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that structural deformation at onset of strength loss is not affected by mesh configuration in the finite element model.

A.6.4 For structural walls with aspect ratio $h_w/\ell_w \geq 2$, the numerical model of the wall and its connection to surrounding elements shall represent kinematic effects associated with wall rotation and uplift, including the effect of migration of the neutral axis as a function of applied axial force and lateral deformation, unless it can be demonstrated that such effects do not affect the structural design requirements.

A.7—Action classification and criticality

A.7.1 All actions shall be classified as deformation-controlled or force-controlled in accordance with A.7.2 and A.7.3.

A.7.2 *Deformation-controlled actions*

A.7.2.1 Deformation-controlled actions shall satisfy the requirements of A.10.

A.7.2.2 The following shall be designated as deformation-controlled actions:

(a) Moment in beams, structural walls, coupling beams, and slab-column connections
(b) Shear in diagonally reinforced coupling beams that meet the requirements of 18.10.7.4
(c) Moment in columns when combined with axial force for columns meeting the requirements of 18.7.4, 18.7.5, and 18.7.6

A.7.3 *Force-controlled actions*

A.7.3.1 Force-controlled actions shall satisfy the requirements of A.11.

A.7.3.2 The following shall be designated as ordinary force-controlled actions:

(a) