

JARGON BUSTER & GLOSSARY OF TERMS, ABBREVIATIONS AND ACRONYMS

Brian Murphy, 2nd December 2011

I have assembled a large glossary of terms from my own collection plus a number of sources and have attempted to seek permission for their use but so far have only had a few replies.

As a last resort we can rewrite some terms.

(Italics indicate keywords, initials or acronyms which are included in this list hyper links could be made in Word or in HTML)

I also have a 100 page file of Links with URLs and notes about each organisation or website content

We will of course wet you know when and where it is published on GreenSpec

Brian

SOURCES

Sources for terms, abbreviations and acronyms:

ASWS 1980s (Brian Murphy now GreenSpec)

BS 7543 1992

Database for use in School Projects Cherrington '97

SEDA Scottish Environmental Design Association: <http://www.seda.uk.net/guides/index.htm>

design and detailing for airtightness <http://www.seda.uk.net/dfa/index.htm>

design and detailing for deconstruction, <http://www.seda.uk.net/dfd/index.htm>

design and detailing for toxic chemical reduction in buildings <http://www.seda.uk.net/dfcrb/index.htm>

NaturePlus 2002

BRE IP 2/05 Modelling and Controlling Interstitial Condensation in Buildings. 2005

UNEP See: Environment and Trade — A Handbook '05

Elma Durmisevic Transformable Building Structures 2006

Building Energy Glossary '06

Energy Star 2007

Ecos Trust: <http://www.ecostrust.org.uk/jcms/> Printed newsletter Renews 17

Hastoe HA Housing Association website: <http://www.greenstreet.org.uk/glossary.php>

CIRIA Guide RP656 Design for Deconstruction Bill Addis (GreenSpec on steering roup)

GreenSpec critique of BRE Green Guide (GreenSpec '08)

ERFMI LCA publication 2008

GreenSpec Glossary: <http://www.greenspec.co.uk/html/glossary/glossary-index.html>

GreenSpec & Ecological Building Systems & Ired: Specifications:

GreenSpec P14 (Making airtight) 2009,

GreenSpec A94 (Testing Airtightness) 2009

GreenSpec A95 (Infra-red Thermographic Surveys) 2009

GreenSpec & BCT Bat Conservation Trust: Biodiversity & Low to Zero Carbon Building 2010

Builder Hampshire Directory '10 <http://builder.hampshire-dir.co.uk/BuildingJargon.aspx>

GreenSpec and Ska Ratings EAM (Ska '09 and GreenSpec '10)

GreenSpec, RDE & JGA meeting (GreenSpec '10)

GreenSpec, BLP, HAPM, BPG, CLM 2010

EIA Glossary USA (date?)

HSE website REACH regulations 2010

E Colomba (LCA Specialist 2010)

CRR (2010)

GreenSpec and John Bullock Lighting Design

John Laing PPP & PFI

Children and young people involvement in formal meetings; a practical guide by (Participation Works Partnership)

enquiries@participationworks.org.uk or 0207 843 6803.

EU SME publication 2011

GreenSpec & CAP'EM project definitions 2010

Passipedia 2011

2011 Guardian News and Media Limited

2 Degrees 2011

Linked-IN Groups

Group: Sustainability Professionals

Subject: Announcement from Sustainability Professionals - ISSP Lexicon Project

I wanted to get this out to the group. I think it is a good project related to sustainability professionals.

ISSP seeks to develop more consistent use of terminology for sustainability professionals with the ISSP Sustainability Lexicon Project (tm).

At a session during the ISSP Conference 2011, to be held September 22-23 in Portland, Oregon, attendees will be briefed on the results of an initial Lexicon Project survey.

During the interactive session attendees will contribute to the development of a more consistent lexicon for sustainability professionals.

They will actively explore issues and help frame the subsequent phases of the project. ISSP would like to hear from consultants, regulators, corporate managers, NGO representatives, academics and others who believe they would add value (content or credibility) to the ISSP Lexicon project.

Join us in Portland in September and be part of this conversation.

For more information on ISSP and to further your sustainability professional development check out the fall line-up of workshops <http://www.sustainabilityprofessionals.org/calendar>

LINKS:

Conference: <http://www.sustainabilityprofessionals.org/conference-overview-and-schedule>

ISSP: <http://www.sustainabilityprofessionals.org>

Lexicon Project: <http://www.sustainabilityprofessionals.org/issp-lexicon-project>

You have to pay to be a member to even read the pages of their website.

Inclusivity v exclusivity?

(GreenSpec BRM '11)

Ira Feldman - <http://www.greentrack.com/ira@greentrack.com>

Calendar: <http://www.sustainabilityprofessionals.org/calendar>

Stephan Levitsky, LEED AP, CPPSc.

Manager, Environmental and Sustainability Services

Sustainable Resources Group, Inc. www.sustainableresourcesgroup.com

0	
017	See: MCS017
1	
½W2L	See: HALVING WASTE TO LANDFILL COMMITMENT
1B	1 Brick thick wall, 1 brick being 215 mm. long header to header along the stretcher face, the wall is 215 mm. thick. 1 Brick long is a surveying by eye measure, a wall 10 B long is 215 mm. x 10 bricks and 10 mm. purpend x 10. As a check of the coursing height, 4 courses with 4 bed joints will be measured. (GreenSpec BRM '10)
1C	1 course high wall, 1 brick being 65 mm. high bed face to top face up the header face, the course is 215 mm. thick. 1 brick course high is a surveying by eye measure, a wall 10 course high is 65 mm. x 10 bricks and 10 mm. bed joints x 9. As a check of the coursing height, 4 courses with 4 bed joints will be measured. Brick lengths are much more variable and a check of the brick length is not often done (GreenSpec BRM '10)
1st PARTY	The manufacturer See 2 nd & 3 rd Party (GreenSpec BRM '10)
100	See: PAS 100 & BSI PAS 100
100	See: GWP(100)
14001	See: ISO 14001
14006	See: ISO 14006
14025	See: ISO 14025
14063	See: ISO 14063
156865	See: BS PD 156865
16001	See: EN 16001
2nd PARTY	The purchaser See 1 st & 3 rd Party (GreenSpec BRM '10)
2030	See: PAS 2030 and BSI PAS 2030
2050	See: PAS 2050 and BSI PAS 2050
2,2,4-TRIMETHYL-1,3-PENTANEDIOL DIISOBUTYRATE (TXIB)	(ERFMI '08)
26000	See: ISO 26000
3D MAX	AutoCAD owned, 3D computing Being developed to use on Apple without PC emulation (GreenSpec BRM '10)
3RD PARTY	The independent party that carries out an assessment or test of a product without bias or preferential treatment (GreenSpec BRM '11)
3RD PARTY ACCREDITATION	If a manufacturer (1 st party) claims it's product complies with a <i>BS</i> or an <i>industry standard</i> , the purchaser (2 nd party) has to trust them to be telling the truth or that they have tested the product themselves to prove it. If the purchaser takes a sample away and tests it they can reassure themselves but it will cost the purchaser to do so. If the manufacturer gets an independent testing house (3 rd party) to carry out tests on their behalf and lets the purchaser know the results, the purchaser is more likely to be happy to believe the results. In this situation the manufacturer is the first party, the purchaser is the second and the independent test house is the <i>third party</i> . If the <i>third party</i> is a recognised and approved test house then their tests could lead to some form of certification or <i>accreditation</i> like <i>BSI Kitemark</i> <i>SGS Yarley's Testguard</i> or <i>BBA Agrément Certificate</i> etc. (ASWS BRM '97)
350	See: CEN TECHNICAL COMMITTEE CEN TC 350
351	See: CEN TECHNICAL COMMITTEE CEN TC 351
5th ELEVATION	Curved, Flat or Pitched Roofs as seen from above, as shown in Architect's Drawing Roof Plan. (GreenSpec BRM '10)
5750	See: ISO 9000 QUALITY ASSURANCE Was BS 5750, Quality Assurance now superseded by ISO 9000 See: ISO 9000, Quality Assurance
60	See: £60k HOUSE
6001	See: BES 6001
7	See: BUILDING REGULATION 7
80-20 RULE	See: PARETO'S PRINCIPLE

8887-220 See: **BS 8887-220**

(CRR & GreenSpec BRM '10)

8905 See: **BS 8905**

9000 See: **ISO 9000**

£60k HOUSE

One example of the £60k house prototypes built at the BRE Innovation Park using a *MMC* in the form of *SIPs* panels has been estimated to cost £7k to demolish and £40k to dismantle.

Obviously design for disassembly was not high on their agenda when designing it.

(GreenSpec BRM '10)

A

a – VALUE (ALPHA)

See: Alpha

(GreenSpec AEP '09)

AB See: **APPELLATE BODY**

ABBREVIATIONS

Reduction of a multi-worded title to the initials of each word only, used to save time in conversation and space in written text, they are only useful in company that knows the meaning of the abbreviations but create barriers to communication if the audience are not familiar with it.

IT managers are renowned for playing ping pong with abbreviations to challenge and repel borders, part of the ritual of proving dominance over their peers.

See: Acronyms, Crystal Mark, Jargon Buster, Plain English, TLA,

(GreenSpec BRM '10)

ABC See: **ACCEPTABLE BEHAVIOUR CONTRACT**

ABCD See: **ASSET BASED COMMUNITY DEVELOPMENT**

ABE See: **ASSOCIATION OF BUILDING ENGINEERS**

ABIOTIC COMPONENTS

The non-living components of the biosphere.

Chemical and geological factors, such as rocks and minerals, and physical factors, such as temperature and weather, are referred to as abiotic components.

(GreenSpec AEP '09)

ABIOTIC DEPLETION (AD)

Refers to the exhaustion of natural (non-living) resources such as iron ore, copper and fossil fuels.

(GreenSpec AEP '09)

See: ADP

(GreenSpec BRM '11)

ABIOTIC RESOURCE DEPLETION POTENTIAL (ADP)

(ERFMI '08)

ABS See: **ACRYLONITRILE BUTADIENE STYRENE**

ABSORPTION

Absorption is the incorporation of a substance in one state into another of a different state (e.g. liquids being absorbed by a solid or gases being absorbed by a liquid).

(Wikipedia [http://en.wikipedia.org/wiki/Absorption_\(chemistry\)](http://en.wikipedia.org/wiki/Absorption_(chemistry)))

See: Adsorption, Hygroscopic, Hygroscopicity, Sorption

(GreenSpec BRM '10)

ABUNDANT MATERIALS

Material/product is one that is naturally abundant, sufficient for future needs at future consumption rates

Examples:

mined or scraped materials

sand, gravel, soils, rock,

Material applications:

Ground modelling,

walls,

Roofs,

claddings,

paving,

fills,

landscape

Reservations:

Use of synthetic, petrochemical, heavy metals, hazardous: treatments, binders, additives, etc.

Exceptions/Exclusions:

Landscape and biodiversity degradation

No beneficial use of by-product or waste

Waste generated and stored at ground level or deposited in landfill

Examples:

Metals: High energy or CO2 intense processing for use (aluminium especially)

Limestone for cement production (lime preferred)

Advantages:

Some reuse potential at end of building life

Return to land, landscape or agricultural use

Potential substitutes:

Recycled aggregates

Recycled waste

See: Abundant Material, Agricultural Co-Product, By-Products Or Waste, Healthy Material, Renewable Materials, Rapidly Renewable Material, Non-renewable material, VOC,

(CAP'EM BRM '10 & GreenSpec BRM '11)

AC See: **ALTERNATING CURRENT**

AC See: **AIR CONDITIONING**

ACADEMY FOR SUSTAINABLE COMMUNITIES (ASC)

<http://www.ascskills.org.uk/>

(Inspire East)

ACCEPTABLE BEHAVIOUR CONTRACT (ABC)

A contract between the authorities and a young person, which is one step below an ASBO

(Participation Works Partnership)

See: ASBO

(GreenSpec BRM '11)

ACCESS HATCH

An access hatch is defined as a door, thereby allowing it to meet less stringent envelope requirements.

(Building Energy Glossary '06)

If not defined as an access hatch but a door, it would need to be insulated as a roof or wall, depending on where it was located.

Despite the above, in an effort to conserve energy, access hatches should be treated as a door and meet all envelope requirements.

Ceiling access hatches are notoriously left uninsulated whilst the ceiling surrounding it is likely to be very well insulated.

Access hatches need to be insulated and also to be airtight.

See: Door.

(GreenSpec BRM '10 – '11)

ACCESSIBLE

Admitting close approach; not guarded by locked doors, elevations, or other effective as applied to equipment;

See: Readily accessible.

(Building Energy Glossary '06)

ACCREDITATION

Formal recognition that an organisation or individual has met certain standards, competencies, etc.

(Participation Works Partnership)

ACE See: **ARTS COUNCIL ENGLAND** **ACER** See: **ASSOCIATION OF COLLEGES IN THE EASTERN**

REGION **ACE** See: **ASSOCIATION OF CONSULTING ENGINEERS**

ACETONE

Common ingredient of paints: Solvent.

Can cause eye, nose and throat irritation, headache, dizziness, dermatitis.

(GreenSpec AEP '10)

ACH See: **AIR CHANGES PER HOUR**

ACI See: **AIR CONDITIONING INSPECTION**

ACID

See: Acidity, Alkali, Water, H&S, Risk Assessment, CHIP, COSHH, REACH,

(GreenSpec BRM '11)

ACID DEPOSITION SO₂

ACIDIFICATION

The result of acidifying pollutants emissions, such as SO₂ or Nox, to the air.

These emissions have negative impacts on soil, groundwater, surface waters, biological organisms, ecosystems and materials

(GreenSpec AEP '09)

See: AP, Acidification Potential, Acid Rain.

ACIDIFICATION POTENTIAL (AP)

(ERFMI '08)

Emissions that damage vegetation, buildings, aquatic life and human health.

Units: kg SO₂ equivalent

(Interface '11)

See: LCA, Impact categories, Damage Categories,

(GreenSpec BRM '11)

ACIDITY

Acidity is caused by hydrogen ions in a liquid, with more hydrogen ions making the liquid more acidic.

See: pH value

The opposite of acidity is alkalinity

(Cherrington '95)

See: Alkalai, Water, Acid

ACID RAIN

Precipitation (rain, snow, sleet, fog, mist) which has a pH value of less than 5.6 (pH 7 is neutral), and is therefore acidic in nature.

It is responsible for raising the acidity of soil and water.

The main causes of acid rain are:

sulfur dioxide

nitrogen oxides
hydrogen chloride
halons
chlorinated solvents
(Cherrington '95)

Prevailing winds across UK took electricity generation flue gases to Scandinavia and dropped acid rain destroying their forests.

Flue gas cleaning (scrubbers) used to filter out pollutants has been adopted to reduce acid rain, using a chemical reaction to create gypsum as a by-product (desulfurisation gypsum) an ingredient in the manufacture of gypsum boards and plasterboard used in linings and partitions.

Off-cuts of gypsum entering mixed waste streams may come into contact with biodegrading waste and release the HydrogenSulfide it collected from flue gases, releasing the pollutants again.

(GreenSpec BRM '08-'10)

Rain which has become acidic due to atmospheric pollution.

The most important source of which is the burning of fossil fuels in motor vehicles and power stations.

(Hastoe HA GreenStreet.org)

See: AP, Acidification, Acidification Potential,

(GreenSpec AEP '09)

ACCREDITATION

Has the meaning assigned to it by Regulation (EC) No 765/2008

(CE Marking for SMEs & CPR '11)

ACoP See: **APPROVED CODE OF PRACTICE**

ACOUSTIC ISOLATION JOINT (AIJ)

ACQUIRED IMMUNE DEFICIENCY SYNDROME (AIDS)

ACR See: **AIR CHANGE RATE**

ACRE See: **ACTION WITH COMMUNITIES IN RURAL ENGLAND**

ACRONYMS

Like *abbreviations* and *initials* they are a short hand version of an organisations name, unlike *initials* they make up a word in their own right e.g. *CIRIA*, *CIRCA*, etc. They often become part of our normal vocabulary like *WYSIWYG*, *NEDO*, etc. Another variation of the *abbreviation*, *Initial* and *Acronym* is one where more than one letter from each or some words is used to make a pronounceable word out of more than just *initials*. E.g. *NAMAS*. Etc.

(ASWS BRM '97)

See: Plain English, Abbreviation, Initials, TLA, Three Letter Abbreviation, Crystal clear, Crystal mark

(GreenSpec BRM '10)

ACRYLONITRILE BUTADIENE STYRENE (ABS)

Used at BedZED for above ground drainage in place of PVC

http://en.wikipedia.org/wiki/Acrylonitrile_butadiene_styrene

ACTIVE SOLAR HEATING

Passive renewable heat energy solar thermal panels attached to a frame with universal joint mounting that follows the sun to maximise the heat energy gained.

Often used for heating swimming pools

Take care to ensure the benefits outweigh the losses, especially the carbon accounting, using grid electricity to obtain renewable heat may not have a short carbon payback period.

PV collectors for the motor electricity would overcome some of the issues.

(GreenSpec BRM '11)

ACTOR IN THE SUPPLY CHAIN

All manufacturers and/or importers and/or downstream users in a supply chain of a substance.

(HSE REACH '10)

AD See: **ABIOTIC DEPLETION**

AD See: **ANAEROBIC DIGESTION**

AD See: **APPROVED DOCUMENT**

ADAPTATION

Adjustments in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderate harm or exploit beneficial opportunities.

(UKCIP Climate Change Science)

Adaptation involves taking actions to minimize the effects, and take advantage of the opportunities, of climate change (both current and those yet to come).

(Adapting to the impact of climate change on buildings, neighbourhoods and cities A Briefing Guide for the North West Ian Cooper et al '10)

Adaptation and Mitigation need to be tackled in parallel.

Reducing carbon emissions (mitigation) is essential but adaptation is also critical.

Some climate change is now inevitable and unless urgent, concerted global action is taken to reduce greenhouse gas emissions, further changes to our climate may become unavoidable,

This that preparing for and adapting to the changes is not an alternative strategy to reducing greenhouse gas emissions, but a parallel, complementary and highly necessary one.

(London Climate Change Partnership)

See: Climate Change Adaptation, Mitigation
(GreenSpec BRM '10)

ADAPTABLE BUILDING

a building that has been designed with thought of how it might be easily altered to prolong its life, for instance by addition or contraction, to suit new uses or patterns of use.
(CIRIA RP656 Design for Deconstruction Bill Addis)

See: Climate Change Adaptation
(GreenSpec BRM '11)

ADDITION

Extension or increase in floor area or height of a building or to any building system or equipment
(Building Energy Glossary '06)

See: Extensions,
(GreenSpec BRM '11)

ADDITIVES

Added to most recipes E additive in food, chemicals in products.

Most chemical additives will emit VOCs during the curing process.

Many will emit VOCs long after curing and whilst buildings are in use.

If applying a sealer or other coating to a floor or other surface, check that the curing compound is compatible with the finish.

Also ensure there is sufficient ventilation during the curing process.

See: Off-gassing
(SEDA '08 & GreenSpec '09)

An additive is any input material in the product representing up to 5 mass %.
(Natureplus 2002)

ADHESIVES

Wood adhesives used in plywood, particleboard, OSB, etc.

urea formaldehyde (UF)

melamine urea-formaldehyde (MUF)

phenol- formaldehyde (PF)

polymeric methylene di-isocyanate (PMDI)

Making most wood panel products high embodied energy, high embodied carbon, worse than timber boarding which benefits from low embodied energy and carbon sequestration during growth.

(GreenSpec BRM '10)

ADJUSTED LIGHTING POWER

lighting power, ascribed to a luminaire(s) that has been reduced by deducting a lighting power control credit based on use of an automatic control device(s)

(Building Energy Glossary '06)

ADOPTED ROAD

See: Un-adopted road

(GreenSpec BRM '11)

ADOPTING AUTHORITY

agency or agent that adopts a standard or an addition to the infrastructure e.g. adopted road or SUDS drainage

(GreenSpec BRM '10-'11)

ADP See: **ABIOTIC DEPLETION POTENTIAL**

ADSCR See: **ANNUAL DSCR**

See: DSCR, PPP, PFI

ADSORPTION

Adsorption is the physical adherence or bonding of ions and molecules onto the surface of another phase (e.g. reagents adsorbed to solid catalyst surface).

(Wikipedia http://en.wikipedia.org/wiki/Adsorption#Adsorption_spillover)

Materials can be added to polluted water that attract hydrocarbons to their surfaces that then get adsorbed onto the surfaces and cannot be washed off or squeezed out.

When introduced into Sludge Gullies and Petrol Interceptors will capture hydrocarbons from road run-off and hold them for collection by LA road maintenance staff.

The same materials can be used to adsorb pathogens from polluted water.

See: Absorption, See: Sorption

(GreenSpec BRM '10)

ADVOCATE

Someone to speak on your behalf

(GreenSpec BRM '11)

ADVOCACY

AEC See: **ARCHITECTURE, ENGINEERING & CONSTRUCTION**

AECB See: **ASSOCIATION OF ENVIRONMENT CONSCIOUS BUILDING**

AECB See: **SUSTAINABLE BUILDING ASSOCIATION**

AEP See: **SANDY PATIENCE**

Editor of GreenSpec

See: BRM, GreenSpec, MyGreenSpec, GreenSpec Studio, GreenSpec PASS, WasteCost Lite, GreenSpec EPD, (GreenSpec BRM '10)

AEROBIC COMPOSTING

The natural breaking down of organic waste into compost.

One form of Recovery in the Waste Hierarchy

(Cherrington '95)

AEROBIC DIGESTION (AD)

The bacterial process of decomposition or rotting occurring in the presence of oxygen – aka composting.

(GreenSpec AEP '09)

'Recovery' in the *waste hierarchy*.

Recovering nutrients from waste for use in soil improvement, by adding recovered nutrients to the soil and adding water retaining capacity.

(GreenSpec BRM '11)

AEROGEL INSULATION

See: Thin Insulation

(GreenSpec BRM '10)

AFFILIATES

See: Passipedia: [iPHA Affiliates](#)

(GreenSpec BRM '11)

AFFORDABILITY

Passive Houses not only save money over the long term, especially in light of rising energy costs, but are surprisingly affordable to begin with.

Passive Houses do not require heating and cooling systems on conventional scales, meaning that the money that would have gone towards larger heating and cooling systems can be spent instead on better windows, thicker insulation and a ventilation system – hallmarks of Passive House design.

Add to this the long-term energy savings Passive Houses bring and it becomes clear that Passive Houses are a good investment.

Especially in the face of dwindling energy resources and rising energy costs, the Passive House Standard demonstrates sustainable affordability.

Even so, Passive Houses do cost more upfront than their conventional counterparts.

On average, someone building a Passive House in Germany might expect to spend anywhere from 3 to 8% more, and this cost differential is likely more in countries where Passive House components are not yet readily available.

As the number of Passive House suitable components on the market increases, however, prices in these other countries will drop.

Financial support for Passive Houses, as currently available in a number of countries, further reduces their cost. In this light then, building a Passive House may even be more **affordable** over the **long term** than building a conventional home.

See: Passipedia: [Affordability](#)

See: £60k House

(GreenSpec BRM '11)

AFFORESTATION

The planting of trees in areas that have not previously held forests.

(GreenSpec AEP '09)

AF See: **AREA FACTOR**

AFUE See: **ANNUAL FUEL UTILIZATION EFFICIENCY**

AGENCY

An organisation, voluntary, statutory or private company, which is involved in providing services

(Participation Works Partnership)

AGGREGAIN

WRAP website focussed on recycled aggregates

www.aggregain.org

GreenSpec assisted in the creation of the Demolition Moduel.

(GreenSpec BRM '11)

AGGREGATE

Sand and gravel, used alone or with a binder or found with a natural binder or used in concrete making.

See: Virgin, Primary, Secondary, Recycled, RCA, Manufactured aggregates, Breedon gravel,

(GreenSpec BRM '11)

AGRICULTURAL CO-PRODUCT, BY-PRODUCTS OR WASTE

The material/product uses agricultural co-product, by-products or waste?

Co-Product e.g. milling waste not used for fuel,

Bi-product e.g. unused stem of Straw, Hemp, flax,

Waste: leaves, bark, roots, forest thinnings, husks, nut shell, coffee grounds, Animal bone, sewage,

Under valued/under used: e.g. sheep's wool, feather

Material applications:

construction panel,

construction board,

thermal insulation,
bone used as aggregate in lightweight concrete blocks
animal sewage made into LESA lightweight expanded sewage aggregate

Reservations:

Use of synthetic, petrochemical, hazardous: treatments, binders, etc.

Exceptions/Exclusions:

No beneficial use of by-product or waste
Waste generated and stored at ground level or deposited in landfill
No or poor Animal Husbandry Stewardship schemes in place

Examples:

Animal brain and nerve tissue
Synthetic binders
Hazardous treatments added for durability
Hazardous as a waste product

Potential substitutes:

Recycled timber fibres from virgin solid wood, reclaimed or recycled wood
Secondary aggregates, recycled aggregates,
bio-plastics,
Sewage,
LECA Clay

See: Abundant Material, Agricultural Co-Product, By-Products Or Waste, Healthy Material, Renewable Materials, Rapidly Renewable Material, Non-renewable material, VOC,
(GreenSpec BRM '11)

AGRÉMENT CERTIFICATE

Issued by the *BBA* it represents one of a number of *third party accreditation* schemes where a manufacturer is creating a product or system which may not necessarily comply with a *BS* or *industry standard* or *CP*.
BBA will carry out test to verify that the product complies with the specification it sets out to comply with and identify any limitations that the user should adopt for successful use.
The *Agrément Certificate* sets out the manufacturer's design intent, any regulations or standards that apply and where they can be ignored, what limitations if any apply and what the life expectancy should be.
(ASWS BRM '97)

AHU See: **AIR HANDLING UNITS**

AI See: **ARTIFICIAL INTELLIGENCE**

AIDS See: **ACQUIRED IMMUNE DEFICIENCY SYNDROME**

AIJ See: **ACOUSTIC ISOLATION JOINT**

AIR BARRIER

An air barrier comprises materials and/or components, which are air impervious or virtually so, separating conditioned spaces (heated, cooled or humidity controlled), from unconditioned spaces (unheated, uncooled, humidity uncontrolled, usually outside).

(based on SEDA Airtightness Guide definition)

AIRBORNE SOUND

Sound propagating through the air, often linked to noise sources such as speech and television.

(CC Publication: Concrete and Sound insulation)

http://www.pavatex.co.uk/lexikon.aspx?GlossaryId=24&mid=2785&ctl=Detail&SkinSrc=%5bG%5dSkins%2fpavatexcss%2fnoSkin&ContainerSrc=%5bG%5dContainers%2f_default%2fNo+Container

(Pavatex Glossary ' www.Pavatex.co.uk)

AIRBORNE SOUND INSULATION

Sound insulation that reduces the transmission of airborne sound between adjoining dwellings or parts of adjoining dwellings.

(CC Publication: Concrete and Sound insulation)

AIR CHANGES

a measure of the air exchange in a building.

One air change is an exchange of a volume of air equal to the interior volume of a building.

(Hastoe HA GreenStreet.org)

AIR CHANGES PER HOUR (ACH)

Measures ventilation as the number of times per hour that the air inside a building is changed.

Units: m³ hr/ m³.

(GreenSpec AEP '09)

See: Air change rate

(GreenSpec BRM '11)

AIR CHANGE RATE (ACR)

The rate at which outside air enters a room, space or building; or inside air escapes from a room, space or building divided by the volume of that room, space or building.

This is expressed as ach (air changes per hour).

(based on SEDA Airtightness Guide definition & GreenSpec '09)

AIR CHANGE VALUE

Indicates how often the entire room air is renewed within one hour.

(Pavatex Glossary '___ www.Pavatex.co.uk)

AIR CONDITIONED FLOOR AREA

area served by air conditioning equipment measured at floor level from the interior surfaces of the walls

See: floor area, Voltage Optimisation,

(GreenSpec BRM '10 - '11)

AIR CONDITIONED SPACE

space served by air conditioning equipment

(GreenSpec BRM '10)

See: Voltage Optimisation

(GreenSpec BRM '11)

AIR CONDITIONING (AC)

High energy intensive system of ventilation with cooling, part of the process is both heating and cooling to manage humidity, more often than not mechanical ventilation could suffice.

See: HVAC, MVHR

(Ska '09 and GreenSpec '10)

AIR CONDITIONING FOR HUMAN COMFORT

Conditioning air to modify its temperature, relative humidity and cleanliness; and its distribution, delivery and dispersal within conditioned space(s) to meet the comfort requirements of the occupants of the condition space(s).

Some air conditioners may not accomplish all these controls

(Building Energy Glossary '06 & GreenSpec BRM '10)

See: Voltage Optimisation

(GreenSpec BRM '11)

AIR CONDITIONING INSPECTION (ACI)

AIR CURTAIN

A stream of high velocity, temperature-controlled (usually heated in the heating season) air which is directed across an opening.

It enables control of conditions in a space, which has an open entrance.

(based on SEDA Airtightness Guide definition)

AIR EXFILTRATION

The uncontrolled outward leakage of indoor air through cracks, discontinuities and other unintentional openings in the building envelope.

In winter the air is likely to be heated and heated air exfiltration will result in uncontrolled heat loss and potential interstitial condensation risk.

(SEDA Scottish Environmental Design Association, GreenSpec '09 & Ecological Building Systems'09)

AIR FILM RESISTANCE

Results from convection currents at the surface of a material.

As the surface heats up or cools down, it affects the temperature of the air immediately adjacent.

This then starts to rise or fall depending on whether it is hotter or colder.

This has the same effect as increasing the resistance of the material to the flow of heat.

See: Surface Resistivity

(GreenSpec AEP '09)

AIR FLOW RATE

Amount of air supplied, discharged or extracted per unit of time

Units: L/s = litres/second

(GreenSpec BRM '10)

AIR HANDLING UNIT (AHU)

An encased assembly, room, or space in a plant room or in a duct assembly, consisting of sections containing a fan or fans and other necessary equipment to perform one or more of the following functions: circulating, recirculating, filtration, heating, cooling, heat recovery, humidifying, dehumidifying and mixing of air; as well as noise attenuation; used for ventilation, heating, cooling or air conditioning of the conditioned spaces they serve.

(GreenSpec BRM '10-'11)

AIR INFILTRATION

The uncontrolled inward leakage of outdoor air through cracks, discontinuities and other unintentional openings in the building envelope.

In winter the air is likely to be cold and cold air infiltration will result in uncontrolled draughts, leading to thermal discomfort and condensation risk.

(SEDA Scottish Environmental Design Association, GreenSpec '09 & Ecological Building Systems '09)

Another term for inward air leakage/air permeability

(GreenSpec AEP '09)

Through careful design and quality of construction, air permeability and air infiltration can be minimised.

(GreenSpec BRM '10)

AIR LAYING

(Renueables AN '09)

AIR LEAKAGE AUDIT

The inspection of materials and components, between conditioned and unconditioned spaces to try to establish where

major discontinuities in an air barrier system might exist.

(based on SEDA Airtightness Guide definition)

AIR LEAKAGE INDEX

The leakage of air (m³.h⁻¹) in or out of a building space, per unit area (m²) of envelope (excluding ground floor area, except for non-ground supported lower floors)

at a reference pressure of 50 Pa between inside and outside the building.

(based on SEDA Airtightness Guide definition)

AIR LEAKAGE INDEX

The measure of air leakage per unit thermal envelope area including the roof and walls – but not the ground floor.

Units: m³/m²hr at 50 Pascals or m/h @ 50 Pa.

(GreenSpec AEP '09)

AIR LEAKAGE PATH(S)

A route by which air enters or leaves a building or flows through a component.

(based on SEDA Airtightness Guide definition)

A route by which air enters or leaves a building or flows through a component.

The air leakage path may not pass directly through an element but can also pass long its length or across its area, leaks in the external envelop can manifest themselves in more than one location and in any junction of external or internal construction.

Plasterboard is an example of an air-leaky construction where air moves between walls and plasterboard and leaks out of electrical switches and sockets, around skirting, etc.

Holes through the building fabric through which air can pass, that can destroy the integrity of the fabric's acoustic, fire, thermal, wind, weather, water and air tightness performance.

The building fabric can be both internal construction or external envelop, air leakage paths can link them.

During the heating season, air passing through air leakage paths will carry heat, increase energy demand and increase the carbon footprint of the building and its occupants.

Air leakage paths will show up on Infrared-Thermography images as an anomaly.

(GreenSpec '09)

AIR LEAKAGE RATE

The leakage of air (m³.h⁻¹) in or out of a building space, per unit volume (m³) at a reference pressure of 50 Pa between inside and outside the building.

(based on SEDA Airtightness Guide definition)

AIR PATH

A direct or indirect air passage from one side of a structure to the other.

(CC Publication: Concrete and Sound insulation)

AIR PERMEABILITY

The leakage of air (m³.h⁻¹) in or out of a building space, per unit area (m²) of envelope (including ground floor area) at a reference pressure of 50 Pa between inside and outside the building.

(based on SEDA Airtightness Guide definition)

AIR PERMEABILITY

Determined by Part L of the Building Regulations as the uncontrolled air leakage through the building envelope including the roof, walls and ground floor.

Part L of the Building Regulations specifies maximum values for the air permeability of dwellings, commercial and public buildings.

Air permeability is defined by BS EN 13829.

Units: m³/m²hr at 50 Pascals or m/h @ 50 Pa.

(GreenSpec AEP '09)

AIR SOURCE COOLING PUMPS (ASCP)

AIR SOURCE HEAT PUMPS (ASHP)

Air-source pumps are more efficient than GSHP or GSCP in this situation, nevertheless the basic mechanics are similar.

(based on Building Magazine Steve Piltz, Turner & Townsend '08)

See: HP, GSHP, WSHP, GSCP, WSCP

(GreenSpec BRM '10)

AIR SPACE

See: Contact, Air Space, Capillary Action/Attraction, Moisture Transport, Internal Insulation,

(GreenSpec BRM '11)

AIRTIGHT CONSTRUCTION

See: Passipedia: [Airtight construction](#)

See: Airtight envelop, Airtightness,

(GreenSpec BRM '11)

AIR TIGHT ENVELOPE

This describes the state of the external faces of a building, it is vitally important that buildings are airtight to ensure no hot air escapes and no cold enters in the heating season making the building more expensive and fuel consuming that it need be to heat.

See: U value Envelop

(GreenSpec '09)

AIRTIGHTNESS

Identifying and controlling air leakage is key to preventing energy losses through convection of warm air.

(based on Ecos Renews 17)

A term relating to the leakiness of a building.

The smaller the leakage for a given pressure difference across a building, the tighter the building envelope.

(based on SEDA Airtightness Guide definition)

A term referring to the airtightness of a building but describing the opposite, i.e. leakiness of a building.

An airtight building is one which does not lose either heated or cooled air to the outside in an uncontrolled manner.

The smaller the leakage for a given test pressure difference through the external envelop of the building, the tighter the building envelope.

Old buildings were designed to be leaky and it would normally be desirable for this to remain the case, for the health of the construction.

As we move towards zero carbon buildings air tightness and deliberate controlled efficient ventilation are deemed essential.

(BCT & GreenSpec '08)

Airtightness is also a precursor to increased vapour control reducing the incidence of interstitial condensation particularly in timber or lightweight structures.

(Ecological Building Systems '09)

Building Regulations Approved Document L "Part L" specifies maximum values for the air permeability of dwellings, commercial and public buildings.

External rendering or internal plastering in the form of 'parge coating' on brick / block backgrounds can be useful in effecting an air seal - providing there is continuous coverage. The application of a 'skim' coat to plasterboards can also prove effective.

(GreenSpec AEP '09)

The placing of vapour barrier (VB) on the warm side of thermal insulation and breathing membranes (BM) on the cold side of thermal insulation will discourage moisture entering the construction and enable moisture to escape from it generally in the outward direction.

This basic principle is not fully understood and can be designed, specified, carried out incorrectly or inadequately.

This can lead to interstitial condensation where warm moist air passes into the insulation, cools down, the air can no longer hold the moisture which is released as condensation.

To overcome this issue replacing the Vapour barrier VB and the breather membrane BM with a moisture permeable air tightness layers ATL internally and a moisture permeable wind tightness layers WTL externally; these prevent air flow but permit moisture passage in either direction but the inner layer needs to be 5 times more moisture resistant than the outer layer to encourage outward movement of moisture.

In this situation the insulation used must be hygroscopic.

This type of construction is described as breathing (misleading since it refers to breathing moisture not breathing air).

(GreenSpec BRM '10)

Through statutory air tightness requirements for the building shell, additional energy losses in the form of out flowing, warm air and the resulting damage due to moisture will be prevented.

Standards:

DIN 4108 T7 thermal insulation,

DIN 68800 wood protection and regulations of the Central Association of German Roofing Contractors (ZVDH)

SIa (Swiss Association of Engineers and Architects) 180

(Pavatex Glossary 'www.Pavatex.co.uk)

AIRTIGHTNESS CHAMPION

In order for airtightness to be achieved it is important to give an individual within the construction team the role of championing the achievement of airtightness for the duration of the project; this need not be their only task but significant time must be allocated to the task at appropriate times.

Choose a person who is full time, based on site (it may be a site agent or a project manager)

They must be interested in achieving airtightness or has past experience; reluctance is unlikely to lead to good will or good results.

Duties include:

Liaison with Project design team's airtightness champion in design team meetings and on site.

Checking labour force for airtightness training or qualifications history

Organise any visits for "Upskilling for Airtightness" training

Facilitate or provide Airtightness tool box talks for airtightness and interface trades

Co-ordination of sequence, responsibilities and interface of trades on site

Development of checklists specific to project

Facilitate airtightness intermediate checking, formal testing and any retesting

Recording failures into checklist, report back to all interface trades

Checking remedial action is understood and carried out.

Managing all paperwork associated with airtightness champion tasks.

(GreenSpec BRM '09)

AIRTIGHTNESS TEST & TESTING

The air tightness of a building can be ascertained during an air tightness test – sometimes known as a Blower Door-Test.

The building is pressurised and areas of air leakage are identified using smoke guns or other

This gives a measurement of air changes per hour within the building.

Identifying and controlling air leakage is key to preventing energy losses through loss of warm air or gaining of cool air. (based on Ecos Renews 17)

Airtightness is also a precursor to increased vapour control reducing the incidence of interstitial condensation particularly in timber or lightweight structures.

(Ecological Building Systems '09)

AIRTIGHTNESS LAYER

A layer built into the external envelope of a building designed to minimise the movement of air through infiltration and exfiltration.

It may consist of a wide range of materials (for example, walls, plasters, floors, sealants, gaskets, glazing or membranes) and should be continuous to be effective.

The materials can be within a building element (e.g. walls or roofs) or at its surface but should be continuous to be effective.

Abutments between elements need to maintain the continuity.

(BCT & GreenSpec '08)

Air-tightness layers can be one of 4 types: vapour barrier (VB), breather membrane (BM), wind tightness layer (WTL) or air tightness layer (ATL).

Air-tightness layers can be vapour open (breather membrane, wind tightness layer or air tightness layer) or vapour closed (vapour barriers).

Typically, airtightness layers control the passage of air and vapour penetration from the heated space to the cold space using an appropriate vapour control layer

Wind tightness ensures air/wind penetration through the insulation is minimised from the outside reducing potential convective losses.

It also protects the building structure from moisture penetration from the outside, this is typically a breather membrane.

(based on SEDA Scottish Environmental Design Association + GreenSpec '09 & Ecological Building Systems '09)

AIRTIGHTNESS LINE

Achieving airtightness is not just about workmanship on site it is a design issue, the airtightness is not about luck it is about designed intention; when designing a building it is essential that the designer determines the parts of the building forming the airtightness line and to indicate them on the drawings as you would a damp proof membrane with a dotted line linking DPM in floors to DPC in walls.

Since airtightness is a new issue to builders as well as designer they need to know what they are trying to make airtight and how.

The methods and the materials used to make the airtightness line must be known, capable, designed, drawn and specified.

Then it's performance is determined by workmanship on site.

(GreenSpec '09)

AIRTIGHTNESS TEST

The air tightness of a building can be ascertained during an air tightness test – sometimes known as a Blower Door-Test.

The building is depressurised or/and pressurised and areas of air leakage are identified using smoke guns or other

This gives a measurement of air changes/hour within the building.

(Ecos Renews 17 & Ecological Building Systems '09)

Air tightness testing is a method of measuring the extent to which air is lost through leaks in the building.

Air tightness testing can also be referred to as air leakage testing or air pressure testing.

The testing to measure the air leakage rate from a building is usually based on a standard 50 Pa reference pressure difference.

Current Building Regulations require a test pass rate of 10, it is expected that the pass rate will reduce with each revision of the Building Regulations.

Testing should occur on the building shell before claddings, linings and finished are applied.

(BCT & GreenSpec '08)

AIR TIGHTNESS TESTING & MEASUREMENT ASSOCIATION (ATTMA)

(CIRIA RP656 Design for Deconstruction Bill Addis)

www.attma.org

(GreenSpec BRM '09)

AIR QUALITY

In addition to global warming, ozone depletion and acid rain other form of air pollution can affect human health and the natural environment:

Off-gassing from materials and internal finishes

(Cherrington '95)

See: Passipedia: [Air quality](#)

See: IAQ Internal Air Quality

(GreenSpec BRM '11)

AIR VOLUMES:

See: Passipedia: [Air volumes](#)

(GreenSpec BRM '11)

AJ See: ARCHITECT'S JOURNAL

historically technically biased news weekly for the Architectural Profession; was 'anti-green' for many decades, has now gone 'coffee-table'.

Hatti Harman is now addressing environmental and making up for lost time. Once criticised www.GreenSpec.co.uk as having a navigation system that is 'simplistic to the point of boredom', praise indeed.

(GreenSpec BRM '09)

AKA See: **ALSO KNOWN AS**

ALIGNMENT

It is critical that insulation materials are in alignment and abutting with each other in all plains of the U value envelop to ensure there is no thermal bridging across misaligned joints.

T&G Jointed boards help to maintain alignment.

Internal and external corners are often cut and inaccuracies may creep in.

Taping of joints allows the opportunity to check the alignment at abutments and to ensure they are in order.

(GreenSpec '09)

ALKALINITY

Alkalinity is caused by low levels of hydrogen ions in a liquid, the opposite of acidity with more hydrogen ions making the liquid more acidic.

(Cherrington '95)

See: pH value

ALLERGEN & ASTHMA REDUCTION MEASURES

ALLERGY

A condition in which the body has an exaggerated response to a substance (e.g. food or drug).

Also known as hypersensitivity.

(SEDA Chemical Reduction in Building '08)

ALLERGY TRIGGER

The substances that trigger allergy are called allergen.

Examples include pollens, dust mite, moulds, danders, and certain foods.

(SEDA Chemical Reduction in Building '08)

the ALLIANCE for SUSTAINABLE BUILDING PRODUCTS (ASBP)

Rising to the challenge of the BRE GGtS's not-level 'Level Playing Field' and the barriers to true sustainability that it creates.

Champion for the cause of Sustainable Building Products.

Launching in November 2011.

(GreenSpec BRM '11)

ALLOTMENTS

ALP See: **ASSOCIATION OF LEARNING PROVIDERS**

ALPHA (a) – VALUE

The overall thermal performance of the entire building envelope, taking into account the positive effect of the U-value of all plane elements (roof, rooflights, walls, etc) and the negative 'heat draining' thermal bridging effect of junctions, details and interfaces, which act as direct heat conductors from the inside to the outside of the building.

To achieve compliance under Part L of the Building Regulations, two a-values must be calculated, one for a notional building and one for an actual building.

The objective is to establish that the a-value of the actual building is lower than the notional building.

(GreenSpec AEP '09)

ALSO KNOWN AS (AKA)

ALTERATION

Rearrangement, replacement, or addition to a building or its systems and equipment.

Routine maintenance and service or a change in the building's T&CP use category shall not constitute an alteration.

(Building Energy Glossary '06, modified GreenSpec BRM '11)

See: T&CP use category

(GreenSpec BRM '11)

ALTERNATING CURRENT (AC)

ALUMINIUM WINDOWS ASSOCIATION (AWA)

AMERICAN LUNG ASSOCIATION HEALTH HOUSE

www.healthhouse.org

AMMONIA

Common ingredient of paints: Preservative.

Can cause eye, skin and respiratory irritant, and trigger asthma.

(GreenSpec AEP '10)

AMT See: **AUTOMATIC MONITORING AND TARGETING**

ANNOTATION

Adding notes to drawings which may include *specification* notes, which is regarded as bad practice in *CPI* terms, since the *specification* notes should be in the *specification* and the drawings should only cross reference to the *specification*, this removes the risk of duplication and potential differences between each note and between the notes on drawings and in the *specification* and any descriptions in the Bills of Quantities.

(ASWS BRM '97)

ANAEROBIC DIGESTION

A resource recovery process which digests kitchen waste and other organic waste into compost and a [biogas](#).

(Cherrington '95)

ANNUAL COOLING DEGREE-DAYS (CDDs)

Annual cooling degree-days (CDDs) are the sum of the degree-days over a calendar year.

(Building Energy Glossary '06)

ANNUAL DSCR (ADSCR)

See: PFI, PPP, DSCR

ANNUAL FUEL UTILIZATION EFFICIENCY (AFUE)

ratio of annual output energy to annual input energy which includes any non-heating season pilot input loss.

(Building Energy Glossary '06)

ANNUAL HEATING DEGREE-DAYS (HDDS)

Annual heating degree-days (HDDs) are the sum of the degree-days over a calendar year.

(Building Energy Glossary '06)

ANNUAL HEATING REQUIREMENTS

See: Pavatex Glossary [Annual heating requirements](#)

(Pavatex Glossary ' __ www.Pavatex.co.uk)

ANNUAL PERCENTAGE RATE (APR)

ANOMALY

Defects in the building envelope where heat escapes more readily than the adjacent construction, including:

Air leakage paths

Bat and Bird accesses and roosts

Damp patches caused by leaking pipes or overflowing roofs or gutters

Defective or incomplete seals

Discontinuity of insulation

Open Vents

Thermal bridging (see below)

Thermal bypass

Thermal flanking

Thermal radiators (not central heating radiators) but where the geometry of the building outside of a thermal bridge encourages greater heat loss e.g. cantilevered concrete balcony or walkway

(Ired '09 & GreenSpec '09)

ANTI SOCIAL BEHAVIOUR ACT (ASBA)

See: ASBO, Anti Social Behaviour Order, Duty of Care, Environment Protection Act

(GreenSpec BRM '11)

ANTI-SOCIAL BEHAVIOUR ORDER (ASBO)

Orders from the authorities aiming to stop someone committing anti-social behaviour; these are a step below criminal proceedings

(Participation Works Partnership)

ASBOs can be handed out over waste disposal activity, or anti-social lighting.

See: ABC

(to be added to re Waste Management Regulations)

See: ASBA, Anti Social Behaviour Act, Duty of Care, Environment Protection Act

(GreenSpec BRM '11)

AOA See: AGREEMENT ON AGRICULTURE

AONB See: AREA OF OUTSTANDING NATURAL BEAUTY

AP See: ACIDIFICATION POTENTIAL

APA See: ANNUAL PERFORMANCE ASSESSMENT

APC See: ASSESSMENT OF PROFESSIONAL COMPETENCE

APLV See: APPLICATION PART LOAD VALUE

APM See: ASSOCIATION OF PROJECT MANAGERS

APME See: ASSOCIATION OF PLASTICS MANUFACTURERS IN EUROPE

APPELLATE BODY (AB)

(UNEP See: Environment and Trade — A Handbook '05)

See: WTO Appellate Body

(GreenSpec BRM '11)

APPLICATION PART LOAD VALUE (APLV)

single number part-load efficiency figure of merit calculated per the method described in ARI Standard 550 or 590 referenced to modified rating conditions described in those standards

(Building Energy Glossary '06)

APPROVED CODE OF PRACTICE (ACoP)

See: ICoF, Interim Code of Practice, CoP

(GreenSpec BRM '11)

APPROVED DOCUMENT (AD)

See: Building Regulations Approved Document, BRADL, ADL, ADE, ADM,

(GreenSpec BRM '11)

APPROVED REMANUFACTURERS SCHEME (ARS)

CRR developed a certification scheme for remanufacturers.

The *Approved Remanufacturers Scheme* has been developed to certify remanufacturers against BS 8887-220. Certification against this scheme will give customers more confidence in buying products and enable access to new customers who are looking for high quality products.

E ben.walsh@remanufacturing.org.uk

See: CRR, Remanufacture, Review of Standards
(CRR & GreenSpec BRM '10)

APR See: **ANNUAL PERCENTAGE RATE**

AQA See: **ASSESSMENT QUALIFICATIONS ALLIANCE**

AQUACULTURE

AR 'Ar' See: **ROOM AREA**

ARCHICAD

CAD software for Apple community, dominant in that market
(GreenSpec BRM '10)

ARCHITECT

protected name for professionals that design buildings, defended by ARB Architects Registration Board
See: ARB, ACA, CIAT, OFT, RIAS, RIBA, RSAW, RSUA, SCALA.
(GreenSpec BRM '11)

ARCHITECTURE, ENGINEERING & CONSTRUCTION (AEC)

a 'plug-in-module' computer programme which makes *AutoCAD* more intelligent, particularly for the Construction Industry. It is pre-programmed to create *objects* or users select *objects* from it's library of pre-made *objects*, which have particular characteristics which can be duplicated and adjusted to suit different situations.

These *objects* are created as a series of lines grouped together in particular configurations where the programme recognises the series of lines as an *object* not just a series of lines, it knows to keep all of the lines together as one *object* and in the same relationship which are pre defined by the user or the *object* creator.

An example of an *object* would be a staircase or WC pan.

(ASWS BRM '97)

ARCHITRAVE

Mouldings usually made of timber around door or window openings that cover tolerance gaps between frames and surrounding walls in the same plain

Usually forms a pathway for air movement in a non-airtight building

(GreenSpec '10)

ARDP See: **ABIOTIC RESOURCE DEPLETION POTENTIAL**

AREA FACTOR (AF)

multiplying factor which adjusts the unit power density (UPD) for spaces of various sizes to account for the impact of room configuration on lighting power utilization

(Building Energy Glossary '06)

See: Unit Power Density, UPD,

(GreenSpec BRM '10)

AREA OF THE SPACE

A horizontal lighted area of a given space measured from the inside of the perimeter walls or partitions, at the height of the working surface

ARI Standard 550 or 590

(Building Energy Glossary '06)

ARI See: _____

_____ **(ARI)**

E.g. ARI Standard 550 or 590

(GreenSpec BRM '10)

ARISINGS

The result of excavation or demolition, not the whole but the subsoil removed, not the empty site but the pile of demolition rubble.

Both are potentially inert but could be polluted with active or hazardous wastes or recipe spoilers.

(GreenSpec BRM '11)

ARRIS

Sharp external angle, usually 90 degrees

(GreenSpec BRM '10)

ARRISSED

Exposed glass edges are often cut square, arressed to remove the sharp external angle by taking off the corner with a 1 or 2 mm. wide 45 degree angle, before polishing

See: Bevel, Champher

(GreenSpec '10)

ARS See: **APPROVED REMANUFACTURERS SCHEME**

ARTICLE

An object which during production is given a special shape, surface or design, which determines its function to a greater degree that does its chemical composition

Examples of articles are a car, a battery and a telephone.

For further details see the ECHA overview on articles.

http://guidance.echa.europa.eu/substances_articles_en.htm

(HSE REACH '10)

ARTIFICIAL INTELLIGENCE (AI)

See: 3D CAD, Objects, Clash Detection, Snap, Parametric, BIM,
(GreenSpec BRM '11)

ASA See: **ADVERTISING STANDARDS AGENCY**

ASBA See: **ANTI SOCIAL BEHAVIOUR ACT**

ASBP See: **the ALLIANCE for SUSTAINABLE BUILDING PRODUCTS**

ASBO See: **ANTI-SOCIAL BEHAVIOUR ORDER**

ASC See: **ACADEMY FOR SUSTAINABLE COMMUNITIES**

ASCP See: **AIR SOURCE COOLING PUMPS**

ASEAN See: **ASSOCIATION OF SOUTHEAST ASIAN NATIONS**

ASHP See: **AIR SOURCE HEAT PUMPS**

ASSEMBLY

Bringing together and/or holding apart of materials, products and/or component parts in a way that they remain assembled.

Mechanisms of assembly include:

Adhesives (glues, mortars, binders and bonding agents),

Fasteners (nails, screws, bolts, holding down bolts, clamps, rivets, dowels),

Fixings (brackets, supports, restraints, anchors, straps, etc.

See: *Building, Component, Element, Elemental Assembly, Generic Material, Material, Product, Resource.*

(GreenSpec BRM '11)

ASSESSMENT OF PROFESSIONAL COMPETENCE (APC)

ASSESSMENT QUALIFICATIONS ALLIANCE (AQA)

An organisation that is responsible for validating accreditation for training courses

(Participation Works Partnership)

ASSESSMENT SYSTEMS

ASSET BASED COMMUNITY DEVELOPMENT (ABCD)

(Inspire East)

As opposed to profit based development by normal developers

As opposed to property owned for investment but never put to use as property to occupy

(GreenSpec BRM '10)

ASSOCIATION OF BUILDING ENGINEERS (ABE)

<http://www.abe.org.uk/>

(GreenSpec BRM '11)

ASSOCIATION OF CONSULTING ENGINEERS (ACE)

the Engineer's representative member of *CCPI*.

(ASWS BRM '97)

ASSOCIATION OF LEARNING PROVIDERS (ALP)

See: Sector Skills Council, TGR, The Green Register, WISE, SusCon, CarbonLite, LILI, Passivhaus Trust, Green Gauge, SmartLIFE,

(GreenSpec BRM '11)

ASSOCIATION OF TOWN CENTRE MANAGERS (ATCM)

ASSUME

if you assume you risk making an ASS of U and ME.

(anon)

ATCM See: **ASSOCIATION OF TOWN CENTRE MANAGERS**

ATMOSPHERIC EMISSIONS BY WASTE/LANDFILL SITES

Emissions into the atmosphere produced by the breakdown of waste in landfill, or by resource recovery and Incineration (waste combustion systems).

Emissions are subject to EU and national guidelines set to ensure the minimum pollution to the environment.

Control of emissions from large scale waste combustion processes is by Her Majesty's Inspectorate of Pollution.

Some emissions are responsible for acid rain.

(Cherrington '95)

See: Methane, Gypsum, Plasterboard

(GreenSpec '11)

ATL See: **AIR TIGHTNESS LAYER**

ATTMA See: **AIR TIGHTNESS TESTING AND MEASUREMENT ASSOCIATION**

AUEE See: **ASSOCIATION OF UNIVERSITIES IN THE EAST OF ENGLAND**

AUTHORISED REPRESENTATIVE

Any natural or legal person established within the Union who has received a written mandate from a manufacturer to act on his behalf in relation to specified tasks

(CE Marking for SMEs & CPR '11)

AUTHORITY HAVING JURISDICTION

Agency or agent responsible for enforcing a standard

(Building Energy Glossary '06)

AUTOCAD 'AutoCAD'

A CAD computer aided drafting programme used on *IBM PCs* in *Windows*,
(ASWS BRM '97)

See: CAD, CAD/CAM, BIM,
(GreenSpec BRM '10)

AUTODESK 'AutoDesk'

The manufacturer of the internationally famous *AutoCAD*, *3D Max*, *Revit*: CAD and BIM programmes
(ASWS BRM '97)

See: CAD, CAD/CAM, BIM
(GreenSpec BRM '10)

AUTOMATIC

Self-acting, operating by its own mechanism when actuated by some impersonal intervention, such as, a change in current strength, pressure, temperature, or mechanical configuration.

(Building Energy Glossary '06)

AUTOMATIC CONTROL DEVICES

device capable of automatically turning loads off and on, up or down, without manual intervention

(Building Energy Glossary '06 & GreenSpec BRM '11)

AUTOMATIC MONITORING AND TARGETING (AMT)

Equipment comprises meters, an automatic meter reading device and analytical software to assist FM in driving down energy consumption on buildings

(Ska '09 and GreenSpec '10)

AUTONOMY

Self sufficiency

See: Off-grid

(GreenSpec BRM '11)

AUXILIARY CONSTITUENTS

An auxiliary constituent is any substance or material used in production but not remaining as part of the product.

(Natureplus 2002)

AVERAGE DAILY TEMPERATURE

the average of the 24 hours readings of temperatures

(Building Energy Glossary '06)

A Life Cycle Assessment Platform in Nord-Pas-de-Calais, for that region, France, EU and global cooperation and shared learning.

AVNIR '[avnir]'

Ran its 1st International Conference in Lille 2011.

www.avnir.org

AWA See: ALUMINIUM WINDOWS ASSOCIATION**AWA SPECIFICATION**

AWA specification for aluminium alloy doors and side screens for domestic buildings.

(HAPM and BPG CLM '97)

B

BACK-UP

a way of protecting computer files is to copy them onto a *back-up* disk, tape, *CD-rewritable*, or another computer e.g. a Server on a *network*.

(ASWS BRM '97)

BACK-UP SYSTEM

system that exists for the purpose of operating in the event of failure of a primary system

(Building Energy Glossary '06)

See: UPS, Uninterrupted Power Supply, Emergency system,

(GreenSpec BRM '10)

BAAF See: **BRITISH AGENCIES FOR ADOPTION AND FOSTERING**

BAFO See: **BEST AND FINAL OFFER**

BALANCE POINT

The outdoor temperature at which a building's heat loss to the environment is equal to internal heat gains from people, lights, and equipment.

(GreenSpec AEP '09)

BALANCING POND

A man made or modified pond with excess capacity designed to attenuate storm water drainage flows by storing surface water runoff during the peak flow following a rainwater storm and releasing it at a slower controlled rate during and after the peak flow has passed.

(GreenSpec AEP '09 & BRM '11)

See: SUDS, Permeable Pavement, Swale, Balancing Ponds, Retention Ponds, Settlement Ponds, Flows

(GreenSpec BRM '11)

BALLAST

device used in conjunction with an electric-discharge lamp to cause the lamp to start and operate under the proper circuit conditions of voltage, current, wave form, electrode heat, etc.

(Building Energy Glossary '06)

BALLAST, ELECTRONIC

ballast constructed using electronic circuitry

(Building Energy Glossary '06)

BALLAST, HYBRID

ballast constructed using a combination of magnetic core and insulated wire winding and electronic circuitry

(Building Energy Glossary '06)

BALLAST, MAGNETIC

ballast constructed with magnetic core and a winding of insulated wire

(Building Energy Glossary '06)

BALLAST EFFICACY FACTOR (BEF)

ratio of relative light output to the power input

(Building Energy Glossary '06)

BALLAST EFFICACY FACTOR – FLUORESCENT

ratio of the ballast factor expressed as a percent to the power input in *watts*, at specified test conditions

(Building Energy Glossary '06)

BALLAST FACTOR (BF)

Ratio of a commercial ballast lamp lumens to a reference ballast lamp lumens, used to correct the lamp lumen output from rated to actual

Ratio of the lumen output of a lamp/ballast combination to the lumen output of the same lamp in combination with a piece of laboratory equipment called a reference reactor

Because a ballast may be designed to operate more than one lamp type, the same ballast model may have more than one ballast factor value.

(Building Energy Glossary '06)

BALUSTER

Baluster is usually a vertical component part of a balustrade or banister adjacent to a staircase used to provide support and prevent a fall from the edge

(GreenSpec '10)

BAP See: **BIODIVERSITY ACTION PLAN**

BARCODE

Barcodes are numbers represented as thick, middle and thin parallel black lines on a white background, they are spaced with narrow, middle and wide gaps, they are also divided into groups of say six numbers by pairs of longer thin black lines, the arabic numeral is also included aligned with their representative lines.

The numbers are allocated so that each combination of numbers is a registered number and is unique to a single product.

Any company will register its own products and more information about them and make them available centrally.

Manufacturing obviously attaches the barcode to its output usually on a sticky label or printed in the packaging or sometimes directly on the goods themselves.

Retailers will stock products and know which they are and scanners in the retail warehouse and shop will read the barcode to access the central information.

Originally used at retail tills the barcode is scanned by a laser reader to record the item's number, the till's computer will

access the central database to access the item's information, e.g. product, size, price, etc. and generate detailed till receipts for customers.

Also used by the retailer to update stock records and reorder the products to maintain stock levels.

The barcode forms the backbone for logistics, distribution, tracking, stocking, delivery verification, payment, etc.

Industry can adopt the bar code and its infrastructure for more detailed logistics, including CAD/CAM, manufacturing sequence, delivery sequence, delivery location and timing; audit trails are possible for chain of custody reviews.

Construction consolidation centres are the primary opportunity for barcode adoption.

The construction industry has had a few ventures into use of the barcode but its taking time to achieve any market penetration.

See: QR, QR Codes, Quick Response, 2D barcodes, Open object

(GreenSpec BRM '10 – '11)

BARCODE READER

Already an iPod/iPhone App, iPodScan, the barcode on any product in a shop or builders merchant is read by the camera function and the central database is accessed, the App delivers information about the product.

There is every opportunity to deliver more detailed information about the product's characteristics including LCA, environmental criteria, other peoples reviews, etc.

See: QR, QR Codes, Quick Response, 2D barcodes, Open Object,

(GreenSpec BRM '10 – '11)

BARS See: **BIODIVERSITY ACTION REPORTING SYSTEM**

BARBOUR

The creator of the *Barbour index*, *Barbour Compendium* and *Construction Expert* software. They have always been in the information business of the Construction Industry and understand the way Architects think and file things and lose themselves in the *CI/SfB classification system*.

(ASWS BRM '97)

BARBOUR COMPENDIUM

the big red book that last years edition is used to support the back edge of the drawing board if it was mounted on a table, which is now used to raise the computer monitor a few inches.

(ASWS BRM '97)

BARBOUR INDEX

an information service on the *internet* Product information is available. Some practices use the competitors product *RIBA/ti Microfile*.

(ASWS BRM '97)

BARGE BOARD

Wide board, often highly decorative, following the slope of a roof, fitted at the verge of the gable, below the exposed tile or slate edges.

Often provide a space for bat and birds to inhabit buildings

(GreenSpec '10)

BASE TEMPERATURE

(GreenSpec BRM '10)

BAT BOXES

Bat boxes are artificial roosts, usually made of wood or woodcrete (a mixture of wood chips and concrete).

They are designed to provide bats with alternative resting places to replace natural ones in tree holes, and also to encourage bats into areas where there are few such natural sites.

(BCT '09)

BAT CONSERVATION TRUST (BCT)

The Bat Conservation Trust was formed in 1990 as an umbrella organisation for the rapidly growing network of bat groups (which formed in response to severe declines in bat populations), providing support, training and advice.

BCT now acts as the national voice for bat conservation, and is the only national organisation solely devoted to the conservation of bats and their habitats in the UK.

BCT runs a diverse range of projects aimed at conserving our bat populations through:

Determining target population levels

Maintaining target population levels

Acting as the authoritative voice for bat conservation across all areas, including influencing policy and guidance related to bats

Generating greater support for bats, to help it to fulfil its conservation aims

(BCT '09)

See: HAPs, Habitat Action Plans. SAPs, Species Action Plans

(GreenSpec BRM '11)

BATTENS & NOGGINS

Small timber sections with numerous purposes in relation to windtightness and airtightness membranes and timber framed constructions.

Normally provided by the timber framing carpenter, but requiring some co-ordination between the carpenter and the following trade making use of them to ensure there are enough and they are in the required location or are fixed loosely to enable repositioning.

Material choices from an environmental perspective we recommend the following order of preference: Reclaimed, locally grown or FSC temperate softwood

See: Dwangs, Noggins, Softwood noggins, pressure battens, Support battens, Service Zone battens, tiling/slating battens, counterbattens
(GreenSpec BRM '10)

BATT INSULATION

Insulation that is normally manufactured out of molten glass, rock or slag fibre and bound together with synthetic resin and now some with plant based resins, made into 'blankets', sized for timber framing bays or for cavity masonry walls and manually fitted into place.

Increasingly made with plant based fibre or recycled fabric, newspapers or magazines.

They require good workmanship to ensure no gaps occur between lengths of insulation and between insulation and surrounding construction; voids where insulation is missing, compression of insulation modifying its thermal or acoustic performance or misalignment resulting in thermal bridges, where framing bays are not typical framing dimensions or where they include wiring and piping.

(GreenSpec '09)

BAU See: **BUSINESS AS USUAL**

BBA See: **BRITISH BOARD OF AGRÉMENT**

BBA CERTIFICATE

Under the *CPD Construction Products Directive* materials and products have to be *Proper Materials, independent 3rd party accredited companies, BSI Kitemarked* and *BBA Certified* are *Proper Materials* as are those manufactured by an *ISO 9000* series accredited company and *CE marked* products.

BBA certificates are referred to generally in CLM.

The current index of current BBA publications should be checked for whether the certificate is still valid.

The latest certificate should be checked for particular requirements.

(HAPM and BPG CLM '97 and GreenSpec BRM '10)

BBP See: **BENZYL BUTYLE PHTHALATE**

BCC See: **BLANK CARBON COPY**

BCO See: **BRITISH COUNCIL FOR OFFICES**

BCO GUIDE TO SPECIFICATION

Specification of offices

Published by BCO, 2009.

(Ska '09 and GreenSpec '10)

BCIS See: _____

(BLP PM '10)

BCT See: **BAT CONSERVATION TRUST**

BDA See: **BRICK DEVELOPMENT ASSOCIATION**

BDS See: **BUILDING DESIGN SOFTWARE**

BEAB See: **BRITISH ELECTROTECHNICAL APPROVALS BOARD**

BEAD

Small usually convex, or other shapes, moulding, usually made of timber, used between surfaces at right or other angles to each other to cover up the tolerance gap between frame and surrounding walls or between surfaces.

(GreenSpec BRM '11)

BEC See: **BUILDING EMPLOYER'S CONFEDERATION**

BEEF See: **BRITISH ENERGY EFFICIENCY FEDERATION**

BEF See: **BALLAST EFFICACY FACTOR**

BELOW-GRADE WALL

See: wall, grade

(Building Energy Glossary '06)

BELOW-GROUND WALL

See: wall, ground, grade

(GreenSpec BRM '11)

BEMS See: **BUILDING ENERGY MANAGEMENT SYSTEM**

BENCHMARK

OS Ordnance Survey Data level is a kind of benchmark.

In business a benchmark is an industry or sector average performance, be it related to profitability, employment practices, environmental practices, etc. it is a record of status quo.

Benchmarks are used by a business to judge itself against its competitors in the same industry/sector, and to set targets above the benchmark to improve against.

When many in the industry sector rise to the challenge the benchmark average moves up, and the whole sector needs to keep on its toes to keep up with the 'norm'

See: CE, Constructing Excellence, EPI, Environmental Performance Indicators, KPI, Key performance Indicators, DQI, Design Quality Indicators,

(GreenSpec BRM '11)

BENCHMARKING

Setting a benchmark is to set lower thresholds or sector average or aspirational targets for performance, of business activity for example.

Comparing similar things with a benchmark determined if one is worse or better than the average.

There need to be rules for calculation to ensure all are compared like for like.

(GreenSpec BRM '11)

BENIGN MATERIALS

BENZENE

Common ingredient of paints: Solvent.

Can cause skin, eye and upper respiratory tract irritation.

Neurological symptoms from inhalation include drowsiness, dizziness, headaches, immune system damage, blood disorders; carcinogenic.

(GreenSpec AEP '10)

BENZYL BUTYLE PHTHALATE (BBP)

(ERFMI '08)

BER See: **BUILDING EMISSION RATE**

BERR See: **DEPARTMENT FOR BUSINESS, ENTERPRISE AND REGULATORY REFORM**

BES 6001

See: Responsible Sourcing, BRE, GreenSpecLight, BS EN ISO 26000

(GreenSpec BRM '11)

BEST AND FINAL OFFER (BAFO)

(PFI & PPP Bid terminology).

Shortlisted bidders refine their ITN bid submissions.

See: PFI, PPP, ITN

(John Laing & GreenSpec BRM '10)

BEST PRACTICABLE ENVIRONMENTAL OPTION (BPEO)

BEST PRACTICAL ENVIRONMENTAL OPTION (BPEO)

(CIRIA RP656 Design for Deconstruction Bill Addis)

(SEDA Chemical Reduction in Building '08)

Not necessarily the best environmental option, but a choice compromised by practicability.

Cost cutting otherwise called Value Engineering is likely to influence the choice and be digused as practicability.

See: Best Value,

(GreenSpec BRM '11)

BEST VALUE

Framework for getting value for money in ordering and paying for local government services

(Participation Works Partnership)

See: BPEO

(GreenSpec BRM '11)

BETA-TESTING

When software is developed and is nearly ready to launch it is tested by the authors *Alpha-testing* and often sent out to selected users to carry out live *beta-testing*.

(ASWS BRM '97)

BEVEL

Mirrors with decorative shallow sloping cut glass edges creating boarder, not to be mixed up with *arris*.

See: Arris, Arissed, Champher,

(GreenSpec BRM '10)

BF See: **BALLAST FACTOR**

BFCLM See: **BUILDING FABRIC COMPONENT LIFE MANUAL**

BFRC See: _____

BFRC RATING

A measure of the overall performance of a *window*, rated from A-G, 'A' being current best.

(GreenSpec AEP '09)

BFRC rating attempts to take into account both heat losses and heat gains in kWh/m² per year by giving a window a single rating from A to G, based on its overall U_w-value and g-value.

Most windows have a yearly heat loss, apart from BFRC A-rated windows.

Note that this is a theoretical calculation, and the heat losses/gains will entirely depend on orientation and location in the UK.

In reality, it is likely that an A-rated window on a north wall will still lead to heat loses and no heat gains; likewise for A-rated windows facing south in the southern hemisphere.

(SP & GreenSpec BRM '11)

BIB TAP

Tap fed by horizontal supply pipe, for example a pipe through an external wall feeding a garden tap

(GreenSpec '10)

BI-COMPONENT

(Renueables AN '09)

BI-PRODUCT

(Ska '09 and GreenSpec '10)

BIFM See: **BRITISH INSTITUTE OF FACILITIES MANAGEMENT**

BILL OF PRE-DEMOLITION QUANTITIES

See: Demolition Protocol

(GreenSpec BRM '11)

BILL OF QUANTITIES (BQ)

BIM See: **BUILDING INFORMATION MANAGEMENT**

BIO-ACCUMULATION

The increase in the concentration of a chemical in a biological organism over time, compared to the chemical's normal concentration in the environment or human body.

(GreenSpec AEP '09 & BRM '11)

BIOCIDE

A chemical additive which prevents growth of bacteria or fungi.

More often found in paints and floor coverings.

Biocides are dangerous in large concentrations.

(GreenSpec AEP '09)

BIODEGRADABLE MATERIALS

BIODEGRADATION

Decomposition of organic matter by micro-organisms and other living things.

(GreenSpec AEP '09)

BIODIVERSITY

Biodiversity (biological diversity) is the number and variety of all living organisms, including genetic, species and ecosystem diversity.

It includes all wildlife, plants, bacteria and viruses, and their habitats, and this variety is vital to a well-functioning ecosystem.

Biodiversity is disappearing at an alarming rate.

Most threats to biodiversity are attributable to the growing human population and human activities including loss, degradation and fragmentation of natural habitats, over-exploitation, invasive species, pollution, as well as climate change.

(BCT '09)

BIODIVERSITY ACTION PLAN (BAP)

The UK Biodiversity Action Plan (BAP) was launched in 1994 in response to the Convention of Biological Diversity signed in Rio de Janeiro in 1992, in order to develop national strategies for the protection and sustainable use of biodiversity.

The UK BAP describes the UK's biological resources, and commits a detailed plan for conserving and enhancing species and habitats, in addition to promoting public awareness and contributing to international conservation efforts.

Species and Habitat Action Plans (SAPs and HAPs) have been drawn up for the UK's most threatened (i.e. priority) species and habitats.

These describe the status of each habitat and species, outlining the threats they face, and set targets and objectives for their management, proposing actions necessary to achieve recovery.

Implementation of the UK BAP is the responsibility of several groups, and for each SAP, a lead partner has been identified.

There are also approximately 150 Local Biodiversity Action Plan Partnerships which focus on UK priority habitats and species in each local area.

The UK BAP website has further information and lists of BAPs: <http://www.ukbap.org.uk/>

(UK BAP website & BCT '09).

BIODIVERSITY ACTION REPORTING SYSTEM (BARS)

BARS (Biodiversity Action Reporting System) is the UK's Biodiversity Action Plan reporting system.

It includes national, local and company Biodiversity Action Plans (BAPs) and all UK Biodiversity Strategies and Action Plans.

Reports on status and trends, as well as targets and outcomes for species on the UK BAP list are available to download on the Biodiversity Action Reporting System: <http://www.ukbap-reporting.org.uk/default.asp>.

(BARS & BCT '09)

BIO-ECOLOGICAL CONSTRUCTION MATERIAL/PRODUCT

(almost) inexhaustible natural raw materials

no / minimum chemical additives

no heavy negative environmental impact

no negative health impact

vegetable (agriculture/forestry)

animal

mineral

no petrochemicals/synthetics contents

See: CAP'EM, Eco-material

(CAP'EM 2010)

BIOFUEL

Ethanol and diesel made from crops including corn, sugarcane and rapeseed.

(GreenSpec AEP '09)

BIOFUELS

Biofuels come from harvested crops such as rape seed oil and maize.

However waste cooking oil derived from plants can also be converted into a biofuel

(based on Building Magazine Steve Piltz, Turner & Townsend '08)

BIOGAS

Gas produced by the breakdown of organic matter in the absence of oxygen that can be used as a fuel.

(Cherrington '95)

Biogases in the form of methane is a by-product of animal waste or from the fermentation of vegetable matter which can produce an ignitable gas.

Sewage systems which also produce methane are another source of biogas which in the UK are currently untapped.

(based on Building Magazine Steve Piltz, Turner & Townsend '08)

BIOLOGICAL WASTEWATER TREATMENT

The use of bacteria to eat the organic material present in wastewater.

(GreenSpec AEP '09)

BIOMASS

A renewable energy source, commonly used to refer to plant matter grown to generate heat or electricity.

(GreenSpec AEP '09)

Fuels which have been produced from organic matter such as agricultural or forest waste.

Biomass is also used to describe energy produced from waste containing a larger proportion than usual of organic matter.

(Hastoe HA GreenStreet.org)

In the UK these are still regarded as the Cinderella of renewable energy, close at hand but never quite invited to the ball, however they are the moist sustainable of all solid fuels, if occasionally somewhat smelly.

Biomass is any cellulose material in the shape of wood chippings, pellets, waste wood or even straw in briquette format.

Short rotation coppicing such as willow and hassle of are highly sustainable biomass fuels.

The advantage biomass is that it is 100% sustainable nature if harvested from sustainable forests through what is known as the sequestration process.

Trees during their growing cycle release oxygen and absorb carbon dioxide they are then felled and replanted and the process starts all over again.

A wood burning stove fitted with a back boiler is a micro biomass boiler.

(based on Building Magazine Steve Piltz, Turner & Townsend '08)

BIOMASS HEAT

Biomass heat comes from the burning of any organic materials that can be burned and used as a source of renewable fuel.

Wood, and wood waste, is commonly the material used in biomass fuel and is usually processed to make wood-pellets or wood chips.

Other sources of biomass fuel produced sustainably in the UK include Miscanthus and Willow.

The CO₂ released when energy is generated from combustion of the biomass is balanced by the CO₂ absorbed during the fuel's production.

(Ecos Renews 17)

BIOMASS HEATING

See: Passipedia: [Biomass heating](#)

(GreenSpec BRM '11)

BIORETENTION AREA

A shallow, landscaped depression that receives runoff from impervious surfaces.

(GreenSpec AEP '09)

BIOWASTE

Waste produced from organic matter e.g. food scraps, peelings, etc.

(Cherrington '95)

BINDT See: **BRITISH INSTITUTE OF NON-DESTRUCTIVE TESTING**

BIT See: **BILATERAL INVESTMENT TREATY**

BITC See: **BUSINESS IN THE COMMUNITY**

BLACK AND MINORITY ETHNIC (BME)

A term used to describe people not of white British descent

(Participation Works Partnership)

BLACK-BOX

Derived from the notorious *blackbox recorder* and used to describe the way *LCAs* are secretive about their methodology, assumptions, their data or all of the above.

BRE's Green Guide to Specification is notorious for having a metaphorical black box that is never opened and scrutinised by any *peer review* let alone a regular review.

(GreenSpec BRM '10)

BLACK-BOX RECORDER

The notorious blackbox recorder used in Aircraft and Formula 1 racing cars to collect data from pilot's or driver's actions and plane or vehicle reactions to them and actions from the atmosphere or road, used to establish the facts about accidents.

They are required to be robust and fire proof to protect their precious cargo in the event of catastrophic failures and crashes.

(GreenSpec BRM '10)

BLACKOUT

When there is not enough electrical power being generated leading to powercuts lighting in particular.

See: Brownout

(GreenSpec BRM '11)

“**BLACKWATER**”

When I first heard the term greywater used for waste water (back in 1997) I naively assumed it to be a reference to the appearance of the water due to the effect of scum formation, and the colour wastewater becomes after it begins to biologically decompose.

But then I started to hear the term "blackwater" to describe water from toilets. "Blackwater" categorically does not describe the appearance of foul water either in the sewers or whilst undergoing treatment at a sewage treatment plant.

It is an example of using the term black to describe something that has negative connotations, rather than an actual description (such as blackboard).

We have a perfectly adequate term to describe water from toilets, which is foul water, and in the 21st Century our language should be smarter than this.

The term isn't even used correctly as "blackwater" treatment plants deal with both foul and waste water (i.e. "blackwater" and greywater).

(ECH2O & GreenSpec Water CH '11)

See: *Rainwater, Whitewater, Greywater, Blackwater, Waste water, Foul water, Surface water*

(GreenSpec BRM '11)

waste water generated from a house, usually refers to toilet waste.

(Hastoe HA GreenStreet.org)

Waste water containing sewage which cannot be re-used domestically without full processing and treatment.

This can also include water which contains large amounts of organic material or chemical products.

(Building Magazine Steve Piltz, Turner & Townsend '08)

Wastewater containing faecal matter and urine.

It is also known as brown water, foul water or sewage.

It is distinct from greywater, the residues of washing processes.

(GreenSpec AEP '09)

BLACK TRAINING AND ENTERPRISE GROUP (BTEG)

(Participation Works Partnership)

BLANK CARBON COPY (BCC)

When sending an email to someone you can secretly send it to someone else at the same time by using the BCC function.

They will receive the email but nobody else will know they did

(Participation Works Partnership)

See: CC, Carbon Copy

(GreenSpec BRM '11)

BLAP See: **BROWNFIELD LAND ACTION PLAN**

BLEDP See: **BEDFORDSHIRE AND LUTON ECONOMIC DEVELOPMENT PARTNERSHIP**

BLENDING

(Renueables AN '09)

BLIA See: **BEDFORDSHIRE AND LUTON INVESTMENT AGENCY**

BLOWER DOOR TEST

See: Passipedia: [Blower door test](#)

(GreenSpec BRM '11)

BLOWER DOOR TEST/AIR TIGHTNESS TEST

Blower door test/Air tightness test

Here how often the air volume of the building is exchanged per hour will be calculated given a particular pressure difference compared to the outside air. In order to build up this pressure difference, a frame will be inserted in an open exterior door (entrance door or balcony door) which is covered with a film.

A fan is inserted in an opening of the film.

The revolution speed of the fan is controlled in such a way that a defined pressure between the exterior and indoors is set.

In order to maintain this pressure, the fan needs to generate as high a volume flow as that which escapes from any leaks in the building.

In order to achieve a meaningful parameter (n50) for air tightness, the measured volume flow will be divided by the volume of the building.

While the pressure difference is being created (negative pressure inside the building) any leakages in the building can be easily spotted.

Leaks can be felt even with a bare hand.

There is virtually a draft in all corners of the building.

Additional devices for locating leaks are smoke machines, air speed gauges and thermography.

See: Pavatex Glossary

http://www.pavatex.co.uk/lexikon.aspx?GlossaryId=40&mid=2785&ctl=Detail&SkinSrc=%5bG%5dSkins%2fpavatexcss%2fnoSkin&ContainerSrc=%5bG%5dContainers%2f_default%2fNo+Container

(Pavatex Glossary ' __ www.Pavatex.co.uk)

BLOWN

Plaster that has lost its bond with the backing wall

See: also Live

(Builder Hampshire Directory '10 & GreenSpec BRM '10)

BLOWN-IN INSULATION

Insulation pumped or blown into cavities during construction, can be renewable fibrous materials like recycled paper blown into timber frame, rock mineral fibre blown into masonry cavities walls or non-renewable foamed into masonry wall cavities.

There are two types of recycled paper application, dry or with added moisture (like papier mache only drier), and two methods, blown at open casset panels against backing board and between studs or through a hole in the inner or outer lining at the top of the stud zone.

Blown-in insulation has the potential to fill the voids comprehensively without any gaps, voids, compression, misalignment, etc.

Density of applications and moisture control are essential for perfect installation free from slumping.

First applications at the beginning of the day are prone to high moisture content and wrong density can lead to slumping.

See: Specification work section P11

Hemp-lime is also blown-in to studwork and backin board to make external walls and roofs

See: Loose fill insulation

(GreenSpec '09)

BLP See: **BUILDING LIFEPLANS**

BLP CDD See: **BUILDING LIFEPLANS CONSTRUCTION DURABILITY DATABASE**

BLP LCC See: **BUILDING LIFEPLANS LIFE CYCLE COST**

BLT See: **BUILDING LIFE TIME**

BLUE RIBBONS

See: GreenGrids

(GreenSpec '10)

BM See: **BREATHER MEMBRANE**

BME See: **BLACK AND MINORITY ETHNIC**

BMS See: **BUILDING MANAGEMENT SYSTEM**

BOARD

Group of people, for example, managing an organisation

(Participation Works Partnership)

BOILER

Device using combustion of fuel to raise the temperature of a liquid, usually water, or raise the temperature of a fluid to change from liquid to gas, usually water to generate steam.

Used in domestic hot water, heating, power generation and combined heat and power generation

See: Liquid, Fluid, SEDBUK,

(GreenSpec BRM '10)

BOILER CAPACITY

rated heat output of the boiler, at the design inlet and outlet conditions and rated fuel or energy input

(Building Energy Glossary '06)

See: Boiler, SEDBUK

(GreenSpec BRM '11)

BOND

Arrangement of bricks within brickwork walls to ensure strength and stability of brickwork, the simplest and cheapest for half brick thick walls is stretcher half lap, where the brick is laid on its bed joint (frogs uppermost) with its stretcher face on show with the second course of bricks lapping with bricks half on one brick and half on a second brick, thus spreading the load from one brick onto two then onto three, etc.; purpends fully filled for strength, acoustic, thermal and fire integrity.

The worst bond for strength and stability is stackbond where the bricks in successive courses sit on top of each other and do not overlap or bond therefore not spreading the load along the length of the wall.

(GreenSpec '10)

BOOT See: **BUILD OWN OPERATE TRANSFER**

BOREHOLE COOLING

BOROUGH COUNCIL (BC)

Body responsible for local services which are not delivered by the county council, e.g. household waste collection, local planning decisions.

This forms the middle layer of the three-tier local authority management structure

(Participation Works Partnership)

Boroughs are often in urban areas

See: County Council, Town Council, Parish Council, District Council

(GreenSpec BRM '11)

BOROUGH WIDE YOUTH PARTNERSHIP MEETING (BWYP)

(Participation Works Partnership)

BOUNDARIES

See System Boundaries

(Renueables AN '09)

Site boundaries

(GreenSpec BRM '11)

BP See: **BRITISH PRECAST**

BPEO See: **BEST PRACTICAL ENVIRONMENTAL OPTION**

BPF See: **BRITISH PROPERTY FEDERATION**

BPF See: **BRITISH PLASTICS FEDERATION**

BPF/GGF See: **BRITISH PLASTICS FEDERATION/GLASS AND GLAZING FEDERATION**

BPG See: **BUILDING PERFORMANCE GROUP LIMITED**

BQ See: **BILL OF QUANTITIES**

BRAD See: **BUILDING REGULATIONS APPROVAL DOCUMENTS**

probably the most widely and frequently used technical reference in the Construction Industry, now available on *CD ROM*. Under licence from the *HMSO*, this easy to use computer version is full of *hypertext* jumps for quick cross referencing, facility to add your own notes and *hypertext* links with *paper clips*. It is full of direct links to and from *RIBA/ti CIS* and using *hypertext*. It is developed by *NBS Services* (ASWS BRM '97)

BRANCH CIRCUIT

circuit conductors between the final over current device protecting the circuit and the outlet(s); the final wiring run to the load

(Building Energy Glossary '06)

BRANDKENNZIFFER (BKZ)

Is comprised of the degree of flammability established during the tests (first figure) and the degree of smoke (second figure) i.e. BKZ 4.3

See: Pavatex Glossary

http://www.pavatex.co.uk/lexikon.aspx?GlossaryId=37&mid=2785&ctl=Detail&SkinSrc=%5bG%5dSkins%2fpavatexcss%2fnoSkin&ContainerSrc=%5bG%5dContainers%2f_default%2fNo+Container

(Pavatex Glossary ' www.Pavatex.co.uk)

BRCC See: **BEDFORDSHIRE RURAL COMMUNITY CHARITY**

BRE 'bre'

formerly known as Building Research Establishment

at Garston, UK, carry out research on materials, finishes, methods of construction etc. and publishes its findings in Digests, Information papers, etc.

They carried out the survey for *NEDO* report *Quality on Building Sites*.

BRE was put up for Privatisation and the staff succeeded in a Management buy-out.

(ASWS BRM '97-'09)

Formerly a government agency now a commercial enterprise, substantially funded by government or Regional Development Agencies via funding streams for project based research.

Responsible for BREEAM, EcoHomes, Code for Sustainable Homes, Envest2, EcoPoints, Environmental Profiling, Green Guide to Specification, GreenBookLive,

<http://www.bre.co.uk>

(GreenSpec BRM '10)

BRE is internationally recognised as the developer of sustainability standards codes and methodologies, such as BREEAM, EcoHomes, Code for Sustainable Homes, for buildings, homes and communities.

<http://www.bre.co.uk/page.jsp?id=1766>

(GreenSpec JB '10)

BRE BES 6001

Responsible Sourcing of construction products 2008

See: Responsible Sourcing

(GreenSpec BRM '10)

BRE CARBON FOOTPRINTING

<http://www.greenbooklive.com/page.jsp?id=143>

Training and licensing of Carbon Footprint Assessors

Carbon Footprinting Certification Scheme

<http://www.bre.co.uk/cfcs/>

Assessment and Certification of Business Carbon Footprints

<http://www.greenbooklive.com/page.jsp?id=143>

BRE CLIMB See: **CENTRE FOR LOW IMPACT MATERIAL IN BUILDING**

BRE DIGEST

An authoritative publications on a specific subject to disseminate knowledge from BRE R&D

About 4-8 pages in length

PII providers expect its insured paractices to be famiiar with their content.

(GreenSpec '10)

BRE ENERGY ASSESSORS

<http://www.greenbooklive.com/page.jsp?id=161>

BRE EP See: **BUILDING RESEARCH ESTABLISHMENT ENVIRONMENTAL PROFILING**

BRE GBG See: **GOOD BUILDING GUIDES**

BRE GREEN GUIDE TO SPECIFICATION

Created by BRE originally for the Post Office but today more for the 'business as usual' industry.

An ABC rating of materials, from the outset it tried to create a level playing field but only put one team on the pitch, conventional materials and few green materials.

In 2001 it was criticised at AECB conference for lack of Green materials but BRE carried on excluding most of them until today.

It still evaluates which is the least violet of the violet materials, rather than identify green materials. InCrops (the NNFC or East of England) at UEA are trying to help BRE to include green materials. Formerly a book (3 editions)

<http://www.brebookshop.com/>

<http://www.brebookshop.com/details.jsp?id=93716>

now a website and a 4th edition book

<http://www.thegreenguide.org.uk>

ABC has grown to A+, A to E

A or A+ rating are the higher scores, what we call 'BRE Green'

(GreenSpec BRM '08 – '10)

BRE GREEN BOOK LIVE

URL See: www.greenbooklive.com

Listing of businesses, people and products that have been assessed under numerous schemes:

BREEAM Assessors – BRE Environmental Assessment Method

BREEAM Accredited Professional

BREEAM In-Use Auditors

Carbon Footprinting

Training and licensing of Carbon Footprint Assessors

Assessment and Certification of Business Carbon Footprints

Energy Assessors

Energy Saving Recommended – Energy saving products

Environmental Profiles – Construction product life cycle assessment

ISO 14001 Certified companies – Environmental management systems

Microgeneration Certification of products and installers

Responsible Sourcing

SMARTWaste – Tools for better waste management

Water Saving Product

One planet Products

(Ska '09 and GreenSpec '10)

BREATHING CONSTRUCTION ROOFS

Diffusion Open construction applies to timber framed roof construction where air resistant roofing underlays are not used but replaced with an wind tightness layer externally, this permits outward passage of vapour out of the construction.

Eaves ventilation can be omitted in this construction.

See: Diffusion Open, BRMs, Breathing Roofing Membranes, Sarking felt

(GreenSpec '09)

BREATHING CONSTRUCTION WALLS

Breathing construction applies to timber framed wall construction where vapour barriers are not used but replaced with an airtightness layer internally, this permits passage of vapour into the construction, this is supplemented by a breathing sheathing board or membrane on the outside permitting egress of the vapour from the construction outwards.

Hygroscopic insulation needs to be used in breathing wall construction as it will be subject to higher moisture content than with conventional timber frame construction; it will absorb moisture from the air spaces that normally provide the insulation function, into the material's fibres without loss of thermal performance and be held until conditions permit evaporation and passage to the exterior air.

See: Diffusion Open, BRMs, Breathing Roofing Membranes,

(GreenSpec '09)

It is recommended that the construction should be as vapour diffusion open as possible on the outside and as vapour diffusion tight as necessary on the inside to minimise condensation risk and maximise the drying that can occur in the event of moisture entry into the construction.

(Ecological Building Systems '09)

In Germany breathing walls can be constructed with untreated timber in the external wall.

(GreenSpec BRM '10)

BREATHABLE SHEATHING BOARD

A board which is vapour permeable enough to allow it to be used externally in timber frame construction.

(GreenSpec AEP '09)

Used in Breathing wall and breathing roof construction outside of the insulation layer and inside the weather protection

(GreenSpec BRM '10)

BREATHER MEMBRANE (BM)

A water-resistant sheet which allows transmission of water vapour (usually outwards), but which provides resistance to air-flow (usually outwards)

(based on SEDA Airtightness Guide definition)

Often forms part of the Wind-tightness layer.

See: Wind tightness layer

(BCT & GreenSpec BRM '08)

Used in roof construction roof tile underlay or in wall construction as a damp proof membrane in rainscreen construction or behind timber weatherboarding.

Restricting air flow also reduced heat loss or coolth gain when the air could otherwise carry heat away.

A breather membrane is always located on the cold side of the thermal insulation. Breather membranes are essential between open pore insulation against ventilated cavities. Partially insulated masonry cavity walls using glass rock or slag fibre insulation without a breather membrane waste heat to the cavity ventilation and stack effect in the cavity when the wall is heated by the sun. In Austria a breather membrane will be used in a masonry cavity wall with partial fill insulation where the insulation is of an open fibre material.

(GreenSpec BRM '09)

It is recommended that the construction should be as vapour diffusion open as possible on the outside and as vapour diffusion tight as necessary on the inside to minimise condensation risk and maximise the drying that can occur in the event of moisture entry into the construction.

(Ecological Building Systems '09)

A membrane which allows moisture vapour to escape whilst preventing water from entering the construction.

(GreenSpec AEP '09)

Also used as an air tightness layer preventing hot air escaping from thermal insulation.

See: Wind tightness layer, airtightness layer, vapour open, BRM, Breathing Roofing Membranes,

(GreenSpec BRM '10)

See: Breather Membrane, BRM, Breathable Roofing Membrane

(BCT & GreenSpec '08)

BREATHABLE ROOFING MEMBRANE (BRM)

BREATHING ROOFING MEMBRANES (BRM)

Traditionally made of lightly bitumen impregnated felts and building papers they keep the rain out but let moisture vapour out of the construction, located under roof coverings or slate, tiles, shingles and shakes.

Increasingly being replaced by modern woven plastic fibre fabrics or plastics sheeting.

Bats like to get into roofs and sleep under the tiles to benefit from solar gains on those tiles, next to the membranes and some have been known to become entangled in the strong modern fibres.

BCT are carrying out research at Reading University on the suitability of many roofing membranes to ensure they do not ensnare bat claws and other characteristics

See: Underlay, ATL, Air Tightness Layer, WTL, Wind Tightness layer, BM, Breather Membrane,

(GreenSpec BRM '11)

BREATHING WALL

'Breathing' walls allow a significant amount of water vapour to be absorbed and released quickly to the outside, thereby regulating the room climate and hence one aspect of indoor air quality.

Much debate and confusion continues over the value and physics involved.

(GreenSpec AEP '09 and BRM '10)

BREEAM See: BRE ENVIRONMENTAL ASSESSMENT METHOD

BREEAM ACCREDITED PROFESSIONAL

<http://www.greenbooklive.com/page.jsp?id=172>

See: BREEAM, EAM, Environmental Assessment Method

(GreenSpec BRM '10)

BREEAM ASSESSORS

<http://www.greenbooklive.com/page.jsp?id=8>

See: BREEAM, EAM, Environmental Assessment Method

(GreenSpec BRM '10)

BREEAM ASSESSMENT

BREEAM IN-USE

EAM using BREEAM for in-use upkeep and improvement of buildings

BREEAM In-Use Auditors: from July 2009

<http://www.greenbooklive.com/page.jsp?id=171>

Not in competition with Ska Rating

See: BREEAM, EAM, Environmental Assessment Method,

(GreenSpec BRM '10)

BREEAM OUTSTANDING

The highest score band in BREEAM

Scoring bands: Fail, Good, Very Good, Excellent, Outstanding

The green sector are not impressed, you can get outstanding with air conditioned buildings, so its about Business as Usual with accolades.

(Ska '09 and GreenSpec '10 – '11)

BRE ENVIRONMENTAL ASSESSMENT METHOD (BREEAM)

<http://www.breeam.org/page.jsp?id=21>

BRE Environmental Assessment Method (BREEAM) is a voluntary measurement rating for assessing the environmental impact of buildings.

It comes in a variety of flavours according to the function of the building and for new build as well as for buildings in use.

(GreenSpec AEP '09)

created by BRE for use in Non-domestic buildings

<http://www.breeam.org/>

(GHA '08, Ska '09 and GreenSpec '10)

Created by BRE, one of the authors went to the USA and created LEED.

100% glazed air-conditioned building can achieve Outstanding rating, so no step changes here just business as usual.

See: LEED & GreenStar.

(GreenSpec BRM '11)

The BREEAM family of assessment methods and tools are designed to help construction professionals understand and mitigate the environmental impacts of the developments they design and build.

All the BREEAM products are regularly updated to take advantage of new research and technology to reflect changing priorities in regulations and to ensure that BREEAM continues to represent best practice.

(RICS '11)

BRE EP ENVIRONMENTAL PROFILES

Construction product life cycle assessment LCA and Environmental Product Declaration EPD

<http://www.greenbooklive.com/page.jsp?id=9>

See: LCA, BlackBox, Transparency, Peer Review, EPD, Environmental Product Declaration

(GreenSpec BRM '10 – '11)

BRE IP See: INFORMATION PAPER

BRE RESPONSIBLE SOURCING

See Responsible Sourcing

BRE SMARTWASTE

SMARTWaste tools

Tools for site waste management plans

<http://www.greenbooklive.com/page.jsp?id=14>

(GreenSpec BRM '10)

BRIAN ROBERT MURPHY (BRM)

Founder of GreenSpec

See: AEP, GreenSpec, MyGreenSpec, GreenSpec Studio, WasteCost Lite

(GreenSpec BRM '10)

BRICKWORK

See: Bond, Radical Brickwork,

(GreenSpec BRM '10)

BRING SYSTEM OF RECYCLING

The provision of banks or collection points by the Local Authority for the public to deliver their recyclable materials.

Bottle Banks, Clothes, Shoes, Paper, Newspapers, Magazines, etc.

Some are being replaced by kerbside collection of segregated recyclables waste in separate bins.

(Cherrington '95)

BRITISH BOARD OF AGRÉMENT (BBA)

are responsible for the issuing of *Agrément Certificates* in the UK.

They have recently celebrated 40 years of existence.

They carryout *third party accreditation* by testing and assessing products on behalf of manufacturers.

Agrément certified products are *Proper Materials* under the CPD and CPR and Building Regulations Regulation 7

(ASWS BRM '97)

BRITISH COUNCIL FOR OFFICES (BCO)

Publishes the BCO Guide to Specification (of offices)

<http://www.bco.org.uk/>

(Ska '09 and GreenSpec '10)

BRITISH ELECTROTECHNICAL APPROVALS BOARD (BEAB)

A Kitemark scheme for electrical goods

(HAPM and BPG CLM '97)

BRITISH ENERGY EFFICIENCY FEDERATION (BEEF)

(GreenSpec BRM '11)

BRITISH INSTITUTE OF FACILITIES MANAGEMENT (BIFM)

<http://www.bifm.org.uk/>

BRITISH INSTITUTE OF NON-DESTRUCTIVE TESTING (BINDT)

British Institute of Non-destructive Testing, 1 Spencer Parade, Northampton, NN1 5AA

T 01604 630124 See: F See: 01604 231489

Daniel Grove

E daniel.grove@bindt.org

(GreenSpec '09)

BRITISH PRECAST (BP)

<http://www.britishprecast.org/>

BRITISH PROPERTY FEDERATION (BPF)

<http://www.bpf.org.uk/>

BRITISH PLASTICS FEDERATION (BPF)

(HAPM and BPG CLM '97)

BRITISH PLASTICS FEDERATION/GLASS AND GLAZING FEDERATION (BPF/GGF)

(HAPM and BPG CLM '97)

BRITISH TRUST FOR CONSERVATION VOLUNTEERS (BTCV)

BRITISH STANDARD (BS)

a Specification often cited in the Building Regulations and *CPs*.

(ASWS BRM '97)

See: also CP Code of Practice, DD Draft for Development, PD Published document, PAS (GreenSpec BRM '10)

BRITISH STANDARD EUROPEAN NORM (BS EN)

a European Standard or *EN* adopted and implemented as a *BS* by *BSI*.

(ASWS BRM '97)

BUILDING STANDARDS GROUP (BSG)

BSS's Forum that discuss building issues and generates feedback to *BSI*, they publish their own standards as *PD's*; member have access to draft *BS* & *CP's*.

(ASWS BRM '97)

BRITISH STANDARDS SOCIETY (BSS)

are related to *BSI* and discuss topical subjects related to standards, Europe, QA etc.

(ASWS BRM '97)

BRITISH URBAN REGENERATION ASSOCIATION (BURA)

<http://www.bura.org.uk/>

BRITISH WOOD PRESERVING AND DAMPPROOFING ASSOCIATION (BWPDA)

Create and maintain treatment standards cited by *NBS*

(GreenSpec BRM '11)

BRITISH WOODWORKING FEDERATION (BWF)

See: *BWF* Certifire, Certifier, *FIRAS*

(GreenSpec BRM '10)

BRITISH YOUTH COUNCIL (BYC)

(Participation Works Partnership)

BRM See: **BREATHING ROOFING MEMBRANES**

BRM See: **BRIAN ROBERT MURPHY**

BROWNFIELD SITE**BROWN OUT**

drop in voltage in an electrical power supply, so named because it typically causes lights to dim

(Wikipedia)

See: Black out

(GreenSpec BRM '11)

BROWN ROOF

Local clean inert subsoil and rubble ideally from the same site, forms a substrate on a low-pitched or flat roof, which is allowed to colonise naturally.

See: Living Roof and Green Roof, Intensive Roof and Extensive Roof

(GreenSpec AEP '09 & BRM '10)

BROWN WASTE

(GreenSpec AEP '09)

BROWSER

this is part of the stuff needed to access the internet

(ASWS BRM '97)

BRUFMA

Manufacturer's Association for foamed plastic thermal insulation

(GreenSpec BRM '11)

BS See: **BRITISH STANDARD**

BS 0

Even *BSI* committees preparing a standard or code of practice are biased by virtue of the committee membership, industry players with an interest in status quo prevails can steer the content of a standard.

BSI are addressing this issue and the *BS* for Standards *BS 0* now requires a balanced membership/voting rights and sustainability as part of the agenda.

(GreenSpec BRM '11)

BS 5750 See: **QUALITY MANAGEMENT SYSTEM**

BS 8887-220

See: *CRR*, *ARS*, Approved Remanufacturers Scheme

(*CRR* & GreenSpec BRM '10)

BS 8905

Principles and framework for the sustainable use of materials - Guide.

(GreenSpec BRM '11)

BS EN See: **BRITISH STANDARD EUROPEAN NORM**

BS EN ISO

a standard which is adopted, translated and published by *BSI*, *CEN* and *ISO*.

A recent example is the Standard on *QA*, formerly *BS 5750* now revised and renumbered as *BS EN ISO 9000*.

(ASWS BRM '97)

BS EN ISO 9000 See: **QUALITY MANAGEMENT SYSTEM**

BS EN ISO 14001 See: **ENVIRONMENTAL MANAGEMENT SYSTEM**

BS EN ISO 16001 See: **ENERGY MANAGEMENT SYSTEM**

BS EN ISO 26000 See: _____

BSG See: **BUILDING STANDARDS GROUP**

BSI See: **BRITISH STANDARDS INSTITUTION**

BSI See: **BRITISH STANDARDS INSTITUTE**

Private enterprise responsible for the creation and maintenance of *BSs*, *CPs* etc.

Relies on voluntary technical committees to invest time to write and edit specifications and codes.

Technical committees are notorious for being over powered by manufacturers with their own agendas.

(ASWS BRM '97 & GreenSpec '10)

BSI NEWS See: **BSI UPDATE**

BSI KITEMARK

The *Kitemark* is a logo issued on License by the *BSI* to manufacturers who have had their products, production and management scrutinised by *BSI QA* (a third party) to ensure the product is manufactured to the relevant *BS* and the method of manufacture is consistent and managed under a *QA* scheme assessed by *BSI QA* to *BS EN ISO 9000* series.

(ASWS BRM '97)

BSI PAS 100

Recycled Compost standard developed with BSI under the Publicly Available Standard procedures with WRAP and Compost Manufacturer's Association

See: PAS

(GreenSpec BRM '11)

BSI PAS 2030

DECC's Handbook for the Green Deal developed with BSI under the Publicly Available Standard procedures

The BSI Publicly Available Standard for the implementation of the GreenDeal funding mechanism.

See: GreenDeal, PAS,

(GreenSpec BRM '11)

BSI PAS 2050

Carbon Trust's new carbon labelling scheme developed with BSI under the Publicly Available Standard procedures

Graham Sinden is technical manager of *PAS 2050*

29th of October 2008 launch

Addresses Carbon Sequestration and is adopted in LCA Life Cycle Assessment.

(GreenSpec BRM '10)

BSI UPDATE

the subscription monthly magazine by *BSI* telling us the latest revisions, updates, amendments etc. of *BS*, *CP*, *DD*, *PD*, *BS EN*, *EN*, *BS EN ISO*, *ISO* etc. standards.

(ASWS BRM '97 & GreenSpec '09)

BS PD 156865

Standardized Method of Life Cycle Costing for Construction Procurement

(BLP PM '10)

BSRIA See: **BUILDING SERVICES RESEARCH & INFORMATION ASSOCIATION**

BSS See: **BRITISH STANDARDS SOCIETY**

BTCV See: **BRITISH TRUST FOR CONSERVATION VOLUNTEERS**

BTEG See: **BLACK TRAINING AND ENTERPRISE GROUP**

BUDGET BUILDING DESIGN

computer representation of a hypothetical design based on the actual proposed building design

This representation is used as the basis for calculating the energy cost budget.

(Building Energy Glossary '06)

BUG See: **BUILDING USER GUIDE**

BUILDING

structure wholly or partially enclosed within exterior walls, or within exterior and party wall(s), and a roof(s) affording shelter to persons, animals, or property

(Building Energy Glossary '06)

An assembly of building elements, each of which is an assembly of materials, generic materials, products or components.

See: *Assembly*, *Component*, *Element*, *Elemental Assembly*, *Generic Material*, *Material*, *Product*, *Resource*.

(GreenSpec BRM '11)

BUILDING AIR QUALITY

www.baq1.com/

(SEDA Chemical Reduction in Building '08)

See: Indoor air quality, IAQ,

(GreenSpec BRM '10)

BUILDING AREA

greatest horizontal area of a building above grade within the outside surface of exterior walls or within the outside surface of exterior wall and the center line of fire walls

(Building Energy Glossary '06)

BUILDING CENTRE

<http://www.buildingcentre.co.uk/>

Seminar venue, Café, Exhibition Centre, Building materials and products displays, Bookshop, home of many associations (GreenSpec BRM '09)

BUILDING DESIGN SOFTWARE (BDS)

Previously Newcastle University-Architect's Department, the authors of *NBS Building* formerly *NBS Building for NBS*. Now part of *NBS*.

(ASWS BRM '97)

BUILDING EMISSION RATE (BER)

The level at which a building contributes to global warming and climate change by direct leakage of harmful gases or indirect generation of carbon dioxide from power generation.

See: TER

(BCT & GreenSpec '08)

BUILDING EMPLOYER'S CONFEDERATION (BEC)

the Contractor's representative member of *CCPI*.

(ASWS BRM '97)

BUILDING ENTRANCE

any doorway set of doors, turnstiles, or other form of portal that is ordinarily used to gain access to the building by its users and occupants

(Building Energy Glossary '06)

BUILDING ENERGY COST

computed annual energy cost of all purchased energy for the building

(Building Energy Glossary '06)

BUILDING ENERGY MANAGEMENT SYSTEM (BEMS)

BEMS can provide a valuable learning tool in schools, developed with teaching staff and pupils to contribute to syllabus and school projects: carbon credits, carbon accounting, displaying energy and carbon use information.

(GreenSpec BRM '10)

BUILDING ENVELOPE

elements of a building that enclose conditioned spaces through which thermal energy may be transferred to or from the exterior or to or from unconditioned spaces

See Sheltered Building Envelope, Exterior, Semi-Exterior

(Building Energy Glossary '06)

The outer shell that separates the interior and the exterior environments

(GreenSpec AEP '09)

The external elements (walls, windows and doors, basement, ground or suspended over air floors, ceiling, roof and rooflights) of a building once assembled and sealed create the Building Envelope and these enclose the conditioned (heated, cooled, ventilated and/or moisture controlled) space.

(BCT & GreenSpec BRM '08)

BUILDING EXIT

any doorway, set of doors, or other form of portal that is ordinarily used for emergency egress or convenience exit

(Building Energy Glossary '06)

BUILDING FABRIC COMPONENT LIFE MANUAL (BFCLM)

Building Fabric component life manual non-housing components

sponsored by Defence Estates in 1999 © Building Performance Group Ltd.

See: CLM, BLP CDD

(BLP '10)

BUILDING GROUNDS LIGHTING

lighting provided through a building's electrical service for parking lot, site, roadway, pedestrian pathway, loading dock, exterior architectural lighting and security applications

(Building Energy Glossary '06)

BUILDING INFORMATION MANAGEMENT (BIM)

Relates to 3D CAD, but data rich modelling, object based CAD, not lines in space anymore.

All things to all men, from prototyping through manufacturing to building, embraces and engages with many issues holistically: if you choose to exploit its potential

Intelligent, Coordination (of consultants inputs), Compatibility (clash detection), Consistent, schedule generating, automatically updating all outputs from a single place.

Engages with project delivery, predictability of delivery, production management, manufacturing, waste minimisation, facilities management.

Can even engage with environmental design within or by integrating with other software seamlessly.

Clients are beginning to ask all members of project teams to deliver the project design in BIM formats.

Embraces Latham and Egan aspirations and recession hit practices are skilling up rather than navel gazing.

See: CAD, CAD/CAM, MMC, Lean, REVIT.

(GreenSpec BRM '10)

BUILDING INTEGRATED RENEWABLES

E.g. Wind Power, Solar Thermal, PV, not just retrofitted or attached to a building but designed in places to attach to or places made to accommodate them.

Wind turbines tend to perform badly when attached to the building, due to the air flows being directed above the building.

