

Determination 2024/058

Date: 30 October 2024

An authority's decisions to grant a building consent and issue a code compliance certificate for a dwelling for the compliance of the foundations with *B1 Structure*

9 Highfields Way, Ahipara, Northland

Summary

This determination considers an authority's decisions to grant a building consent and issue a code compliance certificate for construction of a dwelling. The determination turns on whether the design and construction of the timber pile foundations comply with Building Code Clause *B1 Structure*.



Cover Image: Dwelling sub-floor with piles, concrete encasement and cracking

In this determination, unless otherwise stated, references to “sections” are to sections of the Building Act 2004 (“the Act”) and references to “clauses” are to clauses in Schedule 1 (“the Building Code”) of the Building Regulations 1992.

The Act and the Building Code are available at www.legislation.govt.nz. Information about the legislation, as well as past determinations, compliance documents (eg, Acceptable Solutions) and guidance issued by the Ministry, is available at www.building.govt.nz.

1. The matter to be determined

- 1.1. This is a determination made under due authorisation by me, Andrew Eames, Principal Advisor Determinations, Ministry of Business, Innovation and Employment (“the Ministry”), for and on behalf of the Chief Executive of the Ministry.¹
- 1.2. The parties to the determination are:
 - 1.2.1. T Fabling, the owner of the house, who applied for this determination, (“the owner”)
 - 1.2.2. Far North District Council, carrying out its duties as a territorial authority or building consent authority, (“the authority”)
 - 1.2.3. A Simpkin, the licensed building practitioner responsible for the design work, (“the designer”)
 - 1.2.4. B Petersen, the licensed building practitioner responsible for the construction work, (“the builder”).
- 1.3. This determination arises from the authority’s decisions to grant building consent BC-2016-1252 and issue the code compliance certificate for construction of a new dwelling.
- 1.4. The matter to be determined, under section 177(1)(b) and (2)(d), is the authority’s decision to grant the building consent, and its subsequent decision to issue the code compliance certificate.
- 1.5. In deciding this matter, I must consider whether the design and as-built construction of the foundations for the dwelling and timber deck comply with Building Code clause B1 *Structure*.
- 1.6. I have not considered compliance of the stand-alone garage, compliance of any building work beyond what is described in the matter being determined, the authority’s internal processes, or any financial arrangements between the parties.

¹ The Building Act 2004, section 185(1)(a) provides the Chief Executive of the Ministry with the power to make determinations.

- 1.7. The owner also submitted that they do not believe the timber deck structure complies with B1 as it is greater than 3.5m in height and therefore should have been designed by an engineer. While this is a requirement in NZS3604², not being designed by an engineer does not mean it does not comply with the Building Code. As no evidence has been provided to me to demonstrate a non-compliance, I have not considered this further and leave to the parties.

2. The building work

- 2.1. The dwelling is located on a sloping semi-rural property in a very high wind zone in a small coastal settlement. The property generally slopes moderately down towards the west and that slope steepens for a short distance near the road along the western boundary.
- 2.2. The dwelling is a single storey structure with the eastern side being level with the ground and the western side extending over the slope. There is a standalone garage to the east. The dwelling's deck is attached to the northwest corner (the downhill side) with an L-shaped footprint also with timber pile foundations (figure 2).
- 2.3. This determination relates to the piles for the dwelling and the deck. These are 125x125mm square timber piles with concrete footings which connect to the timber subfloor of the dwelling and deck (cover image).

