

**COMMISSION RESUMES ON WEDNESDAY 15 FEBRUARY 2012 AT
9.30 AM**

194 GLOUCESTER STREET

5 JUSTICE COOPER:

This morning the Royal Commission will be enquiring into the failure of the building situated at 194 Gloucester Street which at the time housed the pizzeria known as Winnie Bagoes and formally it was the Trades Hall. As the result of the collapse of the building Ofer Mizrahi, a visitor from Israel, parked
10 in a van outside the building lost his life. His family live in Israel and cannot be here today but I understand are likely to be watching the proceeding on the internet. So to them I extend the Royal Commission's condolences for their sad loss.

I will take appearances now.

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**MR ZARIFEH AND MR ELLIOTT AS COUNSEL ASSISTING
MR LAING AND MS DAINES FOR CHRISTCHURCH CITY COUNCIL
MR GALLAWAY FOR BECA CARTER
MS WELSFORD FOR DEVONIA REALTY**

20 JUSTICE COOPER:

Anyone else? Yes Mr Zarifeh.

MR ZARIFEH:

The three storey unreinforced masonry building that was situated at
25 194 Gloucester Street known as Wave House had heritage and Historic Places classification and Your Honour you can see the on the screen there's a photo of the building pre-September. As Your Honour's indicated the building housed a pizzeria on the ground floor and some office space upstairs. The building was first constructed in 1906 as the Trades and Labour Hall and it
30 had two floors to the front of the site and a single storey hall to the rear. In 1916 a second floor was added to the hall at the rear and third floor offices

were added to the front section in 1924. A reinforced concrete lift shaft was added to the front side of the internal masonry wall in 1960. In 1975, 1976 it appears that a structural assessment by Holmes Wood Poole and Johnston led to a structural strengthening being undertaken to meet a seismic load level of .05 g. Although a seismic report was prepared in 2002 by Holmes Consulting Group it is unclear whether any structural updating was completed then. When the fit-out for Winnie Bagoes was carried out in 2003 some structural work was completed but it would appear that because it was not considered a change of use of the building no seismic upgrade was required.

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10 Following the September 2010 earthquake the building was green stickered on 5 September 2010 after a Council level 1 rapid assessment which noted that the parapet on the south side had fallen into a courtyard. A level 2 rapid assessment carried out by BECA on behalf of the owner the next day resulted in the building being yellow placarded and a Building Act notice was served on

15 the owner by the Council as a result of that yellow placarding. Following the Boxing Day aftershock the building was inspected by USAR on 27 December 2010. Severe parapet damage was noted and damage to the north and west of the building and some of that damage can be seen in the photo that's on the screen now to the, in particular to the window and window frames on the

20 inside of the two panes. The Building Act notice was served on the owners care of their property management company Devonia Realty on 27 December requiring make-safe work to be completed by 31 January 2011. The owner through Devonia Realty had already instructed BECA structural engineers to complete a preliminary structural engineering evaluation and this was

25 completed on 14 December 2010. Following the Boxing Day aftershock BECA provided advice to the owner on the removal of the damaged brick wall on the upper level western elevation and developed temporary shoring to allow The Clinic which was an adjacent building, the building towards Manchester Street from 194 Gloucester Street, so 192 Gloucester to be

30 reoccupied. Following correspondence with the Council, this being a heritage building, approval was given in early February for that work to be carried out. On the 3rd of February 2011 a Council's engineers re-inspection of damaged buildings noted that this repair work was in progress and the protection

fencing around the building was adequate. On 14 February 2011 the make safe work had been completed and BECA advised the owner in writing and copied to the Council that the building did not pose a threat to adjacent buildings or the public that was significantly greater than prior to the earthquake but did note in that letter that the building was still potentially earthquake prone. As a result of receiving that advice from BECA the Council removed the barricades that had been positioned in front of the building. Eight days later in the 22 February earthquake the front and rear of the building collapsed and you'll see the top storey north and the western elevation had collapsed and the roof part.

JUSTICE COOPER:

This is a view on looking back on Gloucester Street is it?

MR ZARIFEH:

Yes sir this is looking from the Manchester Street end, direction back towards 194 Gloucester and the Clinic at 192 can be seen in the foreground. Ofa Mizrahi, an Israeli tourist, was inside a white Mitsubishi van parked outside the building. The van was crushed by falling rubble from the collapse of the façade of the building and Mr Mizrahi died as a result of the injuries that he sustained and on the screen present you can see an aerial photograph showing the rubble that's come down from the building on to Gloucester Street and out onto the footpath and roadway and onto vehicles and there's a, there's a photo, close-up photo and you can see the van in which Mr Mizrahi was in which has been crushed and a car in front of that that's been partially affected by rubble.

JUSTICE COOPER:

What's the member that's occupying most of the length of the photograph?

MR ZARIFEH:

Yes I'm assuming that's part of the building. We will hear from the engineer.

JUSTICE COOPER:

All right, thank you.

0940

MR ZARIFEH:

- 5 The likely issues for the Commission are firstly the application of the Council's earthquake prone policy to the building. Secondly, the nature and extent of previous structural strengthening carried out on the building. Thirdly, the stability and safety assessment of the building on 14 February 2011 by BECA and the resulting decision to remove the cordons in front of the building.
- 10 Fourthly, the adequacy of the cordons prior to their removal. And I anticipate that the main issue that will concern the Commission in this hearing is issue number 3.

The witnesses to be called and essentially going to be called in the reverse order that they appear on the list. Firstly, Mr Wallace from Devonia Realty,

15 the Property Manager. The main director of the company, I understand, lives in Sydney. He will give evidence of dealings with the Council and of arranging BECA after the September earthquakes. Mr Unka, Raj Unka, from Opus will be a written statement only. He, as I have indicated, carried out a re-inspection on 3 February but the make-safe works were in progress at that

20 stage and the cordon hadn't been removed. Thirdly, Samir Govind from BECA Carter Hollings and Ferner. He is the engineer who is responsible for inspecting the building post September and for overseeing the temporary works required and was the author of the letter I've referred to on 14 February 2011. Fourthly, Mr McCarthy from the Council and, lastly, Peter Smith from

25 Spencer Holmes Ltd, structural engineer who has carried out an independent assessment for the Commission.

So the first witness as I've indicated, sir, is David Wallace and Ms Welsford will lead his evidence.

30 **COUNSEL ADDRESSES THE COMMISSION – RE AMENDMENTS TO THE BRIEF**

MS WELSFORD CALLS:**DAVID WALLACE (SWORN)**

(Witness's microphone not working)

5 Q. Is your full name David Edward Wallace.

A. Yes it is.

Q. Do you recall in Christchurch.

A. I do.

Q. And you're the managing director of Devonian Realty Limited.

10 A. Yes.

Q. And do you have a statement there that you've prepared for the Commission?

A. I do.

15 Q. If you could please commence reading that from the second paragraph, second sentence in paragraph one and pause when you get to any amendments.

A. I am the managing director for Devonian Realty Limited. Devonian Realty manages the property at 194 Gloucester Street on behalf of the owner, HPT9 (inaudible 09.43.49) It has done so since the property was
20 purchased in September 2008 and has continued to manage the property and act on behalf of the owner in respect of the property following the earthquake. I acted as the owner's agent when the building was purchased. The owner of the building at 194 Gloucester Street was asked to provide evidence to the Royal Commission. I am
25 providing evidence on behalf of HPT9 (inaudible 09.44.15) Limited, as the sole director of that company, (inaudible 09.44.22) resides in Sydney and asked me to give evidence on his behalf. Devonian Realty lost (inaudible 09.44.30)

30 **PAUSE TO ADJUST MICROPHONES**

JUSTICE COOPER:

Might I ask you to start again at paragraph 2, thank you.

EXAMINATION CONTINUES:

- 5 A. “The owner of the building at 194 Gloucester Street has been asked to provide evidence to the Royal Commission. I am providing evidence on behalf of HPT9 Trustees Ltd as the sole director of that company, In Shik Hong, resides in Sydney and has asked me to give evidence on his behalf. Devonian Realty lost its physical file for this building as a result of the 22nd of February 2011 earthquake and so in preparing my evidence I have only been able to access documents to which Devonian Realty had stored electronically.
- 10 Q. If you could just pause there, Mr Wallace, and just clarify that that’s an amendment to the third line of that paragraph.
- 15 A. Yes we deleted the words ‘have only’ which were repeated twice and inserted the word ‘to’. “At the outset I would like to say that the loss of life on 22nd of February in the roadway outside the building is deeply regretted. I would like to extend my sincere sympathy and condolences and also those of the building owner and staff of Devonian Realty to the families of the deceased. HPT9 Trustees Ltd purchased the building at 194 Gloucester Street in September 2008. The property was purchased as a fully leased investment. It was considered to be a fine and
- 20 attractive heritage building. It was a Group 3 listed heritage building that had been comprehensively refurbished and refitted some four to five years prior to 2008. Neither the vendor, nor the vendor’s agents, Harcourts, provided any written advice or information which confirmed whether any earthquake strengthening work had been carried out as
- 25 part of the refurbishment or otherwise. We were not advised whether the refurbishment work had involved a change of use of the building. However, although I cannot now be sure I do have a recollection of Harcourts agent advising that some earthquake strengthening work had been carried out as part of the refurbishment. I note that the valuation
- 30 report obtained in August 2008 records that the valuer understood that the building complied with the current Building Act requirements and that the comprehensive refurbishment had included earthquake strengthening. Relevant extracts of the report are attached.”

Q. And just, Mr Wallace, to confirm that there in line four of that paragraph the date has been amended from 2003 to 2008 in your brief.

A. Correct. When the building was purchased there was nothing in any of the advice received from our solicitors or information provided by any other party which alerted us to any potential issues with any of the work which had been carried out by previous owners. Devonia Realty understood that all the necessary building consents had been obtained and all Council requirements had been complied with. There was nothing which alerted us that there was any earthquake strengthening work which was required or had not been carried out. At the time of purchase in 2008 the ground floor was leased to Winnie Bago's Pizza Restaurant business and the two upper floors leased to four individual tenants for use as offices. Aside from the works carried out as a result of the earthquake damage there had been no structural alterations carried out to the building since HPT9 Trustees Ltd purchased it. Right up until the earthquake on 4 September 2010, following which all tenants vacated the building, Winnie Bago's operated its restaurant from the ground floor and the second two floors of the building continued to be leased as office space. From the time the building was purchased until after the earthquakes I was not aware of whether or not the building was classified as earthquake prone prior to the 4th of September 2010 or whether previous owners of the building complied with Council strengthening requirements. As far as I'm aware HPT9 Trustees Ltd was not notified or advised of any earthquake strengthening requirements that needed to be met prior to the earthquake on the 4th of September 2010. It was only in late 2010, when the building's owner's engineers sought to establish whether the building was earthquake prone in terms of the Council's 2010 policy, that questions were asked about whether earthquake strengthening work had been carried out by a previous owner and indeed whether any such works were actually required by the council when the building was refurbished and refitted in 2003. In October 2010 the engineers engaged on behalf of the owner, BECA, advised they were very doubtful

that any earthquake strengthening had been involved during the 2003 refurbishment other than any structural input associated with widening several openings. Immediately following the earthquakes on September 4th, 2010 and 26th of December, 2010 and also following numerous strong aftershocks between those dates Devonia Realty engaged consulting engineers BECA to report on the damage to the building. On behalf of the owner Devonia Realty accepted and followed all of BECA's recommendations and proactively sought the council's approval for the recommended work to be carried out as quickly as possible in accordance with council requirements including those of the council heritage team. The building was badly damaged in the earthquake on September 4th 2010. In particular the parapet of the rear wall had collapsed to the roof of the canopy of the restaurant courtyard. On 5th of September, 2010 Devonia Realty on behalf of HPT9 Trustees Limited engaged BECA to inspect the building and ascertain and report on the damage that occurred, what was required including costings for the necessary work. Devonia also notified a claim to HPT9 Trustees Limited insurers. The building was insured with a replacement value sum insured and two years' loss of rent cover. Devonia Realty staff attended several inspections of the building from September to November 2010 with the loss adjusters from McLarens Young. All tenants vacated immediately. Although in the following day and weeks the tenants entered the building to recover most of their possessions none of them ever returned to occupy the building. Staff from Devonia were present when BECA completed its rapid level two assessment of the building on the 6th of September, 2010. Either on that date or a subsequent meeting on site BECA advised they were concerned about significant cracking and movement in the structure, particularly at the rear wall, several other walls upstairs and also the west wall including that part of that building which lies over the alley access to the restaurant. BECA also advised that the building had been appropriately yellow stickered. Due to concerns of possible electrical problems power to the building was isolated in the street by Orion but we were

subsequently able to reconnect the circuits that covered the fire panel. Devonia engaged Goulman and Company to remove unsafe brick work from the south parapet wall to avoid the risk of further material falling into the courtyard and to remove debris from the courtyard area.

5 Q. Just noting that in line one there Mr Wallace that's an amendment to your brief?

A. Yes Goulman and Company was inserted for Surge Builders. They did the second and third repair.

Q. Thank you.

10 **WITNESS CONTINUES READING BRIEF**

A. To prevent any unauthorised access to the property the main front door and side rear gates were secured with substantial chain and padlock. These precautions to prevent entry to the building were still in place on the 22nd of February, 2011. At this stage in the first few weeks after the
15 September earthquake our expectation was the building would be able to be repaired and saved. However BECA advised Devonia Realty that it was not clear how the west wall could be shored up or strengthened. We did not know how long permanent repairs might take, how to repair and any earthquake strengthening the authorities might require could be
20 designed or accomplished. It was a complex situation made more complicated by the heritage status of the building. Devonia approached the council's heritage team and Devonia staff attended a meeting with the council on the 14th of October, 2010 to advise the council of BECA's initial advice regarding the extent of the damage and the future of the
25 building. The council advised us of the rules and regulations relating to the repair of the building given its heritage status. Devonia also advised the tenant that it was reasonably clear that the repairs would take at least several months and so it would be a long time before the building could be reoccupied. BECA's detailed report and advice on the damage
30 took longer to provide than we had expected. I understood that the delay was partly due to the council's archives being out of action due to the earthquake and also the inability to access detailed drawings for the building, particularly those relating to the refurbishment of the building in

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JUSTICE COOPER:

Perhaps we could just have a look at that please it's TLO194.0007A.1.
Continue please, paragraph 29.

EXAMINATION CONTINUES: MS WELSFORD10 **WITNESS CONTINUES READING BRIEF**

A. On the 14th of December, 2010 Devonia Realty received BECA's preliminary structural engineering evaluation. Devonia Realty provided a copy to the insurance assessor and I hand delivered a copy to the council. Further damage occurred to the building in the earthquake on
15 the 26th of December, 2010 and following an inspection by Civil Defence the building was issued with a red sticker. Devonia immediately engaged by telephone to carry out an urgent inspection of the building and met with engineers several times between the 26th of December, 2010 and the 30th of December, 2010.

20 Q. Just Mr Wallace clarify there the first line that Devonia immediately engaged BECA.

A. Excuse me.

Q. The line you read you said Devonia immediately engaged by telephone it was just to confirm that in accordance with your brief it was –

25 A. On Boxing Day yes we phoned them on their mobile phone.

Q. Thank you just continue at paragraph 32?

WITNESS CONTINUES READING BRIEF

A. By the 27th of December, 2010 a barrier fence had been erected in front
30 of the building and a section 124 Building Act notice was attached to the fence. Devonia had no involvement or input into the barrier fence being erected. BECA advised us that make safe works were required before it

would be safe to enter the building to carry out a more detailed internal inspection for a proper damage assessment and to avoid further material falling from the upper front and west walls. Devonian Realty requested an urgent meeting with the relevant heritage and building recovery officers at the council and I attended a meeting at the council on the 30th of December, 2010. At that meeting and subsequent email correspondence we provided the council with photographs of the more recent damage and sought the council's involvement and approval for the urgent make safe works which had been recommended by BECA. In an email on the 30th of December, 2010 the council provided details of the requirements for make-safe works and more permanent alteration works or demolition of the building.

Q. Just pause there Mr Wallace if we could have a look at that document.

15 **JUSTICE COOPER TO MS WELSFORD:**

WIT.WAL0002.15

EXAMINATION CONTINUES: MS WELFORD

Q. That's the document there Mr Wallace?

A. Correct yes.

20 1000

Q. And just continue from paragraph 36.

WITNESS CONTINUES READING BRIEF OF EVIDENCE

A. On the 6th of January 2011 Devonian Realty advised the Council by email that BECA had carried out closer inspection of the upper parts of the building with a crane and concluded that the level 3 west wall was precarious and needed to be taken down immediately to make the building safe, and also to enable an internal inspection to investigate further damage. The email attached BECA's notes detailing amendments to the proposed make-safe works and Devonian Realty advised that they would commence the work immediately to reduce the danger of falling masonry to the building to the west.

30

EXAMINATION CONTINUES: MISS WELSFORD

Q. And Mr Wallace there's just a couple of amendments that you've made to that paragraph, if you could please identify them?

5 A. Correct, 'level 3' was inserted by west wall and the word 'they' before would commence.

Q. So that's just to confirm level 3 on line 3 where it says –

A. That is correct.

10 Q. – entire west wall, it's the level 3 west wall, and the second to last line where it says, and that's really a typographical, it's says Devonian Realty advised that 'the' and Mr Wallace has amended it to 'they'. And Mr Wallace I may be incorrect by thinking you may not have read paragraph 36.

WITNESS CONTINUES READING BRIEF OF EVIDENCE

15 A. On the 5th of January 2011 Devonian Realty provided the Council by email photographs of the building taken after the Boxing Day earthquake and notes prepared by BECA detailing the urgent work required and sought approval from the Council to proceed with the work.

EXAMINATION CONTINUES: MISS WELSFORD

20 Q. Thank you, and if we could have a look at that document please, that email, it's BUI.GLO194.0012.46 and that's the email there?

WITNESS REFERRED TO EMAIL

A. Correct.

Q. And if you just begin reading again from paragraph 38.

WITNESS CONTINUES READING BRIEF OF EVIDENCE

25 A. Devonian sent a further email to the Council later that same day reiterating the urgency of the work in terms of danger to persons or property and advising that the building contractor was starting on site that week.

EXAMINATION CONTINUES: MISS WELSFORD

30 Q. And if we could have a look at that document, its reference is WIT.WAL0002.18, and that's that email there is it Mr Wallace?

WITNESS REFERRED TO DOCUMENT

A. Correct.

Q. If you could –

WITNESS CONTINUES READING BRIEF OF EVIDENCE

- 5 A. The make-safe work was approved by the Council by email on the 6th of January 2011 subject to a retrospective application being made for resource consent in due course. Devonia Realty engaged Surge Builders Limited to be brief by BECA and then to carry out the required make safe work under BECA's supervision. On the 11th of February
10 2011 Devonia received confirmation that the making safe work had been completed.

EXAMINATION CONTINUES: MISS WELSFORD

Q. So if we could just have a look at the – that's the confirmation there?

WITNESS REFERRED TO DOCUMENT

- 15 A. That is correct.

Q. If you could just continue at paragraph 41.

WITNESS CONTINUES READING BRIEF OF EVIDENCE

- A. BECA was subsequently instructed to inspect the work that had been carried out by Surge Building Limited. On the 14th of February 2011 I
20 received an email from BECA which was also copied to the Council attaching BECA's letter of the same date following its inspection of the building following the completion of the make-safe works.

EXAMINATION CONTINUES: MISS WELSFORD

Q. And that's that email there is it Mr Wallace?

- 25 **WITNESS REFERRED TO EMAIL**

A. That is correct.

Q. And the next document that's on the screen now, that's the letter that was attached to it?

A. That is correct.

- 30 **WITNESS CONTINUES READING BRIEF OF EVIDENCE**

A. Throughout Devonia Realty had kept the insurer's loss adjustor updated with progress and there was never any problem obtaining approval from the building's owner insurers for any of the work required. The loss adjustor agreed with Devonia Realty that the Council's approval was required before any physical work was carried out to the building. Neither the building owner nor Devonia had any involvement or input into the installation or subsequent removal of the temporary barrier fencing in Gloucester Street. I have seen a copy of the email from Sharon Weir dated the 15th of February 2011. I do not what Sharon Weir is referring to although I do know I suspect that she may have mistakenly referred to the building owner where she had intended to refer to the owner of a business that was a tenant of 192 Gloucester Street.

EXAMINATION CONTINUES: MISS WELSFORD

15 Q. And just to clarify there Mr Wallace, in that third line, it isn't your evidence although I do not know?

A. That's correct.

WITNESS CONTINUES READING BRIEF OF EVIDENCE

20 A. Devonia also manages a building at 192 Gloucester Street for the same owner, HPT9 Trustees Limited. However neither I nor as far as I'm aware anyone at Devonia or HPT9 Trustees Limited made any request to the Council, had any contact with Chris Kerr nor made any threat or approach to the media in respect to the barrier fencing outside either building. There was no reason for the building owner to seek to have the barrier fences removed as both 194 Gloucester Street and the east portion of 192 Gloucester Street were unoccupied and given the indicative complexity of the repairs to 194 Gloucester Street and indeed determining whether repairs would be feasible they were unlikely to be able to be occupied for some time.

EXAMINATION CONTINUES: MISS WELSFORD

Q. Mr Wallace if I can just clarify these three minor amendments you've made to that paragraph.

5 A. Correct, we have changed west to east, that was a typo error, and we inserted the word be occupied, the last line of 47.

Q. And that's on the – the first amendment is on just at the end of the second line, (overtalking 10:07:31).

A. Yes, east. It was west in there, it should have been east.

Q. And then on the next line as well.

10 A. 192 Gloucester Street is the actual property next door known as the Clinic.

Q. Thank you, continue at paragraph 48.

WITNESS CONTINUES READING BRIEF OF EVIDENCE

15 A. The building at 192 Gloucester Street was issued with a red sticker following the Boxing Day earthquake. I understand this was due to the danger posed by the buildings on either side, 194 Gloucester Street to the east and the building which the Iconic Bar occupied to the west. New Regent Medical which leased 192 Gloucester Street never returned to the premises after the 26th of December 2010 except to
20 retrieve equipment. Health Centre Pharmacy Limited sublet the west portion of 192 Gloucester Street from New Regent Medical. The pharmacy sought approval to reoccupy its portion of the 192 Gloucester Street without consultation with Devonia Realty or to my knowledge BECA. I received an email on the 13th of January 2011 from Chris
25 Barrow of Lewis and Barrow Limited regarding the pharmacy's application to the Council to occupy part of the building.

EXAMINATION CONTINUES: MISS WELSFORD

Q. Mr Wallace, there's an amendment there at paragraph, the third line.

30 A. Yes, I corrected the address of the Gloucester Street property. It was an incorrect number there.

Q. And if we could just look at that –

JUSTICE COOPER ADDRESSES COUNSEL

The west portion of 192.

MISS WELSFORD:

5 Yes.

EXAMINATION CONTINUES: MISS WELSFORD

Q. And if you could just look at that document, its reference is WIT.WAL0002.21. And perhaps the next page of it as well please.

WITNESS REFERRED TO DOCUMENT

10 Q. So is that the email there you're referring to Mr Wallace?

A. That's correct, yes.

1010

WITNESS CONTINUES READING BRIEF

15 A. The photograph taken by Devonia on the 2nd of February, 2011 shows that there was no longer a barrier in front of the west portion of 192 Gloucester Street that the pharmacy occupied but that the barrier remained in front of the east portion of that building and 194 Gloucester Street.

Q. Have a look at the photograph Mr Wallace is that the –

20 A. That's correct.

Q. Just continue at paragraph 51?

WITNESS CONTINUES READING BRIEF

25 A. Devonia Realty was preparing for the next phase of the more detailed damage assessment and implementation of the repair or rebuild process when the earthquake struck on the 22nd of February, 2011. The earthquake resulted in the complete wrecking and total loss of the building and also the devastating loss of life.

Q. Mr Wallace, could you please, I think you might have missed paragraph 51 from your brief.

30 A. A photograph taken by Devonia on the 16th of February, 2011 shows that by that date the entire barrier had been removed.

Q. And that's a photograph there on the screen in front of you is it?

A. Yes it is.

CROSS-EXAMINATION: MR ZARIFEH

5 Q. Mr Wallace, a few questions. In paragraph 12 of your brief you said that it was only in late 2010 that any thought was given to or enquiry made as to any previous structural strengthening that might have been carried out?

A. That is correct yes.

Q. And you referred to advice from BECA that you received in that paragraph, top of page 3?

10 A. Yes.

Q. And you said questions were asked. Were they asked of anyone else other than BECA?

A. BECA were the engineers that we had hired to find out what was wrong with the building, how it could be repaired.

15 Q. Right and so they said to you that they were very doubtful that any earthquake strengthening had been done in 2003?

A. From investigations that they had started at that time yes.

Q. And did you make any enquiries elsewhere other than BECA, the council or anyone else?

20 A. No, they had made their own.

Q. Thank you. Just want to refer you to a document we've got in our folders, it's, I'll get it brought up on the screen so you can see it. It's 194.0012.44. This will come up in a moment and it's a record from the council file and it records I think it's a telephone call coming into the council. You'll see the date highlighted in yellow 29/12/2010 is that highlighted near the top?

25

A. Yes.

Q. And then if you look at the bottom, towards the bottom where the next piece is highlighted under "event details". You see that?

30 A. Yes.

Q. "Red stickered with 124 notice issued 27/12/10. Owner wants to discuss demolition with council. Building is unsafe." Right?

A. Yes.

Q. Right can you tell us, would that have been a result of contact by you with the council?

5 A. We contacted council several times to discuss the building to make it safe and we had issues from them that it was a heritage building and everything had to be done in a numerical way, blocks had to be numbered, tiles kept safe and there was very limited things that we actually could do.

10 Q. Okay. What I wanted to ask you is on the 29th of December when you advised the council that the building was unsafe, that was presumably as a result of what you –

A. Further damage to the building.

Q. And what you had been told by BECA?

A. Correct yes.

15 Q. And when it said owner wants to discuss demolition with the council, was that your or the owner's view of what should happen?

A. No.

Q. Why did you want to discuss demolition then?

20 A. Well I'm not sure we did want to discuss demolition. I've seen another document which is shown which is saying that we have phoned council to a Chris Kerr and were going to go to the media which is not true.

Q. Okay I'll come to that in a moment. You covered that in your brief but is that record then not correct in terms of what you were saying to the council?

25 A. In actual fact with council we were discussing at this meeting several buildings – 69 Manchester was actually discussed more than Winnie Bagoes and it was a heritage building as well and it was severely damaged earlier on and we were pushing for that building to be demolished and I think what this refers to is the 69 to 73 Manchester
30 Street because at that we discussed four properties, not the one.

Q. I understand, all right so that might have been a reference to 69?

A. I would think yes or 207 Manchester Street.

Q. Okay. So from your recollection then there was never any discussion of demolition of this building?

A. No, not till after February.

5 Q. Right no I'm talking about pre February. You said in paragraph 23 that the repairs were a complex situation. At the end of paragraph 23, "it was a complex situation made more complicated by the heritage status of the building", right?

A. Correct.

10 Q. I just want you to tell us what you mean by that. What problems did you encounter as a result of it being heritage classification?

A. We would have liked to have proceeded immediately to repair the building and not just this building as I said there were others in the same category as this and we were told that that was not going to be the case. There was rules and regulations to follow in which we had to confer with council on every and all moves because it was a listed heritage building. It made it far more complicated than it probably needed to. I think in hindsight February 22nd if we knew that was happening that never would have happened.

15 Q. How do you mean?

20 A. I think that a lot of a heritage buildings would have been repaired extensively quicker, sooner.

Q. Right. So the need to advise and get approval from council – what kind of delays did that cause from your point of view?

A. Well we wanted to start repairs as soon as we got BECA's report.

25 Q. Which was 14 December or thereabouts?

A. We knew slightly before then and we would have liked to have started work then. Work actually didn't commence until February.

Q. Right.

A. So I would say that's what almost two months.

30 Q. Right. And so just tell us then why, what was happening in that two month period before you could start work?

A. Well we had to have meetings with them. There were several emails going back and forth as you've seen. Works had to be required. BECA

suggested we also have one of their heritage people assist in pushing this along faster so we could make some headway with the heritage department to get the works done.

5 Q. And in that time was there any cordon in front of 194 in that period from 14 December through to early February when you started the work?

A. Yes we had, just check on the dates here when the cordons went up. We had some photos of when the cordons actually went up and there was tape as well around you'll see in one of the pictures.

Q. Right. So can you refer us to that picture please?

10 A. It's another picture that you may or may not have that shows actually tape around the building.

Q. There's a photo there, it's not one of yours.

A. Well that photo there is from Boxing Day I think and the barriers are up there. I think they went up on that day, on the 26th.

15 1020

Q. And there's a photo I'll get put up, WIT.MCC0015.10. If you have a look at this photo coming up now, that's dated 31/12.

WITNESS REFERRED TO PHOTOGRAPH

A. Yes.

20 Q. So was that the barriers, the state of the barriers?

A. The barrier, yes, the barrier sort of changed several times. It seemed to be longer and shorter and we had no input on it going up.

Q. No.

A. I'm not even sure who put it up.

25 Q. But the barriers that we can see in that photo –

A. Yes.

Q. – you said the length changed. What about the distance from the building to the barrier. Did that change at all?

A. No, no, that I'm aware of.

30 Q. So the barriers that we can see there, when do you recall them first going up. They were obviously there on the 31st of December?

A. I thought it was the 26th of December.

Q. Right, so following Boxing Day?

A. Yes.

Q. And did they remain in place essentially until they were removed after the make-safe works?

A. That is correct, and again we didn't have –

5 Q. No, I appreciate that but you produced the photo showing that they'd been removed.

A. Yes.

Q. On 16th of February.

A. Yes.

10 Q. Just on that issue that you dealt with in your brief of the email that you referred to.

A. Which number are we referring to? Which point in my brief?

Q. Your brief, it's paragraph 45 and the number's there, if that can be brought up please. Just while it's coming up, the letter from BECA was dated 14 February about the work being completed, correct?

15

A. Mhm.

Q. So this is the next day. There's a letter presumably from someone in the Council?

A. It looks like from Sharon Weir.

20 Q. Did you know her, did you have dealings with her?

A. Not that I'm aware of but I had been at several meetings where we were on a round table which, or an oval table where there may have been 10 people there and there were several that could have been there that I'm afraid I would not remember their names.

