



Glossary

B

Breathable – the ability of moisture to move through building materials. Also known as vapour permeable construction.

C

Cavity Wall Construction – a type of construction used mainly in the 20th and 21st centuries, where two layers of masonry are separated by a cavity/space.

Circular Economy – a set of principles to tackle climate change and other global challenges. In the built environment these principles are (1) Maintain existing buildings (2) Refurbish existing buildings (3) Repurpose and adapt existing buildings (4) Re-use building components as much as possible (5) Recycle building materials and products where possible.

D

Deep Retrofit – see whole house approach.

Decarbonisation – is the reduction in carbon dioxide emissions from a building, or energy production process.

Decrement Delay – the time it takes for the heat to pass through a building element (e.g. a roof or external wall)

Designated Heritage Assets – buildings, monuments, sites, places, areas or landscapes that have been given formal status for their special architectural, historic, cultural or social interest.

E

Embodied Carbon – emissions associated with building materials and the construction process throughout the whole life of the building. This includes an maintenance, repair, refurbishment or repurposing done during the buildings life.

EPC – Energy Performance Certificate. EPCs a given to all properties when they are sold or rented out. They are produced to provide a guide for owners and occupiers about the energy efficiency of the property.

EnerPHit – established standard for refurbishment of existing buildings using the Passive House (definition below) basic principles and components, but not seeking to achieve the high targets of Passive House. This is a voluntary standard.

H

Hygroscopic – ability absorb moisture from the surrounding environment.

L

Low Carbon – causing or resulting in only a small release of carbon dioxide into the atmosphere.

M

Micro-generation – small scale production of heat or electricity from a low carbon source (e.g. solar panels or heat pumps). Usually for one or two dwellings.

Mechanical ventilation – systems which circulate fresh air through a building, for example extract fans.

N

Non-designated heritage asset – buildings, monuments, sites, places, areas or landscapes that have been identified by the Council as having a degree of heritage significance to merit consideration during the planning process, but not sufficient to meet the criteria for formal designation.

Net Zero – balancing the amount of greenhouse gases being released into the atmosphere with those being removed from the atmosphere.

O

Overheating – when the temperature inside a building is so high that it causes discomfort to the occupants.

P

Passive House/Passivhaus – a rigorous energy efficiency standard where the building retains a constant temperature. The principles include (1) no thermal bridging – see definition (2) mechanical ventilation with heat recovery systems (3) high quality insulation (4) airtight construction (5) highly efficient windows.

Pugging – a material inserted between floors and ceilings to reduce noise transmission. This can include sawdust, clay, mortar, shells or sand (note that other materials are also used).

Passive ventilation – this is a way of removing stale air from inside a building without using mechanical systems, for example opening a window.

R

Retrofit – the process of installing new products or systems to improve a building's energy efficiency, reduce its energy use and carbon emissions.

Retrofit Hierarchy – the order in which to carry out retrofit works to an existing building.

S

Solar Gain – when something absorbs the heat from sunlight.

T

Timber Framing – when a building's structure is built from timber. This is often infilled with brickwork, lath and plaster or wattle and daub.

Traditional Building/Construction – a building which has a solid wall construction (no wall cavity). This may be constructed from stone, brick, or timber.

Thermal mass – properties of the building construction that enables it to store heat and slowly release the heat once the temperature cools down.

Thermal Bridge (cold bridge, thermal bypass) – weak points in the construction which allows heat to pass through more easily.

U

U-value – how effective an insulator a material is. The lower the U-value, the better the material is at insulating.

V

Vapour Permeable – a material which allows water to move through it through absorption and evaporation.

Vernacular – a style or regional form of building generally associated with domestic use. This is typified by the use of local materials and constructional techniques.

W

Whole House Retrofit – a comprehensive or holistic plan for works to a building to ensure that is as energy efficient as possible. These works consider potential upgrades or alterations to every part of the building.