Department of Building and Housing
Te Tari Kaupapa Whare

Determination 2009/15

The code-compliance of a 15 year old house at 154 Rangihaeata Road, Takaka, Golden Bay

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, Manager Determinations, Department of Building and Housing ("the Department"), for and on behalf of the Chief Executive of that Department. The applicant is the owner, R Cooper ("the applicant") acting through an agent ("the agent"), and the other party is the Tasman District Council ("the authority") acting through its legal advisors, carrying out its duties and functions as a territorial authority and a building consent authority.

1.2 This determination arises from a dispute regarding the code-compliance of a 15-year-old house with various clauses of the Building Code[2] (First Schedule, Building Regulations 1992).

1.3 I take the view that the matters for determination in terms of sections 177(a), 177(b)(i), 177(e) and 188[3] of the Act are:

- whether the building consents granted by the authority for the house in 1993 and the additions in 1994 should be reversed

[1] The Building Act 2004 is available from the Department's website at www.dbh.govt.nz.
[2] The Building Code is available from the Department's website at www.dbh.govt.nz.
[3] 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.

- whether certain building elements of the original house comply with the Building Code (Schedule 1 of the Building Regulations 1992) that applied at the time the building consent was granted
- whether certain building elements of the attached garage and the decks with roofs ("the decks") comply with the Building Code (Schedule 1 of the Building Regulations 1992) that applied at the time the building consents were granted
- whether the decisions of the authority to issue code compliance certificates for the attached garage and decks were correct
- whether the authority should have exercised its powers under section 124 in the context of an insanitary building.

1.4 The application as set out in Form D1 has also raised matters relating to the authority's decisions regarding:

- the refusal to issue a notice to fix
- the refusal to issue documents necessary for the demolition and rebuilding of the house.

However, apart from the matter of a demolition notice discussed in paragraph 7.4.6, these are not matters within the Chief Executive's remit in section 177 of the Act. I am also not authorised to determine issues relating to the competency or liability of the authority during its consent and inspection processes.

1.5 The building work considered in this determination was carried out under a building consent granted in 1993 for the original house (refer to paragraph 3.2). On 29 April 1994 two additional building consents were issued for the addition of an attached garage and decks with roofs, and code compliance certificates were issued for these additions in September 1994. In a submission dated 4 February 2009, the applicant has queried the compliance of this building work in as much as it is attached to the house in question and may not meet all the requirements of the Building Code.

1.6 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 in this matter.

1.7 I have also considered the various reports commissioned by the parties and supplied with their submissions as follows:

For the applicant:

- A report ("the first inspection report") by a specialist property inspection company ("the first inspection company") as outlined in paragraphs 4.1 to 4.3
- A report ("the second inspection report") by a specialist property inspection company ("the second inspection company") as outlined in paragraphs 4.4 to 4.6
- A report ("the first engineering report") by a civil engineer ("the civil engineer") as outlined in paragraphs 4.7 to 4.10.

- A report ("the second engineering report") by a geotechnical engineer ("the geotechnical engineer") outlined in paragraphs 4.18 to 4.24 .
- A report ("the building consultant's report") by a building consultant commissioned by the applicant ("the building consultant") in response to the expert's report as outlined in paragraph 6.15.

For the authority:

- A report ("the third inspection report") by a third specialist property inspection company ("the third inspection company") as outlined in paragraphs 4.12 to 4.15.

2. The building

2.1 The building work consists of a detached proprietary building situated on a gently sloping coastal site, which is in a high wind zone for the purposes of NZS 3604[4]. The original house is of very simple shape in plan and form, with concrete foundations and floor slab, light timber frame construction, fibre-cement weatherboards, aluminium exterior joinery and a profiled metal gabled roof.

2.2 The roof has eaves and verge projections of about 500mm. The 1994 additions are attached to the eaves – the attached garage to part of the south eaves and the deck roofing above both ends of the north wall.

2.3 The wall cladding is fibre-cement weatherboards, with the imitation "rough-sawn" surface of the weatherboards finished with a wood-coloured coating.

2.4 The specification for the proprietary building calls for the framing timber to be a mixture of rimu and boric-treated pinus radiata. However, based on the laboratory tests undertaken on timber samples removed from the building, I accept that the wall framing timber is made up of a combination of untreated and boron treated members of both rimu and pinus radiata.

3. Background

3.1 On 14 July 1993, the applicant obtained a quotation from a builder ("the builder") for a 'Three Bedroom Lockup Shell Home', and entered into a contract to construct the house to a 'closed-in or lockup stage', at which stage it would not have been fully code compliant.

3.2 On 13 August 1993 the authority issued a building consent (No. 931261) under the Building Act 1991 ("the former Act"). The consent was for a completed building of which the "shell home" formed the part that the builder was to construct, with the applicant taking responsibility for the completion of the building. The conditions attached to the building consent included a requirement that the building not be occupied until "all interior linings are fixed in place".

