# **East Midlands Building Consultancy Guidance Note - Number 14**

#### ROOMS FOR RESIDENTIAL PURPOSES INCLUDING HMOs

#### Aims of this Guidance Note.

This guidance note is intended to provide advice when undertaking a change of use on a dwelling house so that after the work has been completed the building will contain rooms for Residential Purposes, more commonly referred to as HMOs. The guidance given within is not a statement of law but is intended to help you understand the main requirements with regard to the Building Regulations only. For further information regarding compliance to the Building Regulations you should contact East Midlands Building Consultancy

#### Introduction

If a residential dwelling is to be converted so that it is no longer occupied by a single-family unit it is no longer considered to be a dwelling house, and the building work will be deemed to be a 'change of use'.

For this 'change of use' a full plans Building Regulations application is required to be submitted, prior to the commencement of work. A full plans application being necessary, as the property will no longer fall under the category of a domestic dwelling. Furthermore, as the property will include common areas, hallway, bathroom, common room, etc, the Regulatory Reform Fire Safety Order (RRFSO) also need to be considered and consultation with the Fire Service will be required to ensure compliance to this order is achieved.

#### **Fire Safety**

Means of escape is by way of the formation of a protected route centred around the staircase, internal landings and hallway. This is necessary in order to enable occupiers to exit to a place of safety in the event of a fire. This is achieved by providing them with a safe route out of the house that remains free from smoke and flames for a specified period of 30 minutes. This principle relies on all habitable rooms e.g. bedrooms, living rooms etc having direct access onto the protected route and that the staircase terminates into a hallway that leads directly to a final exit. Therefore, the doors and walls leading onto the protected route must achieve this specified level of fire resistance of 30 minutes. Meters/consumer units etc within the protected route should also be encased in 30min fire resisting construction. All final exit doors should allow egress without the use of a key.

#### Fire Doors

Generally, 30 minutes, self-closing, fire resisting door sets must be fitted to all doors of all rooms leading onto the hall, stairs and landings, i.e. the escape route. As these doors must be fitted to a high standard it will often be necessary to replace the door frames/ casings and supply and fit new door furniture, fire signage etc.









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Additionally, fire doors must also be fitted to, understairs cupboards, bathrooms containing gas central heating boilers or airing cupboards and any other cupboards sited on the escape route.

General requirements for fire doors are as follows:

- Purpose made fire doors, in accordance with BS 476 parts 21-24.
- That they be fitted with a minimum of three steel hinges.
- Have combined smoke seal and intumescent strips.
- The gap between the door edge and frame should be between 3mm and 4mm.
- The frames of these doors shall have rebates or stops not more than 12mm deep.
- Effective self-closing devices are to be fitted to the doors so that the doors are closed and held firmly in the closed position.

#### Walls

Fire resisting separation of 30 minutes between the individual rooms, including walls, and floors are also required, as this forms part of the passive fire protection necessary to ensure the safe means of escape from the property. Depending on the existing construction this may mean upgrading the walls, floors, ceilings and doors to certain rooms and floors within the property. Most solid brick or blockwork walls will provide a full 30 minutes fire resistance and are therefore deemed to be acceptable. However, any existing stud partition walls must either be proven to meet this standard or upgraded to achieve the necessary 30 minutes fire resistance. Additionally, any new partitions e.g. used to split rooms and or used to lead onto the escape routes should be constructed to a standard to provide 30 minutes fire resistance.

A full 30 minutes fire resistance is achieved by constructing non-load bearing partitions with;

- Minimum softwood studwork of 75 x 38mm at maximum 600mm centres.  $\Box$  Lined both sides with 12.5mm plasterboard.
- All joints taped and filled or skimmed.

#### **Floors**

To obtain the necessary 30-minute fire separation between the ground and first floor (including bathrooms and WCs, cupboards, etc.), it is highly likely that the ceilings will need to be upgraded. It is also likely that 12.5mm plasterboard with a 3.2mm gypsum skin, (Artex is not acceptable) will meet this minimum requirement. However, should the ceiling be of a lesser standard, additional measures will be necessary.

All ceilings that are of lath and plaster or plasterboard construction that is cracked or damaged must either be upgraded or renewed to provide a full 30 minutes fire resistance between one floor and the next. The following paragraphs indicate measures that can be taken to upgrade the fire resistance of floors in the most common situations.









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#### 9.5mm Plasterboard with a 3.2mm Gypsum Plaster Finish.

