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Project Support Officer



**Technological University of the Shannon:
Midlands Midwest**

Ollscoil Teicneolaíochta na Sionainne:
Lár Tíre Iarthar Láir

AGENDA

- BUSLeague (Horizon) Ireland National Implementation Plan
- Support for DIY centres
 - Training Clause

Pictures



Launch of Bray Eco-Center
TUS Helped with design of



Retrofit Expo Kilkenny



Training Cert Handover Grants
Engineering



Chadwicks Staff NZEB training Mount Lucas



Hardware Centre / DIY Store Training Numbers during BUSLeague

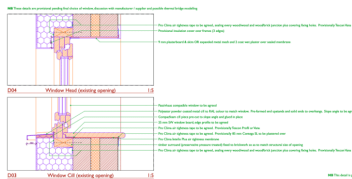
Date	Training Provider	Training Method /Location	Training Description	Trainees description	Counting methodology	Numbers
February 2021-October 2022	NZEB Fundamentals Training	Face-to-Face Wexford Waterford ETB		Chadwicks Hardware store counter & office staff	Names Logged by ETBs Centres.	168
February 2021-October 2022	NZEB Retrofit Training	Face-to-Face Mount Lucas ETB		Chadwicks Hardware store counter & office staff	Names Logged by ETBs Centres.	98
February 2021-October 2022	NZEB Insulation Retrofit Training	Face-to-Face Wexford Waterford ETB		Chadwicks Hardware store counter & office staff	Names Logged by ETBs Centres.	45
Tuesday 10 November 2020	Irish Green Building Council	Webinar	NZEB Training	Chadwicks Staff	Registration, attendee lists and some screenshots taken during online training.	12
Wednesday 1 December 2021	Irish Green Building Council	Webinar	Water Efficiency Training for the bathroom industry.	Chadwicks Staff	Registration, attendee lists and some screenshots taken during online training.	15
Wednesday 1 December 2021	Irish Green Building Council	Webinar	Water Efficiency Training for the bathroom industry.	Chadwicks Staff	Registration, attendee lists and some screenshots taken during online training.	11
Friday 3 December 2021	Irish Green Building Council	Webinar	Water Efficiency Training for the bathroom industry.	Chadwicks Staff	Registration, attendee lists and some screenshots taken during online training.	17
Tuesday 7 December 2021	Irish Green Building Council	Webinar	Water Efficiency Training for the bathroom industry.	Chadwicks Staff	Registration, attendee lists and some screenshots taken during online training.	12
January 2021-December 2022	Grants Engineering	Face-to-Face		Chadwicks Hardware Staff	Trainee numbers were recorded by Grant Engineering. Training certificates were issued.	24
January 2021-December 2022	Grants Engineering Heat Pumps	Face-to-Face		Brooks Hardware Staff	Trainee numbers were recorded by Grant Engineering. Training certificates were issued.	17
January 2021-December 2022	Grants Engineering Heat Pumps	Face-to-Face		Homevalue Group-Hardware Staff	Trainee numbers were recorded by Grant Engineering. Training certificates were issued.	19
January 2021-December 2022	Grants Engineering Heat Pumps	Face-to-Face		Topline Hardware Staff	Trainee numbers were recorded by Grant Engineering. Training certificates were issued.	22
January 2021-December 2022	Grants Engineering Heat Pumps	Face-to-Face		Heatwise-Hardware Staff	Trainee numbers were recorded by Grant Engineering. Training certificates were issued.	6
Total						466

TUS advised on design for improvements to Eco-Centre Displays



Show insulation fixing either anchors and or adhesive. Tape to sides with plasterable tape

QR codes to installation video

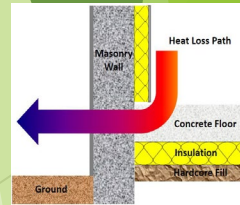


Show window airtightness detailing taped to structure and internal cill detailing. Windows now being installed for new build in external insulation and moved in retrofits out

QR codes to installation video



Fit a foam-glass block or lightweight insulated block to wall floor junction reduce thermal bridge below

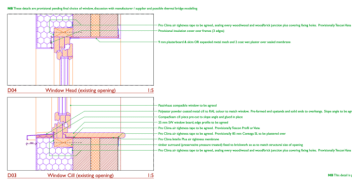


Improvements to Displays



Show insulation fixing either anchors and or adhesive. Tape to sides with plasterable tape

QR codes to installation video

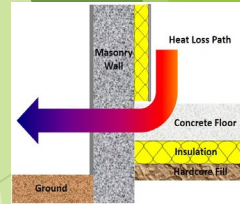


Show window airtightness detailing taped to structure and internal cill detailing. Windows now being installed for new build in external insulation and moved in retrofits out

QR codes to installation video



Fit a foam-glass block or lightweight insulated block to wall floor junction reduce thermal bridge below



