

## Determination 2007/140

### Determination regarding a covered walkway at New Plymouth Airport, 192 Airport Drive, New Plymouth

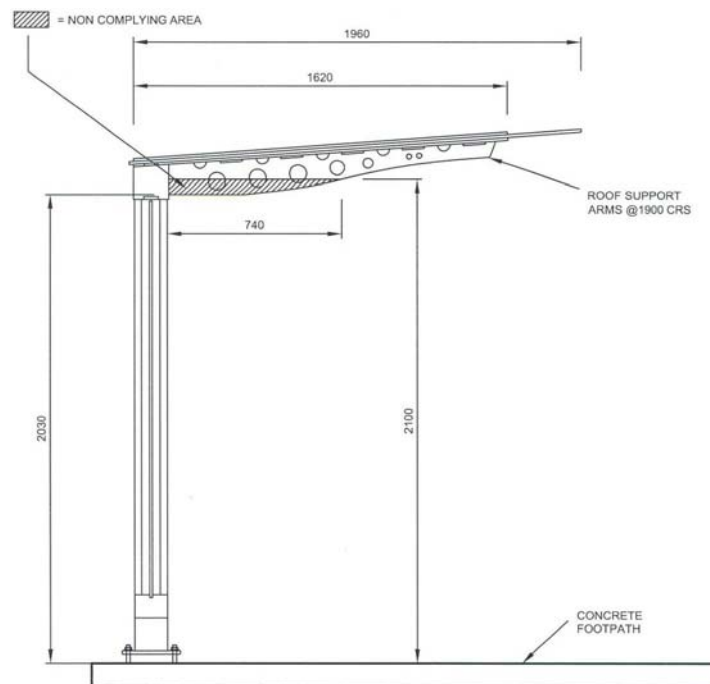


Figure 1: Typical section through walkway

#### 1. The matter to be determined

- 1.1 This is a determination under Part 3 Subpart 1 of the Building Act 2004<sup>1</sup> (“the Act”) made under due authorisation by me, John Gardiner, Manager Determinations, Department of Building and Housing (“the Department”), for and on behalf of the Chief Executive of that Department. The applicant is the owner of the building, New Plymouth Airport, acting through a firm of consultants (“the applicant”) and the other party is the New Plymouth District Council (“the territorial authority”).

<sup>1</sup> The Building Act 2004 is available from the Department’s website at [www.dbh.govt.nz](http://www.dbh.govt.nz).

- 1.2 This determination arises from the decision of the territorial authority to issue a notice to fix because it was not satisfied that a covered walkway complied with the Building Code<sup>2</sup> (First Schedule, Building Regulations 1992).
- 1.3 The matter to be determined is whether the covered walkway as installed complies with Clause D1 of the Building Code (see sections 177 and 188 of the Act). By “the covered walkway as installed” I mean the components of the system (such as the wall and cantilevered roof) that, along with the paving, constitute the walkway, as well as the way the components have been installed and work together.
- 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 Act and references to clauses are to clauses of the Building Code.

## **2. The building**

- 2.1 The building work consists of sections of covered ground-level walkway erected on two axes at right angles to each other to provide shelter to people moving to and from the air-terminal building to nearby car-parking and taxi ranks. Construction consists of purpose-designed columns supporting cantilevered raked glass roof sections as shown in Figure 1. Glazing is fixed between the columns, thus providing a wall along the line of the columns. The opposite “outer” sides of the walkways have no barrier or wall, but are open. The concrete walkways are 2450mm wide of which approximately 1810mm is covered by the raked glass roof. Artificial lighting has been provided by means of downlights fixed near the top of some of the columns.

## **3. Sequence of events**

- 3.1 The territorial authority issued a building consent No 90979 on 1 May 2007.
- 3.2 The territorial authority issued a notice to fix dated 1 June 2007. Under the ‘Particulars of contravention or non-compliance’ the notice says:

A. Part of the building work subject to this notice

STEEL STRUCTURE SUPPORTING GLAZING OVER COVERED WALKWAY

B. Legislative requirement/building code clause that is not met

NZBC/D1 AS1

C. Reason why the work is deemed not to meet the building code

STEEL STRUCTURE SUPPORTING GLAZING IS REQUIRED TO HAVE A MINIMUM CLEAR HEIGHT OF 2.100M TO FINISHED GROUND LEVEL NOT 2.00M AS SPECIFIED [Design and build supplier] DRAWINGS.

