

BUILDING LIFECYCLE REPORT

COASTAL QUARTER SHD 2



CLIENT:

Shankill Property
Investments Limited

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01

EXECUTIVE SUMMARY

1.0 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 strategic housing development comprising 586 no. units. This document explores the practical implementation of the design and material principles which has informed the design of building roofs, facades, internal layouts and detailing of the proposed development.

Building materials proposed for use on elevations (mainly brickwork to apartment blocks when overlooking the sea frontage) and in the public realm, achieve a durable standard of quality that will not need regular fabric replacement or maintenance. The choice of high quality and long-lasting materials overall, mostly for coastal environment, as well as both soft and hardscape in the public, semi-public and private realm will contribute to lower maintenance costs for future residents and occupiers.

Please note that detailed specifications of building fabric and services have not been provided at this stage. This report reflects the outline material descriptions contained within Glenn Howells Architects' planning drawings received.

For any elements where information was not available, typical examples have been provided of building materials and services used for schemes of this nature (including coastal environment) and their associated lifespans and maintenance requirements. All information is therefore indicative subject to further information at detailed design stage.

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 materials and development constituent parts in a summary document. This will enable a robust schedule of building component repair and replacement costs which will be available to the property management company so that 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.

*PPM under separate instruction



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DESCRIPTION OF
DEVELOPMENT

2.0 DESCRIPTION OF DEVELOPMENT

The applicant intends to apply to An Bord Pleanála for permission for a Strategic Housing Development (SHD) comprising 586 no. residential units in a mix of apartments, duplexes and houses. In addition, a childcare facility, café, retail unit and 1 no. commercial unit (incorporating a gym and a juice bar) are proposed along with all associated and ancillary development and infrastructural works, hard and soft landscaping, open spaces, boundary treatment works, ancillary car and bicycle parking spaces at surface, undercroft and basement levels.

The proposed houses and duplexes range in height from 2 – 3 storeys with the proposed 4 no. apartment blocks ranging in height from 3 – 12 storeys. Block A will accommodate 162 no. Build-to-Rent (BTR) units. It is proposed that 274 no. units will be located within the administrative area of Dun Laoghaire-Rathdown County Council and 312 no. units will be located within the administrative area of Wicklow County Council. The childcare facility, retail, café and commercial unit will all be located in the administrative area of Wicklow County Council.

Planning permission was granted on part of the subject site for 234 no. residential units, a childcare facility, café and retail unit subject to compliance with the terms of conditions attached to reference ABP-311181-21. The current proposed development includes the development as previously permitted under ABP-311181-21 including minor revisions chiefly addressing conditions and new proposals for Blocks A and B which were previously refused.





03
INTRODUCTION

3.0 INTRODUCTION

Aramark Property were instructed by Shankill Property Investments Limited, to provide a Building Lifecycle Report for their proposed strategic housing development comprising 586 no. residential units, 274 no. apartment units (Block A comprises 162 no. Build-to-Rent units) in the form of 4 no. apartment blocks ranging in height from 3 – 12 storeys plus duplexes and houses (ranging in height from 2 – 3 storeys), will be located within the administrative area of Dun Laoghaire-Rathdown County Council and 312 no. apartment units will be located within the administrative area of Wicklow County Council. In addition to the above, a childcare facility, café, retail unit and 1 no. commercial unit will be located within the administrative area of Wicklow County Council.

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 issued under Section 28 of the Planning and Development Act 2000 (as amended) December 2020. Within these guidelines, current guidance is being provided on residential schemes.

Section 6.13, Apartments and the Development Management Process, of the Sustainable Urban Housing: Design Standards for New Apartments (December 2020) requires that:

“Planning applications for apartment development 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.”



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EXTERNAL BUILDING
FABRIC SCHEDULE

4.0 EXTERNAL BUILDING FABRIC SCHEDULE

4.1 Roofing

4.1.1 Green Roofs (Manufacturer / Supplier TBC)

<i>Location</i>	Selected Flat Roof Areas (maintenance access only)
<i>Description</i>	Extensive green roof system to engineer's specification.
<i>Lifecycle</i>	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.
<i>Required maintenance</i>	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.
<i>Year</i>	Bi-annually
<i>Priority</i>	Medium
<i>Selection process</i>	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 biodiversity. 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.
<i>Reference</i>	Glenn Howells Architects' planning drawings & design statement.

4.1.2 Roof Terraces (Manufacturer / Supplier TBC)

<i>Location</i>	Terrace Roof
<i>Description</i>	<ul style="list-style-type: none"> • Light weight precast concrete/stone paving slabs on support system. • Resin bound gravel surfacing. • Roof build-up to architects' and engineers' instructions.
<i>Lifecycle</i>	Average lifecycle of 30 years. As used across the industry nationally and the UK, typically longer lifecycle is achieved by regular inspection and maintenance regime to ensure the upkeep of materials.
<i>Required maintenance</i>	Regular maintenance visits to include inspection of drainage outlets and removal of any blockages. General repair works, watching out for displacement of slabs, mortar decay and removal of organic matter. Power-washing of hard surfaces.
<i>Year</i>	Quarterly / annual
<i>Priority</i>	Medium
<i>Selection process</i>	Paving slabs provide a robust and long-lasting roof terrace surface, requiring considerably less maintenance when compared to timber decking or gravel surfaces.
<i>Reference</i>	Glenn Howells Architects' drawings & design statement.

