Determination 2006/116

The requirement for a building consent for, and the code compliance of, the re-cladding and the re-roofing of a house at 133 Victory Road, Laingholm, Auckland

1 The matter to be determined

1.1 This is a determination under Part 3 Subpart 1 of the Building Act 2004[1] ("the Act") made under due authorisation by me, John Gardiner, Determinations Manager, Department of Building and Housing ("the Department"), for and on behalf of the Chief Executive of that Department. The applicant is the current owner (the third subsequent owner), Jan Cowan ("the applicant"), and the other party is the Waitakere City Council ("the territorial authority"). The application arises because the territorial authority is of the opinion that the re-cladding work and associated remedial work requires a building consent and because it is not satisfied on reasonable grounds that all the work is code compliant. At the time of the application for determination the building work was advanced but not completed.

[1] The Building Act 2004 is available from the Department's website at www.dbh.govt.nz.

1.2 The matter for determination is whether the territorial authority's decisions are correct, with respect to whether:

1. The cladding as installed on the building complies with clauses B2 "Durability" and E2 "External Moisture" of the Building Code (First Schedule, Building Regulations 1992). By "the cladding as installed" I mean the components of the system (including the flashings, the joints and the coatings) as well as the way the components have been installed and work together.

2. A building consent is required for the re-cladding work, i.e. that the work does not come within the Schedule 1 paragraph (a) exemption.

1.3 In making my decision, I have considered the submissions of the parties, the report of the independent expert commissioned by the Department to advise on this dispute ("the expert"), and the other evidence, including that presented at the hearing, in this matter.

1.4 In this determination, unless otherwise stated, references to sections are to sections of the Act and references to clauses are to clauses of the Building Code.

2 The building work

2.1 The building work in question relates to the re-cladding of the main exterior walls and the main roof, together with associated repair work, of an existing two-storey house whose original cladding and roofing was found to be defective. The house is situated on an excavated sloping site that is in a very high wind zone in terms of NZS 3604[2]. The house has a large external balcony at the first floor level. The applicant is also contemplating carrying out some additions and a bathroom re-alignment but these items do not form part of this determination.

2.2 According to the expert (see section 6 below), some of the original wall-framing timbers were found to have decayed and have been replaced with timber treated to H3.1 level. The original wall framing timbers were boric treated and where these are retained they have not been given either a paint or a preservative treatment. The decay evident in the timber that was replaced indicates that it was not treated to a level that is fully effective in helping resist decay if it absorbs and retains moisture.

2.3 The wall cladding that has so far been applied to some 90% to 95% of the existing repaired timber-framed walls is a cladding system reportedly consisting of 12 mm thick "Eliteline" LOSP H3A surface treated 5-plywood sheets fixed with stainless steel nails through the synthetic building wrap directly to the framing timbers. The joints between the plywood sheets are fitted with plastic tongues. The sheets are primed on all surfaces and edges and are finished with a 5-coat "Wattyl" self-priming exterior acrylic paint system. This cladding replaces the original "EIFS" system, which, together with roofing faults, had allowed the moisture leakage that led to the structural damage that was evident within the building.

[2] New Zealand Standard NZS 3604: 1999 Timber framed buildings.

2.4 A fax from International Panel and Lumber (West Coast) Ltd to the builder dated 14 June 2006 stated that, while the "Eliteline" panels are not specifically designed as a cladding, they are treated to H3.1 as per NZ Standard 3602. A second fax from that company to the applicant, dated 17 July 2006, stated that the plywood purchased met the requirements of section 9.8.2 of AS E2/AS1. As the plywood is not a cladding system on its own, one of the systems described in 9.8.1 of E2 needed to be used to provide weathertightness, or alternatively, a special waterproofing system acceptable to the building authority (the territorial authority) should be applied.

2.5 The roof of the house is waterproofed with a liquid applied membrane. The expert was unsure whether the most recent application of the membrane coating had been applied over a previous layer of liquid applied membrane or over previously fixed butyl rubber.

2.6 As will become apparent later in this determination I have had to consider the possibility that there are two categories of building work involved in this case. These are:

a. Repairs and maintenance work that is exempt from the requirement for a building consent by virtue of Schedule 1 of the Act. Such work is still required to comply with the Building Code, but the owner is not required to request a final inspection by the territorial authority, and, because there is no building consent to which to refer, the territorial authority cannot issue a code compliance certificate.

b. Work that is not exempt from the requirement for a building consent. If such work is carried out without a building consent having been obtained a code compliance certificate cannot be issued but section 96 of the Act allows the territorial authority to issue, on request, a certificate of acceptance.

2.7 As noted in paragraph 1.1, at the time the application for this determination was received by the Department, original work, repairs, and re-cladding were well advanced but not completed.

3 Sequence of events

3.1 The building permit for the original house was issued in February 1992. The current owner, who is the third owner, purchased the house in March 2000.

3.2 Following mediation concluded through the Weathertight Homes Resolution Service on 1 July 2004, the applicant commenced the repairs and re-cladding of the house in January 2005, assisted by a designer who was a party at the mediation ("the designer").

3.3 According to the owner the designer advised her that the repairs and recladding of the house was building work that was exempt from the requirement for a building consent by virtue of paragraph (a) in Schedule 1 of the Act. Building work was commenced by the builder acting on that assumption. I interpose here that Schedule 1 of the Building Act 2004 did not come into force until 31 March 2005. Any

building work carried out in 2005 prior to that date was subject to the Building Act 1991 in which the equivalent Schedule was the Third Schedule. I discuss some of the differences between the two Schedules in section 10.

3.4 The territorial authority visited the site on 18 April 2006 when it discovered that there was unconsented building work being carried out.