- 60mm mineral fibre between the joists of the floor fixed to the joist sides, supported on wire mesh fixed between the joists.
- 25mm tongued and grooved nominal boarding or 15mm plywood or chipboard.
- Should the original floorboards be re used then it will be necessary to overboard it with a layer of 4mm hardboard, well nailed at 150 centres.

#### **Lath and Plaster Ceilings**

- Be at least 15-22mm plaster on a wood or reed lath.
- Be under-drawn with securely fixed chicken wire with 38 x 38mm timber battens at 450 centres and 12.5mm plasterboard or be at least 15-22mm plaster on a wood or reed lath.
- Chicken wire laid between the joists, lapping up both sides by at least 50mm and securely fixed.
- 1200g DPM can be laid and fixed over the chicken wire.
- 19mm of lightweight aggregate gypsum plaster trowelled between the joists, (metal lathing grade) and the floor covering installed.

Other methods of upgrade are possible from below and include applying intumescent paints and or papers directly to the lath and plaster ceiling. Or fixing fire blankets between the joists. However, for such methods to be accepted by NEL Building Control you must first consult with a specialist company/contractor who is recognised as having expertise in this field and certification from them will be required upon completion of the task. For party walls and party floors the fire resistance may need increasing to 60 minutes fire resistance.

#### Ceilings to the 1st Floor Rooms

Along with the dividing floors the ceiling/s to the 1st floor are also required to achieve 30 minutes fire resistance. This is necessary to provide effective fire separation between the sleeping areas. Additionally, it will also maintain continuity of the passive fire protection to the ceiling of the top landing to within the protected route. To further ensure continuity it will be necessary to upgrade or replace any loft hatches with proprietary fire resisting units that can be bolted to be secured shut.

#### **Staircases**

As the staircase itself forms part of the escape route it must also be protected. The underside of the staircase, landings etc must therefore achieve a full 30 minutes fire resistance. Furthermore, any cupboards below the staircases are to achieve 30 minutes fire resistance and must be kept free of all stored material if fixed services are fitted.









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#### **Alarm and Detection**

Smoke alarms must be mains operated with battery back-up, in accordance with British Standard 5839 (Part 1). The smoke alarms are to be interlinked. Code of Practice for Installation and Servicing' for an L1/2 type system as follows:

- Approved automatic smoke detectors located in all bedroom areas, all other rooms including common areas
- Approved automatic heat detectors located in areas such as kitchens.
- Alarm sounders on each floor landing and at all other necessary locations in order to comply with the above Code of Practice.
- The minimum sound level should be 75 dB(A) at the bed head with all doors shut.
- Manually operated call points to be provided at every final exit from property.
- A certificate of compliance with the code of practice to be submitted to NEL Building Control.
- Card electricity meters are not permitted, as a constant electrical supply is needed for the smoke detection system.

In some circumstances it may be acceptable to provide mains operated smoke alarms with battery backup, in accordance with British Standard 5839 (Part 6). The smoke alarms are to be interlinked and used with a Grade (A-D) LD2 type system. An example of this may be a small HMO of no more than 2 storeys.

#### **Emergency Lighting**

To automatically illuminate the escape route when the normal lighting supply fails, emergency lighting is required to be installed within the protected route of the property. This system installed must comply with BS:5266: Part 1: 2016 and a certificate of compliance to be submitted to EMBC.

#### **Signs and Notices**

It will also be necessary to provide the following, appropriately located, fire signage.

- FIRE EXIT Above or adjacent to alternative means of escape
- DIRECTIONAL SIGNS On each landing, change of direction etc
- FIRE DOOR KEEP SHUT On each fire door (Not required to bedroom doors)
- FIRE DOOR KEEP LOCKED On fire doors understairs/cupboards

#### Resistance to the Passage of Sound

Approved document E, (resistance to the passage of sound) has the aim of improving standards in relation to the effects of excessive noise and reducing unwanted noise transmission both within and between buildings. This applies in particular to noise transmission within residential accommodation, e.g. student accommodation, bedsits that are effectively RfRP/HMO's. Therefore, all rooms for residential purposes formed by way of a change of use fall within the scope of this regulation, (Regulation E1) and compliance must be demonstrated.









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#### Performance Standards to be met

Regulation E1 - Protection against sound from other parts of the building and adjoining buildings i.e. rooms for residential use require reasonable resistance to sound from other parts of the same building and adjoining buildings.

Table 0.1b Rooms for residential purposes – performance standards for separating
walls, separating floors, and stairs that have a separating function

	Airborne sound insulation sound insulation $D_{nT,w} + C_{tr} dB$ (Minimum values)	Impact sound insulation L'ar,w dB (Maximum values)
Purpose built rooms for residential purposes		
Walls Floors and stairs	43 45	- 62
Rooms for residential purposes formed by material change of use		
Walls Floors and stairs	43 43	- 64

To ensure that a reasonable level of resistance to the passage of unwanted sound has been achieved between rooms, sound insulation testing is necessary. Therefore, any walls and or floors separating dwellings, i.e. party walls/floors and also walls and floors separating the individual rooms forming the rooms for residential purposes within the property, are eligible for pre completion testing. Testing which needs to be carried out by a test body with an appropriate third-party accreditation.

All such walls and floors should be constructed to meet the requirements set out above. It is therefore important that you check with the appropriate manufacturer of the products you are intending to use and that the performances as shown can be achieved. It is also worth bearing in mind the importance of good quality workmanship to ensure at pre-completion test performances also achieves these performance standards.

Whilst the duty of ensuring that the appropriate testing is undertaken falls squarely upon the shoulders of the person carrying out the building work, the sole function of the surveyor is to determine the properties to be selected for testing. It is also worth remembering the works will be tested and that if you fail a test, you will be required to carry out remedial works and re-test to achieve compliance.

#### **Conservation of Fuel and Power**

#### **Thermal Elements**

Before undertaking a change of use it is necessary to consider whether it is feasible or practicable to upgrade the thermal elements, i.e. roof, floor, walls, etc. Therefore, practical constraints or technical problems need to be taken into account when assessing feasibility. For example, guidance suggests that it is unfeasible to thermally upgrade if as a result more than 5% of the <u>usable floor area</u> is lost. Likewise, economic feasibility is determined by a simple 15-year payback calculation, i.e. the amount

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of time taken to recover the initial investment through energy savings. So technically, the level of upgrade could be limited to that which could be paid back over a fifteen-year period, or to a level where only 5% of the usable floor area is lost. However, the examples quoted in this guidance note are believed to meet this requirement and thermal upgrades to the standards quoted are generally required.

Table 4.2 Limiting U-values for existing elements in existing buildings			
Element	U-value <sup>(1)</sup> W/(m²-K)		
	(a) Threshold	(b) Improved	
Pitched roof – insulation at ceiling level(2)	0.35	0.16	
Pitched roof — insulation at rafter level <sup>(2)(3)</sup>	0.35	0.18	
Flat roof or roof with integral insulation <sup>(2)(4)</sup>	0.35	0.18	
Wall – cavity insulation <sup>(2)(5)</sup>	0.70	0.55	
Wall – external or internal insulation <sup>(2)(6)</sup>	0.70	0.30	
Floors <sup>(7)(B)</sup>	0.70	0.25	

#### NOTES:

- Area-weighted average values.
- 2. For dormer windows, 'roof' includes the roof parts of the window and 'wall' includes the wall parts (cheeks).
- If meeting such a standard would limit head room, a lesser standard may be appropriate. In such cases, both of the following should be achieved.
  - a. The depth of the insulation plus any required air gap should be at least to the depth of the rafters.
  - b. The insulant should be chosen to achieve the lowest practicable U-value.
- If there are problems with the load-bearing capacity of the frame or height of the upstand, for a flat roof or roof with integral insulation, a lesser standard may be appropriate.
- This applies only to a wall suitable for cavity insulation. Where this is not the case, it should be treated as 'wall external or internal insulation'.
- If meeting such a standard would reduce the internal floor area of the room bounded by the wall by more than 5%, a lesser standard may be appropriate.
- The U-value of the floor of an extension may be calculated using the exposed perimeter and floor area of either the whole enlarged building or the extension alone.
- 8. If meeting such a standard would create significant problems in relation to adjoining floor levels, a lesser standard may be appropriate.

Table 4.2 gives guidance on the necessary thermal, or U-values to be achieved on retained thermal elements, i.e. the existing walls floors and roof. For example, a standard, uninsulated 9"/225mm brick wall will achieve a U-value of around 1.8W/m2k and an uninsulated brick block cavity wall 1.9W/m2k.

