

Our Ref: JLR/22753

23 November 2017

By e-mail only

Holland Building Consultants Limited

For the attention of Mathew Holland

Dear Sirs

Re: 34 Eton Avenue, London NW3 3HL
Report on fire damage

Thank you for your instructions on 10 November 2017 to report on the extent of damage to the above premises arising from a serious fire in September 2017. I would report as follows:

1.0 Introduction and brief

- 1.1 No. 34 occupies a prominent position on the north side of Eton Avenue laid out over lower ground, ground, first, second and third floor for residential accommodation.



Front Elevation

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MEWS, LONDON WC1N 2QL

- 1.2 The third floor is in an attic storey with large dormer windows on each elevation.



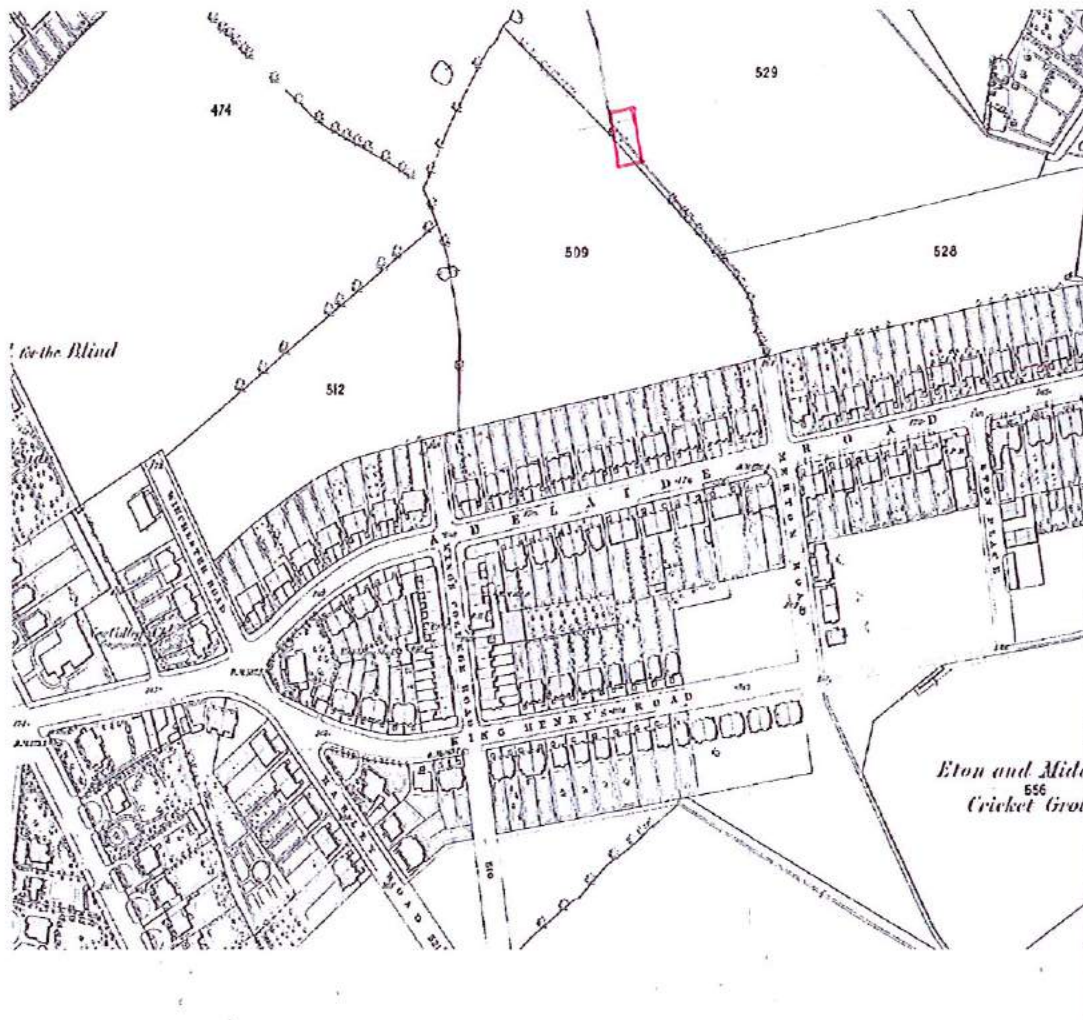
Typical dormer window (In this case east elevation)

