



**JAMESON GATE
THE REDEVELOPMENT OF
PARK SHOPPING CENTRE**

**BUILDING
LIFECYCLE
REPORT**

MARCH 2021

DMOD
ARCHITECTS

Contents

1.	Introduction	1
2.	Proposed Development	2
3.	Management	3
4.	Assessment of Long Term Running Costs	5
5.	Measures to Reduce Costs	6
	Energy and Carbon Emissions	6
	Table 5.1 – Energy and Carbon Emissions	6
	Low Energy Technologies.....	7
	Table 5.2 – Low Energy Technologies.....	7
	Materials	7
	Buildings	7
	Table 5.3 – Measures for Minimum Maintenance.....	8
	Table 5.4 – Material Specification.....	8
	Table 5.5 – Landscape	9
	Waste Management.....	9
	Table 5.6 – Waste Management.....	9
	Table 5.7 – Health and Well Being	10
	Table 5.8 – Management.....	10
	Transport.....	10
	Table 5.9 – Public Transport.....	10
Appendix 1	ITEMS INCLUDED IN A TYPICAL BIF	11

1. Introduction

1.1 This Building Lifecycle Report has been prepared for this application for Planning Permission with reference to the Sustainable Urban Housing; Design Standards for New Apartments – Guidelines for Planning Authorities (2018 and as amended 2020) - 'The Apartment Guidelines'. The Apartment Guidelines introduced a requirement to include details on the management and effective maintenance and operational regimens proposed. This is outlined in Section 6.11 to 6.14 - "Operation & Management of Apartment Developments", specifically Section 6.13, which requires that apartment applications shall:

- (a) *"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"*
- (b) *"demonstrate what measures have been specifically considered by the proposer to effectively manage and reduce costs for the benefit of residents."*

1.2 This Building Lifecycle Report has been informed, prepared and compiled through the collaboration of the following parties;

- Park Shopping Centre Limited Developers
- DMOD Architects
- Simon Clear and Associates Planning Consultants
- CRM Students, Serviced Living Operators
- J V Tierney & Co. Consulting Engineers (Mechanical and Electrical)
- Pinnacle Consulting Engineers (Civil and Structural)
- Mitchell & Associates Landscape Architects and Urban Designers
- AWN Consulting Operational Waste Management Consultants

1.3 This Building Lifecycle Report should be read in conjunction with the following documents that accompany this application for Planning Permission:

- Estate Management Plan prepared by CRM Students
- Sustainability and Energy Report prepared by J V Tierney & Co.
- Traffic and Transportation Assessment
- Operational Waste Management Plan
- External Lighting Report prepared by J V Tierney & Co.

1.4 This Building Lifecycle Report is divided into four sections as follows:

- Proposed Development
- Management
- An Assessment of Long Term Running Costs
- Measures to Reduce Costs

1.5 This assessment of the ongoing operation and maintenance of the proposed development, and any costs indicated, is based on arrangements as agreed at the time of making this application for Planning Permission. It may be subject to adjustment within the constraints indicated and as may result from any conditions attaching to a grant of Planning Permission as appropriate.

