



Building Life Cycle Report

**Clonburris Adamstown Extension
Area, Lucan, Co Dublin**

Planning Submission February 2023

sdcconsulting.ie



SCD Consulting
Engineering & Management

Report: **Buliding Life Cycle Plan**

Project: Proposed Residential (Housing) Development at
Clonburrish Adamstown Extension Area

Client: Clear Real Estate Holdings Ltd.

Project No: 100-52

Date: **February 2023 – Planning Submission**

© scd consulting



Disclaimer

SCD Consulting shall not be responsible for the use of this report or its content for any purposes other than that for which it is intended

This report should not be relied upon by any third party and SCD Consulting take no professional liability or warranty for its use by third parties

The work contained within this document remains the intellectual property of SCD Consulting and shall not be reproduced without the written consent of SCD Consulting

February 2023

Contents

1.0 Introduction

- 1.1 General
- 1.2 Proposed Development
- 1.3 Relevant Guidelines and Standards

2.0 Assessment of Long-Term Maintenance and Running Expenses

- 2.1 Property Management of the common areas of the Development
- 2.2 Common Area Description & Requirements
- 2.3 Service Charge Scheme & Details

3.0 Measures considered to mitigate and reduce on-going costs of the development

- 3.1 Energy and Carbon Emissions
- 3.2 Materials & Building
- 3.3 Health and Well-Being
- 3.4 Landscaping
- 3.5 Waste Management
- 3.6 Management
- 3.7 Transport

4.0 Appendices

- APPENDIX A – Sample Service Charge Annual Budget
- APPENDIX B – Sample Asset Register
- APPENDIX C – Phases of Life Cycle Diagram

Contact Information: -

SCD Consulting
 12 Fortfield Grove
 Terenure
 Dublin 6w
 D6W E221

Tel No. 01-4907967

Email: info@scdconsulting.ie

Document Information: -

Proposed Residential Duplex Apartment Units & Apartment
 Block Clonburriss Adamstown Extension Area
 Lucan,
 Co. Dublin

Project No: - 100 -52

Document Title: - **Building Life Cycle & Management Report.**



General Site Plan - Development Area

Document History: -

ISSUE	DATE	DESCRIPTION	ORIG	PM	ISSUE CHECK
P	February 2023	Planning Issue	PH	SCD	-

1.0. Introduction

1.1 General

This life cycle report has been prepared on behalf of Clear Real Estate Holdings Ltd., (Client) by SCD Consulting following an instruction by Mr. Jonathan Walsh, the Client, on the 23rd November 2022 and for Stephen Little, of Stephen Little & Associates, Chartered Town Planners & Development Consultants as part of a Planning Submission.

The report demonstrates the measures which have been considered to effectively manage and reduce costs for the benefit of residents and the environment. We have included a template for an Asset Register to aid assessment of the long-term running and maintenance costs.

1.2 Proposed Development

The development proposed comprises of 385 No. units 139 No. houses, 142 No. Duplexes and 104 No. apartments in 2 No blocks ranging in height from 1 to 6 storeys. Private rear gardens are provided for all houses. Private patios/terraces and balconies are provided for all duplexes and apartments.

The development also includes a single storey tenant amenity building, areas of public open space, car and bicycle parking, bin and bicycle stores, ESB substations, demolition of remaining walls and hard-standing associated with former agricultural building and all associated and ancillary site development, infrastructural, hard and soft landscaping and boundary treatment works.

Permission is also sought for minor revisions to attenuation pond permitted under SDCC Reg. Ref SDZ20A/0021 as well as connections to water services (wastewater, surface water and water supply) and connections to permitted cycle/pedestrian paths and Link Road permitted under SDCC Reg. Ref. SDZ20A/0021 - See Figure 1 below for proposed aerial views of development.





Figure 1 Aerial views of Proposed Development

1.3 Relevant Guidelines & Standards

Section 6 of the Sustainable Urban Housing; Design Standards for New Apartments- Guidelines for Planning Authorities (2022) includes the below sections which relate to the “Apartments and the Development Management Process” and require a Building Life Cycle Report to be submitted.

Section 6.10

“Certainty regarding the long-term management and maintenance structures that are put in place for an apartment scheme is a critical aspect of this form of residential development. It is essential that robust legal and financial arrangements are provided to ensure that an apartment development is properly managed, with effective and appropriately resourced maintenance and operational regimes.”

Section 6.11

“In this regard, consideration of the long-term running costs and the eventual manner of the proposal with the Multi- Unit Developments Act, 2011 are matters which should be considered as part of any assessment of a proposed apartment development.”

Section 6.12

“Accordingly, planning applications for apartment development shall include a building life cycle report, which in turn includes an assessment of the 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 proposal to effectively manage and reduce costs for the benefit of residents”

B.S. 7543 2015 – Guide to Durability of Buildings and Building Elements, Products & Components.

As part of the compilation of this report reference is made to the above British Standard and in particular to the phases of the Building Life sequencing as indicated in Figure 4 of the code of practice (see Appendix C)

This report aims to meet the requirements of these sections of the guidelines and will consider all elements of the proposed apartment aspect of the development. The report follows the assessment methodologies set out in the relevant European and British standards and in particular conforms to current BRE and EU guidance.