Solar thermal panels built-in in place of roofing tiles,

PV roofing tiles forming the weathertight roof.

Unfortunately PV panels perform less well when hot so they do not do so well if fully integrated.

Laberynth created by battens and counterbattend below the PV panels could be used to ventilate the underside to cool the PV panels and keep their performance as efficient as possible.

PVTs overcome some of the performance loss by taking away the heat to use in domestic hot water or heating, reclaiming the PV efficiencies or dumped in the ground creating potential thermal pollution.

T&C Planning: Permitted Development (PD) encourages building integrated renewables in the form of ST, PV and PVT shallow on the roof slopes, and does not permit wind turbines (potential vibration and noise) attached to semi-detached or terraces (this rule is now relaxed).

Its important to protect the spaces below the roof from the heat radiating down from the back of ST, PV or PVT panels, high decrement delay thermal insulation materials are needed to prevent top floor overheating.

(GreenSpec BRM '10)

BUILDING LIFEPLANS (BLP)

BLP provides building defects insurance for residential, commercial and mixed use schemes.

They also offer durability assessments for clients who need to fast track the adoption of innovative systems and are the premier consultancy resource for whole life costings and methodology in the UK Construction Industry.

BLP acts as an authorised underwriting agent of the UK Branch of Allianz Global, Corporate and Specialty AG.

They have been in business since 1984 trading as Building Lifeplans since 1999 and are a 100% subsidiary company of Thomas Miller.

They are authorised and regulated by the FSA, No 311894.

Buidling LifePlans were developed out of HAPM when it was recognised that the risk mitigation process implemented through the technical audit requirements and built on a considerable level of experience and expertise gained in the HA market would benefit both the client and insurer.

www.blpinsurance.com

(BLP '10)

BUILDING LIFEPLANS LIFE CYCLE COST (BLP LCC)

An on-line toolkit modelling and comparing initial and life cycle costs for dwellings.

www.blpinsurance.com/lcc

(BLP '10)

BUILDING LIFE TIME (BLT)

(ERFMI '08)

BUILDING MANAGEMENT SYSTEM (BMS)

BUILDING MATERIAL CLASS / EURO CLASS / FIRE HAZARD CLASS

See: Pavatex Glossary

<http://www.pavatex.co.uk/lexikon.aspx?GlossaryId=34&mid=2785&ctl=Detail&SkinSrc=%5bG%5dSkins%2fpavatexc%2fnoSkin&ContainerSrc=%5bG%5dContainers%2fdefault%2fNo+Container>

(Pavatex Glossary ' __ www.Pavatex.co.uk)

BUILDING MOISTURE

See: Pavatex Glossary [Building moisture](#)

(Pavatex Glossary ' __ www.Pavatex.co.uk)

BUILDING OFFICIAL

the official authorized to act on behalf of the authority having jurisdiction

(Building Energy Glossary '06)

BUILDING PERFORMANCE GROUP LIMITED (BPG)

Taken over by BRE in 2006

(BLP '10)

BUILDING PHYSICS

See: Passipedia: [Building physics](#)

See: Pavatex Glossary [Building physics](#)

(Pavatex Glossary ' __ www.Pavatex.co.uk)

(GreenSpec BRM '11)

BUILDING REGULATION 7

See: CPD, CPR, CE Mark, BSI Kitemark, BBA Certificate, ETA

BUILDING REGULATIONS

See: AD, Approved Documents, BRAD, Building Regulations Approved Documents, RD, Robust Details,

(GreenSpec BRM '11)

BUILDING REGULATIONS COMPLIANCE TOOLS:

Focussing on energy and carbon Building Regulations Approved Document L (England and Wales) (Part L)

Domestic buildings to Part L1

Non-domestic buildings to Part L2

Tools:

SAP Standard Assessment Procedure

SBEM Standard Building Energy Method

DSM Dynamic Simulation Model

Some software can now perform compliance checks for carbon dioxide emissions, design values and solar gains, and the user can view the results and generate compliance documents.

Some can also create Energy Performance Certificates (EPCs) using both the SBEM and DSM routes.
See: SAP, Standard Assessment Procedure, SBEM, Standard Building Energy Method, DSM, Dynamic Simulation Model, PHPP, Passivhaus Planning Package.
(GreenSpec BRM '11)

BUILDING RELATED ILL-HEALTH

A combination of ailments associated with people's place of work or home, also often referred to as Sick Building Syndrome.

A 1984 WHO report suggested up to 30% new & refurbished buildings worldwide may give rise to ill-health.
(SEDA Chemical Reduction in Building '08)

See: Sick Building Syndrome, IAQ, Indoor Air Quality,
(GreenSpec BRM '10)

BUILDING RESEARCH ESTABLISHMENT (BRE)

See: BRE

BUILDING RESEARCH ESTABLISHMENT ENVIRONMENTAL PROFILING (BRE EP)

Individual products can be profiled using the same 'black box' methodology as used by BRE's Green Guide
So products profiled under this scheme are what GreenSpec call 'BRE Green'

Construction product life cycle assessment LCA

<http://www.greenbooklive.com/page.jsp?id=9>

(GreenSpec BRM '10)

BUILDING SERVICES

See: Passipedia: [Building services](#)

(GreenSpec BRM '11)

BUILDING SERVICES RESEARCH & INFORMATION ASSOCIATION (BSRIA)

(pronounced bisria) responsible for the development of a Facilities Management Specifications in the past.
Not a member of *CCPI*.

(ASWS BRM '97)

BUILDING TYPE

the classification of a building by usage

(Building Energy Glossary '06)

BUILDING USER GUIDE (BUG)

(Ska '09 and GreenSpec '10)

BUILDING WITH RECLAIMED COMPONENTS AND MATERIALS

A Design Handbook for Reuse and Recycling

By Bill Addis

<http://www.earthscan.co.uk/?tabid=943>

GreenSpec were part of the steering group

(GreenSpec BRM '10)

BUILD OFF SITE

<http://www.buildoffsite.org/>

BUILD OWN OPERATE TRANSFER (BOOT)

25 Year programme

Design life BS: 60 Normal 30 Short Life

WLC over 25 years

Could drive for longer life products

But Contractor seeks 25 year guarantee

See: DBFO, DRFO, PPP, PFI

(GreenSpec BRM '10 – '11)

BUILT-IN INSULATION

Insulation batts built in during construction (not pumped or blown in material).

(CC Publication: Concrete and Sound insulation)

BUNDESAMT FÜR UMWELT, WALD UND LANDSCHAFT (BUWAL)

Swiss agency for the environment, forest and landscape

BULLET POINT

usually a black blob at the beginning of a series of lines of text following a title, usually the text is a summary or outline rather than a sentence and is often used as an aide memoir or prompt to the speaker in *PowerPoint* presentations and *Word* files.

(ASWS BRM '97)

BURA See: BRITISH URBAN REGENERATION ASSOCIATION

BUSINESS AS USUAL (BAU)

See: Status Quo Prevails, BRE Green Guide to Specification, BRE Green Book Live, BREEAM, EcoHomes, LEED, GreenTag,

(GreenSpec BRM '10)

BUSINESS ENTERPRISE AND REGULATORY REFORM (BERR)

Government Department (was DTI and DETR)

See: CE, KPI and EPI

(Ska '09 and GreenSpec '10)

BUSINESS IN THE COMMUNITY (BICT)

Supported by HRH Prince Charles and hold their UK wide conferences on May day
(GreenSpec BRM '10)

BUTTERFLY

BLP LCC for sustainability, BLP are developing their Life Cycle Costing (LCC) website tool with TSB Design & Decision Tools funding.

An on-line toolkit modelling capital costs, operational costs, embodied and running energy costs and CO2 emissions for dwellings.

One additional output is something close to a Bill of Quantities for the selected construction methods.

(BLP '10)

See: BLP, LCC, TSB, D&DT,

(GreenSpec BRM '11)

BUTTON

an area of the computer screen image highlighted by a boundary and raised area with an *icon* on it's face, representing a *button* similar to a key on a computer keyboard, using the *mouse pointer* and *clicking* on the *button* makes the programme carry out an instruction depending upon the *icon* on the *button's* face.

(ASWS BRM '97)

BUTTRESS

A tall narrow thickening of a wall to form a projection to strengthen a wall by stiffening it along its length

See: also Pier

(GreenSpec BRM '10)

BUWAL See: **BUNDESAMT FÜR UMWELT, WALD UND LANDSCHAFT**

BUY SUSTAINABLE - QUICK WINS

See: GPP, EUGPP, Buy Sustainable, Quick Wins, Quick Wins Best Practice Voluntary Specifications

(GreenSpec BRM '10)

BY PRODUCTS

(Renueables AN '09)

BWF See: **BRITISH WOODWORKING FEDERATION**

BWF CERTIFIRE

See: FIRAS

(GreenSpec BRM '10)

BWBP See: _____
(HAPM and BPG CLM '97)

BWYP See: **BOROUGH WIDE YOUTH PARTNERSHIP MEETING**

BYC See: **BRITISH YOUTH COUNCIL**

BWPA MANUAL

BWPA manual 2nd edition

(HAPM and BPG CLM '97)

BWPDA See: **BRITISH WOOD PRESERVING AND DAMPPROOFING ASSOCIATION**

C

C2C See: **CRADLE TO CRADLE**

C2CN See: **CRADLE TO CRADLE NETWORK**

C&C See: **CONTRACTION & CONVERGANCE**

C&D See: **CONSTRUCTION AND DEMOLITION**

CA See: **COUNTRYSIDE AGENCY**

CA See: **CONTRACT ADMINISTRATOR**

CABS See: **COMMON ARRANGEMENT OF BUILDING STANDARDS**

CABE See: **COMMISSION FOR ARCHITECTURE AND THE BUILT ENVIRONMENT**

CAD See: **COMPUTER AIDED DESIGN /DRAFTING/DRAWING**

CADCAM See: **COMPUTER-AIDED DESIGN LINKED TO COMPUTER-AIDED MANUFACTURE**

CAD SOFTWARE

Microstation (now at V8) and Microstation PowerDraft – which after-all is AutoCAD (now at 2011) and AutoCAD LT's big competitor.

Revit isn't much-used for production-type drawings – but is very useful in generating very-quick conceptual BIMs.

In terms of its ranking, its popularity is well-below mainstream AutoCAD and Microstation (both have BIM extensions which I think are better than Revit).

3D Max is a non-architectural modelling application, but is popular because of its wide range of excellent rendering and animation options.

It competes with other modelling and animation applications such as Cinema 4D and Maya (bought recently by Autodesk)

All Windows software can be run very effectively on the Mac (since it now runs Intel chips) using a variety of emulators.

ArchiCAD (originally designed as the first BIM modeller back in the 1990s in Hungary) runs both on Windows and Macs

Vectorworks (formerly MiniCad) is Mac-dedicated and is very popular with smaller practices – its cheap, provides passable 3D modelling and excellent production drawing capabilities.

Form Z from AutoDesSys is a long-established 3D modelling system (which Revit was modelled on) – much used by Frank Gehry.

For bargain-basement users there's TurboCad which comes in both 2d and 3d versions – and actually its pretty good.

(GreenSpec AEP '10)

CAL See: **CONSTRUCTION AUDIT LIMITED**

CALCULATING

In the context of LCA

See: LCA, Methodology, PCR, Product Category Rules, System Boundaries, Scope of Impact Analysis

(Renueables AN '10)

CALGREST

See: CAP'EM, Envireo,

(GreenSpec BRM '110)

CALORIFIC VALUE

The heat produced by a given weight of fuel on completion of combustion.

These values are expressed in terms of:

Imperial See: British thermal units per pound (Btu/lb)

Metric See: kilojoules per kilogram (kJ/kg).

Conversion See: 1 Btu/lb = 2.33 kJ/kg

The calorific value of household waste is about one-third that of coal.

(Cherrington '95)

The calorific value of human waste is poor, the human body's digestive system is efficient.

(GreenSpec '08)

CAM See: **COMPUTER-AIDED MANUFACTURE**

CAMHS See: **CHILD AND ADOLESCENT MENTAL HEALTH SERVICE**

CAMPAIGN FOR REAL RECYCLING (CfRR)

The Campaign for Real Recycling intends to pursue a judicial review over plans to allow commingled recycling collections in revised waste framework plans.

(GreenSpec BRM '11)

CAMPAIGN TO PROTECT RURAL ENGLAND (CPRE)

Desire for no man made objects in the natural landscape, campaigns against overhead power cables and responsible for many community objections to planning applications for wind turbines.

(GreenSpec '09)

Object to changes to the character of our countryside, so object to biomass crops, diversity crops, greenhouses and agricultural ground cover fabrics, early warning radar installations, astronomical obseratories, liting stations, radio masts, mobile phone masts, overhead power cables, nuclear and conventional power stations and wind turbines.

Take issue with the way CAT's zerocarbonbritain2030 land use proposals will affect the look and character of the countryside.

(GreenSpec BRM '10)

CANADIAN STANDARDS ASSOCIATION (CSA)

Timber stewardship scheme

(Ska '09 and GreenSpec '10)

See: FSC, Forest Stewardship Council

(GreenSpec BRM '11)

CANNY (Scottish or Newcastle term?)

Knowing, Skilful, Shrewd, Lucky, Careful In Money Matters, Harmless

Summarises all the benefits of sustainable development

See: Sustainable Procurement

(Envirowise SJS Arup '08) (Chambers definition)

CANTILEVER

A structural floor that extends through or over and beyond a loadbearing wall becoming a walkway or balcony, exposing the floor top bottom and edge to exterior conditions.

The floor can become a thermal bridge through the wall's thermal insulation creating a thermal bridge and losing a lot of heat acting as a thermal radiator.

The Thermal bridge can be overcome by adding a thermal break in the floor aligning with the wall thermal insulation.

There are products on the market that can be a thermal break and maintain the structural integrity of the cantilever.

(GreenSpec BRM '10)

CAP'EM See: CYCLE ASSESSMENT PROCEDURE OF ECO MATERIALS

CAPILLARY ACTION/ATTRACTION

A force that can overcome gravity and facilitate moisture transport across materials.

It is reliant upon surface tension and surface meniscus in water and other liquids.

These are reliant upon the nature of materials on the surface of components of buildings.

Open pored materials can absorb water, close proximity of the cell walls allows the water to be drawn from cell to cell.

Close proximity of adjacent surfaces can allow water touching both sides of a gap to use capillary attraction to move towards the narrowest gap and remain there until evaporation disperses it.

Timber should be separated by 8 mm. minimum to prevent water remaining in place, potentially saturating the timber changing its appearance locally and leading to potential rot.

Splashes of rainwater normally bounce as high as 150 mm. if the surface is timber with a rough surface capillary attraction can allow the surface to be wetted up to 450 mm. above the ground.

(GreenSpec BRM '11)

CAPILLARY TUBE

See: Pavatex Glossary [Capillary tube](#)

(Pavatex Glossary ' www.Pavatex.co.uk)

CAPITAL COSTS (CC)

See: Cost in Use

(GreenSpec '10)

CARBON ACCOUNTING

See: Pay back periods, Carbon pay back periods

(GreenSpec BRM '11)

CARBON AUDITS

Analysing energy consumption of an enterprise or home with particular reference to heating, hot water and lighting and in particular fuel types and relative carbon content.

The audit should quantify and apportion fuel types and identify where or how carbon savings could be achieved.

(GreenSpec BRM '11)

CARBON CALCULATORS

Carbon calculators are a great way of estimating the emissions from your home or business. With this information you can then implement methods to reduce your carbon footprint, such as more efficient work practices or the installation of renewable technologies.

Residential carbon calculator Direct.gov carbon calculator

www.actonc02.direct.gov.uk

The act on CO2 carbon calculator allows anyone to calculate their carbon footprint through and receive a personalised action plan with recommendations on how it can be reduced.

(<http://www.eviee.co.uk> '09)

CARBON CAPTURE AND STORAGE (CCS)

Not to be confused with Carbon Sequestration

See: Carbon, Carbon Store, Carbon Sink, Carbon Sequestration

(GreenSpec BRM '10 – '11)

CARBON COPY (CC)

When sending an email to someone, you can send it to someone else at the same time by using the cc function.

This is also known as 'copying somebody else in'

(Participation Works Partnership)

Historically relates to typing (came before computers and word processing), in which a paper coated with unset ink (probably containing carbon powder, hence the name carbon paper); impacts from the lettered arms of the typewriter on the top copy paper would knock the ink on the back of the carbon paper onto a third sheet of plain paper leaving an impression of the letter on the third sheet.

These days we print multiple copies or photocopy the original.

See: BCC, Blank Carbon Copy

(GreenSpec BRM '11)

CARBON DIOXIDE (CO₂)

The main greenhouse gas produced from the burning of fossil fuels, such as coal, oil and gas.

(Hastoe HA GreenStreet.org)

A colourless, odourless, non-poisonous gas that is a normal part of Earth's atmosphere. Carbon dioxide is a product of fossil-fuel combustion as well as other processes. It is considered a greenhouse gas as it traps heat (infrared energy) radiated by the Earth into the atmosphere and thereby contributes to the potential for global warming. The global warming potential (GWP) of other greenhouse gases is measured in relation to that of carbon dioxide, which by international scientific convention is assigned a value of one (1).

(EIA Glossary)

This gas is produced when anything organic is burned, and has no direct health effects in fact the human body's lungs produces it when they breath out.

However CO₂ plays an important role in adding to the greenhouse effect, which keeps the earth warm.

In turn this is adding to global warming

By burning fuel, road vehicles produce 19% of the UK's man-made CO₂ emissions.

(Cherrington '95)

CARBON DIOXIDE EQUIVALENT (CO₂e or CO₂eq)

The amount of carbon dioxide by weight emitted into the atmosphere that would produce the same estimated radiative forcing as a given weight of another radiatively active gas.

Carbon dioxide equivalents are computed by multiplying the weight of the gas being measured (for example, methane) by its estimated global warming potential (21 for methane)."Carbon equivalent units" are defined as carbon dioxide equivalents multiplied by the carbon content of carbon dioxide (i.e. 12/44).

(EIA Glossary)

CARBON EMISSIONS REDUCTION TARGET (CERT)

See: CESP, ECO, GreenDeal

(GreenSpec BRM '11)

CARBON FOOTPRINT

A building's carbon footprint is the measure of the carbon emissions resulting from the use of that building, measured in units of carbon dioxide (CO₂)

(BCT & GreenSpec '08)

CARBON INDEX

Carbon Index is a measure of the carbon emitted to the atmosphere from the heating and hot water used in a building.

It is measured per square metre of floor area in a year, on a log scale of 0-10.

(Hastoe HA GreenStreet.org)

CARBONLITE

The AECB's Carbon Literate Design and Construction Programme

It interprets Germany's PHPP Passivhaus Planning Package, part of the Passivhaus Institute tools, it is more sophisticated than UK's SAP but needs to be modified to reflect UK climate and UK mains supply energy mix.

The CarbonLite programme has interpreted PHPP for a UK context and runs training programmes.

See: SusCon

(GreenSpec '10)

CARBON MONOXIDE (CO)

This gas results from the incomplete burning of fuel.

In the UK road traffic produces 90% of all CO, which can have direct health effects.

When inhaled, CO reduces the oxygen carrying capacity of the blood and can cause headaches, fatigue, stress, respiratory problems and at very high levels: death.

(Cherrington '95)

CARBON NEUTRAL

Conceptually, a state whereby the CO₂ generated by a process is exactly balanced by the amount of CO₂ either offset or sequestered by the process.

A carbon neutral building is one that either uses no fuel that generates CO₂ or where its consumption of CO₂-generating fuel is equally balanced by exported renewable energy.

The definition continues to be debated as to the extent of direct / indirect CO₂ that is included in the equation – e.g. CO₂ generated in the construction of the building. See: also 'Zero Carbon'

(GreenSpec AEP '09)

CARBON NEUTRAL/ZERO

Carbon neutral/zero refers to zero total carbon release, brought about by balancing the amount of carbon released with the amount sequestered or offset.

Carbon zero homes use no fossil fuels to provide heating and rely on renewable energy to generate power e.g. photovoltaic cells, wind turbines or biomass sources.

This energy may be either generated on-site or a combination of on-site and off-site.

The design, fittings, appliances and insulation properties of the building play a huge part in achieving a zero carbon building.

(Ecos Renews 17)

Carbon neutral refers to energy consumption (through day to day activities or normal operations) of a building complex which emit no more carbon dioxide than produced from renewables at the building complex.

Often a process easier to talk about than actually achieve as lifestyle, knowledge, culture change and day to day practices which do not contribute to greenhouse gas emissions.

One method of achieving carbon neutrality is by “carbon offsetting”.

(Building Magazine Steve Piltz, Turner & Townsend '08)

CARBON-OFFSETTING

Carbon offsetting is the term given to the process of buying into projects that either absorb CO₂ or prevent emissions of CO₂ to counteract activities that produce CO₂.

Examples include investing in tree planting, buying 'green' electricity tariffs, and contributing to energy efficiency measures in developing countries.

However, whilst many of these actions may have long-term benefits for the environment, offsetting should not be used as an excuse to relax efforts to reduce our current carbon emissions as it is current CO₂ levels and emissions that need reducing.

(Ecos Renews 17)

Beloved by large corporate organisations and the financial sector, but derided by the environmental lobby as a “cop out,” carbon-offsetting works on the good old fashioned principle of robbing Peter to pay Paul.

If you can't, or chose not to, reduce your CO₂ emissions then carbon offsetting is a way of compensating a poor eco attitude.

Carbon-offsetting is where wealthier northern hemisphere nations fund environmentally sound projects in the emerging economies of Africa and Asia swapping their high CO₂ emissions for the latter's low or non-existent emissions.

Typical examples of the type of carbon offsetting undertaken is tree planting – prevalent in the UK; and renewable energy and ICT technologies in Africa and Asia.

A clear distinction should be made with 'carbon trading' which is highly regulated stock market activity and legally controlled.

(Building Magazine Steve Piltz, Turner & Townsend '08)

CARBON PAY BACK PERIOD

As opposed to money pay back periods

See Payback periods

(GreenSpec BRM '11)

CARBON REDUCTION COMMITMENT (CRC)

(GreenSpec BRM '11)

CARBON SEQUESTRATION

The fixation of atmospheric carbon dioxide in a carbon sink through biological, chemical or physical processes.

(EIA Glossary & GreenSpec BRM '11)

The deliberate removal or storage of carbon in a store where it will remain or in a sink where it will continue to develop or grow.

Carbon Sequestration in construction usually refers to building products derived from plant materials such as wood and hemp, where CO₂ is absorbed as part of the growing process.

The carbon remains 'locked' in the material for the lifetime of the building, if designed for deconstruction and reused the carbon remains 'locked' for longer.

Types of sequestration include 'geological' where CO₂ is captured and buried underground and 'biological' where CO₂ is absorbed during the growth of plants and trees.

(GreenSpec AEP '09 & BRM '10)

See: Carbon Sink, Carbon Store

Urban trees absorb more CO₂ than in forests - they have more space and tend to grow much larger as there is less competition!

(Sofie Pelsmakers '11)

CARBON SINK

A reservoir that absorbs or takes up released carbon from another part of the carbon cycle.

The four sinks, which are regions of the Earth within which carbon behaves in a systematic manner, are the atmosphere, terrestrial biosphere (usually including freshwater systems), oceans, and sediments (including fossil fuels).

(EIA Glossary)

Carbon Sink = wood in tree plantation or coppice, the quantity of carbon will rise as trees grow and fall when thinning and at harvesting.

A carbon sink may consist of numerous carbon stores that come and go.

See: Carbon sequestration, Carbon Store

(GreenSpec BRM '10)

CARBON STORE

Carbon Store = Wood in a building (at least for the life of the building) or a protected ancient forest

If the building is dismantled at the end of life and reassembled the carbon store continues.

See: Carbon sequestration, Carbon Sink,

(GreenSpec BRM '10)

CARBON TRUST (CT)

Government body to advise business and business sectors about carbon reduction, energy saving measure and products

<http://www.carbontrust>.

Likely to disappear with cutbacks during 2010

See: PAS 2050, EST, Energy Saving Trust, ESR, ESP, ECA, ETL, WTL

(GreenSpec BRM '10)

CARBON TRADING

A clear distinction should be made between 'carbon offsetting' and 'carbon trading' which is highly regulated stock market activity and legally controlled.

(Building Magazine Steve Piltz, Turner & Townsend '08)

CAREERS AND EDUCATION BUSINESS PARTNERSHIP (CEBP)

(Participation Works Partnership)

CAR FREE HOUSING

CAR SHARING SCHEME

See: **ZEDCars**

CAR USE DISCOURAGED

CARS EXCLUDED

CARTEL

An association of independent businesses formed to monopolise and control production, distribution, supply and hence control prices

(Cherrington '95)

Monopolies Commission investigates and breaks up such cartels

(GreenSpec '08)

CAT See: **CENTRE FOR ALTERNATIVE TECHNOLOGY**

CAT A See: **CATEGORY A**

CAT B See: **CATEGORY B**

CAT C See: **CATEGORY C**

CATEGORY A

Category A works essentially extend central services out onto floor plates and provide a background for Category B works.

Category A works comprise services, life safety elements and basic fittings and finishes for the operation of lettable work space including:

Suspended ceilings

Raised floors and skirtings

Cooling and heating systems

Office ventilation systems

Open plan base lighting solution

Life safety systems (fire alarms, sprinklers, emergency lighting, etc)

Distribution boards

Office carpet and floor boxes (usually in the form of a cash contribution to the occupier)

Blinds (can be either installed by the developer or a cash contribution made to the occupier)

Basic statutory signage

Basic security system and wireways

See BCO, British Council of Offices, CAT A, B & C, Category B & C

<http://bco.org.uk/>

(BCO. '09)

CATEGORY B

Category B works, or bespoke fit-out, may include:

Suspended ceiling upgrades and special area fitting out (auditoria, kitchens, restaurants, meeting rooms, etc)

Upgrade to core finishes

Internal partitioning

Additional floor finishes

Mechanical, electrical services and lighting upgrade

Installation of below floor and overhead/drop down power distribution

IT and telecommunications installations and distribution (data cabling)

Enhanced WC provision if required

Occupier standby generation and UPS

Adaptation of life safety systems

Decoration and branding

Fixtures and fittings

Furniture

Security installation enhancements

Audio/visual installation

Corporate and way finding signage

Vertical transportation enhancements

Feature staircase links between floors

See BCO, British Council of Offices, CAT A, B & C, Category A & C

<http://bco.org.uk/>

(BCO '09).

CATEGORY C

Anything not covered by Category A or B

See BCO, British Council of Offices, CAT A, B & C, Category A & C

(BCO '09)

CATALYTIC CONVERTER

A device which can be fitted to a vehicle which converts harmful hydrocarbons and CO carbon monoxide to CO₂ carbon dioxide and water vapour.

(Cherrington '95)

CAULKING

Process of sealing joints.

(CC Publication: Concrete and Sound insulation)

CAVITY INSULATION GUARANTEE AGENCY (CIGA)

have insulation industry initiatives and schemes designed to provide consumer confidence and protection

See: NIA, SWIGA

(GreenSpec BRM '11)

CAVITY STOP

A proprietary product or material such as mineral wool fibre used to close the gap in a cavity wall.

(CC Publication: Concrete and Sound insulation)

CAVITY WALL

Common construction for external walls, encouraged by NHBC rules, comprising an inner and outer leaf of brick and/or block with a space between for air or insulation or both, the leaves are tied together and apart, usually with metal, ties. Insulation in the cavity may fully fill or partially fill the cavity, partial fill insulation needs retaining disks adding to the wall ties to hold the insulation towards the inner side of the cavity and the insulation needs to be closed cell or have a closed face by foil face or a breather membrane (uncommon in the UK) or the air flowing in the cavity will draw out the heat from within the airspaces of the insulation, reducing its performance.

See: Thermal Bypass

(GreenSpec BRM '10)

CAWS See: **COMMON ARRANGEMENT OF WORK SECTIONS**

CBD See: **CONVENTION ON BIOLOGICAL DIVERSITY**

CBM See: **CUBIC METRE**

CBPB See: **CEMENT BONDED PARTICLEBOARD**

CC See: **CAPITAL COSTS**

CC See: **CARBON COPY**

CC See: **CITY COUNCIL**

CC See: **COUNTY COUNCIL**

CC See: **CONCRETE CENTRE**

CC See: **CLIMATE CHANGE**

CCA See: **COPPER CHROME ARSENIC**

CCHP COMBINED COOLING HEATING AND POWER

An additional advantage of CCHP is that the ample hot water supply can be used in a 'tri-generation' scenario to provide cooling through a chemical absorption process, which is exceedingly efficient.

(based on Building Magazine Steve Piltz, Turner & Townsend '08)

See: CHP

(GreenSpec BRM '10)

CCPI See: **COMMITTEE FOR COORDINATED PROJECT INFORMATION (CCPI)**

CCS See: **CARBON CAPTURING AND STORAGE**

CCS See: **CONSIDERATE CONSTRUCTORS SCHEME**

CCW See: **COUNTRYSIDE COUNCIL FOR WALES**

CD See: **COMMUNITY DEVELOPMENT**

CD See: **COMPACT DISK**

CDA See: **COMMUNITY DEVELOPMENT AGENCY**

CDA See: **COPPER DEVELOPMENT ASSOCIATION**

CDD See: **ANNUAL COOLING DEGREE-DAYS**

CD DRIVE

This allows the content of the CD to be played, read or transferred between the CD and the Harddisk of a computer.

They are slower to extract data from than a computer's own hard disk, but faster than from floppy disk and getting faster all the time.

(ASWS BRM '97)

CDD See: **CONSTRUCTION DURABILITY DATABASE**

CDDS See: **ANNUAL COOLING DEGREE-DAYS**

CDE See: **CONSTRUCTION DEMOLITION & EXCAVATION**

CDF See: **COMMUNITY DEVELOPMENT FOUNDATION**

CDFI See: **COMMUNITY DEVELOPMENT FINANCE INITIATIVE**

CDM See: **CLEAN DEVELOPMENT MECHANISM**

CDM See: **CONSTRUCTION (DESIGN AND MANAGEMENT) REGULATIONS**

CD-REWRITABLE

this CD is the most expensive form but fast gaining acceptance and prices are falling, it allows you to store, erase and update information of a CD.

(ASWS BRM '97)

CD-ROM See: **COMPACT DISK – READ ONLY MEMORY**

CDRP See: **CRIME AND DISORDER REDUCTION PARTNERSHIP**

CD-WORM See: **COMPACT DISK – WRITE ONCE READ MANY**

CDX See: **COMMUNITY DEVELOPMENT XCHANGE**

CE See: **CONSTRUCTING EXCELLENCE**

CEBP See: **CAREERS AND EDUCATION BUSINESS PARTNERSHIP**

CEC See: **COMMISSION FOR ENVIRONMENTAL COOPERATION**

CELLULOSE INSULATION

CE MARK

Previously know as the EC Marks but the graphic presentation was 'CE' so it got renamed

It is used by manufacturers to indicate their products comply with relevant *EU directives* or national interpretive regulations, from children's toys to computers, in the case of the construction industry the *Construction Products Directive* and Regulations and then to the *Building Regulations: Regulation 7*.

It is not a quality mark like *BSI Kitemark* or *BBA Certificate* but it indicate the material is a *Proper Material* under *Regulation 7* as are *BSI Kitemarked* or *BBA Certified* materials or products

(GreenSpec '09 – '11)

See: Pavatex Glossary [CE mark](#)

(Pavatex Glossary ' __ www.Pavatex.co.uk)

CEMENT

The binding agent, glue or adhesive in concrete and cement mortar and cement render.

Cement production is the third ranking producer of CO₂ in the world after transport and energy generation.

Cement production is responsible for 7-10% of the world's total CO₂ emission and 2% of that produced in the UK (BCA '10).

For every ton of cement produced, approx. 1 ton of CO₂ is produced from chemical reaction and the burning of fossil fuel.

The UK produces around 12,000,000 tonnes of cement per annum

Cement production is increasing worldwide by approx. 5% per annum.

(GreenSpec AEP '10)

Ordinary Portland Cement (OPC) = CEM1

(GreenSpec '08 – '10)

CEMENT BONDED PARTICLEBOARD (CBPB)

Contains particles of wood fibre (like chipboard (wood particle board)) bound together by cement

Has strength, moisture resistance, moisture vapour resistance, durability, thermal mass.

Consequently this is probably a good material for bat box construction.

Cement bonded particleboard should be manufactured to EN 634.

(GreenSpec BRM '10)

CEMENT REPLACEMENT

Replacing a proportion of OPC Ordinary Portland cement in a mix by replacing it with PFA or GGBS cements

Replacement of Concrete with Limecrete

Replacement of Cement mortar or cement render with Lime mortar or Lime render

(GreenSpec BRM '11)

CEMVO See: **COUNCIL FOR ETHNIC MINORITY VOLUNTARY ORGANISATIONS**

CEN See: **EUROPEAN COMMITTEE FOR STANDARDISATION**

CEN TC 350

EU technical committee addressing CPD Construction Products Directive and EPD Environmental Product Declarations it will embrace CEN TC 351 in due course.

First draft of their CEN EN was challenged by EU Consumer Council for only addressing manufacturers concerns and threatened to tell consumers to ignore EPD, unless the drafts were developed to engage with consumer concerns.

See: CEN TC 351

(GreenSpec BRM '10)

CEN TC 351

EU technical committee addressing CPD Construction Products Directive and EPD Environmental Product Declarations in particular the health aspects of materials.

This will be embraced by the outputs of CEN TC 350 when ready.

(GreenSpec BRM '10)

CENTRAL POINT OF EXPERTISE ON TIMBER (CPET)

<http://www.cpet.org.uk/>

<http://www.proforest.net/cpet/evidence-of-compliance>

Checklists, additional advice and free training are available through CPET

CPET offer free advice and one-day training workshops to assist in the understanding of sustainable timber requirements.

CPET helpline:

T 01865243766

E cpet@proforest.net

See: FSC, PEFC, GPP, EUGPP, Buy Sustainable, Quick Wins, Quick Wins Best Practice Voluntary Specifications

(GreenSpec BRM '10 – '11)

CENTRE FOR ALTERNATIVE TECHNOLOGY (CAT)

<http://www.cat.org.uk/>

See: ATA, UEL, MSc,

(GreenSpec BRM '11)

CENTRE FOR LOW IMPACT MATERIAL IN BUILDING (BRE CLIMB)

Is a research project funded by the BRE Trust to improve understanding of the barriers and opportunities for low embodied impact materials as part of a low impact built environment.

Outputs will include case studies, design guidance and a web-based knowledge-sharing platform.

CLIMB Stakeholder Workshop *Building with Low Impact Materials*

A workshop that identified drivers, barriers, good practice and development opportunities for low impact materials throughout the construction cycle – from the brief and design, through to specification, sourcing, supply, construction, operation, maintenance and end of life.

BRE invited representatives of government, advisory bodies, clients, designers, developers, contractors and suppliers to take part in a lively dialogue which to give an insight into how different parts of the construction supply chain are approaching materials sustainability.

As we drive down operational impacts in the built environment, the embodied impacts of construction materials and processes assume greater significance.

Innovations in material sourcing, product design and manufacturing hold out the prospect of construction materials and products which have measurably lower embodied impacts while remaining fit for purpose and contributing to low building operational impacts.

(Ex BRE & GreenSpec BRM '10)

CENTRE FOR REMANUFACTURING & REUSE (CRR)

Established by Oakdene Hollins Ltd with Defra support to promote remanufacturing and other reuse options.

See: Remanufacturing, Approved Remanufacturing Scheme, Review of Standards

T hotline 01296 337165

E info@remanufacturing.org.uk <http://www.remanufacturing.org.uk>

CRR to launch Membership Services

2009 CRR engaged with the furniture industry

One outcome of the work was the development of a website to disseminate the results of the project.

<http://www.remanufatcuring.org.uk/furniture>

2010 In parallel with the accreditation services, CRR have a subscription service for remanufacturing companies.

Along with access to information services, tools and reports, companies will receive a quota of consultancy days, voting rights, special interest group participation and participation in collaborations.

<http://www.remanufacturing.org.uk/pdf/crrplanupdate.pdf>

See: Remanufacture, Review of Standards

(CRR & GreenSpec BRM '10)

CENTRE FOR SUSTAINABLE DESIGN

<http://www.cfsd.org.uk/>

CENTER VOOR MILIEUKUNDE AT LEIDEN (CML)

Center For Environmental Science At Leiden, Netherland

(ERFMI '08)

CENTRAL HEATING NOT REQUIRED

See: Passivhaus,

CENTRAL HEATING SYSTEM SPECIFICATIONS GUIDE (CHESS)

This provides guidance on basic and best practice specifications for the components of domestic wet central heating systems critical to energy efficiency.

CheSS is part of the EST Energy Saving Trust's EEBPH Energy Efficiency Best Practice for Homes programme.

(Hastoe HA GreenStreet.org)

CE(O) See: **CHIEF EXECUTIVE (OFFICER)**

CEPMC See: **COUNCIL FOR EUROPEAN PRODUCERS OF MATERIALS FOR CONSTRUCTION**

CERT See: **CARBON EMISSIONS REDUCTION TARGET**

CERTIFICATION

See: Passipedia: [Certification](#)

(GreenSpec BRM '11)

CERTIFIED BUILDING

A building that has achieved a certification under a recognised rating system (e.g. BREEAM, LEED, DREAM, SPEAR) as displaying sustainability characteristics.

It should be recognised that these schemes may not be directly comparable with one another and most have differing grades of certification.

(RICS '11 & GreenSpec BRM '11)

CERTIFIED PASSIVE HOUSE DESIGNER

See: Passipedia: [Certified Passive House Designer](#)

(GreenSpec BRM '11)

CESP See: **COMMUNITY ENERGY SAVING PROGRAMME**

CF See: **CHARACTERISATION FACTOR**

CFC See: **CHLOROFLOUROCARBON**

CFC-FREE & HCFC-FREE

CFL See: **COMPACT FLUORESCENT LAMP**

CfSH See: **CODE FOR SUSTAINABLE HOMES**

CGS See: **CITY GROWTH STRATEGY**

CHAIN OF CUSTODY (COC)

See: FSC, Forest Stewardship Council,
(GreenSpec BRM '10-'11)

CHAIR

The person leading a formal meeting
(Participation Works Partnership)
Another name for a seat for sitting upon
See: OGC, GPP
(GreenSpec BRM '11)

CH₄ See: **METHANE**

CHAMPION

See: Airtightness Champion, Waste Champion
(GreenSpec BRM '10)

CHARACTERISATION FACTOR (CF)

(ERFMI '08)

CHARTERED INSTITUTE OF ARCHITECTURAL TECHNOLOGISTS (CIAT)

<http://www.ciat.org.uk/>

Formerly BIAT British institute of Architectural Technicians
GreenSpec BRM '11)

CHARTERED INSTITUTE OF BUILDING (CIOB)

<http://www.ciob.org.uk/home>

CIBSE See: **CHARTERED INSTITUTION OF BUILDING SERVICES ENGINEERS**

were not representative members of *CCPI*.

See: CIBSE manual

(ASWS BRM '97 & GreenSpec BRM '11)

CHARTERED SOCIETY OF DESIGNERS (CSD)

This is the group that *Interior Designers* join like Architects join *RIBA*. These were not representative members of *CCPI*.
(ASWS BRM '97)

CHAS See: **CONTRACTORS HEALTH & SAFETY ASSESSMENT SCHEME**

CHECK METERING

measurement instrumentation for the supplementary monitoring of energy consumption (electric, gas, oil, etc) to isolate the various categories of energy use to permit conservation and control, in addition to the revenue metering furnished by the utility

(Building Energy Glossary '06)

CHEMICAL MINIMISED

A design tactic to minimise the use of chemicals in manufacture, construction, equipping, maintenance of buildings.

See: CDM, COSHH, CHIP, REACH, SIN-LIST, RoHS, ZODP, CFC-Free, HCFC-Free, PVC-Free,

(GreenSpec BRM '10)

CHEMICAL MUTAGENS

Agents that may give rise to mutations resulting in an increase in the incidence of congenital defects in future generations.

(SEDA Chemical Reduction in Building '08)

CHEMICAL OXYGEN DEMAND (COD)

(ERFMI '08)

CHEMICAL POLLUTANTS

Pollutants presenting a hazard to health and the environment of natural or synthetic origin, essentially chemical in nature.

(SEDA Chemical Reduction in Building '08)

CHEMICAL SAFETY ASSESSMENT (CSA)

This is carried out for all registered substances manufactured or imported at 10 tonnes per year or greater.

It should address all the identified uses of a substance on its own (including any major impurities and additives), in a preparation and in an article.

The assessment shall consider all stages of the life-cycle of the substance resulting from the manufacture and identified uses.

The chemical safety assessment shall be based on a comparison of the potential adverse effects of a substance with the known or reasonably foreseeable exposure of man and/or the environment to that substance taking into account implemented and recommended risk management measures and operational conditions.

(HSE REACH '10)

CHEMICAL SAFETY REPORT (CSR)

A CSR should be completed for all substances subject to registration in quantities of 10 tonnes or more per year per registrant and is a documentation of the chemical safety assessment.

Competent Authority

The authority or authorities or bodies established by the Member States to carry out the obligations arising from the REACH Regulation.

(HSE REACH '10)

CHEMICALS (HAZARD INFORMATION AND PACKAGING FOR SUPPLY) REGULATIONS 2002 (CHIP)

Also known as CHIP 3.

This is the legislation under which chemicals are classified and labelled.

Relates to the packaging and transportation of chemicals.

(HSE REACH '10)

See: Chemical Use Minimised, COSHH, REACH, SIN-LIST, RoHS,

(GreenSpec BRM '10)

CHEMICAL USE MINIMISED

A design tactic to minimise the use of chemicals in manufacture, construction, equipping, maintenance of buildings.

See: COSHH, CHIP, CDM, REACH, SIN-LIST, RoHS, ZODP, CFC-Free, HCFC-Free, PVC-Free,

(GreenSpec BRM '10)

CHEMSEC See: **THE INTERNATIONAL CHEMICAL SECRETARIAT**

CHESS See: **CENTRAL HEATING SYSTEM SPECIFICATIONS GUIDE**

CHIEF EXECUTIVE (OFFICER) CE(O)

Usually the head of an organisation

(Participation Works Partnership)

CHILD AND ADOLESCENT MENTAL HEALTH SERVICE (CAMHS)

A service aiming to help children and young people deal with mental health issues

(Participation Works Partnership)

CHILDREN

For the purposes of a formal meeting this may be limited to ability rather than age but children are typically understood in

law as those under the age of 18 but in practice and where the term young people is also used may mean under 11's

(Participation Works Partnership)

CHILDREN AND YOUNG PEOPLE (CYP)

(Participation Works Partnership)

CHILDREN AND YOUNG PEOPLE FRIENDLY FORMAT

Creating documents and an environment with children and young people in mind.

Will they be able to understand this?

Am I creating something that will encourage their engagement?

(Participation Works Partnership)

See: Plain English, Jargon Busting, Crystal Mark,

(GreenSpec BRM '11)

CHILDREN AND YOUNG PEOPLE'S PLAN (CYPP)

(Participation Works Partnership)

CHILDREN AND YOUNG PEOPLE'S STRATEGIC MANAGEMENT GROUP (CYPSMG)

(Participation Works Partnership)

CHIP See: **CHEMICALS (HAZARD INFORMATION AND PACKAGING FOR SUPPLY) REGULATIONS 2002**

CHLOROFLOUROCARBON (CFC)

A chemical compound made up of carbon, fluorine, and chlorine. CFCs were until recently used as blowing agents in the production of thermal insulation (as well as in refrigerators).

Their use has been phased out because of their contribution to depletion of the Ozone layer.

(GreenSpec AEP '09)

Used as a blowing agent in foamed plastics contain chlorine.

Used in insulation and joint filler boards and sealant backing rods and in refrigerant systems

(GreenSpec BRM '10)

Chlorine based gases used as refrigerants and blowing agents in production of extruded/expanded plastics insulation, now banned in Europe and other parts of the world, due to the damage they cause to the ozone layer.

(based on Hastoe HA GreenStreet.org)

CHP See: **COMBINED HEAT AND POWER**

The use of waste steam exhaust from turbines in energy production, diverted from cooling towers condensed to hot water for use as heat.

(Cherrington '95)

CHP systems burn fuel in an engine or boiler to drive a generator to produce electricity.

The burning of the engine also produces heat, which is recovered and used to warm buildings and water consumed within them.

This is often linked to community heating and power systems that provide heat and electricity to a large number of homes and/or businesses from a central boiler through a private distribution system of pipes and cables.

Biomass can be used for fuel.

(based on Hastoe HA GreenStreet.org)

Does what it says on the label – combines heat and power generation – also known as cogeneration.

In similar mode to a power station it combines a boiler producing a gas to drive a turbine which generates electricity.

A significant bi-product of CHPs is ample quantities of hot water which be used for building heating.

As such it's the most efficient use of all fuel types.

While a conventional power station dissipates over 60% of the heat created out into the atmosphere through cooling towers, or in the case of nuclear power stations to the sea; a CHP plant uses the waste heat and is therefore virtually 100% efficient.

Scandinavia, the Netherlands and Germany are testament to the popularity and environmental benefits of state-of-the-art CHP technology that is now available, especially when deployed on a community wide scale.

The Government has set demanding targets for CHP in their 2016 timeframe and with pump prime funding available for the public sector through the 'Community Energy Scheme'.

(based on Building Magazine Steve Piltz, Turner & Townsend '08)

See: CCHP, PVT,

(GreenSpec '10)

CHIP

A labeling system used on vehicles transporting hazardous materials

See: CHIP, COSHH, CDM, RoHS, REACH

(GreenSpec '09 – '10)

CHOICE

CHROMA

One of a number of characteristics of a colour.

See: Colour, Finish, Gloss level, Hue, Irredescence, Opacity, Reflectance, Refraction, Reflection, Saturation, Texture, Tone, Translucency, Transparency.

(GreenSpec BRM '10)

CHURN

Movement or resizing of company departments, their staff numbers and their respective office furniture, equipment, storage, etc.

may only involve rearrangements of furniture over the weekend with no disruption to business.

See: FM, Facilities Management, Fitout, Refit,

(GreenSpec BRM '10)

CI See: **CONTINUOUS INSULATION**

CIAT See: **CHARTERED INSTITUTE OF ARCHITECTURAL TECHNOLOGISTS**

CIAT See: **COUNTRYSIDE IN AND AROUND TOWNS**

CIB See: **CONSEIL INTERNATIONAL DU BÂTIMENT (INTERNATIONAL COUNCIL FOR BUILDING)**

CIBSE See: **CHARTERED INSTITUTION OF BUILDING SERVICES ENGINEERS**

CIBSE MANUAL

CIBSE Manual For Plumbing

(HAPM and BPG CLM '97)

CIGA See: **CAVITY INSULATION GUARANTEE AGENCY**

CIOB See: **CHARTERED INSTITUTE OF BUILDING**

CIC See: **COMMUNITY INTEREST COMPANY**

CIC See: **CONSTRUCTION INDUSTRY COUNCIL**

CIIG See: **CONSTRUCTION INDUSTRY INFORMATION GROUP**

CIRIA See: **CONSTRUCTION INDUSTRY RESEARCH & INFORMATION ASSOCIATION**

CIRIA/SMC MANUAL

Ciria/SMC Manual of Good Practice in Sealant Application. 2nd Edition.

(HAPM and BPG CLM '97)

ASWS developed a Z22 and P22 Performance specification work section for sealants which cited this document

(GreenSpec BRM '10)

CIRCA

A group of committed individuals who keep all old construction information & archive information and keep it available for reference. This comes into its own when your up against the firing squad and the judge holds the trigger, old manufacturer's literature giving incorrect advice might help 'get you off'.

(ASWS BRM '97)

%%%

CIS See: **CONSTRUCTION INFORMATION SERVICE**

CD version of *RIBA/ti Microfile* with links to *NBS Building*. It is in some *Architects Libraries*.

(ASWS BRM '97)

CI/SfB

the *classification system* used by Architects in their *Libraries* to classify all of the hard copy books, reference documents and trade literature.

(ASWS BRM '97)

CISTERN

Tank for storing cold mains supplied water, usually located in the attic, supplies unpressurised cold water to taps, showers, hot water cylinders, etc.

(GreenSpec '10)

CITB See: **CONSTRUCTION INDUSTRY TRAINING BOARD**

CITB CONSTRUCTION SKILLS

CITES See: **CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA**

(UNEP See: Environment and Trade — A Handbook '05)

Appendix I, Appendix II & Appendix III species to be avoided

(GreenSpec BRM '11)

CITY GROWTH STRATEGY (CGS)

CIU See: **COST IN USE**

CLAIRE CONTAMINATED LAND APPLICATIONS IN REAL ENVIRONMENTS

CLASH DETECTION

See: AI, Artificial Intelligence, 3D CAD, Objects, Snap, Parametric
(GreenSpec BRM '11)

CLASS

A range of levels, delimited by a minimum and a maximum value, of performance of a construction product
(CE Marking for SMEs & CPR '11)

CLASSIFICATION SYSTEMS

These are used in practices for a number of reasons but mostly to organise information of one type or another, e.g. Project filing, Product literature and Technical information.

CI/SfB is used in Technical *Libraries* and in *AutoCAD layering*, *CAWS* is used in *Specifications*.

(ASWS BRM '97)

CLEAN DEVELOPMENT MECHANISM (CDM)

See Common Carbon metric

(GreenSpec BRM '10)

CLEAN ENERGY

Homes and businesses may incorporate solar panels and arrays as a source of *clean*, renewable energy.

(Ecos Renews 17)

CLERESTORY

That part of a building that rises clear of the roofs or other parts and whose walls contain windows for lighting the interior
(Building Energy Glossary '06)

Common in churches and cathedrals above the columns either side of the central space.

(GreenSpec BRM '10)

CLES See: **CENTRE FOR LOCAL ECONOMIC STRATEGIES**

CLG See: **COMMUNITIES AND LOCAL GOVERNMENT**

CLICKING

the use of one depression and release of the *button* of a computer's *mouse* to activate an instruction in a computer.

(ASWS BRM '97)

CLIMATE CHANGE (CC)

short-term climate variability and longer-term trends or shifts in climate caused by natural mechanisms or by human activity.

See: global warming.

(Hastoe HA GreenStreet.org)

CLIMATE CHANGE ACT 2008

Sets out to achieve a reduction in green house emissions of 80% by 2050.

A minimum of 34% reduction in emissions is the target for 2020.

(BLP '10)

CLIMATE CHANGE ADAPTATION

Within the built environment sector, climate change adaptation is often used simply to mean changes that can be made to the design or construction (less often the operation or use) of buildings and landscaping in order to cope with the consequences of one or more of the impacts of climate change.

(Adapting to the impact of climate change on buildings, neighbourhoods and cities A Briefing Guide for the North West

Ian Cooper et al '10)

See: Mitigation, Adaptation, Adaptable Building

CLIMATE DATA TOOL FOR THE SOUTHERN HEMISPHERE

See: Passipedia: [Climate data tool for the Southern Hemisphere](#)

(GreenSpec BRM '11)

CLIMATIC MODERATION WITH VEGETATION

CLIMATE PROTECTION

See: Passipedia: [Climate protection](#)

(GreenSpec BRM '11)

CLIMB See: **CENTRE FOR LOW IMPACT MATERIAL IN BUILDING**

CLIP See: **CENTRAL AND LOCAL INFORMATION PARTNERSHIP**

CLLR See: **COUNCILLOR**

CLM See: **COMPONENT LIFE MANUALS**

CLM STRUCTURE

The CLM Manuals are divided into seven Sections each representing component groups.

Section One – Flooring Components

Section Two – Walling and Cladding Components

Section Three – Roofing Components

Section Four – Doors, Windows and Joinery Components

Section Five – Mechanical Equipment Components

Section Six – Electrical Equipment Components

Section Seven – External Works and Outbuildings

(HAPM and BPG CLM '97)

CLM COMPONENT TYPES

Component types such as joists, lintels and wall ties are allocated a place in the appropriate group and are separated into sub-types which may be differentiated by material.

(HAPM and BPG CLM '97)

CLM COMPONENT SUB-TYPES

Within each sub-type, components are described by different qualities (or 'benchmarks') of specification and each specification is given a coding (AH) which indicates its insured life class.

The first instance of each coding within the sub-type is numbered 1, the second 2 and so on, giving a unique two digit code to each description.

A = 35+ years, B = 35 years, C = 30 years, D = 25 years E = 20 years, F = 15 years, G = 10 years, H up to 5 years.

There is also a life class designated "U" (meaning uninsured) which is used where the component does not comply with British Standards or is unsuitable for the purpose specified, or where there is insufficient information presented to allocate an insurance life class.

(HAPM and BPG CLM '97)

CLM LOCATION

Where the life of a component may vary depending on its location in the building, (eg. Ground floor, intermediate floor) alternative component life columns are given for different locations.

Where the life of a component is not affected by location its location is described as "general".

(HAPM and BPG CLM '97)

CLM ADJUSTMENT FACTORS

The unmodified insurance life classification of a component can be affected by local conditions.

Examples of such conditions include marine environments, polluted/industrial atmosphere and frost pockets.

Adjustment factors are indicated to take account of such local conditions.

Definitions for these conditions which are used throughout the Manual have been included as an appendix for guidance.

(HAPM and BPG CLM '97)

CLM ASSUMPTIONS

In assigning lives to components certain general assumptions have been made throughout the manual in addition to specific assumptions which relate to particular components.

General assumptions include installation in accordance with manufacturers' directions, good practice, relevant Codes of Practice and British Standards and the use of appropriate design details. In addition, where a third party assurance certification scheme applies, such as a BBA certificate, installation must comply with the conditions of the relevant certificate.

Specific assumptions, highlighting particular facets of detailing or available guidance on installation, have been made in estimating the durability of that specific component.

These entail such aspects as compliance with a trade standard for installation, or ensuring that incompatible materials are adequately separated.

Non-compliance with these assumptions may result in reduced component lives.

(HAPM and BPG CLM '97)

CLM MAINTENANCE

Insured lives are assigned to components on the assumption that a minimum level of maintenance will be carried out.

Each component sheet specifies the required maintenance level.

Any manufacturer's specific maintenance requirements should also be carried out.

Failure to adequately maintain certain components eg roof coverings may result in premature failure of other components which they should protect.

It is assumed that small items of normal maintenance will be carried out in time to ensure that consequential damage to other components does not result.

(HAPM and BPG CLM '97)

CLM NOTES

Notes may identify items such as further sources of information, incompatibilities, unsuitable applications or materials.

(HAPM and BPG CLM '97)

CLM KEY FAILURE MODES

Key failure modes issues are provided for each component, to explain the reasoning behind the life assessments and to highlight the key determinants of durability in practice.

(HAPM and BPG CLM '97)

CLM KEY DURABILITY ISSUES

Key durability issues are provided for each component, to explain the reasoning behind the life assessments and to highlight the key determinants of durability in practice.

(HAPM and BPG CLM '97)

CLONE

A copy of another thing, usually associated with *IBM PC* computers, which to avoid *copyright* has to be better than equal to the *IBM PC* it copies.

(ASWS BRM '97)

CLOSED CELL INSULATION MATERIAL

One which the cells are closed so will not absorb moisture from the atmosphere.

They often have a foil face to minimise heat being radiated out of the insulation into airspace.

Include foamed plastics and foamed cellular glass.

Closed cell insulation materials are often used in cavity masonry construction because they are damp conditions due to

wind driven rain, pourous materials, pourous joints, open perpend, etc.,

Their thermal performance is not reduced by moisture uptake, because the moisture is absorbed into the permeable or porous masonry which requires heat to dry it out.

Should not be used in Breathing Construction (Vapour open construction) because it will not absorb moisture away from the surrounding timber framing.

See: Hydrophobic materials

(GreenSpec BRM '10)

CLOSED LOOP-RECYCLING

A system by which a given mass of material is remanufactured into the same product.

(GreenSpec AEP '09)

CLOSED SURFACE INSULATION MATERIAL

One which the outer face(s) of the insulation is closed using a metal, plastic or metalised plastic sheet so will not absorb moisture from the atmosphere through this face.

They often have a metal foil face to minimise heat being radiated out of the insulation into airspace.

Include foamed plastics and foamed cellular glass.

Closed face insulation materials are often used in cavity masonry construction because there are damp conditions due to wind driven rain, pourous materials, pourous joints, open perpend, etc,

Their thermal performance of the insulation is not reduced by moisture uptake, the moisture is absorbed into the permeable or porous masonry which requires heat to dry it out.

Should not be used in Breathing Construction (Vapour open construction) because it will not absorb moisture away from the surrounding timber framing.

See, Hygroscopic, Breathing Construction, Hydrophobic materials

(GreenSpec BRM '10)

CLOUD COMPUTING

Wikipedia is the simplest way to illustrate 'cloud computing'.

See: particularly the section on 'Key features'.

http://en.wikipedia.org/wiki/Cloud_computing#Key_features

Cloud computing could be accessing a database (etc.) via a web browser or dedicated software.

For example, any person or business can make use of Apple's [Me.com](#) to synchronise contacts, mails, calendars over many computers and iPhones, iPads, iPods in different geographical locations.

In this case, some or all of the data is held on some or all computers, but all of it in the 'cloud' (Apple's server); if the person or organisation is on another computer, they can log into the 'cloud' and view and interact with those calendars, mail, contacts, etc.

(JGA & GreenSpec BRM '10)

CLOUD COMPUTING & AUTOCAD

Some time ago, there was talk that AutoCAD would go a similar way to cloud computing: all the libraries (preferences, perhaps even the drawing files) would be held online, and users would be able to use a (lighter) version of AutoCAD but would need a paid up licence to get access to the libraries, your files, etc.

Not sure what has happened to this.

(JGA & GreenSpec BRM '10)

CLOUD COMPUTING & APPLICATIONS DATABASES & LCA

The biggest growth in this area is through iPhone (and other smartphone) apps, where many of the apps you interact with are online and every database is stored online.

Envisage a tool running on similar lines to cloud computing: you log into the site to start filling in the 'questionnaire' to interrogate the database; as you are doing this, the application checks the database to see if anyone else has assessed the same product and offers you their assessment for a faster experience!

Other databases being referred to (country industrial footprints, new assessment categories, new environmental impacts not yet realised, etc.) would also be continuously updated.

The user would not hold this information on their device, but would simply be accessing it.

Other interesting possibility would be to keep track of how individuals are weighting impacts, based on location, profession, and other demographics: users would have the option of choosing their own (default) weighting (kept in preferences on the system), or the average for their country, profession, etc., or CAP'EM, BRE, etc.

See: also http://en.wikipedia.org/wiki/Web_application for a little more.

(JGA & GreenSpec BRM '10)

CLP See: **CONNECTED LIGHTING POWER**

CLTP See: **CROSS LAMINATED TIMBER PANELS**

CML See: **THE INSTITUTE OF ENVIRONMENTAL SCIENCES (OF LEIDEN UNIVERSITY)**

CML See: **CENTER VOOR MILIEUKUNDE AT LEIDEN**

Center For Environmental Science At Leiden, Netherland

CO See: **CARBON MONOXIDE**

CO₂ See: **CARBON DIOXIDE**

CO₂E See: **CARBON DIOXIDE EQUIVALENT**

CO₂eq See: **CARBON DIOXIDE EQUIVALENT**

COC See: **CHAIN OF CUSTODY**

Part of a timber stewardship scheme

See: FSC

(Ska '09 and GreenSpec '10)

COD See: **CHEMICAL OXYGEN DEMAND**

CODE See: **CODE FOR SUSTAINABLE HOMES**

CODE 6

See: Code for Sustainable Homes

CODE FOR SUSTAINABLE BUILDINGS

Being developed by BRE and UKGBC.

Code for Sustainable Homes came out of it because it could be completed sooner (in a hurry and full of flaws) and generating challenges to its Energy, Water and Materials credits and methodologies.

Will take 10 years to create.

(GreenSpec BRM '10)

CODE FOR SUSTAINABLE HOMES (CODE, CfSH or CSH)

<http://www.breeam.org/page.jsp?id=86>

Is an Environmental Assessment Method (EAM) for new housing in England and Wales.

The Code replaces EcoHomes (which remains current in Scotland) and sets new standards for energy efficiency above those in current building regulations and sets better standards in a broad range of environmental issues.

(GreenSpec AEP '09 & BRM '10)

Created by BRE for DCLG, the Code comes off the back of BRE's EcoHomes, but better and obligatory, but still full of problems.

Code levels 1 2 & 3 are irrelevant to any sustainability endeavours and create buildings that need to be refurbished or retrofitted in a short period of time

Code level 4 is the absolute minimum to consider, 5 is better, Code 6 is the same as 5 with added *EcoBling*

Material choices receive little credits 7% of the total, there is little incentive to change materials to environmental alternatives and these are dictated by the BRE Green Guide to Specification which does not include many green materials or methods of construction.

Renewable Building group criticised the Green Guide and presented their views via Good Homes Alliance to DCLG.

The water standard in Code is fundamentally flawed but BRE decided to publish it anyway; AECB promoted a different water standard.

(GreenSpec BRM '09 – '10)

The Code is an environmental assessment method for new homes.

It aims to protect the environment by providing guidance on the construction of high performance homes built with sustainability in mind.

All new homes built in the England are now required to either be assessed under the Code for Sustainable Homes or be given a nil-rating which has to be disclosed to the home buyer.

There are 6 levels of the code with Code 6 being the most sustainable and Code 1 meaning the developer really only has to perform minimal improvements on building regulations.

(Ecos Renews 17 & GreenSpec BRM '10)

England and Wales standard for the sustainable design and construction of new homes.

The Code aims to reduce carbon emissions from homes but addresses many other issues

<http://www.communities.gov.uk/planningandbuilding/buildingregulations/legislation/codesustainable/>

See: EcoHomes (in Scotland)

Following EU Procurement Rules WAG requires compliance with CfSH or equivalent and compliance with BRE Green Guide to Specification or equivalent and they accept GreenSpec as equivalent.

(GreenSpec JB '10 & BRM '11)

A Code introduced in 2008 which sets out 6 levels (6 being the highest) of environmental and social performance of new build properties across a range of 9 key criteria.

The code has already been altered once and may continue to evolve.

It is being phased in as mandatory with the eventual intention of mandatory Level 6 being achieved for new builds by 2016.

(RICS '11)

CODE LEVEL 6

See: Code for Sustainable Homes

(GreenSpec BRM '08)

CODE OF PRACTICE (CP)

from *BSI* these are guides to good practice or Code of Practice, they are slowly being replaced by a *BS* which are titled '*Code of Practice for...*'.

(ASWS BRM '97)

COEFFICIENT OF PERFORMANCE (COP)

COP is usually referred to in measuring the efficiency of heat pumps.

It is the ratio of the heat energy output of heat pump versus the amount of electrical energy input.

(GreenSpec AEP '09)

COEFFICIENT OF PERFORMANCE – COOLING (COP)

ratio of the rate of heat removal to the rate of energy input in consistent units, for a complete cooling system or factory assembled equipment, as tested under a nationally recognized standard or designated operating conditions.

(Building Energy Glossary '06)

COEFFICIENT OF PERFORMANCE, HEAT PUMP – HEATING (COP)

ratio of the rate of heat delivered to the rate of energy input, in consistent units, for a complete heat pump system under designated operating conditions

Supplemental heat shall not be considered when checking compliance with the heat pump equipment COPs.

(Building Energy Glossary '06)

COEFFICIENT OF UTILIZATION (CU)

ratio of lumens from a luminaire calculated as received on the work plane to the lumens emitted by the luminaire's lamps alone factored by room surface reflectances and room dimensions

(Building Energy Glossary '06)

CO-GENERATION

The use of a heat engine to generate both electricity and heat simultaneously. See: CHP

(GreenSpec AEP '09)

COLD BRIDGING

A discontinued term for thermal bridging.

(GreenSpec AEP '09)

COLD SPOTS

Cold surfaces that show up on Infrared thermographic surveys may be due to a number of seasons:

Where shading of the sun has not warmed a part of a building surface and the whole building has not had time to cool after sunset.

They can also be due to differentials in heat loss from the building and heat escaping through the fabric or gaps

Often a cold spot on the inside surface will have a corresponding hot spot on the outside surface if there is a thermal bridge, but an air leakage path may be more complex, elongated and they may not be on opposite sides of the same piece of building envelope.

See: Hot Spot, Thermal Bridge, Thermal Break, Anomaly,

(GreenSpec BRM '08)

COLONISE

COLOUR

One of a number of characteristics of the surface of a material or an applied or saturated finish.

Colour is made up of a number of characteristics including: Chroma, Hue, Saturation, Tone

Colour in specifications needs to cover at least: Colour name and reference number, and gloss level.

See: Chroma, Finish, Gloss level, Hue, Irrescence, Opacity, Reflectance, Refraction, Reflection, Saturation, Texture, Tone, Translucency, Transparency.

(GreenSpec BRM '10)

COMBINED HEAT AND POWER (CHP)

Works based on the principle that electricity generation produces heat as a bi-product.

CHP was developed as a way of capturing and using the 'waste' heat.

CHP plants have been successfully established at a variety of locations and scales in recent years, but recent research has been concentrated on developing CHP units for domestic use.

(GreenSpec AEP '09)

See: CCHP, Combined Cooling Heating & Power,

(GreenSpec BRM '11)

COMBINED THERMAL TRANSMITTANCE VALUES (Uo)

See: thermal transmittance, overall

(Building Energy Glossary '06)

COMBUSTION VEHICLE (CV)

a vehicle dependant on conventional internal combustion technologies, typically using hydro-carbon fuels

See: ICE

(GreenSpec BRM '11)

COMFORT

See: Passipedia: [Thermal comfort](#)

See: Thermal Comfort

(GreenSpec BRM '11)

COMINGLED RECYCLABLE WASTE

Waste that has been partially segregated, in readiness for total segregation for recycling by numerous different sectors. Its often excludes compostible or food waste and includes plastic drinks bottles, paper cups, drinks cartons that have recycling capability.

Often found in clear plastic polyethylene bags or sacks so the interior can be seen and readily identified as recycleable as opposed to black backs which include mixed waste less likely to be recycled or reused.

(GreenSpec BRM '11)

COMMERCIAL CARBON CALCULATOR

Carbon trust small and medium sized business toolkit

www.carbontrust.co.uk/solutions/sme_toolkit.htm

The carbon trust have developed a service tailored exclusively to small businesses with everything you need to minimise your carbon emissions and save money.

Registration on the carbon trust's website is required to gain access to this service.

(<http://www.evee.co.uk> '09)

COMMERCIAL WASTE

Waste from premises used mainly for the purposes of trade or business or for sport, recreation or entertainment.
(Cherrington '95)

COMMISSION FOR ARCHITECTURE AND THE BUILT ENVIRONMENT (CABE)

<http://www.cabe.org.uk/>

COMMISSIONING

The process of defining an area of work and paying another organisation to do it
(Participation Works Partnership)

COMMISSIONING

Setting up, starting a piece of mechanical or electrical equipment, test running, calibrating or fine tuning to ensure optimum performance.

(GreenSpec BRM '11)

COMMITTEE FOR COORDINATED PROJECT INFORMATION (CCPI)

Consisted of representative members from *RIBA, RICS, ACE & BEC*. (but did not include *CSD, BSRIA, CIBSE, ACE* and *ICE*) Established to propose methods of improving contract documentation to reduce the number of mistakes made in the Construction Industry.

Their 10 years in discussion resulted in the publication of 5 manuals:

the basic principles summarised in the grey volume; the *CAWS* classification system (pink); one each for Drawing (green), Specification (red) and Quantity Surveying (*SMM7* the latest version of the Standard Method of Measurement) (Blue).

Most recently *CCPI* have published a model set of contract documents and drawings showing the ideas implemented (white).

(ASWS BRM '97)

COMMON ARRANGEMENT OF BUILDING STANDARDS (CABS)

BSI have introduced a new classification system to manage their *BS, CP's* etc.

It is intended to help search for appropriate standards using a database, each standard will be classified by *CABS* so you know what kind of information it contains e.g. design requirements, code of practice, test method, product specification etc. when it is useful in the design/construction process, who it useful to e.g. designer, manufacturer, contractor etc.

CABS allows for inclusion of *CAWS, CI/SfB, EPIC* and *UNICLASS* classifications.

(ASWS BRM '97)

COMMON ARRANGEMENT OF WORK SECTIONS (CAWS)

a *classification system* developed by *CCPI* to be common to all parties of the Construction Industry (except Civil Engineers, since the committee did not include that profession.) instead of the *CI/SfB* used by Architects and *SMM6* used by QSs prior to *SMM7* which adopts *CAWS*. Published in 1987 by *CCPI*. *CAWS* is being revised in the development of *Uniclass* and will result in the creation of two *CAWS* table, one for Building, based on the existing and a new one for Civil Engineering.

(ASWS BRM '97)

NBS have continued to develop and refine *CAWS* in their *NBS Building* and in particular *NBS Engineering*

CAWS needs to be updated to embrace many methods of construction invented in the green world or imported from other parts of the world

GreenSpec have continued to develop and refine *CAWS*

NBS are considering an *Elemental Specification* which will need an elemental classification systems and a complete restructuring of *CAWS* and *NBS Building*

(GreenSpec '09)

COMMON CARBON METRIC (CCM)

World Green Building Council has formed a partnership with the Sustainable Building Alliance and the UNEP Sustainable Building Construction Initiative to develop the Common Carbon Metric Framework (CCM), the first in a series of common metrics for buildings.

An MoU was signed between the three parties in the spring of 2010, which demonstrates the opportunity and commitment for effective collaboration around this initiative.

The scope of the work has been categorized into three core areas:

1. Benchmarking: Ensure that widely used voluntary rating schemes continue to provide benchmarking, validation and reporting services to the industry that work both locally and in an international context.
2. Base-lining: Establish portfolio, city, regional and national baselines for operational energy use and emissions of buildings to provide a level playing field for organizations and governments to report on commitments and reductions, as well as provide a basis for Clean Development Mechanism funding allocations, International Agreements, and National Appropriate Mitigation Actions (NAMAs).
3. Monetizing: Provide a consistent measurement basis for monetization of carbon trading measures for the building sector, aimed to stimulate market activity by incentivizing energy efficiency in use where actual savings are delivered.

WorldGBC's role is to define the Benchmarking framework related to this larger exercise.

For more information on the Common Carbon Metric Framework, contact Jane Henley, World GBC CEO.

jhenley@worldgbc.org

(WGBC '10)

<http://www.sballiance.org/>

<http://www.unepsbci.org/>

See MoU, WGBC, UNEPSBCI, SBA, GUKBC, CDM

(GreenSpec BRM '10)

COMMUNAL GARDENS

COMMUNICATIONS

COMMUNITIES AND LOCAL GOVERNMENT (CLG)

Previously ODPM (Office of Deputy Prime Minister)

Department For Communities And Local Government

Owners of the Code for Sustainable Homes which was created by BRE on their behalf

<http://www.communities.gov.uk/planningandbuilding/>

(GreenSpec BRM '09)

COMMUNITY ENERGY SAVING PROGRAMME (CESP)

See: CERT, ECO, Green Deal

(GreenSpec BRM '11)

COMMUNITY INVOLVEMENT IN DESIGN/PLANNING

COMMUNITY PLAN ACTION GROUP (CPAG)

(Participation Works Partnership)

COMPACT DISK (CD)

Like a music compact disk, but instead of containing music they have computer data, files, applications etc., which can be read by the computer.

They can store vast amounts of information e.g. 600 million key strokes compared with 1.4 million on a floppy disk.

(ASWS BRM '97)

COMPACT DISK – READ ONLY MEMORY (CD-ROM)

a *CD* but protected so that once data has been written to the disk by the supplier then new data can not be written to the disk by the user, thus preventing wiping the data.

(ASWS BRM '97)

COMPACT DISK – WRITE ONCE READ MANY (CD WORM)

this type of *CD* can be used to store data of your own, and is used as a form of permanent back up and for archiving.

It can not be deleted, but could be damage to prevent data access.

(ASWS BRM '97)

COMPACT FLUORESCENT LAMP (CFL)

fluorescent lamp of a small compact shape, with a single base that provides the entire mechanical support function

(Building Energy Glossary '06)

See: Lamp, Luminaire

(GreenSpec BRM '10)

COMPACT HEAT PUMP UNIT

See: Passipedia: [Compact heat pump unit](#)

(GreenSpec BRM '11)

COMPACT HVAC SYSTEM

See: Passipedia: [Compact HVAC system](#)

(GreenSpec BRM '11)

COMPATIBILITY

COMPETENT

COMPETENT CONSTRUCTION

At *GreenSpec* we are beginning to get our heads round what competent construction is and will implement its understanding in updates of *GreenSpec Studio*.

Examples include: high decrement thermal insulation in timber framed construction, hygroscopic insulation in vapour open timber framed construction.

(GreenSpec BRM '11)

COMPLIANCE TOOLS:

Focussing on energy and carbon Building Regulations Approved Document L (England and Wales) (Part L)

Domestic buildings to Part L1

Non-domestic buildings to Part L2

Tools:

SAP Standard Assessment Procedure

SBEM Standard Building Energy Method

DSM Dynamic Simulation Model

Some software can now perform compliance checks for carbon dioxide emissions, design values and solar gains, and the user can view the results and generate compliance documents.

Some can also create Energy Performance Certificates (EPCs) using both the SBEM and DSM routes.

See: SAP, Standard Assessment Procedure, SBEM, Standard Building Energy Method, DSM, Dynamic Simulation Model, PHPP. Passivhaus Planning Package.

(GreenSpec BRM '11)

COMPONENT

A component part of an assembly, sub assembly or secondary element

See: *Assembly, Building, Element, Elemental Assembly, Generic Material, Material, Product, Resource, Secondary element.*

Use COMPONENTS instead of MATERIALS as the European standard EN 15643-1 names a construction product "component"

(GreenSpec BRM '11)

COMPONENTS

See: Passipedia: [Passive House suitable components](#)

(GreenSpec BRM '11)

COMPONENT LIFE MANUALS (CLM)

Building Life Plans were part of HAPM & BPG Activity developing detailed knowledge of design life, component life expectancy, maintenance regimes, failure modes and insurable life of housing stock and their many parts.

This knowledge was converted to *Component Life Manuals (CLM)* to assist designers in choosing materials and products with know life expectancy, to ensure short life materials are eliminated or reduced in number and a balanced approach be taken.

(GreenSpec BRM '10)

COMPONENT LIFE MANUAL (HAPM CLM)

Manuals produced by Construction Audit Ltd (a wholly owned subsidiary of defects specialists Building Performance Group Ltd.) in their role as technical auditors for Housing Association Property Mutual Ltd (HAPM).

HAPM has prepared schedules of the components used together with their assigned "insured lives" and has decided to publish these schedules for the benefit of building owners, designers and others involved in building.

There is currently little published information on the predicted lives of building components.

Some information is available on the factors affecting component life, but few published documents attempt to assign a life to a component.

Such a document will therefore be of interest to a wider group than simply HAPM members.

Although this document tackles this major issue, *it has been prepared specifically for insurance purposes*, and the lives indicated are, of necessity, cautious.

Readers using the data for other purposes may wish to add their own adjustment factors.

It is important to bear in mind that HAPM does not seek to limit the choices available to designers and building owners.

It may be quite valid to select a short life component where access for maintenance or replacement will be straightforward and higher costs in use are acceptable.

The need for replacement may be dictated by factors unconnected with the failure of a component, such as non-availability of spare parts or a desire to improve standards.

Nevertheless, for HAPM purposes it is necessary to differentiate between qualities of component in order to assign a longer insured life to those which can be identified as having enhanced durability characteristics.

Component descriptions have therefore been arranged in order of durability which could also be termed "quality" in a particular and a limited sense.

Although the list of components covered by *CLM* is extensive, certain categories of component have yet to be included.

Supplements will therefore be produced from time to time in respect of, for example, components unique to refurbishment, lifts and boiler room plant, and new components coming onto the market.

HAPM's Technical Audit Unit keeps under regular review research and development by the *Building Research Establishment*, the *British Standards Institution*, building component testing organisations, and manufacturers' organisations.

Assigned insured lives will be reviewed in the light of feedback and the claims experience of HAPM members.

(HAPM and BPG CLM '97)

COMPONENT LIFE MANUALS (CLM)

These started at CDs and end up 'on-line' tools

The chronology of the family of 'Component Life' publications:

HAPM Component Life Manual 1992 © HAPM Publications Ltd, authors Construction Audit Ltd.

Building Fabric Component Life Manual non-housing components sponsored by Defence Estates in 1999 © Building Performance Group Ltd.

Services sponsored by Defence Estates and Published 2001 © Building Performance Group Ltd.

Re-badged HAPM Manual 1999 Final update published 2003 © HAPM Publications Ltd, authors Construction Audit Ltd.

Unpublished output from PII funded collaborative study completed in 2002

(BLP '10)

COMPOSITE RESILIENT BATTEN

A timber batten which is composed of a timber batten with a pre-bonded resilient material to provide isolation between the flooring surface layers and floor base.

(CC Publication: Concrete and Sound insulation)

Used in acoustic floors to isolate the walking surface from the structural floor to prevent impact noise from shoes or dropped objects passing through the structure to other part of the building.

(GreenSpec '09)

COMPOST

The combination of food (not meat, fish or fowl), garden waste and brown waste that is decomposed through aerobic decomposition into rich soil.

(GreenSpec AEP '09 & BRM '10)

See: PAS 100

(GreenSpec BRM '11)

COMPOSTING TOILET

A self-contained unit that treats waste using aerobic decomposition (composting).

The output compost is best used for fruit trees and bushes rather than vegetables.

(GreenSpec AEP '09)

COMPOSTING SYSTEM

COMPUTER-AIDED DESIGN/DRAFTING/DRAWING (CAD)

a type of computer programme to create drawings, *AutoCAD* is an example.

(ASWS BRM '97)

See: CAD/CAM, BIM, 3D CAD,

(GreenSpec BRM '10 – '11)

COMPUTER-AIDED MANUFACTURE (CAM)

See: CAD/CAM, Computer-aided design computer-aided manufacture

(GreenSpec BRM '10)

COMPUTER-AIDED DESIGN COMPUTER-AIDED MANUFACTURE (CAD/CAM)

Used in the design and manufacture of components of buildings with complex geometry like the GLA 'rugby ball' and St Mary's Axe 'Gherkin'.

Rather than knowing the size of a component part, the *3D CAD* model knows the location of the start and end of any component in space in 3 dimensions and it generates a machining requirement for a component that knows the distance apart and the shape, angle of cut and mitres of the ends of the part(s) which are sent automatically to the computer controlled milling machines which generate the parts.

Linked to bar coding the parts and labels come together to ensure all the parts know where they belong in the elemental assembly and inform the logistics and supply sequence.

See: CAD, CAD Software, CAM, CAD/CAM, BIM,

(GreenSpec BRM '10)

COMPRESSION

Thermal or acoustic insulation in storage or persisting after installation, where the full thickness is reduced, resulting in increased density and reduced air pockets that are required to enable thermal and acoustic 57ampshire5757.

This reduces the 57ampshire5757al of the insulation.

(GreenSpec '09)

CONCRETE CENTRE (CC)

<http://www.concretecentre.com/>

(GreenSpec '10)

CONDAM

The old name for the *CDM* Regulations, it was replaced to avoid confusion with Gaelic correspondence = French Letters = Condom = Male Contraception measure.

(ASWS BRM '97)

CONDENSATE

See: Pavatex Glossary [Condensate](#)

(Pavatex Glossary ' __ www.Pavatex.co.uk)

CONDENSE

When a gas such as water vapour (steam) changes to liquid it is *condensing*, when it has become water it has been *condensed*.

(Cherrington '95)

See: Interstitial Condensation, Surface Condensation,

(GreenSpec BRM '11)

CONDENSING BOILER

CONDITIONED SPACE

See: *Cooled Space*, *Heated Space*, *Indirectly conditioned space*, *unconditioned space*

(GreenSpec BRM '10)

CONDITIONED ZONE

The occupied zone in a building requiring heating or cooling and normally bounded by an airtightness layer.

(based on SEDA Airtightness Guide definition)

CONDITION MONITORING

Taking stock of an estate of buildings may include Stock condition surveys.

On a regular or intermittent basis such surveys can be repeated to determine if modifications have made the building better or worse.

Infra-red thermography can be a very useful part of such surveys.

(GreenSpec '09)

CONDITION SURVEYS

Stock taking in terms of building or an estate may include condition surveys and may require a condition survey of buildings to determine how good or bad it/they are in terms of energy efficiency.

Infra-red thermography can be a very useful part of the survey.

(GreenSpec '09)

CONDUCTANCE

See: thermal conductance

(Building Energy Glossary '06)

CONFERENCE OF PARTIES (COP)

(UNEP See: Environment and Trade — A Handbook '05)

CONFIDENTIALITY AGREEMENT

(GreenSpec BRM '11)

CONIAC See: **CONSTRUCTION INDUSTRY ADVISORY COMMITTEE**

provide *HSE* guides to information on building activities useful in connection with *CDM* issues and used in clause A91/50 of *ASWS and GreenSpec* base specification clauses.

(ASWS BRM '97)

CONIFEROUS FOREST

Forest containing only cone bearing softwoods.

Deciduous is the alternative to Coniferous

(Cherrington '95)

CONNECTED LIGHTING POWER (CLP)

power required to energize luminaries and lamps connected to the building electrical service, in *watts*

(Building Energy Glossary '06)

CONSEIL INTERNATIONAL DU BÂTIMENT (INTERNATIONAL COUNCIL FOR BUILDING) (CIB)

(CIRIA RP656 Design for Deconstruction Bill Addis)

CONSERVATION

The careful management and preservation of natural resources and environment.

(Cherrington '95)

CONSTRUCTING EXCELLENCE (CE)

Constructing Excellence publish construction industry indicators are each year by using performance data collected from across the UK construction sector by the Department for Business Enterprise and Regulatory Reform (BERR) formerly Department of Transport and Industry (DTI).

These include benchmarks for energy use.

URL See: www.constructingexcellence.org.uk

See: KPI and EPI

(Ska '09 and GreenSpec '10)

CONSTRUCTION

CONSTRUCTION ACTIVITIES CARBON CALCULATOR

Environment Agency carbon calculator for construction activities

the environment agency offer a downloadable carbon calculator in excel format, which allows businesses associated with the construction industry to assess their carbon emissions.

(<http://www.eviee.co.uk> '09)

CONSTRUCTION AUDIT LIMITED (CAL)

A wholly owned subsidiary of Building Performance Group (BPG), provided technical audit function for HAPM

(BLP '10)

CONSTRUCTION (DESIGN AND MANAGEMENT) REGULATIONS (CDM)

Caused quite a stir in the industry when introduced.

As designers we are now more responsible for considering the materials and methods we choose and how our sites and buildings will be developed, constructed, used, maintained and demolished to enable healthy and safe practices to be adopted to reduce the number of deaths and injuries that occur in the industry each year.

(ASWS BRM '97)

CONSTRUCTION DURABILITY DATABASE (BLP CDD)

HC sponsored an online version embracing the suite of previous *CLM* publications & further new components including straw bales and light earth.

www.blpinsurance.com/cdd

See: HAPM CLM, BFCLM, SCLM

(BLP '10)

CONSTRUCTION EXPERT

A clever bit of software that is breaking new ground, in that it forms an intelligent *front end* to product information catalogues and technical and legislative information.

It uses an *Expert System* to guide the user through a series of choices, usually legislative requirements, constructional guidance, codes of practice, performance requirements, product standards and characteristics etc. you make the decisions and the programme records them as you make them, it then shows you the limited number of products that meet all of the requirements of your brief or design.

If you need to it will allow you to remake your choices to expand the range of manufacturers meet the requirement. It and helps to create a draft specification for their use.

Barbour the same people that produce *Barbour* index and *Barbour* compendium are the creators of this software.

See: Expert System

(ASWS BRM '97)

CONSTRUCTION INDUSTRY INFORMATION GROUP (CIIG)

is predominantly Librarians but also Information Scientists, etc.

(ASWS BRM '97)

CONSTRUCTION INDUSTRY RESEARCH & INFORMATION ASSOCIATION (CIRIA)

do research and provide best practice guidance to professionals that is authoritative, convenient to use and relevant.

<http://www.ciria.org.uk/>

See: CIRIA/SMC Manual

(ASWS BRM '97 & GreenSpec BRM '11)

CONSTRUCTION PRODUCT

Any product or kit which is produced and placed on the market for incorporation in a permanent manner in construction works or parts thereof and the performance of which has an effect on the performance of the construction works with respect to the basic requirements for construction works

(CE Marking for SMEs & CPR '11)

CONSTRUCTION PRODUCTS ASSOCIATION (CPA)

<http://www.constructionproducts.org.uk/>

Has a vested interest in existing established conventional manufacturers (most of its membership) and *status quo prevails*.

Are BRE's route to Industry-buy-in to their *BRE Green Guide to Specification* and *GreenBook Live with BRE EP Environmental Profiling*.

Regard *GreenSpec* as a bunch of amateurs in the context of *LCA* and materials evaluation.

Its Environmental Committee asked *GreenSpec* if its ambition was to desiminate the existing UK manufacturing base.

As if *GreenSpec* has that kind of influence! Our answer was: We want them to green up their act.

Our reply could have been: if they do not engage with environmental issues they won't need our help to desiminate themselves.

(GreenSpec BRM '10)

CONSTRUCTION PRODUCTS DIRECTIVE (CPD)

a *European Directive* to create National Regulations or Acts of Parliament implementing the *European Directive's* intentions.

See: Technical Barriers, Treaty of Rome, EU Procurement Rules, Proper Materials, Essential Requirements,

(ASWS BRM '97)

CONSTRUCTION PRODUCTS REGULATIONS (CPR)

this UK Law implements the *CPD* and is referred to in Building Regulations regulation 7

(ASWS BRM '97-'09)

This Regulation lays down conditions for the placing or making available on the market of construction products by establishing harmonised rules on how to express the performance of construction products in relation to their essential characteristics and on the use of CE marking on those products.

CPR for micro-, small- and medium-sized enterprises

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:088:0005:0043:EN:PDF>

(CE Marking for SMEs & CPR '11)

CONSTRUCTION SPECIFICATIONS INSTITUTE (CSI)

See: USA, CSI, CSI Master Format, CSI Green Format, CSI Uni Format

(GreenSpec BRM '10)

CONSTRUCTION WASTE CONTRACTOR (CWC)

Not a constructor but a waste handler, that may be a contractor or a specialist subcontractor to a management contractor or a general contractor.

Sometimes just bring skip luggers to site to drop off skips, but increasingly offering waste handling, and materials logistics as well as on site segregation and off site segregation for recycling.

(GreenSpec BRM '11)

CONSTRUCTION WASTE RECYCLING

CONSTRUCTION WORKS

buildings and civil engineering works

(CE Marking for SMEs & CPR '11)

CONSUMER INERTIA

What consumers say they want, and what they buy, are two different things.

Many companies have rolled out more efficient products only to see a lukewarm market response.

Green sells, but only if it's the same price.

(RICS '11)

CONTACT

See: Air Space, Capillary Action/Attraction, Moisture Transport, Internal Insulation,

(GreenSpec BRM '11)

CONTACT POINT

A computer database that holds basic confidential information about all children and young people

(Participation Works Partnership)

CONTAMINATED LAND

CONTAMINATED LAND APPLICATIONS IN REAL ENVIRONMENTS (CLAIRE)

CL:AIRE regulations and framework.

Supported by the Environment Agency Wales

(GreenSpec BRM '10)

CONTINUING PROFESSIONAL DEVELOPMENT (CPD)

Regular training after leaving full time vocational education, in the form of attending or giving lectures, seminars, workshops, training etc. Intended to help keep us up to date.

Architects are obliged to do 36 hours per year and many practices intend to lay on *CPD* events regularly to help us meet our *PDP* annual commitments.

Remember if you have some knowledge of a subject and your brave enough to stand in front of your peers to talk about it,

then the time it takes to prepare and present the topic is all creditable against your 36 hour per year obligation.
(ASWS BRM '97)

CONTINUOUS INSULATION (CI)

Insulation that is continuous across all structural members without any thermal bridges, excluding fasteners and service openings, doors and windows.

It is installed on the interior, exterior, or integral to any opaque surface of the building envelope

(Building Energy Glossary '06 & GreenSpec BRM '11)

Integral insulation will often be thermally bridged by framing, external insulation will often prevent thermal bridging and internal insulation may hide thermal mass and prevent its exploitation.

(GreenSpec BRM '11)

CONTINUOUS PRODUCTIVE URBAN LANDSCAPES (CPUL)

Title of book edited by Andrea Viljoen about growing food within the existing urban fabric, e.g. growing food up the facades and across the roofs of buildings.

http://books.google.co.uk/books?hl=en&lr=&id=oMc29C8KP4QC&oi=fnd&pg=PP1&dq=continuous+productive+urban+landscapes&ots=UWm6Zt7tuC&sig=jkp7v0gkOaB5PFMpP-jbb_DcQKM#v=onepage&q&f=false

(GreenSpec BRM '10)

CONTRACT ADMINISTRATOR (CA)

RIBA & JCT term usually meaning the Architect in charge in *General Contracts* but might be anybody these days with so many *Procurement Methods* for the Client to choose from, responsible for administering the contract, issuing Architects Instructions which may issue more drawings, revised drawings and may include revised construction, reviewing or even approving the works, signing off stage payments,

(ASWS BRM '97)

See: SO, Superintendent Officer, PSA,

NBS developed a piece of software that assists in the creation and management of AI Architects Instructions, the software is Contract Administrator.

(GreenSpec BRM '10)

CONTRACTION & CONVERGANCE (C&C)

(GreenSpec BRM '11)

CONTRACTORS HEALTH & SAFETY ASSESSMENT SCHEME (CHAS)

CONTROL

to regulate the operation of equipment

(Building Energy Glossary '06)

CONTROL DEVICE

specialized device used to regulate the operation of equipment

(Building Energy Glossary '06)

CONTROL LOOP, LOCAL

control system consisting of a sensor, controller, and controlled device

(Building Energy Glossary '06)

CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH (COSHH)

Legislation intended to improve awareness, specification and use of hazardous materials, introduced health and safety risk assessments to design and construction activities, had little effect with designers and specifiers who continue to create risk with their choices of materials, just passing on awareness of the risk to the constructor.

(GreenSpec BRM '11)

Regulations 2002

See: CHIP, CDM, RoHS, WEEE, REACH

(GreenSpec BRM '10)

CONTROL POINT

quantity of equivalent ON or OFF switches ascribed to a device used for controlling the light output of a luminaire(s) or lamp(s)

(Building Energy Glossary '06)

CONTROL SYSTEMS APPROPRIATE TO APPLICATION

CONTROL SYSTEMS WELL MAINTAINED

CONVECTIVE AIR FLOW

As used with thermal bypass, this refers to air-flow that occurs in gaps between insulation and the air barrier due to temperature differences in and across the gap resulting in a stack effect or driving forces from more to less heat.

(Energy Star '07)

CONVECTION

Circulating air currents in relation to a heat source that changes the air temperature, air pressure and change its buoyancy which will then rise and be replaced by cooler lower pressure air.

See: Chimney Effect, Stack Effect, Passive ventilation,

See: Pavatex Glossary [Convection](#)

(Pavatex Glossary '___ www.Pavatex.co.uk)

(Brian SpecMan '10)

CONVECTION CYCLE

The movement of large air currents in the atmosphere which are the basis for the Rain/Water cycle.

(Cherrington '95)

CONVECTOR

See: Radiator, Heater,
(GreenSpec BRM '10)

CONVENTION ON BIOLOGICAL DIVERSITY (CBD)

CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES (CITES)

Its purpose is to control the trade in wild plants and animals

Relevant to choice of timber species, endangered species are listed in appendix, these should be avoided.

(Cherrington '95)

COORDINATED PROJECT INFORMATION (CPI)

the principle of co-ordinating Drawings, *Specification*, Bills of Quantities and other contract documents using a common filing system *CAWS* and stating *specification* requirements in one place (the Spec.) and all other documents referring to the same place, avoiding repetition and risk of errors.

(ASWS BRM '97)

COOL DOWN

reduction of space temperature down to occupied set point after a period of shutdown or setup

(Building Energy Glossary '06)

COOLED SPACE

See: space

(Building Energy Glossary '06)

enclosed space within a building that is cooled by a cooling system

See: *Heated Space*, *Conditioned Space*, *Indirectly conditioned space*, *unconditioned space*

(GreenSpec BRM '10)

COOLING

removal of latent and/or sensible heat

(Building Energy Glossary '06)

COOLING DEGREE-DAY

See: degree- day

(Building Energy Glossary '06)

COOLING DESIGN TEMPERATURE

outdoor dry-bulb temperature for sizing cooling systems, equal to the temperature that is exceeded 2.5% of the number of hours during the nominal cooling season (June through September in northern hemisphere) in a typical weather year

(Building Energy Glossary '06)

COOLING DESIGN WET-BULB TEMPERATURE

outdoor wet-bulb temperature for sizing cooling systems and evaporative heat rejection systems such as cooling towers

(Building Energy Glossary '06)

COP See: **COEFFICIENT OF PERFORMANCE**

COP See: **COEFFICIENT OF PERFORMANCE – COOLING**

COP See: **COEFFICIENT OF PERFORMANCE, HEAT PUMP – HEATING (COP)**

COP See: **CONFERENCE OF PARTIES**

COPING

Top of a wall, has numerous functions, sloping to drain water back towards a roof or gutter, strong in case its walked on or leant on or used to climb up.

Protective against rainwater snow and ice preventing saturation of the wall, wider than the wall with grooves on the underside and throating to ensure drips fall clear of the wall face, might contain lightning protection tapes.

Sometimes designed flush and liable to fail itself or the wall early.

(GreenSpec '10)

COPPER CHROME ARSENIC (CCA)

A preservative treatment that is no longer permitted in domestic and garden applications especially planter formation where root vegetable may take up the ingredients into the root and into the food chain of humans.

NHBC should be outlawing it but projects have been permitted to continue to use it.

(GreenSpec BRM '10)

COPPER DEVELOPMENT ASSOCIATION (CDA)

Producers of the CDA Manual Copper In Roofing – Design And Installation

(HAPM and BPG CLM '97)

COPPicing

CO-PRODUCT

See: also Bi-product

(Renueables AN '09, Ska '09 & GreenSpec BRM '10)

© COPYRIGHT

is a law which protects the author of designs, music, software, books etc., from exploitation if their work is copied by others.

(ASWS BRM '97)

CORBELLING

Successive projecting courses of brickwork in traditional loadbearing brickwork

See: Eaves detail, Footings, Plinth,

(Builder Hampshire Directory '10 and GreenSpec '10)

CORE INSULATION

See: Pavatex Glossary [Core insulation](#)
(Pavatex Glossary '___ www.Pavatex.co.uk)

CORK

CORK INSULATION

CORNICE

Moulding around room at junction of wall and ceiling

Covers a multitude of sins including 62ampshire6262al between wall and ceiling linings creating air leaky construction

See: also Cove

(GreenSpec BRM '10)

CORPORATE SOCIAL RESPONSIBILITY (CSR)

A very broad range of issues relating to societal responsibilities that a company can engage with. E.g.

Not employing child labour in remote parts of the world where nobody is looking;

Providing healthy working conditions (but this should already be regulated by Health & Safety Legislation);

Working with the local community, funding community activity or projects, allowing or encouraging staff to spend time in the community doing good for the community at the companies expense.

Employing local people to support the local economy, taking wayward unemployed youth off the streets and putting them through an apprenticeship scheme related to the projects undertaken to help them have a valuable role in the community.

See: ISO 26000

(GreenSpec BRM '11)

COSHH See: CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH

COST/BENEFIT ANALYSIS

Rather than focus on *pay back periods* and *value engineering* (posh for cost cutting!) we need to focus on pounds spent and CO₂ saved (or improved energy efficiency).

See: Passpedia: [Cost/Benefit Analysis](#)

(GreenSpec BRM '11)

COST IN USE (CIU)

See: CC, Capital Cost

(GreenSpec '10)

COUNCILLOR (CLLR)

An elected member of a local council

(Participation Works Partnership)

See: PIPA, Polititians in Planning Association,

(GreenSpec BRM '11)

COUNTRYSIDE COUNCIL FOR WALES (CCW)

COUNTY COUNCIL (CC)

Body responsible for most services across a county, including education and youth services.

This forms the top layer of a three-tier management structure.

See: District or Borough Council and Town or Parish Council

www.lga.gov.uk

(Participation Works Partnership)

COVE

Moulding around room at junction of wall and ceiling, soften the appearance of sharp internal corners, soften the acoustic nature of sharp internal corners, making the rooms acoustically more comfortable.

Covers a multitude of sins including 62ampshire6262al between wall and ceiling linings which otherwise create air leaky construction; they remain leaky behind the coving but are covered up, so thermal flanking and thermal bypass, remain problems.

With convected heat the top of the room is warmest and so has the greatest potential to conduct through the linings.

Heat passing through wall linings and covings are then lost to airleaky construction and cold air from outside gets to the space behind the covings raising the risk of condensation, mould and worse.

See: also Cornice, thermal flanking, thermal bypass, Condensation, Mould, Asthma, Toxicity, Coved skirting, skirting.

(GreenSpec BRM '10 – '11)

COVED SKIRTING

Moulding around room at junction of wall and floor, soften the appearance of sharp internal corners, soften the acoustic nature of sharp internal corners, making the rooms acoustically more comfortable.

Tile coved skirting are profiled to either sit-on the floor tile after the floor tiles are laid or sit-in the floor tile thickness and be installed at the same time as the floor tiles.

Covers a multitude of sins including 62ampshire6262al between wall linings and floor finishes which otherwise create air leaky construction; they remain leaky behind the coved skirting, but are covered up, so thermal flanking and thermal bypass, remain problems.

With convected heat the bottom of the room is coldest and so has the greatest potential for condensation due to cold air behind the wall linings or floor finishes.

Heat passing through wall linings and skirtings are then lost to airleaky construction and cold air from outside gets to the space behind the coved skirting.

See: also Cornice, Cove, thermal flanking, thermal bypass, Condensation, Mould, Asthma, Toxicity.

(GreenSpec BRM '11)

COVER See: **COMMUNITY AND VOLUNTARY FORUM FOR THE EASTERN REGION**
CP See: **CODE OF PRACTICE**
CPA See: **CONSTRUCTION PRODUCTS ASSOCIATION**
CPAG See: **COMMUNITY PLAN ACTION GROUP**
CPD See: **CONSTRUCTION PRODUCTS DIRECTIVE**
CPD See: **CONTINUING PROFESSIONAL DEVELOPMENT**
CPET See: **CENTRAL POINT OF EXPERTISE ON TIMBER**
CPI See: **COORDINATED PROJECT INFORMATION**
CPR See: **CONSTRUCTION PRODUCTS REGULATIONS**
CPRE See: **CAMPAIGN TO PROTECT RURAL ENGLAND**
CPUL See: **CONTINUOUS PRODUCTIVE URBAN LANDSCAPES**

CRADLE-TO- *

Life Cycle Analysis (LCA) is often broken down into phases of lesser ambition.

Where recyclable / reusable products are the subject, the entire analysis is referred to as 'cradle-to-cradle'.

For non-recyclable materials that are destined to be disposed of, the complete analysis is referred to as 'cradle-to-grave'. Expressions such as 'cradle-to-gate' or 'cradle-to-site' refer to production from extraction of raw material and factory production; and extraction, factory production and delivery to site, respectively – though these LCAs are useful and more common, they tend not to tell the whole story.

(GreenSpec AEP '09)

CRADLE TO CRADLE (C2C)

The 'Cradle to Cradle' concept was developed by scientist Michael Braungart and architect William McDonough and is essentially an economic, industrial and social framework that seeks to create systems that are not just efficient but effectively waste free.

It is a biomimetic approach which focuses on recycling in closed loops (i.e. that the 'waste' from one process becomes the 'food' for another and materials are continuously reused) and combines economic growth with environmental protection and social well-being.

(Interreg C2CN Project '10)

CRADLE TO CRADLE NETWORK (C2CN)

See: C2C, Cradle to Cradle

(Interreg C2CN Project '10)

CRADLE TO GATE

(GreenSpec BRM '10)

CRADLE TO GRAVE

(GreenSpec BRM '08)

CRADLE TO SITE

(GreenSpec BRM '10)

CRADLE/SADDLE

An intermediate support system (with a resilient layer base) which uses levelling packer pieces to support a timber batten, isolating it from the floor base.

(CC Publication: Concrete and Sound insulation)

CRB See: **CRIMINAL RECORDS BUREAU**

CRC See: **CAMPAIGN FOR REAL RECYCLING**

CRC See: **CARBON REDUCTION COMMITMENT**

CROSS LAMINATED TIMBER PANELS (CLTP)

A method of construction originating from mainland Europe probably Germany which makes use of plantation 63ampshire of small section.

This is like plywood for giants, it usually consists of same sized square battens bonded to create a sheet one batten thick, to this is added 2 or more layers of the same, but each layer is arranged at right angles to the previous layer, and all are adhered to each other.

This makes a very strong, dimensionally stable, rigid panel from which structural panels are cut to size and shape, they are used for floors, wall and roofs and partitions, and even stairs; holes for doors and windows are also cut out.

The panels are assembled in relationship to each other and secured to each other with galvanized steel angles and nuts and bolts.

It is a rapid method of construction

In the UK a domestic block of flats 9 storeys high has been constructed '08-'09.

(GreenSpec '09)

CRIMINAL RECORDS BUREAU (CRB)

An executive agency of the Home Office which provides wider access to criminal record information through its disclosure service, enabling organisations in the public private and voluntary sectors to make safe recruitment decisions by identifying candidates who may be unsuitable for certain work especially that involving children or vulnerable adults

(Participation Works Partnership)

CRR See: **CENTRE FOR REMANUFACTURING & REUSE**

<http://www.remanufacturing.org.uk>

CRYSTAL MARK APPROVAL

This is given for documents using Plain English as part of a campaign fighting for crystal-clear communication since 1979. An organisation in the UK that have been campaigning against gobbledegook, jargon and misleading public information.

<http://www.plainenglish.co.uk/>

(GreenSpec BRM '10)

CSA See: **CANADIAN STANDARDS ASSOCIATION**

Timber stewardship scheme

(Ska '09 and GreenSpec '10)

CSA See: **CHEMICAL SAFETY ASSESSMENT**

(HSE REACH '10)

CSD See: **CHARTERED SOCIETY OF DESIGNERS**

CSE **CENTRE FOR SUSTAINABLE ENERGY**

<http://www.cse.org.uk/>

CSEng See: **CENTRE FOR SUSTAINABLE ENGINEERING**

CSH See: **CODE FOR SUSTAINABLE HOMES**

CSI See: **CONSTRUCTION SPECIFICATIONS INSTITUTE**

CSI GREENFORMAT (GreenFormat)

Find the right USA green product for your USA project.

<http://www.csinet.org/Home-Page-Category/Formats/GF.aspx>

CSI MASTER FORMAT

Organizes components, cost estimates, details, notes, product data, & specs.

<http://www.csinet.org/Home-Page-Category/Formats/MasterFormat.aspx>

"Why MasterFormat 2004?" (Construction Specifier '04)

<http://www.csinet.org/Home-Page-Category/Formats/MasterFormat/About-MF/From-the-July-2004-Construction-Specifier-Why-MasterFormat-2004-PDF.aspx>

MasterFormat in 10 Easy Steps (PDF)

<http://www.csinet.org/Home-Page-Category/Formats/MasterFormat/About-MF/MasterFormat-in-10-Easy-Steps-PDF.aspx>

Organizations Using MasterFormat 2004

<http://www.csinet.org/Home-Page-Category/Formats/MasterFormat/Switch/Organizations-that-have-Adopted-MasterFormat-2004-Edition.aspx>

Hundreds of firms, governmental bodies, and organizations have adopted MasterFormat 2004 Edition.

MasterFormat 2004 FAQs Flyer

<http://www.csinet.org/Home-Page-Category/Formats/MasterFormat/About-MF/MasterFormat-2004-FAQs-Flyer-PDF.aspx>

(CSI '10)

CSI MASTER GUIDE SPECIFICATIONS

Well-maintained, current office master specification systems are critical – they're the foundation for consistently high quality USA project specifications.

<http://www.csinet.org/Home-Page-Category/Formats/MasterFormat/Master-Guide-Specs.aspx>

(CSI '10)

CSI STANDARDS & FORMATS

CSI works with organizations around the globe to create and maintain the standards and formats that guide USA the construction industry's communication and documentation.

<http://www.csinet.org/Home-Page-Category/Formats.aspx>

These companies have partnered to develop and maintain MasterFormat, and they use the format their products.

That

if you use their systems, you're staying current with the USA industry.

(CSI '10)

CSI SECTION FORMAT/PAGE FORMAT

The USA Construction industry's 3-part format for specs.

<http://www.csinet.org/Home-Page-Category/Formats/SectionPageFormat.aspx>

(CSI '10)

CSI UNIFORMAT (UniFormat)

Organizes PPDs, cost estimates, BIM objects, & early project info.

<http://www.csinet.org/Home-Page-Category/Formats/UniFormat.aspx>

CSR See: **CHEMICAL SAFETY REPORT**

(HSE REACH '10)

CSR See: **CORPORATE SOCIAL RESPONSIBILITY**

CSR See: **COMPREHENSIVE SPENDING REVIEW**

CT **CARBON TRUST**

<http://www.carbontrust.co.uk/>

CTE **COMMITTEE ON TRADE AND ENVIRONMENT**

(UNEP See: Environment and Trade — A Handbook '05)

Ctr

Spectrum adaptation term (No.2) from BS EN ISO 717-1 1997, to take account of specific sound spectra (which are predominantly low frequency based).

(CC Publication: Concrete and Sound insulation)

CU See: **COEFFICIENT OF UTILIZATION**

CUBIC METRE (CBM)

Other wise shown as m³

(ERFMI '08)

CURRICULUM VITAE (CV)

Should not reveal your age, sex or nationality (in the past and possibly still in reality, the reasons why many CVs end up in the bin) until you have sold your skills and the reader has already decided you must be considered.

Ideally 1 A4 page, a series of bullet points, maximum 7 in each, about you under the following subjects:

Personal Profile: (A brief history of who you are, what was the path you followed to get here, what makes you tick.),

Key Achievements: (what have you done that you are proud to include in your CV),

Roles: (projects/activities and your role in them, what you think you are good at, what you want to specialise in),

Relevant Experience: (for the job that's being applied for);

each should be succinct statements with numbers where possible; it's a chance to impress them and make them want to interview you.

In reality mostly a list of personal details, qualifications, past employers, dates, roles, from which you get little understanding of who you are, this should be page 2 of your CV.

(GreenSpec BRM '11)

CURTAIN WALLING AND CLADDING TECHNOLOGY (CWCT)

A 'club' for UK Manufacturers, Contractors and Specifiers of Curtain walling, set up after a glut of curtain walled buildings thown up in the 1980s with little understanding, no BSI Code or standards and no NBS work section, poor or incompetent specifications, incompetent products, lots of failures and many non-UK manufacturers swamping the UK market.

ASWS working with the cladding specialist in Architects offices developed comprehensive curtain walling, cladding, solar shading, windows, doors, louvre specifications at this time to deal with the absence of PSA and NBS specifications.

The recession in the 1990s saw many of the UK manufacturers 65ampshire or being bought up by the bigger players.

CWCT was set up to establish common standards and establish a Code, Guide & Standard for its members.

The standard enables competent contract specification by citing their standards and code, which NBS now does.

(ASWS BRM '97 & GreenSpec '09 – '11)

CV See: **COMBUSTION VEHICLE**

CV See: **CURRICULUM VITAE**

CVS See: **COUNCIL FOR VOLUNTARY SERVICE**

CWCT See: **CURTAIN WALLING AND CLADDING TECHNOLOGY**

CWETN See: **COMMUNITY WORK EDUCATION AND TRAINING NETWORK**

CU See: **CREDIT UNIONS**

CYCLE

See: Sustrans, Sustainable Transport, Personal transport, Public Transport

CYCLE ASSESSMENT PROCEDURE OF ECO MATERIALS (CAP'EM)

The aim of the CAP'EM project is to contribute to increase the manufacture, distribution and use of eco-materials in the building industry of North West Europe (NWE), by allowing better demonstration of their benefits.

The definition of "eco-materials" is directly linked to eco-designed materials, which lead to improved economic and technical performance as well as environmental and health impacts.