- 1.3 The attic storey continues into a roof space over the third floor and it was in this space where a serious fire occurred in September 2017.
- 1.4 The purpose of this report is to record the findings from an initial inspection and to provide initial guidance on the likely extent of damage to the load bearing structure.
- 1.5 A site inspection was carried out on Wednesday 25 October 2017 when the weather was dry and bright.
- 2.0 Limitations of inspection and report
- 2.1 The inspection was limited to the third floor and roof space over. It was possible to access the scaffold platform erected as part of the temporary roof framework, allowing an external view of the roof from the west, east and north sides but not the south.
- 2.2 The inspection was purely visual at this stage with no opening up to expose key structural elements.
- 2.3 The third floor was still largely intact with fixtures and fittings in place which further conceal the load bearing structure.
- 2.4 No original drawings of the building which show the structural form and details have been found within the time allowed for this report. We have been given copies of lease plans dating from circa 2013 which show, at least in terms of the building structure, relatively modest internal alterations.

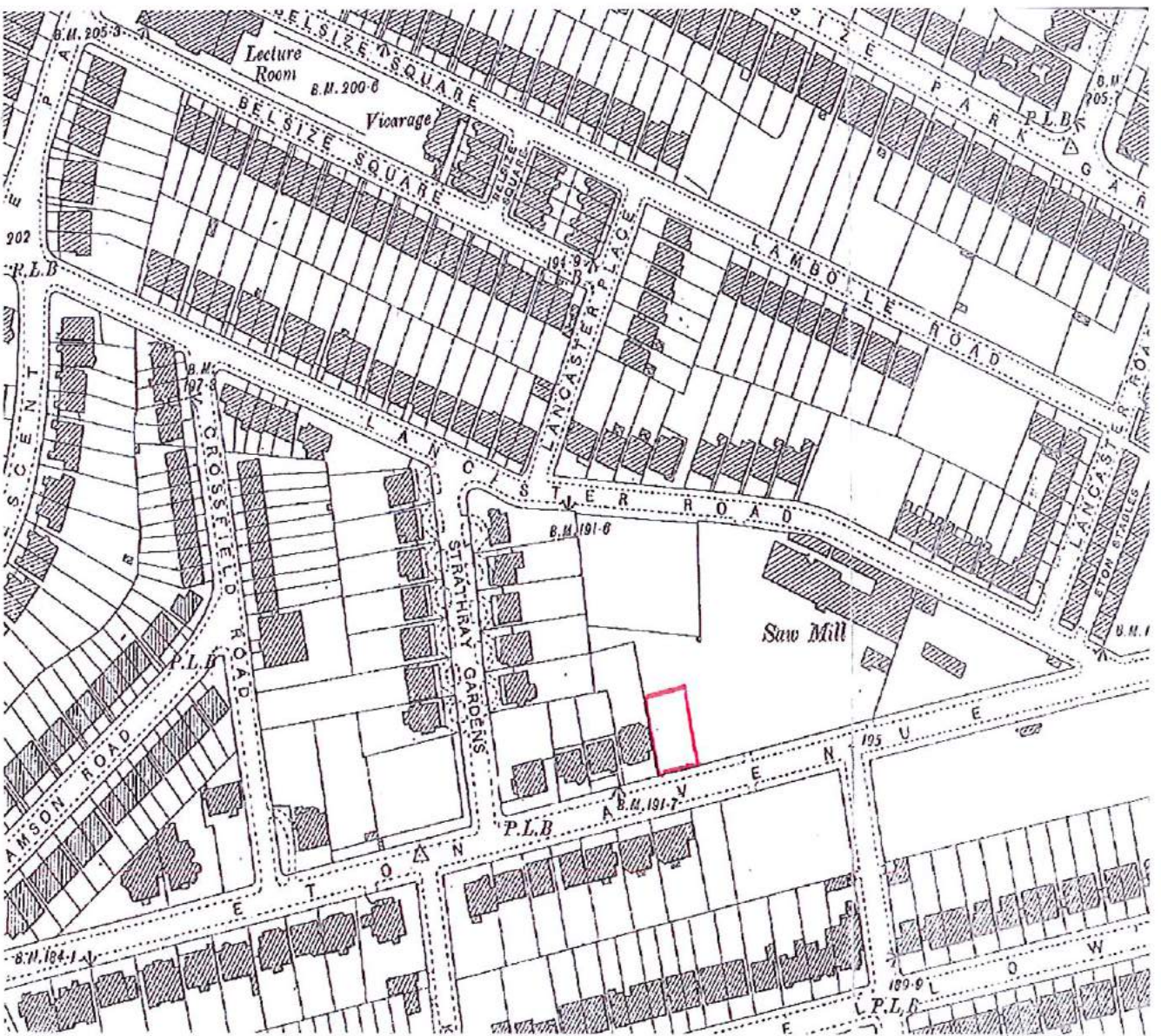
- 2.5 A full structural appraisal of the whole building has not been undertaken.
- 2.6 This report has been prepared for the sole internal use and reliance of Holland Building Consultants Limited their immediate Client and their client's professional advisers in connection with their present interest in the building. This report shall not be relied on by other parties without the express written authority of Hurst Peirce + Malcolm LLP. Neither the whole nor any part of this report, nor any reference thereto, may be included in any document or statement nor may it be published in any way without our prior approval in writing as to the form or content in which it will occur. If an authorised third party comes into possession of this report they rely upon it at their own risk and the authors owe them no duty of care and skill.

3.0 Background

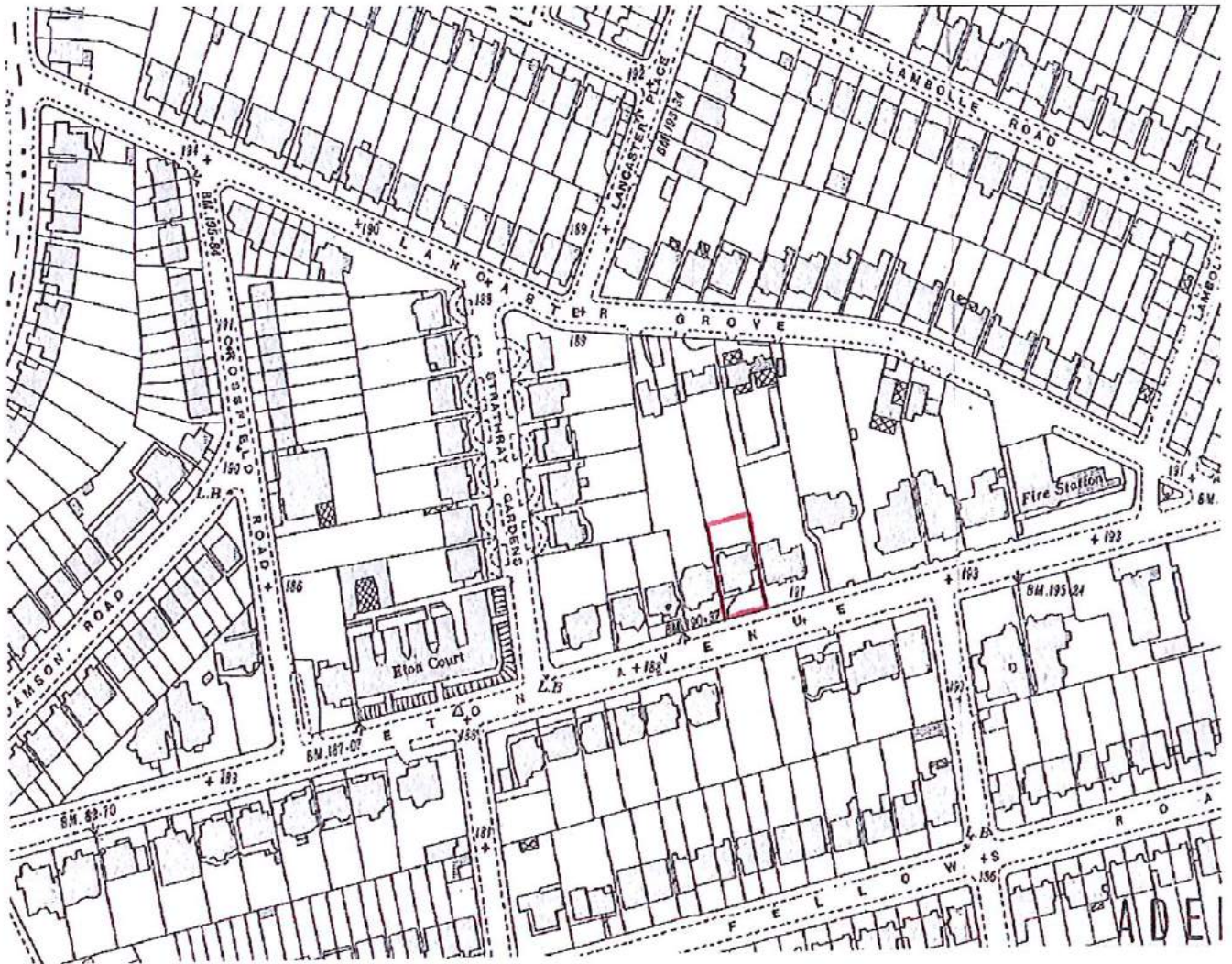
- 3.1 Historic maps / references including Ordnance Survey maps from the mid to late Victorian period suggest the building dates from the late Victorian period. See map extracts.



