GUIDE TO BUILDING CONTROL

FOR DOMESTIC BUILDINGS
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From 1976 to 1977 he worked in Canada on construction projects and from 1977 to 1986 he was apprenticed as a banker mason and was responsible for conservation projects with CADW (Welsh historic monuments and buildings). Following further academic study, he was later with English Heritage as a professional and technical officer, responsible for historic monuments in the south of England. From 1986 to 1993 he was a Building Surveyor with a local authority, dealing with the repair and planned maintenance of buildings including contract procurement and contract administration.
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Extracts of thermal insulation values and tables taken from Technical Note 10: U-Values of Elements
Contact: Trevor Clements www.north-herts.gov.uk/gold_guide_tech_note_10_2010-3.pdf

**Sovereign Chemicals Ltd (Bostik)**
Guidance on tanking systems
Contact: Mark Gillen Mark.gillen@bostik.com; www.sovchem.co.uk

**Ty-Mawr ecological building products**
Breathable buildings and products
Contact: Joyce Gervis www.lime.org.uk

**Kingspan Insulation Ltd**
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**Nationwide Fire Sprinklers**
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Notes to the Reader

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Approved Documents

The author has reproduced/modified the details contained in the Approved Documents into his own interpretation as contained in this Guide. Where necessary, he has provided additional information that is not available in the Approved Documents. None of the values that are contained within the Approved Documents have been changed. For each table and diagram used or modified, the author has reproduced only the values and information that in his opinion are more commonly used, but he has made it clear that the reader should fully refer to the particular table and diagram in the relevant Approved Document.

The current Approved Documents are available to view on the Department for Communities and Local Government website: www.communities.gov.uk, or to purchase from The Stationery Office (TSO) online at www.tsoshop.co.uk or by telephone: 0870 600 5522.

Span tables

This Guide uses span tables drawn up by Paul Smith of Geomex (www.geomex.co.uk). However, readers please note that TRADA Technology span tables are available from: www.trada.co.uk/bookshop.

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Expected Changes to the Building Regulations to Come into Force in 2013

**Part B:** Guidance updated in relation to lighting diffusers in line with the consultation together with changes to classification of wall coverings to align with European classifications (April 2013).

**Parts K, M & N:** Changes to address areas of conflict and overlap to be reflected in a new Approved Document to part K with amendment slips for M & N. Improved guidance on the use of access statements to promote a more proportionate risk-based approach (April 2013).

**Part P:** Reduction in notifiable work but retaining a duty for non-notifiable work to comply with safety provisions of the regulations which have been updated. Regulations to allow third party certification of electrical work will not be introduced until later in 2013.

**Regulation 7:** A new Approved Document will be published to update information on materials and workmanship in line with the European Construction Products Regulations to be implemented on 1st July 2013.

**Fire Safety:** Local Acts: regulations to repeal unnecessary fire provisions in local acts.

**Warranty Link Rule:** Applicable to Approved Inspectors for construction of new dwellings to be removed.

Approved Documents with the full revisions to parts B, K, M, N, P and Regulation 7 above will be available to purchase from The Stationery Office (TSO) online at http://www.tsoshop.co.uk or telephone: 0870 600 5522.

**Matters to be announced in 2013:**
- referencing of British Standards for structural design based on Eurocodes (ADA)
- additional radon protection measures (ADC)
- energy efficiency of buildings (ADL).

**Further information can be found at:**
- http://www.planningportal.gov.uk/buildingregulations/approveddocuments/
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- Design and Build.
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Introduction

This document has been produced for home owners/occupiers, students, builders, designers and other property professionals who have a basic knowledge of building construction and require easy-to-understand guidance on the building regulations for domestic building projects in England and Wales.

The document intends to provide education and guidance on how some of the more common technical design and construction requirements of the building regulations can be achieved and met for single-occupancy domestic extensions, new dwellings, loft conversions and conversions of existing buildings, up to three storeys in height, as well as single-storey garages.