4.1.3 Roof (Manufacturer / Supplier TBC)

<i>Location</i>	Selected Flat Roof Areas (maintenance access only)
<i>Description</i>	<ul style="list-style-type: none"> • Single layer membrane roof system to engineer's specification. • Selected membrane and pressed metal cappings.
<i>Lifecycle</i>	Average lifecycle of 15-25 years on most membrane roofs. Lifecycle will be extended with robust proven detailing to adjoining roof elements and appropriate and regular maintenance of the roof materials.
<i>Required maintenance</i>	Half-yearly maintenance visits to include inspection of membrane material for puncture / cracks on sheeting; seams and flashing details; around drainage and ventilation outlets and removal of any vegetation/moss blockages to prevent ponding.
<i>Year</i>	Half-Yearly / Annual
<i>Priority</i>	Medium
<i>Selection process</i>	A membrane roof with appropriate built-up system will provide durability, lacks water permeability, and easily maintain without shutting down building operations during application.
<i>Reference</i>	Glenn Howells Architects' planning drawings and design statement.

4.1.4 Pitched Roofs (Manufacturer / Supplier TBC)

<i>Location</i>	Houses & Duplexes
<i>Description</i>	Stone effect concrete tile roof.
<i>Lifecycle</i>	Lifecycle of 80 -100 years for roof concrete tiles. As used across the industry nationally and in the UK, long lifecycle typically achieved by regular inspection and maintenance regime to ensure the upkeep of roofing slates.
<i>Required maintenance</i>	Annual inspection internally and externally for slipped/cracked tiles and flashings, leaks etc. Carry out localised repairs as required.
<i>Year</i>	Annual
<i>Priority</i>	Medium
<i>Selection process</i>	Roof concrete tiles are chosen for its aesthetic qualities and is a durable and long-lasting material which few other roofing materials can achieve. Pitched roofs by design ensure run-off of rainwater and therefore less deterioration to roofing materials.
<i>Reference</i>	Glenn Howells Architects' planning drawings & Design Statement.

4.1.5 Fall Arrest System for Roof Maintenance Access

<i>Location</i>	Flat roof areas to all blocks (maintenance access only)
<i>Description</i>	<ul style="list-style-type: none"> • Fall Protection System on approved anchorage device. • Installation in accordance with BS 7883:2019 (Anchor System designed to protect people working at height) by the system manufacturer or a contractor approved by the system manufacturer.
<i>Lifecycle</i>	25-30 years dependent on quality of materials. Generally, steel finishes to skyward facing elements can be expected to maintain this life expectancy. As used across the industry nationally and the UK, long lifecycle is typically achieved by regular inspection and maintenance regime to ensure the upkeep of materials.
<i>Required maintenance</i>	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.

<i>Year</i>	Annually
<i>Priority</i>	High
<i>Selection process</i>	Fall protection systems are a standard life safety system, provided for safe maintenance of roofs and balconies where there is not adequate parapet protection. Fall protection systems must comply with relevant quality standards.
<i>Reference</i>	N/A

4.1.6 Roof Cowls

<i>Location</i>	Selected Flat Roof Areas
<i>Description</i>	Roof Cowl System to be supplied with weather apron for flat roofs.
<i>Lifecycle</i>	25-35 years. As used across the industry nationally and the UK, typically longer lifecycle is achieved by regular inspection and maintenance regime to ensure the upkeep of materials.
<i>Required maintenance</i>	Check fixings annually, inspect for onset of leading-edge corrosion if epoxy powder coat finish and treat.
<i>Year</i>	Annually
<i>Priority</i>	Low
<i>Selection process</i>	Standard fitting for roof termination of mechanical ventilation system.
<i>Reference</i>	N/A

4.1.7 Flashings

<i>Location</i>	All flashing locations
<i>Description</i>	Lead to be used for all flashing and counter flashings.
<i>Lifecycle</i>	Typical life expectancy of 70 years recorded for lead flashings. Recessed joint sealing will require regular inspections. Longer lifecycle achieved by regular inspection and maintenance regime to ensure the upkeep of materials.
<i>Required maintenance</i>	Check joint fixings for lead flashing, ground survey annually and close-up inspection every 5 years. Re-secure as necessary.
<i>Year</i>	Ground level inspection annually and close-up inspection every 5 years
<i>Priority</i>	Medium
<i>Selection process</i>	Lead has longest life expectancy of comparable materials such as copper (60 years) and zinc (50 years). Provided appropriate safety precautions are taken, lead is the recommended choice for large residential, commercial, or industrial builds. Lead is easily formed into the required shapes for effective weathering of building junctions according to standard Lead Sheet Association details.
<i>Reference</i>	N/A

