

BUILDING LIFE CYCLE REPORT



Residential Development

At

Moygaddy Castle, Moygaddy

Maynooth,

Co. Meath.

For

Sky Castle Ltd.

Moygaddy Castle, Maynooth, Co. Meath

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Sky Castle Ltd.

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INTRODUCTION

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). The Apartment Guidelines introduced a requirement to include details on the management and maintenance of apartment schemes. This is set out in Section 6.11 to 6.14 - “*Operation & Management of Apartment Developments*”, specifically Section 6.13.

Section 6.13 of the Apartment Guidelines 2018 requires that apartment applications shall:

“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”

“demonstrate 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 01:

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 02:

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

PROPOSED DEVELOPMENT

Planning Permission is sought by Sky Castle Ltd. for the development of a site which extends to 19.52 hectares gross site area in the townland of Moygaddy, Maynooth Environs, Co. Meath. The net developable area equates to 7.89 hectares which equates to a residential density of 45.6 units per hectare.

The proposed development will consist of the following:

1. Construction of 360 no. residential units comprising:
 - i. 196 no houses (including 19 no. 2 beds, 156 no. 3 beds and 21 no. 4 beds).
 - ii. 102 no. duplexes (including 51 no. 1 beds and 51 no. 2 beds) set out in 6 no. blocks.
 - iii. 62 no. apartments (including 26 no. 1 beds and 36 no. 2 beds) set out in 2 no. blocks.
2. Provision of a public park and playground with associated 42 no. car parking spaces adjacent to Moygaddy Castle and pedestrian and cyclist links along the River Rye. The overall public open space (including the High Amenity Lands) equates to 7.98 hectares.
3. Provision of private open spaces in the form of balconies and terraces is provided to all individual apartments and duplexes to all elevations.
4. Development of a two-storey creche facility (514 sqm), outdoor play area and associated parking of 29 no. spaces.
5. Provision of a single storey Scout Den facility, including a hall, kitchen, meeting room and ancillary facilities (220sqm) and associated parking of 6 no. spaces.
6. Provision of 4 no. bridge structures comprising:
 - i. an integral single span bridge at Moyglare Hall over the River Rye Water to connect with existing road infrastructure in County Kildare and associated floodplain works and embankments.
 - ii. a new pedestrian and cyclist bridge at Kildare Bridge which will link the proposed site with the existing road network in County Kildare.
 - iii. a new pedestrian and cycle bridge across Blackhall Little Stream (also known as the Moyglare Stream) on the L2214-3 adjacent to the existing unnamed bridge.
 - iv. a new pedestrian and cycle bridge over the Blackhall Little Stream (also known as the Moyglare Stream) linking the proposed residential site with the proposed Childcare Facility, Scout Den and Moygaddy Castle Public Park.
7. Provision of 500m of distributor road comprising of 7.0m carriageway with turning lane where required, footpaths, cycle tracks and grass verges. All associated utilities and public lighting including storm water drainage with SuDS treatment and attenuation.
8. Proposed road improvement and realignment works including:
 - i. realignment of a section of the existing L6219 local road, which will entail the demolition of an existing section of the road which extends to circa 2,500 sqm.
 - ii. Provision of pedestrian and cycle improvement measures along the L6219 and L2214-3 which abuts the boundary of Moygaddy House which is a Protected Structure (RPS ref 91558).
 - iii. Provision of pedestrian and cycle improvement measures along the R157 which abuts the Carton Demense Wall which is a Protected Structure (RPS Ref 91556).

9. Provision of 2 no. vehicular and pedestrian accesses from the L6219 local road, 1 no. vehicular and pedestrian entrance from the L2214-3 and an additional vehicular and pedestrian access from the R157 to the Childcare and Scout Den facilities.
10. The proposed development will provide 283 no. of bicycle parking spaces, of which 200 no. are long term spaces in secure bicycle stores and 83 no. are short term visitor bicycle parking spaces. 12 no. bicycle spaces are provided for the creche and 12 no. bicycle spaces are provided for the Scout Den.
11. A total of 667 no. car parking spaces are provided on site located at surface level. The car parking provision includes 10 no. Electric Vehicle charging and Universally Accessible spaces allocated for the Apartment & Duplex units. All Houses will be constructed with provision for EV Charging.
12. Provision of site landscaping, public lighting, bin stores, 3 no. ESB unit substations, site services and all associated site development works.
13. A Natura Impact Statement (NIS) and Environmental Impact Assessment Report (EIAR) has been included with this application.

