

The Seismic Assessment of Existing Buildings

Errata 1: Corrections to Equations in Section C5

From Monday 26 March, 2018, the following corrections shall apply to the listed equations and their definitions within Section C5 of the Engineering Assessment Guidelines (available from www.eq-assess.org.nz/part-c/c5/).

Item:	Equations C5.9 and C5.10 – page C-64
Correction:	Delete equation C5.9 and Equation C5.10
	Replacements will only be provided in the revision to the whole of Section C5.

Item:	Equation C5.11 – page C-65
Correction:	Replace Equation C5.11 with the following
	$\Delta_{\text{cap}} = 0.0325L_c \left(1 + k_{\text{ebb}} \frac{f_{yt}d_b}{f'_c D} \rho_{\text{st}} \right) \left(1 - \frac{N^*}{A_g f'_c} \right) \left(1 + \frac{L_c}{10D} \right) \quad \dots\text{C5.11}$

Item:	Definitions following Equation C5.11 – page C-65
Correction:	Replace the incomplete definition of ρ_{eff} with the following
	ρ_{st} = volumetric ratio of confinement reinforcement (see Table C5.6)

Item:	Equation C5.13 – page C-66
Correction:	Replace the definition Equation C5.13 with the following
	$\theta_y = \frac{\Delta_y}{H} = \phi_y \left(\frac{H}{3} \right) \quad \text{Effective yield rotation} \quad \dots\text{C5.13}$

Item:	Equation C5.37 – page C-74
Correction:	Replace Equation C5.37 with the following pair of equations
	$V_{\text{prob,jh}} = 0.85v_{\text{prob,jh}}b_jh \leq 1.92\sqrt{f'_c}b_jh \quad \dots\text{C5.37A}$
	$v_{\text{prob,jh}} = \sqrt{(k_j\sqrt{f'_c})^2 + k_j\sqrt{f'_c}\frac{N^*}{A_g}} \quad \dots\text{C5.37B}$

Item:	Equation C5.38 – page C-76
Correction:	Replace Equation C5.38 with the following
	$V_{\text{prob,jh}} = 0.85v_{\text{prob,jh}}b_jh \leq 1.92\sqrt{f'_c}b_jh \quad \dots\text{C5.38}$

Item:	Equations C5.39 and C5.40 – page C-76
Correction:	Replace Equations C5.39 and C5.40 and the text before the equation numbers with the following
	$v_{\text{prob,jh}} = \sqrt{(k_j\sqrt{f'_c})^2 + k_j\sqrt{f'_c}(f_v + f_h) + f_v f_h} \quad \text{for tension} \quad \dots\text{C5.39}$
	$v_{\text{prob,jh}} = \sqrt{(0.6f'_c)^2 - 0.6f'_c(f_v + f_h) + f_v f_h} \quad \text{for compression} \dots\text{C5.40}$

Item:	Definitions following Equation C5.40 – page C-76
Correction:	Replace the definition following Equation C5.40 with the following
	$f_v = \frac{N^*}{A_g}$