Through an international investigation made by Ernst & Young for Cd2e (Lead Partner) in 2006 to identify why eco-materials were more developed in Northern Countries, and what were in these countries the barriers and the ways to create, develop and promote their specific markets, it appeared that different characteristics and approaches were used. Each approach has interests or specific regional / national characteristics.

Developing these products and ways of use them will gain from being benchmarked and more commonly promoted and tested through identical ways.

Since eco-materials are widely recognized in many others major sectors of production as electronics, the use of eco-materials terminology to verify low environmental impacts is not well developed in the building sector in Europe.

CAP'EM project will begin working on the dissemination of a common definition for eco-material, shared by the major actors involved in eco and low energy building sector in NWE, both for new and renovation buildings.

The project will capitalize on those materials presumed as "eco-materials" available in the areas covered by the partners involved in the project ; these materials will be analysed through a common methodology which will allow assessment of their real impacts. In order to foster their business in NWE construction public and private building sector, broad information and demonstration of the performances of the most relevant eco-materials will then be achieved.

www.capem.eu

(CD2E & BSK-CIC '10)

See: Eco-material, Bio-Ecological Construction Material/Product, CAP'EM, Cycle Assessment Procedure Of Eco Materials

(CAP'EM '10)

Calgrest renamed Envireo is the brining together of numerous Interreg funded projects to achieve some common goals.

(GreenSpec BRM '11)

CYCLE PATHWAYS

See: Sustrans Sustainable Transport, Personal transport, Public Transport

CYCLICAL LIFE CYCLE

Is made of a number of phases and cycles:

Materials supply, including reuse of reclaimed or recycling of materials

Production, including remanufacture, reconditioning, upgrading, reconfiguring

Assembly/Construction, including reconstruction

Use or service, including change of use

End of use/service, including refurbishment, repair
Demolition including, soft strip, deconstruction, reclaim,
See: Linear Life Cycle, C2C, Cradle to Cradle,
(Elma Durmisevic '06 & GreenSpec '10)

CYP See: **CHILDREN AND YOUNG PEOPLE**

CYPP See: **CHILDREN AND YOUNG PEOPLE'S PLAN**

(Participation Works Partnership)

CYPSMG See: **CHILDREN AND YOUNG PEOPLE'S STRATEGIC MANAGEMENT GROUP**

(Participation Works Partnership)

D

D&B See: **DESIGN AND BUILD**

D&DT See: **DESIGN & DECISION TOOLS**

DAAT See: **DRUG AND ALCOHOL ACTION TEAM**

DADO RAIL

Horizontal moulding usually of timber, part way up an internal wall or internal face of external wall, used to protect wall from backs of chairs.

Sometimes sits at the top of dado panelling down to skirting.

Modern interpretation includes cable routes for power and communications and includes power and communications sockets on the face.

Another interpretation is the rails used BoH Back of House in retail and hospital buildings where trolleys, bins and beds are regularly moved around, to reduce damage to the wall surfaces

(Builder Hampshire Directory '10 & GreenSpec '10)

DAMAGE CATEGORIES

In the context of LCA organising the Impact categories into a hierarchy with no double accounting.

3 Damage Categories embrace all other impact categories.

(CAP'EM, PRe & GreenSpec BRM '11)

DAMP/HUMID ENVIRONMENT

See: Environmental Exposure

See: DPC, Damp Proof Course, Airtightness layer, Wind tightness layer

(HAPM and BPG CLM '97)

DAMP-PROOF COURSE (DPC)

Within the external and internal walls, usually a sheet membrane in strip form but can also be a liquid applied, chemical insertion, or engineering bricks, designed to stop ground water rising to enter the building and making the building damp. Essential to link DPM in floors to DPC in walls to maintain the integrity.

May also form part of the airtightness layer or a gas proof layer

See: Gas Proof Course, DPM, Damp Proof Membrane, Airtightness Layer

(GreenSpec BRM '10 – '11)

DAMP PROOF MEMBRANE (DPM)

Below or within the ground floor construction, usually a sheet membrane but can also be a liquid applied membrane, designed to stop ground water rising to enter the building and making the building damp.

Essential to link DPM in floors to DPC in walls to maintain the integrity.

May also form part of the airtightness layer or a gas proof membrane

See: Gas Proof Membrane, DPC, Damp Proof Course, Airtightness Layer

(GreenSpec BRM '10 – '11)

DANDER

Tiny scales shed from human or animal hair or skin.

Dander floats in air & settles on surfaces.

Cat dander is a significant contributor to allergic reactions.

(SEDA Chemical Reduction in Building '08)

See: Spores

(GreenSpec BRM '10)

DAT See: **DRUG ACTION TEAM**

DATABASE

a computer programme, in its most simplistic form looks like a card index full of records, in its more complex versions are like *NBS Building* a relational *database*, in this case that looks like *word-processing* and cut and paste editing and used for specification writing with sophisticated search, manage, edit and QA functions built in.

(ASWS BRM '97)

DATA COLLECTION

In the context of LCA

See: LCA, Methodology, PCR, Product Category Rules, System Boundaries, Scope of Impact Analysis

(Renueables AN '10)

DATA COLLECTION PROCESS

(Renueables AN '10)

DAYLIGHT

Daylight is light, cool, non-directional, carbon-free, free

See: Sunlight, Natural Daylight,

(GreenSpec BRM '10 – '11)

DAYLIGHT DESIGNED

DAYLIGHT FACTOR (DF)

See: ADF, Average Daylight Factor

(GreenSpec BRM '11)

DAYLIGHT SENSING (DS)

DAYLIGHT SENSING CONTROL (DS)

device that automatically regulates the power input to electric lighting near the fenestration to maintain the desired workplace illumination, thus taking advantage of direct or indirect sunlight

(Building Energy Glossary '06)

DAYLIGHT TRANSMITTANCE

The ratio of the amount of light transmitted through a window divided by the amount of light incident on its outside surface.

(GreenSpec AEP '09)

DAYLIT AREA

area under horizontal fenestration (skylight) or adjacent to vertical fenestration (window) described as follows:

(Building Energy Glossary '06)

DAYLIT AREA, HORIZONTAL

area under horizontal fenestration (skylight) with a horizontal dimension in each direction equal to the skylight dimension in that direction plus either the floor-to-ceiling height, the distance to the nearest 1070 mm or higher opaque partition, or

(Building Energy Glossary '06)

DAYLIT AREA, VERTICAL

area adjacent to vertical fenestration (window) with one horizontal dimension that extends into the space either a distance of 4.57 m or to the nearest 1070 mm or higher opaque partition, whichever is less; and another horizontal dimension equal to the width of the window plus either 610 mm on each side, the distance to an opaque partition, or one-half the distance to an adjacent skylight or window, whichever is least

(Building Energy Glossary '06)

DAYLIT SPACE

space bounded by vertical planes rising from the boundaries of the daylit area on the floor to the above floor or roof.

(Building Energy Glossary '06)

DAYLIT ZONE

types of daylit zones are Under skylights & at vertical glazing

(Building Energy Glossary '06)

DAYLIT ZONE, UNDER SKYLIGHTS

area under each skylight whose horizontal dimension in each direction is equal to the skylight dimension in that direction plus either the floor to ceiling height or the dimension to an opaque partition, or one-half the distance to an adjacent skylight or vertical glazing, whichever is least

(Building Energy Glossary '06)

DAYLIT ZONE, AT VERTICAL GLAZING

area adjacent to vertical glazing which receives daylighting from the glazing

For purposes of this definition and unless more detailed daylighting analysis is provided, the daylighting zone depth is assumed to extend into the space a distance of 45 m or to the nearest opaque partition, whichever is less.

The daylighting zone width is assumed to be the width of the window plus either 6 m on each side, the distance to an opaque partition, or one half the distance to an adjacent skylight or vertical glazing, whichever is least.

(Building Energy Glossary '06)

DBFO See: **DESIGN, BUILD, FINANCE AND OPERATE (DBFO)**

DC See: **DEVELOPMENT CONTROL**

DC See: **DIRECT CURRENT**

DC See: **DISTRICT COUNCIL**

DCB

Emissions of materials toxic to human health

Units: kg DCB equivalent

See: Impact categories, LCA, EPD

(GreenSpec BRM '11)

DCB EQUIVALENT

Emissions of materials toxic to human health

Units: kg DCB equivalent

See: Impact categories, LCA, EPD

(GreenSpec BRM '11)

DCLG See: **DEPARTMENT FOR COMMUNITIES AND LOCAL GOVERNMENT**

DCMS See: **DEPARTMENT FOR CULTURE, MEDIA AND SPORT**

DD See: **DRAFT FOR DEVELOPMENT**

DDA See: **DISABILITY DISCRIMINATION ACT**

DDB See: **DODECYL BENZENE**

DDC See: **DIRECT DIGITAL CONTROL**

DEAD BAND/DEAD ZONE

range of values within which an input variable can be varied without initiating any noticeable change in the output variable

(Building Energy Glossary '06)

DEADWEIGHT (DWT)

(ERFMI '08)

DEAL

Term for piece of square-sawn softwood

(Builder Hampshire Directory '10)

DEBT SERVICE

The amount of debt interest and the principal repayments.

See: PFI, PPP

(John Laing & GreenSpec BRM '10)

DEC See: **DISPLAY ENERGY CERTIFICATE**

(Ska '09 and GreenSpec '10)

DECC See: **DEPARTMENT FOR ENERGY AND CLIMATE CHANGE**

See: DEFRA, DCLG, BIS,

(GreenSpec BRM '11)

DECENT HOMES

A Government established standard to ensure that all social housing meets a set decency standard by 2010.

By definition a decent home is one which is wind and weather tight, warm and has modern facilities

(ODPM 2002).

To meet this definition, homes must meet the current statutory minimum standard for housing, be in a reasonable state of repair, have reasonably modern facilities and services, and provide a reasonable degree of thermal comfort.

(Hastoe HA GreenStreet.org)

The Decent Homes Programme required 1 million properties to be upgraded to a set decency standard.

It resulted in vast amounts of perfectly good materials being stripped out of buildings by default and sent to landfill.

Decent homes are well below sustainability standards like Code for Sustainable Homes and so they will need to be

refurbished yet again, once the Code for Sustainable Refurbishment of Homes is established.

EcoHomes XB (eXisting Buildings) was established by BRE well after the Decent Homes Programme started and was

aimed at RSL Stock 69ampshire6969 and had little effect on the Decent Homes Programme.

Some RSLs uses DWF Direct work force to carry out their Decent Homes projects.

See: DWF, RSL, Code for Sustainable Homes

(GreenSpec BRM '09 – '11)

DECENTRALISED PERCOLATION

DECIBEL (dB)

The unit used for different acoustic quantities to indicate the level with respect to a reference level.

(CC Publication: Concrete and Sound insulation)

DECLARATION OF CONFORMITY

See: Performance Specification

(GreenSpec BRM '11)

DECLARED UNIT

Whilst the Functional Unit is normally a set size or area of an element that complies with current regulations that apply.

E.g. 1 m² of wall and that would include the bricks insulation blocks mortar and accessories.

For the purpose of assessing a product the functional unit is too many parts.

A Declared unit may be by weight and limited to one material only e.g. kg of blocks

See: Functional Unit

(GreenSpec BRM '11)

DECONSTRUCTION

a process of carefully taking apart components of a building, possibly with some damage, with the intention of either re-using some of the components after refurbishment or reconditioning, or recycling the materials.

It may be undertaken during refurbishment, when adapting a building for new use, or at the end of its life.

(CIRIA RP656 Design for Deconstruction Bill Addis)

DECORATIVE LIGHTING

See: lighting, decorative

(Building Energy Glossary '06)

DECREMENT DELAY

Refers to the time it takes for heat generated by the sun, to transfer from the outside to the inside of the building envelope and affect the internal conditions.

Materials affording higher rates of decrement delay will have a low lambda value (thermal conductivity or k-value), high specific heat capacity and high density.

Insulation materials offering a high decrement 'factor' include cellulose fibre (7.3 hr), wood fibre insulation board (11.3 hr);

whereas materials with a low decrement factor would include low-density mineral fibre (3.7 hr) and polyurethane/polystyrene (_____).

Decrement delay can be useful in the design of timber frame buildings.

Insulation with a high decrement factor can be used to limit solar over-heating in particularly warm climate conditions.

For example, installing cellulose as a roofing insulation will likely slow-down the heat transfer from a sun-heated roof surface, through to the inside by around 7 hours – or by evening time.

See: Thermal Lag

(GreenSpec AEP '09)

DECREMENT FACTOR

The time taken (measured in hours) for heat to transfer between opposite surfaces of a material. (see above)

(GreenSpec AEP '09)

DEFAULT ASSUMPTION

the value of an input used in a calculation procedure when a project specific value is not entered by the designer

(Building Energy Glossary '06 & GreenSpec BRM '11)

DEFECTIVE OR INCOMPLETE SEALS

Airtightness is reliant upon integrity of the airtightness membrane or other seals, and the integrity of the construction. Defective or incomplete seals provide paths for air to pass and the air can carry heat or coolth into or out of the building. (GreenSpec '09)

DEFENCE ESTATES (DEF EST)

See: SLAM, DREAM, MoD,
(GreenSpec BRM '11)

DEFENCE RELATED ENVIRONMENTAL ASSESSMENT METHOD (DREAM)

Invented by BDP for Defence Estates (Estates Department of the MoD Ministry of Defence BRE incorrectly claimed Copyright infringement (the scope is inevitable similar and subjects will overlap but the approach is fundamentally different) and stopped its development, it remains in use. (Ska '09 and GreenSpec '10)

DEF EST See: **DEFENCE ESTATES**

DEFORESTATION

Permanent clearance of trees and woodland, in forest or plantation, can lead to erosion and desertification. (Cherrington '95)

Is the clearance of naturally occurring forests by the processes of logging and/or burning of trees in a forested area. (GreenSpec AEP '09)

See: Desertification

DEFRA See: **DEPARTMENT OF ENVIRONMENT, FOOD AND RURAL AFFAIRS**

See: DCLG, DECC

(GreenSpec BRM '11)

DEFRASS

DEGREE-DAY

difference in temperature between the outdoor mean temperature over a 24-hour period and a given base temperature

See: Cooling Degree Days, Heating Degree Days

(Building Energy Glossary '06)

DEGREE-DAY, COOLING

for any one day, when the mean temperature is more than the base temperature, there are as many degree-days as degrees Celsius temperature difference between the mean temperature for the day and the base temperature.

(Building Energy Glossary '06)

See CDDS, Degree Days, Heating

(GreenSpec BRM '11)

DEGREE-DAY, HEATING

for any one day, when the mean temperature is less than the base temperature, there are as many degree-days as degrees Celsius temperature difference between the mean temperature for the day and base temperature.

(Building Energy Glossary '06)

DEGREE DAYS

Is the rate of heat loss from a building, (related to the building fabric) and the temperature difference between the inside and outside of a building – the greater the temperature difference the more heat will be lost.

A heating degree day is counted for each degree below 15.5 °C reached by the average daily outside temperatures.

(GreenSpec AEP '09)

DEHA SEE: **DI (2-ETHYLHEXYL)ADIPATE**

A plasticiser used in some food wrap products
(Envirowise Packaging & Waste)

DEHP See: **DI ETHYLHEXYL PHTHALATE**

DEHUMIDIFICATION

controlled reduction of water vapour from the air

(Building Energy Glossary '06)

Using uncontrolled heat only to dry a building will lead to drying shrinkage, cracks and air leakage

A potential low energy alternative to air conditioning, to control humidity and temperature.

(GreenSpec BRM '11)

DELFT LADDER

a sequential model of the life-cycle of materials and products identifying different stages of use and degradation towards waste, developed at the University of Delft

(CIRIA RP656 Design for Deconstruction Bill Addis)

DELIVERED ENERGY

The amount of energy which is supplied to final users, e.g., households, office buildings, schools and factories.

(GreenSpec AEP '09)

DEMAND CHAIN

See: Supply Chain, Lean Thinking

(GreenSpec BRM '11)

DEMAND, ELECTRIC

the rate at which electric energy is delivered to or by a system, part of a system, or a piece of equipment

Expressed in kilowatts, kilovolt amperes, or other suitable units at a given instant or averaged over any designated period.

(Building Energy Glossary '06)

DEMAND ENERGY

energy to be delivered to provide the required service with an ideal system to the end user
(Building Energy Glossary '06)

DEMOLITION

a term for both the name of the industry and the process of intentional dismantling and reduction of a building, or part of a building, without necessarily preserving the integrity of its components or materials.

(CIRIA RP656 Design for Deconstruction Bill Addis)

DEMOLITION PLAN

DEMOLITION PROTOCOL

See: Reclamation Protocol, ICE, BoPDQ, PDQ, SWMP

(GreenSpec BRM '10 – '11)

DEMOUNTABLE STRUCTURE

a structure that is designed to be partially or completely disassembled with the intention of repeated re-erection in new locations.

(CIRIA RP656 Design for Deconstruction Bill Addis)

DENSITY

Mass per unit volume,

Units: kg/m³ expressed in kilograms per cubic metre

(based on CC Publication: Concrete and Sound insulation)

DENTIL SLIPS

(GreenSpec BRM '10)

DEPARTMENT FOR BUSINESS, ENTERPRISE AND REGULATORY REFORM (BERR)

formerly Department of Transport and Industry (DTI), DETR, Now TSB

See: CE, KPI and EPI

(Ska '09 and GreenSpec '10)

DEPARTMENT FOR COMMUNITIES AND LOCAL GOVERNMENT (DCLG)

Owners of the *Code for Sustainable Homes* which was created by BRE on their behalf

(GreenSpec '09)

DEPARTMENT FOR EDUCATION (DFE)

Since May 2010, former DCSF: Department for Children, Schools and Families

(Participation Works Partnership)

DEPARTMENT FOR ENVIRONMENT, FOOD AND RURAL AFFAIRS (DEFRA)

<http://www.defra.gov.uk/>

Air Quality, Pollution, Chemicals, Statistics and Pollution

www.defra.gov.uk/environment/airquality/

www.defra.gov.uk/environment/statistics/

www.defra.gov.uk/environment/airquality/eu-int/eu-directives/paints-directive/index.htm

(SEDA Design for Deconstruction '08)

Provide independent certification for ETPL listings

(Ska '09 and GreenSpec '10)

DEPARTMENT FOR WORK AND PENSIONS (GOVERNMENT) (DWP)

(Participation Works Partnership)

DEPARTMENT OF HEALTH (GOVERNMENT) (DOH)

(Participation Works Partnership)

DEPARTMENT OF THE ENVIRONMENT, TRANSPORT AND THE REGIONS (DETR)

DEPLOYABLE STRUCTURE

a structure that can be transported to a location in a stowed state and there erected to its final functional state

(CIRIA RP656 Design for Deconstruction Bill Addis)

DER See: **DWELLING EMISSIONS RATE**

DESERTIFICATION

Process by which areas of desert are created by deforestation of natural forests or the activities of man.

Desertification may be brought on by Global warming.

(Cherrington '95)

Is the degradation of land in arid and dry sub-humid areas, resulting primarily from man-made activities and influenced by climatic variations.

(GreenSpec AEP '09)

DESIGN AND BUILD (D&B)

A contract where a contractor is responsible for designing and constructing a building.

In reality the design will be ignored and a cheaper solution constructed, the design then redrawn.

Should be renamed B&D Build & Design

(GreenSpec BRM '10)

See: Declaration Of Conformity, Performance Specification, Performance Characteristic, Employer's Requirements,

(GreenSpec BRM '11)

DESIGN AND BUILD CONTRACT

A contract where a supplier is responsible for designing and constructing an asset.

(John Laing)

See PFI, PPP

(GreenSpec BRM '10)

DESIGN AND DECISION TOOLS (D&DT)

A TSB funding programme for the creation or development of existing design and decision tools mostly focused on 72ampshir carbon and embodied energy to provide tools for building designers to make informed choices.

See: TSB, Retrofit for a Future

(GreenSpec BRM '11)

DESIGN, BUILD, FINANCE AND OPERATE (DBFO)

A contract whereby one company undertakes a contract to perform these things for the length of the concession, often 25 or 30 years.

Design, Build, Finance and Operate (DBFO) new or improved facilities and services to the general public.

See: PFI, PPP, BOOT, DRFO

(John Laing, GreenSpec BRM '10)

DESIGN CAPACITY

output capacity of a system or piece of equipment at design conditions

(Building Energy Glossary '06)

DESIGN CONDITIONS

specified indoor environmental conditions, such as temperature, relative humidity, lighting level, etc, required to be produced and maintained by a system and under which the system must operate

(Building Energy Glossary '06)

DESIGN ENERGY CONSUMPTION

estimated annual energy usage of a proposed building design

(Building Energy Glossary '06)

DESIGN ENERGY COSTS

estimated annual energy expenditure of proposed building design

(Building Energy Glossary '06)

DESIGN FOR BETTER ASSEMBLY (DFBA)

The Architects Journal technical series and book, way ahead of its time and largely ignored.

See: DfD, DFMA

(GreenSpec BRM '11)

DESIGN FOR DECONSTRUCTION (DfD)

the phrase widely used in the construction and other industries to refer to the process of designing a building to facilitate their deconstruction or disassembly

The same idea is sometimes conveyed as 'design for disassembly', and both are widely abbreviated as DfD.

(CIRIA RP656 Design for Deconstruction Bill Addis)

[http://www.trada.co.uk/bookshop/view/E1A772A5-E497-474E-85C0-](http://www.trada.co.uk/bookshop/view/E1A772A5-E497-474E-85C0-95D2D0A5E38F/Design%20for%20deconstruction%20Principles%20of%20design%20to%20facilitate%20reuse%20and%20recycling)

[95D2D0A5E38F/Design for deconstruction Principles of design to facilitate reuse and recycling](http://www.trada.co.uk/bookshop/view/E1A772A5-E497-474E-85C0-95D2D0A5E38F/Design%20for%20deconstruction%20Principles%20of%20design%20to%20facilitate%20reuse%20and%20recycling)

See: DFMA

(GreenSpec BRM '10 – '11)

DESIGN FOR MANUFACTURE (DfM)

DESIGN FOR MANUFACTURING AND ASSEMBLY (DFMA)

See: DfD, Design for Better Assembly

(GreenSpec BRM '11)

DESIGN FOR REUSE

(GreenSpec BRM '10)

DESIGN TO REDUCE WASTE

GreenSpec presents up to 3 hours of slides on examples of how designers can engage in reduction in waste generated by design by acknowledging the manufactured sizes of products and not ignoring them.

WRAP has also addressed the subject in publications.

See: WSSBT, Segal Method, Segal Approach, MMC,

(GreenSpec BRM '10 – '11)

DESIGN LIFE

Period of use of the building, required and designed for, which supports the selection of the methods of construction and specification and the selected materials.

BS 7543 refers to building Design Life:

Temporary (<10 years),

Short life (>10 years),

Medium life (30 years),

Normal life (60 years) and

Long life (120 years)

ISO 15686-1 refers to Building Design life: 10, 15, 25, 60, 100, 150 years and unlimited

Design life of the components of the building need not be the same as the design life of the building that they are part of.

BS 7543 refers to component Design Life:

Replaceable (shorter than building life),

Maintainable (with maintenance for the life of the building),

LifeLong (For the life of the building)

See: Service Life, Maintenance Levels, Temporary Building/Structure, Employer's Requirements.

(BSI BS 7543 '92 and GreenSpec BRM '10)

DESIGN QUALITY INDICATOR (DQI)

See: Benchmark, Indicators, EPI, KPI, CE, HCA,
(GreenSpec BRM '11)

DESIGN, REFURBISH, FINANCE AND OPERATE (DRFO)

A contract whereby one company undertakes a contract to perform these things for the length of the concession, often 25 or 30 years.

Design, Refurbish, Finance and Operate (DRFO) new or improved facilities and services to the general public.

See: PFI, PPP, BOOT

(John Laing, GreenSpec BRM '10)

DESIGNER

See: Passipedia: [Certified Passive House Designer](#)

(GreenSpec BRM '11)

DESIGN STAGE (DS)

See: BREEAM, CfSH, PCS, Post Completion Stage, Post Construction Stage

(GreenSpec BRM '11)

DESKTOP

the whole screen area in the *Windows GUI*, it is representative of a real desk top and it can be covered with diary, calculators, clock, clipboards, telephone, fax machine, even a waste bin, open word processing files, computer applications, etc. There is a limit to what can be there, this depends upon the computer size and the amount of *memory* or *RAM* it has.

(ASWS BRM '97)

DESK TOP PUBLISHING

programmes are available now to allow anybody to print their own newsletters like this Action Group Jargon Buster but to confuse you this is done entirely in 'Word for Windows 6' a word-processing programme).

(ASWS BRM '97)

DETR See: **DEPARTMENT OF THE ENVIRONMENT, TRANSPORT AND THE REGIONS**

DEVELOPED COUNTRY

Country which has become culturally and socially advanced and is fully exploiting its resources, in many cases in the northern hemisphere and western countries over exploiting its and other's resources.

(Cherrington '95)

DEVELOPING COUNTRY

Formerly undeveloped country which is now in the process of becoming a developed country.

(Cherrington '95)

DEVELOPMENT CONTROL (DC)

Town & Country Planning & Building Control

DEVOLUTION

British central government break up to disperse the power to individual countries, Scotland and Wales

(GreenSpec BRM '10)

DEVOLVED BUILDING REGULATIONS

Wales will have their own regulation by December 2011

(GreenSpec BRM '10)

DEW POINT

Air has only a limited capacity to store humidity at any given temperature.

Air saturated with water vapour has a relative air humidity of 100%.

The absolute amount of the humidity which can be absorbed at the most is dependent mainly on the air temperature – warm air can hold more humidity than cold air.

If air is cooled down, the relative humidity increases (the absolute amount of humidity contained remains unchanged).

At some point, the relative humidity reaches 100% which will lead to the formation of condensate (condensation).

This phenomenon can be observed quite often, i.e. when warm room air cools down at a window surface which leads to the condensation of the moisture on the pane.

It is especially critical when warm room air seeps/flows through a construction element due to leaks. While passing through, the air cools down, the relative air humidity increases and condensate inside the structural element may occur.

This, in turn, may cause structural damage and increased energy consumption.

See: Pavatex Glossary

<http://www.pavatex.co.uk/lexikon.aspx?GlossaryId=63&mid=2785&ctl=Detail&SkinSrc=%5bG%5dSkins%2fpavatexc%2fnoSkin&ContainerSrc=%5bG%5dContainers%2fdefault%2fNo+Container>

(Pavatex Glossary ' www.Pavatex.co.uk)

DF See: **DAYLIGHT FACTOR**

DFA See: **DESIGN AND DETAILING FOR AIRTIGHTNESS**

(SEDA Design for Airtightness '08)

DFD See: **DESIGN AND DETAILING FOR DECONSTRUCTION**

(SEDA Design for Deconstruction '08)

DFD See: **DESIGN-FOR-DISMANTLING OR DESIGN-FOR-DECONSTRUCTION**

(CIRIA RP656 Design for Deconstruction Bill Addis)

(GreenSpec BRM '10)

DFE DEPARTMENT FOR EDUCATION

DFES See: DEPARTMENT FOR EDUCATION AND SKILLS

DFMA See: DESIGN FOR MANUFACTURING AND ASSEMBLY

DG X1 See: ENVIRONMENTAL DIRECTORATE "X1" BY THE EUROPEAN COMMISSION

DHECN See: DESIGN AND HISTORIC ENVIRONMENT CHAMPIONS NETWORK

DH See: DISTRICT HEATING

The heat from *CHP* and other sources of heat can be used to heat buildings by pumping through well insulated buried piped networks, potentially into hospitals, schools, homes, etc.

(Cherrington '95)

DHDOMESTIC HOT WATER

(Ska '09 and GreenSpec BRM '10)

DIBP See: DIISOBUTYL PHTHALATE

DIDP See: DIISODECYL PHTHALATE

DI ETHYLHEXYL PHTHALATE (DEHP)

(ERFMI '08)

Di (2-ethylhexyl)phthalate

(a commonly used plasticiser)

(Envirowise Packaging & Waste)

DIFFUSE POLLUTION

Is the release of potential pollutants from a range of activities that individually may have no effect on the water environment, but at the scale of a catchment can have a significant impact (i.e. reduction in water quality, decrease in wildlife, etc.).

(GreenSpec AEP '09)

DIFFUSION OPEN

Wind-tightness layers is generally a diffusion open (breather membrane or wind 74ampshire layer).

If integrity is achieved air does not pass through but a minute amount of moisture vapour can.

(GreenSpec '09)

It is recommended that the construction should be as vapour diffusion open as possible on the outside and as vapour diffusion tight as necessary on the inside to minimise condensation risk and maximise the drying that can occur in the event of moisture entry into the construction.

(Ecological Building Systems '09)

See: Vapour Open,

(GreenSpec BRM '11)

DIFFUSION TIGHT

See: Air-tightness layers

Air-tightness layers can be diffusion tight (vapour barriers or vapour control layers).

If integrity is achieved air does not pass through but a minute amount of moisture vapour can.

(GreenSpec '09)

It is always recommend that a suitable vapour control layer should be applied on the warm side of the insulation layer.

(Ecological Building Systems '09)

DIHP See: DI ISOHEPTYL PHTHALATE

DIISOBUTYL PHTHALATE (DIBP)

(ERFMI '08)

DIISODECYL PHTHALATE (DIDP)

(ERFMI '08)

DI ISOHEPTYL PHTHALATE (DIHP)

(ERFMI '08)

DI ISONONYL PHTHALAT (DINP)

(ERFMI '08)

Plasticiser often found in children's products

(Envirowise Packaging & Waste)

DIMENSION

DIMENSIONAL COORDINATION

See: Module, Modular, BS 5606

(GreenSpec BRM '11)

DINP See: DIISONONYL PHTHALATE

DIRECT CURRENT (DC)

DIRECT DIGITAL CONTROL (DDC)

type of control where controlled and monitored analogue or binary data (e.g. temperature, contact closures) are converted to digital format for manipulation and calculations by a digital computer or microprocessor, then converted back to analogue or binary form to control physical devices

(Building Energy Glossary '06)

DIRECT RE-USE (TREATED SEWAGE WATER)

the planned and deliberate use of treated sewage.

At its most extreme, the sewage effluent is cleaned to potable water standard and injected directly into the mains supplying a town or city.

However at present most direct re-use systems clean the sewage effluent so that it is considered fit for purpose for irrigation, WC flushing and urinal flushing, and supply a secondary network of distribution pipework for this water as well as a mains supply network.

A separate distribution network is very costly.

Therefore it makes economic sense for sewage treatment re-use to be directly into the mains.

From 1985 to 1992 the City of Denver, USA, ran a large scale trial of direct re-use and found that water quality parameters were equal to or better than the city's drinking water.

However, public perception about direct re-use for potable water supplies is still mostly negative, and is holding back large scale take-up of this process.

In the UK the most high profile example of a sewage treatment plant with direct re-use is on the Olympic site.

Whilst I have seen some publications refer to it by its technical term I have also seen it referred to as a "blackwater" sewage treatment facility and a "blackwater" treatment system.

It is sewage treatment with direct re-use for non potable purposes.

It is a highly technical solution; let's call it by its correct technical name.

(ECH2O & GreenSpec Water CH '11)

See: *Rainwater, Whitewater, Greywater, Blackwater, Waste water, Foul water, Surface water Indirect Reuse, Sewage treatment,*

(GreenSpec BRM '11)

DISABLED

DISABILITY DISCRIMINATION ACT (DDA)

Addresses ensuring that existing and new premises are accessible by disabled people who may be in wheelchairs or maybe deaf, partially sighted or blind or suffer other physical disabilities.

Simple interventions include retrofit access ramps, flush threshold, wheelchair spaces, refuges, adjustable or low height worktops, low vision panels, lower ironmongery, higher power sockets, wider door openings, turning space, minimum sized lifts, stair lifts, lifts between floor levels, extra facilities in larger WC cubicles with grab bars and emergency call buttons, etc.

See: Building Regulation Approved Document M, Part M,

(GreenSpec BRM '11)

DISAFFECTED

Not involved for lifestyle reasons

(Participation Works Partnership)

See: Disengaged, Disengagement

(GreenSpec BRM '11)

DISASSEMBLY

a synonym for dismantling; an antonym of assembly.

(CIRIA RP656 Design for Deconstruction Bill Addis)

DISASSEMBLY PLAN

DISCOUNT RATE

The interest rate used in calculating the net present value (NPV) of expected future cashflows.

See: PFI, PPP

(John Laing & GreenSpec BRM '10)

DISENGAGED

No involvement with services on offer

(Participation Works Partnership)

See: Disaffected, Disengagement

(GreenSpec BRM '11)

DISENGAGEMENT

'Dropping out' of a service or activity due to, e.g. disaffection or barriers to participation

(Participation Works Partnership)

See: Disaffected, Disengaged

(GreenSpec BRM '11)

DISMANTLING

a reversible process of taking apart components of an artefact, without damaging them, with the intention of re-assembly of the entire artefact; for example, for maintenance, reconditioning, remanufacture or re-erection in a new location.

(CIRIA RP656 Design for Deconstruction Bill Addis)

DISTRIBUTOR

Any natural or legal person in the supply chain, other than the manufacturer or the importer, who makes a construction product available on the market

(CE Marking for SMEs & CPR '11)

See: Economic Operator

(GreenSpec BRM '11)

DISTRICT COUNCIL (DC)

Body responsible for local services which are not delivered by the county council, e.g. household waste collection, local planning decisions.

This forms the middle layer of the three-tier local authority management structure

See: County Council and Town or Parish Council

(Participation Works Partnership)

Districts are often in rural areas

See Borough Council

(GreenSpec BRM '11)

DIRECT TRANSMISSION

Sound which is transmitted only through the main separating element and involves no other flanking element.

(CC Publication: Concrete and Sound insulation)

DISPLAY ENERGY CERTIFICATE (DEC)

(Ska '09 and GreenSpec '10)

DISTEMPER

A traditional wall paint made from water, pigment and glue

(Builder Hampshire Directory '10 and GreenSpec '10)

DISTRIBUTED GENERATION

Is the generation of energy at smaller scales, usually close to where it is used, than that of traditional power stations.

Amongst other advantages, distributed generation reduces the amount of energy lost through transmission.

(GreenSpec AEP '09)

DISTRIBUTOR

Any natural or legal person established within the community including a retailer, who only stores and places on the market a substance, on its own or in a preparation for third parties.

(HSE REACH '10)

DISTRIBUTION SYSTEM

conveying

, such as ducts, pipes, and wires, to bring substances or energy from a source to the point of use

The distribution system includes such auxiliary equipment as fans, pumps, and transformers.

(Building Energy Glossary '06)

DISTRICT HEATING

Is the use of a centralised boiler installation to provide heat for a number of buildings.

This can use heat from only a boiler, or the heat from a combined heat and power (CHP) plant.

(GreenSpec AEP '09)

DISTRICT HEATING AND COOLING

DIURNAL HEAT FLOW

The heat that flows in and out of a building from daytime to night-time.

(GreenSpec AEP '09)

DIURNAL TEMPERATURE VARIATION

The daily temperature shift that occurs from daytime to night-time.

(GreenSpec AEP '09)

DNA

Molecules in our body which tell the cells how to grow a bit like an instruction manual for our bodies.

If the DNA is damaged, the instructions become messed up.

(Cherrington '95)

DODECYL BENZENE (DDB)

(ERFMI '08)

DOH See: **DEPARTMENT OF HEALTH (GOVERNMENT)**

DOORS

Doors with glass are generally opaque to IR Thermography and will look dark in images.

However See: Glass and Infra Red Cameras

(GreenSpec BRM '09)

DOORSET

A doorset consists of many parts, the door leaf, the door frame, its hanging and latching ironmongery, any glazing and its beading and surface 76ampshire7676all.

Doorsets are usually assembled and finished off-site and delivered ready to insert into a prepared opening.

See: Fire Resistant, Self Closing, Smoke Resistant, FIRAS, BWF Certifire

(GreenSpec BRM '10)

DOOMSDAY BOOK

Record of a survey of the land of England carried out by the commissioners of William I, 1086.

(Cherrington '95)

DOMESTIC HOT WATER (DHW)

(GreenSpec BRM '10)

DONGLE

A device used to control illegal use of software, effectively it is a subscription to the software, it is plugged into the (back) of the computer and the programme looks for it when it starts, checks the date of the subscription and checks it against the computers clock and prevents access to the programme if the subscription has expired.

Not to be mistaken for an USB storage device or USB stick

(ASWS BRM '97-'09)

DOOR

All operable opening areas (which are not fenestration) in the building envelope, including swinging and roll-up doors, fire

doors and access hatches.

Doors that are more than one-half glass are considered fenestration.

(Building Energy Glossary '06)

Doors with over 10,000mm² ventilation opening can be classed as a window in the Building Regulations.

(GreenSpec BRM '11)

DOOR, NON-SWINGING

roll-up, sliding, and all other doors that are not swinging doors

(Building Energy Glossary '06)

DOOR, SWINGING

all operable opaque panels with hinges on one side and opaque revolving doors

(Building Energy Glossary '06)

DOOR AREA

total area of the door measured using the rough opening and including the door leaf and the frame

(Building Energy Glossary '06 & GreenSpec BRM '11)

DOORSET

A door and its frame complete with ironmongery, glazing, architraves, finishes, decoration; made off site and delivered as one, rather than a door leaf delivered with softwood and the frame made insitu and the door installed in it.

Doorsets will be made to a design and specification and may conform to a tested design, e.g. fire door or acoustic door.

See: BWF Certifire, Firas, TRADA, Preassembly,

(GreenSpec BRM '11)

DOS See: **DISK OPERATING SYSTEM**

was used to control the basic functions of the *IBM PC & Clones*. A few makes and versions existed, *MS-DOS* from Microsoft is the market leader. *DOS* was the unfriendly face of computing to the vast majority of computer users and a *GUI* like *Windows* turns a *DOS PC* into a friendly easy to use computer like the *Apple Mac*.

(ASWS BRM '97)

DOT DEPARTMENT OF TRANSPORT

(HAPM and BPG CLM '97)

DOT ROAD NOTES

DoT road notes prepared by the Transport and Road Research Laboratory

(HAPM and BPG CLM '97)

DOUBLE CLICKING

the use of two *clicks* of the *mouse button* in quick succession, whilst its *pointer* is placed over an application *icon*, which starts the application or brings it back to full-screen.

(ASWS BRM '97)

DOUBLE ENDED FUNNEL

(GreenSpec BRM '10)

DOWNCYCLE

re-use a product, component or material for a purpose with lower performance requirements than it originally provided.

(CIRIA RP656 Design for Deconstruction Bill Addis)

A variation of recycling where the second materials has lower performance characteristics or value than the original.

(Ska '09 and GreenSpec '10)

DOWNSTREAM USER

Any natural or legal person established within the community, other than the manufacturer or the importer, who uses a substance, either on its own or in a preparation, in the course of his industrial or professional activities. A distributor or a consumer is not a downstream user.

(HSE REACH '10)

DnT

Standardised level difference.

The difference in sound level between a pair of rooms (source and receiving rooms) for a stated frequency, which is corrected (normalised) for the reverberation time (in the receiving room).

Refer to BS EN ISO 140-4 See: 1998.

(CC Publication: Concrete and Sound insulation)

DnT,w

Weighted standardised level difference.

A single-number quantity (weighted) which characterises the airborne sound insulation between two rooms.

Refer to BS EN ISO 717-1 See: 1997.

(CC Publication: Concrete and Sound insulation)

DnT,w + Ctr

Weighted standardised level difference which characterises the airborne sound insulation between two rooms using spectrum adaptation term (No.2) from BS EN ISO 717-1 See: 1997.

(CC Publication: Concrete and Sound insulation)

DQI See: **DESIGN QUALITY INDICATORS**

DPAS See: **DRUG PREVENTION ADVISORY SERVICE**

DPC See: **DAMP-PROOF COURSE**

DPM See: **DAMP-PROOF MEMBRANE**

DQI See: **DESIGN QUALITY INDICATOR**

DRAFT FOR DEVELOPMENT (DD)

is a BS in the early stages of its development, out for public comment.

See BS, BSI, PD, Standard, Code,

(ASWS BRM '97 – '11)

DRAUGHT

Excessive air movement within the conditioned zone, which may cause discomfort.

(based on SEDA Airtightness Guide definition)

The draughts may occur through air leakage paths through the building envelope resulting in heat loss of coolth gains and may cause thermal discomfort.

(GreenSpec '09)

DRAUGHT LOBBY

Often but not 78ampshire7878 on the north side of the building to protect the building interior from cold northerly winds. Created between two doors or doorsets, set apart to create a space where when entering the building the outer door(s) can be closed before the inner door(s) are opened helping to prevent uncontrolled heat loss or coolth gain during the heating season.

Can be internal or external to the building volume.

The inner door and the lobby construction want to be of higher performance to prevent heat loss to the lobby.

(GreenSpec BRM '11)

DRAFT CURTAIN

An alternative to the draft lobby when there is little room or the building is historic and constructing lobbies is not permitted.

Hung adjacent to an external door, shaped to create a lobby, thick and heavy to prevent wind blowing it open, it protects guests in a restaurant nearest the door from cold drafts and helps prevent heat loss

(GreenSpec BRM '11)

DRAUGHTPROOFING

Filling gaps between opening parts of components and their frames e.g. window, rooflights and doors.

(based on SEDA Scottish Environmental Design Association definition)

Often achieved with EPDM extrusions stapled into frames or to casements, the corner details are critical, mitred and welded joints are critical to success.

(GreenSpec '09)

DREAM See: **DEFENCE RELATED ENVIRONMENTAL ASSESSMENT METHOD**

DRFO See: **DESIGN, REFURBISH, FINANCE AND OPERATE (DRFO)**

DRIP

Moulding or groove in the underside of an overhanging member, usually made of timber, used to encourage water finding its way to the bottom edge to drip off and prevent water creeping backwards onto other surfaces.

Examples: Window sill, door threshold, door weatherboard, barge board, fascia.

(GreenSpec BRM '10 – '11)

DROUGHT

Prolonged period with little or no rainfall.

(Cherrington '95)

DROUGHT TOLERANT PLANTS

See: Indigenous species plants, Irrigation, Genus Loci

(GreenSpec BRM '11)

DRUG AND ALCOHOL ACTION TEAM (DAAT)

(Participation Works Partnership)

DRUG ACTION TEAM (DAT)

(Participation Works Partnership)

DRUG PREVENTION ADVISORY SERVICE (DPAS)

(Participation Works Partnership)

DRYING SHRINKAGE JOINT (DSJ)

DRYLINING

Plasterboard drylining on the inside face of external masonry walls was introduced to replace plaster as a dry construction trade, it is also used on timber or metal stud framework in external walls, partitions and ceilings, however it creates zone for air movement behind the board and is notorious for being a poor performer for airtightness.

A plaster skim coat on plasterboard lining may make the plasterboard lining airtight but leaks in the external wall feed into the drylining cavity and the perimeter boundary of the plasterboard leaks the air at skirting and ceiling level into other voids.

See: Parge Coat

(GreenSpec '09)

DS See: **DAYLIGHT SENSING**

DS See: **DAYLIGHT SENSING CONTROL**

DS See: **DESIGN STAGE**

DSB See: **DISPUTE SETTLEMENT BODY**

DSCR See: **DEBT SERVICE COVER RATIO**

the ratio of cash available for debt service to the actual debt service.

See: PFI, PPP

(John Laing & GreenSpec BRM '10)

DSJ See: **DRYING SHRINKAGE JOINT**

DSM See: **DISPUTE SETTLEMENT MECHANISM**

(UNEP See: Environment and Trade — A Handbook '05)

DSU See: **DISPUTE SETTLEMENT UNDERSTANDING**

(UNEP See: Environment and Trade — A Handbook '05)

DTA See: **DEVELOPMENT TRUSTS ASSOCIATION**

DTI See: **DEPARTMENT OF TRADE AND INDUSTRY**

DUAL FLUSH WCS

DUCTS

See: Pipes

DURABLE CONSTRUCTION

DUST MITES MINIMISED

DUTY OF CARE

We all have a duty of care to the environment, we can no longer hide behind 'I was instructed to do so by my boss'.

We are responsible for 79ampshire a legitimate licenced waste carrier to remove waste from our own premises or homes.

We can be given and ASBO for bad behavior in respect of the environment, e.g. dumping rubbish in public view on our own land can attract an ASBO.

See: ASBA, Anti Social Behaviour Act, ASBO, Anti Social Behaviour Order, Environment Protection Act

(GreenSpec BRM '10)

DWANGS

Scottish term for Noggins

(GreenSpec BRM '10)

DWELLING EMISSIONS RATE (DER)

DWELLING UNIT

single unit providing complete independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking, and sanitation

(Building Energy Glossary '06)

DWF See: **DIRECT WORK FORCE**

Local Authorities often have a work force directly employed to carryout repairs, maintenance, Decent Homes Programme, etc.

There is an organisation by the same name whose members meet up to share knowledge and 79ampshire.

(GreenSpec BRM '11)

DWP See: **DEPARTMENT FOR WORK AND PENSIONS**

DWP See: **DEPARTMENT FOR WORK AND PENSIONS (GOVERNMENT)**

DWT See: **DEADWEIGHT**

DXF See: **Data eXchange Format**

a *format* created by *AutoDesk* and used in *AutoCAD* as an *industry standard* interchange *format* for drawing files allowing any *CAD* program which has its own native *format* to pass files to any other *CAD* program with its own different *native format* using a third common format. *ASCII* and *RTF* are similar in that they offers the same function for text files passing between word-processing and other programs.

(ASWS BRM '97)

E

EA See : **ENVIRONMENT AGENCY**

<http://www.netregs.gov.uk>

A wealth of guidance information on all matters related to construction, environment and pollution.

<http://www.environment-agency.gov.uk/>

The Environment Police thank goodness we have them, do you remember how bad the 1960s, 1970s and 1980's were? Between a rock and a hard place, driven by EU directives and UK 80ampshire8080a legislation, they have too many conflicting responsibilities, which make all processes difficult enough, but inconsistently in the Postcode lottery of life makes leaning from one job or region to another a near impossibility. Will the potential merger of regions help to iron out the differences?

Nickname from a recycler: 'Anti-recycling league'; comment from an observer: 'they are scared of their own shadows'. SEDA the 80ampshir equivalent have teeth in the T&C Planning process, EA did not and ODPM required development in flood plains to be permitted by Planning despite EA's sensible objection; the MPs don't have to pay the insurance premiums, nor put up with the sewage polluted flood water, only long enough for the obligatory media scrum photoshoot at the waters edge.

Now EA have been give their teeth back after the recent inland river flooding incidents and the Pitt report, with the introduction of the Flood & Water Management Act 2010 at last sensible decision can be made and upheld.

Regrettably still a long way to go about making 80ampshire80 sensible environmentally sound decisions and not so much CYA decisions, before they can be regarded by most of the industry as the helpful friend they would like to be considered as.

Whatever happens if you have an incident on site, call them in immediately, to solve the small problem before it grows into and the major one, you would rather forget about or sweep underground.

The fines are growing and prison sentences can be handed out if you get it wrong, let them help you solve it in the best way possible for the sake of nature, the planet and its other inhabitants.

Things have improved a lot whilst they have been in office. But the bad guys manage to stay one step ahead.

(GreenSpec BRM '10)

EAGGF See: **EUROPEAN AGRICULTURE GUIDANCE AND GUARANTEE FUND**

EAM See: **ENVIRONMENTAL ASSESSMENT METHOD**

(GreenSpec BRM '08)

EARTH CONSTRUCTION

Construction incorporating earth as a material.

Rammed earth walls are an example, sun or air dried unfired brickwork or blockwork are another.

Wall finished include clay plaster.

(GreenSpec AEP '09 & BRM '10)

EARTH SHELTERED BUILDING

EARTH TUBES

Air entering a building for mechanical 80ampshire8080, for heating or cooling can be tempered by virtue of the pipes they run in and the conditions and media the pipes pass through.

Clay pipes and other high thermal mass pipes can absorb or loose heat easily from or to the air passing through them.

The longer the pipes the greater capacity, but the risk of the pipes becoming 80ampshire8080 or flooded must be avoided.

This is a very simple form of mechanical ventilation with heat recovery where fresh air is pre-warmed with the heat deposited from stale exhausted air, but the air never mixing.

If the pipes are 80ampsh well below ground or within soil around semi-buried, earth-sheletered buildings, the heat or cooth can be transferred from air to pipe and from pipe to soil and stored there and 80ampshire from there.

This is a sophisticated form of ground source heating and cooling using air as an intermediate media.

There is a risk of thermal pollution if too much heat or cooth is added or taken by this method.

If there is ground water movement in the surrounding soil the heat or cooth can be carried away.

If the mechanical 80ampshire8080 is reversible then the heat delivered can also be 80ampshire and if used in a cyclical arrangement can be delvered and reclaimed frequently.

The outlet of the pipes is ideally away from noise and polluting sources, e.g. roads.

See: Purgig,

(GreenSpec BRM '10)

EAST OF ENGLAND SUSTAINABLE BUILDING (EESB)

EAVES

Junction between external wall and flat or pitched roof, depending upon the vernacular and rainfall may be a simple flush detail with gutter or may be a large overhanging eaves,

The eaves may be open without soffits or closed with soffits, it may be a flat or sloping soffit.

Eaves often provide a route for bats and birds into roofs or may be the location of external bird nests.

See: Verge, Bargeboard, Fascia,

(GreenSpec BRM '10)

EC See: **EUROPEAN COMMUNITY**

(CIRIA RP656 Design for Deconstruction Bill Addis)

See: EU and EEC

(GreenSpec '09)

ECA See: **ENHANCED CAPITAL ALLOWANCE**

(GreenSpec BRM '10)

ECF See: **ELEMENTAL CHLORINE-FREE**

(Envirowise Packaging & Waste)

ECGI See: **EUROPEAN CORPORATE GOVERNANCE INSTITUTE**

ECH2O

ech2o are environmental consultants offering design advice and seminars on all aspects of sustainable water use, low or zero carbon energy systems, carbon literacy and environmental choice of materials.

SUDS, rainwater harvesting, grey water recycling, water efficient appliances, compost toilets, constructed wetlands, solar thermal systems, condensing boilers, wood pellet boilers, ground source heat pumps and efficient heating controls are some of the solutions they offer.

Clients include private individuals, community groups, architects, engineers, developers, schools, FE Colleges, Universities, Housing Associations and Local Authorities.

Cath Hassell ech2o, Unit 7, Temple Yard, Temple Street, Bethnal Green, London, E2 6QD

T 020 7729 2819 See: M See: 07769 626619

E info@ech2o.co.uk See: See: cath.hassell@ech2o.co.uk

ECHA See: **EUROPEAN CHEMICALS AGENCY**

ECHOLOCATION

The analysis by an animal of the echoes of its own transmitted sound waves, by which it builds up a soundpicture of its immediate environment

(altrincham '96)

ECO See: **ENERGY COMPANY OBLIGATION**

ECO-BALLS

ECO-BLING

Renewable energy attachment to buildings (wind turbines, PT, PV-T) in preference to improving the thermal and energy efficiency of the building first.

See: Retrofit, Retrofitting

(GreenSpec BRM '10)

ECO-DESIGN

Is an approach to design of a product with special consideration for the environmental impacts of the product during its lifecycle.

(GreenSpec AEP '09)

ECO FOOTPRINT

(GreenSpec '10)

ECOHB See: **THE EUROPEAN & GLOBAL NETWORK OF ORGANISATIONS FOR ENVIRONMENTALLY-CONSCIOUS AND HEALTHY BUILDING**

(SEDA Chemical Reduction in Building '08)

ECOHOMES

BREs EAM for housing based on BREEAM and grown independently

Replaced by Code for Sustainable Homes in England and Wales

EcoHomes Remains current in Scotland

<http://www.bre.co.uk/page.jsp?id=397>

See: Decent Homes, Code for Sustainable Homes,

(GreenSpec BRM '08)

ECOINVENT (ECOLOGICAL INVENTORY)

Materials LCA database populating Life Cycle Assessment Software like SimaPro

(GreenSpec BRM '10-'11)

ECO-LABEL

An 'eco-label' indicates that a product has a reduced environmental impact compared with other products in the same product group.

A number of 'eco label' commercially-sponsored schemes exist, but the most important is the European Ecolabel backed by the European Commission.

The leading UK building eco-label is the BRE Environmental Profile Standard. (See: also: <http://ecolabelling.org/>)

See: BRE EP

(GreenSpec AEP '09 & BRM '10)

ECOLABEL

the most important eco-label is the European Ecolabel backed by the European Commission.

Information on the scheme can be found on the EUROPA portal site of the European Union.

UK Ecolable delivery team

01355 593930

E ecolabel@tuvnel.com

<http://ecolabel.defra.gov.uk> See: <http://ec.europa.eu/ecolabel>

(Ska '09 and GreenSpec AEP '09 & BRM '10)

See: GPP, EUGPP, Buy Sustainable, Quick Wins, Quick Wins Best Practice Voluntary Specifications

(GreenSpec BRM '10)

ECO-LITE BEAMS

ECOLOGICAL ASSESSMENT

A comprehensive assessment of the likely ecological impacts of proposed developments on a site. This can take place on any type or size of site.

(BCT '09)

ECOLOGICAL FOOTPRINT

Estimate of the area of Earth's productive land/water required to supply the resources an individual or group demands, and absorb their wastes. By calculating extent a person uses more/ less than their fair share of world resources.

(SEDA Chemical Reduction in Building '08)

ECOLOGICAL/PHYSICAL FOOTPRINT MINIMISED

ECOLOGY SURVEY

A survey providing baseline information about the ecological characteristics of a site, including the presence or potential for protected species and their habitats.

(BCT '09)

ECO-MATERIAL

"An ecological building material/product is a material/product with no heavy negative environmental impact and with no negative health impact."

This is the first time that experts from 5 European countries have come together to define what an eco-material actually is.

See: CAP'EM, Bio-Ecological Construction Material/Product,

(CAP'EM 2010)

ECOLOGICAL MATERIALS MEASURED

One of the most important results of CAP'EM will be the realization of a standardized publicly accessible assessment tool for ecological building materials accepted throughout Northwest Europe and structured around LCA.

See: CAP'EM, Bio-Ecological Construction Material/Product,

(CAP'EM Agrodome '11)

ECONOMIC OPERATOR

The manufacturer, importer, distributor or authorised representative

(CE Marking for SMEs & CPR '11)

ECONOMIZER, AIR

duct and damper arrangement and automatic control system that together allows a cooling system to supply outside air to reduce or eliminate the need for mechanical cooling during mild or cold weather

(Building Energy Glossary '06)

ECONOMIZER, WATER

system by which the supply air of a cooling system is cooled directly or indirectly or both by evaporation of water or by other appropriate fluid in order to reduce or eliminate the need for mechanical refrigeration

(Building Energy Glossary '06)

ECOPOINTS

A feature of BRE EP and BRE Envest Software

(GreenSpec '10)

ECOSYSTEM

A system involving the interactions between living organisms and the physical environment.

(Cherrington '95)

ECOTECT

CARL Cambridge Architectural Research Ltd. invented energy modelling software

Now AutoCAD owned

(GreenSpec BRM '10)

ECOTOXICITY (LIMITED)

ECVM See: **EUROPEAN COUNCIL OF VINYL MANUFACTURERS**

EDUCATION IMPROVEMENT PARTNERSHIP (EIP)

(Participation Works Partnership)

EDUCATION OF OCCUPANTS

EDUCATION OF OCCUPANTS ON CONTROL USE

EDUCATION WELFARE OFFICER (EWO)

(Participation Works Partnership)

EDUCATION WELFARE SERVICE (EWS)

(Participation Works Partnership)

EEDA See: **EAST OF ENGLAND DEVELOPMENT AGENCY**

EEEF See: **EAST OF ENGLAND ENVIRONMENT FORUM**

EEF See: **ENGINEERING EMPLOYERS FEDERATION**

EEEGr See: **EAST OF ENGLAND ENERGY GROUP**

EEO See: **EAST OF ENGLAND OBSERVATORY**

EER See: **ENERGY EFFICIENCY RATIO**

EERA See: **EAST OF ENGLAND REGIONAL ASSEMBLY**

EERB See: **ENERGY EFFICIENCY RATIO FOR BUILDINGS**

EESCP See: **EAST OF ENGLAND SKILLS AND COMPETITIVENESS PARTNERSHIP**

EETB See: **EAST OF ENGLAND TOURIST BOARD**

EF See: **ENERGY FACTOR FOR WATER HEATER**

EFFICIENCY

A measure of a piece of kit's performance, a ratio of output over input.

(Cherrington '95)

performance at specified rating conditions

(Building Energy Glossary '06)

EFFICIENCY, HVAC SYSTEM

ratio of the useful energy output at the point of use to the energy input in consistent units for a designated time period, expressed in percent

(Building Energy Glossary '06)

EFFLORESCENCE

Unightly powdery white salts brought to surface of high salt content brickwork by moisture in the brickwork evapourating at the surface, can be removed by dry brushing, adding any water just puts the salts into solution to reemerge later.

(Builder Hampshire Directory '10 & GreenSpec '10)

EFTA See: **EUROPEAN FREE TRADE AREA**

(no not the football cup) Iceland, some Scandinavian countries and Austria now brought into the fold of the *EU*.

(ASWS BRM '97)

EFTA See: **EUROPEAN FREE TRADE ASSOCIATION**

EGAN REPORT

Rethinking Construction

That lead to the establishment of CE, CBPP, M4I, Housing Forum, etc, Now reduced to CE and HF.

(GreenSpec BRM '08)

EH See: **ENGLISH HERITAGE**

EHTF

See: HTF

EIA See: **ENVIRONMENTAL IMPACT ASSESSMENT**

The assessment of the environmental impacts likely to arise from a major action significantly affecting the environment. i.e. legislation, a policy, a programme or project.

See: EIS

(Cherrington '95)

For larger projects or for those in more sensitive sites where projects are likely to have a significant environmental effect, an Environmental Impact Assessment (EIA) will be a legal requirement.

The relevant legislation is the Town and Country Planning (Environmental Impact Assessment) (England and Wales)

Regulations 1999; Planning (Assessment of Environmental Effects) Regulations (NI) 1999 and Environmental Impact Assessment (Scotland) Regulations 1999.

An EIA covers a broad range of factors such as effects on soil, water, air, climate, landscape, effects on humans as well as species and habitat considerations.

(BCT '09)

EINECS See: **EUROPEAN INVENTORY OF EXISTING COMMERCIAL CHEMICAL SUBSTANCES**

EIP See: **EDUCATION IMPROVEMENT PARTNERSHIP**

EIP See: **EXAMINATION IN PUBLIC**

(T&C Planning)

(Inspire East)

EIS See: **ENVIRONMENTAL IMPACT STATEMENT**

The 1988 EU Directive requires an EIS as part of the developing control procedure.

A statement of results from the [EIA](#).

It must include:

a description of the project;

a description of the environment affected;

assessment of the important effects of the project on the environment;

justification of the project from alternative views; and

a non-technical summary.

(Cherrington '95)

EJ See: **EXPANSION JOINT**

ELCD See: **EUROPEAN REFERENCE LIFE CYCLE DATA SYSTEM**

ELECTED MEMBER OF YOUTH PARLIAMENT (MYP)

(Participation Works Partnership)

ELECTRIC METER

mechanical/electrical device that can measure electric power

(Building Energy Glossary '06)

See: Meter, Smart Meter, Monitor, Control

(GreenSpec BRM '10)

ELECTRIC SUPPLIER

agency that sells and/or distributes electric power

(Building Energy Glossary '06)

ELECTRIC VEHICLE (EV)

a vehicle employing fully electric propulsion capability

ELECTRICAL ENERGY

The energy of a body due to its electronic configuration at atomic level.

(Cherrington '95)

ELECTRO MAGNETIC RADIATION PREVENTION

ELECTRONIC PRODUCT INFORMATION CO-OPERATION (EPIC)

part of *UNICLASS* classification system, and used in *CABS*, but this part is intended to enable anybody looking for a specific construction product to go to any building supplier in any country (initially in Europe and eventually internationally) and ask for an item using a specific code and expect to find the same thing at each supplier and find them stored in the same place.

If product information is classified in the same way you should be able to go to the same classification on the shelf in architects libraries everywhere in Europe and the world and find the same information.

(ASWS BRM '97)

ELEMENT

Parts of a building: walls, floors, roofs, partitions; or elements in landscape: roads. Pavements, fences.

See: Elemental Assembly

An element of a building, including: foundations, floors, roofs, wall, partitions, etc.

Many elements are assembled to make whole buildings

See: *Assembly, Building, Component, Elemental Assembly, Generic Material, Material, Product, Resource, Secondary element.*

(GreenSpec BRM '10 – '11)

ELEMENTAL ASSEMBLY

Each element of a building is made up of an assembly of more or less components: E.g. Floor: structural joints, timber decking, plasterboard ceiling

The assembly of materials, products and/or components to make up an element of a building, including foundations, floors, roofs, wall, partitions, etc.

See: *Assembly, Building, Component, Element, Generic Material, Material, Product, Resource, Secondary element.*

GreenSpec Studio, NBS Next Generation, BRE GreenGuide, 3D CAD BIM, Butterfly.

(GreenSpec BRM '10 – '11)

ELEVATION

The level to which something may be lowered or elevated to.

e.g. '600 mm below the final elevation of the nearest exterior grade'.

Views of the exterior of a building in Architects Drawings,

See: 5th elevation, slab.

(GreenSpec BRM '10)

ELV See: **END-OF-LIFE VEHICLES (DIRECTIVE)**

EM See: **ENVIRONMENTAL MANAGEMENT**

EMA See: **ETHYLENE METHACRYLIC ACID**

E-MAIL See: **ELECTRONIC MAIL**

used to send messages between computers on *networks* or over the *Internet* and ultimately to their users.

(ASWS BRM '97)

E-MAIL ADDRESS

this like a postal address allows users to send a electronic message to a specific user on the *network, Intranet* or *Internet*.

They are sometimes indecipherable e.g. 100740,2563@Compuserve.com or sort of OK e.g.

NBS_Building@SpekkiesNet.co.uk

(ASWS BRM '97)

EMAS See: **ENVIRONMENTAL MANAGEMENT AUDIT SCHEME**

EMBEDDING

including or inserting computer programming code or other files, inside another e.g. an *Excel* file embedded in a *Word* file.

(ASWS BRM '97)

EMBEDDED CODE

software programme code attached to characters in a file programme, *Insert brackets* in *NBS Building* have lots of *embedded code*.

(ASWS BRM '97)

EMBODIED CARBON

All the carbon or carbon dioxide used or released in the manufacturer of materials and products or whole buildings, including that required to harvest, extract, manufacture, refine, process, package, transport, install and dispose of a particular product or building material.

This includes the carbon or carbon dioxide in the fuel used for heating or cooling processes and also includes the carbon released in chemical processes used to make the material or products.

Example Carbon Dioxide released converting Calcium Carbonate limestone or chalk into Cement.

See: Cement, Carbon, Carbon Dioxide, Carbon Sequestration, Embodied Energy.

(GreenSpec BRM '11)

EMBODIED ENERGY

All the energy required to grow, harvest, extract, manufacture, refine, process, package, transport, install, maintain, refurbish and dispose of a particular product or building material.

(GreenSpec AEP '09 & BRM '11)

The embodied energy of a particular product or building material is all the energy required to grow, harvest, extract, manufacture, refine, process, package, transport, install and dispose of it. The use of materials that are in their most natural state and obtained as locally as possible ensures the embodied energy is kept to a minimum.

(Ecos Renews 17)

See: Embodied Carbon, Impact Categories, LCA, EPD,

(GreenSpec BRM '11)

See: Passipedia: [Embodied energy](#)

(GreenSpec BRM '11)

EMBODIED ENERGY AND EMBODIED CARBON

Embodied energy and embodied carbon are not the same

Plastics are non-renewable hydrocarbons so high embodied carbon and high embodied energy

Trees and plants are renewable carbon so have negative embodied carbon or carbon sequestration

Cement is high embodied energy from cooking and high embodied carbon from chemical reaction

Metals are high embodied energy from manufacture, carbon level depends on fuel

Mild steel: slag is a bi-product that is a cement substitute so could argue a low embodied energy cement and half the embodied carbon

Recycled 85ampshire 5% of virgin 85ampshire's energy, but where is it recycled?

Timber low embodied energy from extraction process and transport low neutral or negative embodied carbon from sequestration

On the issue of fuel choice all assumptions would have to be based on countries or company fuel mix

But significantly:

Aluminum was mostly made using renewable energy but now made with coal in China and gas in the Gulf so higher embodied carbon today

(GreenSpec BRM '11)

EMERGENCY POWER SYSTEM

system that operates in the event of primary system failure or provides power to essential loads during power supply outages

(Building Energy Glossary '06)

EMERGENCY SYSTEM

system that exists for the purpose of operating in the event of failure of a primary system

(Building Energy Glossary '06)

See: UPS, Uninterrupted Power Supply, Back-up system,

(GreenSpec BRM '10)

EMERGING REUSE

EMISSION FACTORS

(Renueables AN '09)

EMITTANCE

ratio of the radiant heat flux emitted by a specimen to that emitted by a blackbody at the same temperature and under the same conditions

(Building Energy Glossary '06)

EMPLOYER'S REQUIREMENTS (Ers)

Usually associated with Design & Build (D&B) procurement where the employer's requirements fall anywhere between a briefing document and a specification where the level of detail depends upon the design development stage that has been achieved.

The Ers could say 'provide a school that is fit for purpose for a school for say 700 pupils following a particular syllabus' or it may be a performance specification for the building or it could be much more specific about methods of construction and materials.

It usually, but not always, allows the D&B contractor to choose materials to meet the Ers to allow them to be economic on price, but rarely do Ers be specific about materials and standards and the policing of meeting any requirements is by the D&B contractor, i.e. very little control if any.

With PPP and PFI the procurement is often based on D&B and ER's will include a minimum life expectancy of the building often 25 years which falls between Medium (30 years) and Short life (>10 years) this is interpreted as 25 year guarantees or 25 years of premiums paid on insurance policies or warranties.

See: Design Life, Declaration Of Conformity, Performance Specification, Performance Characteristic, Design & Build

(GreenSpec BRM '11)

EMPOWERMENT

Supporting people's voice, expression and skills

(Participation Works Partnership)

EN See: **ENGLISH NATURE**

EN See: **EURONORM**

European Standard developed and published by *CEN* which will be the accepted standard for free trade throughout the *EU*.

(ASWS BRM '97 & GreenSpec '10)

ENCLOSED SPACE

volume substantially surrounded by solid surfaces such as walls, floors, roofs, and open-able devices such as doors and

operable windows
(Building Energy Glossary '06)

END-OF-LIFE (EOL)

(GreenSpec BRM '10)

END OF LIFE HIERARCHY

END-OF-LIFE SCENARIOS OR SOLUTIONS (EOLS)

What happens at the end of useful life of a building, vehicle, etc. rather than demolishing buildings or crushing vehicles: dismantling (slow, labour intensive) reclaiming the parts and storing them for sale for reuse and repairs; 86ampshire of cars and 86ampshire86 out the different damaged material streams to recycle.

Considered in *LCA* to make the environmental impact comprehensive; potentially moving from '*cradle to grave*' towards '*cradle to cradle*'.

Building and vehicles can be *designed for deconstruction* to simplify the 86ampshire of parts for reuse rather than for crushing and recycling, in which case they can have a second life, in use as part of or a whole vehicle or building.

(GreenSpec BRM '10)

END-OF-LIFE-VEHICLE (EOLV)

(GreenSpec BRM '10)

ENERGY

capability for doing work; having several forms that may be transformed from one to another, such as thermal (heat), mechanical (work), electrical, or chemical

(Building Energy Glossary '06)

ENERGY COST

cost of energy by unit and type of energy as proposed to be supplied to the building at the site including variations such as time of day, seasonal, and rate of usage

(Building Energy Glossary '06)

ENERGY CARRIER

substance of phenomena that can be used to produce mechanical work or heat or to operate chemical or physical processes

(Building Energy Glossary '06)

ENERGY COMPANY OBLIGATION (ECO)

Government driving uptake of energy efficiency measures:

Carbon Emissions Reductions Target (CERT) and

Community Energy Saving Programme (CESP).

Expire at the end of 2012,

replace by ECO.

Restructured: up to date and work with Green Deal.

The ECO focuses on households who need financial support

Fuel Poverty (>10% of income)

See: CERT, CESP, GreenDeal

(GreenSpec BRM '11)

ENERGY COST BUDGET

the maximum allowable estimated annual energy expenditure for a proposed building

the annual energy cost for the budget building design

(Building Energy Glossary '06)

ENERGY EFFICIENCY

Using less energy to provide the same level of energy service.

Along with renewable energy, energy efficiency is own of the twin pillars of sustainable energy.

(GreenSpec AEP '09)

ENERGY EFFICIENCY RATIO (EER)

ratio of net equipment (cooling or heating) capacity to total rate of electric input under designated operating conditions

when consistent units are used, this ratio becomes equal to COP.

See also coefficient of performance, COP.

(Building Energy Glossary '06)

See: Passipedia: [Energy efficiency](#)

ENERGY EFFICIENCY RATIO FOR BUILDINGS (EERB)

ratio of energy required (ER) and energy used (EU)

(Building Energy Glossary '06)

ENERGY EFFICIENT APPLIANCES

ENERGY FACTOR FOR WATER HEATER (EF)

measure of water heater overall efficiency

(Building Energy Glossary '06)

ENERGY FROM WASTE

The harnessing of energy in the form of electricity, gas or heat released from waste combustion.

(Cherrington '95 & GreenSpec BRM '10)

Anerobic Digestion or Incineration towards the bottom of the Waste Hierarchy

See: Recovery

(GreenSpec BRM '10)

ENERGY/HEAT RECOVERY VENTILATION

is a system that allows air-to-air heat exchange capturing the cooling or heating energy from the exhaust air before it leaves the building.

The system is designed to reduce the energy required to heat or cool a building by reducing the temperature changes that often occur through ventilation systems.

(Ecos Renews 17)

See: MVHR

(GreenSpec '10)

ENERGY MANAGEMENT SYSTEM

control system designed to monitor the environment and the use of energy in a facility and to adjust the parameters of local control loops to conserve energy while maintaining a suitable environment

(Building Energy Glossary '06)

BS EN 16001

Designed to help organisations establish the systems and processes needed to improve energy efficiency.

With systematic, practical, clear and effective energy management systems in place an organisation can quantify savings and reduce risk.

Plan a cohesive approach towards energy management

Identify opportunity for energy cost-savings

Implement an organisation wide energy management plan

Integrate BS EN 16001 with existing systems to enhance energy efficiency

(BRE '10)

ENERGY PERFORMANCE CERTIFICATE (EPC)

The Energy Performance Certificate (EPC) is a measure introduced across EU member states under the European *Energy Performance of Buildings Directive* (EPBD) to help improve the energy efficiency of buildings.

It measures the asset rating of a building in terms of its energy performance and must be produced the first time that a building is let or sold from the date of implementation of the Directive.

The EPC is accompanied by an advisory report which sets out recommendations for improving the building's energy rating.

(RICS '11)

See: DEC, Display Energy Certificate

(GreenSpec BRM '11)

ENERGY PERFORMANCE OF BUILDINGS DIRECTIVE (EPBD)

The Energy Performance of Buildings Directive (2002/91/EC) is EU instruction to EU states to get in motion legislative drivers on the energy efficiency of buildings designed to meet the Kyoto commitment and respond to issues raised in the Green Paper on energy supply security.

Designed to promote the improvement of energy performance of buildings and amongst its requirements is the application of minimum requirements on the energy performance of new buildings and energy performance certification of existing buildings through the introduction of EPCs.

See: EPC, DEC, Kyoto

(GreenSpec BRM '11)

ENERGY, RECOVERED

See: recovered energy

(Building Energy Glossary '06)

ENERGY RECOVERY

Incineration of waste to generate energy

(CIRIA RP656 Design for Deconstruction Bill Addis)

Recovery of energy from waste, can be:

anerobic digestion generating heat and gaseous fuel or turned to electricity

burning of waste and recovering the heat

(GreenSpec BRM '10)

ENERGY REQUIRED (ER)

total energy required to achieve the building performance and comfort over a given period of time including HVAC, lighting ,occupancy ,domestic hot water, etc.

(Building Energy Glossary '06)

ENERGY SAVING PRODUCTS (ESP)

Lists of endorsed products held by Energy Saving Trust

Product categories currently included within the scheme are:

Domestic appliances – washing machines, dishwashers, cold appliances, electric and gas fired tumble dryers, and kettles

Consumer electronics – integrated digital televisions, simple terrestrial set top boxes, digital television recorders and energy saving mains controllers

Information and Communication Technology – energy saving mains controllers

Lighting – luminaires, compact fluorescent lightbulbs (CFLs), candle effect CFLs and halogen bulbs

Heating – gas, LPG and oil fired boilers, gas central heating controls and hot water cylinders

Insulation – cavity wall, loft, external wall and dry lining insulation

Glazing – windows

<http://www.energysavingtrust.org.uk/Home-improvements-and-products>

(GreenSpec BRM '10)

ENERGY SAVING RECOMMENDED (ESR)

One of the better performing products that has been given the ESR label.

(GreenSpec BRM '11)

ENERGY SAVING TRUST (EST)

Government body to advise the public about energy saving measure and products

<http://www.energysavingtrust.org.uk>

Likely to disappear with cutbacks during 2010

See: Carbon Trust (Industry and Commercial), ESR, ESP

(GreenSpec BRM '10)

ENERGY SECURITY

ENERGY SERVICE COMPANY (ESCo)

See: MUSCo, Multi Utility Service Company

(GreenSpec BRM '11)

ENERGY TECHNOLOGY LIST (ETL)

List maintained by the Inland Revenue of high energy performance equipment, energy saving devices that if fitted in a building the occupying company is entitled to 100% capital allowances in business annual accounts under the Enhanced Capital Allowance (ECA) a reduction in their tax commitment in the annual tax returns.

No financial incentive for developers to include them.

www.eca.gov.uk/etl

See: ECA Enhanced Capital Allowance, WTL

(Ska '09 and GreenSpec '10)

ENERGY USED

total purchased energy per energy carrier (fossil, electric, etc.) consumed to achieve the required building performance and comfort over a given period of time .

(Building Energy Glossary '06)

ENERPHIT 'EnerPHit'

Passive House 'Passivhaus' Certificate for old buildings

It is not always possible to achieve the Passive House Standard (new constructions) for [refurbishments of old buildings](#), even with adequate funds.

For this reason, the PHI has developed the "EnerPHit – Quality-Approved Energy Retrofit with Passive House Components" Certificate.

Significant energy savings of between 75 and 90 % can be achieved even in existing buildings, for which the following measures have proved to be particularly effective:

the improved thermal insulation (based on the principle: if it has to be done, do it right)

the [reduction of thermal bridges](#)

considerably [improved airtightness](#)

the use of very good quality [windows](#) (there is no reason why Passive-House-suitable windows should not be used whenever the opportunity arises)

[ventilation with highly efficient heat recovery](#) (again, Passive-House-suitable systems are very recommendable)

efficient heat generation

the use of renewable energy sources

These are exactly the same measures that have proved to be successful in new constructions.

A number of examples demonstrating the application of high-efficiency technology in existing buildings have become available in the meantime.

The Passive House Institute has advised on the implementation of several projects and carries out measurements in modernised buildings.

More about the EnerPHit-Standard: "EnerPHit" – New PHI-Certificate for Refurbishment of old buildings (German page with a link to an english PDF)

http://www.passiv.de/01_dph/Bestand/EnerPHit/EnerPHit_F.htm

(Passipedia '11)

ENGINEERED WOOD

Also called composite wood, engineered wood includes a range of derivative wood products which are manufactured by binding together the strands, particles, fibres, or veneers of wood, together with adhesives, to form composite materials. E.g. plywood. Composite section, LVL, Laminated wood, CLTP, Solid Wood Construction,

(GreenSpec AEP '09 & BRM '11)

ENGLISH NATURE (EN)

Old name for organisation Natural England

(GreenSpec BRM '10)

ENGLISH PARTNERSHIPS (EP)

<http://www.englishpartnerships.co.uk/>

Now renamed and merged with Housing Corporation to creat HCA

(GreenSpec BRM '10)

ENHANCED CAPITAL ALLOWANCE (ECA)

List maintained by Inland Revenue of energy saving devices that are eligible for 100% capital allowances under the

Enhanced Capital Allowance scheme allowing the occupant a reduction in their tax commitment.

See: also ETL Enhanced Technology List, WTL Water technology list

(Ska '09 and GreenSpec BRM '10)

ENTHALPY

thermodynamic property of a substance defined as the sum of its internal energy plus the quantity Pv/J , where P is the pressure of the substance, v is its specific volume, and J is the mechanical equivalent of heat; formerly called total heat and heat content.

(Building Energy Glossary '06)

See: Pressure, Volume, Mechanical Equivalent of heat,

(GreenSpec BRM '10)

ENVELOPE

This includes the external walls, pitched, shallow and flat roof and the ground supported floor or suspended upper floors over open spaces and corridors

(based on SEDA Scottish Environmental Design Association definition & GreenSpec '09)

ENVELOPE PERFORMANCE FACTOR

trade-off value for the building envelope performance compliance option calculated using the procedures specified in the systems performance trade-off

(Building Energy Glossary '06)

ENVELOPE PERFORMANCE FACTOR, BASE

building envelope performance factor for the base design

(Building Energy Glossary '06)

ENVELOPE PERFORMANCE FACTOR, PROPOSED

building envelope performance factor for the proposed design

(Building Energy Glossary '06)

ENVELOPE AREA

The boundary or barrier in m² separating the interior volume of the building from the outside environment. This includes the area of the external walls, roof and depending upon the air leakage parameter specified the area of the ground supported floor.

(based on SEDA Airtightness Guide definition)

ENVEST2

Environmental Estimator, software invented by BRE, crude building modelling, limited materials choices and construction assemblies, based on BRE Green Guide to Specification, easy comparison tool, results in EcoPoints.

Potential to be really useful not yet realised, always limited by use of Green Guide content.

Currently undergoing development with TSB D&DT Design and Decision Tools funding.

(GreenSpec BRM '10 – '11)

ENVIRODESIC

www.envirodesic.com/index.html

ENVIRONMENTAL ASSESSMENT METHOD (EAM)

See: DREAM, BREEAM, SPEAR, LEED, EcoHomes, Code for Sustainable Homes, Ska, CEEQUAL,

(Ska '09 and GreenSpec '10 – '11)

ENVIRONMENTAL CREDENTIALS

(GreenSpec BRM '10)

ENVIRONMENTAL CRITERIOR

(GreenSpec BRM '10)

ENVIRONMENTAL HEALTH PERSPECTIVES

<http://ehp.niehs.nih.gov/members/1999/suppl-3/465-468rylander/rylander-full.html>

ENVIRONMENTAL IMPACTS

ENVIRONMENTAL IMPACT REDUCED

ENVIRONMENTAL INDICATORS

See: CE, EPI

(GreenSpec BRM '11)

ENVIRONMENTAL MANAGEMENT AUDIT SCHEME (EMAS)

A formal system of management of environmental impact management used within a company including external or internal audit.

<http://www.emas.org.uk>

Contains information on ISO 14001 and EMAS and links to companies who audit and comply with these schemes.

Could be developed around ISO 14001, and if *3rd party independently verified* could be ISO 14001 accredited

See: ISO 14001

(GreenSpec BRM '10 – '11)

ENVIRONMENTAL PERFORMANCE INDICATORS (EPI)

Usually associated with environmental not business performance, in activities and used for monitoring and benchmarking against the performance of others in the same sector, related to the construction Industry.

e.g. in SMARTWaste how many tonnes of waste per m² of development

See: also KPI, Key Performance Indicator, CE, Benchmark, DQI,

(GreenSpec BRM '09-'11)

The construction industry indicators are published each year by Constructing Excellence (CE) using performance data

collected from across the UK construction sector by the Department for Business Enterprise and Regulatory Reform (BERR) formerly Department of Transport and Industry (DTI & DETR).

These include benchmarks for energy use.

URL See: www.constructingexcellence.org.uk
(Ska '09 and GreenSpec '10)

ENVIRONMENTAL PROFILE (EP)

See: BRE GreenBookLive, BRE GGtS,
(GreenSpec BRM '11)

ENVIRONMENTAL PRODUCT DECLARATION (EPD)

EPD is a Registered Trademark of The Green Yardstick, how stupid can you get?

Well that is going to be abused and 'prior use' will no doubt come into play somewhere.

Finding an EPD Verifier:

<http://www.environdec.com/en/The-EPD-system/Organisation/Verifiers/Individual-verifiers-in-United-Kingdom/>

EPD is a declaration of negative environmental impacts in the creation of a product or a material, it is the summing up of the negative impacts of all the processes from extraction to packaging and is often but not always based on Cradle to Gate.

EPD is not a badge of honour, a green label, certificate of compliance or an endorsement

EPD cannot be a criteria for acceptance, only a
for comparison, however the content may not be comparable.

EPD methodology should ideally be consistent with others and therefore can be comparable but often are not, there are many variables including the Declared Unit, Functional Unit, System Boundaries, End of Life scenarios, etc.

EPD is a statement of facts about the product or material, of its manufacturing processes in the period of the assessment, the company pays for the assessment to be carried out by an EPD specialist.

An EPD might include a Marginal Analysis which shows which resource material have the greatest share of the impacts, this can raise awareness and the manufacturers may use its results to improve the find alternatives and improve the product, in which case they will need a new EPD.

EPD are written in accordance with ISO 14025 standards

(Ska '09 and GreenSpec '10)

See: LCA, Impact Categories, Declared Unit, Functional Unit, Marginal Analysis, Cradle to *, System Boundaries, End of Life Scenario, BRE EP, Eco-label, EcoLabel,
GreenSpec now offers an EPD service.

<http://www.greenspec.co.uk/greenspec-epd.php>

(GreenSpec BRM '10-'11)

ENVIRONMENTAL PROFILES METHODOLOGY

<http://www.>

BRE's environmental profile only looks at negative environmental impacts of manufacturer, use and disposal or recycling of materials or products; it fails to engage with many of the positive attributes of the materials in use.

(GreenSpec BRM '08-'11)

ENVIRONMENTAL PROTECTION ACT 1990 (EPA)

The law to make provision arising from certain industrial and other processes; to re-enact the provisions of the Control of Pollution Act 1974 relating to waste on land with modifications regarding the functions of the regulatory and other authorities concerned in the collection and disposal of waste and to make further provision in relation to such waste.

The EPA is a law which aims to discourage people from dumping their waste where they shouldn't and also makes sure the local council provides adequate facilities for the disposal of waste.

(Cherrington '95)

See: Duty of Care

(GreenSpec BRM '10)

ENVIRONMENTAL PROTECTION AGENCY (EPA)

USA equivalent of the EA, SEPA, NIEA

www.epa.gov/iaq/voc.html

(SEDA Chemical Reduction in Building '08)

See: EA, SEPA, NIEA

(GreenSpec BRM '11)

ENVIRONMENTAL PURCHASING POLICY ENVIOWISE

EOE EAST OF ENGLAND

EOL See: END-OF-LIFE

EOLS See: END-OF-LIFE SOLUTIONS

EOLS See: END-OF-LIFE SCENARIOS

EOLV See: END OF LIVE VEHICLE

EOTA See:

www.eota.be

(SEDA Chemical Reduction in Building '08)

EP See: ENGLISH PARTNERSHIPS

EP See: EUTROPHICATION POTENTIAL

EP See: ENVIRONMENTAL PROFILE

EPA See: **ENVIRONMENTAL PROTECTION ACT 1990**
EPA See: **ENVIRONMENTAL PROTECTION AGENCY**
EPBD See: **ENERGY PERFORMANCE OF BUILDINGS DIRECTIVE**
EPC See: **ENERGY PERFORMANCE CERTIFICATE**
EPD See: **ENVIRONMENTAL PRODUCT DECLARATION**
EPDM See: **EXPANDED PROPYLENE DIENE MONOMER**
EPI See: **ENVIRONMENTAL PERFORMANCE INDICATORS**
EPIC See: **ELECTRONIC PRODUCT INFORMATION CO-OPERATION**
EPOXIDISED SOYBEAN OIL (ESBO)

(ERFMI '08)

EPS See: **EUROPEAN PROTECTED SPECIES**

See: Habitat Regulations

(BCT '09)

EPS See: **EXPANDED POLYSTYRENE**

EPSRC See: **ENGINEERING AND PHYSICAL SCIENCES RESEARCH COUNCIL**

EQUIPMENT

devices for comfort conditioning, electric power, lighting, transportation, or service water heating including, but not limited to, furnaces, boilers, air conditioners, heat pumps, chillers, water heaters, lamps, luminaries, ballasts, elevators, escalators, or other devices or installations

(Building Energy Glossary '06)

EQUITY (SHARE/PURE)

The ownership interest in the SPC in the form of shareholder funds invested by the private sector company(ies), typically 5-10% of the total funding required. Interest is not earned on share equity (as opposed to subordinated debt).

See: PFI, PPP

(John Laing & GreenSpec BRM '10)

EQUIVALENCY

See: Or Equivalent, Specification Substitution, EU Procurement Rules,

(GreenSpec BRM '11)

ER See: **ENERGY REQUIRED**

ERDF See: **EUROPEAN REGIONAL DEVELOPMENT FUND**

EROSION

Wearing away of the land by the action of water

e.g. rivers, ice, e.g. glacial movement, Freeze/thaw action or wind.

(Cherrington '95)

ERPHO See: **EASTERN REGION PUBLIC HEALTH OBSERVATORY**

ESBO See: **EPOXIDISED SOYBEAN OIL**

ESCo See: **ENERGY SERVICE COMPANY**

ESF See: **EUROPEAN SOCIAL FUND**

ESP See: **ENERGY SAVING PRODUCTS**

ESR See: **ENERGY SAVING RECOMMENDED**

ESR See: **EXISTING SUBSTANCES REGULATION**

ESSENTIAL CHARACTERISTICS

Those characteristics of the construction product which relate to the basic requirements for construction works

(CE Marking for SMEs & CPR '11)

ESSENTIAL REQUIREMENTS

(GreenSpec BRM '11)

EST See: **ENERGY SAVING TRUST**

ETA See: **EUROPEAN TECHNICAL APPROVALS**

ETFE See: **ETHYL-TETRA-FLUORO-ETHYLENE**

ETHER

'in the Ether' 'somewhere out there' e.g. software in the brains of the authors still being extracted as painfully as a tooth.

Software that has been promised for a long time but still has not arrived in the shops yet.

(ASWS BRM '97)

ETHYLENE ACRYLATE

Common ingredient of paints: Film former, polymer.

Can cause irritation to the eyes, respiratory system and skin; potential carcinogen

(GreenSpec '10)

ETHYLENE GLYCOL

Common ingredient of paints: Solvent.

Can cause central nervous system depression; ingestion causes kidney damage.

(GreenSpec '10)

ETHYLENE METHACRYLIC ACID (EMA)

(ERFMI '08)

ETHYLENE-VINYL ACETATE (EVA)

(ERFMI '08)

A type of hot-melt

(Envirowise Packaging & Waste)

ETHYL-TETRA-FLUORO-ETHYLENE (ETFE)

a transparent film used to make air-filled cushions employed in some building façades and roofs

(CIRIA RP656 Design for Deconstruction Bill Addis)

ETL See: **ENERGY TECHNOLOGY LIST**

ETPL See: **ENERGY TECHNOLOGY PRODUCT LIST**

List maintained by Inland Revenue of energy saving products that are eligible for 100% capital allowances under the Enhanced Capital Allowance (ECA) scheme allowing the occupant a reduction in their tax commitment.

URL:

See: ECA Enhanced Capital Allowance

(Ska '09 and GreenSpec '10)

EU See: **EUROPEAN UNION**

(UNEP See: Environment and Trade — A Handbook '05)

EU ECOLABEL

Information on the scheme can be found on the EUROPA portal site of the European Union.

UK Ecolable delivery team

T 01355 593930

E ecolabel@tuvnel.com

<http://ecolabel.defra.gov.uk> See: <http://ec.europa.eu/ecolabel>

See: GPP, EUGPP, Buy Sustainable, Quick Wins, Quick Wins Best Practice Voluntary Specifications

(GreenSpec BRM '10)

EU GPP

See: GPP, EUGPP, Buy Sustainable, Quick Wins, Quick Wins Best Practice Voluntary Specifications

(GreenSpec BRM '10)

EUTROPHICATION

The process by which a body of water accumulates high levels of macronutrients, particularly nitrates and phosphates.

(GreenSpec AEP '09)

EU PROCUREMENT RULES

See: GPP, OGC

(GreenSpec BRM '10)

EURISOL

Former name of the Mineral Insulation Manufacturers Association

See: MIMA

(GreenSpec BRM '10)

EUROPEAN ASSESSMENT DOCUMENT

A document adopted by the organisation of TABs for the purposes of issuing European Technical Assessments

(CE Marking for SMEs & CPR '11)

See: TAB, ETA, European Technical Assessment, Harmonised Technical Specification,

(GreenSpec BRM '11)

EUROPEAN CHEMICALS AGENCY (ECHA)

The Agency established for the purposes of managing and in some cases carrying out the technical, scientific and administrative aspects of the REACH Regulation and to ensure consistency at Community level in relation to these aspects.

The Agency is in Helsinki, Finland.

http://guidance.echa.europa.eu/substances_articles_en.htm

(HSE REACH '10)

EUROPEAN COMMITTEE FOR STANDARDISATION (CEN)

The EU European Union wide equivalent of BSI, responsible for the creation and maintenance of CEN standards: ENs and EuroCodes primarily.

(ASWS BRM '97 & GreenSpec BRM '10 – '11)

EUROPEAN CORPORATE GOVERNANCE INSTITUTE (ECGI)

Sets out the principles for corporate governance.

Considered by GreenSpec's GreenLight in assessing manufacturers.

See: PACI, WEF, UN Convention of Human Rights

(GreenSpec BRM '11)

EUROPEAN COUNCIL OF VINYL MANUFACTURERS (ECVM)

(ERFMI '08)

EUROPEAN DIRECTIVE

An instruction from the powers that be in the EU in Brussels, to the nation states, to implement Regulations or Acts of Parliament in their own countries, their highest priority is to ensure consistency of rules to allow free trade without artificial barriers between individual countries throughout the EU.

(ASWS BRM '97)

EUROPEAN ECO-LABEL

http://ec.europa.eu/environment/index_en.htm

EUROPEAN FREE TRADE ASSOCIATION (EFTA)

(ERFMI '08)

EUROPEAN INVENTORY OF EXISTING COMMERCIAL CHEMICAL SUBSTANCES (EINECS)

it is a list of all the so called "existing substances"

(HSE REACH '10)

EUROPEAN REFERENCE LIFE CYCLE DATA SYSTEM (ELDC)

(ERFMI '08)

EUROPEAN SOCIAL FUND (ESF)

Supports SusCon & BuildUP & TGR in providing cheap or free training for unemployed or under employed architects

(GreenSpec BRM '10)

EUROPEAN TECHNICAL APPROVALS (ETA)

One route to being described as a *Proper Material* under the *CPD & CPR*

(GreenSpec BRM '09)

EUROPEAN TECHNICAL ASSESSMENT (ETA)

The documented assessment of the performance of a construction product, in relation to its essential characteristics, in accordance with the respective European Assessment Document

(CE Marking for SMEs & CPR '11)

See: European Assessment Document

(GreenSpec BRM '11)

EUROPEAN UNION (EU)

See: EC and EEC

Formerly EEC & EC but with more member states

(ASWS BRM '97 & GreenSpec '09)

EUROPEAN WASTE CATALOGUE (EWC)

This relates to Hazardous waste and lists all the materials that have been classified as Hazardous from all 93ampshire93, industrial and construction activities.

250 materials in common use in construction are included, anything that is wet, gooey, sticky, or flows is included, e.g.

paints, sealants, adhesives, preservatives, solvents and lubricants;

also fine powders, fibres, particles and non-inert 93ampshire, e.g. fibrous insulation, asbestos;

chemically reactive materials

All materials listed must now be treated before landfilling, or must be sent to special landfill for hazardous waste.

Gypsum is classified as a stable non-reactive hazardous waste.

(GreenSpec BRM '09)

EU SUSTAINABLE DEVELOPMENT STRATEGY

http://ec.europa.eu/sustainable/welcome/index_en.htm

EUTROPHICATION POTENTIAL (EP)

(ERFMI '08)

EV See: **ELECTRIC VEHICLE**

EVA See: **ETHYLENE-VINYL ACETATE**

EVALUATION SYSTEMS

EVAPORATION

Water at elevated temperatures will change phase and change to a gas as steam, in doing so it will consume heat energy from the water.

Porous building materials in walls can absorb moisture during inclement weather and heating of the building will evaporate that absorbed moisture, in doing so a considerable amount of energy is consumed, with well insulated

buildings, the amount of energy used in drying the building will prevent achieving and maintaining zero carbon buildings.

(GreenSpec '09)

EVAPORATIVE COOLING

A

of temperature reduction which operates on the principle that water absorbs latent heat from the surrounding air when it evaporates.

(GreenSpec AEP '09)

EWC See: **EUROPEAN WASTE CATALOGUE**

(GreenSpec '09)

EWO See: **EDUCATION WELFARE OFFICER**

EWS See: **EDUCATION WELFARE SERVICE**

EXCEL

A Microsoft computer programme used to carry out lots of calculations at the same time *number crunching*, for invoicing, budgeting, for tables, forms, yes even graphics! Etc.

(ASWS BRM '97)

EXCHANGE

See: Material Exchange, Exchange websites, FreeCycle, Ebay,

(GreenSpec BRM '10 – '11)

EXFILTRATION

uncontrolled outward air leakage from inside a building to the outside; including leakage through cracks and 93ampshi materials interstices, around and through windows and doors and through any other exterior partition or penetration.

(Building Energy Glossary '06 & GreenSpec BRM '11)

See: Infiltration, Filtration, Air leakage, Airtightness,

(GreenSpec BRM '11)

EXISTING SUBSTANCES REGULATION (ESR)

This is one of the pieces of EU legislation replaced by REACH.

(HSE REACH '10)

EXISTING WILDLIFE HABITATS PROTECTED

See: Habitat Regulations, Bats,

(GreenSpec BRM '10)

EXPANDING FOAM ADHESIVE/FILLER/SEALANT

Seen as a magic solution to many difficult details, these 'foams from a can' solutions are often bad environmentally and for the health of the user, check the back of the can.

They use foaming agents that were or may still be bad for the ozone layer, may contain solvents, check the contents, health hazard label and the health and safety data sheet.

The problem with any materials used for airtightness is that they need to bond to the surfaces they touch, but since they are often used in inaccessible voids the surfaces are unlikely to be cleaned, dust free, dry or primed and so will be impossible to stick to.

Once the foam has passed the *airtightness test* they will shrink and pull away from surfaces and be airleaky again.

Will the windows fall out of the adhesive has shrunk away from the surfaces?

(GreenSpec BRM '09-'10)

EXPANDED PROPYLENE DIENE MONOMER (EPDM)

(ERFMI '08)

EXPANDED POLYSTYRENE

Polystyrene balls that are expanded in a confined mould that form a low density, low strength, board that is used for thermal insulation, gap filling, packaging, etc.

Higher density and higher loadbearing capacity versions are made to use under buildings.

Available with recycled content and with graphite in the mix.

Not Extruded Polystyrene

See: Extruded Polystyrene, XPS, EPS, ODP, ZODP

(GreenSpec BRM '11)

EXPANSION JOINT (EJ)

EXPERIENCES

See: Passipedia: [Experiences](#) or [Residents' experiences](#)

(GreenSpec BRM '11)

EXPERT SYSTEM

A *Guru* is not always going to be around, so you won't be able to go to them for advice on how to approach a particular problem, every time you need to.

An *expert system* is a computer program which tries to emulate a *Guru* by having the knowledge base and the deductive skills of the *Guru* in its memory.

They are written by working with the *guru* to determine the thought processes they go through and recreating them in the computer.

The user is asked simple questions with multiple choice answers, each answer selected will generate a series of other questions and so on until a diagnosis is arrived at and answers or suggested solutions are put forwards by the *expert system*.

This way you have your *Guru* for 24 Hours of the day 365 days of the week available on a network to all the staff to use.

Barbour Construction Expert is an *expert system* for selecting manufacturer's products to meet performance requirements or clients brief.

(ASWS BRM '97)

EXPOSED FLOOR

EXPOSURE CONDITIONS

The following definitions are intended to aid users of the Manual to determine whether any adjustment factors apply to the particular schemes with which they are concerned.

See: CLM, Adjustment Factors, Normal, Polluted/Industrial, Marine, High risk frost location,

(HAPM and BPG CLM '97)

EXPOSURE SCENARIO

The set of conditions, including operational conditions and risk management measures, that describe how a substance is manufactured or used during its life-cycle and how the manufacturer or importer controls, or recommends downstream users to control, exposures of humans and the environment.

These exposure scenarios may cover one specific process or use or several processes or uses as appropriate.

(HSE REACH '10)

EXTENSIVE ROOF

See: Living Roof

(GreenSpec '10)

EXTERIOR BUILDING ENVELOPE

See: building envelope

(GreenSpec BRM '11)

EXTERIOR ENVELOPE

See: building envelope

(GreenSpec BRM '11)

EXTERIOR LIGHTING POWER ALLOWANCE

calculated maximum lighting power allowance for an exterior area of a building or facility, in *watts*

(Building Energy Glossary '06)

EXTERNAL WALL

EXTERNAL WEATHER ENVELOPE

Consists of roof (pitched shallow or flat roofs) or roof terraces and recessed balconies, external walls and doors, windows and rooflights.

Occasionally there are also soffits to projecting or bridging rooms over drives and passageways or soffit of suspended ground floors.

(GreenSpec '09)

EXTRUDED CELLULAR FIRED CLAY BLOCK CONSTRUCTION

A method of construction originating from mainland Europe probably Germany.

In the UK we have a lot of coal fired power stations and a waste product is PFA (Pulverised Fuel Ash) which is used as a cement replacement and a primary aggregate substitute.

These have been used to make lower embodied energy ingredients for high embodied energy manufacturing steam autoclaved aerated concrete blocks in the UK.

In mainland Europe there is a predominance of nuclear and hydro-electric power stations so these types of concrete blocks are not a normal part of their industry.

These cellular clay blocks are extruded creating lots of air cells which trap air and create long path routes through the block for conducted heat, so offering a good U value; the blocks also have thermal mass and some moisture mass helping to moderate both temperatures and humidity of the spaces adjacent to the blocks.

After extrusion the blocks have their top and bottom faces ground down to achieve high levels of accuracy to permit the use of thin bed jointing where 2 mm. of mortar is squeezed to 1 mm, joints, purpends are not mortared but have a T&G interlocking profile, when laid onto an accurate base course, these allow the blocks to be laid rapidly by relatively unskilled labour that can commence after one days training.

Open purpends create a leaky construction which is solved by applying a parge coat of clay or lime (both moisture permeable), gypsum or cement (moisture impermeable); plaster inside or render outside.

See: Extrusion, Unfire clay,

(GreenSpec BRM '09 – '11)

EXTRUDED POLYSTYRENE THERMAL INSULATION

Polystyrene that is expanded and extruded at the same time to form rigid boards of low density and with some strength, used as insulation in *inverted roofs* where the insulation is above the waterproof membrane.

Not Expanded Polystyrene

See: Expanded Polystyrene, EPS, XPS, ODP, ZODP,

(GreenSpec BRM '10 – '11)

EXTRUSION

The creation of long lengths of material, usually metal, in particular aluminium, but also plastics, clay, etc. of the same section, from very simple to complex sections, by forcing, pushing, the material through a die of the negative shape of the extrusion.

The die and its support are expensive to make and require large quantities of extrusion to be made, to be cost effective.

'Tooling costs' are disproportionate in small runs, so bespoke sections are rare and standard sections become commonplace in a fabricators handbooks and manufacturer's literature.

Extrusions are used in making windows, window and door frames, solar shading, louvres, curtain walling, etc.

Extrusions are often distinguished by their crisp or even sharp corners, the dies need to be softened to prevent cuts.

Extrusions can be connected into compound sections using fasteners or held together and thermally insulated to reduce the thermal bridge effect of an extrusion that may otherwise take heat from inside directly to the outside via the metal profile.

See: Pultrusion, Extruded Cellular Fired Clay Block Construction

(GreenSpec BRM '11)

F

FABRIC ENERGY EFFICIENCY STANDARDS (FEES)

These are set by Building Regulations and are a yearly maximum space heat demand per m² floor area.

(Sofie Pelsmakers '11)

Building Regulations are committed to delivering Zero Carbon Homes by 2016 and the Government has announced that the fabric standards required to achieve this goal will be based on the revisions outlined in the Code for Sustainable Homes 2010 where the Zero Carbon Hub set benchmarks for fabric performance.

Their document defining a Fabric Energy Efficiency Standard (FEES) for Zero Carbon Homes, gives the maximum energy demand for space heating and cooling in two levels only, and gives indicative U-values for walls, floors and roofs to achieve the goal.

The defining of indicative U-values (along with air permeability and thermal bridging targets) for the first time, gives designers and builders a target to achieve Zero Carbon.

(manufacturer's literature 2011)

FACADE AREA, VERTICAL

area of the facade, including none horizontal roof area, overhangs, and cornices, measured in elevation in a vertical plane parallel to the plane of the face of the building

(Building Energy Glossary '06)

FACILITIES MANAGEMENT (FM)

See: also MOBS, Ska, PM

(Ska '09 and GreenSpec '10)

Management of services relating to the operation of a building.

Typically includes such activities as maintenance, security, catering, and external and internal cleaning.

See: PFI, PPP

(John Laing & GreenSpec BRM '10)

FACTORY PRODUCTION CONTROL

the documented, permanent and internal control of production in a factory, in accordance with the relevant harmonised technical specifications

(CE Marking for SMEs & CPR '11)

FAETP See: **FRESHWATER AQUATIC ECO-TOXICITY POTENTIAL**

FAILURE MODES

(HAPM and BPG CLM '97)

FAMINE

A severe shortage of food leading to malnutrition and starvation.

(Cherrington '95)

FAN PRESSURISATION TEST

A method of testing air leakage of a building.

It allows airflow and pressure difference across the envelope to be measured and an estimate of leakage to be obtained.

(SEDA Airtightness Guide & GreenSpec '08)

FAN SYSTEM ENERGY DEMAND (OR FAN SYSTEM POWER)

sum of the nominal power demand (nameplate horsepower) of motors of all fans that are required to operate at design conditions to supply air from the heating or cooling source to the conditioned space(s) and return it to the source or exhaust it to the outdoors

(Building Energy Glossary '06)

FASTRACK

they use to be in competition with *RIBACAD* but now seem to have merged or joined forces in providing a service to manufacturers to provide *AutoCAD* and *DXF* format drawings of products on floppy disk or *CD* available to Architects etc. to import into their own *AutoCAD* drawings.

(ASWS BRM '97)

FBB See: **FOLDING BOX BOARD**

Cartonboard manufactured entirely from bleached pulp, apart from the surface coating

(Envirowise Packaging & Waste)

FC See: **FINANCIAL CLOSE**

See: PFI, PPP

(John Laing & GreenSpec BRM '10)

FC See: **FORESTRY COMMISSION**

FCDL See: **FEDERATION FOR COMMUNITY DEVELOPMENT LEARNING**

FCHV See: **FUEL CELL HYBRID VEHICLE**

FDI See: **FOREIGN DIRECT INVESTMENT**

(UNEP See: Environment and Trade — A Handbook '05)

FE **FURTHER EDUCATION**

FEA See: **FINITE ELEMENT ANALYSIS**

(Envirowise Packaging & Waste)

FEEDBACK LOOPS

FEEDBACK MECHANISMS

(Renueables AN '09)

FEEDBACK ON USER COMFORT

See: POE Post Occupancy Evaluation
(GreenSpec '10)

FEEDER CONDUCTORS

wires that connect the service equipment to the branch circuit breaker panels
(Building Energy Glossary '06)

FEED IN TARIFFS (FIT)

Like Germany get paid for providing excess electricity to the grid

Unlike Germany we do not get 5 BRITISH STANDARD INSTITUTION (BSI) DOCUMENTS referred to in,
or relevant to, Preliminaries section A90 include:

1 paid:pay

Better to use it to power low voltage systems in building

Charge an electric car battery

Will provide your project with income if you are fitted up within 2010

See: also RHI Renewable Heat Incentive

(GreenSpec BRM '10)

FEES See: **FABRIC ENERGY EFFICIENCY STANDARDS**

FENESTRATION

Any light-transmitting section in a building wall, roof and even floor.

The fenestration includes glazing material (which may be glass or plastic), framing (mullions, muntins, transoms and dividers, sashes and casements), external shading devices, internal shading devices, and integral (between glasses) shading devices.

(GreenSpec BRM '10)

FENESTRATION AREA

total area of the fenestration measured using the rough opening and including the glazing, sash, and frame.

For doors where the glazed vision area is less than 50% of the door area, the fenestration area is the glazed vision area.

For all other doors, the fenestration area is the door area.

(Building Energy Glossary '06)

See: door area

FENESTRATION, VERTICAL

See: fenestration

FENESTRATION, HORIZONTAL

See: fenestration and skylight

FeRFA See:

(HAPM and BPG CLM '97)

FERROUS METALS

Metals containing iron.

They can be magnetically removed from the waste stream for recycling in resource recovery plants.

(Cherrington '95)

F-FACTOR

the perimeter heat loss factor for slab-on-grade floors, expressed in W/m·K

(Building Energy Glossary '06)

f-FACTOR

Indicates the risk of surface condensation, the lower the value, the greater the risk.

The risk depends mainly on the surface energy balance and on the moisture content of the ambient air.

Part C of the Building Regulations determines the minimum f-factor in a number of applications.

(GreenSpec AEP '09)

FF&E See: **FURNITURE FIXTURES & EQUIPMENT**

FIBRE REINFORCED POLYMER COMPOSITES (FRPC)

FIBRE REINFORCED PLASTIC (FRP)

FICHE

short hand for *microfiche*.

(ASWS BRM '97)

FIDOR See: **FIBRE BUILDING BOARD ORGANISATION**

(HAPM and BPG CLM '97)

FIDOR MANUAL

FIDOR technical manual and various data sheets. 1983 on.

(HAPM and BPG CLM '97)

FILE FORMAT

versions of information on computer files for different programs or types of computer. E.g. 'Text', 'ASCII', 'RTF', 'Word', 'Word for Windows', 'Word for Mac', 'DXF', 'AutoCAD', 'dBase', 'DOS', 'Windows', 'Mac'. Programs often generate files in their own *native format* and sometimes they can generate files in *industry standard formats* to allow exchange between similar applications.

(ASWS BRM '97-'09)

FILTER DRAIN

A filter drain is a device that has a volume of permeable material below ground to store surface water.

'Runoff' flows to this storage area via a permeable surface.

(GreenSpec AEP '09)

FILTRATION

The act of removing sediment or other particles from a fluid by passing it through a filter.

Water filtration can be achieved in several ways including using Carbon filters, Ultraviolet (UV) filters, distillation, sand filters and 'reverse osmosis'.

(GreenSpec AEP '09)

See: Infiltration, exfiltration (unrelated)

(GreenSpec BRM '11)

FINAL ITN (FITN)

See: PFI, PPP, ITN

(John Laing & GreenSpec BRM '10)

FINANCIAL CLOSE (FC)

The point at which all contracts are signed by all parties involved in a project.

See: PFI, PPP

(John Laing & GreenSpec BRM '10)

FINISH

One of a number of characteristics of the surface of a material or an applied or saturated finish.

Finish in a specification needs to describe the material, colour name and number, gloss level at the very least.

See: Chroma, Colour, Gloss level, Hue, Irrescence, Opacity, Reflectance, Refraction, Reflection, Saturation, Texture, Translucency, Transparency.

(GreenSpec BRM '10)

FIRA See: **FURNITURE INDUSTRY RESEARCH ASSOCIATION**

FIRAS

A scheme to accredit fire door installers, without which a competent fire door could be a waste of money if installed in such a way as to be incompetent and potentially fail.

See: BWF Certifier, TRADA

(GreenSpec BRM '10)

FIRE

FIRE DOOR

See: Door, Doorset, Hatch, Fire Resistant, Self Closing, Smoke Resistant, FIRAS, BWF Certifier,

(GreenSpec BRM '10)

FIRE PROTECTION

An approach to improving the fire resistance of a building's structure, which may include additional materials to protect the structure from fire.