SECTION 01

AN ASSESSMENT OF LONG-TERM RUNNING AND MAINTENANCE COSTS AS THEY WOULD APPLY ON A PER RESIDENTIAL UNIT BASIS AT THE TIME OF APPLICATION

1.1. 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 the running and maintenance costs of the common areas of the development are kept within the agreed annual operational budget.

The property management company will enter into a contract directly with the Owners Management Company (OMC) for the ongoing management of the built development. This contract will be for a maximum period of 15 years and in the form prescribed by the PSRA.

The Property Management Company also has the following responsibilities for the apartment development once constructed:

- Timely formation of an Owners 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 Multi Units Development Act 2011 (MUD Act).
- Engagement of independent legal representation on behalf of the OMC in keeping with the MUD Act - including completion of Developer OMC Agreement and transfer of common areas.
- Transfer of documentation in line with Schedule 3 of the MUD Act.
- Estate Management.
- Third Party Contractors Procurement and management.
- OMC Reporting.
- Accounting Services.
- Corporate Services.
- Insurance Management.
- After Hours Services.
- Staff Administration.

1.2. Service Charge Budget

The property management company has a number of key responsibilities, primarily 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., related 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 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.

A sample format of the typical BIF report is set out in Appendix A.

Note: 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 02

MEASURES SPECIFICALLY CONSIDERED BY THE PROPOSER TO EFFECTIVELY MANAGE AND REDUCE COSTS FOR THE BENEFIT OF RESIDENTS.

2.1. Energy and Carbon Emissions

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

Measure	Description	Benefit																														
BER Certificates	<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 target an A2/A3 rating for the apartments this will equate to the following emissions.</p> <p>A2 – 25-50 kwh/m2/yr with CO2 emissions circa 10kgCO2/m2 year A3 – 51-75 kwh/m2/yr with CO2 emissions circa 12kgCO2/m2 /year</p>	Higher BER ratings reduce energy consumption and running costs.																														
Fabric Energy Efficiency	<p>Building Fabric Performance</p> <p>The U-values being investigated will be in line with the requirements set out by the current regulatory requirements of the Technical Guidance Documents Part L “Conservation of Fuel and Energy Buildings other than Dwellings”.</p> <p>Thermal Bridging</p> <p>Thermal bridging at junctions between construction elements and at other locations will be minimised in accordance with Paragraphs 1.2.4.2 and 1.2.4.3 within the Technical Guidance Documents Part L.</p> <p>See below Table 1 of Part L, Building Regulations.</p> <p>Air Tightness</p> <p>In order to ensure that a sufficient level of air tightness is achieved, air permeability testing will be specified carried out on all dwellings. A design air permeability target of 2 m3/m2/hr has been identified for the apartments and houses on the site.</p>	<p>Table 1 Maximum elemental U-value (W/m²K)^{1, 2}</p> <table border="1"> <thead> <tr> <th>Column 1 Fabric Elements</th> <th>Column 2 Area-weighted Average Elemental U-value (Um)</th> <th>Column 3 Average Elemental U-value – individual element or section of element</th> </tr> </thead> <tbody> <tr> <td>Roofs</td> <td></td> <td></td> </tr> <tr> <td>Pitched roof</td> <td></td> <td></td> </tr> <tr> <td>- Insulation at ceiling</td> <td>0.16</td> <td rowspan="2">0.3</td> </tr> <tr> <td>- Insulation on slope</td> <td>0.16</td> </tr> <tr> <td>Flat roof</td> <td>0.20</td> <td></td> </tr> <tr> <td>Walls</td> <td>0.18</td> <td>0.6</td> </tr> <tr> <td>Ground floors³</td> <td>0.18</td> <td>0.6</td> </tr> <tr> <td>Other exposed floors</td> <td>0.18</td> <td>0.6</td> </tr> <tr> <td>External doors, windows and rooflights</td> <td>1.4^{4,5}</td> <td>3.0</td> </tr> </tbody> </table> <p>Notes: 1. The U-value includes the effect of unheated voids or other spaces. 2. For alternative method of showing compliance see paragraph 1.3.2.3. 3. For insulation of ground floors and exposed floors incorporating underfloor heating, see paragraph 1.3.2.2. 4. Windows, doors and rooflights should have a maximum U-value of 1.4 W/m²K 5. The NSAI Window Energy Performance Scheme (WEPS) provides a rating for windows combining heat loss and solar transmittance. The solar transmittance value g_{wp} measures the solar energy through the window.</p>	Column 1 Fabric Elements	Column 2 Area-weighted Average Elemental U-value (Um)	Column 3 Average Elemental U-value – individual element or section of element	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 ³	0.18	0.6	Other exposed floors	0.18	0.6	External doors, windows and rooflights	1.4 ^{4,5}	3.0	Lower U-values and improved air tightness is being considered to help minimise heat losses through the building fabric, lower of energy consumption and thus minimize carbon emissions to the environment.
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Energy Labelled White Goods	<p>The white good package (where provided) 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> <ul style="list-style-type: none"> • Oven - A plus • Fridge Freezer - A plus 	The provision of high rated appliances in turn reduces the amount of electricity required for occupants.																														

