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CLIMATE RESILIENCE & SCHEME SUSTAINABILITY STATEMENT

For

RESIDENTIAL NEW BUILD

AT

BALLYHOOLY ROAD LAHERDANE, WHITES CROSS, CORK.

Date: 18th March 2026 – Rev A

1.0 Introduction

Cork City Council has asked for information as to how the design has considered climate resilience and Scheme Sustainability from design to implementation stages. The City Development Plan, in addressing this challenge in Chapter 5, reflects on the fact that the Plan (Section 5.57) seeks to implement a series of “Cross-Cutting Climate Change and Environment Policy Objectives”.

The report also seeks to address Paragraphs 11.271 – 11.273 of the Cork City Development Plan 2022-2028 (CCDP), this Statement demonstrates how the proposed development has considered climate mitigation and adaptation across all stages: design, implementation (construction), and operational phases. It specifically addresses carbon reduction, on-site renewable energy provision, and electric vehicle (EV) and e-bike charging infrastructure.

The Statement also aligns with CCDP Objective 2.11 (Low Carbon Economy) and the broader objectives of Chapter 11 (Placemaking and Managing Development), which emphasise transitioning to a low-carbon, climate-resilient city. The development supports national policy under Project Ireland 2040, the National Planning Framework (NPF), and the Climate Action Plan 2024 (as updated), as well as the Cork City Local Authority Climate Action Plan 2024-2029.

The areas the policies effect are listed in Table 5.1. Not all of these areas are directly relevant to housing delivery and the creation of sustainable communities housing, *per se*, doesn't necessarily touch on all identified areas. However, there are clear areas where housing delivery interacts with this topic as identified by the Council in Item 13 of their Opinion on the Section 32 Submission.

1.1 Policy

Cork City Plan – Local Policy

- Paragraphs 11.271–11.273 require a Scheme Sustainability Statement for large-scale developments to demonstrate consideration of climate mitigation and adaptation measures, including carbon reduction, renewable energy, and sustainable transport infrastructure.
- Objective 2.11: Low Carbon Economy seeks to support the transition to a competitive, low-carbon, climate-resilient, and environmentally sustainable economy.
- Chapter 11: Placemaking and Managing Development emphasises high-quality, sustainable design that integrates climate action principles, including energy efficiency, green infrastructure, and resilient drainage systems.

National Policy

- Climate Action and Low Carbon Development (Amendment) Act 2021 commits Ireland to a climate-neutral economy by 2050.
- Climate Action Plan 2024 (Government of Ireland) sets sectoral targets, including 51% GHG reduction by 2030 and enhanced building energy performance.
- National Planning Framework (NPF) National Policy Objective 54 requires reduction of carbon footprint in new developments.

- Building Regulations Technical Guidance Document L (Conservation of Fuel and Energy– Dwellings) mandates Nearly Zero Energy Building (NZEB) standards.

Other Guidance

- Cork City Local Authority Climate Action Plan 2024-2029.
- CIRIA SuDS Manual (C753) for sustainable drainage.
- DEHLG Guidelines on Sustainable Residential Development in Urban Areas (2009). This Statement demonstrates full compliance with these policies through integrated measures across the project lifecycle.