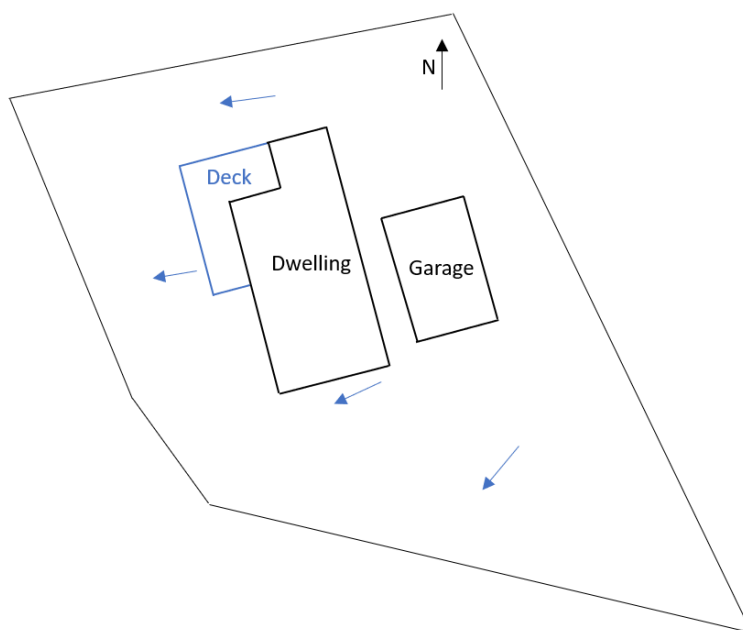


Figure 2: Site plan (blue arrows indicative of the land direction sloping downhill) (not to scale)

² NZS3604:2011 *Timber-framed buildings*

3. Background

2016 – 2017 Design and Construction

- 3.1. On 4 May 2016, the former owner obtained a site suitability report from an engineer³ (“the 2016 report”), which included investigations for the proposed foundations.

The 2016 report

- 3.2. The 2016 report was based on “a visit to the site, simple soil tests and a review of available information”, to support the building consent application.
- 3.3. The report concluded “that the land is suitable for house foundations, but deeper piles will be required for the area of filled material”. It also noted:
- 3.3.1. There are no signs of slippage or erosion.
 - 3.3.2. “There has been a cut and fill operation with a relatively steep slope on the western side”.
 - 3.3.3. Penetrometer testing showed the filled area had ‘very soft material’ to a depth of 1.2-1.5m, with harder clay with a resistance of 10mm per blow below.
 - 3.3.4. The unfilled area was firm clay at 25mm per blow at the surface, and hard material at shallow depths.
 - 3.3.5. “Care will be required to ensure that overland flows do not cause erosion”.
- 3.4. The report recommended that piles be utilised as a foundation option, that “piles through the fill area must penetrate a minimum of 500mm into the original ground”, that “all piles in the original ground should also be drilled to the harder clay layers”, and “piles within 2m of the steep bank to the abandoned driveway should be drilled to below the level of the base of the bank”.

The building consent and project information memorandum application

- 3.5. Having been engaged in May 2016 by the former owner to prepare building consent documentation, on 27 June 2016, the designer applied for a building consent and a project information memorandum (“PIM”)⁴. The work described in the application was to “Construct a new 2[]bedroom, 1 bathroom dwelling with decks & a detached garage”. The designer’s application included:

³ The former owner’s engineer is described in the report as a “consulting engineer” with CPEng registration. Their professional areas of specialisation have not been specified.

⁴ Under section 32, see paragraph 5.13 for detail applicable to this determination.

- 3.5.1. the 2016 report,
 - 3.5.2. plans for the building work, which included recommendations from the 2016 report and,
 - 3.5.3. specifications for the building work.
- 3.6. On 4 July 2016, the authority visited the site and subsequently recorded that a geotechnical report was required. It also noted that “engineered foundations [are] required” due to the presence of poor soakage and fill material at the proposed building site. The PIM was subsequently issued on 18 July 2016, also noting engineering was required for the foundations, poor soakage and fill material on the site.
- 3.7. The building consent processing was carried out in July 2016, with the processing record noting “good ground assumed” and indicated that geotechnical issues were not applicable to the consent application.
- 3.8. On 9 August 2016, building consent BC-2016-1252 was issued.

The construction of the dwelling

- 3.9. The authority inspected the dwelling’s siting and foundations, including the pile holes, on 28 November 2016. The inspection passed, with the site instruction stating “All ‘ok’ ready to pour [the concrete piles]”. The inspection also:
- 3.9.1. passed *Ground bearing, fill, expansive clay* noting “firm loamy clay”.
 - 3.9.2. passed *Pile/Pole holes: Depth, diameter* noting “>450 [mm diameter] x 500[mm] – 900[mm] deep pile holes”.
- 3.10. On 24 March 2017, the authority inspected and passed the deck foundations. This inspection also:
- 3.10.1. passed *Ground bearing, fill, expansive clay* noting “firm non-expansive clay”.
 - 3.10.2. passed *Pile/Pole holes: Depth, diameter* noting “400 [mm diameter] x 600[mm] – 800[mm] deep into natural ground”.
 - 3.10.3. noted “also 3 pile holes to rear landing – ok”.
- 3.11. Construction of the dwelling continued, and on 21 December 2017, a code compliance certificate was issued for the completed building work.