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<sup>2</sup> The Building Code is available from the Department’s website at [www.dbh.govt.nz](http://www.dbh.govt.nz).

3.3 On 29 October 2007, the Department received an application for a determination.

## **4. The submissions**

4.1 In a covering letter dated 26 October 2007, the applicant noted that the matter in contention arose because of a “misinterpretation of the requirements of D1.”

4.2 The applicant forwarded copies of:

- the plans
- a sectional drawing showing the extent to which the roof supports protruded lower than the 2100mm prescribed in D1/AS1
- a copy of the building consent
- a copy of the notice to fix
- photographs of the building in use
- copies of the relevant pages of D1/AS1.

4.3 Copies of the applicant’s documentation were forwarded to the territorial authority.

4.4 The draft determination was sent to the parties for their consideration on 26 November 2007. Both parties accepted the draft without comment.

## **5. Discussion**

5.1 Under section 94(1)(a) the Act, if a territorial authority is satisfied on reasonable grounds that building work complies with the building consent, it must issue a code compliance certificate, unless certain other conditions which do not apply in this case, are not met. A territorial authority therefore is required to assess whether the work as described in the building consent application will comply with the building code.

5.2 As part of the application I have received a drawing, stamped as “approved” by the territorial authority on 30 April 2007, that shows a clear height of up to 2046mm. I therefore take it that the territorial authority issued a building consent in the knowledge that a clear height of close to 2046mm was intended to be constructed.

5.3 The sectional drawing supplied by the applicant shows that for a horizontal distance of 740mm, measured from the face of the vertical glazing bars in the wall, the vertically raked roof support arms are from 2030mm to 2100mm above the finished ground level. Beyond that 740mm distance, the roof supports continue to rake upwards and the distance to the finished ground level exceeds 2100mm by an increasing amount.

- 5.4 I note that the 2030mm dimension shown in the sectional drawing described in paragraph 5.1 is at variance with the 2000mm cited in the notice to fix issued on 1 June 2007, and is based on the design and build supplier's drawings.
- 5.5 Contrary to the notice to fix, D1/AS1 is not part of the Building Code. D1/AS1 is an Acceptable Solution which prescribes one way, but not the only way of complying with Clause D1 of the Building Code. Thus the 2100mm height dimension for access routes in D1/AS1 is not a legislative requirement. The legislative requirement that must be met is Clause D1 of the Building Code. To comply with Clause D1.1 a building must:
- (a) Safeguard people from injury during movement into, within and out of buildings.
- Also applicable here is the requirement in Clause D1.3.3 that access routes shall:
- (b) Be free from dangerous obstructions and from any projections likely to cause an obstruction.
- 5.6 I consider I am being asked to determine whether the roof support frames being as low as 2030mm at their lowest point safeguards people from injury as they walk along the paved ground protected by the glazed roofs.
- 5.7 In the letter accompanying its application, the applicant referred to an incident in which the head of a child carried on the shoulders of a person had struck one of the roof support frames.
- 5.8 I observe that even if the roof support frames were all installed at a minimum height of 2100mm, the overall height of a child's head when the child is being carried on an adult person's shoulders is almost certain to exceed 2100mm. It is now common for adults to be 1850 to 2000mm tall, and difficult to envisage that height not being increased by at least 150mm by a child being carried on such a person's shoulders. In light of the incident mentioned in paragraph 5.5, the territorial authority may wish to consider the need for a notice warning walkway users of the overhead hazard.
- 5.9 Figure 4 in D1/AS1, to which the applicant refers in his letter dated 26 October 2007, depicts a corridor, rather than a covered walkway open on one side. The minimum height of 2100mm specified in an enclosed corridor is a safe minimum in that situation. An open walkway can reasonably have a lower height over part of its width. The headroom along the walking path at, say, 400mm from the glazed wall, would be about 2065mm.
- 5.10 I conclude that the small reduction in the height of the roof support frames, of about 35mm on the walking path, does not prevent these particular roofs from complying with Clause D1 of the Building Code. I note here that the majority of the length of each frame, and the raked roof glazing above, exceeds the height dimension of 2100mm specified in D1/AS1.

## **6 The Decision**

- 6.1 In accordance with section 188 of the Building Act 2004, I hereby determine that the covered walkway does comply with Clause D1 of the Building Code. Accordingly, I reverse the territorial authority's decision to issue a notice to fix.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing on 19 December 2007.

John Gardiner  
**Manager Determinations**