A

of increasing the resistance of an element using additional materials.

Additional materials can include: intumescent coatings, protection boards, encasement, etc.

(GreenSpec BRM '11)

Combinations of plasterboards and particularly vermiculite or perlite gypsum plasters are used in fire protection construction.

Plaster finishes are non-combustible.

(GreenSpec AEP '10)

FIRE RATED

A non-technical term in common use, meaning 'Fire Resistant' if referring to Fire Doors.

(GreenSpec BRM '10)

FIRE RESISTANT

In the case of a fire door can refer to its resistance to fire, stated in terms of minutes or hours that a fire door will resist the passage of the fire from one side of the door to the other.

Its performance can be subdivided to address:

See: integrity: door and frame remain in place, no warping and fire or smoke does not pass

insulation: heat does not pass through and does not 98ampshi from the door surface potentially making it impossible to pass in a corridor

A fire door consists of many parts, the door leaf, the door frame, its hanging and latching ironmongery, any glazing and its beading and surface 98ampshire9898all.

See: Door, Doorset, Hatch, Fire Resistant, Self Closing, Smoke Resistant, FIRAS, BWF Certifier,

(GreenSpec BRM '10)

FIRST FIX

Items fitted before plastering, plasterboard drylining and joinery linings; including M&E pipes, conduits and cables for plumbing/electrical fittings installed in the second fix.

Notorious for being installed with little regard for vapour barriers, air tightness layers and airtight construction.

Specification is probably at fault for failing to address the issue of airtightness.

See: Second fix

(GreenSpec BRM '10)

FIT FEED IN TARIFFS

See: also RHI Renewable Heat Incentive

(GreenSpec '10)

FITN See: **FINAL ITN**

See: ITN, PPP, PFI

FIT OUT

Refitting of office and retail often occurs at short intervals (too short).

Material Exchange could help to reduce the waste burden of such approaches.

See: Ska Rating,

(GreenSpec BRM '10)

FIXTURE

component of a luminaire that houses the lamp or lamps, positions the lamp, shields it from view, and distributes the light

The fixture also provides for connection to the power supply, which may require the use of a ballast.

(Building Energy Glossary '06)

FLASH BOILER

A vessel in which the pressure is below the point at which boiling occurs for the liquid entering it.

This therefore vapourises the liquid upon entry (boils)

(Cherrington '95)

FLAT ARCH

An arch that is shallow or almost completely horizontal, it gets its strength and ability to carry loads from the tapered shape of its component parts.

See: Voussoir

(GreenSpec BRM '10)

FLAUNCHING

Cement mortar filler round the top of a chimney stack

(Builder Hampshire Directory '10)

FLOOD

FLOOD AVOIDANCE

FLOOD DEFENCE

See: Managed Retreat

(GreenSpec BRM '11)

FLOOD MITIGATION

See: Future Cities,

(GreenSpec BRM '11)

FLOOD PLAIN

FLOOD RISK ASSESSMENT (FRA)

FLOOD ROUTEING

Refers to designing to channel water over land in a controlled fashion in the event of flooding and when the capacity of a drainage system has been exceeded.

(GreenSpec AEP '09)

FLOOD TOLERANT

See: EA, Sacrificial materials, Flood resistant

(GreenSpec BRM '10)

FLOOR AREA, GROSS

sum of the floor areas of the spaces within the building including basements, mezzanine and intermediate-floored tiers, and penthouses with headroom height of 2.3 m or greater

It is measured from the exterior faces of exterior walls or from the 99ampshire99 of walls separating buildings, but excluding covered walkways, open roofed-over areas, porches and similar spaces, pipe trenches, exterior terraces or steps, chimneys, roof overhangs, and similar features.

(Building Energy Glossary '06)

FLOOR AREA, GROSS BUILDING ENVELOPE

gross floor area of the building envelope, but excluding slab-on-grade floors

(Building Energy Glossary '06)

FLOOR AREA, GROSS CONDITIONED

gross floor area of conditioned spaces

(Building Energy Glossary '06)

FLOOR AREA, GROSS LIGHTED

gross floor area of lighted spaces

(Building Energy Glossary '06)

FLOW CONTROL DEVICE

Is one which controls the rate at which water is discharged to a surface water drain or watercourse.

(GreenSpec BRM '11)

FLOW CHART/FLOW DIAGRAM

The aim of the LCA interview questionnaire is to determine the materials and energy used the manufacturing process(es) etc. to enable the creation of a flow diagram charting the same process, including inputs, processes and outputs and any intermediate stages and additional processes, inputs or outputs by suppliers or if there are more than one outputs, e.g. Bi-products or Co-products.

The Flow chart informs the LCA calculations.

See: LCA, Methodology, System Boundaries, Scope of Impact Analysis. Bi-products, Co-products

(GreenSpec BRM '10 – '11)

FLUE

Tube within a chimney, conveying products of compustion, smoke, heat or fumes from fireplaces or heating appliances to a height above the roof to discharge to air

(Builder Hampshire Directory '10 & GreenSpec '10)

FLUID

UK: a materials that readily switches between liquid and gas and visa versa

USA: a liquid

(GreenSpec BRM '10 – '11)

FLUORESCENT LAMP

low-pressure electric discharge lamp in which a phosphor coating transforms some of the ultraviolet energy generated by the discharge into light.

(Building Energy Glossary '06)

See: Lamp, Luminaire

(GreenSpec BRM '10)

FLUSH DOOR

Door with completely flat faces, may be hollow construction or solid core for fire or acoustic purposes, may have lippings which can be added before or after the face veneers which can be decorative on their own, and more complex using, marquetry.

(GreenSpec BRM '10)

FLY ASH

The product residue resulting from the cleaning gases from incineration process.

(Cherrington '95)

FLANKING

See: Thermal flanking, Thermal bypass

FLANKING ELEMENT

Any building element e.g. flanking wall, that contributes to the airborne sound or impact transmission between rooms in a building and which is not the direct separating element (i.e. not the separating wall or separating floor).

(CC Publication: Concrete and Sound insulation)

FLANKING STRIP OR EDGE STRIP

A resilient strip e.g. using foamed polyethylene, thicknessn 5 mm. minimum, & ZODP, which is located at the perimeter of a floor to isolate the floor boards from the walls and skirtings.

Extruded polystyrene, expanded polystyrene and mineral fibre layers should not be used for flanking strips.

(CC Publication: Concrete and Sound insulation)

FLANKING TRANSMISSION

Airborne sound or impact transmission between rooms which is transmitted via flanking elements and/or flanking elements in conjunction with the main separating elements.

(CC Publication: Concrete and Sound insulation)

FLASHING

Often malleable sheet metal, formed to the shape required for a close fit, used to redirect rainwater outward and above draining surfaces of building facades and roofs.

Found at perimeter abutments, junction between roof and wall, at changes of angle within roofs, e.g. valley gutters, mansard roofs. Etc.

Traditionally made of lead in the UK, zinc in France, copper, etc.

(GreenSpec BRM '10)

FLEGT See: FOREST LAW ENFORCEMENT GOVERNANCE AND TRADE

FLEXIBILITY OF DESIGN

FLEXIBILITY OF SPACE

FLEXIBLE BUILDING

a building that has been designed to allow easy rearrangement of its internal fit out and arrangement to suit the changing needs of occupants

(CIRIA RP656 Design for Deconstruction Bill Addis)

FLEXIBLE CLOSER

(CC Publication: Concrete and Sound insulation)

FLOATING FLOOR TREATMENT

A sand/cement or proprietary self levelling screed which is laid over a resilient layer, acoustic or thermal insulation added to isolate it from the concrete floor below, and either the layer is turned up at the edges or a compliant materials is added to separate it from the surrounding walls and skirting boards.

(CC Publication: Concrete and Sound insulation & GreenSpec BRM '10)

FLOATING FLOOR OR ROOF SLAB

Non-monolithic or floating slab and supporting construction.

Used for acoustic or thermal isolation.

Loadbearing thermal or acoustic insulating materials are placed on a foundation or roof slab below the floating slab and between slab edge and the surrounding walls or parapets leaving the slab acoustically or thermally isolated

(GreenSpec BRM '09 – '11)

FLOOD & WATER MANAGEMENT ACT 2010

Now EA have been give their teeth back after the recent inland river flooding incidents and the Pitt report, with the introduction of the Flood & Water Management Act 2010 at last sensible decision can be made and upheld.

FLOOD RESILIENCE (FR_e)

Flood resilient technology can be used to help reduce the damage caused by flooding.

Including air brick, door and window covers and fillers, WC non return valves, retractable water dams, floating water dams, removable

See: SMARTesST, Managed Retreat, Flood, EA, Sacrificial construction
(GreenSpec BRM '11)

FLOODPLAIN LAND USE OPTIMISING WORKABLE SUSTAINABILITY (FLOWS)

Camborne a newtown between Cambridge and Huntingdon off the A14 includes a demonstration of Sustainable Urban Drainage system consisting of Sedum roof to garden shed, permeable pavement to road and pavement, swales and balancing ponds, retention ponds and settlement ponds.

This installation is limited to one small estate of say 100 properties amongst 1000s in Camborne.

It has not been adopted by any of the other estates, built at the same time.

See: Permeable Pavement, Swale, Balancing Ponds, Retention Ponds, Settlement Ponds.
(GreenSpec BRM '09 – '11)

FLOORING BOARD

The boards which form the top surface of the floor.

Boards should be wood based panels width 600 mm. minimum.

(CC Publication: Concrete and Sound insulation)

FLOW REGULATOR

See: Isolation valve

(GreenSpec BRM '10)

FLOWS See: FLOODPLAIN LAND USE OPTIMISING WORKABLE SUSTAINABILITY

FLUE DAMPER

Device inside the flue outlet or in the inlet of or upstream of the draft control device of an individual, automatically operated, biomass or fossil fuel-fired appliance that is designed to automatically open the flue outlet during appliance operation and to automatically close the flue outlet when the appliance is in a standby condition.

(Building Energy Glossary '06 & GreenSpec BRM '10)

Flue dampers improve energy efficiency of the building when the appliance connected to the flue is in standby condition of off by reducing heat loss from stack effect natural ventilation from a building via the flue.

Secondary conditioning systems would be inefficient or ineffective if a flue damper were not fitted and in use.

(GreenSpec BRM '10)

FLY ASH

Not to be mixed up with Fuel Ash or Pulverised Fuel Ash

(GreenSpec '08)

FM See: FACILITIES MANAGEMENT

FMA See: FOUNDATION MODERN APPRENTICESHIP

FOOD CHAIN

A chain of organisms along which energy, in the form of food passes.

An organism feeds on the preceding link and is in turn prey for the succeeding link.

(Cherrington '95)

FOOTINGS

Victorian solution for today's foundations, starting below ground level surfaces and successive layers of projecting courses of brickwork at the wall base, wider than the wall to spread the load of the wall over a larger area of subsoil at the base.

Today BCOs rarely let you found a building as shallow as the 101ampshire101, in moisture 101ampshire101101 soils usually foundations start 1000 mm. below the finished site level, the level at which the soil is protected from frost and drying shrinkage, under normal UK conditions.

See: Frost heave, Corbelling, Plinth,

(GreenSpec BRM '10)

FOOTLIFTER

Wedge used to lift bottom edge of vertical plasterboards in place against framing leaving hands free for nailing or screwing to framing or battens.

The gap created at the bottom of the boars is the place where drylined walls are air leaky construction.

The gap is usually covered by the skirting but it remains air leaky and the route for leakiness to extend from the external wall along internal partitions to the core of the building.

(GreenSpec BRM '10)

FOREST LAW ENFORCEMENT GOVERNANCE AND TRADE (FLEGT)

See GPP and OGC

European union based organisation setting standards adopted by GPP and OGC.

(GreenSpec BRM '10 – '11)

FORESTRY COMMISSION (FC)

FOREST STEWARDSHIP COUNCIL (FSC)

Timber stewardship scheme, the one to specify, better than PEFC, despite CPET Government Policy statements.

(GreenSpec BRM '10)

FSC is an international, non-profit, non-governmental organisation founded in 1993 to promote good forest management worldwide.

Its membership comprises environmental groups, such as WWF and Greenpeace, indigenous peoples' organisations, community forestry groups, forestry professionals, timber traders, and retail companies.

This broad base of support helps to maintain FSC's pragmatism and credibility.

(FSC '08)

See: CPET, FLEGT, COC, Chain of Custody, FSC COC,

(GreenSpec BRM '11)

FOREST THINNINGS

Ideally this term should be PLANTATION THINNINGS to be accurate.

Tree plantations are created by close planting of saplings to encourage competitive growth.

As the trees grow they become too crowded so alternate rows of trees are removed; this can happen a few times over the lifecycle of the crop in the plantation.

As the process is repeated the removed trees are progressively bigger and can yield useful timber, but the sections may be small and restrict the timber applications, so materials and methods of construction have been invented to exploit these arisings and avoid them becoming waste or just biomass fuel.

See: Laminated Wood and CLP Cross Laminated Panels

(GreenSpec BRM '09)

FORMALDEHYDE

Common ingredient of paints: Preservative.

Irritates the eyes, nose and throat; allergic skin reactions; breathing difficulties; carcinogenic.

(GreenSpec '10)

In construction materials: medium density fibreboard (MDF), hardboard, oriented Strand Board (OSB), particleboard and chipboard are all processed woods which often contain formaldehyde based resins as a binder or adhesive.

Formaldehyde is considered a probable carcinogen even at low exposure levels.

Exterior grade particleboard is manufactured from phenol resin; interior grade particle board is manufactured using urea-formaldehyde which is 10 times more toxic than phenol resin.

However pure phenol formaldehyde is poisonous.

Formaldehyde free versions of all of these products are available and should be specified.

Relatively small doses of formaldehyde can lead to irritation of the eyes, a dry throat and sleeping problems.

They can also trigger allergies.

Board materials containing formaldehydes will offgas slowly over several years.

According to the WHO World Health Organisation, there is sufficient evidence in humans (and animals) for the carcinogenicity of formaldehyde <http://monographs.iarc.fr/ENG/Monographs/vol88/volume88.pdf>

Most countries have set recommended limits for formaldehyde in the indoor air.

Germany, Canada and the Netherlands set the level at 0.1ppm

Other countries vary from targets of 0.05 to 0.4ppm.

In the UK, the HSE seems to be mainly concerned with the effects of urea-formaldehyde in cavity walls.

We could find no evidence in the UK of statutory controls on formaldehyde emissions for the indoor climate

www.hse.gov.uk/lau/lacs/37-9.htm

FORMALDEHYDE EXCLUDED

FORMALDEHYDE REDUCED

See EUGPP

FORMAT

Layout of a page, if hard copy (paper) .

(ASWS BRM '97)

FORMATION LEVEL

The deep point in an excavation for a foundation, floor, basement, chamber, drive or path.

Depending upon the nature of the subsoil can be vulnerable to fluctuations in temperature and moisture content of the atmosphere, and should be protected with water resistant membranes until concrete or limecrete is poured, or the final layer of subsoil scraped away immediately before application of concrete or limecrete.

See: Foundation

(GreenSpec BRM '10)

FORUM FOR THE FUTURE

<http://www.forumforthefuture.org.uk/>

See: double ended funnel

(GreenSpec BRM '10)

FOSSIL FUEL

Naturally-occurring carbon or hydrocarbon based materials, formed by the decomposition of pre-historic organisms, with calorific values suitable for burning as solid, liquid or gaseous fuel, e.g. coal, oil and natural gas.

(Cherrington '95)

Coal, oil and gas.

(GreenSpec AEP '09)

FOSSIL FUEL DEPLETION

FOUNDATION

FOUNDATION MODERN APPRENTICESHIP (FMA)

(Participation Works Partnership)

FRA See: **FLOOD RISK ASSESSMENT**

Fre See: **FLOOD RESILIENCE**

FRESH AIR DESIGN MAXIMISED

FRESH WATER AQUATIC ECOTOXICITY

The impact of toxic substances emitted to freshwater aquatic ecosystems.

(GreenSpec AEP '09)

FRESHWATER AQUATIC ECO-TOXICITY POTENTIAL (FAETP)

FROG

Indent on top face of a brick, which forms a mechanical key when filled with mortar to complete the bed joint in brickwork. Sometimes the frog is set face down where it will accommodate more mortar, however the walls overall performance can be affected.

LBC Fourpres is a common brick made by four pressings the fourth forming the frog.

See: Boiled Frog Syndrome

(GreenSpec BRM '10 – '11)

FRP See: **FIBRE REINFORCED PLASTIC**

FRPC See: **FIBRE REINFORCED POLYMER COMPOSITES**

FSB See: **FEDERATION OF SMALL BUSINESSES**

FSC See: **FOREST STEWARDSHIP COUNCIL**

FSC COC See: **FOREST STEWARDSHIP COUNCIL CHAIN OF CUSTODY**

FSC LABEL

The Trademark of the FSC is a label on timber and wood products which indicates that the wood comes from a well-managed forest.

It guarantees that the forest of origin has been independently inspected and evaluated to comply with an internationally agreed set of strict environmental, social and economic standards.

The FSC Trademark enables companies to choose timber with the confidence that they are not contributing to the destruction of the world's forests.

By buying from certified sources they provide an incentive in the marketplace for good forestry practice.

(FSC '08)

FU See: **FUNCTIONAL UNIT**

FUEL ASH

See: PFA

(GreenSpec '10)

FUEL POVERTY

Fuel poverty usually relates to a household that needs to spend more than 10% of its income on fuel for cooking, hot water and heating.

(based on Hastoe HA www.GreenStreet.org and GreenSpec '09)

Government set out to eradicate Fuel Poverty but the numbers of households that fall into this category has risen each year since.

The term Fuel Poverty is often offensive to those that fall into this category.

See: WFA, Winter Fuel Allowance

(GreenSpec BRM '10)

FULLY ALIGNED

Condition where air barriers and thermal barrier (insulation) are contiguous (touching) and continuous across the entire building envelope.

(Energy Star '07)

FULLY SUPPORTED

When insulation is evenly and securely held in place so that it does not bow or hang loose.

Insulation that is not fully supported is more likely to be misaligned with the air barriers.

(Energy Star '07)

FUNCTIONAL UNIT (FU)

Functional Unit is normally a set size or area of an element that complies with current regulations that apply.

E.g. 1 m² of wall and that would include the bricks insulation blocks mortar and accessories.

See: Declared Unit, LCA,

(GreenSpec BRM '10)

FURNITURE FIXTURES & EQUIPMENT (FF&E)

(GreenSpec BRM '11)

FURNITURE INDUSTRY RESEARCH ASSOCIATION (FIRA)

Advise on all aspects of furniture design, performance requirements, testing, ergonomics (*HSE* requirements, *RSI* and posture problems in connection with the work place).

They have a specification for furniture.

(ASWS BRM '97)

FUTURE CITIES

(GreenSpec BRM '11)

G

GAAP See: **GENERALLY ACCEPTED ACCOUNTING PRINCIPLES**

GABLE

Triangular top of a wall at the end of a pitched roof, often at the end of a terrace or both ends of semi detached.

See: Verge and Barge board.

(GreenSpec '10)

GASIFICATION

Waste treatment process where waste is heated to produce a combustible gas that can be burned in excess air to generate heat.

(Cherrington '95)

GAS PROOF MEMBRANE (GPM)

Building constructed over stone and subsoil may be subject to radio activity from granite for example.

Buildings constructed over backfill or landfill may be 104ampshi to methane released from decaying 104ampshire104104al waste.

Gas proof membranes are used on sites subject to gasses.

Gas proof membranes, which also double up as damp proof membranes.

Gas proof courses, which also double up as damp proof courses.

To prevent build up of gasses the membrane is usually located over a ventilation board with a laberynth of air passages towards the perimeter of the building or towards catchment points and then ventilated by pipes to the roof and released.

(GreenSpec BRM '10)

GATS See: **GENERAL AGREEMENT ON TRADE IN SERVICES**

GATT See: **GENERAL AGREEMENT ON TARIFFS AND TRADE**

GAUGED BRICKWORK

Fine brickwork with very thin joints

(Builder Hampshire Directory '10)

GBP See: **GREEN BUILDING PRESS**

<http://www.newbuilder.co.uk/>

GD See: **GREEN DEAL**

GDP See: **GROSS DOMESTIC PRODUCT**

GENERAL LIGHTING

See: lighting, general

(GreenSpec BRM '10)

GENERAL LIGHTING SERVICES (GLS)

GENERAL SERVICE LAMP

Class of incandescent lamps that provide light in virtually all directions

Examples: General service lamps are typically characterized by bulb shape:

A standard

S straight side

F flame

G globe

PS pear straight.

(Building Energy Glossary '06)

See: Lamp, Luminaire

(GreenSpec BRM '10 -'11)

GENERALLY ACCEPTED ACCOUNTING PRINCIPLES (GAAP)

See: PFI, PPP, UKGAAP

(John Laing & GreenSpec BRM '10)

GENERIC MATERIAL

A raw material that has been mined, extracted or harvested and prepared for use in construction but is not sold with a propriety name or product reference, but more likely sold with an identifying grade and/or standard,

Examples:

Aggregates: for road sub bases: MOT Type 1,

Timber: FSC Chain of Custody, Temperate, softwood, European whitewood, C16, 12%+/-2% MC,

Mild steel, PFC channel, Hot dip Galvanized,

Subsoil, clean, inert, clay,

See: *Assembly, Building, Component, Element, Elemental Assembly, Material, Product, Resource.*

(GreenSpec BRM '11)

GENUS LOCI

See: Irrigation, Drought Tolerant Plants, Indigenous Species Plants

(GreenSpec BRM '11)

GEO GRIDS

GEOTEXTILE

Permeable fabrics which, when used in association with soil, have the ability to separate, filter, reinforce, protect, or drain.

(GreenSpec AEP '09)

Having a geotextile allows the materials that are laid in layers to be lifted in layers and enables reclaiming and avoiding pollution of the site.

(GreenSpec BRM '10)

GEOTHERMAL

Relating to the heat generated in the centre of the earth.

(Cherrington '95)

GEOTHERMAL ENERGY

Is heat derived from the earth.

See: also GSHP, Ground Source Heat Pumps

(GreenSpec AEP '09)

Can be confused with shallow paving solar thermal heat source

(GreenSpec BRM '11)

GESCS See: **GREEN ENERGY SUPPLY CERTIFICATION SCHEME**

GET INTO BED TOGETHER

a phrase that has very little to do with sleep or sex, its usually about companies getting together or joining forces, to bring benefits to each others products or services that are 'more than the sum of the parts' 'to the greater good of all', but somebody usually ends up getting 'shafted'.

(ASWS BRM '97)

GGBS See: **GROUND GRANULATED BLASTFURNACE SLAG**

GGF See: **GLASS AND GLAZING FEDERATION**

(HAPM and BPG CLM '97)

GGTS See: **GREEN GUIDE TO SPECIFICATION**

See BRE GGtS

(GreenSpec BRM '08)

GHA See: **GOOD HOMES ALLIANCE**

GHG See: **GREENHOUSE GAS**

GIGAWATT

1000 Million watts.

(Cherrington '95)

GO See: **GOVERNMENT OFFICE**

GO EAST See: **GOVERNMENT OFFICE FOR THE EAST OF ENGLAND**

GOOD HOMES ALLIANCE (GHA)

<http://www.goodhomes.org.uk/>

GOOD WOOD GUIDE

Friends of the Earth (FoE) published a guide to timber speices selection, it was one if not the first document addressing environmental issues to become fairly well known in the construction industry, 105ampshire105105 bad practices persisted.

(GreenSpec BRM '10 – '11)

GOOGLE

GOOGLE SKETCHUP

GOTHENBURG AGENDA FOR MORE SUSTAINABLE DEVELOPMENT

http://www.eukn.org/eukn/themes/Urban_Policy/Urban_environment/Environmental_sustainability/Gothenburg-Agenda_1044.html

GOVERNANCE

High-level, long-term strategic management of a service or organisation, often with legal responsibility

(Participation Works Partnership)

See: C2CN, Cradle to Cradle Network

(GreenSpec BRM '11)

GOVERNMENT OFFICE (GO)

Regional Offices of Government, allegedly active in making regional decisions for development control but when Local Authority Development Control is challenged by developer's legal teams GO instruct the LA DC to drop demands.

(GreenSpec BRM '11)

GLASS

Some cameras can see through glass but not all.

Glass is opaque to the majority of IR Thermography cameras found in circulation today, and will look dark in images

'Long wave' cameras detect in the 5 to 13 micrometer range, cannot see through glass

'Short wave' cameras detect in the 1 to 3 micrometers range, can see the element in a light bulb, for instance.

(based on Ired 2009)

A slow flowing liquid that is solid at normal temperatures, transparent, air and moisture tight, can be casehardened to make it stronger.

(GreenSpec BRM '11)

GLASS-REINFORCED GYPSUM (GRG)

Used in internal wall and ceiling linings, can be in the form of boards or cast as decorative mouldings for cornice, picture or plate display rails, etc.

See: Gypsum

(GreenSpec '09)

GLAZED WALL SYSTEM

category of site assembled fenestration products which includes, but is not limited to, curtain walls, structural glass

assemblies, shop fronts, windows in compound assemblies, weather porches, conservatories, sun spaces and solariums (Building Energy Glossary '06 & GreenSpec BRM '11)

GLAZING

See: Passipedia: [Glazing](#)
(GreenSpec BRM '11)

GLAZING BAR

Older windows are often subdivided into smaller panes of glass, modern window less so, possibly reflecting changes in glass manufacturing capability or architectural style.

The vertical mullions and the horizontal 106ampshir separate the glass panes, these are glazing bars and are profiled differently reflecting the architectural style of the time when they were made.

Thin glazing bars permit better views and light penetration, small glazing bars accommodated single glass, modern windows using double and triple glazed sealed units need deeper glazing bars, older windows with shallow narrow glazing bars cannot accommodate modern sealed units easily.

Special glasses are being developed to upgrade older windows without spoiling the glazing bar profiles

See: Fenestration

(GreenSpec BRM '10)

GLOBAL DIMMING

First noticed after the 9/11 USA twin tower destruction, domestic and international airlines were grounded for 3 days during which time the skies grew clearer as diluted jet trails 106ampshire106106 and the global temperatures rose by 1 degree.

Reinforced by the discovery of particulates from flue pollution, gas flaring and forest fires are acting as filters for solar radiation, the net effect is world pollution is protecting us from additional solar radiation and delaying temperatures rises.

(GreenSpec '09)

GLOBAL WARMING

Worldwide warming of the atmosphere due to increases in the amount of carbon dioxide, methane, nitrous oxide and other gases being released into the atmosphere by the burning of fossil fuels.

(Cherrington '95)

Climate change resulting from greenhouse gas emissions causing significant environmental effects, such as severe weather, flooding, droughts and ice cap melts.

(Hastoe HA GreenStreet.org)

The term originally used to describe changes resulting from greenhouse gas emissions causing significant environmental effects, such as severe weather, flooding, droughts and ice cap melts, etc. but also including colder winters, wetter summers.

Seen by some cooler climates as an advantage to have global warming and warmer weather the phrase was dropped and replaced by *Climate Change* which embraces the broader mix of changes that will and are 106ampshire.

(GreenSpec '09)

GLOBAL WARMING POTENTIAL (GWP)

An increase in the near surface temperature of the Earth.

Global warming has occurred in the distant past as the result of natural influences, but the term is today most often used to refer to the warming some scientists predict will occur as a result of increased anthropogenic emissions of greenhouse gases.

An index used to compare the relative radiative forcing of different gases without directly calculating the changes in atmospheric concentrations.

GWPs are calculated as the ratio of the radiative forcing that would result from the emission of one kilogram of a greenhouse gas to that from the emission of one kilogram of carbon dioxide over a fixed period of time, such as 100 years.

(EIA Glossary)

A measure of how much a given mass of greenhouse gas is estimated to contribute to global warming.

It is a relative scale which compares the gas in question to that of the same mass of carbon dioxide (whose GWP is by definition 1).

For example, methane, nitrous oxide and sulfur hexafluoride have GWPs many times that of CO₂, although CO₂ is being emitted into the atmosphere in much larger quantities.

(GreenSpec AEP '09)

The next issue to be addressed after ODP in thin insulation material's properties, is their global warming potential (GWP) this comes from the creation of materials from Fossil fuels and using high levels of energy to create petrochemical plastics and through the release of Carbon Dioxide.

(GreenSpec BRM '10)

Under BREEAM, EcoHomes, Code & Ska insulation and refrigerants are required to have a Global Warming Potential (GWP) of less than five. This is set high enough that many insulation types can continue to be used. Business as Usual.

(Ska '09 and GreenSpec '10 – '11)

GLOSS LEVEL

One of a number of characteristics of the surface of a material or an applied or saturated finish.

E.g. Matt (least reflective), Eggshell, Satin, Gloss (most reflective)

Can have an influence over the radiant heat emitted from a heat source and the heat absorbed by a heat collector.

Units: %

See:, Chroma, Colour, Finish, Hue, Irredescenece, Opacity, Reflectance, Refraction, Reflection, Saturation, Texture,

Tone, Translucency, Tranparency.

(GreenSpec BRM '10)

GLS See: **GENERAL LIGHTING SERVICES**

GM See: **GENETICALLY MODIFIED**

(UNEP See: Environment and Trade — A Handbook '05)

GMO See: **GENETICALLY MODIFIED ORGANISM**

(UNEP See: Environment and Trade — A Handbook '05)

See: GM, LMO,

GPA See: **AGREEMENT ON GOVERNMENT PROCUREMENT**

(UNEP See: Environment and Trade — A Handbook '05)

GPC See: **GAS PROOF COURSE**

GPM See: **GAS PROOF MEMBRANE**

GPP See: **GREATER PETERBOROUGH PARTNERSHIP**

GPP See: **GREEN PUBLIC PROCUREMENT**

GRADE

finished ground level adjoining a building at all exterior walls

(Building Energy Glossary '06)

GRAVITY FED SYSTEM

Domestic hot water piped system that distributes hot water from cylinders on upper floors to taps on upper and lower floors by gravity pressure alone.

Alternatives are pressurised or circulating pumped systems using electricity to push the water around.

Need to be well insulated pipes to deliver hot water without wasting lots of cold water first and then losing the heat from stationery water in pipes later.

Lagging pipes is labour intensive, and often not carried out, consider insulating the voids the pipes run in.

Notorious for being long lengths of unlagged pipes in inaccessible places, through buildings, squandering large amounts of heat, especially in well insulated buildings.

Passivhaus strives for well planned houses with bathroom over kitchen to reduce pipe runs.

(GreenSpec BRM '10)

GRC See: **GLASS-REINFORCED CEMENT**

(CIRIA RP656 Design for Deconstruction Bill Addis)

GREEN

See: also Violet

(GreenSpec BRM '99)

GREEN BOOK LIVE

See: BRE EP, Red Book Live

(GreenSpec BRM '10)

GREEN BUSINESS

Business and industries that utilize green technologies to make a difference in a competitive market place, including both new and old companies

(GreenSpec BRM '11)

GREEN CONSTRUCTION

<http://www.greenconstruction.co.uk/>

GREEN DEAL (GD)

UK government initiative to kick-start:

extreme energy efficiency refurbishment revolution

For homeowners and businesses

that can afford their energy bills

Upgrade with no up-front cost:

capital cost, interest charges and overheads

recouped over a period of time through the resulting savings on the buildings energy meter(s) bills.

The repayments and savings remain with the building not the occupier

See: ECO, FSA, OFT, RHI, FIT, UKAS, BSI PAS, PAS 2030, MCS, ECA, ETL, WTL.

(GreenSpec BRM '11)

GREEN DEAL ACCREDITED ADVISOR

assesses the property

recommends energy saving opportunities

from a list of GD Approved measures.

Might also make recommendations on energy-saving behaviour.

(GreenSpec BRM '11)

GREEN DEAL ACCREDITED INSTALLER

Specialist installing the measures

recommended by the GD Accredited Advisor

They could be:

employees of the GD Provider

or be an independent subcontractor.

(GreenSpec BRM '11)

GREEN DEAL APPROVED MEASURES

Must save energy or generate energy
Heat or Power
On approved lists
ECA Energy Products
MCS lists
Known life expectancy
Must have a payback within 20-25 year Golden rule
Emphasis on 'Fabric first'
insulation airtightness, thermal breaks
EcoBling later
(GreenSpec BRM '11)

GREEN DEAL GOLDEN RULE

The expected financial savings from the measures must be equal to or greater than costs attached to the energy bill including: measures, labour and financing costs
length of the payment period
should not exceed the expected lifetime of the measures.
Nominally 20-25 years
(GreenSpec BRM '11)

GREEN DEAL IMPROVER

Householder business or organisation whose property is being improved.
Chooses from recommended energy improvement opportunities
Has one contract with the GD Provider
(GreenSpec BRM '11)

GREEN DEAL PLAN

financial and contractual agreement between the GD Provider and Improver
Scope of work
recommended by GD Accredited Adviser
to be undertaken by GD Accredited Installer.
Specifies the total cost,
the charge to be attached to the energy meter
length of the repayment period
Complying with the Golden Rule
(GreenSpec BRM '11)

GREEN DEAL PROVIDER

Private firms or local government offering Package deal
E.g. B&Q, M&S, local authorities, energy company.
One point of contact
One contractual relationship
Arrange GD Accredited advisor
Arrange GD Accredited installer
(GreenSpec BRM '11)

GREEN DOT

GREEN DOT ACCREDITED

Recycled and recyclable wrapping and packaging. Take back for reuse schemes
(GreenSpec BRM '10)

GREEN DRAGON

Is a 5 staged process towards full ISO 14001 accreditation adopted in Wales.
(GreenSpec BRM '10)

GREEN ECONOMY

Normal market forces propelling green businesses to prosper and grow without long-term subsidies
(____)

See: Violet Economy
(GreenSpec BRM '11)

GREEN ELECTRICITY

See: Green Tariff, GESCS,
(GreenSpec BRM '11)

GREEN ELECTRICITY BY WIRE

GREEN ENERGY SUPPLY CERTIFICATION SCHEME (GESCS)

Independently certified electricity which meets Ofgem's Green Supply Guidelines
(GreenSpec BRM '11)

GREEN GUIDE

See: BRE, Green Guide to Specification
(GreenSpec '10)

GREEN GUIDE TO SPECIFICATION

The BRE's environmental impact of construction materials rating system.

Closely linked to EcoHomes, BREEAM, Code for Sustainable Homes, Envest2.

Controversy exists about the Guide's veracity.

(GreenSpec AEP '09 & BRM '10)

GREEN GRIDS

See: Blue Ribbons

See: Green Infrastructure

(GreenSpec BRM '10)

GREENHOUSE EFFECT

Phenomenon in which the atmosphere stops the heat radiated from the surface of the earth escaping, resulting in higher than normal temperatures.

The main cause of this is thought to be carbon dioxide

(Cherrington '95)

See: Passipedia: [Greenhouse effect](#)

(GreenSpec BRM '11)

GREENHOUSE GAS(ES) (GHG)

Those gases, such as water 109ampsh, carbon dioxide, nitrous oxide, methane, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride, that are transparent to solar (short-wave) radiation but opaque to long-wave (infrared) radiation, thus preventing long-wave radiant energy from leaving Earth's atmosphere.

The net effect is a trapping of absorbed radiation and a tendency to warm the planet's surface

(EIA Glossary)

Gases e.g. methane, carbon dioxide, CFC's emitted from a variety of sources and processes, said to contribute to global warming by trapping heat between the earth and the atmosphere.

Methane produced at landfill sites is a major contributor.

(Cherrington '95)

These are gases, such as carbon dioxide, which build up in the upper atmosphere and increase air temperature.

This is contributing to polar ice cap melt and rising sea levels.

(Hastoe HA GreenStreet.org)

Gases in the earth's atmosphere that absorb and emit radiation within the thermal infrared range.

This process is the fundamental cause of the greenhouse effect.

The main greenhouse gases in the atmosphere are water vapour, carbon dioxide, methane, nitrous oxide, and ozone.

(GreenSpec AEP '09)

LCA Units: kg CO₂ equivalent

(GreenSpec BRM '11)

GREEN INFRASTRUCTURE

See: Green Grids, Green and public open spaces, Blue Ribbons,

(GreenSpec BRM '10)

GREEN INVESTMENT BANK

An autonomous, well-funded Green Investment Bank is central to the 2011 coalition's climate policy and green growth agenda.

It may be called on to fund the Green Deal 'loans'.

(GreenSpec BRM '11)

GREEN LIVING WALLS See: **LIVING WALLS**

GREEN LIVING ROOFS See: **LIVING ROOFS**

GREEN MORTGAGES

GREEN PUBLIC PROCUREMENT (GPP)

EU Green Public Procurement rules to replace current UK system

UK interpretation: Central Government setting higher standards than GPP

OGC will adopt GPP for Local Government

(GreenSpec BRM '10)

GREEN REGISTER (TGR)

The Green Register (TGR) is a not-for-profit organisation set up in 2000 to promote sustainable building practices across all disciplines of the construction industry through unique training and events.

<http://www.greenregister.org.uk/>

(GreenSpec JB '10)

GREEN ROOF

A roof of a building that is partially or completely covered with vegetation and soil, or a growing medium, planted over a waterproofing membrane.

See: Living Roof

(GreenSpec AEP '09)

GREENSPEC

www.greenspec.co.uk

A directory of sustainable construction products in the UK.

<http://www.greenspec.co.uk/building-products/all-categories/>

For helpful advice, design guidance, products, materials, examples of environmental specification

(Ska '09 & GreenSpec BRM '10)

GreenSpec is the go-to website for information about accredited architectural components manufactured to sustainable

standards.

(JB Lighting Design '10)

GreenSpec website navigation is simplistic to the point of boredom (BRM. Just what's needed, praise indeed)

(Architects Journal)

See: GreenSpec Code, GreenSpec CPD, GreenSpec EPD, GreenSpec PASS, GreenSpec Light, GreenSpec Studio, (GreenSpec BRM '11)

GREENSPEC CODE

GreenSpec Live seminar series represent the beginning of a dialogue between the insurers, lawyers and the profession that looks at resolving potential conflict by creating tools and methodologies including guidelines from insurers expressly directed at practitioners of sustainable construction.

These guidelines are to be institutionalised into a code of practice for architects to follow e.g. The 'GreenSpec Code'

These will refer to the use of products approved and listed by GreenSpec and other credible bodies.

(GreenSpec ARB '11)

GREENSPEC CONSULT

Many projects carried out by GreenSpec Consult: SLAM for DefEst and WRAP, Demolition Module on Aggregain for WRAP and EnviroCentre/ICE, Book drafts/preview/draft proofreading, etc.

(GreenSpec BRM '11)

GREENSPEC CPD

In house CPD seminars provided by Brian Murphy of GreenSpec, select from over 800 readymade seminars focussed on many aspects of Sustainability & Specification but also addressing RIBA Part1, 2 topics & 3 Professional practice topics. You choose between lunchtime seminar, half or whole day workshops or seminar series.

<http://www.greenspec.co.uk/cpd.php>

GreenSpec has been an RIBA listed top 10 provider of CPD.

(GreenSpec BRM '11)

GREENSPEC EPD

LCA Life Cycle Assessment & accredited EPD Environmental Product Declaration service offered by GreenSpec in association with Dr Andrew Norton or Renuables, launched in April 2011.

<http://www.greenspec.co.uk/greenspec-epd.php>

(GreenSpec BRM '11)

GREENSPEC LIVE

GreenSpec recently ran a successful seminar in London looking at the Risks, Defects and Claims associated with Sustainable Building methods and materials and which featured in the Architect Journal Footprint Blog

<http://blog.emap.com/footprint/2010/12/02/greenspec-dwf-llp-liability-seminar/>

It is apparent that the insurance industry has become alarmed at the prospect of a growing number of defects propagated by architects who, for no compelling reason, are involving themselves in relatively untried and untested construction techniques and green materials.

Those same architects point to a list of evolving legislative drivers and claim that what they are doing is being undertaken as a matter of necessity – and if sound sustainable methods of construction are not arrived at very soon, the consequences to the industry will be calamitous in 5 years time when much greater proportions of that industry will be obliged to engage with new construction methods to meet with profoundly stringent demands from government – this surely equates to a much more significant risk environment.

GreenSpec Live seminar series represent the beginning of a dialogue between the insurers, lawyers and the profession that looks at resolving potential conflict by creating tools and methodologies including guidelines from insurers expressly directed at practitioners of sustainable construction.

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(GreenSpec ARB '11)

GREENSPEC PASS

Product Assessment Screening System, the system used by *GreenSpec* to assess products systems or services, its not EPD or LCA but includes them, it assesses the manufacturer and the products initially on credibility as a product to see that is fit for purpose before considering its environmental credentials.

This is in an attempt to overcome products or materials being chosen because they have an *EPD* or a *BRE GreenGuide* rating and low cost as the only criteria for choosing it, as happened with *D&B specification substitution*.

(GreenSpec BRM '11)

GREENSPEC STUDIO

An online design and specification tool, to create a virtual building (text not CAD) in a day and a specification falls out of the end of the process.

<http://www.greenspec.co.uk/greenspec/studio/>

We have ambitions to add EPD intelligence to it with TSB SME R&D funding.

(GreenSpec BRM '11)

GREENSTAR

Australian equivalent to BREEAM and LEED, it is significantly better than the other two because it engages with Business Issues which allows business to engage with it.

(Arup CJ '11)

GREEN TARRIF

GREEN TECHNOLOGY

Technology and products that reduce overall CO₂ emissions.

This includes the entire range from 111ampshire111 measures to energy technology that uses renewable energy.

(GreenSpec BRM '11)

GREEN TENDERING PROCESS

GREENWASH

A term used to describe the practice of companies disingenuously spinning their products and policies as environmentally friendly.

(GreenSpec AEP '09)

GREG See: **GUIDELINE RECOMMENDATION AND EVIDENCE GRADING**

GREYWATER

Wastewater generated by domestic processes such as washing and bathing.

(GreenSpec AEP '09)

household water used at the sink, shower, bath or dish washers, washing machine collected and re-used, usually for flushing the toilet.

(Hastoe HA GreenStreet.org)

Waste water collected from domestic activities such as baths, showers and laundry which is not contaminated with sewage.

Whilst often defined as waste water, the potential for re-use of greywater

that this terminology is not entirely suitable.

Consideration needs to be made as to the mode of re-use.

For instance water from laundry may have a high level of salt-based detergent which is not suitable for irrigating soil.

Even water re-used for toilet flushing may need some treatment.

(Building Magazine Steve Piltz, Turner & Townsend '08)

GREYWATER AND "BLACKWATER"

When I first heard the term greywater used for waste water (back in 1997) I naively assumed it to be a reference to the appearance of the water due to the effect of scum formation, and the colour wastewater becomes after it begins to biologically decompose.

But then I started to hear the term "blackwater" to describe water from toilets. "Blackwater" categorically does not describe the appearance of foul water either in the sewers or whilst undergoing treatment at a sewage treatment plant.

It is an example of using the term black to describe something that has negative connotations, rather than an actual description (such as blackboard).

We have a perfectly adequate term to describe water from toilets, which is foul water, and in the 21st Century our language should be smarter than this.

The term isn't even used correctly as "blackwater" treatment plants deal with both foul and waste water (i.e. "blackwater" and greywater).

(ECH2O & GreenSpec Water CH '11)

See: *Rainwater, Whitewater, Greywater, Blackwater, Waste water, Foul water, Surface water*

(GreenSpec BRM '11)

GRG See: **GLASS-REINFORCED GYPSUM**

GRID ELECTRICITY

(Renueables AN '09)

GROMMET

The name of a popular plastercine pet dog owned by Wallace, made famous by Nick Park the animator.

Grommets are also used in airtight construction associated with membranes.

These are square sheets of EPDM rubber with a central hole that stretches and fits tightly around a pipe or cable that passes through an airtightness membrane.

The Grommet will be taped or sealed to the surrounding membrane.

(GreenSpec '09)

GROSS EXTERIOR WALL AREA

gross area of exterior walls separating a conditioned space from the outdoors or from unconditioned spaces as measured on the exterior above grade

It consists of the opaque wall (excluding vents and grills) including between floor spandrels, peripheral edges of flooring, window areas including sash, and door areas.

(Building Energy Glossary '06)

GROSS FLOOR AREA

sum of the floor areas of the conditioned spaces within the building including basements, mezzanine and intermediate-floored tiers, and penthouses of headroom height 2.2 m or greater

It is measured from the exterior faces of exterior walls or from the 111ampshire111 of walls separating buildings (excluding covered walkways, open roofed-over areas, porches and similar spaces, pipe trenches, exterior terraces or steps, chimneys, roof overhangs, and similar features).

(Building Energy Glossary '06)

GROSS FLOOR AREA OVER OUTSIDE OR UNCONDITIONED SPACES

gross area of a floor assembly separating a conditioned space from the outdoors or from unconditioned spaces as measured from the exterior faces of exterior walls or from the center line of walls separating buildings

(Building Energy Glossary '06)

The floor assembly shall be considered to include all floor components through which heat may flow between indoor or

conditioned spaces and outdoor or unconditioned environments.

(GreenSpec BRM '10)

GROSS INTERNAL FLOOR AREA (GIFA)

GROSS LIGHTED AREA

sum of the total lighted areas of a building measured from the inside of the perimeter walls for each floor of the building
(Building Energy Glossary '06)

GROSS ROOF AREA

Gross area of a roof assembly separating a conditioned space from the outdoors or from unconditioned spaces, measured from the exterior faces of exterior walls or from the 112ampshire112 of walls separating buildings
The roof assembly shall be considered to include all roof or ceiling components through which heat may flow between indoor and outdoor environments including skylights but excluding service openings.

(Building Energy Glossary '06)

GROSS WALL AREA

See: wall area, gross

(Building Energy Glossary '06)

GRID CONNECTION

GROUND GRANULATED BLASTFURNACE SLAG (GGBS)

High temperatures are required to extract both OPC and GGBS from limestone or iron ore

OPC also generates additional CO₂ driven out of the Limestone

OPC is reported to be responsible for 8% of global CO₂ (but only 1.8% in the UK due to alternative fuel sources and efficiency)

It is generally accepted that OPC substitution is of real benefit in Climate Change/GWP

<http://www.greenspec.co.uk/html/materials/cementsub.html>

Is a waste product from steel making, it has cementitious properties and is a low-carbon alternative to OPC Ordinary Portland Cement.

The proportion of GGBS substituted in a concrete mix is restricted by Code of Practice.

It is a slower set than OPC but same ultimate strength, programmes may need to be modified to accommodate it. it results in a warm grey rather than cold grey coloured concrete.

GGBS cement is available from most concrete suppliers, it is used by ready mix concrete plants to reduce their cost, but if you specify it it might cost more!

The Quarry Products Association has more information on slag and it's uses.

www.qpa.org/prod_slag01.htm

See: OPC

(GreenSpec BRM '10)

GROUND SOURCE COOLING PUMPS (GSCP)

Similar to the fridge principle, the GSHP process can be reversed to provide cooling, the basic mechanics are similar.

(based on Building Magazine Steve Piltz, Turner & Townsend '08)

GROUND SOURCE HEATING PUMPS AND COOLING GSHP

At about 1.0m below the ground level the ambient temperature is stable at about **5 degrees C** and this can be harnessed using GSHP.

GSHP systems have four essential components:

A pump

A condenser

An evaporator, and condenser

Plastic pipes known as ground loops or 'slinkies' laid at a depth of 1.0m

Operating on the same principle as a fridge, ground loops or 'slinkies' contain a water based refrigerant or 'brine,' which absorbs the latent heat of the ground.

The refrigerant is then pumped through the evaporator and condenser under pressure to raise the temperature to approximately **50 degrees C** to heat water for distribution around a building, normally in an underfloor heating system.

Although providing sufficient hot water for heating an average 3 bedroom house, they would not be able to meet all the DHW needs of a domestic hot water cylinder, consequently most GSHP package today are sold with roof mounted solar thermal hot water heating systems

Powered by electricity (ideally green tariff or renewable supply) GSHP is not providing renewable energy, however due to their high 'coefficient of performance' ratios of power in to heat out they have low energy consumption and associated CO₂ emissions when compared with conventional gas fired domestic heating systems and can show savings in the order of 40%.

Larger commercial system using deep well bores harness the natural geo-thermal properties of ground water at approximately 100 m. deep, operating on the same principle as domestic scale GSHP, but on a larger scale.

(based on Building Magazine Steve Piltz, Turner & Townsend '08 corrected by GreenSpec '09)

GROUND SOURCE HEAT PUMP (GSHP)

A system that extracts heat from the ground, upgrades it to a higher temperature and releases it where required for space and water heating.

(GreenSpec AEP '09)

GROUNDWATER

Water that is naturally located beneath the ground surface. It supports ecosystems as well as providing a source of drinking water.

Under threat from water demand, pollution and climate change.

(GreenSpec AEP '09)

GRP See: **GLASS REINFORCED PLASTICGRP** See: **GLASS-REINFORCED PLASTIC OR POLYESTER**

GSHP See: **GROUND SOURCE HEATING PUMPS AND COOLING**

GSCP See: **GROUND SOURCE COOLING PUMPS**

GUARANTEED LIFE

Very often shorted than the predicted service life, ideally minimum 10 years but often less.

(GreenSpec BRM '10)

GUI See: **GRAPHIC USER INTERFACE (PRONOUNCED GOOEY)**

A user-friendly graphic front-end to help *WIMPs* use computers without having to remember lots of computer language or code. E.g. Apple *Mac's*, Microsoft *Windows* and *Windows '95*. Generally they use a *mouse* to control an on-screen *pointer*, a *desktop* covered by re-sizeable *windows* and *pull down menus*.

(ASWS BRM '97)

See: CAP'EM GUI

(GreenSpec BRM '11)

GUIDELINE RECOMMENDATION AND EVIDENCE GRADING (GREG)

(GreenSpec AEP '11)

GURU

Members of a practices staff identified as specialists in some field.

They might move about the office or between offices of a group, as *Roving Guru* or be based somewhere and their names will be added to lists of other *Guru* in their respective fields and the lists circulated to all members of staff and pinned up on notice boards.

As time goes on more specialists will be identified by Team leaders as they carry out research.

The *practice* might encourage *Guru* to present *know-how sessions* to convey their knowledge to large numbers of staff attending and even to prepare reports to become part of the *Practice Library*.

In the world of computers the *expert system* is the equivalent of the *Guru*.

(ASWS BRM '97)

GUTTER

(GreenSpec BRM '11)

GUTTER

space available for wiring inside panel boards and other electric panels

A separate wire way used to supplement wiring spaces in electric panels.

(Building Energy Glossary '06)

GVA See: **GROSS VALUE ADDED**

G-VALUE 'g-value'

Measures the degree to which glazing blocks heat from sunlight.

The g-value is the fraction of the heat from the sun that enters through a window.

g-value is expressed as a number between 0 and 1.

The lower a glazing's g-value, the less solar heat it transmits.

(GreenSpec AEP '09)

See: Passipedia: [g-value](#)

(GreenSpec BRM '11)

GWP See: **GLOBAL WARMING POTENTIAL**

GWP(100)

Global Warming Potential at 100 years

GYMNASTICS

in this context teaching software to do metaphorical somersaults, to achieve the end the user wants, not what the software has been told to do automatically.

(ASWS BRM '97)

H

H&S See: **HEALTH AND SAFETY**

HA See: **HIGHWAYS AUTHORITY** **HA** See: **HOUSING ASSOCIATION** **HABITABLE ROOM**

For the purposes of Part E Robust Details, habitable rooms are all rooms except the hall, staircase and landing.
(CC Publication: Concrete and Sound insulation)

HABITAT

Environment which can support and promote the existence of living organisms.
(Cherrington '95)

HABITAT ACTION PLANS (HAPs)

See: Biodiversity Action Plans, SAPs, and Species Action Plans.
(GreenSpec BRM '11)

HABITAT CREATION

Establishment of a new habitat, often required as compensation for development and loss of an ecosystem. Can include bat box installations and pond creations.
(BCT '09)

HABITAT REGULATIONS

The Conservation (Natural Habitat etc.) Regulations 1994 (as amended 2007 and 2009) derive from EU Directives usually referred to as the Habitats Regulations

This legislation affords protection to a range of species termed 'European Protected Species' (EPS).

EPS include all species of bats.

Under Regulation 39 bats and their roosts are protected.

The roosts are protected even when the bats are not present. The potential fine for each offence is £5,000 and, if more than one bat is involved, £5,000 per bat.

An offender can also be imprisoned for six months.

The forfeiture of any bat or other thing by the court is mandatory on conviction, and items used to commit the offence – vehicles, for example – may be forfeited.

(BCT '09)

Reinforces Wildlife & Countryside Act

See: Wildlife & Countryside Act

(GreenSpec BRM '09)

HALONS (HALOGENATED HYDROCARBON)

Fire fighting agent contain Bromine have a very high ODP, these needed to be phased out.

(GreenSpec BRM '10)

HALVING WASTE TO LANDFILL COMMITMENT (½W2L)

Government target to achieve a 50% reduction in construction, demolition and excavation waste to landfill by 2012, compared to 2008.

BRE and *WRAP* (Waste & Resources Action Programme) in partnership, are working on halving waste to landfill commitment.

Users with a *SMARTWaste* account will from August 2010 have a quick and easy transfer of waste data into the *WRAP* waste to landfill reporting portal if signed up to the *WRAP* commitment.

This has been introduced as many of the signatories on the ½W2L commitment are actively using *SMARTWaste* Plan.

HAPM See: **HOUSING ASSOCIATION PROPERTY MUTUAL LTD** **HARMONIC LOSSES**

wasting of electric energy (to heat) that occurs when harmonic currents are present in the power system

(Building Energy Glossary '06)

HARMONICS

voltages and currents at frequencies other than 50 Hz (or 60 Hz where applicable) that cause heating and other detrimental effects in the power system

(Building Energy Glossary '06)

HARMONISED EUROPEAN STANDARD (hEN)

http://www.bbacerts.co.uk/ce_marking/help_you_with_ce_marking/hens.aspx

HARMONISED STANDARD

A standard adopted by one of the European standardisation bodies listed in Annex I to Directive 98/34/EC, on the basis of a request issued by the Commission, in accordance with Article 6 of that Directive

(CE Marking for SMEs & CPR '11)

HARMONISED TECHNICAL SPECIFICATIONS

Harmonised standards and European Assessment Documents; EN L 88/10 Official Journal of the European Union

4.4.2011

(CE Marking for SMEs & CPR '11)

HATCH

See: Access Hatch, Door,

(GreenSpec BRM '10)

HAWT **HORIZONTAL AXIS WIND TURBINE**

See also: WT & VAWT

(GreenSpec '09)

HAZ See: **HEALTH ACTION ZONE**

HAZARDOUS WASTE

Waste that poses substantial or potential threats to public health or the environment.

For the purposes of disposal, the Environment Agency provides information that categorises types of hazardous waste. (GreenSpec AEP '09)

See: European Waste Catalogue

HAZRED See: **HAZARDOUS REDUCTION**

HBN – HEALTHY BUILDINGS NETWORK

www.healthybuilding.net/

(SEDA Chemical Reduction in Building '08)

HC See: **HOUSING CORPORATION**

HCA See: **HOMES & COMMUNITIES AGENCY**

HC See: **HYDROCARBONS**

HCF See: **HIGHEST COMMON FACTOR**

HCFC See: **HYDRO CHLORO FLUORO CARBON**

HCFC See: **HYDROCHLOROFLUOROCARBON**

HCFC-FREE

See: CFC-free, ZODP,

HD See: **HIGH DENSITY**

HDSD See: **ANNUAL HEATING DEGREE-DAYS**

HDPE See: **HIGH DENSITY POLYETHYLENE**

HE See: **HIGHER EDUCATION**

The end of a brick, (102 x 65 mm. in a UK brick) when arranged in a brick bond where the brick passes from one face of a 1B thick wall to the other showing the header in both wall faces.

See: Soldier, Stretcher

(GreenSpec BRM '10)

HEADER TANK

Small open cistern (tank), usually in the attic, that received mains pressure water, stores sufficient water to overcome normal disruptions to main supply, using gravity feeds water to hot water and central heating systems.

Has an over flow that ideally discharges over the building entrance so it is an inconvenience and the leak gets fixed.

(GreenSpec BRM '10)

HEALTH AND CLINICAL EVIDENCE (NICE)

(GreenSpec AEP '11)

HEALTH AND SAFETY EXECUTIVE (HSE)

are responsible for generating guides and Regulations implementing the *European Directives* on Health issues.

www.hse.gov.uk/

(ASWS BRM '97)

HEALTHY HOME & WORKPLACE

www.healthyhouse.com/

HEALTHY MATERIAL

Material/product with few or no unhealthy ingredients that can affect the users of buildings.

Examples:

Low allergy

Low VOC and many variations,

Low ozone depletion potential

Low off gassing

VOC Absorbent

Non-hazardous waste

Moisture Absorbent moisture mass (prevent mould)

Hygroscopic absorbs moisture until conditions prevail to release moisture

Moisture permeable permitting moisture through building fabric to avoid condensation

Avoiding preservatives in timber in landscape particularly with food growing

Material applications:

Surface finishes, paints, stains, plasters, carpets, flooring, wall papers, fabrics, etc.

Non-absorbent floor finishes (vomit (sick), urine ('pee'), excreta ('poo'), food, liquid)

Adhesives (between layers of an assembly), binders (in recipes)

Reservations:

Natural wool can have skin irritation with some people

Exceptions/Exclusions:

Avoiding preservatives in timber in landscape particularly with food growing

Advantages:

Low to no off-gassing,

Low to no VOC,

Non-hazardous

Potential Substitutes:

Avoiding PVC

Avoiding offgassing plastics

Avoiding synthetic offgassing adhesives or binders

Avoiding synthetic and natural solvent based coatings

See: Abundant Material, Agricultural Co-Product, By-Products Or Waste, Healthy Material, Renewable Materials, Rapidly Renewable Material, Non-renewable material, VOC,
(CAP'EM BRM '10 & GreenSpec BRM '10 – '11)

HEAT

form of energy that is transferred by virtue of a temperature difference or a change in state of a material

(Building Energy Glossary '06)

See: Fluid, Liquid, Gas, Solid

(GreenSpec BRM '11)

HEAT CAPACITY

More commonly known as 'thermal mass', it is the measure of how much heat a material can 'store'. Units: J/k.

(GreenSpec AEP '09)

HEATED SLAB-ON-GRADE FLOOR

slab-on-grade floor with a heating source either within or below it

(Building Energy Glossary '06)

HEATED SPACE

enclosed space within a building that is heated by a heating system.

(Building Energy Glossary '06)

See: Space, Cooled Space, Conditioned Space, Indirectly conditioned space, unconditioned space

(GreenSpec BRM '10)

HEAT EXCHANGER

a device used to transfer heat, often through coiled tubing, from one fluid to another.

(Hastoe HA GreenStreet.org)

HEATING DEGREE-DAY

See: degree day

(GreenSpec BRM '11)

HEATING DESIGN TEMPERATURE

outdoor dry-bulb temperature for sizing heating systems

(Building Energy Glossary '06)

HEATING SEASONAL PERFORMANCE FACTOR (HSPF)

total heating output of a heat pump during its normal annual usage period for heating, divided by the total electric energy input during the same period

(Building Energy Glossary '06)

HEATING SYSTEMS

In Infra red thermography surveys will show up as hot spots or hot runs both internally in services investigations and externally if radiators are located on external wall.

(GreenSpec '09)

HEATING, VENTILATING, AIR-CONDITIONING (HVAC) SYSTEM

equipment, distribution systems, and terminals that provide, either collectively or individually, the processes of heating, ventilating, or air conditioning to a building or portion of a building

(Building Energy Glossary '06)

HEAT ISLAND

An urban area which is significantly warmer than its surroundings.'

(GreenSpec AEP '09)

Birds, hang-glider and glider pilots understand these heat islands as they generate upcurrents of hotter air which can lift them to higher levels with little of no effort and no use of fuel.

See: Urban Heat Island Effect

(GreenSpec BRM '10)

HEAT LOAD

the total energy needed for space heating of a building.

(Hastoe HA GreenStreet.org)

HEAT LOSS

the amount of heat lost through the building envelope, by conduction, e.g. walls, roof, floors; around and through windows, doors, rooflights, by conduction and radiation

(Hastoe HA GreenStreet.org)

Heat loss through building fabric is only part of the story, heat loss is increased by thermal bridges through thermal insulation and also through gaps in construction through which air can escape carrying heat.

(GreenSpec '09)

HEAT LOSS PARAMETER (HLP)

The building's specific heat loss (in units of W/K) divided by the building's floor area (measured internally – i.e. within the thermal envelope).

Units: $W/K.m^2$

(GreenSpec AEP '09)

HEAT PUMP

A device that moves heat from a low temperature heat source to a higher temperature heat sink.

Examples include ground source heat pumps, air to air heat pumps, refrigerators and air conditioners.

(GreenSpec AEP '09)

A device to transfer heat from a heat source to a heat sink.

As the heat source cools it transfers heat to the sink which then warms up.

(Hastoe HA www.GreenStreet.org)

See: Passipedia: [Compact heat pump unit](#)

(GreenSpec BRM '11)

HEAT RECOVERY

Captures waste heat energy and reuses it by returning it to systems or processes.

This can include heating space and water.

(GreenSpec AEP '09)

See: MVHU, Mechanical Ventilation Heat recovery, SHRU, Shower Heat Recovery Unit, WHRU, Waste Heat Recovery Unit, CHP, Combined Heat and Power.

(GreenSpec BRM '11)

HEAT RECOVERY SYSTEM

See: Passipedia: [Heat recovery system](#)

HEAT TRANSFER

The transition of thermal energy from a hotter object to a cooler object.

(GreenSpec AEP '09)

HEAT TRANSFER COEFFICIENT

See: Passipedia: [U-value](#)

HEAVY RARE EARTH ELEMENT (HREE)

Europium, gadolinium, terbium, dysprosium, holmium, erbium, thulium, ytterbium, lutetium

HECA See: **HOUSING ENERGY CONSERVATION ACT**

HEFCE See: **HIGHER EDUCATION FUNDING COUNCIL FOR ENGLAND** **HELU** See: **HIGH EFFICIENCY**

LIGHTING UNITS

The Energy Technology List defines High Efficiency Lighting Units (HELUs) as a combination of lamps, luminaires and control gear that all meet specified efficiency criteria.

(Energy Technology List)

HELP

A program used within *Windows* and most *Windows* based programmes to help show you how, when you don't know what to do next. It is used as a substitute for reading the manual. It uses *Hypermedia*, *Hypertext keywords* and *buttons* to move round the subject instead of scrolling through pages and pages of text.

(ASWS BRM '97)

HEMP INSULATION

HEON See: **HOUSING ENERGY OFFICER NETWORK**

HER MAJESTY'S INSPECTORATE OF POLLUTION

The government agency responsible for regulating prescribed industrial processes, including waste combustion plants, to prevent pollution of land, water and air.

(Cherrington '95)

HERRINGBONE

Ornate zigzag pattern bond in brickwork paving and walls

(Builder Hampshire Directory '10 & GreenSpec BRM '10)

HESS

HESS is not applicable to the business sector.

(GreenSpec CH '11)

HEV See: **HYBRID ELECTRIC VEHICLE**

HFA See: **HYDRO FLUORO ALKANE**

HFC See: **HYDRO FLUORO CARBON**

HG See: **HOME GROWN**

HGT See: **HOME GROWN TIMBER**

HIA See: **HEALTH IMPACT ASSESSMENT** **HID** See: **HIGH-INTENSITY DISCHARGE LAMP**

HIGH DENSITY (HD)

(ERFMI '08)

HIGH EFFICIENCY LIGHTING UNITS (HELU)

The Energy Technology List defines High Efficiency Lighting Units (HELUs) as a combination of lamps, luminaires and control gear that all meet specified efficiency criteria.

(Ska Rating 2009)

HIGH-INTENSITY DISCHARGE (HID) LAMP

Class of electric discharge lamp in which light is produced when an electric arc is discharged through a vaporized metal, such as mercury or sodium

Some HID lamps may also have a phosphor coating which contributes to the light produced or enhances the light color.

(Building Energy Glossary '06)

See: Lamp

(GreenSpec BRM '10)

HIGH PERFORMANCE FACADES/WINDOWS

HIGH POWER FACTOR (HPF)

A bit of history: any lighting circuit that involves control gear has traditionally been offered in both a HPF (high power factor) and LPF (low power factor) version – this was particularly important in the bad old days of wire-wound control gear when the inductive effect of the ballast played havoc with the actual energy consumption of the installation – so if you fitted out an entire factory or office building with LPF fixtures, you'd wonder where all the extra electricity was being used. (GreenSpec JB '10)

HIGH RISK FROST LOCATIONS

A site is very liable to frost where the following factors all apply.
The average annual frost incidence is in excess of 60 days.
The average annual rainfall is in excess of 1000 mm.
The altitude of the site is in excess of 91 m above sea level.
(HAPM and BPG CLM '97)

HIP

Line joining planes of a pitched roof with hipped ends above an external angle between external walls, usually a right angle, with a 45 degree hip on plan.

See Valley, Ridge,
(Builder Hampshire Directory '10)

HIP See: **HOME INFORMATION PACK**

HIPPED ROOF

Pitched roof, the ends of which are also sloped, pyramidal but usually with a ridge between the tops of the hips.
(Builder Hampshire Directory '10 & GreenSpec BRM '10)

HIP TILE

Roof tile shaped to cover hip of roof, also used on ridges.
(Builder Hampshire Directory '10 & GreenSpec BRM '10)

HISTORIC BUILDING

building or space that has been specifically designated as historically significant by the adopting authority
(Building Energy Glossary '06)

HISTORIC FABRIC

HISTORIC TOWNS FORUM (HTF)

formerly the English Historic Towns Forum (EHTF)

<http://www.ehtf.org.uk/>

(GreenSpec BRM '09)

HIV See: **HUMAN IMMUNODEFICIENCY VIRUS**

HIV/AIDS See: **HUMAN IMMUNODEFICIENCY VIRUS/ACQUIRED IMMUNE DEFICIENCY SYNDROME**

HIVE

See: SMARTLife
(GreenSpec BRM '11)

HLP See: **HEAT LOSS PARAMETER (HLP)**

HOG See: **HOME OVER GARAGE**

HOLISTIC APPROACH

HOME DELIVERY

HOME INFORMATION PACK (HIP)

HOME OVER GARAGE (HOG)

HOME WORKING

See: Live-Work Unit
(GreenSpec BRM '11)

HMSO See: **HER MAJESTY'S STATIONERY OFFICE**

the publishing house and source of Government publications and legislation including the Building Regulations.
They often licence the content of their documents to information providers like *NBS Services* who then produce *CD's* like *BRAD*.

(ASWS BRM '97)

To be 'cool' was renamed Stationery Office

(GreenSpec '09)

HO See: **HOME OFFICE**

HO See: **HOME OFFICE (GOVERNMENT)**

HOME GROWN (HG)

As opposed to imported, any plant or tree based material or product

(GreenSpec BRM '11)

HOME GROWN TIMBER (HGT)

As opposed to imported timber

(GreenSpec BRM '11)

HOME OFFICE (HO)

HOME OFFICE (GOVERNMENT) (HO)

HOMEPAGE

On the *Internet*, the *World wide web* and in *Intranets*, there are *Homepages*, which are the first page of a *Website* or the whole *Website*.

(ASWS BRM '97)

HOMES & COMMUNITIES AGENCY (HCA)

Formerly HC Housing Corporation & EP English Partnerships

See: HC, EP

(GreenSpec BRM '11)

HOT FILL DOMESTIC WASHING MACHINES

2 pipe hot and cold fill appliances that are not reliant upon internal electric heating 119ampshir (high carbon load) to warm cold water adding considerably to wash cycle times.

(GreenSpec BRM '11)

HOT SPOTS

As opposed to an *anomaly* in *Infra-red thermography* surveys.

Hot surfaces that show up on surveys may be due to a number of reasons:

Where the sun has warmed the building and it has had insufficient time to cool after sunset.

They can also be due to differentials in heat input to the building and heat escaping through the fabric or gaps (i.e. a radiator hung on inside of an outside wall).

Leaking hot liquids saturating and heating the surfaces.

Often a hot spot on the outside surface will have a corresponding cold spot on the inside surface if there is a thermal bridge, but an air leakage path may be more complex, elongated and they may not be on opposite sides of the same piece of building envelope.

(GreenSpec BRM '08)

See: Wifi hot spots

(GreenSpec BRM '11)

HOUSEHOLD WASTE

Waste from domestic property, caravan, residential home, educational establishment or premises forming part of a hospital or nursing home.

(Cherrington '95)

HOUSEHOLD WASTE RECOVERY CENTRES (HWRC)

Whilst intended for the reception of only waste from householders, this includes construction waste from DIY.

Most will also receive illegal deposits of construction waste from small contractors and some may now operate permit schemes to permit use by small traders.

These are operated on behalf of Local Authorities (LA)

See: Household Waste Recovery Centres (HWRC), Materials Recycling Facilities (MRFs), Municipal waste processors.

(UCLan & GreenSpec BRM '11)

HOUSEHOLD WASTE RECYCLING CENTRE (HWRC)

A site provided in accordance with section 51 (i) (b) of the Environmental Protection Act to which the public may deliver household waste.

A range of materials are segregated for reuse or recycled at these sites. (e.g. metals, timber, paper, cardboard, glass, engine oil, WEEE, plastics, batteries)

(Cherrington '95)

HOUSING ASSOCIATION PROPERTY MUTUAL (HAPM)

A mutual insurance club for RSL's that provided structural and non-structural defect cover for 35 years, ceased writing new cover in 2002 but continues to support its members and pay claims.

(BLP '10)

In 1990, a number of housing associations decided to share these risks in order to gain collective strength at minimal cost.

They formed HAPM as a specialist defects insurance company solely for housing associations.

HAPM audits the designs, drawings and specifications of all property to be insured in order to identify departure from good practice.

Construction Audit Limited provided their technical audit service, which had been specifically designed for HAPM to reduce the incidence of defects occurring and to ensure that standards of professional good practice are applied at the design stage.

HAPM insured components in respect of premature failure and it was therefore necessary to have "insured lives" for those components with a life expectancy of less than the insurance period.

See: BLP, BPG, CAL, CLM, HAPM

(HAPM and BPG CLM '97 and GreenSpec BRM '10)

HOUSING CORPORATION (HC)

<http://www.housingcorp.gov.uk/>

Replaced by HCA, joined forces with EP English Partnerships

See: HCA, EP

(GreenSpec BRM '11)

HOUSING ENERGY OFFICER NETWORK (HEON)

HPA See: **HEALTH PROTECTION AGENCY**

www.hpa.org.uk/

HPF See: **HIGH POWER FACTOR**

HQAG See: **HOUSING QUALITY ACTION GROUPHQE**

HOUSING QUALITY _____

(E Colomba'10 & GreenSpec BRM '10)

HQE2r See: _____

The neighbourhoods version of HQE

(E Colomba'10 & GreenSpec BRM '10)

HQI See: **HOUSING QUALITY INDICATOR****HQP** See: **HOUSING QUALITY PANEL****HR** See: **HUMAN RESOURCES**

HREE See: **HEAVY RARE EARTH ELEMENT**

HSC See: **HEALTH & SAFETY COMMISSION**

HSC HSG 70

The control of legionellosis including legionnaires disease.

(HAPM and BPG CLM '97)

HSE See: **HEALTH AND SAFETY EXECUTIVE**

HSIP See: **HEALTH AND SOCIAL INCLUSION PANEL**

a panel of EERA

HTF See: **HISTORIC TOWNS FORUM**

HTML See: **HYPERTEXT MARK UP LANGUAGE**

HTP See: **HUMAN TOXICITY POTENTIAL**

HTS See: **HIGH TEMPERATURE SUPERCONDUCTING**

HUE

One of a number of characteristics of a colour, related to the colour of for example a rainbow or refracted light through a glass prism or when pigments are mixed.

See: Chroma, Colour, Finish, Gloss level, Hue, Irrescence, Opacity, Reflectance, Refraction, Reflection, Saturation, Texture, Tone, Translucency, Transparency.

(GreenSpec BRM '10 – '11)

HUMAN IMMUNODEFICIENCY VIRUS (HIV)

HUMAN IMMUNODEFICIENCY VIRUS/ACQUIRED IMMUNE DEFICIENCY SYNDROME (HIV/AIDS)

HUMAN RESOURCES (HR)

The part of an organisation that deals with staffing issues, e.g. recruitment, training

(Participation Works Partnership)

See: IIP, Investors in People,

(GreenSpec BRM '11)

HUMAN TOXICITY

The impact on human health of toxic substances emitted to the environment.

(GreenSpec AEP '09)

HUMAN TOXICITY POTENTIAL (HTP)

Emissions of materials toxic to human health

Units: kg DCB equivalent

See: Impact categories, LCA, EPD, DCB, DCB Equivalent,

(GreenSpec BRM '11)

HUMIDISTAT

automatic control device used to maintain humidity at a fixed or adjustable set point

(Building Energy Glossary '06)

HUMIDITY

The amount of water vapour in the air.

Relative humidity is defined as the ratio of the partial pressure of water vapour in a parcel of air to the saturated vapour pressure of water vapour at a prescribed temperature.

(GreenSpec AEP '09)

When liquids evaporate they turn to a gas, or steam in the case of water, if ventilation does not remove the steam from the air the steam will saturate the air and the conditions experienced by humans in these conditions are described as humid.

Humidity is measurable and quoted as Relative Humidity and stated as a percentage. E.g. 75% RH

It is relative humidity due to the difference that air pressure can make to the level of moisture that can be carried by the air.

(GreenSpec BRM '09)

HUMIDITY VARIABLE

Intelligent system membranes are ones that are *diffusion open* but the level of openness varies according to the *humidity* level.

(GreenSpec BRM '09)

HV See: **HEATING VENTILATION**

HVAC See: **HEATING VENTILATION & AIR CONDITIONING****HVAC SYSTEM**

See: Passipedia: [Compact HVAC system](#)

(GreenSpec BRM '11)

HVAC SYSTEM EFFICIENCY See: efficiency, HVAC system

(GreenSpec BRM '11)

HVCA See: **HEATING AND VENTILATING CONTRACTORS' ASSOCIATION****HVCA SPECIFICATION**

HVCA standard maintenance specification for mechanical services in buildings

(HAPM and BPG CLM '97)

HVCA GUIDANCE

HVCA standard maintenance specification for mechanical services in buildings. Volume 1 – heating and pipework systems

(HAPM and BPG CLM '97)

HYBRID ELECTRIC VEHICLE (HEV)

a vehicle employing a combination of electrical and combustion technologies

See PHEV

HYDROCARBONS (HC)

Hydrocarbons are the simplest organic compounds that contain only carbon and hydrogen.

Examples include benzene and methane.

(GreenSpec AEP '09)

HYDROCHLOROFLUOROCARBON (HCFC)

Man-made compound containing hydrogen, chlorine, fluorine and carbon.

HCFCs have become popular following the phasing-out of the use of CFCs, which were used in the construction industry as blowing-agents in the production of thermal insulation.

Although HCFCs pose a much smaller risk to the ozone layer, they are also potent greenhouse gases.

(GreenSpec AEP '09)

AKA Hydrogenated CFC

Have a lower ODP (Ozone Depletion Potential), so are being dealt with less urgently, but as less CFCs are around then the % of HCFCs increase and their effect over a long period is increased.

(GreenSpec BRM '10)

HYDROFLUOROCARBON (HFC)

Man-made compound containing hydrogen, fluorine and carbon.

HFCs have become popular following the phasing-out of the use of CFCs, which were used in the construction industry as blowing-agents in the production of insulation.

Although HFCs pose no risk to the ozone layer, they are potent greenhouse gases.

(GreenSpec AEP '09)

HYDRO FLUORO ALKANE (HFA)

Should also be avoided since they are a wider group containing HFCs and HCFCs

See CFC, HCFC, HFC, PFC, ODP, ZODP

(GreenSpec BRM '10)

HYDROGEN ECONOMY

See: Carbon Economy, Oil Economy

(GreenSpec '10)

HYDROGEN FUEL CELLS

No longer in the realm of pure fantasy, FCs use a gas to create electricity in combination with water by creating a charge from positive and negative electrodes.

North America, Germany and Japan are very much in the forefront of both micro FC and major power installation plants, there are micro plants operating successfully in the USA but few operate on a sound commercial basis.

In the UK the main driving force in FC technology is Rolls Royce who are developing 20MW power plants for providing community based energy solutions.

The Mayor of London invested considerable funds in a Daimler Chrysler designed FC powered bendy bus which was on test in London from 2005 until January 2007.

(Building Magazine Steve Piltz, Turner & Townsend '08)

HYDROPHOBIC MATERIAL

One which rejects moisture from the atmosphere.

Hydrophobic materials are often used in cavity masonry construction because they are damp conditions due to wind driven rain, porous materials, porous joints or open purpends, etc.

Their thermal performance is reduced by moisture uptake, because the moisture is absorbed into the airspace which normally does the insulating.

Should not be used in Breathing Construction (Vapour open construction) because it will not absorb moisture away from the surrounding timber framing.

See: Closed cell insulation

(GreenSpec BRM '10)

Rockwool with its rock fibres and resin binder is hydrophobic (excludes moisture from its fibres and its resins) but it permits water and moisture vapour to pass through its interstices.

(GreenSpec BRM '11)

Foamglas with its hydrophobic glass cell walls and closed cell structure and paper and bitumen facings and flood coat of bitumen for laying is water resistant and vapour resistant (and less vulnerable to frost action).

(GreenSpec BRM '11)

HYDROPHILIC MATERIAL

(GreenSpec BRM '11)

HYGROSCOPIC MATERIAL

One which attracts moisture from the atmosphere.

Hygroscopic materials are key to the concept of 'moisture buffering' and 'breathing walls'.

(GreenSpec AEP '09)

Their thermal performance is not diminished by moisture uptake, because the moisture is absorbed into the fibre itself

leaving the trapped airspaces to insulate.

Are used in Breathing Construction (Vapour open construction)

(GreenSpec BRM '09)

HYGROSCOPICITY

Other properties that play a part in thermal insulation's performance is related to moisture content of the insulation.

If insulation absorbs water it becomes moist or if it suffers from condensation of humid air in the material this can significantly reduce the insulation's performance.

The moisture contained in the material occupies the space of the trapped air, preventing the air from doing the job of insulating.

In the case of hygroscopic natural fibres the moisture can be absorbed into the fibres themselves leaving the air space moisture-free allowing the air to continue to do the job of insulating.

There are very few Hygroscopic materials suitable for use in damp masonry cavity wall construction.

(GreenSpec BRM '10)

Materials characterised by the expression 'Hygroscopic' are those that absorb moisture, into the material itself store it, and at a later time, release it.

(GreenSpec AEP '10)

HYGROSCOPICITY AND MOISTURE MASS

Moisture mass can absorb moisture into the material and its air spaces and is focused on surface absorption from condensation on walls and humid atmosphere in room and deals with mould risk

Hygroscopicity is important in the construction, about lightweight insulating materials absorbs, what would otherwise become interstitial condensation, the moisture from its airspaces into the fiber to maintain its k-value.

(GreenSpec BRM '11)

HYPERMEDIA

a device used in *Help* and other programmes to jump from a *keyword* or subject in a sentence or list, to the subject matter elsewhere in the file or programme.

(ASWS BRM '97)

HYPERMEDIA BUTTON

a *button* within a page of notes or contents lists, sometimes like a *bullet point* at the beginning of the line(s), sometimes with an *Icon*.

(ASWS BRM '97)

HYPERSENSITIVITY

A condition in which the body has an exaggerated response to a substance (e.g. food or drug).

Also known as allergy.

(SEDA Chemical Reduction in Building '08)

HYPERTEXT

within the *Help* files individual *keywords* or references are highlighted in green and are underlined, the area the *hypertext* occupy is like a *button* and when *double clicked* the *help* application will jump to another page or view with information on the subject of the highlighted *keyword*.

(ASWS BRM '97)

HYPERTEXT MARK UP LANGUAGE (HTML)

The programming language used to create *Hypermedia* filled files to be used in Computers, *Networks*, *Intranets* and on the *Internet*. It does not need special software to create it since it can be created in the simplest text editor like MS *Windows Notepad*, but it needs a programme which can read *HTML* to become active. MS Word for Windows 6 with *Internet Assistant* integrated is a simple way to achieve *HTML* capability. MS *Office '97* gives all applications *HTML* capability.

(ASWS BRM '97)

HYPER-LEAP-LINK

is *hypertext* and *hypermedia buttons* used in the *NBS Building Guidance* notes application, to jump between subjects within the *work section* or to other *work sections*. In this case the *buttons* with *CIS* on the face indicates a *button* which links to the *CIS CD-ROM* information service in the *Library*, clicking on these *hypertext* references to publications will allow the *NBS Building Guidance* programme to call to the *CIS* programme and search the index and ask for the *CD-ROM* disk containing the reference document which can then be brought up on computer screen to study in detail.

(ASWS BRM '97)

I

IAG See: **INFORMATION ADVICE AND GUIDANCE**

IAQ See: **INDOOR AIR QUALITY**

IAS See: **INTERNATIONAL ACCOUNTING STANDARDS**

IBB See: **INSTITUTE OF BUILDING BIOLOGY**

IBEMS See: **INTEGRATED BUILDING ENERGY MANAGEMENT SYSTEM**

IBM See: **INTERNATIONAL BUSINESS MACHINES**

IBM PC See: was invented and launched by IBM in 1981 this allowed individuals to have their own autonomous computer which has its own *memory*, *storage* and *processors*, without having to link to a Mainframe using a terminal, nor relying on the processing power and speed of the Mainframe. It indirectly radically changed the face of computing in the following decade(s).

(ASWS BRM '97)

IC See: **INSULATION CONTACT**

ICE See: **INSTITUTE OF CIVIL ENGINEERS**

ICE See: **INTERNAL COMBUSTION ENGINE**

ICE CAP

Permanent covering of ice over a large area, often associated with the polar regions of the Arctic and Antarctica.

(Cherrington '95)

At the northern Arctic and southern Antarctic polar regions of the earth, larger areas usually covered by 123ampshire of compacted snow and ice, miles thick.

Now shrinking fast due to climate change, moving over land faster, disintegration, melting, melt water lubrication below Land based or Ocean based, Ocean based acted as a cork to the land based, once removed the landbased are free to slide to the oceans.

Melting landbased ice caps will add to sea volumes, raising sea levels and flooding coastal regions.

(GreenSpec '08-'09)

ICF See: **INSULATING CONCRETE FORMWORK**

See: Insulating Concrete Formwork

(GreenSpec '09)

ICLEI See: **LOCAL GOVERNMENTS FOR SUSTAINABILITY**

ICON

a miniature image, in the *Windows* computer screen, about 1 centimetre square (half an inch), representing a programme on the computer used in *GUI* based Computer systems like *Windows* or *Mac*. Often a *Icon* will occur on an active area of the computer screen like a *button* or *hypertext* and by placing the *mouse's pointer* and *clicking* or *double clicking* with a *mouse button* the programme represented by the *icon* will be started or reactivated.

(ASWS BRM '97)

ICONISED

when a computer programme is temporarily set aside whilst the user carries out some other task on the computer, the programme can be minimised on the computer screen down to the size of an *icon* leaving room to see the other programme.

(ASWS BRM '97)

IcoP See: **INTERIM CODE OF PRACTICE**

ICT See: **INFORMATION & COMMUNICATION TECHNOLOGY**

ICT COOLING

Where high heat gains from ICT equipment are unavoidable, heat-pumps can be used transfer heat from the heat generatin ICT directly or from its accommodation, into other areas which have higher heating demands, e.g. with high levels of glazing that could benefit from 'free' heating below the glazed areas.

Phase change materials (PCM) are often promoted as heat sinks for ICT but they only offer one cycle of heat removal unless the ICT is turned off and cools down allowing the PCM to cool down and then reabsorb heat in a second cycle.

(GreenSpec BRM '10)

ID

Interior Designer or the Interiors department in a *Practice's* office.

shorthand for Identifier (usually the persons *initials*) part of the access code used with a secret password to give access for some individuals and to prevent access for others, to some files, programmes, computers or *networks*.

(ASWS BRM '97-'09)

IDeA See: **IMPROVEMENT AND DEVELOPMENT AGENCYIDEA** See: **INSTITUTE OF DOMESTIC ENERGY ASSESSORS**

<http://www.whatstheidea.net/>

IEE See: **INSTITUTE OF ELECTRICAL ENGINEERS**

IEE REGULATIONS

IEE Regulations For Electrical Installations 16th Edition

(HAPM and BPG CLM '97)

IES See: **INTEGRATED ENVIRONMENTAL SOFTWARE**

IFD See: **INDUSTRIEEL FLEXIBEL EN DEMONTABEL BOUWEN**

IFRS See: **INTERNATIONAL FINANCE REPORTING STANDARDS**

IHBC See: **INSTITUTE OF HISTORIC BUILDING CONSERVATION**

See: SPAB

IiC See: **INVESTING IN COMMUNITIES** See: **INVESTORS IN PEOPLE**

ILO See: **INTERNATIONAL LABOUR ORGANIZATION**

IMC See: **INNOVATIVE METHODS OF CONSTRUCTION**

IMPACT CATEGORIES

The issues that have an impact on the environment and life, that are considered in an LCA and EPD. E.g. global warming, acidification, ecotoxicity, etc.

See: embodied energy, 124ampshi depletion, global warming, greenhouse gas, climate change, ozone depletion, acidification, fresh water aquatic toxicity, marine aquatic ecotoxicity, 124ampshire124124 ecotoxicity, eutrophication, human toxicity, petrochemical ozone, AP, LCA, EPD, PCR, etc.

(GreenSpec BRM '11)

IMPACT SOUND

Sound resulting from direct impact e.g. footsteps, thrown or dropped items, on a building element.

(CC Publication: Concrete and Sound insulation)

IMPERMEABLE SURFACE

A non-porous surface that generates a surface water runoff after rainfall.

(GreenSpec AEP '09)

IMPORT

The physical introduction into the customs territory.

(HSE REACH '10)

IMPORTER

Any natural or legal person established within the Community who is responsible for import.

(HSE REACH '10)

Any natural or legal person established within the Union (EU), who places a construction product from a third country on the Union market

(CE Marking for SMEs & CPR '11)

See: Economic Operator

(GreenSpec BRM '11)

IMPROVEMENT AND DEVELOPMENT AGENCY (IDEA)

(sometimes called I&DeA).

An agency that finds out about and shares good practice in councils across Britain

(Participation Works Partnership)

IMPURITIES/RESIDUES

An impurity/residue is any undesired constituent which remains in the product but which serves no purpose as regards function.

(Natureplus 2002)

INCANDESCENT LAMP

Class of lamp in which light is produced by a filament heated to incandescence by an electric current

(Building Energy Glossary '06)

See: Lamp

(GreenSpec BRM '10)

INCLUSION

The state of being included.

In this context it

ensuring that all children and children and young people's views are represented

(Participation Works Partnership)

INCROPS

Based at the University of East Anglia Norwich

Assisting BRE to Green up the Green Guide to Specification by advising on plant based materials in construction.

See, NNFC, UEA, BRE GGtS, RB, Renewable Building

www.incropsprojects.co.uk

(GreenSpec BRM '11)

INDEPENDENT 3RD PARTY ASSURANCE/ACCREDITATION

A product with a certificate indicating that ongoing testing and assessment of the product's suitability and/or adherence to claimed standards has been carried out by an independent 3rd party such as the BBA, TRADA, etc.

Company certification to ISO 9000 does not match this definition.

BSI Kitemark does entail such independent ongoing testing.

(HAPM and BPG CLM '97 & GreenSpec '11)

INDIGENOUS SPECIES PLANTS,

See: Irrigation, Drought Tolerant Plants, Genus Loci

(GreenSpec BRM '11)

INDIRECTLY CONDITIONED SPACE

enclosed space within the building that is not a heated or cooled space, whose area-weighted heat transfer coefficient to heated or cooled spaces exceeds that to the outdoors or to unconditioned spaces; or through which air from heated or cooled spaces is transferred at a rate exceeding three air changes per hour.

(Building Energy Glossary '06)

See: also heated space, cooled space, and unconditioned space

(GreenSpec BRM '10)

INDIRECTLY CONDITIONED SPACE

enclosed space within a building that is not a heated space or a cooled space which is heated or cooled indirectly by being connected to adjacent space(s) provided: (a) the product of the U-factor(s) and surface area(s) of the space adjacent to connected space(s) exceeds the combined sum of the product of the U-factor(s) and surface areas(s) of the space adjoining the outdoors, unconditioned spaces, and to or from semi heated spaces (e.g., corridors), or (b) that air from heated or cooled spaces is intentionally transferred (naturally or mechanically) into the space at a rate exceeding 3 air changes per hour (ACH)

(Building Energy Glossary '06)

See: *Cooled Space, Heated Space, Conditioned space, unconditioned space*

(GreenSpec BRM '10)

INDIRECT RE-USE (TREATED SEWAGE WATER)

water that is taken from a river, lake or aquifer that has received sewage or sewage effluent.

Much of the water we use in our buildings in the UK could be classified as indirect re-use, i.e. effluent from one town's sewage treatment plant is discharged into a river, taken out from the same river further downstream, to be cleaned and supplied to the next town.

Hence the saying that every glass of water we drink has passed through seven other people's kidneys first.

With planned indirect water re-use the sewage effluent is discharged immediately upstream of the water treatment plant or used to recharge aquifers.

Indirect re-use of sewage effluent is beginning to be used far more around the world as water demand increases and the water suppliers need a guaranteed supply.

(ECH2O & GreenSpec Water CH '11)

See: *Rainwater, Whitewater, Greywater, Blackwater, Waste water, Foul water, Surface water, Direct Re-use,, Sewage treatment,*

(GreenSpec BRM '11)

INDOOR AIR QUALITY (IAQ)

BRE Green Guide to Specification expressly ignores IAQ in its environmental assessment of materials

(GreenSpec BRM '09)

The air quality within a building as it relates to the health and comfort of the occupants.

IAQ can be affected by contaminants or gases and humidity.

Choosing materials, products, finishes, fixings and furniture using natural materials with little or no synthetics content, with low VOC that would otherwise off gas into the indoor air should be the primary solution to improving indoor air quality, followed by adequate ventilation.

Ventilation is normally the primary method of improving IAQ, by replacing stale carbon dioxide rich air (from breathing) with oxygen rich air, by removing high humidity air (from boiling food or cloths, steamy baths and showers, sweating from heat and energetic activity and breathing out moist air; trapped inside by vapour barriers) and replacing it with lower humidity fresh air.

Whilst ventilation is the normal method of improving IAQ, it should only be seen as part of the solution.

Breathing wall or roof construction only address moisture management by allowing the moisture to pass through the external wall/roof unhindered by vapour barriers.

Airtightness layers stop air escaping along with heat but permit moisture to pass through.

So cannot be part of an air cleaning method.

'Breathing wall' can ensure that humidity levels do not build up because they use moisture permeable airtight membranes not vapour barriers.

(GreenSpec AEP '09 & BRM '10)

(Ska '09 and GreenSpec '10)

See: Passipedia: [Indoor air quality \(IAQ\)](#)

(GreenSpec BRM '11)

INDOOR ENVIRONMENT QUALITY

www.BuildingGreen.com

www.buildinggreen.com/menus/subtopics.cfm?TopicID=5

INDUCTION PROCESS

Any *Practice* will have particular ways of doing things, this applies to for example the naming of computer files, where they file in the *network*, the use of *templates* in *Word*, the naming of Projects in *NBS Building* etc. Recruitment of new staff is going on all the time they need to learn all of these things to get into the way the practice do things quickly, ideally this is done comprehensively and at the beginning of their time with any *Practice*.

Gurus will be involved in the process giving *know-how sessions*, seminars and training's.

(ASWS BRM '97)

INDUSTRIAL WASTE

Waste from any factory or premise used for the provision of public transport, public utility or postal services.

(Cherrington '95)

INDUSTRIEEL FLEXIBEL EN DEMONTABEL BOUWEN (IFD)

Industrial, flexible and demountable building, Netherlands organisation

(CIRIA RP656 Design for Deconstruction Bill Addis)

INDUSTRY STANDARD

the term used to describe a *specification* of a product, which has been developed and brought to the market place, which

then sets the standard for all similar products of the same kind, it applied to the *IBM PC*, all the *clones* had to match and be compatible with that standard, but to avoid *copyright* must improve on the original *specification*. *Industry Standards* remain until overtaken by subsequent and better *specifications* are established. *Industry Standards* exist in Intel processors, Winchester drives, Epsom Dot-matrix printers, Hewlett Packard Laser jet printers, Canon Bubble jet printers, Hayes Modems, Phillips CD drives, Soundblaster sound cards, etc. *MS-DOS* and *Windows* together set an *Industry Standard* not so much for *cloning*, but as a framework for other software authors to work within, when developing their *Windows* based programmes.

(ASWS BRM '97)

INERT

See: Waste, SWMP

(GreenSpec BRM '11)

INFILTRATION

uncontrolled inward air leakage through cracks and crevices in any building element and around windows and doors of a building caused by pressure differences across these elements due to factors such as wind, inside and outside temperature differences (stack effect), and imbalance between supply and exhaust air systems

(Building Energy Glossary '06)

The uncontrolled movement of outdoor air into the interior of a building through cracks and gaps.

The gaps are usually found around walls, joints, windows, doors, roofs, etc.

(Hastoe HA GreenStreet.org)

INFILTRATION RATE

The rate at which outside air infiltrates a building or a room under natural meteorological conditions

(normally expressed in air changes per hour or litres per second)

(based on SEDA Airtightness Guide definition)

INFORMATION ADVICE AND GUIDANCE (IAG)

(Participation Works Partnership)

INFORMATION PAPER (IP or BRE IP)

INFORMATION TECHNOLOGY (IT)

The use of modern technology to handle information it using a computer to do stuff.

(Cherrington '95)

Computers and other 126ampshire126 and electronic equipment that uses computer processing chips and 126ampshire126 power and signals to create software that can create, manipulate, save, store, make available information.

Term generally replaced by ICT.

See: ICT, Information and Communication Technology, IBMPC, PC, Apple, MAC

(GreenSpec BRM '10)

INFORMATION & COMMUNICATION TECHNOLOGY (ICT)

Computers and other 126ampshire126 and electronic equipment that uses computer processing chips and 126ampshire126 power and signals to create software that can create, manipulate, save, store, make available, transmit and communicate information in many formats and using many media.

(John Laing)

See: WWW, Internet, Comms, PFI, PPP, IT, ICT Cooling,

(GreenSpec BRM '10 – '11)

INFRARED IMAGING

Heat sensing camera which helps reveal thermal bypass conditions by exposing hot and cold surface temperatures revealing unintended thermal flow, air flow, and moisture flow.

Darker colors indicate cool temperatures, while lighter colors indicate warmer temperatures.

(Energy Star '07)

INFRA-RED CAMERA

A camera sensitive to the infra-red part of the light spectrum, which can be used to 'see' local cold spots or areas on the internal surfaces of walls, ceilings and floors of heated spaces at the external envelop of a building or 'see' local hot spots or areas on the external surfaces of heated spaces at the envelope of a building.

(based on SEDA Scottish Environmental Design Association Airtightness Guide definition).

Some IR cameras can see through glass but not all.

Glass is opaque to the majority of IR Thermography cameras found in circulation today, and will look dark in images 'Long wave' cameras detect in the 5 to 13 micrometer range, cannot see through glass.

'Short wave' cameras detect in the 1 to 3 micrometers range, can see the element in a light bulb, for instance.

Short wave cameras are essential to detect the differences in performance of various glazing solutions.

(based on Ired definition).

INFRASTRUCTURE

See: Sustainable Infrastructure, Integrates sustainable transport,

(GreenSpec BRM '10 –'11)

INFRASTRUCTURE WORKING GROUP (IWG)

MBE KTN Infrastructure Working Group (IWG)

IWG is an open group on _connect to promote and disseminate activities of, MBE KTN Infrastructure Programme aims to identify innovation needs within civil infrastructure sector,

facilitate formation of new consortia through identification of current and future funding opportunities, showcase current and completed infrastructure-related Knowledge Transfer Partnerships. Infrastructure UK, a division of HM Treasury, published findings of an investigation into high costs of delivering (construction) & maintaining (management) infrastructure 20 12 2010. MBE KTN Infrastructure Working Group (IWG)

https://ktn.innovateuk.org/web/infrastructure-working/articles/-/blogs/government-publish-report-examining-perceived-high-cost-of-infrastructure-construction-and-management?ns_33_redirect=%2Fweb%2Finfrastructure-working%2Farticles

MBE KTN Infrastructure Programme

See: MBE, MTN

(GreenSpec BRM '11)

INITIALS

the short-hand version of an individuals name e.g. *BRM* or company name e.g. GMW, AAA. Some times used as the *identifier* in accessing computers, software or *networks*.

(ASWS BRM '97)

See: Abbreviations, Acronyms, TLA, Three Letter Abbreviations,

(GreenSpec BRM '10)

INNOVATIVE METHODS OF CONSTRUCTION (IMC)

Whilst MMC is normally associated with prefabricated panels and factory production and site assembly, IMC has a broader definition and includes site construction using innovative and sometimes modern interpretation of traditional methods.

See: MMC, Mtech, Modern Methods of Construction

(GreenSpec BRM '11)

INPUT MATERIALS

Input materials are all *raw materials*, *secondary raw materials*, and *prefabricated materials* used by the product manufacturer for the specific purpose of obtaining the desired product characteristics and remaining as part of the product.

(Natureplus 2002)

INSERT

used in *NBS Building*, have brackets that don't print and occupy no space, a line between that does print, the line will disappear if anything is added inside the *insert*, an empty *insert* tells you that the *specification* is incomplete and warns you of its presence, if you want to print it. This is all achieved by *embedded code*.

(ASWS BRM '97 & '11)

INSOLATION

rate of solar energy incident on a unit area with a given orientation

(Building Energy Glossary '06)

INSTALLED INTERIOR LIGHTING POWER

power in *watts* of all permanently-installed general, task, and furniture lighting systems and luminaries as indicated on plans and specifications

(Building Energy Glossary '06)

INSTITUTE OF CIVIL ENGINEERS (ICE)

were not representative members of *CCP* and so *CAWS* does not address *Civil Engineering*.

Uniclass tables H Elements for Civil Engineering K work sections for Civil Engineering address this shortfall.

(ASWS BRM '97 & GreenSpec BRM '11)

See: ICE Demolition Protocol,

(GreenSpec BRM '11)

INSTITUTE OF STRATEGIC STUDIES (ISS)

Sustainable Energy Security: Strategic Risks and Opportunities for Business

Claims that the price of crude oil could more than double by 2013, and that 'peak oil' is upon us.

(ISS '10)

INSTITUTE OF STRUCTURAL ENGINEERS (IstructE)

were not representative members of *CCPI*.

(ASWS BRM '97)

INSULATED CONCRETE FORM SYSTEM (ICFS)

Factory-built wall system blocks that are made from extruded polystyrene insulation.

Steel reinforcing rods are added and concrete is poured into the voids, creating a very air-tight, well-insulated and sturdy wall as the insulation is inherently aligned with the exterior and interior air barriers.

(Energy Star '07)

INSULATED STRUCTURAL PANEL SYSTEM (ISPS)

A panelised *MMC Modern Method of Construction* developed in the UK and championed as part of a system promoted for its *EVT Enhanced Vapour Transfer* otherwise known as *Breathing Wall Construction*, Excel Industries as *TRADIS* a whole building system of ISPS.

They use wet or dry sprayed or blown-in cellulose fibre thermal insulation as a part of the thermal insulation performance.

Using a medium performance thermal insulating material

the panel is relatively thick.

On-site cutting and modifying should be avoided by design and accurate setting out and construction.

The panel and its framing is the structural component and the insulation is not a structural one.

See: also *SIPS*

(GreenSpec '09 – '11)

INSULATING CONCRETE FORMWORK (ICF)

Hollow lightweight block components that lock together without intermediate bedding materials, such as mortar, to provide a formwork system into which concrete is poured.

(GreenSpec AEP '09)

A small scale modular formwork system which uses thermal insulation in place of plywood, and also has a system to hold the two forms together and apart at the required distance, using a variety of different methods as diverse as reinforcement cages or plastic ties; the space in between is filled with reinforcing rods and insitu concrete to make insulated structural loadbearing walls.

Some systems are restricted to straight walls and right angles others have curves but solutions for junctions must be available if considering this method of construction.

This method of wall construction is often adopted by self-builders because it is, lightweight, easy to handle, simple and fast.

There are risks associated with this method of construction including: hydraulic pressure of concrete in tall forms can explode the formwork; concrete pours and lifts must therefore be restricted.

This method of construction uses foamed plastics a high embodied carbon non-renewable fossil fuel derivative for the forms and uses high embodied energy and carbon cement to make concrete; natural aggregates are a major constituent which usually have a bad environmental impact due to degradation of landscape and biodiversity.

Whilst the resulting construction can have a good U value and can have high thermal mass, it is buried inside thermal insulation so it cannot be exploited in the building's thermal dynamics.

(GreenSpec '09)

INSULATION CONTACT (IC)

Rating for recessed lights allowing insulation to be placed directly over the top of the fixture.

(Energy Star '07)

INSULATION CONTACT, AIR-TIGHT (ICAT) LIGHTING FIXTURE

Rating for recessed lights that can have direct contact with insulation and constructed with air-tight assemblies to reduce thermal losses.

(Energy Star '07)

INSURED LIFE

(GreenSpec '10)

INT See: **INTERNAL**

INTEGRATED BUILDING ENERGY MANAGEMENT SYSTEM (IBEMS)

INTEGRATED ENVIRONMENTAL SOFTWARE (IES)

Building Performance Analysis Tool!

Virtual Environment building performance analysis suite

<http://www.iesve.com/UK-RQI>

World leading building simulation technology.

World uses for an accurate comprehensive and cost effective solution to sustainable design.

New capabilities in version 6.1, which improve technical functionality and user experience.

Updates in the latest version include:

plug-in enhancements to facilitate better model transfer,

a new Bio-Climatic feature within VE-Gaia,

advanced thermal, HVAC and bulk airflow features within VE-Pro.

Invented in Glasgow University by Dr Don McLean

VE Virtual Environment

Undergoing development with TSB Design & Decision tools funding in 2010-12

(GreenSpec '10)

INTEGRATED PART-LOAD VALUE (IPLV)

single-number figure of merit based on part-load EER and COP expressing part-load efficiency for air-conditioning and heat pump equipment on the basis of weighted operation at various load capacities for the equipment

(Building Energy Glossary '06)

INTEGRATED PUBLIC DECISION-MAKING

which ensures that national economic, trade and environmental policies are consistent, and promotes a stronger business voice in how faster progress can be made towards a greener economy.

(RICS '11)

See: Joined up Government, Joined up thinking.

(GreenSpec BRM '11)

INTEGRATED SUSTAINABLE TRANSPORT

INTEGRATED WASTE MANAGEMENT

A strategy for the management of waste utilising a range of environmentally sound systems and processes.

Typically it would include the promotion of waste minimisation material recycling, resource recovery and landfill.

(Cherrington '95)

INTERIM CODE OF PRACTICE (IcoP)

See: AcoP, Approved Code of Practice, CoP,

(GreenSpec BRM '11)

INTERNAL (INT)

See: Exposure Conditions
(HAPM and BPG CLM '97)

Plywood manufacturers should describe their product using one of the three bond classes, but there is still common usage of the withdrawn term INT which in performance terms should be equivalent to EN 314 Class 1.

EN 314 Class 1 for Dry Interior uses

(GreenSpec BRM '11)

INTERNAL HEAT CAPACITY:

See: Passipedia: [Internal heat capacity](#)

(GreenSpec BRM '11)

INTERNAL INSULATION,

See: Contact, Air Space, Capillary Action/Attraction, Moisture Transport,
(GreenSpec BRM '11)

INTERNATIONAL BUSINESS MACHINES (IBM)

Used to be the world leader in big Mainframe computer manufacturing, but since they invented the *PC* and the *IBM PC* was established as the *Industry Standard*, they have lost a large chunk of their market share to the manufacturer's of *Clones*.

(ASWS BRM '97)

INTERNATIONAL PASSIVE HOUSE ASSOCIATION (IPHA)

See: Passipedia: [International Passive House Association \(iPHA\)](#)

(GreenSpec BRM '11)

INTELLIGENT BUILDING

The concept of a building that locally or remotely monitors and controls its own services systems including lighting, heating, ITC and security.

(GreenSpec AEP '09)

The building itself is not 129ampshire129129 but its computerised monitoring, smart metering and controls, begin to make it appear so.

By monitoring seasonal, daily and hourly external climate conditions including temperatures, precipitation, daylight, sunlight, wind, etc. the building control systems can predict the necessary changes to inputs to maintain internal conditions and then instructs the shading, lighting, heating, ventilation and/or cooling systems to make the necessary changes to minimise the fluctuations that would otherwise occur.

This presupposes the building is inadequately insulated from the affect of external climate and needs these inputs, a Passivhaus which has the right balance of good insulation and thermal mass reaches a steady state and needs few or no inputs and few or no controls to do this.

Actuated solar shading can monitor and remember where the sun is in the sky hourly, daily and annually and predict the angle to be at to minimise solar gains and maximise reflected daylighting, it can then overlay that with actual weather patterns of the day and adjust accordingly.

IBEMS can know and display whether a window, door, rooflight is open or closed and if this is causing ventilation, cooling or heatloss, and provide a warning that can be acted upon.

Firefighting can be facilitated by an IBEMS system that is connected to all actuated smoke vents and replacement air vents, the fire fighter can open and close vents to order to release smoke.

An IP addressable IBEMS can make a building responsive to indoor and outdoor climatic conditions, bringing the seasonal optimisation into effect automatically.

The IBEMS can clearly display modes of operation to Premises Manager to ensure simplicity in operation and enable management by exception.

IBEMS can provide a valuable learning tool in schools, developed with teaching staff and pupils to contribute to syllabus and school projects, displaying energy and carbon use information.

IBEMS are notoriously over complicated and never understood by the users, rarely are the handover periods adequate or the manuals self sufficient for the buildings to work at their optimum.

POE Post Occupancy Evaluation is an opportunity to check if the building is working as designed and to correct it if not.

See: BMS, BEMS, IBEMS, POE,

(GreenSpec BRM '10)

INTELLIGENT BUILDING GROUP

<http://www.ibgroup.org.uk/>

INTELLIGENT SURFACE WATER ECONOMY MEASURES

INTELLIGENT SYSTEMS

In Europe a number of manufacturers have developed diffusion open airtightness membranes with properties that vary according to the humidity; these have been described as intelligent systems, despite having no brain-like intelligence.

The terminology has been adopted at a generic level and by association is now accepted.

The UK has yet to adopt the term, but with 'Intelligent systems' available in the materials market this should follow.

(GreenSpec '09)

Intelligent vapour checks are characterised as having a variable vapour resistance depending on the average humidity immediately surrounding the membrane. If the average humidity surrounding the membrane is high, it's vapour resistance decreases, whereas if the average humidity is low, it can increase dramatically.

In this way, Intelligent membranes can provide effective vapour tightness or vapour openness when required, increasing the drying potential of constructions.

Pro clima Intello Plus is the world's highest performing Intelligent vapour check as it can alter its vapour resistance by over 50 times depending on climatic factors surrounding the membrane.
(Ecological Building Systems '09)

INTENDED USE

The intended use of the construction product as defined in the applicable harmonised technical specification
(CE Marking for SMEs & CPR '11)

INTENSIVE ROOF

Usually a living roof of the green variety with water storage, growing media build up of soils and planted with plants, shrubs, trees, etc. which requires intense maintenance.

See: Living Roof, Green Roof, Brown Roof and Extensive Roof
(GreenSpec BRM '10)

INTERIOR LIGHTING POWER ALLOWANCE

See: lighting power allowance
(Building Energy Glossary '06)

INTERIOR UNIT LIGHTING POWER ALLOWANCE – PRESCRIPTIVE

allotted interior lighting power for each individual building type, in W/m²
(Building Energy Glossary '06)

INTERIOR UNIT LIGHTING POWER ALLOWANCE – SYSTEM PERFORMANCE

allotted interior lighting power for each individual space, area or activity in a building, in W/m²
(Building Energy Glossary '06)

INTERMEDIATE PRODUCTS

Intermediate products are products involved in the production process as preliminary or intermediate forms of the end product.

