# BUILDING LIFECYCLE REPORT

## LARGE SCALE RESIDENTIAL DEVELOPMENT, BLACKGLEN ROAD, SANDYFORD, DUBLIN 18



CLIENT:

ZOLBURY LIMITED

aramark

## TABLE OF CONTENTS


| | | |
|---|---|---|
| **1.0** | **EXECUTIVE SUMMARY – BUILDING LIFE CYCLE REPORT** | **4** |
| **2.0** | **DESCRIPTION OF DEVELOPMENT** | **6** |
| **3.0** | **INTRODUCTION** | **9** |
| **4.0** | **EXTERNAL BUILDING FABRIC SCHEDULE** | **11** |
| 4.1 | Roofing | 11 |
| 4.2 | Rainwater Drainage | 13 |
| 4.3 | External Walls | 14 |
| 4.4 | External Windows & Doors | 16 |
| 4.5 | Balconies | 16 |
| **5.0** | **INTERNAL BUILDING FABRIC SCHEDULE** | **19** |
| 5.1 | Floors | 19 |
| 5.2 | Walls | 21 |
| 5.3 | Ceilings | 22 |
| 5.4 | Internal Handrails & Balustrades | 23 |
| 5.5 | Carpentry & Joinery | 23 |
| **6.0** | **BUILDING SERVICES** | **25** |
| 6.1 | Mechanical Systems | 26 |
| 6.2 | Electrical / Protective Services | 29 |
| **7.0** | **APPENDIX 1 -** | |
| 7.1 | Schedule for Costs Evaluation | 34 |
| **8.0** | **CONCLUSION & CONTACT DETAILS** | **37** |
| | Contact Details | 37 |
| | Aramark Key Service Lines | 37 |
| | DOCUMENT CONTROL SHEET | 38 |

# 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 specification set out for a Large-Scale Residential Development (LRD) on a site of approx. 3.86ha on lands at Blackglen Road, Sandyford, Dublin 18 and explores the practical implementation of the design and material principles which has informed design of roofs, façades, internal layouts and detailing of the proposed development and building typologies.

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 hardscape in the public, semi-public and private realm, and communal open space 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 O'Mahony Pike Architects' updated Design Statement and 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 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.



# 02

# DESCRIPTION OF DEVELOPMENT

## 2.0 DESCRIPTION OF DEVELOPMENT

Zolbury Ltd., intend to apply to Dun Laoghaire Rathdown County Council for permission for development for a Large-Scale Residential Development (LRD) on a site of approx. 3.86ha on lands at Blackglen Road, Sandyford, Dublin 18.

The development will consist of 192 no. residential units ranging from 2-5 storeys in height, associated resident amenity facilities, a childcare facility, all boundary treatment and landscaping works, site services connections and all site development works to include:

a) Construction of 192 no. residential units, in the form of 6 no. new apartment buildings (A1 – B4), 40 duplexes (C1, C2, C2A) and 14 houses (D1 & D2), to include 33 no. 1-beds, 84 no. 2 -beds, 61 no. 3-beds and 14 no. 4-beds as follows:

- Block A1 (4 storeys) comprising 15 no. apartments (3 no. 1 bed units, 6 no. 2 bed units & 6 no. 3 bed units); a crèche facility of approx. 378.2 sq. m with associated outdoor play space of approx. 170 sq. m; and resident amenity facilities of approx. 31.6 sq. m.
- Block A2 (3-4 storeys) comprising 26 no. apartments (2 no. 1 bed units, 20 no. 2 bed units and 4 no. no. 3 bed units) and resident amenity facilities of approx. 353.6 sq. m.
- Blocks B1 and B2 (2-5 storeys) comprising 51 no. apartments (15 no. 1 bed units, 29 no. 2 bed units, 7 no. 3 bed units).
- Blocks B3 and B4 (2-5 storeys) comprising 46 no. apartments (13 no. 1 bed units, 23 no. 2 bed units and 10 no. 3 bed units).
- Duplex Units C1 (4 storeys), C2 and C2A (3 storeys) comprising 40 duplexes (6 no. 2 bed units, 20 no. 3 bed units and 14 no. 4 bed units).
- House Units D1 and D2 (2 storeys) comprising 14 houses (14 no. 3 bed units).

b) Total Open space (approx. 10,854 sq. m) is proposed in the form of public open space (approx. 8, 686 sq. m), and residential communal open space (approx. 2,168 sq. m). Each residential unit is afforded with associated private open space in the form of a garden/terrace/balcony.

c) The development will be served via a new vehicular access via Blackglen Road. This will be designed as a priority junction with pedestrian and cycle crossings where required to tie in with the Blackglen Road Improvement Scheme.