Improvements to Displays



Tape airtight membrane to frame and floor if into ceiling if touches too
Check if this an airtight membrane or external breather membrane

Maybe add the SmartPly airtight board here

Tape airtight membrane to frame and floor if into ceiling if touches too
Check if this an airtight membrane or external breather membrane



Improvements to Displays



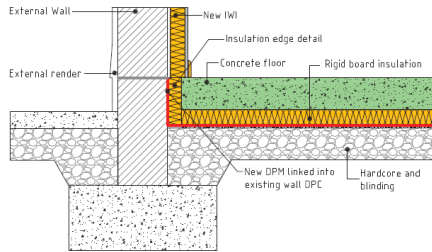
The floor should show the options of a windtight layer and airtight layer. The plywood may suffice as airtightness, but floorboards won't.



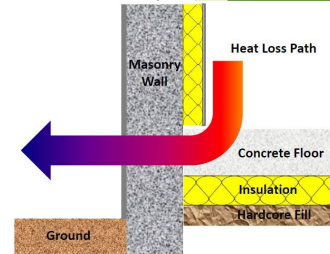
Layer should be taped to wall or in this case to the side of model

Improvements to Displays

One sheet of insulation here not 3 explain the bonding of the brick stone slips QR code or on TV



Insulate the edge of the floor slab in u/floor heating to reduce thermal bridge, see above



Insulating the edge of the floor stops this thermal bridge

Improvements to Displays

Label this as heat pump and add QR codes to suppliers

Best to put links to good info webpages like this one for Daikin

https://www.daikin.ie/en_gb/product-group/air-to-water-heat-pump-low-temperature.html



Training Clause on Public and Private Tendering Contracts

Tulla case study



Tulla case study

Training module is currently being piloted



Description

The building was built as a convent in 1883 and closed in 1998. In 2011 it was handed over to the Tulla community, then renovated and developed into an Irish music and cultural centre. An extension was built in 2019 which incorporates a communal kitchen which required no fabric upgrades. The total usable floor area is 361m² consisting of a reception area, practice rooms, exhibition rooms, study rooms, the communal kitchen, a chapel, bathrooms, and six bedrooms upstairs for guests to stay.

The building is listed in the registry of national inventory of Architectural Heritage **Reg No. 20300707**

ABOUT THE TRAINING CLAUSE

- Training clauses allow public procurers to **require companies winning nZEB projects (renovation and new build) to train their staff in energy efficiency.**
- Training clause is currently in-use in the **Hauts-de-France region (France)**, where the **companies winning these projects must train staff working on a project** (construction workers and site supervisors) in **energy efficiency.**
- In Ireland, a version of the clause was used by Dublin City Council on St Bricin's Retrofit Project in 2018.

E | Please note D.C.C. will arrange training for the successful contractor so that at a minimum 2 no. personnel employed on the project successfully complete the Certified Passive House Tradespersons training for a minimum of 2 days. As well as this the Contractors electrical and mechanical subcontractors must also undertake the training.

Bedsit Amalgamation St. Bricins Block 2
Volume C - Pricing Document 19

More ABOUT THE TRAINING CLAUSE

- **Award Criteria (Carrot Approach):** How many of the construction workers who will be working on that project have already completed the training (when tendering)? Or how many will have completed it prior to a certain date?

Possible wording: *“Energy-efficiency/nZEB training: A maximum of X marks [suggested 2-10% of non-financial marks] will be awarded based on the commitment to provide accredited training in energy-efficiency/nZEB requirements to relevant staff employed on the project. Bidders are required to indicate the number of staff in each relevant discipline who will receive energy-efficiency/nZEB training through an accredited third-party provider. To be eligible for award of marks, the training must be completed within the first X months [to be defined by contracting authority] following contract award and must meet the learning outcomes defined in Annex X [key learning outcomes from relevant courses to be set out in Annex]. Bidders should submit a table showing the number of staff to be trained in each discipline and the proposed course. The successful contractor will be invited to contribute to a case study/demonstration of skills developed through the training which will be disseminated at European level as part of the H2020 BUSLeague project. The training commitment will form part of the contract with the successful bidder.”*

- **Selection criteria (Stick Approach),** i.e., a pass /fail technical specification.

POTENTIAL PROJECTS to use the training clause

1. Residential or non-residential
 2. Retrofit or new build
3. Going for tender in the next six-months (as BUSLeague was coming to an end in early 2023)
4. Projects shouldn't be too big/ too small – There should be a clear benefit of using the NZEB training clause

TULLA PROJECT Clause

Appendix 1

Tender training clause:

Energy-efficiency/NZEB training

Within one month from the start of the project, all members of the construction team working onsite on the renovation project must have completed energy-efficiency/NZEB training through an accredited third-party provider.