2. Proposed Development

- 2.1 The proposed development comprises demolition of the existing Park Shopping Centre and nos. 42-45 Prussia Street, Dublin 7 and the creation of portal openings in the former boundary wall (Protected Structure), and construction of the following:
- (a) a new mixed use District Centre, Student Residential Housing and Build-To-Rent Housing development in 2 buildings, a South Building and a North Building, separated by a new pedestrian and bicycle street connecting Prussia Street with the emerging Grangegorman SDZ campus. The buildings will range in height from 3-5 storeys on Prussia Street to 6-storeys (South building) and 8-storeys (North Building) towards to GDA campus.
 - (b) a District Centre at ground floor and mezzanine levels accommodating:
 - Part-licensed supermarket, 11no. retail/non-retail service units and 2no. licensed café/restaurant units at ground floor;
 - Two vehicular entrances from Prussia Street to provide access for deliveries and services (South entrance) and to provide access to undercroft parking and van deliveries (North entrance);
 - Standing areas for deliveries and waste collection in designated service yards (South Building) and for car parking for 111no. cars, light van deliveries and bicycle parking (North Building);
 - All associated ancillary facilities, landscaping and boundary treatments including acoustic attenuation measures where required.
 - (c) Student residential accommodation overhead the District Centre accommodating 11no. student houses comprising 143no. apartments (including 28no. studios), with a total of 584no. bedspaces (556no bedrooms) and associated balconies;
 - The North Building student residential accommodation has reception and student amenities (conciierge, café, lounge areas) at ground, mezzanine and first floor levels, with access to all levels overhead and a first floor level podium garden from which student apartments and student amenity areas (study centre, a recreation centre and laundry) are accessible; 2no. amenity terraces with pergola structures at fourth floor.
 - The South Building student residential accommodation has ground floor level foyer with access to all levels, staff rooms, fitness centre at ground and mezzanine levels and a first floor level podium garden from which student apartments are directly accessible.
 - (d) Build-To-Rent residential accommodation overhead the supermarket with lift and stair access from Prussia Street, comprising 29no. apartments with balconies (28no. 2 bedroom and 1no. 3 bedroom units) and 3no. 2 bedroom townhouses, laundry room, lounge/games room, bicycle store, waste store and podium garden with conservatory allotments.
 - (e) The proposed new street will connect to the Grangegorman SDZ campus via a portal connection through a former boundary wall.
 - (f) The development includes art display along the new street, landscaping, boundary treatments, signage, plant and substations, and all associated site works and services.
- 2.2 As this is a mixed use development, the building lifecycle considerations will be multiple. The proposed management of these multiple considerations is outlined in the following section.

3. Management

3.1 The developers, Park Shopping Centre Limited, have commissioned this assessment of the long term running and maintenance costs applicable for the proposed development. As this is a mixed use development, with both residential and non-residential demises, an overall estate management entity will provide governance for a hierarchy of separate management companies on a use by use basis (see Figure 3.1 below). It is noted that this proposal seeks to renew and extend the current management arrangements on this site. An estate management entity with an on-site presence will oversee, facilitate and supervise the activities, rights of way and liens of the various demises on site. A single entity, created by CRM Students, will manage both Student and Build-To-Rent residential accommodation. While this residential accommodation and the anchor TESCO retail accommodation will be the largest of these demises, there will be other smaller demises that together will comprise the new street and two buildings of the District Centre, managed through an Estate Management Entity.

Figure 3.1



- 3.2 The Estate Management Entity will have direct responsibility for the provision and maintenance of shared amenity such as the public realm, parking areas for vehicles and bicycles, utilities and the overall coordination of deliveries and waste collection. In addition, the Estate Management Entity will ensure the upkeep of all rights of way such as:
- (1) a right of way over the new street for staff, resident and customer access, emergency egress, maintenance of the frontages and servicing of the plant areas,
 - (2) a right of way over the service lane for vehicles and emergency egress,
 - (3) a right of way to podium level for servicing plant condenser units and
 - (4) a right of way to the car park trolley bays and to the trolley bay on the new street near the store entrance.
- 3.3 It is envisaged that the management of both the Student and the Build-To-Rent residential accommodation will be under the auspices of CRM Students, one of Europe's and the UK's leading independent student accommodation management partners, managing some 37,000

units across the UK and Europe in schemes ranging from 18 to 802 units. Under separate cover and included with this application for planning permission, CRM have prepared an Estate Management Plan for 'The Yard', the residential element of this proposed development comprising student accommodation in apartment configuration and Build-to-Rent apartments.