OS 1866 - 71



OS1894 - 96



OS1937

3.2 The building is Grade II listed with the description as follows:

Detached house. C1890. By Harry Measures; built by William Willett & Son. Red brick with terracotta dressings. Tiled hipped roof with cresting, dormers and tall brick chimney-stacks with terracotta friezes and cornices and terracotta modillion eaves cornice and frieze; gable to left hand bay. 3 storeys and attics. Irregular fenestration of 2 windows. Right hand entrance bay with projecting porch having terracotta basket arched opening with 3 lights above flanked by pilasters supporting an enriched frieze and swan-neck pediment; narrow window with swan-neck pediment to left. Porch supports a patterned cast-iron balcony to 1st floor 5-light bowed window, with central round-arched light, supporting a terracotta balustrade to 3rd floor segmental window. Gabled left hand bay with 5-light bowed bay of transom and mullion windows rising through 1st floor to support a balustrade to paired round-arched 2nd floor windows. Flemish type gable with key oculus, moulded cornice and ball finial. INTERIOR: not inspected.

3.3 It is likely to have been erected as one large grand residence and subsequently divided into separate flats. There was no access other than to the main access stairs and third floor flat and so no further assessment of significant changes to the structure has been made at this stage.

- 3.4 The main elevations include terracotta moulded details and unglazed tiles in the Arts & Craft style. See photo.



Front elevation showing moulded terracotta pediment / cresting details and unglazed tiles / blocks

3.5 WWII bomb damage maps for the area show the building did not suffer damage due to enemy ordnance / high explosives.



WWII bomb damage map

4.0 Structural form

- 4.1 Subject to opening up work on site including lifting floor boards the existing structural form is anticipated to comprise timber joist floors spanning between load bearing walls of either brick or timber stud construction.
- 4.2 The roof / attic construction can be seen in the roof space and in the fire damaged area as comprising cut timber rafters / hips, in a traditional carpentry roof.

- 4.3 The roof takes the form of a truncated pyramid with timber hip beams on each of the four corners supporting timber rafters. The rafters rise through the 3rd floor and attic space to a flat section in the centre of the building. See photo.



Flat roof to pyramid shaped roof structure

5.0 Observations from site

- 5.1 We believe from discussions with Mr Parritt on site and from our own observations that the fire started at ceiling level third floor or in the roof space immediately above the north gable window.
- 5.2 The fire caused extensive damage to the roof around the north gable window extending up into the roof space as illustrated in the following photos.