3.5 Following this inspection, the territorial authority wrote to the applicant by letter dated 18 April 2006, stating that it found that unauthorised building work had been carried out on the property. In particular the territorial authority asked the owner for:

> A written explanation about how this building work was carried out, who was involved in doing it, and when the work was undertaken.

and said:

> 1. The dwelling has been partly re-clad with a new cladding system. This system does not appear to meet the minimum requirements of E2 of the New Zealand Building Code.
>
> 2. Internal repairs and alterations are underway.
>
> 3. The above works are covered by Building Consent application ABA 20060736 however this Consent has not yet been granted or issued.
>
> This building work is unauthorised because no building consent has been obtained for it. Building work on this property must cease immediately.
>
> Council cannot issue a retrospective building consent for work already undertaken…

3.6 In my view this letter is not a notice to fix, but it indicates that the territorial authority has decided that it has the power to issue a notice to fix and intends to do so if the owner does not provide a satisfactorily explanation in response to the letter. In arriving at that view, I note that the letter contains some of the particulars that would be contained in a notice to fix as prescribed by the Act. The circumstances in which it was issued and the substance of the letter are also consistent with section 164(1) of the Act that relates to the issuing of a notice to fix and says:

> 164 Issue of notice to fix
>
> (1) This section applies if a responsible authority considers on reasonable grounds that -
>
> (a) a specified person is contravening or failing to comply with this Act or the regulations (for example, the requirement to obtain a building consent); or
>
> (b) . . .

3.7 The designer, acting on behalf of the owner, submitted an application for a building consent signed and dated 17 March 2006, and received by the territorial authority on 3 April 2006. This application described the work as:

> Re cladding ex[isting] dwelling carport, alteration to bottom storey. Change existin[g] lower level bathroom into bedroom & convert existing bathroom into

bedroom.

I have seen no record of any building consent having been granted or issued in response to this application. I note that, according to the applicant, an amended application for building consent was made on 3 July 2006 (see paragraph 3.19, which also explains why no consent has yet been issued). I have not received a copy of the amended application.

3.8 The applicant e-mailed the territorial authority on 20 April 2006, noting that the house had been subject to a claim under the Weathertight Homes Resolution Service and that the parties concerned had signed a confidential agreement. The applicant stated that extensive repairs were required, including the replacement of the entire cladding system and some decayed framing timbers. Some new construction was also to be undertaken at three locations. According to the applicant, both the designer and the builder informed her that while consents would be required for new additions, one would not be required for the re-cladding work. The applicant accepted this advice, was waiting for the consents pertaining to the additions, and noted that work had not commenced on these areas. The applicant used the cladding based on the recommendation that it would provide the necessary bracing for a high-wind area. The applicant had not viewed the building consent application, which had been made by the designer.

3.9 The territorial authority responded by letter on 2 May 2006, requesting that the applicant provide full details of both the internal and external work completed to date and what was yet to be completed.

3.10 In a letter to the territorial authority dated 17 May 2006, the applicant noted that none of the work had been completely finished to date and that 90% of the re-cladding had been carried out. The applicant described the work involved in re-cladding the building and in carrying out other remedial work. The applicant supplied the manufacturer's specification for the "Equus" products and receipts and delivery documents for the purchased materials. Plans and specifications had been submitted with the building consent application.

3.11 On 19 May 2006 the applicant, a territorial authority officer, a consultant, the designer and a representative from the Leaky Homes Action Group attended a meeting to discuss the issues surrounding the building work.

3.12 The territorial authority wrote to the applicant on 25 May 2006, stating that the territorial authority required sufficient information to demonstrate how the work had been carried out to date. The territorial authority had noted that the method of construction differed from that specified in the building consent application. The territorial authority now required accurate documentation for the work undertaken to date. I note that the building consent sought by the designer as agent for the owner in March 2006 had not been granted or issued at this juncture.

3.13 The territorial authority wrote again to the applicant on 30 May 2006, stating that it had contacted the builder on site and inquired why he was on site and was continuing to carry out work, despite an order from the territorial authority for all work to cease. According to the territorial authority, the builder stated that the applicant had

informed him that the Department had instructed work to continue. The territorial authority requested that the applicant provide a copy of this instruction. The territorial authority ordered that all work cease until that document had been received and its legal status confirmed. I note that no such document has been produced as evidence in this matter.

3.14 The territorial authority wrote to the applicant on 6 June 2006, describing its version of what transpired at the meeting on 19 May 2006 and setting out its opinion on various matters that had arisen as a result. I summarise the salient points made by the territorial authority as follows:

1. The territorial authority was of the opinion that, taking into consideration Schedule 1 of the Act, the re-cladding required a new building consent and that the applicant disagreed with this interpretation.

2. While the territorial authority did not accept that the re-cladding already carried out complied with the Building Code it would accept any decision made by the Department in a determination considering this matter.

3. The designer had agreed to re-submit the building consent application so that it related only to the areas that were yet to be re-clad. The application would also include both the removal and replacement of the existing cladding.

4. The question of the wind zone had to be addressed and the territorial authority required confirmation that the plywood used in the re-cladding to date was adequately treated to make it resistant to decay should it become wet.

5. On the basis that the work had already commenced, the applicant did not agree with the territorial authority's opinion that it could reject the applicant's application for a building consent. The applicant also challenged the territorial authority's unwillingness to inspect the work already completed.

6. While the territorial authority did not accept that it could issue a code compliance certificate for the work already carried out, a certificate of acceptance could be applied for. Following such an application, the territorial authority would be prepared to inspect the work.