4.2 Rainwater Drainage

<i>Location</i>	All buildings
<i>Description</i>	<ul style="list-style-type: none"> • <i>Rainwater outlets:</i> Suitable for specified roof membranes • <i>Pipework:</i> Cast aluminium downpipes/uPVC downpipes • <i>Below ground drainage:</i> To Engineers' design and specification • <i>Disposal:</i> To surface water drainage to Engineers' design • <i>Controls:</i> To Engineers' design and specification • <i>Accessories:</i> allow for outlet gradings, spigots, downspout nozzle, hopper heads, balcony and main roof outlets
<i>Lifecycle</i>	Metal gutters and downpipes have an expected life expectancy of 40 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. As used across the industry nationally and the UK, typically longer lifecycle is achieved by regular inspection and maintenance regime to ensure the upkeep of materials.
<i>Required maintenance</i>	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).
<i>Year</i>	Annually, cleaning bi-annually
<i>Priority</i>	High
<i>Selection process</i>	As above, metal fittings compare well against cast iron (in terms of cost) and plastic (in terms of lifespan and aesthetic).
<i>Reference</i>	N/A

4.3 External Walls

4.3.1 Brick (Manufacturer / Supplier TBC)

<i>Location</i>	Apartments plus selected Duplexes Façades
<i>Description</i>	Contrasting light and dark tone brickwork.
<i>Lifecycle</i>	When permanently exposed to coastal environments, selected colour bricks have a high embodied energy and 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. Longer lifecycle achieved by regular inspection and maintenance regime.
<i>Required maintenance</i>	In general, given their durability and longevity, brickwork finishes require little maintenance. However, where sea salt build-up on brickwork is visible, routine brushing with controlled wash-down required as part of maintenance regime. 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.
<i>Year</i>	Annual
<i>Priority</i>	Medium
<i>Selection process</i>	Aesthetic, lightweight, cost-efficient and low maintenance cladding option, indistinguishable from traditional brick construction.
<i>Reference</i>	Glenn Howells Architects' drawings & design statement.

4.3.2 Metal (Manufacturer / Supplier TBC)

<i>Location</i>	Façades
<i>Description</i>	<ul style="list-style-type: none"> • Coated metal louvre system to selected colour. • Metal cladding to selected colour. • Colour coated metal doors to Bicycle and bin stores. • Colour coated metal dividing screen. • Colour coated metal railing/balustrade.
<i>Lifecycle</i>	Lifespan expectancy generally in excess of 40 years. As used across the industry nationally and the UK, typically longer lifecycle is achieved by regular inspection and maintenance regime to ensure the upkeep of materials.
<i>Required maintenance</i>	Metal cladding requires little maintenance and is resistant to corrosion. It can contribute to lower ongoing maintenance costs in comparison to exposed porous materials which may be liable to faster deterioration. Long term cleaning requirements should be taken into consideration.
<i>Year</i>	Inspection annually; cleaning 5 yearly
<i>Priority</i>	Low
<i>Selection process</i>	Metal cladding protects the building's structure from rainwater and weathering. Metal cladding systems are also chosen for their aesthetic impact, durability and weathering properties.
<i>Reference</i>	Glenn Howells Architects' drawings & design statement.

4.3.3 Render (Manufacturer / Supplier TBC)

<i>Location</i>	Façades (Houses and selected Duplexes)
<i>Description</i>	Sto/Solterm low maintenance self-coloured silicone render at select locations.
<i>Lifecycle</i>	Silicone render provides high levels of water repellence. Ideal for areas exposed to harsh weather conditions for its superior protection against weathering, damp and algae growth. Silicone renders in general are expected to have a lifecycle of circa 25 years. Any sea salt build-up on render, require routine brushing with controlled wash-down. Longer lifecycle achieved by regular inspection and maintenance regime.
<i>Required maintenance</i>	Most maintenance is preventative: checking for hairline cracks and sea salt staining, deterioration of render and de-bonding due to age and weathering, or other factors that could signal problems or lead to eventual damage. Coloured silicone render requires less maintenance than traditional renders.
<i>Year</i>	Annually
<i>Priority</i>	Medium
<i>Selection process</i>	Appropriate detailing will contribute to a long lifespan for this installation. Render is a durable and low-maintenance finish with the added benefit of this product being British Board of Agrément (BBA) certified against other render systems.
<i>Reference</i>	Glenn Howells Architects' drawings & design statement.

4.3.4 Concrete (Manufacturer / Supplier TBC)

<i>Location</i>	Façades
<i>Description</i>	<ul style="list-style-type: none"> • Concrete cill to selected colour. • Concrete coping to match brickwork colour. • Concrete cladding to selected colour around balcony.
<i>Lifecycle</i>	While concrete has a high embodied energy, it is an extremely durable material. As used nationwide and in the UK, typically longer lifecycle is achieved by regular inspection and maintenance regime to ensure the upkeep of materials.
<i>Required maintenance</i>	In general concrete requires little maintenance. Most maintenance is preventative: checking for hairline cracks, vegetation growth on facades, or other factors that could signal problems or lead to eventual damage.
<i>Year</i>	Annual
<i>Priority</i>	Low
<i>Selection process</i>	Concrete is a durable product which is chosen for its structural properties, aesthetic, cost efficiency and rapid construction.
<i>Reference</i>	Glenn Howells Architects' planning drawings & Design Statement.

