

BEFORE THE NEW ZEALAND REGISTERED ARCHITECTS BOARD (NZRAB)

IN THE MATTER of The New Zealand Registered Architects Act 2005 ("Act")
and The New Zealand Registered Architects Rules 2006
("Rules")

and

IN THE MATTER of a complaint by (deleted) against (deleted) Registered
Architect

DATE OF HEARING: 29 March 2017

VENUE: Auckland Rose Park Hotel, 92 Gladstone Road,
Parnell, Auckland

BOARD MEMBERS PRESENT FOR THE DISCIPLINARY HEARING

- Warwick Bell (Chair)
- Louise Wright
- Marc Woodbury

The Board members above form a quorum in accordance with section 29 of the schedule to the Registered Architects Act 2005.

COUNSEL FOR THE ARCHITECT: Don MacRae

LEGAL ASSESSOR TO DISCIPLINARY HEARING: Terry Sissons

OTHER PERSONS PRESENT:

- Andrew Symonds, Clerk of the Hearing & Executive Officer New Zealand Registered Architects Board (NZRAB)
- Jacqui Kennedy, Stenographer
- (deleted)
- (deleted)
- (deleted)

RELEVANT SECTIONS OF THE REGISTERED ARCHITECTS ACT 2005:

Sections 24 - 26

RELEVANT RULES FROM THE REGISTERED ARCHITECTS RULES 2006:

Rules 49 and 72 – 78

DECISION OF THE BOARD

The Complaint

1. An Investigating Committee of the NZRAB has referred to a Disciplinary Hearing (deleted)'s complaint relating to the design detail of the architectural work undertaken by (deleted) which alleges that:
 1. The Registered Architect has breached the code of ethics contained in the rules, being Rule 49 care and diligence '*A registered architect must perform his or her professional work with due care and diligence*' in breach of Registered Architects Act 2005 – Section (1)(b); and
 2. The Registered Architect has practised as a Registered Architect in a negligent or incompetent manner in breach of Registered Architects Act 2005 – Section (1)(c).

Particulars

2. During the period October 2014 – June 2015 (deleted)'s company provided architectural services including the design development and documentation for Building Consent and construction, to (deleted) for a new house at (deleted) ("the project").
3. At all material times (deleted) was a New Zealand registered architect residing in (deleted).
4. (Deleted)'s original complaint was concerned with the following matters:
 - i. Detailed design work being non-compliant (with codes) or having serious short-term maintenance problems;
 - ii. Architect assigned architectural work to a person who was not a registered architect;
 - iii. Agreement for services not agreed;
 - iv. Architects fees exceeding what was agreed in the fee proposal.
5. The Investigating Committee having considered these items came to the view in regard to items ii., iii. and iv. that there were no applicable grounds of discipline under

Section 25(1)(a) to (d) and they should be dismissed. Item i. was referred to the Discipline Hearing as set out above.

6. The Chair of the Hearing stressed in opening remarks that the hearing was to consider only item i. of (deleted)'s complaint; and that both (deleted) and (deleted), notwithstanding that the matters of items ii., iii. and iv. formed background to item i., should limit their submissions to matters relevant to item i.
7. (Deleted)'s complaint relating to the design detail of (deleted)'s work alleges that he performed his professional work without due care and diligence and/or practised as a registered architect in a negligent or incompetent manner.
8. (Deleted) relies upon the following allegations which were particularised at a pre-hearing teleconference:
 - a) The Building Consent drawings, do not appear to comply with Building Codes and/or have long term problems with respect to maintenance with respect to the second-floor roof terrace design. There is an up-stand steel beam seriously restricting the discharge of water from the terrace roof to the hopper. The work is not coordinated with structural engineer's drawings which have led to the redesign of the second-floor roof slab, screed and drainage.
 - b) The selection of the Cedar vertical cladding system and the detail design requiring RAB was developed without proper consideration with respect to long term maintenance and cost. My request by email to consider larch timber, a board and batten system suitable in high wind zones was ignored.
 - c) Drawing A-312. Horizontal and Vertical cold bridging is not detailed to provide adequate insulation beneath the Stahlton floor ribs. Adding insulation below the beams has implications to the vertical shiplap weatherboard as well as the window head detail and internal ceiling spaces, all of which should have been properly considered by the architect.
 - d) D - The design of the butterfly roof with a restrictive gutter would appear to be an on-going maintenance issue. According to Mr McDonald's first report the gutter is incorrectly indicated as a Valley Gutter and detailed to accord with Fig 51E2/AS1 when it should have been indicated as an Internal Gutter and detailed in accord with Fig 52 E2/AS1
 - e) E – No ventilation or vapour control layers have been provided to the roof cavity which, combined with ceiling penetrations and a low-pitched roof, will adversely affect the risk of condensation build up in the roof void.
9. (Deleted)'s counsel confirmed the (deleted) agreed that the Board has jurisdiction over the complaint as particularised.

10. When asked (deleted) denied that he performed his professional work without due care and diligence. He further denied that he had practised as a registered architect in a negligent or incompetent manner. He further denied that he had performed his professional work without due care and diligence nor had practised as a registered architect in a negligent or incompetent manner with respect to each of the above points a) to e) as alleged by (deleted).

Section 25 of the Act and Clause 49 of the Code

11. Section 25(1)(b) of the Act provides:

"25. Grounds for discipline of registered architects

(i) *The Board may (in relation to a matter raised by a complaint or by its own inquiries) take any of the actions referred to in section 26 if it is satisfied that -*

...