(Natureplus 2002)

INTERNAL COMBUSTION ENGINE (ICE)

See: CV Combustion Vehicle

INTERNAL HEAT GAINS

Uncontrolled space heating from, usually, people, electrical appliances, lighting, heat from hot water, cooking.
(GreenSpec AEP '09 & BRM '11)

INTERNAL WALL

A wall or partition which divides the dwelling or other building space into different functions but which does not provide separation between different dwellings.

(CC Publication: Concrete and Sound insulation & GreenSpec BRM '11)

INTERNATIONAL ACCOUNTING STANDARDS (IAS)

for reporting of accounts to enable common standards between countries.

The EU requires all companies listed on a stock exchange in an EU country to comply with IAS.

See: PFI, PPP

(John Laing & GreenSpec BRM '10)

INTERNATIONAL CENTRE FOR INDOOR ENVIRONMENT AND ENERGY

<http://www.ie.dtu.dk/>

INTERNATIONAL FINANCE REPORTING STANDARDS (IFRS)

See: PFI, PPP

(John Laing & GreenSpec BRM '10)

INTERNATIONAL INSTITUTE FOR BAU – BIOLOGIE

www.bau-biologieusa.com/

(GreenSpec BRM '11)

INTERNATIONAL LABOUR ORGANIZATION (ILO)

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION (ISO)

the World equivalent of *BSI* and *CEN* it is responsible of the creation and maintenance of *ISO standards*.

www.iso.org

(ASWS BRM '97)

INTERNET

The Internet, also known as the '*Information Superhighway*' and the *WWW* is a large collection of computers which are linked into a single world wide *network of* computers that can share resources, pass information on, send *Email* messages etc.

(ASWS BRM '97)

INTERNET SERVICE PROVIDER (ISP)

AOL is an example, they offer easy access to the *Internet* for a regular sum of money each month, an *Email address*, a number of hours free *surfing* per month and your own *Homepage*.

(ASWS BRM '97)

INTERSTITIAL CONDENSATION

Occurs when relatively warm moisture-laden air diffuses into a vapour-permeable material or structure such as fibrous insulation or a porous brick wall.

If it is relatively warm on one side and below the dew point temperature on the other; this can result in the moisture-laden air reaching 'dew point' within the material and depositing liquid water at this point.

Interstitial condensation presents a problem when it remains undetected, threatening structural damage such as timber

decay, or degrading the effectiveness of insulation.

(GreenSpec AEP '09)

See: Hygroscopic, Hydrophobic,

(GreenSpec BRM '11)

INTERVIEW QUESTIONNAIRE

In the context of LCA

See: LCA, Methodology, PCR, Product Category Rules, System Boundaries, Scope of Impact Analysis, PQQ, (Renueables AN '10)

INTRANET

An Intranet, this can be as small as an internal office *network* or as big as the *Internet* itself but it is usually a private *network* perhaps between a software service provider and their customers like *Barbour*.

(ASWS BRM '97)

INVESTORS IN PEOPLE (IIP)

A badge that can be worn but not earned, I have worked with some of the companies that have it.

It suggests the wearer (often on letter headings, company signs) invests in its staff, with training and the like.

(GreenSpec BRM '11)

INVITATION TO SUBMIT OUTLINE PROPOSAL (ISOP)

PFI & PPP bid terminology

See: PFI, PPP

(John Laing & GreenSpec BRM '10 – '11)

INVITATION TO NEGOTIATE (ITN)

PFI & PPP bid terminology

Discussions and negotiations with co-sponsors, contractors, banks and advisors to prepare a cohesive and deliverable technical, commercial and financing solution.

See: PFI, PPP

(John Laing & GreenSpec BRM '10 – '11)

IONS

Ions are atoms with an electrical charge.

This charge comes from either losing or gaining electrons.

If the atom has lost electrons, it will be desperate to get some more, and if it has extra electrons, it will be desperate to lose them, as atoms like to be electrically neutral.

This _____ that ions will react with most things, possibly damaging them.

(Cherrington '95)

IOP See: **INSTITUTE OF PLUMBINGIPCC**

See: **INTER-GOVERNMENTAL PANEL ON CLIMATE**

CHANGE

IPHA See: **INTERNATIONAL PASSIVE HOUSE ASSOCIATION**

IPHA AFFILIATES

See: Passipedia: [iPHA Affiliates](#)

(GreenSpec BRM '11)

IPLV See: **INTEGRATED PART-LOAD VALUE**

IPPC See: **INTEGRATED POLLUTION PREVENTION AND CONTROL**

IPR See: **INTELLECTUAL PROPERTY RIGHTS**

See: **INTEGRATED PUBLIC SECTOR**

VOCABULARYIRREDESCENCE

A characteristic of a surface of a material which can influence the colour.

Anodic oxide coatings are made up of open ended cyclinders that reflect light and create the shimmer effect on the surface.

Butterfly wings are made up of microscopic prisms projecting from the wing surface, the material of which are colourless, but the reflection of light falling on them create the colours we see and the shimmer on the wings of some butterflies.

See: Chroma, Colour, Finish, Gloss level, Hue, Irredescence, Opacity, Reflectance, Refraction, Reflection, Saturation, Texture, Tone, Translucency, Transparency.

(GreenSpec BRM '10)

IRRIGATION

See: Indigenous species plants, Drought Tolerant Plants, Genus Loci

(GreenSpec BRM '11)

IRS See: **INTEGRATED REGIONAL STRATEGYIR-T**

See: **INFRA-RED THERMOGRAPHY**

See: THERMOGRAPHY

(GreenSpec BRM '09)

ISIAQ See: **INTERNATIONAL SOCIETY OF INDOOR AIR QUALITY AND CLIMATE**

www.ie.dtu.dk:80/isiaq/

ISO See: **INTERNATIONAL STANDARDS ORGANISATION**

ISO 9000 QUALITY ASSURANCE

Was BS 5750, Quality Assurance now superseded by ISO 9000

See: ISO 9000, Quality Assurance

A Standard about quality assurance QA or quality management QM or quality control QC which is about consistency more than about the difference between a Mini and a Rolls Royce.

Say what you do, Do what you say and keep records that you did.

QA is necessary to maintain consistency when more than one person does the same job or to ensure you know what you did and have records so you can check later and not do the same job twice.
(GreenSpec '10 – '11)

ISO 14001

A formal EMS Environmental Management Systems based on one standard

It helps a company to improve its awareness of applicable environmental legislation, maintain links with their updates and formalises its policies in relationship to them.

It forms a part of BRE Responsible Sourcing

(GreenSpec BRM '10)

An internationally accepted standard that sets out how you can go about putting in place an effective Environmental Management System (EMS).

The standard is designed to address the delicate balance between maintaining profitability and reducing environmental impact; with the commitment of your entire organization, it can enable you to achieve both objectives.

<http://www.bsigroup.com/en/Assessment-and-certification-services/management-systems/Standards-and-Schemes/ISO-14001/>

(GreenSpec JB '10 & BRM '10)

ISO 14001 ACCREDITED COMPANIES

Companies with a formal independently 3rd party accredited Environmental Management Systems

When it was introduced to BREEAM assessors objected to having to check product manufacturers for ISO 14001 accreditation, as being too difficult to obtain information.

BSI listed their own assessed companies but other assessors would have their own lists and checking could be slow.

BRE GreenBookLive now lists them all in one place for easy access.

<http://www.greenbooklive.com/page.jsp?id=122>

See: Green Dragon,

(GreenSpec BRM '10 – '11)

ISO 14006 GUIDELINES FOR ECO-DESIGN

Provides guidelines to assist organizations in establishing, documenting, implementing, maintaining and continually improving their management of ecodesign as part of an environmental management system (EMS).

Is intended to be used by those organizations that have implemented an EMS in accordance with ISO 14001, but can help in integrating ecodesign in other management systems.

The guidelines are applicable to any organization regardless of its size or activity.

Applies to those product-related environmental aspects that the organization can control and those it can influence.

Does not establish by itself specific environmental performance criteria, and is not intended for certification purposes.

The Centre for Sustainable Design has developed a training programme focused on issues related to ISO 14006: 2011

www.cfsd.org.uk www.cfsd.org.uk/training

For more information email Martin Charter mcharter@ucreative.ac.uk Convenor of ISO 14006: 2011

(GreenSpec BRM '11)

ISO 14025

A standard for the presentation/format of information and not a standard for the content of the information.

In other words, the standard tells you how to say something, not what to say.

A manufacturer presents information about his PVC/asbestos/VOC/lead/radioactive-laden product in the format according to ISO 14025.

(GreenSpec AEP '10)

It does not dictate the issues addressed

Vague on System Boundaries

See: EP, EPD, BSI PAS 2050, System Boundaries, Product Category Rules

(Ska '09 and GreenSpec '10)

ISO 14063

A standard for the presentation/format of information to avoid Greenwash

See: Greenwash

(GreenSpec BRM '11)

ISO 26000 GUIDANCE ON SOCIAL RESPONSIBILITY

ISO STANDARDS See: **INTERNATIONAL STANDARDS**

published by ISO and recognised globally to improve and simplify international trading.

(ASWS BRM '97)

ISOLATION

Isolation may be required for thermal, vibration or acoustic 132ampshire132 or for differential settlement of the parts of the building or for seismic activity.

Where two isolated parts of a building structure abut the floor, wall and ceiling finishes need to continue or unsightly gaps may occur.

The design requirements at these abutments is to minimise the amount the structures 'talk' to each other using vibration of the touching materials or vibrations in the air between them.

Acoustic isolation joints might include thinning of the structural floor edge, cantilevering trays carrying floor finishes, propriety bridging joints that allow movement in 3 directions, drains and/or sealants

(GreenSpec BRM '09)

ISOLATION DEVICES

devices that isolate HVAC zones so that they can be operated independently of one another
Isolation devices include, but are not limited to, separate systems, isolation dampers, and controls providing shutoff at terminal boxes.

(Building Energy Glossary '06)

ISOLATION & FLOW REGULATION VALVES

A device in hot and cold water supplies to appliances and sanitaryware, used to isolate the appliance and sanitaryware from the supply pipes to permit replacement for taps or valves without draining down the whole system.

Also used to regulate the flow to many appliances or sanitary ware to ensure all get a fair share of the water.

Also used to limit the flow of water to a tap or valve to minimise water flow to reduce water usage and wastage, especially important when a tap is chosen for appearance but it lacks any attempt to minimise water usage.

Valves should be turned on full bore, the tap turned on full and the valve adjusted to a low level to avoid excess flow, splashing and spillage but provide a reasonable flow for usage.

(GreenSpec BRM '11)

ISOP See: **INVITATION TO SUBMIT OUTLINE PROPOSAL**

ISPS See: **INSULATED STRUCTURAL PANEL SYSTEM**

ISP See: **INTERNET SERVICE PROVIDER**

ISS See: **INSTITUTE OF STRATEGIC STUDIES**

IstructE See: **INSTITUTE OF STRUCTURAL ENGINEERS**

IT See: **INFORMATION TECHNOLOGY**

ITN See: **INVITATION TO NEGOTIATE**

IWG See: **INFRASTRUCTURE WORKING GROUP**

J

J See: **MECHANICAL EQUIVALENT OF HEAT**

JAMB

The side of an opening in a wall for a door or window, often square but the 134ampshire134 understood the importance of sloping sides internally to soften the light around the opening to reduce contrast glare.

With improved *U values* and thicker wall and smaller windows sloping sides becomes important again.

Windows and doors set into window boxes (e.g. *FSC WBP* plywood surrounds) in thick walls may simplify the details of the jamb and allow insulation close to the jamb to avoid *thermal bridges*.

Well insulated windows and doors need to align with the insulation in a wall to avoid *thermal bridging*, internal or external insulation will need the insulation to return into the jambs to meet the windows and doors if they do not align directly.

See: Reveal

(GreenSpec '10)

JAR See: **JOINT AREA REVIEW**

JCT See: **JOINT CONTRACTS TRIBUNAL**

JIC See: **JUST IN CASE**

JIT See: **JUST IN TIME**

JNCC See: **JOINT NATURE CONSERVATION COMMITTEE**

JOINT

The areas of weakness in MMC, IMC, Prefabricated off-site panels, etc. when assembled on site.

The site of weakness in terms of airtightness, heat loss, air infiltration and air exfiltration, thermal bridging, moisture movement, thermal movement, moisture movement, etc.

See: MJ, Movement Joint, MCJ, Movement Control Joint, SJ, Shrinkage Joint, Settlement Joint, EJ, Expansion Joint. AIJ, Acoustic Isolation Joint, Deflection, Creep, Settlement, Acoustic isolation, Shrinkage.

(GreenSpec BRM '10 – '11)

JOINT AREA REVIEW (JAR)

(Participation Works Partnership)

JOINT CONTRACTS TRIBUNAL (JCT)

at the *RIBA*, responsible for Contracts.

(ASWS BRM '97)

The JCT latest guidance on sustainable construction refers to GreenSpec as a source of information

(GreenSpec BRM '10)

JOINT NATURE CONSERVATION COMMITTEE (JNCC)

JOIST

Support for floor, roof and ceiling, usually softwood or timber composite I sections, can be steel box section, or timber and metal composite.

Services, pipes and cables are usually fed through drilled or notched holes in joists, a labour intensive, slow and expensive first fix activity.

Composite metal and timber joists permit easier services installation.

Layered construction permits easier and faster servicing and replacement or upgrading but adds to overall thicknesses.

(GreenSpec BRM '10)

JOULE

A unit of energy, invented in Salford Manchester Britain by Mr. Joule.

JRF See: **JOSEPH ROWNTREE FOUNDATION**

(Inspire East)

See: Lifetime Homes,

(GreenSpec BRM '10)

JTL See: **JUST TOO LATE**

JUST IN CASE

British construction industry management 134ampshire: quantify and add safety margin just in case, order enough plus a safety margin just in case, deliver a few extra, just in case, deliver them 3 months before needed just in case, leave them exposed to the weather and 134ampshire134 to damage.

See: JIT, JTL

(GreenSpec BRM '10)

JUST IN TIME

Japanese industry management principle, the supply chain is converted to a demand chain and the car assemblers call for a chair just in time for the chair to be delivered just in time to be bolted into the chassis.

See: JIC, JTL

(GreenSpec BRM '10)

JUST TOO LATE

British construction industry management 134ampshire: adopt a supply chain and order the stuff you need just too late, have it made just too late, deliver it just too late, so the building is sitting there waiting to receive the final part to enable closing of the external envelop, or finishing of the roof or the drain 134ampshi the DPM leaving the surrounding construction exposed to the weather and 134ampshire134 to damage.

See: JIT, JIC

(GreenSpec BRM '10)

K

KANBAN

A management principle developed in the oriental car making industries, to improve efficiencies.

Applies to organisation of numerous same size and type components in portable containers to facilitate 135ampshire work.

Also facilitates stock maintenance and reordering in fast depleting items, with 3 stage warning of need to replenish stock. KanBan has been applied to Lean thinking in Construction to have containers of fasteners attached to mobile scaffolding at working deck height, replenished by the tradesman's mate.

See: Lean, Lean Construction

(GreenSpec BRM '11)

KELVIN

Centigrade is the scale adopted in the metric world for temperature: at 0 degrees water freezes, at 100 degrees water boils. '3 degrees centigrade' is specific temperature, close to freezing point.

3 degrees of difference e.g. between 0 and 3 degrees has been called '3 centigrade degrees' but for clarity and avoidance of doubt Kelvin has been adopted.

U Values are now expressed as 0.5 W/m².K

(GreenSpec '09)

KEROSENE

Common ingredient of paints: Solvent.

Can cause eye, skin and respiratory system irritation; dermatitis; anaesthetic; toxic to aquatic life

(GreenSpec '10)

KEYWORDS

are individual words picked by specialists as being representative of subjects and are used to help cataloguing and classifying books, publications, files etc. They are used in card indexes, *databases* and other computer programs to speed up the process of searching through millions of pieces of data or information or titles to find relevant information sources on the same subject in seconds instead of hours or days. The highlighted words in *hypertext* are most often

Keywords.

(ASWS BRM '97)

KEY PERFORMANCE INDICATORS (KPI)

Usually associated with business not environmental performance, in activities and used for monitoring and benchmarking against the performance of others in the same sector, related to the construction Industry.

e.g. in SMARTWaste how many tonnes of waste per £ Spent

See: EPI, Environmental Performance Indicators

(GreenSpec BRM '09-'11)

The construction industry indicators are published each year by Constructing Excellence (CE) using performance data collected from across the UK construction sector by the Department for Business Enterprise and Regulatory Reform (BERR) formerly Department of Transport and Industry (DTI & DETR).

These include benchmarks for energy use.

URL See: www.constructingexcellence.org.uk

(Ska '09 and GreenSpec '10)

KILOWATT

1000 watts of power.

(Cherrington '95)

KILOWATT-HOUR (kWh)

A unit of measure equal to 1,000 watts of power expended for one hour.

(GreenSpec AEP '09)

KILOWATT-HOURS PEAK (kWp)

The primary unit of measurement used by the solar energy industry.

Watt peak is the DC output of a PV module under conditions defined by a common standard.

(GreenSpec AEP '09)

Specifiers need to consider a different measurement that looks at seasonal average performance based on the actual installation, it is unlikely that the manufacturer could provide this figure without calculation or software.

(GreenSpec BRM '10)

KINETIC ENERGY

The energy a body has due to its relative motion.

(Cherrington '95)

KIT

A construction product placed on the market by a single manufacturer as a set of at least two separate components that need to be put together to be incorporated in the construction works

(CE Marking for SMEs & CPR '11)

KITEMARK

See: BSI KiteMark, Proper materials

(GreenSpec BRM '10)

KNOT

KNOTTING

Varnish to stabilise knots in wood

(Builder Hampshire Directory '10)

KNOW-HOW SESSIONS

You will see notices from time to time offering short presentations on particular tricks in software applications, they will be arranged by the *Gurus* of the particular software, and may be presented by any member of staff. They are intended to give insight into particular tasks or newly discovered tricks that will benefit everybody, and provide the

to inform many people at the same time, with the view to achieve a degree of consistency in what *Practices* do. *Action groups* will be responsible for organising seminars, *know-how sessions*, training's, newsletters, jargon busters etc.

(ASWS BRM '97)

KNOWLEDGE TRANSFER NETWORK (KTN)

Based at BRE and active in numerous 136ampshire136136a across the UK, learning and knowledge sharing organisation, facilitating the TSB and is funding 136ampshire announcement meetings, runs the IWG Infrastructure Working Group

See: MBE, KTN, MBE Infrastructure Programme, IWG, Infrastructure Working Group,

(GreenSpec BRM '11)

KTN See: **KNOWLEDGE TRANSFER NETWORK**

KPI See: **KEY PERFORMANCE INDICATORS**

K-VALUE 'k-value' (or λ LAMBDA VALUE)

The k- value, otherwise known as the thermal conductivity or [lambda value](#), of a material to lead or to resist heat transfer. When used in reference to insulation, the lower the k-value, the better the insulation.

(GreenSpec AEP '09)

Passipedia indicates that k-values are obsolete, of course this is probably wishful thinking on their part, in that UK Building Regulations require U-values calculated via k-values or R-values.

In reality we should be more worried about the absence of decrement delay calculations and hygrothermal moisture movement and mould risk in regulations.

See: Passipedia: **k-value** (obsolete) see [U-value](#)

(GreenSpec BRM '11)

kWh See: **KILOWATT HOUR**

An energy unit 136ampshire136 to 1000 watts used for 1 hour.

It might be referred to as a unit of electricity = 1 kWh.

(Hastoe HA GreenStreet.org)

L

λ See: **LAMBDA VALUE**

LA See: **LOCAL AUTHORITY**

LAA See: **LOCAL AREA AGREEMENT**

LABC See: **LOCAL AUTHORITY BUILDING CONTROL (LABC)**

LAC See: **LOOKED AFTER CHILD/YOUNG PERSON**

LAFO See: **LAST AND FINAL OFFER**

LAMBDA VALUE λ

Otherwise known as 'thermal conductivity' or 'k-value', the lambda value is a measure of a material to lead or to resist heat transfer.

Units are W/m.K. When used in reference to insulation, the lower the lambda, the better the insulation.

The lambda value is used to calculate the thermal resistance of a particular material, or 'R value' by combining the λ lambda value and t the actual thickness of the material. Hence $R=t/\lambda$

See: Thermal Conductivity, U value,

(GreenSpec AEP '09 & BRM '10-'11)

LAMINATED VENEER LUMBER (LVL)

An engineered wood product that uses multiple layers of thin wood assembled with adhesives.

It offers several advantages over normal wood: it is stronger, straighter, and more uniform. It is much less likely than conventional lumber to warp, twist, bow, or shrink due to its composite nature.

(GreenSpec AEP '09)

LAMP

generic term for a man-made light source often called a bulb or tube

(Building Energy Glossary '06)

See: CFL, Compact fluorescent lamp Fluorescent lamp, General Service Lamp, HID High-intensity discharge lamp, incandescent lamp, reflector lamp

(GreenSpec BRM '10)

LAMP/BALLAST EFFICACY

lumens produced by a lamp/ballast combination (the product of rated lamp lumen output and the relative light output of the lamp/ballast combination) divided by the *watts* of input power, expressed in lumens per watt

(Building Energy Glossary '06)

LAMP EFFICACY

quotient of the total light (lumens) emitted and the total lamp power input (*watts*), expressed in lumens per watt

(Building Energy Glossary '06)

LAMP LUMENS, RATED

light output of a lamp as published in manufacturer's literature

(Building Energy Glossary '06)

LAMP WATTAGE, RATED

power consumption of a lamp as published in manufacturer's literature

(Building Energy Glossary '06)

LANDFILL GAS

A by-product from the digestion of anaerobic bacteria of decaying matter in waste deposited in landfill sites.

The gas is predominantly methane (65%) together with carbon dioxide (35%) and trace concentrations of a range of vapours and gases.

(Cherrington '95)

LANDFILL TAX

A tax or levy incurred for all waste to be landfilled in an attempt to make it a more expensive option and thus make alternative options more attractive.

(Cherrington '95)

LANDFILL TAX ESCALATOR

LANDSCAPE DESIGN TRUST

<http://www.landscape.co.uk/>

LANDSCAPE INSTITUTE

<http://www.landscapeinstitute.org/>

LAND USE POLICY

The land use chapter of CAT's *zerocarbonbritain2030* has sparked debate.

The chapter raises controversial issues about what we eat and how we grow it.

CPRE object to the inevitable change in the character of our countryside.

(CAT '10)

LANTHANIDES

Strictly, the elements occurring within the Lanthanide series of the periodic table.

LAP See: **LOCAL AREA PARTNERSHIP**

LARGE ENTERPRISES (LE)

Enterprise employing more than 250 employees or with turnover of more than € 50m (£43 m)

(EU)

See: MicroSME, SME, Small to Medium Enterprise

(GreenSpec BRM '11)

LAST AND FINAL OFFER (LAFO)

(PFI & PPP bid terminology).

See: PFI, PPP

(John Laing)

LATENT HEAT

The heat released or absorbed by a material during a change of state without change of temperature. For example ice to water or water to steam.

(GreenSpec AEP '09)

LATHAM REPORT

Report on Design Team integration to achieve better results

(GreenSpec BRM '10)

LAYERING

This is a

of splitting information of different types in separate parts or *layers* of the same *AutoCAD* files. This might be *annotation*, room naming and numbering, dimensioning, building structure, finished, furniture etc. Layering in *AutoCAD* generally follows BS 1192 & *Cl/SfB* classification conventions.

(ASWS BRM '97)

LAYLIGHTS

(GreenSpec BRM '10)

LCA See: **LIFE CYCLE ANALYSIS**

LCA See: **LIFE-CYCLE ASSESSMENT**

LCBP See: **LOW CARBON BUILDINGS PROGRAMME**

LCC See: **LIFE CYCLE COST**

LCCA See: **LIFE CYCLE COST ANALYSIS**

LCD See: **LOWEST COMMON DENOMINATOR**

as opposed to HCF Highest Common Factor, terms used in mathematics, fractions to be precise, it is to do with the bottom half of a fraction and is the lowest number possible that is common to the top and bottom halves of the fraction, which the top cannot be divided into and is a whole number.

This is another use of the term which has nothing to do with mathematics least of all fractions.

It is a term used to mean the thickest person that might need to understand the information in question.

In preparing anything to read or present to a group of people the least intelligent of the audience must be taken into account in the terms used, the way things are presented and the speed of delivery, each must suit that person.

All contract documents should use plain English because the tradesmen on the site who may have to read them, may not have any qualifications and a limited and simple grasp of the English vocabulary, and fancy words could well lead to confusion and mistakes will follow.

(ASWS BRM '97)

LCI See: **LIFE CYCLE INVENTORY**

LCIA See: **LIFE CYCLE INVENTORY ANALYSIS**

LCIA See: **LIFE CYCLE IMPACT ASSESSMENT**

LCIC See: **LOW CARBON INNOVATION CENTRE**

LD See: **LOW DENSITY**

LDA See: **LEAD DEVELOPMENT ASSOCIATION**

(HAPM and BPG CLM '97)

LDA/LSA See: **LEAD DEVELOPMENT ASSOCIATION/LEAD SHEET ASSOCIATION**

(HAPM and BPG CLM '97)

LDA/LSA MANUAL

LDA/LEAD SHEET ASSOCIATION MANUAL VOLUMES 1 AND 2. 2ND EDITION.

(HAPM and BPG CLM '97)

LDD See: **LOCAL DEVELOPMENT DOCUMENT**

(T&C Planning)

(Inspire East)

LDD See: **LEARNING DIFFICULTIES AND DISABILITIES**

LDF See: **LOCAL DEVELOPMENT FRAMEWORK**

(T&C Planning)

LDPE LOW-DENSITY POLYETHYLENE

(Envirowise Packaging & Waste)

(CIRIA RP656 Design for Deconstruction Bill Addis)

LDS See: **LOCAL DEVELOPMENT SCHEME**

(T&C Planning)

(Inspire East)

LDV See: **LOCAL DELIVERY VEHICLE**

LDW See: **LOCAL DEMOCRACY WEEK**

LE LARGE ENTERPRISES

See: SME, Small to Medium size Enterprise, Micro SME,

LEA See: **LOCAL EDUCATION AUTHORITY**

LEAD

Lead has been used for many years as an additive to petrol to improve engine performance. When the petrol is burnt lead is emitted from the exhaust, and concern has focused on the possible health effects. Lead is known to be a poison that builds up in the body and may affect the development of children. Action has now been taken to reduce the amount of lead in petrol and consequently unleaded petrol was produced. (Cherrington '95)

LEAKING ROOFS & GUTTERS

Damp from blocked gutters and roof outlets rising over gutter and hopper edges, verges and into porous masonry by capillary attraction, if damp proof membranes and damp proof courses are missing or defective the damp will penetrate into internal and external construction and show up on surfaces.

Dampness creates a thermal bridge through construction and the drying action draws more heat from the building to evaporate the moisture.

Colour photography is distracting but black and white photography will show up damp penetration in porous masonry more readily, but IR-T can be calibrated to show damp very distinctly.

(GreenSpec '09)

LEAKING WET SYSTEMS

Thermography is used to investigate defective services below the surface of walls and floors, an example is to determine the location and extent of hot pipes in the floor or in wall or ceiling, the hot pipes or leaking hot liquids will show up as hot and areas where the pipes do not exist show up dark.

This enables leaks to be pin pointed and remedial action becomes simpler and less expensive.

(GreenSpec '09)

LEAN CONSTRUCTION

A project management system that maximises value and minimises waste.

(GreenSpec AEP '09)

Some examples of Lean thinking applied to construction:

Supply chains converted to demand chains,

JIT deliveries, Logistics or Consolidation centres,

Electrical loom used for simplified wiring

Modular, Prefabrication, Offsite assembly,

Design for disassembly that lends itself to assembly

Integrated services panels with plumbing and sanitaryware

Raised scaffolding on wheels creating working platform with drawing display area, at required height

KanBan materials, tools, fixings and fastenings all separated and within labourers reach, topped up by mate as necessary.

Layering of components in elements of building and services to avoid complexity and puncturing of DPC, DPM, GPM, GDC, VB, BM, ATL, etc.

(GreenSpec BRM '10)

LEAN-TO ROOF

Sloping roof usually in one single plain, supported along its highest side by a taller adjoining wall or building, it might protect a covered walkway, carport, garage or extension including rooms.

(GreenSpec BRM '10)

LEARNING AND SKILLS COUNCIL (LSC)

(Participation Works Partnership)

LEARNING DIFFICULTIES AND DISABILITIES (LDD)

(Participation Works Partnership)

LECA See: **LIGHTWEIGHT EXPANDED CLAY AGGREGATE**

LED See **LIGHT EMITTING DIODE**

LEDGE

Horizontal member in door supporting boarding (e.g. Framed, ledged & braced door)

Horizontal projecting features in building facades creating a shadow line and a ledge, used in 139ampshire movies to escape the bad guys by walking to the adjoining property, used by pigeons as roosts, and should be act as a drip to shed rainwater away from the wall surface.

(GreenSpec '10)

LEED

Created by one of the authors of BREEAM for USA

100% glazed air-conditioned building can achieve Platinum rating, so no step changes herem just business as usual.

See: BREEAM & GreenStar

(GreenSpec BRM '11)

LEVEL

The result of the assessment of the performance of a construction product in relation to its essential characteristics, expressed as a numerical value

(CE Marking for SMEs & CPR '11)

See: Threshold Level,

(GreenSpec BRM '11)

LEVEL PAYING FIELD

Something that BRE EP & Green Guide to Specification claims to set out to create and fails to achieve, in reality fails by the absence of green products in its assessment, leaving an apparent bias towards conventional violet materials.

Effectively creates technical barriers to market entry by eco materials by not listing them and not allowing them to score points or credits in BRE's EAM.
Level playing fields created by averaging out the impacts of a whole sector and scores the companies equally, leaves no incentive for improvement.
(GreenSpec BRM '11)

LEXICON

Dictionary

LESA See: **LIGHTWEIGHT EXPANDED SEWERAGE AGGREGATE**

(GreenSpec '10)

LESBIAN, GAY, BISEXUAL AND TRANSGENDER (LGBT)

(Participation Works Partnership)

LGBT See: **LESBIAN, GAY, BISEXUAL AND TRANSGENDER**

LHC See: **LONDON HOUSING CONSORTIUM**

(HAPM and BPG CLM '97)

LHC PROGRAMMES

A1 aluminium windows and doors

K9 kitchen units and worktops

L3 steel lintels

T7 timber windows and external door frames

U4 pvc-u windows and doors

Y6 trussed rafters

(HAPM and BPG CLM '97)

LHV See: **LOWER HEATING VALUE**

(e.g. with regard to energy ratings)

(GreenSpec '10)

LIFE CYCLE

The consecutive and interlinked stages of a construction product's life, from raw material acquisition or generation from natural resources to final disposal.

(CE Marking for SMEs & CPR '11)

See: Linear Life Cycle, Cyclical Life Cycle, Cradle to *,

(GreenSpec BRM '10)

LIFE CYCLE ANALYSIS/LIFE CYCLE ASSESSMENT (LCA)

A technique that allows the comparison of the environmental impacts of materials and products.

LCA analyses the movement of materials and energy from the point of extraction of raw materials, through the manufacture, use in a building, demolition and final disposal.

The analysis provides quantitative data to identify the potential environmental impacts of the material or product on the environment.

Ideally LCAs encompass the entire life cycle of a material, but it is common for assessments to be made of more limited periods eg 'cradle-to-gate'.

(GreenSpec AEP '09)

LCA is the basis of EPD Environmental Product Declarations and environmental preference methods for materials selection, for example BRE's Green Book Live's Environmental Profiles (Products), The Green Guide to Specification compares (Manufacturing Sectors: 'Generic')

LCA takes account of environmental impacts over the lifetime of a product, for example the impact arising from mineral extraction, manufacturing, transport and end-of-life disposal.

Anderson, Shiers and Steele, The Green Guide to Specification: An Environmental Profiling System for Building Materials and Components (4th edition), Blackwell Science, 2009.

See: ISO 14025:2006

(Ska '09 & GreenSpec BRM '10)

What is an LCA?

A lifecycle assessment (LCA) is an assessment of the environmental impact of a product, process, or service from material growth (or production) to waste management i.e. over the entire lifecycle.

The effects upon the environment can be either advantageous or disadvantageous, and include effects upon human health as well.

These effects are known as the 'ecological footprint' of a product or service.

An LCA is all about collecting and assessing quantitative data on the input and output of material, energy, and waste, which are attached to the entire lifecycle of a product, so as to determine the environmental effects.

(CAP'EM Agrodome '11)

LIFE CYCLE COST (LCC)

Total cost of facility (building and/or land) ownership, occupation and operation.

It takes into account all costs of acquiring, owning, and disposing of a building or building system.

See: BLP, LCC, Butterfly, BS PD 156865

(GreenSpec AEP '09 & BRM '10)

LIFE CYCLE COST ANALYSIS (LCCA)

A method for analysing the total cost of facility ownership.

It takes into account all costs of acquiring, owning, and disposing of a building or building system.

See: BLP, LCC, Butterfly, BS PD 156865
(GreenSpec AEP '09 & BRM '11))

LIFE CYCLE INVENTORY (LCI)

A list of results from a life cycle assessment
(Renueables AN '09)

LIFE CYCLE INVENTORY ANALYSIS (LCIA)

LIFE EXPECTANCY

Average number of years a newly born child can expect to live.
(Cherrington '95)

See: Component Life, Component Life Manuals
(GreenSpec '10)

LIFE SPAN

See: Service Life, Design Life
(GreenSpec BRM '10)

LIFETIME HOMES

A design standard that encompasses 16 design features that ensure that a new house or flat will meet the current and future needs of most households.

(GreenSpec AEP '09)

See: LTH, CfSH, DecentHomes,
(GreenSpec BRM '11)

LIGHT

Subdivision of a window, fixed or opening. Opening light can be top or side hung

See: Borrowed light, Fenestration, Casement, Sash
(Builder Hampshire Directory '10 & GreenSpec BRM '10)

LIGHT EMITTING DIODE (LED)

Used in energy efficient luminaires and bike lamps and increasingly in the glitter side lights of BMWs etc.

Very low energy demand so bike lamp batteries last for months/years rather than days/weeks

Often used in multiple arrays covering large areas in vehicle brake and fog lamps for effective visibility.

Very intense directional light, needs to be direction controlled to prevent glare.

Initially available in red and green now available in numerous colours and can be used in combination to create unlimited colours.

Often used in efficient replacement bulbs for conventional lamps but often having completely different characteristics to the lamp they are design to replace.

See: Zhaga Compliant.

(GreenSpec BRM '11)

LIGHTING, DECORATIVE

lighting that is purely ornamental and installed for aesthetic effect

Decorative lighting shall not include general lighting.

(Building Energy Glossary '06)

LIGHTING EFFICACY

quotient of the total lumens emitted from a lamp or lamp/ballast combination divided by the *watts* of input power, expressed in lumens per watt

(Building Energy Glossary '06)

LIGHTING, GENERAL

lighting that provides a substantially uniform level of illumination throughout an area

General lighting shall not include decorative lighting or lighting that provides a dissimilar level of illumination to serve a specialized application or feature within such area.

(Building Energy Glossary '06)

LIGHTING POWER ALLOWANCE

lighting allowance that includes the following:

(Building Energy Glossary '06)

LIGHTING POWER ALLOWANCE, INTERIOR

maximum lighting power in *watts* allowed for the interior of a building

(Building Energy Glossary '06)

LIGHTING POWER ALLOWANCE, EXTERIOR

maximum lighting power in *watts* allowed for the exterior of a building

(Building Energy Glossary '06)

LIGHTING POWER BUDGET

the lighting power, in *watts*, allowed for an interior or exterior area or activity

(Building Energy Glossary '06)

LIGHTING POWER CONTROL CREDIT

credit applied to that part of the connected lighting power of a space which is turned off or dimmed by automatic control devices

It gives the specific value of lighting *watts* to subtract from the connected interior lighting power when establishing compliance with the interior lighting power allowance.

(Building Energy Glossary '06)

LIGHTING POWER DENSITY

maximum lighting power per unit area of a building classification of space function
(Building Energy Glossary '06)

LIGHTING SYSTEM

group of luminaires circuited or controlled to perform a specific function
(Building Energy Glossary '06)

LIGHT RARE EARTH ELEMENTS (LREE)

Lanthanum, promethium, praseodymium, cerium, neodymium

See: HREE, REE

LIGHT SHELF

A horizontal overhanging element located above eye-level and having a reflective upper surface. Daylight is reflected from the upper surface onto the ceiling and deeper into the space.

(GreenSpec AEP '09)

Light reflecting shelves to windows set at a _____ close to the top of the window the light being reflected into the building through the top glazing to reflect on the ceiling and drive the light deep into the room

Light shelves may not be adopted by Birds as a nesting site because of internal artificial light from upper level glazing.

See: Solar Shading and Solar Blinkers

(GreenSpec '09)

LIGHTS WITH PRESENCE DETECTORS

See: PIR, Passive Infra-red,

(GreenSpec BRM '10)

LIGHTWEIGHT EXPANDED CLAY AGGREGATE (LECA)

Low embodied carbon from natural 142ampshir resource

High embodied 142ampsh from cooking process

Usually lightweight spheres uses include:

Aggregate in lightweight concrete.

Soil-less planting in indoor planters

Loose aggregate or mulch on landscape

Bagged as an insulating substitute for hardcore used under buildings

(GreenSpec BRM '09 – '10)

Clay balls with air bubbles, expanded and strengthened by heat; used as lightweight aggregate in concrete mixes and as a growing media in hydroponics and as mulch in 142ampshir planters.

(GreenSpec BRM '11)

LIGHTWEIGHT EXPANDED SEWERAGE AGGREGATE (LESA)

Low embodied carbon from renewable resource

High embodied 142ampsh from cooking process but methane could be used

Potential applications match LECA except the aggregates does smell of it origins

(GreenSpec BRM '10)

LILI See: **LOW IMPACT LIVING INITIATIVE**

LIME MORTAR**LIMEWASH PAINT****LINEAR LIFE CYCLE**

Is made of a number of phases:

Materials supply,

Production

Assembly/Construction

Use or service

End of use/service

Demolition

Landfill

See: Cyclical Life Cycle

(Elma Durmisevic '06 & GreenSpec '10)

LINOLEUM

'Lino' natural ingredient flexible sheet flooring, not to be confused with *Vinyl* (PVC)

(GreenSpec '10 – '11)

LINTEL

Timber, concrete or steel beam over an opening for windows and doors or passageways to support the wall and floors/roofs above

(Builder Hampshire Directory '10 and GreenSpec '10)

LIVING ROOF

Includes Green intensive and extensive and Brown roofs

A roof of a building that is partially or completely covered with vegetation and soil, or a growing medium, planted over a waterproofing membrane.

See: Green Roof, Brown Roof

(GreenSpec '10)

LIQUID

The natural state of water between 1 and 99 degrees centigrade at sea level air pressures.

(GreenSpec '09)

LIQUOR

Concentrated liquid, maybe toxic, produced as a result of the decomposition of organic waste.

If contaminated, e.g. from a landfill site, it is referred to as leachate.

(Cherrington '95)

Concentrated liquid, produced as a result of the compositing of organic waste, often an excellent liquid feed for plants, often a great catalyst for decomposition in a composting bin.

(GreenSpec BRM '10)

LISBON AGENDA

Aims for growth, jobs and aims to capitalises on different regional potential for development.

<http://www.eu2005.gov.uk/servlet/Front?pagename=OpenMarket/Xcelerate/ShowPage&c=Page&cid=1114071804875>

(GreenSpec BRM '08)

LIVE

Plaster that has lost its bond with the backing wall

See: also Blown

(Builder Hampshire Directory '10 & GreenSpec BRM '10)

LLCR See: **LOAN LIFE COVER RATIO**

LLDPE See: **LINEAR LOW-DENSITY POLYETHYLENE**

(Envirowise Packaging & Waste)

LLP See: **LIMITED LIABILITY PARTNERSHIP**

LMC See: **LOCAL MANAGEMENT COMMITTEES**

(Participation Works Partnership)

LMO See: **LIVING GENETICALLY MODIFIED ORGANISM**

(UNEP See: Environment and Trade — A Handbook '05)

L' nT

Standardised impact sound pressure level.

The impact sound pressure level in the receiving room at a stated frequency, corrected (normalised) for the reverberation time in the receiving room.

Refer to BS EN ISO 140-7 1998.

(CC Publication: Concrete and Sound insulation)

L' nT,w

Weighted standardised impact sound pressure level.

A single number quantity (weighted) to characterise the impact sound insulation of floors.

Refer to BS EN ISO 717-2:1997.

(CC Publication: Concrete and Sound insulation)

LOAN LIFE COVER RATIO (LLCR)

the ratio of the NPV of cash available for debt service during the term of the senior debt to the outstanding balance of the senior debt.

See: PFI, PPP, NPV

(John Laing & GreenSpec BRM '10)

LOAN STOCK OR SUBORDINATED DEBT

Also termed equity

different from share/pure equity.

A loan from shareholders to the SPC.

Interest is earned on the loan and paid to the shareholders.

See: *PFI, PPP, SPC*

(John Laing & GreenSpec BRM '10)

LOCAL AUTHORITY (LA)

Another name for the Council

(Participation Works Partnership)

LOCAL AUTHORITY BUILDING CONTROL (LABC)

W <http://www.labc.uk.com/site/index.php>

LOCAL AREA PARTNERSHIP (LAP)

(Participation Works Partnership)

LOCAL DEMOCRACY WEEK (LDW)

An annual week of events organised by the Youth Participation Team focused on promoting local democracy

(Participation Works Partnership)

LOCAL DEVELOPMENT FRAMEWORK (LDF)

(GreenSpec BRM '11)

LOCAL EDUCATION AUTHORITY (LEA)

(Participation Works Partnership)

LOCAL FLORA USED

Plant species selected to match indigenous species, lists exist by Postcode

(GreenSpec '11)

LOCAL GOVERNMENTS FOR SUSTAINABILITY (ICLEI)

LOCAL MATERIALS

(GreenSpec '10)

LOCAL MANAGEMENT COMMITTEES (LMC)

(Participation Works Partnership)

LOCAL STRATEGIC PARTNERSHIP (LSP)

(Participation Works Partnership)

LOCAL WORKFORCE

(GreenSpec '10)

LOCAL PROCUREMENT

(GreenSpec '10)

LOCALLY SOURCED MATERIALS

By sourcing materials in close proximity to a building, embodied energy is saved through reducing transport miles.

(GreenSpec AEP '09)

Locally sourced materials potentially supports the local economy by enabling the money to be invested in local businesses.

(GreenSpec BRM '10)

LONGEVITY

LONG-TERM INVESTMENT

Investment in renewable energy, durable building materials, higher capital expenditure 'CAPEX' for lower operational expenditure. 'OPEX', green materials which currently are often more expensive than conventional materials.

Reeducation in sustainable and environmental construction and materials and reskilling the workforce for the refurbishment programme needed to meet carbon targets.

(GreenSpec BRM '11)

LONDON'S SWIFTS

Providing information and resources about Swifts and their accommodation in our buildings

<http://www.londons-swifts.org.uk/>

(GreenSpec BRM '11)

LOOKED AFTER CHILD/YOUNG PERSON (LAC)

A term used if the child is looked after in foster care or residential care

(GreenSpec '10)

LOOSE-FILL INSULATION

Loose material for insulation, used to fill cavity in external walls and the space between ceiling joists in attics.

Polystyrene beads or rock mineral fibre in cavity walls; Cellulose fibre in attics

See: Blown in insulation

(Builder Hampshire Directory '10 & GreenSpec BRM '10)

LOOSE TONGUE

Unlike tongue and groove joints, this joint has two grooves one in each abutting board and a loose tongue that fits in half in both grooves.

It allows loads exerted on one board near to the joint to be transferred and spread or shared by both boards.

Can also be glued into place.

(GreenSpec BRM '11)

LORRY DRIVER WORKING PRACTICES DIRECTIVE

(GreenSpec BRM '11)

LOT

Parcel of land = Lot in USA, = Plot in UK

See: Plot

(GreenSpec BRM '11)

LOW ALLERGY

(GreenSpec '10)

LOW CARBON

LOW CARBON BUILDINGS PROGRAMME (LCBP)

Grant scheme for renewable energy run by DTI (Now BERR)

<http://www.lowcarbonbuildings.org.uk/home/>

See: FIT and RHI, ECA, ETL, WTL

(GreenSpec BRM '10 – '11)

LOW CARBON INNOVATION CENTRE (LCIC)

Low Carbon Innovation Centre (based at the University of East Anglia Norwich)

Getting innovative construction products to market

Despite the urgent need for innovation in building products, processes and refurbishment, which will be even more pressing with the implementation of the new zero carbon agenda, it remains difficult to bring innovations to market. A joint initiative between LCIC and BRE will bring grant makers, venture capitalists, government agencies, innovators, product developers, product certifiers and construction companies together to take new concepts to market.

http://carbon2.bre.co.uk/trk/click?ref=zreoebsal_0-480x372dx12427&

<http://www.uea.ac.uk/lcic>

See: UEA

(GreenSpec BRM '10)

LOW DENSITY (LD)

(ERFMI '08)

LOW-E GLAZING

By coating the face of the inner pane of glass with metal or metal oxide, short wave radiation from the sun is permitted to enter the building, whilst long wave radiation in the form of heat from the inside is reflected back into the room.

(GreenSpec AEP '09)

LOW EMISSIVITY COATING

See: Low-E Glazing

(GreenSpec BRM '10)

LOW ENERGY LIGHTING

See: LED, LPF, HPF, PF

LOW FLUSH WCS

Recent history: the UK used a 9 litre flush WC, charged with drinking quality 'potable water' water.

We went through a short period of dual flush toilets being permitted to be fitted, that had high and low settings; due to inadequate education of users this led to higher water consumption when the low flush was used when a large flush was needed to flush solids 'poo', followed by the large flush, the combination of which was greater than the previous high flush, this was removed from the water bylaws back to the previous high flush rate.

Recently dual flush has been reintroduced and 6 litre/3 litre flushes and better still 4 litre/2.5 litre are available.

Flushes as low as 1 litre with a vacuum drainage systems are available for buildings but more often seen in trains and planes.

See: Dual Flush WCS, Code for Sustainable Homes, Building Regulations Approved Document G, Part G

LOW FORMALDEHYDE

(GreenSpec '10)

LOW-GRADE HEAT

Normally used to mean heat at a temperature of $\leq 100^{\circ}\text{C}$

(GreenSpec AEP '09)

LOW IMPACT LIVING INITIATIVE (LILI)

LOW LEVEL OZONE CREATION

Happens at the sea shore with crashing waves

Photocopiers create it and should be in separate ventilated rooms

(GreenSpec BRM '11)

LOW OFF-GASSING

See: Low VOC

(GreenSpec BRM '10 – '11)

LOW POWER FACTOR (LPF)

A bit of history: any lighting circuit that involves control gear has traditionally been offered in both a HPF (high power factor) and LPF (low power factor) version – this was particularly important in the bad old days of wire-wound control gear when the inductive effect of the ballast played havoc with the actual energy consumption of the installation – so if you fitted out an entire factory or office building with LPF fixtures, you'd wonder where all the extra electricity was being used.

See: HPF, High Power Factor,

(GreenSpec JB '10)

LOW TO ZERO VOC

Without adding more hazardous chemicals

(GreenSpec '10)

LOW WATER PLANTING

LOW WATER WHITE GOODS

LPF See: **LOW POWER FACTOR**

LPG – LIQUID PETROLEUM GAS

A by-product of oil refining, LPG is used as a fuel for domestic and commercial purposes, often where mains gas is unavailable.

(GreenSpec AEP '09)

LREE LIGHT RARE EARTH ELEMENTS

LRV See: **LUMINESCENCE REFLECTIVE VALUE**

LSC See: **LEARNING AND SKILLS COUNCIL**

LSHF See: **LOW-SMOKE HALOGEN-FREE**

Smoke is the biggest killer in fires, people are usually dead before being affected by flames.

Electrical cable insulated with polyolefine insulation, is low smoke and halogen free under fire conditions so does not produce toxic fumes like PVC sheathed cable.

Occupant and Fire-fighter 145ampshir.

Used in underground tunnels and platforms

(GreenSpec BRM '10)

LSP See: **LOCAL STRATEGIC PARTNERSHIP**

LTP See: **LOCAL TRANSPORT PLAN**

LVL See: **LAMINATED VENEER LUMBER**

LUMEN

Radiometrically, it is determined from the radiant power

Photometrically, it is the luminous flux emitted within a unit solid angle (one steradian) by a point source having a uniform luminous intensity of one candela

(Building Energy Glossary '06)

LUMEN MAINTENANCE CONTROL

device that senses the illumination level and causes an increase or decrease of illuminance to maintain a preset illumination level

(Building Energy Glossary '06)

LUMINAIRE

complete lighting unit consisting of a lamp or lamps together with the housing designed to distribute the light, position and protect the lamps, and connect the lamps to the power supply

(Building Energy Glossary '06)

When a luminaire sits in an airtight ceiling it should be airtight to prevent heat loss to the ceiling void.

(GreenSpec BRM '11)

LUMINANCE

density of the luminous flux incident on a surface

It is the quotient of a luminous flux by the area of the surface when the latter is uniformly illuminated

(Building Energy Glossary '06)

LUMINESCENCE REFLECTIVE VALUE (LRV)

One part of a detailed 146ampshire146146 of a surface, a material, coating or paint.

Quoted by some plastic laminate manufacturer's literature colour swatches.

See:, Chroma, Colour, Finish Gloss level, Hue, Irredescence, Opacity, Reflectance, Refraction, Reflection, Saturation, Texture, Translucency, Transparency.

LZC See: **LOW TO ZERO CARBON**

LZCH See: **LOW TO ZERO CARBON HUB**

Welsh organisation focuses on definition and dissemination of Zero Carbon ambitions

See: also ZCH

(GreenSpec BRM '10)

M

M&E See: **MECHANICAL AND ELECTRICAL (SERVICES)**

M&E See: **MECHANICAL AND ENGINEERING WORK**

MAC

Apple Macintosh Personal Computer, affectionately known as a *Mac*.

Like the *IBM PC* it is an autonomous computer, but unlike the *IBM PC* it has always had its own user friendly and intuitive *GUI* and disk operating system all in one.

It's initial successes in the 1980's was with graphic designers who had talent in their own discipline, but had no interest in knowing how the insides of a computer worked.

It still retains it's market share with designers in many disciplines, but the *IBM PC* and the many *clones* equipped with *Windows* and the many *Windows based* programmes developed for it have created a bigger market and allowed many unskilled people to enter the world of designing and publishing in their own small way.

(ASWS BRM '97)

MAF See: **MASTIC ASPHALT COUNCIL AND EMPLOYERS FEDERATION**

Producers of authoritative guides

MAF Manual

MAF Flooring Handbook

MAF Paving Handbook

MAF Roofing Handbook

MAF Tanking Handbook

(HAPM and BPG CLM '97)

MAFF See: **MINISTRY OF AGRICULTURE, FISHERIES AND FOOD**

MAGMA

Molten rock which exists below the earth's crust; it solidifies to form igneous rocks on the earth's surface.

(Cherrington '95)

See: Volcanic rock, Pumice, Rock Mineral Fibre, Pumice Blocks.

(GreenSpec BRM '10)

MAIN CONSTITUENTS

A main constituent is any input material in the product representing more than 5 mass %.

(Natureplus 2002)

MAINTENANCE LEVELS

BS 7543 does not include daily washing and routine cleaning.

BS 7543 refers to maintenance levels

Repair only

Scheduled maintenance plus repair

Condition based maintenance plus repair

(BSI BS 7543 '92 and GreenSpec BRM '10)

MAINTENANCE REDUCED MATERIALS

MAKING AVAILABLE ON THE MARKET

Any supply of a construction product for distribution or use on the Union market in the course of a commercial activity, whether in return for payment or free of charge

(CE Marking for SMEs & CPR '11)

MALAYSIAN TIMBER CERTIFICATION COUNCIL (MTCC)

MTCC are at the big shows promoting Malaysian timber.

Since a considerable amount of illegal timber comes out of Malaysia, and ancient forest and natural habitat is being devastated there, be very wary of using Malaysian timber species.

Specify FSC with CoC to be safe.

(GreenSpec BRM '11)

MANAGED RETREAT

A relatively new approach to sea defence; climate change is making sea defence more expensive, more than government intends to spend, so a different approach is required, the approach adopted and publicised is to retreat from current sea defences and create second lines of defence further back and less expensive to maintain and providing flood capacity between the first and second.

See: Flood, Coastal defences, Coastal erosion

(GreenSpec BRM '11)

MANAGEMENT GROUP

The group responsible for day-to-day running of a service or organisation

(Participation Works Partnership)

MANAGING & OCCUPYING BUILDINGS SUSTAINABLY (MOBS)

Could have solved the planets problems single-handedly, but regrettably it was not promoted enough, few people knew about its simple tool for making people and their buildings work more efficiently together and it was eventually taken off line, madness.

Was at www.mobs.org.uk but alas no longer.

(Ska '09 and GreenSpec '10)

MAN MADE MINERAL FIBRES (MMMMF)

See: MIMA, Eurisol, Hydrophobic, Man Made Mineral Fibre Reduced

(GreenSpec BRM '11)

MAN MADE MINERAL FIBRES REDUCED

Adopting a precautionary approach, and avoiding materials that are expressly not permitted in some parts of the world.

(GreenSpec BRM '11)

MANSARD ROOF

Form of pitched roof, includes shallow roof on top and steep slope lower down roof, designed to provide more space for rooms.

Potential locations for bats roosts and birds nests at eaves and ridge.

(GreenSpec BRM '10)

MANUAL

requiring personal intervention for control

(Building Energy Glossary '06)

See: Manual Control

(GreenSpec BRM '10)

MANUAL CONTROL OR SWITCHING

Ownership of the space associated with the manual control is usually a pre-requisite for manual control to be energy efficient.

Some spaces require automatic not manual control of say: lights, e.g. a store which may be entered with empty hands may be existed with no free hands to turn off manual controls.

Automatic light switching is appropriate in this example.

(GreenSpec BRM '10)

MANUAL CONTROL OR SWITCHING

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e.g. a store which may be entered with empty hands may be existed with no free hands to turn off manual controls.

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(GreenSpec BRM '10)

MANUFACTURE

The production or extraction of substance in the natural state.

(HSE REACH '10)

MANUFACTURER

Any natural or legal person established within the community who manufactures a substance within the Community.

(HSE REACH '10)

Any natural or legal person who manufactures a construction product or who has such a product designed or manufactured, and markets that product under his name or trademark

(CE Marking for SMEs & CPR '11)

See: Economic Operator

(GreenSpec BRM '11)

MARC See: MANUFACTURERS' ASSOCIATION OF RADIATORS AND CONVECTORS

(HAPM and BPG CLM '97)

MARGINAL ANALYSIS

In the context of LCA

(GreenSpec BRM '11)

MARINE AQUATIC ECOTOXICOLOGY

The impact of toxic substances emitted to marine aquatic ecosystems.

(GreenSpec AEP '09)

MARINE ENVIRONMENT

Coastal areas subject to salt spray and/or sea water splashes.

It may extend up to 3 km from the coast or tidal estuary depending on prevailing wind and topography.

(HAPM and BPG CLM '97)

This covers a significant wide band through London for example.

(GreenSpec '10)

MARKED (NAMEPLATE) RATING

design load operating conditions of a device as shown by the manufacturer on the nameplate or otherwise marked on the device

(Building Energy Glossary '06)

MARKETING DATABASE

Practice's Client, Projects & Staff Expertise Database

(ASWS BRM '97)

MASS PER UNIT AREA (OR SURFACE DENSITY)

Mass per unit area is expressed in kilograms per square metre (kg/m²).

(CC Publication: Concrete and Sound insulation)

MASTERFORMAT

MATERIAL

A raw material that has been mined, extracted or harvested.

Manufactured from mined minerals, harvested crops or trees, extracted oil, etc. and made into materials or generic materials for sale or from which products can be made for bringing to the market place.
See: *Assembly, Building, Component, Element, Elemental Assembly, Generic Material, Material, Product, Resource*.
EN 15643-1 proposes products and materials to be described as components
(GreenSpec BRM '11)

MATERIAL EXCHANGE

See: NISP, Reuse, Reclaim for reuse,
(Ska '09 and GreenSpec '10)

MATERIAL CHANGE OF USE

Generally, a building converted to contain any number of dwellings, apartments or rooms for residential purposes, when previously use was non-residential.

For example, an industrial building may be converted to a block of apartments or an office block to a hotel.

The precise meaning of this term is given in Approved Document E to the Building Regulations.

(CC Publication: Concrete and Sound insulation)

MATERIAL RECLAMATION

MATERIALS RECOVERY FACILITY (MRF)

Pronounced "murf"

Site or building where mixed, recyclable domestic, commercial and municipal waste, is either mechanically, magnetically or manually, separated, bulked, contained or baled and stored prior to distribution for reuse, remanufacture or recycling.
(Cherrington '95)

See: Household Waste Recovery Centres (HWRC), Municipal waste processors.

(GreenSpec BRM '11)

MATERIAL SAFETY DATA SHEET (MSDS)

See: PDS, Product Data Sheet

(GreenSpec BRM '11)

MCJ See: **MOVEMENT CONTROL JOINT**

MBE See: **MODERN BUILT ENVIRONMENT**

MCS See: **MICRO-GENERATION CERTIFICATION SCHEMES**

MCS017

Product Certification Scheme Requirements for Bespoke Building Integrated Photovoltaic systems

This scheme covers PV units that are manufactured in varying sizes and configurations for the purpose of being built into the fabric of a building – examples are PV glazing, PV Façade units or PV shading units

W www.mcs017.org

(GreenSpec BRM '11)

MDF See: **MEDIUM DENSITY FIBREBOARD**

MDG See: **MILLENNIUM DEVELOPMENT GOAL**

MDI See: **METHYLENE DI-ISOCYANATE**

MEA See: **MULTILATERAL ENVIRONMENTAL AGREEMENT**

(UNEP See: Environment and Trade — A Handbook '05)

MEAN DAILY TEMPERATURE

one half the sum of the minimum daily temperature and maximum daily temperature

(Building Energy Glossary '06)

MEASURING

In the context of LCA

See: LCA, Methodology, PCR, Product Category Rules, System Boundaries, Scope of Impact Analysis

(Renueables AN '10)

MEASURING INSTRUMENTS DIRECTIVE (MID)

See: Smart Meters

(GreenSpec BRM '11)

MEASUREMENT RESULTS

See: Passipedia: [Measurement results](#)

(GreenSpec BRM '11)

MECHANICAL & ELECTRICAL (SERVICES) (M&E)

A collective description for the services of a building, Mechanical being mechanical ventilation and other machinery, electrical being power, lighting and other services powered by electricity.

See: MEP

(GreenSpec BRM '11)

MECHANICAL ELECTRICAL & PUBLIC HEALTH (SERVICES) (MEP)

A collective description for the services of a building, mechanical being mechanical ventilation and other machinery, electrical being power, lighting and other services powered by electricity Public health being water supply in and drainage and sewerage out.

See: M&E

(GreenSpec BRM '11)

MECHANICAL EQUIVALENT OF HEAT (J)

Formerly called total heat and heat content

See: Enthalph, Pressure, Volume

(GreenSpec BRM '11)

MECHANICAL HEATING

raising the temperature of a gas or liquid by use of fossil fuels burners, electric resistance heaters, heat pumps, or other systems that require energy to operate

(Building Energy Glossary '06)

MECHANICAL PURGE VENTILATE (MPV)

MECHANICAL REFRIGERATION

reducing the temperature of a gas or liquid by using vapour compression, absorption, and desiccant dehumidification combined with evaporative cooling, or other energy-driven thermodynamic cycle

Indirect or direct evaporative cooling alone are not considered mechanical cooling.

(Building Energy Glossary '06)

MECHANICAL VENTILATION & HEAT RECOVERY (MVHR)

A system of ventilating buildings, in which heat is recovered from the exhaust air stream to preheat the fresh air intake.

(GreenSpec AEP '09)

MVHR with >85% heat recover performance and <100 watts input to comply with Passivhaus accreditation

(GreenSpec '10)

MEGAWATT

Million watts

(Cherrington '95)

MEK See: **METHYL ETHYL KETONE**

MELAMINE UREA-FORMALDEHYDE (MUF)

Adhesive used in wood panel products

See: MDI, MUF, PF, PMDI, UF

(GreenSpec BRM '10)

MEMORANDUM OF UNDERSTANDING (MOU)

A statement that may be made public showing an intention of two or more parties to work together on a common task or goal.

See Common Carbon metric.

BRE's way of jamming the foot in the door in their quest for world dominance with BREEAM

(GreenSpec BRM '10-'11)

MEMORY

This is the part of the computers main function that allows it to carry out tasks, process data, and do more than one thing at a time.

The memory is achieved by the *RAM* chips, and the more *RAM* there is the more it can do.

More *RAM*

the computer can carry out tasks on bigger applications, on larger files, more files at a time, more applications at a time, known as *multi-tasking*, some in foreground others in background.

(ASWS BRM '97)

MENTER

See: **MINORITY ETHNIC NETWORK FOR THE EASTERN REGION**

MENTORS

A 'supporting' individual paired to help another

(Participation Works Partnership)

See: Guru, Training, Expert Systems,

(GreenSpec BRM '11)

MEP See: **MECHANICAL ELECTRICAL & PUBLIC HEALTH SERVICES**

MERCOSUR See: **MERCADO COMÚN DEL SUR**

Southern Common Market: Argentina, Brazil, Paraguay, Uruguay

(UNEP See: Environment and Trade — A Handbook '05)

METERING ELECTRIC

instruments that measure electric voltage, current, power, etc.

(Building Energy Glossary '06)

See: Smart Meters,

(GreenSpec BRM '11)

METHANE (CH₄)

A flammable, non-toxic but highly potent greenhouse gas.

(GreenSpec AEP '09)

Potency is 21 x that of Carbon Dioxide

A gas generated anerobically in the gut of animals and humans and released as 'wind' 'farts', also generated in landfill, by decomposing waste, also created by decomposing sea life and held in the sediment at the seabed by the coolth of the ocean above, also created by decomposing vegetation in bogs and held in permafrost in cold climate areas of the northern hemispehere, but being released by thawing of the land due to climate change.

Methane in landfills can result in fires ignited by heat generated in the landfill site, or flared off by 150ampshir igniting the gasses released; or released to the atmosphere where it adds considerably to global warming.

(GreenSpec BRM '11)

METHOD OF BUILDING (MOB)

See: PSA MOB, Property Services Agency Method of Building

(GreenSpec BRM '10)

METHODOLOGY

In the context of LCA

See: LCA, Life Cycle Assessment, PCR, Product Category Rules, System Boundaries, Scope of Impact Analysis (Renueables AN '10)

Jargon for Method or Approach

In plain English 'Method'

(GreenSpec BRM '11)

METHYL ALCOHOL

Common ingredient of paints: Solvent.

Eye, skin, mucous membrane irritation.

Overexposure can provoke headache, drowsiness, nausea, vomiting and blurred vision.

(GreenSpec '10)

METHYL ETHYL KETONE (MEK)

a solvent

(Envirowise Packaging & Waste)

METHYLENE DI-ISOCYANATE (MDI)

Adhesive used in wood panel products

See: MDI, MUF, PF, PMDI, UF

(GreenSpec BRM '10)

MET MATRIX See: **MATERIAL, ENERGY, TOXICITY MATRIX**

(Envirowise Packaging & Waste)

MEZZANINE

Extra floor, usually part of the floor area, inserted between floors, where the floor to floor height is generous.

Often as a bunk level in a room on a roof, or an office or materials store in a factory.

(GreenSpec BRM '10)

MFA See: **MOULD FLOW ANALYSIS**

(Envirowise Packaging & Waste)

MFN See: **MOST-FAVOURED NATION**

(UNEP See: Environment and Trade — A Handbook '05)

MICE

(more than one mouse) and *women* are 'mostly incompatible'.

(ASWS BRM '97)

MICROCLIMATE

A local atmospheric zone where the climate differs from the surrounding area.

(GreenSpec AEP '09)

Green Roofs and Green Walls create a microclimate close to the building but potentially having a considerable affect usually an improvement in the building performance: Solar shading, wind break up, rainwater protection, moisture evaporation, etc.

Hedge rows, treel lines and bushes can provide a winter and summer wind breaks, but with some air penetration, summer solar shading, winter solar penetration.

(GreenSpec BRM '10)

MICRO CLIMATIC DESIGN

MICRO-ENTERPRISE

A micro-enterprise as defined in the Commission Recommendation of 6 May 2003 concerning the definition of micro, small and medium- sized enterprises

(CE Marking for SMEs & CPR '11)

MICROFICHE

A large photographic negative with one or many reduced images of drawings or pages of information which can be viewed by special readers and/or printed out.

Previously used for information sources like *RIBA/ti Microfiles* or *Barbour Index* and archival purposes.

The information is on a series of *fiche* contained in a box.

Images are also stored in film reels for faster access

Generally replaced with Computerised systems but can still be found in libraries and archives.

(ASWS BRM '97-'10)

MICRO-GENERATION

The generation of zero or low-carbon heat and power by individuals, small businesses and communities to meet their own needs.

(GreenSpec AEP '09)

Micro-generation is the small scale generation of low and zero carbon (LZC) energy or heat, power and domestic hot water for use in the home, small business and communities buildings to meet their own needs at the source of consuming the energy. It includes renewable energy such as:

Wind turbines,

Water turbines,

Ground source heat pumps,

Solar thermal collectors,

Photovoltaic cells (PV) electricity;
Micro combined heat and power (MCHP)
biomass heating systems mainly in the form of log burning stoves, with or without back boilers.
(Building Magazine Steve Piltz, Turner & Townsend '08)
Micro-generation

the generation of electricity or the production of heat from certain technologies or sources or energy, provided the capacity in the case of generation of electricity is 50 kilowatts or less and in the case of production of heat is 45 kilowatts thermal or less.

The current technologies and sources are:

Biomass
Biofuels
Fuel cells
Photovoltaics
Water (including waves and tides)
Wind turbines
Solar power
Geothermal
Combined heat and power systems
(Government '08)

MICRO-GENERATION CERTIFICATION (MGC)

Administered by BRE

<http://www.greenbooklive.com/page.jsp?id=4>

See: also Micro-generation certified products and Micro-generation certified installers
(GreenSpec BRM '10)

MICRO-GENERATION CERTIFIED INSTALLERS

Lists of certified installers

<http://www.greenbooklive.com/search/search.jsp?partid=10013>

See: also Micro-generation certified products
(GreenSpec BRM '10)

MICRO-GENERATION CERTIFIED PRODUCTS

Administered by BRE

Lists of certified products

<http://www.greenbooklive.com/search/search.jsp?partid=10016>

Administered by BRE

See: also Micro-generation certified products
(GreenSpec BRM '10)

MICRO-GENERATION CERTIFICATION SCHEMES (MCS)

MICROPOROUS FINISH

A finish that allows wood to breathe thereby preventing rapid contraction and expansion, the primary cause of buckling and cracking.

(GreenSpec AEP '09)

A finish that resists water ingress but permits moisture egress, it is used externally on timber components and can be used inconjunction with moisture resistant finishes internally.

Can provide a longer coating life than moisture resistant paint films.

(GreenSpec BRM '10)

MICRO ENTERPRISE

Includes the vast majority of specifiers, architects, material manufacturers, stockists, specialist applicators, specialist installers and constructors.

Government Office East of England definition appears to be 1 – 10 staff,

See: SME, Small to Medium Enterprise, SE, Small Enterprise, LE, Large Enterprise

(GreenSpec BRM '11)

MID MEASURING INSTRUMENTS DIRECTIVE

MID TERRACE

MILLENNIUM DEVELOPMENT GOAL (MDG)

MILLENNIUM MAP

Produced by the Galvanizers Association showing the UK divided into 10 km squares showing the corrosive nature of the atmosphere due to natural exposure conditions combined with industrial pollution and the life expectancy of galvanized steel in each square.

See: GA, Galvanizers Association

(GreenSpec BRM '10)

MIMA See: MINERAL INSULATION MANUFACTURERS ASSOCIATION

MINERAL

MINERAL EXTRACTION

MINERAL INSULATION MANUFACTURERS ASSOCIATION (MIMA)

Formerly Eurisol

See: MMMF, Man Made Mineral Fibre, Hydrophobic,

(GreenSpec BRM '10)

MINERAL RAW MATERIALS

Mineral raw materials are all anorganic raw materials which comprise naturally occurring rock or minerals or which can be derived from such materials; (coal and metals, in this context, are not counted as mineral raw materials).

(Natureplus 2002)

MINERAL WOOL

A fibrous rock, slag or glass based material which can be manufactured in a quilt (rollable) form or in batts (more rigid).

(CC Publication: Concrete and Sound insulation)

Used as thermal, fire or acoustic insulation and acoustic isolation.

Has very low decrement delay, middle of the road k value, can be hydrophobic suited to wet construction e.g. full fill cavity masonry walls and not hygroscopic so not compatible with breathing construction.

Ideally protected by vapour checks/barriers and breather membranes especially in a ventilated cavity.

(GreenSpec BRM '10-'11)

MINERALS AND WASTE LOCAL PLAN

Strategy document produced by County Planning Authority to set out detailed policies and guidance on minerals and waste development.

(Cherrington '95)

MINIMAL PHYSICAL/ECOLOGICAL FOOTPRINT

MINIMUM VENTILATION REQUIREMENT

The minimum quantity of outdoor or conditioned air which must enter a building to maintain an acceptable indoor air environment for occupants.

(based on SEDA Airtightness Guide definition)

MINISTRY OF AGRICULTURE, FISHERIES AND FOOD (MAFF)

Publishes a map every five years showing the average atmospheric corrosivity rate for 10 km grid squares of the UK. This will be taken as the basis for the assessment, with no adjustment made for microclimatic differences.

See: Defra, Millennium Map, Galvanizers Association

(HAPM and BPG CLM '97)

MISALIGNMENT

Condition where air barrier and thermal barrier (Insulation) are not contiguous (touching) and not continuous across the entire building envelope.

(Energy Star '07)

MITRE

Simple angled joint (similar to joint in a simple picture frame) usually divides the angle between two joined parts equally.

(GreenSpec BRM '10)

MITIGATION

Where adverse effects are unavoidable, measures taken to minimise negative impacts.

(BCT '09)

Efforts to limit the man-made causes of climate change.

(UKCIP Climate Change Science)

Mitigation involves taking actions to reduce greenhouse gas emissions and to enhance sinks aimed at reducing the extent of climate change.

To date, most of the UK Government's policy initiatives in relation to climate change and the built environment – such as Energy Performance Certificates, the Code for Sustainable Homes, and Zero Carbon Development – have been focused on mitigation.

(Adapting to the impact of climate change on buildings, neighbourhoods and cities A Briefing Guide for the North West Ian Cooper et al '10)

Adaptation and Mitigation need to be tackled in parallel.

Reducing carbon emissions (mitigation) is essential but adaptation is also critical.

Some climate change is now inevitable and unless urgent, concerted global action is taken to reduce greenhouse gas emissions, further changes to our climate may become unavoidable,

This that preparing for and adapting to the changes is not an alternative strategy to reducing greenhouse gas emissions, but a parallel, complementary and highly necessary one.

(London Climate Change Partnership)

See: Adaptation, See: Climate Change Adaptation

(GreenSpec BRM '11)

MJ See: MOVEMENT JOINT

MMC See: MODERN METHOD OF CONSTRUCTION

See: SIPS, ISPS, CLTP, Modular, IMC, Innovative Methods of Construction

MMMMF See: MAN MADE MINERAL FIBRES (MMMMF)

MOBS See: MANAGING & OCCUPYING BUILDINGS SUSTAINABLY

MODERN BUILT ENVIRONMENT (MBE)

See: KTN, Knowledge Transfer Network, MBE KTN Infrastructure Programme, IWG, Infrastructure Working Group

(GreenSpec BRM '11)

MODERN METHOD OF CONSTRUCTION (MMC)

A broad range of processes that aim to produce more, better quality homes in less time.

The definition is categorised in terms of products: Panellised, volumetric, hybrid and other methods, and may involve off

site manufacturing

(NAO National Audit Office)

See: SIPS, ISPS, CLTP, Modular, IMC, Innovative Methods of Construction

(GreenSpec BRM '11)

MODULAR

Numerous attempts have been made in the past to introduce dimensional coordination and modular design, manufacturers of prefabricated construction methods have embraced it but architects have not, preferring to claim unrestricted design.

With the potential growth of MMC and IMC and growth in prefabricated off site manufacture and the desire for more resource efficiency there could be a renewed drive towards modular design.

Walter Segal and the Self Build Trust adopted modular design for the Segal Method and Segal Approach using repeating readymade size components and no cutting to avoid waste and develop a simplified building system for self builders.

Modular bricks were introduced to the UK in the 1970's working to a multiple of 100 mm. module but their market share never took off it has all but disappeared, everybody preferring the familiar proportions of the metric brick which replaced the imperial brick(s).

See: Dimensional Coordination, BS 5606

(GreenSpec BRM '11)

MODULAR VACUUM INSULATION PANEL (MVIPs)

Metal panels, that cannot be cut on site, or they fill with air and lose all performance.

Need to be used in a modular design or with a second material that can be cut to fit the perimeter of the space in which the VIPs are being used in.

See: Modular Vacuum Insulation Panel, VIPs, Vacuum Insulated Panels, Thin Insulation,

(GreenSpec BRM '10)

MODULE

Dimensional co-ordination of components

(Builder Hampshire Directory '10)

(GreenSpec BRM '11)

MOISTURE

MOISTURE BUFFERING

Moisture absorption and desorption of materials in contact with indoor air of buildings is believed to be a possible way to moderate indoor humidity passively.

Research is being undertaken to explore the potential of moisture buffering as a of improving indoor air quality as well as saving energy.

(GreenSpec AEP '09)

MOISTURE CONTENT

The quantity of water contained in a material.

The MC of wood is expressed as a percentage ratio of the amount of water in a piece of wood compared to the oven-dry weight of the wood.

(GreenSpec AEP '09)

MOISTURE CONTROL

Where structures are sensitive to moisture, it is important to understand the dynamics of plaster permeability.

Tests conducted by John Straub revealed these performance characteristics:

Cement:sand renders are relatively impermeable – to the extent that at 38 mm it can act as a vapour barrier.

The addition of lime to a cement render may increase Permeance dramatically.

Pure lime:sand renders are very vapour permeable.

Clay renders are more permeable than lime plasters. The addition of straw increases the permeability further.

Lime washes appear to be somewhat useful in reducing water absorption while not reducing vapour permeance.

'Siloxane' (a plastic coating) appears to have little or no effect on the vapour Permeance of cement, cement:lime, lime and clay plasters whilst almost eliminating water absorption.

Sodium silicate does not seem to have much of an impact on water absorption or vapour Permeance.

Applying a coat of oil paint to render, plaster or plaster skim can provide an effective vapour barrier. (Vapour barriers are normally best applied internally to prevent internal moisture entering the construction, rather than externally preventing it from escaping).

(GreenSpec AEP '10)

MOISTURE MASS

Materials characterised by the expression 'Moisture mass' (aka 'Moisture storage capacity') are those that absorb moisture, store it, and at a later time, release it.

This is a particularly important characteristic in inadequately insulated buildings where intermittent heating and cooling can leave condensation on surfaces where it can activate ever present spores which grow into mould.

Moisture mass will draw the moisture from the surface preventing the spores being reactivated.

(GreenSpec AEP '10)

Materials with moisture absorbent properties e.g. unfired clay, can be used as a plaster, plaster skim or finish on walls and ceilings.

If there is sufficient of the material and when the air is saturated, the clay can absorb moisture from the atmosphere and hold it in the body of the material until conditions improve then release the moisture again.

Wall with absorbent surfaces are said to have moisture mass.

This property is particularly useful when spores from fungi which are ever present in the air, land on these surfaces, the moisture is drawn away from the spores avoiding the condition that helps the spores thrive. If the spores are allowed to become damp then they can become active, start growing potentially leading to dry or wet rot or condensation mould growth that can aggravate lungs leading to asthma and worse. In cases of people living in 'fuel poverty' who cannot afford to heat their properties or choose paraffin heating that generates high levels of moisture in the air, the risks of surface moulds are high and moisture mass is a property that will be beneficial.

However impermeable paints applied to them will prevent this function from occurring.

(GreenSpec BRM '09)

MOISTURE MASS AND HYGROSCOPICITY

Moisture mass can absorb moisture into the material and its air spaces and is focused on surface absorption from condensation on walls and humid atmosphere in room and deals with mould risk

Hygroscopicity is important in the construction, about lightweight insulating materials absorb, what would otherwise become interstitial condensation, the moisture from its airspaces into the fiber to maintain its k-value.

(GreenSpec BRM '11)

MOISTURE RESISTANCE & PERMEABILITY

Cement is impervious to moisture and when used in mortar or render can prevent moisture absorption and release by evaporation from surfaces.

Lime on the other hand is permeable to moisture and will allow moisture evaporation from masonry and rendered walls.

(GreenSpec BRM '10)

MOISTURE RESISTANT (MR)

A grade of material that may be suitable for use in damp rooms (Kitchen, bathrooms, shower rooms, etc.)

Or suitable for use externally

Gypsum tiles may have linseed oil added

Galvanized hangers of suspended soffits may be powder coated

(GreenSpec BRM '10)

MOISTURE TRANSPORT

See: Contact, Air Space, Capillary Action/Attraction, Internal Insulation,

(GreenSpec BRM '11)

MONOCULTURE

In the case of forestry, one species is planted, this tends not to support biodiversity of insects, birds and animals.

If the species planted is not an indigenous species it is unlikely to support local species of insect, bird and animal.

English Oak trees (indigenous species) support indigenous Biodiversity, 400 different species, a monoculture of Oak supports Biodiversity in a limited way.

(GreenSpec BRM '08)

MOTOR EFFICIENCY, MINIMUM

minimum efficiency occurring in a population of motors of the same manufacturer and rating

(Building Energy Glossary '06)

MOTOR EFFICIENCY, NOMINAL

median efficiency occurring in a population of motors of the same manufacturer and rating

(Building Energy Glossary '06)

MOTOR POWER, RATED

rated output power from the motor

(Building Energy Glossary '06)

MoU See: **MEMORANDUM OF UNDERSTANDING**

MOUSE

part of the modern computer system, (fatter and sometimes flatter than the little white furry creatures, that allegedly commissioned Zlarttibardfast to create the computer otherwise known as the 'planet Earth' (recorded as 'mostly harmless' in the Hitchhikers guide to the Galaxy) as an experiment to study human behaviour whilst the *mice* themselves participated in the experiments at the hands of the humans); it is held under the palm of the human hand, as it is moved across the table, corresponding signals are sent along a cable that is somewhat like a *mouse* tail to a *pointer* in the computer screen.

(ASWS BRM '97)

MOVEMENT CONTROL JOINT (MCJ)

MOVEMENT JOINT (MJ)

MPV See: **MECHANICAL PURGE VENTILATE**

MR See: **MOISTURE RESISTANT**

MRF See: **MATERIALS RECOVERY FACILITY**

MRN See: **MATERIAL RECOVERY NOTE**

(SEDA Chemical Reduction in Building '08)

MS-DOS See: **MICROSOFT'S DISK OPERATING SYSTEM**

as opposed to *IBM's IBM-DOS* or Digital Research's *DR-DOS*.

(ASWS BRM '97)

MSDS See: **MATERIAL SAFETY DATA SHEET**

MTECH

MTCC See: **MALAYSIAN TIMBER CERTIFICATION COUNCIL**

MTI See: **MARKET TOWNS INITIATIVE**

MUCK

Bricklayer's (Brickie's) term for mortar for brickwork
(Builder Hampshire Directory '10 and GreenSpec '10)

MUCK AWAY

Term use for general excavation waste taken from building sites by skip or lorry
No longer acceptable since Waste transfer notes should now include precise descriptions of the contents with *EWC* references.

See: EWC, European Waste Catalogue, WTN, Waste Transfer Notes
(GreenSpec BRM '10)

MUF See: **MELAMINE UREA-FORMALDEHYDE**

MULLION

Upright post in window, a glazing bar subdividing glazing or a sub frame subdividing windows

See: Glazing bar, Transome
(Builder Hampshire Directory '10 & GreenSpec BRM '10)

MULTI-AGENCY

Several organisations working together, often from different sectors or disciplines, e.g. Drug Action Teams bringing police, health workers and youth service together

(Participation Works Partnership)

MULTI DIVISIONAL BIN

Bins in kitchens that have multiple compartments to facilitate the segregation of compostables from recyclables and residual waste.

These are segregation bins often incorrectly called recycling bins, but recycling happens later and elsewhere.

(GreenSpec BRM '10)

MULTIFOIL INSULATION

Usually aluminised polyethylene sheets interlayered with thin expanded polyethylene sheets or bubble wrap, stitched together with threads; but also aluminised paper wrap.

Used as thin thermal insulation quilt in construction

Manufacturers claim they do not work like conventional insulation that traps air and holds it stationary, and do not work on k value alone; but also rely on not conducting and radiating heat outwards by virtue of its reflective shiny metalised surfaces, so it should not be tested using the usual hot box test method.

The manufacturers use theoretical calculation to claim 19 mm. of multifoil is equal to 225 mm. of rock mineral fibre in k value, if their theoretical calculations are borne out in reality this is brilliant, but not many are convinced.

The insulation required its surface resistivity characteristics to be given space to work requiring a 25 mm. stationary airspace to optimise the performance, so 19 mm. is now 69 mm. to achieve 225 mm. of rock mineral fibre performance. It is also claimed they reflect the radiant heat of solar gains so would be suitable for roofs and lightweight constructions, however they do not have any thermal mass and so they do not have any decrement characteristics, so their solar protection is short lived and heat starts flowing from the inside face after a short while.

One manufacturer who were bombarded with criticism by the non-believers dropped the product which received the most criticism along with all of its baggage and launched a new product with an extra layer and a similar name thinking it would start afresh avoiding the criticism, alas it's the same product with an extra layer and its not made much difference to the criticism.

GreenSpec does specify multifoil in conservation roof refurbishments where the Conservation Officer will not permit the roof to be raised and the interior of the roof is to remain on show and also when the Architect will not provide room for insulation, (why? Don't ask!) but the airspaces are needed so 69 mm. of another insulation might be a safer bet.

Its preferable to use a conventional insulation combined with a multifoil, just in case.

See: Thin Insulation, Multi-foil radiant barrier

(GreenSpec BRM '10 – '11)

MULTI-FOIL RADIANT BARRIER

Often aluminiumised polyethylene layers interleaved with expanded polyethylene layers stitched together, making thin flexible insulation layers

Its claimed properties are low outward conduction, low radiation heat loss, high reflection of internal heat and high reflection of external solar radiation heat.

The manufacturers claim high thermal performance insulation with low thickness.

E.g. 19 mm. of multi foil equals 250 mm. of rock mineral fibre.

In order for the outer face's surface resistivity to work the layer must be placed between battens and _____ from adjoining construction, making use of the surface resistivity that occurs on the outerfaces of elements.

This may result in air movement that can remove the heat and destroy the performance of the insulation.

If there is inadequate room in the design for thermal insulation a multifoil may solve a problem, but if 2 battens zones are required it may not fit, and a high performance plastic may do the job.

If a Conservation Officer says a barn roof can not be raised by 1 mm. then multifoils compressed between roofing battens and counter-battens crossings may provide a solution.

Most of the test reports are refuted in the UK.

AECB challenged one non-UK manufacturer in UK and the product was withdrawn and replaced by a new version without the 'baggage'.

Multi-foils insulation have no decrement delay characteristics and despite the resistance to solar radiation its function is

short lived.

(GreenSpec BRM '09)

MULTI UTILITY SERVICE COMPANY (MUSCo)

See: ESCo, Energy Service Company

(GreenSpec BRM '11)

MULTI-TASKING

The ability of a computer to carry out more than one task at a time and is dependant on having sufficient *RAM* memory. A skill that ladies are proud to claim as their own, that men cannot do.

Lean thinking argues Multi-tasking should be avoided in all but the simplest ____ tasks.

(ASWS BRM '97 and GreenSpec BRM '09)

MUNICIPAL WASTE PROCESSORS

There has recently been rapid growth in large municipal waste processing plants to divert municipal waste away from landfill sites.

Many of these incorporate Materials Recycling Facilities (MRFs).

Municipal waste includes waste from households, council services and dumped rubbish.

While principally financed by the councils, most of these facilities are able to use surplus capacity to receive commercial waste.

See: Household Waste Recovery Centres (HWRC), Materials Recycling Facilities (MRFs), Municipal waste processors.

(UCLan & GreenSpec BRM '11)

MURPHY'S LAW

Says: if it can go wrong, it will go wrong.

Design of all things should permit options but prevent something from being assembled or installed incorrectly.

(GreenSpec BRM '10)

MVHR See: **MECHANICAL VENTILATION WITH HEAT RECOVERY**

MVIP See: **MODULAR VACUUM INSULATION PANEL**

MVTR See: **MOISTURE VAPOUR TRANSFER RATE**

MWB See: **MODEL WATER BYLAWS 1986**

(HAPM and BPG CLM '97)

MYGREENSPEC See: **GREENSPEC STUDIO**

A free online design and specification assembly tool, in which a virtual building is assembled in a day and a specification falls out the bottom.

The process includes selecting from many readymade elemental assemblies of buildings made of different materials, of green construction methods and materials and then replacing materials with products from a preselected database of green products.

Choices made, the software then draws from ready made specification clauses to generate an elementally structured outline specification.

Future developments (renamed GreenSpec Studio) will generate a full contract specification, Code 4, 5 or 6 compliant assemblies, include more construction methods and deliver more advice in all the selection stages and processes.

See: Elemental Assembly, Components, Materials, Products, GreenSpec Studio, Outline Specification

(GreenSpec BRM '10 – '11)

MYP See: **ELECTED MEMBER OF YOUTH PARLIAMENT**

N

N₂O See: NITROUS OXIDE

N/A See: NOT APPLICABLE

NAAEC See: **NORTH AMERICAN AGREEMENT ON ENVIRONMENTAL COOPERATION**

(UNEP See: Environment and Trade — A Handbook '05)

NACVA See: NATIONAL ASSOCIATION FOR VOLUNTARY AND COMMUNITY ACTION

NAFRA See: NATIONAL FOOD RISK ASSESSMENT

NAFTA See: **NORTH AMERICAN FREE TRADE AGREEMENT (CANADA, MEXICO, UNITED STATES)**

NAMA See: NATIONAL APPROPRIATE MITIGATION ACTIONS

NAMAS See: NATIONAL ACCREDITATION OF MEASUREMENT AND SAMPLING

See: UKAS

NAO See: NATIONAL AUDIT OFFICE

NATIONAL ACCREDITATION OF MEASUREMENT AND SAMPLING (NAMAS)

They give Test houses the licences to carryout *third party accreditation* of products for manufacturers.

(ASWS BRM '97)

Renamed *UKAS*.

(GreenSpec BRM '09)

NATIONAL APPROPRIATE MITIGATION ACTIONS (NAMA)

See: Common Carbon metric

(GreenSpec BRM '10)

NATIONAL AUDIT OFFICE (NAO)

Government Department that checks if Government money is being spent wisely.

See: MMC Modern Methods of Construction.

(GreenSpec BRM '10 – '11)

NATIONAL CHILDREN'S BUREAU (NCB)

A children's charity

(Participation Works Partnership)

NATIONAL COUNCIL OF WOMEN

See: WEN, WI

(GreenSpec BRM '10)

NATIONAL ECONOMIC DEVELOPMENT OFFICE (NEDO)

NEDO 1987 report on Quality on Building Sites

(GreenSpec BRM '08)

NATIONAL FOOD RISK ASSESSMENT (NAFRA)

NATIONAL GREEN SPECIFICATION (GREENSPEC)

for helpful advice, design guidance, products, materials, examples of environmental specification

www.greenspec.co.uk

See GreenSpec

(GreenSpec BRM '10)

NATIONAL INSULATION ASSOCIATION (NIA)

have insulation industry initiatives and schemes designed to provide consumer confidence and protection

See: CIGA, SWIGA

(GreenSpec BRM '11)

NATIONAL NON-FOOD CROP CENTRE (NNFCC)

UK's national centre for renewable fuels, materials and technologies

Support the Renewable Building Technical Working Group

<http://www.nnfcc.co.uk/metadot/index.pl>

(Ska '09 and GreenSpec '10)

Report: Sheep's wool Upstream Environmental Impacts

See: InCrops

(GreenSpec BRM '08)

NATIONAL RECYCLING TARGET

Government-set national target to local authorities to recycle 25% of all household waste by the year 2000.

This is equivalent to half of the recyclable waste.

(Cherrington '95)

NATURAL

(BCT '09)

NATURAL ENVIRONMENTAL RESEARCH COUNCIL (NERC)

NATURAL FLOOR COVERINGS

NATURAL LANDSCAPES PRESERVED

NATURAL MATERIALS

NATURAL METEOROLOGICAL CONDITIONS

Wind is generated by differences in air pressure.

High pressure is normally associated with warmer weather and low pressure normally associated with colder weather.

Different air pressures also have an effect upon the relative humidity of the air.

Wind pressure on buildings will exert positive pressure on the leading elevation, and negative pressures on the side and

leeward elevations, negative pressures on flat roofs and positive pressures on pitched roofs. These pressure differences lead to air movement through air leakage paths, drawing air and heat or coolth. Depending on the height of a building and the air flow around its surfaces, eddie currents can be set up at corners between the leading and side elevations and wind speed at the ground can be greater than the wind speed hitting the building at height.

Solar heated air is more buoyant than colder air and will rise to _____

(GreenSpec '09)

NATURAL OR LEGAL PERSON

A natural person is an individual person or includes self-employed people, sole traders or people in partnerships. A legal person is not a specific individual but something with a legal personality such as limited companies, trusts, charities etc.

(HSE REACH '10)

NATURAL PAINTS

Safer alternative paint recipes exist.

Some contain no chemical solvents, while other, more widely available commercial brands just contain a lower percentage of VOCs than conventional paints.

Eco-friendly paints make use of ingredients such as turpentine or d-limonene as alternatives to white spirit.

Instead of plastic binders they may use linseed oil and casein and chalk and clay may replace fillers such as titanium dioxide.

Colours are often derived from natural earth and mineral pigments.

(GreenSpec '10)

NATURAL PAINTS & SOLVENTS

NATURAL VENTILATION

The movement (caused by wind, temperature and air pressure differences) of outdoor air into or through a building, room or space, through intentionally provided openings, such as windows, rooflights and doors and non-powered ventilators on more than one side of the building, room or space.

(based on SEDA Scottish Environmental Design Association definition)

NATURAL (PASSIVE) VENTILATION

The supply and removal of air inside a building through natural _____.

There are two types of natural ventilation occurring in buildings: wind driven ventilation and stack ventilation.

(GreenSpec AEP '09)

NATUREPLUS

natureplus® is a product testing and quality label scheme based in Germany and increasingly adopted in countries across Europe.

Its criteria for success are based around natural content and indoor air quality and aims to identify the best products.

Unlike BRE GGtS which by its methods encourages 'business as usual' and suggests that non-green materials are green.

(GreenSpec '09 – '11)

The natureplus® Quality Label is an award for building products which meet the highest standards of sustainability by exhibiting the best possible levels of quality in terms of the environment, health and functionality.

Only the best products in a particular product group are eligible for certification in order to act as an orientation for all building professionals and consumers towards the promotion of a culture of sustainable building.

The natureplus®-Quality Label has anticipated the goals of the European Building Products Regulations:

If in the future these regulations require evidence of the sustainable use of resources and of compliance with requirements in terms of the environment and hygiene (= health-compatibility), the natureplus®-Quality Label already provides these proofs.

This is gauged by natureplus according to criteria and requirements which, as a rule, far exceed the legal requirements and as a minimum comply in each case with the strictest recognised standards applicable.

(Naturplus '11)

See: BRE GGtS, Business as usual

(GreenSpec BRM '11)

NATIONAL BUILDING SPECIFICATION (NBS)

a library of *specification* clauses for building construction in numerous *formats* including: on paper, on disk in numerous *Mac* and *PC formats* to suit popular *word-processing* programmes, also in a *database* called *NBS Building*.

(ASWS BRM '97)

NATIONAL GREEN SPECIFICATION (NGS)

See: GreenSpec

(GreenSpec BRM '11)

NATURAL RUBBER (NR)

(ERFMI '08)

NBR See: **NITRILE BUTADIENE RUBBER**

NBS BUILDING

previously known as SpecMan short for Specification Manager.

(ASWS BRM '97 & GreenSpec '09)

NBS BUILDING NEXT GENERATION

The next overhaul of the UK's leading specification system due in 2012

Its ambitions are broad: a specification that grows during the life cycle of the project, outline specification, performance or

prescriptive, to as built specification and operation and maintenance specifications.

Also elemental specifications replacing trade based specifications.

With the development of the NBS Building Next Generation there will be a complete overhaul of Uniclass, this is underway now.

See: NBS, NBS Building,

(GreenSpec BRM '11)

NBS See: **NATIONAL BUILDING SPECIFICATION**

NBS SERVICES

Company that produces *NBS* but also has fingers in many other related pies: *CIS*, *CCPI*, *RIBA Services*, *RIBA/ti*, *Uniclass* & *BRAD*.

(ASWS BRM '97)

NBT NATURAL BUILDING TECHNOLOGIES

(SEDA Chemical Reduction in Building '08)

A green builders merchant in Oxfordshire

<http://www.naturalbuilding>

(GreenSpec BRM '10)

NCB See: **NATIONAL CHILDREN'S BUREAU**

NDC See: **NEW DEAL FOR COMMUNITIES**

NDPB See: **NON-DEPARTMENTAL PUBLIC BODY**

NDT See: **NON DESTRUCTIVE TESTING**

NEDO See: **NATIONAL ECONOMIC DEVELOPMENT OFFICE**

carried out the investigation of the Construction Industry for the Government to see why we make so many mistakes, which lead to the *BRE* Survey which in turn lead to the *CCPI* work.

(ASWS BRM '97)

NEET See: **NOT IN EDUCATION, EMPLOYMENT OR TRAINING**

NEET

National health building EAM created by a hospital and health building specialist architect.

BREEAM Health replaced it.

See: EAM, BRE, BREEAM

(GreenSpec BRM '10)

NEF See: **NATIONAL ENERGY FOUNDATION**

<http://www.nef.org.uk/>

NEIGHBOURHOOD RENEWAL FUND (NRF)

(Participation Works Partnership)

NERC See: **NATURAL ENVIRONMENTAL RESEARCH COUNCIL**

NET INTERNAL FLOOR AREA (NIFA)

NET THERMAL EFFICIENCY, GENERATION

The ratio between the heat or cooling demand of the distribution system and the fuel heat input energy requirements for heating or cooling:

Energy to be delivered to the heating or cooling system to satisfy the heat demand of the building.

(Building Energy Glossary '06)

NETT PRESENT VALUE (NPV)

The discounted value of a series of future costs, benefits or payments, i.e. the value of future cashflows in today's money.

See: PFI, PPP

(John Laing & GreenSpec BRM '10)

NETWORK

a group of computers which can be local to each other or very remote, which are linked to each other by cables or telephone lines, in which they can share each other's resources, printers, modems, etc. share or copy their drives, files, applications, etc. their users can communicate with each other by sending messages through the *network* cables using *E-Mail*.

(ASWS BRM '97)

NETWORKING

this is the human face of *networks*, when individuals, practices or companies understand their own limitations they often look for other people, practices or companies that have the complimentary skills that make a team with the full compliment of skills.

Networking is making a point of turning to the other members of the *network* when ever those skills are needed, and some times making informal arrangements to promote the skills in your *network* as well as your own.

You can make your own activities and skill base look more impressive to potential clients into the bargain.

(ASWS BRM '97)

Green drinks is the name given to networking meetings adopted by green thinking and acting people

Speed dating was adopted to ensure everybody gets to meet everybody else in a networking situation, 2 minutes for each person to promote themselves and learn about each other, looking for synergies, opportunities and serendipity.

(GreenSpec '09)

NEST BOXES

A man-made box provided in which animals, such as birds and bats can nest or roost.

These are aimed at replacing or supplementing natural nest sites such as farm buildings and old houses.

Specialist nest boxes and bat roosts are available for different bird and bird species.
(BCT '09)

NEW BUILD

Construction Industry Economy: 40% RMI v 60% New Build
GreenDeal will push the % further towards RMI
Training must reflect reality
Training uptake must reflect workload
See: RMI, Repair, Maintenance & Improvement
(GreenSpec BRM '11)

NEWEL POST

Vertical thick post at top and bottom of staircase flights at floors and landings to start and terminate strings, balustrades and handrails
(GreenSpec '10)

NGO See: **NON-GOVERNMENTAL ORGANISATION**

NGS See: **NATIONAL GREEN SPECIFICATION**

NHBC See: **NATIONAL HOUSE-BUILDING COUNCIL**

<http://www.nhbcbuilder.co.uk/>

NHER See: **NATIONAL HOME ENERGY RATING**

This is an energy rating based on SAP but it also includes the energy consumed by lighting and appliances.
(Hastoe HA GreenStreet.org)

NHF See: **NATIONAL HOUSING FEDERATION**

<http://www.housing.org.uk/>

NHS See: **NATIONAL HEALTH SERVICE**

NIA See: **NATIONAL INSULATION ASSOCIATION (NIA)**

NIACE See: **NATIONAL INSTITUTE OF ADULTS IN CONTINUING EDUCATION**

NICE See: **HEALTH AND CLINICAL EVIDENCE**

NICKEL METAL HYDRIDE (NiMH)

NICKEL SULPHINE INCLUSION

NIEA See: **NORTHERN IRELAND ENVIRONMENT AGENCY**

NIFA See: **NET INTERNAL FLOOR AREA**

NIGHT COOLING

NIGHT PURGING

NIGHT SKY

The sky offers no heat so it will show up as dark or black in infra-red thermographic survey images.

If the images are not orthogonal to the surface they may show the glass or windows reflecting the night sky.

Poor choice of luminaires can lead to considerable amounts of light escaping sideways and upwards towards the night sky this can cause 161ampshire to neighbours, make astronomy impossible and disturb animal and bird sleep patterns.

When cloud cover is present the upward escaping light will be cast on the underside for the clouds and be reflected back down resulting in orange glows over cities illuminated by orange rendered street lighting.

There is a campaign for dark night time skies.

(GreenSpec '09)

NIGHT-TIME VENTILATION

Involves cooling the building structure overnight in order to provide a heat sink during the daytime when air temperatures peak.

(GreenSpec AEP '09)

NiMH See: **NICKEL METAL HYDRIDE**

NIOSH See: **NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH**

(SEDA Chemical Reduction in Building '08)

NITRILE BUTADIENE RUBBER (NBR)

(ERFMI '08)

NITROGEN OXIDES (Nox)

These are produced whenever fossil fuel is burned.

Road traffic is the biggest producer of Nox in the UK.

51% of the total.

As well as reacting with hydrocarbons, Nox emissions are further oxidised in the atmosphere contributing to the production of acid rain

(Cherrington '95)

Nitrogen Oxide and Nitrogen Dioxide are collectively known as Nitrogen Oxides.

Nitrogen Oxides are primarily produced as a result of the combustion process, typically from motor vehicles and power stations.

They are one of the precursors for photochemical ozone formation as well as being injurious to human health.

(GreenSpec AEP '09)

NITROUS OXIDE (N₂O)

NLP See: **'NO LONGER POLYMERS'**

NMP See: **NEIGHBOURHOOD MANAGEMENT PATHFINDER**

NMVOC See: **NON-METHANE VOLATILE ORGANIC COMPOUNDS**

NNFCC See: **NATIONAL NON-FOOD CROP CENTRE**

UK's national centre for renewable fuels, materials and technologies

Support the Renewable Building Technical Working Group

See: InCrops

(Ska '09 and GreenSpec '10)

NOGGINS

Usually associated with partitions and ceilings, additional sections trimming opening and providing support for fixtures or in the case of membranes to provide support at lap joints.

Provides support to laps in membranes otherwise unsupported by framing

Provides support for pressure battens & support battens

Protects from wind pressure buffeting and premature failure of membranes

It is not essential to provide support at all lap joints, an adequate joint can be achieved by ensuring the membrane is taught between supports, using the pressure application tool to ensure a good bond.

Short wooden stiffeners inserted between joists, can use offcuts from lengths of joists or from trimming to openings.

See: Dwargs, Noggins, Battens & Noggins

(GreenSpec BRM '10)

NOISE

Unwanted sound.

(CC Publication: Concrete and Sound insulation)

NOISE POLLUTION

The largest producer of noise in most areas is from road traffic.

The large volume of traffic on the roads today can make life unbearable for those living nearby.

(Cherrington '95)

NOISE REDUCTION**'NO LONGER POLYMERS' (NLP)**

Are a group of substances that were once considered to be polymers (and so not listed on EINECS) and were also not notified under the original (6th Amendment) NONS legislation.

The introduction of a new polymer definition in 1993 led to these substances losing their polymer status, however they remained exempt from notification under NONS.

To qualify as a NLP a substance must have been on the market between September 18th 1981 and October 31st 1993 (inclusive) and satisfy the requirement that they were considered polymers under the reporting rules for EINECS, but were no longer considered polymers under the 7th Amendment (92/32/EEC).

The former European Chemicals Bureau has a non-exhaustive list of NLP substances

<http://www.hse.gov.uk/reach/definitions.htm#einecs>

non-exhaustive list of NLP substances

http://ecb.jrc.ec.europa.eu/DOCUMENTS/New-Chemicals/NO_LONGER_POLYMERS/NLP_list.pdf

See: NONS

(HSE REACH '10)

NOMENCLATURE

(ERFMI '08)

NOMS See: **NATIONAL OFFENDER MANAGEMENT SCHEME****NON-DESTRUCTIVE TESTING (NDT)**

As opposed to Destructive testing, e.g. Concrete cube crushing, hard or soft body impacts on doors, glass or screeds, scratch tests on finishes, fire tests used in manufacturers laboratories.

Many methods exist, magnetic, echo-location, vibration, reflection, x-ray, air pressure, smoke, etc. and are used in occupied buildings where the parts cannot be removed or damaged.

For different purposes: determining, reinforcement cover, double glazing unit sizes/thicknesses, locating services in highways, air and wind tightness, etc.

(GreenSpec '09)

NON FOSSIL FUEL ORDER

An arrangement for requiring regional electricity companies to purchase energy from non-fossil fuel sources such as waste.

The provisions were introduced by the government to encourage the production of energy from renewable fuels.

(Cherrington '95)

NON-GOVERNMENTAL ORGANIZATION (NGO)

Includes organisations like Friends of the Earth (FoE) and Greenpeace

(GreenSpec '09)

NON-ISOLATED INTERMEDIATE

A substance that is manufactured solely for the purpose of being transformed into another substance (or synthesis) and is used up within this reaction.

This type of intermediate is not intentionally removed from the synthesising equipment (except for sampling).

NOTE: this equipment does not include tanks or other vessels in which the substances is stored after manufacture.

(HSE REACH '10)

NON-METHANE VOLATILE ORGANIC COMPOUNDS (NMVOC)

(ERFMI '08)

NON PHASE-IN SUBSTANCE

A new substance, one not covered by the definition of a phase in substance.

(HSE REACH '10)

NON-POTABLE WATER

Non-potable water is water that is not treated to drinking water standards and is not meant for human consumption.

(GreenSpec AEP '09)

NON-RECIRCULATING SYSTEM

domestic or service hot water distribution system that is not a recirculating system

(Building Energy Glossary '06)

Circulating systems may generate considerable heat losses if the circulating water is kept hot but there is no insulation or lagging.

Dead-leg pipe runs that can be a drain on heat energy, 163ampshire163 long runs that are often uninsulated (unlagged) because nobody checked the insulation or lagging had been done.

When Passivhaus stanrds of thermal insulation are reached in the building then the heat loss from pipes becomes 163ampshire163163.

(GreenSpec BRM '11)

NON-RENEWABLE RESOURCE

A natural resource that cannot be produced, re-grown, regenerated, or reused on a scale which can sustain its consumption rate.

(GreenSpec AEP '09)

NON-RESIDENTIAL BUILDINGS

See: Passipedia: [Non-residential buildings](#)

(GreenSpec BRM '11)

NONS See: NOTIFICATION OF NEW SUBSTANCES REGULATIONS.

NON-TOXIC

Toxic treatments, paints or stains are very harmful to wildlife.

Bats and birds can be poisoned by toxic timber treatment, so wood should be either left untreated or treated using non-toxic options.

There is a growing market in non-toxic wood treatments which are made from natural ingredients and are environmentally friendly.

(BCT '09)

NON TOXIC BOARDS

Boards used in Boxes for birds and bats need to be durable but not achieved by preservative treatment or paints or stains; all of which could be harmful to wildlife.

Cement and wood particle board does not need treatment and finishes.

Another characteristic of cement and wood particle board is thermal mass, allowing the board to absorb solar heat gains and retain the heat longer, allowing the board to reradiate heat after the sun is set, helping to moderate heat between the peak midday sun to the cold of the night time.

(BCT & GreenSpec '09)

NORDIC SWAN (NS)

A Green Label awarded to products that are an improvement on conventional materials in terms of their impact on the environment.

See: GPP, EUGPP, Buy Sustainable, Quick Wins, Quick Wins Best Practice Voluntary Specifications

(GreenSpec BRM '10 – '11)

NORTH

A general term for the rich developed countries of the northern hemisphere,

(Cherrington '95)

NORMAL ENVIRONMENT

In CLM Insurance lives are shown on the basis of a normal environment, which is assumed to be inland, with normal urban atmospheric pollution only.

(HAPM and BPG CLM '97)

NOS See: NATIONAL OCCUPATIONAL STANDARDS (FOR COMMUNITY DEVELOPMENT)

NOSING

Rounded edge of a stair tread projecting beyond the riser below between the stringers at each side.

Rounded edge of a window board projecting beyond the wall face.

Rounded edge of a shelf.

See: BullNose,

(GreenSpec BRM '10)

NOTIFICATION OF NEW SUBSTANCES REGULATIONS (NONS)

This is one of the pieces of EU legislation replaced by REACH.

(HSE REACH '10)

NOT APPLICABLE (N/A)

(Participation Works Partnership)

Sometimes: 'Not Available'

(GreenSpec BRM '11)

NOT IN EDUCATION, EMPLOYMENT OR TRAINING (NEET)

(Participation Works Partnership)

NOX See: **NITROGEN OXIDE**
NOX See: **NITROGEN OXIDE COMPOUNDS**

NOX EMISSIONS MINIMISED

NPV See: **NETT PRESENT VALUE**

NR See: **NATURAL RUBBER**

NR See: **NEIGHBOURHOOD RENEWAL**

NRF See: **NEIGHBOURHOOD RENEWAL FUND**

NRU See: **NEIGHBOURHOOD RENEWAL UNIT**

NS See: **NORDIC SWAN**

NUMBER CRUNCHING

this is the act of carrying out lots of mathematical calculations very fast or at the same time or a combination of both.

Computers are very good at this and *Spreadsheets* like *Excel* whose main function is *number crunching* were some of the first applications developed for the *Mac* and the *PC*.

(ASWS BRM '97 & GreenSpec '09)

NVQ See: **NATIONAL VOCATIONAL QUALIFICATION**

O

O₂ See: **OXYGEN**

O₃ See: **OZONE**

O&M See: **OPERATION AND MAINTENANCE**

(Ska '09 and GreenSpec '10)

O&MM See: **OPERATION AND MAINTENANCE MANUAL**

(Ska '09 and GreenSpec '10)

O&S See: **OVERVIEW AND SCRUTINY**

OAPs See: **OLD AGE PENSIONERS**

OBJECT

the term used to describe any item.

Usually a building element (in Architect's offices), that is created in a *CAD* computer programme where historically the lines added to a *CAD* drawing were just that, a load of lines with no meaning to the computer (*AutoCAD* is an example of this type of programme), now more and more programmes understand the lines that are grouped together to be an *object* e.g. a WC pan, and the lines that go together to describe its shape can't be split up, they stay together, an *object* can be selected using the *mouse pointer* and moved across the *CAD* to a new location all the lines come with it.

