

Barry

From: Mike
Sent: 07 December 2015 17:27
To: Barry
Subject: New Compton St

Dear Barry

I refer to our recent discussions regarding the rationale for removal of the late 20th century brick parapet from the original brick boundary retaining wall.

The modern parapet is effectively plumb and the original wall beneath leans by about 110mm over the retained height of 1.5m. Based on site observations we believe the wall to be nominal one and a half bricks thick widening to two bricks thickness a short distance down from lower ground level. In due course these assumptions will need to be checked and I wonder if permission to undertake drill holes through the wall could form part of the listed buildings application?

For modest degrees of lean, the dead weight of the parapet would tend to assist stability by imparting a restoring moment proportional to its weight. For larger lean where the centre of gravity is outside the middle third the opposite applies and the additional dead weight will add to the adverse forces, exacerbating the situation and causing the rate of movement to accelerate. In this instance the degree of lean lies between these two states and, as it stands the parapet has neither a positive or negative influence of the old wall that off of which it is built.

Failed or failing retaining walls only do one of two things: They remain in static equilibrium or they continue to move. Unless the loading regime changes a wall that has already moved, is likely to start to move again under the influence of small, probable episodic changes. The monitoring in 2014 tends to indicate that situation here.

In essence, the stability of the wall is not going to spontaneously improve - .i.e. it can only get worse. If and when the lean does increase, the weight of the parapet will quickly prove to be a liability. It is for this reason that removing the parapet is advisable as an adjunct to the proposed strengthening.

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for

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45 NEW COMPTON ST / ST GILES

Date:

BOUNDARY RETAINING WALL
STABILISATION

Job no:

Page:

