



OWL Building Control Solutions Ltd
Unit 9, New Mills
Post Office Road
Inkpen
Hungerford
RG17 9PU
Tel: 01488 669124

OWL Technical Guidance Note – Upcoming changes to Part L

1. Introduction:

Significant changes are taking place to the Building Regulations 2010 (as amended). This guidance note describes the specific details associated with the alterations to Part L (Conservation of Fuel and Power). This technical note will focus upon the contents of the newly published Approved Document - Volume 1 (Dwellings).

Subsequent Guidance Notes will cover the changes to Part L Volume 2 (Buildings other than dwellings), Part F & the two new Regulations - O & S.

2. Transitional Arrangements:

The application of the updated Building Regulations will depend upon the date of the submission of the Initial Notice, and the date of the commencement of works. Details are described within Table 1 below.

Table 1:

Commencement of Works	Submission of Initial Notice	
	Prior to 15th June 2022	From 15th June 2022
Prior to 15th June 2023	'Current' 2013 Part L	'New' 2022 Part L
From 15th June 2023	'New' 2022 Part L	'New' 2022 Part L

- For projects with multiple buildings per application (e.g. 10 new dwellings) transitional provisions apply per **individual** building.

Further information regarding the transitional arrangements can be found in Building (Amendment) Regulations 2021: circular 01/2021.

3. Commencement of Works:

To ensure complete clarity with the application of these transitional arrangements, the definition of 'commencement' is key.

The following actions would (generally) be considered to mark the commencement of work:

- *excavation for strip or trench foundations or for pad footings*
- *digging out and preparation of ground for raft foundations*
- *vibrofloatation (stone columns) piling, boring for piles or pile driving*
- *drainage work specific to the building(s) concerned.*

Further information regarding the designation of commencement can be found in BCA Policy Note 1.

4. Extensions:

Section 10 of the 'new' Building Regulations (Part L) describes the guidance relating to extensions. As within the current requirements, there are two ways of demonstrating compliance.

4.a U Value Parameters

There has been a significant uplift in the U value requirements for extensions within the 2022 Part L.

Table 2:

Thermal Element	Current 2013 Requirements	New 2022 Requirements
Roof	0.16 @ ceiling / 0.18 @ rafter	0.15
Wall	0.28	0.18
Floor	0.22	0.18
Window	1.6	1.4
Doors	1.8	1.4

This method of compliance is only suitable when the area of glazing is 25% (or less) than the extension floor area. If the extent of glazing exceeds this, alternative methodology to prove compliance is required.

4.b Alternative methods:

As within current regulations, consultation with a SAP assessor to provide an area weighted *U value calculation* OR a *Comparative SAP assessment* can provide justification of compliance. However – due to the changes of the 2022 Part L, it will be significantly more difficult to justify 'over-glazed' extensions.

4.c Thermal elements – Achieving U value requirements:

Clearly the potential design solutions to achieve U values are endless, depending upon construction specifications, material types, and architectural preferences.

One of the biggest changes (from 2016 to 2022 U value requirements) is relating to external wall construction.

In this construction element, the most common construction make-ups (e.g. dense concrete block & 100mm full fill) are no longer feasible.

Table 3 details potential solutions for external wall construction.

Table 3:

Construction Element				
Inner skin	AAC 7N block	AAC 7N block	AAC 7N block	AAC 7N block
Cavity width (mm)	125	125	100	150
Cavity fill	75mm Kingspan Kooltherm K108	115mm PIR (0.022 W/m-K)	90mm Kingspan Kooltherm K106	150 Mineral wool (min U thermal conductivity of 0.032 e.g. Dritherm 32)
Outer leaf	Brick	Brick	Brick	Brick
Total thickness (mm)	359	359	324	384

Note – Residual cavities must meet requirements of AD C & BBA certification for specific product.

Note 2 - Solutions will (as previously detailed) vary significantly depending upon the construction type chosen.

For further information regarding potential construction methodologies for wall (or other construction elements) please contact an OWL Building Control surveyor to discuss.

