ASTUTE FIRE

Friday 13th November 2020

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David Bannon

Technical Director
Berkeley Homes (East Thames) Limited
Berkeley House
5 Station Way
Woolwich
London
SE18 6NJ

BY EMAIL ONLY

Dear David,

## REF: Royal Arsenal Riverside, B50, Argyll Road, Woolwich, London, SE18 6PG, SE18 6PJ, SE18 6PP, SE18 6PL – External Wall Review

Further to recent correspondence, we have undertaken a detailed review of the buildings design with respect to fire safety and the external wall build-up at B50, Argyll Road, Woolwich, London, SE18 6PG, SE18 6PJ, SE18 6PP, SE18 6PL at the Royal Arsenal Riverside Development in Woolwich, London with respect to meeting the fire safety guidance at the time of construction and analysed this against recently released guidance.

That analysis:

- Reviewed the original building design;
- Reviewed the compliance of the external wall build-up with respect to how the building was designed to achieve compliance with the building regulations at time of construction and the numerous voluntary enhancements made throughout the building (i.e. Building Regulations 2000);
- Reviewed the building design and the external wall build-up with respect to
    - Whether any material within the external wall build-up did not meet the code recommendations and therefore the commonly adopted approach for demonstrating compliance with the functional requirements of the Building Regulations at the time of construction.
    - The compliance of the system with the new 2018 Building Regulations.
    - Analysing the likelihood of failure of the system with respect to guidance issued by Ministry of Housing, Communities and Local Government (MHCLG) for existing buildings.

The building was considered in completeness, with the same approach (with respect to fire safety) applied to all elements to ensure this review has been undertaken, taking into account the holistic fire strategy of the overall building.

In summary this analysis concluded that in:

> *"Furthermore, it is our opinion that B50 would achieve an overall level of safety similar to a building designed in accordance with the 2018 Amendment to the Building Regulations, based on the voluntary enhancements to the fire safety provisions that were made during the design stages and the ongoing fire safety management measures put in place by the on-site management company."*

This statement is that, in our opinion, the building met the functional requirements of the Building Regulations at time of construction, the 2018 amendments to the Building Regulations and meets the objectives of Advice Note 14 (now within the consolidated document "Advice for Building Owners of Multi-storey, Multi-occupied Residential Buildings"), when taking into consideration the overall fire engineering design and the analysis outlined within our Letter of Comfort referenced above.

In addition, opening up works (by others) have been carried out on the external walls to confirm that the construction is in accordance with the detailed design drawings and specification documents where possible. It is on this basis that I have recommended the EWS1 form can be signed (provided in Appendix A).

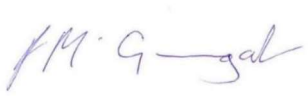
This review is for the sole and exclusive use of the client organisation named above. No responsibility is accepted to any third party for the whole or any part if its contents. For the avoidance of doubt, the term 'third party' includes (but is not limited to): any lender who may see the review during the process through which they come to make a loan secured on any part of the Subject Address; and any prospective purchaser who may see the review during the process through which they come to purchase an interest in any part of the Subject Address.

We trust this provides you with the information that you require, however, should you wish to discuss please do not hesitate to contact me.

Yours Sincerely,

Thomas O'Driscoll
BEng (Hons) – Bachelor of Engineering in Fire and Explosion Engineering
AIFireE – Associate Member of the Institution of Fire Engineers
MIFSM – Member Grade of the Institute of Fire Safety Managers
Director – Fire Engineer
Astute Fire – London

In addition to the above, I have reviewed the work undertaken by my colleague and as such have signed the attached EWS1 form.



Dr James McGonigal
PhD
MIFireE –Member of the Institution of Fire Engineers
C.Build.E – Chartered Building Engineer
MCABE – Member Chartered Association of Building Engineers
MRICS – Member of Royal Institution of Charted Surveyors
Director – Fire Engineer
Astute Fire – Scotland

Enc.

Appendix A – EWS1 form for B50, Argyll Road, Woolwich, London, SE18 6PG, SE18 6PJ, SE18 6PP, SE18 6PL.

## Appendix A – EWS1 form for B50, Argyll Road, Woolwich, London, SE18 6PG, SE18 6PJ, SE18 6PP, SE18 6PL.

# Form EWS1: External Wall Fire Review

**Objective -** This form is intended for recording in a consistent manner what assessment has been carried out for the external wall construction of residential apartment buildings where the highest floor is 18m or more above ground level or where specific concerns exist (Note 1). It should not be used for other purposes. It is to be completed by a competent person with the levels of expertise as described in Notes 2 and 3 below.