2.0. Assessment of Long-Term Maintenance and Running Expense

2.1. Property Management of the Common Areas of the Development

A property management company (PMC) will be engaged at an early stage of the development to ensure that all property management functions are dealt with for the development. The PMC will establish manage the maintenance regime, establish, manage, and adjust the budget for the service charges and ensure 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. The contract will be for a maximum period of 3 years and in the format prescribed by the Property Services Regulatory Authority (PSRA).

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

- Formation of an Owners Management Company (OMC). This will be a company limited by guarantee having no share capital. All future purchasers will be obliged to become members of this OMC.
- Fair and equitable apportionment of the Annual operational charges in line with the Multi-Unit Development Act 2011 and reflecting the different needs and services provided to the varying units with the development and in this case 139 No Houses, 142 No Duplex Apartments, and an Apartment block consisting of 104 No mixed type occupancy -see development breakdown in the Burke Kennedy Doyle Architectural submission
- 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.
- Identification of services required by OMC for the benefit and enjoyment of individual properties and the estate by residents and owners.
- Preparation of annual service charge budget for the development common areas.
- Estate Management.
- Third Party Contractors Procurement and management.
- Reporting to OMC. Accounting Services. Corporate Services Insurance Management.
- Keeping proper books of account in accordance with the companies Act 2014 and the MUD Act 2011 and preparing a file for audit by the OMC accountant at year end

- Corporate Services to include convening of general meetings of members, establishing and maintaining the register of members of the OMC
- After Hours Services.
- Staff Administration.
- Estate initiatives to facilitate the future needs of unit owners and adapt with technology, that which effects the living experience of owners and changes to the built environment

2.2 Common Areas are areas including:

- The external walls, foundations and roofs and internal load-bearing walls the entrance halls, landings, staircases and passageways.
- The access roads, footpaths, kerbs, paved, planted, and landscaped areas, and other Architectural features – reference Burke Kennedy Doyle(Architects) & Brady Shipman Martin (Landscape Architects) detailed submissions
- All ducts and conduits, other than those within and serving only one unit in the development
- Cisterns, tanks, sewers, drains, pipes, wires, central heating boilers, other than such items and serving only one unit in the development
- Drainage SuDs features as detailed in Watermain Moylan submission.
- Other areas that are from time to time provided for common use

2.2.1 OMC Services and Obligations

The OMC through the offices of their Property Management Agent will provide services required to the estate and detailed in the title documents of all mixed type units. In addition to the prescribed services, the OMC is best positioned to provide additional services to improve the living experience for all residents on the estate. The appointed management agent will endeavour to introduce initiatives for approval by the OMC and its members designed to deliver a strategy of better living balanced with value for money.

The services identified for the proper maintenance and upkeep of the houses, duplex apartments & apartment block, as described in Section 1.2 of this report, at, Clonburris, Adamstown, Co. Dublin, are as follows: -

2.2.2 Insurance

All shared structures, land and property owned by the OMC and used by residents collectively must be insured against normal risks protecting shared and private property against all insurable risks. The appointed property managers will procure a comprehensive all risks property damage policy on behalf of the OMC prior to the sale of the first housing/apartment unit reflecting the full reinstatement value of the development as completed. In addition to buildings insurance the OMC will require public and employers' liability insurance, directors' and officers' liability insurance, engineering insurance for lifts (where applicable), and other mechanical installations and contents insurance for its, and common areas.

2.2.3 Life Safety Systems, Fire Prevention and Protection

The safety of residents of the development is paramount. Each house, duplex apartments and apartment building will be designed and built within strict regulatory requirements in respect of fire safety. The OMC will then have a duty of care to each resident to ensure that the building is maintained in accordance with its fire safety certificate and fire strategy.

This will involve quarterly maintenance and inspection of fire alarm, emergency lighting and ventilation systems, daily and weekly checks by on-site personnel to ensure faults and failures are identified and corrected and an ongoing understanding of the fire strategy to ensure that the integrity of the fire safety certificate is never compromised by minor alterations to the building. Residents and owners will be advised to provide fire blankets and multi-purpose fire extinguishers to their apartments on an annual basis. Relevant signage and notices will assist compliance by residents in the operation of the buildings and evacuation plans will be provided as necessary.

2.2.4 On-Site Staff and Facilities (if applicable)

As no management office is provided for in the development, contract cleaning staff will attend to internal common areas on a weekly basis with lobbies checked daily.

Landscaping contractors will attend to grounds and hard surfaces. On site staff will notify specialist contractors of maintenance issues as they arise for immediate attention. The combination of all services should ensure the enjoyment of the common areas and wider development by all residents.

2.2.5 Energy Consumption and Management

As part of the sustainability strategy for Clonburriss- Adamstown, Lucan, Co. Dublin, the development, will utilise an Exhaust/ Air Source Heat pump system (GlenDimplex or similar), services or individual gas fired boilers with solar panels, providing heat to all units on a requirement basis.

Common area lighting and power consumption will be monitored on a regular basis to strike a balance between comfort and efficiency. Consumption of individual residential unit hot water and heat will be metered and re-charged to each resident to ensuring that each resident is aware of their consumption and contributes accordingly. All plant and equipment will be maintained in accordance with manufacturer's guidance and guarantees to ensure that they are operated efficiently, and that the full life expectancy is delivered.

2.2.6 Waste Management

The strategy for domestic waste will be based upon the Operational Waste Management Plan- (see AWN Consulting submission) . The Houses, Duplex Apartments & Apartment Block Areas may have communal waste centres for all types of waste. This will enable the OMC to optimize waste segregation and encourage residents to re-cycle and segregate as much waste as possible by providing multiple receptacles on site. However, the likelihood is that the houses (own door) may utilise a 3-bin system per unit with weekly collections by an approved and licenced contractor.

