

# BUILDING LIFECYCLE REPORT

PROPOSED DEVELOPMENT:  
THE TED SHD



CLIENT:

Ted Living Limited

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# INTRODUCTION

## INTRODUCTION

Aramark Property were instructed by TED Living Limited, to provide a Building Lifecycle Report for their proposed 'Build-to-Rent' residential scheme at the former Ted Castles site, Old Dun Leary Road, Cumberland Street and Dun Leary Hill in Dun Laoghaire, Co. Dublin.

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

Section 6.13 of the Operation and Management of Apartment Development Guidelines (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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## DESCRIPTION OF DEVELOPMENT

## DESCRIPTION OF DEVELOPMENT

The proposed development at the former Ted Castles site and DunLeary House, Old Dun Leary Road, Cumberland Street and Dun Leary Hill, Dun Laoghaire will consist of:

- The provision of 146 no. apartment units (Build to Rent) and all associated ancillary facilities (including residential amenities) in a building with an overall height ranging from 6 storeys (with setbacks from 4th & 5th storey) addressing Dun Leary Hill, to 5 and 8 storeys (with set back from 7th storey) addressing Old Dun Leary Road and 6-7 storeys (with setbacks at 8th storey) addressing Cumberland Street. The proposal provides for private and communal open spaces in the form of balconies and terraces throughout.
- A retail unit (c.291.5m<sup>2</sup>) at ground floor level addressing Old Dun Leary Road and corner onto Cumberland Street
- The refurbishment, partial removal and adaptation of a 4 storey building on site known as “DunLeary House” to provide co-working office suites (c.247.06m<sup>2</sup>) at Levels 01,02 and 03. The works will include partial removal of original walls and removal of non-original extensions to DunLeary House, removal of existing roof, alterations to internal floor layouts, reinstatement of entrance point on DunLeary Hill, removal of level 00 and linking the existing building to the new development from level 01 to level 03 with the construction of 3 floors of development (with set back at roof level) above the existing building. It is proposed to retain and enhance the existing boundary treatment to DunLeary House.
- All associated ancillary car parking, cycle parking, a new vehicular entrance/cycle path (off the Old Dun Leary Road), ancillary plant areas, ESB substation and storage areas.
- Extensive hard and soft landscaping throughout, green roof, public lighting, signage, boundary treatments and public realm improvements.
- The demolition of the existing open fronted shed on site and all associated ancillary site services and site development works.



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EXECUTIVE SUMMARY  
BUILDING LIFECYCLE  
REPORT

## 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 'Build-to-Rent' residential scheme at the former Ted Castles site, Old Dun Leary Road, Cumberland Street and Dun Leary Hill in Dun Laoghaire, Co. Dublin and explores the practical implementation of the design and material principles which has informed design of building roofs, façades, internal layouts and detailing of the proposed development.

Building materials proposed for use on elevations and in the public realm achieve a durable standard of quality that will not need regular fabric replacement or maintenance outside general day to day care. The choice of high quality and long-lasting materials, as well as both soft and 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 MOLA Architecture's planning drawing package 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.

\*PPM under separate instruction





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EXTERNAL BUILDING  
FABRIC SCHEDULE

## 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>	MOLA Architecture planning drawings and design statement.

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

<i>Location</i>	Communal roof terraces & private roof terraces at various levels
<i>Description</i>	<ul style="list-style-type: none"> <li>• Light weight precast concrete / stone paving slabs on support system, or</li> <li>• Timber decking, or</li> <li>• Resin bound gravel surfacing.</li> <li>• Roof deck build up to architects' and engineers' instructions.</li> </ul>
<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 under decking 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. Timber decking requires cleaning, sanding and recoating with proprietary wood stain on an annual basis to ensure safety, longevity and maintained aesthetic value.
<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>	MOLA Architecture planning drawings and design statement.