d) A new toucan crossing is proposed across Blackglen Road just to the east of the new

vehicular access. This toucan crossing has been designed as per TL607 of the Cycle Design Manual to allow crossing of pedestrians and cyclists to the northern side of Blackglen Road for improved public transport access.

e) Emergency access only is proposed via Woodside Road.

f) A dedicated wildlife corridor is proposed to the east/south-east side of the site and a public open space (approx. 307 m in length) tree trail to the west/north-west side of the site.

g) Basement/Podium car park areas are proposed below Blocks B1, B2, B3 and B4. A total of 226 no. car parking spaces are proposed, which includes 2 no. car club spaces, 12 no. accessible spaces and 47 no. EV charging spaces (198 no. long-stay spaces, 18 no. visitor space & 10 no. car parking spaces for creche use), in addition to 9 no. motorcycle spaces.

h) A total of 484 no. bicycle spaces are proposed in the form of 442 no. long stay bicycle spaces 42 short-term stay visitor parking.

i) 2 no. ESB substations at surface level.

j) Bin Storage areas for the Duplex blocks are proposed at ground level adjacent to the Duplex blocks.

All associated site and infrastructural works to include provision for water services; foul and surface water drainage and connections; internal roads, attenuation proposal; permeable paving; all landscaping works including green infrastructure zones; green roofs; and general plant areas; photovoltaic panels; landscaped boundary treatment; footpaths; public lighting; and electrical services.



# 03

# INTRODUCTION

## 3.0 INTRODUCTION

Aramark Property were instructed by Zolbury Limited, to provide a Building Lifecycle Report for a Large-Scale Residential Development (LRD) on a site of approx. 3.86ha on lands at Blackglen Road, Sandyford, Dublin 18.

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 (July 2023) issued 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 6.12 of the Operation and Management of Apartment Developments (July 2023) 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."*



# 04

# EXTERNAL BUILDING FABRIC SCHEDULE

## 4.0 EXTERNAL BUILDING FABRIC SCHEDULE

### 4.1 Roofing

#### 4.1.1 Green Roofs (Manufacturer / Supplier TBC)

| | |
|---|---|
| *Location* | Selected Flat Roof Areas (maintenance access only) |
| *Description* | Extensive green roof system to engineer's specification. |
| *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* | Bi-annually |
| *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 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. |
| *Reference* | O'Mahony Pike Architects' planning drawings & design statement. |

#### 4.1.2 Roof Terraces (Manufacturer / Supplier TBC)

| | |
|---|---|
| *Location* | Podium Roof |
| *Description* | • Light weight precast concrete/stone paving slabs on support system.<br>• Resin bound gravel surfacing.<br>• Roof build-up to architects' and engineers' instructions. |
| *Lifecycle* | Average lifecycle of 30 years. As used across the industry nationally, typically longer lifecycle is achieved by regular inspection and maintenance regime to ensure the upkeep of materials. |
| *Required maintenance* | 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. |
| *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* | O'Mahony Pike Architects' drawings & design statement. |

### 4.1.3 Roof (Manufacturer / Supplier TBC)

| | |
|---|---|
| *Location* | Selected Flat Roof Areas (maintenance access only) |
| *Description* | • Single layer membrane roof system to engineer's specification.<br>• Selected membrane and pressed metal cappings. |
| *Lifecycle* | 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. |
| *Required maintenance* | 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. |
| *Year* | Half-Yearly / Annual |
| *Priority* | Medium |
| *Selection process* | A membrane roof with appropriate built-up system will provide durability, lacks water permeability, and easily maintain without shutting down building operations during application. |
| *Reference* | O'Mahony Pike Architects' planning drawings and design statement. |

### 4.1.4 Pitched Roofs (Manufacturer / Supplier TBC)

| | |
|---|---|
| *Location* | Housing Types 01 + 04 |
| *Description* | Selected Roof Slates. |
| *Lifecycle* | Lifecycle of 80 -100 years for roof slates. As used across the industry nationally, long lifecycle typically achieved by regular inspection and maintenance regime to ensure the upkeep of roofing slates. |
| *Required maintenance* | Annual inspection internally and externally for slipped/cracked slates and flashings, leaks etc. Carry out localised repairs as required. |
| *Year* | Annual |
| *Priority* | Medium |
| *Selection process* | Roof slates 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. |
| *Reference* | O'Mahony Pike Architects' planning drawings & Design Statement. |

### 4.1.5 Fall Arrest System for Roof Maintenance Access

| | |
|---|---|
| *Location* | Flat roof areas to all blocks (maintenance access only) |
| *Description* | • Fall Protection System on approved anchorage device.<br>• 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. |
| *Lifecycle* | 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, long lifecycle is typically achieved by regular inspection and maintenance regime to ensure the upkeep of materials. |
| *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 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. |
| *Reference* | N/A |

