5.2.2. Connolly Community Centre

- The community has begun work on a future Community Centre for Connolly.
- Plans have been drawn up and ground works have commenced as of December 2025

Figure 16: Rendering of Connolly Community Centre

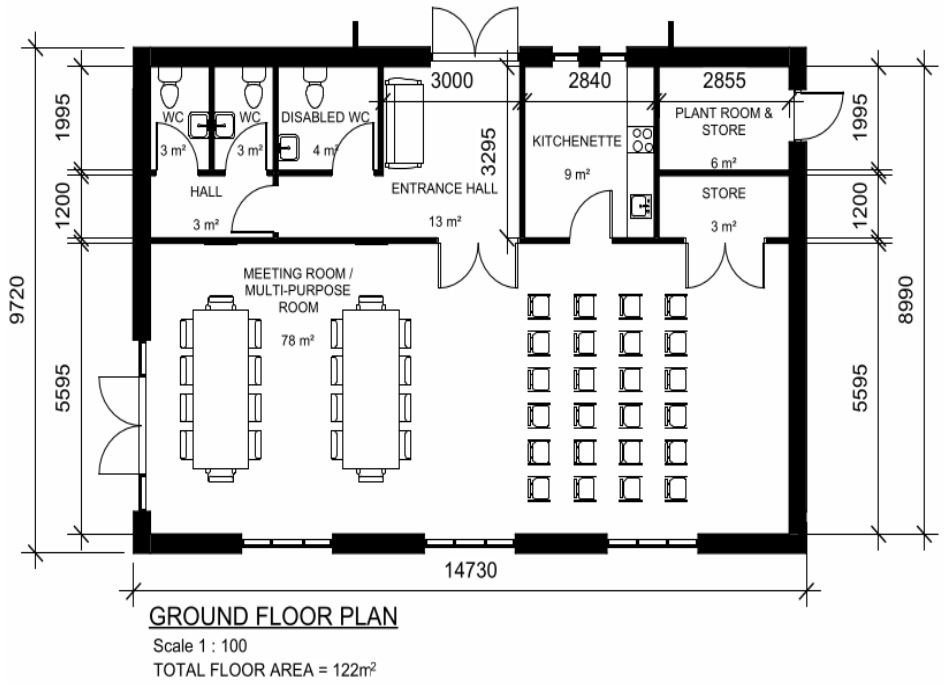

Figure 17: Floorplan of Connolly Community Centre

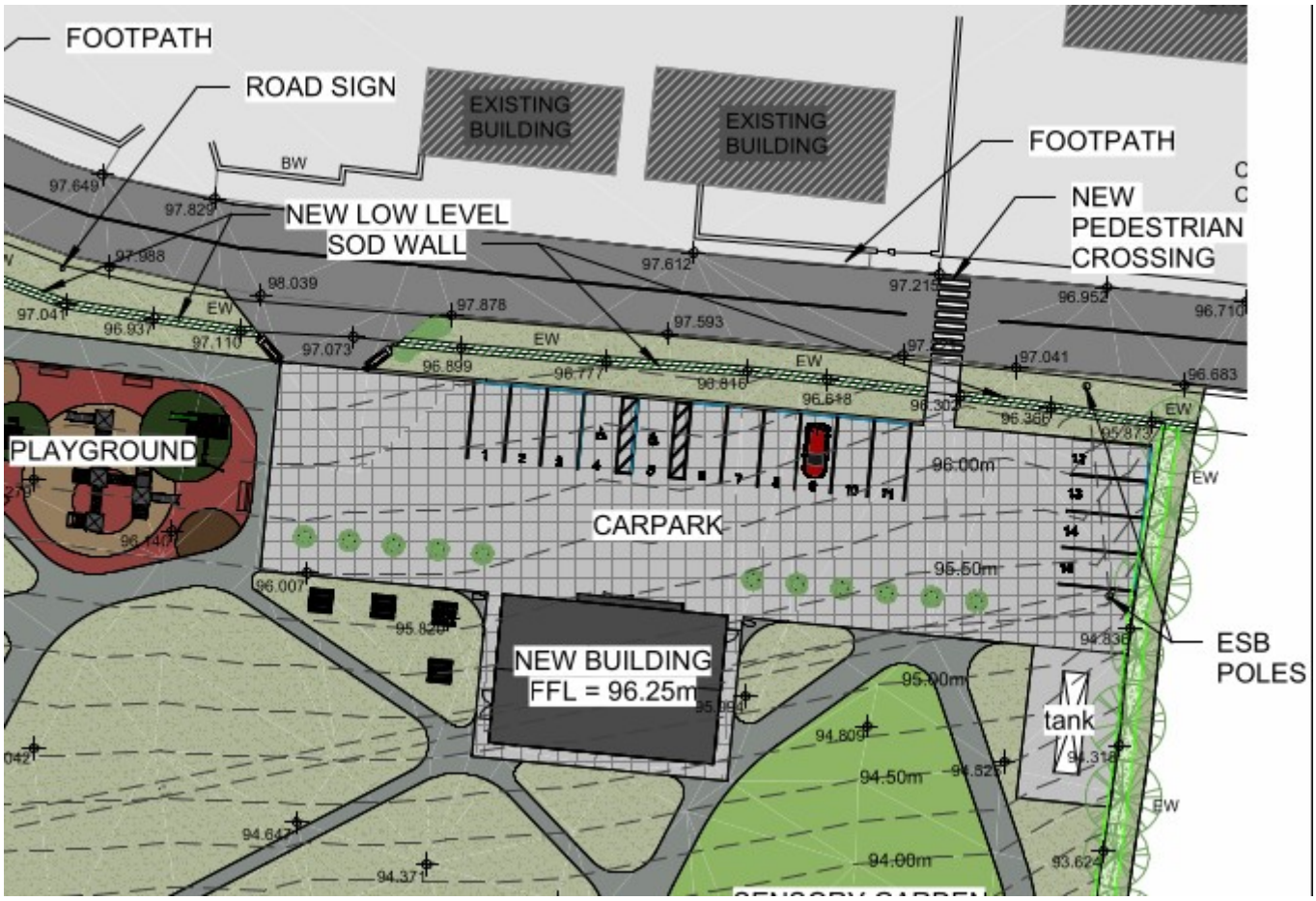

Figure 18: Partial site-map of Community Centre

- Overall comments on design
  - From an energy perspective, the design is excellent. The simple layout is by definition energy efficient
  - The entrance lobby to the north is very beneficial from the point of managing heat loss.
  - The south facing rear , with large glazed areas, will allow a maximum of passive heating
- Recommendations
  - Insulation
    - A new building will already have good insulation as per Building Regulations. For the main roof/walls/floor insulation, the architect could propose to go beyond building regulations as the cheapest time to improve insulation is at the initial build.
    - Ensure that the wall between the “plant room and store” are insulated as if they were external walls. This room has an external door and is a potential source of heat loss.
    - The large glazed areas to the south and west will be good for passive heating from the sun but will also be sources of heatloss when the sun isn’t shining. If thermal curtains could be included in the initial build, this would help to minimise heat loss.
    - If there is the potential to have a partitioning system in the main hall, to give the flexibility of two separate spaces, this would also be beneficial from a heating point. Only the space being used would need to be heated. This is not a major issue as the hall is not excessively large.
  - Ceiling heights
    - Ensure that ceiling heights are not excessive, rooms with high ceilings are slower and more expensive to heat.
    - Potential for different ceiling heights over the main hall area and all other areas.
  - Heating system

- An air-to-air heat pump would be recommended.
- This removes the need for radiators and piping.
- Given the irregular usage patterns of a community centre, an air-to-air heat pump is far cheaper to install, easier to control, more responsive.
- The units, which are wall mounted, provide warm air to the building from multiple points. Each point can be individually controlled.
- Am air-to-air heat pump would reqauire a single outside unit which woul dthen be linked to multiple points of hot air distribution inside the centre

◦ Solar PV

- The building is a prime candidate for a Solar PV system with batteries
- In the image below, we see that the south facing roof has an availabel area of ~55m2 which would allow for the installation of ~ 11 kW of Solar PV Panels.