Measure	Description	Benefit
	<ul style="list-style-type: none"> Dishwasher - AAA Washer/Dryer - B 	
Internal Common Areas & External Lighting	Low energy luminaires and automatic controls such as motion sensors are to be provided for electric lighting to maximize efficiency in use. LED lamps will be preferred as far as is practical. Lighting will be provided to ensure a safe environment for pedestrians, cyclists and moving vehicles, to deter anti-social behavior and to limit the environmental impact of artificial lighting on existing flora and fauna in the area.	Low energy lamps and automatic controls improve energy efficiency. Adequate lighting levels ensure safe environments.

The following are **Low energy technologies** that are being considered during the design stage for the development to meet the requirements of Part L of the Building Regulations and the Nearly Zero Energy Building (NZEB) standard. The specific combination from the list below will be decided on and then implemented to achieve the A2/A3 BER Rating.

Measure	Description	Benefit
Air Source Heat Pump (Houses & Duplex)	As part of the overall energy strategy for houses, the use of Air Source Heat Pumps will be assessed to determine their technical and commercial feasibility. These systems extract heat energy from the outside air and, using a refrigerant cycle, raise the temperature of the heat energy using a refrigerant vapour compression cycle.	Air source heat pumps use electrical energy from the grid to drive the refrigerant cycle but do so extremely efficiently. Modern heat pumps will typically provide 4 to 5 times more heat energy to the dwelling than the electrical energy they consume.
Electric Radiators (Apartments)	Electric radiators will be provided in all rooms. Each room will be controlled via individual thermostats with smart control.	Electric radiators use energy in a highly efficient manner, providing greater control when space heating. There is also less risk of damage to the property due to burst pipes or leaks as a result.
Demand control ventilation (Houses & Duplex)	Demand control ventilation will be the dwellings ventilation strategy. Habitable rooms will have a humidity-controlled wall inlet supplying fresh air and a centralised extract fan will extract the stale/unwanted air from the wetrooms and kitchens. The wetrooms and kitchens extraction will be controlled via presence and humidity detection.	Demand control ventilation ensures quality indoor ventilation whilst helping to save energy and reduce costs. Sensors continuously measure and monitor indoor air quality, providing information to a controller which in turn adjusts the rate of ventilation according to demand.
Mechanical Ventilation Heat Recovery (Apartments)	Centralised mechanical ventilation will be provided to all apartments to ensure that the air quality within the dwellings will be adequate. The inclusion of Heat Recovery Ventilation into the centralised ventilation system will be considered and assessed to minimise the energy usage within the dwelling.	Mechanical Heat Recovery Ventilation provides ventilation with low energy usage. The MVHR reduces overall energy and ensures a continuous fresh clean air supply in modern air tight dwellings, which are otherwise designed to minimise unwanted air infiltration.
Air Source Heat Pump (Apartment Hot Water Services)	As part of the overall energy strategy for the apartments hot water services, the use of Air Source Heat Pumps will be assessed to determine their technical and commercial feasibility. The hot water heat pump uses an integrated high	Air source heat pumps use electrical energy from the grid to drive the refrigerant cycle but do so extremely efficiently. Modern heat pumps will typically provide 4 to 5 times more

