



## PART L COMPLIANCE AND BER REPORT

FOR

ROBINSTOWN SITE,  
MULLINGAR REGIONAL SPORTS COMPLEX,  
WESTMEATH COUNTY COUNCIL



**Ionad Spóirt Réigiúnach  
an Mhuilinn Chearr**

Mullingar Regional  
Sports Complex

BANKMORE BUSINESS PARK  
BANKMORE ROAD  
OMAGH  
Co. TYRONE  
BT79 0BE

Tel No: (028) 8225 1155  
Fax No: (028) 8225 1250  
Code from ROI: (+44)

E-mail: [info@pmccaul.com](mailto:info@pmccaul.com)  
Web Site: [www.pmccaul.com](http://www.pmccaul.com)

**DATE: July 2025**  
**REF: 3113-02-EN-02A**

On behalf of Patrick McCaul Environmental Consulting Engineers Ltd (PMC), M&E Consultants

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## 1. Introduction

### 1.1 General

This report has been prepared by Patrick McCaul Environmental Consulting Engineers Ltd to present the Part L compliance with NZEB criteria and the preliminary BER rating for the Mullingar Regional Sports Complex, Robinstown site.

### 1.2 Site Location

The proposed Blackhall site development shall serve as a changing facility.

The building is one-storey.

The Robinstown site development is a Sports Complex.

The new construction consists of a team changing rooms, boxing areas, meeting room / reception, and associated ancillary spaces. In addition, new bus and carparking spaces are to be provided on site.

The proposed development site is located to the north of Dalton Park, Mullingar and covers an area of approximately 73,600m<sup>2</sup>.

The building is located to the south of the site with a bus set down area adjacent.

There is overflow of bus parking available in the northern area of the site adjacent to the All-Purpose All-Weather Pitch.



In addition to the building accommodation at this site there is also a number of outdoor facilities which consist of:

- 3No. All-Weather Flood Lit Pitches
- 4 Padel Tennis Courts
- Basketball Court
- Walking Trail
- Adult Outdoor Exercise Equipment
- Parking for Car, Bus and Cycling

## 1.4 Building Layout

### 1.4.1 Proposed Accommodation –

The proposed building at Robinstown Road consists of:

- 4No. of Changing Rooms
- Referee accommodation
- Shared Boxing Space with 2No. rings
- Facilities for 3No. boxing clubs
- Reception / Meeting Room
- WCs
- Stores
- Plant

## 1.5 Part L Energy Compliance & BER

The report assesses the energy compliance using the following building regulation(s):

- Building Regulations (Ireland) TGD Part L 2022 – Buildings other than Dwellings

NEAP (Non-Domestic Energy Assessment Procedure) includes the preliminary Part L compliance certification and Building Emission Rate (BER) rating for the non-domestic development.

A BER (Building Energy Rating) calculation is run under the same conditions as the Part L compliance.

The Part L criteria checked in this report is that which covers ‘limitation of primary energy use and CO<sub>2</sub> emissions’, and the ‘renewable energy technologies.’ Note: Part L also includes other individual elements which must comply with Part L (e.g. construction U-values).

## 2. Non-Domestic Energy Assessment Procedure (NEAP)

In terms of NEAP, an SBEM calculation is carried out for the landlord areas in order to generate the preliminary non-domestic Part L compliance documentation and BER rating.

### 2.1 SBEM Calculation Methodology

The building has been modelled in IES VE (2024.0.1.0) software based on the latest architectural drawings / BIM and assessed against the Ireland Building Regulations Part L (2022).

From a technical perspective, IES VE (2024.0.1.0) software was used to construct the model of the proposed development based on the latest architectural drawings / BIM. For this application, the software is capable of SBEM calculations via VE compliance. The model is assessed against the Ireland Building Regulations Part L (2022).

The results of the model are affected by the following parameters: building orientation, geometry, surface area, building fabric constructions, glazing specifications, HVAC system efficiencies, fuel selection, and assigned NCM space activities.

HVAC systems used in the model make use of standard backstop efficiencies in lieu of technical submittal documentation. The use of backstop values in the current IES model results in a benchmark upon which fully specified decarbonisation measures in future design stages may improve upon.

### 2.2 Preliminary Part L Compliance – Non-domestic

The as-modelled proposed development passed the Part L compliance criteria.

EPC = <b>0.54</b>	MPEPC = 1.00 (TGD-L 2022, Section 1.1.2)
CPC = <b>0.35</b>	MPCPC = 1.15 (TGD-L 2022, Section 1.1.2)
RER = <b>0.52</b>	Significant Level of Provision = 0.20 or 0.10 (TGD-L 2022, Section 1.2.1)

A south-facing, PV array of 8.20 kW peak power was added to the energy model, not required to pass Part L compliance (i.e. 20No 410W PV modules).

See appendix A1.

### 2.3 Preliminary BER Rating – Non-domestic

The as-modelled proposed development achieved a preliminary BER rating of A2.

**BER = 0.24 (A2)**

See appendix A2.

## 3. Appendix

### 3.1 Appendix A – NEAP Results

#### 3.1.1 Appendix A1 – Part L Compliance

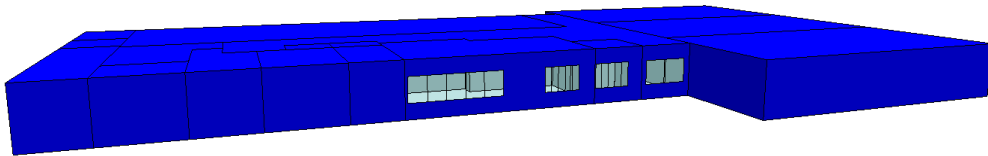
*See attached*

#### 3.1.2 Appendix A2 – BER

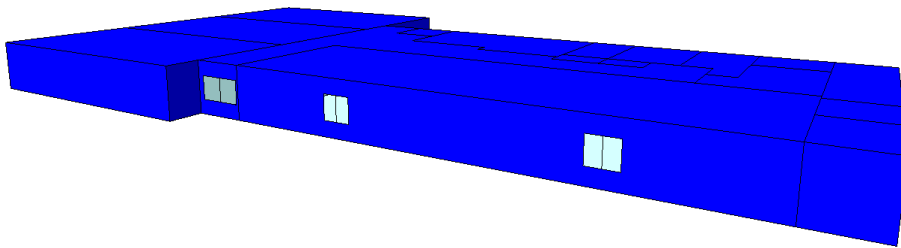
*See attached*

### 3.2 Appendix B – IES Model

See below screenshots from IES VE model:



*Figure 2: IES VE model image 1 (3D)*



*Figure 3: IES VE model image 2 (3D)*

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END OF REPORT

# BRIRL Output Document

Compliance Assessment with the Building Regulations (Ireland) TGD-Part L 2017

This report demonstrates compliance with specific aspects of Part L of the Building Regulations. Compliance with all aspects of Part L is a legal requirement. Demonstration of how compliance with every aspect is achieved may be sought from the Building Control Authority.

## MRSC Robinstown

Date: Thu Jun 12 14:06:34 2025

### Administrative information

#### Building Details

Address: Adj. Dalton Park, Robinstown, Mullingar, Address 4, Co. Westmeath, N91 V2NT

#### NEAP

Calculation engine: SBEMIE

Calculation engine version: v5.6.a.0

Interface to calculation engine: Virtual Environment

Interface to calculation engine version: 7.0.28

BRIRL compliance check version: v5.6.a.0

#### Client Details

Name: Name

Telephone number: Phone

Address: Street Address, Co. Donegal, Eircode

#### Energy Assessor Details

Name: Name

Telephone number: Phone

Email: you@yourISP

Address: Street Address, Co. Dublin, Eircode

### Primary Energy Consumption, CO2 Emissions, and Renewable Energy Ratio

The compliance criteria in the TGD-L have been met.

Calculated CO2 emission rate from Reference building	213.8 kgCO2/m2.annum
Calculated CO2 emission rate from Actual building	74.8 kgCO2/m2.annum
<b>Carbon Performance Coefficient (CPC)</b>	<b>0.35</b>
<b>Maximum Permitted Carbon Performance Coefficient (MPCPC)</b>	<b>1.15</b>
Calculated primary energy consumption rate from Reference building	1085.6 kWh/m2.annum
Calculated primary energy consumption rate from Actual building	584 kWh/m2.annum
<b>Energy Performance Coefficient (EPC)</b>	<b>0.54</b>
<b>Maximum Permitted Energy Performance Coefficient (MPEPC)</b>	<b>1</b>
<b>Renewable Energy Ratio (RER)</b>	<b>0.52</b>
<b>Minimum Renewable Energy Ratio</b>	<b>0.1</b>

### Heat Transmission through Building Fabric

Element	U <sub>a</sub> -Limit	U <sub>a</sub> -Calc	U <sub>i</sub> -Limit	U <sub>i</sub> -Calc	Surface with maximum U-value*
Walls**	0.21	0.21	0.6	0.21	L0000000_W1
Floors (ground and exposed)	0.21	0.21	0.6	0.21	L0000000_F
Pitched roofs	0.16	-	0.3	-	"No heat loss pitched roofs"
Flat roofs	0.2	0.2	0.3	0.2	L0000000_C
Windows, roof windows, and rooflights	1.6	1.6	3	1.6	L0000000_W1_O0
Personnel doors	1.6	-	3	-	"No ext. personnel doors"
Vehicle access & similar large doors	1.5	-	3	-	"No ext. vehicle access doors"
High usage entrance doors	3	-	3	-	"No ext. high usage entrance doors"
U <sub>a</sub> -Limit = Limiting area-weighted average U-values [W/(m2K)]		U <sub>i</sub> -Limit = Limiting individual element U-values [W/(m2K)]			
U <sub>a</sub> -Calc = Calculated area-weighted average U-values [W/(m2K)]		U <sub>i</sub> -Calc = Calculated individual element U-values [W/(m2K)]			
* There might be more than one surface with the maximum U-value. ** Automatic U-value check by the tool does not apply to curtain walls whose area-weighted average and individual limiting standards are 1.8 and 3 W/m2K, respectively.					

Air Permeability	Upper Limit	This Building's Value
m3/(h.m2) at 50 Pa	5	5



General lighting and display lighting		Luminous efficacy [lm/W]			
Zone name		Luminaire	Lamp	Display lamp	General lighting [W]
	<b>Standard value</b>	60	60	22	
L0 Area 1 Multi-Use		-	90	-	983
L0 Area 2 Multi-Use		-	90	-	993
L0 Area 3 Multi-Use		-	90	-	983
L0 Changing Ref		-	90	-	60
L0 Changing Team		-	90	-	518
L0 Comms		90	-	-	11
L0 Entrance Foyer		-	90	-	365
L0 Office		90	-	-	124
L0 Plant Room ASHP		90	-	-	78
L0 Plantroom Mech		90	-	-	168
L0 Storage		90	-	-	23
L0 Substation ESB		90	-	-	20
L0 Switchroom Elec		90	-	-	17
L0 WC		-	90	-	42
L0 WC Female		-	90	-	157
L0 WC Male		-	90	-	122
L0 Meeting Room		90	-	-	610

## Solar Gain in Summer

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
L0 Area 1 Multi-Use	NO (-93.6%)	NO
L0 Area 2 Multi-Use	NO (-93.9%)	NO
L0 Area 3 Multi-Use	NO (-93.6%)	NO
L0 Changing Ref	N/A	N/A
L0 Changing Team	N/A	N/A
L0 Comms	N/A	N/A
L0 Entrance Foyer	N/A	N/A
L0 Office	NO (-50.7%)	NO
L0 Plant Room ASHP	N/A	N/A
L0 Plantroom Mech	N/A	N/A
L0 Storage	N/A	N/A
L0 Substation ESB	N/A	N/A
L0 Switchroom Elec	N/A	N/A
L0 WC	N/A	N/A
L0 WC Female	N/A	N/A
L0 WC Male	N/A	N/A
L0 Meeting Room	NO (-51.3%)	NO

## Overheating

Zone	Risk of overheating
L0 Area 1 Multi-Use	High risk
L0 Area 2 Multi-Use	High risk
L0 Area 3 Multi-Use	High risk
L0 Changing Ref	High risk
L0 Changing Team	High risk
L0 Comms	Low risk
L0 Entrance Foyer	Significant risk
L0 Office	High risk
L0 Plant Room ASHP	Low risk
L0 Plantroom Mech	Low risk
L0 Storage	Low risk
L0 Substation ESB	Low risk
L0 Switchroom Elec	Low risk
L0 WC	High risk
L0 WC Female	High risk
L0 WC Male	High risk
L0 Meeting Room	N/A

## Primary Energy Contributions to RER

Technology	kWh/annum
Photovoltaic systems	8686.8
Wind turbines	0
Solar thermal for water heating	0
Biomass for space and/or water heating	0
Biogas for space and/or water heating	0
Heat pumps for space and/or water heating	893089
CHP generators for space and/or water heating	0
District heating for space and/or water heating	0
Process energy	0
<b>Total for renewables</b>	<b>901775.8</b>
<b>Total for renewables &amp; non-renewables</b>	<b>1728497.3</b>

# Technical Data Sheet (Actual vs. Reference Building)

## Building Global Parameters

	Actual	Reference
Area (m2)	1417	1417
External area (m2)	3477	3477
Weather	DUB	DUB
Infiltration (m3/hm2 @ 50Pa)	5	3
Average conductance (W/K)	773.85	779.39
Average U-value (W/m2K)	0.22	0.22
Alpha value* (%)	12.69	34.84