25 Q. "We have an urgent requirement to remove the cordons off 192 to 194 Gloucester Street block. This has been signed off by the engineer to remove, Neville Higgs." Right?

A. Mhm.

Q. So the urgent requirement, you don't know anything about that as to why?

30

A. No, I would suggest that would have been from the chemist.

Q. Okay.

A. You had a picture up earlier showing the building he was at the western end of the Clinic.

Q. And when it says property owners then, it's not the property owner of 192 or 194?

5 A. I think it – no, not at all, it was – he's never cared whether the barrier would ever come down or not because we had full insurance and we had two years of rental coming in and the building was vacant. We didn't have reason to move it from our end.

10 Q. And so Devonia Realty hadn't been in contact with the Council to remove it?

A. No, we believe it was again the chemist who wanted the car parking for his clients coming in to buy their prescriptions.

Q. Okay, and who was Chris Kerr, did you know?

15 A. No I do not. I to actually Google him to find out that he worked for the Council. Again he could have been around the table of the group of 10 or 12 at that meeting, but I certainly don't remember.

CROSS-EXAMINATION: MR ELLIOTT

Q. Mr Wallace, I just ask you to refer to document BUI.GLO194.0012.60?

WITNESS REFERRED TO DOCUMENT

20 A. Which point did that refer to in my –

Q. Well this will come up in front of you. You may not have referred to in your statement but I'm going to ask you a question about it. So if the top section, the top third of the document could be enlarged please? This appears to be an email from Mr Govind of BECA to you dated the 25 14th of February 2011. Do you recognise that?

A. Not offhand but I can see that it's addressed to me from Samir from BECA.

Q. Do you recall receiving it?

A. Well I would have received it, it's been emailed to me.

30 Q. Just that first sentence, "David, as promised the works at 194 Gloucester are now complete – refer letter to remove fences".

A. Yes, I've seen the other letter which is attached to this.

Q. Yes, did you give any instruction to BECA that you wanted the fences removed?

A. No, like I said, the 194 Gloucester was empty. There was nobody in it. There was not going to be anybody in it. We had two years of rental
5 coming in. There was no reason to move the fence unless a building company needed to push them out farther into the street to park their cars or things like that. There was no reason. The only reason to remove any fences would have been in front of the Clinic for the chemist for his clients to have a place to park, you know, some 40 metres down
10 the road. Whether or not Council then decided to remove the whole fence, I don't know.

Q. I'm just seeking to find out why there may have been a reference to removing the fences in that email and Mr Govind can obviously tell us why he put it in, but from your point of view did you say anything to him
15 that might have led him to believe that you wanted the fences removed?

A. No.

CROSS-EXAMINATION: MR LAING

Q. Mr Wallace, you referred to the resource consenting process for the temporary works.

20 A. Right.

Q. It's correct, is it not, that you weren't told that work could proceed and then obtain a retrospective resource consent?

A. That is correct but they had to see the works, and what actually was going to be done, so the builder and BECA had to put together a programme outlining exactly what they were going to do, which had to
25 be forwarded to Council, which they did, I understand.

Q. And that was part of the process to enable the Council to sign off the works without a resource consent being obtained in advance, wasn't it?

A. Correct, and I understand resource consent was going to take anywhere
30 from four to six months.

Q. Yes.

A. It was going to be quite lengthy.

Q. But the Council did sign off on those works and told you to –
 A. (overtalking 10:27:44) sometime in February, yes, not December.

Q. And the works then proceeded?

A. Correct.

5 Q. And were completed?

A. Yes on the, was it the 14th or – 14th of February I think it was.

Q. Yes, so that's fine. Now can I just ask you a few questions. Did you have any involvement with the purchase of the building or did you become involved later on once the purchase had been completed?

10 A. No, I was in negotiations in the purchase of the building.

Q. You say that you were not aware of any earthquake prone building issues?

A. That is correct.

Q. Did you or your solicitors obtain a Land Information Memorandum.

15 A. The solicitor did. I did not sight it. I rarely do sight the LIM.

Q. So you wouldn't know whether that referred to any earthquake prone status of the building?

A. At the time, no. We were informed by the vendor's agent at the time, as I stated earlier that substantial refurbishments were done and some
 20 earthquake works had been done which we would have expected as the substantial refurbishment happened in.

Q. At the time of purchase, do I take it from your evidence that you were also unaware of the Council's earthquake prone policy 2006?

A. That would be correct, yes.

25 **CROSS-EXAMINATION: MR GALLAWAY – NIL**

RE-EXAMINATION: MISS WELSFORD – NIL

QUESTIONS FROM COMMISSIONER FENWICK - NIL

30

JUSTICE COOPER :

Q. You've said several times you had two years of rent coming in. They were from tenants of buildings who had vacated. Is that right?

5 A. Correct, insurance, our insurance policy covered rental for two years following the earthquake.

1030

Q. And was there any pressure coming on you from the underwriters to progress the works of repair so that the building could be reoccupied?

10 A. No not at all. They were in fact probably overburdened with work that they had with so many different projects, but no, not at all.

WITNESS EXCUSED

MR GALLAWAY CALLS:**SAMIR GOVIND (AFFIRMED)**

Q. Yes Mr Govind, do you confirm that your full name is Samir Govind?

A. Yes I do.

5 Q. You are a technical director in structural engineering at BECA in Christchurch?

A. Yes.

Q. And you prepared a brief of evidence for the Royal Commission?

A. Yes.

10 Q. Which you have with you?

A. Yes.

Q. Can I ask then please that you read from paragraph 1 please?

A. Okay.

WITNESS READS BRIEF OF EVIDENCE

15 A. "My full name is Samir Govind. I am a technical director in structural engineering at BECA in Christchurch. I have a Bachelor of Engineering degree with first class honours graduated in 1995 and a Masters of Engineering degree graduated in 1997. Both from Auckland University or University of Auckland sorry. I am a professional member of the
20 Institute of Professional Engineers, MIPENZ and the current president of the New Zealand Institute of Building and a member of the New Zealand Institute of Building, and a chartered professional engineer CPEng. I have over 15 years of experience in providing design consultancy services for commercial buildings and industrial facilities while working
25 at BECA in Auckland and in Christchurch. I have been leading and co-ordinating the earthquake response for BECA in Christchurch.

194 Gloucester Street. BECA undertook a level 2 rapid assessment on 194 Gloucester Street on 6 September 2010 following the 4 September 2010 earthquake. A level 2 rapid assessment was conducted by a
30 BECA engineer and a yellow placard was placed on the building indicating restricted use. It was noted that the parapet at the back of the building, ie southern elevation, had collapsed and that there was cracking to the brick walls on the upper level. The usability category

recorded that there should be no entry to the building until it had been repaired or demolished.”

- Q. Sir if I could just interrupt and say that I don't intend referring to those documents unless the Commission wants me to. The brief is intended to be focused on the issues that Mr Zarifeh has highlighted.

JUSTICE COOPER:

Yes that's helpful thank you.

EXAMINATION CONTINUES: MR GALLAWAY

Q. Thank you. If you carry on please from paragraph 7.

- 10 A. Yep.

WITNESS CONTINUES READING BRIEF OF EVIDENCE

- A. “Preliminary structural engineering evaluation. Devonian Realty Limited on behalf of the building owner then instructed BECA to carry out a preliminary structural engineering evaluation on 194 Gloucester Street. This report was prepared by two BECA engineers reviewed by Richard Built a technical director at BECA based in Auckland who visited the property and approved for issue by me on 14 December 2010. The purpose of this report was to provide a structural assessment and strengthening concepts following the 4 September 2010 earthquake. The preliminary assessment report indicated the earthquake damage sustained and established conceptual, feasibility of repairing and strengthening the building to as near as practical to the 67% NBS the Christchurch City Council had specified for yellow and red placard buildings on 13 September 2010. The building owners' insurers and loss adjusters had also requested a brief structural report detailing the nature and extent of the earthquake damage to the building and a preliminary indication of the structural work which might be required to meet the Council's requirements for the building to be reoccupied. The report included an initial assessment of the lateral load capacity resulting in a Grade E provisional grading for seismic risk. Our report also stated that even with more detailed calculations the building was

likely to remain earthquake prone ie less than 33% NBS. The BECA report was signed off and provided to Devonia Realty for the building owner on 14 December 2010.

5 The earthquake event of 26 December 2010. Following the 26 December 2010 earthquake event BECA provided advice to the building owner via Devonia Realty. There had been further and more significant damage to the upmost level of the western elevation of the brick wall. BECA's advice relating to the removal of the hazard posed by the damaged wall on the western side, collapsed stone mullions on the north elevation and loose bricks so as to enable the Clinic to be reoccupied into the adjacent building. The building was red placarded after the 26th of December 2010 earthquake event. In early January 2011 the Christchurch City Council consented to the temporary securing works required at 194 Gloucester Street. The work undertaken as described in drawings issued on 5 January 2011 BUI.GLO.194.008B"–

10

15

JUSTICE COOPER:

You don't need to read it out. You don't have to read those numbers.

EXAMINATION CONTINUES: MR GALLAWAY

A. "And can be seen in photographs taken on 16 February 2011. The work was undertaken so as to deal with the issues raised in the section 124 notice issued by Christchurch City Council on 27 December 2010."

20

JUSTICE COOPER:

Perhaps we could have a look at those Mr Gallaway.

25 **MR GALLAWAY:**

The section 124 notice Sir?

JUSTICE COOPER:

No I'd like to see the photographs taken on the 16th.

MR GALLAWAY:

So that's BUI.GLO194.0008A then one to 10, so they're on the screen now.

JUSTICE COOPER:

So could we see the next page please.

5 **MR GALLAWAY:**

Would you like Mr Govind to comment on the photographs Sir?

JUSTICE COOPER:

Q. Yes just perhaps you could just explain what's this showing us this photograph 8A.2. Or these photographs?

10 **WITNESS REFERRED TO PHOTOGRAPHS**

A. These are the timber mullions that were installed because there was, the stone mullions had displaced.

Q. Yes.

A. You've seen previous photos where the stone mullions had displaced.

15 Q. Yes.

A. So these were just timber mullions put in there just to provide some temporary securing.

Q. Right. Thank you next photograph.

20 A. That's a further image of the front elevation on the bottom and then the corner of the north west corner where we provided some strong backs.

Q. Thank you, next?

A. That's close up of the strong backs. And that's the western elevation where we provided the temporary securing works.

EXAMINATION CONTINUES: MR GALLAWAY

25 Q. You're talking about the photos on page 4, the bottom photo?

A. Bottom photo yes.

JUSTICE COOPER:

Q. Thank you, next?

A. And that's a close up of it.

EXAMINATION CONTINUES: MR GALLAWAY

Q. You're on page 5 now?

5 A. Yep, and that's the top one is just another photo of it and then down the bottom just indicating that the loose bricks had been removed. Because there's no bricks left. That's further photos right around that there was the loose bricks from the, that western elevation at the rear had been removed and there was temporary tarpaulin put over just to protect the building.

10 Q. And you're talking about the photos on page 6?

A. Yes.

Q. Page 7?

A. Similar photos again. And you can see at the bottom photo there's the bricks stored away for the heritage requirements.

15 Q. And page 8 is a close-up –

A. Close-up.

Q. – of that showing the bricks again?

A. That's a close-up of those photos again. Close-up different views.

Q. Page 9?

20 A. Yeah different views of the same sort of photos again.

Q. And page 10?

A. Ah, similar again just showing that alleyway that the bricks had been cleared away.

25 Q. And just describe, you see the bottom photo there is some shoring been done there, can you describe?

A. Um, to my recollection what that was, that was, there was a sign there so, so just providing a little bit of shoring to that signpost I think. It's nothing really.

JUSTICE COOPER:

30 Q. Is the tree we can see there in Gloucester Street?

A. Say that again sorry?

Q. Where's the tree?

A. The tree is at the back of the building.

Q. I see so that we're looking at, that view's looking away from Gloucester Street?

5 A. Correct. You'd be standing on Gloucester Street looking into the building, looking into the alleyway.

1040

EXAMINATION CONTINUES: MR GALLAWAY

Q. It's looking to the south is it?

10 A. Yes.

Q. Now you're at paragraph 16 of your brief.

WITNESS REFERRED TO DOCUMENT BUI.GLO194.0008D.1

15 Q. And you're about to refer to an email that you wrote to Devonian on the 14th of February 2011. Is that a copy of it that appears on the screen now?

A. Yes that is the letter that I wrote on the 14th of February, yes.

Q. And could I ask now that you read from paragraph 16 of your brief please.

20 A. "After the temporary securing works were completed I wrote to Devonian on 14 February 2011 stating on the basis of a visual inspection conducted on 14 February 2011 BECA was satisfied on reasonable grounds that any potential dangerous features have been removed or secured and that the stability of the structure is sufficient that it does not pose a threat to the adjacent buildings or the public that is significantly
25 greater than prior to the earthquake. Notwithstanding the above the building had suffered damage from the recent earthquakes and is potentially earthquake prone. The inherent risks due to being a potential earthquake prone building still exist. In determining that the building did not pose a greater risk than prior to the 4th of September
30 2010 earthquake I took into account the following factors – items of damage and loosened brickwork were typically removed and stored in recognition of the heritage classification of the building. The localised

hazard presented by damaged stone mullions on the upper level of the northern façade were removed and replaced with timber mullions. The removal of the upper level of the western brick façade and concrete parapet and substitution with timber framing and plywood cladding resulted in a reduction in weight at the upper level of the building. This reduction in weight reduced the seismic lateral loads when compared to the original building. The building plywood, sorry the plywood shear walls installed on the western elevation was intended to reinstate the in-plane shear stiffness and strength provided in the original brick masonry façade. In making the comments in the letter of 14 February 2011 I was indicating the temporary securing works had been completed to a satisfactory standard. The hazard posed by the potential falling of bricks on the western wall had been removed. The stability of the building meant that the building did not pose a threat to the adjacent buildings or the public that was significantly greater than prior to the 4th September 2010 earthquake, sorry 2010. The building had suffered damage and had remained earthquake prone. The inherent risks that arise from an earthquake prone building remained.”

WITNESS REFERRED TO EMAIL – BUI.GLO194.0012.60

20 Q. That is an email that you sent to Mr Wallace of Devonian, cc'd to the Christchurch City Council that accompanied the letter of 14 February 2011.

A. Yes I did.

25 Q. And you heard Mr Wallace being questioned by my learned friend Mr Zarifeh in relation to the first sentence in that email.

A. Yes.

Q. Are you able to say what's your reference to 'refer letter to removing fences' means?

30 A. Um, well I basically completed the works for the make-safe, well not make-safe, temporary securing works and the s 124 notice had been completed and my understanding is that once that was completed then the Council would want to remove the fences. So it wasn't a recommendation to remove the fences. It was merely, that was my

understanding that that was what was going to happen after I had completed the works for 124 and someone else was actually going to take on board.

5 Q. Just by way of explanation you heard Mr Wallace's evidence that the building owner or Devonian had no involvement or input into the installation of the fences.

A. Correct and we did –

Q. Just pause please. Did BECA have any involvement in that installation?

A. No, no had no involvement. Never have.

10 Q. Has BECA had any involvement, to your knowledge, in the installation of cordons around buildings since the earthquake of 4 September 2010?

A. No.

Q. And has BECA, to your knowledge, had any role in the decision to remove fences since that time.

15 A. No, no.

Q. Has BECA given any advice to the Council in relation to whether cordons should be installed or removed around buildings?

A. No.

Q. Could I ask you then please to read from paragraph 19 of your brief.

20 A. "Comments on Spencer Holmes report. Spencer Holmes report state that they were unable to conclusively assess the extent to which the removal of the parapet on the western elevation may have had on the restraint of the northwest wall near the northwest corner. Although they, of course, go to say it was somewhat immaterial we are pleased to provide the following clarification of the temporary securing works
25 implemented in February 2011. The photograph of the northern elevation is deceptive in that it appears that the western end portion of the wall and parapet has been removed and replaced with plywood. In fact the wall and the parapet continue right through the northwest corner
30 and have merely been clad with plywood over the end portion to provide a consistent substrate for the corner flashing. The temporary securing works on the northwest corner were adapted on-site as the works proceeded, as can be seen in the photographs of the building exterior

taken in mid-February 2011. A steel angled strong-back member was provided near the northwest corner. This strong-back was connected to the plywood shear wall on the building interior via bolts that passed through the northern façade and parapets.

5 **WITNESS REFERRED TO PHOTOGRAPHS – BUI.GLO194.0008A**

Q. And I'll just ask you to confirm what you're referring to there.

A. So on the, can you take a close-up photo of the bottom one?

Q. So we're on page 1, the bottom photograph.

A. Yeah if you take a close-up of it you can see that there's the steel
10 strong-back that has been installed on the northern elevation. The brick
behind that is continuing over that whole northern elevation and it does
return back by about 400 mm. Within the building there was another
wall that was installed and it was connected back to a plywood sheet
wall and bolted back down to the floor and that's happening at both
15 ends. You can see, at the rear of the building you can see the angle
poking up. It's installed at the northwest corner and the southwest
corner.

CROSS-EXAMINATION: MR ZARIFEH

Q. Mr Govind just before that photo's removed and it might just be me so
20 there's plywood sheeting on the outside, as we can see, and is there
plywood sheeting on the inside of the building?

A. Yes there's another wall inside the building as well.

Q. Okay and are those two walls connected?

A. Yes.

25 Q. And bolted to the floor did you say?

A. Correct

1050

Q. So the piece on the corner, the north side, the plywood, is there a
matching plywood that it's bolted into on the –

30 A. Correct, in the same line as where the strongback is, there's another
wall behind there.

Q. What's the blue material?

A. It's a tin, it's a flashing.

Q. A flashing, right. I just wanted to ask you about your knowledge of, from looking at the building obviously on a number of occasions of any previous earthquake strengthening, right.

5 A. Yes.

Q. Now you would have heard Mr Wallace's evidence and his statement that they were told by the vendor's agent that there had been earthquake strengthening in 2003 when the refurbishment had been done.

10 A. Yes.

Q. And they didn't do anymore about that or make any enquiries at the time of purchase in 2008, and it wasn't until late 2010 when they asked some questions and, because you'd been engaged they asked you, and his evidence was that BECA advised that they were very doubtful that any earthquake strengthening had been involved during the 2003 refurbishment, other than any structural input associated with widening several openings?

A. Correct.

20 Q. So just tell us presumably you – that advice came from your inspection of the building?

A. My personal involvement of the building in terms of inspections of the building, where after the 26th of December event, Richard Built from our Auckland office came down and did most of the work during the 4th of September to the Boxing Day event and issued that report. I approved the report. He had been going through the building. He had been searching through the Council archives and the only information to my knowledge that he actually came across was some drawings that they couldn't actually take away, they photographed and they were appended in our report.

25 30 Q. And what was the conclusion then that there had been no (overtalking 10:52:37)?

A. Well from his visual examination of the building it didn't appear that there was any strengthening works that were implemented. We do

know that there was a placard, a brass placard that was installed in the front of the door that said that there was some strengthening works, but we couldn't see any that had been done.

Q. And would you expect to be able to see it if it had?

5 A. Richard did his invasive inspections and so he would have looked in certain areas and all that kind of stuff, see what was done.

Q. There were large openings on the ground floor in particular weren't there?

A. Correct.

10 Q. So would you expect to have – there to have been some kind of strengthening, steel or –

A. There was some local strengthening works done around those.

Q. Right, but that's not the same as a seismic upgrade?

A. Not to my knowledge.

15 Q. No. And in the BECA report of 14 December, and I'll get it brought up, the page, it's BUI.GLO194.0008C.13. I think you refer in that second paragraph, you refer to those openings, "since these openings", three lines down, "since these openings are an alteration to the building, there may have been some local strengthening work undertaken to this wall".

20 **WITNESS REFERRED TO DOCUMENT**

A. Yep.

Q. "If no such work was undertaken, then these alterations caused a reduction in the capacity of the wall to resist seismic loads". So does that mean that you weren't able, BECA's wasn't able to confirm that there had been any local strengthening?

25 A. Say that again, I'll just read that sentence.

Q. You read it to yourself.

A. Yes, what was your question again?

Q. Does that mean that BECA wasn't able to confirm that there had been any local strengthening?

30 A. Correct. There was no such work undertaken yeah.

Q. Sorry.

A. There was no such work undertaken, then these alterations caused a reduction of the capacity of the works.

Q. So you –

5 **JUSTICE COOPER:**

Q. Perhaps you need to read to the end Mr Govind, I'm not sure the question's very helpful Mr Zarifeh. You were saying there if no such work was undertaken then these alterations caused a reduction of the capacity?

10 A. Yeah, but we don't know if there was.

Q. So you weren't able to find out whether there had been local strengthening work undertaken. Is that right?

A. Correct, that's what it says, we can't confirm.

CROSS-EXAMINATION CONTINUES: MR ZARIFEH

15 Q. And did you make any enquiries, did anyone from BECA make any enquiries as to whether that had been done, as you stated?

A. My understanding is yes, we went through the Council records, or asked for property files and all that.

20 Q. So that last sentence of that paragraph then, that was undertaken by BECA, the going through the Council records.

A. Yes.

Q. And did you find any evidence of local strengthening?

A. Whatever we would have found would be appended to our report.

Q. And is –

25 A. And there is nothing there, is there, so.

Q. And when Mr Wallace referred, I think at paragraph 26, to you saying that you'd been unable to access Council drawings.

A. We were able to view them but we weren't able to photocopy them.

30 Q. That's what you were referring to, okay. So just dealing then with the structural stability or structural strength if you like of the building.

A. Yeah.

- Q. In the 14th of December report you carried out an assessment of the strength of the building?
- A. 14th of December.
- Q. The 14th of December report?
- 5 A. Yes. That's right.
- Q. Correct.
- A. Yes.
- Q. And you referred to this in your brief, but it was classified as a risk grading E, right.
- 10 A. Category E, yes.
- Q. Just tell us what does that mean?
- A. Category E is defined under the New Zealand Engineering Society guidelines between 0 to 20 percent NBS.
- Q. So new building standard?
- 15 A. Yes.
- Q. And in fact the calculation for this building was 5 percent?
- A. No, so if you look at the executive summary on page 1, fifth paragraph down.
- Q. I'll just get it brought up, it's 0008C.5.
- 20 A. And basically it says that an initial evaluation of the building capacity to resist earthquakes had been assessed as 5 percent NBS and some further assessment calculations in the fact the capacity ranged 15 to 25 percent if some reliable diaphragm ties were present. So it's actually saying if there is some reliable diaphragm ties you would be up
- 25 around about 15 to 25.
- Q. Well were there reliable diaphragm ties present?
- A. In section 5, page –

JUSTICE COOPER ADVISES PAGE 8C.33

- 30 A. 34, .34.
- Q. 34, 0008C.34 is that right?
- A. Yes. So there we basically say in the last paragraph, "However the reality is that it is likely that the existing diaphragms do not connect well

to the walls and roof. Positive connection and good diaphragms will need to be installed. Therefore the above results represent an ideal situation that could be achieved with minimal structural work. It also highlights the areas that need further strengthening to decrease the capacity to 67 percent”.

5

Q. Well, so just that I'm clear, it might maybe just me, the initial assessment was 5 percent?

A. Yes.

Q. It could have been 15 to 25 depending on the diaphragm ties?

10

A. Correct.

Q. But in that last paragraph you've just referred us to, you said the reality is that the existing diaphragms do not connect well?

A. The two methods are different so the 5 percent is determined by initial evaluation procedure and the 15 to 25 percent is done based on calculations and when you do the calculations you need to determine if you've got good diaphragm levels and if you've got the good diaphragm levels then you'll get to that 15 to 25 percent (overtalking 11:00:04).

15

1100

Q. Okay so in this case, in this case you're saying that the reality was that there were not good diaphragm connections?

20

A. Potentially.

Q. So what would the level have been back to the five or thereabouts?

A. Ah, no, don't know. You can't do that calculation, but you need that support.

25

Q. Okay somewhere between five and 15 to 25.

A. Yep.

WITNESS REFERRED TO PAGE .12

Q. Under that heading 'Lateral Load System' under the subheading 'General'.

30

A. Yep.

Q. I think you refer to these roof and door diaphragms in the last paragraph of that section.

A. Yep.

Q. “A key element in the ability of URM buildings to resist seismic forces”.

A. Yep.

Q. And again refer to “typical of most construction of this vintage that there would be poor connections”.

5 A. Mmm

Q. So that was the general assessment in relation to seismic resistance.

A. Yep.

Q. And further down in the next section – north-south direction – third paragraph, second paragraph rather, the exterior walls, no the one
10 above that – again you talk about there are unlikely to be any significant reliable diaphragm capacity.

A. Yep.

Q. Again the same issue.

A. Mmm.

15 Q. And I’ve already referred you to the next section on page .13 where you talk about the east-west direction – just bring that up again – in the middle paragraph we referred to a moment ago.

A. Mmm.

20 **JUSTICE COOPER DIRECTS WITNESS TO ANSWER YES OR NO**

CROSS-EXAMINATION CONTINUES: MR ZARIFEH

Q. So that was the state of the building on the reasonably detailed inspection of 14 December.

A. Yes.

25 Q. And there was damage done after the Box, from the Boxing Day aftershock.

A. Yes.

Q. So it would have further weakened the building from what had been assessed prior to that.

30 A. Yes.

Q. And the particular damage done, or that was observed on Boxing Day, and which resulted in the 124 Notice, that was what was addressed in the make-safe works in February.

A. Yes.

5 Q. Now am I right that the make-safe works in February were not any seismic upgrading or strengthening?

A. Correct.

10 Q. So the end result after the make-safe works were completed was a building that was in a poorer state seismic strength-wise than is shown in your report of 14 December.

A. No we brought it back to the level that it was prior to the earthquakes.

Q. Okay so it was in a, in terms of the strengthening assessment in the report of 14 December it was back to that?

A. Yes.

15 Q. When you wrote that letter of 14 February after the completion of the works, and if we can just get that brought up please.

WITNESS REFERRED TO LETTER OF 14 FEBRUARY – 0012.61

Q. Firstly, when you wrote that letter you were saying that it was still likely earthquake prone.

20 A. Correct.

Q. And that's because of the construction of the building –

A. Yep.

Q. – and the assessment that you'd made –

A. Correct.

25 Q. – of its strength, likely strength. So are you saying, essentially that it was back in the position it was prior to the September earthquake in terms of strength?

A. Correct.

30 Q. And that was based on damage that had been inflicted by the earthquakes and aftershocks and repairs that had been carried out to address those.

A. Can you repeat that?

- Q. Was that based on the damage that had been done and the repairs carried out to address that damage?
- A. Correct, so it was the make, the temporary securing works that we did.
- Q. You said that in the last line “We are currently undertaking further investigations and assessment work to develop appropriate remedial strengthening works, if required, for the building”.
- 5
- A. Correct.
- Q. Is that to bring it up to a higher standard?
- A. Correct, the 67, which was indicated in our 14 December report.
- 10 Q. When you wrote that letter and came to the conclusions that you did in relation to the stability of the building –
- A. Correct.
- Q. – were you applying any kind of risk assessment?
- A. No, what I was doing was removing and replacing the hazards.
- 15 Q. So it was more of a damage-based assessment.
- A. It was, in terms of completing the securing works, was removing the hazards.
- Q. Did you take into account that there were aftershocks continuing at that time?
- 20 A. Yes.
- Q. And the effect that they might have on the building?
- A. Yes.
- Q. What was your view at the time of the likely level of aftershocks?
- A. We would have anticipated that the aftershocks would have, both the frequency and the size would have diminished. We wouldn't have expected the severe level of shaking that we experienced on the 22nd of February.
- 25
- Q. So you said in the middle paragraph “Based on a visual inspection of the building”, is that as opposed to removing linings or looking at drawings or what?
- 30
- A. So the visual inspection is confirming that the make-safe or temporary securing works have been completed.

- Q. So is it simply addressing the temporary securing works and nothing else?
- A. Correct. Section 124 Notice.
- 5 Q. And is it bringing in the BECA assessment of the building that you carried out on 14 December as well?
- A. I was aware of what we did and I read that report before making this assessment and that kind of stuff, yes.
- Q. So the potentially dangerous features that had been removed were the loose bricks and the west wall.
- 10 A. Yep as identified in the s 124 Notice.
- Q. And then you went on to say that “the stability of the structure is sufficient that it does not pose a threat to adjacent buildings or the public that is significantly greater than prior to the earthquake”.
- A. Correct.
- 15 Q. So that was based, as you say, on that damage being addressed.
- A. Correct.
- Q. And, therefore, the strength of the building being returned to its previous state.
- A. Correct.
- 20 Q. Albeit that previous state might have been somewhere between five and –
- A. Earthquake prone yes.

JUSTICE COOPER DIRECTS WITNESS RE OVERTALKING

25 CROSS-EXAMINATION CONTINUES: MR ZARIFEH

- Q. Where did you or what did you base that test or the test that you obviously applied to the building in writing that letter?
- A. I don't understand your question.
- Q. Well what did you base it on? Was that a standard test that an engineer
- 30 would apply to a situation like that?

A. Well to my knowledge is that what you were doing is that you had to remove the hazards and you're bringing it back to what it was prior to the earthquake and that's what we were being told to do.

Q. And, as you said, you were assuming aftershocks –

5 A. Yes.

Q. – but lesser in magnitude –

A. Correct.

Q. – and acceleration than had been experienced –

A. Correct.

10 Q. – in September and December, correct?

A. Correct.

1110

Q. I just want you to tell us about how that letter came to be written. So the works are completed on or before 14 February, correct?

15 A. Correct.

Q. And who actually instructed you to write that letter? You're writing it to the owner care of Devonia.

A. Devonia.

Q. Devonia sorry.

20 A. That is correct.

Q. So who asked you, did anyone ask you to write that letter?

A. David Wallace did from Devonia Realty yes.

Q. What asked you for a letter so the cordons could be removed?

A. No asked me to say that we've completed that section 124 notice.

25 Q. So the purpose of this letter. Tell us about that then, what was your purpose in writing it?

A. Purpose in writing it was to say that we had completed the section 124 notice because we were engaged by Devonia Realty or the property owner.

