replacement of all extinguishers at year 10
Year	Annually
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

Protective services – Apartment sprinkler system

Location	All Areas – Residential
Description	Apartment Sprinkler System
Lifecycle	Weekly / Annual Inspection
Required maintenance	Weekly Check of Sprinkler Pumps and plant and annual testing and certification of plant by specialist.
Year	All
Priority	Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.
Selection process	The Apartment sprinkler system shall be installed in accordance with BS 9251:2005 – Sprinkler Systems for Residential and Domestic Occupancies – Code of Practice Selection process to make reference to BS 9251 2021
Reference	N/A

Protective services – Dry risers

Location	All Areas – Residential
Description	Dry Risers
Lifecycle	Weekly / Annual Inspection
Required maintenance	Visual Weekly Checks of Pipework and Landing Valves with Annual testing and certification by specialist.
Year	All
Priority	Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.
Selection process	The system shall be installed in accordance with BS 5041 & BS 9999 Selection process to make reference to BS 9990 2015
Reference	N/A

Protective services – Standby Generators

Location	1nr. provided per block, positioned at ground floor level
Description	Standby diesel generators to provide backup supply for life safety systems
Lifecycle	Inspection - Quarterly Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.
Required maintenance	Run the generator (typically on no-load, verify automatic transfer switch operation). Verify that the unit runs with no alarms or warnings. Ensure adequate fuel levels.
Year	Quarterly / Annually
Priority	Medium
Selection process	The equipment shall meet and exceed the CIBSE Guide M lifecycle expectancies.
Reference	N/A

Fire Fighting Lobby Ventilation (To Fire Consultants Design and Specification)

Location	Common Area Lobby's
Description	Smoke Extract / Exhaust Systems
Lifecycle	Regular Tests of the system Annual inspection of Fans Annual inspection of automatic doors and AVOs All systems to be backed up by life safety systems.
Required maintenance	Annual Service Inspections to be included as part of Development Planned Preventative Maintenance Programme
Year	Weekly / 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. Selection process to make reference to TGD-B 2020
Reference	N/A

7. APPENDIX: SERVICE CHARGE BUDGET

St Teresa's Garden Property Management Budget Lines

Sample Service charge budget lines based on Plans for Four Blocks

Service	A Estate Charge	B Arts/Retail/Community Space Charge	C Apt Charge	D Undercroft Car Park and Bike Stores Charge	TOTALS
Sinking Fund	50,000	10,000	300,000		**360,000**
Insurance	300000		0	30,000	**330,000**
Electricity	20,000	0	80,000	4,991	**104,991**
Lift Maint			50,000		**50,000**
Lift Insurance			12000		**12,000**
Telephone Lifts			6000		**6,000**
Cleaning/Janatorial	50,000		80,000	20,000	**150,000**
Security and Access Control	80,000	10,000	40,000	1,000	**131,000**
Gulley Cleaning/Water Pump Maintenan	1,500			2,300	**3,800**
Landscaping	100,000	0	0		**100,000**
Landscaping Planting		500	1,000		**1,500**
Repair & Maintenance	70,000	1,000	100,000		**171,000**
Fire System Maintenance	10,000	5,000	90000	5,000	**110,000**
AOV Maintenance	5000			15,000	**20,000**
Emergency Lighting Maintenance	5000	3,000	10,000	5,000	**23,000**
24 hour on call service	40,000				**40,000**
Gate/Barrier Maintenance				10,000	**10,000**
Refuse			240000		**240,000**
Provision for Hardware			1800		**1,800**
CCTV/Access control/Satellite TV/	5000	2,000	80,000	20,000	**107,000**
Vermin Control	10000				**10,000**
Sundry	5,000		3000	2,500	**10,500**
Bank Fees	6,000		2500		**8,500**
Legal/Professional Fees	5000				**5,000**
Audit Fees	10,000				**10,000**
Annual Reports	2,000				**2,000**
Company Secretarial Admin	5000				**5,000**
Managing Agents Fees (Incl VAT)	90,000			10,000	**100,000**
	€869,500	**€31,500**	**€1,096,300**	**€125,791**	**€2,123,091**

N.B This budget is designed to illustrate the overall approach. Detailed budget lines and costs can only be produced post planning when specifications and finishes are confirmed and final detailed designs are completed.

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