Badly charred rafter beams plus joists to the flat roof



Heavily charred joists to the flat roof section plus sarking boards burnt thro' locally



Further view of fire damaged roof section



Badly damaged rafters plus sarking boards above dormer window



The north dormer window construction is also heavily damaged

- 5.3 Whilst the fire seems to have occurred in the ceiling / roof over the dormer window some local burning of rafters extends locally down to the wall plate at third floor level. See photo.



Fire damage to rafters extending down to timber wall plate at third floor level

- 5.4 It was evident that there was water staining to the ends of the third floor joists where they bear on to the north elevation wall.



Water staining to rafters in vicinity of north dormer window

On closer inspection we could discern mould growth on these joists and note that the conditions for wet and / or dry rot were present. It is assumed the water was provided by the brigade in extinguishing the blaze for there were no direct signs of an on-going leak. Note, we have not at this stage inspected the floor beneath to establish the extent of water damage arising from the blaze and actions taken by the fire brigade to extinguish it. The spores can be seen in the following photo.



Spores on 3rd floor timber beam which was showing signs of water staining

- 5.5 The roof space included stored goods, a boiler, water tanks and was in part boarded out making it difficult to undertake a full inspection. See photos.



Stored goods and floorboards in roof space



Boiler in roof space



Lagged water tanks in roof space



Water tank (assumed redundant?) in roof space



Stored goods in roof space

- 5.6 A sketch of the roof structure together with a provisional assessment of the extent of damage is included as drawing 22753 / SK01. See attached.
- 6.0 Discussions
- 6.1 The fire seems to have started in or about the level of the third floor ceiling in the north west corner of the building. It spread around the roof void causing significant damage to the roof structure above badly damaging a number of rafters, the trimmer beams to the flat roof and burnt through the sarking boards in a number of places.
- 6.2 The fire spread across the dormer to the master bedroom (bedroom 1) causing damage across its roof structure, both sides and extending down on some rafters to the timber wall plate at third floor level. See photos.



Dormer cheek burnt away



Charring of rafters down to third floor wall plate

- 6.3 It is clear that the 3rd floor was to an extent partly saturated, presumably due to water used by the brigade to extinguish the blaze and probably also due to rain ingress before the temporary roof was erected.
- 6.4 A provisional of the area where the structure is likely to have been affected by the fire is marked on drawing 22753 / SK02 – see attached. This area is subject to alteration / amendment after to further investigations / opening up on site.
- 6.5 The likely scope of work is as follows:
- 6.5.1 Inspect ceiling of 2nd floor flat for damage. Take further action as appropriate.
 - 6.5.2 Prepare a detailed schedule of conditions for second floor flat.
 - 6.5.3 Carefully erect propping to ceiling of fire damaged area at 3rd floor (mainly in master bedroom). Propping likely to take the form of acrow props and timber head plates.
 - 6.5.4 Carefully prop fire damaged areas of roof structure above third floor ceiling co-ordinating props with those on the floor below.
 - 6.5.5 Once propping in place and damaged structure secure in the temporary state, adapt external scaffold framework / temporary roof to provide a safe working platform around the damaged roof.
 - 6.5.6 Carefully remove existing clay tiles remove and store in a safe location for re-installation at a future date.


- 6.5.7 Record mark type, size, dimensions etc. of clay tiles and record extent / amount of damaged tiles. Take steps to source replacements.
- 6.5.8 Carefully clear internal roof space of fire damaged materials, tanks etc. Note it will be necessary to re-plumb or plumb in a new water tank(s) to maintain supplies to the flats below.
- 6.5.9 Carefully dismantle fire damaged sections of the roof timber framework. Note it will likely be necessary to introduce temporary propping and some existing fire damaged timber sections may be retained if sufficient undamaged sections remain.
- 6.5.10 Continue the local dismantling of timber framing down to 3rd floor level around the dormer window.
- 6.5.11 Establish extent of fire damaged framing and agree with contract administrator / insurers.
- 6.5.12 Consider extent of water damage in third floor.
 - (i) check second floor ceiling below
 - (ii) Establish via timber rot specialist / consultant extent and / or risk of rot of timber section in third floor due to water ingress and agree extent / scope of remedial work needed with contract administrator / loss adjuster
 - (iii) Complete remedial work in third floor / second floor ceiling
- 6.5.13 Re-build timber framing to roof structure replacing charred / burnt timber with new to match the existing working from third floor up.
- 6.5.14 Re-construction to include insulation etc. to comply with building regulations to architects details and subject to agreement with insurers.
- 6.5.15 Re-build dormer window and roof.
- 6.5.16 Replaced fire damaged sarking boards.
- 6.5.17 Lay mineral fibre roofing etc. to architects details place battens and re-fix existing roofing tiles with new / replacement tiles substituted where necessary and in a pattern sympathetic to the original.
- 6.5.18 Renew / replace flashing details including lead soakers etc. as necessary.
- 6.5.19 Apply new roof membranes to flat areas and gutters to architects details.
- 6.5.20 When re-building work is complete carefully dismantle existing temporary roof and scaffolding.
- 6.5.21 All work requires listed building consent before proceeding.