3.15 The applicant responded by letter on 9 June 2006, stating that at the meeting on 19 May 2006 it was suggested that the territorial authority had no right to stop the applicant from proceeding with repairs that did not require a building consent. These included the replacement of rotting floors and timber and damaged ceilings. It was also suggested that the order to stop work had not been made in the prescribed form or manner and therefore legally unenforceable. The applicant also set out her interpretation of Schedule 1 of the Act, and based on that interpretation, as she was merely repairing the house, a building consent was not required. The cladding was being repaired by the use of "a comparable material or replacing a comparable component and assembling it in the same position". It was the applicant's opinion that she must repair her house to the same standard or better as required under the original code and permit. If any inspections were required, then they should be measured in terms of the building code in place in 1991.

3.16 The territorial authority wrote to the applicant on 19 June 2006, asserting the following relevant points:

1. The territorial authority still maintained that a building consent was required.

2. As the original house design was not weathertight, any replacement needed to rectify this deficiency. As the material used to re-cover the building differed from that originally used, the territorial authority was vitally interested in its specific detailing.

3. The designer had applied for a building consent that included the re-cladding work.

4. As the work already undertaken could not be given a building consent, then the applicant can either apply for a certificate of acceptance or seek a determination from the Department on "any of this".

5. The territorial authority accepted that there was no specific provision in the Act that authorises a building inspector to require work to stop on a building site. However, the building inspector was entitled to point out to a building owner that any unlawful building work, such as proceeding without a building consent, where a consent was required, should cease. Carrying on the work after that may then become an offence under section 365 of the Act.

6. If any unauthorised work does not meet the requirements of the Building Code, then the territorial authority would have no option but to issue a notice to fix.

7. The territorial authority strongly advised the applicant not to allow the work to proceed any further.

3.17 The territorial authority wrote to the applicant on 22 June 2006, requesting a copy of the manufacturer's specifications for the cladding. The territorial authority also noted that it had not received any documentation verifying that the cladding complied with the minimum requirements of the building code.

3.18 On 29 June 2006 the territorial authority wrote to the designer, setting out its position regarding the issues, which summarised some of its previous correspondence with the applicant.

3.19 According to the applicant, an amended building consent application was submitted on 3 July 2006. I have not seen the amended application and the territorial authority has not been able to locate any documents relating to a consent application or an application for a variation to a consent. I understand this action was in response to the agreement reached between the parties at the meeting on 19 May 2006 (see paragraph 3.11) and described in the territorial authority's letter dated 6 June 2006 to the applicant (see paragraph 3.14 item 3). In its submission to the Department dated 6 September 2006, a copy of which was sent to the applicant, the territorial authority did not mention the amended building consent application made in July 2006, although it did mention the application received on 3 April 2006. In paragraph (i) of its submission the territorial authority said that its processing of the consent application was suspended and remained suspended pending the outcome of this

determination. It is not clear whether that suspension applied to both the application received on 3 April 2006 and the subsequent application made in July 2006, since the latter is not mentioned in the submission.

3.20 The application for determination was received on 6 August 2006.

3.21 In a letter to the applicant dated 28 August 2006, the territorial authority wrote to the applicant, with a copy sent to the builder, noting that the information that it had requested had not been forwarded. Accordingly, as the territorial authority could not conclude that the replacement cladding complied with the requirements of the Building Code it was issuing a notice to fix as required by section 164(2)(a) of the Act.

3.22 The notice to fix required the applicant to remove the replacement cladding and replace it with a code compliant alternative. The territorial authority also ordered all building work to cease immediately.

3.23 The Department wrote to the territorial authority on 4 September 2006 requesting it to withdraw the notice to fix on the grounds that any decision or exercise of a power by any person referred to in section 177 that relates to a matter that is the subject of a determination application is suspended under section 183 until the matter has been determined. I have not been informed to date if the notice has in fact been withdrawn.

4 The submissions

4.1 In a covering letter to the Department dated 7 August 2006, the applicant set out the background to the dispute and her interpretation of the legislation. The applicant also stated that the compensation received as a result of the mediation was inadequate as regards the cost of repairs and re-cladding of the house. The applicant also expressed her concerns regarding the actions of the territorial authority.

4.2 In a following letter to the Department dated 22 August 2006, the applicant again outlined some background to the dispute. According to the applicant, she received advice from both the designer (see paragraph 3.3) and the builder that, in line with Schedule 1 of the Act, much of the work to be carried out would be exempt from the building consent process. The applicant set out her interpretation of the relevant legislation and stated that there was now an impasse with the territorial authority regarding the issues. The applicant noted:

> I have complied with Schedule 1.
>
> I have carried out lawful repairs.
>
> The failed cladding, rotting timber, floors and ceilings have been repaired and replaced with comparable components.
>
> They have been assembled in the same position.

The applicant also described the current situation caused by the dispute.

4.3 The applicant also corresponded with the Department in a series of e-mails from 21 August 2006, seeking clarification of some of the issues that had arisen.

4.4 The applicant forwarded:

- copies of the correspondence with the territorial authority
- details of the cladding system and some manufacturer's instructions
- a sample of the plywood cladding
- copies of the two faxes from International Panel and Lumber (West Coast) Ltd.

4.5 In an emailed submission dated 6 September 2006 the territorial authority said that a consent was required for the re-cladding work because:

- the original cladding was specified as "Insulclad" on the approved plans and was being replaced by "Shadowclad". The change from a sheet polystyrene product to a sheet plywood product was not considered to be comparable materials
- the building envelope risk matrix calculation results in a risk factor score of 20 on the north elevation and 14 on the other walls, necessitating the introduction of a drained and ventilated cavity to meet the requirements of the NZ Building Code.

4.6 In its submission the territorial authority said it had suspended processing of the applicant's consent application pending the outcome of this determination.

4.7 To the submission the territorial authority added the following rider:

> The submissions a) through to j) are on a without prejudice basis. The determination sought is not within the scope of section 177 of the Building Act 2004 inasmuch as the applicant is seeking a decision that the work is within the scope of Schedule 1 of the Act and is not a matter under the building code. Therefore this is not a matter which the Department of Building and Housing has jurisdiction to decide under section 177 of the Act.