**This review is for the sole and exclusive use of the client organisation named below. No responsibility is accepted to any third party for the whole or any part if its contents (Note 4). For the avoidance of doubt, the term 'third party' includes (but is not limited to): any lender who may see the review during the process through which they come to make a loan secured on any part of the Subject Address; and any prospective purchaser who may see the review during the process through which they come to purchase an interest in any part of the Subject Address.**

Client organisation:…BERKELEY HOMES (EAST THAMES) LIMITED……..

**Subject Address (One form per block)**

| Block or building name | Street | Town | Postcodes (all built) |
|---|---|---|---|
| B50 | Argyll Road | London | SE18 6PG, SE18 6PJ, SE18 6PP, SE18 6PL |

I confirm that I have used reasonable skill and care to investigate (Note 5) the primary external wall materials (typically insulation, filler materials and cladding) and attachments of the external walls of the above building/block.

**OPTION A (Note 1) – Where external wall materials are unlikely to support combustion**
I confirm that:

- I meet the professional body membership and competence criteria as described in Note 2
- In relation to the construction of the external walls, to the best of my knowledge the primary materials used meet the criteria of limited combustibility (Note 6) or better and cavity barriers are installed to an appropriate standard in relevant locations (Note 7)
- In relation to attachments to the external wall *(tick one of the following):*
  - ☐ **A1** - There are no attachments whose construction includes significant quantities of combustible materials (i.e. materials that are not of limited combustibility (Note 6) or better);
  - ☐ **A2** - There is an appropriate risk assessment of the attachments confirming that no remedial works are required
  - ☐ **A3 –** Where neither of the above two options apply, there may be potential costs of remedial works to attachments (Note 8)

**OPTION B (Note 1) – Where combustible materials are present in external wall**
I confirm that:

- I meet the professional body membership and competence criteria as described in Note 3
- I have used the reasonable skill and care that would be expected of the relevant professional advisor to assess the level of fire risk (Note 9) presented by the external wall construction and attachments *(tick one of the following)*
  - ☒ **B1 -** I have concluded that in my view the fire risk (Note 8) is sufficiently low that no remedial works are required
  - ☐ **B2 -** I have concluded that an adequate standard of safety is not achieved, and I have identified to the client organisation the remedial and interim measures required (documented separately).

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| | | | |
|---|---|---|---|
| Name | Dr James McGonigal… | Qualifications | PhD, MIFireE, C.Build.E, MCABE, MRICS |
| Organisation | Astute Fire…… | Professional body | Institution of Fire Engineers, RICS, CABE |
| Signature | …… | Date | 13/11/2020…….. |

## NOTES

**Note 1 -** This form includes two options. Option A is for buildings where the materials used in the external wall would be unlikely to support combustion. Option B is for buildings where Option A does not apply and a more detailed review (and hence higher level of fire expertise) is required. The signatory should use either the Option A approach or the Option B approach and delete/cross out the unused option. Within each option there are sub-options, the user should tick the box of the relevant sub-option.

**Note 2 –**For Option A, the signatory would need the expertise to identify the relevant materials within the external wall and attachments and whether fire resisting cavity barriers and fire stopping have been installed correctly. However, this would not necessarily include the need for expertise in fire engineering. The signatory should be a member of a relevant professional body within the construction industry.

**Note 3** - For Option B the signatory would need expertise in the assessment of the fire risk presented by external wall materials and should be a member of a relevant professional body that deals with fire safety in the built environment. This could be a Chartered Engineer with the Institution of Fire Engineers or equivalent.

**Note 4 –** Should there be a desire for a third party to rely on this form, they should contact the signatory's organisation.

**Note 5 -** The investigation must include evidence of the fire performance of the actual materials installed. For both Options A and B this would often include either a physical inspection by the signatory to this form, or inspection of photographic or similar information gathered by a 3rd party (subject to the signatory having sufficient confidence in that 3rd party). It would also include the standards of construction of key fire safety installations such as cavity barriers. Given the nature of external walls this would typically involve investigations in a limited number of locations (actual number to be determined by the signatory). Review of design drawings may assist but on their own would not be sufficient. If the wall construction includes multiple wall types, the investigation should include each type.

**Note 6 –** The term 'limited combustibility' is as defined in BS 9991:2015.

**Note 7 –** Cavity barrier fire performance and locations to be based on relevant fire safety design guidance documentation such as BS 9991 or relevant statutory guidance

**Note 8 -** In this situation the signatory should notify the client organisation that an appropriate risk assessment of the fire risk of the attachments might be required.

**Note 9 -** The assessment of fire risk as described above includes that insofar as is necessary to ensure a reasonable standard of health and safety of those in and around the building, all external wall constructions and any external attachments (e.g. balconies) of the building:

- Resist spread of fire and smoke so far as is reasonably necessary to inhibit the spread of fire within the building, and
- Are constructed so that the unseen spread of fire and smoke within concealed spaces is inhibited, and
- Adequately resist the spread of fire over the walls, having regard to the height, use and position of the building.

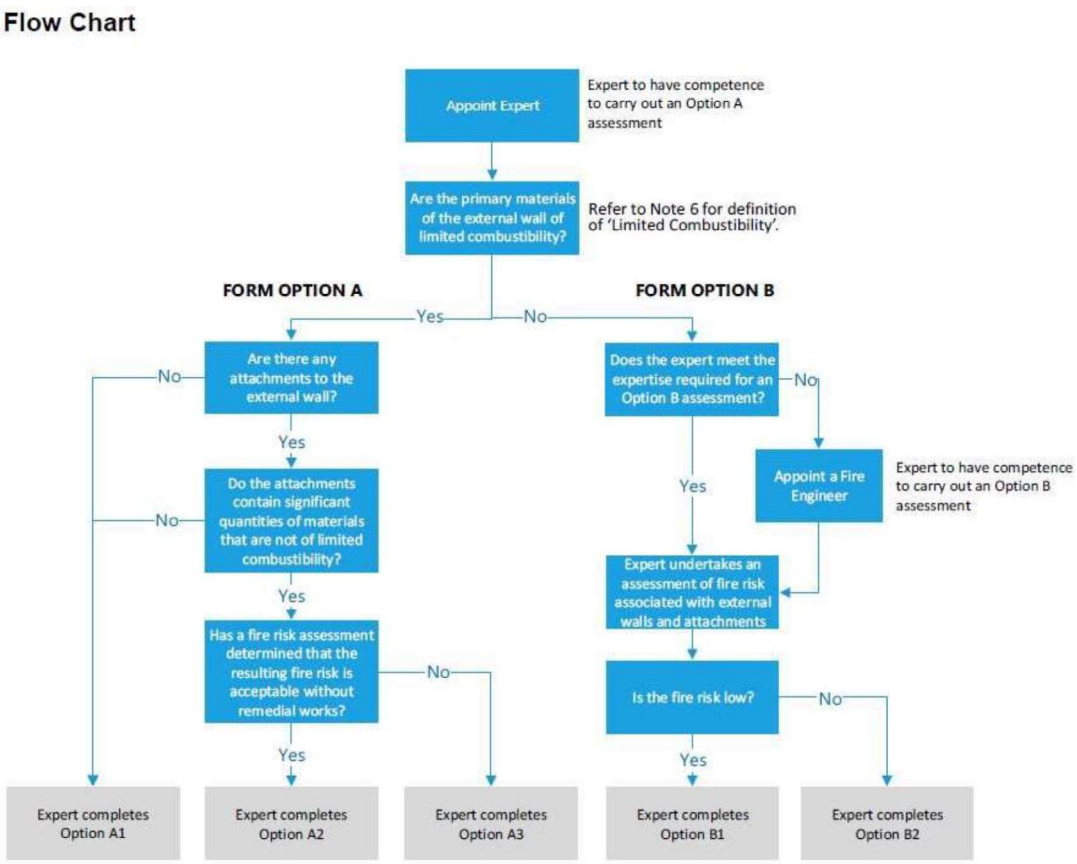
The assessment takes account of regulations and published design guidance as were current at the time of construction as well as those which are current at the time of this assessment. It cannot be guaranteed that it would address guidance and regulations which may be introduced in the future.

**Note 10 -** The signatory may wish to provide their client organisation with a separate report on their investigation to support their statements in this form. That separate report would not normally

need to be supplied to the valuer along with this form (unless there are specific issues which may require it).

**Note 11 –** This form will need to be reassessed if any significant changes occur to the external wall or attachments of the building and is valid for up to 5 years from the date at which it is signed.

## Flow Chart


Flow Chart
Appoint Expert
Expert to have competence to carry out an Option A assessment
Are the primary materials of the external wall of limited combustibility?
Refer to Note 6 for definition of 'Limited Combustibility'.
FORM OPTION A
FORM OPTION B
Yes
No
Are there any attachments to the external wall?
No
Yes
Do the attachments contain significant quantities of materials that are not of limited combustibility?
No
Yes
Has a fire risk assessment determined that the resulting fire risk is acceptable without remedial works?
No
Yes
Does the expert meet the expertise required for an Option B assessment?
No
Yes
Appoint a Fire Engineer
Expert to have competence to carry out an Option B assessment
Expert undertakes an assessment of fire risk associated with external walls and attachments
Is the fire risk low?
No
Yes
Expert completes Option A1
Expert completes Option A2
Expert completes Option A3
Expert completes Option B1
Expert completes Option B2