7.0 Conclusions

- 7.1. The building which is believed to be 120 years old includes residential apartments at five levels.
- 7.2 A serious fire in the 3rd floor flat in September caused significant damage to the north west quarter of this floor and the roof space above.
- 7.3 Local re-building of this area is required as set out in section 6.0 above re-using existing materials where there are undamaged and can be re-used. Existing elements will be retained wherever possible.
- 7.4 The full extent of fire damage is subject to further opening up work on site but is believed to be limited to the 3rd floor and roof timber structure.

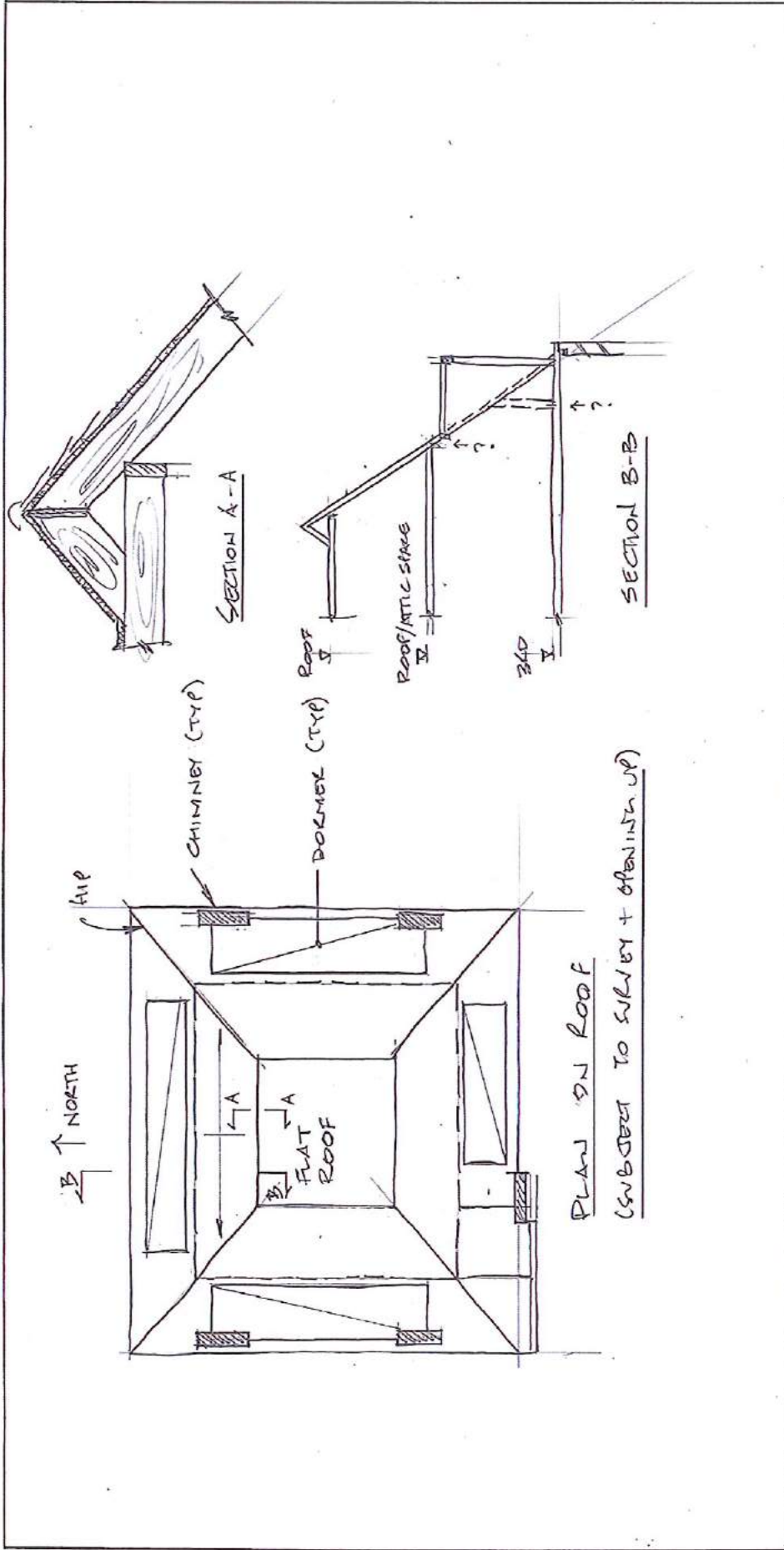
I hope this is sufficient for your present needs. In the meantime if I can be of further assistance please do not hesitate to contact me.

