

New Building Regulations Part L and SAP 10 Evidence of Construction Requirements for Builders



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Guidance for Clients and Building Contractors

The new Building Regulations Approved Document L, Volume 1, 2021 came into effect on 15th June 2022 in England. The change introduces more stringent requirements for thermal efficiency, energy usage, and quality in construction in a move towards the Future Homes Standard due in 2025. The changes are intended to reduce the performance gap between design and as-built energy performance.

Amongst the changes, the new SAP 10 methodology comes into effect. This is an update to the calculation used to demonstrate compliance with Approved Document L, and produce Energy Performance Certificates (EPCs).

The calculation now requires a greater level of detailed design information to be entered into the assessment for each new dwelling, and building contractors are required to provide more information to the SAP Assessor and to Building Control.

Changes currently apply in England and Wales. Building Regulations Approved Document L, Volume 1, 2022, applies in Wales from 23rd November 2022.

Changes to As Built Evidence Requirements

Several pieces of information are required to support the As Built SAP calculation.

Most residential building contractors are likely to be familiar with the evidence already required by the SAP Assessor in order to prepare the As Built SAP calculation and EPC. The new Regulations and SAP 10 methodology require the following additional information to be collated and provided to the SAP Assessor, and submitted to Building Control.

Air Permeability Test Certificate

This is now required for each dwelling, type averaging is no longer an option in the new Part L. Acceptable evidence would usually be a certificate produced by a person registered by an authorised air pressure testing scheme such as iATS or ATTMA.

Lighting (power and efficacy per bulb type)

Written confirmation of the number of each type of bulb, proof of bulbs used stating power (W) and efficacy (Lm/w) for each bulb type.

Showers (type and flow rates)

Written confirmation of manufacturer and model, stating flow rate (l/min) of each shower is required.

Battery Storage (if used)

Written confirmation of manufacturer and model of battery and usable capacity (kWh) is required.

Export Cable Meter (if used)

An export meter records how much energy is exported to the grid from photovoltaic panels. Written confirmation of manufacturer and model is required.

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PV Diverters (if used)

A PV Diverter, Solar or Immersion Diverter, diverts surplus electricity from solar PV panels into heating hot water using an immersion element. Written confirmation of manufacturer and model of diverter system is required.

Mechanical Ventilation Duct Insulation (where insulated ducting specified)

Written confirmation of the amount of thermal insulation installed to ventilation ductwork is required.

Community Heating and Heat Networks (if used)

Detailed information from the network designer and installer or commissioning engineer will be required for entry into the SAP calculation. Detailed requirements should be advised at the design stage.

Photographic Evidence

This is the most demanding change for building contractors as photographic evidence will need to be collected for each dwelling throughout the build to comply. Detailed requirements are set out in Appendix B of Approved Document L Volume 1 2021, and guidance is given below. The photographs need to be provided to the SAP Assessor and submitted to Building Control. The photographs must also be provided to the building owner at completion, along with the new BREL (Buildings Regulations England Part L) report and EPC.

Collecting Photographic Evidence

The following guidance is based on the details set out in Building Regulations Approved Document L, Volume 1, 2021, and the SAP Conventions 9.0, December 2022.

Photographs must be taken for each dwelling on a development as a record **during** the construction of a property. The photographs must be provided to the SAP Assessor and submitted to Building Control.

Photographs must be taken of typical details as listed below and must be **unique to each property**. At least one photograph per detail should be recorded. Additional images, such as a close-up detail, should be provided when necessary. For example, close-up photographs may be needed where a long distance image provides insufficient detail.

Photographs must be taken at appropriate construction stages **for each detail when completed, but prior to closing-up** works.

Additional photos of the same detail may be required in order to show the continuity of both insulation and airtightness of each detail.

Photographs should be digital and of sufficient quality and high enough resolution to allow a qualitative audit of the detail.

Geo-location should be enabled to confirm the location, date and time of each image. This is usually added automatically with recent smart phones with location services turned on.

It should be clear what each photo shows, so each image file name should include a plot number and detail reference according to the numbers used in Approved Document L1, Appendix B7, as listed below. For example, Plot 1 eaves detail would be P1-3b.

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Photographic Evidence Requirements for Each Plot

1.	Foundations / Substructure and Ground Floor to show thermal continuity and quality of insulation in the following places.
a.	At ground floor perimeter edge insulation.
b.	At external door threshold.
c.	Below damp-proof course on external walls.
2.	External Walls for each main wall type, to show thermal continuity and quality of insulation for the following.
a.	Ground floor to wall junction.
b.	Structural penetrating elements.
	<i>NOTE: For blown fill, photos should show clean cavities and clean brick ties with very limited mortar droppings.</i>
3.	Roof for each main roof type, to show thermal continuity and quality of insulation at the following.
a.	Joist / rafter level.
b.	Eaves and gable edges.
4.	Openings for each opening type (one image per wall or roof type is sufficient), to show thermal continuity and quality of insulation with photographs of the following.
a.	Window positioning in relation to cavity closer or insulation line.
b.	External doorset positioning in relation to cavity closer or insulation line.
5.	Airtightness additional photographs for all details 1-4 to show airtightness details (only if not included or visible in continuity of insulation image).
6.	Building Services for all plant associated with space heating, hot water, ventilation and low or zero carbon technology equipment (eg PVs) within or on the building, show the following.
a.	Plant / equipment identification label(s), including make/model and serial number.
b.	Primary pipework continuity of insulation.
c.	Mechanical ventilation ductwork continuity of insulation (for duct sections outside the thermal envelope).

As Building Regulations Approved Document L, Volume 1, 2021, Appendix B7.

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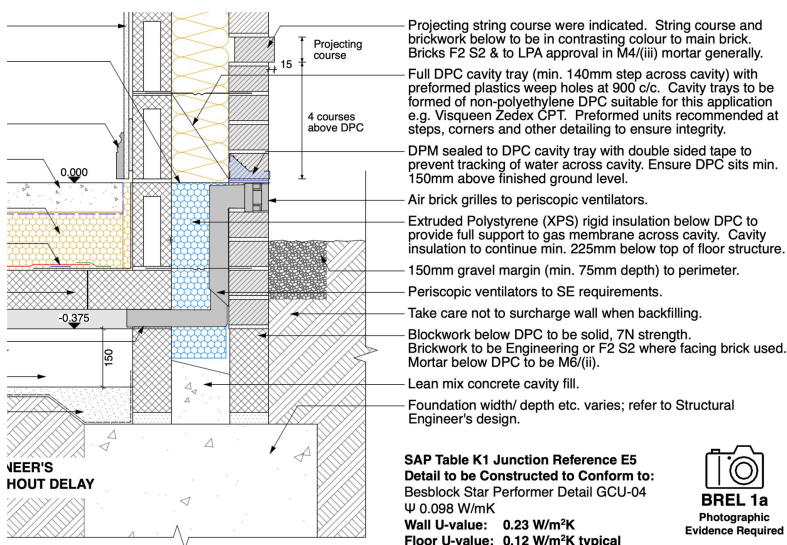
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DJD Architects are Here to Help

Although it will be the building contractor's responsibility to take the photographs required, DJD Architects are here to help make the process for the new requirements as straight forward as possible.

Notes on Drawings

To help site managers' awareness of where photographic evidence is required, we can add a note to our detail drawings with a camera icon, and Building Regulations reference.



BREL 1a
Photographic
Evidence Required



Online Photo Uploads

On projects where we are appointed as SAP Assessor we will provide a link to a secure online file system using Microsoft Sharepoint, for photos to be uploaded as they are taken so as it does not become an additional job to find all of the relevant photos at the end of the project. The link will be pre-populated with folders for each plot to make uploading and identification of the photos as straight forward as possible.

If there are any queries about the quality or sufficiency of the photos, DJD can review and comment on these at any time during the project if requested to do so by the building contractor.

Here to Help

We want to help building contractor's to get used to the new requirements as quickly as possible to reduce issues arising at the completion stage which might affect issue of the new BREL report and EPCs, and delay handovers. If there are any questions about the new processes or evidence requirements please get in touch, we will be happy to help.

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