#### 4.1.3 Fall Arrest System for Roof Maintenance Access (Manufacturer / Supplier TBC)

<i>Location</i>	Flat roof areas to all blocks (maintenance access only)
<i>Description</i>	<ul style="list-style-type: none"><li>• Fall Protection System on approved anchorage device.</li><li>• Installation in accordance with BS 7883 by system manufacturer or a contractor approved by the system manufacturer.</li></ul>
<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. Typically, longer lifecycle is 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

#### 4.1.4 Roof Cowls (Manufacturer / Supplier TBC)

<i>Location</i>	Roofs ( <i>specific locations TBC</i> )
<i>Description</i>	Roof Cowl System to be supplied with weather apron for flat roofs.
<i>Lifecycle</i>	Typical life expectancy of 25 - 35 years recorded for metal. 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

#### 4.1.5 Flashings (Manufacturer / Supplier TBC)

<i>Location</i>	All flashing locations
<i>Description</i>	Metal/Lead to be used for coping, trims and counter flashing to selected finish.
<i>Lifecycle</i>	Typical life expectancy of 70 years recorded for metal/lead flashings. Recessed joint sealing will require regular inspections. Typically, longer lifecycle is achieved by regular inspection and maintenance regime to ensure the upkeep of materials.
<i>Required maintenance</i>	Check joint fixings for metal/lead coping, trims and 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>	Metal/Lead have the longest life expectancy of comparable materials such as copper (60 years) and zinc (50 years). Metal/Lead are easily formed into the required shapes for effective weathering of building junctions according to Lead Sheet Association details.
<i>Reference</i>	N/A

#### 4.2 Rainwater Drainage (Manufacturer / Supplier TBC)

<i>Location</i>	All buildings
<i>Description</i>	<ul style="list-style-type: none"> <li>• <i>Rainwater outlets:</i> Suitable for specified roof membranes</li> <li>• <i>Pipework:</i> Cast aluminium downpipes/uPVC downpipes</li> <li>• <i>Below ground drainage:</i> To Engineers design and specification</li> <li>• <i>Disposal:</i> To surface water drainage to Engineers design</li> <li>• <i>Controls:</i> To Engineers design and specification</li> <li>• <i>Accessories:</i> allow for outlet gradings, spigots, downspout nozzle, hopper heads, balcony and main roof outlets</li> </ul>
<i>Lifecycle</i>	Aluminium 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 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>	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, aluminium 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>	Façades
<i>Description</i>	<ul style="list-style-type: none"><li>• White brickwork. Colour and mortar detail to be approved</li><li>• Rusticated brick to match adjacent brick colour.</li><li>• Patterned brick to match adjacent brick colour.</li></ul>
<i>Lifecycle</i>	While bricks have a high embodied energy, they are an extremely durable material. Brickwork in this application is expected to have a lifespan of 50-80 years. The mortar pointing however has a shorter lifespan of 25-50 years. Longer lifecycle achieved by regular inspection and maintenance regime.
<i>Required maintenance</i>	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.
<i>Year</i>	Annual
<i>Priority</i>	Low
<i>Selection process</i>	Aesthetic, lightweight, cost-efficient and low maintenance cladding option, indistinguishable from traditional brick construction.
<i>Reference</i>	MOLA Architecture planning drawings and design statements.

### 4.3.2 Metal Cladding (Manufacturer / Supplier TBC)

<i>Location</i>	Façades
<i>Description</i>	<ul style="list-style-type: none"><li>• Polyester powder coated (PPC) aluminium louvre, vertical and spandrel panels (light and dark grey colour finishes).</li><li>• PPC aluminium cladding to penthouse level (grey colour finish) and pressing to edge of balconies.</li></ul>
<i>Lifecycle</i>	Typical life expectancy of over 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>	Selected 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>	Selected 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>	MOLA Architecture planning drawings and design statements.

#### 4.3.3 Stone Cladding (Manufacturer / Supplier TBC)

<i>Location</i>	Low level perimeter
<i>Description</i>	Natural stone cladding on support system on reinforced concrete inner leaf.
<i>Lifecycle</i>	Stone cladding 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>	Stone 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>	MOLA Architecture's planning drawings & Design Statement.