Measure	Description	Benefit
	<p>performance compressor to extract energy for hot water production from the external air using insulated duct work. Using up to three times less electricity than direct acting water heaters, it provides an energy efficient hot water solution for smaller, electrically heated properties such as apartments.</p>	<p>heat energy to the dwelling than the electrical energy they consume.</p>
PV Solar Panels	<p>PV Solar Panels will be considered in order to meet the renewable energy contribution required by Part L of the Building Regulations. These panels convert sunlight into electricity which can be used within the dwelling.</p> <p>The panels are typically placed on the South facing side of the building to maximise the solar exposure.</p>	<p>PV Solar Panels offer the benefit of reducing fossil fuel consumption and carbon emissions to the environment.</p> <p>They also reduce the overall requirement to purchase electricity from the grid.</p>
E-car Charging Points	<p>Ducting and on street infrastructure shall be provided from a local landlord distribution board to parking spaces at a rate of 5% of total space numbers for Apartments & Duplex units. This will enable the management company the option to install a number of E-car charging points to cater for E-car demand of the residence in on-street parking spaces.</p> <p>Ducting and on street infrastructure will also be considered for the housing development to provide EV charging facilities in on-street parking spaces. 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.</p> <p>Furthermore, all houses with on-curtilage parking will be provided with an EV charger connection point located in the external ESB box unit to allow future installation of specific EV charger by the homeowner.</p>	<p>Providing the option of E-car charging points will allow occupants to avail of the ever-improving efficient electric car technologies.</p>

2.2. Materials

The practical implementation of the Design and Material principles has informed the design of internal layouts, detailing of the proposed apartment and duplex buildings, and building facades. The façade materials will consist of brick, render, glazing and metal cladding.

2.2.1. 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:

Measure Description	Benefit
Daylighting to staircore areas	Reduces the requirement for artificial lighting.
Natural/Passive ventilation system to circulation areas. Passive smoke shafts are proposed throughout, minimising mechanical maintenance of extract fans	Avoids costly mechanical ventilation systems and associated maintenance and future replacement.
It is proposed to naturally ventilate the carpark in order to minimize / eliminate the need for mechanical ventilation.	Avoids costly mechanical ventilation systems and associated maintenance and future replacement
External paved and landscaped areas	All of these require low/minimal maintenance
Plant is located at ground floor level for ease for access. (except for any PV/solar panels which may be located on the roof)	Allows for easier maintenance and replacements as necessary

2.2.2. Material Specification

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>The common parts are designed to incorporate the guidance, best practice principles and mitigations of Annexes of BS 7543: 2015 including:</p> <ul style="list-style-type: none"> • Annex A Climatic Agents affecting Durability • Annex B Guidance on materials and durability • Annex C Examples of UK material or component failures • Annex D Design Life Data sheets 	Ensures that the long-term durability and maintenance of Materials is an integral part of the Design and Specification of the proposed development.
The architectural approach to the scheme proposes the use of brickwork, rendered panels, and profiled metal cladding to the building envelope.	Requires minimal on-going maintenance.
Use of factory finished aluminium or uPVC windows and doors, and galvanized powder coated steel balconies, handrails and balustrades	Requires minimal on-going maintenance.

2.3. Landscape

Measure	Description	Benefit
Site Layout and Design	Generous and high-quality landscaping will be provided with ecological corridors designed within the proposed development. The development will have a particular focus on pedestrian priority over the use of the car. Significant tree planting and soft landscaping within courtyards and public	SUDs drainage system and landscape maintenance preferable. Attenuation reduces the burden on vulnerable rainwater goods, resulting in fewer elements that could require replacement or

	spaces. All houses within the development will be provided with permeable paving to on-curtilage parking areas. Use of traditional roof coverings with robust and proven detailing to roof elements.	repair.
Hard Landscaping Materials	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.	Robust materials and elements reduce the frequency of required repair and maintenance.
Soft Landscaping	A selection including native trees and planting is proposed for the development. Hard and soft landscaped areas are balanced to ensure a quality public environment.	High quality soft landscaping improves the general quality of the environment for residents.