The use of bin compactors will optimize the use of bins while reducing the number of bins. On site staff (if provided) will manage waste storage areas keeping them free from lingering odours and vermin and ensuring that waste management areas are not unpleasant places for residents to visit and dispose of their waste and recycling. Waste and Recycling areas will be well managed with bins clearly identified to encourage segregation and prevent contamination.

2.2.7 Maintenance

Maintenance of all plant and equipment in accordance with statute, best practice and manufacturers warranties and guidance is essential for optimizing the operation of the estate and delivering comfort to the apartment residents. Maintenance contracts will be entered into for all such facilities to include lift maintenance, (where applicable), closed circuit television systems, access control, communal ventilation etc. In addition to maintenance contracts relevant consultants will be engaged to advise on best practice for maintenance and occasional review of contractor's performance.

2.2.8 Landscaping and Grounds

The landscaping plan has been designed to provide the following:

1. Robust high slip resistance materials to be used for paving, fencing (where applicable), furniture, bin & bicycle storage units to minimise on-going maintenance inputs
2. Pedestrian and cyclist friendly hierarchy of streets and open spaces are complemented by generous and high-quality landscape treatments providing exceptional long term residential environments.
3. Sustainability elements of the proposed housing & apartment development are the use of native trees across the site, if possible. Other species have been carefully selected for compatibility, with the size of available spaces considered, as this is an important factor in the long-term management of the overall development.
The overall objective is to enhance the biodiversity potential of the development in addition to providing seasonal interest and variety.
4. Maintenance and management requirements have been considered through the design process by Burke Kennedy Doyle (BKD) & Brady Shipman Martin (BSM). Complex planting arrangements have been omitted thus avoiding onerous maintenance and management requirements.

2.3 Service Charge Scheme

2.3.1 The preparation of a Service Charge Budget is a key function of the OMC and agent as it determines the services and service levels deliverable to the residents and OMC members for the coming year. The budget covers all items in connection to the maintenance, management, insurance, repair, upkeep, cleaning of common areas and equipment in accordance with the Multi Unit Developments Act 2011 ("MUD" Act). A sample common area annual budget is shown in Appendix A which is itemised per residential unit as per the requirements of the compliance condition.

The Service Charge Budget will also detail different cost centres to reflect the enjoyment and consumption of services by different property types within the estate. This will enable the OMC to recover the costs from unit owners in an equitable and transparent manner. The service charge budget will be prepared on a “normal year, basis ignoring warranties and guarantees available in the first year to establish a realistic service charge budget that should not vary greatly within the first three years of establishment. The budget will include a reasonable reserve fund, separate to the sinking fund, to provide for unforeseen expenditure and enable the OMC to equalise its costs year to year without fluctuating the contributions from unit owners.

The Service Charge Budget will be agreed in the first year in advance of the first unit being sold in consultation between the developer and the property management agent. Following the sale of the first unit and prior to the levying of any further service charge, the budget will be presented to the membership for approval at a general meeting of owners.

A service charge budget should also include an allowance for a Sinking Fund and a Reserve Fund. (see Appendix A)

2.3.2 Sinking fund

A fund formed by periodically setting aside money for the replacement of a wasting asset (for example, major items of plant and equipment, such as heating and air-conditioning plant, etc.). It is usually intended that a sinking fund will be set up and collected over the whole life of the wasting asset.

2.3.3 Reserve fund

A fund formed to meet the anticipated future costs of maintenance and upkeep in order to avoid fluctuations, or an anticipated large, one-off increase in the amount of service charge payable each year (for example, regularly recurring items such as external cleaning and redecorations).

The allowance for the sinking fund and reserve fund within the service charge budget is determined by establishing the Asset Register (see Appendix B). The Asset Register 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 and the costs required to achieve it. The Asset Register will form part of the initial report for the OMC.

2.3.4 Optimising Maintenance and Life Cycle

The design of the building and its facilities in Clonburris-Adamstown Extension Area development by Burke Kennedy Doyle, incorporates various measures to maximise the useful life of assets, plant and equipment focusing on the living experience for all residents. Operational management of the various facilities will include monitoring of performance and continuous re-assessment to ensure that each assets life cycle is maximized. Monitoring run times, energy consumption and reactive maintenance patterns will influence the life cycle strategy of the building. The Sinking Fund strategy is a living document that is subject to change through the experience of use trends within the estate and monitoring technological advances and adopting same when it is economically viable.

A sample format of the typical Asset Report is set out in Appendix B.

Please Note: The sample Asset Report is based on an estimation of the types of assets that will ultimately be incorporated into the developed scheme. The final specification and estimate of the costs to maintain, repair or replace, will only be determined after detailed design and the procurement and construction of the development as concluded.

2.3.5 OMC Structure

As stated previously, an OMC needs to be established as the OMC for Development Area 8 duplex apartments & apartment block development. The company will be limited by guarantee with membership restricted to unit owners within the estate. Voting is on the basis of membership with each unit having a single vote. Directors will be elected by the unit owners at the first General Meeting of owners. No director will hold office for longer than three years without seeking re-election at a General Meeting of owners. The OMC will engage a firm of Chartered Accountants to Audit its accounts each year.

2.3.6 Service Charges

The company must establish a scheme for annual service charges to pay for the maintenance, insurance and repair of common areas within its control and for the provision of common services to unit owners.