### 4.1.6 Roof Cowls

| | |
|---|---|
| *Location* | Selected Flat Roof Areas |
| *Description* | Roof Cowl System to be supplied with weather apron for flat roofs. |
| *Lifecycle* | 25-35 years. As used across the industry nationally, typically longer lifecycle is achieved by regular inspection and maintenance regime to ensure the upkeep of materials. |
| *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 |

### 4.1.7 Flashings

| | |
|---|---|
| *Location* | All flashing locations |
| *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. Longer lifecycle achieved by regular inspection and maintenance regime to ensure the upkeep of materials. |
| *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). 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. |
| *Reference* | N/A |

## 4.2 Rainwater Drainage

| | |
|---|---|
| *Location* | All buildings |
| *Description* | • *Rainwater outlets:* Suitable for specified roof membranes<br>• *Pipework:* Cast aluminium downpipes/uPVC downpipes<br>• *Below ground drainage:* To Engineers' design and specification<br>• *Disposal:* To surface water drainage to Engineers' design<br>• *Controls:* To Engineers' design and specification<br>• *Accessories:* allow for outlet gradings, spigots, downspout nozzle, hopper heads, balcony and main roof outlets |
| *Lifecycle* | 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, typically longer lifecycle is achieved by regular inspection and maintenance regime to ensure the upkeep of materials. |
| *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). |
| *Year* | Annually, cleaning bi-annually |
| *Priority* | High |
| *Selection process* | As above, metal fittings compare well against cast iron (in terms of cost) and plastic (in terms of lifespan and aesthetic). |
| *Reference* | N/A |

## 4.3 External Walls

### 4.3.1 Brick

| | |
|---|---|
| *Location* | Housing Types 02 – 04 Façades |
| *Description* | Contrasting light and dark tone brickwork. |
| *Lifecycle* | Selected colour 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. Longer lifecycle achieved by regular inspection and maintenance regime. |
| *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* | O'Mahony Pike Architects' drawings & design statement. |

### 4.3.2 Metal Cladding

| | |
|---|---|
| *Location* | Housing Types 01 - 04 |
| *Description* | • PPC aluminium window frames.<br>• Balcony + railings.<br>• Bronze finished anodised aluminium cladding. |
| *Lifecycle* | Lifespan expectancy generally in excess of 40 years. As used across the industry nationally, typically longer lifecycle is achieved by regular inspection and maintenance regime to ensure the upkeep of materials. |
| *Required maintenance* | Zinc or aluminium 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. |
| *Year* | Inspection annually; cleaning 5 yearly |
| *Priority* | Low |
| *Selection process* | Zinc or aluminium cladding protects the building's structure from rainwater and weathering. Metal cladding systems are also chosen for their aesthetic impact, durability, and weathering properties. |
| *Reference* | O'Mahony Pike Architects' drawings & design statement. |

### 4.3.3 Render

| | |
|---|---|
| *Location* | Housing Types 01 + 04 Façades |
| *Description* | Mixture of low maintenance smooth and roughcast concrete render coat at select locations. |
| *Lifecycle* | Renders in general are expected to have a lifecycle of circa 25 years. Longer lifecycle achieved by regular inspection and maintenance regime. |
| *Required maintenance* | Regular inspections to check for cracking and de-bonding. Most maintenance is preventative. Smooth and roughcast render requires less maintenance than traditional renders. |
| *Year* | Annually |
| *Priority* | Medium |
| *Selection process* | 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 to select I.S. EN Standards. |
| *Reference* | O'Mahony Pike Architects' drawings & design statement. |

### 4.3.4 Timber Cladding (Manufacturer / Supplier TBC)

| | |
|---|---|
| *Location* | Housing Type 03 |
| *Description* | Selected vertical 'Black' Timber Cladding on support system to Engineers' detail. |
| *Lifecycle* | Selected Black Timber Cladding (routinely maintained) are expected to have a lifespan in the region of 60-80 years. |
| *Required maintenance* | In general, given its durability, timber requires little maintenance and weathers well. Most maintenance is preventative; check for deterioration of surface or other factors that could signal problems or lead to eventual damage. |
| *Year* | Annual |
| *Priority* | Low |
| *Selection process* | New 'Black' Timber cladding is a natural and highly durable material offering a robust aesthetic. |
| *Reference* | O'Mahony Pike Architects' planning drawings & Design Statement. |