AutoCAD AEC understands *objects*

(ASWS BRM '97)

See: also 3D, 2D, *Elemental*, *BIM*,

(GreenSpec '11)

OBJECTIVES

A set of targets or goals that guide an organisation, and against which performance can be measured

(Participation Works Partnership)

OBSERVER STATUS

Having the right to attend meetings but without voting or decision-making powers

(Participation Works Partnership)

OCCUPANCY SENSOR

device that detects the presence or absence of people within an area and causes lighting, equipment, or appliances to be regulated accordingly.

See: PIR

(Building Energy Glossary '06)

OCCUPANT CONTROLLED ENVIRONMENT

OCCUPATION

See MOBS

(GreenSpec '10)

OCCUPATIONAL EXPOSURE LIMITS (OEL)

OCCUPATIONAL SAFETY AND HEALTH (OSH)

ODP See: **OZONE DEPLETION POTENTIAL**

ODP See: **STRATOSPHERIC OZONE DEPLETION POTENTIAL**

ODPM See: **OFFICE OF THE DEPUTY PRIME MINISTER**

OECD See: **ORGANIZATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT**

(UNEP See: Environment and Trade — A Handbook '05)

OED See: **OXFORD ENGLISH DICTIONARY**

OEL See: **OCCUPATIONAL EXPOSURE LIMITS**

OEM See: **ORIGINAL EQUIPMENT MANUFACTURERS**

OFF

When an appliance is turned off at the appliance it is assumed to be consuming no energy.

When an appliance is turned off at the appliance but still connected to the 165ampshire165 mains via a socket which may be unswitched (older) or switched (newer); and the appliance is switched off but the socket is switched on or unswitched then energy can continue to be drained from the mains by the appliance.

See: On, Stand-by

(GreenSpec BRM '10)

OFF-GASSING

The release of chemicals from various substances under normal conditions of temperature and pressure. Offgassing can take a variety of forms, and is an issue of concern for some people, since some of the chemicals released during the offgassing process are potentially harmful.

(GreenSpec AEP '09)

OFF GRID

OFFICE INFORMATION PACK (OIP)

See: also HIP

(GreenSpec '10)

OFFICE See: MS OFFICE SUITE

this is a collection of different software applications including, *word-processor (Word)*, *spreadsheet (Excel)*, Presentation Graphics (PowerPoint) & *database (Access)*.

They are brought together with simple toolbar but have powerful underlying simple ways of sharing information allowing *integration* of the output of one in the other.

E.g. an *Excel spreadsheet embedded in a Word file*.

(ASWS BRM '97)

OFFICE FOR STANDARDS IN EDUCATION (OFSTED)

An inspection body that inspects organisations like Connexions and schools

(Participation Works Partnership)

OFFICE OF GOVERNMENT COMMERCE (OGC)

See: GPP, EUGPP, Buy Sustainable, Quick Wins, Quick Wins Best Practice Voluntary Specifications

(GreenSpec BRM '10)

OFFICE OF THE DEPUTY PRIME MINISTER (ODPM)

Replaced by DCLG Department of Communities & Local Government

Shortened to CLG

Owners of the Code for Sustainable Homes (created and maintained by BRE)

(GreenSpec '09)

OFFICIAL JOURNAL OF THE EUROPEAN UNION (OJEU)

Publication in which new EU wide projects are announced.

See: PFI, PPP

(John Laing & GreenSpec BRM '10)

OFF-SITE MANUFACTURE (OSM)

This refers to any system built process aimed at reducing the amount of construction on-site.

It can reduce cost and waste and generally reduces the likelihood of operative accidents.

(RICS '11)

OFSTED See: **OFFICE FOR STANDARDS IN EDUCATION**

(Participation Works Partnership)

OGC See: **OFFICE OF GOVERNMENT COMMERCE**

OIP See: **OFFICE INFORMATION PACK**

OJEU See: **OFFICIAL JOURNAL OF THE EUROPEAN UNION**

OLD AGE PENSIONERS (OAPs)

See: WFA Winter Fuel Allowance, Fuel Poverty,

(GreenSpec BRM '10)

ON

See: Off, Stand-by

(GreenSpec BRM '10)

ONS See: **OFFICE OF NATIONAL STATISTICS**

ON-SITE ISOLATED INTERMEDIATE

A substance manufactured for or used for chemical processing in order to be transformed into another substance, the synthesis of which takes places on the same site which is operated by one or more legal entities.

(HSE REACH '10)

ONTOLOGIES

More than *keywords* which are used by librarians and classification system in organising books and information

Ontologies are used by classification systems, knowledge managers, databases and search engines for organising and searching for information in databases, website and the internet

More specifically properties of materials, metaphysics, concerned with the essence of things, or being in the abstract.

See: metadata

(GreenSpec BRM '10)

OPACITY

One of a number of characteristics of a materials that permits light to pass through it to varying degrees.

Opacity is usually associated with glazing, cladding or a 166ampshire housing, opaque glass cannot be seen through,

translucent (varying degrees of transparency to light and vision) falls between opaque and transparent (see through).

Stone cut thin enough can be translucent, marbels are particularly interesting and can be back lit as wall linings.

See: Chroma, Colour, Finish, Gloss level, Hue, Irredescence, Opacity, Reflectance, Refraction, Reflection, Saturation,

Texture, Tone, Translucency, Tranparency.

(GreenSpec BRM '10)

OPAQUE

all areas in the building envelope, except fenestration and building service openings such as vents and grills.

(Building Energy Glossary '06)

See: building envelope, fenestration.

(GreenSpec BRM '11)

One of a number of characteristics of a materials that does not permit light to pass through it.

Opacity is usually associated with glazing, cladding or a 166ampshire housing, opaque glass cannot be seen through.

See: Chroma, Colour, Finish, Gloss level, Hue, Irredescence, Opacity, Reflectance, Refraction, Reflection, Saturation,

Texture, Tone, Translucency, Tranparency.

(GreenSpec BRM '10)

OPAQUE AREAS

all exposed areas of a building envelope which enclose conditioned space except fenestration areas and building service openings such as vents and grilles

(Building Energy Glossary '06)

OPC See: **ORDINARY PORTLAND CEMENT**

OPEC See: **ORGANISATION OF PETROLEUM EXPORTING COUNTRIES**

(Cherrington '95)

OPERATION

See: Passipedia: [Operation](#)

(GreenSpec BRM '11)

OPTIMAL VALUE ENGINEERING (OVE)

A strategy for reducing thermal bridging through insulation by minimizing wall framing needed for structural support. Common techniques include 2" x 6" (50 x 150 mm.) framing with 24" (600 mm.) spacing, single top plates where trusses align with wall framing below, properly sized headers, two-stud corners, lattice strips at exterior/interior wall intersections, and the elimination of excessive fire blocking and window framing.

This results in much more open framing for insulation to improve energy efficiency and comfort.

(Energy Star '07 (USA practices) & GreenSpec '09 (UK alternatives))

OPTIMUM START CONTROLS

controls that are designed to automatically adjust the start time of an HVAC system each day with the intention of bringing the space to desired occupied temperature levels immediately before scheduled occupancy

(Building Energy Glossary '06)

ORDINARY PORTLAND CEMENT (OPC)

An ingredient of Concrete which bonds aggregates and provides much of the strength

High temperatures are required to extract OPC from limestone

OPC also generates additional CO₂ driven out of the Limestone by chemical reaction

OPC is reported to be responsible for 8% of global CO₂ (but only 1.8% in the UK due to alternative fuel sources and efficiency)

It is generally accepted that OPC substitution is of real benefit in Climate Change/GWP

See: GGBS and PFA

<http://www.greenspec.co.uk/>

<http://www.greenspec.co.uk/html/materials/cementsub.html>

<http://www.greenspec.co.uk/html/materials/greeningofconcrete.html>

OPC = CEM 1 in the relevant standard EN 197-1

(GreenSpec BRM '08 = '10)

OR EQUAL

See: Equivalency, Substitution, Surrupitious Substitution, Or Equivalent, Or Similar, EU Procurement Rules, OGC, GPP, (GreenSpec BRM '11)

OR EQUIVALENT

See: Equivalency, Substitution, Surrupitious Substitution, Or Equal, Or Similar, EU Procurement Rules, OGC, GPP, (GreenSpec BRM '11)

ORIENTATION

the direction an envelope element faces; i.e. the direction of a vector perpendicular to and pointing away from the surface outside of the element

For vertical fenestration, the two categories are north-oriented and all other.

(Building Energy Glossary '06)

Building can be designed to catch low angle beneficial sunlight, during morning easterly, winter midday southerly and evening westerly sunlight and exclude low angle problematic sunlight and overheating, from summer midday southerly to south westerly sunlight.

The heat in the sunlight can be captured, stores and reused through central AHU's with heat exchangers.

Predominantly north facing rooms used as office or classrooms avoid almost all direct sunlight but can exploit daylight to the maximum by minimising use of blinds whilst maximising the quality and quantity of daylight entering.

Ideally these windows are high performance resisting heat loss and have a high internal surface temperature to avoid perception of coolth and cold down drafts.

(GreenSpec BRM '10)

ORIENTATION OPTIMISED FOR SOLAR GAINS

See: PASSIVE SOLAR ORIENTATION

(GreenSpec '09)

ORIENTED STRAND BOARD (OSB)

Falls somewhere between chipboard and plywood, it uses strands of wood shavings (rather than wood chips in chipboard) laid in random directions (rather like plywood leaves being laid at right angles) and laid with adhesives to a thickness to create timber based panel products with strength properties somewhere between chipboard and plywood. The quantity and dispersal of the adhesive makes OSB a *vapour resistant* board that if jointed in a suitable manner can be *multi-functional* and used as a vapour barrier too.

T&G Joints may need to be glued and butt joints would need to be vapour resistant taped and battened.

OSB and other *glued timber based panel products* would not be suitable in a *breathing construction*

Standards: BS EN 300: 1997, Type 3 (OSB/3).

(GreenSpec BRM '11)

ORIGINAL EQUIPMENT MANUFACTURERS (OEM)

The inventor of a product or equipment that manufactures them.

There are other companies that produce versions of the same thing that are equivalent to the original but usually cheaper.

Copyright infringement is avoided if the copies are made after the period of any IPR protection ceases.

See: Reverse Engineering, IPR, Copyright, IBM PC, Clones

(GreenSpec BRM '11)

OR SIMILAR

Here be dragons.

Never annotate your drawings with this and never add it to your specifications

See: Equivalency, Substitution, Surrupitious Substitution, Or Equal, Or Equivalent, EU Procurement Rules. OGC, GPP,

(GreenSpec BRM '11)

OR SIMILAR AND APPROVED

Here be more dragons.

Never annotate your drawings with this and never add it to your specifications

See: Equivalency, Substitution, Surrupitious Substitution, Or Equal, Or Equivalent, EU Procurement Rules. OGC, GPP,

(GreenSpec BRM '11)

OS See: **OFF SITE**

not a very helpful shortening

See: OSM

(GreenSpec BRM '11)

OS See: **ON SITE**

not a very helpful shortening

See: OSM

(GreenSpec BRM '11)

OS See: **ORDNANCE SURVEY**

The organisation that carries out surveys, creates, maintains maps; sells them or charges a copyright licences for them to be reproduced in Site layout drawings.

The have left OS Datum Marks across the country carved into buildings or walls to enable survey levelling back to a know datum, that is unlikely to move.

(GreenSpec BRM '11)

OSB See: **ORIENTED STRAND BOARD**

OSC See: **OFF SITE CONSTRUCTION**

(SEDA Chemical Reduction in Building '08)

OSH See: **OCCUPATIONAL SAFETY AND HEALTH**

OU See: **OPEN UNIVERSITY**

OUTDOOR AIR

See: Outside Air, Indoor Air,

(GreenSpec BRM '10)

OUTSIDE AIR

Air that is outside the building envelope or is taken from outside the building that has not been previously circulated through the building

(Building Energy Glossary '06)

OUTREACH

Going to young people and offering them services – as opposed to waiting for young people to access services

(Participation Works Partnership)

OVER CURRENT

any current in excess of the rated current of equipment or the ampacity of a conductor

It may result from overload, short circuit, or ground fault.

(Building Energy Glossary '06)

OVERVIEW AND SCRUTINY (O&S)

(Participation Works Partnership)

OWL BOXES

Specialist man-made boxes have been designed for owls to nest in where natural nesting sites are scarce.

Designs are not universal but are specific to the species.

(BCT '09)

OXFORD ENGLISH DICTIONARY (OED)

Occasionally change the spelling of a word e.g. Sulphate to Sulfate

Also add new words that have come into common usage

(ASWS BRM '97 & GreenSpec '09)

OXYGEN (O₂)

OXYGENATION

Adding more life sustaining oxygen.

(Cherrington '95)

OZONE (O₃)

Oxygen (O₂) with molecules containing three O rather than the normal two O atoms.

In the upper atmosphere stratospheric ozone absorbs harmful ultraviolet radiation.

At low level it is generated by photocopiers, crashing waves and vehicle exhaust fumes.

Low level ozone with smoke particulates creates smog

(Cherrington '95)

A variant form of oxygen, which forms in the upper atmosphere, to form the ozone layer.

The ozone layer offers protection to the planet from the sun's ultra-violet rays.

(Hastoe HA GreenStreet.org)

An unstable (reactive) and water soluble gas having chlorine-like odour, and formed in the upper atmosphere by the action of solar radiation on oxygen.

Its presence as a layer in stratosphere serves as a screen (called the 'ozone layer') to block harmful ultraviolet radiation from reaching the earth's surface.

At ground level it is formed by the combination of hydrocarbons and nitrogen oxides in the presence of sunlight and is the main ingredient of smog.

(GreenSpec AEP '09)

OZONE DEPLETION

Chlorine based gases (including CFC, HCFC, HFC, HFAs, PFC)

Chlorofluorocarbons (previously used as blowing agents in extruded foam plastic thermal insulation), Halons (previously used in fire extinguishing) and chlorinated solvents react with and destroy the stratospheric ozone layer.

(Cherrington '95)

OZONE DEPLETION POTENTIAL (ODP)

The relative amount of degradation a chemical compound can cause to the ozone layer.

(GreenSpec AEP '09)

Is an indication of the potential a chemical, or groups of chemicals in a material, has on depleting the planets protective ozone layer.

The higher the ODP the more damage the chemical does.

Materials with zero ODP should be used.

(Hastoe HA GreenStreet.org)

In the mid 1980's the earth's protective ozone layer was being reduced and the gasses used in foamed plastic thermal insulation were identified as part of the cause.

However despite warning of the problem and opportunities to phase them out of use, the industry continued to use the ozone depleting gases until European Directives and UK Legislation forced their replacement at the beginning of 2004.

(GreenSpec BRM '10)

CFCs, HCFCs, HFCs, HFAs, PFCs and halons are substances that deplete the ozone layer found in foamed plastic insulations, joint filler and common refrigerants and fire suppressions systems and aluminium production.

Over the decades the problem has been identified, legislation has been introduced to remove their use and replace them with benign alternatives that are often less effective.

See: ZODP

(Ska '09 and GreenSpec BRM '10)

LCA Units: kg R11 equivalent.

See: Petrochemical Ozone creation potential

(GreenSpec BRM '11)

OZONE LAYER

Layer of ozone that protects the Earth's surface from excess ultraviolet light.

(Cherrington '95)

P

P See: **PRESSURE**

See: Enthalph, Volume, Mechanical Equivalent of heat,
(GreenSpec BRM '10)

Pa See: **PASCALS**

Pascal is the scale adopted in the metric world for air pressure
Airtightness is expressed as x m³/hr/m² @ 50 Pa
(GreenSpec '09)

PA See: **POLYAMIDE**

PA See: **PERSONAL ADVISER**

PACI See: **PARTNERING AGAINST CORRUPTION INNITIATIVE**

PACKAGED SEWAGE TREATMENT PLANTS (PSTP)

PACKAGED TERMINAL AIR CONDITIONER (PTAC)

factory-selected wall sleeve and separate unencased combination of heating and cooling components, assemblies, or sections

It may include heating capability by hot water, steam, or electricity and is intended for mounting through the wall to serve a single room or zone.

(Building Energy Glossary '06)

See: MMC, Lean Construction

(GreenSpec BRM '11)

PACKAGED TERMINAL HEAT PUMP (PTHP)

PTAC capable of using the refrigeration system in a reverse cycle or heat pump mode to provide heat

(Building Energy Glossary '06)

See: MMC, Lean Construction

(GreenSpec BRM '11)

PACKAGING RETURN NOTE (PRN)

See: WTN, Waste Transfer Notes

(GreenSpec BRM '10)

PACT See: **PARTNERSHIP AND COMMUNITY TRUST OR POLICE AND COMMUNITY TEAMS**

PAN See: **PESTICIDE ACTION NETWORK**

(GreenSpec BRM '10)

PANTILE

Roofing tile whose section along the contour of the roof is S shaped, simple clay tiles and interlocking clay or glazed clay or concrete tiles are commonplace.

(GreenSpec BRM '11)

PAPER-CLIP

an electronic equivalent to the paper-clip which allows notes to be added to a programme by the user, which can be read by any other user, it uses an *icon* of a *paper-clip* as a *hypermedia button* which opens the note to be read.

(ASWS BRM '97)

PARADIGM

PARADIGM SHIFT

Probably the most difficult to explain and most unhelpful piece of jargon, that sets the speaker apart from their audience and leaves them standing.

(GreenSpec BRM '11)

PARALLEL

Operations carried out 'in-parallel', at the same time

As opposed to a consecutive series of operations, one after the other

(GreenSpec BRM '10)

PARALELLS

PC emulation for the Apple community to enable use of PC only software on an Apple computer

(GreenSpec BRM '10)

PARAMETRIC

Property(ies) of Objects in 3D CAD, objects can be assigned some properties that its software detects and knows how to respond to them or make use of them, this might include dimension(s) so a U value calculator will be able to recalculate when a materials thickness is increased.

See: AI, Artificial Intelligence, Clash Detection, Snap,

(GreenSpec BRM '11)

PARAPET WALL

Low wall at the edge of a flat or pitched roof, replacing eaves and gutters and hiding parapet gutters between pitched roof and wall, often decorative and including copings

(GreenSpec BRM '10)

PARAPET GUTTER

(GreenSpec BRM '10)

PARETO'S PRINCIPLE – THE 80-20 RULE

Quality Management pioneer, Dr. Juran observation of the "vital few and trivial many", the principle that 20 percent of something always are responsible for 80 percent of the results, became known as Pareto's Principle or the 80/20 Rule.

The 80/20 Rule

that in anything a few (20 percent) are vital and many (80 percent) are trivial.

In Juran's initial work he identified 20 percent of the defects causing 80 percent of the problems.

Project Managers know that 20 percent of the work (the first 10 percent and the last 10 percent) consume 80 percent of your time and resources.

You can apply the 80/20 Rule to almost anything, from the science of management to the physical world.

You know 20 percent of your stock takes up 80 percent of your warehouse space and that 80 percent of your stock comes from 20 percent of your suppliers.

Also 80 percent of your sales will come from 20 percent of your sales staff. 20 percent of your staff will cause 80 percent of your problems, but another 20 percent of your staff will provide 80 percent of your production.

It works both ways.

The value of the Pareto Principle for a manager is that it reminds you to focus on the 20 percent that matters.

Of the things you do during your day, only 20 percent really matter.

Those 20 percent produce 80 percent of your results. Identify and focus on those things. When the fire drills of the day begin to sap your time, remind yourself of the 20 percent you need to focus on.

If something in the schedule has to slip, if something isn't going to get done, make sure it's not part of that 20 percent.

Pareto's Principle, the 80/20 Rule, should serve as a daily reminder to focus 80 percent of your time and energy on the 20 percent of your work that is really important. Don't just "work smart", work smart on the right things.

See: <http://management.about.com/cs/generalmanagement/a/Pareto081202.htm>

(Based on F. John Reh, www.about.com Guide <http://management.about.com/bio/F-John-Reh-229.htm>)

Architectural Design: the first 20% of your design time determines 80% of the costs of the project then 80% of your time determine 20% of the costs.

A one page outline specification can determine a cost plan to within +/-10% and a 200 page contract specification can determine the total costs.

Energy efficiency: the first 20% of the decisions will save 80% of the energy, the remaining 20% of energy saving will take 80% of your decisions

Oriental management: 80% at front end working it out, to go fast in production

UK management: Get stuck in, work it out on the hoof, and throw labour at it towards the end.

(GreenSpec BRM '10)

PARGE COAT

A single base coat of plaster applied to the inside face of masonry walls to achieve a level of air tightness before applying plasterboard drylining.

Ironically plasterboard was introduced to eliminate wet trade plaster, parge coats reintroduce them.

See: Drylining,

(GreenSpec BRM '09)

PARGING

A thin coat of plaster applied to masonry to seal the surface.

Often used to ensure airtightness.

(GreenSpec AEP '09)

PARTICIPATION

To be actively involved in decisions and implementation of actions.

Playing a part in all aspects of a service – planning, carrying out, consuming, evaluating.

There are different levels of participation.

Having choice over the level at which one participates

(Participation Works Partnership)

See: Community Participation

(GreenSpec BRM '11)

PARTICIPATION WORKERS NETWORK ENGLAND (PWNE)

A network of participation workers from around the country who aim to support each other's work

(Participation Works Partnership)

PARTICULATE

The tiny particles of solid or liquid suspended in a gas or liquid.

(GreenSpec AEP '09)

PARTICULATE MATTER

(e.g. smoke) this comes from partly burned fuel.

Road vehicles, especially diesel engines, are now the largest source of smoke in the UK.

There is now concern that some of the chemicals contained in smoke may cause cancer.

(Cherrington '95)

PART L

Building Regulations Approved Document L 'Conservation of Fuel and Power' is being revised for launch in 2010.

The lighting energy requirements have been tightened up and there are some fundamental changes from the 2006 version.

<http://www.planningportal.gov.uk/wales/professionals/buildingregs/technicalguidance/bcconsfppartl/bcconsfppartlappdoc/>

Compliance Guides:

Domestic: http://live.planningportal.gov.uk/uploads/br/domestic_building_compliance_guide_2010.pdf

Non-domestic: http://live.planningportal.gov.uk/uploads/br/non-domestic_building_compliance_guide_2010.pdf

(GreenSpec JB '10 & BRM '10)

PART M

Building Regulations Approved Document M,

See: DDA, Disability Discrimination Act,

(GreenSpec BRM '11)

PARTNERING AGAINST CORRUPTION INITIATIVE (PACI)

A WEF initiative to reduce the incidence of corruptions in business activity.

Considered by GreenSpec's GreenLight in assessing manufacturers.

(GreenSpec BRM '11)

PARTNERSHIP AND COMMUNITY TRUST OR POLICE AND COMMUNITY TEAMS (PACT)

(Participation Works Partnership)

PARTNERSHIP BOARD

Group that governs the children's work through partnerships, representing the different partner organisations that are involved, clients, etc.

(Participation Works Partnership)

PARTNERSHIP MANAGEMENT BOARD (PMB)

(Participation Works Partnership)

PARTNERSHIP MANAGEMENT GROUP (PMG)

(Participation Works Partnership)

PARTS PER MILLION (ppm)

Units used for describing pollutants for example CO₂ in the atmosphere (Mass basis)

(GreenSpec '10)

PARTY WALL OR FLOOR

Alternative, common terminology to separating wall or floor.

(CC Publication: Concrete and Sound insulation)

PARTY WALL

Acoustic and fire resistant wall on an interior lot line used or adapted for joint service between two attached buildings, plots or lots within a building.

Party walls were regarded as neutral, i.e. heat was not to be lost or gained through party walls.

Timber framed party walls were permitted to have minimal insulation and it could all be in one leaf of a two leaf cavity wall, hence one property was insulated and the other was not.

Leeds Met University discovering that party walls are a major source of heat loss and cavity party walls act as *chimneys* for *stack effect* to take the heat lost to roof level,

Building Regulations Approved Document L "Part L" will introduce requirements for thermal insulation during 2010.

See Compartment Wall, Separating Wall, Semi-detached, terrace, Apartments, Flats,

(GreenSpec BRM '10)

PAS See: **PLANNING ADVISORY SERVICE**

PAS See: **PUBLICALLY AVAILABLE STANDARD**

PAS 100

Publically available standard for compost with recycled content.

There is an accreditation scheme and a network of recyclers.

The standard sets limits for chemical content, but it has been argued that essential minerals will be missing and vegetable absorb essential minerals, one of the reasons we eat them to promote healthy body growth and healing.

See: Compost

(GreenSpec BRM '10 – '11)

PAS 2030

The BSI Publically Available Standard for the implementation of the GreenDeal funding mechanism.

See: GreenDeal, PAS

(GreenSpec BRM '11)

PAS 2050

Carbon Trust's new carbon labelling scheme developed with BSI under the Publicly Available Standard procedures

Graham Sinden is technical manager of PAS 2050

29th of October 2008 launch

Addresses Carbon Sequestration and is adopted in LCA Life Cycle Assessment.

(GreenSpec BRM '08 – '11)

PASCAL (Pa)

A unit of measuring air pressure.

(GreenSpec AEP '09)

PASS See: **GreenSpec PASS**

PASSIVE COOLING

Technologies or design features used to cool buildings without power consumption.

(GreenSpec AEP '09)

Thermally massive building fabric can be exploited not only to remove and store heat but also to remove and store coolth from the indoor air or specifically directed outdoor air.

Thermal mass can therefore be used to eliminate the need to install mechanical cooling or air conditioning.

Avoiding the use of suspended ceilings exposes the underside of thermally massive floors;, air passive above a ceiling in

a plenum can also exploit the thermal mass of the structural floor, the same applied to raised access floor voids, risers etc.

Steel permanent formwork prevents the thermal mass of a concrete floor from being exploited.

Luminaires must be as efficient as possible to avoid 173ampsh heat to the air that pass over the luminaire and could change the temperature of the thermal mass.

Carefully co-ordinate with acoustic baffles, lighting, etc. to avoid 173ampshire or shadowing of radiant coolth.

(GreenSpec BRM '10)

PASSIVE DAYLIGHTING

See: Daylight, Sunlight,

(GreenSpec BRM '11)

PASSIVE GAINS

the ability to access light and warmth from the sky and sun, and natural ventilation due to the careful design of buildings and products or systems.

(Hastoe HA GreenStreet.org)

PASSIVE HOUSE

See: Passivhaus, PHPP,

See: Passipedia: [Passive House](#)

(GreenSpec BRM '11)

PASSIVE HOUSE WINDOWS

See: Passipedia: [Passive House windows](#)

See: Windows, Doors,

(GreenSpec BRM '11)

PASSIVE HOUSE PLANNING PACKAGE (PHPP)

See: Passipedia: [Passive House Planning Package – PHPP](#)

See: Passivhaus, PHPP,

(GreenSpec BRM '11)

PASSIVE HOUSE SUITABLE COMPONENTS

See: Passivhaus Accredited, Or Equivalent,

See: Passipedia: [Passive House suitable components](#)

(GreenSpec BRM '11)

PASSIVE HOUSE WINDOWS

'Passivhaus' Window

See: Passipedia: [Passive House windows](#)

(GreenSpec BRM '11)

PASSIVE INFRA-RED (PIR)

Use of infrared light for heat detection purposes, used as part of a control system, used as a presence detector in which heat often the warm body of a person, is detected and its presence is a reason for turning on lighting or setting off audible or visual alarms or to instigate further investigation.

(GreenSpec BRM '10)

PASSIVE SOLAR DESIGN (PSD)

A design strategy that optimises a building's form, fabric and orientation to maximise solar gain from autumn to spring, whilst minimising it during the warmer part of the summer.

At the same time, daylighting is maximised at all times.

Passive solar design has long been the key element in developing low-energy building solutions in the UK – often characterised by large integrated conservatories.

The alternative Passivhaus approach, with its emphasis on energy conservation, will likely interrupt this particular evolutionary design branch.

(GreenSpec AEP '09)

is the use of various design techniques in a building to maximise the amount of the sun's heat and light entering a building and therefore reducing the need for mechanical forms of heating.

These techniques include effective orientation of the building, careful consideration of the location and use of rooms within the building, large south-facing windows, natural solar shading and ventilation, and the use of thermal mass within the building.

Proper consideration to passive solar design can significantly reduce heating bills.

(Ecos Renews 17)

PASSIVE SOLAR HEATING

Bat Boxes can be placed to optimise solar gains by facing south west to warm them before sunset and the heat can be exploited if they are dark coloured and made with some thermal mass in their materials.

(GreenSpec '09)

PASSIVE SOLAR ORIENTATION

To keep heating costs and fuel consumption to a minimum buildings can be designed as 'passive' where only the sun and wind drive or are the heating and ventilation systems.

This is dependent upon the building and their rooms benefiting from the heat of the sun in the right rooms at the right times of the day.

This

being orientated towards or facing the sun and positioning rooms on the correct side of the building to gain the heat,

overshadowing by other building and trees can complicate this process.

As a rule of thumb, bedrooms and kitchens are often arranged on the north-east to east to benefit from early morning sun to wake us and no high summer sun to blind us reflecting off stainless steel sinks, winter sun entering living rooms is beneficial and evening summer sun will warm rooms before sunset and if exploited well can keep us warm into the evening and night.

(GreenSpec '09)

PASSIVE SOLAR TECHNOLOGY

Devices and design methodologies that use sunlight for useful energy without use of active mechanical systems.

Passive solar technologies include direct and indirect solar gain for space heating, solar water heating systems, use of thermal mass and phase-change materials for slowing indoor air temperature swings, and solar chimneys for enhancing natural ventilation.

(GreenSpec AEP '09)

PASSIVE STACK VENTILATION (PSV)

Ventilation systems based on the 'Stack Effect'.

This is the movement of planned air paths through the dwelling as a result of internal and external temperature differences and wind induced pressure differences.

(GreenSpec AEP '09)

Winter gardens (conservatories) can be a source of differences in temperature or pressure needed for stack effect to provide ventilation opportunities, providing passive stack effect ventilation in summer and reservoirs for heat reclamation in winter, feeding the ventilation systems heat exchangers.

See: Natural Ventilation

(GreenSpec BRM '10)

PASSIVE VENTILATION

Building and parts of them with less acoustic restrictions, opening the perimeter windows can allow air movement and wind to ventilate the interior, replacing stale humid and hot air with cooler, cleaner, refreshing air.

Rural buildings have greater opportunity to exploit this natural ventilation, urban areas may have too much traffic noise and pollution to permit this opportunity.

The wider the floor plates (deep plan offices) the more difficult this becomes, and then passive ventilation may not be enough; wind driven turrets provide active ventilation and provide sufficient outdoor air and air change rates, mitigating the need for mechanical ventilation or cooling.

See: Natural Ventilation

(GreenSpec BRM '10)

PASSIVHAUS

Is an energy-only design standard.

www.passivhausproducts.co.uk

<http://www.greenbuildingstore.co.uk/passivhaus.php>

See: also Minergie, CarbonLite,

(GreenSpec BRM '08)

PassivHaus Institute in Germany have developed a design standard for very low energy consumption buildings.

It combines very low U value building fabric and windows, high levels of airtightness, low level mechanical ventilation and high efficiency heat recovery and exploits the heat generated by humans, pets, cooking, equipment and appliances.

This design standard was developed for housing but has been adopted for other non-domestic building types.

It focuses on energy efficiency rather than carbon focussed targets unlike UK policy.

Its use in the UK as a readymade solution is gaining ground and proving popular with Architects.

Passivhaus also has a product certification scheme for manufacturers addressing many components, e.g. windows and doors, whole buildings and even permanent formwork which helps achieve airtight concrete construction.

Passivhaus addresses indoor air quality by mechanical ventilation rather than choice of materials in construction.

(GreenSpec '09)

The term 'PassivHaus' refers to a specific construction standard for buildings which have excellent comfort conditions in both winter and summer.

These principles can be applied not only to the residential sector but also to commercial, industrial and public buildings.

<http://www.passivhaus.org.uk/index.jsp?id=667>

(GreenSpec JB '10 & BRM '10)

PassivHaus is a building design system, originating from Austrian design, which has the key requirement that heating and cooling systems are met by pre-heating the fresh incoming air.

It works on the basis of 'sealed box' technology with complete air-tightness.

(RICS '11)

See: Super E, Minergie, Passive House, PHPP, CarbonLite

See: Passipedia: [Passive House](#)

(GreenSpec BRM '11)

PASSIVHAUS STANDARD

Is a construction standard for all buildings which emphasises high levels of insulation and airtightness, minimal thermal bridging, use of solar and internal heat gains and tightly controlled ventilation.

(GreenSpec AEP '09)

PASSIVHAUS PLANNING PACKAGE (PHPP)

A modelling and accreditation software tool developed and updated by the Passivhaus Institut.

(GreenSpec AEP '09)

AECB CarbonLite compared UK SAP and PHPP line my line the result is posted on the UKGBC website.

PHPP works well with low energy building, despite 175ampshir revisions SAP has a long way to go.

(GreenSpec BRM '10)

PHPP PassivHaus Planning Package is the software used to verify PassivHaus compliance.

Passivhaus Institute Germany:

Product Reference: PHPP Passivhaus Planning Package

www.passivhaus.de

Part of the Passivhaus Institute tools is more sophisticated than UK's SAP but needs to be modified to reflect UK climate and UK mains supply energy mix.

It has been interpreted for a UK climate and mains energy mix by AECB Carbonlite programme and in their scheme is seen as an equivalent of Code for Sustainable Homes level 5 (energy only).

See: CarbonLite

www.carbonlite.org.uk

See: PassivHaus

See: Passipedia: [Passive House Planning Package – PHPP](#)

(GreenSpec BRM '09 – '11)

PAYBACK PERIOD

The number of years it takes to recoup an initial investment.

(GreenSpec AEP '09)

Whenever we consider installing renewable energy equipment we are encouraged to consider the pay back period by the QS, to put us off paying for expensive equipment.

The pay back period is how long it takes to reclaim the money spent, in savings in heating or electricity bills.

The best payback periods come from cheaper initial costs with the biggest savings short and long term.

Traditional investors want a short payback period, but in environmental terms the long term returns are important too.

Thermal insulation is a better investment with short payback periods, than renewable energy equipment.

However since the introduction of FIT and RHI in the UK in 2010 and 2011 payback periods have reduced and return on investment is strong and long term.

We are never asked about the payback period of other building or landscape items.

We need to start thinking about carbon pay back periods instead of money pay back periods.

See: Carbon Accounting, Carbon Audits, Carbon pay back periods.

(GreenSpec BRM '11)

PAYP See: **POSITIVE ACTIVITIES FOR YOUNG PEOPLE**

PAYS See: **PAY AS YOU SAVE**

UKGBC's Scheme

The Home Energy 'Pay As You Save' (PAYS) will give households the opportunity to invest in energy efficiency and micro-generation technologies in their homes with no upfront cost.

Householders will make repayments spread over a long enough period so that repayments are lower than their predicted energy bill savings, meaning financial and carbon savings are made from day one.

PAYS is not applicable to the business sector

(GreenSpec '10 – '11)

PB See: **PREFERRED BIDDER**

PBT See: **PERSISTENT, BIOACCUMULATIVE AND TOXIC**

PBT See: **PERSISTENT, BIOACCUMULATIVE AND TOXIC SUBSTANCE**

PC See: **POLITICALLY CORRECT**

terminology non-biased terms instead of traditional male orientated terms or sexist remarks, for example. Gets a bit silly sometimes. What is the non-sexist way of saying Manage? – Personage! Not the same thing I think. What is the feminine version of Manager? Womanager! What a load of old BS.

(ASWS BRM '97)

PC See: **PERSONAL COMPUTER**

PC See: **PARISH COUNCIL**

PCBs See: **POLYCHLORINATED BIPHENYLS**

(UNEP See: Environment and Trade — A Handbook '05)

PCM See: **PHASE CHANGE MATERIALS**

Materials that readily change from solid to liquid, liquid to gas, gas to liquid or liquid to solid

In this example the material has 3 phases

This phase change is usually associated with introducing or withdrawing heat, ice + heat = water, water + heat = steam, steam – heat = water, water – heat = ice

Some materials have greater capacity to absorb and release heat, e.g. wax

Use of phase change materials allows heat from a space to be absorbed by the PCM and be stored away and later when the space becomes colder the heat can be released from the PCM back into the space.

To exploit the phase change capability the PCM should be spread thinly over large areas to absorb and release the heat over a large surface area.

Phase change materials can be used in room linings e.g. wall and ceilings; lining boards have been developed, e.g. plasterboard containing wax and metal double skin panels containing wax.

PCM can also be used in bulk with integrated heat exchange pipes to store heat collected in one time period for use in a

later time period e.g. Solar panels can collect heat in the day, store the heat in PCM and heat can be released in to a room in the evening or at night.

If PCMs are used to absorb excess heat from the air in a computer room and the computers are never turned off the PCM cannot cool down so there is not loss or gain to be had and you spent your money unnecessarily.

(GreenSpec '09 – '11)

PCN See: **PERSONAL CERTIFICATION IN NDT**

Owned and operated through BINDT.

(Ired '09)

PCR See: **POST-CONSUMER RECYCLATE**

Where products are badged with recycled content, look out for the subtle distinction between 'post-consumer waste' and 'pre-consumer' waste.

'Post-consumer' waste refers to products that have reached the end of their life cycle and would otherwise be heading for landfill;

'Pre-consumer waste' is the waste generated by a manufacturer as part of a fabrication process.

Factory-floor sweepings are 'pre-consumer' waste.

Products will often contain the two, but using post-consumer waste is the real achievement.

(GreenSpec AEP '11)

PCR See: **PRODUCT CATEGORY RULES**

An essential part of an LCA

(GreenSpec BRM '11)

PCS See: **POST COMPLETION STAGE (PCS)**

PCS See: **POST CONSTRUCTION STAGE**

PCSB See: **POLICE COMMUNITY SAFETY BOARD**

PCT See: **PRIMARY CARE TRUST**

PD See: **PUBLISHED DOCUMENTS**

often a standards like a *BS* or *CP* but not having the same status as them, usually published by *BSS* or *BSG*.

(ASWS BRM '97)

PDC See: **PROFESSIONAL DEVELOPMENT CENTRE**

PDP See: **PERSONAL DEVELOPMENT PLAN**

sets out your proposed *CPD* subject goals, at the beginning of the year. It is where you decide what you want to learn this year, then you need to set out to find the places of learning where the subjects are being offered. If there are subjects on your *PDP* let the *Practice* know what they are and they may be able to arrange for the subject to be taught in the *Practice's* office in its *CPD* series.

(ASWS BRM '97)

PE See: **POLYETHYLENE**

PE See: **PRIMARY ENERGY**

PEAK OIL

The point at which the two lines for the rate of economically exploited oil deposit discoveries dwindles and consumption of the oil generated rises and cross each other.

Institute Of Strategic Studies report Sustainable Energy Security: Strategic Risks and Opportunities for Business Claims that the price of crude oil could more than double by 2013, and that 'peak oil' is upon us.

(ISS '10)

PEAK FISH

The point at which the two lines on a graph, for the rate of economically exploited fish in the oceans dwindles and consumption of the fish and fish products rises and cross each other.

See: Marine Stewardship,

(GreenSpec BRM '11)

PEAT-FREE

See: Recycled, Compost, PAS 100,

(GreenSpec BRM '11)

PEAT ALTERNATIVES

See: Peat-free

(GreenSpec BRM '11)

PEBBLE DASH

Roughcast wall finish with stones bedded in rendered wall

(Builder Hampshire Directory '10)

PECT See: **PETERBOROUGH ENVIRONMENT CITY TRUST**

PEER REVIEW

(Renueables AN '09)

An essential part of an LCA, lacking from BRE's Green Guide to Specification and BRE Environmental Profiling

(GreenSpec BRM '10)

PEFC See: **PROGRAMME FOR THE ENDORSEMENT OF FOREST CERTIFICATION**

PERFLUOROCARBONS (PFC)

A by product of aluminium production when things do not o to plan, a risk of Ozone depletion potential.

See: Red Mud, ODP,

GreenSpec BRM '11)

PERFORMANCE CHARACTERISTICS

See: Specification, D&B, Employer's Requirements, Prescriptive, Materials & Workmanship (GreenSpec BRM '10 – '11)

PERFORMANCE OF A CONSTRUCTION PRODUCT

The performance related to the relevant *essential characteristics*, expressed by *level* or *class*, or in a description (CE Marking for SMEs & CPR '11)

PERFORMANCE SPECIFICATION

See: Declaration Of Conformity, Performance Characteristic, Employer's Requirements, Design & Build, Outline Specification, (GreenSpec BRM '11)

PERFORMANCE INDICATOR

performance indicators are calculated for the designed indoor environmental conditions and are generally used to indicate how the building performs from energy, carbon dioxide emissions and cost stand point. Systems can be identified as HVAC, DHW, lighting, automation and control systems.

Examples:

Different indicators are listed here after as illustrations, selections would depend on the aim and objective of the project.

1) Energy demand of the building envelope

Total energy demand [kWh]

Energy demand / Floor unit [kWh/m²]

2) Integrated performance including systems

2a Total Energy Used [kWh]

2b Integrated intensity of energy used = 2a/Floor unit [kWh/m²]

2c Building (active) efficiency = Energy demand/Energy used [-]

3) Primary (weighted) energy performance

Same as 2 but multiply energy used from any energy carrier with weighted primary coefficient

4) CO2 emission

4a Total CO2 emission per year [g]

4b Relative CO2 emission 4b = 4a / Floor unit [g/m²]

5) Cost efficiency:

5a Design cost per total energy cost and floor unit

5b Design cost per floor unit

5c Design cost per total energy used

Design cost could be defined in different ways

-investment costs

-global economics including annual costs

-cost related to design life time of the building including any operational costs (LCC)

(Building Energy Glossary '06)

PERMACULTURE

PERMACULTURE ADVICE SOUGHT

PERMEABILITY

A measure of the ability of a material to transmit liquids, fluids or gases.

(GreenSpec AEP '09 & BRM '10)

PERMEABLE PAVING

PERMEABLE PAVING AND LANDSCAPING

Provides a structural pavement whilst allowing water to pass straight into the pavement construction for temporary storage and dispersal into the ground or for collection. It is one of the main techniques for Sustainable Drainage Systems (SUDS).

(GreenSpec AEP '09)

PRELIMINARY ITN (PITN)

See: PFI, PPP, ITN

(John Laing & GreenSpec BRM '10)

PERMEABLE SURFACE

A surface that infiltrates water to the sub-base across the surface between the joints of of the paving components,

The paving units often have mitred top edges and vertical slots on the edges.

See: Permeable Paving and landscape, SUDS

(GreenSpec BRM '10)

PERMANENTLY INSTALLED

equipment that is fixed in place and is not portable or moveable.

Such equipment will be replaceable at the end of its serviceable life.

(GreenSpec BRM '10)

PERSISTENT, BIOACCUMULATIVE AND TOXIC SUBSTANCE (PBT)

PERSISTENT ORGANIC POLLUTANT (POP)

Organic compounds that are resistant to environmental degradation through chemical, biological, and photolytic processes. Because of this, they have been observed to persist in the environment, to be capable of long-range transport, bioaccumulate in human and animal tissue, biomagnify in food chains, and to have potential significant impacts on human health and the environment.

(GreenSpec AEP '09)

PERSONAL ADVISER (PA)

(Participation Works Partnership)

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Includes hard hats, goggles, gloves, ear muffs, full body harness, lanyards, safety lines, reinforced toe caps in boots, fire fighter's suits and breathing apparatus, depending upon the nature of the work being carried out.

Used to protect, defend and maintain life, health and well being whilst carrying out risky and dangerous work.

(GreenSpec BRM '11)

PERSONAL COMPUTER (PC)

normally associated with *IBM PC's* and *Clones*, but also used in connection with *Mac's* but less frequently.

(ASWS BRM '97)

PERSONAL, SOCIAL AND HEALTH EDUCATION (PSHE)

(Participation Works Partnership)

PERVIOUS SURFACE

A surface that allows inflow of rainwater into the underlying construction or soil.

(GreenSpec AEP '09)

See: Permeable Surface

(GreenSpec BRM '10)

PESTICIDE ACTION NETWORK (PAN)

(GreenSpec BRM '10)

PET POLYETHYLENE TEREPHTHALATE

(Envirowise Packaging & Waste)

(CIRIA RP656 Design for Deconstruction Bill Addis)

PETA See:

PETROCHEMICAL OZONE CREATION POTENTIAL (POCP)

PF See: **PHENOL- FORMALDEHYDE**

PF See: **POWER FACTOR**

PFA See: **PULVERISED FUEL ASH**

PFC See: **PERFLUOROCARBONS**

PFI See: **PRIVATE FINANCE INITIATIVE**

PGI See: **PROTECTED GEOGRAPHICAL INDICATION**

pH VALUE

A measure of how acidic or alkaline a substance is.

Hydrogen ions levels in a liquid, change the liquid from alkaline through neutral to acidic, with more hydrogen ions making the liquid more acidic.

Concentration of hydrogen ions can range from just a few ions to many billions of ions per litre.

pH values range from 1 to 14, 1 being very acidic, 7 being neutral, e.g. distilled water, 14 being very alkaline (the opposite of acidic).

Cement is alkaline and is corrosive.

Some species of timber are acidic, which can corrode fasteners and tannin from the timber can stain absorbent materials below the timber.

(Cherrington '95)

PHA/PHB See: **BIOPOLYMER**

(Envirowise Packaging & Waste)

PHASE IN SUBSTANCE

A substance which meets at least one of the following criteria:

It is listed in the European Inventory of Existing Commercial Chemical Substances (EINECS).

It was manufactured in the Community, or in the countries acceding to the European Union on 1 January 1995 or on 1 May 2004, but not placed on the market by the manufacturer or importer, at least once in the 15 years before the entry into force of this Regulation, provided the manufacturer or importer has documentary evidence of this.

It was placed on the market in the Community, or in the countries acceding to the European Union on 1 January 1995 or on 1 May 2004, before entry into force of this Regulation by the manufacturer or importer and was considered as having been notified in accordance with the first indent of Article 8(1) of Directive 67/548/EEC but does not meet the definition of a polymer as set out in this Regulation, provided the manufacturer or importer has documentary evidence of this.

(HSE REACH '10)

PHENOL

Common ingredient of paints: Biocide.

Can cause mouth, eye, nose and throat irritation; dermatitis, headache, dizziness, muscle ache and pain, tremors and twitches.

(GreenSpec '10)

PHENOL- FORMALDEHYDE (PF)

Adhesive used in wood panel products

See: MDI, MUF, PF, PMDI, UF

(GreenSpec BRM '10)

PHENOLIC FOAM INSULATION

Phenolic foam insulation is made by combining phenol-formaldehyde resin with a foaming agent.

When hardener is added to the mix and rapidly stirred, the exothermic reaction of the resin, together with the action of the foaming agent, causes foaming of the resin.

This is followed by rapid setting of the foamed material.

Though more usually employed in building services applications, phenolic foam panels are suitable as insulation for roofs, walls and floors.

Phenolic foam is also popular in laminate form as an insulation backing to rigid boarding such as plasterboard.

See: PIR, PUR

(GreenSpec AEP '10)

PHENOLS

Hydrocarbons used to make resins and glues. Very toxic and may outgas.

(GreenSpec AEP '09)

PHEV See: **PLUG-IN HYBRID ELECTRIC VEHICLE**

PHOTOCHEMICAL OXIDATION

The formation of reactive chemical compounds, such as ozone, by the action of sunlight on certain primary air pollutants. These compounds may be injurious to human health, ecosystems, materials and crops.

(GreenSpec AEP '09)

PHOTOCHEMICAL OZONE CREATION POTENTIAL (POCP)

(ERFMI '08)

PHOTOCHEMICAL OZONE CREATION POTENTIAL (POCP)

Emissions of chemicals as smoke that when combined with fog cause 'smog', that can be breathed in 179ampshire affecting human health but also affecting natural resources and the environment.

LCA Units: kg etene

(GreenSpec BRM '11)

PHOTOLYTIC

Using solar radiation to break chemical bonds within materials at atomic level or to catalyse (speedup but not participate in) a chemical reaction.

(Cherrington '95)

PHOTO-OXIDANT FORMATION (POF)

(ERFMI '08)

PHOTOSYNTHESIS

Photosynthesis is the process by which plants produce their own food.

They use carbon dioxide from the atmosphere, water from the ground and energy from the sun to produce food.

When plants do this, they produce oxygen as a waste product, which they emit back to the atmosphere.

Many under water plants do the same thing to replenish oxygen levels in water.

(Cherrington '95)

PHOTOVOLTAIC (PV)

The process of light conversion into electricity.

(Hastoe HA GreenStreet.org)

Converts sunlight or daylight into electricity

(GreenSpec '10)

PHOTOVOLTAIC (PV) SOLAR CELL

A module incorporating a semiconductor that generates electricity when exposed to sunlight.

(GreenSpec AEP '09)

Solar photovoltaics are solid state cells, typically made from silicon, that convert sunlight directly into electricity.

(Ecos Renews 17)

a device for converting solar energy into low-voltage electricity

(CIRIA RP656 Design for Deconstruction Bill Addis)

PV absorb daylight (contrary to general opinion – sunshine is not necessary) merely radiation and converts it into electricity.

Photovoltaic cells consist of two or more thin layers of a semi-conductor material, usually silicon, and designed with a positive and negative layer to create an electrical field.

Electricity created is in DC format and has to be converted to AC via an inverter and energy management system.

Photovoltaic systems are not the cheapest form of renewable energy on the market – come to that what is?

They can be installed as either individual panels, vertically in double glazed units, at an angle on a pitched roof, or in thin film solar roof tiles.

As an approximate guide 8m² of PV will produce approximately 830KWh of power at 1KWp.

So to power a house fully from PV would require something in the order of 60 m² and cost about £36000, saving somewhere in the region of 740kg Carbon per annum.

Although more modest PV arrays are normally installed at somewhere around 10% of the annual electricity consumption, which would cost around £6000.

One overpowering factor has to be considered when planning the installation of a PV system; they work far more efficiently if sited with a southerly aspect.

(based on Building Magazine Steve Piltz, Turner & Townsend '08)

PHOTOVOLTAIC THERMAL (PVT or PV-T)

CHP Combined heat and power on a roof, PV turn sunlight into electricity, ST panel below the PV removes the heat to allow the PV to work more efficiently.

PV and ST (solar thermal) panels combined

PV lose efficiency when hot, so combining PV with ST the ST can take the heat away and permit the PV to operate at higher performance.

Results in a CHP Combined Heat and Power panel
(GreenSpec BRM '10)

PHPP See: **PASSIVHAUS PLANNING PACKAGE**

PIC See: **PRIOR INFORMED CONSENT**

PIER

A tall narrow thickening of a wall to form a projection to strengthen a wall by stiffening it along its length

See: also Buttress

(GreenSpec '10)

PIFA See: **PACKAGING AND INDUSTRIAL FILMS ASSOCIATION**

(HAPM and BPG CLM '97)

PIGS URINE

Urea, collected and dried to pellets and used as a non-corrosive substitute for road salting.

Suffers the same problems as Deslination Plants, high embodied energy and potentially high embodied carbon too.

(GreenSpec BRM '11)

PII See: **PARTNERS IN INNOVATION**

PII See: **PROFESSIONAL INDEMNITY INSURANCE**

PILASTER

Ornate square column attached to and projecting from a wall surface

(Builder Hampshire Directory '10 & GreenSpec BRM '10)

PIN See: **PRIOR INFORMATION NOTICE**

PIPING

system for conveying fluids including pipes, valves, strainers, and fittings

(Building Energy Glossary '06)

PIR See: **PASSIVE INFRA-RED**

PIR See: **POLYISOCYANURATE**

PITCH

Slope of roof or staircase, expressed as an angle or ratio

(Builder Hampshire Directory '10 and GreenSpec '10)

PITN See: **PRELIMINARY ITN**

PITT REPORT

Reporting after the recent inland river flood incidents in the UK has led to the introduction of the Flood & Water Management Act 2010

Now EA have been give their teeth back in the T&C Planning process, at last sensible decision can be made and upheld.

PLA See: **MAIZE-BASED POLYMER**

(Envirowise Packaging & Waste)

PLACING ON THE MARKET

Supplying or making available, whether in return for payment or free of charge, to a third party. Import shall be deemed to be placing on the market.

(HSE REACH '10)

The first making available of a construction product on the Union market

(CE Marking for SMEs & CPR '11)

PLAIN ENGLISH CAMPAIGN

Crystal Mark Approval is given for documents using Plain English as part of a campaign fighting for crystal-clear communication since 1979.

An organisation in the UK that have been campaigning against gobbledygook, jargon and misleading public information.

<http://www.plainenglish.co.uk/>

(GreenSpec BRM '10)

PLAIN TILE

Rectangular "flat" roofing tile.

See: Pantile, Roman Tile, Ridge and Hip tile, Slates, Shingles, Shakes

(Builder Hampshire Directory '10 & GreenSpec BRM '10)

PLANNING APPLICATION

Request for permission to develop an area of land to the local Town and Country Planning authority.

(Cherrington '95)

PLANNING ADVISORY SERVICE (PAS)

PLANNING ISSUE

Architect-speak for this needs to be addressed in or there is a delay or complications in Town and Country Planning application process.

(Sofie Pelsmakers '11)

PLANTATION THINNINGS

Correct term of FOREST THINNINGS

Tree plantations are created by planting saplings at close centres to encourage competitive growth climbing for sunlight.

As the trees grow they become too crowded so alternate rows of trees are removed, this can happen a few times over the

lifecycle of the crop in the plantation.

As the process is repeated the removed trees are progressively bigger and can yield useful timber, but the sections may be small and restrict the timber applications, so materials and methods of construction have been invented to exploit these arisings avoid them becoming waste or just biomass fuel.

(GreenSpec '09)

PLASTER

Applied wall finish historically made with lime and dung or soil sometimes with horse hair reinforcement or straw, today normally with gypsum and today increasingly with lime or clay.

See Skim, Render

(Builder Hampshire Directory '10 & GreenSpec BRM '10)

PLASTERBOARD

Prefabricated sheets of gypsum plaster with paper facing for dry construction of walls, partitions and ceilings.

In some cases the gypsum used is desulfurisation gypsum (DSG) a biproduct of enery production and flue gas cleaning. Drylining using plasterboard is used to provide a finish using dry construction menthods, however the spaces behind the board make leaky construction for poor air tightness.

See: DSG,

(GreenSpec BRM '10)

PLENUM

enclosure that is part of the air distribution system and is distinguished by having almost uniform air pressure

A plenum often is formed in part or in total by portions of the building.

(Building Energy Glossary '06)

An air compartment connected to a series of ducts. For example, a ceiling plenum is the space above the suspended ceiling and below the floor above, that is used as part of the air distribution system.

(GreenSpec AEP '09)

The space between suspended ceilings and structural floors or between platform floors and structural floors are often used as plenum.

The surfaces of the plenum must be airtight and dust free and also have a low surface spread of flame and in some cases low flame propogation properties.

Large ceiling and floor voids are also broken up by cavity fire barriers this will limit the scope of a plenum in the same cavities.

Exposed concrete floors with plenum can have their thermal mass 181ampshire by passing warm air over their surfaces which will absorbe the heat or in nighttime cooling by purging the heat from the floor and building by passing cooler external airing over the warned surface to cool them.

Hollow concrete floors can be 181ampshire further by connecting the hollow cores to create connected ducts to pass air through and increase the surface area to gain or loose heat too or from.

(GreenSpec BRM '11)

PLINTH

Projecting base to external walls, above ground, projecting wider than wall above, used for extra strength or decorative purposes.

(Builder Hampshire Directory '10 & GreenSpec BRM '10)

PLOT

(Building Energy Glossary '06)

See: Lot, Site

(GreenSpec BRM '10)

PLUG-IN HYBRID ELECTRIC VEHICLE (PHEV)

HEV capable of recharging by direct connection to an electrical charging point by the user

See: HEV

PLYWOOD

Timber panel product made of many thin leaf of wood glued together with grain direction arranged at right angles to provide strength in both directions.

Adhesives and preservative treatment can make them durable but also toxic.

Durable species can be chosen but care must be taken to avoid unsustainable clear felling and illegal logging.

Chain of Custody and plantation certification help to avoid this.

Avoid tropical species unless FSC certified or exhibiting the FSC Label.

INT Internal grade plywood

WBP Water and Boil Proof plywood suitable for external and humid, damp conditions

Shuttering plywood suitable for internal barn owl boxes

Tea chests using plywood suitable for reuse as barn own boxes

Marine Grade Plywood for boat building, excessive in most construction applications

Always look for the BSI Kitemark and get what you are paying extra for.

EkoPly is a Marine grade Plywood

See: *WBP*, INT

(GreenSpec '09)

PMB See: **PARTNERSHIP MANAGEMENT BOARD**

PMG See: **PARTNERSHIP MANAGEMENT GROUP**

PMDI See: **POLYMERIC METHYLENE DI-ISOCYANATE**

POCP See: **PHOTOCHEMICAL OXIDANT CREATION POTENTIAL**

POCP See: **PHOTOCHEMICAL OZONE CREATION POTENTIAL**

POE **POST OCCUPANCY EVALUATION**

POF See: **PHOTO-OXIDANT FORMATION/**

POINTER

the arrow (or hand, I-beam, watch, clock, hourglass, etc.) that appears on the computer screens *desktop*, which is moved by corresponding movements of the *mouse*; when placed on an *icon* or *button* or *Hypertext* and *double clicked* it sends instructions to the computer to start the application represented by the *icon* or jump to the subject of the *hypertext*. (ASWS BRM '97)

POLICE COMMUNITY SAFETY BOARD (PCSB)

(Participation Works Partnership)

POLLUTED/INDUSTRIAL ENVIRONMENT

An environment with airborne sulphur dioxide, acid or alkali pollution, normally from an industrial source.

See: Exposure Conditions

(HAPM and BPG CLM '97)

POLLUTION

Contamination by poisonous or harmful substances.

(Cherrington '95)

POLYAMIDE (PA)

In the form of sheets is used in making vapour barriers or vapour control layers

Product name: Nylon

(GreenSpec '09)

POLYCHLORINATED BIPHENYLS (PCBs)

a class of commercially produced organic chemicals which were developed in the 1930s and were mainly used in the electricity supply industry and mining.

They have been proven to be toxic to both humans and animals.

(SEDA Chemical Reduction in Building '08)

POLYETHYLENE (PE)

In the form of sheets is used in making damp proof membranes, gas proof membranes vapour barriers or vapour control layers and in mainland Europe used as a roof waterproofing membrane; also used to make refuse bags.

Some damp proof membranes are made with 100% recycled polyethylene.

Product Reference: Polythene

See: HDPE, LDPE, LLDPE, UHMW,

(GreenSpec BRM '09 – '10)

POLYETHYLENE TEREPHTHALATE (PET)

(Envirowise Packaging & Waste)

(CIRIA RP656 Design for Deconstruction Bill Addis)

POLYISOCYANURATE (PIR)

A development on polyurethane where there is a slight difference in the constituents and where the reaction is conducted at higher temperatures.

PIR is more fire-resistant and has a slightly higher R value.

Applications include wall, floor and roof insulation.

Non-renewable, high k value performance for thickness thermal insulation, global warming potential,

(GreenSpec AEP '10)

POLYMERIC METHYLENE DI-ISOCYANATE (PMDI)

Adhesive used in wood panel products

See: MDI, MUF, PF, PMDI, UF

(GreenSpec BRM '10)

POLYOLEFIN (TPO)

A collective name for Polyethylene and Polypropylene

See: TPO

(GreenSpec '09)

POLY-TETRA-FLUORO-ETHYLENE (POLYTETRAFLUOROETHYLENE) (PTFE)

A plastic with low surface friction, available as tape for use in threaded joints, sheet and solid block for motorcyclist knee pads and others in between.

(GreenSpec BRM '10)

POLYPROPYLENE (PP)

In the form of pipes used as above ground drainage waste pipes, a good substitute for PVC

In the form of sheets is used in making vapour barriers or vapour control layers

(GreenSpec '09)

POLYURETHANE (PU)

POLYURETHANE (PUR)

A closed-cell rigid board foamed plastic, is formed by reacting two monomers in the presence of a blowing agent catalyst (polymerisation).

Polyurethane is also popular in laminate form in SIPS and as an insulation backing to rigid boarding such as plasterboard.

(GreenSpec AEP '10, BRM '11)

POLYVINYL ACETATE (PVA & PVAC)

Water-soluble (water dispersible) adhesive based on PVAC, used for priming, sealing and as an additive
(GreenSpec BRM '10)

POLYVINYL BUTRYAL (PVB)

Used as an interlayer between glass to make tougher laminated glass that can help prevent a person falling through a glass door, window or balustrade, and through windscreens of cars; in multiple layers laminated glass can stop bullets and pick-axes.

Has UV filtration properties so is used in retail shop windows to prevent goods from fading, also used in museums to prevent artefacts from being affected by UV light.

Can be used in luminaires to minimise the amount of UV light being emitted.

(GreenSpec BRM '10)

POLYVINYL CHLORIDE (PVC)

A non-renewable, carbon releasing hydrocarbon derived from fossil fuel, plastic that is responsible for hazardous waste in its production, that offgasses phthalates in use and releases leachates in landfill.

A very versatile and commonplace material in everyday use.

Some environmental designers exclude its use from their specifications, there are many alternatives.

See: PVC excluded, PVC minimised, PVC-U

PVC-U as opposed to *uPVC*, the newer official abbreviation for Polyvinyl Chloride-Unplasticized,

Also known as *Vinyl*, not to be confused with Lino (short for Linoleum)

(ASWS BRM '97 & GreenSpec '10)

POCP See: **PETROCHEMICAL OZONE CREATION POTENTIAL**

POP See: **PERSISTENT ORGANIC POLLUTANT**

POPS See: **THE STOCKHOLM CONVENTION ON THE CONTROL OF PERSISTENT ORGANIC POLLUTANTS**

(UNEP See: Environment and Trade — A Handbook '05)

POPS See: **PERSISTENT ORGANIC POLLUTANTS**

POROUS PAVING AND LANDSCAPING

See: Permeable Pavement, Permeable Surface

POROUS SURFACE

A surface that infiltrates water to the sub-base across the entire surface of the material forming the surface, for example grass and gravel surfaces, porous concrete and porous asphalt.

See: Permeable Pavement, Permeable Surface

(GreenSpec AEP '09)

POSITIVE ACTIVITIES FOR YOUNG PEOPLE (PAYP)

(Participation Works Partnership)

POST COMPLETION STAGE (PCS)

POST CONSTRUCTION STAGE (PCS)

See: BREEAM, CfSH, Design Stage, DS

(GreenSpec BRM '11)

POST-CONSUMER RECYCLED CONTENT (%)

An end product that has completed its life cycle as a consumer item and would otherwise have been disposed of as a solid waste.

(GreenSpec AEP '09)

POST OCCUPANCY EVALUATION (POE)

The evaluation of opinion about buildings in use, from the perspective of the people who use them.

(GreenSpec AEP '09)

POE are an opportunity to revisit the building services and their controls and if necessary retrain the FM or PM staff in their use to take into account the findings of POE Surveys and to improve efficiency or services.

RIBA Stage M Feed-back

Post Occupancy Evaluation POE

RIBA have discouraged feedback because you get both good or bad and potentially invite litigation

But if we never learn we never correct or progress

Any problems encountered at any stage of project should be collected and fed back, whilst fresh in the mind

Update Word and Excel templates

Include in "Corporate Knowledge" and use in NBS Building's User guidance notes and office specification templates

Establish a "Wish-list"

Every time something goes a little worse than the ideal way you had envisaged, write it down.

Fix it for next time!

(GreenSpec BRM '11)

POTABLE WATER

Drinking water

(GreenSpec AEP '09)

Water fit for human consumption.

In the UK, mains water is potable, hence we have the slightly incongruous situation that drinking water is used to flush our toilets, water plants and wash our cars.

Therefore a large quantity of potable water is needlessly wasted.

(Building Magazine Steve Piltz, Turner & Townsend '08)

POTENTIAL ENERGY

The energy of a body due to its relative position within a gravitational, magnetic or electric field acting around it.
(Cherrington '95)

POWER

in connection with machines, it is the time rate of doing work; in connection with the transmission of energy of all types, it is the rate at which energy is transmitted

Power is measured in *watts* (W)

(Building Energy Glossary '06)

POWER ADJUSTMENT FACTOR

modifying factor that adjusts the effective connected lighting power (CLP) of a space to account for the use of energy conserving lighting control devices

(Building Energy Glossary '06)

POWER FACTOR (PF)

ratio of total real power in *watts* to the apparent power (root-mean-square volt amperes)

(Building Energy Glossary '06)

Imagine a pint of beer, and its lovely brown liquid all the way to the top, and that's what you pay for.

That's good power factor.

Now imagine a pint glass that's half-full with the brown stuff and then filled to the top with foam.

You pay the same money for the same amount, but you get less beer.

That's bad power factor.

The truer analogy, however, would be that you order a pint of beer and get served a two-pint glass that's got a pint of liquid AND a pint of foam in it, and you get charged for two pints.

'Useful' electrical energy is about WATTS – and that's about running a current through a resistance.

But a complex lighting circuit also involves things like inductances and capacitances and they also use up energy – but they don't add anything to the useful wattage of the lamp – but they DO make the meter run around quicker!

And if you're running an inductive furnace they will have an impact on the size of your mains cabling.

Not usually our scale of problem, I know, but there it is.

Philips are trying to claim that PF doesn't automatically make a poor light source – which is true – but also that it doesn't really affect the energy efficiency – which is donkey's doo-das.

What it reads like to me is that YES their LED lamps have low power factor – but they don't know, or can't work out – what to do about it, so they've decided it doesn't matter.

(GreenSpec JB '10)

See: High Power Factor, Low Power Factor, HPF, LPF, LED

(GreenSpec '10)

POZZOLAN

Vitreous siliceous materials which react with calcium hydroxide to form calcium silicates that have cementitious properties.

Use of pozzolans can permit a decrease in the use of Portland cement when producing concrete eg pulverised fuel ash (PFA)

(GreenSpec AEP '09)

PP See: **POLYPROPYLENE**

PPE See: **PERSONAL PROTECTIVE EQUIPMENT**

PPG See: **PLANNING POLICY GUIDANCE**

PPG6 See: **POLLUTION PREVENTION GUIDELINES WORKING AT CONSTRUCTION AND DEMOLITION SITES**

Published by EA

(GreenSpec '10)

PPM See: **PARTS PER MILLION**

(GreenSpec '10)

PPMS See: **PROCESSES AND PRODUCTION METHODS**

(UNEP See: Environment and Trade — A Handbook '05)

PPS See: **PLANNING POLICY STATEMENTS**

PPP See: **PUBLIC PRIVATE PARTNERSHIP**

See: PFI

(GreenSpec BRM '10)

PPR See: **PACKAGING PRODUCER RESPONSIBILITY**

(Envirowise Packaging & Waste)

PQQ See: **PRE-QUALIFICATION QUESTIONNAIRE**

PREASSEMBLY

Unlike MMC and IMC which often apply to whole panels and whole modules of buildings or pods, this applies to smaller parts that are made and preassembled in a factory to allow simple installation on site.

Will apply to landscape, terrace or balcony decking, solar shading, balustrades, cable looms, could be related to radiators with thermostats built in.

Preassembly may occur on site at ground level and then raised into place by crane, e.g. trussed rafter roofs.

(GreenSpec BRM '11)

PRE-CONSUMER RECYCLED CONTENT (%)

A product that contains materials recovered from the waste stream of a manufacturing process.

The recovered materials are not normally those reused by the original process.

(GreenSpec AEP '09)

PREDICTED SERVICE LIFE

Service Life predicted from recorded performance or 185ampshire185185 tests (e.g. stated in test reports or in ETA or other 3rd party accreditation report, e.g. BBA Certificate)

(BSI BS 7543 '92 and GreenSpec BRM '10)

PREFABRICATED MATERIALS

Prefabricated materials are input materials which, before entering the production process, have already been manufactured in one or more production processes upstream.

(Natureplus 2002)

PRE-FABRICATED/MODULAR CONSTRUCTION

See: MMC

(GreenSpec '09)

PREFERRED BIDDER (PB)

A bidder selected from the shortlist to carry out exclusive negotiations with the public sector authority.

See: PFI, PPP

(John Laing & GreenSpec BRM '10)

PREPARATION

A preparation is not in itself an input material.

However, any of the preparation's constituent substances remaining in the product for the purposes of providing specific product characteristics are counted as input materials.

(Natureplus '02)

PREPARATION

A mixture or solution composed of two or more substances.

(HSE REACH '10)

PRE-QUALIFICATION QUESTIONNAIRE (PQQ)

(PFI & PPP bid terminology).

initial qualification round for permission to bid for the contract

Consortium provides the client with an overview of the sponsors' and contractors' experience and contact details.

See: PFI, PPP

(John Laing)

CAP'EM uses a PQQ to filter out the companies that will not want to reveal all their details and prevent the completion of the LCA of their products.

(GreenSpec BRM '10)

PRESCRIBED ASSUMPTION

fixed value of an input to the standard calculation procedure

(Building Energy Glossary '06)

PRESSURE BATTENS

Usually associated with membranes subject to external wind pressure and internal wind pressure buffeting.

Provides additional security at the points or runs where the membrane is subject to maximum tensions and stress.

The batten is applied over the lap joints and fixed through the lapped membranes to the timber structure framing or noggins below, to provide mechanical retention and compression on lapped and sealed joints

See: Dwangs, Noggins, Battens & Noggins

(GreenSpec BRM '09)

PRIMARY AIR SYSTEM

central air moving heating and cooling equipment that serves multiple zones through mixing boxes, VAV boxes, or reheat coils

(Building Energy Glossary '06)

PRIMARY CARE TRUST (PCT)

(Participation Works Partnership)

PRIMARY ENERGY (PE)

Energy taken into account the considered transformation losses of the whole energy chain

For electricity, the primary energy consider the thermal efficiency of the power plant, and the losses due to the transportation of energy through the network.

primary energy efficiency

the ratio between the energy required and the primary energy requirements to assume for the energy used

(Building Energy Glossary '06)

The amount of energy mined or extracted at source; e.g., from coal, oil, natural gas, uranium or wood. Includes losses within processes such as electricity generation and transmission.

(GreenSpec AEP '09)

Units: MJ

(ERFMI '08)

See: Passipedia: [Primary energy](#)

(GreenSpec BRM '11)

PRIMARY MATERIAL

a material whose production has involved extraction from natural reserves

(CIRIA RP656 Design for Deconstruction Bill Addis)

See: Virgin, Secondary, Recycled, Manufactured
(GreenSpec BRM '11)

PRIOR INFORMED CONSENT (PIC)

Short for The Rotterdam Convention On The Prior Informed Consent
Procedure for Certain Hazardous Chemicals and Pesticides in International Trade
(UNEP See: Environment and Trade — A Handbook '05)

See: PAN,
(GreenSpec BRM '10)

PRIOR INFORMATION NOTICE (PIN)

Initial project announcement.
Project announcement also / alternatively made by publishing in OJEU.

See: PFI, PPP
(John Laing & GreenSpec BRM '10)

PRIOR USE

When an organisation uses a variation of a word, a combination of words or phrase as its branding without formal trademark and another company seeks out a formal trademark for the same brand name the first has a right to the name on the basis of Prior Use.

Particularly helpful when the first is a small company the second is a big commercial business that thinks it can bully its way around.

See: Trade Marks, Copyright
(GreenSpec BRM '10)

PRIVATE FINANCE INITIATIVE (PFI)

A policy introduced by the Government in 1992 to harness private sector management and expertise in the delivery of public services, while reducing the impact on public borrowing of providing these services.

The Private Finance Initiative (PFI) is a form of PPP developed by the Government in which the public and private sectors join to provide facilities and services to the general public.

(John Laing)
PFI is likely to bankrupt the Health Services, Education system and Local Authority Waste recycling.

See: PFI, PPP
(GreenSpec BRM '10)

PRN See: PACKAGING WASTE RECOVERY NOTES

(Envirowise Packaging & Waste)
See: WTN Waste Transfer Note

(GreenSpec BRM '10)

PROCESS ENERGY

energy consumed in support of a manufacturing, industrial, or commercial process other than conditioning spaces and maintaining comfort and amenities for the occupants of a building

(Building Energy Glossary '06)

PROCESS LOAD

load on a building resulting from the consumption or release of process energy

(Building Energy Glossary '06)

PROCESSOR

When you purchase a computer one of the 3 most important characteristics is how fast (in MHz – Megahertz or million cycles/second) the processor works (the larger the number the faster it goes) we are increasingly faster processors in PC's now, and this in turn depends on the type of processor.

(ASWS BRM '97)

PRODUCT

The product is the end result of the production process – packaged and ready-to-deliver (i.e. the end product).

(Natureplus 2002)

Manufactured from mined minerals, harvested crops or trees, extracted oil or materials and made into products that usually have a proprietary name or *Product Reference* and made available for sale to bring to the market place.

See: *Assembly, Building, Component, Element, Elemental Assembly, Generic Material, Material, Product, Product Reference, Resource.*

EN 15643-1 proposes products and materials to be described as components
(GreenSpec BRM '11)

PRODUCT AND PROCESS ORIENTATED RESEARCH AND DEVELOPMENT (PPORD)

Any scientific development of a product, or the further development of a substance on its own, in preparations or in articles, in the course of which pilot plant or production trials are used to develop the production process and/or to test the fields of application of the substance.

(HSE REACH '10)

PRODUCT CATEGORY RULES (PCR)

In the context of LCA

See: LCA, Methodology, System Boundaries, Scope of Impact Analysis,
(Renueables AN '10)

PRODUCT DATA SHEET

See: CAP'EM, Product H&S Data Sheet
(GreenSpec BRM '11)

PRODUCT REFERENCE

Used in *NBS Specification* clauses, it is the name of a proprietary product and it helps distinguish it from another product by the same manufacturer and from other manufacturer's products or generic materials.

See: *Component, Product*,
(GreenSpec BRM '11)

PRODUCT SELECTION SEQUENCE

After selecting products for conformance with the performance requirements of the project and before engaging with LCAs, consider a screening system in order to assess products.

LCA is the most in depth, granular way to assess a product/process.

Sometimes getting into the LCA only makes us forget the big picture, and some main strategies that it is opportune to consider first (e.g. *Local sourcing, Recyclability, Ease of disassembly*, etc.)

The best way to go is always starting with broad screening, and only at a later point get into the LCA scale of detail.

LCA analysis can be with SimaPro software analysing a whole building, element by element, but the building impact is not only made by the sum of its elements, it has a process by itself! (Construction, occupation, management, servicing, maintenance, refurbishment, etc).

In addition, the more elements you add to the single assessment, the more likely it is to suffer from aggregated errors.

GreenSpec adopts a screening system for material assessment using *traffic light system* which includes: does it have an LCA?

A does it or doesn't it, yes or No, 1 or 0, scoring system of screening might be 'crude' but it is important to have the parameters that really matter in order to make sensible choices, and it should not be lost even in the presence of reliable and strong LCA data.

BDP have done something similar for interior design products

When you put all these parameters on a *traffic light system* like *GreenSpec's* material comparison pages, it's actually very useful in order to make a decision!

Ska uses a screening system for office fit-outs which includes: does it have an *EPD*?

OneEcoHome website had a screening system but the site and shop is closed, until better time 187ampshi.

Betternest are developing a sustainability easy screening system for refurbishment, finding ways to make it lightweight to use.

See *Traffic Lights, Top Trumps, Screening system, GreenSpec PASS*,
(E Colomba'10 & GreenSpec BRM '11)

PRODUCT-TYPE

The set of representative performance levels or classes of a construction product, in relation to its essential characteristics, produced using a given combination of raw materials or other elements in a specific production process (CE Marking for SMEs & CPR '11)

PRODUCTION

Production is the process producing the product – but excluding fabricated input materials.

(Natureplus 2002)

PROFESSIONAL DEVELOPMENT CENTRE (PDC)

(Participation Works Partnership)

PROGRAMME FOR THE ENDORSEMENT OF FOREST CERTIFICATION (PEFC)

Originally Pan European Forest Certification, but subsequently became world wide, was set up to counter FSC for those that could not be bothered to go the whole way to FSC standards that is supported by and expected by FoE and Greenpeace.

PEFC and FSC are not equal, or PEFC would not want FSC to lower its standards. Despite UK Government body CPET (UK Government) statement telling us they are equal, they had previously put FSC above PEFC until muscled by industry pressure into making them equal.

See: FSC, FLEGT, GPP, OGC

(GreenSpec BRM '10)

PROJECTION FACTOR

ratio of the horizontal depth of the external shading projection divided by the sum of the height of the fenestration and the distance from the top of the fenestration to the bottom of the farthest point of the external shading projection, in consistent units.

$APF = A / B$

Projection factor is a term to indicate how much shading an overhang provides for vertical fenestration.

As an example,

if a 1.8 m horizontal overhang was placed right at the top of a 3 m store window,

the projection factor would be $1.8 / (2.0 + 0) = 0.60$.

However, if the horizontal overhang was located 0.0 m above the window

the projection factor would be $1.8 / (2.0 + 0.6) = 0.50$.

(Building Energy Glossary '06)

PROPERTY SERVICES AGENCY (PSA)

(GreenSpec BRM '10)

PROPERTY SERVICES AGENCY METHOD OF BUILDING (PSA MOB)

(GreenSpec BRM '10)

PROPOSED DESIGN

computer representation of the actual proposed building design or portion thereof that incorporates standard requirements

This representation is used as the basis for calculating the design energy cost.

(Building Energy Glossary '06)

PROPYLENE GLYCOL

Common ingredient of paints:

Solvent. Inhalation and skin contact can cause dermatitis with erythema, oedema, and weeping

(GreenSpec '10)

PROR See: **PRODUCER RESPONSIBILITY OBLIGATIONS (PACKAGING WASTE) REGULATIONS 1997** (as amended)

(Envirowise Packaging & Waste)

PROTECTED GEOGRAPHICAL INDICATION (PGI)

Normally associated with food: Stilton Cheese, Cornish Pasty, etc.

Will it have an effect on construction products and building methods?

Roman tiles, Welsh slates, Dutch Barn, French Drain (already renamed 188ampsh drain)

(GreenSpec BRM '11)

PROTOCOLS

Sets of rules to be used in specific situations, e.g. financial management or complaints procedures

(Participation Works Partnership)

See: Waste Protocols, Recycling Protocols, Reclamation Protocol, Demolition Protocol

(GreenSpec BRM '11)

PROTOTYPE BUILDING

generic building design of the same size and occupancy type as the proposed design which complies with the prescriptive requirements of this standard and has prescribed assumptions used to generate the energy budget concerning shape, orientation, HVAC, and other system designs

(Building Energy Glossary '06)

PRU See: **PUPIL REFERRAL UNIT**

PS See: **POLYSTYRENE**

PSA See: **PRESSURE-SENSITIVE ADHESIVE**

PSA See: **PROPERTY SERVICES AGENCY**

See: PSA MOB

(HAPM and BPG CLM '97)

PSA See: **PUBLIC SERVICE AGREEMENT**

PSA MOB See: **PSA METHOD OF BUILDING**

(GreenSpec BRM '10)

PSHE See: **PERSONAL, SOCIAL AND HEALTH EDUCATION**

Ψ- (psi) VALUE

The heat loss per unit length of thermal bridge, measured in W/mK

(GreenSpec AEP '09)

PTAC See: **PACKAGED TERMINAL AIR CONDITIONER**

PTFE **POLY-TETRA-FLUORO-ETHYLENE (POLYTETRAFLUOROETHYLENE)**

PTHP See: **PACKAGED TERMINAL HEAT PUMP**

PU See: **POLYURETHANE**

PUBLIC ARCHITECTURE

<http://www.publicarchitecture.co.uk/>

PUBLICALLY AVAILABLE STANDARD (PAS)

Written by BSI but not by their normal procedures and often developed with an emerging sector or group.

There is a PAS for compost and compost making addressing recovery (recovering nutrients back into use)

There is a PAS developed with *CT Carbon Trust* for LCAs, *PAS 2050* embraces *Carbon Sequestration*

(GreenSpec '09)

PUBLIC PRIVATE PARTNERSHIP (PPP)

A Public Private Partnership (PPP) is an umbrella term for Government schemes involving the private business sector in public sector projects.

See: PFI

(John Laing & GreenSpec BRM '10)

PUBLIC TRANSPORT ACCESS OPTIMISED

PUBLIC TRANSPORT ACCESSIBLE

PUBLIC TRANSPORT ENHANCED

PULL DOWN MENUS

Part of *Windows* where commands or instructions each of which performs a function in the computer programme are listed like in a menu, which is pulled down by *clicking* on a menu title in menu bar at the top of the *window*.

(ASWS BRM '97)

PULSE METERING AND SUB METERS

A pulse meter is usually installed at the mains water supply into a building and has the ability to automatically measure the building's water consumption at defined intervals.

Sub-meters are used to measure water consumption of different systems within the building. These meters can be combined within a building management system, to manage water consumption. (Building Magazine Steve Piltz, Turner & Townsend '08)

PULTRUSION

Pultrusion is a relatively new manufacturing method to the UK construction industry.

The creation of long lengths of material, usually mineral/fibre, resin/fibre or plastics/fibre, of the same section, from very simple to complex sections, by pulling, the material through a die of the negative shape of the pultrusion.

The die and its support are expensive to make and require large quantities of extrusion to be made, to be cost effective. 'Tooling costs' are disproportionate in small runs, so bespoke sections will be rare and standard sections will be commonplace in a fabricator's handbooks and manufacturer's literature.

Pultrusions are used in making windows, window and door frames, lintels, wall ties, reinforcing bars, etc.

Pultrusions are distinguished by their softer corners than extrusions.

See: Extrusion, Extruded Cellular Fired Clay Block Construction

(GreenSpec BRM '11)

Manufacturing process used to make constant sections in GRP or FRP for window manufacture

Also used to make fibre reinforced basalt stone cavity wall ties, reinforcement bars, lintels.

(GreenSpec BRM '10)

PULVERISED FUEL ASH (PFA)

Is a by-product from burning coal dust for the production of electricity.

It is very spherical and glass like so works well in concrete

PFA is used as a cement and aggregate substitute in the manufacture of concrete.

(GreenSpec AEP & BRM '09)

PUMICE

Volcanic rock, aerated, 189ampshire189189, insulating, not tough, workable, soft, mild abrasive,

An ingredient of some rock mineral fibre insulation

(GreenSpec BRM '10)

PUMP SYSTEM ENERGY DEMAND

(Building Energy Glossary '06)

PUMP SYSTEM POWER

sum of the nominal power demand (nameplate horsepower at nominal motor efficiency) of motors of all pumps that are required to operate at design conditions to supply fluid from the heating or cooling source to all heat transfer devices (e.g., coils, heat exchanger) and return it to the source

(Building Energy Glossary '06)

PUPIL REFERRAL UNIT (PRU)

(Participation Works Partnership)

PUR See: **POLYURETHANE RUBBER**

(Envirowise Packaging & Waste)

PURGE VENTILATION

Rapid ventilation achieved by opening windows and doors in order to remove moisture and odours.

(GreenSpec AEP '09)

Overnight passive cross ventilation to remove hot internal air and to cool down exposed building fabric, this can go so far as pre cooling the building fabric before the working day begins.

(GreenSpec BRM '09)

PURLIN

Horizontal beam, mid way or spaced equidistant up the slope of a pitched roof supporting many rafters to reduce the span and deflection of the rafters, the beam is reliant upon a wall plate and a ridge to support the other ends of the rafters.

(GreenSpec BRM '10)

PURPEND

Vertical joints between brick, blocks or stones, historically mortar filled, today rarely filled to save money and time, this reduces the integrity of a wall's thermal, acoustic, fire and airtightness performance 189ampshire189189ally.

External leaf purpends are sometimes left open to form ventilation slots to ventilate cavities.

See: Brickwork, Jointing, Mortar, Cavity wall, Ventilation, Integrity

(GreenSpec BRM '10)

PV See: **PHOTOVOLTAIC**

See: also PVT or PV-T

(GreenSpec BRM '10)

PVA See: **POLYVINYL ACETATE**

PVAC See: **POLYVINYL ACETATE**

PVB See: **POLYVINYL BUTRYAL**

PVC See: **POLYVINYL CHLORIDE**

PVC AWARE

An industry campaign makes major claims about the recyclability of PVC

<http://www.pvcaware.org/index.htm>

<http://www.pvcaware.org/closedloop.html>

But we all know its only downcyclable

See: Downcycling, Recycling, Recovinyll

(GreenSpec BRM '08 – '11)

PVC EXCLUDED

PVC MINIMISED

PVC-U

as opposed to *uPVC*, the newer official abbreviation for Polyvinyl Chloride-Unplasticized, also known as *Vinyl*, not to be confused with Lino (short for Linoleum)

(ASWS BRM '97)

PVT or PV-T PHOTOVOLTAIC THERMAL

PWNE See: PARTICIPATION WORKERS NETWORK ENGLAND

Q

QA See: **QUALITY ASSURANCE**

QM See: **RESIDUAL QUANTITIES**

(Envirowise Packaging & Waste)

QPA See: **QUARRY PRODUCTS ASSOCIATION**

The Quarry Products Association has information on GGBS 'slag' and it's uses

www.qpa.org/prod_slag01.htm

QR See: **QUICK RESPONSE**

QR CODE

Quick response 2D barcode are graphic images that store data in 2 dimensions, vertical and horizontal.

Specifically designed for use with camera-equipped smart mobile phones that can search the internet.

Can include website URLs, business card contact details, etc.

Scanning the Qrcode with the mobile barcode reader engages the URL and the browser will go to the website or particular page.

A phone camera pointed at a QR code on a product can access any information that the manufacturer wishes to provide.

See: Quick Response, 2D Barcodes, Barcodes,

QR codes on products can get you relevant information quickly.

Look out for our QR codes in issues of magazines against adverts, delivering you direct to websites.

If you have a smart phone with a QR code reader then scanning the QR code will open information on the internet.

(GreenSpec BRM '11)

QRE QUALITY RELATED EVENTS

See: NAO National Audit Office,

See: CPI, Coordinated Project Information

(GreenSpec '10)

(Q)SAR See: (QUANTITATIVE) STRUCTURE ACTIVITY RELATIONSHIPS

Are computer based models which are designed to predict the 191ampsh-chemical properties, human health and environmental effects of a substance from knowledge of its chemical structure. Some models are qualitative and give an indication of a likely effect rather than try to quantify that effect.

(HSE REACH '10)

QUALITY

QUALITY ASSURANCE (QA)

Making sure that something is up to a certain level

(Participation Works Partnership)

Previously *BS 5750* and now *BS EN ISO 9000* sets out standards for quality systems for management of processes, which may be manufacturing, services, design etc.

Kitemarked products are those that have product *accreditation* which requires a QA schemes to be in place to ensure consistent production of the quality product to maintain the *Kitemark*.

Without a product quality check a QA'd management system can generate consistently bad products.

(ASWS BRM '97 & '10)

See: Passipedia: [Quality assurance](#)

(GreenSpec BRM '11)

QUALITY MANAGEMENT SYSTEM

A recent example is the Standard on QA, formerly *BS 5750* now revised and renumbered as *BS EN ISO 9000*.

See *BS EN ISO 9000*, QA, Quality Assurance,

(ASWS BRM '97)

QUALITY OF LIFE

The level of wellbeing of life style and the physical conditions in which people live.

(Cherrington '95)

QUALITY ON BUILDING SITES

See: NAO National Audit Office

1987 Report of 100 projects, commissioned by Government to find out why construction industry was so bad at its job

Resulted in other reports creating CPI, CAWS, SMM7, etc. all published in 1987

(GreenSpec BRM '10)

QUALITY RELATED EVENTS (QRE)

(GreenSpec '10)

QUALITATIVE DATA ON PRODUCTS

(Renueables AN '09)

QUANTATIVE DATA ON PRODUCTS

(Renueables AN '09)

QUATERNARY AMMONIUM COMPOUNDS

Common ingredient of paints:Biocide.

Can cause skin, eye and nose irritation

(GreenSpec '10)

QUICK RESPONSE (QR)

See: QR Codes, Quick Response, 2D Barcodes, Barcodes,

(GreenSpec BRM '11)

QUICK WINS

See: WRAP
(GreenSpec BRM '10)

QUICK WINS

See: GPP, EUGPP, Buy Sustainable, Quick Wins, Quick Wins Best Practice Voluntary Specifications
(GreenSpec BRM '10)

QUICK WINS BEST PRACTICE VOLUNTARY SPECIFICATIONS

See: GPP, EUGPP, Buy Sustainable, Quick Wins, Quick Wins Best Practice Voluntary Specifications
(GreenSpec BRM '10)

R

R&D See: **RESEARCH AND DEVELOPMENT**

RADIANT COMFORT HEATING

system in which temperatures of room surfaces are adjusted to control the rate of heat loss by radiation from occupants (Building Energy Glossary '06)

RADIANT HEATING SYSTEM

heating system that transfers heat to objects and surfaces within the heated space primarily (greater than 50%) by infrared radiation

(Building Energy Glossary '06)

RADIATORS

Radiators positioned on the inside of external walls can show up on thermographic images as a hot spot.

Ideally radiators are not positioned below windows to heat the cold down draft, but better windows should be fitted and no down draft should occur.

Radiators should ideally be placed on internal partitions.

See: Thermal Radiator, TRVs,

(GreenSpec 09)

RADICAL BRICKWORK

A phrase coined by a design architects who did not understand brickwork and thought it all looked too tame and domestic for him so he introduced radical details to spice it up. Lack of understanding leads to details that are incompetent and will probably lead to early failure. Flush detailing and consistent materials in place of copings and drips are likely to lead to early failure.

(GreenSpec '10)

RADON

Radon is a colourless, 193ampshire, tasteless, naturally occurring, radioactive noble gas that is formed from the decay of radium.

High levels of radon can build up when houses and other buildings are constructed in areas where the underlying geology contains Uranium²³⁸ (typically, but not exclusively granite and limestone areas).

(GreenSpec AEP '09)

See: Radon Barrier, Gas Proof Membranes, Capping,

(GreenSpec '10)

RADON BARRIER

Gas proof membranes, which also double up as damp proof membranes.

Gas proof courses, which also double up as damp proof courses.

To prevent build up of gasses the membrane is usually located over a ventilation board with a lberynth of air passages towards the perimeter of the building or towards catchment points and then ventilated by pipes to the roof and released.

(GreenSpec BRM '10)

RADON LEVELS TREATED

RAFTERS

Series of structural timbers rising from eaves to ridge to support pitched roof covering

(Builder Hampshire Directory '10)

RAINWATER

Rainwater is obviously rain that has fallen out of the sky, which in a conventional building is discharged to a surface water sewer, combined sewer, or a soakaway; if it is stored for use back in the building it is still rainwater, until it is used.

Once rainwater is used it becomes either foul water (if used to flush WCs or urinals) or waste water if used for washing clothes.

If wastewater from a bath, basin or shower is collected for re-use it becomes greywater.

If greywater is used to flush WCs it becomes foul water.

If rainwater is used in washing machines it becomes waste water (but would not circulate through the greywater recycling system again as waste water from washing machines has too many detergents in it to be considered as suitable for greywater recycling).

(ECH2O & GreenSpec Water CH '11)

See: *Rainwater, Whitewater, Greywater, Blackwater, Waste water, Foul water, Surface water*

(GreenSpec BRM '11)

RAINWATER AND GREYWATER

Rainwater and greywater (two completely different types of water, with differing requirements for treatment and storage) are increasingly referred to as greywater.

So much so I now routinely ask whether the speaker really means greywater, regardless of the conviction with which they state the word.

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greywater recycling).

Simples!

(ECH2O & GreenSpec Water CH '11)

See: *Rainwater, Whitewater, Greywater, Blackwater, Waste water, Foul water, Surface water*

(GreenSpec BRM '11)

RAIN WATER BUTTS

The simplest form of rainwater harvesting, collecting water from the rainwater downpipe from roof guttering, includes a filter to reduce the leaves, grit, moulds and lichens from the roof entering the harvested water.

Raised above the ground the tap on the side of the rainwater butt allow filling of watering cans for garden watering or even a hose to drip feed irrigation.

(GreenSpec '09)

RAINWATER HARVESTING

The gathering, or accumulating and storing, of rainwater.

(GreenSpec AEP '09)

Quite simply, this collects the rain which falls onto roofs, and stores it in a tank until it is needed.

When required, the water is pumped to the point of use – e.g. toilets and washing machines, thus displacing what would otherwise be a demand for mains-water.

(Ecos Renews 17)

Collection and storage of rainwater from a building roof, for use in a variety of applications such as irrigation or toilet flushing.

See: SUDS

RAINWATER RECYCLING

Rainwater that has been harvested can be reused

It is simpler to collect water outside and use it outside for example: irrigation of landscape, cleaning cars and drives.

It can also be used as a non-potable water for flushing WCs with little treatment and replacing use of drinking water for the same purpose.

(GreenSpec BRM '10)

RAINWATER SHARED COLLECTION SCHEME

RAINWATER SUPPLY POTABLE WATER (CLEANSED)

Rainwater can be potable but if collected from pavement and roofs can contain bacteria from animal and bird droppings and hydro-carbons from vehicles, its storage can encourage development of bacteria and pathogens, cleaning to bring it back to potable quality adds energy e.g. UV light or chemicals adding to the carbon load of that water.

(GreenSpec BRM '10)

RAINFORREST SPONSORSHIP

RAIL

Horizontal member in gate or fence supporting boarding

(GreenSpec '10)

RAM See: **RANDOM ACCESS MEMORY**

Today usually quantified in Gb (Gigabytes)

When you purchase a computer one of the three most important characteristics to consider is how much *RAM* processing chips the machine is sold with and how much more can be added in the future, to help make sure it is a little 'future-proof'.

The amount of *RAM* you need depends upon the applications you plan to use. If you want to be able to run a few applications together then you would have to consider spending more on more *RAM*.

(ASWS BRM '97 & GreenSpec '09)

RAMMED EARTH CONSTRUCTION

A construction technique where earth is compacted between formwork to make a homogeneous mass wall.

(GreenSpec AEP '09)

Inert subsoil free of organic growing plant, roots, etc. ideally from the same site, e.g. clay or chalk, ideally with no additional ingredients, sometimes mixed to a recipe with other subsoil, minerals for colour, sand or gravels, for additional strength added lime or cement.

Placed in formwork as small (5-10 mm.) balls of earth or larger lumps, in layers of say 75 mm. and compacted down to consolidate.

Can result in layered appearance (balls) or homogeneous (lumps) looking like concrete.

Can have additional materials added for appearance (e.g. row of flints at Pines Calyx)

RAPIDLY RENEWABLE

Plant based materials are renewable rapidly renewable (E.g. Straw, Grasses and Bamboo growing in one season)

(GreenSpec BRM '08 – '11)

RAPIDLY RENEWABLE MATERIAL

The material/product is derived from a rapidly grown for harvesting, renewable resource

the material/product is derived from a rapidly grown for harvesting renewable resource

i.e. re-grows in less than 3 years

Examples:

Plant based,

Grass, straw, hemp, flax, coconut husk, goat hair or sheep's wool, feather

Bamboo

Animal or human hair, bird feather or down

Material applications:

construction panel,
construction board,
thermal insulation,
natural solvent in paints and stains,
Oils in natural protection

Reservations:

Use of synthetic, petrochemical, hazardous: treatments, binders, etc.

Exceptions/Exclusions:

No or poor Land Stewardship schemes in place e.g. FSC

Examples:

GM Genetically modified seed use for growing crop, reason: potential pollution of natural crop

Cotton: reason: intensive processing to convert for use

Advantages:

Carbon sequestration in growth
Reuse potential at end of building life
Fuel potential at end of useful life
Biodegradable to agricultural use
Potential substitutes:

Virgin timber

See: Abundent Material, Agricultural Co-Product, By-Products Or Waste, Healthy Material, Renewable Materials, Rapidly Renewable Material, Non-renewable material, VOC, ASBP
(GreenSpec BRM '11)

RAPID RESPONSE TEAM (RRT)

(Participation Works Partnership)

RARE EARTH ELEMENTS (REE)

includes Heavy Rare Earth Elements (see HREE), Lighter Rare Earths Elements (see LREE) plus yttrium.

Taken to be generally synonymous with Lanthanides

See: HREE, LREE

RARE EARTH OXIDE (REO)

the oxide (ore) of a Rare Earth metal

RATED LAMP LUMENS

See: lamp lumens, rated
(Building Energy Glossary '06)

RATED LAMP WATTAGE

See: lamp wattage, rated
(Building Energy Glossary '06)

RATED MOTOR POWER

See: motor power, rated
(Building Energy Glossary '06)

RAW MATERIALS

Raw materials are the initial input materials entering the prefabricated, intermediate, and/or end products.
(Natureplus '02)

RB See: **RENEWABLE BUILDING**

RCA See: **RECYCLED CONCRETE AGGREGATE**

Demolition of redundant concrete framed buildings and crushing the concrete on site is now common practice, avoiding sending the bulky heavy materials by vehicle to inert landfill.

Recycling this material on site reduces the need for bulky heavy primary (virgin) aggregates to be brought to the site by vehicle.

There is a limit to the % of RCA permitted in concrete by Code of Practice or Design Standards.

<http://www.greenspec.co.uk/html/materials/greeningofconcrete.html>

(GreenSpec BRM '08)

RCC See: **RURAL COMMUNITY COUNCIL/CHARITY**

RCE See: **REGIONAL CENTRE OF EXCELLENCE**

RCE **REGIONAL CITIES EAST**

RCEP See: **ROYAL COMMISSION ON ENVIRONMENTAL POLLUTION**

RCR See: **ROOM CAVITY RATIO**

RD See: **ROBUST DETAIL**

RDL See: **ROBUST DETAILS LIMITED**

RD Ltd. See: **ROBUST DETAILS LIMITED**

RDA See: **REGIONAL DEVELOPMENT AGENCY**

RDE See: **RESPONSIBLE DEVELOPMENT ENTERPRISES**

RE See: **RENEWABLE ENERGY**

REA See: **RENEWABLE ENERGY ASSOCIATION**

<http://www.r-e-a.net/>

REACH See: **REGISTRATION, EVALUATION AND AUTHORISATION OF CHEMICALS.**

Registration, Evaluation And Authorisation Of Chemicals

(HSE REACH '10)

READ-ACROSS

Read-across is a method of filling in data gaps for a substance by using surrogate data from another substance.

Read-across can be between two substances or through a group or category of chemicals.

The groups are selected on the assumption that the properties of a series of chemicals with common structural features will show similar trends in their 196ampsh-chemical properties and in their toxicological effects or environmental fate properties.

(HSE REACH '10)

READILY ACCESSIBLE

capable of being reached quickly for operation, renewal, or inspections without requiring those to whom ready access is requisite to climb over or remove obstacles or to resort to portable ladders, chairs, etc.

In public facilities, accessibility may be limited to certified personnel through locking covers or by placing equipment in locked rooms.

(Building Energy Glossary '06)

REAL SIMPLE SYNCOPATION (RSS)

Follow your favourite organisations with RSS feeds from their websites to your Internet Explorer, etc.

Click on their RSS link icon and paste this into your RSS Reader (e.g. internet explorer's feeds tab) their website will automatically update your feeds tab, you open the link when you want to, without having to find their website.

(GreenSpec BRM '11)

REBOILER

A clever bit of piping.

Dirty steam (containing other gasses such as carbon dioxide) is brought in on one side and condensed making the removal of the other gasses easy.

On the other side the water is boiled using the energy from the condensing steam to produce almost clean steam.

(Cherrington '95)

REC See: **RENEWABLE ENERGY CENTRE**

<http://www.therenewableenergycentre.co.uk/>

RECALL

Any measure aimed at achieving the return of a construction product that has already been made available to the end-user

(CE Marking for SMEs & CPR '11)

RECIRCULATING SYSTEM

domestic or service hot water distribution system that includes a closed circulation circuit designed to maintain usage temperatures in hot water pipes near terminal devices (e.g., lavatory faucets, shower heads) in order to reduce the time required to obtain hot water when the terminal device valve is opened.

The motive force for circulation is either natural (due to water density variations with temperature) or mechanical (recirculation pump)

(Building Energy Glossary '06)

It is essential that the closed circulation circuit and the shorter deadleg pipes to terminal devices are well insulated or lagged, not just specified but inspected and signed off as completed.

(GreenSpec BRM '11)

RECLAIM

(GreenSpec '10)

RECLAIMED LAND

(GreenSpec '10)

RECLAIMED MATERIAL

material extracted from the waste stream, either as the product of a recycling process or through re-use

(CIRIA RP656 Design for Deconstruction Bill Addis)

RECLAMATION

the collection and separation of materials from the waste stream

(CIRIA RP656 Design for Deconstruction Bill Addis)

Reclaimed products are those that have been reclaimed from the waste stream for reuse.

(BioRegional JE '11)

RECLAMATION AND RECLAIMED

material is set aside from the waste stream for future reuse with minimal processing.

(SEDA Chemical Reduction in Building '08)

RECLAMATION SECTOR

Includes those who physically carry out salvage and those who buy and sell products for reuse.

Salvage and architectural salvage are other terms which describe the process and industry which reclaims many items for reuse in the UK.

(BioRegional JE '11)

RECONCILE

in order to ensure that *all* computers on a network have access to the same files, in their *database* or servers it is necessary to *reconcile* the files in the machines at regular intervals, to replace all older files with newer ones.

(ASWS BRM '97)

RECONDITION

the process of restoring a building element or piece of equipment to a condition that allows it to be re-used
(CIRIA RP656 Design for Deconstruction Bill Addis)

RECOOLING

lowering the temperature of air that has been previously heated by a mechanical heating system
(Building Energy Glossary '06)

RECOVERABLE ENERGY

part of the energy losses, from the space and domestic hot water system or lighting, which can be recovered to lower the energy required

(Building Energy Glossary '06)

RECOVERED ENERGY

part of the recoverable energy

Energy utilized from an energy utilization system which would otherwise be wasted (not contributing to a desired end use).

Recovered energy may contribute to reduce the energy required (ER)

(Building Energy Glossary '06)

RECOVERY

use of waste materials in order to prevent their disposal to landfill, usually by recycling, composting or energy recovery
(CIRIA RP656 Design for Deconstruction Bill Addis)

See: Waste Hierarchy.

The recovery of nutrients or energy from waste.

Composting recovers nutrients from green waste which is returned to the soil to improve structure and water retention to the benefit of the plants growing in the soil.

Incineration of waste with heat recovery is better than incineration without the heat recovery.

(GreenSpec '08)

RECOVINYL

A fund set up for EU wide PVC recycling

http://www.recoviny.com/certified_recyclers

It only lists one window manufacturer in the UK, so BRE Green Guide changing PVC windows from C rating in the draft to A+ Rating in the final issued rating is not based on actual recycling but projected recycling at the end of the life of the window.

Only one of the window manufacturers in Recoviny uses recyclate in its window sections.

See: BS

(GreenSpec BRM '08 & '11)

RECYCLABLE MATERIALS

(GreenSpec BRM '10)

RECYCLE

collect and separate useable materials from waste, and process them to produce marketable products

(CIRIA RP656 Design for Deconstruction Bill Addis)

RECYCLED

Often used incorrectly meaning any of the following: '*segregated* in multiple bins for *recycling*', or '*reclaimed* and *reused*' or '*recovery* of nutrients by *composting*, or '*recovery* of energy by combustion.

Recycling is taking waste materials, diverting them from landfill, segregating them to individual materials piles, bulking up each individual material piles with more of the same, reducing them to *recyclate* and reprocessing them to make a new material or product with recycled content. All of this process adds *embodied energy* to the end product.

Recycling often makes use of a binder that sticks the *recyclate* together to make a product, often the binder is synthetic and not *Green* some times not healthy.

Cragle to Cradle ambitions suggest that *natural recyclate* should not be mixed with *technical binders* because once mixed are difficult to separate.

See: C2C, Cradle to Cradle, C2CN,

(GreenSpec BRM '11)

RECYCLED CONCRETE AGGREGATE (RCA)

Demolition of redundant concrete framed buildings and crushing the concrete on site is now common practice, avoiding sending the bulky heavy materials by vehicle to inert landfill.

Recycling this material on site reduces the need for bulky heavy primary (virgin) aggregates to be brought to the site by vehicle.

There is a limit to the % of RCA permitted in concrete by Code of Practice or Design Standards.

<http://www.greenspec.co.uk/html/materials/greeningofconcrete.html>

(GreenSpec BRM '08)

RECYCLED MATERIAL

material which is processed to produce a derivative product

(CIRIA RP656 Design for Deconstruction Bill Addis)

RECYCLING

General understanding: The collection and separation of materials from waste and subsequent processing to produce marketable products.

Recycling in the Waste Hierarchy: the process after segregation and bulking, often energy intensive reprocessing of

material(s) into materials or ingredients of recycled content building products

(Cherrington '95)

The processing of used materials into new products to prevent waste of potentially useful materials, reduce the consumption of fresh raw materials, reduce energy usage, reduce air pollution (from incineration) and water pollution (from landfilling or landraising) by reducing the need for "conventional" waste disposal, and lower greenhouse gas emissions as compared to virgin production.

(GreenSpec AEP '09)

Recycling is defined as the series of activities by which discarded materials are collected, sorted, processed, and used as raw materials in the production of new products.

(Adapted from Parker, D (May 2007) An Analysis of the Spectrum of Reuse, Oakdene Hollins

<http://www.remanufacturing.org.uk/pdf/story/1p297.pdf>

(BioRegional JE '11)

RECYCLING AND RECYCLED

the manufacture of a new product using reclaimed materials, scrap or waste as feedstock.

(SEDA Chemical Reduction in Building '08)

RECYCLING COLLECTION

Should be renamed 198ampshire198198 collection

(GreenSpec BRM '10)

RECYCLING SCHEME

Should probably be renamed 198ampshire198198 scheme

(GreenSpec BRM '10)

REE See: **RARE EARTH ELEMENTS**

REED BEDS

REFERENCE BUILDING

specific building design that has the same form, orientation, and basic systems as the proposed design and meets all the criteria of the prescriptive compliance method

(Building Energy Glossary '06)

REFINANCING

The process by which the terms of the finance put in place at the outset of a PFI contract are later changed through negotiation with the senior lenders, to create refinancing benefits for the shareholders and public sector authority, e.g. improved interest rates and repayment terms.

(John Laing)

See: PFI, PPP

(GreenSpec BRM '10)

REFLECTANCE

ratio of the light reflected by a surface to the light incident upon it

(Building Energy Glossary '06)

One of a number of characteristics of the surface of a material.

See: Chroma, Colour, Finish, Gloss level, Hue, Irredescence, Opacity, Reflectance, Refraction, Reflection, Saturation, Texture, Tone, Translucency, Transparency.

(GreenSpec BRM '10)

REFLECTION

One of a number of characteristics of the surface of a material or an applied or saturated finish.

See: Chroma, Colour, Finish, Gloss level, Hue, Irredescence, Opacity, Reflectance, Refraction, Reflection, Saturation, Texture, Tone, Translucency, Transparency.

(GreenSpec BRM '10)

REFRACTION

One of a number of characteristics of a materials that permits light to pass through it to varying degrees.

See: Chroma, Colour, Finish, Gloss level, Hue, Irredescence, Opacity, Reflectance, Refraction, Reflection, Saturation, Texture, Tone, Translucency, Transparency.

(GreenSpec BRM '10)

REFLECTOR LAMP

Class of incandescent lamps that have an internal reflector to direct the light

Reflector lamps are typically grouped by reflective characteristics:

R reflector

ER ellipsoidal reflector

PAR parabolic aluminized reflector

MR, mirrorized reflector

(Building Energy Glossary '06)

See: Lamp

(GreenSpec BRM '10)

REFORESTATION

The replanting of trees (plantations) in areas which have been cleared of woodland or forest.

(Cherrington '95)

REFURBISHMENT

any alteration which is intended to improve a building, ranging from redecoration to rearrangement of partition walls,

installation of new building services or lifts, roof or façade replacement, to moving load-bearing columns or walls.

(CIRIA RP656 Design for Deconstruction Bill Addis)

See: Retrofit, EnerPHit

See: Passipedia: [Refurbishment](#)

(GreenSpec BRM '11)

REGIONAL

Organised according to the government's regions

(Participation Works Partnership)

There are 10 regions with about 6 counties in each

London is a region with no counties many boroughs and one city.

Wales was indicated as 1 Region of England, but under WAG devolved government is its own country and has its own regions.

The Government during 2010-2011 started a process of dismantling the middle Regional layer of government to disseminate the power to County and local level and requiring reorganisation of many of the prior activities.