The Estate Management Plan covers:

- (1) The approach to managing the scheme including:
 - (a) How a multi-use scheme such as this can be successfully managed.
 - (b) How managing a student and Build-To-Rent scheme presents different challenges to those of a residential scheme, where security and the local neighbours play a significant part.
 - (c) CRM's proposed outline of the staffing provision for the scheme.
 - (d) Why Build-To-Rent is an important aspect of this scheme alongside the student development, and what makes a successful Build-To-Rent scheme,
 - (2) The approach to travel and deliveries:
 - (a) How the residents can take individual responsibility for their travel choices and how the scheme can positively contribute.
 - (b) How through careful management any disruption on move-in weekends (for the student development) can be minimised.
 - (c) How the move-out process is different to the move-in and how Build-To-Rent arrivals and departures vary from students.
- 3.4 As the development comprises both student accommodation and Build-To-Rent accommodation, with separate entrances and communal spaces, it is particularly important that both sets of residents are provided with a tailored customer based approach for their differing needs. The Estate Management Plan outlines those specific needs including pastoral support, conflict management and the differing core hours for each distinct tenant group.
- 3.5 CRM have extensive experience in managing multiple forms of shared accommodation and place a key focus on understanding the needs of the diverse tenant user groups. Examples of the twin type accommodation on the one site include Westway Square, Oxford. This scheme incorporates both student accommodation and Build-To-Rent units, with a further 120 Build-To-Rent units under development. Similar to that proposed here, the Westway Square scheme has one management and maintenance team for both student and Build-To-Rent residents, utilising a shared gym space but with separate communal spaces and entrances.
- 3.6 The Westway Square development has successfully brought together a mixed community enhancing the local environment. Whilst the resident needs of this development will vary, CRM will apply the same clear set of principles and policies for running the estate. The focus will be on placing the development within the community, working closely with neighbours, carefully managing services and providing a safe environment for both student and Build-To-Rent residents.

4. Assessment of Long Term Running Costs

- 4.1 This section relates to an assessment of long term running and maintenance costs as would apply at the time of application.
- 4.2 The Estate Management Entity 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 agreed annual operational budgets. The Estate Management Entity will enter into contract directly with each of the management companies for the separate demises (refer to Fig 3.1) for the ongoing management of the built development.
- 4.3 The Estate Management Entity also has the following responsibilities for the development once constructed:
- Preparation of annual service charge budget for the 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.
 - Accounting Services.
 - Corporate Services.
 - Insurance Management.
 - After Hours Services.
 - Staff Administration.
- 4.4 The Estate Management Entity will propose an annual service charge budget for the development for agreement with the separate management companies. The service charge budget covers items such as cleaning, landscaping, refuse management, utility bills, insurance, maintenance of mechanical/electrical lifts/ life safety systems, security, lighting, property management fee, etc.
- 4.5 This annual service charge budget also includes an allowance for a Sinking Fund and this allowance is determined following an annual review of the Building Investment Fund (BIF) report. The BIF report 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, similar to that required by the Multi Unit Development (MUD) Act 2011.
- 4.6 In line with the requirements of the MUD Act, the management companies for the separate demises will determine and agree each year the contribution to be made to the Sinking Fund, having regard to the BIF report produced¹.

¹ 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.

5. Measures to Reduce Costs

5.1 The following measures have been specifically considered to effectively manage and reduce costs for the benefit of each of the demises and can be read in conjunction with the Sustainability and Energy report included with this application:

