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ICO/QSF 0.0 #1
04 April 2001

FOR THE ATTENTION OF MARK HUELIN

Dear Mark

**FAN PRESSURISATION TEST AT
2 THE ABBEY GARDENS, WESTMINSTER**

We are pleased to present the results of the fan pressurisation tests carried out on room G08 at 2 The Abbey Gardens, Westminster. The tests were carried out before and after *Quattro Seal* draught proofing materials were applied to the four opening lights in the room. The objective of the test was to establish the reduction in air leakage rate once the draught proofing was applied.

The airtightness of the building fabric has been measured using the fan pressurisation technique. The results are expressed in two ways; as the number of air changes per hour at a reference pressure difference of 50 Pascals (air leakage rate), and as an air flow rate per unit crack length of opening window. The later has the advantage of being independent of the building shape and size allowing a comparison of the measured values.

The method for carrying out a fan pressurisation test and analysing the data is described in *Determining the airtightness of buildings by the fan pressurisation method: BRE recommended procedure*. On the day that the tests were carried out the wind was a gentle breeze from the south-west and the external temperature was approximately 11C. The room was heated to normal occupancy temperatures of approximately 21C. The results of the tests are presented in the table below.

continued

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	Air flow @ 50 Pa (m³/h)	Volume air change rate @ 50 Pa	Air leakage per m of crack length @ 50 Pa
Before	592.36	15.8	64.67
After	314.91	8.4	34.38

Notes

1. Room volume 37.55 m³
2. Crack length around opening lights 9.14 m.
3. Permanent ventilator in external wall not masked off.

From the measurements carried out a 47% reduction in air leakage rate resulted from the use of draught sealing to the windows in room G08. Following the application of the draught proofing materials no air movement could be detected around the opening lights.

We trust the results are self-explanatory, but should you have any queries, please do not hesitate to contact us.

Yours sincerely
RICKABY THOMPSON ASSOCIATES LTD



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