4.8 I have responded to this rider in paragraph 10.5.

4.9 On 11 September 2006 the Department received a letter dated 6 September 2006 from the territorial authority. The letter was identical in content to that emailed to the Department on 6 September, but some paragraphs had been re-ordered. Accompanying the letter were copies of:

- the building permit for the original house issued on 20 February 1992
- the application form dated 17 March 2006 submitted by the designer as agent for the owner and seeking a building consent for re-cladding of the existing building and for a carport and alterations to the lower level to swap the locations of the existing bathroom and a bedroom
- the letter dated 18 April 2006 from the territorial authority to the owner

- the letter dated 20 April 2006 from the owner to the territorial authority.

4.10 Copies of the submissions and other evidence were provided to each of the parties.

4.11 I then prepared a draft determination ("the first draft"), which was forwarded to the parties on 13 September 2006 together with a letter to the effect that if the first draft was not accepted by both parties it would be necessary to hold a formal hearing. The first draft treated the territorial authority's letter of 18 April 2006 as being in effect a notice to fix.

4.12 The territorial authority responded in a letter dated 26 September 2006.While the territorial authority agreed in general with the first draft it drew attention to two matters with which it did not agree. It did not accept that:

- its letter dated 18 April 2006 to the applicant was in effect a notice to fix
- the notice to fix that it issued on 28 August 2006, and which the Department requested be withdrawn, expressly required a cavity between the wall framing and the cladding.

4.13 The applicant commented by letter dated 26 September 2006, pointing out some minor errors of fact which I have corrected. The applicant also said:

- that the adhesive used to fix the cladding sheets is an elastic type that will allow some movement
- that the balustrade top has been protected with Aluband which overlaps 10mm on each side. A "treated 40 x 18 bead" will also be applied to the underneath of the hand rail
- that the height of the balustrade is "as built" and signed off by the territorial authority in 1991. The applicant has merely replaced the cladding on the deck walls, and "raising the height of the walls is outside of the repair process"
- that the clearances between the deck level and the balcony door threshold had been "vastly improved"
- that flanged outlets are provided at the deck and the deck membrane is dressed into the flanges and not into the downpipes.

4.14 I took account of the submissions of the parties and amended the first draft as appropriate to produce a second draft, which was then copied to the parties together with a letter to the effect that:

(a) If the second draft was not accepted by both parties it would be necessary to hold a formal hearing.

(b) I recognised that the territorial authority was concerned lest participating in a hearing might be interpreted as accepting the jurisdiction of the Chief Executive in respect of a matter which, in the territorial authority's opinion, was not a matter that could in fact be determined in terms of section 177. I

invited the territorial authority to attend a hearing, if one proved necessary, on the basis that it did so under protest and without acknowledging the jurisdiction of the Chief Executive.

4.15 The territorial authority commented on the draft in a letter to the Department dated 9 October 2006. The territorial authority reiterated that it did not accept that section 177(a) can give jurisdiction to issue a determination that a building consent was not required. However, despite these reservations, the territorial authority has agreed to abide by the decision made in this determination. The territorial authority raised 4 other matters regarding the draft determination, which I have considered in my final decisions. In particular, the territorial authority did not accept the Department's assumptions as to why the territorial authority might have been reluctant to attend a hearing. The territorial authority also commented on the proposed hearing and expressed support for the attendance of the expert to assist the parties.

4.16 The applicant accepted the draft determination and in a letter to the Department dated 6 October 2006, requested a hearing. In additional correspondence, the applicant also commented on the territorial authority's letter of 9 October 2006. The applicant summarised her notes regarding the application for a building consent and commented on the designer's role. The applicant did not agree that the expert should be "listing all the items considered non compliant". It was intended to continue with the lodged consent applications for work not yet started and to complete the rest of the repairs for the house. An application for a certificate of acceptance would also be made.

5 The hearing

5.1 The applicant requested a hearing, which was held on 3 November 2006 before me. I was accompanied by a Referee engaged by the Chief Executive under section 187(2) of the Building Act 2004. The applicant appeared on her own behalf at the hearing accompanied by the builder and the designer. The territorial authority was represented by one of its officers and a legal adviser. Five other staff members of the Department attended. The owners and the territorial authority spoke and called evidence at the hearing. The evidence from those present enabled me to amplify or clarify various matters of fact that were identified in the draft.

5.2 I summarise the applicant's presentation as follows:

- The original house had been "made, permitted and passed" by the territorial authority.
- The ingress of water had caused rotting of the timbers, as well as mould, including stachybotrys.
- The legislation had been taken at its face value in that "lawful repairs without consent" meant that a consent was not required for the re-cladding of the house. The applicant had also acted on the advice of the builder and the designer in this respect, and relying on this advice, did not approach the territorial authority.

- The concerns of an engineer regarding the need to brace the building led to the decision to use face-fixed plywood.

- The house is now dry and there is no evidence of water ingress.

- The current state of rectification was described and it was noted that the garage area was still in its original state and the external boxed corners and internal linings had not yet been installed. The new work would be subject to a new consent process.

- The step between the house floor level and the deck was as indicated on the original house plans.

5.3 The builder described the rectification work that had been carried out to date to replace defective timbers and solve design issues. Most of this work was still open for inspection. Originally, the rectification related to targeted areas, as suggested in the mediation, but gradually became more involved. Re-cladding of main wall areas was necessary as cracking would re-occur if the original type of polystyrene cladding was used as partial rectification. Some 40% of the original timber framing had been replaced with treated timber.

5.4 The designer acknowledged that the original design would not be accepted in the context of current knowledge. The wind zone was originally set down as being low to medium.

5.5 The territorial authority made a verbal submission, which I summarise as follows:

- The territorial authority noted its objection as to the jurisdiction of the Department to determine this particular case. However, it would accept the decision made in the determination process.