2023 – 2024 inspections

3.12. The owner purchased the property in November 2020, and put the property on the market in December 2022. In May 2023, a prospective purchaser commissioned a pre-purchase property inspection report (“the pre-purchase inspection report”).

The pre-purchase inspection report

3.13. On 1 June 2023, the pre-purchase inspection report was produced “based on an inspection of the visible portion of the structure”, which identified a potential issue with the dwelling’s foundations. Numerous photos were included to support the report’s findings.

3.14. The report summary indicated key findings related to the posts, joists and bearers. It mentioned large ground cracks around the piles which may have caused, or could cause, pile movement. It also “strongly recommended” a geotechnical engineer be engaged to investigate ground stability as there was “suspected pile movement”.

3.15. The report noted:

...the concrete piles to the house foundation appear to be solid [but t]he ground surrounding the piles show [sic] large cracks. This may indicate ground drying out (shrinkage) or ground (and pile) movement.

3.16. Regarding the dwelling’s interior, the report noted cracks “consistent with house movement” in the plasterboard by two windows (not at the joints or plaster location), and that two identical windows were out of horizontal alignment.

3.17. Regarding the dwelling’s functionality, the report noted exterior “windows/doors operated acceptably when tested ... [t]he ranch sliders functioned correctly and sliding tracks were clean”. Interior doors operated acceptably although “some rub/touch/bind during operation” and the double doors were “out of alignment from installation or house movement”.

3.18. Regarding the deck, the report noted it appeared functional, was constructed to a good standard, and the boards and sub-deck frame were in good condition.



Figure 3: Ground cracking under the dwelling around piles

3.19. In mid-2023, the owner and authority began corresponding about the matter. The owner then commissioned a structural engineering report which assessed the structural integrity of the dwelling to determination options for remediation of the foundations. While the findings of this report relate to the structure of the existing foundations, I have not considered this report any further as a subsequent geotechnical report (summarised below) contains similar and more relevant findings.

3.20. Following the structural engineering report, the owner discussed the situation with a geotechnical engineer (“the geotechnical engineer”).

The geotechnical engineer report

3.21. The geotechnical engineer reviewed the structural engineering report. In emails to the owner on 9 and 13 June 2023, the geotechnical engineer indicated that (in summary):

3.21.1. The geology of the site “is complex and can be unstable, even at low slope angles” and “given the topography of the site, [the] piles should have also been made deeper to account for [the] effects of [the] sloping ground (ie loss of lateral support)”.

3.21.2. “Our experience of this type of geology [is] that it generally is highly expansive”.

3.21.3. “The fill and sloping ground are more concerning with the shallow pile foundations”.

3.21.4. To resist lateral earth pressures, the piles should have been “much deeper” than suggested in the 2016 report, with “round poles, not square”.

- 3.22. On 28 September 2023, the geotechnical engineer produced a report following a site inspection on 11 August 2023 and a subsequent review of the 2016 report, the pre-purchase inspection report, the 2023 structural engineering report, and the authority's property file records.
- 3.23. The site inspection included geotechnical investigations through boreholes, and scala penetrometer and vane shear strength tests. The geotechnical engineer also undertook slope stability analyses, finding that:
- ... the site is globally stable for a lightweight timber framed dwelling. However, due to the steepness of the slopes (particularly the localised fill batter up to 30° beneath the dwelling) deeper pile foundations should have been provided and subject to specific engineering design.
- 3.24. The geotechnical engineer commented that “[t]he soils directly underlying the site comprise a layer of non-engineered fill material underlain by stiff to very stiff residual soils”.
- 3.25. On-site investigations found “non-engineered fill material was encountered in all boreholes to between 0.2 and 1.0m [below ground level]. The fill beneath the dwelling was very dry and severely cracked”.
- 3.26. The geotechnical engineer observed that the severe cracking, the presence of non-engineered fill and expansive soils “resulted in movement of foundations, observed by separation between bearer and top of piles and cracking on internal wall linings”.
- 3.27. Regarding the dwelling's functionality, the geotechnical engineer observed “[t]he owner has not had any issues with opening/closing doors or windows”.
- 3.28. Key conclusions from the geotechnical report are (in summary):
- 3.28.1. The dwelling's existing foundations, which appear to have been constructed as per NZS3604, are not suitable for the site, and “further movement is inevitable in the future”.
- 3.28.2. The foundations are likely to have been placed without engineering supervision in non-engineered fill soil that is “extremely expansive” within soil class E of Acceptable Solution B1/AS1 *Structure*⁵ and on a moderate slope.
- 3.28.3. Regarding the deck, the ground beneath “was wet and no cracks were observed”.
- 3.28.4. The geotechnical engineer recommended “that the existing dwelling be re-piled, with foundations specifically designed by a structural engineer”.

⁵ Acceptable Solution B1/AS1, assumed to be 1st edition, amendment 20, effective 29 November 2021 as this was the current version at the time of the report being written.

4. Submissions

The owner

- 4.1. The owner is of the view the authority should not have granted the building consent or issued the code compliance certificate and that the foundations do not comply with clause B1. Their submission is summarised as follows:
- 4.1.1. The presence of fill on-site was indicated in the proposed plans and specifications provided with the consent application.
 - 4.1.2. The consenting process allowed the house to be built on previously identified unstable fill.
 - 4.1.3. “One of the biggest issues” was that the plans were not engineered even though the authority “specified that a geotech[nical] report and engineering were required” in the issued PIM. Instead, this “data was...disregarded when the time came for the issuance of the building consent...and the [code compliance certificate]”.
 - 4.1.4. The dwelling and deck foundations were not built in accordance with the approved building consent plans.
 - 4.1.5. There are inconsistencies in soil type identification in the authority’s inspections, and the soil descriptions on these inspections are not specified in any other documentation.
 - 4.1.6. The “findings from both [structural and geotechnical] engineering reports indicate that none of the piles were dug below the fill into good ground”.
 - 4.1.7. Regarding the dwelling’s functionality and amenity:

At times the front door will not close properly putting me and my possessions at further risk. There have also been times when the pipes have stopped draining in the toilet and shower and I have been told by the plumber it will only get worse.

The authority

- 4.2. The authority’s view is that it “made an error in issuing the building consent on the terms and conditions as issued”, “that reasonable grounds did not exist for issuance of the [code compliance certificate] at the time [it] was issued” and construction of the foundations do not comply with B1. Its submission is summarised as follows:
- 4.2.1. Information provided with the consent application does not demonstrate compliance for soil type.

- 4.2.2. The building consent application form includes a handwritten note indicating “poor soakage”. The application “appears to have attached the plans and supporting documents, which included the [2016 report]”.
- 4.2.3. Following receipt of the consent application, the authority inspected the property on 4 July 2016 and noted “the potential existence of fill within the building footprint”. The inspection sheet also “records that a geotechnical report and engineering is required and notes that the site is subject to poor soils and poor soakage”.
- 4.2.4. Regarding the 2016 report, the authority noted that it did not indicate that expansive soils were present and that it would have expected:
- ...[the] engineer ought to have tested the soils for expansivity, provided advice on the level of expansivity and appropriate mitigation measure. ... [The report] also failed to adequately describe the design requirements for piles subject to lateral earth pressures due to non-engineered fill.
- 4.2.5. In issuing the building consent, it relied on the provided documentation including the plans and specifications and the 2016 report.
- 4.2.6. It believes that additional building consent conditions were necessary on the issued building consent, including recommendations in the 2016 report and that “an engineer was required to monitor construction and confirm embedment depth”.
- 4.2.7. The foundations as constructed do not comply with clause B1 because:
- ... the original design was for the dwelling based on ground conditions complying with NZS3604:2011, whereas the extremely expansive soils on the site are outside the provisions of NZS3604:2011.

The designer

- 4.3. The designer provided comments in relation to design of the building work, and the building consent decision. The designer’s view is that the dwelling’s foundations, as designed and detailed on the consented plans, were compliant with B1. Their submission is summarised as follows:
- 4.3.1. The engineer who prepared the 2016 report was suitably qualified “to make an assessment and recommendation” in relation to the proposed dwelling’s foundations, and the designer relied on their recommendations. The 2016 report “recommended that foundation piles be used” and that the piles “should penetrate through the fill on-site into the original ground, noted to be at depths of 1.2 to 1.5m”.
- 4.3.2. The approved building consent plans and specifications included notations that aligned with the 2016 report recommendations for “125mm² H5 piles in

400[mm] [diameter] x 450[mm] deep into original ground level (ie below the level of the fill on site)” ... and “All piles ... to go through existing fill and into good ground”.