\* Percentage of the building's average heat transfer coefficient which is due to thermal bridging

## Building Use

### % area Building Type

Retail/Financial and Professional services  
 Restaurants and Cafes/Drinking Est./Takeaways  
 Offices and Workshop businesses  
 General Industrial and Special Industrial Groups  
 Storage or Distribution  
 Hotels  
 Residential Inst.: Hospitals and Care Homes  
 Residential Inst.: Residential Primary schools  
 Residential Inst.: Universities and colleges  
 Secure Residential Inst.  
 Residential spaces  
 Non-residential Inst.: Community/Day Centre  
 Non-residential Inst.: Libraries, Museums, and Galleries  
 Non-residential Inst.: Primary Education  
 Non-residential Inst.: Primary Health Care Building  
 Non-residential Inst.: Law Courts

**100 General Assembly and Leisure, Night Clubs and Theatres**

Others: Passenger terminals  
 Others: Emergency services  
 Others: Miscellaneous 24hr activities  
 Others: Car Parks 24 hrs  
 Others - Stand alone utility block  
 Non-residential Inst.: Post-primary Education  
 Residential Inst.: Residential Post-primary schools

## HVAC Systems Performance

System Type	Heat dem MJ/m2	Cool dem MJ/m2	Heat con kWh/m2	Cool con kWh/m2	Aux con kWh/m2	Heat SSEFF	Cool SSEER	Heat gen SEFF	Cool gen SEER
<b>[ST] Central heating using water: radiators, [HS] Heat pump (electric): air source, [HFT] Electricity, [CFT] Electricity</b>									
<b>Actual</b>	141.8	36.5	14.7	0	3.7	2.68	0	3	0
<b>Reference</b>	131.7	52.9	44.7	0	2.2	0.82	0	----	----
<b>[ST] Split or multi-split system, [HS] Heat pump (electric): air source, [HFT] Electricity, [CFT] Electricity</b>									
<b>Actual</b>	134.4	154.6	12.5	12.1	0	2.98	3.55	3.2	5
<b>Reference</b>	103	183.3	34.9	14.1	4.3	0.82	3.6	----	----

## Key to terms

Alpha value (%) = percentage of the building's average heat transfer coefficient which is due to thermal bridging  
 Heat dem (MJ/m2) = Heating energy demand  
 Cool dem (MJ/m2) = Cooling energy demand  
 Heat con (kWh/m2) = Heating energy consumption  
 Cool con (kWh/m2) = Cooling energy consumption  
 Aux con (kWh/m2) = Auxiliary energy consumption  
 Heat SSEFF = Heating system seasonal efficiency  
 Cool SSEER = Cooling system seasonal energy efficiency ratio  
 Heat gen SSEFF = Heating generator seasonal efficiency  
 Cool gen SSEER = Cooling generator seasonal energy efficiency ratio  
 ST = System type  
 HS = Heat source  
 HFT = Heating fuel type  
 CFT = Cooling fuel type

# Provisional Building Energy Rating (BER)

Provisional BER for the building detailed below is:

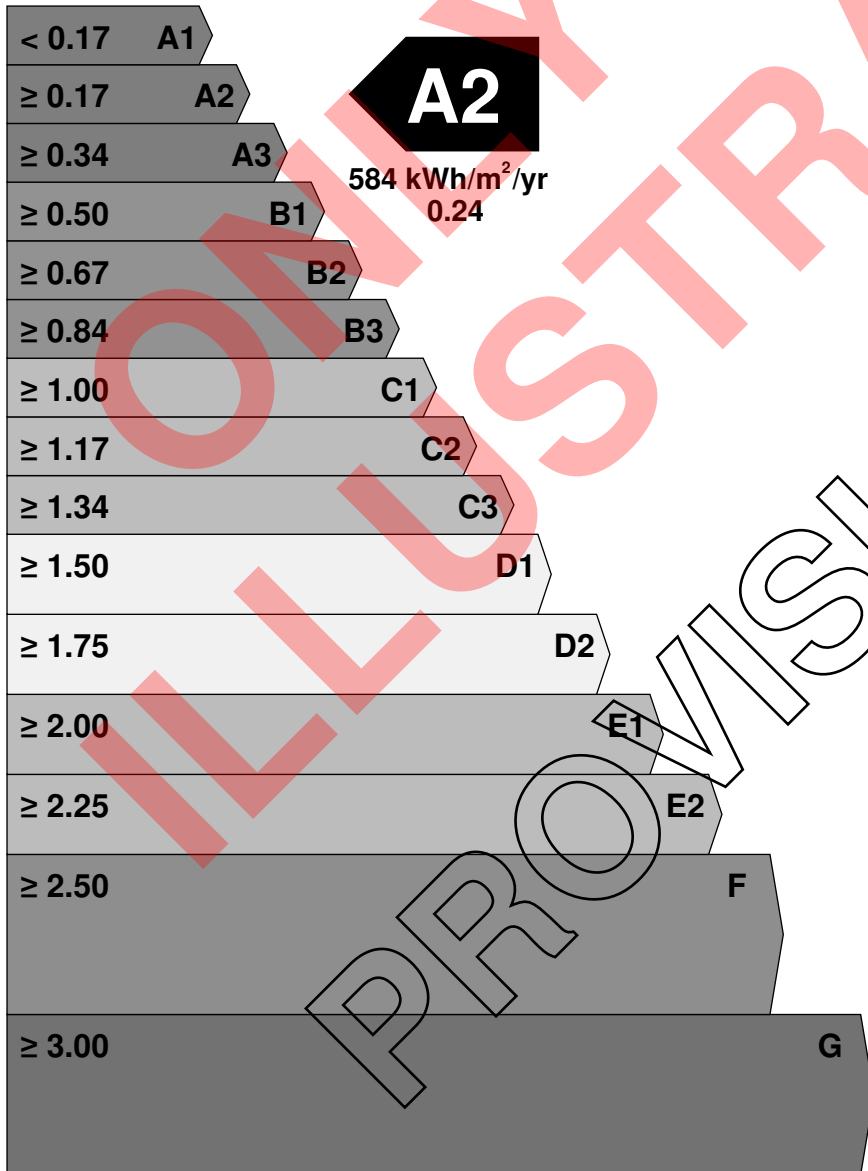
**A2**

Adj. Dalton Park  
Robinstown  
Mullingar  
Co. Westmeath  
N91 V2NT

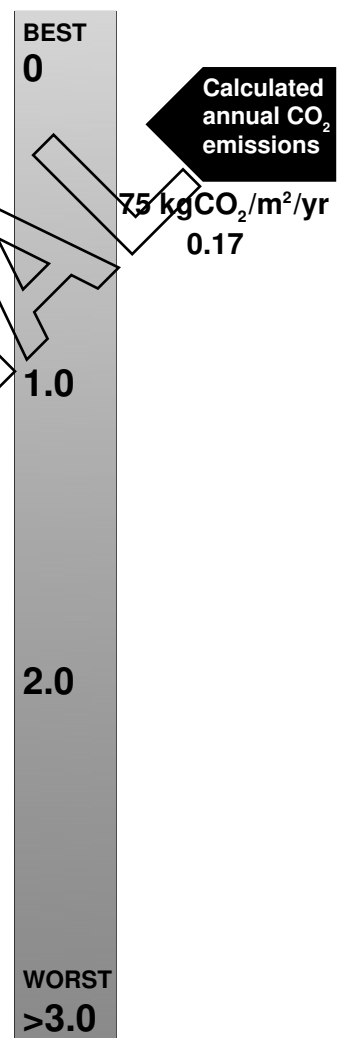
The Building Energy Rating (BER) is an indicator of the energy performance of this building. It covers energy use for space heating and cooling, water heating, ventilation and lighting, calculated on the basis of standard operating patterns. It is accompanied by a CO<sub>2</sub> emissions indicator. These indicators are expressed as respective ratios of primary energy use and CO<sub>2</sub> emissions, relative to what would apply for a similar building generally satisfying the Building Regulations 2005. 'A' rated properties are the most energy efficient and will tend to have the lowest energy bills.

<b>BER Number:</b>	voidvoidvoid	<b>Date of Issue:</b>	12 Jun 2025
<b>Useful Floor Area (m<sup>2</sup>):</b>	1417.2	<b>Valid Until:</b>	11 Jun 2027
<b>Main Heating Fuel:</b>	Grid Supplied Electricity	<b>BER Assessor No.:</b>	123456
<b>Building Environment:</b>	Heating and Natural Ventilation	<b>Assessor Company No.:</b>	123456
		<b>Assessor Scheme:</b>	SEAI
<b>Building Type:</b>	General Assembly and Leisure, Night Clubs, and Theatres		

**Building Energy Rating (Indicator)**  
MOST EFFICIENT



**Carbon Dioxide (CO<sub>2</sub>) Emissions Indicator**



The less CO<sub>2</sub> produced, the less the building contributes to global warming.

**IMPORTANT:** This provisional BER is calculated on the basis of pre-construction plans and specifications provided to the BER assessor, and using the version of the assessment software quoted above. The BER assigned to this building on completion may be different, in the event of changes to those plans or specifications, or to the assessment software.