## 4.4 External Windows & Doors

| | |
|---|---|
| *Location* | Façades |
| *Description* | • Full height, mixture of clear and obscure glazed windows with aluminium powder coated frames to select finish.<br>• All units to be double glazed with thermally broken frames.<br>• 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* | Aluminium has a typical lifespan of 45-60 years in comparison to uPVC which has a typical lifespan of 30-40 years. As used nationwide, typically longer lifecycle is achieved by regular inspection and maintenance regime to ensure the upkeep of materials. |
| *Required maintenance* | 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. |
| *Year* | Annual |
| *Priority* | Medium |
| *Selection process* | Aluminium 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. |
| *Reference* | O'Mahony Pike Architects' drawings & design statement. |

## 4.5 Balconies

### 4.5.1 Structure

| | |
|---|---|
| *Location* | Housing Types 01 - 03 |
| *Description* | • Concrete balcony system to engineer's detail, or<br>• Powder-coated steel frame balcony system to engineer's detail<br>• 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.<br>• Precast concrete structures have a high embodied energy; however, it is an extremely durable material. Concrete frame has a typical life expectancy of 80 years.<br>As used across the industry nationally, longer lifecycle is achieved by regular inspection and maintenance regime to ensure the upkeep of materials. |
| *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 |

### 4.5.2 Balustrades and Handrails

| | |
|---|---|
| *Location* | Housing Types 01 - 03 |
| *Description* | • Powder-coated Metal Balustrade / Handrailing system including fixings in accordance with manufacturer's details. |
| *Lifecycle* | General metal items have a lifespan of 25-45 years. Longer lifecycle is achieved by regular inspection and maintenance regime to ensure the upkeep of materials. |
| *Required maintenance* | Annual visual inspection of connection pieces for impact damage or alterations. |
| *Year* | Annual |
| *Priority* | High |
| *Selection process* | Metal option will have a longer lifespan and require less maintenance than timber options (10-20 years). |
| *Reference* | N/A |

# 05

# INTERNAL BUILDING FABRIC SCHEDULE

# 5.0 INTERNAL BUILDING FABRIC SCHEDULE

## 5.1 Floors

### 4.1.1 Common Areas

| | |
|---|---|
| *Location* | Entrance lobbies / Common corridors |
| *Description* | • Selected anti-slip porcelain or ceramic floor tile complete with inset matwell.<br>• Selected loop pile carpet tiles. |
| *Lifecycle* | • Lifespan expectation of 20-25 years in heavy wear areas, likely requirement to replace for modernisation within this period also.<br>• 10-15 year lifespan for carpet. Likely requirement to replace for modernisation within this period also. |
| *Required maintenance* | Visual inspection with regular cleaning, intermittent replacement of chipped / loose tiles |
| *Year* | • Annual for floor tiles.<br>• Quarterly inspection and cleaning of carpets as necessary |
| *Priority* | Low |
| *Selection process* | 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. |
| *Reference* | N/A |

| | |
|---|---|
| *Location* | Stairwells, landings / half landings |
| *Description* | Selected carpet covering. Approved anodised aluminium nosings to stairs. |
| *Lifecycle* | • 10-15 year lifespan for carpet. Likely requirement to replace for modernisation within this period also.<br>• 20-year lifespan for aluminium nosings. |
| *Required maintenance* | Visual inspection with regular cleaning. |
| *Year* | Quarterly inspection and cleaning as necessary. |
| *Priority* | Low |
| *Selection process* | Using carpet allows flexibility to alter and change as fashions alter and change providing enhanced flexibility. |
| *Reference* | N/A |

| | |
|---|---|
| *Location* | Lift Lobbies |
| *Description* | Carpet/vinyl and porcelain tiles to match adjacent apartment common lobbies. |
| *Lifecycle* | • Lifespan expectation of 20-30 years in heavy wear areas, likely requirement to replace for modernisation within this period also.<br>• 10-15 year lifespan for carpet. Likely requirement to replace for modernisation within this period also. |
| *Required maintenance* | Visual inspection with regular cleaning, intermittent replacement of chipped / loose tiles. |
| *Year* | Annual |
| *Priority* | Low |
| *Selection process* | 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. |
| *Reference* | N/A |

### 4.1.2 Tenant Amenity Areas

| | |
|---|---|
| *Location* | Residential amenity (e.g. creche) |
| *Description* | • Timber laminate / parquet flooring, or<br>• Carpet covering<br>• Provide for inset matwell |
| *Lifecycle* | • Laminated / parquet timber flooring has an expected life expectancy of 25-35 years dependent on use<br>• 10-15 year lifespan for carpet. Likely requirement to replace for modernisation within this period also |
| *Required maintenance* | Visual inspection. Sweep clean regularly ensuring to remove any dirt. Clean up spills immediately and use only recommended floor cleaners. |
| *Year* | Annual |
| *Priority* | Low |
| *Selection process* | Materials chosen for aesthetics, durability and low maintenance. |
| *Reference* | N/A |

| | |
|---|---|
| *Location* | All wet areas (e.g. WC's) |
| *Description* | Selected anti-slip ceramic floor tile. |
| *Lifecycle* | Lifespan expectation of 20-25 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* | Slip rating required at entrance lobby, few materials provide this and are as hard wearing. |
| *Reference* | N/A |