[4] NZS 3604 is a New Zealand Standard for Timber Framed Buildings and is widely used by the building industry for timber framed houses in New Zealand.

3.3 The documents supplied with the consent include three plans, which showed the basic plan of the house and its elevations, and a reasonably comprehensive specification for the standard proprietary building.

3.4 Sitework in preparation for the house construction was undertaken by a "business unit" of the authority, under subcontract to the builder, and it appears that no inspections were called for or carried out for that part of the work.

3.5 The authority carried out a foundation inspection on 17 August 1993, which noted:

> Excavations had been taken down a good 300mm into the pakihi type soil; boxing was erected; D12 horizontal rods were placed and tied with D10 starters to penetrate the floor slab; HRC mesh and dampcourse on site.

Records from a second inspection by the authority on 30 August noted that the builder was not present, and the floor slab had already been poured. There was no pre pour inspection, which would have been critical given the paucity of detail in the consent drawings.

3.6 According to the property file, during a pre-line inspection on 13 October 1993, the authority noted that it was advised by the owners that roofing had been ordered short of length and the builder proposed to install an underflashing to extend it out over the gutter. The inspection record also noted that the laps of the weatherboards were variable and the head of the north ranchslider required attention. The applicant has stated that it was the builder who advised the authority, not the applicant.

3.7 A subsequent pre-line inspection on 27 October 1993 noted on the property file that the faults identified in the earlier inspection had been modified in accordance with the Building Code and that "everything appeared to be in order to proceed".

3.8 It appears that the owners moved into the house before Christmas 1993. The house was lined internally but there were still building elements to be completed. An authority memo of 20 May 1996 confirmed that an inspection took place at the applicant's request in early 1994 as a result of concern about the hot water cylinder. This inspection identified the lack of a tempering valve and the installation of incorrect pipe material. The memo of 20 May 1996 also said that the applicant was living in premises that did not comply with the Building Code and that a notice to rectify should be issued.

3.9 On 20 January 1994, the applicant signed a "Certificate of completion", which verified that the building work had been completed in accordance with the building contract (refer paragraph 3.1). It appears that the applicant then arranged to complete the remaining work (although I have seen no records of who completed this work).

3.10 On 29 April 1994 the authority issued a building consent (940524) for an attached garage and a building consent (940526) for attached decks with roofs. The additions were inspected between June and September 1994.

3.11 On 29 September 1994 the applicant submitted to the authority an "Advice of completion of building work" for all the building work under the consent for the original house. The form was stamped and signed by the authority's building

inspector, but a comment added to the form referred to the installation of a woodburner and noted 'to reinspect when space heater fitted'.

3.12 As a result of a dispute with the plumber, it appears that the applicant arranged for a different plumber to complete the installation of the woodburner and associated wetback without installing the required tempering valve and pipework. According to the applicant, a plumbing inspection was called for but did not proceed further than the hot water cylinder inspection, where it was noted that the cylinder was not code-compliant.

3.13 On 29 September 1994, the authority issued code compliance certificates for the garage and the decks.

3.14 According to the agent, in March 1995, the applicant commissioned the first inspection company to carry out an assessment of the house 'for purposes of a property settlement valuation for [the applicant's] former partner'.

4. The inspection reports

The first inspection report

4.1 The first inspection company inspected the house on 5 March 1995 and provided the first inspection report to the applicant on 8 March 1995, which noted the flashing added at the gutter and identified various defects, including that:

- the roof trusses were not all at 900mm centres
- the fixings of the roof ridge flashing were loose
- the fibre-cement weatherboards were not uniformly spaced.

4.2 The report outlined various options, including seeking redress from the builder and requesting an inspection from the authority. The applicant forwarded a copy of the report to the authority.

4.3 Ongoing correspondence followed between the applicant, the builder and the authority without resolution, and the applicant commissioned the second inspection company to review the background to the dispute and to make recommendations on remedial work.

The second inspection report

4.4 The second inspection company inspected the house on 9 January 1997 and 13 March 1997. At the latter inspection, the second inspection company was accompanied by a civil engineer they commissioned to assess the results of test pits below the slab and at the perimeter.

4.5 The second inspection company provided a the second inspection report dated 19 March 1997, which identified various areas considered to be shortcomings in the authority's inspections, including:

- hardfill was applied over a layer of organic matter

- the roofing was too short, with a flashing extended over the gutter
- the soakers behind the weatherboards were incorrectly positioned, and there were no scribers installed
- 13 roof trusses were spaced at more than 1m centres
- the lintels were single beams, with packers attached.

4.6 The report concluded that the faults identified were significant, and the house would require recladding and new roof framing, with piling installed through the floor slab to reach solid bearing soil.

The first engineering report

4.7 The civil engineer assessed the test pits with the second inspection company on 13 March 1997, and provided a report dated 27 March 1997. The civil engineer carried out soil tests in each of the interior and perimeter test pits, and confirmed the presence of a topsoil layer containing vegetation beneath the hardfill river gravel layer.