Typical details, tables and illustrations have been provided in this guidance document for the more common construction methods used in dwellings; they have been adapted from the technical details contained within the Approved Documents of the Building Regulations and from experience gained by the author. The diagrams and details produced in the document are for guidance only and are only the author’s interpretation of how the requirements of the building regulations can be met. The actual diagrams and details must be agreed and approved by building control at an early stage and before work commences. You must comply with the requirements of the Building Regulations, so you are advised to fully refer to the Approved Documents and contact a suitably qualified and experienced property professional for details and specifications for the most suitable form and method of construction for your project.

Please note that details, values, standards, documents, products, manufacturers, etc. contained in this guidance may have changed, been superseded, or disappeared altogether between the time when it was written and when it was read; they should be checked by the person using the guidance.

The Building Act 1984 and the Building Regulations 2010

The power to make building regulations is contained within Section 1 of the Building Act 1984 and deals with the powers of the Secretary of State to make building regulations for the following purposes:

- securing the health, safety, welfare and convenience of people in or about buildings
- conservation of fuel and power
- preventing waste, undue consumption, and misuse or contamination of water.

The current building regulations are the Building Regulations 2010 and The Building (Approved Inspectors etc.) Regulations 2010, which came into force on 1 October 2010 and apply to England and Wales (a separate system of building control will apply in Wales from 2013). A separate system of building control applies in Scotland and Northern Ireland. The 2010 Regulations in both cases consolidate the Building Regulations 2000 and the Building (Approved Inspectors etc.) Regulations 2000, incorporating amendments since 2000.

The Building Regulations are very short, contain no technical details and are expressed as functional requirements, so they are difficult to interpret or understand. For this reason, the Department for Communities and Local Government publishes guidance on meeting the requirements in a series of documents known as ‘Approved Documents’.
Approved Documents

The Approved Documents are intended to provide guidance on how to achieve the requirements of the building regulations, and they make reference to other guidance and standards. In themselves the Approved Documents are not mandatory and there is no obligation to adopt any particular solution contained within them if the required result can be achieved in some other way. In all cases it is the responsibility of the designer, applicant/owner and contractor to ensure the works are carried out in compliance with the building regulations.

The current Approved Documents are listed below and are available to view on the Department for Communities and Local Government website: www.communities.gov.uk or to purchase from The Stationery Office (TSO) on line at www.tsoshop.co.uk or by telephone on 0870 600 5522.

TRADA Technology span tables are available from www.trada.co.uk/bookshop.

Approved Documents and sections they cover

A: Structure (2004 edition with 2010 amendments), including span tables for solid timber members in floors, ceilings and roofs for dwellings (2nd edition) and Eurocode 5 span tables for solid timber members in floors, ceilings and roofs for dwellings (3rd edition), published by TRADA Technology


C: Site preparation and resistance to contaminants and moisture (2004 edition with 2010 amendments)

D: Toxic substances (1992 with 2002 and 2010 amendments)

E: Resistance to the passage of sound (2003 with 2004 and 2010 amendments)

F: Ventilation (2010 edition with further amendments)

G: Sanitation, hot-water safety and water efficiency (2010 edition with further amendments)

H: Drainage and waste disposal (2002 edition with 2010 amendments)


L1A: Conservation of fuel and power in new dwellings (2010 edition with further amendments)

L1B: Conservation of fuel and power in existing dwellings (2010 edition with further 2010 and 2011 amendments)


P: Electrical safety (2006 edition with further 2010 amendments)


Note: References made in this guidance to Approved Documents are abbreviated as AD – for example, reference to Approved Document A: Structure (2004 edition with 2010 amendments) will be abbreviated to ADA.

Additional requirements for the conservation of fuel and power

It’s important to note that many local authority planning departments are now imposing planning conditions that require energy-efficiency standards in buildings that are above the minimum
standards stipulated under the building regulations. Since 31 December 2011 the Welsh Assembly Government requires that all new residential properties in Wales meet an 8 per cent improvement over the 2010 Code level 3 for sustainable homes (ENE.1). Guidance on the code for sustainable homes is contained in Section 3 of this document. You are advised to contact your local planning department at an early stage for their specific requirements.