Taking into account the fact that the higher the value the worse its thermal performance these U-values are worse than the threshold values as set down in Column (a) which are 0.70Wm2k and 0.35 W/m2k respectively. Therefore, unless it can be successfully demonstrated through a detailed and valid methodology that the upgrades are not technically or economically feasible, it is highly likely that thermal renovations will be necessary.









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Likewise, an average sized, uninsulated ground bearing concrete slab or suspended timber floor will not meet the threshold value listed within table 3 and again thermal renovations will be required.

As ever there is always an alternative method of showing compliance; should you wish to, it is possible to consult with an energy assessor who will be able to give you further advice. Such assessors may be able to prove compliance.

#### **Energy Performance Certificate, EPC**

As the building is being modified so that it has a greater number of parts, i.e. the individual Rooms for Residential Purposes, an EPC is required to be forwarded to the Local Authority no later than 5 days after the work has been completed. Furthermore, as the building will no longer be a dwelling house this EPC needs to be produced by a licensed energy assessor using licensed software, (SBEM). EMBC therefore strongly recommends that such an assessor be consulted at an early stage in the development.









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#### **DEFINITION OF HOUSE IN MULTIPLE OCCUPATION, (HMO)**

#### Introduction

The content of this guidance is intended to help you understand exactly what constitutes as being a House in Multiple Occupancy, (HMO). It should be noted that the information given is not definitive and has been tailored to help you understand your specific responsibilities with regard to Building Regulations only. For further information you should contact EMBC.

- 1. A "House in Multiple Occupation", (HMO) is defined in the Housing Act 2004 as a building, or part of a building;
  - Which more than one **household** occupies and share an amenity such as a bathroom, toilet or cooking facilities.
  - Is occupied by more than one household and which is a converted building, which does not entirely comprise of self-contained flats.
  - Which comprises entirely of converted self-contained flats.
- 2. To be categorised as an HMO under the Housing Act, the property in question must also be occupied by more than one **household** and meet one of the criteria listed below.
  - As their only or main residence.
  - As a refuge by persons escaping domestic violence.
  - By students undertaking a full-time course of further or higher education. ☐ For some other purpose that is prescribed in the Housing Act.
- 3. A **household** is defined in the Housing Act as being a building which is shared by:
  - Families, (including single persons and co-habiting/sharing couples whether or not of the opposite sex).
  - Any other relationship that is prescribed by regulations, such as domestic staff or fostering or carer arrangements.

#### **Exemptions from HMO Definition.**

Certain types of buildings are not considered to be a HMO's for the purpose of the Housing Act 2004 and includes buildings that are:

- Managed or owned by a public body (such as the police or the NHS) or a Local Housing Authority or a Registered Social Landlord.
- Where the residential accommodation is ancillary to the principal use of the building e.g. religious establishments, conference centres etc.









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- Entirely occupied by freeholders or long leaseholders and their households.
- Occupied by no more than two households, each of which comprise a single person (i.e. two-person flat shares).
- Buildings owned or managed by educational establishments and occupied principally by fulltime students (most commonly, these will be halls of residence) may be specified as exempt by order.
- Buildings regulated otherwise than under the Act, such as care homes, bail hostels etc, where descriptions of uses to be exempt can be specified in regulations.
- Buildings occupied by long leaseholders and their households, with two or fewer additional residents (i.e. lodgers).

There appears at first glance to be contradictions between the Building Act and Housing Act. For example, halls of residence <u>may</u> be exempt from being a HMO under the Housing Act and are still indeed considered to be RRP under the Building Act. However, halls of residence would <u>definitely</u> not be deemed to be a HMO under the Building Act to which the Building Regulations apply. Scenarios such as this are few and far between and the standards required to demonstrate compliance with the Building Regulations would be identical to halls of residence, or indeed any similar scenario were defined to be a HMO for the purposes of Building Regulations. Therefore, the difference in terminology used between the two separate enforcing bodies, in cases such as this would not detract from the level of compliance required by either.

If you are unsure whether or not the work you propose requires approval please contact East Midlands Building Consultancy for advice. If you carry out work which requires approval without first submitting an application, you will not benefit from having the work independently inspected and you risk enforcement action. The lack of a completion certificate from the Council may affect the future sale of your home.

Please note that these guidance notes are for advice only and may not cover all situations. It is your responsibility to ensure that they are appropriate for use in your particular circumstance.

For further information contact East Midlands Building Consultancy.