#### 4.3.4 Render (Manufacturer / Supplier TBC)

<i>Location</i>	Selected Façades
<i>Description</i>	Low maintenance selected colour acrylic render.
<i>Lifecycle</i>	Renders in general are expected to have a lifecycle of circa 25 years.
<i>Required maintenance</i>	Regular inspections to check for cracking and de-bonding. Most maintenance is preventative. Coloured render requires less maintenance than traditional renders.
<i>Year</i>	Annually
<i>Priority</i>	Medium
<i>Selection process</i>	Render is a durable and low-maintenance finish with the added benefit of this product being BBA certified against other render systems. Appropriate detailing will contribute to a long lifespan for this installation
<i>Reference</i>	MOLA Architecture's planning drawings & Design Statement.

#### 4.4 External Windows & Doors

<i>Location</i>	Façades
<i>Description</i>	<ul style="list-style-type: none"><li>• Powder Protective Coating (PPC) aluminium window and door frames to approved colour.</li><li>• Selected units to be double/triple glazed with thermally efficient framework.</li><li>• 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.</li></ul>
<i>Lifecycle</i>	PPC aluminium has a typical lifespan of up to 45 years. Longer lifecycle can be achieved by regular inspection and maintenance regime as per manufacturer's recommendation.
<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>	PPC aluminium is durable, resistant to corrosion, energy efficient and require low maintenance.
<i>Reference</i>	MOLA Architecture planning drawings and design statements.

<i>Location</i>	Façades – Retail Unit
<i>Description</i>	<ul style="list-style-type: none"> <li>• Full height, aluminium powder protective coating clear glazed curtain walling system.</li> <li>• All units to be double glazed with thermally broken frames.</li> <li>• Any opening sections in panels 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.</li> </ul>
<i>Lifecycle</i>	PCC aluminium has a typical lifespan of up to 45 years. Longer lifecycle can be achieved by regular inspection and maintenance regime as per manufacturer's recommendation.
<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>	PPC aluminium is durable, resistant to corrosion, energy efficient and require low maintenance.
<i>Reference</i>	MOLA Architecture planning drawings and design statements.

## 4.5 Balconies

### 4.5.1 Structure

<i>Location</i>	Façades
<i>Description</i>	<ul style="list-style-type: none"> <li>• Cantilevered and recessed precast concrete balcony system to engineer's details.</li> <li>• 'Concrete to concrete connectors' to main structure of building to engineer's detail.</li> </ul>
<i>Lifecycle</i>	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. 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>	Relatively low maintenance required. Check balcony system as per manufacturer's specifications. 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>	MOLA Architecture planning drawings and design statements.

#### 4.5.2 Balustrades and Handrails

<i>Location</i>	Balconies (Selected Locations)
<i>Description</i>	<ul style="list-style-type: none"> <li>• Frameless translucent tempered glass (safety glass) and steel railing.</li> <li>• Fixings in accordance with manufacturer's details.</li> </ul>
<i>Lifecycle</i>	Typical life expectancy of 25 - 40 years. 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>	Regular visual inspection of connection pieces for impact damage or alterations
<i>Year</i>	Annual
<i>Priority</i>	High
<i>Selection process</i>	Designed for strength and safety.
<i>Reference</i>	N/A

<i>Location</i>	Balconies (Selected Locations)
<i>Description</i>	<ul style="list-style-type: none"> <li>• Metal balustrade with PPC steel handrail to selected finish.</li> <li>• Fixings in accordance with manufacturer's details.</li> </ul>
<i>Lifecycle</i>	Typical life expectancy of over 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>	Regular visual inspection of connection pieces for impact damage or alterations
<i>Year</i>	Annual
<i>Priority</i>	High
<i>Selection process</i>	Designed for strength and safety. Metal finish are chosen for their aesthetic impact, durability and weathering properties.
<i>Reference</i>	N/A