- 4.3.3. Based on what was known at the time, the designer “...believe[d] that the foundation piles, as designed, would comply with the requirements of the Building Code”.
- 4.3.4. The designer supervised the “restricted design work⁶” but was not involved in consent processing so cannot comment on consenting actions or decisions.
- 4.3.5. The designer’s involvement with the project ended when the consent was issued, so they have no knowledge of the construction phase.

The builder

- 4.4. The builder provided comments in relation to construction of the building work. The builder’s view is that the building work for the foundations is compliant with the consented plans. Their submission is summarised as follows:
 - 4.4.1. The dwelling was constructed in accordance with the consented and stamped plans.
 - 4.4.2. They were aware the foundations would need to go deeper if fill was found on site. In some cases, it was deemed necessary to dig deeper holes; however, when digging the footings all holes were found to have “the same texture, whether it was virgin ground or fill”.
 - 4.4.3. The land was cut around ten years prior to construction, at which time there was “no visible indication of where the fill started and stopped”.
 - 4.4.4. The builder is not a soil expert. In their experience, when an inspector has concerns during construction, they undertake basic tests and stop progress on site, but this did not occur in this case. At the foundation inspection, the inspector raised no concerns about the soil and passed the inspection.
 - 4.4.5. They were not aware the authority had earlier noted (in the inspection carried out on 4 July 2016) that a geotechnical report was required and that the authority did not follow this up.

⁶ I have taken the term restricted as reference to ‘restricted building work’ as defined by the Building (Definition of Restricted Building Work) Order 2011

5. Discussion

- 5.1. The matters to be determined are:
 - 5.1.1. the authority's decision to grant building consent BC-2016-1252
 - 5.1.2. the authority's decision to issue the code compliance certificate.
- 5.2. The matter turns on whether the design and as-built construction of the timber piled foundations for the dwelling and timber deck comply with clause B1 *Structure*.

The legislation

- 5.3. The relevant performance criteria to this matter are:

B1.3.1:

Buildings, building elements and sitework shall have a low probability of rupturing, becoming unstable, losing equilibrium, or collapsing during construction or alteration and throughout their lives.

B1.3.2:

Buildings, building elements and sitework shall have a low probability of causing loss of *amenity* through undue deformation, vibratory response, degradation, or other physical characteristics throughout their lives, or during *construction* or *alteration* when the *building* is in use.

- 5.4. Clause B1.2 provides the functional requirement that “buildings, building elements and sitework shall withstand the combination of loads that they are likely to experience ... throughout their lives”.

The decision to issue the building consent

- 5.5. Section 49 of the Act requires a building consent authority to grant a building consent should it be satisfied that the provisions of the building code would be met if the building was constructed in accordance with the plans and specifications.
- 5.6. The plans incorporate a timber pile design proposed to be in accordance with NZS3604 and also includes a note requiring the piles to extend through the fill material on site to be grounded in good ground. This note provides a written link to the 2016 report, recommending the piles “penetrate a minimum of 50mm into the original ground [beneath the fill] at depths of 1.2 to 1.5m below the current [ground level]”.

- 5.7. The person who prepared the 2016 report was a registered engineer in the practice fields of civil and structural engineering. As discussed in Determination 2024/043⁷, paragraph 4.11, structural engineers have the ability to undertake some basic geotechnical functions within their competency, and I consider that in this case the engineer was suitably qualified to undertake this report. The report identified fill on site that the foundation design needs to address and did not specifically state that the foundations were to be a specially engineered design.
- 5.8. The authority has indicated in its submission that the 2016 report did not provide sufficient information on soil type at the property; the design was undertaken in such a way as to comply with B1 by way of B1/AS1, which utilises a modified NZS3604. NZS3604 only gives consideration to the need for foundations to be founded in “good ground”. The 2016 report indicates scala penetrometer tests were undertaken and identified good ground in accordance with NZS3604, and while I have not been provided with the data sets from these tests, I consider this met the necessary requirements to comply with B1.
- 5.9. I am of the view that the plans and the 2016 report in combination provide sufficient detail to demonstrate how the foundations were intended to meet the requirements of B1.
- 5.10. In their submission, the owner noted the authority had previously identified poor soils and fill on site in the issued PIM, and that engineered foundations would be required.
- 5.11. Section 32 of the Act allows for an owner to apply for a PIM if they are considering carrying out building work and a building consent is required. The content that is required to be included in an issued PIM is covered in section 35. This provides the owner with information about the land on which the proposed work is to be carried out and about the requirements of other Acts that might be relevant.
- 5.12. A PIM is informative for preparation of design work and building consent documentation and assessment by a BCA.
- 5.13. In this case, I consider there was adequate information to consider the building work would comply with clause B1 if the work was constructed as per the provided plans and specifications.