30 Q. So it's just confirmation to the client if you like that you've carried out the work required?

A. Yes.

Q. And the standard that you've done it to?

- A. Correct and outlining the risks associated with the building.
- Q. And the email that I think was the page before if I'm right that that letter was attached to.
- A. Yes.
- 5 Q. Get that brought up. Just while we're waiting for it to come up do you recall the email?
- A. Yes I've got a copy here.
- Q. But the email said was to David Wallace and as you said a copy to the council and to I think the various people in the council?
- 10 A. Just one person in the council.
- Q. Was that the building recovery office?
- A. Kelly, CERA, I'm not too sure where I actually got, and, oh, the building recovery office yes.
- Q. So "David as promised the works at 194 Gloucester are now complete. Refer letter to remove fences." So that reference is to that letter of
- 15 14 February is that correct?
- A. Correct.
- Q. I presume with this letter the adjacent buildings can be opened up as well as the concern with 194 Gloucester is closed down, right?
- 20 A. Yes.
- Q. So your purpose in this email and attaching your letter and also sending a copy to the council was so that the fences could be removed?
- A. No.
- Q. No. What was it?
- 25 A. Well it was merely just to say that the section 124 notice was done. I was copying in the council just as a matter of courtesy because all the level two stuff and reports and all that kind of stuff we were copying in council so it was just a matter of courtesy. My understanding is that they would act upon that letter and take that advice and then do their
- 30 own thing within house.
- Q. Okay well when you say in your email "refer letter to remove fences", the letter –

- 5 A. I'm not giving the recommendation that they should remove the fences but my understanding is as a result of this whole process when you've done the make-safe works and all that that the intention for the council would be to you know manage the cordon and move in and whatever they have to do.
- Q. Right. Had anyone from the council approached you about the cordon?
- A. No.
- Q. And had anyone else requested or approached you about the cordons to be removed?
- 10 A. I was getting, in terms of my understanding in terms of when we were doing this work is that the Clinic, the tenancy for the Clinic they had shifted, so there was no motivation to get another tenant in for that, but there was the pharmacy and I know that they were trying to remove the fences so they could actually start operating.
- 15 Q. Right.
- A. But that advice wasn't coming through Devonian. That was you know, there was pressure because we weren't giving them advice but there was pressure there and so we were just helping out Devonian in terms of doing the section 124 notice.
- 20 Q. When you say there was pressure, was the pressure on BECA or on you?
- A. Well the tenants, they were I think there's some emails there saying that there's some media threats and all that. My understanding is it might have been them.
- 25 Q. Right. Do you know anything about that email?
- A. I've seen it. I don't know any knowledge about it at the time but I've seen it through the records.
- Q. Okay. Well so you don't know anything about threats or pressure from the media or anything like that?
- 30 A. No not at that time but reading it that's what I'm suspecting that could have happened.

- Q. Well let's just deal with at the time, not reading it as part of the material here. So at the time there was no pressure on BECA to remove the fences?
- A. There was pressure initially from the pharmacy.
- 5 Q. Initially when?
- A. When the cordons went up.
- Q. Right so that's early on?
- A. Correct.
- Q. We heard that they were –
- 10 A. Sorry there's two tenants there. There's the Clinic and then there's the pharmacy.
- Q. And the pharmacy's further away from 194 isn't it?
- A. Correct but it's in that same building as 192.
- Q. Yes. So there was pressure when the cordons were first directed. Is that what you're saying?
- 15 A. Yes.
- Q. And did that continue into February though when you were completing the work?
- A. No. When the cordons went up there was pressure and then the Clinic left. The pharmacy was still there to my knowledge and there was another engineer without my knowledge had said it was okay for those guys to be in there.
- 20 Q. Dealing with the fence issue though. When you completed the work on 14 February and wrote that letter, there wasn't any pressure from anyone to remove the fences at that point. Is that right?
- 25 A. No.
- Q. So there wasn't?
- A. No, not at that time.
- Q. All right. So what I'm asking is, I understand the letter why that was written, you completing the work and you're advising the client, but then you've sent it to the client to David Wallace and a copy to the Council and referred to your letter as 'letter to remove fences'.
- 30 A. Yes.

Q. So why did you do that?

A. At the time maybe in hindsight I shouldn't have put those words there but from earlier it might have been the understanding that they needed to have the section 124 completed so that they can start removing the fences or do whatever they needed to with the cordon but it was Christchurch City Council that were going to do that.

5

Q. Were going to remove the cordon yes. But you said in answer to questions from Mr Gallaway that you, that BECA had never provided advice on removal of cordons.

10 A. Correct that's right.

Q. Wasn't in effect this providing advice by attaching a letter to that email and saying 'letter to remove fences'?

A. No.

15 Q. Wasn't it saying that the building in your assessment was stable enough to, not to be a problem for the public?

A. I have said those sort of words but then I blinked at that and said it is earthquake prone and it was bringing it back to what it was prior to the earthquake.

20 Q. I understand that and it was earthquake prone before the September earthquake in all likelihood?

A. Correct.

Q. But you were making an assessment that it was safe stability-wise?

A. Safe is a pretty broad term. There's inherent risks in those buildings and we've identified those risks.

25 Q. Well in sending the letter with that email and knowing that it was going to the Council and that you're referring to the fence issue, did you not think that it would be acted on?

A. No.

Q. Right.

30 A. I think there would have been a process and protocol behind Christchurch City Council because they're managing the cordons. I have no knowledge of the cordons.

Q. Right. Well did you not, were you not thinking that that would have taken as some kind of advice or at least an opinion by you as to whether the fences should be removed?

5 A. The reasons the fences were probably put up is because of the damaged features that were there and I've removed those damaged features and then it's up to Christchurch City Council in terms of to manage that process.

10 Q. I understand. I accept that but all I'm asking is do you agree that by sending that letter with the email you were effectively providing an opinion, your opinion, that it was safe to do so?

A. Well it was –

1120

Q. It was still up to the Council.

A. It was still up to the Council.

15 Q. But do you agree with me that you were providing an opinion that you thought it was safe?

A. Correct.

Q. So that was advice, effectively, in relation to fences.

A. No.

20 Q. You didn't see it as that.

A. No. It was to do with the s 124 Notice.

Q. Right but you, and you say well perhaps you shouldn't have referred to fences then.

A. In the email I shouldn't have.

25

JUSTICE COOPER:

Q. I'm just trying to understand your reference to the section 124 Notice. Did it make some reference to fences?

A. No it made reference to the damaged features.

30 Q. Right. So you've dealt with those by the temporary works that were done.

A. Correct.

Q. Why were you referring to fences at all in this communication bearing in mind that there was no reference to fences in the section 124 Notice?

A. My understanding is that the Council were going to act upon my letter and they were going to do their bit in terms of when the fences had to be removed and they might have taken the decision to leave the fences there. The cordon was set by Christchurch City Council not by myself so ultimately it would go through and Christchurch City Council would make the decision if they were going to remove or not.

CROSS-EXAMINATION CONTINUES: MR ZARIFEH

10 Q. So, as you say, it was, they put the cordons there and it was their responsibility to remove them.

A. Correct, correct.

Q. You were just giving an opinion of what you thought. Whether they acted on it or not was up to them.

15 A. Not an opinion into remove the fences but it's just –

Q. Opinion on the safety of the building.

A. Correct.

Q. And, of course, it flowed from that whether there was any risk to the public or to the adjacent building as you said in the email.

20 A. Correct.

Q. So did you have any contact with anyone from the Council after you wrote that email in relation to the fence issue?

A. After, no.

Q. So did a Neville Higgs, who you might remember was referred to in another email who apparently had signed it off from the Council end, did he contact you and discuss it?

25 A. No, not to my knowledge.

Q. And are you aware whether anyone from the Council came out and inspected the works or the building before the fences were removed?

30 A. Not to my knowledge at the time no.

CROSS-EXAMINATION: MR ELLIOTT

- 5 Q. Mr Govind, Mr Zarifeh asked you some questions about your letter of 14 February and the test that you adopted and I think you said that you had been told to remove the hazards and bring the property back to what it was before. That would be the basis of the test that you could use. Do you recall saying that?
- A. Yeah.
- Q. And that's the test, if you like, that's referred to in your letter.
- A. Yes.
- 10 Q. In paragraph 2. And so I'm just wondering who told you to apply that test.
- A. Who told me? Myself. I, I mean that was common knowledge at the time that this is what we had to do.
- Q. Well the wording of your paragraph there seems to echo the wording that appears in the Council's certified engineer letter that they required
- 15 following a s 124 Notice being issued and I'm just wondering if your wording derived from that?
- A. I think they copied my wording probably.
- Q. They being?
- A. The Council. Is that correct? I don't know. I haven't got that wording
- 20 from anywhere else.
- Q. Right you wrote those words.
- A. Yes.
- Q. And those words are based on a test so I was just asking where you got that test from?
- 25 A. So what do you mean by the 'test'? I don't understand what you mean by 'test'.
- Q. Okay well what you're saying there is that on the basis of your inspection dangerous features have been removed, the stability is sufficient so that the threat to adjacent buildings is not significantly
- 30 greater than prior to the earthquake.
- A. Yeah.

Q. And on the basis of that what I'm calling 'test' you have written to the owner and to the Council and you've expected the 124 Notice to be removed and the fences possibly to be removed as well.

A. Yes.

5 Q. So that is the test that you've used in writing that letter.

A. Yeah.

Q. And my question is where was that test from?

A. I'm not understanding what you mean by 'where that test was from'.

10

JUSTICE COOPER:

Mr Elliott I'm wondering whether it would suit our purposes if you went to the Council requirements as to what they wished to be assured by professional engineers because my reaction, speaking for myself, when I read these words
15 in this letter was that it seemed to be closely aligned to the kind of thing that the Council was wanting to hear. We are satisfied, on reasonable grounds, etc. So unless you have a particular reason, which you may have for approaching it the other way, it may be better to go to the source and then perhaps Mr Govind might recall where he got the words from.

20

**CROSS-EXAMINATION CONTINUES: MR ELLIOTT
WITNESS REFERRED TO ENG.CCC002F.142.
THE COURT ADDRESSES COUNSEL RE NUMBER**

COMMISSION ADJOURNS: 11.29 AM

25 **COMMISSION RESUMES: 11.45 AM**

CROSS-EXAMINATION CONTINUES: MR ELLIOTT

Q. Mr Govind I'm just asking these questions because one of the areas of interest to Ofa Mizrahi's family might be the process that resulted in the red sticker being removed and the cordon being removed?

A. Yes.

Q. And you may or may not be aware but the Council had a form in place which once accepted would result in a red sticker being removed, that form is up on the screen now, ENG.CCC0002F

5 A. Yes.

Q. .42.

A. Yep.

WITNESS REFERRED TO FORM

Q. And you've had an opportunity to read that form over the break.

10 A. I haven't read it today but I've seen it before.

Q. And you've seen it before?

A. Yes.

Q. And do you agree that the wording in paragraph 2 of your letter seems to echo the wording in the form?

15 A. Very similar in some parts yeah.

Q. And so my question was just whether your wording in paragraph 2 derived from what's there in the form?

A. I knew the form existed so I knew some of the things that they were looking for but I didn't necessarily go to that form and kind of copy it type thing.

20

Q. But was –

A. It was common knowledge at the time.

Q. There was some internal process at BECA was there whereby the contents of your letter were confirmed as appropriate?

25

A. Yes.

Q. To send to the owner and the Council?

A. To the owner.

Q. To the owner?

A. Yeah.

30

Q. And you've also sent your letter to the Council?

A. Copied the Council yes.

Q. And your expectation was that as a result of sending your letter the Council would remove the section 124 notice?

A. Yes.

Q. And subject to their own procedures possibly also remove the fences?

A. Possibly.

5 Q. So there was really just one question that I wanted to ask you at that
and I've asked others, other engineers about it. Mr Zarifeh has referred
you to parts of your report of 14 December 2010 and I won't take you
through all of it again but I will just refer you to one further comment, we
won't bring it up I'll just read it to you. You say that "the lateral load
10 response in the north-south direction will be brittle meaning once the
URM walls reach their capacity they will deteriorate or fail quite rapidly"
and you say that "similar comments apply in the east-west direction as
for the north-south direction"?

A. Correct.

Q. So that was your opinion of the state of the building?

15 A. Yes.

Q. As at 14 December. And as at the 14th of December you were aware
that there had been aftershocks in Christchurch. You were aware that
there had been a magnitude 4.7 earthquake on Boxing Day?

A. I thought it was larger than that on Boxing Day.

20 Q. Were you aware of a –

A. (inaudible 11:59:42)

Q. – large...?

A. Yeah.

25 Q. And you're aware that a magnitude of one less than the first earthquake
had been predicted may not be the right word but a possibility had been
flagged?

A. Yes.

30 Q. So my question just really is, instead of writing to the owner and copying
the Council in those terms which just focused on whether the building
was no worse than before 4 September, given the other information you
had about the state of the building, why not take a step back and tell the
Council and the owner that this building should remain cordoned off and
closed?

A. We weren't providing any advice around the cordon so we were providing advice around completing the section 124 notice and we communicated to the client that the building still was earthquake prone and presented a high risk so we have said those things.

5 Q. I'm not seeking to criticise you here because many other engineers have said they adopted the same test, but we also know that engineers have an ethical obligation to consider the safety of those who occupy buildings?

A. Yes.

10 Q. And it's a question looking to the future really. Why, why didn't you as an engineer take that step back and make those wider comments about the danger this building may have posed?

A. I thought I did in terms of saying that there was a high risk associated with that building so that, that, that risk was communicated to the owner
15 by communicating it is an earthquake prone building.

JUSTICE COOPER:

Q. I don't want to interrupt but you say you communicated it was a high risk. Your letter of the 14th of February says that the building is potentially earthquake prone and the inherent risks due to being a
20 potentially earthquake prone building still exist?

A. Correct.

Q. Is that what you're referring to when you say you said it was a high risk building?

A. Correct.

25 **CROSS-EXAMINATION: MR LAING**

Q. Good morning, I'd just like to ask you some questions around the sequence of events that followed your report, BECA's report of 14 December. Can you recall when you were instructed to provide that report?

30 A. Ah, soon after the 4th of September earthquake. I think it's in my evidence in terms of the date, um...

Q. At para 7 you refer to being instructed but you don't provide a date then?

5 A. We're engaged by Devonian soon after the earthquake on the 4th or 5th of September, um, started off doing the level 2 assessment and then during the time we would have been asked somewhere between probably early to late September somewhere, somewhere in that time in terms of doing a preliminary evaluation report. It will be noted in the report in terms of the date that we'd been asked maybe.

Q. I couldn't find a date but I'll accept that's the situation.

10 A. Yep.

Q. But that report was not issued to the client until 14 December?

A. Correct.

Q. Yes and you then proceeded to do the design of the remedial make-good work?

15 A. The temporary securing works.

Q. Temporary securing works?

A. That was after the Boxing Day event –

Q. So –

A. – so that report was issued.

20 Q. So the report was issued on 14 December 2010 to Devonian?

A. Correct.

Q. And did you receive any instructions to proceed with any make-good work before the Boxing Day?

25 A. Yes I, they're two different things there so, so the 14th of December we've issued that report which is a preliminary structural evaluation. On the Boxing Day event, I got called out by either Peter Francis or Dave Wallace from Devonian. They rang me on my mobile to come and have a look at the building and inspect and then during the 26th to the 30th of December we were doing many visits and then kind of talking to
30 the Council in terms of doing the make-safe works.

1155

Q. So the only, the make-safe works, or the design of those works was only commenced after the Boxing Day earthquake?

A. Correct, because it was related to the section 124 notice which was issued on the 27th of December.

Q. Yes. And the Council signed off on those works on or about the 5th of January, is that your recollection?

5 A. Yeah, roundabout that date.

Q. And you heard Mr Wallace's evidence this morning where he was critical of delays by the Council, but from what I can see the Council acted within days of receiving your design. Is that correct?

A. That is correct in terms of the things, yeah.

10 Q. Over to your paragraph 12. If you could just look at that and look at the last two lines, you say there, "So as to enable the Clinic to be reoccupied into the adjacent building." What was your understanding based on in making that statement? Is that a communication from Devonia?

15 A. Yes, my understanding is because the Clinic had vacated and so there wasn't much damage to the Clinic building prior to the 22nd of February, and after the Boxing Day event there was not much damage to the Clinic. The Clinic is 192 Gloucester Street which is the neighbouring building.

20 Q. Yes, but your recollection is that Devonia wanted the Clinic to be able to be reoccupied. Is that correct?

A. Ultimately, prior to the 22nd of February. After the 22nd of February there was more damage to the Clinic.

25 Q. Yes, but as at, just following the 26 December event, that was what your understanding of the position was based on your discussions with Devonia. Is that correct?

A. Correct.

CROSS-EXAMINATION: MISS WELSFORD – NIL

RE-EXAMINATION: MR GALLAWAY – NIL

30

QUESTIONS FROM JUSTICE COOPER:

Q. Mr Govind, just in relation to your report of the 14th of December 2010, I guess I've only read it superficially, but am I right in inferring from it that at that stage you were uncertain about some aspects of the seismic strength of the building which is why you were not able to be particular in giving it an assessment which compared its capacity to that of a new building? Do you follow the question?

5

A. Yes.

Q. It appears to me that the report may have proceeded only on the basis of a visual inspection. Is that – am I right in that?

10 A. Which report, the 14th of December report?

Q. That's the one, yes.

A. There were some drawings that we –

Q. Sorry.

A. There were some drawings that we've seen.

15 Q. Some drawings, but there was no –

A. There was no previous engineering reports that we saw.

Q. No, and in considering the position and preparing that report you didn't carry out any invasive investigations of the building. Am I right?

20 A. No. I personally didn't do the inspections. It was another engineer out of Auckland.

Q. Well if I – I wonder if we could bring up page 8C.33, or perhaps 32 actually, sorry.

WITNESS REFERRED TO DOCUMENT

25 Q. This is a section of the report headed 'preliminary assessment of existing lateral load capacity'. Do you see that?

A. Yes.

Q. And it commences by referring to an initial evaluation of the building's capacity?

A. Yes.

30 Q. As compared to the current code?

A. Yes.

Q. And there are various attributes, rankings given there. And then on the next page under the heading 'commentary'.

A. Yes.

Q. There's the statement, "its initial evaluation very approximate, and that more detailed calculations will likely show a higher percentage of new building standards."

5 A. Yes.

Q. And there's a preliminary evaluation in paragraph 5.3 which follows.

A. Yes.

Q. And that includes the statement just above the diagram, "A key assumption in this analysis is that there are structurally effective diaphragms at each floor at roof level which are reliably attached to the walls and roof."
10

A. Yes.

Q. But it's an assumption. It doesn't reflect anything that has actually been observed on the site. Is that right?

15 A. Correct.

Q. And then there's a table which sets out what I take it is the assumed strength assessment for each length of wall. Must be based on assumption mustn't it?

A. Those are based on assumptions and calculations done, preliminary calculations.
20

Q. Yes, and under that table the comment, there's a reference to the lack of detailed information for the basis of the above calculations.

A. Yes.

Q. So that's what leads me to conclude that this is based on assumption, or educated assumption no doubt, but based on assumption and that in order to have reported on a basis other than assumption you would have had to have done a different kind of inspection of the building. Am I right?
25

A. Yes.

30

QUESTIONS FROM COMMISSIONER FENWICK:

Q. What was your assumption that because it only got to 25 percent and it was well short of the 33 or 67 percent level, that there was no point in proceeding unless you got instructed to retrofit the building?

A. Correct.

5 Q. That was the basis of the – of not going into an invasive inspection?

A. Correct.

QUESTIONS ARISING: MR ZARIFEH

10 Q. I have one question arising, and it relates to a question that I asked you before and that's about this previous strengthening. Were you aware of what appears to have been strengthening done in 1976 by Holmes Paul Johnston?

A. No.

Q. That wasn't seen on the Council files?

A. No.

15 Q. So that it follows that wouldn't have been taken into account in your assessment?

A. No.

QUESTIONS ARISING – MR GALLAWAY – NIL

WITNESS EXCUSED

MR LAING CALLS**STEPHEN JAMES MCCARTHY (SWORN)**

Q. Your full name is Stephen James McCarthy. You've prepared a brief of evidence, could you start reading at paragraph 6 please?

5 WITNESS READS BRIEF OF EVIDENCE

1205

Events between 4 September 2010 earthquake and 22 February 2011 earthquake. On 5 September 2010 a level 1 rapid assessment was carried out and the building received a green placard. The assessment noted that the parapet on the south side had come down over the courtyard. I noted restricted access to the back courtyard due to this brick fall. I understand from information on the Royal Commission's secure website that a level 2 rapid assessment was carried out by BECA on behalf of the owners on 6th September 2010. This resulted in the yellow placard. There does not appear to be a copy of the rapid assessment form on the Council's files. On 5 October 2010 a level 2 rapid assessment was carried out and the building was classified as restricted use, yellow. On 12 October 2010 the owner of the building was written to, care of the property manager, Devonia Realty Limited, notifying the owner that a section 124(1)(c) Building Act notice had been issued for the building. The Building Act notice stated that the building had been damaged, that there were structural defects and that Council records showed a toppling hazard at the rear and some minor cracking to the side wall. The Building Act notice included a deadline of 31 January 2011 to carry out the work on the building to remove the danger. The cover letter accompanying the Building Act notice advised the building owner to contact the Council's Building Recovery Office to discuss any building assessments and in particular the Building Act notice before undertaking any steps to remedy the danger and the letter recommended that the building owner contact their insurer. As a CPEng report would have been required to certify that the danger had been removed, the Council's letter also recommended the building owner seek structural engineering advice from a qualified structural

engineer on how to remove the danger. The Council's file showed correspondence between the property manager and the Council on 16 November 2010 discussing the repair work required. The USAR Damaged Building Reconnaissance report dated 27 December 2010 at 10.15 stated that an engineering assessment was required but additional cordon fencing was not required. A further USAR Damaged Building Reconnaissance report dated 27 December 2010 at 12 o'clock states that the west parapet has fallen and that the top north-west window was loose by six inches. This report recommended that an engineering assessment and cordon fencing were required. Cordons were in place on 31 December 2010 as shown by the attached photographs. On 27 December 2010 the Council wrote to the building owner care of the property manager issuing Building Act notices. The Building Act notices specified that the building had been damaged. There were structural defects to the building and that the Council records showed the top storey north facing window columns were precarious and that there was damage to the west walls and the windows. The Building Act notice included the same deadline of 31 January 2011 to undertake work to remove the danger. On 5 January 2011 the building's property manager emailed John Higgins, Resource Consents Manager, and Aaron Haymes attaching photos of the building following the Boxing Day earthquake and work notes from BECA detailing the works required. On 6 January 2011 the building's property manager emailed the Council and attached an updated version of BECA's notes detailing the works required following closer inspection of the damage by crane. The Council's files show correspondence between John Higgins, Fiona Wykes, Urban Design and Heritage, and BECA regarding the urgent works required to make the building safe. On 6 January 2011 an email from Fiona Wykes states, "please go ahead with works to make safe, regarding work as undertaken for the retrospective resource consent." The correspondence between building owners, BECA and the Council on 6 January 2011 indicates that works were to commence immediately. On

3 February 2011 an engineer contracted to the Council, Raj Unka, re-inspected the building. The assessment notes that there was cracking to the parapets and that repair work was currently in progress. This form also records that the existing fencing was adequate. The Council files indicate that on or about 3 February 2011 a meeting had been called to assess the current status of the building and the requirements for the future. The next steps action points note that a further report was due from BECA in four to five weeks and that a resource consent and building consent would be required for any further work to strengthen the building. On 14 February 2011 BECA wrote a letter to the building owner care of the property manager advising that any potential dangerous features had been removed or secured and that the stability of the structure is sufficient that it does not pose threat to adjacent buildings or the public, that are significantly greater than prior to the earthquake. This letter was attached to an email to the property manager, copied to the Council's Building Recovery Office stating that the works were complete.

Cordons – the USAR damaged building reconnaissance report of 27 December 2010 at 12 o'clock notes that a cordon is urgently required. Photographs taken on 31 December 2010 indicate that the cordon was in place by this date. It is noted that in general the location of all cordons was determined by a CPEng engineer. Council records indicate that no cordon was in place on 18 February 2011. Council records appear to indicate that cordons were removed as a result of the letter received from BECA Engineering confirming, "any potential dangerous features have been removed or secured and that the stability of the structure is sufficient, that it does not pose a threat to adjacent buildings or the public that is significantly greater than prior to the earthquake". The Council instructed Fulton Hogan and the cordon was removed. In terms of the Council's Earthquake Prone Building policy 2006 and the Building Act regulations 2005, the building was recorded in the Council files as a possible earthquake prone building. The building had some strengthening work in the past according to a report

5 by Holmes Consulting Group they did 19 January 2002 the building was not considered to be earthquake prone in terms of section 66 of the Building Act 1991. The building consent application had been made after the commencement of the earthquake prone building policy 2006, the application would have been assessed in terms of the policy, however no building consent applications were applied for after the commencement of the policy.

CROSS-EXAMINATION: MR ZARIFEH

10 Q. Mr McCarthy just on those last two paragraphs in the prior earthquake strengthening. In 2002 the report from Holmes Consulting Group, the reference to the building not being considered earthquake prone in terms of the 1991 Act, that position would have subsequently changed of course wouldn't it?

A. Yes.

15 Q. In terms of the new legislation after that date.

A. Yes it would, the levels were increased in 2004 to 33 percent of the new building standard.

Q. And so it would have made it likely earthquake prone?

A. Yes.

20 Q. And as we've heard from the BECA report, it clearly was earthquake prone in terms of the legislation?

A. Yes.

Q. You said that some strengthening had been carried out in the past and that was in 1976 according to the Council records?

25 A. Yes.

Q. And that was – it appears to have been Holmes Paul and Johnston that oversaw that?

A. Yes they did.

30 Q. And then in 2002 just looking at the report that you referred to, the Holmes Consulting Group report, it appears that someone called Christopher James had either purchased the building or was looking at buying it and wanted to redevelop it –

A. Yes.

Q. – from office space on the ground floor and upper floors to a restaurant on the ground floor, correct?

A. Yes.

5 Q. And that's the purpose, it appears to have been the purpose of the Holmes report that you referred to that he obtained?

A. Yes it does.

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10 ... that's the purpose, it appears to have been the purpose of the Holmes report that you referred to, that you obtained?

A. Yes it does.

Q. In the second to last paragraph on that page that's up, "Holmes Consulting Group has been engaged to carry out a preliminary seismic evaluation of the existing structure as part of a proposal to convert the ground floor space into a restaurant"?

15

A. Yes.

Q. Correct?

A. Yes.

20 Q. "This proposal may constitute a 'change of use' in terms of the Building Act", correct?

A. Yes.

Q. And if you just go two paragraphs up, "significant strengthening involving the introduction of new shear wall elements and concrete facings is likely to be required to satisfy the provisions of section 46 of the Building Act, change of 'use of buildings'". Now is that a reference to the level of structural strengthening that would have been required if it had been considered to be a change of use?

25

A. Yes.

30 Q. And is that as nearly as practicable to the new building standard level?

A. Yes, so the target would have been 100 percent and as much as that be possible that would have been a requirement.

Q. And if we turn over please to .21, page .21 of that sequence, there's the reference there at the top, three paragraphs, to it not being earthquake prone is where you got your information from, and of course my point in the third paragraph that when the legislation was adopted it would again be deemed earthquake prone?

5

A. Yes correct.

Q. If we go please to .23, under 'possible strengthening options', first paragraph said, "To provide additional seismic strength to the building, it will be necessary to address the critical lateral elements. The diaphragms are the most critical elements followed by the capacity of the front wall."

10

A. Yes.

Q. And then if you look at the third paragraph under that heading, "new concrete or steel braced walls would be required to both the front and rear sections of the building in the north-south direction. Enhancement of the front wall will be required by either infilling the existing openings to some degree, or the addition of new concrete facings to the inside of the existing masonry". Correct?

15

A. Yes.

20

Q. So that was the type of strengthening that would have been required if there'd been a change of use?

A. Correct.

Q. Now I want you to look please at .26 in that sequence, and this is a letter from Christopher James to the Council, to John Taylor of the Senior Building Control Engineer?

25

A. Yes.

Q. And he's writing to request clarification of the issue of change of use to this building, second paragraph, "Café style dining on the ground floor and office space on the first and second floors does not I submit constitute a change of use." Third paragraph the seismic report prepared by Holmes Consulting Group states, "Significant strengthening involving the introduction of new shear wall elements, and concrete facings is likely to be required," et cetera, and then this statement

30

makes the issue of a change of use significant. And then he goes on in the next paragraph to talk about the cost of significant strengthening and that it will be unfeasible and would result in probable termination of the current purchase agreement. Correct?

5 A. Yes.

Q. And the likely regression of the building to its former state of disrepair and how that would benefit nobody and look forward to a decision on this most urgent of matters.

A. Yes.

10 Q. Now correct me if I'm wrong but it would appear that, I'm not sure how the dates work but if we could go to page .25, that appears to be a fax from John Taylor to Christopher James and referring to a fax from Mr James and if I can refer to the second paragraph, second and third paragraphs, "We have taken appropriate advice based on your
15 amended proposal of café style dining room on the ground floor and office space on the upper floors. We are now of the opinion that your amended proposal is not a change of use in terms of section 46 of the Building Act 1991. Thank you for bringing in the structural report and the fire report from John Sinclair. It appears from the structural report
20 that the structure will not require upgrading as part of the current consent." Correct.

A. That's correct.

Q. So firstly it appears that the initial proposal was, converted from office to restaurant?

25 A. There was a kitchen on the ground floor as I understand that had been there since the existence of the Trades Hall and that kitchen had been in operation throughout. There was offices on the first and second floor is my understanding.

Q. Mr James' original proposal was to convert the ground floor to a
30 restaurant?

A. Yes.

Q. And the amended proposal referred to in that fax is café style dining on the ground floor instead of a restaurant?

A. Yes.

Q. And continuing with the office space upstairs. Can you just help us out and just tell us in terms of section 46, that wasn't a change of use then, the office to café style dining?

5 A. No, I think as the Commission has previously heard the, whether the use is commercial and indeed taking it from a kitchen service facility to a café bar type establishment wasn't considered in those days to be a change of use. I think there was some complexity around this issue insofar as the building hadn't been occupied for a number of years and
10 so there was a decision would have been needed as to whether the use was continuing. I think the case law and the legal advice at that time was that despite that halt in the occupation, that didn't affect the consideration of whether it was a change of use or not, so in effect we had a kitchen and food type establishment on the ground floor, office
15 accommodation on the upper floors so it was considered that there wasn't a change of use.