(b) *A registered architect has breached the Code of Ethics contained in the Rules; or*

(c) *A registered architect has practised as a registered architect in a negligent or incompetent manner; or.....*

12. Clause 49 of the Rules provides:

"Standards related to client

49 Care and diligence

A registered architect must perform his or her professional work with due care and diligence."

The Evidence Produced in Relation to the Complaint

13. The following information was produced and presented:

1. Bundle of Documents assembled by NZRAB (known as the black folder);
2. 3 bundles of documents assembled by NZRAB (known as the white folders);
3. Email submission of (deleted) dated 16th March 2017 with NZ Metal Roofing Manufacturers ' NZ Metal Roof and Wall Cladding Code of Practice version 2.2/2012;
4. Email submission of (deleted) dated 17th March 2017 with Herman Pacific ' Board and Batten and Reverse Board and Batten Cavity System Installation Specification';
5. MBIE document 'Acceptable Solutions and Verification Methods for New Zealand Building Code (NZBC) Clause E1 Surface Water';
6. MBIE document 'Acceptable Solutions and Verification Methods for New Zealand Building Code (NZBC) Clause E2 External Moisture';
7. Final Pre-hearing submission by (deleted) dated 24th March 2017;
8. Chair of Discipline Hearing Opening Remarks;

9. Statement of Evidence of (deleted);
10. Statement of Evidence of (deleted);
11. Bundle of drawings tabled by (deleted) being an A3 set of the Building Consent drawings previously provided as A4's in the above bundles;
12. Bundle of drawings tabled by (deleted) being a copy of the Building Consent drawings prepared by others after (deleted)'s appointment had been terminated;
13. A letter from the Structural Engineer, (deleted) tabled by (deleted);
14. A letter from (deleted), (deleted), Roofing Steel & Tube dated 23rd March 2017;
15. Transcript of Hearing;
16. Information from Mr Don MacRae in response to request for further commentary from Steel & Tube representatives;
17. Information from (deleted) in conjunction with above item concerning clarification of items at the hearing being Drawing A350 and Drawing A312;
18. Email from (deleted) dated Thursday 27th April 2017 in response to the above item;
19. Information from Mr Don MacRae on behalf of (deleted) in response to request for information concerning the Building Consent Application, Auckland Council RFI and TOA response to RFI;
20. Information from (deleted) in conjunction with above item concerning additional communications between himself and (deleted).
21. Information from Mr Don MacRae on behalf of (deleted) in response to request for comment concerning compliance of both E1/AS1 and E2/AS1.
22. Email from (deleted) dated Tuesday 25th July 2017 in response to the above item.

Legal submissions and directions

14. The following submissions and directions were received:
 1. Directions of Legal Assessor to the New Zealand Registered Architects Board (the Board).
 2. Submissions of Counsel for (deleted).

15. Mr Sissons advised that the burden of proof is on the complainant; and that it is for the complainant to establish the complaint against (deleted) and to provide evidence that proves the facts on which the complaint is based.

16. He further advised that in professional disciplinary cases the appropriate standard of proof, is proof to the satisfaction of the tribunal on the balance of probabilities; and that the approach is as set out in *Re H* [1996] AC 563 at 586, per Lord Nicholls of Birkenhead:

"The balance of probability standard means that a court is satisfied an event occurred if the court considers that, on the evidence, the occurrence of the event was more likely than not. When assessing the probabilities the court will have in mind as a factor, to whatever extent is appropriate in the particular case, that the more serious the allegation the less likely it is that the event occurred and, hence, the stronger should be the evidence before the court concludes that the allegation is established on the balance of probability."

17. Mr MacRae submitted from *R v Institute of Chartered Accountants in England & Wales* that:

"The primary purpose of professional disciplinary proceedings is not to punish but to protect the public, to maintain the public confidence in the integrity of the profession and to uphold proper standards of behaviour".

18. Mr Sissons advised that credibility may be an issue for the Board to consider, highlighting findings made by the Health Practitioners Disciplinary Tribunal in *Dawson*, Decision No. 300/Nur09/13P at paragraphs 19-21, in particular:

*"20. What is involved in any test for 'credibility' was articulated by a Canadian Appellate Court (in **Farynia v Chorny** [1952] 2 DLR 354 (BCCA)) to be that the real test of the truth of the story of a witness must be at harmony with the preponderance of the probabilities which are practical, and which an informed person would readily recognise as reasonable in that place and in those conditions.*

21. So, the Tribunal, where relevant, must consider such factors as:

- 21.1 *The witness' manner and demeanour when giving evidence.*
- 21.2 *Issues of potential bias – to what extent was evidence given from a position of self-interest.*
- 21.3 *Internal consistency – in other words was the evidence of the witness consistent throughout, either during the hearing itself, or with regard to previous statements.*
- 21.4 *External consistency – in other words, was the evidence of the witness consistent with that given by other witnesses.*
- 21.5 *Whether non-advantageous concessions were freely tendered."*

Submissions and directions as to Due Care and Diligence

19. Mr Sissons noted in relation to Rule 49: Care and Diligence, that neither the Act nor the Code defines due care and diligence. While the phrase "due care and diligence" appears in various pieces of legislation and Codes of Conduct for various professions

it has not been judicially defined. Whether a person has exercised due care and diligence is usually evident from the factual circumstances of the case.