Yours sincerely

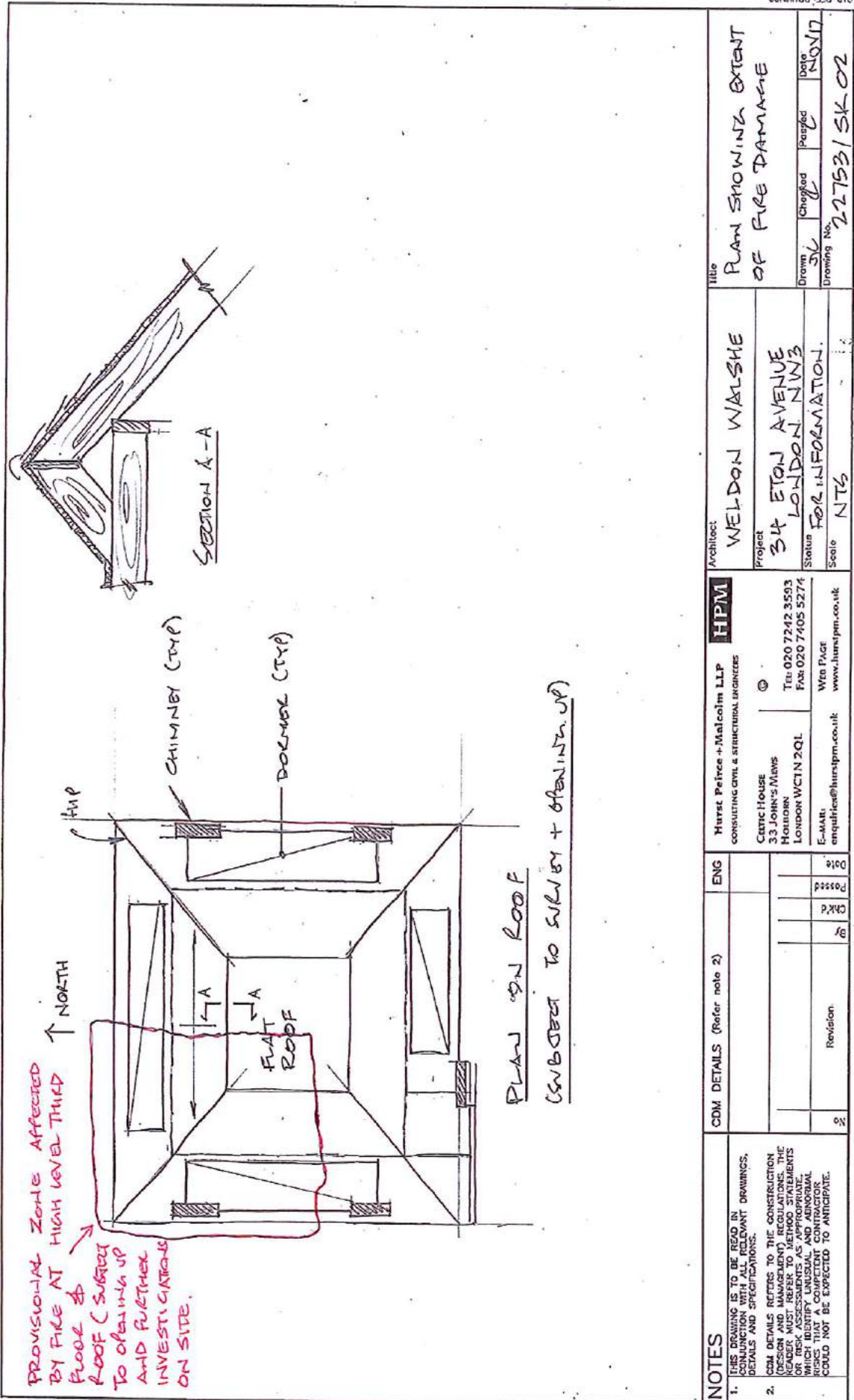


John Redmond
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Encs.



<p>NOTES</p> <p>1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT DRAWINGS, DETAILS AND SPECIFICATIONS.</p> <p>2. CDM DETAILS REFERS TO THE CONSTRUCTION (DESIGN AND MANAGEMENT) REGULATION. THE DRAWING IS TO IDENTIFY RISKS AND ELEMENTS OR RISK ASSESSMENTS AS APPROPRIATE WHICH IDENTIFY UNUSUAL AND ABNORMAL RISKS THAT A COMPETENT CONTRACTOR COULD NOT BE EXPECTED TO ANTICIPATE.</p>	<p>CDM DETAILS (Refer note 2)</p> <p>ENG</p>	<p>HPM</p> <p>Hurst Peirce + Malcolme LLP CONSULTING CIVIL & STRUCTURAL ENGINEERS</p> <p>Celtic House 33 JOHN'S MEWS HOLBORN LONDON WC1N 2QL</p> <p>Tel: 020 7242 3593 Fax: 020 7405 5274</p> <p>E-MAIL: enquiries@hurstpm.co.uk WEB PAGE: www.hurstpm.co.uk</p>	<p>Architect</p> <p>WELDON WALSH</p>	<p>Title</p> <p>ROOF PLAN + SECTIONS</p>
	<p>Revision</p> <p>By</p> <p>CR'd</p> <p>Passed</p> <p>Date</p>	<p>Project</p> <p>34 ETON AVENUE LONDON NW3</p>	<p>Drawn</p> <p>SK</p>	<p>Checked</p> <p>PK</p>
