

## **BUILDING LIFE CYCLE REPORT**

In respect of:

**Proposed Residential Development at  
The Steeples Road, Duleek, Co. Meath.**

**Prepared by:**

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On behalf of the applicant:

**Davy Target Investments ICAV**

**May 2020**

## 1.0 Introduction

This Building Life Cycle report has been prepared in support of a strategic housing development proposed by Davy Target Investments ICAV (the applicant) for a new residential development, on lands measuring approximately 4.8ha, located at a site The Steeples Road, Duleek, Co. Meath.

The application is for a development consisting of 167 no. dwellings consisting of:

- 93 no.3 & 4 bed, 2-storey detached, semi-detached & terraced houses;
- 74 no. 1, 2 & 3 bed duplex units in 5 no. 3 storey blocks.

The proposed development also provides for a 2-storey crèche (415m<sup>2</sup>), all associated site development works etc.

The Sustainable Urban Housing: Design Standards for New Apartments – Guidelines for Planning Authorities were published in March 2018 (hereafter referred to as the “Apartment Guidelines”) and they introduced a requirement to include details on the management and maintenance of apartment schemes. This is set out in Sections 6.11 to 6.14 under “*Operation & Management of Apartment Developments*”.

Specifically Section 6.13. of the Apartment Guidelines 2018 requires that applications for apartment developments 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”.*

This Building Life Cycle Report document sets out to address the requirements of Section 6.13 of the Apartment Guidelines. The report is broken into two sections as follows:

**Section A:** An assessment of long term running and maintenance costs as they would apply on a per residential unit basis at the time of application

**Section B:** Measures specifically considered by the proposer to effectively manage and reduce costs for the benefit of residents

## 2.0 Proposed Development

The permission being sought is as follows:

**Davy Target Investments ICAV, intends to apply to An Bord Pleanála for permission for a strategic housing development on a site area of 4.8ha located at The Steeples Road, Duleek, Co. Meath in the townland of Commons. To the north-west of the site is the Stoneyford Green residential estate, to the west, on the opposite side of Steeples Road, is The Steeples residential estate, with Larrix Mews to the east.**

**The proposed development will consist of 167 no. dwellings and a 2 storey creche (415sq.m). The residential dwellings will be comprised of 93 no. 2 storey houses and 74 no. duplex units & apartments accommodated in 5 no. 3 storey blocks. The proposed development consists of 8 no. 3 & 4 bed detached houses, 38 no. 3 & 4 bed semi-detached houses, 47 no. 3 & 4 bed terraced houses, and 74 no. 1 & 2 bed ground floor apartments with 3 bed duplex units overhead.**

**The proposed development provides for all associated site development works, including the provision of a roadside footpath and cyclepath along The Steeples Road, 2 no. ESB sub-stations, car parking, bin & bicycle storage, public open spaces, hard and soft landscaping, boundary treatments and public lighting. Access to the development will be via one new vehicular entrance off The Steeples Road.**

## 2.1 Design Concept

The proposed development responds to its context by creating a strong street edge with new buildings along The Steeples Road and by providing units with back gardens along all sensitive boundaries within the site. The heart of the scheme is a central parkland with housing and three storey duplex units overlooking it to provide active surveillance.

The development is divided into four character areas each with a distinct architectural quality. These areas define a series of recognizable neighbourhoods within the overall development which assist in wayfinding and create a sense of place in each instance.

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### Character Areas 1 and 2 -The Steeples Road and the entrance to the development

Along the Steeples road a new street edge is formed with two storey housing units overlooking the roadway. The main access point to the development is located within this street elevation and is defined by dual fronted corner units overlooking a landscaped strip either side of the entrance roadway.

The north western portion of the street elevation forms Character Area 1. The primary material along this street elevation will be a cream coloured buff brick with small areas of self coloured render over doorways for interest and visual variation. Gable pitch roofs are introduced along the elevation in pairs and at the ends of terraces to break the eaves line and provide visual interest.

Character Area 2 encompasses the southern end of the Steeples road, the units at the entrance to the development and street No. 1. The primary material here will be a red coloured brick and the street elevations of all buildings are brick clad. In addition, the location of entrance doors and certain opes on the elevations will be defined and enhanced by the addition of light coloured render surrounds.

### Character Area 3 - Duplex blocks, (Road no. 2)

As all edges of the development have two storey buildings, to tie into and complement the established pattern and character of existing, neighbouring residential development, a conscious decision has been made to increase the density and height of the proposed development by the addition of three storey apartment / duplex blocks bounded by Roads 1 and 2. Approximately half of the duplex units will overlook the central park. These blocks include ground floor, own door, 1 and 2 bedroom apartment units with two storey, 3 bedroom duplex units overhead. The upper level unit will have own door access from an external stair on the street in front of the units. Both upper and lower level units have private balcony spaces to the rear. The landscaped open space between the duplex blocks will be secured as communal amenity space for the benefit of all of these units. Covered / secure bicycle storage structures will also be located at either end of this communal space.

Character Area 3 includes the duplex blocks and the houses on the western side of Road no. 2. The character of the area is defined by the palette of grey coloured brick and contrasting self coloured render that makes up the street elevations. End units are set back from adjoining units to break up the continuity of the terraces and key corner units incorporate side windows or side entrances to provide passive surveillance of adjoining space in a dual frontage format. The two storey houses in this area use a grey coloured self finished render in place of grey brick to provide further variation and visual interest.

### Character Area 4 - Central Park Area

The heart of the development is the central park which will include a playground and extensive landscaping. This space will become the focus of the development and an important amenity for the local residents and the residents of the surrounding area.

Terraces of two storey houses are arranged overlooking this space to provide active supervision and to define its edges. These in turn allow the rear gardens of the units to back onto and secure a number of existing properties along the site boundary. The western edge of the park will be overlooked by the duplex units of Character Area 3. The central park will also include an east - west pedestrian route through the development with pedestrian steps and ramp at the eastern most corner of the site providing potential access to the adjoining lane, Larrix Mews.

Character Area 4 includes the central park and the units along the south east and north east boundaries on Roads 3, 4 and 5. The area is defined by the use of a vibrant, light coloured brick with a red tone and areas of self-finished render. Key pairs of houses with brick elevations are located at the end of a street elevation or interspersed along the length of a street. The bright brick colour will act as a counterpoint to the predominantly rendered elevations of the other units on each street. Corner and end of street units have been designed with side windows or side entrances to provide passive surveillance of adjoining spaces.

## Creche

A 415 m<sup>2</sup> creche building for c. 450 children is proposed at a central location within the development overlooking the central park and in close proximity to the site entrance. The building will be located at the western end of the street elevation overlooking road 4 and as such will utilize the Character Area 4 palette of materials. The creche will include a secure external play space and dedicated parking / set down spaces. It will serve the needs of the development and potentially the wider community.

### **3.0 Section A**

#### **An Assessment of Long Term Running and Maintenance Costs as they would Apply on a Per Residential Unit Basis at the Time of Application**

#### **Property Management Company and Owner's Management Company (OMC)**

##### **3.1 Property Management of the Common Areas of the development**

A property management company will be engaged at an early stage of the development to ensure that all property management functions are dealt with for the development and that running and maintenance costs of the common areas of the development are kept within the annual operational budget.

The property management company will enter into a contract directly with the OMC for the ongoing management of the built development. It is intended that this is a contract for a maximum of 3 years and in the form prescribed by the PSRA.

The property management will also have the following responsibilities for the apartment development once completed:

- Timely formation of an Owner's Management Company (OMC) which will be a company limited by guarantee having no share capital. All future purchasers will be obliged to become members of this OMC.
- Preparation of annual service charge budget for the development common areas.
- Fair and equitable apportionment of the annual operational charges in line with the MUD Act.
- Estate management.
- Third Party Contractors procurement and management.
- OMC Reporting.
- Accounting Services.
- Corporate Services.
- Insurance Management.
- After Hours Services.
- Staff Administration.