The initial charge will be set in consultation with the developer prior to the sale of the first unit. Subsequent service charge budgets will be approved by a general meeting of the members. The Service Charge Budget for the coming year will be prepared and distributed with explanations prior to a general meeting of owners convened to approve the budget. The budget is approved once it is not objected to by over 75% of members present and eligible to vote otherwise the existing charge must remain in place.

The service charge may not be used to pay for matters that are the responsibility of a developer or builder unless this is agreed in writing by 75% of the members of the company. This approval may only be given if 65% of the units are sold and can only come into effect 3 years after the transfer of ownership of the common areas to the owners' management company.

Unit owners are obliged to pay the service charge (including developers in the case of unsold units). The service charge must be calculated on a transparent and fair basis and expenditure must be properly recorded.

2.3.7 Service Charge Apportionment

The property management agent will review the development to determine the most equitable and transparent manner of apportionment of service charges. The apportionment will determine the contribution each unit owner makes to the OMC costs as detailed in the Service Charge Budget and which cost centres each unit will contribute towards.

The fair and equitable apportionment of service charges will assist in the perpetual collection of service charges and ensure that each unit owner contributes to those services that they enjoy or consume.

The apportionment methodology will also apply to the Building Investment Fund costs and annual contribution to the Sinking Fund.

2.3.8 OMC Annual General Meeting & Annual Report

The OMC will be established prior to the first unit being sold and will be required to hold Annual General Meetings before the development stage is completed. The OMC will convene the Annual General Meeting inviting all registered owners at that time.

The property management agent will prepare an Annual Report on behalf of the OMC in accordance with the MUD Act together with audited accounts and prepare a service charge budget for presentation to the owners for approval. The Annual Report will contain all details required under the MUD Act to include a summary of fire safety processes in place, insurance details and information regarding the level of sinking fund etc. The Annual Report and Proposed Budget will be distributed to unit owners not less than 10 days in advance of the meeting and notice will be issued with accounts 21 days in advance of the meeting.

2.3.9 House Rules

The property management agent will prepare House Rules prior to the sale of the first unit having regard for, the title documents and the physical nature of the development with a view to the quiet enjoyment of the estate by all unit owners. The House Rules will be distributed as part of the Owners Management Information Booklet prior to sale to the purchaser's solicitor an immediately after sale directly to the new owner. House Rules can be amended at General Meetings thereafter to reflect the views of the owners and the needs of the estate.

2.3.10 Owners Management Information Booklet

The property management agent will prepare an Owners Management Information Booklet that will contain details on the OMC, service charge budget, apportionment, House Rules and other useful information regarding the operation of the OMC and services provided.

2.3.11 Establishment of the Sinking fund

Within 3 years of the transfer of ownership to it, the owners' management company must establish a sinking fund for spending on refurbishment, improvement, or maintenance of a non-recurring nature of the multi-unit development. Unit owners are obliged to make contributions to it (including developers in the case of unsold units). The Act provides that the amount is to be €200 annually or such other amount as the members agree.

Contributions to the sinking fund must be held in a separate account

3.0. Measures Considered to mitigate and Reduce On-Going Costs of the Development (Reference Waterman Moylan (WM) Energy Statement)

3.1 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, and lighting and occupancy. It is proposed to target an A2/A3 rating for the apartments in accordance with the requirements of Part L of the Building Regulations Nov,2019, this will equate to the following emissions.</p> <p>A2 – 25-50 kwh/m2/yr with CO2 emissions circa 10kg CO2/m2 year</p>	Higher BER ratings reduce energy consumption and running costs.
Fabric Energy Efficiency	<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”. Thermal bridging at junctions between construction elements will be minimized in accordance Paragraphs 1.2.4.2 and 1.2.4.3 within the Technical Guidance Documents Part L. Details will be in accordance with the ACD’s or will be modeled for thermal bridging analysis.</p>	Lower U-values and improved air tightness will help minimise heat losses through the building fabric, lower the energy consumption and minimise carbon emissions to the environment.
Energy Labelled White Goods	<p>The white goods package planned for 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 • Dishwasher- AAA • Washer/Dryer- B 	The provision of high rated appliances reduces the amount of electricity required by occupants.

Exhaust Air Pumps (GlenDimplex or similar)	<p>Exhaust Air heat pumps (EAHP's) or Air Source Heat Pumps (ASHP's) operate in a very similar manner to air source heat pumps and utilize grid supplied electricity to extract thermal energy from a heat source. In the case of Clonburris-Adamstown Extension Area development, this will be from the internal air within the houses, duplex apartments & apartment block units.</p> <p>The internal air is extracted from the kitchens and wet area rooms and is drawn into a heat pump via ductwork in the ceiling voids. The heat pump extracts heat from this air before expelling it from the housing units.</p>	<p>Unit based plant is best suited to developments of 50 units plus, with higher cost effectiveness due to economies of scale</p> <p>Other benefits include;</p> <p>There is no requirement for separate Mechanical Extract Ventilation (MEV) systems when an exhaust air heat pump is used as the heat pump draws the air from all wet rooms in a similar manner to an MEV system would. The fan will run continuously to ensure that the minimum ventilation rates are maintained and supply air to the apartment is provided through trickle vents in each habitable room</p>
Water Metering & Pressure Boosting Strategy	<p>All duplex apartment units & block apartments will be provided with a boosted mains supply. Mains Format 30 tanks provided for in the Plant room designated for the duplex houses/ apartments which act as both the mains water break tanks and cold-water storage.</p> <p>Pressure pumps will be provided adjacent to tank/tanks to provide sufficient pressure to feed all floors of the duplex apartment & block apartments.</p> <p>A bulk meter will be provided on each of the mains water feeds to the storage tank/tanks. Houses will be provided with standard water tanks and IW recommended approved meters</p>	<p>The storage volume of the tanks will be designed to provide 24 hour storage (Irish Water requirement).</p> <p>Provision for future meter installations will be made in the pipework with meter manifolds being installed at each level in the common area staircase within a service riser.</p>

External Lighting

The proposed lighting scheme within the development consists of 8m and 6m pole mounted fittings as indicated on the drawings. The luminaire specified is an LED pole mounted luminaire with NEMA socket and photocell, this fitting was selected for the following reasons;

- Low Level Lighting
- Minimal upward light spill
- Low voltage LED lamps

Each light fitting shall be controlled via an individual Photoelectric Control Unit (PECU). The operation of the lighting shall be on a dusk-dawn profile.

The site lighting has been designed to provide 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.

Having PECU allows for the optimum operation of lighting which minimizes costs

Refer to Waterman Moylan & Sabre Lighting material specification submitted with this Planning Application

Internal Communal Lighting

Common area lighting is designed to enhance interior spaces and provide a comfortable and safe environment for residents. Internal light fittings will be standardized as much as possible to reduce obsolescence and the use of high-quality LED fittings will reduce replacement and deliver lower running costs.

An intelligent lighting control system will ensure that areas enjoying natural light or lower usage will only illuminate when required.

Stairwells enjoying natural light will be photocell enabled illuminating at dusk and remaining lit through darkness to provide place making lighting for the comfort and wayfinding of residents.

Standardisation of light fittings in Clonburris-Adamstown Extension Area using high-quality LED fittings will reduce replacement activities.

Low energy LED light fittings and a lighting control system will result in lower running costs.

The site lighting for Clonburris-Adamstown overall development 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 flora and fauna in the area.

Electric Car Charging Points

The development will include e-car charging points within the resident's carpark to cater for E-car demand of the residence. A full re-charge can take from 1 to 8 hours using a standard charge point.

Providing e-car charging points will allow occupants of Clonburris-Adamstown Extension Area development, to benefit from the ever-improving efficient electric car technologies.

3.2 Materials & Buildings – Ref BKD Specification

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:

<u>Item</u>	<u>Details</u>	<u>Benefits</u>
Long Term Maintenance and Service Life	<p>Consideration in the selection of materials 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’, (see Appendix C) which provides guidance on the durability, design life and predicted service life of buildings and their parts.</p> <p>Particular attention has been paid to the materials used in those parts of the public realm and building facades in order to complement the surrounding area, Clonburris- Adamstown Extension Area and areas/streets beyond.</p>	<p>The long-term durability and maintenance of materials is an integral part of the design and specification of Clonburris- Adamstown housing, duplex apartments & apartment block development.</p> <p>All common parts of the proposed building and, the durability and performance of these are designed and specified to optimise their life expectancy and enhance the living experience of all residents</p>
Cladding	<p>The façades are a combination of natural brick and self-coloured rendered blockwork cladding. By having two contrasting materials, the form of the building is broken down into two separate elements, presenting a high-quality finish.</p> <p>Both products are robust with low maintenance and a low risk of damage as well as a life expectancy of over 50 years. At the lower levels robust cladding shall be used around the street realm to ensure a quality treatment to the visited areas, with good detailing ensuring minimal staining on façades.</p>	<p>The selected cladding façade options for Clonburris-Adamstown Extension Area housing, duplex apartments & apartment block development, designed by BKD have a long-life expectancy and require medium-low / minimal maintenance.</p>
Windows & Curtain Walling	<p>Clonburris-Adamstown development will have high performance double/ triple glazed thermally broken windows. The windows will achieve the best ‘U’ value with high quality glazing ensuring good transparency and solar energy transmittance with optimal acoustic attenuation.</p>	<p>The choice of windows for Clonburris-Adamstown Extension Area development, will require low / minimal maintenance as well as manage heat gain and external noise and reduce condensation to glazing and frames.</p>

<p>Hard Landscaping</p>	<p>The new street realm will be landscaped with high quality materials that are robust with high slip resistance.</p> <p>All materials will be designed to a high standard, will be robust and withstand a long-life.</p> <p>Shared surface areas will clearly identify priority to pedestrians and cyclists and deliver clear traffic calming measures.</p> <p>Furniture and equipment (e.g. play, exercise, fencing etc.), will be durable and robust with multifunctional uses.</p>	<p>The use of robust high-quality paving materials at Clonburris-Adamstown Extension Area designed by Brady Shipman Martin, is intended to provides materials that reduce the need for ongoing maintenance costs.</p> <p>Other materials such as for play, seating, fencing etc. are sustainable and robust material types that are designed to reduce the frequency and need for repair and maintenance over time at the Clonburris-Adamstown proposed development.</p>
<p>Soft Landscaping (Reference BSM Drawings & Specifications)</p>	<p>Clonburris- Adamstown area currently enjoys a tranquil setting and undeveloped lands. Planting and a park including lake will be delivered to enhance the tranquil atmosphere and provide pleasant walks for all residents.</p>	<p>Adapting the existing landscape of Clonburris -Adamstown, to incorporate new housing, duplex apartments and apartments block units while retaining and creating pedestrian and shared access is a positive feature that will add significantly to the living experience for all residents.</p> <p>Management of green spaces and planting will feature strongly in the landscaping management regime, and this will further enhance the living experience for residents in providing interesting walks and tranquil surroundings for their use.</p>

3.3 Health and Well-Being

The table below outlines measures related to health and well-being that have been incorporated into the Clonburris – Adamstown Extension Area development, to manage and reduce the long-term costs for residents and enhance the overall living experience.