Q. So was it café style dining on the ground floor previously. Is that what you're saying?

A. The kitchen had always served packed food in the hall to people who
20 came in, in quite large quantities I understand.

Q. And so would it have been different if it was a restaurant. Is that why you had to amend it?

A. No I don't believe that that would have made any real substantive
25 difference.

JUSTICE COOPER ADDRESSES MR ZARIFEH:

This letter refers to appropriate advice having been taken. It may be instructive to see that advice. Have we got to the bottom of that?

30 **MR ZARIFEH:**

No, I was just going to ask that from an answer Mr McCarthy gave.

CROSS-EXAMINATION CONTINUES: MR ZARIFEH

Q. The information that you're relying on, when you say that it was previously – there was a kitchen there and there'd been a lapse. Is that from the records that are on the Council file?

5 A. I think that's from the knowledge of people that were round at that time, it's – I don't have that – any written documentation on that, but that –

Q. So is this enquiries you've made, what with John Taylor or ...

A. With our legal team at the time. They've been around for quite a long time.

10 Q. And the appropriate advice that's referred to in that fax, is that advice from the legal section of the Council?

A. Yes.

Q. But there's nothing in writing, or certainly not now?

A. At that time there wasn't anything in writing.

15 Q. At that time there wasn't, okay. But you said that the proposal was amended from restaurant to café style dining. My question is does that make a difference to it not being a change of use?

A. No, not really.

Q. What do you mean by not really?

20 A. Well the –

Q. Why (overtalking 12:24:19).

A. – my interpretation of the change of use where it's commercial to commercial activity and you've got similar type of food service is that that wouldn't be considered change of use.

25 Q. So why did it have to be amended anyway?

A. I'm unsure.

Q. There's no record of that?

A. No.

30 Q. So there's a decision made anyway that it's not a change of use, and then in 2003 if we look at .27

WITNESS REFERRED TO DOCUMENT

1225

- Q. This is a letter 23 January 2003 to the Council from Spence Consultants Limited and refers to a letter from the Council dated 23 January previous discussions with John Buchan and John Taylor there was no change of use. The building was already designated hospitality business on the ground floor. Do we still need an engineering report? And then you see the handwritten notation on the bottom Gary, presumably Gary Spence, "yes you are right there was no change of use and the report is not required, regards Peter".
- 5
- A. Peter Harrow.
- 10 Q. Peter Harrow right.
- A. Yes.
- Q. So was that, the change there was from the café style to a restaurant bar?
- A. Yes.
- 15 Q. And that wasn't a change of use?
- A. It wasn't.
- Q. And is that your understanding of the application of the relevant section at that time?
- A. Yes it is.
- 20 Q. So there was no difficulty in it going from office to restaurant bar? It started off as an office.
- A. On the ground floor I don't think it was an office. It had an assembly hall and kitchen is my understanding, that in the kitchen service the hall and so that was all considered to be part of that hospitality industry I guess.
- 25 Q. How long had it been since that was used in that manner?
- A. Nine years I understand.
- Q. Right so there was no requirement for any of that structural upgrading that the Holmes report said would be required in 2002 when the, when it changed from that previous use to the restaurant bar?
- 30 A. That's correct.
- Q. Would that be the case today if the same issue was being considered?
- A. I think it would and having considered there are, is more definition around the 2005 regulations that cover change of use but I think it was

broadly within food hospitality restaurant café industry it would not be considered a change of use.

Q. And so there wouldn't be structural upgrading required?

A. That's correct.

5 Q. I just want to ask you about the cordon issue. You said that in paragraph 21 of your brief that all, in general the location of all cordons was determined by a CPEng engineer.

A. Yes.

10 Q. So who was the CPEng engineer who determined that in this case, these cordons? Can you tell us?

A. I can't I'm sorry.

Q. Is there any record of it on the council's file?

A. I think there's some photos that I've supplied. That would be the only record you have.

15 Q. I mean the record of who determined it and what it was based on.

A. No.

Q. And is there a record kept of any of that kind of thing or not?

A. Normally as I've explained I think previously the CPEng engineer who's part of the assessment team would define where the cordons would go by painting, by using fluoro paint on the road and we would, and then the council contractors would come along and follow that. I can only surmise that that may have occurred on this occasion.

20

Q. All right. But there's no record of such things?

A. No there's not.

25 Q. And in removing the cordons on or about 14, 15 February as I understand it the council relied on that letter from Mr Govind from Beca?

A. Yes.

Q. So was that in effect treated as a CPEng certificate or was that not required, a CPEng certificate?

30 A. Treated as a CPEng certificate. It was signed by a CPEng engineer. Had all the elements I think of the certificate that we required to remove the cordon.

- Q. Right. And was that the certificate that Mr Elliot referred Mr Govind to?
Is that what you're referring to?
- A. Yes.
- Q. Right. So did the council not require it to be in that form? It didn't
5 matter that it was in that letter? What was the policy at the time?
- A. I think we'd seen a number of engineering companies had typed the
substance of that form in their own format. I know Holmes had a
slightly, a different format but the same effect so we accepted that.
- Q. Right. But was that form more for removal or change from red to green
10 placarding?
- A. Yes.
- Q. Right. So there wasn't in fact a CPEng certificate form for removal of
cordon?
- A. No there wasn't.
- 15 Q. But there was in appendix 26 of the Council's report a procedure for the
removal of cordons?
- A. Yes.
- Q. And that's at ENG.CCC0002F3.150? And just while it's coming up I'll
read the points out to you. Buildings with yellow or red stickers which
20 would have been this building.
- A. Yes.
- Q. "To get temporary traffic management such as tapes, fences, barricades
removed from the building with either a yellow or red sticker the
following processes must be followed: 1. The building is to be made
25 safe. 2. The property owner arranges with suitably qualified engineer
or inspector to assess the building."
- A. Yes.
- Q. So when it says there suitable qualified engineer or inspector do you
say that was required with the CPEng? .151 sorry.
- 30 A. Yes.
- Q. And is that what despite not saying that is that what was required?
- A. Yes.

- Q. “3. The engineer or inspector produces a structural assessment report stating that the building is safe to occupy and does not pose a threat to public safety.” Correct?
- A. Yes.
- 5 Q. So in this case was that letter 14 February, was that treated as a structural assessment report?
- A. Yes it was.
- Q. That stated that the building was safe to occupy and did not pose a threat to public safety.
- 10 A. I think in this case we took it that in terms of the letter was more focused towards the cordon, the removal of the cordons and that was the effect of receiving that. I don't believe that we formalised the removal of the placards on the building at that stage. I think we took it that that was, that it was directed at saying that the exterior of the building had been
- 15 secured, there were no falling hazards, the buildings adjacent weren't at risk, the building was unlikely to, there was no immediate falling hazards to the street so based on that we made a decision to remove the cordons.
- Q. Okay. You heard Mr Govind's evidence that he wasn't intending that to be a certificate re the cordons or in fact any advice to be acted on in
- 20 relation to cordons.
- A. Yes.
- Q. And that it was the council's responsibility. I presume you would accept that it was the council's responsibility?
- 25 A. Yes it was.
- Q. In relation to removal of the cordons. But in this case the council acted on that letter?
- A. We depended on it.
- Q. Point 5 in that heading says once the council building evaluation team is
- 30 satisfied that the building is safe and it does not pose a threat to public safety they will contact the traffic management etcetera, right?
- A. Yes.

Q. So what steps did the council take in this case apart from receiving and reading that letter to ensure that the building was safe and that the cordons could be removed?

5 A. I think we've heard from my evidence that Raj Unka had been there a few days previous or on the 3rd of February and the work was underway at that stage so he was, that information would have been on the file and the letter from Mr Govind was critical for our consideration so based on that we would have removed the cordons.

1235

10 Q. Mr Unka's visit was I think 3 February wasn't it?

A. That's right.

Q. And the work as you say was in progress so the cordon hadn't been removed at that stage?

A. That's correct.

15 Q. So that wasn't a visit by a BETT engineer for the removal of the cordon was it?

A. No it wasn't.

Q. So if anything that might have been an assessment of whether the cordon then in place was adequate, correct?

20 A. And a general assessment of the building. I think the primary risk at that stage was in the western wall to the adjacent building, so that would have been observed at the same time.

Q. But are you saying then there was a further visit by an engineer after the work was completed to assess the safety?

25 A. No, no there's no evidence of that.

Q. And would that normally have been done or not?

A. On occasions it has been done but –

Q. What would that take, whether that would happen, whether a Council engineer would go out and confirm?

30 A. I think Mr Higgs if he had, who was our senior engineer who's appeared before the Commission before, would have taken all the elements, and if there was any doubt he certainly would have sent an engineer out, but I

believe that the file was sufficiently complete that he felt satisfied that he could make that decision.

Q. And we saw reference to him in that email that had been signed off by Neville Higgs, correct?

5 A. Yes.

Q. You recall that?

A. Yes.

Q. I couldn't see any documentation on the Council file that showed that sign-off. Can you point me to any?

10 A. No, I don't know that there was a written document to that effect.

Q. So how would it be signed off, would it just be oral?

A. There's nothing on the file, it would normally be recorded, but there's nothing on the file that I can show you. I would be surprised based on the evidence that Mr Higgs has given previously that he didn't write something down either on Mr Govind's letter or somewhere else, but I
15 can't point to that I'm sorry.

Q. So there's no record in this case?

A. No.

Q. And just the last issue I wanted to ask you about was this email that
20 you've attached to your brief of evidence and it's 0007D.1.

WITNESS REFERRED TO DOCUMENT

Q. That's the email from Sharon Weir?

A. Yes.

Q. You recall that, of 15 February. You see it there. It said, "We have an
25 urgent requirement to remove the cordons." Can you tell us why it was urgent?

A. There was a lot of pressure on us at that time from adjacent building owners to remove cordons where their businesses were being affected by cordons. So if there was any urgency it would be around that issue,
30 people were hurting, wanting to get back into business.

Q. Right.

A. But I need to emphasise there was – public safety was never compromised.

Q. So have you made any enquiries in this case to determine why there was the urgency?

A. No I haven't.

5 **JUSTICE COOPER:**

Q. What does RFS mean?

A. That's a request for service.

CROSS-EXAMINATION CONTINUES: MR ZARIFEH

Q. And is that to action the removal of the cordons?

10 A. Yes.

Q. And it had to be completed that day. It says in the second paragraph as the property owners had been in contact with Chris Kerr. Who was Chris Kerr?

A. Chris Kerr was an acting earthquake manager in the building area.

15 Q. Is he still with the Council or not?

A. No he's not.

Q. And it says, "And the media is a threat to us." Can you tell us what that means?

A. That is an unprofessional statement in my view. It's not the type of
20 wording that we would – we use in our organisation. Sharon Weir is – was a contractor brought in on a temporary contract to help us to deal with some administration things. Some of the content of this email does concern me. It's not – it would not be – it's in no way common for that sort of email, that sort of terminology to be used, and we wouldn't
25 respond on a public safety issue to the media. We wouldn't in anyway compromise public safety. It's just not the way operate.

Q. Yes I understand that, and I understand your objection to some of the content, but leaving that aside do you know what the reference to the media concerned?

30 A. I can only imagine, it was quite common for business owners to say, "Look we're really hurting. If the Council doesn't act immediately we are going to go to the media and make our concerns known."

Q. Okay, and so the Council was conscious of that?

A. Yes.

Q. That pressure?

A. Yes.

5 Q. So do you think that in this case that pressure, and I'm not saying I'm held by you personally but obviously by this woman that was dealing with it, do you think that that pressure may have influenced how the cordon issue was dealt with, in other words it was dealt with obviously on the day that that letter from Mr Govind was received and it appears
10 from what you've said that there's no written record of any sign off.

A. Mmm.

Q. It was done orally and obviously as a matter of urgency for the reasons set out. Think that could have occurred?

15 A. I believe looking at other records that we've – that the Royal Commission's got, it looks like the cordons were actually removed around about the 16th, 17th, two days after this. I don't think it would have been so urgent that that we wouldn't have followed due process, but having said that there's obviously some documentation not available which I would like to have been available.

20 Q. Which you'd like to think that due process was followed but you can't be certain?

A. That's right.

JUSTICE COOPER:

25 Q. You did have evidence from Mr Wallace who attached a photograph showing the cordons removed, and he said the photograph was taken on the 16th?

A. Yes. May well have been.

CROSS-EXAMINATION CONTINUES: MR ZARIFEH

30 Q. So that implies doesn't it that, because it had to go through Fulton and Hogan I think you said?

A. Yes.

Q. So it was obviously achieved either that day, the 15th or early on the 16th?

A. May well have been.

CROSS-EXAMINATION: MR ELLIOTT

5 Q. Mr McCarthy, just two brief topics today. The first just on the top of make-safe work on heritage buildings. The heritage buildings within the Council's jurisdiction would have been most likely to have been earthquake prone of all the Council's buildings. Is that right?

A. Yes.

10 Q. I just want to refer you to document WIT.WAL0002.16.

WITNESS REFERRED TO DOCUMENT

Q. It's actually page 2. So that appears to be an email from John Higgins to David Wallace dated 30 December 2010.

A. Sorry what was the date again, oh yes 30 December, yes.

15 Q. And was John Higgins the Resource Consents manager?

A. Yes.

Q. Just highlight the paragraph beginning, "The works required." "The works required to make the building safe are to be the minimal required and the least damaging to the heritage fabric of the building." So was it
20 the Council's position that with heritage buildings make-safe works were to be the minimal required?

1245

A. Obviously we didn't want the fabric of the building, the heritage features disturbed unnecessarily but we recognise the buildings needed to be
25 made safe so at this point in time we were looking for buildings to be made safe and more permanent repairs to be made in the future.

Q. Was that a standard direction do you know issued by the council about make-safe works on heritage buildings?

A. It would be common to make that evident to the people. It's, yes, yes.

30 Q. But I suppose the Council's position would be we still required the engineer's certificate which verifies that the property is in no worse state

than it was pre September so the Council would say well even if works are minimal they still have to meet that test?

A. Yes they do.

5 Q. The, but I suppose the state of heritage buildings in particular emphasise the importance of cordons?

A. Yes.

10 Q. And that was the second topic I wanted to ask you about briefly, that is the removal of the cordon out the front of 194 Gloucester. You said that the council accepted the letter dated 14 February 2011 as sufficient really to remove the red sticker or placard, I'm sorry to remove the Building Act notice and to remove the cordon.

15 A. I'm not certain we'd actually removed the Building Act notice. I think we'd removed the cordon based on that letter. There was still clearly more permanent works to be made on that building therefore the placard before the building could be reoccupied and that was there were discussions between the engineers and the owners and the council with regards to those more permanent repairs to be made which and of course they were talking about strengthening the building to 67% in a further stage.

20 Q. It does appear from the email that Mr Zarifeh referred you to that the cordons were removed with some urgency, doesn't it?

A. Yes they were removed quickly, yes.

25 Q. There was some evidence earlier on I think from Mr Wallace that the Beca report had been, of 14 December had been sent to the Council. Did the Council have the Beca report dated 14 December 2010 on its file as at February 2011, do you know?

A. I don't know that.

Q. It's evident that the council didn't approach the owner of 194 Gloucester Street to discuss whether or not the cordon should be removed.

30 A. No.

Q. And I accept that the council received an email from the owner's engineer but it appears that if the owner had been approached the

council would have been told there was no reason for the owner to have the barrier removed at least outside 194 Gloucester Street.

A. Yes.

5 Q. So it appears there really was no reason to remove the barrier from 194 Gloucester Street.

A. There seemed no reason to leave it up.

Q. My suggestion I think is that really it should have been left there given that the owner and the tenants weren't seeking to use that particular building and that this was obviously an earthquake prone building.

10 A. It wasn't Council policy to cordon off every earthquake prone building as you can appreciate.

CROSS-EXAMINATION: MR GALLAWAY

Q. Mr McCarthy, just a couple of questions or topics. First you signed your brief on the 13th of January, 2012?

15 A. Yes I did.

Q. So just over a month ago. And in it you said that the, and I'm referring to paragraph 22, that the Council records indicate that no cordon was in place on 18 February 2011 and Council records appear to indicate that the cordons were removed as a result of the Beca Carter letter being received.

20

A. Yes.

Q. Today you've given evidence saying that the Council relied on the Beca Carter letter, that the Council depended on the Beca Carter letter and I'd like you to tell the Commission what's changed since you signed your brief of evidence saying that Council records appear to indicate that the cordons were removed. What I'm saying to you is that you now seem to put the position much more firmly than you did in your brief of evidence.

25

A. The engineer's report was obviously critical to the removal of the cordon but it wasn't the only thing that the council considered as I've explained but it was obviously a critical factor enough making that decision.

30

- Q. But that doesn't answer my question. My question relates to this. You said in your brief that the Council records appear to indicate that you relied on the Beca Carter letter.
- A. Yes.
- 5 Q. Do you accept that?
- A. Yes.
- Q. You now say the Council did depend on it. The Council relied on it but I'm asking you what's changed since you signed your brief of evidence that makes you so certain about this?
- 10 A. In the absence of other information the Council was left with a decision that was supported by the engineer's letter.
- Q. Who made that decision?
- A. Neville Higgs.
- Q. And have you discussed that decision with him?
- 15 A. Our research legal team have.
- Q. Have you?
- A. I personally haven't.
- Q. You see what I'm asking you, and I'd like you to answer the question if you can, is that you've come to the Commission today do you accept that you've put the position considerably more firmly in relation to reliance on the Beca letter in your oral evidence than you did in your written brief?
- 20 A. Yes a little more firmly.
- Q. And I'm asking you why you've done that, on what basis. What research, what have you done that changes what was in your written brief?
- 25 A. Nearly all of the information. I've completely reviewed the file.
- Q. Since this brief?
- A. I've done it prior to that. I sat there and I read the file. I've reread it and so my views may have changed a little so that is all I can say really.
- 30 Q. So there's nothing on the Council file though that shows, well you didn't find anything different on the Council file pre and post signing your brief?

A. There was nothing new on the file.

Q. And is there a written document recording that the Council relied on the Beca Carter letter?

A. I think I've explained that there wasn't.

5 Q. If you look at the document if we could go please to BUI.GLO194.0007B.1 please and if we could just highlight the bottom email please. In there again no reference to the Beca Carter letter in relation to the decision to remove the cordon is there?

A. Can we, in that part of the email, no there's not.

10 1255

Q. Do you want to see the whole email?

A. That would be good, thank you. So the top of the email talks about the engineer's report.

15 Q. But if you look at the email below what did you understand that Mr Higgs had signed off?

A. Well clearly at that point it hadn't gone through the process. It hadn't gone to Neville Higgs. There's a process whereby Mr Higgs would make the decision and instruct the traffic management team.

20 Q. And that indicates doesn't it that the final say in relation to the cordon came from Mr Higgs didn't it?

A. Yes.

WITNESS REFERRED TO DOCUMENT ENG.CCC0002F.150

25 Q. What we're going to see is the Council policy in relation to the removal of cordons and you've referred to that already. That was in place in February 2011.

A. Yes it was.

30 Q. And if we look at the third point in relation to yellow stickered buildings. The Council had to be satisfied didn't it that there was a structural assessment report stating that the building is safe to occupy and does not pose a threat to public safety, correct?

A. So the engineer had supplied a structural assessment report saying that the building does not pose a threat to public safety.

Q. Well let's have a look. Are you talking in that about the letter from BECA Carter, the 14 February 2011 letter when you say the engineer had produced a structural assessment report saying the building did not pose a threat to public safety?

5 A. He did yes.

Q. Well can we have a look at that then please. So it's the 12.61. See he's saying in there, isn't he, "On the basis of a visual inspection on the building conducted on 14 February 2011 we're satisfied on reasonable grounds that any potentially dangerous features have been removed or secured and that the stability of the structure is sufficient that it does not pose a threat to adjacent buildings or the public that is significantly greater than prior to the earthquake" ?

10

A. Yes.

Q. So in terms of your policy in relation to the removal of cordons BECA are not saying that the building does not pose a threat to public safety, are they?

15

A. It's a moot point but you're probably right.

Q. Well tell me if I'm wrong and tell me how please.

20 **JUSTICE COOPER:**

Well he says you're probably right.

CROSS-EXAMINATION CONTINUES: MR GALLAWAY

Q. All right I probably should take that and leave it, sir. And nor are BECA saying that the building is safe to occupy in terms of your policy are they?

25

A. We didn't take that as implied from their letter.

Q. No but still the decision was made to remove the cordon.

A. Yes it was.

30 **MS WELSFORD ADDRESSES THE COMMISSION IN RELATION TO FURTHER INFORMATION WITH REGARD TO THE EMAIL FROM SHARON WEIR**

CROSS-EXAMINATION: MS WELSFORD

Q. Mr McCarthy you mentioned in your evidence today that when dealing with the issue of whether the cordon should be removed, an issue around the removal of the colour of the placard on the building.

5 A. Yes.

Q. You're aware that there was a red placard issued on the building at 194 Gloucester Street after the Boxing Day earthquake.

A. Yes there was.

Q. That placard was never removed was it?

10 A. I don't believe it was.

WITNESS REFERRED TO EMAIL FROM SHARON WEIR – BUI.GLO194.0007D.1

Q. On the middle email there, if you could have look at that, the one at 1.05 pm, and there's a reference there to Phil Berry. Do you know who he is?

15

A. I don't.

Q. It wasn't, our client will give evidence that he is able to confirm that he is the chemist who was a tenant at 192 Gloucester Street.

A. Yes I rather took it from that email that that was the case.

20 RE-EXAMINATION: MR LAING

Q. Mr Carter *[sic]* you indicated that the "red placard" was not removed. Could I get you to look at the section 124 Notice again.

A. Yes.

WITNESS REFERRED TO SECTION 124 NOTICE – BUI.GLO194.0012.40

25 Q. Unfortunately I haven't got it in front of me but could we have highlighted the bottom section where it goes ABCD etc. Now I asked you some questions about this part of the what was a standard form yesterday.

A. Yes.

30 Q. And I think your answers indicated that the form dealt with a number of issues, one of which was keeping persons away from the building –

A. Yes.

Q. – and restricting entry, prohibiting entry or restricting entry, and also make-good work.

A. Yes.

5 Q. In this case the cordon was removed but I think it's your evidence that the Notice was not removed.

A. That's correct.

Q. Can you tell me why that was?

10 A. Obviously the works weren't urgent. They were to protect adjacent property, to protect life, so those were occasioned under s 41 of the Building Act. The more substantive works, the more permanent works would need to be done with a building consent and, indeed, a resource consent so there was still a future stage of repair work to go on before this Notice could be removed.

15 Q. So when you were asked about what you understood the BECA Carter letter to mean –

A. Yes.

Q. – was it your evidence that it related to the danger to persons, the public?

A. Yes.

20 1305

**QUESTIONS FROM COMMISSIONER FENWICK AND JUSTICE COOPER
– NIL**

WITNESS EXCUSED

MR ZARIFEH CALLS**PETER SMITH (SWORN)**

5 Q. Mr Smith, you have prepared an independent assessment, structural assessment of the building that was at 194 Gloucester Street and that report is dated December 2011?

A. Correct.

10 Q. Can I start please by getting you to – you've heard in opening I described the building generally. Can you just describe it perhaps in brief terms with more of an emphasis on the seismic resistance the building had as originally constructed?

15 A. Yes, the building as we've heard was constructed initially as a two storey building in the early 1900s. Very shortly afterwards it was extended by an additional storey. That feature of the building was probably undesirable. Normally the thickness of walls and the construction details of a three storey building would differ from what a two storey building would. The building was altered in 1975, 76 when the openings were formed in the front of the building and there was some, we understand there was some strengthening undertaken at that point. Essentially the building relies on the masonry walls to the perimeter for lateral load resistance and on the timber diaphragms and timber roof sarking to transfer loads to the side walls. In the ground floor, if we look at the original drawings which I think are
20 BUI.GLO194.008C.57.

WITNESS REFERS TO DRAWINGS

25 A. It's an elevation of the original building, the front, with when it was a two storey construction. Move to the next please. That's one with the front building showing this cross section through the front building on the right-hand side of that plan and that's with the extra floor added so it's now a three storey building but it also shows the plan layout of the
30 second floor of that building. Then there's the next one please.

Q. The second floor being the top floor or the middle floor?

A. I'm referring to the ground floor as the lowest floor, ground level, first floor being the first elevated floor and the second floor being the – what

was originally the roof level but has now become a floor with the addition and that's, I think, that's the first floor, have we got the ground floor plan, which I think is probably more relevant which is 64, yes that's the ground floor plan. That's right. Now the front building is the one to the bottom of the sheet. I'm not quite sure of the significance of those internal walls, it's possible there were some of those were of masonry construction originally and would have provided some resistance, but essentially the rear building clearly only had perimeter walls. It was a hall and it's probably unlikely that there very many internal walls that provided resistance to this building.

5
10
Q. In terms of earthquake resistance did – you mentioned that it wasn't desirable to have this top floor added on.

A. Correct.

Q. What effect did that have on its seismic strength?

15 A. It will have increased the loads on the lower level walls, which were originally designed or constructed as a two storey structure. It's all relevant probably to note that the original building presumably had parapets which were removed at some stage. We're not exactly sure when I think and there was a concrete parapet constructed around the perimeter but we can bring up an elevation of the building, oh there's one on the cover of our report but I'm not sure whether there's a better one, which is BUI.GLO194.0038.1.

WITNESS REFERS TO DOCUMENT

25 A. And I don't think we need to enlarge it but you can clearly see the concrete band at the top of the building which is the parapet that was – they'd removed the concrete, the brickwork parapet and replaced it with a concrete band.

30 Q. And you might recall the photo that was shown when I was opening and His Honour asked me about the beam, it's 0017.11, this is after the 22 February earthquake.

WITNESS REFERRED TO PHOTOGRAPH

A. Yes, that photograph appears to show quite clearly where the parapet to the north wall ended up. It's lying across, tragically across the band and

across the rear of the blue car. If we go to photo BUI.GLO194.0017.10, which is the, I think the only aerial photograph we have and which was taken, if we enlarge the bottom one please.

WITNESS REFERS TO PHOTOGRAPH

- 5 A. This was taken I believe after the USAR rescue so it doesn't give us a comprehensive impression of where the parapets ended up. The blue car I believe is the blue car that is left, is in front of the north-west corner of the building. I believe the van has been removed. It would have been between that car and the car to the east and I believe that both the
- 10 parapets which obviously were quite well reinforced and hang together particularly well, had been removed by heavy equipment so the actual location of those I think is no longer relevant to where they fell during the earthquake.

15 **JUSTICE COOPER:**

- Q. Do you think that's the van in the bottom of the photo there?
- A. That one, I think that's plywood Sir.
- Q. It's what?
- A. I think that's part of the plywood walls that fell from the corner.
- 20 Q. I see.
- A. That's my interpretation of that, but that's further plywood lying on the roof of 192 in the –
- Q. Yes, I see.
- A. – north-east corner, and that may well be the strengthening that BECA
- 25 referred to which pulled out with the parapet that was quite well attached apparently. I guess you could get some assumption of where the parapet fell to, by comparing those two photographs where it went across the back of the blue car and the front of the vans, so it would have run through probably three metres to the south of where the
- 30 parapets are lying in that photograph.

EXAMINATION CONTINUES: MR ZARIFEH

- Q. Now –

A. Could I just bring up BUI.GLO194.0038.13.

WITNESS REFERS TO PHOTOGRAPH

5 A. And I think it's relevant because we have to orientate ourselves slightly differently here, but there's Gloucester Street so that originally the parapet was lying out on Gloucester Street and that's sort of starting just out from the north-west corner of the building heading further out into the road from the north-east corner.

1315

10 **JUSTICE COOPER:**

Q. By that, about 45 degrees or something?

A. Yeah not quite but certainly at an angle but the direction of the February event is the arrow coming in at the south-east corner of the building so clearly the directionality of that initial shaking was fairly critical to the failure.

15

EXAMINATION CONTINUES: MR ZARIFEH

Q. Failure of the façade or the –

A. Of the façade of the third floor. I think from what we've seen from other, from the Joe's Garage in particular, that probably the failure of the east and west walls was probably, took place after the failure of that initial northern façade when the directionality of the earthquake changed.

20

Q. Well perhaps we'll deal with the failure now. I was just going to ask you about further strengthening but perhaps just carry on and tell us a bit more about the structural failure in the 22nd of February earthquake.

25 A. Yes clearly the parapet and the portion of the north wall above the original building fell outwards onto Gloucester Street. There was a failure of the east wall out onto the, it's a right-of-way or alley, and of the west wall. If we go to the photos on BUI.GLO194.0038.38 that one shows the failure of the – if it could be enlarged, the bottom one – that clearly shows that both the first floor and second floor levels of the west wall fell outwards into the Clinic. You can see that the north wall of the building failed above the what was really the parapet line of the original

30

building or where they took the building down to when they extended it. There's a failure at the very north-west corner which followed up from an opening in the façade up through the masonry at that point and if we go to the other photograph –

5

JUSTICE COOPER:

Q. Just pause before you go and it's, this is just a passing, a matter of passing interest that that collapse at the west wall into the Clinic presumably, would some material from that west wall have actually

10

A. I would imagine so, sir.

EXAMINATION CONTINUES: MR ZARIFEH

Q. I think that's shown, sir –

15

A. Remember the upper floor was plywood so it was really only the first floor wall which probably would have penetrated through, the wall above it had already been removed and was just in plywood and I think we can see some remnants of the plywood in that photograph.

Q. I think you can see it too on 0017.10, if that's brought up sorry, the bottom photo.

20

A. If we can go to the top photo just briefly. That one shows the plywood down the bottom photograph on both photographs. If we can go back to the up top photo of 0038.38 please. In that photo, the top photo if we can enlarge, it's quite clear there was a very steep failure along the north wall, at the east end of the north wall. The total failure of the east end really other than possibly where it seems to be confined by some other structure further back. Quite a catastrophic failure of that wall.

25

Q. So what's the, what façade are we looking at in that photo?

A. I take it we're, that's the opening, as I interpret it, on the north wall. So this has to be the east wall of the building.

30

Q. Did you want to say anything more about this?

A. If we can go back to an elevation of the building before, it might just be helpful, what's the best one – BUI.GLO194.0038.27, the upper photo

5

10

Q. And then involved the whole of the upper façade.

A. Of the?

Q. And then involved the whole of the upper façade.

A. Yes, above that level, yes.

15 Q. There was, you said there was some structural strengthening done in 1976 and then it appears that none done in 2003.

