

13 December 2001

Canterbury Earthquakes Royal Commission
PO Box 14053
Christchurch Mail Centre 8544
CHRISTCHURCH

Attention Mr M Zarifeh

By Email: Mary-Ann.Hutton@royalcommission.govt.nz

Dear Sir

265-271 MANCHESTER STREET (173 GLOUCESTER STREET)

Further to your letter of 28 November 2011, I have provided responses to your request for information below.

1. My full name, qualifications, and years of experience

My name is Graeme Roy Hamilton, my qualifications and memberships are Bachelor of Engineering (Civil), Member of the Institution of Professional Engineers of New Zealand, Chartered Professional Engineer, International Professional Engineer, I have been practising for 25 years.

2. How you came to carry out the inspections of the building, in particular what you were asked to do.

My company, Maxim Projects Limited ("Maxim"), was requested to carry out the crack repair work recommended by OPUS in the Rapid Assessment Form – Level 2 dated 14 September 2010. Maxim is a design/build/construction company. Maxim protocol at that time was for an inspection to be carried out in accordance with the New Zealand Society for Earthquake Engineering (SESOC) document "Building Safety Evaluation During a Declared State of Emergency - Guidelines for Territorial Authorities" prior to any work being undertaken to review the scope of repair work required and in order to ensure that Maxim employees were able to go about their work with the likely risks associated with the building having been reviewed. I am qualified to carry out this review. Maxim was not instructed to carry out the inspection and indeed we were questioned by the owner's insurance broker as to why this would have been completed when OPUS had already undertaken this work.

The report was for internal purposes only.

3. The nature and extent of the inspections on 20/09/2010

The nature of the inspection was a visual examination of the observable damage, to cross check against the OPUS report and to confirm that our staff would be safe in undertaking the crack repair work requested. Our inspection was undertaken in accordance with the SESOC guidelines and forms.

4. In carrying out the inspection did you take into account any of the following:

- a. *The impact of the 4 September 2010 earthquake and any subsequent aftershocks on the structural integrity of the Building and in particular whether the Buildings capacity to withstand future aftershocks was diminished as a result.*

I was aware of the recommendations of the OPUS report and considered that they were reasonable. I consider that after the completion of the recommended repairs the building would have been in a better position to withstand future aftershocks.

- b. *Any information from GNS or any other source about the likelihood, location and extent of further aftershocks? If so please provide details of this information.*

No additional information from GNS or any other source was formally reviewed. It is accepted knowledge that after a major earthquake event that there will be a series of aftershocks of diminishing energy. The exact nature and frequency of these cannot be forecasted with any certainty

- c. *Information from the Christchurch City Council relating to building standards or the inspections of buildings following an earthquake, If so please provide details of this information.*

Reference had been made the CCC guidelines recommending the use of the SESOC guidelines for inspections.

- d. *Information from any other party relating to building standards or the inspections of buildings following an earthquake? If so please provide details of this information.*

The inspection was carried out in accordance with the SESOC guidelines for Level 1 / 2 inspections

- e. *The building plans*

No building plans were available.

- f. *The Christchurch City Councils earthquake prone policy and whether the building complied with that.*

As the building is of double brick construction I assumed that it would be listed as an earthquake prone building on the CCC database and would have required to be brought up to a recommended level of earthquake capacity if a building consent application had been lodged for any significant works. In the absence of that application there would have been no requirement for any upgrade work to have taken place.

- g. *Whether any previous structural strengthening had been carried out.*

The building had some evidence of previous structural improvements. These included:

- The parapets had been removed down to the concrete capping band, in all areas other than the south-western side. We removed the remaining portion as a part of our repair works after we recommended that it be done.
- Steel bands were in position to support the window lintel openings on the western side.

5. *Copies of any other documentation or photographs that were not included in the rapid assessment documentation included above.*

Copies of all of our photographs are attached. (With the hardcopy)

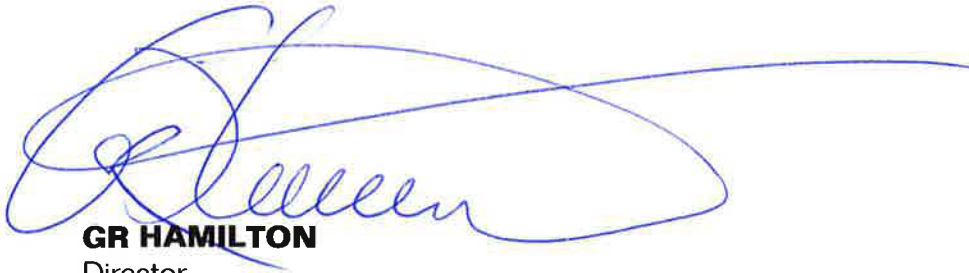
6. *Any relevant observations you wish to make in relation to the structural strength of the building and the assessment of it.*

The building was in good condition for its age and type and had been well maintained with some initial strengthening work already completed. Overall without substantial strengthening works, buildings of this nature could not have been expected to survive the intensity of the accelerations experienced during the February 2011 earthquake.

Please advise if you need any further information at this stage

Yours faithfully

MAXIM PROJECTS LIMITED



GR HAMILTON
Director

Email roy@maximprojects.co.nz