4.3.5 Stone (Manufacturer / Supplier TBC)

<i>Location</i>	Facades (Houses & Duplexes)
<i>Description</i>	<ul style="list-style-type: none"> • Stone effect capping. • Stone effect cill/coping around window.
<i>Lifecycle</i>	Stonework is expected to have a lifespan in the region of 60-80 years.
<i>Required maintenance</i>	In general, given its durability, stone requires little maintenance and weathers well. Most maintenance is preventative; check for deterioration of mortar, plant growth, or other factors that could signal problems or lead to eventual damage.
<i>Year</i>	Annual
<i>Priority</i>	Low
<i>Selection process</i>	New stonework is a natural and highly durable material offering a robust aesthetic. Has a high durability and has similar mechanical properties to precast concrete.
<i>Reference</i>	Glenn Howells Architects' planning drawings & Design Statement.

4.4 External Windows & Doors

<i>Location</i>	Façades
<i>Description</i>	<ul style="list-style-type: none"> • Full height, mixture of clear and obscure glazed windows with aluminum powder coated frames to select finish. • All units to be double glazed with thermally broken frames. • 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.
<i>Lifecycle</i>	Aluminum has a typical lifespan of 45-60 years in comparison to uPVC which has a typical lifespan of 30-40 years. As used nationwide and in the UK, typically longer lifecycle is achieved by regular inspection and maintenance regime to ensure the upkeep of materials.
<i>Required maintenance</i>	Check surface of windows and doors regularly so that damage can be detected. Vertical mouldings can become worn and require more maintenance than other surface areas. Lubricate at least once a year. Ensure regular cleaning regime. Check for condensation on frame from window and ensure ventilation.
<i>Year</i>	Annual
<i>Priority</i>	Medium
<i>Selection process</i>	Aluminum is durable and low maintenance with an average lifespan of 45-60 years, exceeding uPVC (30-40 years). Alu-clad timber windows compare favorably when compared to the above, extending timber windows typical lifespan of 35-50 years by 10-15 years.
<i>Reference</i>	Glenn Howells Architects' drawings & design statement.

4.5 Balconies

4.5.1 Structure

<i>Location</i>	Apartment Block Façades (Sapphire Balconies)
<i>Description</i>	<ul style="list-style-type: none"> • Powder-coated aluminum frame balcony system to engineer's design and specification suitable for coastal environments. • Thermally broken farrat plate connections to main structure of building to engineer's design and specification suitable for coastal environments.
<i>Lifecycle</i>	<ul style="list-style-type: none"> • Metal structure has a typical life expectancy of 70 years dependent on maintenance of components. • In general, given their durability and longevity, metal finishes require little maintenance. However, where sea salt build-up on metal finishes is visible, routine brushing with controlled wash-down required as part of maintenance regime. • As used across the industry nationally and the UK, longer lifecycle is achieved by regular inspection and maintenance regime to ensure the upkeep of materials.
<i>Required maintenance</i>	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.
<i>Year</i>	Annual
<i>Priority</i>	High
<i>Selection process</i>	Engineered detail; designed for strength and safety.
<i>Reference</i>	N/A

4.5.2 Balustrades and Handrails

<i>Location</i>	Apartment Block Balconies (Sapphire Balconies)
<i>Description</i>	<ul style="list-style-type: none"> • Colour coated metal balustrades and railings. • Fixing in accordance with manufacturer's details to engineer's design and specification suitable for coastal environments.
<i>Lifecycle</i>	<ul style="list-style-type: none"> • Metal structure has a typical life expectancy of 70 years dependent on maintenance of components. • In general, given their durability and longevity, metal finishes require little maintenance. However, where sea salt build-up on metal finishes is visible, routine brushing with controlled wash-down required as part of maintenance regime. • Longer lifecycle is achieved by regular inspection and maintenance regime to ensure the upkeep of materials.
<i>Required maintenance</i>	Annual visual inspection of connection pieces for impact damage or alterations.
<i>Year</i>	Annual
<i>Priority</i>	High
<i>Selection process</i>	Metal option will have a longer lifespan and require less maintenance than timber options (10-20 years).
<i>Reference</i>	N/A





05

INTERNAL BUILDING
FABRIC SCHEDULE

5.0 INTERNAL BUILDING FABRIC SCHEDULE

5.1 Floors

5.1.1 Common Areas

<i>Location</i>	Entrance lobbies / Common corridors
<i>Description</i>	<ul style="list-style-type: none"> Selected anti-slip porcelain or ceramic floor tile complete with inset matwell. Selected loop pile carpet tiles.
<i>Lifecycle</i>	<ul style="list-style-type: none"> Lifespan expectation of 20-25 years in heavy wear areas, likely requirement to replace for modernisation within this period also. 10-15 year lifespan for carpet. Likely requirement to replace for modernisation within this period also.
<i>Required maintenance</i>	Visual inspection with regular cleaning, intermittent replacement of chipped / loose tiles
<i>Year</i>	<ul style="list-style-type: none"> Annual for floor tiles. Quarterly inspection and cleaning of carpets as necessary
<i>Priority</i>	Low
<i>Selection process</i>	Durable, low maintenance floor finish. Slip rating required at entrance lobby, few materials provide this and are as hard wearing. Using carpet allows flexibility to alter and change as fashions alter and change providing enhanced flexibility.
<i>Reference</i>	N/A