Health can cover physical, mental, emotional and social health factors. Wellbeing is strongly linked to happiness and life satisfaction.

Item	Details	Benefits
Activity & Usability Areas	<p>There are noted activity areas provided in Clonburris-Adamstown development, to include:</p> <ul style="list-style-type: none"> • Residents’ children’s playground as part of the estate; • Outdoor living and dining areas; • Outdoor barbecue area; • Seating areas of varying sizes for groups of people, around the planted spaces. • Landscaped walks through the estate and connecting to adjacent lands 	<p>The range of activity and usability areas incorporated into the internal and external common areas to Clonburris-Adamstown Extension Area development, promoting the health & well-being of residents.</p>
Personal Health & Fitness	<p>Active travel encouraged as part of the MMP enables people to enjoy health benefits as part of their daily routine. Choosing a sustainable travel mode can reduce the stress associated with commuting, bringing benefits to health, mood and job.</p> <p>Walking is of course free of charge and delivers additional health benefits and cycling can be undertaken at a very modest cost in comparison with car ownership.</p>	<p>The measures implemented within the Mobility Management Plan will raise awareness and support residents of the overall, Clonburris/Adamstown development to become more active and through this to be healthier, fitter and more productive by encouraging physical exercise as part of residents’ day-to-day travel behaviour.</p> <p>There are also added financial benefits to using sustainable modes of transport as opposed to private car trips.</p>
Environmental Benefits	<p>Climate change is one of the most significant challenges facing the world today. If unaddressed, it has the potential for far reaching economic and societal impacts both locally and internationally.</p> <p>Globally, transport is the fastest growing source of greenhouse gas emissions, particularly carbon dioxide.</p>	<p>Changes to reduce greenhouse gas emissions at a local level, like the Clonburris-Adamstown development, can combine to have a real impact on overall emissions to benefit the health of residents</p>

Welcome Travel Pack

The Welcome Travel Pack will include a variety of sustainable transport information, including:

- Information on the health benefits of walking and cycling;
- Advice on ways to reduce the need to travel and details of club cars and shared bicycle schemes in the area
- Details of the benefits of journey sharing, such as reduced congestion, better air quality, reduction in traffic noise and cost savings to the individuals taking part; and
- Provide information on the financial and environmental costs associated with driving.

The implementation of the Welcome Travel Pack for the overall Clonburris-Adamstown development will highlight many of the measures in the proposed development to encourage residents to travel sustainably

Walking

The proposed development will have multiple access points to integrate into the local area, making use of the existing pedestrian links together with public transport opportunities. Several locations such as supermarkets, schools, cinemas, public transport stations and multiple shops and restaurants are easily accessible by good quality footways. It is expected that the surrounding network of pedestrian infrastructure is suitable to accommodate additional trips on-foot generated by the proposed development. The proximity of overall Clonburris & Adamstown development to the local public amenity areas offers amenities to residents of the estate.

Walking is of course free of charge and is the most sustainable form of travel and improves the health of individuals.

Cycling

The proposed development is well situated with regards to cycling facilities with cycle lanes, on and off-road routes and cycle parking racks located within the vicinity of the development. High quality and aesthetically pleasing secure bicycle storage will be provided for all residents to encourage bicycle use and discourage the transportation of bicycles through internal common areas. Ample visitor bicycle storage will be provided.

Cycling can be undertaken at a very modest cost in comparison with car ownership. Secure visitor bicycle storage will encourage visitors to travel by bicycle.

Open Space

The open space will enjoy a good level of natural surveillance from the apartment to the houses so that users of the open space will feel comfortable and safe.

By creating a strong relationship between the private and public space at Clonburris-Adamstown Extension Area development, residents will be encouraged to feel a strong sense of ownership over the public realm. This will serve to reinforce the safety and security of the public realm by ensuring that anti-social behaviour will not go unchallenged.

3.4 Landscaping

Measure Description	Benefit
<ul style="list-style-type: none"> Reference Section 2.2.8. of this report 	<ul style="list-style-type: none"> Requires no on-going maintenance. Requires no on-going maintenance.

3.5 Waste Management

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

Measure	Description	Benefit
Construction Waste Management Plan	A construction management and plan will be completed prior to commencement on site. The management plan will cover waste management, licensing etc.	The report will ensure that the construction phase will be managed to comply with best practice.
Operational Waste Management Plan	Operational waste has been reviewed by the appointed design team. All bin storage is on grade, with communal bin stores for the Multi-Unit buildings.	The report will ensure that the operational waste can be managed in an efficient and cost-effective manner.
Storage of Non-Recyclable Waste and Recyclable Household Waste	Domestic waste management strategy: <ul style="list-style-type: none"> Grey, Brown, Green and glass bin distinction Competitive tender for waste management collection Weekly collection of all communal waste bins Well lit, clean, ventilated communal bin stores with guidance regarding recycling and waste area usage 	Encourages the proper segregation of waste, achieving economies of scale and educating residents on recycling and composting
Comping	Organic waste bins to be provided throughout.	Helps reduce potential waste charges.



