

## CODE

## COMMENTARY

of higher grades, these limits are replaced by the expressions  $\epsilon_{ty} + 0.003$  and  $\epsilon_{ty} + 0.008$ , respectively. The first expression is the same expression as used for the limit on  $\epsilon_t$  for classification of tension-controlled members in Table 21.2.2; this expression is further described in Commentary R21.2.2. The second expression provides a limit on  $\epsilon_t$  with Grade 420 reinforcement that is approximately the same value as the former constant of 0.010.

**Table 8.4.2.2.4—Maximum modified values of  $\gamma_f$  for nonprestressed two-way slabs**

Column location	Span direction	$v_{uv}$	$\epsilon_t$ (within $b_{slab}$ )	Maximum modified $\gamma_f$
Corner column	Either direction	$\leq 0.5\phi v_c$	$\geq \epsilon_{ty} + 0.003$	1.0
Edge column	Perpendicular to the edge	$\leq 0.75\phi v_c$	$\geq \epsilon_{ty} + 0.003$	1.0
	Parallel to the edge	$\leq 0.4\phi v_c$	$\geq \epsilon_{ty} + 0.008$	$\frac{1.25}{1 + \left(\frac{2}{3}\right)\sqrt{\frac{b_1}{b_2}}} \leq 1.0$
Interior column	Either direction	$\leq 0.4\phi v_c$	$\geq \epsilon_{ty} + 0.008$	$\frac{1.25}{1 + \left(\frac{2}{3}\right)\sqrt{\frac{b_1}{b_2}}} \leq 1.0$

**8.4.2.2.5** Concentration of reinforcement over the column by closer spacing or additional reinforcement shall be used to resist moment on the effective slab width defined in 8.4.2.2.2 and 8.4.2.2.3.

**8.4.2.2.6** The fraction of  $M_{sc}$  not calculated to be resisted by flexure shall be assumed to be resisted by eccentricity of shear in accordance with 8.4.4.2.

**8.4.3 Factored one-way shear**

**8.4.3.1** For slabs built integrally with supports,  $V_u$  at the support shall be permitted to be calculated at the face of support.

**8.4.3.2** Sections between the face of support and a critical section located  $d$  from the face of support for nonprestressed slabs and  $h/2$  from the face of support for prestressed slabs shall be permitted to be designed for  $V_u$  at that critical section if (a) through (c) are satisfied:

- (a) Support reaction, in direction of applied shear, introduces compression into the end regions of the slab.
- (b) Loads are applied at or near the top surface of the slab.
- (c) No concentrated load occurs between the face of support and critical section.

**8.4.4 Factored two-way shear****R8.4.4 Factored two-way shear**

The calculated shear stresses in the slab around the column are required to conform to the requirements of 22.6.