4.8 In relation to the perimeter foundations, the civil engineer considered that, while they:

> ...do not comply with the requirements of NZS 3604, they are not likely to settle in the long term, provided that they bear on the hard gravel layer around the full extent of the perimeter foundation.

4.9 In regard to the floor slab, the civil engineer considered that the topsoil soil layer was a serious problem, as the vegetation would decay over time and lead to settlement. The mesh reinforcing in the slab was also noted as having minimal cover, meaning that the slab was not suitable to use as a "structural slab".

4.10 The civil engineer recommended that:

> ...the floor slab be removed, the hardfill removed for possible reuse, and the topsoil layer excavated and removed from site prior to complete reconstruction of the hardfill, polythene DPC, and reinforced concrete floor slab.

4.11 I am not aware of any correspondence or discussion as a result of the above reports until late 1998, when the authority commissioned the third inspection company to 'establish the extent of non-compliance'.

The third inspection report

4.12 The third inspection company inspected the house on 24 November 1998 and provided the third inspection report to the authority dated 29 November 1998. The report noted no evidence of settlement in the foundations and floor slab.

4.13 The report identified the following areas that required attention:

- The loose tension bracing in the roof.
- The lack of seismic restraints to the header tank.

- The inadequate lintels.
- The inadequate joints in the weatherboards.
- The lack of safety glass where required.
- The roof fixings.
- Completion of the solid fuel heater installation.

4.14 The report made the following comments regarding the roof trusses:

> Roof trusses spaced at maximum spacing of 1050 mm centres…with minimum spacing of 500 mm centres at the west end. This spacing is within the requirements of NZS3604: 1990 and the Building Code which allows for spacing which will not exceed 1200 mm for light roofs.

4.15 In regard to the foundations and slab, the report noted that the truss roof structure was supported on exterior walls and perimeter foundations that are 300mm deep and founded onto pakihi soil according to the inspection record. The slab therefore did not need to be structural, which was provided for as an option within NZS 3604:1990.

4.16 The civil engineer responded to the above report in a letter to the applicant's lawyer dated 7 February 1999, noting that lack of settlement was due to the short time since construction as decay of vegetation would reduce the volume and density of the topsoil layer over a longer time. The civil engineer also stated that the required loadings for the concrete slab of a residential house imply that the slab is a structural element that relies on the interaction of the slab with the underlying soil for its cumulative strength and load-bearing capacity. The civil engineer maintained his initial stance that the slab would not perform adequately, noting:

> The presence of the organic topsoil under the floor slab is a significant problem, the rectification of which presents probably the most difficult and costly element of the repairs necessary...

4.17 The second inspection company also responded to the third inspection report in a letter to the applicant's lawyer dated 8 February 1999, noting that the building construction was required to comply with the consent documents under the terms of the contract as alternative solutions had not been approved by the applicant. The letter criticised comments made in the report, concluding:

> Having viewed [the third report] and the onsite discussions which took place on 29/4/98 I see no reason why I should change comments made in my original report.

The second engineering report

4.18 The applicant's lawyer subsequently engaged a geotechnical engineer to assess the ground conditions, the compliance of the foundations with the relevant standards and the Building Code, and to qualitatively assess the long term effect of any non-compliance.

4.19 The geotechnical engineer carried out site investigations on 13 May 1999, and provided a report to the applicant's lawyer on 21 May 1999. The geotechnical

engineer carried out soil tests that confirmed the presence of a topsoil layer containing vegetation beneath the hardfill river gravel layer.

4.20 The geotechnical engineer concluded that the floor slab and underlying soil generally do not comply with "appropriate codes and standards", due to:

- the presence of topsoil/organic soil
- the quality and installation of the granular fill beneath the slab
- the minimum concrete cover to the slab reinforcing.

The geotechnical engineer went on to assess the effects of each of these factors.

4.21 In regard to the topsoil, the geotechnical engineer noted:

- Soil strength was satisfactory when tested, but there is a significant potential for soil water content and strength to vary, at least on a short term basis.
- As foundation pressures are low, there is minimal potential for a bearing capacity type failure.
- There is a relatively limited potential for significant settlement, due to:
  - the light weight of the house
  - the thick layer of gravels, tending to span areas of softer ground
  - the limited depth of the topsoil layer.
- The topsoil layer may not cause any problems over the life of the structure, but it is extremely difficult to predict such settlements.

4.22 In regard to the granular fill, the geotechnical engineer noted:

- Such granular fill seldom causes problems with respect to settlement and strength, and its properties do not change with time or moisture content.
- The gravel's wide grading causes potential for water rise and the gravel may contain sufficient fines to allow water to rise up under the floor slab.
- The very coarse gravel beneath the slab increases the chance of damaging the vapour barrier under the slab.