20. He noted the definition in the Boardworks International Chapter "*Those inescapable Directors' Duties*" under the heading "*Acting with due care and diligence*":

"Whereas it would be clear when a director had breached any of the previous duties, whether or not a director acted with due care and diligence is a matter of judgement. In essence this duty focuses on the amount of skill, experience, expertise and integrity brought by the director to his or her role.

The statutory duty of care and diligence requires that a director must exercise their duty and responsibilities of care and diligence in the same manner as would any reasonable person who was a director of an organisation in similar circumstances or who held an office holder position similar to that held by the alleged offender. The test then would be whether or not the person acted in a reasonable manner given their knowledge and the expectations held of any person in the same position."

21. He also drew attention to the UK Court of Appeal decision in *HMRC v Kearney* [2010] S.T.C. 1137 where Arden, LJ explained the test for "*due care and diligence*" in the following terms

"[27] ... lack of care means lack of concern, whereas diligence means a failure to apply oneself to the issue ... it is not possible to define all the circumstances that will meet the second condition [being the requirement to exercise due care and diligence]. In part what is due care and diligence in any set of circumstances will depend on the obligations of the person being considered".

22. Mr Sissons advised that the test for determining whether a registered architect has performed his or her professional work with due care and diligence must be judged at the time the work was done by the architect and not with the benefit of hindsight.

23. Mr MacRae noted *Collie v Nursing Council* [20]

"[20]. The question is not whether an error was made but whether the practitioner's misconduct was an acceptable discharge of his or professional obligations with the threshold being inevitably one of degree, and with the proviso that 'obligations' may well arise other than in actual professional activity, but which still impinge upon a professional's wider duties'.

Submissions and directions as to Negligence and Incompetence

24. Mr Sissons advised that negligence and incompetence involve similar concepts to failing to act with due care and diligence and that practising as a registered architect means pursuing or being engaged in the profession of a registered architect – an ongoing activity in which the person is customarily or usually engaged. Whether an architect has practised as a registered architect in a negligent or incompetent manner depends upon whether, in carrying on his or her profession he or she has failed to exercise that degree of skill and care which is ordinarily exercised by reasonably competent registered architect.

25. The test is an objective one and refers to the profession as a whole and not a subjective test referring to the person complained about. He highlighted the learned authors' of Jackson & Powell on Professional Liability (Seventh edition) formulation of the standard of skill and care, where allegations arise in respect of professional negligence:

"It is therefore suggested that the standard of skill and care which a professional person is required to exercise may be defined as follows: that degree of skill and care which is ordinarily exercised by reasonably competent members of the profession, who have the same rank and profess the same specialisation (if any) as the defendant." (para 2 – 131, page 79).

26. Mr MacRae submitted two cases. From *Collie v Nursing Council* [21]

"[21] Negligence or malpractice may or may not be sufficient to constitute professional misconduct and the guide must be standards applicable by competent, ethical and responsible practitioners and there must be behaviour which falls seriously short of that which is to be considered acceptable and not mere inadvertent error, oversight or for that matter carelessness".

emphasising that underlined and from *Beattie v Far North District Council* [44] and [46]

"[44] In my view a "negligent" manner of working is one that exhibits a serious lack of care judges by the standards reasonably expected of such practitioners, while and "incompetent" manner of working is one that exhibits a serious lack of competence. ...

[46] The approach I have adopted recognises that the terms "negligent" and "incompetent" have a considerable area of overlap in their meanings, but also have a different focus – negligence referring to a manner of working that shows a lack of reasonably expected care, and incompetence referring to a demonstrated lack of reasonably expected ability or skill level'.

27. The Board has applied those legal principles in its deliberations.

Deliberations as to Relevant Facts

Item A.

28. This item deals with three related concerns:

- i. The Building Consent drawings, do not appear to comply with Building Codes and/or have long term problems with respect to maintenance with respect to the second-floor roof terrace design.
- ii. There is an up-stand steel beam seriously restricting the discharge of water from the terrace roof to the hopper.
- iii. The work is not coordinated with structural engineer's drawings which have led to the redesign of the second-floor roof slab, screed and drainage

29. (Deleted) as witness for (deleted) gave evidence that the top flange of the 300 deep PFC needs to be amended to ensure there is no conflict at the [scupper] outlet, and that this issue commonly arises in the construction industry. He considered it as a minor issue that can easily be dealt with by the architect/structural engineer/contractor prior to fabrication work. Furthermore if it had not been picked up at shop drawing stage the issue would readily have been picked up and dealt with on site by either the builder or the engineer.

30. Under questioning (deleted) acknowledged with respect to details on Drawing A350 that:

- i. The decking timber was running the wrong way in terms of the NZBC;
- ii. The set-down from the internal floor slab and deck needing to be 100mm was not communicated on the drawings though it scaled approximately as this;
- iii. The gutter detail did not comply with E2/AS1 but was designed in accordance with E1/AS1, as were the deck falls;
- iv. That the wider section of roof fall, not documented, which compounds issues of gutter depths was potentially another item that he would have revisited;

- v. That the 1:60 fall to the gutter would have resulted in the gutter depth being into the topping slab of the stahlton and therefore the gutter should have been a 1:100 which would be code compliant;
- vi. As well as the lack of coordination of the 300 PFC, noted in para 29 above, that there was a lack of coordination between the architectural drawings and the structural drawings concerning the concrete block work and a 380 PFC.