3.6 Management

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

Measure	Description	Benefit
HousesDuplex Apartments/ Apartment Block User Guide	<p>Once a purchaser completes their sale, a homeowner file will be provided which will include:</p> <p>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 Meter Point Reference Number (MPRN) and Gas Point Reference Number (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. The manual will also contain details in respect of the owner’s management company and service charge budget for the first year.</p> <p>A Residents Pack prepared by the OMC which will typically provide information on contact details for the Managing agent, emergency contact information, transport links, operational details, communal facilities and a clear set of rules and regulations.</p>	<p>Residents and owners are instructed from the outset as to the optimum function of their own property and the wider functions and facilities of the OMC to encourage the enjoyment of the estate and its features.</p>

3.7 Transport

Measure	Measure Description	Benefit
Access to Public Transport (Bus & Luas Services)	<p>A total of three Dublin Bus services service Clonburris/Adamstown including two Nitelink services.</p> <p>Aircoach serves Dublin Airport and a frequent train service operates from Heuston Station to Adamstown within close proximity to the subject site.</p> <p>As part of the transport strategy for Clonburris it is intended to run trains on the Kildare line into Grand Canal Dock via Connolly, Tara & Pearse Street stations to the Phoenix Park Tunnel Line.</p>	<p>The proximity, frequency and range of destinations served by these transport services enhance the accessibility levels of the proposed residential development in addition to providing a viable and practical sustainable alternative to journeys undertaken by private motor car.</p>
Permeable Connections	<p>Provision and subsequent maintenance of dedicated pedestrian and cycle infrastructure onsite, and their connectivity with adjoining third-party lands and the off-site networks.</p>	<p>Ensure the long-term attractiveness of walking and cycling to a range of local education, retail and community facilities and services.</p>
Bicycle Storage	<p>The provision of high-quality secure bicycle parking facilities, for both short term and long-term parking requirement</p>	<p>Accommodates the uptake of cycling and reducing the reliance on the private motor vehicle.</p>
Motorcycle Parking	<p>The implementation of secure, attractive, best practice motorcycle parking facilities for residents.</p>	<p>Reduces the reliance on the private motor vehicle in parallel with reducing oil dependency</p>

4.0. Appendices

Appendix A

(Sample Annual Service Charge Budget)

**Development at Clonburris, Adamstown, Co. Dublin
385 No Dwelling Units - Common Area**

**Annual Service Budget Estimate
For the year ending 31st December 2023**

A.N. Other Property Management

	Costs			Per unit Gross Budget 31/12/2023
	Net Budget 31/12/2023	Vat 31/12/2023	Gross Budget 31/12/2023	
UTILITIES				
1 Electricity - Common Area	100,745	13,601	114,346	297
2 Telephone (Lift Emergency)-Apartments only	0	0	0	0
SOFT SERVICES				
3 Cleaning & Environmental incl Foul Drainage System	13,908	1,877	15,785	41
4 Security Emergency call outs(if required)	3,443	792	4,235	11
6 General Landscaping	28,170	6,479	34,649	90
7 Waste Management - General Litter picking	6,573	1,512	8,085	21
8 Pest Control	3,756	864	4,620	12
HARD SERVICES				
9 General Maintenance	14,400	3,312	17,712	46
10 Mechanical & Electrical Maintenance	10,642	2,448	13,090	34
11 Drainage Systems incl equipment	12,500	1,688	14,188	37
12 Fire & Life Safety Systems - Hydrant clean etc	9,700	2,231	11,931	31
INSURANCES				
13 Insurances cost	103,180	0	103,180	268
MANAGEMENT COSTS				
14 Management Fees	17,500	4,025	21,525	56
15 Annual Audit Fees	10,000	2,300	12,300	32
16 Health, Safety & Environmental Audits	20,650	4,750	25,400	66
Grand Total Residential Dwellings (385 No Units)	355,167	45,877	401,044	1042
17 Sinking Fund	77,000	0	77,000	200
Grand Total 385 Dwellings	432,167	45,877	478,044	1,242

Appendix B

(Sample Asset Register)

ASSET REGISTER Clonburriss-Adamstown Extension Area Development			
Ref	Element	Life Expectancy	Yearly estimate of costs year 1 to year 30
1.00	Roof		
1.01	Pitched Roof, finishes along with with insulation – manufacturers guarantee	40	
1.02	Replacement parapet details	20	
1.03	Replace roof access hatches	25	
1.04	Specialist Roof Systems- Fall arrest	25	
2.00	Elevations		
2.01	Decorate rendered panels to apartments	18	
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 (if in managed areas)	20	
2.06	Periodic replacement and overhauling of external fixings	5	
2.07	Replace Balcony floor finishes(if part of management areas)	25	
2.08	Paint external rendered elevations	3	
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	20	
3.09	Fixed Furniture & Equipment- Provisional Sum	18	
4.00	M&E Services		
4.01	General- Internal re-lamping	7	
4.02	Replace Internal light fittings	18	
4.03	Replace External light fittings (lights at entrance lobbies)	18	
4.04	Replace smoke detector heads	18	
4.05	Replace manual break glass units	18	
4.06	Replace Fire alarm panel	18	