### 3.2.1 Service Charge Budget

The property management company has a number of key responsibilities most notably, the compiling of the service charge budget for the development for agreement with the OMC.

The service charge budget covers items such as cleaning, landscaping, refuse management, utility bills, insurance, maintenance of mechanical/ electrical lifts/ life safety systems, security, property management fee etc., to the development common areas in accordance with the Multi Unit Developments Act 2011 ("MUD" Act).

This service charge budget also includes an allowance for a sinking fund and this allowance is determined following the review of the Building Investment Fund (BIF) report prepared by for the OMC. The BIF report once adopted by the OMC, determines an adequate estimated annual cost provision requirement based on the needs of the development over a 30-year cycle period. The BIF report will identify those works which are necessary to maintain, repair, and enhance the premises over the 30-year life cycle period, as required by the Multi Unit Development Act 2011.

In line with the requirements of the MUD Act the members of the OMC will determine and agree each year at a General Meeting of the members, the contribution to be made to the Sinking Fund, having regard to the BIF report produced.

Notwithstanding the above, it should be noted that the detail associated with each element heading, i.e. specification and estimate of the costs to maintain / repair or replace, can only be determined after detailed design and the procurement / construction of the development and therefore has not been included in this document.

## Section B

### Measures specifically considered by the proposer to effectively manage and reduce the costs for the benefit of residents

#### 4.1 Energy and Carbon Emissions

The following are an illustration of the energy measured that are planned for the units to assist in reducing costs for the occupants:

Measure	Description	Benefit
<b>BER Certificates</b>	A Building Energy Rating (BER) Certificate will be provided for each dwelling in the proposed development which will provide detail of the energy performance of the dwellings. A BER is calculated through energy use for space and hot water heating, ventilation, lighting and occupancy. A Nearly Zero-Energy Building (NZEB) rating will be achieved in accordance with Part L 2019 (Housing) and Part L 2020 (Other than Housing) which set building fabric and energy performance requirements.	Higher BER ratings reduce energy consumption and running costs
<b>Fabric Energy Efficiency</b>	<p>The U Values being investigated will be in line with the requirements set out by the current regulatory requirements of Technical Guidance Document Part L, "Conservation of Fuel and Energy Buildings other than dwellings".</p> <p>Thermal bridging at junctions between construction elements and at other locations will be minimised in accordance with Appendix D within the Technical Guidance Documents Part L. See below Table 1 of Part L, Building Regulations.</p> <p>All windows shall be triple glazed windows with a combined thermal transmittance not greater than 1.0W/m<sup>2</sup>K. All windows shall comply with BS EN ISO 10077-1: 2006 - 'Thermal performance of windows, doors and shutters. Calculation of thermal transmittance'. Building fabric will include insulation levels, sufficient to meet the Part L 2019 U-values.</p>	Lower U-values and improved air tightness is being considered to help minimize heat losses through the building fabric, lower energy consumption and thus minimize carbon emissions to the environment.
<b>Energy Labelled White Goods</b>	<p>Should the applicant provide a white goods package for the apartments, they will be A rated appliances to achieve a high energy efficiency rating.</p> <p>The white good package planned for provision in the apartments will be of a very high standard and have a high energy efficiency rating. It is expected that the below appliance ratings will be provided:</p>	The provision of high rated appliances in turn reduces the amount of electricity required for occupants.

	<ul style="list-style-type: none"> <li>• Oven - A plus</li> <li>• Fridge Freezer - A plus</li> <li>• Dishwasher - AAA</li> <li>• Washer/Dryer – B</li> </ul>	
<b>External lighting</b>	<p>The proposed lighting scheme within the development consists of 6/8m pole mounted fittings as indicated on the drawings. The luminaires selected is from VeeLite Lighting, range chosen for the following reasons:</p> <ul style="list-style-type: none"> <li>▪ Low Level lighting</li> <li>▪ Minimal upward light spill</li> <li>▪ Low voltage LED lamps</li> <li>▪ Prep to be approved by Meath County Council</li> </ul>	<p>The site lighting has been designed to provide a safe environment for pedestrians, cyclists and moving vehicles, to deter anti-social behaviour and to limit the environmental impact of artificial lighting on existing fauna and flora in the area.</p> <p>Having PECU allows for the optimum operation of lighting which minimises costs.</p>
<b>Exhaust Air Heat Pumps</b>	<p>The thermal energy is extracted from the exhaust air and transferred to the supply air, space heating and domestic hot water systems.</p>	<ul style="list-style-type: none"> <li>▪ Reduced carbon emissions</li> <li>▪ Low fuel costs</li> <li>▪ No external condensing unit required</li> <li>▪ No fossil fuel requirement</li> </ul>
<b>Air Source Heat Pumps</b>	<p>The thermal energy from the outside air is absorbed and transferred to the space heating and domestic hot water generation systems. This is included in the design put forward for permission.</p>	<ul style="list-style-type: none"> <li>▪ Reduced carbon emissions</li> <li>▪ Low fuel costs</li> <li>▪ No fossil fuel requirement</li> </ul>

The following are low energy technologies that are being considered for the development and during the design stage of the development the specific combination from the list below will be decided upon and then implemented to achieve an NZEB rating:

Measure	Description	Benefit
<b>Condensing boilers</b>	Condensing boilers are being investigated as they have a higher operating efficiency, typically over 90% than standard boilers and have the benefit of lower fuel consumption resulting from the higher operating efficiencies.	<p>Higher BER ratings reduce energy consumption and running costs</p> <p>Condensing boilers use the heat losses from the boiler flue to preheat the circulating heating water</p> <p>By preheating the heating water, the boiler can achieve efficiencies in excess of 90%</p>
<b>Natural Ventilation</b>	Natural ventilation is being evaluated as a ventilation strategy to minimize energy usage and noise levels	<p>The main advantages of natural ventilation are-</p> <ul style="list-style-type: none"> <li>• Low noise impact for occupants and adjacent units</li> <li>• Completely passive therefore no energy required.</li> <li>• Minimal maintenance required.</li> <li>• Reduced environmental impact as minimal equipment disposal over life cycle.</li> <li>• Full fresh air resulting in healthier indoor environment</li> </ul>
<b>Mechanical Ventilation Heat Recovery</b>	Mechanical heat recovery ventilation is not considered for the project.	Mechanical Heat Recovery Ventilation provides ventilation with low energy usage. The MVHR reduces overall energy and ensures a continuous fresh air supply.
<b>PV Solar Panels</b>	<p>PV solar panels are being considered which converts the electricity produced by the PV system (which is DC) into AC electricity.</p> <p>The panels are typically placed on the south facing side of the building for maximum heat gain and in some instances, can also be used to assist the heating system.</p>	PV solar panels offer the benefit of reducing fossil fuel consumption and carbon emissions to the environment. They also reduce the overall requirement to purchase electricity from the grid.
<b>Combined Heat and Power</b>	Combined heat and power (CHP) is not suitable for this type of development	N/A

<b>ECAR charging points</b>	Charging shall be provided from a local landlord distribution board to designated E-car charging car parking spaces. This will enable the management company the option to install a number of E-car charging points within the surface car parking spaces to cater for E-car demand of the residences. This system operates on a single charge point access card. A full re-charge can take from one to eight hours using a standard charge point.	Providing the option of E-car charging points will allow occupants to avail of the ever improving efficient electric car technologies.
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## 4.2 Materials

The practical implementation of the Design and Material principles has informed design of the building facades, internal layouts and detailing of the proposed apartment buildings.

