



Washington State Building Code Council

Improving the built environment by promoting health, safety and welfare

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STATE BUILDING CODE INTERPRETATION NO. 18-07

CODE: ANSI 117.1-2009

SECTION: 405 Ramps

QUESTION: The access-way leading up to the entry door landing of an office building has a slope that is less than 5% (3% in the specific case). Based on the slope, the access-way does not meet the definition of a ramp in the IBC or as prescribed in ANSI 117.1 (2009) Section 405. Per Section 405.2, handrail and edge protection requirements are applicable where the slope is greater than 5%.

RAMP. A walking surface that has a running slope steeper than one unit vertical in 20 units horizontal (5-percent slope).

405.2 Slope. Ramp runs shall have a running slope greater than 1:20 and not steeper than 1:12.

Exception: In existing buildings or facilities, ramps shall be permitted to have slopes steeper than 1:12 complying with Table 405.2 where such slopes are necessary due to space limitations.

ANSI Section 303.4 indicates that level change exceeding ½” shall be by means of a ramp. The context of Section 303 appears to be level changes at thresholds.

303.4 Ramps. Changes in level greater than ½ inch in height shall be ramped and shall comply with Section 405 or 406.

Do the ramp requirements of ANSI Section 405 (handrail and edge protection) apply where the exterior access-way leading up to entry landing has a rise greater than ½” (about 4” rise in the specific case) and the slope is less than 5%?

ANSWER: **No. If the walking surface is less than a 5% slope, it would not be considered a ramp and would not require handrails or edge protection. See also ANSI A117.1, Section 303.3.**

SUPERSEDES: None

REQUESTED BY: City of Vancouver