See: Localism, Localisation

(GreenSpec BRM '11)

REGIONAL DEVELOPMENT AGENCY (RDA)

(Participation Works Partnership)

REGIONAL RESOURCE CENTRES FOR URBAN DEVELOPMENT (RRC)

now known as Regional Centres of Excellence

REGISTRANT

The manufacturer or the importer of a substance or the producer or importer of an article submitting a registration for a substance.

(HSE REACH '10)

REGISTRATION, EVALUATION AND AUTHORISATION OF CHEMICALS (REACH)

http://ec.europa.eu/environment/chemicals/reach/reach_intro.htm

(SEDA Chemical Reduction in Building '08)

REACH requires manufacturers to register and assess all of the chemical raw materials they purchase or use in their processes and products.

CHIP Controls labelling and transport of chemicals

COSHH requires control of substances hazardous to health

CDM requires awareness by the designer of 199ampshire199 hazardous to health and is reliant upon reading the product's H&S data sheets, some manufacturers failed to identify all ingredients in these.

RoHS controls use of hazardous substances in IT equipment.

Finally we have something with real teeth.

(GreenSpec '09-'10)

As an un-planned side effect, the very high cost of registration is likely to result in the disappearance of many thousands of relatively benign chemicals from the market between now and 2018.

The consequence for industry of the introduction of REACH will be that a whole range of chemicals that have provided years of service, will simply disappear.

This will mean that substitutes will have to be developed if products are to remain on the market. It is quite possible too, that we will see either a rise in the cost of some products, a decrease in quality or both.

Specifiers should interrogate manufacturers to ensure that listed chemicals are not present in their products.

They might also ask to be made aware of products that have been subject to REACH regulations and be informed of the nature of any substitutes including data that demonstrates (or otherwise) a continuation of performance quality.

For many in industry, REACH will appear as a draconian and potentially ruinous intervention, but to others, concerned with public health and the environment,

it is a long-awaited development that will help boost initiatives and legislation that promote a healthier and more sustainable future.

See: SIN List see www.sinlist.org

(GreenSpec Dr. Peter Ruifrok '10)

An EU directive concerning the Registration, Evaluation, Authorisation and restriction of Chemicals.

REACH regulations came into force in the UK on 1st June 2007 and replaced a number of EU Directives and Regulations with a single system.

REACH has several aims, including 'To provide a high level of protection of human health and the environment from the use of chemicals.'

<http://www.hse.gov.uk/reach>

(GreenSpec JB '10 & BRM '10)

REGULATORY UNCERTAINTY

In most countries, policies to encourage sustainable development (ie through higher prices or incentives) either do not exist or have been unpredictable.

Rising public debt problems are now eroding support for many green programmes.

(RICS '11)

REHEATING

raising the temperature of air that has been previously cooled either by mechanical refrigeration or an economizer system (Building Energy Glossary '06)

RELATIVE HUMIDITY (RH)

The amount of water vapour that exists in a gaseous mixture of air and water.

Relative humidity is normally expressed as a percentage.

(GreenSpec AEP '09)

Humidity is measurable and quoted as Relative Humidity and stated as a percentage. E.g. 75% RH

It is relative humidity due to the difference that air pressure can make to the level of moisture that can be carried by the air.

(GreenSpec BRM '09)

RELIEVING ARCH

An arch constructed above a lintel or beam to take the weight of wall above and spread it around the lintel or beam to the surrounding wall

(Builder Hampshire Directory '10 & GreenSpec BRM '11)

RELOCATABLE BUILDING

a building that is designed to be partially or completely disassembled with the intention of re-erection in a new location

(CIRIA RP656 Design for Deconstruction Bill Addis)

See: demountable structure

(GreenSpec BRM '11)

REMANUFACTURE

bringing an artefact back into use by a process of deconstruction or disassembly followed by processes similar to those used for its original manufacture and assembly; e.g. a used steel beam being cut to length and provided with for making a new connection detail to enable it to be used for a second time.

(CIRIA RP656 Design for Deconstruction Bill Addis)

REMANUFACTURING

Remanufacturing is definitely now on the "to do" list at the WTO World Trade Organisation, Geneva, Switzerland.

CRR are on an expert panel of contributors to inform negotiators.

<http://www.remanufacturing.org.uk/centrenews-detail.lasso?report=379>

(CRR & GreenSpec BRM '10)

For a thorough discussion on definitions within the waste sector:

<http://www.remanufacturing.org.uk/pdf/story/1p297.pdf>

(BioRegional JE '11)

REMANUFACTURING V REPAIRING

A Critical review of the LCA of "Remanufacturing vs Repairing"

The Austrian Institute of Ecology's assessment of ITAS-ZTS's LCA study comparing repair and remanufacture of automotive damage has been published verifying the exceptional benefits from remanufacture.

<http://www.remanufacturing.org.uk/centrenews-detail.lasso?report=366>

(CRR & GreenSpec BRM '10)

REMEDIATION

The removal of pollution or contaminants from soil, groundwater, sediment, or surface water for the general protection of human health and the environment.

(GreenSpec AEP '09)

For a thorough discussion on definitions within the waste sector:

<http://www.remanufacturing.org.uk/pdf/story/1p297.pdf>

(BioRegional JE '11)

RENDER

External coating for walls, often sand-cement mix for water exclusion, with lime added for permeability and or without cement for flexibility for older buildings

Increasingly mineral based reinforced thin renders are used applied to thermally insulating wood fibre boards.

(GreenSpec '10)

RENEW (CONSERVATION)

Remove an original and install a replica, exactly matching the original

See: also Replace.

(GreenSpec '02)

RENEWABLE

Plant based materials are renewable (naturally replenished), (E.g. Trees 40-100 years,) or rapidly renewable (E.g. Straw one growing season)

See: Renewable Materials, Rapidly Renewable Materials, Sustainable, Non-renewable,

(GreenSpec BRM '08 – '11)

RENEWABLE BUILDING (RB)

The name adopted by the BioRenewable Building Products Group, who challenged the BRE's Green Guide to Specification for not being Green enough, for creating technical barriers to trade and for not being transparent.

See: ASBP

(GreenSpec BRM '11)

RENEWABLE ENERGY (RE)

The energy generated from natural resources—such as sunlight, wind, rain, tides, and geothermal heat—which are renewable (naturally replenished).

(GreenSpec AEP '09)

Energy produced with no emissions/pollution and no Carbon dioxide, but the equipment used generated some in sourcing, manufacturer and delivery
(Ecos Renews 17)

Energy resources that are naturally replenishing but flow-limited.

They are virtually inexhaustible in duration but limited in the amount of energy that is available per unit of time.

Renewable energy resources include: biomass, hydro, geothermal, solar, wind, ocean thermal, wave action, and tidal action.

(EIA Glossary)

See: Passipedia: [Renewable energy](#)

(GreenSpec BRM '11)

RENEWABLE HEAT INCENTIVE (RHI)

Make renewable heat,

Be paid for doing it from 2011.

Use it at low temperature

Domestic Hot water

Under floor heating

in wall/ceiling heating

Don't use it in radiators

Not suited to retrofit?

Controversion when first announced as it encouraged renewable heating of uninsulated buildings and being paid to do so. It also would encourage replacement of high efficiency low carbon gas heating with less efficient and/or higher carbon RH equipment.

See also FIT, GreenDeal, ECO, MCS,

(GreenSpec '11)

RENEWABLE HEAT PREMIUM PAYMENT (RHPP)

Installations of renewable heat have become more affordable for householders, thanks to the Renewable Heat Premium Payment (RHPP) scheme

Provides one-off payments of up to £1250 (dependent on technology) to householders wanting to install solar thermal water heating, ground or air source heat pumps, or biomass boilers.

RHPP opens for applications on 1 August 2011

(Dimplex '11)

See: RHI

(GreenSpec BRM '11)

RENEWABLE MATERIALS:

Material/product derived from a grown for harvesting, renewable resource

Examples:

Timber and cellulose from trees,

Marine shell, (particularly in Holland)

Construction timber,

Dense wood fibre,

Cellulose fibre, paper,

Building paper,

Cardboard, Example: packaging

Material applications:

Thermal insulation,

Acoustic insulation,

Acoustic isolation,

Underlayment,

Breathing sheathing board,

Reservations:

Use of synthetic, petrochemical, hazardous: treatments, binders, impregnations,

Examples:

Fire retardant

Preservative treatment against rot, insects, mould,

Binder and loft maintenance,

Exceptions/Exclusions:

Stewardship schemes not in place or inadequate schemes, e.g. FSC

very slow growing materials that support indigenous flora and fauna whilst growing, and help maintain water reserves often SSSI sites of special scientific interest

e.g. Peat from peat bogs

e.g. Timber from ancient forest,

Advantages:

Carbon sequestration in growth

Reuse potential at end of building life

Fuel potential at end of useful life

Biodegradable to agricultural uses, Example: Compost, Soil Improvement, water retention,

Potential substitutes:

Recycled Plastic or plastic/timber used as timber substitute

See: Abundant Material, Agricultural Co-Product, By-Products Or Waste, Healthy Material, Renewable Materials, Rapidly Renewable Material, Non-renewable material, VOC,
(GreenSpec BRM '11)

RENEWABLE RESOURCE

A natural resource that has the capacity to be naturally replenished despite being harvested (e.g. plantation trees, crops, sheep's wool).

Limits to renewable resources are determined by flow rate and such resources can provide a sustained yield.

(GreenSpec AEP '09 & BRM '11)

RENEWABLE RESOURCES

Renewable resources are biotic raw materials which regenerate in short reproduction cycles (up to 200 years) or which can be obtained from such materials.

(Natureplus 2002)

RENEWABLES

Energy producing technologies using natural resources in an inexhaustible manner, e.g. biomass, geothermal, ocean-thermal, water-thermal, air-thermal, wind, solar, wave, tidal, current and hydro/gravity power.

(Hastoe HA GreenStreet.org & GreenSpec '11)

See: Renewable Energy

RENOVATE (CONSERVATION)

restore by replacing lost or damaged parts.

(GreenSpec '02)

RENOVATION (CONSERVATION)

Bringing an existing building or structure back to its former or original condition (by repairing or remodelling).

(GreenSpec '02)

REO See: **RARE EARTH OXIDE**

REPA See: **RESOURCE AND ENVIRONMENTAL PROFILE ANALYSIS**

REPAIR

For a thorough discussion on definitions within the waste sector:

<http://www.remanufacturing.org.uk/pdf/story/1p297.pdf>

(BioRegional JE '11)

REPAIR (CONSERVATION)

Restore by replacing lost or damaged parts.

Restore to unimpaired condition by replacing or fixing worn or damaged parts; mend.

(GreenSpec '02)

REPAIR MAINTENANCE IMPROVEMENT (RMI)

Construction Industry Economy: 40% RMI v 60% New Build

GreenDeal will push the % further towards RMI

Training must reflect reality

Training uptake must reflect workload

See: NB, NewBuild

(GreenSpec BRM '11)

REPETITIVE STRAIN INJURY (RSI)

Often caused by incorrect equipment and poor posture in your chair and at your desk, combined with repetitive actions, it is causing serious problems for typist and other computer users.

A poorly designed *mouse* or keyboard can cause *RSI*.

Renamed ULD Upper Limb Disorder

(ASWS BRM '97 - '09)

REPLACE (CONSERVATION)

Remove an original and install a modern substitute that does not exactly match the original

See: also Renew

To put back in a previous place or position.

(GreenSpec '02)

REQUIRED ENERGY

(GreenSpec BRM '10)

REQUIRED SERVICE LIFE

The service life required to meet the user/employer's requirements, requested by the client's brief and transferred to the performance specification for the design and construction

(BSI BS 7543 '92 and GreenSpec BRM '10)

RES See: **REGIONAL ECONOMIC STRATEGY**

RESEARCH AND DEVELOPMENT (R&D)

(ERFMI '08)

RESEARCH GROUP FOR COST-EFFECTIVE PASSIVE HOUSES

See: Passipedia: [Research Group for Cost-effective Passive Houses](#)

(GreenSpec BRM '11)

RESET

automatic adjustment of the controller set point to a higher or lower value

(Building Energy Glossary '06)

RESIDENTIAL BUILDINGS

See: Passipedia: [Residential buildings](#)

(GreenSpec BRM '11)

RESIDENTIAL BUILDING LOW-RISE

single, two family, and multifamily dwelling units of three stories or fewer habitable space above grade

(Building Energy Glossary '06)

RESIDENTS' EXPERIENCES

See: Passipedia: [Residents' experiences](#)

See: POE, Users,

(GreenSpec BRM '11)

RESIDUE

The resultant volume that is to be disposed of from incineration.

It consists of ash and clinker.

(See: Fly ash)

(Cherrington '95)

RESIDUES/IMPURITIES

An residue/impurity is any undesired constituent which remains in the product but which serves no purpose as regards function.

(Natureplus 2002)

RESOURCE

A natural resource, a raw material that has been mined or harvested.

Example: unmined minerals, unharvested crops or trees, unextracted fossil fuel, etc. from which materials and products can be manufactured.

See: *Assembly, Building, Component, Element, Elemental Assembly, Generic Material, Material, Product, Resource.*

(GreenSpec BRM '11)

RESOURCE DEPLETION

Resource depletion occurs when all of the natural resources in an area, both renewable and non-renewable have been exhausted.

(GreenSpec AEP '09)

RESOURCE EFFICIENCY

Example: extraction of raw material primary aggregates with efficient use and small percentage of filtered or sived out waste that may or may not be put to use as a secondary aggregate.

(GreenSpec BRM '10 – '11)

RESPONSIBLE DEVELOPMENT ENTERPRISES (RDE)

A green builder's merchant that moved from industrial estate to retail outlet in the shopping street.

Also a training organisation in Green Building & Services, above the shop.

Most importantly an active advisor to Cardiff local, regional and Welsh Assembly Government WAG on all activities and advisor to local businesses and public alike.

(GreenSpec BRM '10)

RESPONSIBLE MANUFACTURER

(GreenSpec '10)

RESPONSIBLE MATERIALS SOURCING (RMS)

See: BRE Global, RMS, Responsible Materials Sourcing, BRE BES 6001, BS EN ISO 26000,

(GreenSpec BRM '10 – '11)

RESPONSIBLE PACKAGING PRODUCERS

(GreenSpec '10)

RESPONSIBLE SOURCING

BRE BES 6001 Responsible Sourcing of construction products 2008

The standard provides a framework through which construction product manufacturers can demonstrate how sustainable the manufacture of their products are.

The standard covers issues such as organisational and supply chain management and a range of 9 environmental and social aspects, including topics such as greenhouse gas emissions, water consumption, recycling, skills and human rights.

Performance under all the aspects are scored to give an overall performance grade for the products.

The BES 6001 certification has already been awarded to a small number of organisations.

(Responsible Solutions '10)

Expensive process, few big players signed up, relatively easy for big players to achieve, does not go far enough. Concrete is the first sector to get endorsed.

<http://www.greenbooklive.com/page.jsp?id=153>

See: BRE Global, RMS, Responsible Materials Sourcing, BRE BES 6001, BS EN ISO 26000, GreenSpec Light,

(GreenSpec BRM '10 – '11)

RESPONSIBLE SOLUTIONS

If you are a construction product manufacturer and would like further information on how your company can achieve BES 6001 why not contact Responsible Solutions on

T 01509 320100

www.responsiblesolutions.com

RESTORE (CONSERVATION)

Repair and alter a building so as to bring it back as close as possible to its original form or condition.

(GreenSpec '02)

RESTORATION (CONSERVATION)

Accurately recovering the form and details of a property as it appeared at a particular period of time by removing later work and/ or replacing missing earlier work.

(GreenSpec '02)

RETENTION POND

A type of constructed wetland with excess capacity that is designed to contain storm water or rainwater run-off from a small surrounding drainage area that would otherwise flow into other areas.

(GreenSpec AEP '09 & BRM '11)

See Balancing Pond, SUDS, Swale,

(GreenSpec BRM '11)

RETROFIT

Fashionable name for Refurbishment but with a hint of *Fit-out* and *EcoBling*

See: EnerPHit, Refurbishment, GreenDeal, RHI, FIT, ECO, Ska,

(GreenSpec BRM '10)

RETROFIT FOR A FUTURE

TSB funded two stage competition that selected over 80 proposals to be built from almost 400 initial entries.

Each proposal was to upgrade existing buildings to reduce CO₂ consumption by 80%.

Each had a budget of £150,000 and each had to demonstrate value for money on a £ spent/CO₂ saved basis.

Data collected from this competition should inform the development of a Code for Sustainable Domestic Refurbishment.

See: D&DT, Design & Decision Tools, TSB

(GreenSpec BRM '10)

REUSE CAPABILITIES

REUSE OR RE-USE

put objects back into use, either for their original purpose or a different purpose without major prior reprocessing to change their physical characteristics, in order that they do not enter the waste stream.

While it does not include reprocessing, it might involve some reconditioning.

(CIRIA RP656 Design for Deconstruction Bill Addis)

the use of reclaimed materials for their original purpose.

(SEDA Chemical Reduction in Building '08)

Reuse is defined as covering all operations where a product is put back into service, essentially in the same form, with or without repair or remediation.

Reuse is considered to include both structural items and loose or fixed furniture or equipment.

(BioRegional JE '11)

REUSE, RECLAIM, RECYCLE

What to do with 'waste'.

(GreenSpec AEP '09)

REVEAL

Vertical side of door or window opening, through the thickness of the wall, in older times the reveal is sloping and accommodates folded back window boards, which when deployed at night offer some protection from the cold and drafts and offer some privacy, in warmer climates can be used for solar protection.

Sloping reveals allow external light to enter a room and bath the sloping sides in light to reduce the glare between bright outdoor light and dark wall surfaces.

In cavity construction masonry walls the reveal often is the scene of thermal bridging where brick or block inner leaf is turned out towards the outerleaf bridging the thermal insulation in the cavity, this can lead to concentrated heat loss, condensation, mould, and reduction in the performance of the window or door, etc.

See: Jamb, thermal bridge, thermal break, cavity wall, condensation, mould

(GreenSpec BRM '10)

REVERBERATION

The persistence of sound in a space after a sound source has been stopped.

(CC Publication: Concrete and Sound insulation)

Affected by the surfaces of the space: hard non absorbent surfaces reflect the noise which travels to the next surface and is reflected until the sound decays to nothing, absorbent surfaces will absorb and diminish the sound quickly reducing the potential for reflection and the sound decays rapidly.

(GreenSpec BRM '09)

REVERBERATION TIME

The time taken for reverberating noise to decay to zero or to be unheard by humans.

(GreenSpec BRM '09)

REVERSE ENGINEERING

When the IBM PC was invented, an enormous market of potential buyers was created, other manufacturers wanted to claim a slice of the IBM PC's market share (initially 100%) so they purchased an IBM PC and took it apart and discovered how it worked and what components it was made of, this is reverse engineering.

The competitors then purchased components like them or made their own and assembled their clones of the IBM PC to sell as IBM PC clones that were compliant or equivalent.

Initially Clones had to be slightly better specification to avoid copyright 205ampshire205205a, this started a race to produce bigger better, faster equipment, IBM set numerous standards along the way as did operating system software, core processor OEMs, etc.

Reverse engineering and creating clones infringes the inventor's (IBM's) Copyright and saves the competition R&D time, staff costs, etc.

EU outlawed Reverse Engineering, but that does not mean it stopped.

See: IPR, Copyright, IBM PC, Clones

(GreenSpec BRM '11)

REVIEW OF STANDARDS

WRAP to review standards currently active across *remanufacture, refurbishment, repair and reuse*.

These range from formal (*BS, CEN, ISO*), sector voluntary (*PAS*) to codes of practice (*SMMT Motor Codes*).

All sectors are included.

(CRR & GreenSpec BRM '10)

REVIT

AutoCAD owned, object orientated computing with *BIM* functionality from AutoCAD version 14 onwards

See: BIM, CAD, CAD/CAM,

(GreenSpec BRM '10)

REQUEST FOR VARIATION ORDER (RFVO)

Meeting, process or form used on larger construction sites where problems on site require clarification or revised instruction, drawings or specification and may or may not impact on costs, these requests occur frequently enough to warrant RFVO meetings on a regular basis.

The constructor's site agent, contract administrators and cost consultants usually attend.

Take care that a changes may have an effect on the competence or environmental credentials of a project and may happen without the knowledge of the designer.

See: Substitution

(GreenSpec BRM '11)

RFVO See: **REQUEST FOR VARIATION ORDER**

RH See: **RELATIVE HUMIDITY**

RH See: **RENEWABLE HEAT**

RHI See: **RENEWABLE HEAT INCENTIVE**

RHPP See: **RENEWABLE HEAT PREMIUM PAYMENT**

RIAS See: **ROYAL INCORPORATION OF ARCHITECTS IN SCOTLAND**

RIBA See: **ROYAL INSTITUTE OF BRITISH ARCHITECTS**

RIBA BOOKSHOPS

<http://www.ribabookshops.com/>

RIBACAD

they use to be in competition with *Fastrack*.

(ASWS BRM '97)

RIBA/ti MICROFILES

another *microfiche* information service, this one is more useful to *NBS* specification & *NBS Building* users than the *Barbour index* because the editorial content closely matches that referred to in the Guidance notes.

(ASWS BRM '97)

RICS See: **ROYAL INSTITUTE OF CHARTERED SURVEYORS**

RICHTER SCALE

A scale of earthquake intensity graded from 1 (*very weak*) to 12 (*total destruction*).

(Cherrington '95)

RIDGE

Top of a pitched or mono pitched roof, usually has a ridge tile that may be plain, profiled or ornate and it weather proofs the junction between two roof plains and needs to weather proof the profile nature of the roof surface coverings.

It can be hollow with access to roof below or accommodation under the ridge for bats or birds.

Ridge heights can dictate the heights of flues, and vents.

Ridge heights will influence the height of wind turbine in the vicinity of a roof.

(GreenSpec BRM '10 – '11)

RIDGE TILE

Roof tile shaped to cover ridge of roof, also used on hips.

It can be hollow with access to roof below or accommodation under the ridge for bats or birds.

(Builder Hampshire Directory '10 & GreenSpec BRM '10 – '11)

RIGID BOARD INSULATION

Insulation typically made from polystyrene or polyurethane and also available as dense wood fibre board

Manufactured as 4' x 8' (1200 x 2400 mm. nominally) boards of various thicknesses.

As an exterior sheathing material, rigid board insulation provides a complete thermal break assembly and can effectively shift the dew point outside of the exterior wall construction assembly.

(Energy Star '07 & GreenSpec '09)

RING MAIN

Cables forming a circuit or series of circuits around a building or individual floors for 13 amp power sockets, switches, cookers, etc.

SustainIT recommend the reintroduction of low watt ring mains for power to low watt equipment to avoid the need for transformers reducing wattage from 240 to 9-12 Watts, avoiding inefficiencies and unwanted heating.

(GreenSpec BRM '10)

RISE

Vertical distance between two adjacent stair treads

See: Stair, Flight, Tread, Riser, Flyer, Open Riser,
(Builder Hampshire Directory '10 & GreenSpec BRM 11)

RISER

Upright part of a stair flight between treads

Vertical water pipe from the mains

Vertical fire fighting water pipe rising through multi-storey buildings above fire fighter ladder height.

Vertical shaft carrying many services rising through multi-storey buildings

(GreenSpec BRM '10)

RISING DAMP

Damp from the ground rising through porous masonry by capillary attraction, if damp proof membranes and damp proof courses are missing or defective the damp will rise higher into internal and external construction and show up on surfaces, this is described as rising damp.

Dampness creates a thermal bridge through materials where heat will flow more rapidly and any evaporation of that damp will draw more heat from the construction.

Colour photography is distracting but black and white photography will show up damp penetration in porous masonry more readily, but IR-T can be calibrated to show damp very distinctly.

(GreenSpec '09)

RISK TRANSFER

The passing of risk under contract from one party to another.

See: PFI, PPP

(John Laing & GreenSpec BRM '10)

RIVER & CANAL WATER FOR GARDENS & WCS

RHF See: **REGIONAL HOUSING FORUM**

RMI See: **REPAIR MAINTENANCE IMPROVEMENT**

RMS See: **RESPONSIBLE MATERIALS SOURCING**

ROBUST DETAILS (RD)

A Robust Detail for Building Regulation Approved Document 'Part' E has been given the status of RD following a minimum of 30 'field tests' where the recorded mean performance was at least 5 dB better than the sound insulation requirements as described in Approved Document E for new build separating walls and floors.

(CC Publication: Concrete and Sound insulation)

Robust details address acoustics only and may fail in other respects.

Example Robust Details Codes: BRE Green Guide elemental codes:

E-FT-1: 829910204, 829910205, 829910206

E-FT-2: 829910207, 829910208, 829910209

E-FT-3: 829910210, 829910211, 829910212

E = Acoustic

F = Floor

T = Timber

(GreenSpec BRM '10 – '11)

ROBUST DETAILS LTD.

The company set up to administer the Building Regulation Approved Document 'Part E' Robust Details scheme.

(CC Publication: Concrete and Sound insulation)

Government created Monopoly Company, money making side of Building Regulations Approved Document E Sound Proofing of buildings. (all free PDF downloads)

Creators, maintainers and sellers of a volume of Robust Details that are 'deemed to satisfy' the requirements.

(GreenSpec BRM '10 – '11)

ROBUST LCA

(Renueables AN '09)

ROBUST SPECIFICATION

National specifications need to follow strict rules that try to avoid error by the users over whom they have little control but offer their best advice.

Specifications by project specifiers don't always follow the same rules and they can do as they please to meet the objectives of the project, subject to EU procurement rules, if they apply to the project.

Product specifications need to be robust enough to get the right result and avoid their erosion by *specification substitution*.

Product specifications should describe the characteristics of the product, the reasons why the designer chose them so that when equivalents are considered then the right information is available for comparison.

If you don't include the relevant information then a change from for example high decrement thermal insulation to low k value insulation, may save initial costs but will cost the employer considerably more in running costs.

See: Specification Substitution, EU Procurement Rules
(GreenSpec BRM '10 – '11)

RoHS See: **RESTRICTION OF HAZARDOUS SUBSTANCES**

ROMAN TILES

ROOF

Upper portion of the building envelope, including opaque areas and fenestration, that is horizontal or tilted at an angle of less than 60° from horizontal

(Building Energy Glossary '06)

See: Mansard roof

ROOF, ATTIC AND OTHERS

all other roofs, including roofs with insulation entirely below (inside of) the roof structure (i.e., attics, cathedral ceilings, and single-rafter ceilings), roofs with insulation both above and below the roof structure, and roofs without insulation, but excluding metal building roofs

(Building Energy Glossary '06)

ROOF, METAL BUILDING

roof that is constructed with:

- (a) a metal, structural, weathering surface,
- (b) has no ventilated cavity, and
- (c) has the insulation entirely below deck (i.e., does not include composite concrete and metal deck construction nor a roof framing system which is separated from the superstructure by a wood substrate) and whose structure consists of one or more of the following configurations:

- (1) metal roofing in direct contact with the steel framing members, or
- (2) insulation between the metal roofing and the steel framing members or
- (3) insulated metal roofing panels installed as described in (1) or (2)

(Building Energy Glossary '06)

ROOF WITH INSULATION ENTIRELY ABOVE DECK

Roof with all insulation:

- (1) installed above (outside of) the roof structure or
- (2) continuous (i.e., uninterrupted by framing members)

(Building Energy Glossary '06)

ROOF, SINGLE-RAFTER

Subcategory of attic roofs where the roof above and the ceiling below are both attached to the same wood rafter and where insulation is located in the space between these wood rafters

(Building Energy Glossary '06)

Rigid thermal insulation boards should ideally be located externally of the rafter to eliminate thermal bridging through the thermal insulation.

ROOF AREA, GROSS

area of the roof measured from the exterior faces of walls or from the centre of party walls.

(Building Energy Glossary '06)

See: roof and wall

(GreenSpec BRM '11)

ROOFLIGHTS

Rooflight glass is generally opaque to IR Thermography and will look dark in images, reflecting the night sky unless of course you are in an urban areas with streetlight reflecting from cloud cover.

However See: Glass, Infra Red Cameras, Dark Skies,

(GreenSpec '09)

ROOF TRUSS

Prefabricated structural timber framework to support roof

(Builder Hampshire Directory '10)

See: Trussed Rafter, TRADA QA,

(GreenSpec BRM '11)

ROOM AIR CONDITIONER

encased assembly designed as a unit to be mounted in a window or through a wall, or as a console.

It is designed primarily to provide direct delivery of conditioned air to an enclosed space, room, or zone.

It includes a prime source of refrigeration for cooling and dehumidification and a ___ for circulating and cleaning air.

It may also include a ___ for ventilating and heating.

(Building Energy Glossary '06)

ROOM AREA (Ar)

for lighting power determination purpose, the area of a room or space shall be determined from the inside face of the walls or partitions measured at work plane height

(Building Energy Glossary '06)

ROOM CAVITY RATIO (RCR)

factor that characterizes room configuration as a ratio between the walls and ceiling and is based upon room dimensions

(Building Energy Glossary '06)

ROOMS FOR RESIDENTIAL PURPOSES

A room, or suite of rooms, which is not a dwelling house or flat and which is used by one or more persons to live and

sleep in, including rooms in hotels, hostels, halls or residence and residential homes but not including rooms in hospitals, or other similar establishments, used for patient accommodation.

(CC Publication: Concrete and Sound insulation)

ROYAL COMMISSION ON ENVIRONMENTAL POLLUTION (RCEP)

study on urban environments, well-being and health

www.rcep.org.uk/urbanenvironment.htm

(SEDA Chemical Reduction in Building '08)

Their final report in 2011 has no time for the idea that would limit the UK's population on environmental grounds.

(GreenSpec BRM '11)

ROYAL INSTITUTE OF BRITISH ARCHITECTS (RIBA)

the Architect's representative member of *CCPI*.

(ASWS BRM '97)

<http://www.riba.org/>

(GreenSpec '09)

ROYAL INSTITUTE OF CHARTERED SURVEYORS (RICS)

the Quantity Surveyor's representative member of *CCPI*.

(ASWS BRM '97)

<http://www.rics.org/>

Supporters of Ska ratings and EAM for Office fitouts

Institute of Surveyors from Estate Agents, Land Surveyors to Quantity Surveys

(GreenSpec '10)

RICS advises valuers to reflect a home's sustainability characteristics in its value

A RICS information paper, entitled Sustainability and Residential Property Valuation, published 20 September 2011,

advises valuers that a home's sustainability characteristics should be considered within property valuations.

RICS notes sustainability features can include a home's energy efficiency rating, the materials used in its construction and other features such as an energy-efficient boiler.

Although, elements such as a building's proximity to public transport links and its ability to adapt to occupiers' changing future needs could also be considered and reflected in a valuer's assessment of a property's value.

As RICS is a global entity, in our opinion the recommendation marks a significant step forward for the recognition of a price premium for sustainably built assets worldwide.

The RICS draft information paper – Sustainability and Residential Property Valuation – can be viewed at

<http://tinyurl.com/65be6z2>

(RICS '11)

See: VVA, Vancouver Valuation Accord

(GreenSpec BRM '11)

RPG See: **REGIONAL PLANNING GUIDANCE**

RRC See: **REGIONAL RESOURCE CENTRES FOR URBAN DEVELOPMENT**

RRT See: **RAPID RESPONSE TEAM**

RSI See: **REPETITIVE STRAIN INJURY**

RSJ See: **ROLLED STEEL JOIST**

RSL See: **REGISTERED SOCIAL LANDLORD**

RSPB See: **ROYAL SOCIETY FOR THE PROTECTION OF BIRDS**

RSS See: **REAL SIMPLE SYNCOPATION**

RSS See: **REGIONAL SOCIAL STRATEGY**

RSS See: **REGIONAL SPATIAL STRATEGY**

RTF See: **RICH TEXT FORMAT**

a computer file *format* from Microsoft which has some magic properties! *NBS Building* can send files to *RTF format*, by stripping out all *database format* code allowing it to be opened in '*Word for Windows*' a word-processing programme. It also allows us to transfer files from *PC* to *Mac* to open in '*Word for Mac*' and from *Mac* to *PC*, but regrettably not back into *NBS Building* (yet). *RTF* files can also pass between different applications like *Word* and *PowerPoint*, not only that, but they can pass between versions of applications. Whilst a *Word 6* created file cannot be read by the earlier version *Word 2*, an *RTF* file from *Word 6* can be read by *Word 2*. *RTF* files are upwards and downwards compatible.

(ASWS BRM '97)

RTPI See: **ROYAL TOWN PLANNING INSTITUTE**

RTS See: **REGIONAL TRANSPORT STRATEGY**

RUDI See: **RESOURCE FOR URBAN DESIGN INFORMATION**

<http://www.rudi.net/>

(GreenSpec '09)

RUNOFF

The water flow which occurs when soil is infiltrated to full capacity and excess water, from rain, snowmelt, or other sources flows over the land.

(GreenSpec AEP '09)

RURALZED 'RuralZED' See: **ZERO EMISSIONS DEVELOPMENT**

Rural ZED is a timber post and beam framed domestic house able to meet Code 4 5 & 6.

R-VALUE

A measure of the thermal resistance of a material or product of a given thickness.

Higher R-values indicate better resistance to heat flow through the material or product.

The effective R-value will be reduced by any gaps between the material or product and itself or surrounding construction, any voids in the construction or missing materials, compression of the material or product or thermal bridging across any misalignments and any construction or ties through or subdividing the material or product.

(GreenSpec '09)

The capacity of a material to resist the transmission of heat.

The R-value is calculated by combining the lamda value (thermal conductivity) and the thickness of the material.

Hence $R=t/\lambda$, where 't' is the thickness.

Units: m^2W/K

Used in connection with insulation, the higher the R-value, the more effective the insulation.

The R-value is also used to calculate the U-value (thermal transmittance) where $U = 1/R$

(GreenSpec AEP '09)

See: thermal resistance, k value, U value

(GreenSpec BRM '11)

R-VALUE OF THERMAL INSULATION

thermal resistance of the insulation alone as specified by the manufacturer according to recognized trade and engineering standards in units of $m^2 \cdot K/W$ at a mean temperature of 24°C.

R-value refers to the thermal resistance of the added insulation in framing cavities or insulated sheathing only and does not include the thermal resistance of other building materials or air films

Some insulation products are rated at both 4°C and 24°C and the different rating temperatures yield different R-values.

The intent is to use the 24°C rating.

(Building Energy Glossary '06)

RWH See: RAINWATER HARVESTING SYSTEM

Quite simply, this collects the rain which falls onto roofs, and stores it in a tank until it is needed.

When required, the water is pumped to the point of use – e.g. toilets and washing machines, thus displacing what would otherwise be a demand for mains-water.

(Ecos Renews 17)

As the name suggests, this is the collection and storage of rainwater from a building roof, for use in a variety of applications such as irrigation or toilet flushing.

Harvested rainwater can supplement or replace greywater recycling, and as there is no opportunity for the water to be contaminated, for example from road-runoff, then it does not need to be treated, prior to use.

(Building Magazine Steve Piltz, Turner & Townsend '08)

Rw

A single number quantity (weighted) which characterises the airborne sound insulation of a building element from measurements undertaken in a laboratory.

See: BS EN ISO 717-1 1997.

(CC Publication: Concrete and Sound insulation)

S

SA See: **SUSTAINABILITY APPRAISAL**

SACRIFICIAL MATERIALS

EA recommendations for development in flood plains include for stripping out of water damaged materials.

GreenSpec recommend avoiding such sacrificial materials and instead using impervious, solid, cavity-free, frost resistant, non-absorbent, 210ampshi resistant materials that can be hosed down, cleaned and used without further work after a flood.

(GreenSpec BRM '10 – '11)

SAFE NEIGHBOURHOOD ENHANCEMENT

SAFER NEIGHBOURHOOD TEAMS (SNT)

(Participation Works Partnership)

SAFETY DATA SHEET (SDS)

The Safety Data Sheet provides a mechanism for transmitting appropriate safety information on classified substances and preparations, including information from the relevant Chemical Safety Report down the supply chain to the immediate downstream users.

The information provided in the Safety Data Sheet shall be consistent with the information in the Chemical Safety Report, where one is required.

Further information on SDSs is available on the ECHA site

http://guidance.echa.europa.eu/safety_sheet_en.htm

See: H&SDS

(HSE REACH '10)

SAP See: **STANDARD ASSESSMENT PROCEDURE**

SAP RATING

Results of a SAP assessment

See: Standard Assessment Procedure

(GreenSpec BRM '10)

SARKING FELT

Waterproof felt under roof tile or slate battens, there to direct any rainwater, wind driven rain or thawing snow that passes through the roof tiles or slates down towards the eaves and out into the eaves gutter.

Its dressed over the rafters and sags slightly between them to allow any water to pass under the tiling/stainga battens.

If there are sarking boards (common in Scotland) or insulating boards above the rafters, then counterbattens and battens must be used to maintain the sag between the counterbattens.

The felt can degrade under UV light at the eaves so a high performance felt or plastic strip is often used to ensure the life of the installation.

Progressively being replaced in new construction by water resistant breathing membrane underlays or wind tight moisture permable underlays to allow the roof to 'breathe' and avoid the need for cross ventilation.

BCT and Reading University are analysing membranes for compatibility with bats claws, faeces, urine and fur oils, an early view is being formed that most of the BRMs are not compatible with bats.

See: BRM, Breathing Roofing Membranes.

(GreenSpec BRM '10 – '11)

SARKING BOARDS

SASH

Frame containing singular or multiple panes of glass, a component of a window, in particular double-hung sliding vertical sash windows, common in tenements of Edinburgh and Georgian terraces in London.

(GreenSpec BRM '10)

SASH CRACK

sum of all perimeters of all ventilators, window casements, window sashes or doors based on overall dimensions of such parts expressed in feet (ISO standards) (counting two adjacent lengths of perimeter as one)

(GreenSpec BRM '10)

SATURATION

One of a number of characteristics of the surface of a material or an applied or saturated finish.

See: Chroma, Colour, Finish, Gloss level, Hue, Irredescence, Opacity, Reflectance, Refraction, Reflection, Saturation, Texture, Tone, Translucency, Tranparency.

(GreenSpec BRM '10)

SAVE THE RAIN

<http://www.savetherain.info/>

SAVO See: **SUFFOLK ASSOCIATION OF VOLUNTARY ORGANISATIONS**

SBA See: **SUSTAINABLE BUILDING ALLIANCE**

SBB See: **SOLID BLEACHED BOARD**

Cartonboard manufactured entirely from bleached pulp, apart from the surface coating

(Envirowise Packaging & Waste)

SBEE See: **SUSTAINABLE BUILDING EAST OF ENGLAND**

SBEM See: **STANDARD BUILDING ENERGY METHOD**

SBR See: **STYRENE BUTADIENE RUBBER**

SBS See: **SICK BUILDING SYNDROME**

SBSA See: **SCOTTISH BUILDING STANDARDS AGENCY**

SCALA See: **SERVING CONSTRUCTION & ARCHITECTURE IN LOCAL AUTHORITIES**

SCEP See: **SUPPLY CHAIN ENGAGEMENT PROGRAMME**

SCHEME DEVELOPMENT STANDARDS (SDS)

SDS set out the Housing Corporation's (Now HCA) requirements and recommendations for all housing projects, including the refurbishment and repair of properties that receive Social Housing Grant.

SDS concentrate on design and quality and procedural compliance issues.

(Hastoe HA GreenStreet.org & GreenSpec ;10)

SCI See: **STATEMENT OF COMMUNITY INVOLVEMENT**

SCI See: **STEEL CONSTRUCTION INSTITUTE**

SCIENTIFIC CERTIFICATION SYSTEMS (SCS)

Forest Conservation Program employs the principles of the FSC Forest Stewardship Council to ensure that certified forests meet standards for sound forest management. Very few, if any other certification process is as vigorous and reliable as FSC which employs a chain of custody certificate on all timber from its source to its end use.

(Ecos Renews 17)

SCIENTIFIC RESEARCH AND DEVELOPMENT

Any scientific experimentation, analysis or chemical research carried out under controlled conditions in a volume less than a tonne a year.

(HSE REACH '10)

SCOPE OF IMPACT ANALYSIS

In the context of LCA

See: LCA, Methodology, PCR, Product Category Rules, System Boundaries,

(Renueables AN '10)

SCOTLAND'S SUSTAINABLE DEVELOPMENT STRATEGY 2005

www.scotland.gov.uk/Publications/2005/12/1493902/39032

SCOTTISH BUILDING STANDARDS AGENCY (SBSA)

www.sbsa.gov.uk

(SEDA Chemical Reduction in Building '08)

SCOTTISH ECOLOGICAL DESIGN ASSOCIATION (SEDA)

the premier NGO in Scotland for Ecological Design

www.seda.uk.net

(SEDA Chemical Reduction in Building '08)

Authors of SEDA Airtightness Guide, Design for Deconstruction & Design for Low Toxic Building

See: *SEDA* Chemical Reduction in Building '08

(GreenSpec BRM '10)

SCOTTISH EXECUTIVE RURAL AFFAIRS DEPARTMENT (SERAD)

SCOTTISH NATURAL HERITAGE (SNH)

SCLM See: **SERVICES COMPONENT LIFE MANUAL**

SCREED

Layer of sand/cement, fine concrete, limecrete or gypsum used to take up tolerances, raise levels and provide a flat surface prior to floor finishes being applied.

(GreenSpec BRM '11)

SCREENING SYSTEM

After selecting products for conformance with the performance requirements of the project and before engaging with LCAs, consider a screening system in order to assess products.

LCA is the most in depth, granular way to assess a product/process.

Sometimes getting into the LCA only makes us forget the big picture, and some main strategies that it is opportune to consider first (e.g. *Local sourcing, Recyclability, Ease of disassembly*, etc.)

I think the best way to go is always starting from the broad screening, and only at a later point get into the LCA scale.

LCA analysis can be with SimaPro software analysing a whole building, element by element, but the building impact is not only made by the sum of its elements, it has a process by itself! (construction, maintenance, etc).

In addition, the more elements you add to the single assessment, the more likely it is to suffer from aggregated errors.

GreenSpec adopts a screening system for material assessment using *traffic light system* which includes: does it have an LCA?

The 0-1 No-Yes system of screening might be 'crude' but it is important to have the parameters that really matter in order to make sensible choices, and I think it should not be lost even in presence of reliable and strong LCA data.

BDP have done something similar for interior design products

When you put all these parameters on a *traffic light system* it's actually very useful in order to make a decision!

Ska uses a screening system for office fit-outs which includes: does it have an *EPD*?

OneEcoHome website had one but the site and shop is closed, until better times I hope.

Betternest are developing a sustainability easy screening system for refurbishment, finding ways to make it lightweight to use.

See *Traffic Lights, Top Trumps*,

(E Colomba'10 & GreenSpec BRM '10)

SCREENING WITH VEGETATION

See: Microclimate

(GreenSpec BRM '11)

SCS See: **SCIENTIFIC CERTIFICATION SYSTEMS**
SDC See: **SUSTAINABLE DEVELOPMENT COMMISSION**
SDRT See: **SUSTAINABLE DEVELOPMENT ROUND TABLE**

Numerous groups including Construction, Water, Energy, etc.

See: SBEE, Sustainable Building East of England
(GreenSpec BRM '09)

SDS See: **SAFETY DATA SHEET**

SDS See: **SCHEME DEVELOPMENT STANDARDS**

SE See: **SMALL ENTERPRISE**

SEALANT (ACOUSTIC OR FLEXIBLE)

A gun-applied sealant which has resilience and forms a non-rigid caulking.

(CC Publication: Concrete and Sound insulation)

SEALANTS

Mastics are a subgroup of sealants and a first generation sealant.

Apart from linseed oil based putty and mastic, most tube extruded sealants are either plastic or bitumen based.

The plastics usually contain polysulphide, silicone, polyurethane and various acrylic substances.

Polyurethane sealants contain 10-60% phthalates.

Plastics of polysulphide, polyurethane and polyacrylates contain chlorinated hydrocarbons or flame retardants.

Sealants will continue to outgas (or *offgas*) throughout their life.

When interior sealants are being specified avoid those containing:

See: butyl rubber

See: neoprene

See: SBR styrene butadiene rubber

See: nitride

Also avoid sealants with:

See: aromatic solvents and their compounds

See: formaldehyde and compounds

See: mercury and compounds

See: lead and compounds

See: chromium and compounds.

The following sealants are more acceptable for indoor use if they cannot be avoided:

See: oleoresinous,

See: acrylic emulsion latex,

See: polysulfide (small amounts of toluene vapours)

See: silicone (small amounts of xylene and other solvents)

(SEDA Chemical Reduction in Building '08)

SEALED FAÇADE

If buildings are surrounded by noise sources e.g. roads, airports, etc. and their internal function requires relative quiet conditions the building can have heavy building fabric to exclude the noise but if the windows are open then the noise reduction is lost.

Glazed facades can be acoustically sealed, this usually

the building needs to be passively ventilated, mechanically ventilated and at worst air-conditioned, however, rather than penalise the energy figures, the ventilation can be designed to maximise heat recovery and reduce heating energy.

Wind and airtightness can contribute significantly to acoustic performance.

See: Passive Ventilation, Passive Cooling, MVHR, AC,

(GreenSpec BRM '10)

SEARCH CATEGORIES

When interrogating a database the Graphic User Interface must offer search categories for the user to select and the search results will deliver a short list of entries that meet the search categories.

Searching can be on the basis of yes or no or by value 0 or 1, or >2, <100, etc.

See, Performance Characteristics, Environmental Criterion, Product Category Rules

(GreenSpec BRM '10)

SECONDARY AGGREGATE

Aggregates left after a 212ampshi/selection/filtering process for another purpose or product.

e.g. winning 1 tonne of Welsh roofing slates generates 100 tonnes of waste slate.

Can be used in place of *primary/virgin, recycled or manufactured aggregates* for many purposes, e.g. concrete aggregates, decorative *landscape mulch*, loose paving, etc.

(6000 m tonnes were stockpiled in the UK, these are now gradually being put to use)

(GreenSpec BRM '10 – '11)

SECONDARY ELEMENTS

Construction classification keywords used in information libraries, meaning: elements within primary elements, e.g.

windows and doors in external walls, rooflights in roofs, stairs between floors.

Component assemblies that sub components of elements that can be installed into elements in the factory or on site

Examples: Doors, windows, roof-windows, rooflights, stairs and balustrades

See: *Assembly, Building, Component, Elemental Assembly, Generic Material, Material, Product, Resource, Secondary element.*

(GreenSpec BRM '09 – '11)

SECONDARY MATERIAL

material that has previously been used for a primary purpose
(CIRIA RP656 Design for Deconstruction Bill Addis)

SECONDARY RAW MATERIALS

Secondary raw materials are materials recycled from other goods, production waste, or by-products from other processes, all suitably collected and prepared.

(Natureplus 2002)

SECOND FIX

Items fitted following plastering, plasterboard drylining and joinery linings; including joinery, cupboards and plumbing/electrical fittings

Notorious for being installed with little regard for vapour barriers, air tightness layers and airtight construction. Specification is probably at fault for failing to address the issue of airtightness.

See: First fix,

(GreenSpec BRM '10)

SECTOR SKILLS COUNCIL

(GreenSpec BRM '11)

SECURED BY DESIGN

A police initiative that encourages the adoption of crime prevention measures in the design of buildings.

(GreenSpec AEP '09)

Doors, windows and their ironmongery can be assessed and 'Secured by Design' accredited if they comply with the system's rules and test methods.

(GreenSpec BRM '10)

SEDA See: **SCOTTISH ECOLOGICAL DESIGN ASSOCIATION**

SEDBUK

Website of Boilers efficiency database in order of efficiency (laboratory tests)

<http://www.sedbuk.com/index.htm>

A rated is 90% efficiency and better

See: Boiler, Boiler Capacity,

(GreenSpec BRM '10)

SEEDA See: **SOUTH EAST OF ENGLAND DEVELOPMENT AGENCY**

SEEE See: **SOCIAL ENTERPRISE EAST OF ENGLAND**

SEGAL APPROACH

Developed from the Segal Method but with more sophistication addressing wind and airtightness, avoidance of thermal bridges through insulation, increased thermal insulation, etc.

Building Designers need to consider the adoption of the Segal Approach i.e. panels sizes always the same as the manufactured board size to minimise off-cut waste in the factory and on site, unless the system manufacturer dictates to the designers who adopt it.

No waste on site may mean all waste at factory, where there is more chance that the off-cuts will get used, but it needs to be considered.

If the design ignores board size the cost of the waste will be reflected in the price of the panels delivered.

See: Modular, MMC, IMC

(GreenSpec BRM '10 – '11)

SEGAL METHOD

Walter Segal an Austrian Architect that practiced in the UK, he developed the method using a limited number of simple components: ex. 8'x4' (ex. 2400 x 1200 mm.) boards, ex. 8"x2" (ex. 200 x 50 mm.) joists and ex. 4"x2" (ex. 100 x 50 mm.) studs to create simple modular on-site self-build buildings.

i.e. panels sizes always the same as the manufactured board size to eliminate off-cut waste.

The details were simple and by today's standards not wind and airtight nor thermal insulating enough, so the method was developed into the Segal Approach.

See: Segal Approach, Modular, MMC, IMC

(GreenSpec BRM '10 – '11)

SEISMIC

Shock waves produced within the structure of the Earth effects on Earth's surface are known as earthquakes.
(Cherrington '95)

SELECT COMMITTEE ON SCIENCE AND TECHNOLOGY

www.parliament.the-stationery-office.co.uk/pa/ld200506/ldselect/ldsctech/21/4111706.htm

SELF BUILD

See: Segal Self Build Method, Segal Self Build Approach

SELF MANAGE

SELF-REGULATING

A system that alters its own characteristics to achieve or regain equilibrium.

(GreenSpec AEP '09)

SEMI-VOLATILE ORGANIC COMPOUNDS (SVOC)

VOCs are soluble and hence capable of causing emissions.

Wetter products can thus release more VOCs.

They vary according to their boiling points
SVOC (semi-volatile organic compounds): 250-380 degreesC
(SEDA Chemical Reduction in Building '08)
See: VVOC, VOC, TVOC
(GreenSpec BRM '11)

SEN See: **SPECIAL EDUCATIONAL NEEDS**

(Participation Works Partnership)

SENIOR DEBT

The major funding component (typically 90% of the funds required for construction, etc.) provided by banks or bonds. It has priority of repayment over other funding sources.

(John Laing)

See: PFI, PPP

(GreenSpec BRM '10)

SENSITIVITY ANALYSIS

(Renueables AN '09)

SEPA See: **SCOTTISH ENVIRONMENT PROTECTION AGENCY**

Have got teeth unlike EA in England

www.sepa.org.uk

(GreenSpec BRM '09)

SEPARATING FLOOR

A floor that separates adjoining dwellings, often referred to as a party floor.

(CC Publication: Concrete and Sound insulation)

SEPARATING WALL

A wall that separates adjoining dwellings, often referred to as a party wall.

(CC Publication: Concrete and Sound insulation)

SEQUENCE

consecutive series of operations

(Building Energy Glossary '06)

See: In Sequence, In Parallel

(GreenSpec BRM '11)

SEQUESTERED CARBON

See: Carbon Sequestration, Carbon,

(GreenSpec BRM '11)

SEQUESTRATION (OF CARBON)

The removal or storage of carbon in a place a carbon store where it will remain or _____

Types of sequestration include 'geological' where CO2 is captured and buried underground and 'biological' where CO2 is absorbed during the growth of plants and trees.

(GreenSpec AEP '09)

SERAD See: **SCOTTISH EXECUTIVE RURAL AFFAIRS DEPARTMENT**

SERVICE LIFE

Years of service of the building

See: Required Service Life, Predictable Service Life

(BSI BS 7543 '92 and GreenSpec BRM '10)

SERVICE SYSTEMS

all energy-using or –distributing components in a building that are operated to support the occupant or process functions housed therein (including HVAC, service water heating, illumination, transportation, cooking or food preparation, laundering, or similar functions

(Building Energy Glossary '06)

SERVICE WATER HEATING

heating water for domestic or commercial purposes other than space heating and process requirements

(Building Energy Glossary '06)

See: Domestic hot water

(GreenSpec BRM '11)

SERVICE WATER HEATING DEMAND

maximum design rate of water withdrawal from a service water heating system in a designated period of time (usually an hour or a day

(Building Energy Glossary '06)

SERVICE ZONE BATTENS

Usually associated with timber framed construction and breathing walls where to avoid services penetrations through membranes and reduce risk of potential penetration of airtightness layer by fasteners, a space is created inside of the airtightness layer (or vapour barrier) for services (traditionally running vertically but potentially running horizontally) and internal linings are fixed to these battens.

If fixed to solid background 30 x 30 mm. may be sufficient.

See: Dwargs, Noggins, Battens & Noggins

(GreenSpec BRM '10)

SERVICES COMPONENT LIFE MANUAL (SCLM)

Services component life manual

sponsored by Defence Estates and Published 2001 © Building Performance Group Ltd.

See: CLM, BLP CDD

(BLP '10)

SERVING CONSTRUCTION & ARCHITECTURE IN LOCAL AUTHORITIES (SCALA)

<http://www.scala.org.uk/>

SETAC See: **SOCIETY OF ENVIRONMENTAL TOXICOLOGY AND CHEMISTRY**

SETBACK

reduction of heating (by reducing the set point) or cooling (by increasing the set point) during hours when a building is unoccupied or during periods when lesser demand is acceptable

(Building Energy Glossary '06)

SETTLEMENT JOINT (SJ)

SET POINT

point at which the desired temperature in °C of the heated or cooled space is set

(Building Energy Glossary '06)

SEU See: **SOCIAL ENTERPRISE UNIT**

SEU See: **SOCIAL EXCLUSION UNIT**

SEV See: **STUURGROEP EXPERIMENTEN VOLKSHUISVESTING**

(Steering group for experimental housing), Netherlands

(CIRIA RP656 Design for Deconstruction Bill Addis)

SEWAGE TREATMENT FOR DIRECT OR INDIRECT RE-USE

Now the term "blackwater treatment"¹ is being used in the UK to describe the on-site treatment of sewage in an eco town or on an eco development, where the effluent is used back in the development for certain non-potable purposes.

Although this is a different process to normal sewage treatment in so far as the sewage effluent is treated beyond normal secondary and tertiary treatment, (and the effluent may meet drinking water standards), the technology is not new, is not confined to just "eco" developments, and has a technical term that describes it perfectly, which is sewage treatment for direct re-use.

In the US, home of the term "blackwater", such treatment and distribution schemes, of which there are an increasing number, are now being referred to as simply "water re-use" systems.

The first reference I could find to it was in a US patent applied for in 1974 where water was divided into "white water" (drinking water) and "black water" (sewage from the building).

(ECH2O & GreenSpec Water CH '11)

See: *Rainwater, Whitewater, Greywater, Blackwater, Waste water, Foul water, Surface water, Direct Re-use, Indirect Reuse*

(GreenSpec BRM '11)

SFA See: **SKILLS FUNDING AGENCY**

SFA See: **STANDARD FORM OF AGREEMENT**

SFCA See: **STANDARD FORM OF COST ANALYSIS**

SFI See: **SUSTAINABLE FORESTRY INITIATIVE**

SGD See: **SOCIETY OF GARDEN DESIGNERS**

SGP See: **SMALL GRANTS PROGRAMME OF THE NATIONWIDE FOUNDATION**

SHA See: **STRATEGIC HEALTH AUTHORITY**

SHADING COEFFICIENT

ratio of solar heat gain at normal incidence through glazing to that occurring through (3 mm) thick clear, double glazing glass

Shading coefficient, as used herein, does not include interior, exterior, or integral shading devices.

(Building Energy Glossary '06)

SHAKES

See: Shingles

(GreenSpec BRM '11)

SHELL

See: Shell Building, Shell and Core, Shell Drainage layer, Shell Damp Proof Membrane, Shell Render

(GreenSpec BRM '11)

SHELL AND CORE

Those parts of a shell building that are fitted out, equipped and run by the building owner, these include the superstructure and external envelop, entrance lobby and reception areas, staircases, lifts, plant rooms, services risers, toilets, sometimes kitchens.

Other part of the building include the open or closed office areas and sometimes kitchens which are ideally left unfinished for the tenant to fit out themselves.

(GreenSpec BRM '11)

SHELL BUILDING

building for which the envelope is designed, constructed, or both prior to knowing the occupancy type.

(Building Energy Glossary '06)

See: Speculative building, Shell and Core,

(GreenSpec BRM '11)

SHELL DRAINAGE LATER

In Holland it is common to place a layer of sea shells below the building as a drainage and damp proof layer (GreenSpec BRM '11)

SHELL RENDER

In Holland sea shell derived cementitious binders are a core ingredient of renders, in place of lime or cement (GreenSpec BRM '11)

SHELTERED BUILDING ENVELOPE, EXTERIOR

The elements of a building that separate conditioned spaces from the exterior (Building Energy Glossary '06)

SHELTERED BUILDING ENVELOPE, SEMI-EXTERIOR

the elements of a building that separate conditioned space from unconditioned space (as far as it is not designed for human occupancy) or that enclose semi heated spaces through which thermal energy may be transferred to or from the exterior, or to or from unconditioned spaces, or to or from conditioned spaces

Building envelope defines the surfaces that need to be insulated, or weather-stripped.

The outer shell of the building is not necessarily the same as the building envelope, particularly where the building contains semi heated or unconditioned spaces.

In some cases, the designer can determine the location of the exterior building envelope by the location that they place the insulation.

For instance, it is not uncommon for a stairwell to be at the outside edge of the building.

If that stairwell does not have any heating or cooling supply, it could be insulated on the outside edge or the side adjacent to other heated or cooled space.

If insulated on the outside, the stairwell becomes indirectly conditioned and the outside wall is the exterior building envelope.

If insulated on the inside, the inside wall is likely to become the exterior building envelope (unless the outside exposure is so small that it would still be indirectly conditioned space).

Where a building with conditioned space also contains semi heated spaces or unconditioned spaces, the building envelope for the conditioned space is the roofs, walls, floors, doors, fenestration, etc. that separate the conditioned space from the exterior.

These elements must comply with the residential or non-residential conditioned space requirements.

For semi heated spaces, the building envelope includes any roofs, walls, floors, doors, fenestration, etc. that separate the semi heated space from conditioned or unconditioned spaces (as well as from the exterior).

These elements must comply with the semi heated space requirements, as must elements separating conditioned space from unconditioned space.

(Building Energy Glossary '06)

SHGC See: **SOLAR HEAT GAIN COEFFICIENT**

SHOPS

See: Retail

(GreenSpec BRM '11)

SHORT-TERMISM

The constant pressure for shareholder value and quick returns forces business decisions that focus on the near term.

This is exacerbated by the investor trend towards investing for shorter periods.

(RICS '11)

SHOWER HEAT RECOVERY UNIT (SHRU)

SHINGLES

See Shakes

(GreenSpec BRM '11)

SHRU See: **SHOWER HEAT RECOVERY UNIT**

SI See: **SUSTAINABLE INNOVATION**

SIC See: **SILICON CARBIDE**

SICK BUILDING SYNDROME (SBS)

Building occupants experience acute health and comfort effects that appear to be linked to time spent in a building, but no specific illness or cause can be identified.

(GreenSpec AEP '09)

See: BRIH, Building Related Ill-Health, IAQ, Indoor Air Quality, Off-gassing, VOCs

(GreenSpec BRM '10 – '11)

SIEF See: **SUBSTANCE INFORMATION EXCHANGE FORA**

(HSE REACH '10)

SILICON CARBIDE (SIC)

(ERFMI '08)

SILL

Bottom horizontal member of a window frame or door frame but this is also known as Threshold

Not Cill (spelling)

(GreenSpec BRM '10)

SIMAPRO

Software for carrying out LCA which can include EcoInvent data and material analysis.

(Renueables AN '09)

SINGLE LIVING ACCOMMODATION MODERNISATION (SLAM)

See: WRAP, DEF EST, DREAM, MoD, GreenSpec,
(GreenSpec BRM '11)

SINGLE-ZONE SYSTEM

system that provides heating and/or cooling to a single space or a group of spaces that have thermal load requirements sufficiently similar that desired conditions can be maintained throughout by a single temperature control device.

(Building Energy Glossary '06)

SIN LIST See: **SUBSTITUTE IT NOW LIST**

SIPS See: **STRUCTURAL INSULATION PANEL SYSTEM**

SISMIC JOINT (SJ)

SITE-RECOVERED ENERGY

waste energy recovered at the building site that is used to offset consumption of purchased fuel or electrical energy supplies

(Building Energy Glossary '06)

SITE-SOLAR ENERGY

thermal, chemical, or electrical energy derived from direct conversion of incident solar radiation at the building site and used to offset consumption of purchased fuel or electrical energy supplies

For the purposes of applying this standard, site-solar energy shall not include passive heat gain through fenestration systems.

(Building Energy Glossary '06)

SITE WASTE MANAGEMENT PLAN (SWMP)

Required for all projects valued over £300,000.

SWMPs record the amount and type of waste produced and how it will be reused, recycled or disposed of.

(GreenSpec AEP '09)

SIT-IN See: **SKIRTING**

SIT-ON See: **SKIRTING**

SI UNITS See: **CONVENTIONAL SI UNITS**

Examples:

k, kilo, 1,000

M, mega, 1,000,000

G, giga, 1,000,000,000

kg, kilogramme, unit mass

t, metric tonne, 1000 kg

(GreenSpec BRM '10)

SJ See: **SETTLEMENT JOINT**

SJ See: **SISMIC JOINT**

SKA RATING

EAM for Office Fit-outs supported by RICS

It does not clash with BREEAM

www.rics.org/Ska

GreenSpec are working with Ska to bring the two closer and to work to support its ambitions

See: EAM, Environmental Assessment Method,

(GreenSpec BRM '10)

SKIM

Finishing coat of plaster, historically made with lime as a finishing coat over plaster, today normally with gypsum over a plasterboard base and today increasingly with lime or clay.

(GreenSpec BRM '10)

SKIRTING

Vertical board running horizontally at junction between floor and wall, covering a tolerance gap often between plastered walls and boarded floors.

Provides a passageway for air movement in no-airtight buildings.

Could be hollow to carry 217ampshire217 cables for power and communications in front of the wall surface avoiding labour intensive and materials wasteful installations.

Electical looms (as used in vehicle assembly) can be considered for off site preassembly and Lean or efficient on site construction.

See: also Cornice, Cove, Dado Rail, Architrave, thermal flanking, thermal bypass, Condensation, Mould, Asthma, Toxicity.

(GreenSpec BRM '10 – '11)

SKIRTING (COVED)

Moulding around room at junction of wall and floor, soften the appearance of sharp internal corners, soften the acoustic nature of sharp internal corners, making the rooms acoustically more comfortable.

Tile coved skirting are profiled to either sit-on the floor tile after the floor tiles are laid or sit-in the floor tile thickness and be installed at the same time as the floor tiles.

Covers a multitude of sins including _____ between wall linings and floor finishes which otherwise create air leaky construction; they remain leaky behind the coved skirting, but are covered up, so thermal flanking and thermal bypass, remain problems.

With convected heat the bottom of the room is coldest and so has the greatest potential for condensation due to cold air

behind the wall linings or floor finishes.

Heat passing through wall linings and skirtings are then lost to airleaky construction and cold air from outside gets to the space behind the coved skirting.

See: also Cornice, Cove, Dado Rail, Architrave, thermal flanking, thermal bypass, Condensation, Mould, Asthma, Toxicity.

(GreenSpec BRM '10 – '11)

SLA See: **SERVICE LEVEL AGREEMENT**

SLAB-ON-GRADE FLOOR

that portion of a slab floor of the building envelope that is in contact with the ground and that is either above grade or is less than or equal to 600 mm below the final elevation of the nearest exterior grade.

Grade in this context is lower than site level(s) by the removal of the site vegetation, turf, topsoil and top layer of subsoil affected by moisture uptake.

(Building Energy Glossary '06)

See: Elevation, Grade, Heated slab on grade floor, Unheated slab on grade floor

(GreenSpec BRM '10)

SLACK

If a new *specification work section* is written for the first time on a project, *Spekkies* will copy it to *Practice* base text in *NBS Building* software to make it available to all users on other projects, in doing so it will need to be made non-project specific and any weaknesses in its clauses or structure can be tightened up, there by taking out the *slack*.

(ASWS BRM '97)

SLAM See: **SINGLE LIVING ACCOMMODATION MODERNISATION**

SLATES

See: Tiles, Shakes, Shingles

(GreenSpec BRM '11)

SLATING/TILING BATTENS & COUNTER-BATTENS

Battens used to support and secure pitched roof or vertical hanging of tiles, slates, shingles or shakes; potentially having a secondary function of securing wind tightness and underlay membranes acting like pressure battens.

Counter battens are used on top of boarded roofs and followed by battens.

See: Dwangs, Noggins, Battens & Noggins

(GreenSpec BRM '09)

SMALL ENTERPRISE

One employing more than 11 staff

See: Micro Enterprise, SME, Small to Medium Enterprise

SMALL AND MEDIUM-SIZED ORGANIZATION (SMO)

SMALL TO MEDIUM ENTERPRISES (SME)

Enterprise (Business or Organisation) employing less than 250 employees or with a turnover of less than € 50m (£43 m) (EU definition)

Not small at all then.

Includes the vast majority of specifiers, architects, material manufacturers, stockists, specialist applicators, specialist installers and constructors.

See: Micro SME, RIBA SME, SMO,

(GreenSpec BRM '08 – '11)

SMARTLIFE

'SMARTLife' training centre on Modern Methods of Construction at CRC Cambridge Regional College run by Cambridgeshire County Council.

The result of a European Funded Project with Malmo and Hamburg.

See: MMC, Modern Methods of Construction, HIVE Low Carbon Centre, Cambridgeshire CC, SusCon, GreenDeal

(GreenSpec BRM '11)

SMART METERS

Tenant's/Occupier's Smart Metering for energy should ideally be placed in the kitchen so it is visible where it can be regularly observed for fluctuations in consumption.

They must comply with MID Measuring Instruments Directive.

They are not smart enough to analyse what's happening in the building.

Currently there is no joined up thinking with GreenDeal.

See: MID, Metering Instrument Directive,

(GreenSpec BRM '11)

SMARTeST

SMARTeST is a major European research project that looks at how flood resilience (Fre) technology can be used to help reduce the damage caused by flooding.

The BBA would be interested to hear from any customers who want their products tested for flood resilience using appropriate existing test methods and the new methods to be developed as part of the SMARTeST project.

<http://eshotclick4.co.uk/eshot/link.php?M=4060128&N=10896&L=6317&F=H>

See: Fre, Flood resilience, Managed Retreat, Flood, EA, Sacrificial construction

(GreenSpec BRM '11)

SMARTWaste

BRE hand held computer for recording waste added to a skip since the last time you recorded it.

Connects via the internet to *BRE* to update national statistics and generates a report that is delivered the next day to your computer.

Information can be requested on your sites performance compared to your sites previous performance, compared to your other sites, and to national average.

Part of a suite of tools including *SWMP* tools.

(GreenSpec BRM '10)

SMC See: **SEALANT MANUFACTURERS' CONFERENCE**

(HAPM and BPG CLM '97)

SME **SMALL TO MEDIUM ENTERPRISES**

SML See: **SPECIFIC MIGRATION LIMITS**

(Envirowise Packaging & Waste)

SMM7 See: **STANDARD METHOD OF MEASUREMENT (SEVENTH EDITION)**

system used by Quantity Surveyors for preparing the 'shopping lists' known as Bills or Quantities, which ensures the people pricing the shopping list are pricing the same thing in the same way.

This seventh edition takes into account the recommendations of *CPI* and uses the *CAWS* classification system.

(ASWS BRM '97)

SMO See: **SMALL AND MEDIUM-SIZED ORGANIZATION**

SMOG

A combination of smoke and fog, responsible for respiratory illhealth and poisoning.

Leislation was introduced to prevent the use of fule that generate smoke, 'smokelss fuel'

(GreenSpec BRM '11)

SMOKELESS FUELS

These are special fuels which do not produce much smoke when they burn.

Examples are natural gas, anthracite (a very pure form of coal) and fuels specially manufactured from coal such as Coalite.

(Cherrington '95)

Inveted after smog kills many living in large cities

(GreenSpec BRM '11)

SMOKE TEST

A building (or parts of it) is filled with smoke using smoke machines and then pressurised to force the smoke through gaps in the building envelope.

(based on SEDA Scottish Environmental Design Association Airtightness Guide definition)

Smoke test are also carried out on drain runs between manholes/inspection chambers/rodding points to determine any leaks.

(GreenSpec BRM '10)

SMOKE TUBE/PENCIL/WAND/GENERATOR

A hand held device which produces smoke in small quantities for more specific identification of leakage paths within a building under pressurisation or depressurisation, or under natural infiltration.

(based on SEDA Scottish Environmental Design Association definition & GreenSpec BRM '09)

SMS See: **SUBSTANCE MISUSE SERVICE**

SNAP

A property of a CAD 3D object which is in reality comes in a set size that if in the CAD programme will snap into two pieces, preventing its inclusion in a project in an unavailable size.

See: AI, Artificial Intelligence, 3D CAD, Objects, Clash Detection, Parametic, BIM

(GreenSpec BRM '11)

SNCOS See: **STATUTORY NATURE CONSERVATION ORGANISATIONS**

SNH See: **SCOTTISH NATURAL HERITAGE**

SNT See: **SAFER NEIGHBOURHOOD TEAMS**

SO See: **SUPERINTENDANT OFFICER**

The equivalent of the CA Contract Administrator in a JCT contract, but in a government or historically a PSA project.

(GreenSpec BRM '11)

SOAKAWAY

A subsurface structure into which surface water is conveyed to allow Infiltration into the ground.

(GreenSpec AEP '09)

Can be a concrete chamber with perforated walls and no base, but usually a hole in the ground filled with hardcore, ideally with no fines, to provide empty interstices for the water to occupy until the ground absorbes the water.

Recently plastic 'crate' SUDS cells are used to create the voids.

(GreenSpec BRM '10 – '11)

SOCIETY FOR THE PRESERVATION OF ANCIENT BUILDINGS (SPAB)

SOCIETY OF GARDEN DESIGNERS (SGD)

Not Landscape Architects but garden designers, but I am sure there is a good overlap in their capabilities and talent; mostly but not exclusively ladies.

(GreenSpec BRM '11)

SODP See: **STRATOSPHERIC OZONE DEPLETION POTENTIAL**

SOFT STRIP

the initial stage of the demolition process during which high-value and easily-removable items are taken out, prior to

demolition of the building structure.
(CIRIA RP656 Design for Deconstruction Bill Addis)
See: DFMA, DfD
(GreenSpec BRM '11)

SOFTWOOD NOGGINS

See: Noggins
(GreenSpec BRM '10)

SOFFIT

Visible underside of a projecting roof eaves of a pitched or flat at the junction of roof to wall; or the underside of floor or roof over a passageway or covered walkway, porch, porte cochere, etc.

Often the poor workmanship left gaps that are exploited by birds and bats to gain access to roofs to create nests and roosts

(GreenSpec BRM '11)

SOIL CONDITIONER

Term used to describe the solid product of aerobic/anaerobic digestion that can be added to soil to enhance its fertility.

(Cherrington '95)

Can also enhance its water retaining properties.

See: PAS 100, Recovery, Recovered compost.

SOIL EROSION

Wearing away and loss of topsoil, principally by wind and running water.

(Cherrington '95)

Occurs after deforestation and cattle hoof disturbance, by rainwater falling on to soil with no absorbing nor stabilising ground cover or undergrowth topsoil will be washed away to water courses, water bodies and oceans.

Soil particles in solution or suspension can starve rivers of oxygen and result in large fish populations being killed.

Deoxygenated water discharges into the sea can overwhelm corals.

Soil particles deposited in river estuaries result in sandbanks and islands

(GreenSpec BRM '08 – '11)

SOIL, WASTE AND VENT PIPE OR STACK

Vertical above ground drainage pipe carrying waste water from sinks via sloping waste pipes and solids and foul water from toilets via sloping soil pipes; to drains and ventilating the sewer gas via drains to the stack to ventilate at high level above the roof.

(GreenSpec BRM '10)

SOLAR BLINKERS

Sunlight and daylight shading blades besides windows, usually placed to the south of east or west facing windows.

Solar shading shelves may be adopted by Birds as a nesting site at the top if a building because they will not be overlooked by windows and nosey occupants.

(GreenSpec BRM '09)

SOLAR COLLECTOR

A device usually made of flat plates or evacuated tubes for capturing solar energy.

Windows are a simple solar collecting device, and solar hot water systems involve more complex devices, with water running through them.

(Hastoe HA GreenStreet.org & GreenSpec BRM '11)

SOLAR ELECTRIC CAR

SOLAR ENERGY SOURCE

source of thermal, chemical, or electrical energy derived from direct conversion of incident solar radiation at the building site

(Building Energy Glossary '06)

SOLAR GAIN

direct solar radiation from suns rays passing through windows, rooflights and glazed areas to provide warmth to rooms and spaces.

Optimal gains come from south to south-west facing glazed areas.

(Hastoe HA GreenStreet.org)

Heat absorbed through direct transmission through glazing (primary transmittance).

Energy is also absorbed by the glazing and subsequently transferred inwards by convection and radiation (secondary transmittance).

(GreenSpec AEP '09)

SOLAR HEAT GAIN

See: Passipedia: [g-value](#)

See: g-value, SHGC,

(GreenSpec BRM '11)

SOLAR HEAT GAIN COEFFICIENT (SHGC)

ratio of the solar heat gain entering the space through the fenestration area to the incident solar radiation

Solar heat gain includes directly transmitted solar heat and absorbed solar radiation, which is then reradiated, conducted, or convected into the space.

(Building Energy Glossary '06)

Is the US equivalent of **G**-value.

The only difference between the numbers is that SHGC uses an air mass of 1.5 and the **g** value uses an air mass of 1.0 (GreenSpec AEP '09)

See: fenestration area
(GreenSpec BRM '11)

SOLAR PANEL/COLLECTOR

A device for extracting the energy of the sun directly into a more usable or storable form.

(GreenSpec AEP '09)

SOLAR PANELS/SOLAR WATER HEATERS

The sun's power can be used to heat or pre-heat water for use in homes and commercial buildings through the use of solar panels.

The panels are often mounted on roofs or frames and orientated to maximise exposure to the sun. The water is then stored in the hot-water tank which will have back up heating to bring the water up to the required temperature if necessary. Solar water heaters are one of the most cost effective forms of renewable energy.

(Ecos Renews 17)

See: RH, RHI

(GreenSpec BRM '11)

SOLAR PREHEATING OF VENTILATION AIR

SOLAR PREHEATING OF WATER

SOLAR RADIATION

the energy carrying electromagnetic radiation emitted by the sun.

(Hastoe HA GreenStreet.org)

When this radiation reached the earth our planet has its own defence mechanisms that bounce off or filter out most the unwanted and potentially harmful parts of the radiation's spectrum and permits through the beneficial parts.

Even some of the beneficial parts can be distracting, annoying or harmful if taken in excess.

This radiation is then selectively converted by fauna and flora and other physical interactions and chemical reactions to convert that radiation and other materials to other forms of energy and other materials.

This supports life on earth.

(GreenSpec '09)

SOLAR SHADING

Summer sun is both very bright and very hot; when it enters buildings through windows and rooflights or glazed doors it can cause glare and overheating, discomfort or difficult working conditions for the occupants.

The windows doors and rooflights can be protected from the sun's rays by shading devices both internally and externally, internal blinds and curtains can stop the light but let some of the heat into the building so external shading is better as it can stop the heat outside as well.

Shading can be designed to permit the passage of winter sunlight which can beneficially heat the building during the heating season but exclude the summer sunlight.

(GreenSpec '09)

SOLAR SHADING SHELVES

Sunlight and daylight shading shelves above windows

Light shelves will occur are transom or clerestory level to bound reflected light on the light shelf to the building onto the ceiling or soffit.

Solar shading shelves may be adopted by Birds as a nesting site at the top of a building because they will not be overlooked by windows and nosey occupants.

(GreenSpec BRM '09)

SOUND ABSORPTION

Conversion of sound energy into heat, often by the use of a porous material e.g. glass mineral wool.

(CC Publication: Concrete and Sound insulation)

SOLAR THERMAL (ST)

this often refers to hot water systems that are heated by solar energy.

(Hastoe HA GreenStreet.org)

See: PVT

(GreenSpec BRM '09)

SOLAR THERMAL HOT WATER HEATING (ST)

Similar to PV but employing a water based refrigerant heated by the sun's rays, which is then pumped to a twin coil hot water cylinder through the top coil – using a pv powered pump – to provide domestic hot water.

A south facing solar thermal hot water heating system will provide approximately 80% of all domestic hot water requirements for an all up installation cost of around £3500.

As renewable energy sources go this is the most readily accessible by the general public, with carbon savings in the order of 49 kg carbon/annum.

(Building Magazine Steve Piltz, Turner & Townsend '08)

See: PVT

(GreenSpec BRM '09)

SOLID WALL INSULATION GUARANTEE AGENCY (SWIGA)

have insulation industry initiatives and schemes designed to provide consumer confidence and protection

See: CIGA, NIA,

(GreenSpec BRM '11)

SOLVENT

A liquid or gas that dissolves a solid, liquid, or gaseous solute, resulting in a solution.

(GreenSpec AEP '09)

SORPTION

refers to the action of absorption or adsorption

(Wikipedia [http://en.wikipedia.org/wiki/Absorption_\(chemistry\)](http://en.wikipedia.org/wiki/Absorption_(chemistry)))

See: Absorption See: Adsorption

(GreenSpec BRM '10)

SOUND ABSORBENT MATERIAL

Material that absorbs sound energy.

(CC Publication: Concrete and Sound insulation)

SOUND ABSORPTION

Plasters generally have a low sound absorption factor of 1 – 3%, though 'acoustic plasters' are available that can increase this level to 25%.

SOURCE CONTROL

An approach to urban drainage which deals with water at the place where it falls as rain, and collects, cleans and releases surface runoff slowly to streams, rivers and groundwater.

(GreenSpec AEP '09)

SOUTH

Australia and New Zealand.

(Cherrington '95)

SOUTHERN HEMISPHERE

See: Passipedia: [Climate data tool for the Southern Hemisphere](#)

(GreenSpec BRM '11)

SOX See: **SULPHUR OXIDE**

SPAB See: **SOCIETY FOR THE PRESERVATION OF ANCIENT BUILDINGS**

(HAPM and BPG CLM '97)

SPACE

enclosed space within a building.

For the purpose of determining *building envelope* requirements spaces are subdivided as follows:

Cooled Space, Heated Space, Indirectly conditioned space, unconditioned space

See: *Cooled Space, Heated Space, Indirectly conditioned space, unconditioned space*

(GreenSpec BRM '10)

SPAN

Distance between supports or bearings in a joist, rafter, beam, arch, lintel, etc.

(GreenSpec BRM '11)

SPANDREL PANEL

An element manufactured to divide or close off the profile in the roof space.

(CC Publication: Concrete and Sound insulation)

Panels between window sill of a window in an upper floor and the head of the window in a lower floor

Opaque and thermally insulated panels between transparent panels in adjacent floors of a curtain walled building.

Sometimes the spandrel panel has a fire and/or acoustic function preventing flanking between floors.

A similar function may be needed at party walls.

(GreenSpec BRM '10)

SPC See: **SPECIAL PURPOSE COMPANY**

SPEAR

Arup's Environmental Assessment Method

Creates pretty diagrams

See: EAM

(GreenSpec '10)

SPECIAL EDUCATIONAL NEEDS (SEN)

(Participation Works Partnership)

SPECIAL/INTENSIVE SERVICE

Specialised support targeted at particular 'high risk', high need groups, e.g. looked after young people, young offenders

(Participation Works Partnership)

SPECIAL PURPOSE COMPANY (SPC)

A company especially established to carry out the contract, owned by its shareholders, the providers of equity finance for the scheme.

Under the most common form of PFI, a private sector provider like John Laing will, through a Special Purpose Company, hold a DBFO contract for facilities.

(John Laing)

See: PFI, PPP, DBFO, DRFO

(GreenSpec BRM '10)

SPECIAL PURPOSE VEHICLE (SPV)

A company especially established to carry out the contract, owned by its shareholders, the providers of equity finance for the scheme.

(John Laing)
See: PFI, PPP
(GreenSpec BRM '10)

SPECIES ACTION PLANS (SAPs)

See: BAP, Biodiversity Action Plans, HAPs, Habitat Action Plans.
(GreenSpec BRM '11)

SPECIFICATION

Part of the set of contract documents used to get a building built, 'a recipe for building', giving list of ingredients, mixing instructions, lists of utensils, instructions for equipment settings, how to test the when materials are 'done', instructions for use and application, how to prepare, finish and present the end result.

(ASWS BRM '97)

See Performance Specification, Employer's Requirements, Prescriptive Specification, NBS,
(GreenSpec BRM '11)

SPECIFIC TECHNICAL DOCUMENTATION

Documentation demonstrating that methods within the applicable system for assessment and verification of constancy of performance have been replaced by other methods, provided that the results obtained by those other methods are equivalent to the results obtained by the test methods of the corresponding harmonised standard

(CE Marking for SMEs & CPR '11)

SPECNET

(GreenSpec BRM '10)

SPECULATIVE BUILDING

(GreenSpec BRM '10)

SPEKKIES

(rhymes with trekkies) (not to be confused with species) a term we *223ampshir* have coined to be *PC* when referring to *NBS Building*, *SpecMen* or *SpecWomen*. We write the bits that nobody else wants to do, (*specifications*) are given the least amount of time possible to create them, and when the *BS* hits the fan, everyone ducks and then lays disproportionate amounts of trust and hope in the contents of the *specification* and the skills of the *223ampshir*.

(ASWS BRM '97)

SPELLCHECKER

part of a word-processing programme used to check the spelling of common words.

(ASWS BRM '97)

SPG See: **SUPPLEMENTARY PLANNING GUIDANCE**

SPG See: **SPECIAL PLANNING GUIDANCE**

(CIRIA RP656 Design for Deconstruction Bill Addis)

SPOIL

Material subsoil, sands and gravel, dug out during excavation, (generically arisings, which can also come from deconstruction and demolition).

Regarded as waste but it can be a resource to put to beneficial use.

(GreenSpec BRM '10)

SPOLD See: **SOCIETY FOR THE PROMOTION OF LCA DEVELOPMENT**

SPORES

Ever present airborne microscopic living material often associated with mushrooms and other fungi they are dispersed from fruiting bodies and carried on the winds and deposited on surfaces everywhere.

If the surfaces are moist through condensation, the spores can start to grow and form moulds which in turn can develop into rot that can feed off cellulose in timbers causing decay and structural failure.

Humid warm conditions are good for mould growth once the moulds have developed they too can be dispersed.

Spores are breathed into lungs and can cause asthma.

Controlling humidity and avoiding condensation are paramount to healthy living conditions.

(GreenSpec BRM '09)

SPRAY FOAMS INSULATION

Insulation available in both open- and closed-cell configurations that is typically made from polyurethane.

It is sprayed into construction assemblies as a liquid that expands to fill the surrounding cavity.

Once dry, spray foam functions as both an air barrier and thermal barrier and effectively fill holes and cracks for both a well-insulated and air-tight wall assembly.

Closed-cell spray foams are more dense and also function as a 223ampsh barrier.

(Energy Star '07)

Bio-plastics (Plant based versions of plastics) are now appearing in the market place

(GreenSpec '09)

SPREADSHEET

a type of programme to do *number crunching*, lots of complicated calculations can be carried out simultaneously or consecutively but automatically and very fast whilst you blink. *Excel* is an example.

(ASWS BRM '97)

SPS See: **AGREEMENT ON SANITARY AND PHYTOSANITARY MEASURES**

SPV See: **SPECIAL PURPOSE VEHICLE**

SQM See: **SQUARE METER**

SQUARE METER (SQM)

Otherwise shown as m³

(GreenSpec BRM '11)

SREP See: **SUB-REGIONAL ECONOMIC PARTNERSHIP**

SSC See: **SECTOR SKILLS COUNCIL**

SSSI See: **SITE OF SPECIAL SCIENTIFIC INTEREST**

'Triple S I'

Supposedly important sites, often from a biodiversity point of view, more often just where the developers want to make profits developing the site and where T&C Planners want to let them do it.

(GreenSpec BRM '10)

STACK EFFECT OR CHIMNEY EFFECT

The flow of air that results from warm air rising, creating a positive pressure area at the top of a building and a negative pressure area at the bottom of a building.

(GreenSpec AEP '09)

STACK VENTILATION

ST SOLAR THERMAL

ST SOLAR THERMAL HOT WATER HEATING

STACK EFFECT

Air or gas generally rises in a duct, or vertical passage, when heated.

This is due to its lower density compared with surrounding air or gas.

Passive ventilation works on these principles drawing warm moist air out of rooms.

(Hastoe HA GreenStreet.org)

Vertical air movement through a building caused by differences in the density of air due to temperature differences between the air inside and outside of the building.

(based on SEDA Scottish Environmental Design Association definition)

Some lateral movement will be induced to feed the stack effect, thus ventilation of spaces adjacent to tall spaces can be

Air leakage paths or openings are required to permit air in to replace air leaving the building.

(GreenSpec '09)

STAKEHOLDERS

All those who have an interest in an organisation, e.g. partner organisations, young people, youth workers

(Participation Works Partnership)

STANDARD ASSESSMENT PROCEDURE (SAP) RATING

A SAP Assessment is the UK national method for the calculation of the energy performance of buildings.

It is used to demonstrate compliance with Building Regulations Approved Document L "Part L" L1 for dwellings.

(Ecos Renews 17)

SAP is an energy rating for buildings.

It measures the heating and hot water yearly cost for a building, stated in a scale of 0 – 120.

(Hastoe HA GreenStreet.org)

The SAP rating is the 'Standard Assessment Procedure' which provides an indication of the overall energy efficiency of a dwelling.

It is measured on a scale of 1-100 where the higher the number, the better the performance.

(GreenSpec AEP '09)

SAP has been assessed by the CarbonLite programme and found wanting in respect of low carbon/energy buildings.

It is not sophisticated enough to address refurbishment, conservatories, sun spaces, lobbies, porches.

It does not address electricity use, cooking, lighting, power.

It does not address the energy used in drying a wet building.

It continues to be updated.

Created by BRE for domestic building and used for proving Building Regulation Approved Document L 'Part L1' compliance.

Carbonlite demonstrated that this tool is inadequate for low energy building, it continues to be revised.

TSB Retrofit programme project teams found it is pretty poor at modelling anything other than simple new build, without extensions, solar spaces, porches, attic and roof level insulation, without making sense.

See: SBEM for non-domestic buildings, PHPP Passivhaus Planning Package, DSM, Dynamic Simulation Model,

(GreenSpec BRM '10)

STANDARD BUILDING ENERGY METHOD (SBEM)

A software package developed by the BRE for calculating the carbon emissions of building other than dwellings.

The user inputs data relating to the building design and the software compares the actual design with a notional building of the same design built to 2002 Building Regulation Approved Document L energy standards .

(GreenSpec AEP & BRM '09)

Created by BRE for non-domestic building and used for proving Building Regulation Approved Document L 'Part L2' compliance

When it was launched many M&E engineers found it questioned everything they had done in their careers so far.

Over many revisions it began to work better and now it is sort of accepted.

See: Building Regulations Compliance Tools, DSM, SAP, PHPP.

(GreenSpec BRM '10)

STANDARD FORM OF COST ANALYSIS (SFCA)

LCC is primarily about costs and the BCIS SFCA is the defacto industry standard for QSs working on capital costs.
(BLP PM '10)

STAND-BY

When an appliance is turned off by a remote controller it is most often turned to 'stand-by' mode.

Most appliances are made with a capability to start up from 'stand-by' mode quicker than from off.

They often have parts that are charged and ready for action.

They often have a device that repeatedly asks 'has he turned me on yet?' this and other devices are a continuous drain on electricity whilst the appliance is assumed to be off.

See: Off, On

(GreenSpec BRM '10)

STANDBY LOSS

standby loss (in percent per hour) expressed as a ratio of the heat loss per hour to the heat content of the stored water above room temperature

When calculating heat loss, all energy sources required to maintain stored water at a preset temperature are considered, including the primary heating energy (gas, oil, or electricity) and any electricity consumed by a blower motor, controls, circulating pump, etc.

(Building Energy Glossary '06)

STATUTORY NATURE CONSERVATION ORGANISATIONS (SNCOS)

STATUTORY SERVICES

Provided by central and local government and their agencies, e.g. NHS, schools

(Participation Works Partnership)

STEEL CONSTRUCTION INSTITUTE (SCI)

<http://www.steel-sci.org/>

STEEL FRAME

See: SCI, Steel Construction Institute

(GreenSpec BRM '11)

STERADION

(GreenSpec BRM '10)

STOCK BRICKS or STOCKS

Hand or machine-made bricks shaped in a mould and fired in kilns to give strength, durability and dimensional stability.

(GreenSpec '10)

STOREY

portion of a building that is between one finished floor level and the next higher finished floor level or the roof

A basement or cellar shall not be considered a storey.

(Building Energy Glossary '06)

See: Clerestorey

(GreenSpec BRM '10)

STORAGE/PARKING

STRATEGY

A plan to say what you are going to do and how you are going to do it

(Participation Works Partnership)

STRATOSPHERE

Layer of the atmosphere, about 15-35 kilometres above the earth's surface.

(Cherrington '95)

Ozone lives here.

(GreenSpec BRM '11)

STRATOSPHERIC OZONE DEPLETION POTENTIAL (SODP)

(ERFMI '08)

STRAWBALE CONSTRUCTION

A building method that uses straw bales as structural elements, insulation, or both.

It is commonly used in natural building.

It has advantages over some conventional building systems because of its cost, easy availability, and its high insulation value

(GreenSpec AEP '09)

STRAMITIZED 'StramitZED' See: ZERO EMISSIONS DEVELOPMENT

StramitZED, a development of Rural ZED using compressed strawboard insulation panels, etc.

STREET LIGHTING

STRETCHER

The side face of a brick (215 x 65 mm. in a UK brick)

See: Header, Soldier

(GreenSpec BRM '10)

STRETCHER HALF LAP BOND

Simple bricklaying pattern in a wall, otherwise known as the bond, where bricks are laid stretcher face to the wall face, header to header with vertical perpendicular joints between and in the course above the bricks are laid half overlapping two bricks in the course below immediately over the perpendicular joint between bricks.

See: Header, Soldier
(GreenSpec BRM '10)

STRING

Sloping board carrying the treads and risers of a staircase, that starts and terminates in the newel posts
(GreenSpec '10)

STRUCTURAL INSULATION PANEL SYSTEM (SIPS)

Factory-built insulated wall assemblies that ensure full alignment of insulation with integrated air barriers.
Composed of insulated foam board glued to both internal and external layers of sheathing, typically OSB or plywood.
Many SIP panels are manufactured with pre-cut window and door openings.
(Energy Star '07)

A composite consisting of a sandwich of two layers of structural board with an insulating layer of foam in between.
The board can be sheet metal or oriented strand board (OSB) and the foam either expanded polystyrene foam (EPS),
extruded polystyrene foam (XPS) or polyurethane (PUR) foam.

SIPs share similar structural properties as an I-beam, I stud or I-column.

The rigid insulation core of the SIP performs as a web, while the OSB sheathing exhibits the same properties as the flanges.

SIPs potentially replace several components of conventional building such as studs and joists, insulation, vapour barrier and air barrier if all parts are effective.

As such they can be used for many different applications such as exterior wall, roof, floor and foundation systems.

(GreenSpec AEP '09 & BRM '11)

A panelised MMC Modern Method of Construction developed in Mainland Europe, adopted in the UK, as panels or as a whole building system of SIPS.

They use foamed insulation as a part of the structural performance of the panel, thus enabling reduced thickness of panel whilst maintaining strength.

Insulation:

Using a high performance thermal insulating foamed plastics allow the panel to remain thin for insulation purposes, so in terms of energy consumption during use, they are good.

However the embodied carbon will be high with the use of non-renewable petro-chemical fossil organic insulation derived from fossil fuel and synthetic bound lining boards.

It is essential that the insulation is zero ozone depleting potential (ZODP) and ideally zero greenhouse gas potential (ZGHGP) and Zero Climate Change Potential (ZCCP).

The insulation is foamed with blowing agents into the panel, but there may also be methods of making them using laminated construction.

Boards:

The boards used to enclose the insulation are likely to be made with synthetic adhesives and may have high VOCs Volatile Organic Compounds, or formaldehyde content so there may be issues during manufacture and installation to be addressed with PPE Personal Protective Equipment.

There may also be off-gassing of VOC and formaldehyde from adhesives in use.

Passive ventilation (with heat recovery during heating season) may be important

Design & Resource Efficiency

Factory production can be very good in terms of working conditions and minimising waste.

Building designers can adopt the Walter Segal Approach i.e. panels sizes always the same as the manufactured board size to minimise off-cut waste in the factory, unless the system manufacturer dictates to the designers who then adopt it.

Offsite prefabrication usually

little waste is generated on site usually

all waste is at generated at the factory, where there is more chance that the off-cuts get used, off cuts can be used for separating and protecting materials and components during deliveries to site.

If the design ignores board size the cost of the waste will be reflected in the price of the panels delivered.

On-site cutting and modifying should be avoided, this is achieved by design and accurate setting out and construction.

Currently composite materials are generally difficult to separate and recycle but the panels may be reclaimable and reusable but only if the jointing permits disassembly.

Today the panels will not be readily stripped apart to recycle any of the parts, but in the future things may be different.

Jointing:

Air leakiness is a design and specification issue that cannot be resolved with site workmanship.

SIPS can be relatively air tight if the panels joints are glued and lose very little heat through warm air leakage or cold air infiltration, so significantly better than most building methods in the UK no matter what method of construction.

However where the jointing is not glued airtight other methods of jointing offer risks; brittle glued joints could be damaged in assembly and become air-leaky; foamed insulation joints can shrink back after a period of time leaving gaps; flexible compressible and expanding foam strips set into rebates and channels can be effective.

The Lighthouse building at BRE Innovation park certainly had considerable difficulty, numerous attempts and expense making its panel joints airtight to meet its ambitions Code level 6 under the Code for Sustainable Homes.

Site assembly

Tolerances should be sorted in the factory, but size and tolerances of the supporting base will be an issue that must be right first time, any errors and the panels will be unforgiving.

The exposed edges of the boards may be vulnerable to damage on site.

Making the last few joints in a panelised system may be easy in the factory with lifting gear but is difficult on site. Panel

construction usually starts at corners for the inherent stability this offers to the whole and work progresses away from the corners, working around and meeting up elsewhere, where the jointing is tongue and grooved (T&G) by nature this causes difficulty assembling the last few joints, it requires a number of panels to remain unsecured at the base whilst offering up the last panels and to enable the T&G to engage sometimes putting stress on the panel trying to prize it apart. Loose tongues slide into the joint in most cases and from above in the case of the last joints, but these can remain air leaky; butt joints offer an alternative approach, but remain air leaky unless compressible seals are continuous and effective

Energy performance

The design of the SIPS building in terms of solar gain and thermal mass is an issue.

Good U value in thermal insulation

the house warms quickly with internal heat sources and/or solar gains via windows and glazed doors.

The internal surface of the panels will be relatively low thermal mass so the design needs to ensure that solar gains are limited or passive ventilation of the building is possible during summer.

Good eaves overhangs may become more important in the future.

Using XPS or PUR thermal insulation provides little or no decrement delay and protection from solar gains in summer, this if offered to masonry buildings but not available in timber or metal frame, so SIPS buildings will benefit from additional high decrement thermal insulation on pitched and flat roofs and rendered or weatherboarded walls.

The BedZED and Hockerton Housing Project approaches with solar trapping conservatories may not always be practical.

Materials choices:

Whilst the planet has a CO₂ crisis SIPS may be a great long term solution but short term SIPS generate more CO₂ (non renewable carbon) in the production of the materials.

Choice of materials is important to enable us to get past the short term CO₂ crisis, it would be nice if you could address both at the same time; a plant based (renewable carbon) foaming bio-plastic would be the ideal choice.

(GreenSpec BRM '09 – '11)

STYRENE BUTADIENE RUBBER (SBR)

(ERFMI '08)

SUBCOMMITTEE

A subcommittee operates with the support of a larger committee and is either made up of some members of the larger committee or draws in other stakeholders.

A subcommittee meets separately to take ideas and work programmes forward, reporting back to the larger committee as agreed.

(Participation Works Partnership)

SUBORDINATED DEBT (OR SUB-DEBT)

Can also be a form of debt that has lower priority for repayment than the senior debt – alternatively called junior debt.

(NB: Junior debt is not the same as loan stock, but loan stock may be called subordinated debt.)

(John Laing)

See: PFI, PPP, Loan Stock.

(GreenSpec BRM '10)

SUB-REGIONAL

Organised in a smaller geographical area, e.g. a county or Unitary Authority

(Participation Works Partnership)

SUBSTANCE

A chemical element and its compounds in the natural state or obtained by any manufacturing process, including any additive necessary to preserve its stability and any impurity deriving from the process used, but excluding any solvent which may be separated without affecting the stability of the substance or changing its composition.

(HSE REACH '10)

SUBSTANCE INFORMATION EXCHANGE FORA (SIEF)

SIEF participants should include all relevant actors submitting information to the Agency on the same substance.

(HSE REACH '10)

SUBSTANCE MISUSE SERVICE (SMS)

(Participation Works Partnership)

SUBSTANTIAL CONTACT

condition where adjacent building materials are placed so that proximal surfaces are contiguous, being installed and supported so they eliminate voids between materials without compressing or degrading the thermal performance of either product.

(Building Energy Glossary '06)

See Fortuitous Contact (unrelated)

(GreenSpec BRM '10)

SUBSTITUTE IT NOW LIST (SIN LIST)

ChemSec provide a list of chemicals that are restricted by REACH regulations.

<http://www.chemsec.org/list>

(GreenSpec JB '10 & BRM '10)

A number of environmental pressure groups argue that the ECHA list is too limited and their response has been to draw up their own lists.

A good example is the SIN List ("substitute it now") in which, amongst others, the WWF and Friends of the Earth have listed over 350 chemicals.

This list is proving so influential that big retail organisations such as B&Q have written to suppliers banning the chemicals from products supplied.

Well-known flame retardants and plasticisers are both on the EU and the SIN List.

Impact on the construction industry

See: SIN List, REACH, ECHA, ChemSec,

www.sinlist.org

(GreenSpec Dr. Peter Ruifrok '10)

SUBSTITUTION

The curse of contracting and sustainable construction in particular.

Forced upon us by EU Procurement Rules, if the project is Government funded, on the basis that the contractor knows best and offers value for money by providing the cheapest alternative, in reality they substitute with inadequate, inferior and cheap products to improve their profit margin.

Reinforced by PSA Specification in its day, NBS Specification Preliminaries today and by PII providers insisting on Or Equivalent in all product clauses.

Without robust specifications and robust policing of the standards and the Works, replacements with inferior will occur. If those administering the contract do not understand the environmental properties then they cannot defend it.

The reason the product was chosen needs to be in the specification and the properties of the substitute compared with the specified products.

See: Or similar, Or Equivalent, Equivalency, Surrptitious Substitution, EU Procurement Rules, WAG, GreenSpec, (GreenSpec BRM '11)

SuDS See: SUSTAINABLE URBAN DRAINAGE SYSTEMS

SuDS can be a way of dealing with the surface water run-off, and could be apply to refurbishment opportunities.

SuDS options include lagoons and soakaways.

(Hastoe HA GreenStreet.org)

In the past, drainage systems were designed to remove surface-water run-off from urban environments as quickly as possible, with little consideration for the quality of the water, or its impact on downstream drainage patterns.

An artificial SUDS is able to manage the build-up/ run-off of surface-water by locally containing or channelling this water.

It thus restricts the transfer of pollutants and protects the hydrological system.

(Building Magazine Steve Piltz, Turner & Townsend '08)

SULFIDE

As opposed to Sulphide, this is the new official way to spell (*OED* etc.) this substance used in 2 Part Polysulfide sealants. Announced in *BSI News* a few decades ago. Some older *BS* standards will still have the old spelling until they are revised or reissued.

(ASWS BRM '97)

SULFUR DIOXIDE (SO₂)

Former spelling: Sulphur Dioxide

Sulfur is new *OED* spelling, previously Sulpher

(GreenSpec BRM '08 – '11)

Sulfur dioxide is a greenhouse gas that is said to promote the greenhouse effect

(Cherrington '95)

A gas formed when fuel containing sulfur, such as coal or oil, is burned.

SO₂ dissolves in water vapour to form acid, and interacts with other gases and particles in the air to form *acid rain* and other products that can be harmful to people and their environment.

(GreenSpec AEP '09)

SULFUR OXIDE (SO_x)

SUMMER

See: Passipedia: [Summer](#)

(GreenSpec BRM '11)

SUNLIGHT DESIGN MAXIMISED

SUN PIPES

SUPER INSULATED BUILDING

In the UK we have a mild climate and subsequently we have had lenient rules about the U value of building elements, mainland Europe and Scandinavia have more severe climates and have more stringent U values requirements for a very long time.

Building Regulations and the Approved Document L (all of its 4 parts) "Part L" have set low targets that cannot meet Kyoto, EU and national targets.

National regulations often have reasonable standards but groups of interested parties often set more stringent design standards that are voluntary within their communities.

Canada has its Super E design standard, Germany has its PassivHaus standard and Switzerland has Minergie passive standard.

In the UK AECB and their Carbon*Lite* programme have interpreted PassivHaus for a UK mains supply energy mix and UK climate.

Code for Sustainable Homes in the UK has started to set the necessary targets which exceed Part L and industry has responded in a positive manner.

(GreenSpec '09)

SUPERINTENDANT OFFICER (SO)

The equivalent of the CA in general contracts but in change of Government funded Projects administered under government contracts, in the past under PSA Specifications, now under NBS Preliminaries.

See: CA, Contract Administrator,
(GreenSpec BRM '10 – '11)

SUPPLIER

Any manufacturer, importer or downstream users or distributor placing on the market a substance, on its own, in a preparation or in an article.

(HSE REACH '10)

SUPPLY CHAIN

See: Demand Chain, Lean Thinking
(GreenSpec BRM '11)

SUPPLY CHAIN DEVELOPMENT

(GreenSpec BRM '11)

SUPPLY CHAIN ENGAGEMENT PROGRAMME (SCEP)

See: YORbuild
(YORbuild '11)

SUPPLY RESTRICTORS

See Flow Regulators
(GreenSpec BRM '10)

SUPPORT BATTENS

Usually associated with timber or metal framed stud walls, blown-in insulation fills the stud zone and weight of heavy insulation at high level pushes down on insulation at low level, pressure can be exerted upon the membranes, the battens resist the pressure.

See: Dwargs, Noggins, Battens & Noggins
(GreenSpec BRM '09)

SURFACE ENERGY

Low surface energy materials, e.g. plastics
(GreenSpec BRM '11)

SURFACE RESISTIVITY

Different materials have different resistance to heat escaping from their surfaces, so whilst they may be the same temperature they may appear differently in thermographic images, so interpretation of these images is not straight forward.

(GreenSpec '09)

SURFACE WATER ATTENUATION

This is the process by which SUDS can lag surface run-off.

Methods include

soakaways/ swales, that allow water to percolate into the ground; balancing ponds/ lakes, that are able to hold an excess of surface water; balancing tanks, which operate in a similar fashion but are constructed in sewer systems; enlargement of existing watercourses, which will allow larger quantities of water to be channelled away from the development.

(Building Magazine Steve Piltz, Turner & Townsend '08)

SURFING

the term used to describe the act of and ability to move from a museum in the UK, to a university in Poland, to a research institute in Russia, to your best friends in Australia, in seconds when you visit them using the *Internet* to access their *Website*.

(ASWS BRM '97)

SURPLUS TO REQUIREMENTS

Not waste, so don't put it in a skip.

See: Take back schemes, Resource Efficiency,
(GreenSpec BRM '10)

SURRUPTITIOUS SUBSTITUTION

When contractors substitute materials or products without asking and then hiding the fact its changed.

This may well affect the performance of the building.

Signing stage payment will effectively approve it, taking the responsibility back to the Contract Administrator.

See: Or similar, Or Equivalent, Equivalency, Substitution, EU Procurement Rules, WAG, GreenSpec,
(GreenSpec BRM '11)

SUSCON

SusCon short for Sustainable Construction, a Kent based training programme funded by SEEDA and ESF to deliver training for the under and unemployed in the SEofE region.

Working with GreenSpec, Ech2O, Parity Projects, Carbonlite, TGR to deliver its training programme.

Working in the RIBA S & SE regions.

See: GreenSpec, Ech2O, Parity Projects, Carbonlite, TGR
(GreenSpec BRM '11)

SUSPENSION

SUSTAINABLE

Resources are sustainable if they cannot be used up.

For instance, oil resources are gradually decreasing whereas the wind can be harnessed to produce energy continuously.

(Cherrington '95)

The state of having met the needs of the present without endangering the ability of future generations to be able to meet their own needs.

(GreenSpec AEP '09)

SUSTAINABLE BUILDING ASSOCIATION (SBA)

Formerly known as the Association of Environment Conscious Building,

<http://www.aecb.net/>

The AECB is a network of 1300 individuals and companies with a common aim of promoting sustainable building.

It brings together builders, architects, designers, manufacturers, housing associations and local authorities, to develop, share and promote best practice in environmentally sustainable building.

AECB pride themselves on their independence, relevance and practicality.

(GreenSpec BRM '09)

SUSTAINABLE BUILDING ALLIANCE (SBA)

See Common Carbon metric

(GreenSpec BRM '10)

SUSTAINABLE BUILDING EAST OF ENGLAND (SBEE)

SUSTAINABLE COMMUNITIES

Sustainable communities have been variously defined but generally are taken to be 'places where people would wish to work, live and play.'

Increasingly the concept of sustainable communities is driving land use policies.

(RICS '11)

SUSTAINABLE DECENTRALISED RAINWATER ECONOMY

SUSTAINABLE DEVELOPMENT

development that meets the needs of current generations without affecting the ability of future generations to meet their own needs.

It requires a balance between economic, environmental and social impacts.

(Hastoe HA GreenStreet.org)

The Brundtland commission (1987) defined sustainable development as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs'.

Whilst not universally accepted, this definition is widely adopted and used as the basis for the development of national and international policy.

(RICS '11)

See: TBL, Triple Bottom Line

(GreenSpec BRM '11)

SUSTAINABLE DEVELOPMENT COMMISSION (SDC)

<http://www.sd-commission.org.uk/>

SUSTAINABLE DEVELOPMENT DIRECTORATE OF THE SCOTTISH EXECUTIVE

www.scotland.gov.uk/Topics/SustainableDevelopment

SUSTAINABLE DRAINAGE SYSTEMS OR SUSTAINABLE URBAN DRAINAGE SYSTEMS (SUDS)

An approach to drainage which seeks to decrease the amount of surface runoff, decrease the velocity of surface runoff, or divert it for other useful purposes, thereby reducing the contribution it makes to sewer discharge and flooding.

(GreenSpec AEP '09)

SUSTAINABLE ENERGY

The provision of energy such that it meets the needs of the present without compromising the ability of future generations to meet their needs.

Sources include biofuels, solar power, wind power, wave power, geothermal power and tidal power.

(GreenSpec AEP '09)

SUSTAINABLE FORESTRY INITIATIVE (SFI)

USA timber certification scheme

Timber stewardship scheme

See: FSC, PEFC, CPET

(Ska '09 and GreenSpec '10)

SUSTAINABLE INFRASTRUCTURE

(GreenSpec '10)

SUSTAINABLE INNOVATION (SI)

Nine lessons for Sustainable Innovators

- * Integrating sustainability into innovation processes takes time
- * SI needs a business focus
- * SI requires organisational design e.g. systems, structures and rewards
- * Creativity is essential
- * Raising internal awareness of SI is important
- * Making SI happen requires resilient internal change-makers/catalysts
- * SI oriented intrapreneurship approaches are starting to emerge
- * Moving to higher levels of SI may move companies out of their 'comfort zones'
- * 'Open' SI new business models are still in the early stages of development

(© Martin Charter 2010 mcharter@ucreative.ac.uk)

SUSTAINABLE SOURCING OF MATERIALS

This includes checking the sustainability of the sources of materials but also checking on its transportation from the source to its point of processing and final installation or its use.

With timber its checking for the certification of the plantations and avoiding illegal logging, rare species, inhabited forests and especially ancient forests, it's also about checking the chain of custody is intact and no other unsustainable timbers have been introduced or swapped on route.

Local sourcing is also an important part of this process.