### 4.2.1 Buildings

Apartment buildings are designed in accordance with the Building Regulations, in particular Part D “Materials and Workmanship”, which includes all elements of the construction. The design principles and specification are applied to both the apartment units and the common parts of the building and specific measures taken include:

<b>Measure Description</b>	<b>Benefit</b>
Daylighting and openable windows to areas of regular use and circulation	Avoids the requirement for continuous artificial lighting
Natural/Passive ventilation system to and openable windows to areas of regular use and circulation	Avoids costly mechanical ventilation systems and associated maintenance and future replacement
<p>External paved and landscaped areas</p> <p>Traditional pitched roofs with concrete roof tiles are proposed to the housing &amp; duplex units.</p>	<p>All of these require low/minimal maintenance</p> <p>All of these require low/minimal maintenance.</p>

## 4.2.2 Material Specification

Implementation of the Design and Material principles to the design of the building envelope, internal layouts, facades and detailing has informed the materiality of the proposed development.

The proposed envelope of the building is a mix of brick and durable render finish, with high-performance double-glazed aluminium windows. Based on comparison with similar schemes developed, the proposed materials are considered durable and would not require regular replacement or maintenance.

Measure Description	Benefit
<p>Consideration is given to the requirements of the building regulations and includes reference to BS 7543:2015, "Guide to Durability of Buildings and Building Elements, Products and Components", which provides guidance on the durability, design life and predicted service life of buildings and their parts.</p> <p>All common areas of the scheme, and their durability and performance are designed and specified in accordance with Figure 4: Phases of Life Cycle BS 7543:2015. The common parts are designed to incorporate the guidance, best practice, principles and mitigations of Annexes of BS 7543:2015 including:</p> <p>Annex A- Climatic Agents affecting durability Annex B- Guidance on materials and durability Annex C- Design Life data sheets</p>	<p>Ensures that the long term durability and maintenance of materials is an integral part of the design and specification of the proposed development.</p>
<p>Use of brickwork and pigmented render systems to envelope</p>	<p>Requires minimal maintenance and does not require regular replacement</p>
<p>Factory finished and aluminum (or similar) windows and doors and powder coated steel balconies</p>	<p>Requires minimal maintenance and does not require regular replacement</p>

Measure	Description	Benefit
<p><b>BER Certificates</b></p>	<p>A Building Energy Rating (BER) Certificate will be provided for each dwelling in the proposed development which will provide detail of the energy performance of the dwellings. A BER is calculated through energy use for space and hot water heating, ventilation, lighting and occupancy. It is proposed to achieve NZEB rating in accordance with current standards/guidance.</p>	<p>Higher BER ratings reduce energy consumption and running costs</p>

### 4.3 Landscaping

Element	Measure Description	Benefit
<b>Paving Materials</b>	<p>Use of robust materials with high slip resistance to be used for paving. Durable and robust equipment (e.g. play, exercise, fencing etc.) to be used throughout.</p> <p>High quality landscaping both hard surface (for the cycle /car parking and pavements) and soft landscaping with planting and trees. The landscaping will be fully compliant with the requirements for Part M / K of the Technical Guidance Documents and will provide level access and crossings for wheelchair users and pedestrians with limited mobility.</p> <p>Designated car parking including accessible &amp; visitor car parking reduces the travel distances for visitors with reduced mobility.</p>	<p>Required ongoing maintenance significantly reduced through use of robust materials installed with proven details.</p> <p>Plenty of room for cycles and pedestrians along with car spaces provide a good balance between pedestrians and car users.</p> <p>Wheelchair user-friendly</p>
<b>Planting Details</b>	<p>Proven trees staking details. Shrub, hedging, herbaceous and lawn installation planting details provided.</p>	<p>Correctly installed planting will develop into well established and robust soft landscape reducing future maintenance.</p>
<b>Balcony &amp; Decking Materials</b>	<p>Use of robust high-quality materials and detailing to be durable for bikes, play, etc.</p>	<p>Ensures the longevity</p>
<b>Materials</b>	<p>Sustainable, robust materials, with high slip resistance to be used for paving. Durable and robust equipment (e.g. play, exercise, fencing etc.) to be used throughout.</p>	<p>Robust materials and elements reduce the frequency of required repair and maintenance</p>
<b>Site Layout and Design</b>	<p>Generous and high quality mature landscaping, with ecological corridors prioritizing pedestrians and landscape over the car- increase in soft landscaping. Significant tree planting and soft landscaping within public spaces.</p>	<p>Natural attenuation and landscape maintenance preferable.</p>