A. Yes it appears that BECA were unable to locate the plans which Holmes Wood Poole and Johnstone prepared in 1976. If I could have BUI.GLO194.0012.6 These plans were prepared at the time that the
20 two significant openings were formed in the front of the building. That is showing the reinforcement that was constructed around the ground floor openings and, clearly, from the evidence we've seen on those previous photographs those openings did not contribute in any way to the failure or did not appear to. It's interesting to note at the top right-hand side of
25 that, top right-hand corner, there's a note there which says "Complete floor is overlaid with 12mm medium density chip-board nailed at 125 centres on edges of all sheets and at 300 centres internally". So there was obviously work done to the, that's the plan of the first floor. The first floor was overlaid with chip-board and there's some details there down
30 below that which show how the floor was to be connected to the perimeter walls. Now I guess there's some uncertainty that that work was done. There's not a lot of evidence of the bolt heads coming through. It was a consented drawing so if we go a little bit further to the

next plan which is 12.7. 12.7 picks up on some steel beams which were placed running east-west in the front building, the three storey building. You can see in the left-hand side plan there's a line there where the beams occur and there's details on the bottom right-hand side of the plan showing the construction of those beams and an elevation of the beams in the top right-hand corner. Then if we go to 12.8. This is showing some steel bracing. I'm a little confused by the titles. The rear building was, as I understand it, only two storeys and the top left-hand plan refers to the truss or second storey rear block to underside of existing ceiling. Now the bottom one refers to truss for second storey front block and I'm uncertain as to whether that was put into place or was intended to go under the floor, the second floor of the front building and at sort of roof level of the rear building or like where it was intended. That bracing was not evident to BECA. It does raise some concern that perhaps it was not installed. There's some uncertainty I think.

Q. And you've got this from the Council records.

A. We did yes.

1325

Q. So there's the design in the drawings but is there any indication to show that they were actually constructed?

A. There is no requirement in '75 for any code compliance certificate. That was introduced with the Building Act so they were consented. They were stamped by the Council so having been stamped by Council you'd expect that they'd been done. It's possible that it was concealed by suspended ceilings in the upgrade so that it may have been in existence underneath the floors and been concealed by the ceiling.

Q. All right.

A. It's just uncertainty.

Q. The Holmes report in 2002 that we've referred to spoke of the 1976 strengthening work would have brought it up to 0.05 g?

A. Correct.

Q. What can you say about that level?

A. It's a reasonably low level of strength but clearly if the work had been done the building was certainly in improved condition than it would have been prior to that work being undertaken. The performance of these buildings and the connectivity of the diaphragms is quite important.

5 Q. As Mr Govind said?

A. Yes.

Q. Right, so would you agree then that its strength as at 4 September 2010 it would have been earthquake prone, it would have been less than 33%.

10 A. Almost certainly yes.

Q. Right and although we don't know exactly how much it might have been between the five and 15, to 20% Mr Govind mentioned?

A. I think that's probably an accurate assessment.

Q. Is accurate?

15 A. I think it's a reasonable assessment of the likely strength, relative to (inaudible 13:26:47).

Q. Can I just ask you about some of the issues that you've highlighted in your report, firstly you raised a possible issue about the, the fixing if you like of the north wall after the make-safe works in February 2011?

20 A. Correct.

Q. Now you've heard Mr Govind. He's addressed that issue that you raised in his evidence?

A. Yes I'm quite –

Q. Can you tell us about that, what's your...?

25 A. Although I haven't seen the exact details of it I'm quite satisfied that that has been addressed and that the, the north-west corner was in a condition which was, would be assessed as equivalent to the pre-earthquake, pre September earthquake conditions.

30 Q. All right and just looking at the other issues you raise. You talk about upgrading of masonry buildings generally?

A. Yeah, I, Canterbury as we talked before, the Canterbury event was quite unique where the ground shaking in central Christchurch was more severe in an aftershock than it was in the main event. The concern is

that in most cases the main event will produce the most severe shaking and unless we do something to strengthen the buildings above a nominal securing the event that occurred on the 22nd of February may well be repeated elsewhere.

5 Q. In terms of the assessments after a substantial earthquake, in this case the September earthquake you've made a comment generally about the test to be applied?

A. Yes I think the damage assessment approach doesn't take into account the relatively low level of strength that some of these buildings have and, or that some of the components of the building have whether it's a façade or the building as in a whole and I do think we need to reassess the basis of assessments before we allow public in the vicinity of these buildings which aren't tied like a reinforced concrete building. They, the weight is all in the external walls, they have poor connectivity to the timber diaphragms and I think they do pose a significant threat to the public.

10

15

Q. Okay and if that kind of test that you're suggesting had been applied here and I'm not suggesting it was any different from other buildings, would that effect, have an effect on the cordon removal?

A. It is possible, I think it depends on the level of strengthening that or the minimum strength that was adopted. Clearly the level of shaking in this event was such that unless the buildings had a very significant and even possibly code strength these buildings may have struggled to survive that event.

20

Q. And you've made a comment on the change of use, you've heard Mr McCarthy's evidence on that?

A. Yes.

Q. Is there anything you want to say about that issue?

A. No I think that's a regulatory issue, we did note going through that the, it was an issue we felt the Commission should be aware of but I've no further comment.

30

Q. And just finally on this issue of the cordons or barriers in front of the building. Have you got any comment to make about firstly the test

looking forward at future the test to be applied for the removal of cordons? Would you apply the same reasoning as you would to assessments generally?

5 A. I think that decision on cordons needs to be made with the very best assessment that the whole industry can make as to the likelihood of aftershocks and the severity of shaking that may occur in an aftershock. We can't afford if we get a moderate earthquake to evacuate cities because of these earthquake-prone buildings but we do need to do a suitable risk assessment after a severe earthquake but an aftershock
10 will not cause the devastation that occurred in Christchurch.

Q. Right. And in terms of the process of the removal of the cordon have you got any comment about that?

A. No I think Council does have to rely on the engineer's advice of the owner as to the safety of the building or the condition of the building. I
15 guess the test is whether it is that the building's as good as it was in condition similar to the initial earthquake or whether it's to a minimum strength level.

CROSS-EXAMINATION: MR ELLIOTT – NIL

CROSS-EXAMINATION: MR LAING

20 Q. Mr Smith there's one question about the damage based assessment. That was really the focus of the New Zealand Society of Earthquake Engineers Guidelines wasn't it?

A. Correct.

Q. Do you know why that was, that focus arose?

25 A. It was largely introduced from the American system, and I, I guess it, as we go on and we have some of these tragic events we review the basis of that assessment as whether it's reasonable or not. I think the thinking in the engineering profession was that if a building had survived the initial earthquake then the subsequent aftershocks would be of
30 somewhat lesser intensity of shaking and therefore the building probably

had a reasonable chance of surviving that. Tragically that didn't happen in Christchurch and I think we just need to rethink that principle.

CROSS-EXAMINATION: MR GALLAWAY AND MS WELSFORD – NIL

**QUESTIONS FROM COMMISSION FENWICK AND JUSTICE COOPER -
5 NIL**

EVIDENCE CONCLUDED

JUSTICE COOPER:

We've got a statement from Mr Unka haven't we, we were going to take that
10 as...

MR ZARIFEH:

Take it as read.

JUSTICE COOPER:

15 But that should be published now on the open website.

MR ZARIFEH:

Yes sir.

JUSTICE COOPER:

20 And this completes our enquiry into the building at 194 Gloucester Street.

COMMISSION ADJOURNS: 1.34 PM

25

COMMISSION RESUMES: 2.21 PM**246 HIGH STREET**

5

JUSTICE COOPER:

Yes, this afternoon the Royal Commission will enquire into the collapse of the building at 246 High Street. As a result of the failure of that building Joseph Pohio who was in the adjacent building known as the Link Centre died as masonry fell on him. I acknowledge the presence here today of his parents, Allan and Joy Pohio and other members of the family and friends, and I express our deepest sympathy to them at their sad loss.

10

MR ZARIFEH AND MR ELLIOTT AS COUNSEL ASSISTING15 **MR LAING AND MS DAINES FOR CHRISTCHURCH CITY COUNCIL****MR P RZEPECKY FOR NAI HARCOURTS****MR HANNAN FOR HOLMES CONSULTING GROUP****MR ZARIFEH:**

The building that was situated at 246 High Street was a three storey unreinforced masonry semi-detached structure. Immediately next to 246 High Street to the north-west was 248 High Street which was known as the Link Centre and which ran through diagonally to Hereford Street, 152 Hereford Street, and on the screen at the moment is a photo that shows, a pre-September photo that shows the Link Centre on High Street and it's the glass veranda over it, and that was Coffee Culture, a café in the ground floor, you can see people sitting outside there and the entrance just to the right of that to the Link Centre, and 246 High Street was the building to the right, to the south shown in that photo and the wall that will become the focus of this enquiry is the north or the north-west wall. That is shown covered in corrugated iron as it was.

25

30

JUSTICE COOPER:

Is it the red –

MR ZARIFEH:

Yes Sir, the mustardy-red colour. The Link Centre as can be seen was a
5 more modern building, I think built in 1978 if my memory serves me correctly,
comprising of concrete column and wall. The main tower on Hereford Street
linked to High Street by a two level, which can be seen there, concrete column
and floor structure. There was a large void to the level 2 floor that allowed
light from the roof, roof mounted light wells into the level 1 retail area.
10 Following the September 2010 earthquake and prior to February 2011
earthquake, the Link Centre buildings were at all times green placarded. 246
High Street is very likely to have been an earthquake prone building because
of its construction. An email from the Council to the solicitor of a prospective
purchaser in 2006 noted that there was a caveat on the title, that's a caveat to
15 the Council, this being one of the worst risk category A buildings of
unreinforced masonry building stock. Christopher Chapman from Harcourts
Commercial had managed the building for its owners, Shugborough
Properties Limited. He has advised that Harcourts had managed the building
for at least six years, in the six years that he'd been employed by Harcourts
20 and that no structural strengthening had been carried out in that time,
although he believed that some earthquake strengthening had been
undertaken in relation to the ground floor and basement areas prior to
Shugborough Properties purchasing the building. After the September 2010
earthquake a level 1 rapid assessment by the Council resulted in the building
25 being green placarded. On behalf of the owners of the building, Harcourts
retained the services of Holmes Consulting Group, structural engineers, who
conducted a level 2 rapid assessment of the building on 10 September. That
inspection found damage to a parapet and chimneys, that parapet on the
south side, so the opposite side to the wall that I've indicated. The building
30 placard was changed as a result of the Holmes inspection to yellow, restricted
use, and the City Council were advised by Holmes. A further inspection took
place on 15 September by Alistair Boys of Holmes Consulting and he noted
damage to the southern boundary wall, chimneys and parapet. Mr Boys also

inspected the north-west wall adjacent to the neighbouring building, that's the wall I've pointed out, and found that it did not display any evidence of damage, and I should say that as I understand it his inspection was from the roof of 246 so it was an inspection essentially of the parapet, the top of that north wall and

5 I think he will tell us that he may have gone inside the building and made some inspection inside. Make safe work for the south wall was designed by Holmes Consulting and carried out by contractors under their direction and then following a further inspection by Mr Boys on 21 September the building was again green placarded. There was a Council level 1 rapid assessment

10 carried out on 26 December following the Boxing Day aftershocks and that recorded the damage to the building being either minor or none, however a level 2 assessment was recommended with a note to "check rear walls, given age". There does not appear to have been any level 2 assessment or further Council inspection before the February 2011 earthquake. Harcourts for the

15 owners did not carry out any further inspection following the Boxing Day aftershock, but appear to have relied on the Council inspections. In the February earthquake the building was severely damaged. In particular the north-west wall collapsed down to second floor level and building material collapsed onto the roof of the adjacent Link Centre atrium and into the Link

20 area accessed by pedestrians and Your Honour, see on the screen there's some photos obviously after the February earthquake and perhaps if I can just go to 0002.3, will show the – this is looking from the back of the Link Centre building and the Atrium area that I've just described is the area that you can see rubble has gone through from the building in the photo to the left, the

25 south, and you can see the wall, or part of that wall that's collapsed down to that level and fallen through the atrium ceiling of the Link Centre.

JUSTICE COOPER:

You see the grey or light grey rectangular area, is that the rear of a parapet?

30

MR ZARIFEH:

I believe so, it's part of –

JUSTICE COOPER:

Over High Street?

MR ZARIFEH:

5 Yes Sir. High Street's beyond that.

JUSTICE COOPER:

So in the photograph that you referred to before, when you began –

10 **MR ZARIFEH:**

It is 0002.1.

JUSTICE COOPER:

- Mr Zarifeh, that area with the three, it looks like that could be reflective
15 panes of glass, on the first floor level. Is that the front side of what we were
looking at?

MR ZARIFEH:

Yes Sir.

20 1431

JUSTICE COOPER:

So that's just this sort of –

MR ZARIFEH:

25 I believe it is sir.

JUSTICE COOPER:

It would have been called a parapet in an older building and so behind that is
a void really?

30

MR ZARIFEH:

Yes sir and the light was able to get through from the roof into the Link Centre.

JUSTICE COOPER:

But there were tables and chairs there were there, or is that on the ground floor?

5 **MR ZARIFEH:**

They were on the ground floor but there was in effect like a mezzanine where you could walk around in the upper level and stairway down and there was I think a doctor's surgery in the upstairs. There was shops obviously in the downstairs and I think there were some shops in the upstairs as well.

10

JUSTICE COOPER:

So where was Mr Pohio?

MR ZARIFEH:

15 My understanding is he's on the ground level having lunch on that area. And as I've indicated the information from the police certainly was that Mr Pohio was having lunch in the Links Centre at the time of the earthquake and was trapped by rubble and that's a, the entrance to the Links Centre and you can see the rubble that's come through behind the entrance. And he was trapped
20 by rubble some five metres it's thought inside the High Street entrance to the centre. He was dragged clear by members of the public. CPR was performed but he could not be revived and died at the scene.

The likely issues for the Commission sir are the application of the council's earthquake prone policy to the building and the, this building being an
25 unreinforced masonry building and secondly the assessment of the building after the September 2010 earthquake and after the Boxing Day aftershock.

The witnesses to be called this afternoon are firstly there are three statements that I will read. There are, they are people who were in the Link Centre and who saw or who experienced the earthquake from various positions they were
30 in and will describe what they saw – a Ms Nass, Ms Parish and a Mrs Edwards and I'll read those in a moment. Then the Commission will hear from Mr Chapman, it was indicated was the property manager for Harcourts for the owners and then Mr Boys from Holmes Consulting. There are two further

statements from Holmes Consultants engineers who were involved – Mr Matthews and Mr Galloway – they will be before the Commission in writing only. Mr Boys will cover the Holmes Consulting inspections generally and in particular his own. Then Mr McCarthy from the Christchurch City Council and
5 finally Mr Smith, structural engineer who has prepared an assessment for the Commission.

So if I can commence sir by reading out the statements I've indicated firstly Henrietta Nass.

10 “My full name is Hennette Nass. I live in Christchurch. On 22 February 2011 I met my partner Jess for lunch at the Link Centre. She went to order a coffee at Coffee Culture while I went into a shop in the Link Centre to look at handbags. The shop was located behind Coffee Culture. Jess has just arrived and we were standing next to the counter when we heard a loud noise
15 that sounded like an explosion. We grabbed on to each other and crouched down. Straightaway the shop became very dusty and the power went out. Despite this I could see patches of light. Jess pushed me out of the shop ahead of her. The entrance to the Link Centre was blocked by rubble about a metre high. I thought about climbing over it but then I saw the slide door into
20 Coffee Culture. We went into Coffee Culture and out on to High Street. I went and looked back through the entrance of the Link Centre and saw a lady lying face down on the ground with her arms out in front of her. Her legs were covered in a layer of corrugated iron with bricks, mortar and wood stacked on top of the iron. Jess ran back into the Link Centre and started pulling rubble
25 off the woman. I went in behind her and began comforting her and removing rubble off the woman. As some of the bricks on top of the lady were cleared away by people helping Jess I noticed a hand appear next to me. The person was completely buried, in fact I had to tell one of the people helping to get off the pile of rubble because there was someone buried under the bricks. I
30 grabbed on to the hand and could see a man's head and body begin to appear as the rubble was cleared. I checked for a pulse but couldn't find one. I thought later the person looked like they had been crouching down because I realised after I thought about it I had seen their knee next to their head. The

others decided to get the man out first so we could get closer to the woman. I suddenly had the feeling that we needed to get out of the building straightaway and wedged a piece of wood under the corrugated iron sheet that I was holding up. Jess and two people helping her then grabbed the lady
5 and ran out of the building just as a big aftershock started. I could hear the noise of more rubble coming down and saw more dust but didn't look back. We could see the man being worked on when Jess and I left High Street so I could tell my work was okay."

10 Jessica Amy Parish states "that is my full name. I live in Christchurch. Henrietta and I decided to meet for lunch at the Link Centre on 22 February. I ordered a coffee from Coffee Culture and then went to meet my partner Henrietta who had gone into the shop behind Coffee Culture to look at
15 handbags. Henriette and I were standing by the counter with the shop assistant when the earthquake started. We crouched down together facing each other. I turned my head to the right and could see the stairs up to the medical centre through the glass shop front. There was dust everywhere which I think came from High Street, the High Street end of the Link Centre. I saw that the stairs to the medical centre were buckled but in place and the
20 walkway about where the stairs started was covered in bricks, corrugated iron, wood, glass and plaster. I remember looking to the left and I could see the sky through a gaping hole. Wires were hanging out. This was after I had run back to help the woman, and this is a correction so it refers to a portion I'm reading out in a moment. The shop assistant wanted to stay at the back of
25 the shop but I grabbed her and dragged her out of the shop pushing Henrietta out in front of me. The entrance to the Link Centre was covered in rubble. It came up to my thighs about a metre high. There wasn't rubble where we were standing, it was directly in front of us. Henriette spotted the side door to Coffee Culture and we went through Coffee Culture and out via the main door
30 to the street. I heard someone yell out, "there's a lady trapped back there." I turned back and saw a lady lying on her stomach close to the entrance to the Link Centre. The lower half of her body was covered in debris. I ran back into the walkway and started pulling bricks off the woman. She was pinned down

by a length of corrugated iron with bricks on top of it. There were three of us pulling rubble off her and another one or two coming in and out of the walkway to help. Along with two other people I finally pulled the lady out just when a big aftershock hit. Everyone took off and I ended up running out of the building carrying the lady. I was worried about not getting out in time as I could hear the noise made by more stuff coming down behind me and more dust blew around. When we got out I handed the lady off to someone and Henrietta and I left.”

10 Linda Joyce Edwards states, “I operated a business Communicative Language Training International that was situated on the first floor in the Link Centre, 248 High Street, 152 Hereford Street. Our offices were above Coffee Culture which was on the ground floor on the left as you came in the High Street entrance. I had been in that office for about three years. Before the

15 September 2010 earthquake I did not experience any problems with the structure of the building. After the September earthquake to my observation there was minimal damage. The only damage people noticed was some cracks in the ceiling and wall linings. There was one crack in the floor on the first floor level of the Link Centre approximately 50 millimetres wide which a

20 number of people expressed concern about. Following the September earthquake this crack was filled and covered over but generally I felt safe in the building. After the Boxing Day earthquake I noticed further damage in the form of existing cracks appearing to be bigger. I don’t recall seeing new cracks. I recall an engineer inspecting the building on behalf of the owner

25 Rapaki Property Group sometime between September and December 2010. I recall the building was green stickered after the September earthquake as I recall the sticker on the front door. I thought that this meant the building was safe. After the Boxing Day earthquake we weren’t allowed to use the alleyway that led to the carpark at the rear of the Link Centre. That alleyway

30 ran behind 246 High Street and the buildings to the south of it. We were told this by the Link Centre owner Rapaki. We were told that this was because the owners of those buildings had to make the buildings stable.

1441

I recall workmen working on the buildings. They appeared to be working on parapets at the back of the buildings. I noticed that some bricks had come down after the Boxing Day earthquake. I do not recall anything like this occurring after the September earthquake. In the February 2011 earthquake I
5 was sitting in my office when the ceiling started to cave in. My first thought was for the students who were in a room further into the building. However, they were okay, although the ceiling in that area had collapsed as well. We were eventually rescued by passers-by who got ladders and smashed a window so that we could get out. When we got out I saw two people lying on
10 the ground outside the Link Centre. They were being attended to by passers-by. One of those people was the man that later died. At that point there was no rubble on the footpath as can be seen on the photograph I have supplied. I later met two of the passers-by that helped, Murray Straight was the one of the passers-by who got the ladders and helped get me out and told me he
15 had seen the Link Centre collapse. The other man, who performed CPR on the deceased man was Louis Brown. I have supplied another photograph which shows the wall of 246 High Street which collapsed onto the Link Centre.”

MR RZEPECKY ADDRESSES THE COMMISSION:

Just to put Mr Chapman's evidence in context he is employed by NAI Harcourts and works in their property management team and this building was part of his portfolio for management and he had involvement after September
5 and again after Boxing Day. Harcourts has done its utmost to co-operate with the Commission and supplied answers to questions asked by the Commission's counsel in an email and this evidence fairly much follows that with a few additional bits of information, mainly about what was happening after Boxing Day.

10

MR RZEPECKY CALLS**CHRISTOPHER CHAPMAN (AFFIRMS)**

Q. Mr Chapman you have before you there a witness statement. Could you open it and start reading from paragraph 1 please.

15 A. Certainly. I am employed as a Property Manager for Grenadier Real Estate which trades in Christchurch as NAI Harcourts, known as Harcourts. I have previously given evidence before the Royal Commission in respect of 593 Colombo Street. Harcourts managed the building at 242 to 246 High Street on behalf of the owners Shugborough
20 Properties Limited. The proprietor of that company is Mr Anthony Lee. I had been employed by Harcourts for approximately six years before the earthquake and during that time I was aware that Harcourts had entered into an agreement with the owner to provide full building management services. I refer to the information sought by the Royal Commission in its letter to me of 22 September 2011. I have tried to provide the
25 information to the best of my ability and recollection. I have reviewed Harcourts' files and sought information directly from Mr Lee. I responded to the Royal Commission by email dated the 29th of September 2011. I understand that some strengthening work may have
30 been carried out to the building by the previous owner. Apparently this was following a fire in the building. Mr Lee has confirmed that this involved the basement and the façade onto High Street which was carried out using concrete and steel. Harcourts does not have any

documents such as plans and specifications for this work. I am not aware of how the Christchurch City Council earthquake prone policy applied to this building. This would not normally be within the scope of the work required of a building manager. Compliance with work directly required by the Council or policy on timing for upgrade work would normally be the responsibility of any owner who may, in some cases, receive direct communication from the Council. As far as I know the owner was never served with any notice by the Christchurch City Council and the owner never carried out any earthquake strengthening work in the time that I was managing the building. Following the September earthquake we arranged for Holmes Consulting Group (Holmes) to conduct an inspection of the building. Jeff Matthews of Holmes carried out a level 2 rapid assessment on the 10th of September 2010 and I refer to his report of that date. Mr Matthews advised that the Council placard should change from green to yellow. This meant there could only be limited entry. Following Mr Matthews' advice I approved removal of the parapet on the southern side of the building. This was emergency work which I was authorised to approve after a discussion with Mr Lee's insurance broker. I believe that this also had the effect of changing the adjoining property at 240 High Street from a green placard to red until the make-safe work to 246 High Street was completed. Holmes supervised the make-safe works on 242–246 High Street which were undertaken to its specification. Spotless Contractors carried out this work. This work to secure the southern parapet wall, this wall included work –

Q. Just stop Mr – deep breath.

A. This included work to secure the southern, south-eastern parapet wall and there's some photographs of that. The details are set out in Spotless Contractors invoice dated 20 October 2010 which shows costs in excess of \$22,000. Following those make-safe works Holmes carried out another inspection on the 20th of September recorded in their site report of that date. At some stage prior to the emergency work I recall that I was on the roof, either with an engineer from Holmes and possibly

representatives of Spotless Contractors. I cannot precisely recall who it was. I recall that the parapet on the north side of the building did not have chimneys like the south side. We walked around the whole roof looking at the sides. Following the make-safe works in September 2010 the building was able to be re-occupied. It still needed some internal plaster repair from damage caused by rubble from one of the chimney collapses on the south side falling through a skylight. Spotless carried out this work. I do not believe that any rapid assessment, independent rapid assessment inspection was undertaken by Holmes after the Boxing Day aftershock. There was more reliance on the Council's inspections at this time.

The 22 February earthquake happened before we were able to have any further engineering inspections carried out by Holmes. There were limited engineering resources available over the summer holiday period. I recall that Spotless Contractors, who had undertaken the make-safe works in September 2010 did undertake a check of their earlier works on the south-eastern parapet wall but this was not until around 31 January 2011. As far as I know this work remained in good condition. I was on annual leave for most of this time preparing for and then attending a national scout jamboree in Hamilton in my capacity as the Troup Leader. This was between the 28th of December 2010 and the 7th of January 2011. I was the leader of 8 adults and 28 scouts. As a result I was not directly involved in this building immediately after the Boxing Day aftershock. My annual leave did not end until 14 January 2011 but I did return to deal with issues related to properties in Lichfield and Selwyn Streets. I note that the outside of the northern parapet wall was covered in a brown coloured long-run iron. While I cannot be certain I believe that this wall and its brown cladding may have been undertaken at the time of construction of the Link Centre at 248 High Street as a means of fire separation or protection. I'm not aware of any concerns at any time expressed by Holmes or Spotless as to the condition of this wall following the 4th of September 2010 earthquake.

CROSS-EXAMINATION: MR ZARIFEH

Q. Mr Chapman, on that last issue you obviously noticed the corrugated iron on that wall.

A. Yes.

5 Q. Prior to September I'm talking about?

A. Correct.

Q. Or prior to February. And I take it was there the whole time that you've been, that you dealt with the building?

A. As long as I can remember yes.

10 Q. Right. Were you aware of construction of the Link Centre or not?

A. No, no I wasn't. I've tried to work out when it may have happened because I have actually worked in the Link Centre office building at some stage in my career and that goes back to pre '87ish if my memory serves me correctly.

15 Q. Right. Did you have any photos or plans attached to your brief, that wasn't your one?

A. Ah, there were some photos that we'd provided, either from our contractors, or some I'd obtained from Mr Lee.

Q. And –

20 **JUSTICE COOPER:**

We have some Mr Zarifeh. BUI.HIG246.0006.17. and following.

1451

EXAMINATION CONTINUES: MR ZARIFEH

25 Q. Thank you, I just wonder if they can be brought up and I'll get Mr Chapman to refer us to them. Are these the photos you're talking about?

A. These are some photos that we've provided, yes.

JUSTICE COOPER ADDRESSES MR ZARIFEH:

30 There are three pages worth, Mr Zarifeh.

EXAMINATION CONTINUES: MR ZARIFEH

- Q. Thank you, if we can just flick through the three pages. Are these pages from the contractors doing the remedial work after September?
- 5 A. They are of the southern parapet wall and its damage, yes, and the repair works.
- Q. Well perhaps I'll talk to Mr Boys about those. So you told us about engaging Holmes following the September earthquake. Just take us through, what are those photos?
- 10 A. These are photographs that I obtained from Mr Lee the owner. They're pre-September. I don't know the exact date of when they were taken.
- Q. Okay, but just to get our orientation, we start with the bottom right-hand photograph. Does that show the Link Centre in the foreground with the light wells?
- A. Yes it does, and the long run corrugated iron, or long run iron wall that –
- 15 Q. Covering the brick wall?
- A. Whatever it's constructed of.
- Q. And 246 behind it?
- A. Yes, the rear of 246.
- Q. And the top right photo, is that taken from High Street so it shows the façade of 246 on the right?
- 20 A. Yes.
- Q. In the foreground there, and the wall we just looked at to the left of the building?
- A. Correct.
- 25 Q. And the Link Centre roof and façade, other façade to the left?
- A. Correct.
- Q. And what was on the top of that 246 building, is that lift wells or what?
- A. 246 did not have a lift in it, no.
- Q. What were those?
- 30 A. On the top, if we're looking at the picture on the top –
- Q. Top right.
- A. – top right, you can access out onto the roof through there and the remaining roof cover at the back over a studio.

Q. You'll just have to describe where you're talking about?

A. I'm still talking at the same photo, the front tin shed you could access through that to get out onto the roof and behind that, the grey roof area in it looks like some clear Perspex. I don't know whether the mouse
5 comes up on there, the clear Perspex area here was associated with a studio. The building wasn't itself three clear floors. There were some idiosyncrasies in the way that those floors were stepped, particularly at the back.

Q. Right, so how many floors was it?

10 A. It was three in total, but yeah, there was some – it was a bit like a rabbit warren at times inside there, you could go up to level 1 and then go round some stairs and up to, you know, what was the – what you would class as the third floor but it was really the second level at the back there.

15 Q. How many tenancies were there in that building?

A. There were four. Three on the ground floor, the building had a basement. On the ground floor on the left there was Diva, a jewellery, a costume jewellery shop, access through the middle down to the basement was a t-shirt printing tenancy, and on the right-hand side was
20 a, they call it Tease Me, a specialty tea shop, and up on the first floor on the right-hand side there was a language type tenancy.

Q. A language school?

A. Not necessarily a language school. It was an Asian associated with bringing people into the country or teaching or whatever, it wasn't
25 specifically a language school in there, they ran their offices from there. And the rest of the building was vacant.

Q. And just looking at the Link Centre roof, that shows the Link Centre extending out to the back and to the right towards Cashel Street?