- The new Act had amended the Schedules applicable to situations where a consent was required for rectification work.

- The original wind zone rating applied to the site had been changed in the light of more recent knowledge, to the current “very high” rating.

- If a consent application had been made to the territorial authority prior to commencing work, the territorial authority would have advised on the feasibility of bracing using face-fixed materials and also whether a consent was required.

- If a certificate of acceptance was requested for the rectification work, there is a strong possibility that such a certificate could be issued by the territorial authority for most of the work carried out to date. The rest of the proposed rectification work yet to be completed, together with the proposed new work, could be covered under a new consent. An engineer’ report would also help the territorial authority in reaching its decisions.

- The territorial authority was prepared to assist the applicant at least to an extent that would not expose the territorial authority to potential liability. This would involve a site visit to view the work that had been completed to date.

- The question of the deck step can be considered as an alternative solution.

5.6 In response to the submitted evidence, the Department:

- suggested that the applicant should appoint a qualified and experienced expert to appraise the re-cladding and associated rectification of the building

- requested that any existing photographs and documents showing the progress of the works should be provided to the territorial authority to assist its appraisal of the building

- noted that the current legislation does not make it mandatory for external cladding to have a cavity installed behind it

- based on the discussions during the hearing, apart from some clarification, did not see the need to issue a fully revised new draft

- noted that, as raised by the territorial authority, the issue of a certificate of acceptance would be contingent on the publication of the final determination.

The cladding matter

6 The expert's report

6.1 The expert inspected the building on 25 August 2006 and furnished a report that was completed on 31 August 2006. The expert noted that the cladding did not comply with the non-mandatory compliance document E2/AS1. The expert was informed by the builder that the tongues between the adjacent sheets of the cladding had been glue sealed to prevent movement and provide a seal.

6.2 The expert removed an area of the plywood to examine the construction adjoining one window and I am prepared to accept that this example is representative and applies to similar details throughout the cladding

6.3 The expert took invasive moisture readings of the exposed wall framing, and none of the readings indicated that external moisture is entering the structure in its current state.

6.4 In summary the expert's report draws attention to the following concerns about the cladding and the roofing that must receive attention, unless stated otherwise in this determination, if the building is to become compliant. These matters are noted in the context of partially completed work:

- There are no vertical control joints and vertical sheet joins are glue sealed with no provision for movement. (I note that the non-mandatory compliance document E2/AS1 shows some ways of constructing joints that do provide for

movement).

- The junction between the horizontal joint flashing and the top cladding sheet is sealed (I note that Fig. 121 in the non-mandatory compliance document E2/AS1 shows one acceptable way of constructing this detail). It is in my view important to consider the risk of the plywood becoming wet if there is a failure of the coating system.

- The exterior joinery unit perimeters are face fixed with aluminium head flashings. There is sealant with a cross-section of 7mm wide by 2mm thick behind the jamb and sill sections. There is no provision for drainage or drying out above the head flashing.

- The proposed balcony balustrade details are likely to prove ineffective in preventing moisture penetration.

- The height of the balcony balustrade at 700mm is non-compliant. (I note that the applicant has stated that the balcony height has been "signed-off" by the territorial authority (see paragraph 4.13). However, it is essential, as a matter of safety, that the balustrade height should be checked for compliance.)

- The 40mm high clearance at the balcony/building floor junction is insufficient.

- There is insufficient clearance between the base of the cladding and the sill of the Ranchslider doors.

- There is a risk of cracking where the main roof membrane is applied over the edge of the cladding.

- The balcony deck membrane is dressed directly into the downpipes and no flanged outlets are provided. (I note the applicant has asserted that in fact flanged outlets are provided, see paragraph 4.13.)

6.5 Copies of the expert's report were provided to each of the parties on 6 September 2006.

6.6 Following a request from the Department, the expert re-visited the property on 4 September 2004 to investigate the plywood used for the re-cladding. In a letter to the Department also dated 4 September 2004, the expert stated that he had observed that there were several full sheets of unfixed plywood on site and these were marked as "Classic" and as being LOSP treated to H3A level. According to the owner, the material was bought untreated and then sent away for treatment.

6.7 Based on that evidence I am prepared to accept that the plywood has been treated to a standard that will make it resistant to decay if it becomes wet and retains moisture.

7 Evaluation For code compliance

7.1 Evaluation framework

7.1.1 In evaluating the design of a building and its construction, it is useful to make some comparisons with the relevant Acceptable Solution[3], in this case E2/AS1, which will assist in determining whether the features of this building are code compliant. However, in making this comparison, the following general observations are valid:

- Some Acceptable Solutions cover the worst case, so that they may be modified in less extreme cases and the resulting alternative solution will still comply with the Building Code.
- Usually, when there is non-compliance with one provision of an Acceptable Solution, it will be necessary to add some other provision to compensate for that in order to comply with the Building Code.

7.1.2 The approach in determining whether building work is weathertight and durable and is likely to remain so, is to apply the principles of weathertightness. This involves the examination of the design of the building, the surrounding environment, the design features that are intended to prevent the penetration of water, the cladding system, its installation, and the moisture tolerance of the external framing. The Department and its antecedent, the Building Industry Authority, have also described weathertightness risk factors in previous determinations[4] (for example, refer to Determination 2004/1) relating to cladding and these factors are also used in the evaluation process.

7.1.3 The consequences of a building demonstrating a high weathertightness risk is that building solutions that comply with the Building Code will need to be more robust. Conversely, where there is a low weathertightness risk, the solutions may be less robust. In any event, there is a need for both the design of the cladding system and its installation to be carefully carried out.

