Curriculum Vitae of [redacted]

A P P E N D I X 1

CURRICULUM VITAE OF [redacted]

My full name is [redacted] and my date of birth is 9th [redacted]. I am a retired consultant scientist, my activities having largely been concerned with the investigation of the cause, spread and related aspects of fires in domestic, commercial and industrial buildings, plant and appliances.

My qualifications are:

- Bachelor of Science in Chemistry, University of Bristol;
- Master of Science in Fire Safety Engineering, University of Edinburgh.

After graduating from Bristol University in 1966, I worked until 1980 at the Government's Fire Research Station based at Borehamwood. During the first six years of this period, I carried out experimental work on fire extinguishing agents and systems. In 1973, I joined a Section which had newly been set up to investigate real fire incidents and provide feedback to research and Building Regulations. During the next seven years I investigated some seventy serious fires, mostly in schools and houses, in order to determine the factors responsible for fire growth and hazards to life. The results of this work influenced Building Regulations and helped bring about the legislation limiting the flammability of furniture.

In 1977, I attended the University of Edinburgh and graduated with an M.Sc. degree in Fire Safety Engineering. My dissertation *"*[redacted]*"* was presented at the 17th International Combustion Symposium.

I entered private practice in 1980 and established my own consultancy practice in 1982. In 1987, I expanded my business by entering into partnership to form a new consultancy, [redacted], specialising in the investigation of fires, explosions and accidents. The partnership was dissolved in April 2001 but I continued in sole practice until my retirement in 2016.

During my career I personally investigated some eight hundred fire incidents, both in the UK and overseas, including major fires such as those at the Stardust Club in Dublin, Pinewood Studios, Cricklewood Trading Estate, the Foreign Office, Kings Cross Underground Station, the Piper Alpha platform and Terminal 1, Heathrow airport. I acted as an expert witness in the civil and criminal courts, and gave evidence to public enquiries.

News Report by Parikiaki

A P P E N D I X 2

The following text and photographs are taken from the website of a newspaper serving the Greek and Cypriot communities – see https://www.parikiaki.com/2023/06/fire-at-terraced-houses-north-finchley/ . The text is identical to that on the London Fire Brigade website (https://www.london-fire.gov.uk/incidents/2023/june/fire-at-terraced-houses-north-finchley/) but I have changed the order in which the photographs are shown and have added captions to them.

PARIKIAKI

Ten fire engines and around 70 firefighters tackled a fire on Moss Hall Grove in North Finchley.

A row of four terraced houses was alight. One house was completely destroyed by the fire. Most of the adjoining houses were gutted by the fire. All three properties no longer have a roof due to the fire. The roof of a fourth property was also partially damaged. The gardens of all the properties were damaged by the fire.

Eight people left the houses before firefighters arrived, and around 30 people were evacuated from surrounding properties. There have been no reports of any injuries.

Crews used a 32-metre turntable ladder as a water tower to help tackle the fire. Although the fire has been brought under control, firefighters are likely to remain on scene throughout the afternoon and road closures will remain in place.

The Brigade's 999 Control Officers received 42 calls about the fire and used 999Eye to live stream the blaze from a smart phone to screens in the Control Room, allowing for greater visibility of the incident.

When a 999 call is received by the Brigade, the caller may be asked if they would like to provide a live video stream of the scene using their smartphone. The Control Officer will send a text message with a secure, one-time-use link that opens a live stream direct from the phone to the Control Room. 999Eye provides better situational awareness and allows us to offer the best advice based on live footage.

The Brigade was called at 1037 and the fire was brought under control by 1255. Crews from Hendon, Southgate, Mill Hill, Hornsey and surrounding fire stations attended the scene.

The cause of the fire has been recorded as undetermined.

The front of the houses. No 9 is on the left. No 15, the least damaged, is at the right-hand end of the terrace. Note that there has been no fire-spread across the uPVC cladding visible at the front of the terrace, despite severe fire conditions within the centre two houses seen in this view.

The rear of the terrace, showing the yard at the rear of no 13. Most of the smoke and steam is coming from the yard at the rear of no 11.

