

KSIMC OF BIRMINGHAM
17 CLIFTON ROAD
BALSALL HEATH
BIRMINGHAM
B12 8SX

A REPORT

ON A

TRIAL PIT INVESTIGATION

PREPARED BY:

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1 INTRODUCTION

On instructions received from Mr Shaheed Fazal on behalf of KSIMC of Birmingham we have been instructed to organise a Trial Pit Investigation at the site in 17 Clifton Road, Birmingham, B12 8SX so as to assess the foundations of the existing building for the possibility of various extension proposals.

All references to left and right are given facing the front of the building, unless specifically noted otherwise.

2 TRIAL PITS

Seven trial pits were excavated at the approximate location shown on the attached drawing, 212745/S/01.

The detail of each trial pit is shown on the attached drawing, 212745/S/02.

Generally the trial pits show the foundations to the existing buildings are taken to a depth of around 1000mm below ground level. Here they are founded on a mix of sand and gravels and in other locations a clay material.

At all of the locations, the bearing strata to the foundations appeared firm and sound.

The MacIntosh Probe readings taken at the underside of the foundations showed a variation as would be anticipated with the variation in the bearing strata. However, all of the MacIntosh probe results indicate a competent bearing strata. The trial holes were extended to around 1500mm which show that at all locations the bearing capacity of the soils was increasing rapidly.

Taken overall, the MacIntosh probe readings beneath the foundations, show an average reading of between 20 and 25 is equivalent to a standard penetration SPT of 16 to 20, this would equate to an allowable pressure of approximately 150kN/m².

I have undertaken brief calculations that show that the current bearing pressure will be of the order of 90kN/m².

Having reviewed the various options you are looking at for the proposed alterations, the worst case would be a third storey to be added to the existing main building, in this case bearing pressures would increase to the order of 140 to 150kN/m².

3 CONCLUSIONS

Based on the investigations undertaken to date, and a preliminary estimate of the likely increase in bearing pressures should the alterations you are proposing be proceeded with the existing foundations are adequate to support the imposed loads.

It should be borne in mind, as with any site investigation, the information obtained is only valid at the location of the trial hole and as part of the development works itself further investigations may be required.

The likely level of foundation loading should also be reassessed as the project develops and confirmed details of the proposed alterations are known.

It should also be accepted that when any load is added to a foundation there is always a risk of some slight differential movement as the foundations take up load, however, based on the investigations undertaken to date, the risk of significant differential settlement is minimal, any movement which does occur will be adequately dealt with by routine re-decoration.

We have not inspected woodwork or other parts of the structure, which are covered, unexposed or inaccessible and we are therefore unable to report that any such part of the property is free from defect.

16 August 2012

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