#### 4.4 Waste Management

Measure	Description	Benefit
<b>Construction and Operational Waste Management Plan</b>	The application is accompanied by a Construction and Operational Waste Management Plan	The report demonstrates how the scheme complies with best practice.
<b>Storage of Non-Recyclable Waste and Recyclable Household Waste</b>	Domestic waste management strategy: Grey, brown and green bin distinction  Competitive tender for waste management Collection	Helps reduce potential waste charges
<b>Composting</b>	Organic waste bins to be provided throughout	Helps reduce potential waste charges

#### 4.5 Human Health and Wellbeing

Measure	Description	Benefit
<b>Natural / day light</b>	The design, separation distances and layout of the apartment blocks have been designed to optimise the ingress of natural daylight/ sunlight to the proposed dwellings to provide good levels of natural light	Reduces reliance on artificial lighting, thereby reducing costs
<b>Accessibility</b>	All units will comply with the requirements of Building Regulations, Technical Guidance Documents Parts K and M	Reduces the level of adaptation, and associated costs potentially necessitated by residents' future circumstances.
<b>Security</b>	The scheme is designed to incorporate passive surveillance with the following security strategies likely to be adopted: <ul style="list-style-type: none"> <li>▪ CCTV monitoring details</li> <li>▪ Secure bicycle stands</li> <li>▪ Overlooked communal open space</li> </ul>	Helps to reduce potential security/ management cost
<b>Natural Amenity</b>	Large public park located in the centre of the development. Pocket parks and existing trees and hedgerows. Connections to local amenities such as District Park and Fortunestown Centre.	Facilitates community interaction, socialising and play- resulting in improved well being

## 4.6 Management

Consideration has been given to ensuring that homeowners have a clear understanding of their property:

Measure	Description	Benefit
<b>Home User Guide</b>	<p>Once a purchaser completes their sale, a homeowner box will be provided which will include:</p> <p>Homeowner Manual - This will provide important information for the purchaser on details of the property. Typically it includes details of the property such as MPRN and GPRN information in relation to connection with utilities and communication providers. Contact details for all relevant suppliers and user instructions for appliances and devices in the property.</p> <p>Residents' Pack - prepared by the OMC which will typically provide information on contact details for the managing agent, emergency contact information, transport links in the area and a clear set of rules and regulations</p>	Residents are as informed as possible so that any issues can be addressed in a timely and efficient manner.

## 4.7 Transport

Measure	Description	Benefit
<b>Permeable Connections</b>	The development facilitates potential future interconnections by pedestrian and cycling routes to adjoining lands / environs.	Ensures the long term attractiveness of walking and cycling to a range of local education, retail and community facilities and services.
<b>Bicycle Storage</b>	Secure high quality secure bicycle parking both for short and longer term parking requirements.	Accommodates the uptake of cycling and reducing the reliance on the private motor vehicle.
<b>ECAR facilities</b>	Ducting provided from a local landlord distribution board to designated e-car charging car spaces.	To accommodate the growing demand for e-cars which assist in decarbonising society and reducing oil dependency.