## 4.2 Walls

### 4.2.1 Common Areas

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

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

### 4.2.2 Tenant Amenity Areas

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

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

### 4.3 Ceilings

| | |
|---|---|
| *Location* | Common areas & tenant amenity areas |
| *Description* | 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. |
| *Lifecycle* | 2-10 years for finishes; 40 years for plasterboard. Longer lifecycle achieved by regular inspection and maintenance regime to ensure the upkeep of materials. |
| *Required maintenance* | Regular maintenance required and replacement when damaged. |
| *Year* | Bi-annually |
| *Priority* | Low |
| *Selection process* | Decorative and durable finish |
| *Reference* | N/A |

### 4.4 Internal Handrails & Balustrades

| | |
|---|---|
| *Location* | Stairs & landings |
| *Description* | Mild steel painted balustrade and handrail. |
| *Lifecycle* | Over 40 years typical lifecycle. Longer lifecycle achieved by regular inspection and maintenance regime to ensure the upkeep of materials. |
| *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 |

## 4.5 Carpentry & Joinery

### 4.5.1 Internal Doors and Frames

| | |
|---|---|
| *Location* | All buildings |
| *Description* | • Selected white primed and painted/varnished solid internal doors, or hardwood veneered internal doors<br>• All fire rated doors and joinery items to be manufactured in accordance with EN 1634-1 (Fire Tests). Timber saddle boards.<br>• Brushed aluminium door ironmongery or similar |
| *Lifecycle* | 30 years average expected lifespan. Longer lifecycle achieved by regular inspection and maintenance regime to ensure the upkeep of materials. |
| *Required maintenance* | General maintenance in relation to impact damage and general wear and tear |
| *Year* | Annual |
| *Priority* | Low, unless fire door High |
| *Selection process* | Industry standard |
| *Reference* | N/A |

### 4.5.2 Skirtings & Architraves

| | |
|---|---|
| *Location* | All buildings |
| *Description* | Painted timber / Medium-density fibreboard (MDF) skirtings and architraves |
| *Lifecycle* | 30 years average expected lifespan. Longer lifecycle achieved by regular inspection and maintenance regime to ensure the upkeep of materials. |
| *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 |

### 4.5.3 Window Boards

| | |
|---|---|
| *Location* | All Buildings |
| *Description* | Painted timber / Medium-density fibreboard (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 |

# 06

# BUILDING SERVICES

# 6.0 BUILDING SERVICES

## 6.1 Mechanical Systems

### 6.1.1 Mechanical Plant

| | |
|---|---|
| *Location* | Residential / Apartments |
| *Description* | Water Heating shall consist of Air Source Heat Pumps, (ASHP).<br>Further details to be provided by the M&E Consultant at detailed design stage. |
| *Lifecycle* | • Annual Maintenance / Inspection to Heating System<br>• Annual Maintenance of Air Source Heat Pumps<br>• Annual Maintenance / Inspection to Heating and Water Pumps.<br>• Annual Maintenance / Inspection to Water Tanks.<br>• Annual Maintenance / Inspection to Water Booster - sets.<br>• Annual Maintenance / Inspection to DHS Tanks.<br>• Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.<br>• Replacement of equipment at (End of Life) EOL to be determined at detailed design stage. |
| *Required maintenance* | Annual Service Inspections to be included as part of Development Planned Preventative Maintenance (PPM) 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 Chartered Institution of Building Services Engineers of Ireland's (CIBSE) recommended lifecycles. |
| *Reference* | N/A |

| | |
|---|---|
| *Location* | Non-Residential |
| *Description* | Water Heating shall consist of Air Source Heat Pumps, (ASHP).<br>Further details to be provided by the M&E Consultant at detailed design stage. |
| *Lifecycle* | • Annual Maintenance / Inspection to heating System.<br>• Annual Maintenance of Air Source Heat Pumps, (ASHP)<br>• Annual Maintenance / Inspection to Heating and Water Pumps.<br>• Annual Maintenance / Inspection to Water Tanks.<br>• Annual Maintenance / Inspection to Water Booster - sets.<br>• Annual Maintenance / Inspection to DHS Tanks.<br>• Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.<br>• Replacement of equipment at End of Life (EOL) to be determined at detailed design stage. |
| *Required maintenance* | Annual Service Inspections to be included as part of Development Planned Preventative Maintenance (PPM) 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 Chartered Institution of Building Services Engineers of Ireland's (CIBSE) recommended lifecycles. |
| *Reference* | N/A |