A later photograph of the yard at the rear of no 13. The timber fence at the rear of this yard has been destroyed. The section that would have been directly in front of the camera was probably torn down by firemen for access but that to the right has burned. The timber panel fence between the yards of 13 and 11 has been consumed by fire, as has the fence between 11 and 9. It appears from the debris that there were a large number of items in the yard of no 11, including a shed at the rear. All these items have been consumed by fire, as have some items in the yard of no 13.

The pattern of damage to the uPVC cladding corresponds to what I would expect from flame impingement from a severe fire burning close to the building and involving the whole width of the no 11 yard, plus the fences on either side. The flame impingement seemingly extended beyond the lines of the party walls, destroying areas of cladding on both no 13 and no 9.

A fireman is directing water into the rear of no 9.

London Fire Brigade: Summary Investigation Report

A P P E N D I X 3

LONDON FIRE BRIGADE

Fire Investigation Team

Report of fire showing supposed cause and summary information

This report is based on information currently available and may be subject to change.

Incident number: 081811-08062023 **Date and time of call:** 08/06/2023 10:37

Address of incident: 11 MOSS HALL GROVE, NORTH FINCHLEY, LONDON, N12 8PE

Type of property: House - single occupancy **Room/place fire started:** rear garden

Approx year of construction: **Was there a fire alarm system:** Yes

Most likely motive for fire: Not known **Source of ignition:** Undetermined

Fire caused by: Person, age not known **Powered by:** Undetermined

Supposed cause: Unable to determine

Make/model of appliance involved if applicable:

Material of item ignited first: Not known

Percentage damage to item ignited first: 100%

Material mainly responsible for development of fire: Plastic - raw material only

Summary of incident:

Were sample(s) taken for analysis: No

This report produced 13/06/2023
Fire Investigation Team, Dowgate Fire Station 020 8555 1200 ext 35700

Defect Action Sheets DAS 7 & DAS 8

A P P E N D I X 4

BRE Housing Defects Prevention Unit

Defect Action Sheet (Design)

CI/SfB 1976 B (27.2) (K2)

DAS 7

October 1982

Pitched roofs: boxed eaves — preventing fire spread between dwellings

FAILURE: **Spread of fire, within boxed eaves, between adjoining dwellings.**

DEFECTS: **No cavity barrier to close voids in boxed eaves at separating walls; incomplete separating walls.**

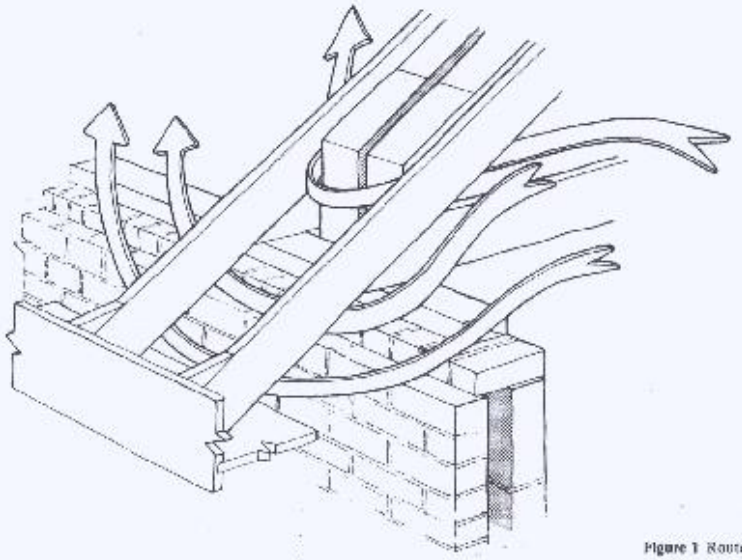

Figure 1 Routes for spread of fire at eaves

In a BRE Survey of house design and construction, there was found to be a potential route for fire between adjoining dwellings at every continuous 'boxed eaves' detail. Most also had other routes for fire past the end of separating wall (Figure 1) and some of these routes were wider than they might otherwise have been as a result of incomplete blockwork which had been concealed by the adjacent rafters from subsequent inspection. Fires are known to have spread between dwellings through these routes.

Since these defects are so common in boxed eaves, it is clear that designers and builders are generally unaware of their significance. The Building Regulations 1976, E8 (1) require a separating wall to be imperforate and to form a complete vertical separation between dwellings, including their roof spaces. There will be routes by which ***fire can spread between dwellings if the separating wall stops at the inner edge of the wall plate*** and if the ***voids within the boxed eaves are not closed.*** These defects are significant in all cases, and particularly so where there are habitable rooms in either roof space.

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PREVENTION

Principle — there must be a complete separation in the plane of the separating wall between dwellings, which cannot be by-passed by fire.

Practice

- Design to simplify the shape of the void to be closed. (A, Figure 2.) Consider extending the separating wall to the outer face of the external wall within the eaves.
- Do not carry the separating wall over an uninterrupted wall plate: movements in the timber will disrupt the brickwork or blockwork.
- Select material for filling the eaves void that can be readily cut to profile — or, better, that is sufficiently resilient to achieve a tight fit without gaps.
- Ensure that the filling material can be securely fixed without support from the soffit board: it must remain in place if the soffit board is destroyed by fire.
- Consider using:
  (a) Wire reinforced mineral wool, 50 mm thick, (B, Figure 2);
  (b) Mineral wool, wired to expanded metal lath for support;
  (c) Semi-rigid mineral wool batt, spiked or wedged in place;
  (d) Compressed mineral board cut to close fit;
  (e) Plywood, not less than 19 mm thick and treated with a flame retardant, cut to close fit;
  (f) Sand/cement (or pre-mixed vermiculite: cement) render on expanded metal lath.

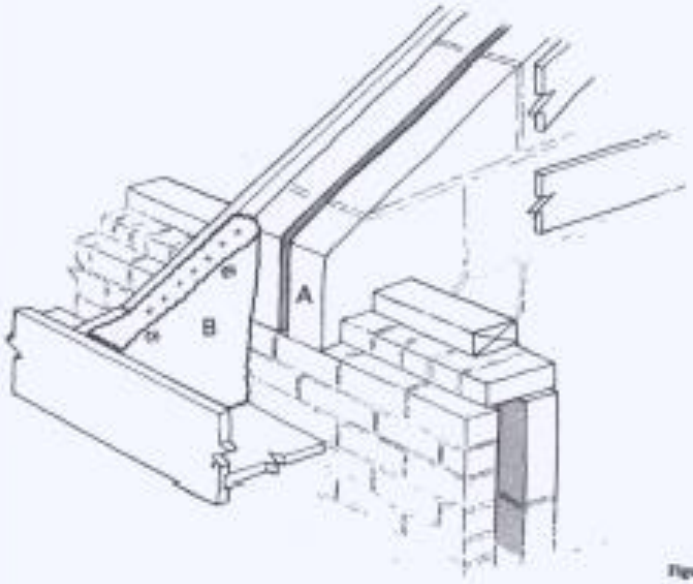

Figure 2

REFERENCES AND FURTHER READING

The Building Regulations 1976, E8 (1).

BRE Digests 214 and 215 'Cavity barriers and fire stops: Parts 1 and 2, 14p and 12p respectively. Obtainable from HMSO.

BRE Digest 218 'Cavity barriers and ventilation in flat and low-pitched roofs, 14p. Obtainable from HMSO.

BRE Housing Defects Prevention Unit

Defect Action Sheet (Design)

CI/SfB 1976
8 (27.2) (K2)

DAS 8

October 1982

Pitched roofs: separating wall/roof junction — preventing fire spread between dwellings

FAILURE: **Spread of fire over top of separating wall between adjoining dwellings.**

DEFECT: **Inadequate fire-stopping between the top of the separating wall and the underside of the roof covering.**

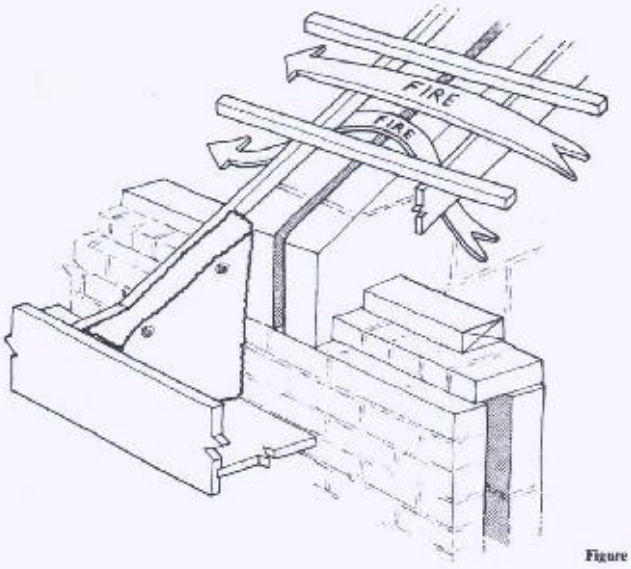

Figure 1 Routes for spread of fire over separating wall

A BRE survey of house design and construction revealed that fire-stopping at the top of separating walls is rarely effectively done. For adjacent small residential buildings, neither of which exceeds 12.5 m in height, the separating wall need not be carried up above the roof covering provided that the covering to the roof is non-combustible and the junction between the separating wall and the roof covering is fire-stopped. If the ***gap*** is ***not*** properly ***fire-stopped, fire can spread*** from one dwelling to the next.

There are three main ways in which defects occur. Sometimes no attempt is made to provide the necessary fire-stopping. In other cases the attempt is confined to inserting mineral wool between the top of the wall and the underside of the sarking felt after roofing has been completed, so leaving an unsealed void directly beneath the tiles. Alternatively, after battening, a mortar bed is trowelled onto the wall under and between the battens; this method also leaves unsealed voids beneath the tiles. Because the battens become supported by the mortar where they cross the wall, it also leads to subsequent hogging of the roof at the separating wall and possible displacement of the tiles.

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PREVENTION

Principle — there must be a complete separation in the plane of the separating wall between dwellings, which cannot be by-passed by fire.

Practice

- Ensure that the top of the separating wall, when trimmed to the slope of the roof and mortared if necessary to achieve a fair line, will be about 25 mm below the top edges of the adjacent rafters. This will minimise the risk of bogging of the roof.
- Select for fire-stopping a rock-wool, slag-wool or glass fibre quilt that is resilient enough to fill irregular spaces, but not so resilient as to lift or dislodge tiles.
- Ensure that, before felting and battening, the quilt is laid down the top edge of the separating wall, with the edges tucked between faces of the wall and adjoining rafters to keep it in place initially. (A, Figure 2).
- Ensure that, after felting and battening, lengths of quilt are laid between battens as tiling proceeds or fixed by spot sticking in place before tiling. (B, Figure 2).
- Instruct the site to check, either as tiling proceeds or later by lifting tile ends, that quilt is in place.
- Do not use intumescent materials — they are not suitable for this application.

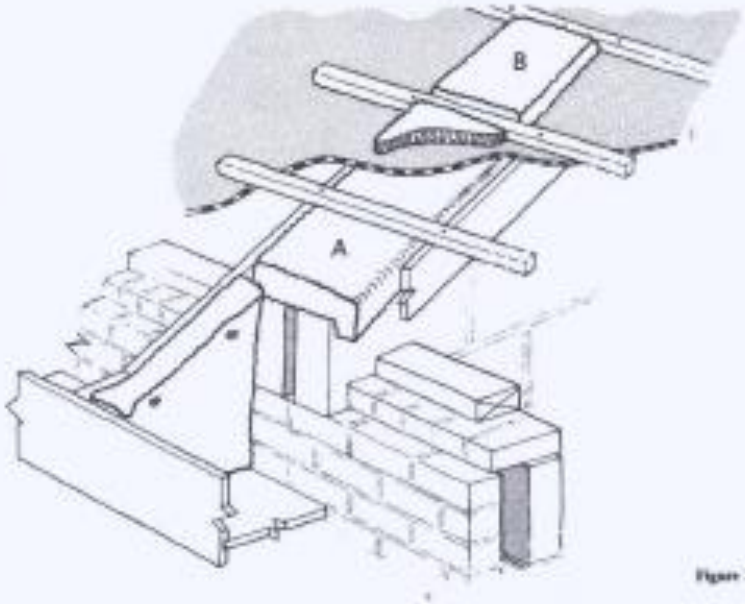

Figure 2

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