Any materials need to be checked for sustainable practices avoiding biodiversity degradation and ensuring good working practices are adopted as well as good social conditions for workers.

See: Local Sourcing, BES 6001,
(GreenSpec '09)

SUSTAINABLE PROCUREMENT

"A management process used to secure the acquisition of goods and services ("products") in a way that ensures that there is the least impact on society and the environment throughout the full life cycle of the product."

See: Canny
(Envirowise SJS Arup '08)

Sustainable Procurement could be described as an "acquisition process whereby organizations meet their requirements for goods, services, works and utilities in a way that achieves value for money on a whole of life basis in terms of generating benefits not only to the Organization, but also to society and the economy, whilst minimizing its impact on the environment."

Included also in the Statement is a pledge that "UN organisations commit to making Sustainable Procurement their standard practice progressively and in full respect of the right of access to the UN market for suppliers from developing countries and countries with economies in transition".

(UNEP-DTIE '08)

SUSTAINABLY SOURCED TIMBER

Statements such as 'sustainable timber', 'sustainable forests', 'well managed forests' and even 'from forests where more trees are planted than are felled' are seen on many types of timber products.

However, this can often be misleading to a potential buyer and does not provide any assurance that important habitats were not destroyed during the harvesting of the timber.

True sustainable timbers come from managed forests that have passed rigorous guidelines for responsible harvesting, ecosystem management and conservation, and long-term sustainable resource management.

It therefore ensures that the forest will continue to flourish.

(Ecos Renews 17)

SUSTAINABLE TENANCY PROGRAMME

SUSTAINABLE TRANSPORT

See: Sustrans, Sustainable Infrastructure, Lorry Driver Working Practices Directive,
(GreenSpec BRM '11)

SUSTAINABLE URBAN DRAINAGE SYSTEMS (SUDS)

SUSTRANS

Charity that focuses on SUSTainable TRANSpport, encourages the use of cycling, car sharing & public transport and facilitates their joining forces to create integrated sustainable transport.

Publish guidance documents to enable companies to establish transport plans for staff and much more.

See: integrated sustainable transport, car sharing, ZEDCars, Car free design,
(GreenSpec BRM '11)

SVOC See: **SEMI-VOLATILE ORGANIC COMPOUNDS**

SWIG See: **SUSTAINABLE WATER INDUSTRY GROUP**

SUSTAINABLE WATER INDUSTRY GROUP (SWIG)

Water sector annual exhibition and awards

(GreenSpec BRM '11)

SWIGA See: **SOLID WALL INSULATION GUARANTEE AGENCY**

SWIMMING PONDS

SWMP See: **SITE WASTE MANAGEMENT PLAN**

SYNTHETIC

substance formed by a chemical process or chemical change from substance extracted from naturally occurring plant, animal, or mineral sources.

The term does not apply to substances created by naturally occurring biological processes.

(SEDA Chemical Reduction in Building '08)

SYNTHETICS REDUCTION

(GreenSpec '10)

SYSTEM BOUNDARIES

In the context of LCA

See: LCA, Methodology, PCR, Product Category Rules, Scope of Impact Analysis
(Renueables AN '10)

T

T&C See: **TERMS AND CONDITIONS**

T&CP See: **TOWN & COUNTRY PLANNING**

(GreenSpec BRM '11)

T&CP USE CATEGORY

(GreenSpec BRM '11)

T&G See: **TONGUE AND GROOVE**

TAKE BACK SCHEME

(GreenSpec BRM '10)

TANDEM WIRING

pairs of luminaires operating with lamps in each luminaire powered from a single ballast contained in one of the luminaires

(Building Energy Glossary '06)

TARGET EMISSION RATE (TER)

Target carbon dioxide Emission Rate – this is the energy performance target that must be achieved to comply with the requirements of the Approved Document.

It is expressed in terms of kg/m³/yr.

The TER is calculated using software:

SAP for dwellings and SBEM for non-dwellings.

See: BER above

(BCT & GreenSpec '08)

TARMAc

Bitumen macadam coated aggregate for highway, public footpaths and private drives or path surfaces.

Used in layers with base and sub base and wearing surfaces in the build up.

Now generically called 'asphalt' despite asphalt being very different to tarmac in texture and ingredient sizes.

Can be water repellent and draining or permeable to water allowing water storage in road sub bases.

Sub bases often with less or no bituminous binder can also contain heat recovery pipes for GSHP.

(GreenSpec BRM '11)

TASK CONDITIONING

air conditioning that provides individual comfort for a specific surface or area

(Building Energy Glossary '06)

TASK LOCATION

area of the space where significant visual functions are performed and where lighting is required above and beyond that required for general ambient use

(Building Energy Glossary '06)

TASK LIGHTING

lighting that provides illumination for specific visual functions and is directed to a specific surface or area

(Building Energy Glossary '06)

TBA See: **TO BE AGREED**

TBA See: **TO BE ADVISED**

TBC See: **TO BE CONFIRMED**

TBD See: **TO BE DECIDED**

TBS See: **TIGHT BUILDING SYNDROME**

(SEDA Chemical Reduction in Building '08)

TBT TECHNICAL BARRIERS TO TRADE

See: CPD, 1992, Treaty of Rome

(GreenSpec BRM '11)

TBT AGREEMENT ON TECHNICAL BARRIERS TO TRADE

(UNEP See: Environment and Trade — A Handbook '05)

TC See: **TECHNICAL COMMITTEE**

TC350 See: **CEN TECHNICAL COMMITTEE 350**

TC351 See: **CEN TECHNICAL COMMITTEE 351**

TCDD See: **TETRACHLORINE DIBENZO DIOXINE**

TCF See: **TOTALLY CHLORINE-FREE**

(Envirowise Packaging & Waste)

TCPA See: **TOWN & COUNTRY PLANNING ASSOCIATION**

<http://www.tcpa.org.uk/>

TCM See: **TOWN CENTRE MANAGEMENT**

TECHNICAL COMMITTEE (TC)

(ERFMI '08)

TECHNICAL LIFE TIME (TLT)

(ERFMI '08)

TECHNOLOGICALLY SIMPLE DESIGN

TECHNOLOGY STRATEGY BOARD (TSB)

Government Department focussed on prompting industry into areas where it needs to go, funds knowledge gathering and development of tools to collect data, inform and facilitate creation of necessary legislation.

2011, picked up and now runs funding for market research and market testing and proof of concept, R&D, to enable development of potentially commercial tools and software.

See: DTI, DETR, BERR, D&DT, Design & Decision Tools, Retrofit for a Future (GreenSpec BRM '10 – '11)

TED See: **TURTLE EXCLUDER DEVICE**

(UNEP See: Environment and Trade — A Handbook '05)

TEEE THERMOPLASTIC ETHER ESTER ELASTOMER

Used in monolithic nonporous membranes

(GreenSpec '09)

TEMPERATURE SENSOR

(Building Energy Glossary '06)

See: Thermometer, Thermister,

(GreenSpec BRM '10)

TEMPORARY BUILDING/STRUCTURE

a building or structure intended from the outset to have a short life prior to its dismantling or deconstruction and removal, usually for use again in a new location

See: Design Life,

(CIRIA RP656 Design for Deconstruction Bill Addis)

TELEWORKING HOME/VILLAGE

TER See: **TARGET EMISSION RATE**

See: BER above

(BCT & GreenSpec '08)

TERAWATT-HOURS

UK Billion (i.e. *Million Million*) WattHours

(Cherrington '95)

TERMINAL

device by which energy from a system is finally delivered; e.g. registers, diffusers, lighting fixtures, faucets, etc.

(Building Energy Glossary '06)

TERMINAL ELEMENT

device by which the transformed energy from a system is finally delivered; i.e., registers, diffusers, lighting fixtures, taps (faucets), etc.

(Building Energy Glossary '06)

TERMS AND CONDITIONS (T&C)

(Participation Works Partnership)

TERMS OF REFERENCE (TOR)

Describes the purpose and structure of a project, committee, meeting or association.

They document how decisions will be made and provide a common understanding of the membership, vision, objectives and scope of the meeting or group among stakeholders

(Participation Works Partnership)

TER POLYOLEFIN (TPO)

A collective name for Polyethylene and Polypropylene

See: TPO, Single layer roofing, Airtightness membranes, Wind tightness membranes, damp proof membranes, gas proof membranes,

(GreenSpec '09 – '11)

TERRESTRIAL ECOTOXICITY

The impact of toxic substances emitted to terrestrial ecosystems.

(GreenSpec AEP '09)

TERRESTRIAL ECO-TOXICITY POTENTIAL (TETP)

TETRACHLORINE DIBENZO DIOXINE (TCDD)

(ERFMI '08)

TEXTURE

One of a number of characteristics of the surface of a material or an applied or saturated finish.

See: Chroma, Colour, Finish, Gloss level, Hue, Irredescence, Opacity, Reflectance, Refraction, Reflection, Saturation, Texture, Tone, Translucency, Transparency.

(GreenSpec BRM '10)

TETP See: **TERRESTRIAL ECO-TOXICITY POTENTIAL**

TGR See: **THE GREEN REGISTER OF CONSTRUCTION PROFESSIONALS**

THE GREEN REGISTER OF CONSTRUCTION PROFESSIONALS (TGR)

The Green Register is an independent organisation promoting sustainable building through training and events.

TGR is also a membership group.

(www.greenregister.org.uk/)

See: GreenRegister,

(GreenSpec AEP '09)

THE INTERNATIONAL CHEMICAL SECRETARIAT (CHEMSEC)

ChemSec is a non-profit organisation working for a toxic-free environment.

“Our focus is to highlight the risks of hazardous substances and influence and speed up legislative processes”

<http://www.chemsec.org>

See: REACH, SIN list,
(GreenSpec JB '10 & BRM '10)

THERMAL BARRIER

Term used to describe when flow of heat is restricted or slowed.

Accomplished through insulation and thermal breaks.

(Energy Star '07 & GreenSpec '09)

THERMAL BLOCK

collection of one or more HVAC zones grouped together for simulation purposes

Spaces need not be contiguous to be combined within a single thermal block.

(Building Energy Glossary '06)

THERMAL BREAK

Unwanted heat loss or gain occurs due to conduction through a thermal bridge through thermal insulation.

To reduce or prevent this heat loss or gain a thermal break is included in the construction in place of the thermal bridge.

Thermal breaks need to have greater thermal resistance or lower thermal conductivity than the thermal bridge and ideally by a considerable margin.

Thermal breaks are used in window sections, external doors, curtain walling, at floor edges and between floors and cantilevered balconies.

See: Extrusion

(GreenSpec BRM '09 – '11)

An element of low thermal conductivity placed in an assembly to reduce or prevent the flow of thermal energy between conductive materials.

A typical example would be that found in a metal window frame to reduce the conduction of heat from the outside to the inside.

(GreenSpec AEP '09)

THERMAL BRIDGE

Unwanted heat loss or gain occurs due to conduction through a material.

This can lead to significant energy losses and may also result in the build up of condensation.

An example of thermal bridging is heat loss that occurs due to metal wall ties or steel framing that is insufficiently insulated between areas of temperature differences e.g. the internal and external environment.

(based on Ecos Renews 17)

A thermally conductive material which penetrates or bypasses an insulation system; such as a wall tie, metal fastener, concrete beam, slab or column.

Thermal bridging lowers the overall thermal insulation of the structure by creating areas where heat loss is greater in one area than it is for another.

The effect is to reduce the overall u-value of the construction element.

The heat loss per unit length of thermal bridge is known as the Ψ -(psi) value and is measured in W/mK.

(GreenSpec AEP '09)

See: Passipedia: [Thermal bridge](#)

(GreenSpec BRM '11)

THERMAL BRIDGE FREE DESIGN

See: Passipedia: [Thermal bridge free design](#)

(GreenSpec BRM '11)

THERMAL BRIDGING

Accelerated thermal flow that occurs when materials that are poor insulators displace insulation.

(Energy Star '07)

THERMAL BYPASS

There are many forms of thermal bypass and these are discussed in considerable detail in Green Building Magazine Building for a future Summer 2009 Vol 9 No.1, Pages 16 – 23.

Where heat may bypass insulation by escaping into cavities and moving through air spaces

One significant example: Cavity walls in separating walls (party walls) between housing in terraces or between flats in blocks are known to be poorly insulated (No Building Regulation Approved Document L requirements) heat escapes into the cavity and rises to the top floor or attic and escapes through roof tiling or into attic spaces.

(GreenSpec '09)

The movement of heat around or through insulation.

This typically occurs when gaps exist between the air barrier and insulation or where air barriers are missing.

(Energy Star '07)

THERMAL BYPASS CHECKLIST

Comprehensive list of building details for ENERGY STAR Qualified Homes addressing construction details where air barriers and insulation are commonly missing.

(Energy Star '07)

THERMAL COMFORT

See: Passipedia: [Thermal comfort](#)

(GreenSpec BRM '11)

THERMAL CONDUCTANCE

Constant time rate of heat flow through unit area of a body induced by a unit temperature difference between the

surfaces, $W/m^2\cdot K$

It is the reciprocal of thermal resistance.

(Building Energy Glossary '06)

THERMAL CONDUCTIVITY (k-VALUE)

A measure of the rate at which heat is conducted through a particular material under specified conditions.

(GreenSpec AEP '09)

THERMAL EMITTERS

Where the geometry of the building profile encourages greater heat loss by radiating from a large surface area at the outside of a thermal bridge.

e.g. Flat roof balconies above flats below, Pavement over basement accommodation, Flats over access balcony walkways.

See: Thermal Radiators.

(GreenSpec '09)

THERMAL FLANKING

Where heat may take a longer route around insulating construction via a thermal bridge or void.

(GreenSpec '09)

THERMAL ENVELOPE

The insulated external fabric of the building.

(GreenSpec AEP '09)

See U value envelop

(GreenSpec BRM '11)

THERMAL LAG

See: Decrement Delay

(GreenSpec BRM '11)

THERMAL MASS

Materials characterised by the expression 'Thermal mass' (aka 'Thermal storage capacity') are those that absorb heat, store it, and at a later time, release it.

Large surface areas of relatively thin, dense internal clay plasters or cement renders can provide thermal mass at the surface to help store passive heat gains.

(GreenSpec AEP '10)

materials with mass heat capacity and surface area capable of affecting building loads by storing and releasing heat as the interior and/or exterior temperature and radiant conditions fluctuate.

See: also wall heat capacity.

(Building Energy Glossary '06)

The mass of a building that can retain heat from the sun or other radiant heat sources, e.g. the walls and floors of a building.

Buildings constructed of dense materials, such as bricks or concrete, have a better thermal mass than lightweight buildings, such as timber.

(Hastoe HA GreenStreet.org & GreenSpec '09)

However thermal mass can be added to timber frame by use of dense materials or PCM phase change material as wall and ceiling linings.

Materials with high thermal mass include masonry, rock and water.

These materials are capable of absorbing and retaining heat e.g. from the sun or other radiant heat sources, and slowly releasing the heat back into the building when internal space air temperature falls.

(Ecos Renews 17 & GreenSpec '09)

The thermal mass in the building elements must be exposed to enable its abilities to be put to use.

Thermal mass often but not always relates to material density, concrete is useful thermal mass, permanent steel formwork is not.

Carpets on underlay on a concrete acts like thermal insulation preventing solar gains being absorbed and later released. Linoleum flooring is thin and dense enough not to interfere with heat transferring into the concrete slab or being released later.

(GreenSpec '09)

The ability of construction materials to absorb, store and release heat.

Thermal mass can be used effectively to absorb daytime heat gains (reducing cooling load) and release the heat during the night (reducing heat load), thereby maintaining a constant level of comfort through stable temperature.

Materials of high thermal mass include water, stone, earth, brick and concrete.

More recent innovations include 'phase change' materials that store energy whilst maintaining constant temperatures.

The quality of thermal mass is usually described in terms of 'admittance'.

Admittance is the ability of a material or construction such as a wall to exchange heat with the environment when subjected to a simple cyclic variation in temperature.

For buildings, this is 24 hours.

Admittance is measured in $W/m^2\cdot K$, where temperature (K) is the difference between the mean daily value and actual value within the space at a specific point in time.

Key variables that determine admittance are thermal capacity, conductivity, density and surface resistance.

(note that 'K' is used in a slightly different way from 'k' that is involved in the calculation of U-value)

(GreenSpec AEP '09)

THERMAL PROTECTION

See: Passipedia: [Thermal protection](#)

(GreenSpec BRM '11)

THERMAL RADIATOR

(not central heating radiators)

Where the geometry of the building outside of a thermal bridge encourages greater heat loss by radiating from its large surface area

e.g. cantilevered concrete balcony or walkway

See: Thermal Emitters

(GreenSpec '09)

THERMAL RESISTANCE (R-VALUE)

reciprocal of the time rate of heat flow through a unit area induced by a unit temperature difference between two defined surfaces of material or construction under steady-state conditions, in $m^2 \cdot K/W$

(Building Energy Glossary '06)

Thermal resistance is the measure of a component's ability to restrict the passage of heat across its thickness.

The R-value is calculated by combining the lamda value (thermal conductivity, or 'k-value') and the thickness of the material.

Hence $R=t/\lambda$, where 't' is the thickness.

Units are measured in m^2W/K .

Used in connection with insulation, the higher the R-value, the more effective the insulation.

The R-value is also used to calculate the U-value (see below)

(GreenSpec AEP '09)

THERMAL STORE

A thermal store is a structure typically made from a material with high thermal mass.

In sustainable building, thermal stores are used as a passive

of maintaining a constant internal space temperature, therefore reducing the need for mechanical heating and cooling.

These stores are often designed to be part of the internal fabric of the building, usually in the form of a high density wall or floor situated near a heat source or in view of solar gains.

These materials are capable of absorbing and retaining heat e.g. usually but not solely, from the sun, and slowly releasing the heat back into the building when space temperature falls.

Materials with high thermal mass include masonry, rock and water.

(based on Ecos Renews 17 & GreenSpec '09)

THERMAL STORAGE CAPACITY

The ability of the constituent materials in a building to store heat, for a given rise in temperature, measured in units of kWh/K for a whole building or in Wh/K.m² to indicate the building's thermal capacity per unit floor area.

(GreenSpec AEP '09)

THERMAL TRANSMITTANCE

Overall coefficient of heat transfer from air to air.

It is the time rate of heat flow per unit area under steady conditions from the fluid on the warm side of the barrier to the fluid on the cold side, per unit temperature difference between the two fluids

(Building Energy Glossary '06)

heat transmission in unit time through unit area of a material or construction and the boundary air films, induced by unit temperature difference between the environments on each side, in $W/m^2 \cdot K$

(Building Energy Glossary '06)

THERMAL TRANSMITTANCE, OVERALL (U_o)

gross overall (area weighted average) coefficient of heat transfer from air to air for a gross area of the building envelope

The U_o value applies to the combined effect of the time rate of heat flows through the various parallel paths such as windows, doors, opaque construction areas comprising the gross area of one or more building envelope components such as walls, floors, and roof or ceiling.

(Building Energy Glossary '06)

THERMAL TRANSMITTANCE (U-VALUE)

Thermal transmittance is a measure of the overall rate of heat transfer, by all mechanisms under standard conditions, through a particular section of construction.

This measure takes into account the thickness of each material involved and is calculated from R-values of each material as well as constants accounting for surface transmittance (R_{si} and R_{so}, inner and outer surfaces respectively) and also for a small standard air gap (R_{so}).

Thermal transmittance is measured in W/m^2K

(GreenSpec AEP '09)

THERMAL ZONE

Part of the (controlled) space with a given set-point temperature, throughout which the internal temperature is assumed to have negligible spatial variation

(Building Energy Glossary '06)

THERMIE GRANT

Grant provided by the EU that has been established for the promotion, implementation and dissemination of innovative energy saving technologies.

(Cherrington '95)

THERMISTER

THERMODYNAMICS

The physical science of heat flow.

In engineering, this is mainly with respect to heat flow in fluids and fluid processing.

(Cherrington '95)

THERMOGRAPHY

The use of cameras sensitive to infrared radiation to identify differences in thermal performance in the envelop of the building.

These can later be analysed and to help identify thermal bridges and air leakage paths through gaps and cracks in the building.

(based on SEDA Scottish Environmental Design Association Airtightness Guide definition)

See: Infra-red thermography

See: Passipedia: [Thermography](#)

(GreenSpec BRM '11)

THERMOPLASTIC POLYOLEFIN (TPO)

TPO membranes are thermoplastic single-ply roof membranes constructed from ethylene propylene rubber.

The roofing differs from EPDM in its welded joints and its improved resistance to chemical and biological attack.

(GreenSpec AEP '10)

THERMOSTAT

automatic control device used to maintain temperature at a fixed or adjustable set point

See: Temperature Sensor

(GreenSpec BRM '10)

THERMOSTATIC CONTROL

automatic control device or system used to maintain temperature at a fixed or adjustable set point

(Building Energy Glossary '06)

THERMOSTATIC RADIATOR VALVE (TRV)

Used in place of room thermostats to control individual radiator temperatures, they can reduce heat consumption by turning the individual radiators on and off according to the conditions of the room and the incoming hot water.

For optimum use they should be placed at the top of the radiator to ensure easy access and proactive use by the occupant, inaccessibility may lead to the users of a room opening windows to cool a room rather than resetting the temperature required.

(GreenSpec BRM '10)

THIN INSULATION

With speculative developer's preoccupation with profit, floor area, net:gross ratios, designers have become preoccupied with thin walls demanding thin insulation.

Together with progressively improving requirements in Building Regulations for better thermal insulation U values in buildings, manufacturers started to experiment with thin high performance insulation.

See: PIR, PUR, XPS, Multifoil Insulation, Aerogel Insulation, Vacuum Insulated Panels, etc.

(GreenSpec BRM '10)

THIRD PARTY ACCREDITATION

If a manufacturer claims it's product complies with a *BS* or an *industry standard*, the purchaser has to trust them to be telling the truth or that they have tested the product to prove it.

If the purchaser takes a sample away and tests it they can reassure themselves but it will cost the purchaser to do so.

If the manufacturer gets an independent testing house to carry out tests on their behalf and lets the purchaser know the results, the purchaser is more likely to be happy to believe the results. In this situation the manufacturer is the first party, the purchaser is the second and the independent test house is the *third party*.

If the *third party* is a recognised and approved test house then their tests could lead to some form of certification or *accreditation* like *BSI Kitemark* SGS Yarley's *Testguard* or *BBA Agrément Certificate*, etc.

(ASWS BRM '97)

THREE LETTER ACRONYMS (TLA)

The reason we need jargon busters

(GreenSpec BRM '11)

THRESHOLD LEVEL

A minimum or maximum performance level of an essential characteristic of a construction product

(CE Marking for SMEs & CPR '11)

See: Level,

(GreenSpec BRM '11)

TILING/SLATING BATTENS & COUNTER-BATTENS

Battens used to support and secure pitched roof or vertical hanging of tiles, slates, shingles or shakes; potentially having a secondary function of securing wind tightness and underlay membranes acting like pressure battens.

Counter battens are used on top of boarded roofs and followed by battens.

See: Dwangs, Noggins, Battens & Noggins

(GreenSpec BRM '09)

TIMBER CERTIFICATION

A process which results in a written statement (a certificate) attesting to the origin of wood raw material and its status and/or qualifications, often following validation by an independent third party e.g. FSC.

(GreenSpec AEP '09)

TIMBER FRAME

Timber frame as we know it is not timber post and beam construction used in traditional building construction.

Today the term is used to describe timber stud framework, usually panellised, sometimes known as cassette panels which may be pre-insulated or not.

Popular with house construction using timber framed wall panels, floor panels and less frequently roof panels and usually finished with brickwork outer skin to walls and tiled or slates roof, but many other finishes are possible.

They are usually available as kits for developers or kits for self builders to bespoke or standard designs.

Timber frame construction has been a popular method of construction in the UK with speculative housing developers but it has had its ups and downs through media scrutiny.

(GreenSpec '09-'10)

TIMBER FROM MANAGED SUSTAINABLE SOURCES

With timber its checking for the certification of the plantations and avoiding illegal logging, rare species, inhabited forests and especially ancient forests, it's also about checking the chain of custody is intact and no other unsustainable timbers have been introduced or swapped on route.

Local sourcing is also an important part of this process.

FSC Forest Stewardship Council Certification is the scheme that stands out as the most comprehensive scheme that checks on your behalf for legal foresting and sustainable practices, with their forest certification and chain of custody through to factory or even to the project site all risks are managed.

(GreenSpec '09)

TIMBER RESEARCH AND DEVELOPMENT ASSOCIATION (TRADA)

<http://www.trada.co.uk/>

See: askTRADA, TRADA Q Mark, TRADA QA

(GreenSpec BRM '10 – '11)

TIMBER WINDOW ASSESSMENT SCHEME (TWAS)

One of the criteria used by BRE Green Guide to Specification for assessing windows.

But there are greener windows on the market that do not belong to this 'club'.

See: GPP, OGC, Or Equivalent, WAG,

(GreenSpec BRM '10-'11)

TINTED GLAZING

Colouring that is integral with the glazing material.

Tinting does not include surface applied films such as reflective coatings, applied either in the field or during the manufacturing process.

(Building Energy Glossary '06)

TLA See **THREE LETTER ACRONYMS**

TLT See: **TECHNICAL LIFE TIME**

TO BE CONFIRMED (TBC)

(Participation Works Partnership)

Sometimes used in a ___al to indicate the information will follow later in the contract.

Colour schedules and decisions are often left until later

(GreenSpec BRM '11)

TO NE

One of a number of characteristics of a colour.

See: Chroma, Colour, Finish, Gloss level, Hue, Irredescence, Opacity, Reflectance, Refraction, Reflection, Saturation, Texture, Tone, Translucency, Transparency.

(GreenSpec BRM '10)

TONGUE AND GROOVE (T&G)

T&G jointing of flooring boards, weatherboarding, etc. common in softwood flooring

(CC Publication: Concrete and Sound insulation)

Interlocking edged jointing of flooring boards, weatherboards, that offers some degree of airtightness (butt joints being leaky) and adds additional strength by enabling the spreading of loads over a larger number of boards and their supports and/or fasteners.

See: Loose tongue, Butt Joint,

(GreenSpec BRM '11)

TOOLBOX TALK

(GreenSpec BRM '10)

TOOLKIT EAST

(GreenSpec BRM '10)

TOP TRUMPS

(GreenSpec BRM '10)

TOR See: **TERMS OF REFERENCE**

TOTAL LIGHTING POWER ALLOWANCE

calculated lighting power allowed for the interior and exterior space areas of a building or facility

(Building Energy Glossary '06)

TOTAL QUALITY MANAGEMENT (TQM)

Taking QA Quality Assurance to a new level across the whole enterprise and through all processes.

(GreenSpec BRM '11)

TOTAL SOLAR ENERGY TRANSMITTANCE

See: Passipedia: [g-value](#)

(GreenSpec BRM '11)

TOTAL VOLATILE ORGANIC COMPOUNDS (TVOC)

VOCs are soluble and hence capable of causing emissions.

Wetter products can thus release more VOCs.

They vary according to their boiling points

TVOC (total volatile organic compounds)

(SEDA Chemical Reduction in Building '08)

See: VVOC, SVOC, VOC

(GreenSpec BRM '11)

TOWN & COUNTRY PLANNING (T&CP)

See: Development Control, Building Control, Environmental Protection,

(GreenSpec BRM '11)

TOWN OR PARISH COUNCIL

Body responsible for the most local delivery of services, e.g. allotments, street lighting, burial ground maintenance, local community activities.

This forms the bottom layer of the three-tier local authority management structure

See: County Council and District or Borough Council

www.nalc.gov.uk

(Participation Works Partnership)

TOXICITY

A physiological or biological property that enables a chemical to do harm, or create injury, to a living organism by other than mechanical

; or the ability of a chemical to cause poisoning when the chemical is administered to a living organism.

(SEDA Chemical Reduction in Building '08)

TOXIC RELEASE INVENTORY

A US database of toxic releases.

Manufacturers must report annually the amounts of almost 350 toxic chemicals and 22 chemical categories that they release directly to air, water, or land, inject underground, or transfer to off-site facilities.

EPA supplies information to the public under the "Community Right-to-Know" law.

USA EPA

www.epa.gov/tri/

(SEDA Chemical Reduction in Building '08)

TPO See: TER POLYOLEFIN

See: Thermoplastic Polyethylene

TPO See: THERMOPLASTIC POLYOLEFIN

TQM See: TOTAL QUALITY MANAGEMENT

TRADA See: TIMBER RESEARCH AND DEVELOPMENT ASSOCIATION

TRADA QA SCHEME

TRADA quality assurance scheme for trussed rafter roofs

(HAPM and BPG CLM '97)

TRADA Q MARK

TRADITIONAL CRAFT HOUSE

TRAFFIC LIGHT SYSTEM

Used by *Toolkit-East* and *GreenSpec* to graphically indicate if a thing is:

good (Green for progress, or use it),

somewhere in between (Yellow prepare to go forward, with caution),

worse (Orange for avoid if you can) or

bad (Red for Stop, or don't use it)

very bad (Violet, opposite of green, violent, violate)

See: *Selection System*, *Top Trumps*,

(GreenSpec BRM '10)

TRANSFORMABLE BUILDING STRUCTURES

See Book: Elma Durmisevic Transformable Building Structures 2006

http://www.bot.yildiz.edu.tr/ids09/ data/ readings/Transformable_building_structures.pdf

(GreenSpec BRM '10)

TRANSITION MOVEMENT

TRANSITION PAIN

The shift from a brown economy to a green one will inevitably cost jobs.

While "creative destruction" has always been a part of economic growth, a broadbased shift away from polluting industries will not always be compensated by net job creation.

Other challenges mentioned by business leaders include: the fact that many necessary technologies are still at a developmental stage (think carbon capture and storage); the need to meet the demands of a growing Chinese and Indian middle class; and the very real political problems everywhere of winning public support for what might be the most

economically effective solutions (ie, a carbon tax).

This time around, the private sector needs to be engaged more substantively in designing the process, since it will be implementing most of them.

Rather than adopting an issue-by-issue approach, we need to help our whole economic system work more effectively to meet human needs.

While it is impossible for a single conference to do everything, next year's Rio+20 conference will make a historic contribution to sustainable development if it calls for policies, practices and frameworks that encourage improvement.

(RICS '11 & GreenSpec BRM '11)

See _____

TRANSITION TOWN

TRANSLUCENCY

One of a number of characteristics of a materials that permits light to pass through it.

See:, Chroma, Colour, Finish, Gloss level, Hue, Irredescence, Opacity, Reflectance, Refraction, Reflection, Saturation, Texture, Tone, Translucency, Transparency.

(GreenSpec BRM '10)

TRANSOM

(GreenSpec BRM '10)

TRANSPARENCY

A characteristic missing from BRE's Green Guide to Sustainability, BRE's Environmental Profiling

(GreenSpec BRM '11)

One of a number of characteristics of a materials that permits light to pass through it.

Depending on the level of transparency the view through the material will vary from completely clear image, silhouette, or blurred image to no light or image at all.

The scale of transparency ranges from transparent (e.g. clear glass) through translucent (e.g. frosted glass) to opaque (e.g. metal)

See:, Chroma, Colour, Finish, Gloss level, Hue, Irredescence, Opacity, Reflectance, Refraction, Reflection, Saturation, Texture, Tone, Translucency, Transparency.

(GreenSpec BRM '10)

(Renueables AN '09)

TRANSPORT MINIMISED

TRANSPORTED ISOLATED INTERMEDIATE

A substance manufactured for or used for chemical processing in order to be transformed into another substance, the synthesis of which is transported between or supplied to other sites.

(HSE REACH '10)

TRAPPED AIR

Insulating properties traditionally were achieved by trapping stable air within the material or construction, air being a good insulator.

Historically natural materials like straw consisting of many hollow cylinders compacted together as in thatch roofing hold air and offer insulation, thatch is laid very thickly which adds to the insulating properties of the construction.

More recently asbestos, rock and glass mineral fibres have been used for insulation in this case the fibres may be aligned or non-aligned and just surround air space, in these cases it is important to stop air flowing through the fibres and removing the heat with the air, so air tightness membranes in the form of vapour barriers and wind tightness membranes in the form of breather membranes were used to contain the heat.

Asbestos has been phased out of use due to the risks of inhalation of fibres that lead to long term often fatal lung disease.

(GreenSpec BRM '10)

TRAPPED GASES

For the past three-four decades trapped air in thermal insulation was replaced by trapped gases giving higher insulation properties, this was most often achieved by trapping the gases within petrochemical based plastics and often used as a blowing agent in foamed plastics.

(GreenSpec BRM '10)

TREAD

Horizontal part of a stair flight, supported between strings and on risers

(GreenSpec '10)

TREATED FLOOR AREA (TFA)

See: Passipedia: [Treated floor area \(TFA\)](#)

(GreenSpec BRM '11)

TREE PLANTING

TREE RETAINED ON SITE

TRICHLOROETHYLENE

Common ingredient of paints:Solvent.

Central nervous system effects including sleepiness, fatigue, headache, confusion, and feelings of euphoria.

Damage to the liver, kidneys, immune and endocrine systems

(GreenSpec '10)

TRICKLE VENTS

Trickle vents in windows and occasionally in doors are there to comply with Building Regulation ventilation requirements, but they are a source of heat loss in winter when open and often even when closed.

Trickle vents will show up as an anomaly on Infra-Red Thermography Survey images.
(GreenSpec '09)

TRIM

Small section joinery made by linear machining, including: skirting, architraves, dado rails, balustrade handrails, etc. usually painted but also stained, etc.

See: metal trim.

(GreenSpec BRM '11)

TRIMS See: **AGREEMENT ON TRADE-RELATED INVESTMENT MEASURES**

TRIPLE BOTTOM LINE (TBL)

The triple bottom line (TBL) developed from ideas contained within the Brundtland Report's definition of sustainable development, which recognises that sustainability comprises the need for balancing environmental protection, with promoting social justice and equity, and with the pursuit of economic growth.

(RICS '11)

See: Sustainable Communities, Sustainable Development

(GreenSpec BRM '11)

TRIPLE GLAZED SEALED UNIT (TGSU)

(GreenSpec BRM '10)

TRIPLE LOW-E GLAZING

See: Passipedia: [Triple low-e glazing](#)

(GreenSpec BRM '11)

TRIPS See: **AGREEMENT ON TRADE-RELATED ASPECTS OF INTELLECTUAL PROPERTY RIGHTS**

TROPICAL RAINFOREST

Evergreen forest with dense undergrowth, found in the wet and hot (Tropical) regions of the world.

(Cherrington '95)

TROPICAL TIMBER EXCLUDED

TROMBE WALL

TRL See: **TRANSPORT AND ROAD RESEARCH LABORATORY**

(HAPM and BPG CLM '97)

TRUSSED RAFTER

See: TRADA QA

(GreenSpec BRM '10)

TRUTH WINDOW

Sometimes used in the context of a 'naked building'.

Usually a framed piece of ____ giving a view through the wall lining, into the construction of a building element, usually a limited view of an opaque insulation layer.

The insulation and other layers may be cut back in layers to show the construction in more detail.

The 241 ampshi is vapour resistant and may be used in a breathing wall, the ____ is likely to be installed in the wall in a leaky detail.

Regretably a 'truth window' ____al destroys the integrity of the element they care to show off.

It is better to recreate the section through the element and fix it to a board, frame it and hang it off the element it describes, taking care not to puncture the vapour barrier or air tightness layer of the element it is hung from a nail.

(GreenSpec BRM '10)

TRV See: **THERMOSTATIC RADIATOR VALVE**

TSB See: **TECHNOLOGY STRATEGY BOARD**

TVOC See: **TOTAL VOLATILE ORGANIC COMPOUNDS**

TWAS See: **TIMBER WINDOW ASSESSMENT SCHEME**

TXIB See: **2,2,4-TRIMETHYL-1,3-PENTANEDIOL DIISOBUTYRATE**

U

UDAL See: **URBAN DESIGN ALLIANCE**

UDC See: **URBAN DEVELOPMENT CORPORATION**

UEA See: **UNIVERSITY OF EAST ANGLIA**
 See: LCIC, InCrops
<http://www.uea.ac.uk/lcic>
 (GreenSpec BRM '10)

UF See: **UREA FORMALDEHYDE**

Uf See: **U value**

U-FACTOR
 See: U Value

Ug See: **U value**

UKCIP See: **UK CLIMATE IMPACTS PROGRAMME**
<http://www.ukcip.org.uk/default.asp>

UKWAS See: **UK WOODLAND ASSURANCE STANDARD**
UK WOODLAND ASSURANCE STANDARD (UKWAS)
 UK certification scheme that is recognised by both FSC and PEFC
 (Ska '09 and GreenSpec '10)

UKAS See: **UNITED KINGDOM ACCREDITATION SERVICE**
 replaced NAMAS
 (GreenSpec BRM '10)

UK GAAP See: **UK GENERALLY ACCEPTED ACCOUNTING PRINCIPLES**

UKGBC See: **UK GREEN BUILDING COUNCIL**
<http://www.ukgbc.org/>
 See: PAYS
 (GreenSpec BRM '10)

UK GENERALLY ACCEPTED ACCOUNTING PRINCIPLES (UK GAAP)
 The overall body of regulation establishing how company accounts must be prepared in the United Kingdom.
 This includes not only accounting standards, but also UK company law.
 See: PFI, PPP
 (John Laing & GreenSpec BRM '10)

UKRHA See: **UK RAINWATER HARVESTING ASSOCIATION**
<http://www.ukrha.org/>

UK TIMBER FRAME ASSOCIATION
<http://www.timber-frame.org/>

UKTA See: **UK THERMOGRAPHY ASSOCIATION**
 UKTA is for all those interested in infrared thermography, created to support and help unite thermographers.
 Professional thermographer, or just interested in infrared imaging, you will find UKTA can help through membership and the website.
 To find out more about thermography go to our IR-Learning pages, extracts from the BINDT Thermography Handbooks
<http://www.ukta.org/ir-learning.htm>
<http://www.ukta.org/ir-learningcontents.htm>
 Or buy the Thermography Handbooks, written by PCN Level III Certificated UKTA Members through its Bookshop
<http://www.ukta.org/IRBookshop.htm>
 UKTA has a library of almost 1000 articles and books about the application of thermography.
 These have been collected since 1974, initially by AGEMA, but donated to UKTA on their merger with FLIR Systems.
 The articles cover the full range of applications from aerospace to zinc.
 They are stored at our office in Bracknell, UK, and photocopies are available to members for their own private study subject to copyright restrictions.
 To search for an article by title, author, publication or date, just click the link below, enter some text in one of the text boxes and click on search.
 UK Thermography Association, c/o British Institute of Non-destructive Testing, 1 Spencer Parade, Northampton, NN1 5AA

T 01604 630124 See: F See: 01604 231489
 Colin Pearson

E colin.pearson@ukta.org See: <http://www.ukta.org>

Finding a local Thermographer:
 UK Thermography Association Search facility: Search by Postcode first 2 letters
http://www.ukta.org/findther2_001.htm
 (GreenSpec '09)

UKYP See: **UK YOUTH PARLIAMENT**
 (Participation Works Partnership)

Uo See: **U VALUE OVERALL**

ULTRAVIOLET (UV)
 (Ska '09 and GreenSpec '10)

UN See: **UNITED NATIONS**

See: UNCED, UNCTAD, UNEP, UNFCCC,
(UNEP See: Environment and Trade — A Handbook '05)

UNADOPTED ROAD

See: Adopted road
(GreenSpec BRM '11)

UNFCCC See: **UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE**

UNCED See: **UNITED NATIONS CONFERENCE ON ENVIRONMENT AND DEVELOPMENT**

(UNEP See: Environment and Trade — A Handbook '05)

UNCONDITIONED SPACE

enclosed space within a building that is not a conditioned space

Crawl spaces, attics, and parking garages with natural or mechanical ventilation are not considered enclosed spaces.

standard energy calculation procedure

energy simulation model and a set of input assumptions that account for the dynamic thermal performance of the building; it produces estimates of annual energy consumption for heating, cooling, ventilation, lighting, and other uses.

(Building Energy Glossary '06)

See: Cooled Space, Heated Space, Conditioned space, Indirectly conditioned space,

(GreenSpec BRM '10)

UNCOHR See: **UNITED NATIONS CONVENTION OF HUMAN RIGHTS**

UNCTAD See: **UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT UNDER FLOOR HEATING**

Thermography is used to investigate services below the surface of walls and floors, an example is to determine the location and extent of underfloor or in wall or ceiling heating, the hot pipes or wires will show up as hot and areas where the pipes do not exist show up dark.

(GreenSpec '09)

UNEP See: **UNITED NATIONS ENVIRONMENT PROGRAMME UNFCCC** See: **UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE**

(UNEP See: Environment and Trade — A Handbook '05)

See: C&C, Contraction & Convergence

(GreenSpec BRM '11)

UNEPSBCI See: **UNITED NATIONS ENVIRONMENT PROGRAMME SUSTAINABLE BUILDING**

CONSTRUCTION INITIATIVE

UNEP SUSTAINABLE BUILDING CONSTRUCTION INITIATIVE (UNEPSBCI)

See Common Carbon metric

(GreenSpec BRM '10)

UNEP-DTIE See: **UNITED NATIONS ENVIRONMENT PROGRAMME – DIVISION OF TECHNOLOGY, INDUSTRY AND ECONOMICS**

UNICLASS

This *classification system* was launched in 1997.

It was developed by *NBS National Building Specification* with other parties contributing for an *EN* or *ISO* Standard.

It was intended to bring together many existing *classification systems* into one single unified system.

CAWS, *CI/SfB* and *EPIC classification systems* become tables in its own right within *UNICLASS*, and each is taking the opportunity to be revised. It includes project and office filing systems.

In reality the unification was just in its bringing together into a single _____, there is little that unifies them, as soon as you start using the tables it become clear there are great swathes missing.

CABS includes a place for *UNICLASS* notation in its tables.

Members of *CIIG* participated in the Draft for Public comment stage, *ASWS* submitted a review of the *CAWS* table.

CAWS was split into two tables one for Civil Engineering and the other for Building with new *work sections* being added to cover specialist trades.

(*ASWS* BRM '97 & *GreenSpec* BRM '11)

CIB International Council for Building Research Studies and Documentation (Commission W74)

ISO TC59/SC13 Working group2

ISO Technical Report 14177 July 1994

Used as a basis for an ISO standard due 1997

Table L for Products

Table J for Specification

(*GreenSpec* BRM '10)

Elements for buildings: Uniclass Table G

Work sections for buildings: Uniclass Table J (*CAWS* by any other name)

Construction products: Uniclass Table L

Materials: Uniclass Table P

(*BLP* PM '10)

With the development of the *NBS Building Next Generation* there will be a complete overhaul of Uniclass, this is underway now

See: *NBS*, *NBS Building Next Generation*

(*GreenSpec* BRM '11)

UNHEATED SLAB-ON-GRADE FLOOR

slab-on-grade floor that is not a heated slab-on-grade floor

(Building Energy Glossary '06)

UNISON

www.unison.org.uk/safety/doc_view.asp?did=181

UNITED NATIONS (UN)

UNITED NATIONS CONVENTION OF HUMAN RIGHTS

Articles 23 & 24 set out the principles for human rights in business activity.

Considered by GreenSpec's GreenLight in assessing manufacturers.

See: PACI, WEF, ECGI

(GreenSpec BRM '11)

UNITED NATIONS ENVIRONMENT PROGRAMME – DIVISION OF TECHNOLOGY, INDUSTRY AND ECONOMICS (UNEP-DTIE)

UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE (UNFCCC)

UNIT ENERGY COSTS

Costs for units of energy or power purchased at the building site

These costs may include energy costs as well as costs for power demand as adopted by the authority having jurisdiction.

(Building Energy Glossary '06)

UNIT LIGHTING POWER ALLOWANCE

allotted lighting power for each individual building type, in W/m²

(Building Energy Glossary '06)

UNIT POWER DENSITY (UPD)

lighting power density of an area or activity, in W/m²

(Building Energy Glossary '06)

UNITARY COOLING EQUIPMENT

one or more factory-made assemblies that normally include an evaporator or cooling coil and a compressor and condenser combination

Units that perform a heating function are also included.

(Building Energy Glossary '06)

UNITARY HEAT PUMP

one or more factory-made assemblies that normally include an indoor conditioning coil, compressor(s), and an outdoor refrigerant-to-air coil or refrigerant-to-water heat exchanger

These units provide both heating and cooling functions.

(Building Energy Glossary '06)

UNITARY PAYMENT (UP)

The periodic payment, usually monthly, that the public sector agrees to pay for the provision of services by the concession holder (SPC).

(John Laing)

See: PFI, PPP, SPC, Monthly Fee

(GreenSpec BRM '10 – '11)

UNITS

See : SI UNITS

(GreenSpec BRM '10)

UNVENTILATED ROOF SPACE

A slightly confusing term in common use in the industry.

Small triangular ventilated spaces may still occur at eaves and ridge.

Ventilation must occur to prevent rotting of timbers but this ventilation occurs as air passes through a (usually) 50 mm ventilation zone under the battens and over the insulation (with or without breather membrane or sarking boarding).

The roof space is inside of the insulated and air-tight envelope, where the loss of warm air is minimal.

Most roofs with or without vapour barriers need to have purposeful and energy efficient ventilation from the occupied space to the exterior to remove moisture build up.

(BCT & GreenSpec '08)

Uo See: **THERMAL TRANSMITTANCE, OVERALL**

UP See: **UNITARY PAYMENT**

UPD See: **UNIT POWER DENSITY**

UPDATE

files on any one computer must be up to date and when three machines use the same files it is essential to keep them updated by *reconciliation*.

(ASWS BRM '97)

UPOV See: **INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS**

(UNEP See: Environment and Trade — A Handbook '05)

uPVC

the old abbreviation for *PVC-U*, formerly known as unplasticized Polyvinyl Chloride.

(ASWS BRM '97)

URBAN HEAT ISLAND EFFECT

Urban areas can be warmer than the surrounding rural areas, by 5 degrees and more, this is brought about by a number of factors:

High thermal mass materials (e.g. stone and brick) used in building facades can be warmed by solar gains, once they

have reached saturation point and cannot absorb anymore heat they reflect the heat and make the surrounding spaces hotter, the combination of hot pavement and hot building façade can raise the temperature further. During the summer day this raised temperature can become a problem, however the warming effect can be beneficial in the cooler evening making outdoor places comfortable late into the evening. Dense irregular historic street patterns provide shelter from the sun and wind, heat losses from the buildings can raise the temperature of the spaces between the buildings and the lack of penetrating winds the heat lingers longer.

Modern open plan cities suffer the heat gains but the wind will penetrate blow some of the heat away.

Trees, hedges and other foliage can shelter buildings from solar gains to their surfaces and to their glazed areas.

Green roof and green walls can provide solar protection and create microclimates behind them, often cooler and more moist than surrounding air.

Lighter coloured materials can reflect more heat whilst darker colours absorb heat more readily.

Some designers choose lighter coloured materials to face their buildings to help maintain the earth's albedo effect (light reflectance from space) as close to 0.39 as possible, but reduction in glacier coverage is changing this figure more rapidly.

(GreenSpec '10)

URBANISATION

Changing a predominately rural area to become more industrialised and urban

Rural ground surfaces are predominantly permeable to water

Urban ground surfaces tend to be impermeable to water collecting rainwater from paths and roads and running them into drains to rivers and to the sea.

(Cherrington '95)

See: SuDS

URC See: **URBAN REGENERATION COMPANY**

UREA FORMALDEHYDE (UF)

Adhesive used in wood panel products

See: MDI, MUF, PF, PMDI, UF

(GreenSpec BRM '10)

UREA FORMALDEHYDE FOAM EXCLUDED

US See: **UNITED STATES OF AMERICA**

(UNEP See: Environment and Trade — A Handbook '05)

US CRI GREEN LABEL PLUS STANDARD

Addresses VOCs

(Ska '09 and GreenSpec '10)

USE CATEGORY

See: T&CP Use Category

(GreenSpec BRM '11)

USEFUL SPACE HEATING ENERGY

The amount of heat actually put into the heated space.

(GreenSpec AEP '09)

USERS

See: Passipedia: [Users](#)

See: POE, Post Occupancy Evaluation

(GreenSpec BRM '11)

UV See: **ULTRAVIOLET**

U-VALUE (THERMAL TRANSMITTANCE)

Elements of construction are made up of numerous materials of different thicknesses and different insulating characteristics, even air spaces within the layers and at the surface of the elements have insulating characteristics.

Surface resistances, material thermal resistances and thicknesses are multiplied, totalled up and inverted to give a U value which is used by designers to show compliance with the Building Regulations and to determine how big boilers and radiators need to be to warm the building and occupants.

The lower the U value the less energy is needed to heat the building and the lower the CO2 emissions.

(BCT & GreenSpec '08)

This is a measure of heat loss through the fabric of a building.

U values are measured in W/m².K

(Hastoe HA from www.GreenStreet.org corrected by GreenSpec '09)

U-values apply to any material, product, element of construction where thermal performance is important.

U-values give a measure of air-to-heat transmission (loss or gain) due to the thermal conductance of the material e.g. from inside to outside a building.

The lower the U-value the lower the material's thermal conductance and the better the material performs to resist heat loss or heat gain through the fabric of the building.

(based on Ecos Renews 17 and GreenSpec '09)

The Building Regulations & Approved Document L "Part L" and Code for Sustainable Homes dictates the maximum U value of elements of buildings, designers can improve on these minimum

(GreenSpec '09)

Thermal transmittance is a measure of the overall rate of heat transfer, by all mechanisms under standard conditions,

through a particular section of construction.

This measure takes into account the thickness of each material involved and is calculated from R-values (where $U=1/R$) of each material as well as constants accounting for surface transmittance (R_{si} and R_{so} , inner and outer surfaces respectively) and also for a small standard air gap (R_{so}).

Thermal transmittance is measured in W/m^2K

(GreenSpec AEP '09)

U_f value U value of windows: Thermal conductivity of Frame

U_g value U value of windows: Thermal conductivity of Glazing (centre pane)

U_w value U value of windows: Thermal conductivity of Window

U_o value U value overall

(GreenSpec BRM '11)

See: Passipedia: [U-value](#)

See: Window, Passive House Window,

(GreenSpec BRM '11)

U VALUE ENVELOP

Coined at a BCT (Bat Conservation Trust) event for simplicity usually consists of all the parts of the external envelop of the building keeping the heat in and the cold out.

Consists of roof (pitched shallow or flat roofs) or roof terraces and recessed balconies, external walls, ground/basement floor (suspended or ground bearing) and doors, windows and rooflights.

Occasionally there are also soffits to projecting or bridging rooms over drives, arcades and passageways or soffit of suspended ground floors.

Each part will contain structure, thermal insulation, weather or rinsing damp barriers, wind tight & airtight barriers or vapour barriers and breather membranes to make sure the insulation works well and for the life of the building without gaining moisture which may affects its performance.

Occasionally the U value envelope is not the external weather envelop, for example the flat ceiling below a pitched roof, in this case the insulation is at ceiling level the attic is allowed to be cold in winter and hot in summer.

If there is a water storage cistern in the attic the U value envelop needs the ceiling insulation to wrap up and over the cistern.

Walls between the house and integral garages also have lesser requirements to external walls, since the garage door is less likely to have a good U value this wall should be the U value envelop and be the same as an external wall.

(GreenSpec BRM '09)

U_w See: **U value**

V

V See: **VOLUME**

See: Enthalph, Pressure, Mechanical Equivalent of heat,
(GreenSpec BRM '10)

VAC See: **VINYL ACETATE COPOLYMER**

VACUUM INSULATION PANEL (VIPs)

Metal panels, that cannot be cut on site, or they fill with air and lose all performance.

Need to be used in a modular design or with a second material that can be cut to fit the perimeter of the space in which the VIPs are being used in.

See: Thin Insulation, MVIP

(GreenSpec BRM '10)

VAE See: **VOLUNTARY ARTS ENGLAND**

VALLEY

(GreenSpec BRM '10)

VALLEY GUTTER

(GreenSpec BRM '10)

VALUE DEFINITION

At the national and company levels, accounting standards do not even recognise most sustainability issues, let alone reward better sustainability performance.

But, as the management saying goes, "you can't manage what you don't measure".

(RICS '11)

See: VVA, Vancouver Valuation Accord

(GreenSpec BRM '11)

VALUE ENGINEERING (VE)

Posh name for Cost Cutting when practiced in the UK.

VE looks at the bigger picture instead of looking at isolated costs.

E.g. WLC Whole Life Costing not just initial costs

E.g. OPEX Operational expenditure not just CAPEX Capital expenditure

E.g. Elemental assembly costs not just component costs

E.g. Materials and Labour not just materials costs

Using multifunctional materials can avoid the need to use more than one material that usually requires more than one labour activity. E.g. Breathing sheathing board: Wind tight, thermally insulation, acoustically insulating, moisture permable, lateral stability.

Using multifunctional assemblies can make one construction do many things and avoid the need for others. E.g.

Pavement can be permeable to avoid falls, kebs, channels, gulleys; can include recycled agregates and demolition arisings for sub bases avoiding landfill, can include rainwater harvesting to top up ground water tables or store it for recycling, can include ground source heat pumps to collect solar heat on the pavement, irrigation to landscape.

Windows can offer views, solar gains, natural daylight, natural ventilation, acoustic isolation, they can also incorporate blinds to act as solar shading, avoiding curtains.

See: Value, Best Value,

(GreenSpec BRM '10)

VALUE FOR MONEY (VFM)

One of the key requirements for PFI schemes is that they offer the public sector value for money.

The Government, and indeed the private sector, demand high quality services, delivered on time and to budget.

Historically, major investment projects built purely under public finance have failed time and again to keep within the initial schedule and funding constraints.

PFI has proven to be substantially more cost-effective and reliable.

An economic assessment by the public sector as to whether a project represents value for money; the optimum combination of cost and quality to provide the required service.

(John Laing)

Can't help wondering if a TV ariel costing close to £1000 under a PFI contract is Value for Money, I suspect not.

The government are not over impressed and trying to claw back some of the PFI money, to provide the services run from the PFI buildings.

See: PFI, PPP

(GreenSpec BRM '10)

VANCOUVER VALUATION ACCORD (VVA)

The Vancouver Valuation Accord takes its name from an international Accord signed in Vancouver in 2007 by several leading professional bodies who each entered into a commitment to work towards embedding sustainability within valuation practices and thereby 'mainstreaming' sustainability.

(RICS '11)

See: RICS, Royal Institute of Chartered Surveyors

VAPOUR

Usually associated with water: (water vapour), water at an elevated temperature evaporates and turns to a gas, this higher temperature gas contains high levels of moisture and if allowed to cool can condense.

If vapour can enter construction and then be cooled by construction materials, insulation or over time it can condense and deposit the water in the construction materials (interstitial condensation).

Water in construction can activate ever present spores (airborne microscopic living material) once these are moist they can start to grow mould which if left uncontrolled in turn can cause asthma and in extreme cases death, also making the buildings hazardous to enter, demolish and dispose of.

Moist conditions and these moulds can lead to timber structures becoming infested by dry rot or wet rot that digest the timber cells leading to weakening if structural and ultimately to failure of the timber.

(GreenSpec '09)

VAPOUR BARRIER

Any material that restricts the flow of moisture vapour.

In hot climates, a vapour barrier would be installed on the exterior surface and in cold climates on the interior surface.

(Energy Star '07)

A construction material impervious to the flow of moisture and air.

Used to prevent condensation around insulation in buildings.

(Hastoe HA GreenStreet.org)

See: Vapour Diffusion Resistance

VAPOUR CHECK

Since little care is often given to design, specification and workmanship in vapour barriers they often do not achieve objective i.e. integrity due to leaky joints or low performance materials.

In the UK the term 'vapour check' was adopted to describe a partial vapour barrier or to reducing but not stopping the passage of vapour.

(GreenSpec '09)

See: *Vapour Diffusion Resistance*

VAPOUR CLOSED

Our industry adopts Vapour closed construction and it would be difficult to change habits overnight

We like cheap insulation so rock slag and glass mineral fiber go with Vapour closed construction.

We treat timber unnecessarily in timber frame because we are incompetent at Vapour Closed construction

Until we pay for appropriate materials aiming for competent construction we have little hope of change.

Choose vapour proof membranes inside to make airtight vapour check and use vapour permeable membrane outside to make breather membrane

The BS 5250 1:5 rule applies (5 times more resistant inside than outside)

(GreenSpec BRM '11)

VAPOUR CLOSED V VAPOUR OPEN

Vapour Closed has many weaknesses whilst Vapour Open has many strengths

Its important to understand the characteristics each component must have for Vapour Open to be competent

No Compromises, or revert to Vapour Closed, do not mix approaches.

(GreenSpec BRM '11)

VAPOUR CONTROL LAYER (VCL)

A layer impervious to water vapour and usually enclosing an occupied space.

(SEDA Scottish Environmental Design Association)

It is always recommend that a vapour control layer should be applied on the warm side of the insulation layer.

(Ecological Building Systems '09)

VAPOUR DIFFUSION RESISTANCE & VAPOUR BARRIER/CHECK

μ value is the vapour resistance factor of a material (see also ISO EN 12524).

d is the thickness of a layer.

sd is the equivalent air layer thickness

i.e. a vapour barrier with an sd of 1500 m is equivalent to 1500 m thickness of still air in terms of vapour resistance and is calculated as follows :

$sd [m] = \mu \times d [m]$

vapour check: $0.5 \text{ m} < sd < 1,500 \text{ m}$

vapour barrier: $sd > 1,500 \text{ m}$

(BRE IP 2/05 Modelling and Controlling Interstitial Condensation in Buildings. 2005)

VAPOUR OPEN

The UK timber framed sector adopts Vapour closed construction and it would be difficult to change habits overnight

We like cheap insulation so rock slag and glass mineral fiber go with Vapour closed construction.

We treat timber unnecessarily in timber frame because we are incompetent at Vapour Closed

Until we pay for appropriate materials aiming for competent construction we have little hope of change.

Choose vapour open membrane or insulation boards inside to make airtight vapour permeable membrane inside and wind tight water proof vapour open membrane outside

The BS 5250 1:5 rule probably allies but intelligent membranes may well break that rule.

(GreenSpec BRM '11)

VAPOUR OPEN V VAPOUR CLOSED

Vapour Closed has many weaknesses whilst Vapour Open has many strengths

Its important to understand the characteristics each component must have for Vapour Open to be competent

No Compromises, or revert to Vapour Closed, do not mix approaches.

(GreenSpec BRM '11)

VARIABLE AIR VOLUME SYSTEM (VAV)

Systems that control the dry-bulb temperature within a space or building by varying the volume of supply air to the space

or building.

(Building Energy Glossary '06 & GreenSpec BRM '10)

VAV See: **VARIABLE AIR VOLUME**

VAWT **VERTICAL AXIS WIND TURBINE**

See: WT, Wind Turbine, RE, Renewable Energy, HAWT, Horizontal Axis Wind Turbine

(GreenSpec BRM '10)

VC See: **VINYL CHLORIDE**

VCAG See: **VIOLENT CRIME ACTION GROUP**

VCS See: **VOLUNTARY AND COMMUNITY SECTOR**

VCT See: **VINYL COMPOSITION TILE**

VDS See: **VILLAGE DESIGN STATEMENT**

VECTOR WORKS

CAD software for Apple community

(GreenSpec BRM '10)

VENT DAMPER

device intended for installation in the venting system of an individual, automatically-operated, fossil fuel fired appliance in the outlet or downstream of the appliance draft control device which is designed to automatically open the venting system when the appliance is in operation and to automatically close off the venting system when the appliance is in a standby or shutdown condition

(Building Energy Glossary '06)

VENTILATED ROOF SPACE

A roof space, where ventilation occurs via purposeful gaps at the eaves and the ridge of the roof structure.

Flat roof are also ventilated at their perimeters.

(BCT & GreenSpec '08)

VENTILATION

process of supplying or removing air by natural or mechanical
to or from any space(s) or building(s)

Such air is not required to have been conditioned.

(Building Energy Glossary '06)

Supplying, moving or removing air, by natural or mechanical
, to, through or from a space or building.

(based on SEDA Airtightness Guide definition)

See: Passive Ventilation, Active Ventilation, MVHR, WHV

(GreenSpec BRM '10 – '11)

See: Passipedia: [Ventilation](#)

(GreenSpec BRM '11)

VENTILATION AIR

that portion of supply air which comes from outside (outdoors), plus any recirculated air, to maintain the desired quality of air within a designated space.

(Building Energy Glossary '06)

See: also outdoor air.

(GreenSpec BRM '11)

VENTILATION SYSTEM

See: Passipedia: [Ventilation system](#)

(GreenSpec BRM '11)

VERGE

Top edges of the triangular top of a gable wall at the end of a pitched roof, often at the end of a terrace or both ends of semi detached.

Barge boards often decorate the verge.

An opportunity for provision for nature, bats, birds, roots and nests.

(GreenSpec BRM '10)

VERY PERSISTENT AND VERY BIO-ACCUMULATIVE (VPVB)

VERY VOLATILE ORGANIC COMPOUNDS (VVOC)

VOCs are soluble and hence capable of causing emissions.

Wetter products can thus release more VOCs.

They vary according to their boiling points

VVOC (very volatile organic compounds): 0-50 degreesC

(SEDA Chemical Reduction in Building '08)

See: VOC, SVOC, TVOC

(GreenSpec BRM '11)

VFM See: **VALUE FOR MONEY**

VIBE VZVLAAMS INSTITUUT VOOR BIO-ECOLOGISCH BOUWEN EN WONEN

A Flemish non-profit organisation that promotes healthy and ecological building with natural construction materials through education, awareness raising, lobbying and consultancy.

They promote an integrated vision on 'sustainable building' which comprises lowering energy and water consumption, well-balanced use of space and ecological urbanism, natural building materials.

VIBE advocates a high ambition level in all these aspects, including ecological and health aspects. General background is the original ('Brundtland') definition of sustainable development, added by the motto 'a healthy mind in a healthy body in a healthy home in a healthy environment'. VIBE manages its own label for building professionals and is the Belgian representative of the international label of quality for all building and accommodation products "natureplus" (www.natureplus.org/en). They also produce the 'Wonen met de Natuur' (Living with Nature) section in Flanders' biggest building magazine for the general public 'Beter Bouwen & Verbouwen' (Better building and refurbishing- published quarterly). Their experience in evaluating building materials makes VIBE the perfect partner to lead the development of CAP'EM's eco-material assessment tool. Their strong network will help both to identify relevant materials to assess and disseminate project findings in their region.

www.vibe.be

Grotesteenweg 91, B-2600 Antwerpen-Berchem,

T +32 (0)3 218.10.60 See: See: F See: +32 (0)3 218.10.69

www.eco-bouwpools.be

www.ecopolisvlaanderen.be

Natureplus Belgium

www.natureplus.org

CAP'EM Partner

www.capem.eu

(CAP'EM '10 & GreenSpec BRM '10)

VIDEO CONFERENCING

VINYL (PVC)

The innocent looking name for PVC a non-renewable plastic, which uses a lot of salt, chemical and chemical processes generating lots of hazardous waste, emissions, offgassing and leachate, regarded by many as 'the devil's own'. Apparently confused with Lino (Linoleum) in floor coverings which uses chalk, linseed oil and other natural ingredients. REACH regulations will see major modification to PVC, its replacement or its disappearance altogether.

(GreenSpec BRM '10)

VINYL ACETATE – ACRYLIC COPOLYMER

Common ingredient of paints: Film former.

Can cause eye, nose and throat irritation, lung damage; convulsions have been observed in rodents inhaling high levels.

(GreenSpec AEP '10)

See: VAC, PVAC, PVA

(GreenSpec BRM '10)

VINYL ACETATE COPOLYMER (VAC)

(ERFMI '08)

VINYL CHLORIDE (VC)

(ERFMI '08)

VINYL COMPOSITION TILE (VCT)

(ERFMI '08)

VIOLENT CRIME ACTION GROUP (VCA)

(Participation Works Partnership)

VIOLET

Term used by *GreenSpec* for simple definition of those things opposite to *green*, not environmentally sound.

Coined at Green is the Colour conference run by BD at RIBA 1999.

In its broadest terms it includes the majority of the industry, the majority of its players and the majority of its outputs.

(GreenSpec BRM '99 – '11)

VIRGIN

Refers to resources extracted from the ground for example.

Virgin aggregates are also known as *Primary Aggregates*.

In the process of extracting *virgin aggregates* there may be a sieving process which separates out *primary aggregates* for use from *secondary aggregates* which are often stockpiled at the quarry until a use is found for them.

Secondary aggregates from roofing slate making is now used for *landscape mulch*.

See: Aggregates

(GreenSpec BRM '11)

VISIBLE TRANSMITTANCE (TVIS)

The fraction of visible light transmitted through a window.

(GreenSpec AEP '09)

VISUAL IMPACT MINIMISED

VOC See: **VOLATILE ORGANIC COMPOUND**

VOCs See: **VOLATILE ORGANIC COMPOUNDS**

VOC MINIMISED

VOLATILE ORGANIC COMPOUND (VOC)

VOLATILE ORGANIC COMPOUNDS (VOCs)

Organic chemicals that easily vaporize at room temperature.

VOCs include a variety of chemicals, some of which may have short- and long-term adverse health effects.

(GreenSpec AEP '09)

VOCs are soluble and hence capable of causing emissions.
Wetter products can thus release more VOCs.
They vary according to their boiling points
VVOC (very volatile organic compounds): 0-50 degreesC
VOC (volatile organic compounds): 50-250 degreesC
SVOC (semi-volatile organic compounds): 250-380 degreesC
TVOC (total volatile organic compounds)
(SEDA Chemical Reduction in Building '08)
VOC criteria compliant with EN 13419

(GreenSpec BRM '10 – '11)

See: VVOC, SVOC, TVOC

(GreenSpec BRM '11)

VOLCANIC ROCK

See: Pumice

(GreenSpec BRM '10)

VOLTAGE OPTIMISATION

(GreenSpec BRM '11)

VOLUNTARY AND COMMUNITY SECTOR (VCS)

Organisations working in the community which are not directly funded or directed by government

(Participation Works Partnership)

VOUSSOIR

Wedge-shaped brick or stone used in flat and shallow arch construction, often using red rubbers, soft red bricks that are rubbed together to form tapered bricks.

See: Flat arch

(GreenSpec BRM '10)

VPVB See: **VERY PERSISTENT AND VERY BIO-ACCUMULATIVE**

VROM See: **MINISTERIE VAN VOLKSHUISVESTING, RUIMTELIJKE ORDENING EN MILIEUBEHEER**

(Ministry of Housing, Spatial Planning and the Environment), Netherlands

(CIRIA RP656 Design for Deconstruction Bill Addis)

VSDA See: **VOLUNTARY SECTOR DEVELOPMENT AGENCY**

VVA See: **VANCOUVER VALUATION ACCORD**

VVOC See: **VERY VOLATILE ORGANIC COMPOUNDS**

W

WALL

That portion of the building envelope, including opaque area and fenestration, that is vertical or tilted at an angle of 60° from horizontal or greater.

Below 60° from horizontal is classed as roof.

This includes above- and below-grade walls, between floor spandrels, peripheral edges of floors, and foundation walls.

(Building Energy Glossary '06 & GreenSpec BRM '11)

WALL AREA, GROSS

area of the wall measured on the exterior face from the top of the floor to the bottom of the roof

Because the gross roof and floor areas extend over the top and bottom of the wall, the gross wall area is limited to only those spaces in between to avoid double-counting.

(Building Energy Glossary '06)

WALL HEAT CAPACITY

sum of the products of the mass of each individual material in the wall per unit area of wall surface times its individual specific heat, in kJ/m²·K.

(Building Energy Glossary '06)

See: thermal mass

(GreenSpec BRM '10)

WARM-UP

Increase in space temperature to occupied set point after a period of shutdown or setback

(Building Energy Glossary '06)

WATER HEATER

closed vessel in which water is heated and is withdrawn for use external to the system, including the apparatus by which heat is generated and all controls and devices necessary to prevent service water from exceeding safe limits.

(Building Energy Glossary '06)

WATER PERMEABILITY

Rockwool with its rock fibres and resin binder is hydrophobic (excludes moisture from its fibres and its resins) but it permits water and moisture vapour to pass through its interstices.

(GreenSpec BRM '11)

WATER RESISTANCE

Foamglas with its hydrophobic glass cell walls and closed cell structure and paper and bitumen facings and flood coat of bitumen for laying is water resistant and vapour resistant (and less vulnerable to frost action).

(GreenSpec BRM '11)

WATT

A unit of power, measuring the rate of flow of electricity or heat energy.

(Hastoe HA GreenStreet.org and GreenSpec 09)

WAG See: **WELSH ASSEMBLY GOVERNMENT**

See: Devolution, Devolved Building Regulations, WSBP,

(GreenSpec '10)

WAINSCOT

Wooden lining to the walls of a room (traditional)

(Builder Hampshire Directory '10)

WATER QUALITY

Pollution of groundwater, rivers, lakes, estuaries and the sea affects natural ecosystems and people dependent on them. Some main pollutants are; organometallic, other inorganic, nitrates and phosphates.

(Cherrington '95)

WATT

S.I. unit of power equal to 1 Joule of energy per second.

(Cherrington '95)

WATT HOURS

The work done by 1 Watt acting for one hour.

It is equivalent to 3600 Joules.

(Cherrington '95)

WASTE

the common usage of the word 'waste' is often imprecise and almost a synonym for 'unwanted material'.

The technical definition of waste is something that "the producer or holder discards or intends to or is required to discard"

(Waste Management Licensing Regulations 1994).

(For a detailed definition of waste, refer to Regulation 1 (3) of the Waste Management Licensing Regulations 1994)

(CIRIA RP656 Design for Deconstruction Bill Addis)

WASTE AND RESOURCES ACTION PROGRAMME (WRAP)

(ERFMI '08)

WASTE ARISING

total quantities of waste generated from any process or activity

(CIRIA RP656 Design for Deconstruction Bill Addis)

WASTE BROKER

Waste brokers are people who make arrangements on behalf of others to handle, transport, dispose or recover controlled

waste.

They do not handle, transport or dispose or recover the waste themselves.

A broker shares responsibility for the proper transfer of the waste with the holders before and after its transfer.

As they control what happens to the waste, brokers are legally responsible for the arrangement.

Waste brokers include waste dealers who acquire waste and sell it on.

Waste brokers and dealers may include;

- businesses that buy and sell scrap metal and other recoverables, either operating from a yard or as a 'middleman' making the buying and selling arrangements for the transaction.
- businesses arranging the disposal of waste on behalf of another company or waste producer.
- waste disposal operators or carriers arranging the disposal or recovery of waste not covered by their own licence.

Waste brokers should be well informed of the nature of the waste and ensure that:

- the waste producer uses appropriate containment or packaging for the waste.
- the waste is adequately described on the waste transfer note, brokers should not actually complete the note themselves.
- only registered or exempt waste carriers are used to transfer the waste.
- the waste is only disposed of or recovered at an appropriately licensed or exempt site.

(Environment Agency 01/022011)

<http://www.environmentagency.gov.uk/business/topics/waste/121745.aspx>

(BioRegional JE '11)

WASTE COLLECTION AUTHORITY (WCA)

Outside Greater London, the council of a district charged with the responsibility for the collection of household waste.

(Cherrington '95)

WASTE CHAMPION

Sombody(ies) on a construction site assigned (ideally volunteered) to reduce site waste, in practice they can monitor it, quantify it, strive to reduce it, but the designers create 33% of it by design from off cuts.

May take responsibility for SWMP workshops, checklists, etc.

The crane driver and the dumper truck driver, forklift driver and the hoist driver all have a role to play because they see everything, go everywhere and can see when materials are about to topple, fall, or be spoiled by other trades and by liaising with the waste champion they can get those problem corrected.

Digital cameras with date stamp can help the waste champion identify abandoned materials, ownership, timings, and have the owners correct their wasteful actions.

WASTE DISPOSAL

Usually to landfill sites where little or no treatment has occurred.

Or disposal of the residual waste after all reclaimable, recyclable or recoverable have been segregated and removed.

(GreenSpec BRM '11)

WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE)

EU Directive _____ waste equipment and sets out the need to establish an infrastructure to divert it from normal waste streams away from landfill in order to collect refurbish and reuse or dismantle and recycle all of the parts.

(CIRIA RP656 Design for Deconstruction Bill Addis)

The WEEE Directive and its UK Regulations aims to reduce the amount of electrical and electronic equipment going to landfill without further treatment.

It focuses on ensuring an infrastructure is in place to remove WEEE waste from the mixed waste stream to landfill and develop a WEEE waste segregation sector, to reuse, remanufacture or recycle WEEE waste and it may _____ influence the amount of recycled content in electrical and electronic equipment being produced.

The WEEE Directive also aims to improve the environmental performance of businesses that manufacture, supply, use, reuse, remanufacture or recycle electrical and electronic equipment.

<http://www.environment-agency.gov.uk/business/topics/waste/32084.aspx>

See: WEEEMan

(GreenSpec JB '10 & BRM '10)

WASTE FREE

See: Cradle to Cradle

(GreenSpec BRM '10)

WASTE HEAT RECOVERY

WASTE HEAT RECOVERY UNIT (WRHU)

Any hot water appliance without heat recovery before its waste outlet may benefit from a WRHU on the waste pipe.

Commercial kitchens may benefit most from this type of heat recovery.

See: HR, SHRU, MVHR,

(GreenSpec BRM '11)

WASTE HIERARCHY

ranking of alternatives of waste management, in sequence of increasing severity of environmental impact

(CIRIA RP656 Design for Deconstruction Bill Addis)

EA's: Eliminate, Reduce, Reuse, Recycle, Recover (with or without energy recovery), landfill

GreenSpec's short: Remove, Reduce, Reuse, Recycle, Recover, Reject (GreenSpec's long hierarchy has 42 Rs)

WASTE PAPER RECYCLING

WASTE REDUCTION

WASTE & RESOURCE ACTION PROGRAMME (WRAP)

<http://www.wrap.org.uk/construction/>

Funded by government from Landfill Tax and by the Regions,

Was part of the BREW crew

Promote the use of recycled content construction products

Developing the recycling manufacturers and recycling potential in industry

Encouraged Architects to specify recycled

Combined work between BRE and WRAP: QuickWins: EP and % recyclate and % coat savings

Recycling at the expense of Reclaim and Reuse, shrinking the potential of the Architectural Salvage sector.

With government subsidy and powerful promotion and encouragement programme

Their success is judged by the tonnes diverted from landfill.

They have encouraged manufacturers to mix the most bizarre materials in order to help remove problematic materials; making them difficult to separate at the end of life.

Ran SWMP workshops combined Envirowise, EA, WRAP, BRE GreenSpec but failed to address resource efficiency adequately, slipping through the gaps.

Recycling by binding natural recyclate with synthetic binders does not move us forward in the way Cradle to Cradle discourages mixing natural and technical cycles.

Recycling promoted and financed at this level will do nothing to encourage redesign of products to be separable at the end of life to be reusable rather than recycling.

Developed some publications on reducing waste by design, without which we continue to generate waste.

Few designers have engaged with or are willing to admit they generate the waste by design decisions.

Recently beginning to engage with LCA, so the true impact of recycling will become known and may even be discouraged.

Now WRAP heads up the whole of the resource efficiency activity including: Envirowise, NISP, WRAP activity

See: Aggregain, Envirowise, NISP, BRE, BREWCrew, CRWP, ½W2L, C2C, C2CN, Cradle to Cradle, Carpet Recycling (GreenSpec BRM '08 – '11)

WASTE STORAGE

(GreenSpec BRM '10)

WASTE STREAM

The Waste Stream is those items defined as being within the legal waste hierarchy in the UK.

This is in the process of changing from the waste hierarchy included within the England and Wales Waste Strategy (Defra, 2007) which are:

reuse, recycle, compost, energy recovery and waste disposal

to the new hierarchy as set out by the EU Waste Framework Directive (2008) as:

preparing for reuse, recycling, other recovery (e.g. energy recovery) and disposal.

There are two main differences:

Firstly, the replacement of 'reuse' with 'preparing for reuse'.

This means that reclamation remains in the waste stream whereas removing items for reuse is not.

As a result reclamation/salvage still requires careful compliance with Environment Agency legislation, and on-site reclamation is not legislated in the same manner as transporting and storage of items for reuse.

So, removing of items for reuse (e.g. taking away a surplus pile of bricks from a construction site or a sofa) may be exempt from legislation (See: waste carriers and waste brokerage licenses).

Secondly, composting is no longer classified with recycling but under recovery (lower down the hierarchy).

It is likely that *downcycling* (recycling processes that downgrade items into lower value materials, such as chipping of timber for compost or crushing of concrete/brick/other inert items to become aggregate) may not in the future be classified as recycling but under recovery.

(BioRegional JE '11)

WASTE TO ENERGY

The black sheep of the renewable energy market past waste to energy projects like the West London waste centre had a poor reputation due to their toxic emissions.

Domestic rubbish is used as a fuel by burning it at very high temperatures.

Such systems require careful engineering to ensure that the toxins in the fuel gases do not escape into the atmosphere.

However if properly engineered waste to energy is a highly sustainable solution to the nation's domestic waste burden, even more so with the yearly reduction of land fill sites which by 2013 will have virtually disappeared.

Several schemes by a number of local government and public bodies are presently being considered in terms of both a renewable energy solution for community CHP plants and as a long term answer to managing waste.

(Building Magazine Steve Piltz, Turner & Townsend '08)

WASTE TRANSFER NOTE (WTN)

See: PRN Packaging Return Note, Hazardous Waste Transfer Note, EWC, European Waste Catalogue

(GreenSpec BRM '11)

WATER

H₂O

Humans cannot live without it.

An 254ampshire ingredient of most living things

Delivered as precipitation: rain, snow etc. and removed by evaporation, water courses and rivers.

Absorbed by topsoil and subsoil to replenish water tables and deliver water to plants and trees via their roots.

Industrialisation of water includes collection, desalination, harvesting, diversion, cleaning, distribution, pumping, raising,

storing, pressurising, circulating, metering, delivery.

Use includes: drinking, boiling, evaporating, cooling, pouring, sprinkling, washing, showering, and numerous others.
(GreenSpec BRM '10)

WATER & BOIL PROOF (WBP)

A grade of plywood suitable for building in external exposure conditions

Plywood manufacturers should describe their product using one of the three bond classes, but there is still common useage of the now withdrawn term WBP which in performance terms should be equivalent to EN 314 Class 3.

EN 314 Class 3 for Exterior uses out of ground contact

(GreenSpec BRM '10)

WATER BUTTS

A barrel shaped container stood on its end, raised above the ground to allow a bucket or watering can to be positioned below a tap on its side, used for storing rainwater collected from a building or shed roof, via down pipes through a filter removing leaves and other debris from roofs, collected for use in watering or irrigating of gardens, pot plants, roof gardens and replenishing ponds.

(GreenSpec BRM '10)

WATER CLOSET (WC)

Toilet consisting of a bowel and a cistern

(GreenSpec '10)

WATER CONSERVATION DEVICES

WATER DISPOSAL

WATER EXTRACTION

WATER FILTER

Rain water falling on roofs collects in gutters and discharges into down pipes, circular pipes allow water to spin (opposite to the spin of the earth) if an in-line centrifugal water filters is added into the downpipe centrifugal action pushes water through the mesh into a collection chamber the leaves moss and grit goes to the drain and the collected water discharges into the harvesting system's container (e.g. rainwater butt or buried tank)

(GreenSpec BRM '10)

WATER FRAMEWORK DIRECTIVE (WFD)

This came into force on 23rd October 2000.

It was designed to enable more effective management of the EU's water resources in terms of tackling pollution and water conservation.

The directive aims to take a holistic viewpoint of water resources, incorporating all inland, coastal and groundwater.

It also instigates the use of the river basin as the most suitable management unit, recognising that water resources cross national boundaries.

The ultimate, if slightly vague, aim is that all surface and groundwater bodies achieve 'good' environmental status by 2015.

(Building Magazine Steve Piltz, Turner & Townsend '08)

WATERLESS PLANTING

See: drought tolerant planting

(GreenSpec BRM '11)

WATERLESS TOILETS

WATERLESS URINALS

WATER POWER

See: Hydro Electric Power, Wave Power, Tidal Power, Current Power

(GreenSpec '10)

WATER SAVING PRODUCTS

<http://www.greenspec.co.uk>

<http://www.greenbooklive.com/page.jsp?id=152>

See: also *WTL*, *Water Technology List*, *ECA*, *Enhanced Capital Allowance*

(GreenSpec BRM '10)

WATER SELF-SUFFICIENT

WATER SUFFICIENT

WATER TECHNOLOGY LIST (WTL)

List maintained by Inland Revenue of water and potentially energy saving devices that are eligible for 100% capital allowances under the *Enhanced Capital Allowance* (ECA) scheme allowing the occupant a reduction in their tax commitment.

No financial incentive for developers to include them.

See: *ECA*, *ETL*

(Ska & GreenSpec '10)

WATER USE REDUCTION

WAVELENGTH

This is the distance between two successive peaks of a waveform.

For example waves in the sea may be spaced about 100 m apart.

Their wavelength is therefore about 100 m.

(Cherrington '95)

WBP See: **WATER & BOIL PROOF**

WCA See: **WASTE COLLECTION AUTHORITY**

WC See: **WATER CLOSET**

WEBSITE

A place to visit on the *Internet WWW* where a company displays its wares in its *Homepages* and allows others a glimpse into their activities, services or products, from their own computer from anywhere in the World.

(ASWS BRM '97)

WEEE See: **WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT**

WEEE MAN

WEF **WORLD ECONOMIC FORUM**

WEIGHTED PRIMARY COEFFICIENT

(Building Energy Glossary '06)

WEIGHTINGS

A method of indicating greater importance in any comparison system.

Used in Life Cycle Assessments & Environmental Product Declarations

Issues can have global importance so weightings are often determined by international committees.

It is very awkward to give weighting to different issues.

But sometimes you just have to give a judgment (who else if not an expert to do so?), and in some cases, the attributes can be weighted depending on the single projects.

(GreenSpec BRM '10)

WELSH SUSTAINABLE BUILDING PORTAL (WSBP)

Being developed by Cardiff Uni's Script, BRE Wales, RDE & WAG

With future contributions from or links to GreenSpec

(GreenSpec BRM '11)

"What You See Is What You Get" (WYSIWYG)

an *acronym* to describe any application that lets you see what the end result will look like on paper as you work on it on screen or in a page-preview.

MS *Word* and *Excel* are whilst *NBS Building* is not.

(ASWS BRM '97)

WHRU See: **WASTE HEAT RECOVERY UNIT**

WILDLIFE & COUNTRYSIDE ACT 1981 (AS AMENDED)

This is the principal wildlife legislation in Great Britain for birds and includes the protection of certain species and the places they use for shelter and protection.

All wild birds, their nests and eggs are, with few exceptions, fully protected by law. In addition, over eighty species or groups of species are listed under Schedule 1

The Act makes it an offence to intentionally kill, injure, or take any wild bird or their eggs or to take damage or destroy the nest while that nest is in use or being built.

Special penalties are available for offences related to birds listed on Schedule 1 for which there are additional offences of disturbing these birds at their nests, or their dependent young.

The maximum penalty that can be imposed for an offence in respect of a single bird, nest or egg is a fine of up to £5,000, and/or six months' imprisonment.

The act does also give some protection for bats and roosts in England and Wales such as for intentional or reckless obstruction of access to a roost, but for practical purposes the protection of bats and their roosts now falls mostly under the Habitats Regulations.

(BCT '09)

WILDLIFE CONSERVATION

The protection, preservation, management or restoration of species and their habitats.

Efforts are aimed at preventing the depletion of present populations and ensuring the continued existence of the habitats targeted species need to survive.

(BCT '09)

WILDLIFE GARDEN

A wildlife garden is an environment that is attractive to a range of wildlife including birds, amphibians, reptiles, insects and mammals.

A wildlife garden will usually contain a variety of habitats that have either been deliberately created by the gardener or allowed to establish by minimising maintenance and intervention.

(BCT '09)

WIMP See: **WINDOWS, ICONS, MOUSE, POINTER**

the name given to *Windows* users by the *DOS* heroes, it is also the acronym for *Windows, Icons, Mouse, Pointer* (or *Pull down menus*).

The elements that make up the *Windows GUI*.

(ASWS BRM '97)

WIND BAFFLE

An object or board that serves as an air barrier for the purpose of blocking wind washing at eaves within an attic.

(Energy Star '07 & GreenSpec '10)

WIND POWER

WIND SHADING/DEFLECTION WITH VEGETATION

See: Microclimate

(GreenSpec BRM '10)

WIND TIGHTNESS LAYER

A wind tight layer which allows transmission of water vapour, but which provides resistance to air-flow
Used in roof construction roof tile underlay or in wall construction as a damp proof membrane in rainscreen construction or behind timber weatherboarding.

It is used to ensure that the thermal insulation in the construction can perform to the optimum level.

Ventilation air in voids ensures the moisture levels to not build to levels where moisture sets off moulds and rot, but air movement across open fibre materials will draw heat out of the insulation's surface and cool the building.

(GreenSpec '09)

A wind tight layer is generally located on the external side of the thermal insulation layer.

(Ecological Building Systems '09)

WIND TURBINES

Wind turbines range in size from 1KW to 20MW, using the natural power of the wind's energy to power rotor blades that turn a turbine and create electricity, at relatively low speeds, on the same principle of a traditional wind mill.

Traditionally wind turbines are of the upwind type where the wind drives the rotor blades face on.

But recent technology developments in the design of rotor blades has seen vertical axis rotor blades come on to the market.

Whereas traditional upwind blades require high start up speeds, vertical rotor blades can operate at very low wind speeds of around 2-3m/sec compared with 4-6m/sec for an upwind system.

Furthermore upwind systems are very location sensitive.

A clear wind path of approximately 100m radius in all directions for them to operate efficiently, which precludes their effective use in urban areas, or come to that coastal locations where the wind might be variable in direction, known as 'dirty wind' to the sailing fraternity.

(Building Magazine Steve Piltz, Turner & Townsend '08)

WIND FARM

A wind farm is a collection of wind turbines in the same location feeding wind-powered electricity into the National Grid. Currently in the United Kingdom there are approximately 145 on and off-shore wind farms with more going through the planning process as the table below

Projects – 145

Turbines – 1839

Megawatts – 2157.125

Homes – 1206154

Equivalent CO2 reductions (pa) – 4875275 tonnes

(From BWEA Wind data see <http://www.bwea.com/ukwed/>)

The United Kingdom has the best potential for wind energy in Europe, hence the Government's eagerness to see its development as a large scale renewable energy source.

(Building Magazine Steve Piltz, Turner & Townsend '08)

WINDOW

one of the *WIMP* elements in a *GUI*, a *window* is like a view onto something, it might be a file or a software application, a *window* can be moved on the *desk top* or resized to fit an area or shape of your choosing.

(ASWS BRM '97)

WINDOWS

See: Passipedia: [Passive House windows](#)

(GreenSpec BRM '11)

Window glass is generally opaque to IR Thermography and will look dark in images

However See: Glass, Infra Red Cameras

(GreenSpec '09)

WINDOWS

the *GUI* that has revolutionised the *IBM PC* making it easy to use and sent sales rocketing.

(ASWS BRM '97)

WINDOWS 3

The version of windows software to distinguish it from other versions.

This version really launched *windows* as serious *GUI* that helped in the meteoric rise in the use of PCs.

(ASWS BRM '97)

WINDOWS '95

Is the first version or *Windows* which has its own operating system and *GUI* for the small user or stand alone *PC*.

It has many characteristics similar to the Mac and it a whole lot more.

For the new *PC* user it is much more intuitive but it still allows those who like to fiddle plenty to get there teeth into.

(ASWS BRM '97)

WINDOWS NT

Windows New Technology preceded Windows '95 in being its own operating system and *GUI* for the power users like office networks, etc.

(ASWS BRM '97)

WINDOW TO WALL RATIO (WWR)

ratio of the fenestration area to the gross exterior wall area

(Building Energy Glossary '06)

WINDOW VENTILATION

See: Passipedia: [Window ventilation](#)
(GreenSpec BRM '11)

WIND WASHING

When insulating properties of insulation are reduced or eliminated due to air-current penetration removing heat. Boards above eaves insulation channelling ventilation air and preventing heat removal from insulation.

(Energy Star '07 & GreenSpec '10)

Breather Membranes and Wind tightness layers can control heat loss from insulation subject to wind washing.

(GreenSpec BRM '10)

WINTER FUEL ALLOWANCE (WFA)

Money paid to OAPs (Old Age Pensioners) to pay for heating in extremely cold winter weather.

The money usually gets spent on Christmas Presents for the grandchildren.

WFA would be better spent on insulating the properties.

See: Fuel Poverty, Fuel Poor, ECO, GreenDeal,

(GreenSpec BRM '10)

WIPO See: WORLD INTELLECTUAL PROPERTY ORGANIZATION

(UNEP See: Environment and Trade — A Handbook '05)

WITHDRAWAL

Any measure aimed at preventing a construction product in the supply chain from being made available on the market

(CE Marking for SMEs & CPR '11)

WIZARDS

In many of MS Office applications there are *wizards* that help you create files of a similar nature using questions and answers to create unique versions of *templates* made to your selected requirements.

Wizards are also there to help you solve problems by holding your hand as it takes you through processes by asking you questions accepting your answers and modifying the next question according to your last answer.

A bit like an Expert system but developed for a small specific task.

(ASWS BRM '97)

WLC See: WHITE LINED CHIPBOARD

Cartonboard manufactured mainly from recycled paper

(Envirowise Packaging & Waste)

WLC See: WHOLE LIFE COSTING

WLCD See: WHOLE LIFE COST DATA

WOBS See: WORKMANSHIP ON BUILDING SITE

WOMAN'S ENVIRONMENT NETWORK (WEN)

WOMENS INSTITUTE (WI)

See: WEN, NcoW

WOOD BURNING STOVE

WOOD FOR GOOD

<http://www.woodforgood.com/>

WOOD PANEL INDUSTRY FEDERATION (WPIF)

WOOD PRESERVATIVES

Natural England maintain a list of chemicals wood preservatives that are safe for use in bat roosts if applied as instructed and when the bats are not present.

(BCT '09)

Wood preservative are generally designed to kill living organisms like spores and fungus that might try to consume the nutritional parts of the timber and consequently are toxic to other living forms.

<http://www.greenspec.co.uk/html/materials/woodpreservs.html>

The most benign preservatives in common use are Boron, Borax but these are soluble and could be driven out by rainwater or condensation, so remain a risk.

(GreenSpec '09 – '10)

WOOD PRESERVATIVES EXCLUDED

Choosing durable species of timber, usually hardwood but not exclusively some durable softwoods as well,

timber can be used in numerous situations with different exposure levels without preservative treatment and last longer.

(GreenSpec '09 – '10)

WORD

the name of Microsoft's word processing programme which is available for use in *MS-DOS*, *Windows* and *Mac formats*.

(ASWS BRM '97)

WORD-PROCESSING

like typing on a typewriter, but using electronics instead of mechanics, but unlike typing will allow use of standard letters, document templates, automatic spell checking, grammar checking, page formatting, automatic mail-merging, creation of contents lists and indexes, file comparisons etc.

(ASWS BRM '97)

WORK SECTION

the third level sub-divisions in the CAWS classification system, these represent individual trades relating to sub-contracting as it is in the UK in 1997.

In layman's terms, chapters of the specification.

There are about 320 and they include structural, services, landscape and building trades. They correspond with subdivisions or *work sections* in *PSA*, *Laxtons* and *NBS Specifications*, *SMM7*, Bills of Quantities and Drawings etc.

(ASWS BRM '97 – '10)

WORKMANSHIP ON BUILDING SITE WOBS

The title of a series of *BS Code of Practice* (not design, only workmanship) for common trades for domestic and larger sites. *BS 8000:Parts 1 to 15*.

(ASWS BRM '97)

WORLD ECONOMIC FORUM (WEF)

Owner of the PACI Partnering Against Corruption Initiative

Considered by GreenSpec's GreenLight in assessing manufacturers.

See: PACI, ECGI, UN Convention of Human Rights

(GreenSpec BRM '11)

WORLD GREEN BUILDING COUNCIL (WGBC)

See Common Carbon metric, GBC,

(GreenSpec BRM '10 – '11)

WORLD TRADE ORGANIZATION (WTO)(UNEP

See: Environment and Trade — A Handbook '05)

See: EU Procurement Directive

Remanufacturing is definitely now on the "to do" list at the WTO World Trade Organisation, Geneva, Switzerland.

Negotiators working to reduce barriers to trade in remanufactured goods as part of the troubled Doha Round talks took some more baby steps towards agreeing on how to address non-tariff measures as part of an eventual WTO accord.

<http://www.remanufacturing.org.uk/centrenews-detail.lasso?report=377>

See: Remanufacture, CRR

(CRR & GreenSpec BRM '10)

WPIF See: WOOD PANEL INDUSTRY FEDERATION

WRAP See: WASTE & RESOURCE ACTION PROGRAMME

WRAP See: WASTE AND RESOURCES ACTION PROGRAMME

WRC See: WATER RESEARCH COUNCIL

WRC APPROVED

WRC Water Fittings And Materials Directory

See: also WTL, ECA,

(GreenSpec BRM '10)

WSBP See: WELSH SUSTAINABLE BUILDING PORTAL

WSSD See: WORLD SUMMIT ON SUSTAINABLE DEVELOPMENT

WT WIND TURBINE

See: Wind Turbines, HAWT & VAWT

(GreenSpec BRM '09 – '10)

WTL See: WATER TECHNOLOGY LIST

WTN See: WASTE TRANSFER NOTE

WTO See: WORLD TRADE ORGANIZATION

WUFI

Computer assisted simulation programme for heat and humidity transports (dynamic) to BS EN 15026

www.wufi.de

(GreenSpec '09)

WWF See: WORLD WILDLIFE FUND

Air Quality Guidelines www.euro.who.int/air/activities/20050222_2

www.wwf.org.uk

(SEDA Chemical Reduction in Building '08)

WWR See: WINDOW TO WALL RATIO

WWW WORLD WIDE WEB

This is part of the *Internet* and is responsible for the meteoric rise in the use of the *Internet* over the last few years. It is a user friendly interface which is often graphic and full of *hypermedia* to jump from *HomePage* to *HomePage* and from *Website* to *Website*.

(ASWS BRM '97)

Also called the World Wide Carboot sale because of the variability in the quality and quantity of information you can find about stuff.

(SpecNet AEP '90)

WYSIWYG See: "What You See Is What You Get"

X

X –(chi) VALUE

Point thermal bridge heat loss coefficient measured in W/K
(GreenSpec AEP '09)

XPS See: **EXTRUDED POLYSTYRENE**

Not Expanded Polystyrene
(GreenSpec BRM '10)

XCHANGE

See: Materials Exchange
(GreenSpec BRM '10)

Y

YCF See: **YOUTH CAPITAL FUND**

YCS See: **YOUTH AND COMMUNITY SERVICE**

YEO See: **YOUTH ENGAGEMENT OFFICER**

YOF See: **YOUTH OPPORTUNITY FUND**

YORBUILD 'YORbuild'

Supply Chain Engagement Programme (SCEP)

YORbuild is the framework for the £1.2bn that the public and third sectors spend on construction each year in the Yorkshire and Humber region.

Local authority and public sector clients in Yorkshire and Humber region.

New additions to the YOR construction frameworks - YORcivil, YORconsult, and EN Procure.

Will be working alongside YOR frameworks to develop the construction supply chain across the Yorkshire and Humber region.

(YORbuild '11)

YOS See: **YOUTH OFFENDING SERVICE**

YOT See: **YOUTH OFFENDING TEAM**

YOUNG PEOPLE'S PROVIDERS FORUM (YPPF)

(Participation Works Partnership)

YOUNG PEOPLE'S SUBSTANCE MISUSE SERVICE (YPSMS)

(Participation Works Partnership)

YOUNG PEOPLE'S SUBSTANCE MISUSE SERVICE JOINT COMMISSIONING GROUP (YPSMS JCG)

(Participation Works Partnership)

YOUTH OFFENDING SERVICE (YOS)

(Participation Works Partnership)

YOUTH OFFENDING TEAM (YOT)

(Participation Works Partnership)

YOUTH OPPORTUNITY FUND (YOF)

A pot of money that is applied for and given away totally by young people

(Participation Works Partnership)

YOUNG PERSON'S CHARTER (YPS)

Statement of young people's rights in accessing services

(Participation Works Partnership)

YP See: **YOUNG PERSON**

A young person is 11–18 years old, up to 25 years old if they are disabled or have a learning difficulty

(Participation Works Partnership)

YPPF See: **YOUNG PEOPLE'S PROVIDERS FORUM**

YPS See: **YOUNG PERSON'S CHARTER**

YPSMS See: **YOUNG PEOPLE'S SUBSTANCE MISUSE SERVICE**

YPSMS JCG See: **YOUNG PEOPLE'S SUBSTANCE MISUSE SERVICE JOINT COMMISSIONING GROUP**

y-VALUE

A notional additional U-value, spread uniformly over the whole thermal envelope.

(GreenSpec AEP '09)

Z

ZCH See: **ZERO CARBON HUB**

English organisation focuses on definition and dissemination of Zero Carbon ambitions

See: also LZCH

(GreenSpec BRM '10)

ZED See: **ZERO EMISSIONS DEVELOPMENT**

ZEDfactroy See: **ZERO EMISSIONS DEVELOPMENT**

ZEDcars See: **ZERO EMISSIONS DEVELOPMENT**

ZEDstandards See: **ZERO EMISSIONS DEVELOPMENT**

ZEDfabric See: **ZERO EMISSIONS DEVELOPMENT**

ZED IN A BOX See: **ZERO EMISSIONS DEVELOPMENT**

ZERO CARBON BRITAIN 2030

A campaign by CAT that inevitably considers land use, food, what we eat, where and how it is grown.

CPRE take issue with the way CATs land use proposals will affect the look and character of the countryside.

(CAT '10)

ZERO CARBON BUILDING

One where, annually, there are no net carbon emissions resulting from the operation of the building.

In practice, different views are taken as to the degree of autonomy the definition of 'Zero Carbon' refers to.

For example, the Code for Sustainable Homes requires much of the energy consumed to be generated from on-site renewable technologies, whereas other definitions would include off-site generation to various degrees and remoteness of source.

No official definitions currently include the Carbon generated in the construction of a building.

(GreenSpec AEP '09)

ZERO CARBON DIOXIDE (CO₂) EMISSIONS

ZERO CARBON EMISSIONS

Carbon dioxide emissions come from the burning of fossil fuels.

A zero carbon building is one with "zero net emissions of Carbon Dioxide (CO₂) from all energy use in the building", including uses such as for cooking, TVs, computers and other appliances.

It is not simply for space heating and hot water etc.

It that over a year there are no net carbon emissions resulting from the operation of the building.

Zero carbon buildings can be standalone or grouped.

Essentially these buildings are meeting all their energy needs from a 100% of renewable energy resources – discussed in further editions.

(Building Magazine Steve Piltz, Turner & Townsend '08)

ZERO CARBON TOOLKIT

Components of the ZED developments by ZEDfactory

(GreenSpec BRM '10)

ZERO EMISSIONS DEVELOPMENT (ZED)

Trademark used extensively by ZEDfactroy the name of the architectural practice Bill Dunster Architects famous for 'BedZED' Beddington ZED, London, ZED includes:

ZEDfactroy (the Architectual Practice name)

ZEDcars (electric cars and other vehicles available to the community to hire by the hour/day/week)

ZEDstandards,

ZEDfabric (ations) (preferred products promoted by ZEDfactory, e.g. passive ventilation system, PV panels, etc.

AtoZED,

ZED in a Box,

RuralZED,

StramitZED, a development of Rural ZED using compressed strawboard insulation panels, etc.

Zero Carbon Toolkit

(GreenSpec BRM '09 – '11)

ZERO-ENERGY HOUSE

See: Passipedia: [Zero-energy house](#)

(GreenSpec BRM '11)

ZERO HEATING ENERGY HOUSE

See: Passipedia: [Zero heating energy house](#)

(GreenSpec BRM '11)

ZERO OZONE DEPLETING POTENTIAL (ZODP)

Currently gases with Zero Ozone Depleting Potential (ZODP) are being used these include Carbon Dioxide and Pentane.

Building containing those earlier ozone depleting gases trapped in foamed thermal insulation, remain a legacy to be dealt with responsibly in demolition of recent thin walled buildings, these products are reclassified as Hazardous waste, but there is very little evidence that they are treated as such.

See: ODP, Ozone depletion potential

(GreenSpec BRM '09 – '11)

ZHAGA COMPLIANT

www.zhagastandard.org

Zhaga is a new initiative to create a standard for LED light engines, so that 262amps-compliant light engines would be

interchangeable between luminaires (like a conventional lamp with a standard lampholder.)

Up to now, LED makers haven't really addressed this one because they've been busy either embedding the LEDs into the fixture (fundamentally non-sustainable given that you have to chuck the whole thing away if the LED fails) or making retro-fit LEDs to replace tungsten halogen reflector lamps (a purely commercial exercise, given the millions upon millions of downlights and spotlights out there)

(GreenSpec JB-LD '10)

See: LED, Light emitting diode,

(GreenSpec BRM '11)

ZODP See: **ZERO OZONE DEPLETION POTENTIAL**

ZONE

space or group of spaces within a building with any combination of heating, cooling, or lighting requirements sufficiently similar so that desired conditions can be maintained throughout by a single controlling device

(Building Energy Glossary '06)

ZONE, HVAC

space or group of spaces within a building with heating and cooling requirements that are sufficiently similar so that desired conditions (e.g. temperature) can be maintained throughout using a single sensor (e.g. thermostat or temperature sensor)

(Building Energy Glossary '06)

REV REVISIONS

Revision No	Description	Author	Date
A00	For Preliminary Issue Collection of Jargon Busters My own from '1997 plus: 1 See: Cherrington '95 See: Brett Cherrington <i>for the Database for Use in Schools project.</i> <i>Master of Engineering Courses, Southampton University, University Road, Highfield, Southampton SO17 1BJ.</i> Last update 28.11.95 2 See: EnvirowisE Packaging Waste 3 See: Inspire East Acronym Buster 4 See: Hastoe Housing Association See: from www.GreenStreet.org 5 See: Ecos See: Renewes 17 Lost in the 'green' jungle? Help is at hand! 6 See: CIRIA RP656 'Design for Deconstruction' Bill Addis 7 See: SEDA Scottish Ecological Design Association Airtightness Guide 8 See: CC Publication See: Concrete and Sound insulation 9 See: Building Magazine Steve Piltz, Turner & Townsend '08	BRM	00/05/2008
A01	Started Merging, rationalised, in some cases edited and extended entries Emailed all to request permissions to reproduce Bounced emails from CIRIA, StevePiltz, Hastoe, Inspire East Update from A94, A95 and P14 specification jargon busters Updated from BCT publication list development at beginning (A01 12/08/09) Envirowise confirmation Bill Addis confirmed but must get CIRIA and EartScan approval Feedback from P14 Deleted Content list Issued to AEP and GreenSpec	BRM	02/08/2009 - 28/08/2009
A02	Added EnergyStar '07 Added from BCT/GreenSpec Biodiversity Book Added from SEDA Low Toxicity book and Deconstruction book Issue to AEP	BRM	28/08/2009 - 25/10/2009
A03	Added from GreenSpec 09 website list (AEP) Added from AN's CAP'EM LCA report	BRM	07/11/2009
A03	Added from SusCon Retrofitting Programme Added from Ian Cooper's NE Adaptation report Continue editing	BRM	29/03/2010
A04	Added more terms, corrected We to I in some cases	BRM	03/05/2010
A05	Builder 264ampshire added but selectively improved and merged		28/05/2010
A06	Vehicle terms added but not merged		06/06/2010
A07	Terms from Ska created and added and embellished	BRM	24/06/2010
A08	CAP'EM and Ska merged and embellished	BRM	02/07/2010
A09	Added from BRE GGtS critique and merged in	BRM	02/07/2010
A10	Cherrington merged in Posted on Scribd	BRM	04/07/2010
A11	WSBP & SA Database meeting JB added Pending HAPM CLM etc terms approval Issued to CAP'EM Marie at CD2E	BRM	16/07/2010
A12	IES update Sustainable Procurement Added Carbon Sequestration, Sink, Store HAPM CLM merged in Cloud Computing added RB BRBP meeting notes LCIC, CLIMB, InCrops, UAE 148 pages Plywood grades, EOL Numbers Life Span, Life Cycle, terms 152 pages Posted on Scribd	BRM	17/07/2010 - 23/07/2010
A13	REACH added and merged in Separate file emailed to CAPEM	BRM	24/07/2010
A14	BCT, Linoleum, BLP, CLM, HAPM alternative texts updated, JIT, JIC. JTL, BES 6001, Miscellaneous updates Sent to JB @ JB LD	BRM	25/07/2010 - 27/07/2010

A15	DPM, DPC, GPM, GPC updated 1 st and 2 nd party General update	BRM	28/07/2010
A16	Pultrusion added to (Teplo tie), ABS added, SSSI added, Many others: Insulation types, ISS, Peak Oil, Peak fish, 16001, etc. Grants, EST, CT, FIT, RHI, LCBP, Pareto's Principle 80:20 rule PowerFactors, Cad software, CCM, UNEP, E. Colomba, Screening etc.	BRM	29/07/2010 - 17/08/2010
A17	Merged in Builder Hampshire Directory '10 and CSI stuff, Plain English Campaign, Crystal Mark, ½W2L, SMARTWaste, BIM, CRR, BCIS, etc.	BRM	18/08/2010 - 26/08/2010
A18	Cradle to Cradle, WasteFree, CRC, Building Energy Glossary added but not merged Miscellaneous additions Finish, Colour and Transluscency etc. LCA, etc.	BRM	27/08/2010 - 12/11/2010
A19	EPD update from LCA Jargon Buster	BRM	08/01/2011
A20	Completed merging BEG Others	BRM	- 17/02/2011
A21	Additions Added Participation Works Partnership Social Terms Added for LSBU update from LCA Jargon Buster EPD update	BRM	20/02/2011 - 03/04/2011
A22	Adopting gray tone to indicate 'updated since last issue' items from now on. Format changes. Other additions and updates including: natureplus, DFMA, Declared Unit, functional unit, DWF, expanding in more titles, Pultrusion & Extrusion, DD, Drip, Drought Tolerant Plants, Indigenous species plants, Irrigation, Genus loci, ASBP, SBEE, HIVE, SMARTLife, Cove, Coved Skirting, Skirting, Softstrip, Soffit, PIC, Recovinyl, Regional, GreenSpec: CPD, EPD, Studio, etc.	BRM	03/04/2011 - 29/04/2011
A23	Removed remaining W^t Modified format of Initials to 'See.' Adding GreenLight terms, ECGI, PACI, WEF, UNUCHR Adding: NBS Next Gen, PAS 100, Editing: CV, CWCT, ZED, U value, ERFMI '08 definitions added. LCA Units: added, Issue to Sofie Pelsmakers for Book	BRM	29/04/2011 - 26/05/2011
A24	OSB, SIPS & Segal Method update etc. from GreenSpec B10 SIPS specification, FEES, Virgin, Primary, Secondary, Recycled,	BRM	27/05/2011 - 07/07/2011
A25	ISO 14006, misc, ISO 26000, etc.	BRM	21/07/2011 - 05/08/2011
A26	CHAS, CWI orgs, Substitution etc. More BEG and PWP definitions, etc.	BRM	05/08/2011 - 30/08/2011
A27	Added (CE Marking for SMEs & CPR '11) Adding to QR and Added RSS, Added GreenSpec Code, CPD, Live, PASS, GreenSpec & CAP'EM project definitions, Carbon Sequestration, Sequestered Carbon	BRM	30/08/2011 - 15/09/2011
A28	GreenSpecWater ECH2O definitions, Materials to Building definitions, SI, Ex MIMA project, BioRegional, GreenDeal started	BRM	16/09/2011 - 03/10/2011
A29	FEES added, Passipedia added	BRM	12/10/2011 - 24/10/2011
A30	BRegs Compliance Tools, Joints started, GreenDeal expanded Discovered corruption of the file scattered text replaced with numbers and text throughout the document, partially replaced with ____ until correct text determined. Nature/BATS orgs, misc update, SWIG, Envireo, Calgrest, misc. Started to rationalise ^tSee: to correct locations (progress to C %%%)	BRM	25/10/2011 - 02/12/2011

END END OF JARGON BUSTER