31. During questioning on the matter of the roof fall design (deleted) confirmed he believed all the roof falls and gutters were designed to E1/AS1. The Board noted in the hearing it had confirmed to its best knowledge at that time that in using E1/AS1, there was still a requirement to meet E2/AS1. E2/AS1 Clause 8.1.6 a) states '*be to the minimum dimensions shown in this Acceptable Solution or calculated to E1/AS1, whichever is the greater*'.

32. The gutter, as documented on TOA drawing A-350, appears to comply with E1/AS1 in regard to cross sectional area of 4000mm² (width of 200mm and assuming a depth of 25mm giving cross sectional area of 5,000mm²); but E2/AS1 requires a minimum width of 300mm x depth of 50mm giving a cross sectional area of 15,000mm². So the gutter does not comply with E2/AS1.

33. During its deliberations there was extensive consideration by the Board regarding compliance with both E1/AS1 and E2/AS1 on this Item which also relates to Item D. This is addressed under Item D and conclusions reached by the Board under Item D inform the Board's decision under Item A.

34. In tabling a copy of the subsequent Building Consent documents (refer para 13, item 12 above) (deleted) noted the falls had been consented by the Council. (Deleted) submitted that he was not sure of the relevance of these drawings. The Board agreed with this view. The Board notes that in NZRAB publications (Cautionary Note No.6) it states on matters similar to this that '*it is no defence to say that because a detail has a Resource Consent or a Building Consent that makes the design acceptable when it is not*'. Building Consent approval does not discontinue the obligation for an architect to ensure that the design and documents for construction meet the Building Code and are proper for the purpose intended.

35. On the matter of whether the drawings had been checked prior to being submitted for Building Consent (deleted) confirmed he had checked them. He also indicated that

he was aware there were some items to be coordinated with the structural engineer and he intended to attend to these before construction commenced.

36. (Deleted) also confirmed that while (deleted) had requested a fee to continue with observation of the project during construction, (deleted) had suggested it would be minimal involvement, potentially when (deleted) was overseas. (Deleted) acknowledged in preparing the drawings that there was no guarantee that he would be on site when this part of the building was constructed.

37. Subsequent to the hearing (deleted) provided evidence that drawing A350 had shown a 250 PFC which did not clash with the scupper detail when first submitted with the Building Consent application, however during the processing of the Building Consent application this drawing was superseded by A350 Rev1 and the PFC changed to a 300 PFC protruding through the scupper.

38. The Board is of the opinion that while some level of coordination could be expected on site as stated by (deleted), in the situation that (deleted) was not necessarily undertaking site observation, or contract administration, (deleted) could have reasonably expected that (deleted) would provide a set of Building Consent drawings that were coordinated with respect to structure and architectural matters at the time that the Building Consent was applied for or when additional / revised information was submitted during the Building Consent application processing.

39. In respect of item A the Board is satisfied that the Building Consent drawings, do not comply with the Building Code, have long term problems with respect to maintenance and the work is not coordinated with structural engineer's drawings which have led to the redesign of the second-floor roof slab, screed and drainage.

Item B.

40. On this item (deleted) was concerned with the selection of the Cedar vertical cladding system and that the detail design requiring RAB was developed without proper consideration with respect to long term maintenance and cost. He was also concerned that his request to consider larch timber, a board and batten system suitable in high wind zones was ignored.

41. He provided commentary that 'burnt' larch was used extensively in Europe and that it was a suitable product given the chemical transformation in the timber from the burning process.
42. (Deleted) provided evidence that the cedar system was compliant with the NZ Building Code and from his experience was a suitable product which needed little maintenance.
43. (Deleted) provided evidence that larch or burnt larch is not a product generally used in NZ so he was not comfortable or confident to specify or detail it on (deleted)'s project.
44. Both (deleted) and (deleted) provided commentary that the exterior cladding of the house was the matter of on-going design development. The Board is satisfied that (deleted) had provided a request for (deleted) to consider larch in early December 2015 but given the timeframe for submitting consent drawings and the lack of documentation available certifying burnt larch as a suitable product in NZ, that submitting the Building Consent documents with cedar was appropriate.
45. There were subsequent discussions after the Building Consent application was lodged in regard to using cedar, arising particularly from (deleted)'s maintenance concerns and the cost of using RAB board. (Deleted) indicated that his firm had started the adjustments to the drawings for burnt larch when (deleted) requested consideration of zinc and stone cladding and subsequently cancelled their engagement.
46. In regard to the use of RAB board (deleted) indicated that the use of RAB board was considered sensible and robust detailing given the wind zone of the site and adjacent sites.
47. The Board is satisfied that the selection of the Cedar vertical cladding system and the detail design requiring RAB was developed with proper consideration with respect to long term maintenance and cost. The Board is also satisfied that (deleted) did not ignore the request to consider larch timber.

Item C.