### 6.1.2 Soils and Wastes

| | |
|---|---|
| *Location* | All Areas / Kitchens / Bathrooms etc |
| *Description* | Soils and Wastes Pipework – uPVC above basement and High-Density Polyethylene (HDPE) in basement. |
| *Lifecycle* | • Annual inspections required for all pipework within landlord areas.<br>• 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 (PPM) 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 Chartered Institution of Building Services Engineers of Ireland's (CIBSE) recommended lifecycles. |
| *Reference* | N/A |

### 6.1.3 Water Services

| | |
|---|---|
| *Location* | Residential / Apartments |
| *Description* | Exhaust Air Heat Pump (EAHP)<br>• The water services installation in the Landlord basement and core areas will be copper.<br>• Within the apartments, the water services installation will be completed using a Pre-Insulated Multi Layered Alu-Plex type system. |
| *Lifecycle* | • Annual Inspection of Exhaust Air Heat Pump (EAHP).<br>• Annual inspections required for all pipework within landlord areas.<br>• 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 (PPM) Programme |
| *Year* | Annually |
| *Priority* | High |
| *Selection process* | All equipment to be detailed as part of the detailed design section of the development. This equipment will be selected in conjunction with the design and management team to meet and exceed the Chartered Institution of Building Services Engineers of Ireland's (CIBSE) recommended lifecycles. |
| *Reference* | N/A |

| | |
|---|---|
| *Location* | Non-Residential |
| *Description* | Air Source Heat Pumps. (ASHP)<br>• The water services installation in the common basement, core areas and the individual heat interface units will be copper.<br>• Within the apartments, the water services installation will be completed using a Pre-Insulated Multi Layered Alu-Plex type system. |
| *Lifecycle* | • Annual Inspection of Air Source Heat Pumps. (ASHP)<br>• Annual inspections required for all pipework within landlord areas.<br>• 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 (PPM) Programme |
| *Year* | Annually |
| *Priority* | High |
| *Selection process* | All equipment to be detailed as part of the detailed design section of the development. This equipment will be selected in conjunction with the design and management team to meet and exceed the Chartered Institution of Building Services Engineers of Ireland's (CIBSE) recommended lifecycles. |
| *Reference* | N/A |

### 6.1.4 Ventilation Services

| | |
|---|---|
| *Location* | Residential / Apartments |
| *Description* | Heat Recovery Ventilation. (MVHR)<br>• Continuous mechanical extract system within each apartment incorporating Heat Recovery (MVHR) and $CO_2$ control. |
| *Lifecycle* | • Annual Inspection of Heat Recovery System.<br>• Annual inspection of extract fan / and grilles<br>• Annual Inspection of operation of fan and boost / setback facility if provided on units.<br>• 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 (PPM) 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 Chartered Institution of Building Services Engineers of Ireland's (CIBSE) recommended lifecycles. |
| *Reference* | N/A |

## 6.2 Electrical / Protective Services

### 6.2.1 Electrical Infrastructure

| | |
|---|---|
| *Location* | Switch rooms / Risers |
| *Description* | Maintenance of Electrical Switchgear |
| *Lifecycle* | • Annual Inspection of Electrical Switchgear and switchboards.<br>• Thermographic imagining of switchgear 50% of Medium Voltage (MV) Switchgear Annually and Low Voltage (LV) switchgear every 3 years.<br>• 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 (PPM) Programme |
| *Year* | Annually |
| *Priority* | High |
| *Selection process* | 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. |
| *Reference* | N/A |

### 6.2.2 Lighting Services internal

| | |
|---|---|
| *Location* | All Areas – Internal |
| *Description* | Lighting – Light-Emitting Diode (LED) throughout with Presence detection in circulation areas and locally controlled in apartments. |
| *Lifecycle* | • Annual Inspection of All Luminaires<br>• Quarterly Inspection of Emergency Lighting.<br>• 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 IS3217:2013 + A1 2017, Part M and Disability Access Certificate (DAC) Requirements. |
| *Reference* | N/A |

### 6.2.3 Lighting Services External

| | |
|---|---|
| *Location* | All Areas – Internal |
| *Description* | Lighting – All Light-Emitting Diode (LED) with Vandal Resistant Diffusers where exposed. |
| *Lifecycle* | • Annual Inspection of All Luminaires<br>• Quarterly Inspection of Emergency Lighting<br>• 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 as per the Planned Preventative Maintenance (PPM) schedule. |
| *Year* | Annually / Quarterly |
| *Priority* | High |
| *Selection process* | All equipment to meet requirements and be in accordance with the current IS3217:2013 + A1 2017, Part M and Disability Access Certificate (DAC) Requirements. |
| *Reference* | N/A |

### 6.2.4 Protective Services – Fire Alarm

| | |
|---|---|
| *Location* | All areas – Internal |
| *Description* | Fire alarm |
| *Lifecycle* | • Quarterly Inspection of panels and 25% testing of devices as per IS3218:2013 + A1 2019 requirements.<br>• 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 as per the Planned Preventative Maintenance (PPM) schedule. |
| *Year* | Annually / Quarterly |
| *Priority* | High |
| *Selection process* | All equipment to meet requirements and be in accordance with the current IS3218:2013 + A1 2019 and the Fire Cert |
| *Reference* | N/A |

### 6.2.5 Protective Services – Fire Extinguishers

| | |
|---|---|
| *Location* | All Areas – Internal |
| *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 |

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

| | |
|---|---|
| *Location* | Residential / Apartments. |
| *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 European Standard BS EN 12845:2015 – Fixed firefighting systems. Automatic sprinkler systems. Design, installation, and maintenance. |
| *Reference* | N/A |

### 6.2.7 Protective Services – Dry Risers

| | |
|---|---|
| *Location* | Common Area Cores of Apartments |
| *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* | Annually |
| *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 Irish Standard IS 391:2020:EN – Fire Hydrant System Equipment & Effective Fire Safety in the Design, Management and Use of Buildings. |
| *Reference* | N/A |

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

| | |
|---|---|
| *Location* | Common Area Lobbies |
| *Description* | Smoke Extract / Exhaust Systems |
| *Lifecycle* | • Regular Tests of the system<br>• Annual inspection of Fans<br>• Annual inspection of automatic doors and Automatic Opening Vents (AOV)<br>• 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 Chartered Institution of Building Services Engineers of Ireland's (CIBSE) recommended lifecycles. |
| *Reference* | N/A |

### 6.2.9 Sustainable Services

| | |
|---|---|
| *Location* | Residential / Apartment |
| *Description* | Heat Pumps (ASHP) |
| *Lifecycle* | • Annual Maintenance of Air Source Heat Pumps (ASHP)<br>• 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 (PPM) 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 Chartered Institution of Building Services Engineers of Ireland's (CIBSE) recommended lifecycles. |
| *Reference* | N/A |

# 07

# APPENDIX 1

# 7.0 APPENDIX 1 – SCHEDULE FOR COSTS EVALUATION

## 7.1 Schedule for Cost Evaluation

The Schedule for Costs Evaluation provides a framework to allow costs per apartment, quantified from the development, to be applied. At detailed design stage, schedule of areas and quantity of items is provided by the Architect and Quantity Surveyor to allow quantification of the lifecycle replacement costs during the lifespan of the building.

Further to this, once detailed design is confirmed, annual cost of maintenance will also be calculated to include with the schedule, to complete the overall costs evaluation.

The schedule will be modified to suit when developer's Architect and Quantity Surveyor provide requisite schedules of areas and quantity and cost of items for the development.

The sampled schedule attached lays out all Building Fabric and Building Services Elements, associated specification, and locations. These are then quantified as cost per unit, alongside maintenance costs with VAT rate, and broken into Annual Costs, and many specific commentaries, for the eventual end user of the property.

.

SAMPLE - Life Cycle Costs

Summary of Costs

| Element - Building Fabric | Specification | Location(s) | Areas / Quantity | Cost Per Unit | Maintenance Cost | Total Cost | VAT Rate | VAT Inclusive Cost | Anticipated Life Span (Yrs) | Annual Cost | Vat Rate | Vat Inclusive Cost | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Floor Finishes** | Carpet | Staircores / Common Areas | | | | € - | 13.5% | | 12 | | 13.5% | | |
| **Floor Finishes** | Tiles | Common Areas / Apartments | | | | € - | 13.5% | | 25 | | 13.5% | | |
| **Floor Finishes** | Timber | Apartment | | | | € - | 13.5% | | 12 | | 13.5% | | |
| **Wall Finishes** | Paint | Staircores / Common Areas | | | | € - | 13.5% | | | | 13.5% | | |
| **Wall Finishes** | Paint | Common Areas / Apartments | | | | € - | 13.5% | | | | 13.5% | | |
| **Wall Finishes** | Paint | Apartment | | | | € - | 13.5% | | | | 13.5% | | |
| **Roof Coverings** | Concrete Roof Tile | Roof | | | | € - | 13.5% | | 25 | | 13.5% | | |
| **Common Area Doors** | TBC | Multiple Locations | | | | € - | 13.5% | | 30 | | 13.5% | | |
| **Apartment Doors** | TBC | Multiple Locations | | | | € - | 13.5% | | 30 | | 13.5% | | |
| **External Doors** | TBC | Multiple Locations | | | | € - | 13.5% | | 20 | | 13.5% | | |
| **Windows** | TBC | Apartments | | | | € - | 13.5% | | 60 | | 13.5% | | |
| **External Cladding** | TBC | External | | | | € - | 13.5% | | 60 | | 13.5% | | |
| **External Walls** | TBC | External | | | | € - | 13.5% | | 60 | | 13.5% | | |
| **Loose furniture** | Loose furniture | Apartments | | | | € - | 23.0% | | 12 | | 23.0% | | |
| **Fixtures and Fittings** | Kitchens, Wardrobes, etc | Apartments | | | | € - | 13.5% | | 12 | | 13.5% | | |
| **White Goods** | Kitchen Appliances | Apartments | | | | € - | 23.0% | | 7 | | 23.0% | | |
| **External Furniture** | Seats, Tables, Playground | External | | | | € - | 13.5% | | 20 | | 13.5% | | |
| **Balcony** | Flooring, Handrail, Balustrade, etc | External | | | | € - | 13.5% | | 20 | | 13.5% | | |
| | | | | | | | | | | | | | |
| **Element - Building Services** | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| **Distribution Network** | Pipework Distribution | Select Locations | | | | € - | 13.5% | | 60 | € - | 13.5% | | |
| **Gas Fired CHP / ASHP** | Gas Fired CHP Units | Select Locations | | | | € - | 13.5% | | 15 | € - | 13.5% | | |
| **Gas Fired Boilers** | | Select Locations | | | | € - | 13.5% | | 25 | € - | 13.5% | | |
| **Buffer Vessel** | | Select Locations | | | | € - | 13.5% | | 15 | € - | 13.5% | | |
| **Main Board** | External Main Board | Select Locations | | | | € - | 13.5% | | 30 | € - | 13.5% | | |
| **Electrical Boards** | Landlord Boards | Various Levels | | | | € - | 13.5% | | 20 | € - | 13.5% | | |
| **Water Tanks** | Replacement Cold Water Mains Water and Fire Tanks | Select Locations | | | | € - | 13.5% | | 35 | € - | 13.5% | | |
| **Booster Pumps** | Booster Pumps associated with the above | Select Locations | | | | € - | 13.5% | | 30 | € - | 13.5% | | |
| **Lifts** | Lift Replacement | All Cores | | | | € - | 13.5% | | 40 | € - | 13.5% | | |
| **Lighting - Landlord** | Car Park , External , Staircores | Various | | | | € - | 13.5% | | 20 | € - | 13.5% | | |
| **Fire Alarm** | Landlord Fire Alarm | Various | | | | € - | 13.5% | | 20 | € - | 13.5% | | |
| **Apartment Boards** | Apartment Boards | Apartment | | | | € - | 13.5% | | 20 | € - | 13.5% | | |
| **Apartment HIU** | Heat Interface Unit | Apartment | | | | € - | 13.5% | | 20 | € - | 13.5% | | |
| **Apartment HRU** | Ventilaiton Heat Recovery Unit | Apartment | | | | € - | 13.5% | | 20 | € - | 13.5% | | |
| **Site Lighting** | External Lighting | Site | | | | | | | | | | | |
| | | | | | | | | | | | | | |

# 08

# CONCLUSION & CONTACT DETAILS

## 8.0 CONCLUSION & CONTACT DETAILS

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 hardscape in the public, semi-public and private realm, and communal open space will contribute to lower maintenance costs for future residents and occupiers.

**Contact Details**

Darren Davidson
Managing Director
E: Davidson-darren@aramark.ie
M: +353 83 450 8794
D: +353 1 871 5494
W: www.aramarkproperty.ie

**Aramark Key Service Lines**



## DOCUMENT CONTROL SHEET

| Client: | ZOLBURY LIMITED |
|---|---|
| **Project Title:** | BLACKGLEN ROAD LARGE-SCALE RESIDENTIAL DEVELOPMENT |
| **Document Title:** | BUILDING LIFECYCLE REPORT |

| Rev. | Status | Author | Reviewed By | Issue Date |
|---|---|---|---|---|
| AP 01. | DRAFT | Conor Fahey | Dean Brassington | 13/05/2024 |
| AP 02. | FINAL | Conor Fahey | Dean Brassington | 07/06/2024 |
| AP 03. | ISSUED | Conor Fahey | Dean Brassington | 17/12/2024 |


aramark