⁷ Determination 2024/043 *Regarding the purported refusal of a building consent* (20 August 2024).

The decision to issue the code compliance certificate

- 5.14. Section 94(1)(a) of the Act applies in this case, meaning a code compliance certificate must be issued if the building work complies has been carried out in accordance with the plans and specifications in the building consent application.
- 5.15. Alongside this, section 17 requires that building work must also comply with the Building Code whether or not a consent is required. Therefore, consideration must be made, when building work does not comply with the consent, whether it complies with the Building Code.

Compliance with the building consent

- 5.16. The definition of plans and specifications is d in section 7 of the Act. The documents are those which describe how the building work is to be constructed.
- 5.17. In this case, the documentation in the building consent relating to the foundations included the plans and the 2016 report.
- 5.18. As I have discussed in paragraph 5.6, the note on the plans links the plans directly with the 2016 report.
- 5.19. Detailed information regarding the appropriate method to build the foundations of the dwelling and deck has been provided on both of these documents, and so I consider they both form part of the plans and specifications and should be read in conjunction with each other when carrying out the construction. Both of these documents make up the part of the building consent relating to the foundations that needed to be complied with for the code compliance certificate to be issued.
- 5.20. In the authority's inspection records for the piles for the dwelling and deck, it was noted that the pile holes were sighted as being 500-900mm deep for the dwelling and 600-800mm deep for the deck, which I assume is from ground level at the time. The authority, in a submission to the Ministry, has subsequently confirmed the piles should have been founded beneath the fill as per consent documentation.
- 5.21. The piles for the dwelling and deck therefore have not been founded to the minimum depths to reach good ground as required by the building consent, and I consider the building work does not comply with the building consent.

Compliance with Building Code clause B1

- 5.22. Having determined the piles do not comply with the building consent, I must now consider whether they comply with the Building Code.
- 5.23. As discussed in paragraph 5.5, the performance criteria of B1.3.1 and B1.3.2 are relevant to this dispute.

- 5.24. B1.3.2 requires that buildings and building elements shall have a low probability of causing a loss of amenity through undue physical characteristics throughout the life of the building and building elements. The low probability test does not require the building and building elements to never experience physical characteristics such as vibration, deformation or other movement, however, it does consider the impacts these characteristics have on the building over its lifetime.
- 5.25. The owner's submission describes issues they have experienced with doors not closing correctly and sanitary fixtures discharging.
- 5.26. With the dwelling continuing to move as a result of the foundations being founded in expansive soils, rather than good ground, it can be expected that there would be more than a low probability of further loss of amenity. The occupants would experience increased issues with operating windows and doors, and issues with the drainage system discharging where falls on pipes are reduced, as well as other further structural defects such as cracking to internal linings and external claddings.
- 5.27. B1.3.1 also includes a low probability test, requiring buildings and building elements to have a low probability of becoming unstable, losing equilibrium or collapsing throughout their lives. The required life span for structural elements to continue to perform is a minimum of 50 years under clause B2.
- 5.28. The owner's geotechnical engineer concluded in their report that the dwelling's foundations have likely been founded only into the fill, which is "extremely expansive soil", and that the combination of ground cracking, non-engineered fill and expansive soils has resulted in movement of the foundations. The recommendation that the dwelling should be re-piled indicates the belief the dwelling will continue to move.
- 5.29. As in the pre-purchase inspection report, this movement has been identified by bearers not sitting on piles and cracks to internal plasterboard linings, which has occurred within the first 5-10 years of the building's life.
- 5.30. The dwelling will continue to move, and there is more than a low probability that structural failures will occur from gaps increasing between the piles and sub-floor bearers. This will compromise the fixings between these elements and result in the dwelling losing equilibrium and sliding or collapsing down the property's slope within the building's 50-year lifetime.
- 5.31. Based on the above, I consider the foundations as constructed do not comply with B1.3.1 and B1.3.2.