Energy and Carbon Emissions

Table 5.1 – Energy and Carbon Emissions

Measure	Description	Benefit																								
BER Certificates	<p>A Building Energy Rating (BER) certificate will be provided for each apartment dwelling in the proposed development which will provide details 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 and 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>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, titled “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 Paragraphs 1.2.4.2 and 1.2.4.3 within the Technical Guidance Documents Part L. See below Table 1 of Part L, Building Regulations.</p> <table border="1" data-bbox="475 1048 1104 1249"> <thead> <tr> <th>Element</th> <th>U-value (W/m².K)</th> </tr> </thead> <tbody> <tr> <td>Pitched Roof (insulated on slope or ceiling)</td> <td>0.16</td> </tr> <tr> <td>Flat Roof</td> <td>0.20</td> </tr> <tr> <td>Walls</td> <td>0.21</td> </tr> <tr> <td>Ground Floor</td> <td>0.21</td> </tr> <tr> <td>Ground Floor with Underfloor Heating</td> <td>0.15</td> </tr> <tr> <td>Exposed Floor</td> <td>0.21</td> </tr> <tr> <td>External doors, windows and roof windows</td> <td>1.60^a</td> </tr> </tbody> </table> <p>^a Applies where the combined area equals 25% of the building floor area. Variations up and down are permissible under 1.3.2.4 and Table 2 of TGD L.</p> <table border="1" data-bbox="475 1339 1104 1429"> <thead> <tr> <th>Element</th> <th>U-value (W/m².K)</th> </tr> </thead> <tbody> <tr> <td>Walls</td> <td>0.18</td> </tr> <tr> <td>Ground Floor</td> <td>0.18</td> </tr> <tr> <td>External doors, windows and roof windows</td> <td>1.40</td> </tr> </tbody> </table>	Element	U-value (W/m ² .K)	Pitched Roof (insulated on slope or ceiling)	0.16	Flat Roof	0.20	Walls	0.21	Ground Floor	0.21	Ground Floor with Underfloor Heating	0.15	Exposed Floor	0.21	External doors, windows and roof windows	1.60 ^a	Element	U-value (W/m ² .K)	Walls	0.18	Ground Floor	0.18	External doors, windows and roof windows	1.40	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 minimise carbon emissions to the environment. In order to achieve the NZEB standards, in most cases the above standards will be exceeded in the proposed development.
Element	U-value (W/m ² .K)																									
Pitched Roof (insulated on slope or ceiling)	0.16																									
Flat Roof	0.20																									
Walls	0.21																									
Ground Floor	0.21																									
Ground Floor with Underfloor Heating	0.15																									
Exposed Floor	0.21																									
External doors, windows and roof windows	1.60 ^a																									
Element	U-value (W/m ² .K)																									
Walls	0.18																									
Ground Floor	0.18																									
External doors, windows and roof windows	1.40																									
Energy Labelled White Goods	<p>The white good package planned for provision in the apartments will be of a very high standard and will 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 (in the common laundry areas) - B 	The provision of high rated appliances in turn reduces the amount of electricity required for occupants.																								
External Lighting	<p>The external lighting within the scheme varies. The new street will be lit by suspended catenary light fittings. The lighting in the car park area will be installed to meet TESCO standards and the lighting along the Service Lane will be as indicated in the External Lighting Report that accompanies this application. The luminaires are selected for the following reasons;</p> <ul style="list-style-type: none"> • Low level lighting • Minimal upward light spill • Low voltage LED lamps <p>Each light fitting shall be controlled either by a master Photoelectric Control Unit (PECU) or via an individual Photoelectric Control Unit. The operation of the lighting shall be on a dusk-dawn profile.</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 flora and fauna in the area. Having PECU allows for the optimum operation of lighting which minimizes costs.																								

Low Energy Technologies

5.2 The following are low energy technologies that are being considered for the development and during the design stage of the development in order to meet the requirements of Part L of the Building Regulations and to meet the upcoming Near Zero Energy Building standard if required. The specific combination from the list below will be decided on and then implemented to achieve the A2/A3 BER Rating.

Table 5.2 – Low Energy Technologies (refer to Sustainability and Energy Report for more detail)