Materials and workmanship

All materials used for a specific purpose should be assessed for suitability using the following aids (see Approved Document: Regulation 7 for full details):

- British Standards or European Standards (or other acceptable national and international technical specifications and technical approvals)
- Product Certification schemes (Kite marks)
- Quality Assurance schemes
- British Board of Agreement Certificates (BBA)
- Construction Product Directives (CE Marks)
- Local Authority National Type Approvals (System Approval Certification)
- In certain circumstances, materials (and workmanship) can be assessed by past experience – for example, a building already in use, providing it is capable of performing the function for which it was intended – subject to building control approval.

All materials must be fixed in strict accordance with manufacturer’s printed details. Workmanship should be in strict accordance with Regulation 7 and BS 8000: Workmanship on Building Sites – Parts 1 to 16. Where materials, products and workmanship are not fully specified or described, they are to be ‘fit for purpose’, stated or inferred, and in accordance with recognised best practice.

Other ways of satisfying the Building Regulations requirements

The Building Regulations requirements may be satisfied in other ways, or in non-standard ways, by calculations or test details from a manufacturer, supplier, specialist, or by an approved third-party method of certification such as a British Board of Agreement (BBA or other third-party-accredited) Certification.

Technical and condensation risks

The technical details in this guidance document should be read in conjunction with the BRE publication ‘Thermal Insulation Avoiding Risks’, which explains the technical risks and condensation risks that may be associated with meeting the building regulation requirements for thermal insulation for the major elements of the building. A copy of the publication can be obtained from www.brebookshop.com.
A condensation risk analysis (including interstitial condensation risk) should be carried out for the details and diagrams produced in this guidance for particular situations and construction projects, following the procedures set out in BS 5250:2002 (Code of practice for the control of condensation in buildings). The insulation manufacturer’s technical services department will normally carry out this service.

**Timber-sizing tables independently calculated by GEOMEX for solid timber members**

The timber-sizing tables in this guidance have been independently calculated by Geomex Ltd (Consulting Structural Engineers) and have been carried out totally independently of TRADA Technology’s span tables.

The timber sizes stated in the tables in this guidance are commonly available for solid timber members used in the construction of floors, ceilings, cut roofs (excluding manufactured trusses) and flat roofs for single-occupancy dwellings up to three storeys in height (measured above ground level). Normally, two grades of timber are commercially available: strength grades C16 and C24 (grade C24 being stronger than C16).

Grade C24 timber has been used for the calculation of all values for particular imposed and dead loadings as contained in timber-sizing tables in this guidance. Each case should be separately analysed and assessed, since site parameters may change, including wind and snow loadings for particular geographical areas.

Where possible the calculations have been performed using current timber Eurocodes based on the latest release of TEDDS design software. The TEDDS design software is the design package employed to undertake the calculations. However, where the software does not include the Eurocode standards, British Standards have been used. These are still recognised as design standards and we understand that they will remain acceptable for most building control bodies until 2013. Please note that the TRADA Technology span tables have not been reproduced in this guidance.

**Engaging a property professional**

The design and construction of extensions, garages and new dwellings, and the conversions of existing buildings, are normally complex projects, so unless you are experienced in design and construction you are advised to get some professional advice and help as follows:

1. Appoint a suitably qualified and experienced property professional who will prepare drawings and designs for your proposal, obtain the necessary approvals and, if required, will also help you to find a suitable builder and manage the project for you, or,

2. Appoint a specialist company who can offer a complete design-and-build package for your proposal. They can usually prepare drawings and designs for your proposal, obtain the necessary approvals and carry out all the necessary construction works and project management to complete the project.

3. Use an experienced builder.
Obtaining Building Regulations approval

There are three alternative routes available to the applicant to obtain Building Regulations approval, as detailed below. Option 1 is the local authority route, option 2 is an Approved Inspector route and is a private system of certification and option 3 is a Competent Person Scheme.

Option 1: Local Authority route

The building owner or agent must make a Building Regulations application and pay a fee for the construction of new works. All works must comply with the 2010 Building Regulations.

The person carrying out the building works must liaise with and meet the requirements of the Local Authority Building Control and give the required notice for certain key stages of works, as detailed in the guidance below

There are two methods of making a Building Regulations application, as follows.

