

9 May 2012

Canterbury Earthquakes Royal Commission  
PO Box 14053  
**CHRISTCHURCH MAIL CENTRE 8544**

**Attn:** Stephen Mills  
Counsel Assisting

**By email:** stephen.mills@royalcommission.govt.nz

Dear Mr Mills

### **INFORMATION REQUEST 22 MARCH 2012**

I refer to your letter of 22 March 2012 requesting further information in relation to the CTV building. Your questions are dealt with below using your numbering.

#### **1. 27 August 1986 Letter from G L Tapper**

(a) *Is it likely that the annotation and ticks were entered by a member of the Council staff?*

It seems likely that this is the case. However, we have insufficient evidence to provide you with a definitive answer.

(b) *Letter from Alan Reay Dated 19 August 1987*

A copy of this letter is **attached** as requested.

(c) *Letter from the Council to Williams Construction*

Your letter refers to a 19 August 1987 letter from the Council to Williams Construction. However, in the Council's reply to the Royal Commission of 24 February 2012 the letter to Williams Construction that is referred to, is dated 17 August 1987. It is assumed that you intended to refer to this letter. A copy of the 17 August 1987 letter is **attached** as requested.

#### **2. Holmes Report 1990**

(a),(b) *Could the retrofit work have been dealt with as an amendment to the existing permit, without the need for a new permit?*

We have considered the explanation provided by the Design Engineer as set out in your letter.

The Council understands from information on the Royal Commission's secure website that the remedial work was undertaken in the latter part of 1991. At this time Christchurch City Building Bylaw 1990 ("the 1990 Bylaw") applied. The relevant parts of this Bylaw came into force on 4 July 1990.

Clause 2.16.1 of the 1990 Bylaw states that:

*After a permit has been issued no departure shall be made from any of the particulars supplied or endorsements made upon any plan, drawing, specification, or document deposited with the application upon which the permit was issued, or from any condition of any permit, unless amended particulars clearly describing the intended departure are supplied to the Engineer, and the Engineer shall have given his written approval of the departure.*

This requirement was also set out in clause 2.16.1 of the Christchurch City Bylaw No. 105 1985, which applied at the time the original building permit was issued for the CTV building. There is no record of amended particulars submitted to the Council in relation to the remedial work.

However, the approvals process in clause 2.16.1 would appear to have only been intended to apply while the work authorised under the building permit was still in progress. In this case, the work was carried out approximately five years after the permitted construction work was completed.

Under clause 2.2.1 of the 1990 Bylaw, a building permit was required for any erection of a building. The Bylaw states that "Erection of a Building" includes:

*[...] the making of any alteration, repair or addition to any building theretofore or hereafter erected [...]*

The same requirement existed under Christchurch City Bylaw No. 105 1985.

The corrective work in this case appears to be an addition/alteration to the building. Therefore, as previously indicated in earlier correspondence, the Council's view is that the work would at the relevant time have required a building permit. The Council will address this issue in its evidence at the hearing.

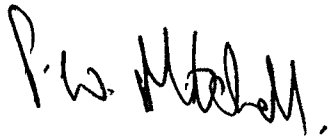
(c) *1989 Guidance Document*

A copy of the "Guidance Document" referred to in the Council's letter of 24 February 2012 is **attached**. The Document was annexed to the Statement of Evidence of Stephen McCarthy in relation to the Forsyth Barr building.

### 3. Bylaws and Procedures

The Council confirms that the issues dealt with in the Council's letter of 24 February 2012 concerning bylaws and procedures will be included in the evidence that the Council gives to the Royal Commission at the CTV hearing.

Yours faithfully



Peter Mitchell  
**General Manager**  
**Regulation and Democracy Services**

*Encl.*

1987-08-19 11:55

03 793 981

ALAN REAY CONSULTANTS

011 1

**ALAN M. REAY CONSULTING ENGINEER**

ALAN M. REAY  
B.E. (Hons.), Ph.D.  
M.N.Z.I.E.  
Registered Engineer  
Structural Consultant

147 KILMORE STREET  
BOX 25 028, VICTORIA ST.  
CHRISTCHURCH, N.

Telephone: 60-434

File 2503

19th August, 1987.

The Manager,  
Williams Construction Ltd.,  
P.O. Box 538,  
CHRISTCHURCH.

Dear Sir,

RE: OFFICE BUILDING - 249 MADRAS STREET

Further to our recent discussion, we have received a copy of the City Council letter by Mr. B. Bluck, dated 17th August, which was recently sent to you.

We consider the use of end caps or "stop off plates" as described by Mr. Bluck to be standard practice, and in this case they were in our opinion supplied and fixed as detailed in the manufacturer's written instructions.

In this situation the floor slab does not depend on axial restraint to provide a fire rating to the exposed steel floor, and therefore the integrity of the Hi-Bond is not affected by the use of end plates.

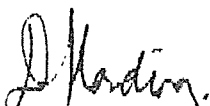
The question of restraint was discussed in detail with Council officers at the time of Building Permit Applications and at that time it was agreed that the Fire rating for the floor would be achieved by including additional "Fire Emergency" reinforcement in the floor slab, which would support the floor without assistance from the Hi-Bond. Calculations in support of this proposal were submitted to the Council and were subsequently approved.

We can confirm that from site inspections carried out by this office, we consider that the floor slabs and their reinforcement were constructed in conformity with our drawings and specifications.

I have had a recent meeting with Mr. Tapper of the City Council, and can confirm also that the Council hold copies of our drawings and calculations.

On the basis of the above information we believe that the as-built floor slabs have a fire rating of at least 1½ hours without the application of any fire rating material.

Yours faithfully,







# CHRISTCHURCH CITY COUNCIL

P.O. BOX 237 CHRISTCHURCH NEW ZEALAND

/7

17 August 1987

IN REPLY PLEASE QUOTE  
IF CALLING PLEASE ASK FOR  
EXTENSION NO.

BU/40/135/249  
Mr G Tapper  
678

The Manager  
Williams Construction Ltd  
PO Box 538  
CHRISTCHURCH

Dear Sirs

BUILDING PERMIT 86/2640  
OFFICES - 249 MADRAS STREET

During a recent inspection of the above building it was apparent that the Hi-Bond floor system has not been built strictly in accordance with the approved plans and hence does not have the required 1½ hour fire resistance rating.

The cross-sections on Dwg 2503 S15 clearly show a 60mm length of Hi-Bond form-work cast into the 200mm thick topping concrete where as the "as built" condition has "stop off plates" which very effectively stop the Hi-Bond from being encasted and hence restrained and hence being deemed to have a fire resistance rating.

At the time the building permit was being processed the Designers were reminded of the requirement to provide restraint in order that the Hi-Bond be fire rated. The casting-in of 60mm of Hi-Bond was considered by Council officers to be at the lowest limit of restraint for which a fire rating could be assumed and no permission was sought to reduce the amount of encasement.

Failing the production of authoratative evidence to the contrary, the Council has no option but to rule that the floors as constructed have no fire rating and insist that the builders apply or fix an approved fire resistance rated material to achieve the required 1½ hour fire resistance rating.

As the building is nearing completion and this is a fire-safety matter it is imperative that an approved solution by achieved prior to the building being occupied.

Yours faithfully

B C Bluck  
BUILDINGS ENGINEER

cc Alun Wilkie & Associates  
PO Box 25 141  
CHRISTCHURCH

cc Dr A Reay  
Consulting Engineer  
PO Box 25 028  
CHRISTCHURCH

cc The Property Manager  
Prime West Corporation Ltd  
PO Box 25141  
CHRISTCHURCH

" E "

### BUILDING PERMIT RELATED INSPECTIONS

Residential (Dwellings, Flats, accessory buildings)

Industrial (Factories, Warehouses etc)

Commercial (multi storey offices, retail shops etc.)

#### Pre Permit Site Inspection:

(application lodged)

Check for: (features not always adequately presented)

- |                                    |                        |
|------------------------------------|------------------------|
| 1) true representation of the site | 5) drainage outfall    |
| 2) topographical features          | 6) access              |
| 3) boundary definition             | 7) trees (protected)   |
| 4) ground conditions               | 8) minimum site levels |

#### Post Permit Inspections:

Foundations - (Mandatory) (24 hours notice required before placing concrete)

Foundation excavation - depth - bearing - reinforcing steel - siting requirements - floor level. (often at least two visits required to inspect staged progress).

Random inspection (appropriate to the building design)

Erection of timber frame - concrete panels - block walls - structural integrity - bracing - veneer construction - concrete floors - etc.

Pre lining fixing (mandatory) (compliance with approved plans)

- completed timber frame - bracing - insulation - ventilation - primary connections - moisture check of timber frame - etc. (Often at least two inspections to ensure all features are inspected).

Random inspection


fire safety requirements - separation between floors/occupancies - appropriate linings - duct penetrations - stair construction - guard rails - fire and smoke stop door requirements - access for disabled etc. (Often at least 3-4 inspections on larger buildings).

Additional Inspections: (some not permit related)

verandahs - hoardings - scaffolding on legal road - signs - demolition of buildings - annual fire safety and egress inspections of licenced buildings - unit and flat plan compliance etc.

Final Inspection: (Building Bylaw requirements complied with)

- to ensure
- All health and safety requirements met.
  - Insulation envelope complete.
  - Other acts - regulations where applicable.
  - Job record completed and filed.

 22/9/99