A. It goes out –

30 Q. Towards –

A. I'm not sure where the boundaries go but the roof is consistent all the way through to the back.

Q. That's through to Hereford Street?

- 5 A. If you walk through the Link Centre you can, I know publicly you could wander through and then you veered off to the left to go out through to High Street and it gave you entrance into the office building. I'm not sure what the access was out to – out the back behind but I know the roof is the same level through there. Can only assume that it's part of the Link Centre.
- Q. Just for the record we're looking at 0006.019. Now you don't know, you can't help us with any inspections of the building other than the ones you've described?
- 10 A. No I can't.
- Q. In terms of engineering?
- A. No I can't.
- Q. And you said that you didn't engage anyone post Boxing Day to inspect the building?
- 15 A. We hadn't had time to.
- Q. And you've relied on the Council inspection?
- A. Reliance on that would have been at that time, Christmas time, holiday periods.
- Q. All right, so were you aware of the result of the Council inspection?
- 20 A. No. No I wasn't, but we only knew the tenants were in there and that it had – still green.
- Q. Also were you aware that it was green after Boxing Day?
- A. We were aware that it was still green whether that was a result of the Council, physical Council inspection I have got no copy of any placard or any assessment form from the Council in that respect, so.
- 25 Q. Well why I was asking is because you said you had reliance on the Council inspections, but you didn't actually know what the result was of them?
- A. Well the tenants had advised us that they were still green and they were operating so that they were still green.
- 30 Q. So were they aware of – were they aware of the Council inspection post Boxing Day?
- A. They were aware of a green placard.

Q. So did you become aware that a green placard had been put on post Boxing Day?

A. Not aware of a change of a placard post Boxing Day, no.

5 Q. And you said that 22 February happened before you were able to get any further engineering inspections. Were you considering getting any?

A. In our portfolio we've been going through a series of getting as best we can level 2 inspections undertaken on the buildings in our portfolio after every significant aftershock. We've set the standard at five. We are still going through that process after the 23rd of December 2011. It's been 10 about seven weeks since that date and so far we've managed to get 50 properties inspected and reported on, and works undertaken if that's –

Q. And is that on a level 2?

A. That is a level 2. In some instances we had a level 1 undertaken and because the tenancies were closed and we've had the engineers go 15 back and do level 2s.

Q. So going back to this building after September, is that what you essentially asked for, a level 2 assessment?

A. I don't believe that we'd actually instructed Holmes to undertake an inspection following the between – (overtalking 14:58:22).

20 Q. No –

A. It would have been on the schedule of properties to have inspected but there'd been nothing that led anybody to putting that in the emergency works category as it happened on the 4th of September.

25 Q. So after the 4th of September, did you engage Holmes to do a level 2 inspection?

A. Yes we did.

Q. And –

A. And they supervised those works.

Q. So what did you understand by a level 2 assessment?

30 A. It's a rapid assessment of exterior and interior, identifying issues that need to be addressed with the buildings to allow it to be occupiable.

Q. Did you consider anything more detailed in terms of engineering inspections?

A. Not directly no. We'd provided all of those reports that Holmes had undertaken to the owner's insurer, and I'm aware that the owner's insurer had appointed a loss adjustor who I know had visited the property at least once and may have done so on another occasion with our Spotless contractor as well.

5

Q. Now presumably you didn't say to Holmes you want a level 2 inspection. What were your instructions?

A. Basically our instructions have been to undertake an assessment of the building to ensure that it is occupiable.

10

Q. So what, safe to occupy?

A. Originally safe to occupy, yes. But hindsight's a wonderful thing and safe to occupy is perhaps contentious.

Q. Well, we'll leave that aside, but I'm just wanting to know what did you ask Holmes for?

15

A. Safe to occupy would be the –

Q. What did you ask Holmes to do?

A. I don't have a copy of the specific instruction in front me. We would have wanted to know that the building was in a word, I'd say safe to occupy. And that was a general instruction to Holmes Consulting. We met with them on a regular basis going over reports and feeding them information and them feeding us information back again.

20

Q. Now you would have heard the statement from Mrs Edwards that I read out?

A. Yes I did.

25

Q. And she talked about after Boxing Day, she's in the Link Centre and not being able to use an alleyway that ran, led to a carpark at the rear of the Link Centre and that was because of buildings at the rear having parapets worked on at the back of the buildings. Now I appreciate that may not be 246 High Street, but here's a diagram. Can you just firstly, do you know anything about that?

30

1501

WITNESS REFERRED TO DIAGRAM

- A. Um, I don't know anything about any work being undertaken to any building parapet after the Boxing Day 'quake, I do know that there is an alleyway that comes from Cashel Street and some of the unrelia-
bles gained access to the roof of the Link Centre and then up into the fire
5 escape of 246 to either enter the building at times or to break windows
or just graffiti block walls.
- Q. Right so you're indicating on –
- A. So there's an alleyway –
- Q. 0024.10 and what are you indicating there?
- 10 A. Well I'm not sure where the alleyway comes, but this is the back of
246 High Street.
- Q. Right.
- A. I can only assume that this is part of the Link Centre and perhaps the
walkway to the carpark is in through here.
- 15 Q. Okay.
- A. The works that were undertaken after September were along this
parapet wall here.
- Q. Yes.
- A. There is a chimney area here that would've had to have been taken
20 down.
- Q. Right that's after September?
- A. And that was after September and it may be that it's September that
she's referring to.
- Q. Well let's assume she's referring to Boxing Day as she says. Were there
25 other buildings that fronted on to that alleyway?
- A. Um, I'm not sure what goes on in this area behind this building here.
- Q. Okay, so were you –

JUSTICE COOPER:

- Q. That's the adjoining building?
- 30 A. Yeah that would be 240 for example and whatever the number happens
to be because we know, we know our one is 242 to 246.

CROSS-EXAMINATION CONTINUES: MR ZARIFEH

Q. Okay so you can't shed any light on that alleyway at the back and any bricks or...?

A. No I can't unfortunately.

5 CROSS-EXAMINATION: MR ELLIOTT

Q. Thank you Your Honour. Mr Chapman I'll just ask you to look at a photograph BUI.HIG246.0004.33?

WITNESS REFERRED TO PHOTOGRAPH

Q. Are you able to identify where that photograph was taken from?

10 A. I could make an assumption but I could only make an assumption. I know what it looks like, but I couldn't be sure. Ah, it looks like this area here, hang on where's the mouse gone, looks like this area here is a concrete block wall which –

Q. You're indicating the right?

15 A. And I don't know what this area here is, it doesn't look familiar with any of the fire escape associated with 246 High Street so the assumption I would make this is the end of an alleyway coming off Cashel Street, and it may be the graffiti artists are the ones that lift themselves up on to this area here which then somehow may get themselves [*sic*] into, on to the
20 Link Centre roof but I can't be certain.

Q. So I was just wondering whether you could say whether that brick wall which we see in the centre there is part of 246 or not?

A. I can't be certain of that no. The area to the left doesn't look familiar to me as associated with the only void that I know in the back of 242 to
25 246 High Street, and I don't think we have any photographs of that.

Q. Thank you.

A. In our evidence.

Q. And you referred in your evidence to the northern parapet wall being covered in brown coloured long run iron?

30 A. Yes.

Q. Did any engineer suggest to you the possibility of removing that iron so as to inspect the wall?

A. Not that I can recall.

CROSS-EXAMINATION: MR LAING AND MR HANNAN – NIL

RE-EXAMINATION: MR RZEPECKY – NIL

QUESTIONS FROM COMMISSIONER CARTER AND JUSTICE COOPER -
5 **NIL**

WITNESS EXCUSED

MR HANNAN CALLS:**ALISTAIR GEOFFREY BOYS (AFFIRMED)**

Q. Yes now is your name Alistair Geoffrey Boys, you're a structural engineer employed by Holmes Consulting Group Limited?

5 A. That's correct.

COUNSEL ADDRESSES JUSTICE COOPER – COMMENCEMENT OF READING BRIEF

Q. If you'd read your brief of evidence from paragraph 3?

WITNESS READS BRIEF OF EVIDENCE FROM PARAGRAPH 3

10 A. "I hold a Bachelors and Masters Degree in civil and structural engineering, BE Hons Civil, ME Structural, conferred by the University of Canterbury. I have undertaken training as a New Zealand USAR engineer level 1. I have three years' postgraduate experience in engineering.

15 Scope of Evidence. I on behalf of HCG provide this brief of evidence in response to the Canterbury Earthquakes Royal Commission's letter dated 9 November 2011 and email dated 23 November 2011 in relation to the building at 242 to 246 High Street building.

20 Details of inspections and assessments. I am asked to provide details of any inspection assessment made of the building.

Response.

Inspection 15 September 2010. I attended the building site on 15 September 2010 to inspect the building with the contractor and to provide advice to the contractor with respect to removing and/or
25 securing the damaged portions of the southern parapet. During this visit I gained access to internal spaces and the roof area. I completed a site report and Christchurch earthquake rapid assessment form level 2 confirming the placard status of the building to be yellow. The assessment form notes, "Chimneys fallen, damaged severely and
30 parapet damaged and that there are fall hazards". My site report notes that there is internal damage limited to lath and plaster ceilings. It also notes damage to the southern boundary wall caused by a fallen chimney and significant cracking to the supporting parapet. My site

report recommends the contractor remove all loose masonry from the chimneys and parapets and provides a temporary restraint detail for the southern parapet at the south west corner of the building. The site report also records my observation that the front and northern boundary parapets were undamaged. A copy of this site report is attached. A copy of the Christchurch earthquake rapid assessment for level 2 is attached.

5

Inspection 21st September 2010. I attended the building site on 21st September 2010 to review the completion of the temporary securing works for the southern parapet. I gained access to the roof area and carried out an inspection of the south parapet securing works. I completed a site report noting that all loose masonry had been removed and a temporary securing detail of the south-west parapet had been completed. The site report notes that all fall hazards have been removed. I also filled out a Christchurch earthquake rapid assessment form level 2 which was subsequently signed by Mr Galloway following an internal review of the damage observed and temporary securing works carried out.”

10

15

Q. I just pause you there just for clarity because Mr Galloway won't be given evidence today. Who's Mr Galloway?

20

A. Ah, he's a project engineer at Holmes Consulting and due to his chartered engineering status he was available to sign the change of placard status from yellow to green whereas non CPEng could not sign.

Q. Thank you please continue?

25

WITNESS CONTINUES READING BRIEF OF EVIDENCE

A. “The Christchurch earthquake rapid assessment form level 2 recommended the placard status of the building be changed from yellow to green based on the removal of fall hazard posed by the damaged south-west parapet. The assessment form notes that there is minor cracking in remaining parapets which will require remedial work but are not life-threatening. My recollection is that this refers to pre-existing cracks observed in the parapets that did not display any evidence of damage as a result of the 4th September earthquake. A copy of this site

30

report is attached (C) and a copy of the earthquake rapid assessment form level 2 is attached (D).

Inspection of the north parapet wall. I am asked to provide further detail about my inspection of the north parapet wall other than as contained in my site report.

5

Response: While I was on the roof of the building during my inspection of 15 September 2010 I inspected all parapets, including the north parapet. I observed that the north parapet did not display any evidence of damage.

10

Photographs: Photographs taken during my site visits are attached (E).”

1511

Q. I'll pause you there, it might be useful for the Commission just to quickly scan through those photographs.

A. Okay.

15

REFERENCE BOY.0005.13

Q. Yes perhaps you can just, we'll take them page by page and if you can tell the Commission what each photograph is depicting.

A. Okay the top left-hand photograph here is standing on the adjacent building, 238–240 High Street looking at the, I guess the western-most chimney adjacent to the front façade of the building, noting the damage at the interface between the chimney proper and the top of the parapet. The second photo to the right of that is the same location but oriented so that it was closer detail.

20

25

JUSTICE COOPER:

Is that on the right alignment that photograph?

MR HANNAN:

No sir, I think it's been, it would need –

30

WITNESS: MR BOYS

A. Yeah the one on the right is rolled round 90 degrees so I could get a close-up of the actual damage at the interface.

JUSTICE COOPER:

Q. Can we do that.

5 A. 180 degrees out. Yes so now it's appearing in the bottom left-hand corner and you can still see the same painting in the rear that was evident in the first photograph.

Q. Well it's the bottom right-hand but nevertheless.

A. Oh my (inaudible 15.13.35) sorry.

10 Q. This is only serving to confuse the record, I'm afraid, if we come back to it.

A. CIMG1342.

Q. Yes that's the one.

A. So that's a close-up photo of the actual damage at the interface between the parapet and the chimney above.

15 **EXAMINATION CONTINUES: MR HANNAN**

Q. If we can come back out and then rotate the page.

20 A. The lower left photograph is, I believe, yeah it is definitely from the same viewpoint from the adjacent building looking at the return of the front parapet at its peak level reducing down to the lower level as it's travelling along that southern boundary wall. That crack that goes through there was the crack that was temporarily restrained by the strapping created later on and the lower right, which is CIMG1340, is the lower half of that same interface at the front of the building.

WITNESS REFERRED TO PAGE .14

25 A. CIMG1343 on the top left looks to be rotated. You can see the corrugated iron in the bottom left-hand corner that would be ordinarily in the bottom right if it was oriented correctly and it is just highlighting the cracking that's evident and the lower portion of a chimney which I assume is damaged higher up.

30

JUSTICE COOPER:

Q. So you've sprayed the cracks on the sides have you.

A. The spray was already there. I believe that they were potentially done by contractors or, perhaps, Jeff Matthews, I don't know for sure. The photo CIMG1344 is further to the east along that same wall from the adjacent property showing the horizontal crack at the line of the parapet interface with the roof beyond and then the contractor is climbing through the void left by the chimney that fell through the skylight and damaged the ceiling below. CIMG1345 to the lower left is slightly different orientation of the previous. 1346 looks to be a rotated view of where the contractor is climbing through the gap on 1344. You can see the chimney has actually fallen through and the top half has gone through the skylight which has obviously got no glass in it at this point in time.

EXAMINATION CONTINUES: MR HANNAN

Q. And .15.

15 A. 1347 I believe is potentially the same chimney, maybe one further down, although I don't believe so.

JUSTICE COOPER:

Q. That needs to be rotated through 90 degrees doesn't it.

20 A. Yeah no that looks, CIMG1347 looks to be the lower half of the previous chimney view.

EXAMINATION CONTINUES: MR HANNAN

A. CIMG 1348 is further along the wall potentially towards the rear of the building just showing again the horizontal cracking induced at the interface of the parapet and the roof-line beyond. 1349 on the lower left is illustrating a transitioning crack that projects along the rear half of the southern boundary wall and the final photo on that page, CIMG1350, is at the final chimney along the southern boundary wall showing the damage and cracking involved.

30

MR HANNAN ADDRESSES COMMISSION RE REST OF THE PHOTOGRAPHS NOT NEEDING TO BE GONE THROUGH

EXAMINATION CONTINUES: MR HANNAN

- 5 Q. There's one further set just on page .18 that I will take Mr Boys to very briefly. Now the photographs on page .18 on the upper right-hand side, that's CIMG1360, CIMG1361 and CIMG1362. Those all appear to be taken from within a ceiling space. Can you tell the Commission about those photographs.
- 10 A. Okay, correct. If you look at the upper left photo, 1359, to the left-hand side of where the viewpoint is the front façade of the building. The far low wall is the northern boundary wall that subsequently collapsed and approximately where this photo was taken from we removed roofing iron and the timber sheathing and gained access to the truss space below
- 15 and if we return to the previous –

JUSTICE COOPER:

- Q. Can you just illustrate where the collapse was with the mouse.
- A. The collapse, on here, if you can see the metal strap that is pre-existing
- 20 strengthening on that front parapet.
- Q. Yes.
- A. The wall that runs perpendicular to the right and disappears behind the corrugated iron, that is the wall that suffered partial collapse.
- 1521

25 EXAMINATION CONTINUES: MR HANNAN

- A. This set, probably the most important photograph on this page is 1361 which which shows the truss that supports the roof that we were viewing the previous photographs from, the steel connection that goes from the truss and is embedded into the front parapet wall and there was no
- 30 evidence of damage there. We were investigating this area with the

potential need to maybe brace back to that front parapet so we opened it to have a look around.

Q. Thank you. Your Honour unless Mr Boys can help further with the photographs I will ask him to conclude reading his brief from paragraph

5 19

WITNESS CONTINUES READING BRIEF

A. "Conclusion.

I am asked to provide any observations, comments that might be relevant to the issue the Commission will have to address in relation to the building i.e. collapse of the northern wall.

10

Response I do not believe that I have any other information that may assist with this issue beyond that which I have already given to the Commission."

Q. And just one supplementary question the adjacent building, the building on the other side from the Link Centre. At the time that you first inspected this building can you tell the Commission what you did with respect to the placarding status of that adjacent building?

15

A. The building to the south of our building in question was trading, open, green placarded and due to the fall hazard in evidence from the southern boundary wall which was damaged I went down and yellow placarded the JayJay's premises to ensure that no-one was in there in the fall zone. My understanding is that Jeff Matthews had advised the Council that this was to occur but it had not been done.

20

Q. And now just explain to the Commission who Mr Matthews is?

25

A. Mr Matthews was the first Holmes engineer that did the inspection on I couldn't recall the date.

CROSS-EXAMINATION: MR ZARIFEH

Q. Mr Boys, just on the issue of the north wall and clearly that's the wall that we're concerned with in this hearing in particular, am I right from the evidence you've given and from the statements that we got from Mr Matthews and Mr Galloway it would appear that you were the only

30

engineer of the three of you to inspect the north parapet? The others don't speak of it.

A. Jeff Matthews was unable to gain access over to the north side of the wall due to the debris from all of the fallen chimneys limiting his access over there and Bruce Galloway his visit to site was specifically at the request of the contractors to review ongoing work and provide further advice on how much more loose masonry was needed to be removed and what, where their end was.

5

Q. So coming back to my question you're the only one who can help us with any inspection of the north parapet?

10

A. That's correct.

Q. Now we don't seem to have any very good photographs of the north parapet and perhaps that's because the damage that you're addressing was on the south parapet.

15

A. That would be a correct inference. Typically I would take photos as an overview and then localise if there was any damage observed so the evidence of no photos at all is indicative of no damage.

Q. So you can point us to a photo or the best photo of the northern parapet that from the photos taken by yourself or the others from Holmes?

20

A. I only have my photographs with me at the moment but we were looking at CIMG1359 on 0005.18.

Q. Okay that's the one you referred to a moment ago?

A. Yes correct.

Q. It's going to come up in a moment but are you saying that the parapet at the back of the photo if you like is the north one or the one on the left?

25

A. The one at the back of the photo is the northern boundary wall.

Q. And the Link Centre is beyond that?

A. Correct.

Q. So what's the one on the left, the parapet on the left that we can see. So the parapet to the left of the photo as we look at it.

30

A. That's the street frontage façade.

Q. And, so that's the front of the north wall that we can see at the back of that photo?

- A. Yes it would be the first 10 feet of the northern boundary wall.
- Q. And did it step up?
- A. I believe it was about 300 to 400, maybe 450 millimetres above the gutter line at that level.
- 5 Q. Right. I understood that at some point the northern parapet stepped up so that it was considerably higher than the lower portion of it.
- A. That would occur at the interface between the front façade and the northern wall.
- Q. Isn't that what we're looking at there?
- 10 A. We're looking at the I guess the sunlight highlighted level surface that was continuous to the front façade. It was only on the southern boundary wall that we had that scalloped –
- Q. Right so the southern boundary wall was it, the parapet was that considerably higher than the northern?
- 15 A. I don't know that it was considerably higher. I believe it least had a little bit more height but the main problem was it had the extra projections and mass associated with the chimneys that came through that wall.
- Q. Right so there weren't chimneys on the north?
- A. No, correct.
- 20 Q. But similar dimensions you think other than that?
- A. Approximately yes.
- Q. The south wall I think you if we go back to 16, .16, and the photo in the top right, am I right that shows the south wall?
- A. Yes that's the very rear of the south wall standing on the JayJay's building.
- 25 Q. Okay but the wall we're looking at is the wall of 246?
- A. Correct.
- Q. And is the different in height from the roof of is it did you call it JayJay's?
- A. The 230 –
- 30 Q. That building. Is the different in height that we can see there from that, this side is it different from the other side?
- A. I believe that the other side would have been perhaps another two metres lower than that.

- Q. Right. So the parapet I'm just trying to get an idea of how far the parapets extended above the roofline of 246.
- A. On the northern side like I said somewhere between 300 and 400 millimetres and on the southern side potentially up to 500 or 600.
- 5 Q. Millimetres?
- A. Correct.
- Q. Okay. And the cracking that we can see in that photo and probably better in the one on the left of it – 1351 – that was the cracking that was confirmed in the south?
- 10 A. Correct.
- Q. Or part of the concern?
- A. Absolutely.
- Q. So in terms of cracking on the north parapet you didn't see any like that?
- 15 A. Absolutely not.
- Q. And the make-safe work was all on the south side?
- A. Correct. We removed quite a considerable portion of the wall down to the roofline and associated chimneys which was a mass and secured that, the returned portion from the front façade to the southern boundary
- 20 wall.
- Q. Okay. And you completed a level two assessment on 21 September?
- A. That is correct.
- Q. And just looking at the second page of that. You refer on the first page to the damage presumably to the south wall damaged masonry, chimneys and parapet removed and secured correct?
- 25 A. Yes.
- Q. And on the second page which is 0005.12, under 'comments' you've got "minor cracking in remaining parapets will require remedial work – not life threatening". Now just tell us what did you mean by minor cracking?
- 30 A. That refers to cracks that showed a degree of pre-existence. There was moss growing in some of them. They typically followed the bed joint line separating the bricks, like the mortar line and largely at locations that weren't critical in terms of stability or fall hazards.

Q. Okay and you said will require remedial work. What kind of work?

A. Whether it was just surface finish to protect the ongoing degradation and during that process maybe some investigation as to the competence of the underlying structure but it didn't display any movement or damage associated with shaking.

5

Q. Okay so that was 21 September. My understanding from Mr Chapman was that Spotless were the contractors?

A. Correct.

Q. And they completed the work in those days or weeks leading up to 21 September and so the minor cracking and the remedial work you're referring to there was not included in the remedial work carried out in September?

10

A. That is correct.

Q. So was there any correspondence or communication with Harcourts of the remedial work required for the remaining parapets?

15

A. There would have been not that I recall nothing specific highlighting the need.

Q. And just so we're clear, you say it's not life threatening so you weren't concerned about the stability of that, any cracks in the northern parapet?

20

A. Any concerns I had I immediately raised and activated the appropriate response.

COMMISSION ADJOURNS: 3.33 PM

25

COMMISSION RESUMES: 3.50 PM

JUSTICE COOPER:

Now I begin just by apologising for referring to you Mr Pohio by your wrong name. I should have referred to Arnold, so I'm sorry about that.

30

CROSS-EXAMINATION CONTINUES: MR ZARIFEH

- 5 Q. Mr Boys, I was asking you before the break about the level 2 assessment on 21 September, and on page 1 of that assessment, WIT.BOY0005.11, you see bottom left under 'further action recommended', bottom left of the form?
- A. Yes.
- Q. And you've ticked 'structural', what were you envisaging in terms of a structural report for further action?
- 10 A. Detailed engineering evaluation I guess is the current terminology but a full assessment of the building.
- Q. And who were you recommending that to, by completing this form?
- A. I'm not 100 percent certain that I knew specifically who I was recommending it to, I just know that it's probably an ideal scenario.
- 15 Q. Okay, well just tell us then the form – you complete the form on the 21st of September following the inspection of the work?
- A. Correct.
- Q. And you're obviously happy that that's been done?
- A. Correct.
- 20 Q. You saw the other minor cracking that we've covered on the second page?
- A. Correct.
- Q. And you changed the yellow to a green on your form, but at the same time you were saying well further action should be a detailed structural engineering evaluation?
- 25 A. Yeah, I guess at least if it was on this Council record then it would become part of their knowledge of the building so they could use it to request the owner or the building manager to perform further investigation works.
- Q. So the form, once you completed it, you gave it to the Council?
- 30 A. It went into our admin team who distribute them to the appropriate places, Council, this one must have gone to the Council because we had to change the placard.
- Q. So it went to the Council and did it go to anyone else?

A. It would have gone to Harcourts as well.

Q. So I'm just trying to get it clear, when you recommend that further action, who were you thinking would carry that out, the Council or the owners, or Harcourts for the owners?

5 A. To be fair I don't know that I considered that, all that in-depth.

Q. So how was your recommendation going to be put into effect then, how did you envisage that?

A. I don't know.

10 Q. Well from what you say it would depend on the Council reading the form and picking up that you ticked that and then they carrying out the detailed engineering evaluation, or on Mr Chapman for Harcourts getting the form and seeing that and then arranging for that. Is that what you're saying?

A. Effectively yes.

15 Q. So was there any advice other than the ticking of this form in that way either in writing or orally, that there should be that detailed engineering evaluation?

A. Orally maybe, but there is nothing that I can specifically recall.

Q. And when you say orally maybe, who would have that –

20 A. In conversation with Chris who was looking after, or my interface with Harcourts with their building portfolio.

Q. But when you say maybe, you're not sure of that?

A. Oh, I can't specifically recall it so I'm not going to say I did.

25 Q. Also it seems from Mr Chapman's evidence that following the make-safe work being completed and the building being green placarded, nothing further happened until Boxing Day and then as you would have heard him say he relied on the, essentially the Council inspection which was a green placard and that he was, I think he said thinking about arranging for engineering inspections but hadn't done that as at 22 February. So
30 you weren't involved in any further detailed inspection of the property?

A. No after the initial two weeks that I was down here doing inspections I collected a project out of the pile that we had and I removed myself back to Auckland to work on that one particular project.

Q. And the inspection that Mr Chapman spoke of, I think of Spotless checking the southern wall, 31 January I think he said, was that in conjunction with Holmes or not?

A. I have no knowledge of any of that, no.

5 Q. I just wonder if we bring up a photo BUI.HIG246.0004.9. This is an old photo I think taken about 1991 by the Council in one of their hazardous appendage inspections, and we're talking about the layout. This might help if we can focus on that photo and enlarge that. So correct me if I'm wrong but that's a view from the back of 246?

10 **WITNESS REFERRED TO PHOTOGRAPH**

A. That is correct.

Q. And High Street is in the background?

A. Correct.

15 Q. Going across from left to right, and the Link Centre is in the right and the light wells we can see from on the roof of Link Centre?

A. Yeah, that appears to be true.

Q. And the southern parapet wall that had damage to some of those chimneys that we can see and some of the wall, we can see that to the left of 246 in that photo?

20 A. That's probably the best photo of that all in the whole –

Q. Right. And the wall on the right, the north wall we can see – with the mustardy colour?

A. Correct.

25 Q. Now were you aware that it had some kind of corrugated iron I believe on the north side?

A. I know that there was a steel capping over the top of the wall itself. I do not recall leaning over to see the exterior façade.

Q. And the steel capping is that mustardy colour we can see?

A. Yeah, correct.

30 Q. How far down on the inside of the parapet do we go?

A. It was just a return of maybe 25, 50 millimetres.

Q. And beneath that on the inside on the roof side, was block, or brick?

A. It was brick with a veneer of sand and cement plaster.

- Q. And it's in that material that there was the minor cracking but not of concern to you?
- A. On the north wall I don't recall seeing any of the cracking, it was more the street frontage façade that had some horizontal cracking.
- 5 Q. You didn't distinguish when you said remaining parapets on the level 2, but you recall nothing on the north?
- A. I have no idea, I don't think so.
- Q. You have no idea, or you can't recall that?
- A. No I can't.
- 10 Q. So if there was cracking it was minor anyway?
- A. Absolutely.
- Q. And you couldn't as you say, you didn't look over the wall and you couldn't look under the flashing because that's fixed, correct?
- A. Correct.
- 15 Q. Could you look down, is there a –
- A. There's (overtalking 15:59:39).
- Q. – just there, there's a kind of walkway isn't there just on the inside of the wall, that you can walk along?
- A. Correct.
- 20 Q. Could you look down beneath the walkway at that point near the back?
- A. The walkway sits in the internal guttering that runs through it. It's timber slats so you can see through it and it only obscures maybe the bottom 100 millimetres of the wall and only partially.
- 1600
- 25 Q. So what was it like, your view of the inside of the wall from, through that?
- A. I had a fairly good look at the junction between the wall and the internal guttering and the adjacent roof so that whole thing was fairly clear.
- Q. And so no cracking of any concern?
- 30 A. No cracking, no signs of movement in the guttering relative to the roof or the wall adjacent.
- Q. I was going to ask you about that, connections between the wall and the roof, did you see those?

A. The connections between the wall and the roof would have been all part of the timber truss supporting structure and whilst I looked at the area adjacent to the front I could not see any great detail over on the north side – by the front I mean the west façade overlooking High Street.

5 Q. So you didn't have a good view of the north side, is that what you're saying?

A. No I couldn't see anything specifically.

WITNESS REFERRED TO PHOTOGRAPH BUI.HER152.0008.35

10 Q. Now that's the north side of 246 obviously after the February earthquake and I think it's partial demolition of the Link Centre.

A. Correct.

Q. And you can see what remains of that wall.

A. Correct.

15 Q. And you can see a portion towards the rear of the north wall that appears different from the rest of the wall.

A. I think that refers to Chris' comment regarding the rear of the building, some of the layers or levels were offset from the frontage.

20 Q. Okay Mr Smith, Peter Smith's going to talk about that and make a comment about that. Could you see any difference in the wall from your inspection on the inside when you're looking down through that walkway in terms of how it connected at the back compared to the front of the north wall?

A. To be fair I didn't pick that up that it was different from the frontage.

25 Q. Right, I appreciate you wouldn't have been looking for that, you wouldn't have been aware of that, but you can't recall seeing anything that –

A. No there was, I had no knowledge that there was a differential in the way that the various pieces connected the diaphragms to the wall.

JUSTICE COOPER:

30 I have to confess I'm not really following this.

MR ZARIFEH:

Well, sir, what I'm referring to, if you look at the north wall and the front portion is the portion nearer High Street and that appears to be of brick construction but the rear portion appears to have something else in the brick if you like and I'm not sure what the material's made of, corrugated iron it looks.

5

MR BOYS:

If you're looking at the rear piece where the building structure, superstructure seems to come down that looks to me as if that was a skin on the inside of what would have been a continuous wall the whole way along. I believe
10 you're referring to the fact that the sections closest to the street frontage is actually connected at a higher point than the rear.

MR ZARIFEH

Well there's that.

15 **JUSTICE COOPER:**

Q. Mr Boys you're obviously following Mr Zarifeh. Indicate with the mouse the different area.

A. Okay so I believe he's asking about this rear section here the fact that it's different from the normal frontage and if you look –

20 Q. Well that's part of those structures on the roof.

A. Correct.

Q. Is that what's being referred to?

MR ZARIFEH:

25 Yes it is and I'm asking if that's, it cuts down doesn't it?

MR BOYS:

Yeah, my understanding of where you're going is that the external view of the parapet would have followed the original line and met up with the front. At the
30 front portion it's connected up at this higher level which corresponds to the roof pitch, whereas at the rear it's connected at the half height level. That's to do with the various layers and levels at the rear of the building.

