

IN THE MATTER OF  
THE CANTERBURY EARTHQUAKES ROYAL COMMISSION

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**BRIEF OF EVIDENCE OF SIMON FREDERICK GIFFORD**

24 January 2012

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1. My name is Simon Frederick Gifford.
2. I am a Chartered Professional Engineer with a speciality in structural engineering. I am a member of the Institute of Professional Engineers of New Zealand. I graduated from Canterbury University in 1989 with a Bachelor of Engineering (Civil) degree with honours and have worked as a structural design engineer since that time. I have worked for Lewis and Barrow Ltd (Lewis and Barrow) since 1993.
3. In December 2010, my colleague, Chris Gordon of Lewis and Barrow, was engaged by the bar manager of the Iconic Building at 200 – 204 Manchester Street to address damage to the building incurred in the aftershock on 26 December 2010. In particular, bricks had fallen from the east gable wall parapet. The Christchurch City Council ('Council') had issued the building with a red placard on 27 December 2010.
4. I am aware that Mr Gordon inspected the building on 28 December 2010. His investigations revealed damage to the east gable end wall. Mr Gordon provided structural details for interim repair. Mr Gordon's site report is dated 28 December 2010 (BUI.MAN200.0004.164). Mr Gordon recommended repairs allowing for the temporary support of the damaged wall which would restore it to the strength it had before 4 September 2010. Mr Gordon noted that the brick wall, above the truss bottom chord level, would need to be removed and rebuilt with a suitable structure for long term support.
5. Mr Gordon inspected the repair work on 29 December 2010. At the time of Mr Gordon's inspection the framing and plywood was in place between the end trusses to the affected east wall. Mr Gordon's findings and some additional structural details are recorded in his site report dated 29 December 2010 (BUI.MAN200.0004.165).
6. Mr Gordon asked the Council to remove the red placard from the building on 30 December 2011. I understand that the Council required a statement addressing the repair work from a Chartered Professional Engineer. Although an experienced civil engineer, Mr Gordon was not chartered at the time so I reviewed the details he had prepared and we discussed the finished work in depth. Following my review of the file and my discussions with Mr Gordon I provided the necessary statement on 31 December 2010 (BUI.MAN200.0004.166).

7. As the form required by the Council notes, the intention of the repair work was to restore the buildings to a level of strength they had before the earthquake on 4 September 2010. I was satisfied that the remedial work achieved that objective and provided adequate support to the damaged areas. I discussed the repair strategy with Mr Gordon and reviewed his notes. While I became chartered in 2003, this was the first time I had signed off another engineer's work. Accordingly, I took the matter seriously. It is my opinion that the structural details Mr Gordon prepared were well conceived and more than adequate to restore the strength of the east facing wall, and that they would in no way have impaired the strength of the rest of the building. I also consider that Mr Gordon was the best person to inspect the completed work, given that he was familiar with the configuration of the damaged wall and the nature of the damage, and because, as the designer, he knew best what needed to be achieved by the repair work details.
  
8. The statement I provided explains that I was aware of all measures that had been carried out by Nathan Cook Builders to secure or strengthen the building. I noted that personnel under my control had inspected the work on completion and that I was satisfied on reasonable grounds that interim securing methods had been taken to restore the structural integrity and/or structural performance of the building to at least the condition that existed prior to the earthquake on 4 September 2010. The form also records that potentially dangerous features of the building such as unreinforced masonry chimneys, parapets and walls had been removed or secured so that their integrity and level of structural performance is consistent with that generally achieved in other parts of the building, and so reduces the danger to people's safety and of damage to other property. In this case, that was a reference to the damaged east wall. I recorded 198 Manchester Street as having potentially dangerous features which threatened the Iconic Bar building.
  
9. It is a widespread practice for engineers who have an engineering degree but have not yet become chartered to carry out their work with the oversight of a chartered engineer, who ultimately provides certification of the work. The degree of oversight is relatively intensive in the case of a recent graduate, becoming less so as the graduate gains in experience and competence. Typically, after five years or so, a graduate engineer will have amassed enough experience to apply to become chartered, although a substantial number of engineers do not do so, as it has little or no effect on their responsibilities or work activities.

10. Mr Gordon has had 18 years experience, having started at Lewis and Barrow shortly after I did. He became registered as a Chartered Professional Engineer during 2011, along with a large number of qualifying engineers under the initiative of the Institute of Professional Engineers, who sought to increase the number of engineers available to work on damaged buildings in Canterbury.

*This statement is true to the best of my knowledge and belief and was made by me knowing that it may be used as evidence for the purposes of the Royal Commission of Inquiry into the Canterbury Earthquakes.*

Dated 24 January 2012



Simon Frederick Gifford