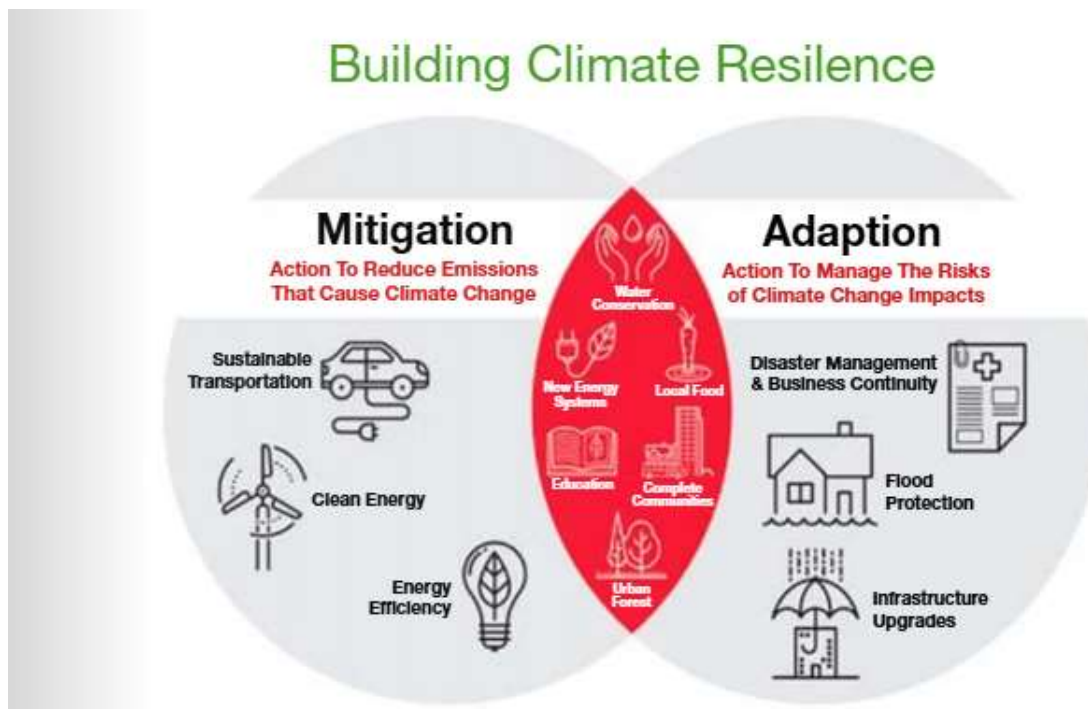
1.2 City Plan Policy / Specifically

In December 2015, the *Climate Action and Low Carbon Development Act 2015* came into force and it enshrined the national objective of transitioning to a low carbon, climate resilient and environmentally sustainable economy up to 2050.

The Cork City Council Development Plan sets out a series of provisions and objectives by which they seek to direct and promote Climate Resilience. These include sections;

- SO1 – Compact Liveable Growth
- SO3 – Transport & Mobility
- SO5 – Green and Blue Infrastructure, Open Space and Biodiversity

Image 1: Extract from Cork City Development Plan



The above, in their own way, are applicable to the provision of homes.

The Objectives of the City Development Plan include:

Objective 5.1

A Climate Resilient City

To create a more climate resilient, low carbon and environmentally sustainable City where our stakeholders and communities participate in, and benefit from integrated climate and environment action measures which also offer other social, economic and biodiversity benefits.

Objective 5.24

Green and Blue Infrastructure

- a. To support the strategic role that Green and Blue infrastructure plays in facilitating a more climate resilient city.

Table 5.1 sets out the key policy Objectives which as they apply to housing. A number of these apply to housing. The schemes response to same, are as follows.

Objective – Housing and Homes – Table 5.1 of City Plan	Scheme Response
Compact residential growth, brownfield first and embracing higher density opportunities	The scheme is designed to accommodate the densities specified in the area as per the City Development Plan. The densities identified by the City Plan are based on achieving compact urban growth
Promotes multi-functional community facilities and maximising their adaptability	The scheme promotes multi functional uses with creche spaces and integration with open spaces locally with direct and indirect connectivity. The predominant use use is residential, reflecting its zoning.
Promotes more sustainable travel / Sustainable transport	The scheme provides for pedestrian routes, shared pedestrian and cycle routes and bus connectivity is provided by way of a Bus Connects route to the immediate north of the site.
Transition towards more sustainable travel and less reliance on private vehicles	As above.
Network of direct, comfortable, convenient, and safe cycle routes and footpaths across the city	As above.
Supports and encourages infrastructure to facilitate electric vehicles	All houses will be provided with sufficient infrastructure to support EV charging on curtilage. All public spaces will be ducted to accommodate EV Charging.
Carbon reduction	All houses are designed to achieve a high BER Rating A1-A3. The provision of good connectivity options also will allow for opportunities to further reduce potential carbon load.
Circular economy	According to Ireland's <i>Circular Economy Strategy</i> , in a circular economy, when a

	product has reached its end of life, its material parts can then be used again to create new, refurbished or remanufactured products. Waste recycling is promoted in the scheme via the waste management strategy. In addition, the use of recyclable materials in construction seeks to minimise on site waste during construction. The ease of access to the scheme via various modes of transport maximises the means by which residents can access recycling and repairs centres.
Green Construction	The Longview site, with CField Construction, has been used to date by Enterprise Ireland to demonstrate construction methods that promote Energy Efficiency, waste minimisation and speed of construction to industry partners and Local Authority representatives from throughout Ireland. In total, over 100+ Council professionals and state officials have visited the site. This has been achieved using MMC, Timber Frame, ICF Construction and ICF Foundations in the site.
Flood risk mitigation and adaptation	The site is on top of a hill so experiences no immediate flood risk. Downstream flood risk is minimised by the reduction in greenfield run off rates to less than greenfield rates.
Climate-resilient placemaking	Screened open spaces are proposed in the scheme with courtyard areas and enclosures created by duplex and apartment areas. Good public transport connections are proposed along with good pedestrian and cyclist connectivity. Green roofs to apartment buildings are also provided for.
Greening the City	Screened open spaces are proposed in the scheme with courtyard areas and enclosures created by duplex and apartment areas. The Proposal also seeks to integrate with the future Council North East Area Park.
Travel Plans	The scheme provides for pedestrian routes, shared pedestrian and cycle routes and bus connectivity is provided by way of a Bus Connects route to the immediate north of the site.

	Future residents will be provided with travel plans / connectivity advice as part of home handover packs.
Presumption in favour of reusing and refurbishing existing buildings	There are no existing buildings on site to reuse or refurbish.
Maximum parking standards and minimum parking/charging standards for electric vehicles	These are achieved.
Cycle to work facilities and bicycle parking	These are provided.
Sustainable water management and flood risk	The site is on top of a hill so experiences no immediate flood risk. Downstream flood risk is minimised by the reduction in greenfield run off rates to less than greenfield rates. SUDs measures such as swales are employed.
Renewable energy	All houses are provided with sufficient infrastructure to accommodate solar panels.
Waste management	Recycling facilities and waste management facilities are provided as part of the scheme.
Scheme Sustainability Statements	Sustainability Statement and Climate and Energy Report submitted.

2.0 A Response – General Approaches to Delivery

In responding to this, in the first instance, we draw the Council’s attention to the *Climate Action Energy Statement* submitted with the application which addresses the energy efficiency of the homes. The homes will clearly be, as with other new building stock, very energy efficient. This in its own right reflects positively on the need to be Climate Resilient by promoting the use of low energy homes which in turn has positive impacts on energy demand (particularly where non renewable energy is serving the grid). The Council will note that home owner’s ultimately control the energy use of their house but can also subscribe to “green tariffs”; all new homes are equipped day one with Smart Meters so therefore have the ability to engage in their own positive actions with respect to renewable energy use and climate action.

In construction, the homes will be developed on foot of a CEMP. These also seek to minimise waste from a contractor viewpoint. It must be noted that again, due to waste charges, it is in the contractors interest to minimise waste generation and maximise reuse / recycling where possible under building regulations. This occurs as a matter of course generally, but additional positive benefits can be obtained by implementing construction methods promoted under Enterprise Irelands “Build to Innovate” programme.

With respect to housing, all houses will be equipped with heat pumps as well as being highly energy efficient.