4.23 In regard to the lack of reinforcing cover in the slab, the geotechnical engineer noted:

- The reinforcing is vulnerable to rusting and spalling.
- The danger is increased by the possibility of capillary rise under the slab.
- It is likely that the vapour barrier is damaged and may not control such water rise, which increases the risk of corrosion in the mesh reinforcing.

4.24 The geotechnical engineer concluded:

> As the load on the slab is small and the real extent of moisture at the underside of the slab is unknown, the floor slab may well perform satisfactorily. However [the geotechnical engineers] would not be prepared to certify that the slab will fulfil the NZ Building Code 50 year durability.

Miscellaneous documentation

4.25 Over the following years there was further correspondence, negotiation, proposals for remedial work, other offers and rejections, claims and litigation; all apparently without resolution.

4.26 During this period, it appears that a roof leak lead to a claim with the Weathertightness Homes Resolution Service ("WHRS"). Following an inspection by a WHRS assessor in July 2004, a "WHRS Building Survey Report" was produced. The WHRS assessor carried out a second inspection and an "Addendum Report" dated 7 February 2008 was issued. The second report stated that:

> A visual inspection of the interior (where accessible) in conjunction with non invasive moisture testing revealed no areas of concern other than the leak areas in the lounge and kitchen ceilings.
>
> Decay has occurred in a localised area in the ceiling plate, top plate, and is likely to extend into the lower member of the roof truss and jack studs above north facing windows.
>
> Further deterioration of ceiling and wall linings with associated deterioration of the framework will occur if roof leaks not attended to. Dampness and mould growth, potentially harmful to the occupant's health are also likely to occur.

The report also noted that there were localised areas of decay and deterioration adjacent to the garage door and roof.

> Ongoing deterioration of the exposed roofing underlay of the [garage] roof has occurred.

4.27 During the first inspection, a sample of lining was removed from the house which had a fungus attached to the back. On 27 July 2004, a laboratory analysis confirmed the mould as stachybotrys atra. Two samples of timber were also tested, and these showed that both boron treated and untreated timbers were used in the building's construction.

4.28 Two samples of framing timber were also removed from the garage area wall and were subjected to a laboratory analysis. One sample contained only small pockets of superficial early decay that would not pose an immediate danger. The second sample contained advanced soft rot decay and a low concentration of stachybotrys atra. It was noted that the condition of this sample 'was consistent with more than 5 years exposure to elevated moisture conditions conducive to decay'.

4.29 It is evident from these WHRS reports that no remedial work has been carried out to repair the leak or to have the mould removed in the 4 years between the issue of the two WHRS reports.

4.30 In July 2008, it appears that the authority contacted the applicant in regard to an inspection of the house, which the applicant agreed to in a letter to the authority dated 14 July 2008, subject to a list of 10 detailed conditions.

4.31 Responding in a letter dated 22 July 2008, the authority did not accept the applicant's conditions for a final inspection. The authority explained the process and procedures currently used for final inspections, noting that the inspection would assess the house against the 1994 requirements. The authority accepted that some matters needed to be attended to, but not all the matters identified in past reports were necessarily agreed with.

4.32 In an extensive reply to the authority dated 6 August 2008, the applicant listed relevant points in response to the letter's approach to aspects of the project's history. The applicant noted that the only viable option advised by consultants and the builder was to demolish the house and then to rebuild it, and advised that a determination would be sought as:

> ...I doubt any "inspection" or resultant issue of a Code Compliance Certificate will address the state of the building except in [the authority's] own favour.

4.33 The agent applied for a determination on behalf of the applicant, which was received by the Department on 11 September 2008. The application was not complete until the appropriate application fee was received and accordingly, the application was not accepted until 3 October 2008.

5. The submissions

5.1 In the applicant's submission dated 8 September 2008, the agent stated that the house is not compliant with the Building Code in multiple respects and is also an unsanitary building due to the presence of a toxic mould. The agent noted that the authority has been fully advised but has not undertaken the proper or appropriate action. The agent provided a detailed description of the background to the situation and the perceived failures of the authority with regard to the house construction. The application focussed on the authority's failures as an inspection authority, the relevant building standards, the current state of the house and the processes to achieve compliance, concluding:

> After a fourteen year lapse, it appears that [the authority] now wishes to undertake another inspection, but only on its own terms of reference and with only selective reference to independent building experts' findings. For the reasons set out, such an inspection would be self-serving, duplicitous and therefore unacceptable.

5.2 The agent forwarded extensive documentation, including copies of:

- some of the application and consent documentation
- the inspection records
- the correspondence with the authority
- the inspection reports and internal correspondence within the authority
- the engineering reports
- the two WHRS assessor's survey reports
- various other correspondence, statements and information.