## INTERNAL BUILDING FABRIC SCHEDULE

### 4.6 Floors

#### 4.6.1 Common Areas

<i>Location</i>	Entrance lobbies / Common corridors
<i>Description</i>	<ul style="list-style-type: none"> <li>Selected anti-slip porcelain or ceramic floor tile complete with inset matwell.</li> <li>Selected loop pile carpet tiles.</li> </ul>
<i>Lifecycle</i>	<ul style="list-style-type: none"> <li>Lifespan expectation of 20-25 years in heavy wear areas, likely requirement to replace for modernisation within this period also.</li> <li>10-15 year lifespan for carpet. Likely requirement to replace for modernisation within this period also.</li> </ul>
<i>Required maintenance</i>	Visual inspection with regular cleaning, intermittent replacement of chipped / loose tiles
<i>Year</i>	<ul style="list-style-type: none"> <li>Annual for floor tiles.</li> <li>Quarterly inspection and cleaning of carpets as necessary</li> </ul>
<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"> <li>10-15 year lifespan for carpet. Likely requirement to replace for modernisation within this period also.</li> <li>20-year lifespan for aluminium nosings.</li> </ul>
<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 and Apartment Lobbies
<i>Description</i>	Selected anti-slip porcelain or ceramic floor tile border with selected carpet inlay on underlay on Ground Level. Tiles in lifts to match adjacent apartment lobbies. Selected carpet covering on underlay.
<i>Lifecycle</i>	<ul style="list-style-type: none"> <li>• Lifespan expectation of 20-30 years in heavy wear areas, likely requirement to replace for modernisation within this period also.</li> <li>• 10-15 year lifespan for carpet. Likely requirement to replace for modernisation within this period also.</li> </ul>
<i>Required maintenance</i>	Visual inspection with regular cleaning, intermittent replacement of chipped / loose tiles. Visual inspection of carpet with regular cleaning.
<i>Year</i>	Quarterly inspection and cleaning as necessary.
<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

#### 4.6.2 Tenant Amenity Areas

<i>Location</i>	Residential amenity (Gym)
<i>Description</i>	Selected timber flooring with selected underlay, weights area to receive selected raised designated zone, where the flooring can be built-up locally to accommodate this use and reduce potential impact sound with selected rubber matting or similar approved.
<i>Lifecycle</i>	Timber flooring with selected underlay has an expected life expectancy of 10-15 years dependent on use. A gym would be a high-use area which can significantly shorten timber floor lifespan.
<i>Required maintenance</i>	Sweep clean regularly ensuring to remove any dirt. Clean up spills immediately and use only recommended floor cleaners.
<i>Year</i>	Quarterly
<i>Priority</i>	Medium
<i>Selection process</i>	Appropriate use of timber floors, specifically in gym areas controls acoustic impact.
<i>Reference</i>	N/A

<i>Location</i>	Amenity rooms (Workspace / meeting rooms)
<i>Description</i>	<ul style="list-style-type: none"> <li>• Timber laminate / parquet flooring, or</li> <li>• Carpet covering</li> <li>• Provide for inset matwell</li> </ul>
<i>Lifecycle</i>	<ul style="list-style-type: none"> <li>• Laminated / parquet timber flooring has an expected life expectancy of 25-35 years dependent on use</li> <li>• 10-15 year lifespan for carpet</li> <li>• Likely requirement to replace for modernisation within this period also</li> </ul>
<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. WCs, Gym)
<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

## 4.7 Walls

### 4.7.1 Common Areas

<i>Location</i>	Entrance lobbies / Common 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

#### 4.7.2 Tenant Amenity Areas

<i>Location</i>	Residential Amenity (Gym, Meeting Rooms, workspaces)
<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. WCs, Gym)
<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

#### 4.8 Ceilings

<i>Location</i>	Common areas & tenant amenity areas
<i>Description</i>	Selected paint finish with primer to skimmed plasterboard ceiling on M/F frame. 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

<i>Location</i>	Tenant amenity wet areas (e.g. WCs, Gym)
<i>Description</i>	Selected paint finish with primer to skimmed moisture board ceiling.
<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