(i) Full Plans application

This is often thought of as the traditional way of applying for Building Regulations approval. The building designer will draw up detailed plans, specification and supporting information for the proposed scheme and will send them to the local authority, together with a completed application form and the necessary fee. The authority will then check the details and, following any necessary consultations and liaisons with the building designer, a Building Regulations approval or conditional approval will be issued. The approvals can also be dealt with in stages when design information becomes available; this can be on a rolling programme agreed between the parties as the information becomes available. Applications can be rejected in certain instances.

Work can start at any time after the application has been submitted, together with the correct fee, has been accepted as a valid application, although it is wise to wait until the scheme has had its initial check under the Building Regulations, which usually takes between two and three weeks. The building control surveyor will normally liaise with the builder/owner and inspect the work as it progresses on site. When the project is satisfactorily completed a Building Regulations Completion Certificate will normally be Issued.

(ii) Building Notice application

This system is best suited to minor domestic work carried out by a competent builder. Under this scheme no formal approval of plans is issued and work is approved on site as it progresses.

To use the Building Notice process, the owner or agent will need to submit a completed Building Notice application form, together with a site location plan and the required fee. Work can commence 48 hours after the notice has been received. When work does commence, the person carrying out the works should contact the council’s surveyor to discuss the proposals, to agree how the work should be carried out and when it will need to be inspected, and to establish whether any further information will be required, e.g. drawings, specifications or other information. When the project is satisfactorily completed, a Building Regulations Completion Certificate will normally be Issued.

Regularisation certificates

For unauthorised works, an application can be made to the local authority in certain instances to regularise the works, which is a retrospective form of application for unauthorised works carried out on or after 11 November 1985; please contact your local authority’s building control department for more information.
**Relaxation of Building Regulations requirements**

In certain circumstances, local authorities have powers to dispense with or relax regulation requirements. However, a majority of the regulation requirements cannot be relaxed because they require something to be adequate or reasonable, and to grant a relaxation could mean acceptance of something that was inadequate or unreasonable. For more advice please contact your local authority building control department.

**Contraventions**

Where works are carried out in contravention of the Building Regulations, the local authority may require their alteration or removal within a period of time by serving notice on the building owner. Failure to comply with the notice can result in the work being carried out by the local authority, who can recover their expenses from the defaulter. The person who contravened the building regulations also renders themselves liable to prosecution for the offence in a magistrate’s court.

To find your local authority building control in England and Wales, contact Local Authority Building Control (LABC) at: www.labc.uk.com.

**Option 2: Approved Inspector route**

The applicant can employ an approved inspector, who must be approved by the Construction Industry Council (CIC), either corporately or individually to carry out the functions of an approved inspector. The inspector must give to the local authority an initial notice in a prescribed form before the work commences on site.

The approved inspector should ensure that all the relevant information is provided in the prescribed form, because if the local authority is not satisfied that the notice contains sufficient information, or if the works start before they receive it, they can reject it within five working days and it is of no effect.

Once the notice has been accepted, or is deemed to have been accepted by the passing of five days, the approved inspector is responsible for inspecting the works and issuing the appropriate certificates to the Client and local authority as required under the Building (Approved Inspectors etc.) Regulations 2010.

The building designer will draw up detailed plans, a specification and supporting information for the proposed scheme and will send them to the approved inspector; that can be done on a rolling programme agreed between the parties as the information becomes available. When the project is satisfactorily completed a Building Regulations Completion Certificate has to be issued to the applicant and local authority.

**Contraventions**

Unlike the local authority, the Approved Inspector has no direct power to enforce the Building Regulations if the works are in contravention of those regulations. If the Approved Inspector is not satisfied with the works and cannot resolve the matter, the inspector will not issue the ‘final certificate’ and will cancel the initial notice, thereby terminating the inspector’s involvement in the project. Cancelling the initial notice results in the building control function being taken on by the local authority, which has enforcement powers to ensure the works comply.

A list of approved inspectors is available from the Construction Industry Council’s website at: www.cic.org.uk.