<i>Location</i>	Stairwells, landings / half landings
<i>Description</i>	Selected carpet covering. Approved anodised aluminium nosings to stairs.
<i>Lifecycle</i>	<ul style="list-style-type: none"> 10-15 year lifespan for carpet. Likely requirement to replace for modernisation within this period also. 20-year lifespan for aluminium nosings.
<i>Required maintenance</i>	Visual inspection with regular cleaning.
<i>Year</i>	Quarterly inspection and cleaning as necessary.
<i>Priority</i>	Low
<i>Selection process</i>	Using carpet allows flexibility to alter and change as fashions alter and change providing enhanced flexibility.
<i>Reference</i>	N/A

<i>Location</i>	Lift Lobbies
<i>Description</i>	Carpet/vinyl and porcelain tiles to match adjacent apartment common lobbies.
<i>Lifecycle</i>	<ul style="list-style-type: none"> • Lifespan expectation of 20-30 years in heavy wear areas, likely requirement to replace for modernisation within this period also. • 10-15 year lifespan for carpet. Likely requirement to replace for modernisation within this period also.
<i>Required maintenance</i>	Visual inspection with regular cleaning, intermittent replacement of chipped / loose tiles.
<i>Year</i>	Annual
<i>Priority</i>	Low
<i>Selection process</i>	Slip rating required for lifts, few materials provide this and are as hard wearing. Using carpet allows flexibility to alter and change as fashions alter and change providing enhanced flexibility.
<i>Reference</i>	N/A

5.1.2 Tenant Amenity Areas

<i>Location</i>	Residential amenity (e.g. creche, gymnasium, amenity facilities)
<i>Description</i>	<ul style="list-style-type: none"> • Timber laminate / parquet flooring, or • Carpet covering • Provide for inset matwell
<i>Lifecycle</i>	<ul style="list-style-type: none"> • Laminated / parquet timber flooring has an expected life expectancy of 25-35 years dependent on use • 10-15 year lifespan for carpet. Likely requirement to replace for modernisation within this period also
<i>Required maintenance</i>	Visual inspection. Sweep clean regularly ensuring to remove any dirt. Clean up spills immediately and use only recommended floor cleaners.
<i>Year</i>	Annual
<i>Priority</i>	Low
<i>Selection process</i>	Materials chosen for aesthetics, durability and low maintenance.
<i>Reference</i>	N/A

<i>Location</i>	All wet areas (e.g. gymnasium and creche WC's)
<i>Description</i>	Selected anti-slip ceramic floor tile.
<i>Lifecycle</i>	Lifespan expectation of 20-25 years in heavy wear areas, likely requirement to replace for modernisation within this period also.
<i>Required maintenance</i>	Visual inspection, intermittent replacement of chipped / loose tiles.
<i>Year</i>	Annual
<i>Priority</i>	Low
<i>Selection process</i>	Slip rating required at entrance lobby, few materials provide this and are as hard wearing.
<i>Reference</i>	N/A

5.2 Walls

5.2.1 Common Areas

<i>Location</i>	Entrance lobbies / Corridors
<i>Description</i>	Selected paint finish with primer to skimmed plasterboard.
<i>Lifecycle</i>	2-10 years for finishes; 40 years for plasterboard. Longer lifecycle achieved by regular inspection and maintenance regime to ensure the upkeep of materials.
<i>Required maintenance</i>	Regular maintenance required and replacement when damaged.
<i>Year</i>	Bi-annually
<i>Priority</i>	Low
<i>Selection process</i>	Decorative and durable finish.
<i>Reference</i>	N/A

<i>Location</i>	Lift cores / lobbies / corridors / stairs
<i>Description</i>	Selected paint finish with primer to skimmed plasterboard.
<i>Lifecycle</i>	2-10 years for finishes; 40 years for plasterboard. Longer lifecycle achieved by regular inspection and maintenance regime to ensure the upkeep of materials.
<i>Required maintenance</i>	Regular maintenance required and replacement when damaged.
<i>Year</i>	Bi-annually
<i>Priority</i>	Low
<i>Selection process</i>	Decorative and durable finish.
<i>Reference</i>	N/A

5.2.2 Tenant Amenity Areas

<i>Location</i>	Residential Amenity (e.g. creche, gymnasium, amenity facilities)
<i>Description</i>	Selected paint finish with primer to skimmed plasterboard
<i>Lifecycle</i>	2-10 years for finishes; 40 years for plasterboard. Longer lifecycle achieved by regular inspection and maintenance regime to ensure the upkeep of materials.
<i>Required maintenance</i>	Regular maintenance required and replacement when damaged.
<i>Year</i>	Bi-annually
<i>Priority</i>	Low
<i>Selection process</i>	Decorative and durable finish.
<i>Reference</i>	N/A

<i>Location</i>	Wet areas (e.g. gymnasium and creche WC's)
<i>Description</i>	Selected ceramic wall tile to plasterboard (moisture board to wet areas).
<i>Lifecycle</i>	Typical life expectancy of 35-40 years, less in wet room areas to 20-25 years.
<i>Required maintenance</i>	Bi-annual inspection to review damage, local repairs as necessary, particular detailed inspection in wet room areas.
<i>Year</i>	Annually
<i>Priority</i>	Medium
<i>Selection process</i>	Wet room application requires moisture board and tiling.
<i>Reference</i>	N/A