Measure	Description	Benefit
Gas fired Combined Heat and Power	Combined heat and power (CHP) refers to the local simultaneous generation of electricity and heat. CHP works best in areas that have a constant “round the clock” demand for heat. 2no. generation plants are proposed, located one each in the North Building and in the South Building at podium level. The CHP systems will run on natural gas. It should be noted here that the developer has engaged in talks with the Grangegorman Development Agency (GDA) to agree the outsourcing of heat and power to the adjacent GDA Energy Centre, which will have sufficient overcapacity to supply the proposed development. In the event that agreement is reached, the heat and power infrastructure has been designed to accommodate this alternative source.	Combined heat and power (CHP) plant has lower fuel consumption resulting from the higher operating efficiencies.
Mechanical Ventilation Heat Recovery	Mechanical Ventilation and Heat Recovery (MVHR) will be provided where required within the student and Build-To-Rent apartments to ensure that the air quality will be adequate. The inclusion of Heat Recovery Ventilation into the centralised ventilation system will be considered and assessed in order to minimise the energy usage within the apartments.	Mechanical Heat Recovery Ventilation provides ventilation with low energy usage. The MVHR reduces overall energy and ensures a continuous fresh clean air supply.
PV Solar Panels	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. The panels are typically placed south facing on rooftops behind parapets to maximise the solar exposure.	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.
Space and Water Heating	An air-to-water heat pump system is proposed for each of the student and Build-To-Rent apartments as the optimal balance of practicality, efficiency and contribution of renewable energy. Each heat pump system shall be listed on the HARP database or have IS EN14511-2, IS EN 255-2 or EN 15879 test certificates (or otherwise as required by changes to the Regulations). The hot water storage will form part of the composite heatpump systems, with certified loss factors. Space heat distribution will be via low-temperature radiators generally, and the space and hot water system will have full time and temperature controls.	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.

Materials

5.3 The practical implementation of the design and material principles has informed the design of building facades. The façade materials will consist of predominantly of two types of brick on public frontages, render on less public frontages, coated metal double and triple glazing, pigmented concrete parapet cappings and coated metal bar guardings for the loggia openings.

Buildings

5.4 The proposed development has been 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 throughout and specific measures taken include:

Table 5.3 – Measures for Minimum Maintenance

Description of Measure	Benefit
Daylighting to circulation areas, including the staircores where possible.	Avoids the requirement for continuous artificial lighting.
The car parking area and both service yards have been designed with sufficient openings to permit natural ventilation.	Omits the requirement for costly mechanical ventilation systems and associated maintenance.
Natural ventilation to common areas.	Avoids costly mechanical ventilation systems and associated maintenance and future replacement.
External paved and landscaped areas.	All of these require low/minimal maintenance.
Roof construction is designed to function with internalised rainwater dispersal downpipes.	Minimises ongoing maintenance.

Table 5.4 – Material Specification

Description of Measure	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 parts of the proposed development and the durability and performance of these are designed and specified in accordance with Figure 4; Phases of the Life Cycle of BS7543: 2015. (Please see Appendix 1 for this figure). 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.
Use of reinforced concrete structural frame and slabs throughout using Ecocem concrete made from recycled waste material.	Reduces production of carbon, recycles existing waste materials.
Use of brickwork, self-finished render and pigmented concrete parapet cappings to the envelope.	Requires no on-going maintenance.
Use of factory finished coated metal double and triple glazing and coated metal bar guardings for the loggia openings.	Requires no on-going maintenance.

Table 5.5 – Landscape

Measure	Description	Benefit
Hard Landscape Materials.	Sustainable, robust materials, with high slip resistance to be used for paving. Durable and robust finishes to be selected for all fencing, furniture, bin and bicycle storage units.	Materials selected to minimise on-going maintenance inputs.
Soft Landscape Materials	Planting proposals have been formulated to complement the local setting as well as being fit for purpose in respect of private and public realm uses and spatial constraints imposed by garden sizes and the width of planting strips. Native tree species have been selected in significant numbers for planting along boundaries.	Reduction in the frequency of required soft landscape maintenance.
Site Layout and Design	Pedestrian and cyclist friendly hierarchy of streets and open spaces are complemented by generous and high-quality landscape treatments providing long term high quality residential environments.	Safe, high quality residential environments reduce vandalism and antisocial behaviour issues.
Maintenance and Management	Maintenance and management requirements have been considered through the design process. Complex planting arrangements have been omitted thus avoiding onerous maintenance and management requirements.	Estate maintenance costs reduced.
Sustainability & Biodiversity	Sustainability aspects of the proposed development include the retention of trees and hedgerows along site boundaries and the use of native trees where possible across the site. Other species have been carefully selected for compatibility. With the size of available spaces which is an important factor in long term management of the housing estate. The overall objective is to enhance the biodiversity potential of the site in addition to providing seasonal interest and variety. Judiciously placed flowering shrub and groundcover planting have been included to further promote biodiversity (pollinator species attracting insects and birdlife).	Enhanced sustainability of longterm estate management.