2.1 Building Standards

Compliance with Building Regulations Part L 2022 Dwellings is categorized into six distinct sections, referred to as Regulation 8, which includes parts (a) to (f). Below is a summary of each

part as outlined in the Technical Guidance Document L 2011, along with descriptions of the requirements for demonstrating compliance and suggested methods for meeting the necessary standards. This report is accompanied by a *Climate Action Energy Statement* that directly relates to the format and type of properties proposed.

Regulation Part	Summary	Compliance Requirements	Suggested Routes
(a) Energy Performance	Focuses on the overall energy performance of the dwelling.	Achieve specified reductions in energy consumption and carbon emissions.	Use DEAP software for assessment; implement energy-efficient technologies.
(b) Fabric Energy Efficiency	Addresses the thermal performance of the building fabric.	Meet specific U-values for walls, roofs, floors, and windows.	Optimize insulation and air tightness; use high-performance materials.
(c) Renewable Energy	Requires integration of renewable energy sources.	Ensure 20% of total energy consumption comes from renewable sources.	Install PV panels, heat pumps, or biomass systems.
(d) Air Tightness	Ensures the building is sufficiently airtight.	Achieve an air tightness of less than 5 m ³ /m ² /hour at 50 Pascals.	Conduct air pressure tests; improve sealing and insulation techniques.
(e) Thermal Bridging	Focuses on minimizing thermal bridging in construction.	Design junctions to limit heat loss.	Follow guidelines in "Limiting Thermal Bridging and Air Infiltration – Acceptable Construction Details."
(f) Ventilation	Ensures adequate ventilation while maintaining energy efficiency.	Comply with ventilation rates without compromising airtightness.	Use mechanical ventilation with heat recovery systems.

2.2.1 Part L Building Regulations Regulation 8 Part (a)

The regulation mandates that the energy performance of buildings must be designed to limit calculated primary energy consumption and related carbon dioxide (CO₂) emissions to levels characteristic of a nearly zero energy building, as defined by the Directive, to the extent that it is reasonably practicable.

This overarching compliance target establishes the necessary overall reductions in energy consumption and carbon emissions for new dwellings. Specifically, it requires that the energy consumption and carbon emissions of each dwelling be evaluated using the DEAP software, aiming for a 70% reduction in energy consumption and a 65% reduction in carbon emissions.

The baseline for these reductions is a dwelling constructed to fully comply with the 2005 version of Building Regulations Part L.

The relationship between the energy consumed by the proposed dwelling and that of a similar dwelling built to the 2005 energy efficiency standards is known as the Energy Performance Coefficient.

2.2.2 Part L Building Regulations Regulation 8 Part (b)

The regulation stipulates that a significant portion of the nearly zero or very low energy required for new dwellings must be sourced from renewable energy, particularly from renewable sources produced on-site or in close proximity. Specifically, all new dwellings are mandated to incorporate a renewable energy source, with the requirement that 20% of the total energy consumed within the dwelling must come from renewable thermal sources (such as solar thermal, biomass, and heat pumps) or renewable electrical sources (including photovoltaic systems and micro-wind).

In practical applications, particularly for multiple unit developments, this requirement is typically fulfilled by utilizing air source heat pump technology, as in this case.

2.2.3 Part L Building Regulations Regulation 8 Part (c)

The regulation mandates several requirements aimed at enhancing energy efficiency in buildings. Firstly, it emphasizes the importance of limiting heat loss while also taking advantage of heat gain through the building's fabric. To achieve this, the building's fabric must be designed to minimize heat loss, and the air permeability of the structure should restrict unwanted air infiltration.

Typical compliant U-Values for the proposal are given in the attached *Climate Action Energy Statement* by MBA Consulting Engineers

2.2.4 Part L Building Regulations Regulation 8 Part (d&e)

The regulation requires that:

- Providing and commissioning energy efficient space and water heating systems with efficient heat sources and effective controls;
- Providing that all oil and gas fired boilers shall meet a minimum seasonal efficiency of 90%;

Gas or oil-fired boilers must achieve a minimum efficiency of 90%. None are used in this scheme.

