BC BUILDING CODE INTERPRETATION COMMITTEE

A joint committee with members representing

AIBC, EGBC, BOABC

File No: 18-0223 **INTERPRETATION**

Interpretation Date:	December 13, 2022
Building Code Edition:	BC Building Code 2018
Subject:	Height of handrails
Keywords:	Handrail height
Building Code Reference(s):	3.4.6.5.(7); 9.8.7.4.

Question:

Is it acceptable to have a handrail installed with variable heights along the length of stair flights, ramp or landings?

Interpretation:

Yes, with caution.

The BCBC 2018 provides a range of handrail installation heights from 865mm to 1070mm. There is no requirement that this height be uniform along the length of the stair flight, landing or ramp.

However, the handrail must provide a steady support for persons using it and a change in height along the flight of stairs, ramp or landing may cause a loss of balance. It is highly recommended that the height of the handrail be consistent throughout the length of each flight of stairs, ramps and landings.

In some locations, such as at the change of stair direction, it may be better to slope the handrail between two successive flights instead of creating a vertical drop in the handrail, as this rapid change in height may be more destabilizing or break the grip of the user.

This principle was accepted by BC Appeal Board Ruling #1667.

Patrick Shek, P.Eng., CP, FEC, Committee Chair

BRITISH COLUMBIA

BCAB #1667 - Height of Handrails, Sentence 3.4.6.4.(4)

March 12, 2010

BCAB #1667

Re: Height of Handrails, Sentence 3.4.6.4.(4)

Project Description

This appeal involves the continuous handrail as it wraps around centre wall at landings between flights. The handrail is 36 inches above the nosing until a few inches before the bottom of the flight where it slopes a bit more steeply to meet the portion of the handrail wrapping around the end of the centre wall. The other option would have been to maintain the handrail's slope parallel to the nosings and drop vertically the few inches to meet the handrail wrapping around the end of the centre wall.

Reason for Appeal

Sentence 3.4.6.4.(4) requires handrails to be ". . . not less than 865 mm (34") and not more than 965 mm (38") high . . ." Sentence 3.4.6.4.(5) requires at least one handrail to be continuous throughout the length of the stairway, including landings.

Appellant's Position

The appellant contends that the handrail conforms to Sentence 3.4.6.4.(4) because it is never more than 965 mm nor less than 865 mm above the nosings and nowhere does the Code require the handrail to be parallel to the line through the nosings.

Building Official's Position

The building official maintains that Sentence 3.4.6.4.(4) gives an acceptable installation range between 865 mm and 965mm measured vertically from a line drawn through the outside edges of the stair nosing. The installer / manufacturer chooses and maintains an installation height within the specified range, parallel to the tread nosing.

Appeal Board Decision #1667

It is the determination of the Board that the handrail design is in conformance with the requirements of Sentences 3.4.6.4.(4) and (5). The handrail height is within the specified height range and is continuous. There is no requirement for the handrail to be parallel with the line drawn through the stair nosings.

George Humphrey, Chair

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