5.3 Ceilings

<i>Location</i>	Common areas & tenant amenity areas
<i>Description</i>	Selected paint finish with primer to skimmed plasterboard ceiling on metal frame ceiling system. Acoustic ceiling to lift core and apartment lobbies. Moisture board to wet areas.
<i>Lifecycle</i>	2-10 years for finishes; 40 years for plasterboard. Longer lifecycle achieved by regular inspection and maintenance regime to ensure the upkeep of materials.
<i>Required maintenance</i>	Regular maintenance required and replacement when damaged.
<i>Year</i>	Bi-annually
<i>Priority</i>	Low
<i>Selection process</i>	Decorative and durable finish
<i>Reference</i>	N/A

5.4 Internal Handrails & Balustrades

<i>Location</i>	Stairs & landings
<i>Description</i>	Mild steel painted balustrade and handrail.
<i>Lifecycle</i>	Over 40 years typical lifecycle. Longer lifecycle achieved by regular inspection and maintenance regime to ensure the upkeep of materials.
<i>Required maintenance</i>	Regular inspections of holding down bolts and joints
<i>Year</i>	Annually
<i>Priority</i>	High
<i>Selection process</i>	Hard-wearing long-life materials against timber options
<i>Reference</i>	N/A

5.5 Carpentry & Joinery

5.5.1 Internal Doors and Frames

<i>Location</i>	All buildings
<i>Description</i>	<ul style="list-style-type: none"> 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 (Fire Tests). Timber saddle boards. Brushed aluminium door ironmongery or similar
<i>Lifecycle</i>	30 years average expected lifespan. Longer lifecycle achieved by regular inspection and maintenance regime to ensure the upkeep of materials.
<i>Required maintenance</i>	General maintenance in relation to impact damage and general wear and tear
<i>Year</i>	Annual
<i>Priority</i>	Low, unless fire door High
<i>Selection process</i>	Industry standard
<i>Reference</i>	N/A

5.5.2 Skirtings & Architraves

<i>Location</i>	All buildings
<i>Description</i>	Painted timber / Medium-density fibreboard (MDF) skirtings and architraves
<i>Lifecycle</i>	30 years average expected lifespan. Longer lifecycle achieved by regular inspection and maintenance regime to ensure the upkeep of materials.
<i>Required maintenance</i>	General maintenance in relation to impact damage and general wear and tear
<i>Year</i>	Annual
<i>Priority</i>	Low
<i>Selection process</i>	Industry standard
<i>Reference</i>	N/A

5.5.3 Window Boards

<i>Location</i>	All Buildings
<i>Description</i>	Painted timber / Medium-density fibreboard (MDF) window boards
<i>Lifecycle</i>	30 years average expected lifespan
<i>Required maintenance</i>	General maintenance in relation to impact damage and general wear and tear
<i>Year</i>	Annual
<i>Priority</i>	Low
<i>Selection process</i>	Industry standard
<i>Reference</i>	N/A



06

BUILDING SERVICES

6.0 BUILDING SERVICES

6.1 Mechanical Systems

6.1.1 Mechanical Plant

<i>Location</i>	Residential / Apartments
<i>Description</i>	Water Heating is proposed to consist of a Centralised hybrid Heating scheme with Air Source Heat Pumps (ASHP) and Gas Boilers, with Twin Plate Interface Units (HIU's) in each Apartment, supplemented by Photovoltaic (PV) Panels. Further details to be provided by the M&E Consultant at detailed design stage.
<i>Lifecycle</i>	<ul style="list-style-type: none"> • Annual Maintenance / Inspection to Heating System • Annual Maintenance / Inspection of Air Source Heat Pumps • Annual Maintenance / Inspection of Gas Boilers • Annual Maintenance / Inspection to Heating and Water Pumps. • Annual Maintenance / Inspection to Water Tanks. • Annual Maintenance / Inspection to Water Booster - sets. • Annual Maintenance / Inspection to DHS Tanks. • Annual Maintenance / Inspection to Photovoltaic Panels. • 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.
<i>Required maintenance</i>	Annual Service Inspections to be included as part of Development Planned Preventative Maintenance (PPM) Programme
<i>Year</i>	Annually
<i>Priority</i>	Medium
<i>Selection process</i>	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 Chartered Institution of Building Services Engineers of Ireland's (CIBSE) recommended lifecycles.
<i>Reference</i>	N/A

<i>Location</i>	House / Duplexes
<i>Description</i>	Water Heating shall consist of Exhaust Air Heat Pumps, (EAHP) Further details to be provided by the M&E Consultant at detailed design stage.
<i>Lifecycle</i>	<ul style="list-style-type: none"> • Annual Maintenance / Inspection to Heating System • Annual Maintenance of Exhaust Air Heat Pumps (EAHP) • Annual Maintenance / Inspection to Heating and Water Pumps. • Annual Maintenance / Inspection to Water Tanks. • Annual Maintenance / Inspection to Water Booster - sets. • Annual Maintenance / Inspection to DHS Tanks. • 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.
<i>Required maintenance</i>	Annual Service Inspections to be included as part of Development Planned Preventative Maintenance (PPM) Programme

<i>Year</i>	Annually
<i>Priority</i>	Medium
<i>Selection process</i>	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 Chartered Institution of Building Services Engineers of Ireland's (CIBSE) recommended lifecycles.
<i>Reference</i>	N/A