5.3 The authority acknowledged the application on 7 October 2008, but made no submission.

5.4 Copies of the submission and other evidence were provided to each of the parties.

5.5 Copies of a draft determination were forwarded to the parties on 20 January 2009.

5.6 The applicant's agent provided another substantive and detailed submission dated 4 February 2009 in response to the draft. The applicant's initial concern was the decision in the determination to restrict the decision to the matters described in paragraph 1.3. The remainder of the submission raised a variety of matters. I have carefully considered these and taken those matters into account that I consider relevant and within the Chief Executive's powers under the Act to consider.

5.7 The authority made its initial and only submission dated 5 February 2009 through its legal advisors. The submission commented on the application and the draft determination. The authority considered the draft correctly identified the matters to be determined. The authority was prepared to abide by the determination process and the final determination decision (although in this regard I note that the authority does not accept that the slab is non-compliant). The authority also raised some matters which I summarise below:

- Regular maintenance had not been attended to properly on the house since it was constructed in 1993 to 1994.
- The authority did not accept that the concrete slab did not comply with the Building Code.
- The authority agreed that the building was not insanitary.

6. The expert's report

6.1 As discussed in paragraph 1.6, I engaged an independent expert to provide an assessment of the condition of the matters subject to the determination. The expert has a national diploma in construction management, is a technical expert for International Accreditation New Zealand, and is experienced in the field of building controls and the local government regulatory environment.

6.2 The expert reviewed the authority's property file and visited the house on 28 October 2008, furnishing a report that was completed on 16 November 2008. The applicant showed the expert two areas of damaged linings where leaks have occurred, one above the living room north wall and the other in the south wall of the kitchen.

6.3 The expert commented on certain aspects relating to some procedural matters. However, as I consider that these are not matters that I can determine, I have not summarised these comments nor taken them into consideration in terms of this determination.

6.4 The expert noted that, when the authority was advised that the building work was complete in 1994, the work to the wetback was, and still is, outstanding (along with a number of other areas). There has also been no inspection of the drainage work.

6.5 The expert also noted that as defects have become apparent no action has been taken to remedy them and the house has not been well maintained. A number of issues raised in the application relate to quality and workmanship matters that have no impact on code compliance.

6.6 Commenting specifically on the roof and wall claddings, the expert noted that:

- electrical wires penetrate the cladding, without sealing or fittings
- a waste pipe penetration is unsealed
- some weatherboard joints have opened
- the inadequate lintels in the gable ends have sagged, leading to cracks in some boards above the window heads
- the authority's inspection company has also identified the inadequate joints in some of the weatherboards and the inadequate lintels
- there are a number of loose and corroding roof fixings
- there are corroding rivets in the ridge flashing
- the junctions between the deck roofs and the main roof are not weatherproof, which has led to a leak in the living room
- sealant has failed at the end of the porch barge flashing and has allowed water into the kitchen wall
- although the flashing extension over the gutter appears to be weathertight, there are signs of rust where movement of the roof has scratched the flashing
- the roof penetration of the hot water relief pipe is not satisfactorily sealed.

6.7 The expert included the following comments in regard to the foundations and slab:

- The views in the consultants' reports are variable, and range from extreme to more balanced views.
- After being in place for more than 15 years, there are no obvious signs of significant settlement.
- While the organic topsoil layer is unlikely to cause significant problems in the longer-term, the reports establish that the foundations and floor slab may not meet the full 50-year expected life of the building.
- While the building is in no immediate or short-term risk of severe settlement, it may be necessary to monitor the condition in 10 years.
- Within both the 1991 and 2004 Acts, a building can be subject to provisions relating to a specified intended life. Such provisions can be a useful tool where there is some uncertainty related to the future of the building and may provide a way forward.

6.8 Commenting specifically on other areas of the building, the expert noted that:

- the laundry walls are unsealed, so not easily cleaned and impervious
- the bath surround is unsealed, and mould is apparent

- insulation has not been installed to the wall between the garage and a bedroom
- the bathroom glass is not marked as safety glass
- the wetback to the heater is incomplete.

6.9 Commenting on the durability of the claddings, the expert noted that the:

- dispute has run for an extended period of time, which means that many building elements have met or exceeded the required durability periods, and there is no evidence of maintenance being carried out on the house. The Building Code clause relating to durability requires normal maintenance, which is the owner's responsibility and is expected to include regular checking, washing and minor repairs as necessary
- roof and wall claddings were installed by October 1993, and are therefore about 15 years old, which is the minimum durability period required by the Building Code
- roof is easily accessible but is exposed to corrosive salt air, and requires some "basic" maintenance.

6.10 The expert included the following comments in regard to the insanitary aspects of the house:

- There is little evidence to suggest any danger to people within or near to the property.
- While the presence of toxic mould was identified, in the expert's opinion, the limited localised extent would not have made the building uninhabitable.
- There is no apparent deficiency significant enough to consider the building to be insanitary.

6.11 The expert included the following comments in regard to the building consents:

- The specifications were not specific to the house, with the plans appearing to be "off the shelf" and lacking relevant detail.