7.2 Weathertightness risk

7.2.1 In relation to these characteristics I find that the building subject to the rectification work:

- is built in a high wind zone
- is two storeys high
- is relatively simple in plan and form but has some complex features
- has 400mm eaves projections that provide some protection to the cladding under them

[3] An Acceptable Solution is a prescriptive design solution approved by the Department that provides one way, but not the only way, of complying with the Building Code. The Acceptable Solutions are available from the Department's website at www.dbh.govt.nz.
[4] Copies of all determinations issued by the Department can be obtained from the Department's website.

- has one high-level balcony
- has external wall framing that is treated to a level that may provide resistance to the onset of decay if the framing absorbs and retains moisture.

7.2.2 When evaluated using the E2/AS1 risk matrix, all the elevations of the completed house demonstrate a high weathertightness risk. The matrix is an assessment tool that is intended to be used at the time of application for consent, before the building work has begun and, consequently, before any assessment of the quality of the building work can be made. Poorly executed building work introduces a risk that cannot be taken into account in the building consent stage but must be taken into account when the building as actually built is assessed for the purposes of issuing a code compliance certificate.

7.3 Weathertightness performance

7.3.1 Generally the cladding that has been fixed to date appears to have been installed in accordance with good trade practice. However, some junctions and other details are not well constructed, and these are as described in paragraph 6.4 and in the expert's report.

7.3.2 Notwithstanding the fact that the cladding is fixed directly to the timber framing, thus limiting drainage and ventilation behind the cladding, I have noted certain compensating factors that assist the performance of the cladding in this particular case:

- Apart from the noted exceptions the cladding is installed to good trade practice.
- There is no evidence of moisture ingress at the present time.
- The external wall framing is either equivalent to H1.2 (boric) as used in the original construction or H3.1 (LOSP) in the newly replaced framing.

7.3.3 I consider that these factors help compensate for the lack of a ventilated cavity and can assist the building to comply with the weathertightness and durability provisions of the Building Code.

7.3.4 I draw attention to the requirements of clause B2 Durability of the Building Code. While the building is not apparently leaking at the moment, clause B2 requires the building to continue to comply with the Code in the future, subject to normal maintenance being carried out. The durability of the building is also dependent on the concerns expressed by the expert and listed in paragraph 6.4 being attended to in the work done to date and avoided in the cladding work still to be done.

8 Discussion

8.1 I consider that the expert's report establishes there is no evidence of external moisture entering the building, and accordingly, that the cladding that has been fixed up to the present time does comply with clause E2 at this time.

8.2 However, the building is also required to comply with the durability requirements of clause B2. Clause B2 requires that a building continues to satisfy all the objectives of the Building Code throughout its effective life, and that includes the requirement for the additions to remain weathertight. Because the cladding faults on the building are likely to allow the ingress of moisture in the future, the house does not comply with the durability requirements of clause B2. I also accept that the plywood cladding has been surface LOSP treated to a H3.1 level.

8.3 Subject to further investigations that may identify other faults, I consider that, because the faults identified with the cladding system and the roofing occur in discrete areas, I can conclude that satisfactory rectification of the items outlined in paragraph 6.4 will result in the building remaining weathertight and in compliance with clauses B2 and E2.

8.4 It is emphasized that each determination is conducted on a case-by-case basis. Accordingly, the fact that a particular cladding system has been established as being code compliant in relation to a particular building does not necessarily mean that the same cladding system will be code compliant in another situation.

8.5 I decline to incorporate any waiver or modification of the Building Code in this determination.

9 Conclusion

9.1 I determine that the completed parts of the house are weathertight now and therefore the cladding and roofing comply with clause E2. However, as there are a number of items to be remedied to ensure that the house remains weathertight and thus meets the durability requirements of the Building Code, I find that the house does not comply with clause B2 and confirm the territorial authority's decision to refuse to issue a code compliance certificate.

9.2 I also find that rectification of the items outlined in paragraph 6.4 to the approval of the territorial authority, along with any other faults that may become apparent in the course of that work, and the completion of the remainder of the cladding to the approval of the territorial authority will consequently result in the house remaining weathertight and in compliance with clauses B2 and E2. In addition, any work remaining to complete the house rectification will need to accommodate the suggested remedial work to ensure that the completed house is also fully code compliant. The rigour of checking of design documents and staged inspection of work, to which I refer to in paragraph 10.14 must apply to the work that remains to be done.

9.3 Effective maintenance of the building is important to ensure ongoing compliance with clauses B2 and E2 of the Building Code and is the responsibility of the building owner. Clause B2.3.1 of the Building Code requires that the cladding be subject to "normal maintenance", however that term is not defined in the Act.

9.4 I take the view that normal maintenance is that work generally recognised as necessary to achieve the expected durability for a given building element. With

respect to the cladding, the extent and nature of the maintenance will depend on the material, or system, its geographical location and level of exposure. Following regular inspection, normal maintenance tasks should include but not be limited to:

- where applicable, following manufacturers' maintenance recommendations
- washing down surfaces, particularly those subject to wind-driven salt spray
- re-coating protective finishes
- replacing sealant, seals and gaskets in joints.

9.5 In view of the lack of certainty about the resistance to decay of some of the timber framing in the external walls, to which I referred in paragraph 2.2, periodic checking of its moisture content should also be carried out as part of normal maintenance.

The matter of a building consent

10. Discussion

10.1 The territorial authority has argued that the question of whether a building consent is required for the re-cladding of the building is not a matter that can be the subject of a determination by the Department. After full consideration of this question, I have reached the conclusion that the territorial authority's interpretation is correct. Although I do note that the territorial authority may have changed its position on this issue since its letter to the applicant dated 19 June 2006 implied that the applicant was welcome to apply for a determination on "any of this".

10.2 However, should the conclusion that I have reached on this matter be incorrect, and the matter is indeed determinable, I set out below my conclusions, which while they do not form part of my decision, may prove to be of assistance to the parties.

10.3 Section 41(1)(b) of the 2004 Act states that a building consent is not required for any building work described in Schedule 1. This matter revolves around the interpretation of paragraph (a) of Schedule 1, which states:

> **Exempt building work**
>
> A building consent is not required for the following building work:
>
> (a) any lawful repair and maintenance using comparable materials, or replacement with a comparable component or assembly in the same position, of any component or assembly incorporated or associated with a building, including all lawful repair and maintenance of that nature that is carried out in accordance with the Plumbers, Gasfitters, and Drainlayers Act 1996:

10.4 I note the reference to *lawful* repair and maintenance which I take to mean repair and maintenance that will lead to on-going compliance with the Building Code. In relation to the re-cladding of the house, the applicant's interpretation of this clause is that a building consent is not required for this work. The territorial authority takes a contrary view.

10.5 In undertaking an analysis of paragraph (a) in Schedule 1 of the Building Act 2004, I consider that an appropriate starting point is to compare it with the equivalent paragraph of the Building Act 1991, which is paragraph (ab) of the Third Schedule.

10.6 As I interposed in paragraph 3.3, building work carried out in 2005 and prior to 31 March 2005 was subject to the Third Schedule in any event. Paragraph (ab) of the Third Schedule states:

> **Exempt Buildings and Building Work**
>
> A building consent shall not be required in respect of the following building work:
>
> (ab) Any other lawful repair with comparable materials, or replacement with a comparable component or assembly in the same position, of any component or assembly incorporated or associated with a building, but excluding-
>
> (i) The complete or substantial replacement of any system listed in section 44(1) or section 44(5) of this Act:
>
> (ii) The complete or substantial replacement of any component or assembly contributing to the structural behaviour or fire-safety properties of the building:
>
> (iii) The repair or replacement of any component or assembly that has failed to satisfy the provisions of the building code for durability:[5]

10.7 A comparison between the words of the two Schedules indicates that Parliament was of a mind to delete the very specific limitations set out in clause (ab) of the Third Schedule to the 1991 Act when it drafted the 2004 Act. There is no question that under the requirements of clause (ab)(iii) of the 1991 Act's Third Schedule, a building consent would be required in the re-cladding in question, because the original cladding has failed to be durable. That situation would have applied to any re-cladding carried out prior to 31 March 2005.

10.8 Because it seems apparent that re-cladding work was also carried out after 31 March 2005 I must also consider whether the work would be exempt from the requirement for a consent under Schedule 1 of the Building Act 2004. However, as that Schedule does not include the limitations set out in paragraphs (ab)(i)(ii) and(iii) of Schedule 3 of the 1991 Act, it applies to a much wider range of building work.

10.9 I have therefore, to determine the meaning of the words "using comparable materials, or replacement with a comparable component or assembly in the same position, of any component or assembly incorporated or associated with a building… " In Determination 2000/1 *Notice to rectify work done without building consent*, the antecedent to the Department, the Building Industry Authority, said:

> **(1) "Comparable"**
>
> "(a) It would not be natural to refer to the replacement components or assemblies as being 'comparable' unless they were akin to or like the originals, in the sense of being made of similar materials and similar configuration; and

[5] Section 44(1) of the 1991 Act refers to compliance schedules and section 44(5) to the inclusion of certain systems and features

> "(b) It would not be natural to refer to replacements as 'comparable' unless their performance in terms of the Building Code was equivalent to or as good as that of the originals."

10.10 As I take the view that these statements are relevant to this determination, I must now decide whether the new cladding is made of "similar materials and similar configuration" to the original EIFS cladding, and whether its performance in terms of the Building Code is "equivalent to or as good as that of the original". I note that all these requirements must be met for the new cladding to meet the criteria set out in Determination 2000/1.

10.11 As regards the first criterion, "similar materials" I see that the original EIFS cladding used, as an essential component, rigid sheets made entirely of a foamed plastics material, having properties that include a high thermal insulation value and relatively low mechanical strength requiring an overlay of a mesh-reinforced modified plaster, while the replacement cladding uses, as an essential component, sheets of a wood–based product made of glue-laminated timber veneers with a much lower thermal insulation value but a relatively high mechanical strength. I conclude that the plywood cladding is not a "similar material" to the original EIFS cladding. I cannot, therefore, accept that the criterion 1(a) in paragraph 10.10 above has been met. By comparison however, the liquid applied membrane now installed to the main roof areas can be considered to be a "similar material" to the original.

10.12 In paragraph 10.12 I considered a comparison between the materials or components, used in the respective cladding systems. I turn now to the second criterion, "the configuration" of the assemblies used in each of the systems. The assembly of such systems is usually described in scaled detailed drawings that show the relative positions (the configuration) of the components and the fixings, flashings, jointing and coatings necessary to make the assembly work properly. It is clear to me that the assembly of the components, (ie their configuration) in an EIFS cladding system is not comparable with that of a plywood-based one, as revealed by a comparison of the detailed drawings describing each system and required to demonstrate how, for example, the penetration of a wall cladding by windows and doors is to be made weathertight. Here I interpose that I have not been provided with drawings of the proposed building work, or of the work that has been completed, but I am sufficiently familiar with construction details used for such cladding systems to be confident that those details are markedly different as between EIFS and plywood systems.

10.13 This leaves the question of equivalency of performance in terms of the Building Code (see 1(b) in paragraph 10.10 above). Both the cladding systems have to be considered as Alternative Solutions, since neither system is one prescribed in the approved document E2/AS1. (In this context I understand the word "system" to mean a combination of components or materials that make up an element of a building). It is accepted that the EIFS cladding system has insulation properties embodied in the EIFS component that is lacking in the plywood replacement, but it is likely that with the addition of insulation in the wall cavity the plywood cladding system would achieve a similar performance in terms of code requirements for thermal insulation. On the other hand an EIFS system has a ventilated cavity that a plywood and thermal insulation system is less likely to have. Both systems employ

the same timber frame for structural purposes, and both could be made compliant with code requirements for structural strength and durability. Consequently I consider that the criterion in 1(b) in paragraph 10.10 above may conceivably be met, but only after the rigour of pre-construction check of drawings and prescribed staged inspections during construction has been applied.