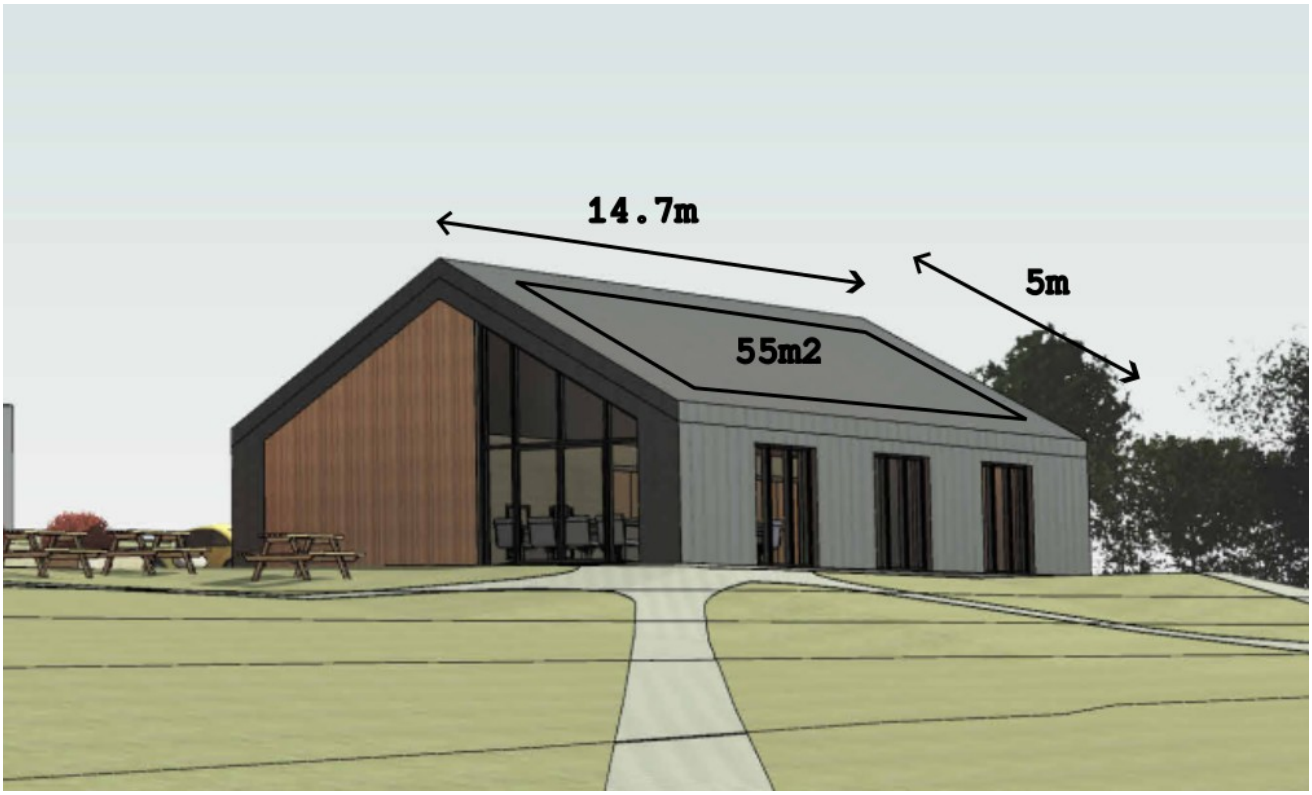

Figure 19: Solar PV potential space

- 11 kW of PV panels would produce ~10000 kWh of electricity per year which should more than cover the electricity need of the Community Centre

Eircode:	V95NX56
System Size:	11 kW
Roof Direction:	180°
Roof Slope:	35°
Annual Production:	**10212 kWh**

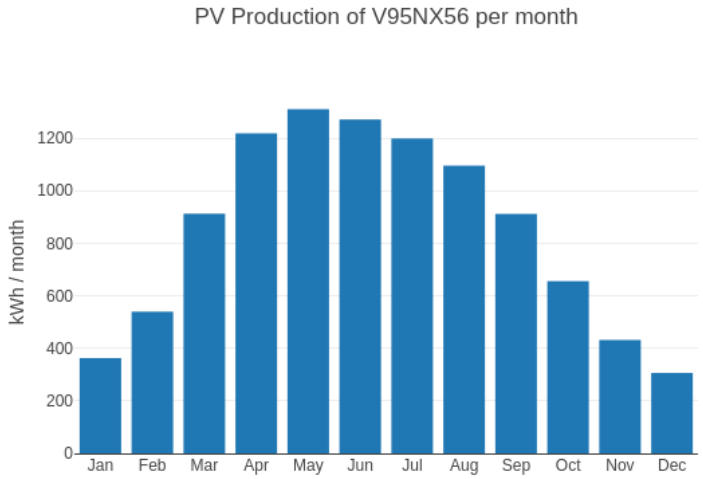

Figure 20: Potential production from an 11 kW Solar PV system

- For an 11 kW Solar PV system, the recommendation would be to also have a 20 kWh battery
  - This would allow the centre to store and use more of its produced electricity, to improve the resilience of the centre in the case of grid outages
  - This would also provide an energy resilience point for the community i.e. in the case of a sustained grid outage, the community could still have access to electricity, access to a working kitchen and access to hot water.

- EV Charger
  - Include an double EV Charger. Further details are provided in the Register of Opportunities section. Note that this is more of a community service and a reason for passing traffic to stop in Connolly than a money earner for the community.

Table 5: Summary of recommendations for Community Centre

Topic	Description
Insulation	Go beyond Building Regulations Thermal curtains Separation of "cold areas" Mindful of ceiling heights
Solar PV	11 kW of PV Panels + 20 kWh battery
Heating System	Air to Air Heatpump.
EV Charger	Double EV Charger