COMMISSIONER CARTER:

Q. And Mr Boys the area below that flashing is a new wall constructed in conjunction with the Link block, is it the grey, looks like grey block work.

5 A. The light grey block work I believe is part of the Link structure, yes, so there would have been a 50 mm separation.

JUSTICE COOPER:

Q. Part of which, part of which structure?

10 A. The Link.

Q. The Link Centre.

A. The Link Centre sorry, so this reinforced concrete wall here would have been part of the Link and then there would have been maybe a 50mm separation between the masonry and the reinforced concrete block.

15

COMMISSIONER CARTER:

Q. So that grey, if I'm correct in my assumption that that grey block work wall was built as part of the Link block, Link Centre, it would have acted as a constraint against the movement of the brickwork above it on the adjoining building.

20

A. Potentially but I will say that there was likely to be a gap of up to 50mm. If we think about the fact that the February earthquake was quite violent but relatively short. Perhaps the buildings didn't get enough out of sequence to impact upon each other but you'd need to actually fully analyse the capacities and stiffnesses of the buildings to make a sure determination on that fact.

25

Q. Yes those sort of discontinuities observed in other buildings have resulted in higher buildings toppling onto the lower building because of the interference with the wall below it and you know the assumption that it may be a 50mm gap but it could also be replaced by an assumption that there wasn't a 50mm gap. You know, who knows how it was built. Thank you anyway I was just wanting to verify if your observations were similar to mine, thank you.

30

CROSS-EXAMINATION CONTINUES: MR ZARIFEH

Q. Just finally, Mr Boys, in terms of your inspections in September I think you went inside the building.

5 A. Correct. I had access to maybe a representative sample of the internal spaces would be correct. Some of them were locked.

Q. And just in relation to that north wall that we're talking about, did you look at any of the north wall from the inside?

A. I believe so but I cannot be 100% certain.

Q. There's no, you've made no record of it.

10 A. Correct.

Q. And so you can't recall what you saw.

A. Okay as a representative look at all the internal linings that I saw, the lath and plaster ceilings, none of them that I observed showed any evidence of disconnection between the ceiling and the wall adjacent showing movement but as to specifically whether I looked at the connection to the north wall up at that level I cannot say for certain.

15 Q. And presumably if you had seen something that concerned you you would have noted it.

A. Absolutely.

20 **CROSS-EXAMINATION: MR ELLIOTT**

Q. Mr Boys just so that Mr Pohio's family can understand the process a little bit more, these forms that you were completing, the level 2 inspection forms, were generated by the Christchurch City Council. Is that right?

25 A. That would be correct.

Q. And from your point of view the completion of that form was going to result in the allocation of a placard.

A. They went hand in hand to assign a placard. You should complete the form to make sure that you'd assessed all of the appropriate details of the building.

30

Q. And I think it's right in the case of the latter inspection, the inspection and the signing of the form resulted in the change of the placard from yellow to green.

A. That's correct.

5 Q. The type of inspection that you were doing when you were there was both internal and external, is that right?

A. Correct.

Q. And your attention was towards damage to the building internally and/or externally.

10 A. Damage is the primary focus that leads us to indications of how the building's been performing and may perform in the future, correct.

Q. And that focus on damage is reflected in the form which you were completing.

A. The form and the photos that I took.

15 1610

Q. I'll just ask you to look at the photograph BUI.HIG246.0004.33?

WITNESS REFERRED TO PHOTOGRAPH

Q. Please. I understand this is a photograph from the Council file not one that you took but are you to identify whether that is part of 246 was part
20 of 246 or not?

A. The only potential location in terms of the cavity that is displayed there that it could be part of 242 to 246 High Street is where the stairs and the staircase does down and the staircase is not that one there so I would suggest that that's been erroneously filed by the Council.

25 **JUSTICE COOPER:**

Q. You would suggest, I'm finding it a bit hard to hear Mr Boys I wonder if you could keep your voice up a bit?

A. Sorry.

Q. So what did you say then?

30 A. Ah, it doesn't match any of the known geometry and superstructure of the rear of 242 to 246 High Street so it must be another building that's been poorly filed.

Q. Thank you.

CROSS-EXAMINATION CONTINUES: MR ELLIOTT

Q. Thank you Your Honour. I'll just refer you to WIT.BOY0005.15.

WITNESS REFERRED TO PHOTOGRAPHS

5 Q. These are photographs to parts of the building other than the north wall, is that right?

A. These are all representative of the southern boundary wall and damage to the wall itself and the chimneys, correct.

10 Q. Do these photographs and in particular the top right-hand photograph demonstrate that the mortar in that part of the building was in a poor state at that time?

A. Ah, it's a little hard to determine when they are all lying around crumbling after impacting on each other but potentially the mortar was degraded, the building was of some age.

15 Q. My point was that the bricks appear to be intact so that the failure of the wall seems to have been at the mortar rather than through the bricks?

20 A. Ah, due to the height and the aspect ratio of a chimney such as this it would have been overturning so it would have been tension and the tension would go through the mortar always as opposed to an in-plane shear crack which can potentially break bricks.

Q. Mr Smith I think indicates this was a building which was built before even 1880. Were you aware of that at the time of your inspections?

A. Ah, not specifically but knowing the history of Christchurch it would have been a fair assumption.

25 Q. And I think he also says that it was in its relatively original condition. Were you aware of that?

A. I didn't observe any specific strengthening apart from that one strap on the street façade to the rear of the parapet.

Q. Just look at photograph BUI.HIG246.0006.19?

30 **WITNESS REFERRED TO PHOTOGRAPH**

Q. And if that could be rotated 90 degrees to the right please? And the right two photographs enlarged. Both photographs on the right please if they could both, both be enlarged if it's possible, it may not be possible.

5 JUSTICE COOPER ADDRESSES COUNSEL – ROTATION OF PHOTOGRAPHS

CROSS-EXAMINATION CONTINUES: MR ELLIOTT

Q. So Mr Boys the northern wall in the top photograph is the area of red?

A. Ah, correct.

10 Q. Which joins the blue frontage of the building on the left, sorry, it adjoins the blue building to the left of the building, is that right? We have a building which is blue and there is a wall to the left of it which is red?

A. Correct.

Q. That is the northern wall?

A. That is correct.

15 Q. And then in the bottom photograph the northern wall is the red section on the right?

A. Correct.

20 Q. All right. You've said I think that the cladding wasn't removed there. One of the concerns that Mr Pohio's family has is that that cladding wasn't removed and that if it had been removed you would have been in a better position to inspect the wall. Can you comment on that please?

25 A. I think that if we had've removed the cladding after September it wouldn't have given us any further information. It looks to me the failure mechanism is it's torn away from the connections to the roof and ceiling diaphragm and as the limited or no, limited's the wrong word, the absence of damage viewed from the roof side I don't know that you would have gained any more information.

30 Q. Can you just, I know you've already given some answers about the damage from the roof side, so you're talking there about the photograph that you showed taken from the roof of the other side of that northern wall?

A. Correct.

- Q. Which exhibited no damage, and you also gave some evidence before about internal inspection. So did you, did you seek to look at the southern side of that wall from an internal point of view?
- 5 A. I don't specifically recall investigating it but I tried to see as much as I can. I believe I did but whether that was at a lower level than the roof I can't be 100% certain.
- Q. Are you able to recall whether there were linings in place in the interior?
- 10 A. There were lath and plaster linings. The standard wall linings I believe were lath and plaster as well, I cannot recall 100% there's no photographs.
- Q. But if there, if there were linings in place it wouldn't have been possible to have a direct look at the wall from inside?
- 15 A. Typically the linings accentuate damage to masonry walls. They are far more brittle and yeah, they magnify almost the, any movement that's occurred.
- Q. Would it have been possible for you to inspect the entire section of that wall from the inside or at least I'm sorry the entire section even though there were linings in place?
- 20 A. Ah, I believe that at least some of the areas would have been locked with no access available.
- Q. It appears that the structure Mr Zarifeh was referring to would have impeded an internal inspection of the wall from the upper level?
- A. Only as to the point beyond the connection to the floor diaphragm at that sort of half level at the rear.
- 25 Q. Yes, so, so well the concern Mr Pohio's family has is just whether there may have been damage which was concealed and which you couldn't see because it appears that your, you couldn't see the northern side and the southern side from the interior could only have been a limited inspection?
- 30 A. Potentially there was damage that was obscured but due to the lack of evidence that was on view from the representative version that I, inspections that I was available to get to I don't think that there would have been any more information from more invasive investigation.

Q. What about the presence of damage in other parts of the building especially the southern side, would that not have indicated to you that perhaps there might be something concealed in the northern side?

5 A. That's entirely different structural form the chimneys had incredibly more mass higher so they were going always going to overload the walls and the walls themselves beyond the influence of the chimneys and the damage that they induced had no signs of damage.

1620

10 Q. Would you agree that in order to make a decision about whether to change the building status from yellow back to green, it would have been better to have done an inspection which incorporated invasive testing rather than just visual inspection?

15 A. I don't know that I would go that far. I think that the level of damage that we observed was localised, concentrated at the chimneys. All other available areas inspected did not show any signs of structural damage.

20 Q. As I mentioned, this appears to have been a building built before 1880 in a relatively original condition and Mr Pohio who was a 40 year old man died in the adjoining building. In City Mall, which is a busy, was a busy part of the city, do you think that there is anything that could have been done that could have prevented his death?

A. I don't have any specific additional tasks that would have benefited the scenario that unfolded. We all have to recognise that it was a pretty big earthquake, yeah.

CROSS-EXAMINATION: MR LAING – NIL

25 **CROSS-EXAMINATION: MR RZEPECKY**

30 Q. Afternoon Mr Boys. You mentioned in your evidence your rapid form assessment level 2 which I think is BOY0005.11, and counsel for the Commission Mr Zarifeh asked you about the box you'd ticked where it needed further structural investigation. Just to be absolutely clear you think this may have been sent or would have been sent to the

Christchurch City Council because there was going to be a placard change. Is that correct?

A. Correct.

5 Q. But you've got no evidence that it was sent on to Mr Chapman at Harcourts?

A. I haven't specifically pulled out all of the email records that would have accompanied it but I believe it would have gone to him.

Q. But you haven't, you don't have any specific evidence of that today?

A. I did not even consider that it was necessary.

10 Q. If Mr Boys could be shown HIG246.0004.24 please?

WITNESS REFERRED TO DOCUMENT

15 Q. Mr Boys, you'll see that document is a report by Mr Galloway. I think you may have mentioned that in your evidence, but certainly Mr Chapman mentioned it in his. Just looking at that report, there is nothing in there consistent with a requirement for a further structural report is there?

20 A. This particular site report was produced as a result of Bruce attending sites to advise the contractor during their remedial works and removal of the loose masonry and installing the securing works, as to the extent of where they should stop removing loose masonry. It was never intended to be a part of the record going to Council, it was sort of an in-progress ...

Q. Thank you, but it's certainly, there's nothing in the report which suggests that there needs to be a further structural investigation apart from the comments about the taller sections of the parapet on the southern wall?

25 A. He was there for a very specific task to advise the contractor.

Q. So is your answer yes?

A. Question, phrased, so that I don't get this the wrong way round.

Q. There's nothing in there which would inform Mr Chapman or anybody else reading it that there needs to be a further structural –

30 A. No.

Q. Thank you, and could Mr Boys be shown document HIG246.0004.25 please.

WITNESS REFERRED TO DOCUMENT

Q. That's your, if you could just look at that please Mr Boys, that's your site report from the 21st of September. Do you see that?

A. Correct.

5 Q. And that's the same day that you completed the rapid assessment form?

A. Correct.

Q. There is nothing in this report which suggests there needs to be a further structural investigation beyond the re-inspection that you carried out is there?

10 A. No there is not.

Q. Just one final point, in answer to questions by counsel for the Commission Mr Elliott just a moment ago, you said that February was a pretty strong earthquake. On the basis that that northern wall clad in long run hadn't been damaged in September or on the Boxing Day earthquakes, was the February earthquake in your view as an engineer sufficiently strong or severe enough to have destroyed that wall in the way that it did?

15

A. I believe so.

20 Q. So that could have occurred without there being any previous damage to that wall?

A. Absolutely.

CROSS-EXAMINATION: MR HANNAN

25 Q. If I may briefly Sir, Mr Boys, my learned friend Mr Rzepecky referred you to the rapid assessment form level 2 of the 21st of September 2010 and was asking you questions about what evidence there was that this had been sent to Harcourts. We have heard evidence from Harcourts that they'd engaged Holmes to inspect their portfolio of buildings. Can you tell the Commission what practices and routines developed about how reports were sent to Harcourts and can you specifically say whether part of that was to send copies of the rapid assessment forms level 2?

30

A. Harcourts typically I would meet with Chris Chapman at the end of every day, maybe every day and a half sort of apportioning the next sequence

of priorities, update on the buildings to date. I would typically hand across the handwritten site report, and then we would over the next following days type it up, complete all the necessary form work, send it across to them via email. Sometimes I did this directly and sometimes it was passed onto our admin team.

5

Q. And what typically happened with the rapid assessment forms, you've just mentioned site reports?

A. They would accompany the site reports so they – Harcourts would get a pair of documents, site report and rapid assessment form for each building.

10

QUESTIONS FROM COMMISSIONER CARTER – NIL

QUESTIONS FROM JUSTICE COOPER:

15 Q. The rapid assessment form in which you've referred to the structural – a detailed structural report being required. You weren't carrying out that inspection on behalf of Harcourts were you?

A. This inspection was on behalf of Harcourts.

Q. It was?

20 A. But as a parallel in order to change the placard we had to complete a level 2 form.

Q. I see, so this form, the destination of this form was the City Council as part of that regulatory process -

A. Primarily in this case.

25 Q. – for changing the placard.

A. Primarily.

Q. And is it the case that you can't recall whether or not you would have given a copy of that form to Harcourts?

A. This form would have gone to Harcourts and accompanying with the site report, okaying all the securing and remedial works. We typically sent them in pairs.

30

WITNESS EXCUSED

1630

MR LAING CALLS

5 STEVEN JAMES MCCARTHY (SWORN)

Q. Your full name is Steven James McCarthy?

A. Yes it is.

Q. You prepared a brief of evidence?

A. Yes I did.

10 Q. Could you start reading that brief from paragraph 6 please?

JUSTICE COOPER:

Q. Perhaps for the benefit of those who are not familiar with Mr McCarthy
just confirm that you're that you're the environment policy and approvals
15 manager for Christchurch City Council.

A. Yes I am.

Q. And you have been employed by the council since May 2006?

A. That's correct.

Q. And you're one of the building evaluation managers in the emergency
20 operations team following the 4 September earthquake?

A. I was sir.

EXAMINATION CONTINUES: MR LAING

Q. Paragraph 6 Mr McCarthy.

WITNESS READS BRIEF OF EVIDENCE

25 A. Events between 4 September 2010 earthquake and 22 February 2011
earthquake. On September 5 2010 a level one rapid assessment form
was completed for 246 High Street. However it is not clear whether this
level one rapid assessment was in fact for 242 to 246 as it refers to Rip
Curl as the building name which may be referring to the Rip Curl
30 building located at 254 High Street. 242 to 246 High Street had Diva,
Teasme and Wizard's Retreat as tenants not Rip Curl. The council is
unable to locate any other level one rapid assessment carried out for

242 to 246 High Street immediately after the 4 September 2010 earthquake. On 10 September 2010 a level two rapid assessment was undertaken on 242 to 246 High Street. This assessment resulted in 242 to 246 High Street being issued with a yellow placard and noted parapet damage to the right hand side in the street frontage. On 15 September 2010 an email enclosing a traffic management plan noted “the gates had been put up around the site because it was unsafe. The crane was going to be there next Monday”. The traffic management plan was submitted to council for approval in order for the necessary remedial works on the body to take place following a level two rapid assessment on 10 September 2010. It appears that a level two rapid assessment was carried on 15 September 2010 by Alistair Boys of Holmes Consultant Group. The council has no record of receiving this assessment. A further level two rapid assessment was undertaken on 21 September 2010 by Alistair Boys of Holmes Consultant Group which states that the damaged masonry, chimneys and parapets had been removed and secured. I note the level two rapid assessment undertaken on 21 September 2010 states that the address is 242 High Street however it appears that the building was called 242 to 246 High Street at other stages. A council intraRFS record dated 17 September 2010 is a request for a Building Act notice to be issued to replace the existing yellow placard issued during the state of emergency. The existing placard was due to expire in early November 2010 under the provisions of the Canterbury Earthquake (Building Act) Order 2010. However, as stated above, the necessary remedial work was undertaken for the building by 21 September 2010 and the building was assessed as inspected green by Holmes Consulting Group so no Building Act notice was required. The CCC enforcement team updated information, report cover sheet notes that in reliance on a level two rapid assessment provided by Holmes Consulting Group which states that the building was considered satisfactory for occupancy, no further building work was required. This assessment stated that the fall hazard on 242 to 246 High Street had been removed and secured therefore the

building was safe to occupy. Email correspondence on 28 September 2010 between the CD Rescue Building Evaluation Transition Team (BETT) and Bruce Galloway of Holmes Consulting Group states that 242 High Street was considered satisfactory for occupancy based on the reports submitted. That email states that no further building work was required and the barricades possibly needed removing therefore no further assessments were undertaken by the Council. Following the Boxing Day earthquake 242 to 246 High Street was inspected on 26 December 2010 and issued with a green placard. Prior to the 4 September 2010 earthquake the building was considered to be potentially earthquake prone building because strengthening work carried out in 1990 had been done to the standard that –

JUSTICE COOPER:

15 Had not been done.

EXAMINATION CONTINUES: MR LAING

A. Had not been done thank you, that had not been done to the standard that was subsequently set in the 2005 regulations. The council's earthquake prone policy introduced in 2006 required that the buildings be considered for strengthening at the time that application for consent or significant alterations or change of use were received. There were no applications for consent for significant alterations, or change of use received during the period of the earthquake prone building policy 2006 was in force. In 1990 a building permit application resulted in requirement for strengthening as part of the refurbishment of the building. The permit for the strengthening and refurbishment work was treated as a permit for the erection of a temporary building and a memorandum of agreement was signed with the owner stating that the temporary building will be removed or made to comply with the council's building bylaws by 31 May 2005. The key area of concern at that time was the street wall construction. In the building work it was discovered that there was steel framing in the wall which appeared to have been

installed in 1960 and the façade also had several other original structural steel members with concrete surround from the original construction. These steel members were incorporated into the strengthening scheme. The strengthening was originally going to be supervised by Alan Reay Consultants Limited. A letter dated 27 September 1990 from G Tapper to the new engineers Elliot Sinclair and Partners records acceptance of the proposed alterations as an amendment to the existing building permit on the understanding that the occupancy of the upper floors would not be significantly increased. The letter states that the question of the longer term future of the building still remains to be answered but the intent of the agreement to address the problem is covered by the present caveat. As the work was carried out prior to the introduction of the revised earthquake prone levels set in the 2005 regulations the building would have been considered to be secured. Strengthening would have later been required in 2005 in accordance with the memorandum. There is a letter on the council file from John Taylor, senior building control engineer to S K Balthrop dated 19 March 2003 which notes, “further to your enquiry and in recognition of the substantial strengthening work already completed to the ground floor Council agrees not to invoke the agreement requiring completion of the work until at least 31 May 2008”. The memorandum was drawn up in June 1990 prior to the discovery of the steelwork in September 1990. In addition 1992 the Building Act 1991 came into force and the council’s building bylaws in section 642 of the Local Government Act under which the memorandum had been made were repealed. The letter from John Taylor was written after these changes had occurred but does not discuss those changes. Additional time was however allowed for the work to be carried out recognising the substantial strengthening work already completed to the ground floor. There is no record of further building work being carried out. The Building Act 2004 and 2005 regulations came into force before the 2008 deadline for the work and the Council developed its first policy on earthquake prone buildings in 2006. As stated above no applications for consent for significant

alterations or change of use were received during the period the 2006 earthquake prone building policy was in force and so the provisions of the policy were not triggered. The Council's stance in relation to the building is at least partially explained in an email dated 28th August 2006 from John Taylor to John Buchan of Buddle Findlay. The attention at that time appears to have been to deal with the building in terms of the Council's earthquake prone policy.

1640

CROSS-EXAMINATION: MR ZARIFEH

10 Q. Just on that last issue that we were looking at with that email. Just trying to understand the process. In 1990 there was a building permit application.

A. Yes.

Q. And so the Council required some strengthening work to be done.

15 A. Yes.

Q. And that resulted in a caveat being put on the title in favour of the Council. Is that correct?

A. Yes that's correct.

20 Q. And was that caveat to ensure that the strengthening work was done essentially?

A. Yes there was a mechanism at that time to require further work to occur.

Q. Right so was the work that the caveat was there to ensure occurred, was it done?

25 A. The work was largely done as a result of the work that occurred in 1990 following the imposition of that caveat and also the fact that they recognised that there was actually additional strengthening that had already been included in the building that they didn't know about. So that was incorporated into the permit work at that time. That shifted the inherent strength of the building to a point where it was likely to have
30 complied with the provisions then of the 1991 Act, Building Act. The '91 Building Act requiring 50% compliance with the 1965 standard which

we've already heard about in front of the Commission. So, generally, the provisions of that caveat had largely been met.

Q. But not completely.

A. But not completely.

5 Q. So is that why the caveat remained?

A. Yes.

Q. And in 2003, that letter you referred to from the Council to an S K Baltrop.

A. Yes.

10 Q. When it said "Further to your enquiry and in recognition of the substantial strengthening work already completed to the ground floor", is that the 1990 work?

A. Yes.

15 Q. "Council agrees not to invoke the agreement requiring completion of the work until at least 31 May 2008".

A. Yes.

Q. So the caveat required the work to be completed at an earlier date.

A. Yes.

20 Q. But in 2003, and presumably this person Baltrop had written asking the Council what was happening or what would be required of a purchaser.

A. So it appears yes.

Q. Why would the Council simply make that extension then with a potentially earthquake prone building?

25 A. I think largely because the building was deemed to comply with the then standard so that would have rather tied our hands in terms of enforcing a greater standard.

Q. But it says in recognition of the substantial strengthening work but I thought that all that was required hadn't been completed.

30 A. Largely the work was done on the lower storeys, the basement and the first floor so it wasn't complete but it was likely to be beyond the standard required by the '91 Act.

Q. How did you know that?

A. I can only assume that John Taylor, who was as senior engineer, had done some sort of assessment of that.

Q. So would he have gone out and done a detailed engineering evaluation of the building to determine the strength of it?

5 A. I imagine he's looked at the plans, done a desktop analysis and made that decision.

Q. So is that why there was a limit, if you like, put on the use of the upper storeys?

A. Yes.

10

JUSTICE COOPER:

Q. I'm sorry to interrupt you but I'm not following what went on here and I wonder if you'd help me with this. I suppose the starting point is paragraph 17 of your brief, which says "The 1990 Building Permit application resulted in a requirement for strengthening as part of the refurbishment of the building". This is the bit I don't follow. "The permit for the strengthening and refurbishment work was treated as a permit for the erection of a temporary building". Now what's that about?

15

A. At the time that was considered to be a mechanism where they could allow some work to be done that didn't fully meet the standard but there was a recognition, what they were trying to do was enable the Council to put pressure on to make sure that works were completed at a time in the future and so this mechanism was adopted at that time and there is a covenant with, I believe, a monetary provision of \$50,000 if the work wasn't completed.

20

25

Q. Was it a device to get something on the title?

A. I believe that was the case, sir.

Q. Using a provision of the Local Government Act relating to temporary buildings because it was there.

30

A. Yes.

Q. Nothing to do with earthquake strengthening except that's what the Council chose to use the provision for.

A. That would appear to be the case, sir.

Q. But in order to fit into the statutory scheme one of the means of compliance was to remove the temporary building. That's what it said in the memorandum of agreement, isn't that right?

A. Yes, yes.

5 Q. So you say that there was this penalty of forfeiture of the sum of \$50,000 if the strengthening work wasn't done but the building owner could have said well I've no intention of doing the strengthening work and I haven't embarked upon it so there's no temporary building which has to be removed?

10 A. One would assume at that stage there would be a demolition of the building would occur as, as a – it was probably what was contemplated.

1650

Q. But the payment for the Council of the sum of \$50,000 only arises if, if the owner fails to remove the temporary building or make it comply with the Council's building bylaw so there was a choice?

15

A. Yes.

Q. Well doesn't seem to me to be likely to achieve anything?

A. One would imagine –

Q. But –

20 A. One would imagine what was contemplated at that time and it's certainly going back in history a long way but was that, if the work wasn't done and demolition wasn't undertaken by the owner that the monetary penalty would then serve to, for the Council to either effect the repairs or the strengthening themselves or demolish the building.

25 Q. Yes but the power of entry or the obligation to pay the Council the sum of \$50,000 on the face of the document?

A. Mhm.

Q. Can be defeated by the owner removing the temporary building and the temporary building is treated by the document as one and the same thing as the strengthening works so, and the power given to the Council is to enter on to the, on to the land and demolish the temporary building, not the building as a whole, the temporary building, in other words that

30

part of it which equates with the strengthening works which might never have been done?

A. That's right.

CROSS-EXAMINATION CONTINUES: MR ZARIFEH

5 Q. Was that your understanding of the document or the procedure at the time, that the temporary building didn't relate to the whole building? Or do you not know?

A. I really don't know, I think I'd have to defer to Mr Laing.

Q. Okay.

10 A. For some legal advice about the legal document in front of us.

Q. He doesn't sound that happy about that, all right well –

JUSTICE COOPER:

Q. I think Mr McCarthy, I mean I acknowledge of course that you, this was all before your time?

15 A. Thank you sir.

Q. But you're the one that's here to try to explain it and I have interrupted Mr Zarifeh because I wasn't, couldn't follow how it all worked and indeed if I might observe it doesn't appear to have worked, does it?

A. It doesn't.

20 **CROSS-EXAMINATION CONTINUES: MR ZARIFEH**

Q. Thank you well just on that, so the time period from 31 May 2005 and the agreement was extended to, for three years following that letter of 19 March 2003?

A. Yes it was.

25 Q. What happened then on 31 May 2008? Had the work been done?

A. No it hadn't.

Q. So what nothing happened?

A. That's correct.

Q. The \$50,000 wasn't paid over and the building wasn't demolished?

30 A. That's correct.

Q. So as His Honour said it was ineffective really?

A. It was I think the Council view at that time was that it wouldn't have been able to be enforced and the, it was overtaken rather by the 2004 Building Act which enabled the development of our earthquake prone policy.

5

Q. Right so was it ever intended to enforce, to enforce it when it was entered into if you said it was the Council's view that it wasn't enforceable?

A. Ah, I think at the, in 1990 it was clearly the Council took some legal advice and at that time may well have been enforceable.

10

Q. Okay. The, and you said that part of it was to restrict the use of the upstairs?

A. Yes.

Q. So what they could use the downstairs because there'd been structural strengthening but they couldn't make too much use of the upstairs?

15

A. They couldn't load the occupancy up any further than it was at that time.

Q. And why was that, because of the risk?

A. Ah, yes potentially.

Q. So it was recognised that there was a risk but that was a way of minimising the risk was it?

20

A. Yes.

Q. And is that, would that kind of thing be done today in terms of Council policy?

A. No it wouldn't.

25

Q. Why is that?

A. We have different mechanisms in place. We have our earthquake prone policy. We have other mechanisms: significant alterations, change of use, all of the provisions of the Building Act to, to depend on.

Q. Although the building consent and significant alteration applied back then didn't it?

30

A. This was, this was a building permit –

Q. In 2000 and –

A. – and predate, predated the '91 Act.

Q. Right I'm talking about in 2003 though when that extension was given?

A. Yes, there – yes.

Q. Wasn't the, what was the requirement then in terms of earthquake strengthening, how did the Council apply it's earthquake prone policy then?
5

A. It didn't have an earthquake prone policy then so it depended on the Building Act which set a trigger for earthquake prone buildings and we could only require strengthening where there was a risk of catastrophic collapse.

10 Q. Right, and that email it's 0004.11?

WITNESS REFERRED TO EMAIL

Q. That you referred to and you said that, I think you said in your brief that that sets out the Council's stance in relation to this building, so that's an email in 2006. July 2006 there's a request and a reference to that letter
15 to the previous owner?

A. Yes.

Q. Wanting to know what's the current position?

A. Yes.

Q. Right, and that reply from John Taylor of the Council says that the Council's reviewing their policy. Had the policy not been actually formed
20 by then, August 2006?

A. Ah –

Q. I thought it was May 2006?

A. No I believe it was later than that. It was post August 2006, I think it was
25 later.

JUSTICE COOPER:

Just a moment we're actually looking at a different maybe on the same, we're looking at the top, top.

CROSS-EXAMINATION CONTINUES: MR ZARIFEH

30 Q. All right so you think the policy was post this email?

A. Yes.

- Q. All right and that's the reference to "currently reviewing our policy"?
- A. Yes.
- Q. In the first two lines. And it then refers in the second paragraph to generally buildings with a caveat on the title which is this building correct?
- 5 A. Yes.
- Q. So the caveat was still there?
- A. Yes it was.
- Q. Are those in the worst risk category, category A. So that means the Council's view of this building was that it was in one of the worst risk categories? Correct?
- 10 A. Yes. I think category A included unreinforced masonry. What was contemplated was unreinforced masonry buildings would fit into category A.
- 15 Q. Okay.
- A. Which was the highest risk category.
- Q. And how many buildings had caveats on them, was it a widespread practice?
- A. I don't know, I don't imagine so.
- 20 Q. All right so improvement would only be required if there was any building consent application, correct?
- A. Yes or a change of use.
- Q. So the –
- A. The change of use would trigger a building consent yes.
- 25 Q. So the timeframes in the caveat had gone?
- A. Yes.
- Q. What because you were reviewing the policy?
- A. Because the Act provided a different mechanism.
- Q. Right and the policy, the new policy was likely to be that unless there was a building consent application for the building there wouldn't have to be any structural strengthening for some considerable time?
- 30 A. Yes, the Council was of course contemplating putting timeframes into the, into the policy as well so that would have also triggered an upgrade.