6. Decision

- 6.1. In accordance with section 188 of the Building Act 2004, I determine that:
 - 6.1.1. The design of the piles in the building consent complies with B1 by way of B1/AS1 and I confirm the authority's decision to grant the building consent.
 - 6.1.2. The construction of the piles does not comply with the building consent and with Building Code clause B1.
 - 6.1.3. I reverse the authority's decision to issue the code compliance certificate.

Signed for and on behalf of the Chief Executive of the Ministry of Business, Innovation and Employment on 30 October 2024.

Andrew Eames

Principal Advisor Determinations

APPENDIX A

7 Interpretation

(1) In this Act, unless the context otherwise requires,—

...

plans and specifications—

(a) means the drawings, specifications, and other documents according to which a building is proposed to be constructed, altered, demolished, or removed; and

(b) includes the proposed procedures for inspection during the construction, alteration, demolition, or removal of a building; and

(c) in the case of the construction or alteration of a building, also includes—

(i) the intended use of the building; and

(ii) the specified systems that the applicant for building consent considers will be required to be included in a compliance schedule required under section 100; and

(iii) the proposed inspection, maintenance, and reporting procedures for the purposes of the compliance schedule for those specified systems; and

(d) in the case of a building that will include a modular component, also includes the modular component design of that component.

...

17 All building work must comply with building code

All building work must comply with the building code to the extent required by this Act, whether or not a building consent is required in respect of that building work.

32 Owner may apply for project information memorandum

An owner may apply to a territorial authority for a project information memorandum for building work if—

(a) the owner is considering carrying out building work; and

(b) a building consent is required for that work.

35 Content of project information memorandum

...

(1) A project information memorandum must include—

(a) information likely to be relevant to the proposed building work that identifies—

(i) the heritage status of the building (if any); and

(ii) each special feature of the land concerned (if any); and

(b) information likely to be relevant to the proposed building work that, in terms of any other Act, has been notified to the territorial authority by a statutory authority; and

- (c) details of any existing stormwater or wastewater utility systems that—
 - (i) relate to the proposed building work; or
 - (ii) are on, or adjacent to, the site of the proposed building work; and
- (d) details of any authorisation in respect of the proposed building work that the territorial authority, on its own behalf and on behalf of any network utility operator (if the territorial authority is acting as agent for a network utility operator by prior agreement with the network utility operator), is authorised to refuse or require under any Act, except this Act, and, in respect of each authorisation,—
 - (i) a statement of the requirements to be met in order for the authorisation to be granted or imposed; and
 - (ii) the conditions to which an authorisation will be subject; and
- (e) if the territorial authority considers that the owner of the building or proposed building to which the project information memorandum relates is likely to be required, under section 76 of the Fire and Emergency New Zealand Act 2017, to make provision for a scheme that provides for evacuation from the scene of a fire, a statement to that effect; and
- (f) if the territorial authority considers that notification to Heritage New Zealand Pouhere Taonga is likely to be required under section 39, a statement to that effect; and
- (g) either—
 - (i) confirmation, subject to this Act, that building work may be carried out subject to the requirements of a building consent and subject also to all other necessary authorisations being obtained; or
 - (ii) notification that building work may not be carried out because any necessary authorisation has been refused, despite the issue of any building consent; and
- (h) if section 75 applies, the statement referred to in section 75(2); and
- (i) if the building is one that is intended to be used for, or associated with, 1 or more of the purposes specified in Schedule 2, a statement that the building must comply with—
 - (i) section 118 (relating to access and facilities for persons with disabilities to and within buildings); and
 - (ii) the provisions of the building code that relate to providing for persons with disabilities to have access to buildings and to facilities within buildings.

(2) In this section,—

land concerned—

- (a) means the land on which the proposed building work is to be carried out; and
- (b) includes any other land likely to affect or be affected by the building work

...

49 Grant of building consent

- (1) A building consent authority must grant a building consent if it is satisfied on reasonable grounds that the provisions of the building code would be met if the building work were properly completed in accordance with the plans and specifications that accompanied the application.

...

94 Matters for consideration by building consent authority in deciding issue of code compliance certificate

A building consent authority must issue a code compliance certificate if it is satisfied, on reasonable grounds,—

- (a) that the building work complies with the building consent; and

...