2.4. Waste Management

The following measures illustrate the intentions for the management of Waste.

Measure	Description	Benefit
Construction and Operational Waste Management Plan	The application is accompanied by a Construction and Operational Waste Management Plan prepared by the applicant.	The report demonstrates how the scheme has been designed to comply with best practice.
Storage of Non-Recyclable Waste and Recyclable Household Waste	Residential bin storage rooms will be provided at ground level adjacent each residential block.	Easily accessible by all residents and minimises potential littering of the scheme
	Domestic waste management strategy: <ul style="list-style-type: none"> • Grey, Brown and Green bin distinction. • Competitive tender for waste management collection. 	Helps reduce potential waste charges.
Composting	Organic waste bins to be provided throughout.	Helps reduce potential waste charges.

2.5. Health & Well Being

The following are illustrations of how the health and well-being of future residents are considered.

Measure	Description	Benefit
Natural / Day Light	The buildings have been favorably orientated. The design, separation distances and layout of the apartment blocks have been designed to optimize 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.
Accessibility	All units will comply with the requirements of Part M/K and a universal access statement is provided within the design statement of this submission.	Reduces the level of adaptation, and associated costs, potentially necessitated by residents' future circumstances.

Measure	Description	Benefit
Security	<p>The scheme is designed to incorporate passive surveillance with the following security strategies likely to be adopted:</p> <ul style="list-style-type: none"> • CCTV monitoring details • Secure bicycle stands • Routine access fob audits 	Help to reduce potential security/management costs.
Natural Amenity	<p>Public open space is provided in 6 no. pocket parks within the residential site, evenly distributed throughout where they can be overlooked by surrounding residential units.</p> <p>The extensive high amenity lands located to the south and east of the site provide additional Public Open Space for the benefit of the development and surrounding areas connecting across the River Rye and Blackhall Little stream to a new Public Park and Playground at Moygaddy Castle. This will enhance the development further and help to create strong links between the new residential development and existing wider community.</p>	Facilitates community interaction, socialising and play – resulting in improved wellbeing.

2.6. Management

Consideration has been given to ensuring the homeowners have a clear understanding of their property.

Measure	Description	Benefit
Home User Guide	<p>Once a purchaser completes their sale, a homeowner box will be provided which will include:</p> <ul style="list-style-type: none"> • Homeowner manual – this will provide important information for the purchaser on details of their new property. It typically includes details of the property such as MPRN and GPRN, Information in relation to connect with utilities and communication providers, Contact details for all relevant suppliers and User Instructions for appliances and devices in the property. • A 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. 	Residents are as informed as possible so that any issues can be addressed in a timely and efficient manner.

2.7. Transport

Measure	Measure Description	Benefit
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Access to Public Transport	Details of the provision of a new bus stop for the MOOR were discussed with Meath County Council and are subject to future agreement.	The availability, proximity and ease of access to high quality public transport services contributes to reducing the reliance on the private motor vehicle for all journey types.
Permeable Connections	Provision and subsequent maintenance of dedicated pedestrian and cycle infrastructure along the L6219 and proposed MOOR. Shared pedestrian and cycle paths along the high amenity lands as part of the river walk strategy on the River Rye and Blackhall Little stream, providing convenient access to surrounding areas.	Ensure the long-term attractiveness of walking and cycling to a range of local education, retail and community facilities and services.
Bicycle Storage	The provision of high-quality secure bicycle parking facilities externally for both short term and long-term parking requirements.	Accommodates the uptake of cycling and reducing the reliance on the private motor vehicle.
Motorcycle Parking	The implementation of secure, attractive, best practice motorcycle parking facilities for residents.	Reduces the reliance on the private motor vehicle in parallel with reducing oil dependency.
E-car Facilities	Ducting will be provided from a local landlord distribution board to designated E-car charging car park spaces.	To accommodate the growing demand for E-car which assist in decarbonising society and reducing oil dependency.