48. On this item (deleted) was concerned that horizontal and vertical cold bridging is not detailed to provide adequate insulation beneath the Stahlton floor ribs, as reflected in details on Drawing A-312. He had noted that adding insulation below the beams has implications for the vertical shiplap weatherboard as well as the window head detail and internal ceiling spaces, contending that all of these should have been properly considered by (deleted).
49. It was noted at the hearing that an H1 calculation had been undertaken and submitted as part of the Building Consent documents. The calculations nominated that insulation should be provided continuously beneath the stahlton floor beams, which is not the case of the detail on Drawing A-312. Furthermore that 200mm insulation was specified and the stahlton ribs are 125mm. (Deleted) acknowledged this was a bit of an oversight but noted that they had probably over-insulated the house in terms of H1 calculations which would compensate. However when it was noted that the reference building has a total heat loss of 864.3 and the heat loss in the proposed building is 844.9, giving a low tolerance, The OPA Architects website describes you as a "Graduate Architect".
50. (Deleted) gave evidence he sought advice from (deleted) of Norman Disney Young, an authority in the field of condensation and humidity. (Deleted)'s analysis showed *'that assuming the building is being used as would be considered normal use for this type of building and within the range of normal weather conditions in its location, then interstitial condensation should not occur'*. (Deleted) concluded that in his opinion the lack of insulation beneath the stahlton beams is not an issue that constitutes non-compliance with the NZ Building Code.
51. Subsequent to the hearing (deleted) provided clarification that the H1 calculation was based on insulation between the stahlton ribs and met the minimum requirement of the NZBC. The Board accepts this position.
52. Further discussion on the detail on Drawing A-312, in addition to the position of the insulation, highlighted that:
- i. (deleted)'s concern about the head fixing of the window was justified in that the timber at the head was not continuous, being placed between the beams.

- ii. There was no reference on the drawing to how this timber would be fixed in place;
- iii. The Board had concerns at the design of the soffit being fixed through ventilated cavity battens and potential for water ingress, especially given the lack of a drip edge to the exterior cladding below the soffit line. (Deleted) acknowledged this detail could be improved. While (deleted) observed that a drip edge would be preferable, he thought the cavity would provide a sufficient air pocket to prevent water ingress. The Board is not convinced about this as the air pocket is not sealed at the rear.
- iv. The detail showed that the cavity battens on both the wall and soffit on the outer corner were fixed inappropriately with nails through the steel PFC.

53. The Board also notes (deleted)'s concern in his earlier submissions that the window head position in the detail was not coordinated to enable a ceiling, not shown in the detail, to be installed in the internal space. Furthermore the detail lacked interior linings which had the potential to clash with the structural PFC at the edge of the stahlton floor.

54. During questioning by the Board (deleted) indicated that he believed given the evidence that the detail technically complied but that there are 'moments' when it could be improved.

55. The Board is satisfied that while the lack of continuous insulation should not be significant in the event of this detail being constructed, (deleted) could have reasonably expected better coordination of the detail. Many aspects of this detail, including structure, framing, weather-tightness, fixings and interior works were not sufficiently considered with due care and diligence by (deleted) in his review of the drawings.

Item D.

56. On this matter (deleted) contends that the design of the butterfly roof with a restrictive gutter would appear to be an on-going maintenance issue, especially clearing leaves from a nearby oak tree. He observed that, in his first report, Mr McDonald, the expert witness engaged by the Investigating Committee, said that the gutter is incorrectly indicated as a Valley Gutter and detailed to accord with Fig 51

E2/AS1 when it should have been indicated as an Internal Gutter and detailed in accord with Fig 52 E2/AS1.

57. (Deleted) gave evidence that in his opinion the gutter was an internal box gutter and would be better to have been detailed with a larger opening in accordance with Fig 52 E2/AS1. He gave further opinion that like item A that this was not a major issue to resolve and could have been dealt with on site and he would have expected the roofing contractor to raise this issue before the roof was constructed.
58. (Deleted) also gave evidence that the gutter was designed to E1/AS1 and complies with that code. As well it has a greater 1:50 fall which would assist with scouring. Mr MacRae tabled a letter from Steel & Tube (refer Clause 13 item 14 above) confirming that gutter cross sectional area complies.
59. The gutter, as documented on TOA drawing A-333, appears to comply with E1/AS1 in regard to cross sectional area of 10,000mm² (width of 250mm and assuming a depth of 50mm giving cross sectional area of 12,500mm²); but in regard to E2/AS1 that requires a minimum width of 300mm x depth of 70mm giving cross sectional area of 21,000mm² so does not comply with E2/AS1.
60. Subsequent to the hearing the Board sought clarification from Steel & Tube representatives as to whether they were aware of the E2/AS1 requirement and that the gutter proposed by (deleted) did not comply with E2/AS1, requesting them to reconcile their advice. (Deleted) of Steel & Tube replied they were aware of the E2/AS1 requirements and that they consider *"that Acceptable Solution E1/AS1 is the primary reference for the sizing of gutters. We appreciate that while E2/AS1 also provides some solutions relating to other clauses of the NZBC (including E1, B1 & B2), and have been advised by MBIE that that compliance with either solution will demonstrate compliance with the NZBC"*.
61. Subsequent to the hearing the Board also requested to sight a copy of the Building Consent application. This clearly shows that the details of the house were intended to comply with E1/AS1 and E2/AS1 and that no Alternative Solutions were proposed to meet the Building Code compliance with Clauses E1 and E2. See figure 1 taken from the Building Consent application.

access			
E1 Surface water	<input checked="" type="checkbox"/> E1/AS1	<input type="checkbox"/> E1/VM1	<input type="checkbox"/> G6/AS1
	<input type="checkbox"/> Other		<input checked="" type="checkbox"/> Other
E2 External moisture	<input checked="" type="checkbox"/> E2/AS1	<input type="checkbox"/> E2/AS2	<input checked="" type="checkbox"/> G7/AS1
	<input type="checkbox"/> E2/AS3 Other		<input type="checkbox"/> Other
E3 Internal moisture	<input checked="" type="checkbox"/> E3/AS1		<input type="checkbox"/> G8/AS1 <input type="checkbox"/> NZS 6703
		<input type="checkbox"/> G8 Artificial light	