6.1.2 Soils and Wastes

<i>Location</i>	All Areas / Kitchens / Bathrooms etc
<i>Description</i>	Soils and Wastes Pipework – uPVC and High-Density Polyethylene (HDPE)
<i>Lifecycle</i>	<ul style="list-style-type: none"> • 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.
<i>Required maintenance</i>	Annual Service Inspections to be included as part of Development Planned Preventative Maintenance (PPM) Programme
<i>Year</i>	Annually
<i>Priority</i>	Medium
<i>Selection process</i>	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 Chartered Institution of Building Services Engineers of Ireland's (CIBSE) recommended lifecycles.
<i>Reference</i>	N/A

6.1.3 Water Services

<i>Location</i>	Residential / Apartments
<i>Description</i>	<p>Exhaust Air Heat Pump (EAHP)</p> <ul style="list-style-type: none"> • The water services installation in the Landlord and core areas will be copper. • Within the apartments, the water services installation will be completed using a Pre-Insulated Multi Layered Alu-Plex type system.
<i>Lifecycle</i>	<ul style="list-style-type: none"> • Annual Inspection of Exhaust Air Heat Pump (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.
<i>Required maintenance</i>	Annual Inspections, including legionella testing to be included as part of Development Planned Preventative Maintenance (PPM) Programme
<i>Year</i>	Annually
<i>Priority</i>	High
<i>Selection process</i>	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 Chartered Institution of Building Services Engineers of Ireland's (CIBSE) recommended lifecycles.
<i>Reference</i>	N/A

6.1.4 Ventilation Services

<i>Location</i>	Residential / Apartments
<i>Description</i>	Heat Recovery Ventilation. (MVHR) <ul style="list-style-type: none"> • Continuous mechanical extract system within each apartment incorporating Heat Recovery (MVHR) and CO₂ control.
<i>Lifecycle</i>	<ul style="list-style-type: none"> • Annual Inspection of Heat Recovery System. • Annual inspection of extract fan / and grilles • Annual Inspection of operation of fan and boost / setback facility if provided on units. • Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.
<i>Required maintenance</i>	Annual Service Inspections to be included as part of Development Planned Preventative Maintenance (PPM) Programme
<i>Year</i>	Annually
<i>Priority</i>	Medium
<i>Selection process</i>	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 Chartered Institution of Building Services Engineers of Ireland's (CIBSE) recommended lifecycles.
<i>Reference</i>	N/A

6.2 Electrical / Protective Services

6.2.1 Electrical Infrastructure

<i>Location</i>	Switch rooms / Risers
<i>Description</i>	Maintenance of Electrical Switchgear
<i>Lifecycle</i>	<ul style="list-style-type: none"> Annual Inspection of Electrical Switchgear and switchboards. Thermographic imaging of switchgear 50% of Medium Voltage (MV) Switchgear Annually and Low Voltage (LV) switchgear every 3 years. Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.
<i>Required maintenance</i>	Annual / Every three years to be included as part of Development Planned Preventative Maintenance (PPM) Programme
<i>Year</i>	Annually
<i>Priority</i>	High
<i>Selection process</i>	All equipment to meet and exceed Electricity Supply Board (ESB), IS10101:2020, Chartered Institution of Building Services Engineers of Ireland's (CIBSE) recommendations and be code compliant in all cases.
<i>Reference</i>	N/A

6.2.2 Lighting Services internal

<i>Location</i>	All Areas – Internal
<i>Description</i>	Lighting – Light-Emitting Diode (LED) throughout with Presence detection in circulation areas and locally controlled in apartments.
<i>Lifecycle</i>	<ul style="list-style-type: none"> 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.
<i>Required maintenance</i>	Annual / Quarterly Inspections certification as required per above remedial works.
<i>Year</i>	Annually / Quarterly
<i>Priority</i>	High
<i>Selection process</i>	All equipment to meet requirements and be in accordance with the current IS3217:2013 + A1 2017, Part M and Disability Access Certificate (DAC) Requirements.
<i>Reference</i>	N/A

6.2.3 Lighting Services External

<i>Location</i>	All Areas – Internal
<i>Description</i>	Lighting – All Light-Emitting Diode (LED) with Vandal Resistant Diffusers where exposed.
<i>Lifecycle</i>	<ul style="list-style-type: none"> 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.
<i>Required maintenance</i>	Annual / Quarterly Inspections certification as required as per the Planned Preventative Maintenance (PPM) schedule.

<i>Year</i>	Annually / Quarterly
<i>Priority</i>	High
<i>Selection process</i>	All equipment to meet requirements and be in accordance with the current IS3217:2013 + A1 2017, Part M and Disability Access Certificate (DAC) Requirements.
<i>Reference</i>	N/A

6.2.4 Protective Services – Fire Alarm

<i>Location</i>	All areas – Internal
<i>Description</i>	Fire alarm
<i>Lifecycle</i>	<ul style="list-style-type: none"> Quarterly Inspection of panels and 25% testing of devices as per IS3218:2013 + A1 2019 requirements. Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.
<i>Required maintenance</i>	Annual / Quarterly Inspections certification as required as per the Planned Preventative Maintenance (PPM) schedule.
<i>Year</i>	Annually / Quarterly
<i>Priority</i>	High
<i>Selection process</i>	All equipment to meet requirements and be in accordance with the current IS3218:2013 + A1 2019 and the Fire Cert
<i>Reference</i>	N/A