6.12 A copy of the expert's report was provided to the parties on 14 November 2008.

6.13 The applicant responded to the expert's report in a detailed submission dated 9 December 2008. In the main, the submission took issue with the expert's comments on the validity or otherwise of the authority's actions during the consent and construction process. However, as stated in paragraph 1.4 I have not taken into consideration the authority's actions. Therefore, I have disregarded these references in the expert's report and the applicant's submissions regarding them, in preparing this determination. I therefore summarise those parts of the applicant's submission that I consider to be relevant in terms of the determinable matters as follows:

- The house has never been completed.
- The documents were not adequate to ensure the building would comply with the Building Code at the time that the territorial authority granted the building consent, therefore the building consent should not have been issued. The

applicant in a later submission also maintains that neither the garage nor the deck additions should have been given building consents.

- The house should be classified as insanitary as it is "likely to be injurious to health because of the way it has been constructed, allowing moisture penetration and consequently the growth of toxic mould".
- There is no record of the authority considering that certain aspects of the house could be established as being alternative solutions.
- The floor slab and foundations are not code-compliant and the monitoring period as suggested by the expert was not appropriate.
- The deck roofs are not code-compliant, and as the garage was not completed, code compliance certificates should not have been issued for this building work.
- The roof has never complied with the Building Code requirements, nor would it if it were to be repaired.
- The house cannot be made code-compliant unless it is demolished and rebuilt.

6.14 The applicant also raised the matter of the authority not issuing a notice to fix which is discussed in paragraph 7.3.

6.15 A report from the applicant's building consultant was attached to the applicant's submission. As in the applicant's submission, there was much discussion relating to the obligations and actions of the authority, which are concerns that I am not authorised to address. I summarise the comments that are relevant to the matters to be determined as:

- The plans and specifications are deficient and the authority should not have issued the building consent based on this documentation.
- There are no details of the foundations on the consented plans. The consultant undertook some invasive testing of the foundations and this revealed either a lack of reinforcing steel slab starters, or if they have been installed, they are spaced too far apart. In addition, as the floor slab steel was sitting on the foundation wall, it did not have the required 50mm base cover.
- The crack in the floor slab indicated that the floor slab was not adequately tied into the foundations. Moisture entering this crack will eventually compromise the reinforcing mesh and foundation concrete.
- The roof structure now supports a light roof rather than the tiled roof indicated from an interpretation of the specification.
- There are downward deflections in both the north and south end walls.
- The struts have been removed from the gable end roof trusses and this has resulted in cracking and sagging of the walls above the joinery openings with the potential for moisture to enter the building.
- The soakers to the joints of the weatherboards are incorrectly installed and the weatherboards were not installed in the correct sequence or set out correctly.
- There are issues relating to the construction and fixing of the wall framing items.

7. Discussion

7.1 The Code compliance of the building elements in question

7.1.1 When considering aspects of code compliance for historic building work under the former Act, as in this determination, I must consider the building work in light of the Building Code in place at the time the building consent was granted. Section 436 of the Act addresses that particular requirement. The Building Code has changed over the years since it first came into being in 1992 and it cannot be expected, and indeed would be unlawful, for the current Building Code to apply retrospectively to building work authorised under an earlier version of the Code.

7.1.2 The application for determination and subsequent submissions relate to three building consents. The first was granted in 1993 and when assessing code compliance of this building work, I must consider the Building Code as it was at 13 August 1993. The second and third building consents were both granted in 1994 and when assessing code compliance of this building work, I have to consider the Building Code as it was at 29 April 1994.

The 1993 consent

7.1.3 Taking account of the expert's report, I conclude that the areas outlined in paragraph 6.6 are not code-compliant in terms of the former Act and the Building Code current at the time that the building consent was granted. This opinion is also verified by the applicant's building consultant who has raised these and additional issues as set out in paragraph 6.15. Consequently, I am satisfied that the house in respect of the elements referred to in these paragraphs does not comply with Clauses B1 "Structure", B2 "Durability", and E2 "External moisture" of the Building Code as it was in 1993.

7.1.4 I note the expert's comments as outlined in paragraph 6.7 and the other evidence provided by the engineers and the applicant's building consultant, and accept that the floor slab and foundations may not meet the minimum expected life of the building. Consequently, I am satisfied that, in this respect, the house does not comply with Clause B1 of the Building Code (which is the same today as it was in 1993).

7.1.5 Through the inspections conducted on his behalf, the applicant has also questioned the compliance of the roof structure, especially in regard to the truss spacing. I note that the truss spacing at 1025 mm centres varies from 900mm as specified in the building consent documentation. However, as noted in the third inspection report (paragraph 4.14), NZS 3604:1990 allows for a spacing of up to 1200 mm for the type of roof fixed to the house. I concur with the assessment in that report.

