

21.2149

**PROPOSED HOUSING DEVELOPMENT AT
RADHARC CILLIN, KILFINANE
CO LIMERICK**

PLANNING STAGE REPORT

REV 0

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1.0 MECHANICAL SERVICES

Heating Services:

House type A, B & C will be heated by means of an air to water heat pump heating systems. It is proposed to provide individual packaged split high efficiency heat pump units complete with matching controls to provide comfort heating and generate domestic hot water for each house. The internal units will be complete with 230 litres of hot water storage.

House type D will be heating by means of air to water exhaust type heat pump heating system. It is proposed to provide packed high efficiency exhaust air heat pumps complete with matching controls to provide comfort heating and generate domestic hot water for each house. The exhaust heat pumps with be complete with 170 litres of hot water storage.

The heating systems proposed will contribute to renewable energy requirements and Part L compliance.

We estimate the houses will require either 5-9kw units depending on the house type and size.

We expect to achieve a minimum A3 BER rating for each house as standard.

Water Services:

Each house will be provided with a Format 30 pre-insulated cold water storage tank suitably sized to provided adequate storage for the occupants. The cold water storage tank will be located in the attic of each house. A domestic water booster pump will be provided in each house to provide pressurised hot and cold water supplies to all internal WHBs, Showers, baths and sinks. All WC's in house types A, B and C will be provided with piped gravity cold water supplies.

Note: The Ground floor duplex unit will be provided with an individual vertical CWS tanks complete with integral booster pump. The tank will be located within the unit. This avoids issues with accessing a CWS tank in the attic space of the first floor unit and keeps all services separated.

A metered mains water supply will be provided to each house complete with mains supplies to the kitchen sink and an outside tap.

Hot water will be stored and generated by the packaged house air to water heat pump system. The domestic booster pump will be located beside the internal heat pump a unit.

Ventilation Services:

The ventilation requirements for the houses will be met using a low maintenance Aereco demand control ventilation (DCV) system. This system utilizes a constant pressure central extract fan located in the attic with ducted extract connections to extract grilles located in wet rooms / kitchen and passive supply wall vents complete with integral mechanical humidity control. The system will be designed and commissioned to meet the requirements of Part F of the Building Regulations.

Each kitchen will be provided with a cooker extraction hood which will be ducted to atmosphere via wall shutter louvre.

2.0 ELECTRICAL SERVICES

The electrical installation shall comply with 2021 Wiring Regulations, IS: 10101.

The electrical site services will include provisions for new EIR, ESB. Public lighting and EV car charging points. EV car charging will be provided in line with current building regulation requirements.

The residential house units will be provided with a suitable number of internal ceiling rose lighting points, and low energy usage IP rated LED light fittings in the toilet areas.

External wall mounted lighting will be provided with specification to be agreed with architect. All lighting will be controlled via local two way & one-way rocker type switches.

The fire alarm system for the houses and Apartments will be a LD2 domestic type consisting of mains fed smoke, heat, and carbon monoxide monitors with battery backup.

The LV distribution system in each unit will consist of a consumer unit in the hallway fed with a single phase 12KVA supply to each dwelling. The new dwellings will be wired in 3C twin & earth power cable.

All accessories will be white plastic unless advised otherwise by architect. These shall include spurs, sockets, data, and TV points suitably placed around the unit.

There shall be 1no. incoming EIR supply to each house to facilitate telephone and broadband services.

ESB Diversions and Supply:

ESB Networks are currently reviewing the design options for the underground line diversions and for the new supply to the development. The proposed ESB design will be issued in due course.

Eir Connectivity:

The existing Eir network shall be extended from the existing estate via underground ducts and access chambers.

Public Lighting:

New public lighting shall be provided throughout the new development fed from local public lighting micro pillars.

EV Car Charging:

Underground cable ducting for future EV charging services will be provided to all car parking spaces extended from ESB mini pillars.