## Appendix A

Figure 1- TGD Part L 2019, Table 1

<b>Table 1 Maximum elemental U-value (W/m<sup>2</sup>K)<sup>1, 2</sup></b>		
<b>Column 1 Fabric Elements</b>	<b>Column 2 Area-weighted Average Elemental U-value (Um)</b>	<b>Column 3 Average Elemental U-value – individual element or section of element</b>
Roofs		
Pitched roof		
- Insulation at ceiling	0.16	0.3
- Insulation on slope	0.16	
Flat roof	0.20	
Walls	0.18	0.6
Ground floors <sup>3</sup>	0.18	0.6
Other exposed floors	0.18	0.6
External doors, windows and rooflights	1.4 <sup>4,5</sup>	3.0
<p><b>Notes:</b></p> <ol style="list-style-type: none"> <li>1. The U-value includes the effect of unheated voids or other spaces.</li> <li>2. For alternative method of showing compliance see paragraph 1.3.2.3.</li> <li>3. For insulation of ground floors and exposed floors incorporating underfloor heating, see paragraph 1.3.2.2.</li> <li>4. Windows, doors and rooflights should have a maximum U-value of 1.4 W/m<sup>2</sup>K.</li> <li>5. The NSAI Window Energy Performance Scheme (WEPS) provides a rating for windows combining heat loss and solar transmittance. The solar transmittance value <math>g_{perp}</math> measures the solar energy through the window.</li> </ol>		

## Appendix B

### ITEMS INCLUDED IN A TYPICAL BIF

The BIF table below illustrates what would be incorporated for the calculation of a Sinking Fund.

BUILDING INVESTMENT FUND (SINKING FUND) CALCULATIONS			
Ref	Element	Life Expectancy	Amount
1.00	Roofs		
1.02	Replacement parapet details	20	
1.03	Replacement/ repairs to facias	20	
1.04	Replace roof access hatches	25	
1.05	Specialist Roof Systems - Fall arrest	25	
2.00	Elevations		
2.02	Minor repairs and preparation for decorations of rendered areas	15	
2.03	Replace exit/ entrance doors	25	
2.04	Replace Rainwater goods	25	
2.05	Recoat powder coated Finishes to balconies / Grills to Basement vents	20	
2.07	Replace Balcony floor finishes	25	
	Creche		
3.00	Stair cores & lobbies		
3.01	Decorate Ceilings	7	

3.02	Decorate Walls	7	
3.03	Decorate Joinery	7	
3.04	Replace fire doors	25	
3.05	Replace carpets (stairwells & lobbies)	12	
3.06	Replace entrance mats	10	
3.07	Replace nosing's	12	
3.08	Replace ceramic floors tiles Entrance lobbies	20	
3.09	Fixed Furniture & Equipment - Provisional Sum	18	
4.00	Shared surface Car & Bike Parking		
4.01	Remove/ Replace ceiling insulation	25	
4.02	Repaint parking spaces & Numbering	7	
4.03	Replace store doors, ironmongery & digi-locks to bike parking	15	
4.04	Replace Bike stands to bike parking	25	
4.05	Replace basement access control at entrance & core entrances	12	
5.00	M&E Services		
5.01	General - Internal re-lamping	7	
5.02	Replace Internal light fittings	18	
5.03	Replace External light fittings (lights at entrance lobbies)	18	
5.04	Replace smoke detector heads	18	
5.05	Replace manual break glass units/ disabled refuge call points	18	
5.06	Replace Fire alarm panel	18	
5.07	Replace lift car and controls	25	
5.08	Replace AOV's	25	
5.08	Replace security access control installation	15	
5.09	Sump pumps replacement	15	
5.10	External Mains Water connection	20	
5.12	Electrical Mains and Sub Mains distribution	20	

5.13	Emergency Lighting	20	
5.14	Overhaul and/or replace Waste Pipes, Stacks & Vents	20	
6.00	Exterior		
6.01	External boundary treatments - Recoat powder coated Finishes to railings	60	
6.02	Replace external signage	18	
6.03	Replace cobblelock areas	18	
6.04	15-year cutback & thinning of trees. Overhaul landscaping generally	20	
6.05	Replace CCTV provision	12	
6.06	External Handrails and balustrade	18	

# Appendix C

## Phases of the Life Cycle of BS7543; 2015

Figure 4 Phases of the life cycle

