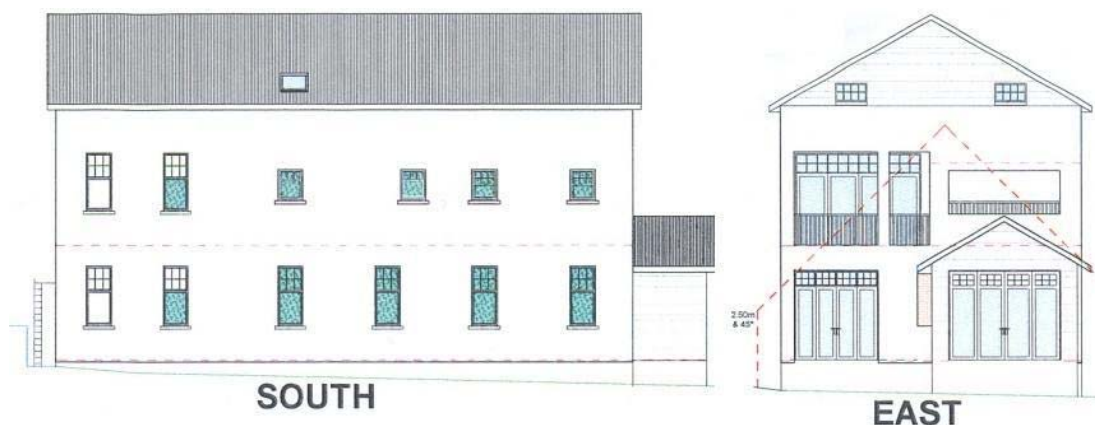


Determination 2007/81

24 July 2007

A dispute in relation to the issue of a building consent for the conversion of a lodge into 4 new apartments due to concerns over provisions for fire safety at 20 Standen Street, Karori, Wellington



1. The parties and the matter to be determined

1.1 This is a determination under Part 3 Subpart 1 of the Building Act 2004¹ (“the 2004 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 parties to the determination are:

- the owner of the property in question, Nucleus Holdings Ltd (“the applicant”), acting through Design Network Hutt Ltd (“the architects”) as agent
- the Wellington City Council (“the territorial authority”)

1.2 This determination arises from the decision of the territorial authority to issue a building consent, which contained certain conditions, for the conversion of a lodge into four new apartments.

1.3 The matters to be determined are whether the following elements, which are included in the applicant’s application for a building consent, comply with the relevant clauses of the Building Code² (First Schedule, Building Regulations 1992):

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.

- The retention of the existing south wall timber windows that are within 1 metre of the site boundary.
- The horizontal safe path at the entry of the lower apartment at the southern end of the building.

- 1.4 In making my decision, I have considered the submissions of the parties and the other evidence in this matter.
- 1.5 In this determination, unless otherwise stated, references to sections are to sections of the Building Act 2004 (“the Act”) as applicable, and references to clauses are to clauses of the Building Code.

2. The building

- 2.1 The building work in question comprises the conversion of a two-storey lodge/hall building into four new unit-titled apartments (“the conversion”). The south wall of the building is situated 750mm from the site boundary and all the other external walls are over 1 metre away from the site boundary. The existing external walls are constructed in brick-faced concrete and it is proposed that the existing windows in these walls remain as they are in their existing locations.
- 2.2 The plans provided with the consent application show that two apartments are situated on each floor, and each of the upper level apartments has a mezzanine floor constructed between the first floor level and the existing upper ceiling level.
- 2.3 The 8 existing windows to the south boundary that are the subject of this determination are 1950mm high x 870mm wide and are of timber double-hung sash construction. Six of these windows are situated at the lower level and two are at the upper level. The glass panes are set back from the face of the brickwork for a distance of 175mm at the top sash and 225mm at the bottom sash. The separation distance of the external faces of the glass from the site boundary therefore varies between 925mm to 975mm.
- 2.4 The proposed means of escape from fire consists of independent access to the exterior from the northern ground floor apartment and a shared common main entry for the remaining 3 apartments, which doubles as the vertical safe path access to the upper apartments.

3. Sequence of events

- 3.1 In a letter to the architects dated 21 June 2004 (Service Request No 112128), the territorial authority granted a resource consent for the conversion. The conditions attached to this consent included the following note:
- Any alteration to the windows or the balconies shown on the approved plans will require a new Resource Consent if the alterations are not within the scope of the Resource Consent.
- 3.2 In a further letter to the architects dated 4 July 2006 (Service Request No 1477459), the territorial authority granted a change of condition pursuant to section 127 of the Resource Management Act 1991. This noted:
- All other conditions of consent in the Notice of Decision, dated 21 June 2004, in relation to SR No 112128 remain unchanged.

3.3 The territorial authority wrote to the architects on 12 December 2006, and attached a “New Zealand Fire Service Building Memorandum” dated 30 November 2006. In summary, the memorandum recommended that the territorial authority require the applicant to provide:

- egress from the apartments by one of the methods described in C/AS1 3.11.6
- details of the current level of fire resistant rating required between fire cells
- smoke alarms as per the requirements of F7/AS1
- information in the consent documentation regarding the location of the proposed exit signs
- information regarding the Fire Service vehicular access point.

It was also recommended that the territorial authority:

- determine whether it is reasonably practicable to upgrade the building with respect to spread of fire to the level required by C/AS1
- clarify the allowances made for fire spread from east, west, and north boundaries.

3.4 The structural and fire consulting engineers (“the fire engineers”) engaged by the applicants to provide the original fire report, wrote to the territorial authority on 20 December 2006 and commented on the New Zealand Fire Service’s concerns. The fire engineer’s comments are summarised as follows:

- the exceptions to the requirement for enclosed exitways were investigated and it was considered that pressurisation and 3 separate horizontal safe paths were not reasonably practicable options
- smoke alarms have been included in the design
- the decision not to alter the south side windows was accepted as there is no significant increase in the risk to the units or to the neighbour
- as the east and west walls are remote from the boundaries, a 100% unprotected area is allowed. The north wall has a separation of 1.8 metres, so a 38% unprotected area is allowed. As the windows are less than 38% of the relevant area, they are acceptable as they are
- the Fire Service vehicular access point is in front of the open car parks in Standen Street.

3.5 The territorial authority wrote to the architects on 3 January 2007, stating that it was unable to process the building consent until it received the information that was listed. The list included:

- the need to fire-rate the new windows and frames to the southern wall
- the provision of reasons why it was not reasonably practicable to upgrade the existing windows and frames on the southern boundary. Also an explanation of how the building in its new usage would continue to comply with the Building Code if these units are not amended

- a requirement for the southern wall fire-rated windows and/or the fire-resistant glazing that can be opened to be fitted with automatic closing and latching devices
 - a justification as to why the non-compliance of the escape route should be accepted.
- 3.6 In a letter to the architects dated 13 February 2007, the territorial authority stated that the existing southern boundary windows and frames required upgrading, and either a horizontal safe path or pressurisation was necessary to ensure compliance with paragraph 3.11.6 of C/AS1.
- 3.7 The architects wrote to the territorial authority on 27 February 2007, noting that the fire engineers had sent the territorial authority information describing how the territorial authority's concerns could be satisfied.
- 3.8 The territorial authority issued a building consent for the conversion on 13 March 2007. The building work authorised by the consent was the "conversion of existing lodge into four new apartments". The attached "Further Addendum to the Consent" required all the requirements of the fire report to be implemented as a condition of the consent approval. It also noted:
- New glazing and/ frames to the southern wall is (*sic*) to be fire rated and to comply with NZS 4232: Part 2, and these windows shall be fitted with an automatic device which will close and latch the window sash in event of fire. Specifically, on the south wall, new openings to have steel framed and-/30/-Sm, while all existing openings to retain the frame, but to reglaze all windows to -/30/-Sm with 20 mm beading over intumescent fire/smoke seal.
- 3.9 The application for a determination was received by the Department on 3 May 2007.

4. The submissions

- 4.1 In a cover note dated 2 May 2007, the architects set out the relevant comments from the territorial authority regarding the conversion and noted that while the windows in question were approximately 890mm from the boundary, the neighbours' house is 2040mm from the conversion. The architects considered that the question of escape from fire had been covered in the fire engineer's previous report to the territorial authority.
- 4.2 The fire engineers also provided a "Supplementary Submission" that described the building and the relevant issues. The fire engineers noted that there was only a small discrepancy between the compliance or the non-compliance of the separation distance between the windows in question and the site boundary. The neighbouring property is located 1150mm and 3650mm from the common boundary at the lower floor level and the upper floor of the conversion is clear of the neighbour's house. The only practical option to meet the territorial authority's escape from fire concerns was to provide a horizontal safe path, which would require two fire doors in close proximity. A very short horizontal safe path would be "abused" by the occupants and the resulting lobby appears to be superfluous.
- 4.3 The applicant supplied copies of:
- the plans and specification
 - the relevant correspondence.

- 4.4 The territorial authority did not provide a submission.
- 4.5 In a letter dated 21 May 2007 the Department requested further information from the architects regarding the estimated cost to carry out the territorial authority's requirements and the provision of details of any alternative solution that could be considered.
- 4.6 The architects provided a response in a letter to the Department dated 15 June 2007. The architects provided an estimate of \$10,678 to amend the windows and noted that that the only viable option would be to frame within the external walls and either relocate or replace the existing windows. This option had been rejected on the grounds of encroachment, additional work and costs, the loss of natural light, and the risk of entry of external moisture if the windows were moved.
- 4.7 Copies of the applicant's submissions and other documentation were forwarded to the other parties.
- 4.8 Copies of a draft determination were forwarded to the parties on 3 July 2007. The applicant and the territorial authority accepted the determination without additional comment.
- 4.9 By way of consultation under section 170, I also sent the draft to the New Zealand Fire Service which made no comment.

5 The legislation

- 5.1 The relevant sections of the Act apply as follows:

115. Code compliance requirements: change of use

An owner of a building must not change the use of the building,—

- (a) in a case where the change involves the incorporation in the building of 1 or more household units where household units did not exist before, unless the territorial authority gives the owner written notice that the territorial authority is satisfied, on reasonable grounds, that the building, in its new use, will comply as nearly as is reasonably practicable, with the building code in all respects.

6 Compliance with the Building Code

- 6.1 The relevant provisions of the building code are:

C3.3.3 Fire separations shall:

- (a) Where openings occur, be provided with fire resisting closures to maintain the integrity of the fire separations and for adequate time...

C3.3.5 External walls and roofs shall have resistance to the spread of fire, appropriate to the fire load within the building and to the proximity of other household units, other residential units, and other property.

- 6.2 The relevant provisions of the acceptable solution C/AS1 are:

3.11.6 Except where the conditions for escape via an external escape route (Paragraph 3.14), or successive open paths (Paragraph 3.9.12), or an intermediate floor (Paragraph 3.9.13) apply, exit doors from sleeping area firecells in purpose groups SC, SD, SA and household units in SR shall open directly onto:

- a) A horizontal safe path, or
b) A pressurised vertical safe path, or
c) A final exit.

7.5.3 The calculation steps (see Figures 7.5 and 7.6) are:

Step 6 From the left hand column select the distance from the external wall to the relevant boundary. For walls not parallel to the relevant boundary, the shortest distance between relevant boundary and the closest unprotected area in the external wall shall be used.

7. Discussion

7.1 Compliance “as nearly as is reasonably practicable”

7.1.1 Any decision as to whether any particular item of upgrading will bring the building to compliance as “nearly as is reasonably practicable” with the relevant provision of the Building Code is a matter of weighing the cost and other sacrifices involved in that upgrading against the benefits achieved. This process was described in the High Court decision in *Auckland CC v NZ Fire Service*³, in the following terms:

“It must be considered in relation to the purpose of the requirement and the problems involved in complying with it, sometimes referred to as ‘the sacrifice’. A weighing exercise is involved. The weight of the considerations will vary according to the circumstances and it is generally accepted that where considerations of human safety are involved, factors which impinge upon those considerations must be given an appropriate weight.”

The question of “nearly as is reasonably practicable” has been discussed in previous determinations, such as Determination 2002/8.

7.1.2 In its letter dated 13 February 2007 to the architects, the territorial authority states that the building in its new use should comply “... to the same extent as if it were a new building...”. I note that this requirement, which was originally included in section 112(1)(a) has been deleted under an amendment to the Act. Accordingly, in the context of this determination, I consider that the conversion has only to comply, as nearly as reasonably practicable, with the provision of the building code that relates to means of escape from fire and fire-rating performance.

7.2 The existing windows

7.2.1 The resource consent for the conversion requires that the existing windows are not to be altered in appearance. I have also been referred to the requirement under the resource consent that any alteration to the windows will require the issue of a new resource consent. Although this matter can be considered as part of the benefit/sacrifice equation, it is one that comes within the ambit of the Resource Management Act 1991 and not under the Building Act 2004. I am unable, therefore, to consider this particular matter in this determination.

7.2.2 The territorial authority requires the 8 existing windows to the south boundary (“the windows”) to be provided with fire-resistant glazing, together with automatic closing and latching devices. I note that the south boundary wall face is 750 mm from the boundary and the external faces of the glass panes in the sashes range from 925mm to 975mm from the boundary. The consent Addendum requires these windows to be re-glazed to -/30/-Sm, with beading over intumescent fire/smoke seals, however the “frames” can be retained.

7.2.3 In their Supplementary Submission, the fire engineers stated that the window/boundary separation dimensions “are less than the code stipulated 1.0 metre

³ 19/10/95, Gallen J, HC Wellington AP336/93, partially reported in [1996] 1 NZLR 330.

- separation...”. I note that clause C3 of the Building Code does not mention any such dimensions. However, the dimensions described by the fire engineers are set out in C/AS1. This document is not part of the Building Code. While it describes methods as to how code compliance can be achieved, it does not prevent the consideration of other alternatives.
- 7.2.4 The fire engineers have stated that if the depth of the window reveals from the face of the south wall is taken into account, the distance from the window glass faces to the boundary varies between 925mm to 975mm. However, I note that in C/AS1, step 6 of Method 2 (enclosed rectangles) for determining the required distance states that the distance is to be taken from “the external wall to the relevant boundary”. Accordingly, I cannot accept the separation distances suggested by the fire engineer and consider that a separation distance of 750mm is the correct one when calculating the fire resistance rating of the windows. Accordingly, this dimension does not achieve the 1 metre distance as required in C/AS1.
- 7.2.5 Having concluded that the firecell separation distance of the building from the boundary is insufficient, I must now consider the fire rating of the windows.
- 7.2.6 I note that the territorial authority has stated in the building consent that the “frames” to the south boundary wall windows can remain as they are. If a wide meaning is given to the word “frame” in the context of these windows, it can be interpreted to include the sashes. In addition, the consent only requires the windows to be “re-glazed” without any mention of the sashes themselves.
- 7.2.7 I am of the opinion that to merely re-glaze the windows would not be sufficient to meet the -/30/-Sm requirement requested by the territorial authority. I consider that additional work would be required to the sashes and perhaps the surround frames. In addition, at least one completely amended window would need to be removed and tested by an approved organisation to ensure its compliance with the territorial authority’s requirement.
- 7.2.8 The building consent also requires that automatic devices are installed to close and latch the window sashes. This is in accordance with Clause C3.3.3, which requires the provision of fire resisting closures to maintain the integrity of the fire separations. I therefore accept that the installation of such devices is required for the windows to meet the requirements of the Building Code.
- 7.2.9 Taking into account the discussion set out in paragraphs 7.2.2 to 7.2.8 above, I find that the windows are not code-compliant in their present state and would require substantial amendment to achieve compliance. The architects have provided an estimated cost of \$10,678 for the work required by the territorial authority in relation to such an amendment. The architects have also referred to detrimental issues, other than cost, if the windows are to be removed or replaced.
- 7.2.10 I realise that the work required to amend or replace the windows, or to implement any other acceptable alternative could be difficult. However, there are clearly considerations of human safety in this case, particularly related to the safety of the occupants of the neighbour’s building if a fire was to break out in the conversion. In my opinion this is a case where I must give appropriate weight to the human safety benefits achieved by amending or replacing the windows. I conclude that those safety benefits outweigh the sacrifice involved.

7.3. The horizontal safe path

- 7.3.1 I am of the opinion that the proposed means of escape from fire regarding the access to the exterior of the conversion does not meet the requirements of clause 3.3.3.
- 7.3.2 The fire engineers have stated that the only practical option to meet the territorial authority's escape from fire concerns was to provide a horizontal safe path, which would require two fire doors in close proximity. The fire engineers were also of the opinion that such a short horizontal safe path would be "abused" by the occupants and the resulting lobby would be superfluous.
- 7.3.3 I do not consider that the addition of a further set of fire doors or an approved alternative would be an onerous burden on the applicant in terms of the safety benefit/sacrifice considerations. Neither can I accept that any perceived "abuse" of the safe path is relevant in the context of safety. I therefore conclude that the proposed means of escape requires to be amended to meet the territorial authority's concerns.

8 What is to be done?

- 8.1 It is not for me to decide directly how the defects are to be remedied and the fireproofing or means of escape from fire are to be brought to compliance with the Building Code. That is a matter for the owners to propose and for the territorial authority to accept or reject.

9 The decision

- 9.1 In accordance with section 188 of the Building Act 2004, I hereby:
- (a) determine that, in regard to the conversion, the following do not comply as nearly as is reasonably practicable with the provisions of the Building Code:
 - The retention of the existing south wall timber windows that are within 1 metre of the boundary.
 - The horizontal safe path at the entry of the lower apartment at the southern end of the building.
 - (b) confirm the territorial authority's decision to issue the building consent that contains the attached "Further Addendum to the Consent" as set out in paragraph 3.8.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing on 24 July 2007.

John Gardiner
Manager Determinations