APPENDIX A:

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		
1.01	Replacement felt roof covering incl. insulation to main roofs/ overhaul to green roofs.	18	
1.02	Replacement parapet details	18	
1.03	Replacement/ repairs to fascias	18	
1.04	Replace roof access hatches / roof lights	25	
1.05	Specialist Roof Systems - Fall arrest	25	
1.06	Overhaul waterproofing details to terraces / balconies	12	
2.00	Elevations		

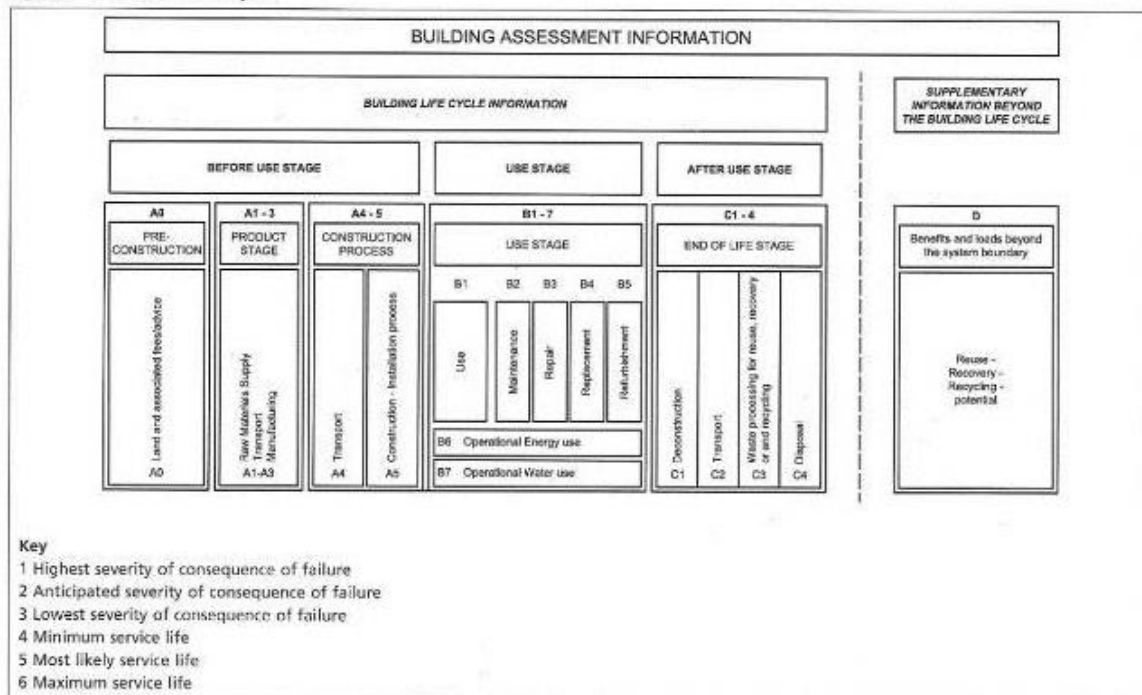
2.01	Recoat metal panels to apartments & duplex units	25	
2.02	Minor repairs and preparation for decorations of rendered areas	18	
2.03	Replace exit/ entrance doors	25	
2.04	Replace Rainwater goods	25	
2.05	Recoat powder coated Finishes to balconies	20	
2.06	Periodic replacement and overhauling of external fixings	5	
2.07	Replace Balcony floor finishes	25	
3.00	Stair cores & Lobbies (2 No. Cores)		
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 floor tiles Entrance Lobbies	20	
3.09	Fixed Furniture & Equipment - Provisional Sum	18	
4.00	Car Parking		
4.01	Repaint parking spaces & Numbering	7	
4.02	Replace Bike stands	25	
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 cobble-lock areas	18	
6.04	15-year overhaul of soft landscaping generally	15	
6.05	Replace CCTV provision	12	
5.06	External Handrails and balustrade	18	

APPENDIX B:

Phases of the Life Cycle of BS7543; 2015

Figure 4 Phases of the life cycle



Key

- 1 Highest severity of consequence of failure
- 2 Anticipated severity of consequence of failure
- 3 Lowest severity of consequence of failure
- 4 Minimum service life
- 5 Most likely service life
- 6 Maximum service life