CODE

COMMENTARY

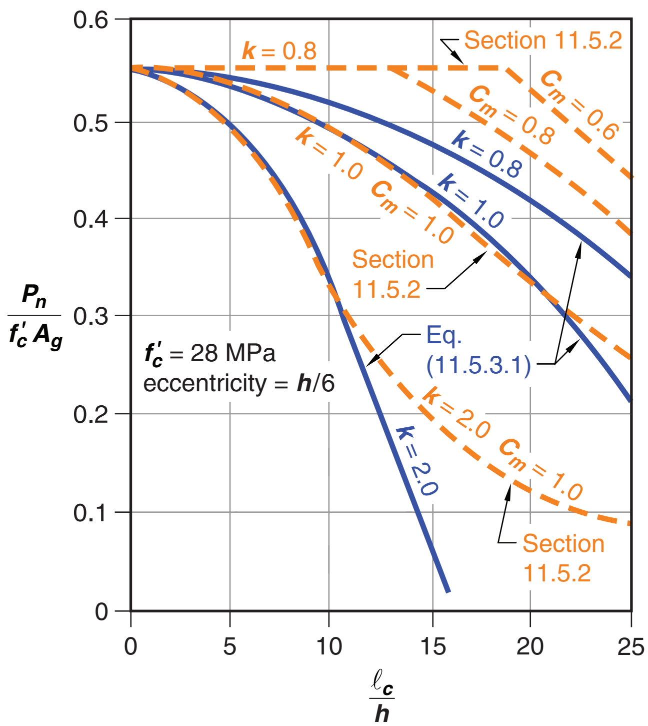

Fig. R11.5.3.1*—Simplified design of walls, Eq. (11.5.3.1) versus 11.5.2.*

11.5.3.2 Effective length factor k for use with Eq. (11.5.3.1) shall be in accordance with Table 11.5.3.2.

Table 11.5.3.2—Effective length factor k for walls

Boundary conditions	k
Walls braced top and bottom against lateral translation and:	
(a) Restrained against rotation at one or both ends (top, bottom, or both)	0.8
(b) Unrestrained against rotation at both ends	1.0
Walls not braced against lateral translation	2.0

11.5.3.3 P_n from Eq. (11.5.3.1) shall be reduced by ϕ for compression-controlled sections in 21.2.2.

11.5.3.4 Wall reinforcement shall be at least that required by 11.6.

11.5.4 *In-plane shear*

11.5.4.1 V_n shall be calculated in accordance with 11.5.4.2 through 11.5.4.4. Alternatively, for walls with h_w/ℓ_w < 2, it shall be permitted to design for in-plane shear in accordance with the strut-and-tie method of Chapter 23. In all cases, reinforcement shall satisfy the limits of 11.6, 11.7.2, and 11.7.3.

R11.5.4 *In-plane shear*

R11.5.4.1 Shear in the plane of the wall is primarily of importance for structural walls with a small height-to-length ratio. The design of taller walls, particularly walls with uniformly distributed reinforcement, will likely be controlled by flexural considerations. Possible exceptions may occur in tall structural walls subject to strong earthquake excitation.