10.14 It is my view that any analysis of comparability of materials, components or assemblies, when exemption from the requirement for a building consent is being considered under Schedule 1(a) of the Act, must be along the lines discussed in paragraphs 10.12 to 10.14 inclusive.

10.15 It is emphasised that my determination relating to the requirement for a building consent is in the context of the cladding. Various other rectification work has taken place such as the roof enhancement and the replacement of faulty timbers and linings. I consider those items of rectification work to be "comparable" as described in paragraph 10.10.

10.16 Accordingly I take the view that a building consent would not be required for this part of the remedial work

10.17 I believe that the original EIFS components are not comparable when tested against one of the criteria set out in Determination 2000/1 regarding the interpretation of "comparable" relating to the re-cladding of the building. Accordingly I am of the opinion that in this case the re-cladding does not fall within paragraph (a) of Schedule 1 of the Act, and thus a building consent would have been required for the re-cladding work.

10.18 I am also of the opinion, for the reasons I have set out in paragraphs 10.12 to 10.14, that a building consent was not required for the rectification of the main roofing and for replacement of defective framing and linings with new and equivalent or better materials. I recognise that that gives the owner, not the territorial authority, the responsibility for deciding whether the new materials are equivalent to or better than the old materials, but that is inherent in my reading of paragraph (a) of Schedule 1.

10.19 The territorial authority did not accept that its letter of 18 April 2006 was in effect a notice to fix, see paragraph 4.12 above. That is not disputed, the question is whether that letter, although not itself a notice to fix, indicated that the territorial authority had made a decision to issue a notice to fix unless the owner provided a satisfactory explanation, and if so whether I have the power to make a determination in respect of that decision.

10.20 As I have concluded that the cladding does not comply with the Building Code, there is no need for me to decide whether I have that power. However, for the record the relevant provisions of section 177(c)(vi) are:

> A party may apply to the chief executive for a determination in relation to 1 or more of the following matters:
>
> (c) a territorial authority's decision to—
>
> (iv) issue, amend, or impose a condition on a notice to fix:

10.21 There appear to be no decided cases as to whether section 177(c)(vi) applies to such a conditional decision or only to a decision that has been acted on by the issuing of a notice to fix. As currently advised I tend to the view is that if Parliament had intended to exclude conditional decisions, in other words, if the power to determine was limited to decisions that had resulted in the issuing of a notice to fix, then section 177(c)(iv) would not have referred to a decision at all but simply to the notice to fix itself. However, as mentioned above, that view does not form part of my decision, but may prove to be of assistance to the parties.

11 The Decision

11.1 In accordance with section 188 of the Building Act 2004, I hereby determine that:

- the cladding does not comply with clause B2 of the Building Code, and accordingly confirm the territorial authority's concerns regarding its compliance

- the question of whether a building consent is required for the re-cladding of the building is not a matter that can be the subject of a determination by the Department.

11.2 I note that the territorial authority purported to issue a notice to fix dated 28 August 2006 which stated that there was no provision for a cavity between the cladding and the wall framing. I also note that the Department wrote to the territorial authority on 4 September 2006 (refer paragraph 3.23) requesting the withdrawal of the notice under section 183 of the Act. Under the Act, a notice to fix can require the owner to bring the additions into compliance with the Building Code. The Building Industry Authority has found in a previous Determination 2000/1 that a Notice to Rectify (the equivalent to a notice to fix under the Building Act 1991) cannot specify how that compliance is to be achieved. I concur with that view.

11.3 A new notice to fix should be issued that requires the owners to bring the building into compliance with the building code, identifying the defects listed in paragraph 6.4 above and referring to any further defects that might be discovered in the course of rectification, but not specifying how those defects are to be rectified. That is a matter for the applicant to propose and for the territorial authority to accept or reject, with any disputes being submitted to the Chief Executive for a further determination.

11.4 Final inspections by the territorial authority should also take place after the whole of the rectification work has been completed to ensure that all the work carried out is code compliant.

11.5 I would suggest that the parties adopt the following process to meet the requirements of paragraph 11.3. Initially, the territorial authority should issue a new notice to fix, listing all the items that the territorial authority considers to be non-compliant. The applicant should then produce a response to this in the form of a technically robust proposal, produced in conjunction with an expert, as to the rectification or otherwise of the specified issues. Any outstanding items of disagreement can then be referred to the Chief Executive for a further binding Determination. I also note that the

territorial authority has offered to provide the applicant with some technical assistance in the rectification process.

11.6 As the original building was subject to a permit prior to the introduction of the Building Act 1991, a code compliance certificate could not be issued for this building work. However, I am of the opinion that, once the territorial authority accepts on reasonable grounds that the re-cladding and associated rectification work that is completed to date, complies with the Building Code, the applicant should then apply for a certificate of acceptance in accordance with section 96 of the Act. This is an option open to an owner when where a building consent has not been obtained for building work for which a building consent was required. If the territorial authority is satisfied, after carrying out such inspections or other enquiries as it considers appropriate, that all the remedial work is code compliant, then it should issue such a certificate.

11.7 The territorial authority should also issue a new building consent that includes:

- the remainder of the re-cladding and rectification work that is still to be carried out
- all the proposed new work including the carport, conservatory, and the bathroom/bedroom re-location.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing on 30 November 2006.

John Gardiner
Determinations Manager