

Local Authority Building Control

Technical Information Note

Garage Conversions

(January 2010)



Cambridge City Council - East Cambridgeshire District Council - Fenland District Council,
Huntingdonshire District Council - Peterborough City Council - South Cambridgeshire District Council

Introduction

The details in this guidance note are not intended to show you how to comply fully with the Building Regulations but are produced only as a guide. They show the more common means of achieving compliance with the Building Regulations, but are not the only way to comply. The full requirements can be found within the Approved Documents of the Building Regulation 2000 (as amended).

If your proposals differ in any way from these details or you have any queries, you should discuss these with the Area Building Control Officer before work commences. If you or your builder is not confident in the information/construction required to comply, then professional advice should be sought from an architect or similar

Foundations

Support will be needed for any new walls constructed to infill the former door opening.

If the original foundations do not continue below the door opening, either:-

A new foundation should be provided, the depth of this foundation will depend on the ground conditions on the site and that of the existing foundation (generally between 750mm – 1000mm), or

2 No. 100 x 140 pre-stressed lintels may be used to span the opening of a single garage door. The ends of the lintels should be cut into the existing brickwork to ensure a minimum end bearing of 150mm, or

Steel cavity lintel set on one or two courses of brick on existing slab. The ends of the lintels should be cut into the existing brickwork to ensure a minimum end bearing of 150mm.

Walls

Any new wall constructed to fill in the former door opening should be constructed to achieve a U value not exceeding 0.30W/m²k. Typically wall construction to achieve this would be 100mm brickwork 75/100mm insulation (depending on blockwork type) 100mm blockwork.

The existing external walls will require upgrading to ensure a U value of at least 0.35W/m²k (0.55W/m²K if cavity wall). The work necessary will depend upon the existing construction and the method of insulation you intend to use. You are advised to refer to specific manufacturer's literature for advice on this.

Where the garage is semi-detached, sound insulation should be provided to the party wall. You are advised to refer to specific manufacturer's literature for advice on this.

If only part of a garage is being converted, both thermal insulation and 30 minutes fire separation must be provided to any new walls that are between the converted room and the rest of the garage.

Floors

The existing floor will need upgrading to ensure adequate damp protection and to prevent heat loss.

Damp protection can be provided by either a liquid or sheet membrane. This should link with the damp proof course in the wall. The floor should be insulated to achieve a U value not exceeding $0.25\text{w/m}^2\text{K}$. The thickness of insulation needed to achieve this will depend on the type used, 100mm of polystyrene or 65mm polyurethane foam insulation is generally acceptable. The floor finish can be 18mm T & G chipboard or 65mm reinforced screed.

Pitched Roof/Ceiling

A traditional pitched roof should be insulated to achieve a U value not exceeding $0.16\text{w/m}^2\text{K}$. Depending upon the type of material used this can be achieved by providing 100mm of insulation between the joists, with a further 150mm layer laid across the joists.

The roof should be cross ventilated at the eaves equivalent to an area of not less than a continuous strip 10mm wide and if the roof is a mono-pitch at high level with an equivalent area of not less than a continuous strip 5mm wide.

Flat Roof

Flat roofs are likely to need upgrading to provide adequate thermal insulation and roof ventilation. In some instances, this could be problematic and you are advised to contact us to discuss this before work commences.

Windows/Doors

Windows and doors should be draught proofed and be double glazed to achieve a U value not exceeding $1.8\text{mw/m}^2\text{K}$ (e.g. Low E glass) or energy rating Band D.

The new habitable room should open directly into an enclosed hall leading to the main entrance or other suitable exit. Alternatively, the new habitable room must be provided with a window suitable for escape purposes. The window must have an unobstructed opening area of 0.33m^2 and a minimum clear opening dimension, either width or height, of 450mm. The bottom of the window opening should be between 800 and 1100mm above ground level.

If the new door/window is installed within a cavity wall, then insulated damp proof courses should be provided around the opening.

Should the new door/window be installed within a solid wall, then insulated dry lining will be required around the opening to prevent thermal bridging/heat loss.

Ventilation

Ventilation openings should be provided to each room. There is no minimum size for kitchens, utility rooms or bathrooms but other rooms require a ventilation opening of at least $\frac{1}{20\text{th}}$ of their floor area, if the window opens more than 30° or $\frac{1}{10\text{th}}$ of their floor area if the window opens less than 30° .

Habitable rooms require background ventilation of at least 5000mm^2 , equivalent area. Kitchens, bathrooms, WC's and utility rooms require background ventilation of at least 2500mm^2 , equivalent area.

Suitably sized mechanical ventilation ducted to external air or passive stack ventilation is required to bathrooms, kitchens, utility rooms and some WC's.

Internal doors should be provided with a 10mm gap below the door to aid air circulation.

Electrical

All electrical work will need to be in accordance with BS 7671 and Approved Document P of the Building Regulations. Any notifiable electrical work carried out as part of the garage conversion will need to be inspected by the council if an electrician is being used that is not on one of the competent person's schemes (see guidance note on electrical safety for further details).

Where the new room is not fitted with a door that provides direct access to a street, passageway, walkway or other suitable open space, smoke alarms must be installed in the circulation spaces (hallways and landings) on all floors of the dwelling. Smoke alarms must be mains powered, with battery backup and where two or more alarms are required, they must be interlinked.

Others

New rooms should be fitted with a light fitting that will only accept energy efficient bulbs.

Insulation between all building elements should be linked to prevent thermal bridging.

Controls should be fitted to any new heating to prevent undue energy waste.

Building Control Charges

The Building Control charge for a garage conversion is based on the estimated cost of the work.

This estimate should be based on a reasonable estimate of the total cost that would be charged by a person in business to carry out such works. Any reduced cost for DIY work is not acceptable.

Additional Information

Whilst every care has been taken in compiling this guidance note the Building Regulations are changed from time to time so it is important that you check that the information here is still current. The details highlighted in this guidance note are for general scenarios and each case should be taken on its own merits.

If in doubt please do not hesitate to contact your local Building Control department.

Tel: [0300 772 9622](tel:03007729622)

Email: buildingcontrol@3csharedservices.org

Website: www.3csharedservices.org