Additionally, heating controls should enable independent time management for both heating and hot water systems. For dwellings exceeding 100 m², this includes the capability to manage heating in two separate zones. Each zone's heating should be regulated by room thermostats, while hot water temperature should be controlled by cylinder stats. Heating controls are provided in the scheme to meet regulatory standards.

2.2.5 Part L Building Regulations Regulation 8 Part (f)

The regulation requires that:

- Providing to the dwelling owner sufficient information about the building, the fixed building services and their maintenance requirements so that the building can be operated in such a manner as to use no more fuel and energy than is reasonable.

This entails providing the dwelling owner with information related to the effective and efficient operation of the systems installed in the dwelling, including instructions on how to control the heating and hot water systems based on time and temperature requirements.

Handover packs to address this are provided and all homeowners have to go through a briefing and handover process where they are educated on Heat Pump usage. QR Codes are preset on all such equipment to allow for full briefing on usage.

2.2.5 Common Areas

When a new dwelling is part of a larger building, the guidance in this document pertains specifically to the individual dwelling, while the relevant guidance in Technical Guidance Document L - Conservation of Fuel and Energy – Buildings Other Than Dwellings applies to the non-dwelling sections of the building, such as common areas (including those in apartment blocks) and, in the case of mixed-use developments, the commercial or retail spaces. This necessitates that the common areas of the apartment blocks are designed to comply with Part L 2022 for Buildings Other Than Dwellings (BOTD), which includes the requirement that a portion of the energy demand for these common areas is met by a renewable energy source.

2.2.6 SI 393 of 2001 – Reg 5 Part (e)

The regulation stipulates that for new buildings containing one or more dwellings with more than 10 car parking spaces, ducting infrastructure—comprising conduits for electric cables—must be provided for each parking space. This is to facilitate the future installation of recharging points for electric vehicles under the following conditions:

- The car park is located within the building, such as a basement car park; or
- The car park is physically adjacent to the building, meaning it is within the curtilage of the site. As a result, ducting must be included for the future installation of car charging points in all car parks associated with multi-unit residential buildings that have more than 10 parking spaces.

The latter applies in this case with charging ducts being provided to allow for future charging.

3.0 Heat Sources

All new dwellings must achieve overall energy performance levels as defined by the Energy Performance Coefficient (EPC) and must source a portion of their annual energy demand from renewable energy sources.

Renewable energy sources can include thermal energy options such as solar thermal collectors, biomass boilers, or heat pumps, as well as electrical energy generated by photovoltaic solar panels or wind turbines. According to Part L 2022 Dwellings, the minimum renewable energy contribution required is 20% of the total energy consumption for the dwelling.

For developments of this nature, two primary fuel sources are typically available: natural gas and electricity. Each presents distinct options for compliance with the new standards. Solutions that utilise gas as the primary fuel source generally incorporate solar technology, such as PV panels, to meet the renewable energy requirements, while solutions that rely on electricity typically involve heat pump technology.

This scheme uses Heat Pumps for houses.

Detailed design options for apartment's are yet to be determined but could include either

- Electric Heaters, Hot Water Heat Pumps & Heat Recovery Ventilation, or
- Individual Plant with Exhaust Air Heat Pumps¹.

3.1 Apartment Corridors and Landlord Areas

The following section addresses CAP 13 and complies with objective DMSO261 by evaluating the possible low carbon and energy heating solutions for the landlord areas.

In accordance with the requirements of Part L 2022 Dwellings, the common areas within the apartment blocks are required to meet the requirements of Part L 2022 for “Buildings Other Than Dwellings”. Under Part L 2022 BOTD, a portion (10% to 20%) of the energy demand of the common areas must be met by a renewable energy source. The energy demand within these spaces will be exclusively provided by electrical energy (lighting, space heating & lifts etc) so a photovoltaic array would be best suited to meet this renewable energy demand.

Heat Pumps and PV Arrays will be accommodated at roof level is necessary to meet these needs.

4.0 EV Charging

All new commercial buildings, including both residential and non-residential structures, must include provisions for charging electric vehicles when more than 10 parking spaces are provided.

For residential buildings, regulations stipulate that future provisions—such as cable ducting and capacity on distribution boards and meters—must be made for all parking spaces associated with multi-unit developments.

5.0 Climate Mitigation Measures

Climate mitigation has been embedded from the earliest design stages through an iterative process involving multidisciplinary teams.

- **Energy Performance:** All dwellings are expected to achieve BER A2 rating, exceeding NZEB requirements. This is expected to be achieved through enhanced fabric efficiency (U-values better than regulatory minima), airtightness testing targets (<3 m³/h/m²), and mechanical ventilation with heat recovery (MVHR).

¹ In these cases while the electricity consumed is not renewable, the efficiency of the heat pump allows a significant portion of the heat delivered to the dwelling to be classified as renewable energy.

- **Orientation and Layout:** Buildings are orientated to maximise passive solar gain in winter while minimising overheating risk in summer. Compact urban form reduces heat loss and supports walkable neighbourhoods.
- **Masterplanning:** The site is divided into sub-catchments to optimise density while preserving green corridors, reducing urban sprawl impacts.

Mitigation measures during construction focus on minimising embodied carbon and site impacts.

- **Construction Environmental Management Plan (CEMP):** Includes targets for waste diversion (>85% from landfill), low-carbon materials sourcing, and just-in-time delivery to reduce transport emissions. More of the construction process is addressed in the “Longview & Build to Innovate” section following.
- **Materials Selection:** Preference for low-embodied-carbon materials (e.g., timber-frame elements where feasible, GGBS cement replacements).
- **Site Practices:** On-site renewable-powered welfare facilities and electric/hybrid plant where practicable.

Long-term mitigation ensures low operational emissions.

- **Heating Systems:** Air-source heat pumps (ASHP) as primary heating for all units, eliminating fossil fuel dependency.
- **Lighting and Appliances:** LED lighting throughout and A-rated appliances encouraged via homeowner packs.

6.0 Longview & Build to Innovate

The *Build to Innovate* initiative is part of the Government’s *Housing for All* plan seeks to deliver more homes, of all types, for people in every part of the country. It supports the transformation of Ireland’s construction sector by enabling greater use of digitalisation, offsite manufacturing, and process innovation. **Jenny Melia, CEO, Enterprise Ireland** “*Built to Innovate was created to help Irish construction companies embrace new technologies and methods that increase productivity and competitiveness. This development² demonstrates the tangible results that can be achieved when innovation is applied at scale in the housing sector. Enterprise Ireland invites Irish companies building houses at scale in this country to contact our Built to Innovate team to explore our offer.*”

The Longview site, with CField Construction, has been used to date by Enterprise Ireland to demonstrate construction methods that promote Energy Efficiency, waste minimisation and speed of construction to industry partners and Local Authority representatives from throughout Ireland. In total, over 100+ Council professionals and state officials have visited the site. Efficiency has been driven by use of;

- Primary Structure: timber frames supplied by Cygnum,
- Collaborative Project Management (Last Planner system): to achieve streamlined site processes,

² Longview

- LEAN processes to eliminate waste. This includes scheduled work flows and use of renewable and recyclable material in construction, such as ICF Foundation material whose waste is returned to the factory for recycling / reuse.

Image1: Enterprise Ireland Build to Innovate


Built To Innovate is an initiative under Housing for All

New programme aims to support Irish construction

Niamh Áine Ryan
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A new programme is being piloted through a landmark residential housing development in Ballyvolane. It was announced this week.

The announcement took place at Longview, a major residential development north of Cork city where CField Construction, as build partners to Longview Estates, is delivering more than 700 new homes—a mix of private and social housing—using factory-style on-site processes combined with offsite timber-frame manufacturing.

It's part of Enterprise Ireland's Built to Innovate programme. The initiative, under the Government's Housing for All strategy, is helping to accelerate the delivery of high-quality, sustainable homes across Ireland through sustainable, low waste, construction methods.

The programme aims to support Irish construction companies in adopting modern methods of construction.



Nell Kerrigan, Housing Delivery Unit Enterprise Ireland, An Taoiseach Micheál Martin, John Crean, Director of Planning, Longview Estates and Patrick Crowley, CEO, CField Construction at Longview, a landmark residential development in Ballyvolane. PHOTO: DARRAGH KANE

An Taoiseach Micheál Martin said: "The Built to Innovate initiative is a key part of our Housing for All strategy and an example of how innovation can help us meet Ireland's urgent housing needs. This project demonstrates the potential of modern methods of construction to deliver homes faster, more efficiently, and with the highest standards of quality. It's great to see this innovation happening here in Cork, led by an Irish company with a strong track record in the sector."

CField Construction, headquartered in Cork, has been an early adopter of factory-style site processes and offsite construction techniques. Through the Built to Innovate approach, the company has integrated its production schedule with the offsite manufacture of timber frame kits—produced by Cygnum—creating a fully synchronised workflow from foundation to home completion. This approach is enabling the delivery of an average of 12 homes per month.

Patrick Crowley, CEO, CField Construction, said: "This initiative from Enterprise Ireland has helped us refine and scale a delivery model that truly transforms how we build. By combining precision offsite manufacturing with efficient on-site assembly, we are reducing waste, improving quality, and delivering homes faster—on time and within budget. The Longview project is proof that innovation in construction can have a real and immediate impact on housing supply."

It is expected that the construction methods used by CField in the Longview site to date will be replicated in this consent so as to ensure efficiencies continue.

7.0 Climate Change Adaptation

The following measures have been implemented in the design to the local authority's Development Plan. This is a summary of the measures, with individual reports providing a more detailed examination of each measure.

On site Construction

The construction and waste management proposals for the scheme are thoroughly detailed in the Construction Management Plan submitted with this planning application. The following measures summarize the recommendations outlined in the plan.

Demolition on site will be carried out thoughtfully. Only after fully exploring in-situ reuse and recycling options will any demolition waste be disposed of off-site by licensed waste contractors.

During the construction phase of the project, strategies for minimising, reusing, and recycling construction waste will be implemented as specified in the Resource Waste Plan, including:

- **Topsoil Management:** Careful planning and on-site storage will ensure that topsoil is reused on-site as much as possible.
- **Earthworks Optimization:** Earthworks for road, drainage, and structural foundations will generate excess material. Efforts will be made to optimise cut and fill volumes to minimise surplus material from excavation. It may be possible that some excess material generated on site can be used to create park areas sports areas and landscape features on adjoining zoned lands; Parks are exempt under Class 33 of the planning regulations.
- **Excavated Material Treatment:** Where necessary, excavated materials will undergo treatment (such as cement or lime stabilisation) to allow for their reuse as fill materials, thereby reducing the need to transport these materials to landfill and import stone and concrete.
- **Material Ordering:** Appropriate ordering of materials will be implemented to minimise waste.

Recyclable Waste Management: It is anticipated that most recyclable waste on site will originate from house construction, primarily in the form of wood and metal. Any excess wood or metal generated will be kept segregated and sent to a licensed recycling facility.

Long Term Management

Promoting the use of public transport can help reduce reliance on cars and encourage a transition to less carbon-intensive modes of transport.

All on-curtilage house parking spaces will be equipped to accommodate EV charging points.

Additionally, all off-curtilage spaces will be ducted for EV charging, with 20% of these spaces fitted out from the beginning.

Transport

The Transport & Access proposals for the scheme are addressed in the TA and MMP reporting submitted with this planning application, the measures below are provided as a summary of the recommendations contained within the assessment.

- Car and Bicycle parking for the proposed development have been designed in accordance with the requirements set out in the current local authority's Development Plan.

- The subject site is located within reasonable walking time to bus stops.
- The design of the site, and its location are such that pedestrian and cycling trips are a genuine alternative to private car use.

EV Charging Points

While the use of private cars for daily commuting and leisure activities is often necessary, the long-term climate impacts of such usage can be alleviated through strategic planning of electric vehicle (EV) charging infrastructure. By integrating ducting and ESB metering capabilities into the scheme, we can facilitate the future expansion of electric vehicle charging facilities, ensuring they can accommodate the growing demand in the short to medium term.

In accordance with CCDP standards,

- Multi-unit residential developments shall provide a minimum of one EV equipped parking space per five car parking. All other parking spaces shall be developed with appropriate infrastructure (ducting) that enables future installation of a charging point for EVs.
- New dwellings with on-site car parking should be developed with appropriate infrastructure (ducting) that enables future installation of a charging point for EVs.
- Council ask for statement as per Sections 11.271 – 11.273. These are Soil Protection, Contamination and Remediation, Management of Construction Sites and Refuse Storage respectively. The intent must have been to refer to 11.274 – 11.276 Scheme Sustainability Statements. Section 11.245 identifies City Council requirements for EV Parking. Section 11.249 identifies City Council requirements for Bicycle Parking. There is no legal requirement under the Development Plan to provide Electric Bicycle Charging. Nevertheless, 75% of electric bikes generally use removable batteries from a charging viewpoint. These are normally charged using domestic charging facilities while all houses have the capacity to be fitted with an external power point if occupants choose to avail of an electric bike with an integrated battery.

Active Travel

Permeable connections to existing networks, promoting modal shift and reducing transport emissions.

Environmental Assessment Methodologies

Addressing operational energy use, as outlined in the preceding sections of this report, is a crucial aspect of any construction project. However, it is equally important to consider other elements of sustainable design, such as water use, material selection, and the minimisation of pollutants.

The Irish Green Building Council has introduced an assessment methodology specifically aimed at residential developments in Ireland. The Housing Performance Index (HPI) assessment provides a framework for measuring the performance of residential developments against a range of verifiable indicators, which are categorised into five technical areas:

- Environment

- Economic
- Health and Wellbeing
- Quality Assurance
- Sustainable Location

This system allows for multiple levels of achievement based on good, better, and best practices, with certification awarded based on overall performance across all categories.

A decision regarding whether to pursue formal HPI certification for the project will be made during the detailed design phase. Regardless of the certification decision, the principles outlined in the HPI system will serve as guidance throughout the design process.

SUDS

The surface water drainage proposals for the scheme are detailed in the drainage information submitted with this planning application. The following measures summarise the recommendations outlined in the assessment.

The proposed SuDS measures for the site include:

- Source Control:

Garden areas for each residential property, green roofs on apartment blocks, roadside swales, and infiltration trenches where needed.

- Site Control:

Utilisation of swales, and an attenuation system to provide effective attenuation throughout the site.

- Area Control:

Implementation of a flow restriction device to limit the outflow from the site to a maximum rate. Additionally, a bypass interceptor will be installed before the surface water outfall.

Green Infrastructure

Pollinator-Friendly Planting: All landscaping uses native/Irish provenance species.

8.0 Conclusion

This evaluation examined various energy systems, assessing both central and individual plants for heating and renewable energy solutions. The recommendations derived from this assessment are outlined below, all of which offer low carbon, low energy heating options.

The earlier sections of this report detail the regulatory requirements that the scheme must meet while identifying several technologies and design strategies that can be employed to ensure compliance.

The standards for building fabric and the technological solutions discussed will undergo further evaluation during the detailed design phase of the project. A cost-benefit analysis of all available options will be conducted to establish the optimal balance between an efficient building envelope and the most suitable combination of technology and renewable energy systems.

The proposed strategy for achieving Part L Compliance will rely on a combination of the solutions listed below, following a thorough analysis during the detailed design stage. A final decision will be made after comparing capital costs, renewable energy targets, and regulatory compliance to identify the most suitable solution.