Figure 1. Extract from Building Consent Application

62. In regard to compliance with both E1/AS1 and E2/AS2 the Board sought advice from Ministry of Business, Innovation and Employment (MBIE) and spoke to (deleted), Registered Architect and MBIE employee, who looks after the E2/AS1 document. He advised that E1/AS1 deals with capacity and how to deal with certain flows of water. It does not explain how to make the gutter. How to do that is set-out in E2/AS1 and accordingly compliance with E2/AS1 is still required if E1/AS2 is used unless an Alternative Solution under NZBC is pursued. This is particularly the case if in applying for a Building Consent it has been indicated that the design is in compliance with E2/AS1. He further confirmed that both these two documents are means of compliance respectively with the Building Code Clause E1 Surface Water and Clause E2 External Water functional requirement and performance.

63. The particular E1 Performance is E1.3.2 'Surface Water, resulting from an event having a 2% probability of occurring annually shall not enter buildings' and E1.3.3 'Drainage systems be constructed to (a) Convey surface water to an appropriate outfall using gravity flow where possible; (b) Avoid the likelihood of blockages, ...'. The particular E2 Performance is E2.3.1 'Roofs must shed precipitated moisture. ...'.

64. The Board sought further comment from both (deleted) and (deleted) on the matter of complying with both E1/AS1 and E2/AS1 with submissions being received from both parties. Mr MacRae on behalf of (deleted) reiterated the evidence previously presented and provided additional commentary from (deleted) and (deleted) of Steel & Tube. (Deleted) noted their advice on the topic was received from the then Department of Building and Housing (DBH) and that (deleted)'s design complies with E2/AS1 clause 8.1.6.1 d). He also highlighted (deleted) is currently (deleted) of the Technical Committee of the NZ Metal Roofing Manufacturers Association who are responsible of the Metal Roofing Code of Practise. (Deleted) advised he disagreed with (deleted) on compliance with both E1/AS1 and E2/AS1 on three grounds:

- i. Precedence – there are other examples where Acceptable solutions are in conflict and compliance with both is not required;

- ii. Intent – he had pointed out discrepancies previously and been told [by a DBH / MBIE representative] that ‘with either Acceptable Solution you are deemed to comply with the Code, so either solution can be given as proof of compliance’;
- iii. Logic – the minimum dimensions in E2/AS1 have no logic or explanation.

65. (Deleted) reiterated the issue with the neighbouring oak tree, there being ‘a considerable number of leafs which would potentially cause blockages...’ and stating that ‘Even if (deleted)’s design was compliant, it does not mean it is correct’.

66. The Board notes the conflicting evidence around compliance with both E1/AS1 and E2/AS1. It is clear to the Board that compliance is required with the Building Code Clauses E1 and E2. The respective Acceptable Solutions are means by which compliance is achieved with those Clauses unless other means of compliance are explained. (Deleted) has indicated on the Building Consent application, by ticking the boxes, that the design, as documented relies on E1/AS1 for compliance with Building Code Clause E1, and E2/AS1 for compliance with Building Code Clause E2, and he has not submitted any other documentation as part of the consent application which limits this reliance.

67. Notwithstanding the point made in No31 above, on the matter of (deleted)’s submission that the gutter complies with E2/AS1 Clause 8.1.6.1 d), the Board notes that clause refers to Figure 52. That Figure includes the comment that ‘Gutter depth calculated from E1/AS1’ however Note 2 under Figure 2 clearly states ‘(2) Internal gutter shall be sized to suit the roof catchment area, but shall be no less than shown in this figure’. That requires an overall minimum width of 300mm and minimum depth of 70mm plus 20mm minimum freeboard in addition to gutter capacity. The Board is satisfied that (deleted)’s design does not meet this requirement.

68. In reviewing these various matters, the Board considers (deleted) has not demonstrated in the Building Consent application and documents that the design meets the Building Code E2 requirements (by complying with the acceptable solution E2/AS1). However we accept there is some confusion in the wider industry on the compliance and relationship of the two relevant E1 and E2 acceptable solutions which does not help understanding of this matter. Nonetheless the Board notes there remains an issue of the design with respect to maintenance, given the potential of leaves blocking the gutter opening and being able to be clean out the gutter easily.

69. Further discussion on this detail highlighted that both the architects and engineers drawings showed steel fins for fabricating the roof, nominating a 190mm min distance at the flange beneath the gutter. The architectural detail of the gutter only showed the minimum depth of the gutter which generated the 190mm min flange depth.
70. When asked to calculate the fall of the gutter (deleted) assessed this at 160mm which would mean the minimum flange depth would be reduced by approximately 120mm giving a depth of 70mm which is not practical. (Deleted) advised an alternative would be to lift the roof joists. This would have increased the thickness of the roof and impacted on the look of the roof that both (deleted) and (deleted) had attempted to achieve.
71. It was also observed by the Board that the rainwater head to this gutter was not detailed and given the alignment of the gutter to the exterior wall below, there would be specific detail implications to be addressed.
72. The Board is satisfied that, notwithstanding (deleted) had calculated the capacity of the gutter, (deleted) could have reasonably expected (deleted) to have applied greater care and diligence in considering the design and construction of the butterfly roof, its gutter falls and rainwater head, ensuring the structural framing was coordinated with gutter falls and that the width of the roofing opening enabled easier maintenance of the gutter.

Item E.

73. On this matter (deleted) raised concern that no ventilation or vapour control layers have been provided to the roof cavity which, combined with ceiling penetrations and a low-pitched roof, will adversely affect the risk of condensation build up in the roof void.
74. (Deleted) gave evidence that he sought advice from (deleted) of Norman Disney Young on this matter too and that, in his opinion and (deleted)'s analysis, it is not an issue that constitutes non-compliance with the Building Code.
75. He further observed that the ceiling lining is plywood with glue layers in it and that is saving the situation here by acting as vapour barrier.

76. There was further discussion on the ventilation issue with (deleted) advising that (deleted) contended that there was sufficient ventilation being a butterfly roof not sealed at the top edges. He stressed that in a marine environment opening up the roof more than that will lead to [salt] attack of the steel frame.
77. On the additional matter of the steel frame within wall cavities (deleted) gave evidence that he was always careful to ensure the steel is clear of the external cladding / RAB. (Deleted) acknowledged that his drawings did not show this matter being specified or highlighted to the Council or builders.
78. The Board notes the evidence of (deleted) that in his opinion the provision of a plywood ceiling lining has mitigated the risk of condensation build up in the roof void where in this situation no vapour control layer has been designed. Furthermore that the ventilation provided is appropriate. The Board is aware that the matter of 'interstitial condensation' is an area of growing knowledge and awareness in the architectural and construction industries, particularly during the last two years, as evidenced by the NZ Institute of Architects providing their first CPD programme on this topic in May 2017. At that session it was highlighted this is a complex topic and that plywood would probably not mitigate interstitial condensation. Given the limited information on ratings, particularly at the time (deleted) was providing his services, the Board is of the opinion that in this circumstance it is not a matter (deleted) should be held to account on.
79. In that regard the Board highlights that it is unlikely to reach the same conclusion in the future, given there is now a wider awareness of the issue and more technical guidance available. It is important for the profession not to use this decision to justify proceeding with similar lack of detailed design of ventilation and vapour control as was evident in this case.

Deliberations as to Due Care and Diligence

80. The Board is of the opinion that where an architect (or his or her firm) is commissioned to undertake the developed and detailed design of a building and to prepare drawings for building consent reflecting that design that the client should be able to rely on those drawings for the purposes of construction without there being a need for substantive variations to those drawings.

81. On this matter the Board has identified from this complaint a number of aspects of service, constituting taking due care and exercising diligence, that a registered architect must apply themselves to in providing architects services in regard to preparing detailed design documentation, particularly when drawings are prepared by others, including but not limited to:
- a. Undertaking coordination between the architectural detailing and the structural drawings and resolving any apparent conflicts;
 - b. Undertaking a comprehensive check to identify inconsistencies, any missing details and ensure constructability of the architectural drawings;
 - c. Verifying that key details are in accordance with the NZBC;
 - d. Verifying that all key cross sections have been identified for the worst-case scenario, in particular on matters of falls to gutters and decks and water discharge therefrom;
 - e. Ensuring the architectural drawings and architectural details reflect the calculations prepared for the building in regard to such items as energy efficiency (H1) etc.;
 - f. Understanding both regular and long term maintenance issues associated with the design of the details being documented.
82. (Deleted) has failed to apply himself to the following aspects:

- a. Coordinating the concrete block balustrade and scupper details in regard to structural support of the stahlton floor at the second level deck edge, where different depths of steel PFC's are specified, and secondly understanding the design of the steel supports to the butterfly roof with serious conflicts arising from the fall to the gutter;
- b. Approving drawings and subsequent amendments for the Building Consent application with obvious detailing flaws i.e. nail fixings into steelwork, non-continuous timber packing between stahlton beams to a window head without nominating the fixing details, scuppers needing to be installed through steelwork, rainwater head not detailed;
- c. Ensuring that the enclosed deck details and the butterfly roof were detailed to fully comply with the nominated Acceptable Solutions of both NZBC Clauses E1 and E2;
- d. Identifying the worst-case cross section of the falls to the Level 2 deck, such that the gutter would have significantly penetrated the stahlton floor topping slab and necessitated adjusting the inter-floor heights;

- e. Considering the wider issues of condensation build up when using structural steel framing;
- f. Designing the butterfly roof with a 50mm opening in the gutter which does not allow for any on-going easy cleaning in the context of a neighbouring oak tree.

83. Some of these aspects might have been considered oversights with minimal implications, which could have been coordinated on site. Given the significant impact of several of the items the Board considers in total that these aspects amount to a lack of due care and diligence in (deleted)'s professional work in preparing the design details and documenting those details.

Deliberations as to Negligence and Incompetence

84. The Board notes the submissions by both Mr Sissons and Mr MacRae on practising as a Registered Architect in a negligent or incompetent manner, particularly the statement 'there must be behaviour which falls seriously short of that which is to be considered acceptable and not mere inadvertent error, oversight or for that matter carelessness'. The Board is of a view that (deleted) in undertaking the above work with lack of due care and diligence has done so as a matter of oversight with some element of carelessness, but this does not constitute negligence or lack of competence.