Waste Management

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

Table 5.6 – Waste Management

Measure	Description	Benefit
Outline Demolition and Construction Waste Management Plan	The application is accompanied by an Outline Demolition and Construction Waste Management Plan prepared by Pinnacle Consulting Engineers.	The report demonstrates how the scheme has been designed to comply with best practice.
Operational Waste Management Plan	The application is accompanied by an Operational Waste Management Plan prepared by AWN Consulting.	The report demonstrates how the scheme has been designed to comply with best practice.

Table 5.7 – Health and Well Being

Measure	Description	Benefit
Natural / Day Light	Notwithstanding the orientation generated by the decision to create a new street between the emerging Grangegorman Urban Quarter and Prussia Street, the buildings have been favorably orientated where possible. Where this is not possible, the student and Build-To-Rent apartments in particular have been provided with dual aspect qualities. The design, separation distances and layout of the building ranges 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. A Universal Access Statement accompanies this application.	Reduces the level of adaptation, and associated costs, potentially necessitated by residents' future circumstances.
Natural Amenity	The student and Build-To-Rent apartments have been provided with generous podium level gardens and the student apartments have an additional 2no. rooftop gardens. In addition, the proposed development is immediately adjacent to the parkland setting of the emerging Grangegorman Urban Quarter and access to the Phoenix Park is within five minutes walking distance.	Facilitates community interaction, socialising and play - resulting in improved wellbeing. Proximity and use of parks promote a healthy lifestyle.

Table 5.8 – Management

Measure	Description	Benefit
Home User Guide	Subject to the provisions of the management companies for the separate demises.	Residents are as informed as possible so that any issues can be addressed in a timely and efficient manner.

Transport

Table 5.9 – Public Transport

Measure	Description	Benefit
Access to Public Transport (Rail)	The proposed development is located less than 1km from each of the Luas Green Line stops at Phibsborough, Grangegorman and Broadstone.	The availability, proximity to public transport services contributes to reducing the reliance on the private motor vehicle for all journey types.
Access to Public Transport (Bus Services)	The proposed development fronts a Bus Connects route on Prussia Street and is 200m from the no.46A bus route on the North Circular Road.	These bus services provide access throughout Dublin and a viable and practical sustainable alternative to journeys undertaken by the private motor car.
Permeable Connections	The proposal includes for a direct connection between the emerging Grangegorman Urban Quarter and Prussia Street.	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 & covered bicycle parking facilities, for both short term and long-term parking requirements.	Accommodates the uptake of cycling and reducing the reliance on the private motor vehicle.

Appendix 1 ITEMS INCLUDED IN A TYPICAL BIF

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

Reference	Item	Typical Life Expectancy
1.00	Roofs	
1.01	Replacement felt roof covering incl. insulation to small sections of flat roof	18
1.02	Replacement parapet details	18
1.03	Replacement/ repairs to fascias	18
1.04	Replace roof access hatches	25
1.05	Specialist Roof Systems - Fall arrest	25
1.06	Overhaul waterproofing details to paved areas	12
2.00	Elevations	
2.01	Recoat metal panels to penthouse apartments	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	Staircores & 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 nosings	12
3.08	Replace ceramic floors tiles Entrance lobbies	20
3.09	Fixed Furniture & Equipment - Provisional Sum	18
4.00	M&E Services	
4.01	General - Internal relamping	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/ disabled refuge call points	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

4.14	Overhaul and/or replace Waste Pipes, Stacks & Vents	20
5.00	Exterior	
5.01	External boundary treatments - Recoat powder coated Finishes to railings	60
5.02	Replace external signage	18
5.03	Replace cobblelock areas	18
5.04	15-year cutback & thinning of trees. Overhaul landscaping generally	20
5.05	Replace CCTV provision	12
5.06	External Handrails and balustrade	18