7.1.6 It is also maintained by the applicant that as the roof structure has changed from one supporting a heavy roof as set out in the consent to one supporting a light roof as constructed, the roof structure is non-compliant. I cannot accept that a change in design to a light roof necessarily makes the elements in question non-compliant. Accordingly, apart from those elements that may have to be replaced because of water damage and inadequate lintels, I accept that the roof structure as constructed is code-compliant.

7.1.7 In some other areas of the house, building elements are deficient and do not meet the 1993 Building Code or have not been satisfactorily completed. Taking account of the expert's report, I conclude that remedial work is necessary in respect of the areas outlined in paragraph 6.7. Consequently, I am satisfied that the house does not comply with following clauses of the Building Code current at the time that the building consent was granted:

- E3 "Internal Moisture"
- F2 "Hazardous building materials"
- G12 "Water supplies"
- H1 "Energy efficiency".

7.1.8 To summarise the above conclusions, I find that the house does not comply with Clauses B1, B2, E2, E3, F2, G12 and H1 as at the 1993 standard. It is not for me to decide whether rectification or demolition is required in order to meet the requirements of the Building Code. This is a matter that has to be decided between the parties.

The 1994 consents

7.1.9 In a submission dated 4 February 2009 the applicant has claimed that the roofing over the decks and garage that were consented in 1994 are not code-compliant as they are attached to the house in question and have defects. The expert has noted that the junction between the roofing and the house is faulty as there is leakage occurring, and in this respect, the roofing over the garage and decks are not code-compliant. As this is the case, I accept that the roofing in question does not comply with Clause E2 (at the appropriate 1994 standard).

Maintenance

7.1.10 In relation to the issue of whether the house complies with Clauses B2 and E2 of the Building Code (as it was in 1993), I have also considered the issue of maintenance. Building owners are responsible for effective maintenance of claddings to ensure ongoing compliance with these two Code clauses. The Department has previously described these maintenance requirements, including examples where the external wall framing of the building may not be treated to a level that will resist the onset of decay if it gets wet (for example, in Determination 2007/60).

7.1.11 In relation to the applicant's house, I note the expert's comments regarding the lack of maintenance and repairs by the applicant.

7.1.12 I note that there has been minimal maintenance carried out on the house and that the various leaks that have been identified have not been adequately attended to. For various reasons, and despite the first WHRS report in mid-2004, the applicant has taken no action over a period of years to have the one major leak, which has contributed to the major amount of damage and would be relatively easy to rectify, repaired.

7.1.13 The applicant also claims that because of ongoing disputes there was no obligation other than to carry out basic maintenance and the fibre-cement weatherboards were chosen because they were "maintenance free". According to the applicant's submission maintenance virtually ceased from 1996.

7.1.14 I do not accept that the fibre-cement weatherboards are 'maintenance free' as claimed by the applicant. The "Technical Specification" June 2005 provided by the manufacturer, and which includes rusticated weatherboards, states:

> As a guide it is recommended that basic normal maintenance tasks shall include but not be limited to:
>
> - Washing down exterior surfaces every 6 – 12 months,
> - Re-applying exterior protective finishes,
> - Maintaining the exterior envelope and connections including joints, penetrations, flashings and sealants,
> - Cleaning out gutters, blocked pipes and overflows as required,
> - Pruning back vegetation which is close or touching the building.

7.1.15 Despite the reasons that are given by the applicant, I am still of the opinion that a lack of repair and adequate maintenance may well have contributed to, or exacerbated, some of the faults and the deterioration that has occurred in the cladding of the building over the past 15 years.

7.2 Whether the building consents should be reversed

7.2.1 The applicant seeks to have the building consents reversed that were granted for the house in 1993 and the additions in 1994. While this matter was not raised in the original application, it was sought in subsequent submissions and accordingly, I consider it needs to be addressed.

7.2.2 The granting of a building consent is a statutory decision authorising particular building work to be undertaken. Where that decision has been relied and acted upon, I would require compelling evidence before me along with persuasive reasons before I would reverse that decision. This is especially so where a significant degree of time has elapsed.

7.2.3 In relation to the applicant's building consent for the house, I acknowledge that there has been evidence before me suggesting that the authority's decision in granting the consent was flawed in some respects. However, the fact remains that over 15 years have elapsed since the issue of that consent. In that time considerable building work has been undertaken in reliance on the consent. The result is that a house has been built and furthermore, has been occupied since then.

7.2.4 While the applicant seeks the unusual step to have his own building consent overturned, I consider that in the particular circumstances of this case, it would be unreasonable to now reverse the statutory decision made by the authority. This is especially so given the long history of reliance on the consent. Accordingly, I decline to reverse the building consents in this case.

7.3 The non-issue of a notice to fix

7.3.1 The authority has not issued a notice to fix in relation to the building.

7.3.2 The applicant has submitted that the authority has "chosen (ie made a decision)" not to issue a notice to fix and that it was required to do so under section 43(6) of the former Act when it received the applicant's Advice of Completion dated 29 September 1994 and then refused to issue a code compliance certificate. It was therefore submitted that it is a determinable matter in terms of section 177(b). I have not received a submission from the authority on this matter.