<p>Scale</p> <p>NTS</p>	<p>Status</p> <p>FOR INFORMATION.</p>	<p>Drawing No.</p> <p>22753/SK-01</p>	<p>Scale</p> <p>NTS</p>	<p>Drawing No.</p> <p>22753/SK-01</p>



PROVISIONAL ZONE AFFECTED BY FIRE AT HIGH LEVEL THIRD FLOOR & SUBTILE ROOF (SUBJECT TO OPENING UP AND FURTHER INVESTIGATIONS ON SIDE).

PLAN ON ROOF
(SUBJECT TO SURVEY + OPENING UP)

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	<p>3/</p> <p>CRK</p> <p>Pass</p> <p>Date</p>	<p>Hurst Peirce + Malcolm LLP CONSULTING CIVIL & STRUCTURAL ENGINEERS</p> <p>CETIC HOUSE 33 JOHN'S MANS HOLBORN LONDON WC1N 2QL</p> <p>E-MAIL: enquiries@hurstpm.co.uk Web Page: www.hurstpm.co.uk</p> <p>Tel: 020 7242 3503 Fax: 020 7405 5274</p>	<p>WELDON WALSHE</p> <p>Project: 34 ETON AVENUE LONDON NW3</p> <p>Status: FOR INFORMATION.</p> <p>Scale: NTS</p>	<p>HPM</p>	<p>WELDON WALSHE</p> <p>Project: 34 ETON AVENUE LONDON NW3</p> <p>Status: FOR INFORMATION.</p> <p>Scale: NTS</p>
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