

1 August 2019

A5653/1/JDM/NG

Mr M Eddison  
MEB Design  
70 Churchill Square  
Kings Hill  
West Malling  
ME19 4YU

**BY E-MAIL AND POST**

Dear Mark

**Balcony Ceiling Reconstruction, St John's Downshire Hill**

I confirm the matters discussed in our emails and on the telephone. The issues related to balcony defects have been part of our brief and reporting over the last 18 months or so.

As reported after earlier inspections, the failure of the ceiling below the balcony was as a result of local failures in the supporting timber structure, which are to be repaired.

The balcony ceiling has been largely lost, which is a result of both the structural defects and liveliness in the system of framing.

The options for replacement of the ceiling include: use of a recognised lime-based system, such as a two-coat lime plaster over woodwool boards with hessian scrim (by Savolit or similar) or a thicker and heavier two or three coat plaster-and-lathe. The first option weighs perhaps 35-40kg/sqm and the second perhaps 55-60kg/sqm;

Balcony structures can be lively and there will almost certainly be vibration of floor and ceiling during use. The woodwool option offers a more secure fixing than the plaster-and-lathe. It also provides a breathable backing specifically designed to receive lime plaster and fixed with bespoke gripping washers, whereas the plaster and lathe relies on the plaster curls to keep the ceiling from falling, which dry and embrittle over a long period of time.

On balance, we therefore consider that a lime-based system on woodwool slabs would be preferable to the plaster-and-lathe for the balcony ceiling in this building, from the point of view of both weight and integrity.

Please do not hesitate to contact me should you wish to discuss matters further.

**CTP Consulting Engineers**

Suffolk House  
154 High Street Sevenoaks  
Kent TN13 1XE UK  
T: +44(0)1732 740195  
[www.ctp-llp.com](http://www.ctp-llp.com)

**Partners:**

Neil G Taylor BSc (Hons) CEng MStructE  
Michael di Palma BSc (Engl) Hons CEng MICE  
Chris Clark CEng MStructE MICE MCS  
Richard King BEng (Hons) CEng MStructE

**Senior Associates:**

Peter Hawkins BEng (Tech) Hons CEng MICE  
Neil Casey BEng CEng MStructE

**Consultants:**

James Miller MA CEng FICE FStructE  
Conservation Accredited Engineer  
Michael Beare EURING, BSc CEng MICE FStructE  
Conservation Accredited Engineer  
Andrew Coomber BSc CEng MICE