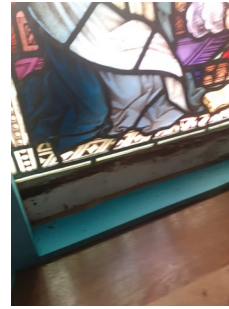
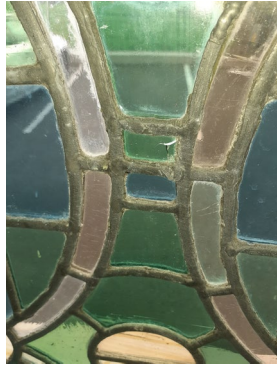
Following completion of the training, for members of the construction team the learning outcomes should be at the very least:

Learning Outcomes

- Understand the Principles relevant to NZEB, Building Regulations and Product Standards
- Understand Building Physics – Key energy terms and units
- Understand Building Fabric: Continuous Insulation / Thermal Bridging / Air Permeability and Windows and Doors
- Understand Building Services: Space Heating and Domestic Hot Water, Controlled Ventilation, Lighting ICT and Smart Technology.
- Understand Renewable Energy, Photo-Voltaics, Smart Metering and Electric Vehicles
- Understand communication and user information.

Results from Tulla project

Building Survey



- Chapel original
Stained-glass
windows:
- frames rotten
 - glass in disrepair

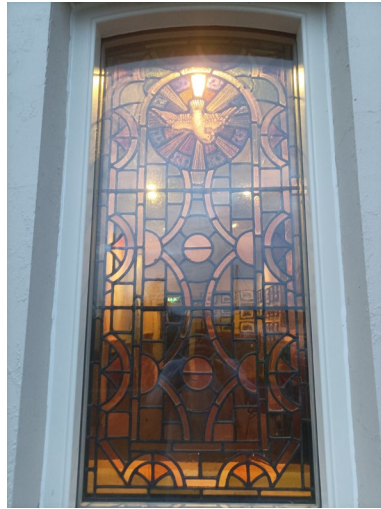
Contractors



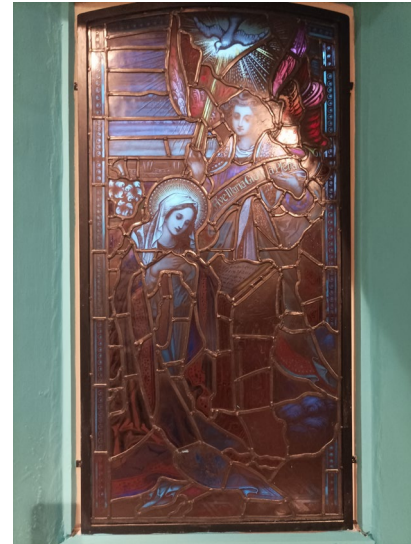
Henry Mellott
MELLOTT WINDOWS
LTD
Castlebar Road,
Ballinrobe
Co Mayo



Kevin O'Leary
Mid-West
Lime
Newmarket
On Fergus Co.
Clare



Refurbished and repaired stained glass inserted new high quality double-glazed windows and fixed stained glass to frame fixed internally to showcase





Insulated walls with bio-based natural materials:

- Cork lime plaster
- Wood based insulation
- Lime Skim coat finish

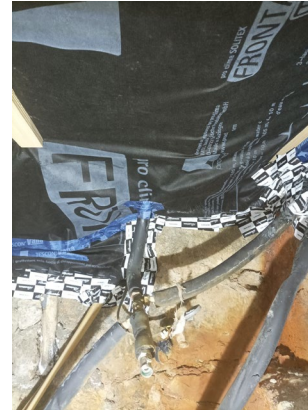
All breathable



Renovation complete



Dried out reinstated & added insulation where required. Added wind tight membrane below, installed to reduce infiltration and heat loss and moisture ingress from basement





- ← We repaired lead flashing and installed a high-quality breather membrane to eliminate wind driven rain ingress
- ← As High Moisture content in walls indicated not just a condensation issue after repairs wall began to dry out

- Attic insulation not removed as usually is- compacted and added to increased depth from 120mm to 300mm. Improved airtightness & U-Value to 0.127 W/m²K





- Two Ecoair 3-18 Pro KW pumps were fitted to work in cascade rather than fit a very large heat pump
- The heat requirement was calculated to ensure the heat pumps were compliant

Difficulties for Procurers of using the Training Clause

Anecdotally

- Contractors are so busy and a tender process perceived as being more 'complicated' / 'risky' / 'unusual' / 'extra' etc may not receive any tenders
- Public procurers have targets in relation to housing (long waiting lists) and need to produce results i.e housing units, quickly and can perceive this as slowing down progress
- Anything out of the standard or ordinary on a tender may need approval by director or higher and so staff in procurement may be risk adverse

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- ▶ Thank you for your time!
- ▶ Any questions?



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