6.2.5 Protective Services – Fire Extinguishers

<i>Location</i>	All Areas – Internal
<i>Description</i>	Fire Extinguishers and Fire Blankets
<i>Lifecycle</i>	Annual Inspection
<i>Required maintenance</i>	Annual with Replacement of all extinguishers at year 10
<i>Year</i>	Annually
<i>Priority</i>	Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.
<i>Selection process</i>	All fire extinguishers must meet the requirements of I.S 291:2015 Selection, commissioning, installation, inspection and maintenance of portable fire extinguishers.
<i>Reference</i>	N/A

6.2.6 Protective Services – Apartment Sprinkler System (Where Applicable by Fire Cert)

<i>Location</i>	Residential / Apartments.
<i>Description</i>	Apartment Sprinkler System
<i>Lifecycle</i>	Weekly / Annual Inspection
<i>Required maintenance</i>	Weekly Check of Sprinkler Pumps and plant and annual testing and certification of plant by specialist.
<i>Year</i>	All
<i>Priority</i>	Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.

<i>Selection process</i>	The Apartment sprinkler system shall be installed in accordance with BS 9251:2005 – Sprinkler Systems for Residential and Domestic Occupancies – Code of Practice
<i>Reference</i>	N/A

6.2.7 Protective Services – Dry Risers

<i>Location</i>	Common Area Cores of Apartments
<i>Description</i>	Dry Risers
<i>Lifecycle</i>	Weekly / Annual Inspection
<i>Required maintenance</i>	Visual Weekly Checks of Pipework and Landing Valves with Annual testing and certification by specialist.
<i>Year</i>	Annually
<i>Priority</i>	Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.
<i>Selection process</i>	The system shall be installed in accordance with BS 5041 – Fire Hydrant Systems Equipment & BS 9999 – Effective Fire Safety in the Design, Management and Use of Buildings.
<i>Reference</i>	N/A

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

<i>Location</i>	Common Area Lobbies
<i>Description</i>	Smoke Extract / Exhaust Systems
<i>Lifecycle</i>	<ul style="list-style-type: none"> • Regular Tests of the system • Annual inspection of Fans • Annual inspection of automatic doors and Automatic Opening Vents (AOV) • All systems to be backed up by life safety systems.
<i>Required maintenance</i>	Annual Service Inspections to be included as part of Development Planned Preventative Maintenance Programme
<i>Year</i>	Weekly / Annually
<i>Priority</i>	Medium
<i>Selection process</i>	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 Chartered Institution of Building Services Engineers of Ireland's (CIBSE) recommended lifecycles.
<i>Reference</i>	N/A

6.2.9 Sustainable Services

<i>Location</i>	Residential / Apartment
<i>Description</i>	Heat Pumps (ASHP)
<i>Lifecycle</i>	<ul style="list-style-type: none"> • Annual Maintenance of Air Source Heat Pumps (ASHP) • Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.
<i>Required maintenance</i>	Annual Service Inspections to be included as part of Development Planned Preventative Maintenance (PPM) Programme
<i>Year</i>	Annually

<i>Priority</i>	Medium
<i>Selection process</i>	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 Chartered Institution of Building Services Engineers of Ireland's (CIBSE) recommended lifecycles.
<i>Reference</i>	N/A

<i>Location</i>	Roof
<i>Description</i>	PV / Solar Thermal Array on roof Supporting the Part L / NZEB requirements in conjunction with Exhaust Air Source Heat Pumps. Full Details to be provided at detailed stage.
<i>Lifecycle</i>	<ul style="list-style-type: none"> • Quarterly Clean • Annual Inspection • Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.
<i>Required maintenance</i>	Quarterly / Annual
<i>Year</i>	Annually
<i>Priority</i>	Medium
<i>Selection process</i>	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 Chartered Institution of Building Services Engineers of Ireland's (CIBSE) recommended lifecycles.
<i>Reference</i>	N/A





07

CONCLUSION &
CONTACT DETAILS

7.0 CONCLUSION & CONTACT DETAILS

Based on the information provided, Aramark Property have considered the schemes proposals. From our experience to date of similar schemes we manage, we have set out an overview of how we believe the overarching management of the scheme can be successfully managed in best practice for the benefit of the owners of this scheme and the future occupiers.

With reference to Aramark Property's Building Lifecycle Report, following receipt of Planning Drawings and Architectural Design Statement, the Applicant / Design Team have considered and addressed Section 6.13, Apartments and the Development Management Process, of the Sustainable Urban Housing: Design Standards for New Apartments (December 2020).

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DOCUMENT CONTROL SHEET

Client:	SHANKILL PROPERTY INVESTMENTS LIMITED
Project Title:	COASTAL QUARTER SHD 2
Document Title:	BUILDING LIFECYCLE REPORT

Rev.	Status	Author	Reviewed By	Issue Date
AP 01.	DRAFT	Conor Fahey	Dean Brassington	13/09/2022
AP 02.	FINAL	Conor Fahey	Dean Brassington	14/09/2022
AP 03.	REVISED	Conor Fahey	Dean Brassington	14/09/2022