4.07	Replace lift car and controls	25	
4.08	Replace AOV's	25	
4.09	Replace security access control installation	15	
4.10	Sump pumps replacement	15	
4.11	External Mains Water connection	20	
4.12	Electrical Mains and Sub Mains distribution	20	
4.13	Emergency Lighting	20	
5.00	Exterior		
5.01	Entrance Gate - motor renewal	12	
5.02	Entrance Gate & pedestrian gate - redecoration	60	
5.03	External boundary treatments - Recoat powder coated Finishes to railings	60	
5.04	Replace cobble lock areas	18	
5.05	15-year cutback & thinning of trees. Overhaul landscaping generally	15	
5.06	Replace CCTV provision	12	
5.07	External Handrails and balustrade	18	
6.0	Management & Security Office (if provided)		
6.01	Decorate Ceilings	7	
6.02	Decorate Walls	7	
6.03	Decorate Joinery	7	
6.04	Replace fire doors	25	
6.05	Replace carpets and acoustic floor coverings	12	
6.06	Replace tiled floors and walls	15	
6.07	Changing rooms, washrooms and showers	15	
6.08	Fixed Furniture & Equipment- Provisional Sum	18	
6.09	Management Office Desks and Chairs	10	
6.10	Management Office IT	5	
6.11	Intruder Alarms	15	

Appendix C

(Sample Asset Register)

APPENDIX D – PHASES OF THE LIFE CYCLE BS7543:2015

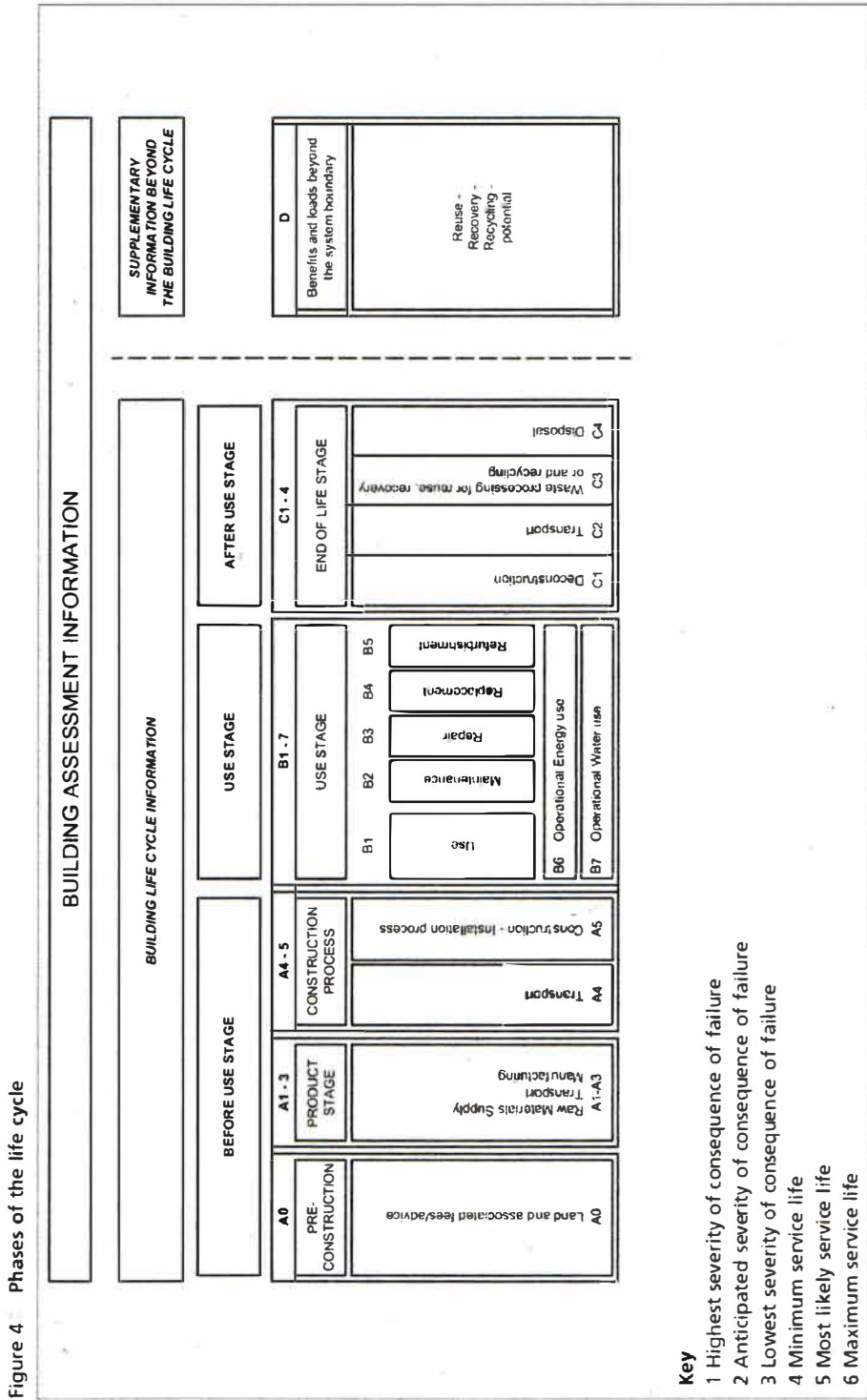


Figure 4 Phases of the life cycle

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

12 Fortfield Grove
Terenure
Dublin 6w
D6W E221

T +353(0) 4907967
W scdconsulting.ie
E info@scdconsulting.ie

scdconsulting.ie