5. New Dwellings:

5.a. Introduction:

The format of the Approved Documents is changing, current editions separate Conservation of Fuel and Power in 'Existing' dwellings (L1B) and 'New' dwellings (L1A). The 2022 amendment combines these approved documents to form a singular Volume 1 (Dwellings).

The key change relating to dwellings is the significant change and increased role in SAP assessors. Early consultation with accredited SAP assessors is essential to ensure that proposed designs can be justified as compliant. Note – guidance relating to new Approved Document O (Over-heating) will be issued in subsequent Guidance Note.

The 'headline' alterations to the SAP assessment procedure are as follows (list not exhaustive).

- Requirement to achieve Primary Energy Rate Target as well as Fabric limitations and Emissions
- U Value & air-tightness uplift (see section 5b below).
- Increased detail for specifications of internal lighting & baths / showers (see section 5c below).
- Thermal bridging As-built photographic evidence (see section 5d below).

5.b. U Value & Air tightness:

As would be expected, U Value requirements have increased for new dwellings within the upcoming 2022 alterations.

For thermal elements these are represented within the Notional (target) dwelling that the SAP assessment software references. Some key examples are detailed in Table 4 below.

Table 4:

Fabric Element	Reference Value (s) in SAP software
External walls	0.18
Floors	0.13
Roofs (all types)	0.11
Windows	1.2
Air Permeability	5 m3/h-m2

5.c. Waste Water Heat Recovery:

One of the expectations of the 2022 version of Approved Document L (Vol 1) is that all showers are to be connected to Waste Water Heat Recovery. This therefore must be installed and included within the design. OR it's removal / absence justified by the accredited SAP assessor.

5.d. Thermal Bridging / Photographic evidence:

The negative impact of Thermal bridging (e.g. structural junctions) increases proportionally as the U Value of the fabric element increases. As such with the improved U Values required (see 5b above) the importance of construction detailing and associated thermal bridging is elevated.

Previously Accredited Construction Details (ACDs) provided a design solution to mitigate thermal bridging. However, these are now redundant. As such thermal bridging details will now need to be provided by product specific suppliers (Kingspan etc) OR bespoke calculations provided by SAP assessors.

Note – all parties should be aware that the change to one element (e.g. change of internal leaf specification) would differ from the thermal bridging details provided & therefore a new calculation required. Site construction personnel should be aware of the implications (complete new calculation required & associated costs).

The key difference to the current SAP assessors role regarding these thermal bridging details is that photographic 'as-built' evidence is required.

The thermal bridging details provided must be reflected by the construction on-site. Developers / Builders / relevant stakeholders will need to collate a comprehensive set of photographic evidence for **each** thermal junction in **each** dwelling.

OWL Building Control Solutions will require : a list of thermal bridging details proposed (at design stage), & a copy of the collated photographic evidence including confirmation from the SAP assessor that it represents the 'design' thermal bridging details (at completion).

6. Conclusion:

The upcoming changes to Part L relating to dwellings are significant. All relevant stakeholders should be aware of the increased / changed role requirements to SAP assessors and to Building Control Bodies (e.g. OWL BCS).

Early consultation with a SAP assessor and OWL BCS Surveyor is essential to ensure Building Regulation requirements are met.

The requirements to achieve Building Regulations compliance remain (as always) with the owner / developer. However, OWL BCS is committed to promoting education & support regarding these upcoming changes.

7. References:

Approved Document L (Vol 1 & 2)
Approved Document L1a, 1b, 2a, 2c
Standard Assessment Procedure (SAP 2012)
Standard Assessment Procedure (SAP 10.1 / 10.2)
BRE 2019 - BR443

8. Disclaimer:

The information within this guidance document is not a replacement for the Approved Documents or consultation within SAP assessors or Building Control Surveyors. Nor does it provide a methodology / specification to 'follow' to achieve compliance.

The aim of this document is to ensure early consultation with competent professionals to promote Part L of the Building Regulation 2010 as amended.

Signed:



John Palmer – Technical Manager
OWL Building Control Solutions Limited

Signed:



Brian Gerhardt – Managing Director
OWL Building Control Solutions Limited