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Our Ref 2018 039

Date: 10th June 2019

Alex Taylor
MSA Ltd.
The Workshop
26 Lambeth High Street,
London
SE1 7AG

Dear Alex

RE: 5 GREAT JAMES STREET.

With regard to the unstable masonry chimney stack at the above, further to your email today, we can confirm that we have carried out checks in accordance with current regulations in terms of the chimney stacks capacity to resist lateral wind pressures.

From these checks we have determined that the resistance of the masonry to the applied theoretical design wind loading is not sufficient to produce a satisfactory factor of safety [1.5]. On this basis, and to avoid altering the aesthetic of the stack we have recommended to re-build the stack to its current height, as stipulated by the conservation officer, with the introduction of bed joint reinforcement to enhance the capacity of the rebuilt stack to resist the applied overturning forces.

As you know our previous advice was to lower the stack by approximately 1.2m which would have reduced the applied wind load. The capacity of the reduced masonry stack would have been such that a sufficient factor of safety [1.5] would be in place. It may then have been possible to repair the stack in situ without the need for rebuilding.

In summary it is the stacks current height that produces an insufficient factor of safety against overturning which requires it to be reduced and rebuilt with the introduction of bed joint reinforcement.

We trust this gives adequate explanation as to the structural thought process in determining the remedial works for this chimney stack, and enables you to conclude your application with the planners.

Should you require any further information do not hesitate to contact us.

Yours sincerely,



Richard Payne.
B.Eng (Hons) C.Eng M.I Struct.E