#### 4.9 Internal Handrails & Balustrades

<i>Location</i>	Stairs & landings
<i>Description</i>	<ul style="list-style-type: none"> <li>Proprietary glazed panel system face fixed to stairs stringer / landing slab to manufacturer's details and specifications, or</li> <li>Metal balustrade option</li> </ul>
<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

#### 4.10 Carpentry & Joinery

##### 4.10.1 Internal Doors and Frames

<i>Location</i>	All buildings
<i>Description</i>	<ul style="list-style-type: none"> <li>Selected white primed and painted/varnished solid internal doors, or hardwood veneered internal doors</li> <li>All fire rated doors and joinery items to be manufactured in accordance with B.S. 476. Timber saddle boards.</li> <li>Brushed aluminium door ironmongery or similar</li> </ul>
<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

#### 4.10.2 Skirtings & Architraves

<i>Location</i>	All buildings
<i>Description</i>	Painted timber/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

#### 4.10.3 Window Boards

<i>Location</i>	All Buildings
<i>Description</i>	Painted timber/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



05

## BUILDING SERVICES

## BUILDING SERVICES

### 5.1 Mechanical Systems

#### 5.1.1 Mechanical Plant

<i>Location</i>	Plant Rooms
<i>Description</i>	Centralised Heating Plant– Specification to be further details to be provided by the M&E Consultant at detailed design stage. Heating plant is proposed to consist of consisting of Gas fired boilers combined with/or CHP/ Air Source Heat Pumps
<i>Lifecycle</i>	<ul style="list-style-type: none"><li>• Annual Maintenance / Inspection to Heating System</li><li>• Annual Maintenance of Exhaust Air Heat Pumps</li><li>• Annual Maintenance / Inspection to Heating and Water Pumps.</li><li>• Annual Maintenance / Inspection to Water Tanks.</li><li>• Annual Maintenance / Inspection to Booster - sets.</li><li>• Annual Maintenance / Inspection to DHS Tanks.</li><li>• Annual Maintenance / Inspection of district heating system pipework, valves, accessories and insulation.</li><li>• Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.</li><li>• Replacement of equipment at (End of Life) EOL to be determined at detailed design stage.</li></ul>
<i>Required maintenance</i>	Annual Service Inspections to be included as part of Development Planned Preventative Maintenance 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 CIBSE recommended lifecycles.
<i>Reference</i>	N/A

#### 5.1.2 Soils and Wastes

<i>Location</i>	All Areas / Kitchens / Bathrooms etc
<i>Description</i>	Soils and Wastes Pipework – uPVC above basement and HDPE in basement.
<i>Lifecycle</i>	<ul style="list-style-type: none"><li>• Annual inspections required for all pipework within landlord areas.</li><li>• Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.</li></ul>
<i>Required maintenance</i>	Annual Service Inspections to be included as part of Development Planned Preventative Maintenance 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 CIBSE recommended lifecycles.
<i>Reference</i>	N/A



### 5.1.3 Water Services

<i>Location</i>	Apartments
<i>Description</i>	<p>Air Source Heat Pump (ASHP) for domestic Hot Water with Storage Cylinder Copper Water Services Pipework and associated fittings and accessories</p> <ul style="list-style-type: none"> <li>• The water services installation in the Landlord basement and core areas to be copper.</li> <li>• Within the apartments, the water services installation to be completed using a Pre-Insulated Multi Layered Alu-Plex type system.</li> </ul>
<i>Lifecycle</i>	<ul style="list-style-type: none"> <li>• Annual Inspection of ASHP and Copper Cylinder.</li> <li>• Annual inspections required for all pipework within landlord areas.</li> <li>• Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.</li> </ul>
<i>Required maintenance</i>	Annual Inspections, including legionella testing to be included as part of Development Planned Preventative Maintenance 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 CIBSE recommended lifecycles.
<i>Reference</i>	N/A