1700

Q. For maybe 10 to 15 years as it says there?

A. Yes.

5 Q. So really an extension well beyond what was contemplated by the caveat originally?

A. Yes.

Q. Just a couple of other points, if I can quickly, the – you mentioned the possible confusion in relation to the level 1 assessment with the street address?

10 A. Yes.

Q. And you would have read I think Peter Smith's comments about that possibility for confusion over street addresses.

A. Yes.

15 Q. He's got a section at the end of his report. He's talking more 246 High Street and he's noting confusion sometimes with addresses, so is that something that the Council's struck? Is it a wider problem than just this building?

20 A. It's very definitely a wider problem in commercial areas, and it's something in an emergency situation that does lead to quite a bit of confusion. It's something that certainly needs attention nationally I think.

Q. Now just finally, the last topic, we've heard evidence from Mr Boys, the repairs are done in September, signed off and it's returned to a green placard?

A. Yes.

25 Q. And that's the placard that remained on that building throughout until 22 February, the green placard?

A. The status remained, I'm unsure if the placard was changed at all through the process.

Q. The status remained?

30 A. Yes.

Q. After Boxing Day there was a level 1 rapid assessment?

A. Yes there was.

Q. And that resulted in a green placard or the green placard being maintained?

A. Yes it did.

Q. I'll just get that form brought up, it's BUI.HIG246.0009.17.

5 **WITNESS REFERRED TO DOCUMENT**

Q. That's the form?

A. Yes it is.

Q. Now that would appear to have been an inspection by an engineer, GNB. Is that Geoff Banks, do you know?

10 A. I don't know I'm sorry, but yes.

Q. Why I say that is because it's got the same initials and the same signature as a letter, I won't bother getting it brought up, but you might recall a letter from Alan Reay Consultants Limited signed by a Geoff Banks back in 1990 in relation to some of the work then. In any event this building's inspected and green placard, but there's also as we see in the bottom left "level 2 structural report recommended", correct?

15

A. Correct.

Q. And there's an additional note to that saying "check rear walls given age".

20

A. Yes.

Q. What happened to that recommendation?

A. There's no evidence that on our file that that was followed up.

Q. Do you know why that would be?

25

A. I think our focus at that stage was on red and yellow placarded buildings and the serving of 124, section 124 repair notices. A green placard probably didn't get the priority and this is clearly an omission. Should have been picked up. We certainly regret that it wasn't picked up and that a level 2 assessment wasn't completed at that time.

30

Q. If there'd been a level 2 structural assessment as recommended, that would have been an internal and external inspection of the building?

A. Yes it would.

Q. And would have been an inspection of connections between floor and roof with walls?

A. As much as that were possible with a rapid assessment, it may have, yes.

Q. Do you see the number on the top there. That's not a number showing something was done? Do you know what that number means?

5 A. The CSR number?

Q. Yes.

A. Entered into the record.

Q. So entered into Council records?

A. Yes.

10 **CROSS-EXAMINATION: MR ELLIOTT**

Q. Mr McCarthy, you've said that from the Council's perspective prior to the 4 September 2010 earthquake, this building was considered to be potentially earthquake prone?

A. Yes.

15 Q. Mr Pohio's family have had the opportunity to look at some of the Council's historical documentation in which it seems that the potential earthquake risk of the building was something known to the Council for some time and they would just like me to ask you about that, so I'll just refer you to one or two of the documents on the file.

20 A. Yes.

Q. Firstly BUI.HIG246.0004.1.

WITNESS REFERRED TO DOCUMENT

Q. Firstly if we could just highlight if possible the date at the top of the page. So it appears that this was a building survey of the building
25 carried out in 1975. Do you agree?

A. Yes I do.

Q. And then I'll just ask for the bottom section to be highlighted where it says numerical rating and classification on the right. So you see the person who's carried out the survey has signed a classification of A to
30 that building at that time.

A. Yes.

Q. And is it correct that the recommended action for that category of building was immediate action under section 301(a) of the Municipal Corporations Act?

A. Yes.

5 Q. If we then look at a document BUI.HIGH246.0004.3.

WITNESS REFERRED TO DOCUMENT

10 Q. And if the first and second paragraph could be highlighted. So this is a letter dated 11 June 1976 apparently to the owner. The Council refers to some powers under the Municipal Corporations Act, reference to an opinion that the building would not comply with provisions of the Act which require buildings to be of sufficient strength to resist a moderate earthquake. It says in particular there is a concern about the street wall construction which is not the part of the building which collapsed onto the Link Centre, we should add.

15 A. Thank you.

Q. And in the next paragraph is, "The area adjacent to the building is subject to heavy pedestrian traffic, I would be obliged if you would advise me what your intentions are with regard to the future of the building." And then thirdly BUI.HIG246.0004.4.

20 **WITNESS REFERRED TO DOCUMENT**

Q. You may be able to see there that at the date of the inspection of this seismic risk building survey, 7th of January 1990, do you agree?

A. Yes I do.

1710

25 Q. And the date of construction is noted as 1885 and, in this case, the person assessing it has assigned Class B, do you agree?

A. Yes I do.

Q. And is it correct that the recommended action for Class B buildings was remedial action within two years?

30 A. Yes.

Q. So Mr Pohio's family make the point really that he died on his, a few months after his 40th birthday but the Council seems to have been aware by about the time he was 5 of problems with this building but it

appears that little was done to strengthen the building so as to address the risks perceived. Would you comment on that please.

5 A. Thank you, yes, certainly. There was work occasioned after 1990 as I've described in my evidence, the permit. The work addressed the streetscape that they were particularly concerned about back in 1975. That doesn't excuse the fact it took 15 years to get to that strengthening work. But what it does, but what did ensue was that the building work revealed structural strength in the building that wasn't previously known. So whilst the assumption in '75 was that the building was largely not
10 strengthened, it didn't have steel in it, what was revealed in 1990, when the work was actually undertaken, was that there was quite a bit of steel, quite a bit of strength in that particular feature that the Council was most concerned about. So yes it took a long time to get there but certainly these matters were largely addressed in 1990 when the
15 building permit work was undertaken.

Q. But I think, as you said, the building remained potentially earthquake prone, certainly as at 4 September 2010, didn't it?

A. I think I need to clarify that and I think I've already explained this but in short 1991 set a standard and that standard was referenced back to a
20 previous NZ Standard 1900, 1965 Chapter 8, which set a level that a building was earthquake prone at. This building, as a result of the 1990 work probably exceeded that, exceeded the standard. So, for a period, up until 2004 it was not earthquake prone. Beyond 2004 the test, the trigger for an earthquake prone building was increased 33% of the new
25 building standard, so there was a different test, so then it became earthquake prone once again. So I hope that clarifies that situation.

Q. Would you agree also that the 2006 policy provided an opportunity to take a proactive approach to the upgrading of these types of buildings but that the Council adopted a relatively passive approach?

30 A. Yeah they amended, the timeframes for getting unreinforced masonry buildings strengthened can be quite long and the Council undertook a review in 2010 and set some timeframes around when buildings should be strengthened so that changed their policy to being an active policy so

any change of use, significant alterations, structural work, or the timeframe coming to fruition would lead to the upgrading of these buildings.

5 Q. I think, is it right, that it's the Council's position, at least in hindsight that the 2006 policy was inadequate in terms of addressing the unreinforced masonry buildings within Christchurch?

A. I don't think it was the Council's position so much as they wanted the full knowledge of what they were imposing on building owners and so they went through a lot of consultation to get to a position.

10 Q. I see, I thought I was quoting what the Mayor had said at the earlier hearing that, in hindsight, the 2006 policy had been inadequate.

A. Well we would have liked to have seen unreinforced masonry buildings strengthened earlier than they have been but we have been working to move them and certainly we would have liked to have seen a lot more unreinforced masonry buildings strengthened over time than we have.

15 Q. Thank you Mr McCarthy and I'll just note also that this issue's come up on a number of other buildings and the Council has provided a very thorough brief of evidence about the various statutory positions over the years and I think that will be the subject Your Honour of further discussion at some point in future for those who are interested in that point.

20

CROSS-EXAMINATION: ALL OTHER COUNSEL – NIL

RE-EXAMINATION: MR LAING – NIL

WITNESS EXCUSED

25

JUSTICE COOPER TO MR LAING:

Q. Mr Laing were you acting for Christchurch City Council in 1990.

A. Not to my knowledge Your Honour. I might have done one job for them in the course of the year but certainly –

30 Q. You weren't the draughtsman of that –

- A. No sir. I have to say I find it extremely perplexing and I really can't add very much to what Your Honour has observed about that document.
- Q. It doesn't seem to work even on its own terms.
- A. No sir I think it's fair to say that subsequently it was recognised that it
5 would have been pointless to try to enforce it.
- Q. I thought, reading between the lines of Mr Tappers letter, that that may have been the view that he'd come to, oh Mr Taylor's letter.
- A. Mr Taylor, I think Mr Taylor was probably, he may well have had legal
10 advice by that stage but I can't add any further insight Your Honour other than to say that I was completely blindsided by (inaudible 17.17.30)
- Q. If you wanted to I'd give you the opportunity to address submissions on the subject but I really, I'd be very surprised if you'd come up with anything to –
- 15 A. No sir I was, as I say I couldn't understand how that process could have been used to achieve that end.

MR ZARIFEH CALLS**PETER SMITH (SWORN)**

5 Q. Mr Smith you have prepared for the Royal Commission an independent assessment of the earthquake performance of the building that was at 246 High Street and it's I think some 16 pages long dated December 2011.

A. Correct.

10 Q. I don't want you to take us through the report in detail because we've had the chance to read it and I think it's on the Council's website, or will be, but I just want you to take us through some of the important points and, firstly, can you give us a general description of the building and, in particular, of any seismic restraint that was present in its structure.

15 A. Yes the building at 246 High Street was a three storey building. We understand it was built about the 1880s. It appears the bulk of the building, certainly the front part, seems to be original from that date. The rear portion of the building may have evolved. We've got no records as to how the construction eventuated. The building essentially is of unreinforced masonry. It has timber floors and a timber roof, timber framed roof with light-weight metal roofing. There was a reasonably
20 complex roof structure involving some projections above the original roof-line.

1720

Q. What do you mean by that?

A. We got the aerial photographs BUI.HIG246.0024.11.

25 WITNESS REFERS TO PHOTOGRAPHS

A. That's not the best one. Can you try 0024.10. The, in that photograph you'll see and as you've seen in previous photographs. Unlike many buildings that we've seen which have had a more conventional roof structure as is evident from the building to the I think that's east this
30 building had quite a complex arrangement of roof structures. There was a raised almost extra floor in the front portion with a hip roof around it. There was another more complex roof structure on the rear portion of the building. Just how that all came to eventuate is a little uncertain.

Q. And does that have any relevance to the strength of the building?

A. There was one, certainly towards the rear I suspect it did have. It was as we've seen I think I'm right in saying it's the north wall isn't it.

Q. You're pointing to yes.

5 A. And at the rear that's at the east side isn't it? That wall appeared to cantilever above the floor and there was a sort of a waterproof wall on the rear building between the masonry wall and the actual structure at 246.

Q. So can we see that in BUI.HER152.0008.35?

10 **WITNESS REFERS TO PHOTOGRAPH**

A. Yes I think so.

Q. Thank you.

A. In that photograph as we have seen before towards the rear you'll see at the rear of the building, an event that's seen on that wall is there.
 15 See the end of the north wall but there's a metal, it appears like corrugated iron cladding showing on the upper floor of the rear building which alerted us to a potential that the masonry wall which appears to go through almost at the sort of roofline of that rear building probably was, had very little restraint between that height and the floor at that
 20 level so that instead of being a parapet of sort of 450 or 500 high it was something in the order of probably three metres high and I think, I suspect that the rear portion of the site evolved after the construction of the original building and just when it was constructed and how it was constructed is difficult to know. It's even possible that the building over
 25 the Link site may well have extended up to that height. We've tried to get plans of that building but have been unable to do so. What we have got is we've got the plans of the Link being the foundations which do indicate that the building was a, at least it was a party wall along that boundary wall.

30 Q. What's the number on those?

A. BUI.HER not, Hereford Street address 152.0007C.7.

WITNESS REFERRED TO PLAN

A. If we can enlarge the top left hand side of that please. That was a foundation plan for the Link Centre at the time of construction with High Street in the top left hand corner and then looking at the High Street frontage of the Link Centre the 246 High Street is to the left of where I
5 have the cursor at the corner of the foundation of the Link Centre. You'll note on the left-hand side of the Link Centre it refers to the boundary being a line which dimension is 230 millimetres wide which we interpret to be the common party wall.

10 **JUSTICE COOPER:**

Q. What is the date of this plan?

A. This is '78 sir.

EXAMINATION CONTINUES: MR ZARIFEH

A. And there's a 25 millimetre seismic gap provided between the common
15 party wall and the new masonry wall of the Link Centre or the foundation for it.

Q. Is that the darker colour?

A. That's the darker colour that is shown and if we can go to the rear
20 portion of 246? If we can enlarge that rear corner. Again you'll see the same it's not actually dimensioned that location but the boundaries identified as the line set inside and it appears to have a 230 thickness with the 25 millimetre gap so we assume that there was a 230 projection beyond the boundary of the common party wall at the time the Link Centre was constructed. Unfortunately we don't know the
25 proportion of the building that preceded the Link Centre on that site.

Q. Right. So just so we're clear looking at the photo that we had up before
152.0008.35 the concrete block wall that we can see, is that the wall from the Link Centre?

WITNESS REFERRED TO PHOTOGRAPH 152.0008.35

30 A. That is the Link Centre wall which falls on that foundation we looked at. That's an over flashing as I interpret it from the Link Centre and you would have had a gutter just along that line. Above that level there was

a metal cladding presumably to waterproof the separate party wall after the demolition of the adjoining building. If we go to BUI HIG246 –

Q. Just before you leave that so the brick wall would have covered that rear portion that looks like corrugated iron?

5 A. I believe so yes.

Q. And your point is that it would have only been affixed at the base of where that corrugated iron –

A. We don't really know but it doesn't appear to have had any significant fixing at roof level.

10 Q. Right.

A. It does appear to have continued around the corner at the very end of the building there it appears to be about a two metre height of wall which has got a broken edge and I assume that it did have that continuity.

15 Q. Okay. And so can you make any comment in relation to that and what obviously must have occurred at the time that the Link Centre was constructed?

A. It does raise a significant issue I think in terms of party walls when a building's demolished. It's something which is not raised in our report but I think it is an issue that the Commission should consider. As we've
20 seen in a lot of the early masonry buildings any internal building relies on its adjoining buildings for support. When a building is demolished the wall is left in a less stable condition as it doesn't have a building to lean on either side it only has the joining on one side to restrain it and it only
25 has a, and many of these buildings they have a fairly ineffective restraint at floor levels so that the wall does become potentially dangerous. In this case we can see that the failure only occurred above the floor or the third floor level, sorry second floor level and in the front there is obviously some sort of restraint of a partition or some other feature
30 which has held the brickwork so the portion of wall that failed is the corner at the very front. That's at the, what is it, I get my orientation wrong on the site, it's um...

1730

Q. The west end of the north side.

A. Yeah west end and there's then a portion of the wall which only lost a sort of parapet and then there's a sloping interface until the full height of the upper floor wall has collapsed onto the Link Centre taking with it the metal cladding that was fixed onto that wall.

5

Q. What are you suggesting in terms of something, a lesson to be learnt from this? What can be done in relation to that issue?

A. I think consideration needs to be given, these walls are potentially dangerous to the adjoining properties. There are complex ownership issues I believe in what can be enforced on the adjoining property owner when a neighbour demolishes but, clearly, in public safety issues these walls, once you remove the adjoining building are less secure and they do pose a threat to the property which is adjoining that building unless the property is a high-rise development which extends above the roof of that adjoining building.

10

15

Q. Now you've touched on the failure mechanism. I was wanting you to describe that. Do you want to say any more about the failure mechanism in February?

A. Can I possibly go into BUI.HIG246.0024.10 please.

20

WITNESS REFERRED TO PHOTOGRAPHS

A. In this photograph we do get a, that's looking down, it's an aerial photograph of the building. It picks up the length of the north wall on the building. You'll see there's a courtyard at the back which that wall does not appear to extend to but it does appear to be a fairly uniform height. If you can go to 9, sorry 0004.9. It's the best aerial photograph I think which shows again that the wall continued fairly much at the same height right along the north wall of the building at 246. You can also pick up the complexity of the roof structure to that building. If we can go to 0002.1. That shows the front of the wall. Where the orange cladding is that is where the weather-proofing of the façade above, this is a false façade on the Link Centre. There was quite a height of metal façade which I think primarily was there for waterproofing, it may have had

25

30

other purposes, and it concealed the relatively poor construction of the brick wall. And if we look at 0006.19.

Q. Just while we're waiting for that, can you make any comment about the covering of a brick wall, party wall such as that, with corrugated iron. I know it would be for weather-proofing or such like but in terms of it hiding potential cracking and damage.

A. It certainly conceals any potential cracking and an engineer really is reliant on identifying any internal damage in the building to determine if the building has suffered damage.

10 Q. So hence the importance of internal inspection and connections between roof and walls.

A. Correct. If we look at the bottom right-hand photograph it demonstrates that the height of the wall was above roof level of the rear portion. Just what the construction of that wall is is a little bit in doubt but it's likely that it was masonry with the cladding placed on the front of it and I think we certainly, if it was of masonry construction, I think that is of particular concern as it was not restrained into the floor level of the building behind and really it was a danger in its, as it existed.

20 Q. And the corrugated iron wall of that roof structure that we can see next to the vent or the pipe, that is behind the wall, correct?

A. It conceals the masonry wall and I think if it was left as masonry it may have appeared to be more of a danger than it does with a cladding over it.

25 Q. So do you, I just want to turn to the structural, the failure mechanism, and you've touched on that. Do you want to say any more about that?

A. Yeah can I bring up 0024.11 please. This diagram shows the direction of the epicentres from the earthquake. It's interesting to note the building, it's a bit difficult to pick up but the building is almost central of photograph where the arrows are heading towards, so that's the High Street running diagonally through the photograph.

JUSTICE COOPER REQUESTS PHOTO TO BE EXPANDED

A. So you can see 246 is the building which the number is located. The original September earthquake struck from a direction from the left-hand

side of the photo, the east [*sic*], and it's probably not surprising that the chimneys along the, what we referred to as the south wall of the building were damaged by that particular earthquake. It's equally significant that the more significant shaking in the 22nd February the direction of the epicentre of that shaking was to the sort of south-east and it would have made the north wall more vulnerable. If we look at 0002.3. That's a shot taken from the rear of the Link Centre and I think does help to demonstrate there appears to be a set back with plumbing services present at second floor level. We can see is a broken edge of a masonry wall which was the original rear wall of 246. We know that the wall, the metal cladding extended up above the edge of the roof of the rear portion of the building and along to the front and you can see the extent of failure of the upper floor wall in that shaking in February. I think without question the severity of shaking and the high vertical accelerations that were experienced in February contributed to that failure and, sadly, you can see the damage to the Link building as a result of that failure. Then 0004.3. No it must be 9.3 sorry, that's certainly not right.

Q. What is it that you're referring to?

20 A. It's another photo. No it's not sorry.

Q. What's the source of the photo?

A. You've lost the source of that one? But I think that outlines the extent of the failure that occurred.

25 Q. All right thank you. I just want to turn now to get you to comment on some of the issues that you raise from your review and, firstly, can I ask you to comment on....

174005

174000

30 under a heading upgrading of unreinforced masonry buildings on page 6 of your report, can I ask you to cover that section please with us?

A. To some extent the Christchurch earthquakes there is, made it appear that aftershocks are more severe than the initial earthquakes. I believe

the Christchurch series of earthquakes were unique in that an aftershock was located directly under the main central city. What I think is important if we are to try and prevent the tragedies that occurred in Christchurch is we do act proactively to strengthen the unreinforced masonry buildings throughout New Zealand that it's only by being proactive and upgrading these buildings that we will prevent the loss of life that tragically occurred in Christchurch. I think this takes territorial authorities to have effective policies on upgrading of earthquake prone buildings. I think the securing of façades is particularly important. The Christchurch earthquake has reminded us that the events that occurred in Masterton in the past, that these façades are very dangerous and they certainly pose a significant risk to the public that are on the street at the time of a significant earthquake.

Q. And would you include party walls in that?

15 A. Indeed the 246 has demonstrated that an unsecured party wall or a boundary wall where it extends above an adjoining building and often this happens in, when two or three storey buildings are demolished and replaced with single storey buildings that those pose a real threat to the adjoining building and people in that building.

20 Q. Now you mentioned a moment ago the need for internal inspections when you've got a wall such as in this building that's covered with corrugated iron or similar.

A. Yes.

25 Q. I just want to get a comment on the assessment of a building such as this after a significant earthquake, after September.

A. Yes I think if we are to reliably assess the damage to these unreinforced masonry buildings in particular it is essential that we do a level two inspection of the interior of the building. Often separation of façades or damage to walls is not easy detectable from the exterior. I think this wall which was clad in metal is a classic case although I don't know that it was necessarily damaged as a result of the September earthquake but if it had been the evidence that would lead an engineer to investigate further would be evident on the interior of the building.

30

Q. Okay and what would you be inspecting in the interior in relation to the stability of a wall like this?

5 A. With unreinforced masonry you're looking for any separation between wall and ceiling linings. Any movements that occur at those interfaces are generally initiated by some sort of movement of the structural masonry and they justify opening up at the areas of movement in order to determine the condition of the masonry.

Q. So just to make that clear you're talking about opening up wall linings?

10 A. Yes in other words taking away any superficial wall linings so that the raw masonry can be inspected.

Q. So perhaps when you talk about a level two you're talking about a fairly detailed one rather than the one that's been referred to in this case and other cases?

15 A. I think it's really, yes it needs to extend if there is evidence of movement in the finishes or in the interior of the building then some further investigation even if it's intrusive needs to be undertaken to fully understand the extent of those, of any damage to masonry.

Q. Right.

20 A. I also think that we probably need to be thinking in terms of minimum strength levels for these unreinforced masonry buildings. Many of these buildings have elements if not a large portion of the building which has a low strength and if we are to talk about risk it's important that we identify the risk that the low strength elements pose to the public and people in the buildings.

25 Q. Thank you. In terms of this building assuming that it wasn't significantly damaged in the September or Boxing Day earthquakes, what's your opinion of whether the forces in the February earthquake could have caused all the damage that we've seen in the photographs to that wall and to the building?

30 A. The levels of acceleration recorded in Christchurch in the 22nd of February, 2011 earthquake are some of the highest ever recorded in the world. It was not a long earthquake. It was a particularly short event but the intensity of shaking is well in excess of the current code

requirements and I think that the failure of many of these walls especially in the upper floor walls to masonry buildings was almost inevitable under the high levels of vertical acceleration that occurred.

CROSS-EXAMINATION: MR ELLIOTT - NIL

5 **CROSS-EXAMINATION: MR LAING**

Q. You refer to the complexities of the problem where a building is demolished adjacent to a party wall. Is that something that you're suggesting should be the subject of legislative change?

10 A. I do think that the stability of these masonry wall following demolition of a building are an issue that does need to be addressed. It is a public safety issue. But it is a particularly complex one with adjoining ownerships being involved.

CROSS-EXAMINATION: MR RZEPECKY

15 Q. Mr Smith, you were talking a moment ago about what might alert a building owner to movement in the party walls and you talked about separation of ceiling linings and walls.

A. Yes.

Q. Is that the sort of first clue that you'd get when you walked into a room you'd see that in the existing walls, lining of the ceilings?

20 A. Definitely where you see any movement. Again an engineer is presented with a pristine room that's just been decorated and it's very easy to see the recent movement. It may be a room that hasn't been decorated for 40 years and it's much more difficult in that case to identify what is recent movement and what might just be age movement
25 so it is by inspecting that any movement between the wall and ceiling or any other movement in the wall linings or ceiling linings that lead to the need for further investigation.

Q. So absent any reports from tenants or buildings owners or obvious
30 movement to engineers you may not go ahead and do that more detailed internal inspection?

A. I think it's important that that internal inspection is carried out in unreinforced masonry in any future significant earthquake. And I think tenant, just adding to that I think tenants can be quite an assistant in terms of the condition prior to the earthquake and subsequent to the earthquake.

5

Q. But your evidence is that in this case if that internal inspection had been carried out and no damage found to the party wall the February earthquake would have taken it out anyway?

A. Absolute, and I suspect indication there was no damage as a result of the earlier earthquake.

10

Q. And so doesn't that pose an issue for those people who were involved in assessing the Link building as to whether it should be occupied following the September and Boxing Day earthquakes or at all?

A. It certainly is and I think we need to review the policy really where if the 246 building was identified as having been repaired to a condition equivalent to the pre-earthquake condition that it could be occupied and therefore if it had a sticker prior to that you would expect one for the Link Centre to be stickered also. The minimum strength requirement I think in the case where we should be using that to assess the suitability of the adjoining buildings to be occupied.

20

Q. So in absolute layperson's terms an engineer or owner of the Link Centre standing on their roof looking up at the party wall would have said, "Gee that looks a bit serious, we'd better not let anyone into the Link Centre" is that pretty much how it should have been –

25

A. Hopefully an engineer would have looked with a bit more depth.

Q. I'm saying in a layperson's terms.

A. – have them all secured yes.

Q. Just to finish if Mr Smith could be shown BUI.HER152.0008.35 and I wonder if the technology allows us to also bring up HIG246.0006.19 on the same screen. Otherwise we can flip from one photograph to the other. Excellent, thank you very much. Mr Smith, if you could just have a look at the photograph on the left, that's 0008.35.

30

1750

WITNESS REFERRED TO PHOTOGRAPH

A. Yes.

Q. And you'll see on top of the concrete block wall which I assume is the new wall built for the Link Centre when it was developed?

5 A. Yes.

Q. It has that mustard coloured capping?

A. Yes.

Q. I wonder if you could just have a look at the bottom right photograph on 0006.19?

10 A. Yes.

Q. That capping is that towards the bottom right quarter of that bottom right-hand photograph by the light (overtalking 17:50:54).

A. ... at the moment?

Q. Yes.

15 A. Just about probably 500 millimetres above roof level.

Q. So that's the same cap running there and around the corner?

A. That's on top of the masonry wall.

Q. Yes.

A. And of course the masonry wall did not fail.

20 Q. But that was for the Link Centre.

A. That was partially, a portion of the Link Centre, the orange roof above that with the cladding on it –

Q. Wall you mean?

A. I interpret as being fixed to the masonry wall.

25 Q. Yes.

A. That pre-existed the Link Centre.

Q. Is it a fair assumption that the capping material over the masonry wall and that long run material, would have all been put – installed there at the same time by the developers of the Link Centre?

30 A. Undoubtedly.

Q. So when they did that, ought they to have – they've obviously addressed that party wall as part of their construction. Is that correct?

A. I think they've addressed the weather proofing issues of the party wall. My concern is that it really didn't address the structural stability of that wall.

5 Q. So they should have also addressed its structure and built that into their development as well?

A. I believe that that needs to be looked at.

CROSS-EXAMINATION: MR HANNAN – NIL

RE-EXAMINATION: MR ZARIFEH – NIL

10 **QUESTIONS FROM COMMISSIONER CARTER:**

Q. Would you just like to add a comment about cantilevers as such and their propensity for failure?

15 A. Yes, certainly, the taller a cantilever the greater the forces that are exerted at the connection of the cantilever. When it's a masonry then it becomes very significant because a masonry wall has little if any tension strength and as you increase the height of the parapet to a wall which is three metres high it means the building has very little lateral load resistance.

20 Q. Just comparing the performance of the south and the north wall of 246, the south wall had the chimneys on top which failed as cantilevers?

A. Agreed.

Q. But in the earthquake of the 22nd of February, the south wall appears not to have collapsed but the north wall did. If you'd just like to give an observation on that in regards to cantilevers?

25 A. I think the directionality of the earthquake was significant, that where the wall can lean against a building then the wall has a reasonable chance of surviving. It's a bit like Newton's walls where the energy in the building's passed from one building to the next so I think in the September event it was fortunate the main thrust of the earthquake
30 forced the north wall into the building at 246 and obviously the chimneys which the adjoining building to the south of the south wall, would have

actually had a roof line lower than the height of the roof of 246, and therefore is more vulnerable.

QUESTIONS FROM JUSTICE COOPER:

5 Q. Mr Smith, I don't think I've got a clear impression of the work that was done to the building in – you've told us about 1960 I think, whether that's correct or – well I think that might be a misprint is it, it's on if we can look at 24.4?

A. Yes. It was 1990 I think wasn't it that the –

10 Q. Yes, I think that must be an error in your report where if we can just get that page up, if you see the second paragraph on that page beginning in September 1990.

WITNESS REFERRED TO DOCUMENT

15 Q. And then in the fourth line there's a reference to 1960, the letter refers to steel SHS columns in the front façade area which appear to have been installed around 1960?

A. I suspect that may not be wrong but I'd have to go back and check. I would have thought that they would have known if they had been installed that year.

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MR ELLIOTT ADDRESSES COMMISSION

There's a reference Your Honour to the letter WIT.MCC0021.13 which I think is annexure C to Mr McCarthy's brief.

25 **JUSTICE COOPER:**

Let's have a look at that.

MR ELLIOTT:

It's the paragraph midway down, "As was discussed ..."

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JUSTICE COOPER:

Q. Well do you know anything more about those works then as said in this letter?

A. No, we were unable to locate anything. When you look at the façade it is possible that there was some modernisation of that façade in the past.

5 It's probably not as ornate as many 1880 buildings but there was no records that we were able to –

Q. Well then what was done in 1990?

A. In 1990 as I understand it they installed the portal frames, or –

Q. Some which?

10 A. Concrete frames across the ground floor frontage of the building. There was some drawings that Alan Reay produced which show the extent of that work and that was stage 1 of the work that Alan Reay Consultants proposed.

Q. Yes.

15 A. Stage 2 being the subject of the caveat.

Q. Well, have you formed a view about what was achieved by those works?

A. I think they obviously met a significant deficiency in the building at the ground floor level in the frontage of the building, but it really only
20 addressed that one issue of the building. It didn't assist in the securing of the floors or the transfer of loads around the building, and it didn't provide any other lateral load resistance into the building.

WITNESS EXCUSED

25 **COMMISSION ADJOURNS: 5.58 PM**

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