7.3.3 Contrary to the applicant's submission that the authority refused to issue a code compliance certificate, I have not had any evidence that a code compliance certificate was refused. Further, the only evidence I have seen that points toward any consideration of a notice to fix under the Act or a notice to rectify under the former Act in relation to the applicant's house is an officer's note on the property file in 1996 stating that a notice to rectify should be issued. However, I have not received any information as to whether the authority made any assessment or final decision to either issue a notice to rectify or a notice to fix at any time over the past 16 years since the house was built.

7.3.4 The fact a notice to fix or notice to rectify has not been issued, does not mean that it has been refused. A "failure to exercise" is distinct from a "refusal". Unlike the failure to exercise a power under the Act, such as the failure to exercise the power under section 124 relating to dangerous, earthquake-prone or insanitary buildings (which is clearly determinable in section 177(e) of the Act), a refusal requires the decision-maker to turn its mind to a statutory provision and make a decision. In relation to the issue of a notice to fix (or previously a notice to rectify), a territorial authority would need to consider, for example, the evidence before it as to whether the statutory test had been met and whether such a notice could be lawfully issued.

7.3.5 The matters that can be determined under 177(b) of the Act are quite clearly matters that relate to a "decision". I do not consider I am able to determine the non-issue of a notice to fix where no decision has been made as it is not within the determinable matters I am authorised to consider.

7.3.6 The fact that neither a notice to rectify nor a notice to fix has been issued in relation to the applicant's property cannot be construed as being a refusal to issue on the part of the authority. Neither do I accept that the applicant's references to avoiding unreasonable delay is relevant in this context. Accordingly, I am of the opinion that I am unable to determine this issue.

7.4 Is the building insanitary?

7.4.1 The Act sets out the tests to establish whether a building is insanitary under section 123. In the opinion of the expert, as outlined in paragraph 6.10, the house at the present time is not insanitary. The relevant test for whether the applicant's house is "insanitary" in terms of the Act is whether the building is offensive or likely to be injurious to health either because of how it is situated or constructed, or it is in a state of disrepair.

7.4.2 The applicant is of the opinion that the dwelling is likely to be injurious to health because its construction will allow the penetration of moisture that can lead (and has led) to the growth of toxic mould. The applicant has also referred to the authority's "Dangerous and Insanitary Building Policy, 2006 -2011" that sets out the authority's approach regarding these matters.

7.4.3 While, the laboratory tests described in paragraphs 4.27 and 4.28 confirmed the presence of a toxic mould, this appears to have been confined to just two specific areas where specific leaks were not rectified. Both of the WHRS reports described the work required to remove, replace, and rectify the affected elements. This work is related to two relatively confined locations, which represent a minor proportion of the entire structure.

7.4.4 Taking into account the relatively small locations where the toxic mould exists and that the defects in these areas can be easily rectified, I do not accept that the state of the houses reaches the threshold that would require it to be defined as insanitary at the present time in terms of section 123.

7.4.5 Even if the building was declared to be insanitary, in light of the nature of the work required to remedy it, the written notice in terms of section 124(c) would only require that work to be carried out. This would place the applicant in the same position as regards remedial work that is set out in paragraph 7.1.

7.4.6 I am therefore led to the conclusion that the authority was neither required to exercise its powers in terms of section 124(1)(c) in giving notice requiring the house to be fixed, nor in terms of such a notice including the demolition or partial demolition of the building in terms of section 127.

8. What is to be done now?

8.1 I acknowledge the power of the authority to issue a notice to fix, which may be appropriate to be issued requiring the current owner to bring the building up to compliance with the Building Code current at the time the house was constructed. The notice should identify the requirements needed to remedy the defects listed in this determination, and also refer to any further defects that might be discovered in the course of rectification. It is not for the notice to fix to specify how the defects are to be fixed. That is a matter for the current owner to propose and for the territorial authority to accept or reject. It is important to note that the Building Code allows for more than one method of achieving compliance.

9. The decision

9.1 In accordance with section 188 of the Building Act 2004, I hereby:

- determine that the building consents granted by the authority for the house in 1993 and the additions in 1994 should not be reversed
- determine that the house does not comply with Clauses B1, B2, E2, E3, F2, G12 and H1 of the Building Code as those clauses were in 1993 at the time that the building consent was granted

- determine that the attached roofing over the decks and garage does not comply with Clause E2 of the Building Code as those clauses were in 1994 at the time that the consents were granted
- determine that authority's decision to issue code compliance certificates for the attached garage and the decks be reversed
- confirm the authority's decision not to exercise its powers under section 124 in the context of an insanitary building.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing on 10 March 2009.

John Gardiner

Manager Determinations