### 5.1.4 Gas Services

<i>Location</i>	Apartment Blocks Plant Rooms – Where Gas Appliances Present
<i>Description</i>	Gas Detection Systems.
<i>Lifecycle</i>	<ul style="list-style-type: none"> <li>• Annual Maintenance / Inspection Gas detection systems within landlord plant rooms.</li> <li>• Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.</li> </ul>
<i>Required maintenance</i>	Annual Service Inspections, testing and certification to be included as part of Development Planned Preventative Maintenance 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 CIBSE recommended lifecycles.
<i>Reference</i>	N/A

### 5.1.5 Ventilation Services

<i>Location</i>	Apartments
<i>Description</i>	Exhaust Air Heat Pump, Ducting & Grilles (MVHR)
<i>Lifecycle</i>	<ul style="list-style-type: none"><li>• Annual inspection of MEV and grilles</li><li>• Annual Inspection of operation of fan and boost / setback facility if provided on units.</li><li>• Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.</li></ul>
<i>Required maintenance</i>	Annual Service Inspections to be included as part of Development Planned Preventative Maintenance 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 CIBSE recommended lifecycles.
<i>Reference</i>	N/A

## 5.2 Electrical / Protective Services

### 5.2.1 Electrical Infrastructure

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

### 5.2.2 Lighting Services internal

<i>Location</i>	All Areas – Internal
<i>Description</i>	Lighting – LED throughout with Presence detection in circulation areas and locally controlled in apartments.
<i>Lifecycle</i>	<ul style="list-style-type: none"> <li>• Annual Inspection of All Luminaires</li> <li>• Quarterly Inspection of Emergency Lighting.</li> <li>• Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.</li> </ul>
<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 DAC Requirements.
<i>Reference</i>	N/A

### 5.2.3 Lighting Services External

<i>Location</i>	All Areas – Internal
<i>Description</i>	Lighting – All LED with Vandal Resistant Diffusers where exposed.
<i>Lifecycle</i>	<ul style="list-style-type: none"> <li>• Annual Inspection of All Luminaires</li> <li>• Quarterly Inspection of Emergency Lighting</li> <li>• Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.</li> </ul>
<i>Required maintenance</i>	Annual / Quarterly Inspections certification as required as per the 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 DAC Requirements.
<i>Reference</i>	N/A

#### 5.2.4 Protective Services – Fire Alarm

<i>Location</i>	All areas – Internal
<i>Description</i>	Fire alarm
<i>Lifecycle</i>	<ul style="list-style-type: none"><li>Quarterly Inspection of panels and 25% testing of devices as per IS3218:2013 + A1 2019 requirements.</li><li>Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.</li></ul>
<i>Required maintenance</i>	Annual / Quarterly Inspections certification as required as per the 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

#### 5.2.5 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

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

<i>Location</i>	Apartments only.
<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

### 5.2.7 Protective Services – Dry Risers

<i>Location</i>	Common Area Cores
<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 & BS 9999
<i>Reference</i>	N/A

### 5.2.8 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"><li>• Regular Tests of the system</li><li>• Annual inspection of Fans</li><li>• Annual inspection of automatic doors and AVOs</li><li>• All systems to be backed up by life safety systems.</li></ul>
<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 CIBSE recommended lifecycles.
<i>Reference</i>	N/A

### 6.2.8 Sources of Renewable Energy

<i>Location</i>	Roof / Boiler House
<i>Description</i>	PV / Solar Thermal Array on roof Supporting the Part L / NZEB requirements in conjunction with Centralised Boiler house and Air Source Heat Pumps / CHP. Full Details to be provided at detailed stage.
<i>Lifecycle</i>	<ul style="list-style-type: none"><li>• Quarterly Clean</li><li>• Annual Inspection</li><li>• Cost for replacement equipment to be updated on completion of design matrix of equipment at detailed design stage.</li></ul>
<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 CIBSE recommended lifecycles.
<i>Reference</i>	N/A

## 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, the future occupiers and the wider community.

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### Aramark Key Service Lines



## DOCUMENT CONTROL SHEET

<b>Client:</b>	BALARK TRADING GP LIMITED
<b>Project Title:</b>	THE TED SHD
<b>Document Title:</b>	BUILDING LIFECYCLE REPORT

Rev.	Status	Author	Reviewed By	Issue Date
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