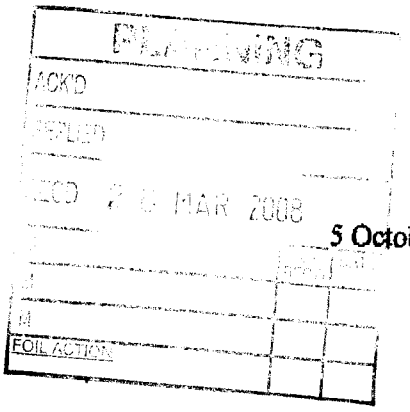
F SUMMERFIELD

BScTech(Hons), CEng, FICE, MIStructE
Chartered Consulting, Civil, Structural & Municipal Engineer,
Planning Supervisor & Party Wall Surveyor. [Part of Torplan Ltd]
216 Heaton Moor Road, Stockport SK4 4DU
Tel: 0161-443 1881. Mobile: 07802-296027. Fax: 0161-431 0786
Web Site: http://www.torplan.co.uk/engineer; E-mail: fs@torplan.co.uk

Mr P Lau
Woo Sang
19-21 George Street
Manchester
M1 4HE



Ref: FS/jms/GeorgeSt/051007/1

5 October 2007

Dear Peter

Re: George Street, Manchester

Thank you for your kind instructions in this matter. The comments that follow are based upon a single site visit and a visual inspection and the opinions are on a balance of probabilities after due consideration of the details. No attempt has been made to carry out any inspection of hidden parts and no special means have been used to gain access or to assess any aspect of the property.
The property faces north onto George Street for the purposes of this report.

The consideration under review is that of the roof structure.

General exterior
The north, front wall is rendered and over a half and a full storey from the top there is evidence of damp penetration behind the render. This will demand external repairs to this area if not the whole frontage with the risk of brickwork renovation being necessary.

The exposed west flank has been fully secured by the construction of a full height new wall immediately against the structure of the subject property and in good condition.

The inside east, flank is against a taller building to the east and is comprised of a nominal 345mm width independent from its neighbour. Save for a short length in the middle, it is fully protected. Two stub chimney stacks exist on the outside in fair/poor condition.

The south wall is generally satisfactory save for the top lift and apexes which show extensive evidence of damp penetration and brickwork deterioration.

Roof
The roof at 19-21 George Street – Woo Sang - covers the fourth storey of a Victorian period warehouse – with basements – that have been blended into a full floor at each level by the infilling of a central light well.
The area covered is some 290 sq m.

It is comprised of two east light roofs running north/south which trim the original centre light well and run into the east/west pitched roof over the northern frontage. A flat roof covers the original centre light well.
All the roof coverings are in green mineralised felt throughout.
The east lights – two sets – are still in position and glazed under the felt.
There is extensive lead valley guttering that appears to be sensibly level if not backing up back to the original drainage outlet in the light well i.e. there is a high risk at all times of backing up and ponding evidence by level and negative fall.
The original structure had its rainwater drainage conducted away via the two rainwater drops still existing in the original central light well.

The roof generally leaks in many positions and there is strong direct evidence of rainwater penetration of an imprecise nature affecting the front and back walls particularly and intermediate locations in between.

Comments
Structure
The structure supporting the roof is composed of heavy section 'A' frames supported off cast iron posts which, superficially, appear to be in fair condition but there is evidence of seriously deterioration occurring that places the whole at risk to fungal infection since already endemic dry rot has been identified in a repaired section and the trend in structures that become infected can expect to be under duress from recurrent attacks within the foreseeable future. The difficulty that is presently to be addressed is the nature and extent of unseen and currently uncovered infection where built in timber cannot be inspected. This is a risk that is significant and places the wisdom of building over with new materials into considerable doubt and generally suggests that a prudent course of course of action will be to replace the roof framing structure completely.

East lights
The east lights, as they stand, are useless and require extensive repair/restoration which will be intricate as well as expensive to effect.

Roof drainage
The box and valley guttering needs a complete rethink since the current format is prone to easy blockage and backing up problems which need to be alleviated.

Estimated contract period
This is likely to be not less than 3 months and could exceed six months.

In the event that an independent roof is to be installed covering the whole area and eliminating the need to spend intricate detailed work on the existing roof the work content of the project will be altered but not materially altered since remedial works are still necessary.
The supporting structure for the new roof could be built up internally by working on each base wall and breaking through at the last minute.
The problem of this style of working is that the belief that the top floor can be retained in commercial operation/use is likely to be unsound/unacceptable for health & safety as well as cost reasons.

There is no reason to believe that the works – whichever is chosen – will be impossible to undertake but there has to be taken into account a high premium for the location and the confined operation of the works. It is highly unlikely that continuance of use of the top floor would be viable as a practical proposition for a prudent contractor excepting or unless extensive provisions are made that may be, in themselves, expensive.

The rate of return of the investment is likely to be very low and it will be all but impossible to carry out any refurbishments without replacing the roof.

Yours sincerely

Frank Summerfield