85. Therefore the Board is satisfied on the balance of probabilities that, in the course of providing architectural services to (deleted), at the time (deleted) failed to '*perform his professional work with due care and diligence*' but has not '*practised as a Registered Architect in a negligent or incompetent manner*'.

Submissions as to Penalty, Costs and Publication of Architects name

86. The following submissions were received:

1. Final Statement by (deleted) as to costs dated 11th September 2017;
2. Letter from Mr MacRae dated 14th September 2017;
3. Letter from Mr MacRae dated 18th September 2017;
4. Without Prejudice submission as to Costs from Mr MacRae dated 25th Sept 2017;
5. Submissions on Penalty, Costs & Publication for (deleted) dated 30th October 2017;
6. (Deleted)'s Declaration as to Financial Means 13th November 2017;
7. NZRAB Table of Costs as at 27th February 2018.

Deliberation and Decision of the Board as to Penalty, Costs and Publication of Architects name

87. The Board considered the available penalties as set out in s26 of the Act which include:

- (i) cancellation of registration;
- (ii) suspension;
- (iii) censure;
- (iv) the imposition of conditions;
- (v) a requirement that the registered architect undertake training;
- (vi) a fine not exceeding \$10,000.

88. The Board then considered the mitigating factors presented by (deleted)'s counsel to the Board. The Board found that the seriousness of the matters was not such that (deleted) posed an ongoing risk to the public. The Board accepted (deleted) had learnt from the matters and had already actioned changes to his practice therefore he was unlikely to repeat these matters. The available penalties were not considered appropriate in this case. The Board therefore does not impose a penalty.

89. With respect to costs and expenses of the complaint, total costs incurred by the NZRAB amounted to \$50,000 excl GST. The Board noted that in previous discipline decisions the starting point for determining costs was 50% of costs incurred or less where the Board had accepted submissions on financial means, and has adopted that principle. The Board then applied a reduction for financial means and made a further proportional adjustment for items that were not proven. The Board awards costs and expenses of and incidental to the hearing and enquiry by the Board of \$10,792 excl GST (\$12,410.80 incl GST) against (deleted), under s.26 (4) of the Act and that amount be paid within 60 days of notice be given.

90. With respect to publication, the Board agreed the circumstances do not warrant publication of name.

91. The Board voted on the above findings and this is separately recorded in a Board minute as attachment 1.

DATED at Wellington this 6th day of March 2018



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Chairperson

Minutes Board meeting

29th March 2017 at the Auckland Rose Park Hotel; follow-on video and telephone conferences on 11 May 2017, 12 October 2017, 12 December 2018; and a meeting on 27 February 2018.

Attendance

Board members:	Warwick Bell (Chair), Louise Wright, Marc Woodbury
Apologies:	Diane Brand, Euan Mac Kellar ¹ , Gina Jones ² , Kimberly Browne
Legal Assessor:	Terry Sissons
Clerk of the Hearing:	Andrew Symonds
Stenographer	Jacqui Kennedy
Counsel for the architect	Don Mac Rae
Architect	(Deleted)
Complainant	(Deleted)

This Board meeting was called to conduct a disciplinary hearing as allowed for under Registered Architect Rules 2006 Rules 72 to 78.

This followed an Investigating Committee decision under delegated authority that there was a case to answer against architect (deleted) and that therefore a disciplinary hearing was required.

The hearing was duly conducted. The Board carried the resolution that in regard to architect (deleted) there are grounds for discipline under sections 25(1)(b) of the Registered Architects Act 2005 in that (deleted) has breached rule 49 (care and diligence) of the Code of Minimum Standards of Ethical Conduct for Registered Architects, but has not practised as a Registered Architect in a negligent or incompetent manner. The Board directed that the parties be so notified and invited to make submissions in regard to penalty, costs and public notification.

The Board considered submissions on penalty, costs and public notification and a declaration as to financial means from (deleted). The Board carried the following resolutions

1. The Board considered the available penalties as set out in s26 of the Act which include:
 - (i) cancellation of registration;
 - (ii) suspension;
 - (iii) censure;
 - (iv) the imposition of conditions;

¹ Euan Mac Kellar's term on the NZRAB Board ended on 20 January 2018

² Gina Jones joined the NZRAB Board on 21 January 2018.

- (v) a requirement that the registered architect undertake training;
- (vi) a fine not exceeding \$10,000.

2. The Board then considered the mitigating factors presented by (deleted)'s counsel to the Board. The Board found that the seriousness of the matters was not such that (deleted) posed an ongoing risk to the public. The Board accepted (deleted) had learnt from the matters and had already actioned changes to his practice therefore he was unlikely to repeat these matters. The available penalties were not considered appropriate in this case. The Board therefore does not impose a penalty.
3. With respect to costs and expenses of the complaint, total costs incurred by the NZRAB amounted to \$50,000 excl GST. The Board noted that in previous discipline decisions the starting point for determining costs was 50% of costs incurred or less where the Board had accepted submissions on financial means, and has adopted that principle. The Board then applied a reduction for financial means and made a further proportional adjustment for items that were not proven. The Board awards costs and expenses of and incidental to the hearing and enquiry by the Board of \$10,792 excl GST (\$12,410.80 incl GST) against (deleted), under s.26 (4) of the Act and that amount be paid within 60 days of notice be given.
4. With respect to publication, the Board agreed the circumstances do not warrant publication of name.

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Warwick Bell, Chair

Date: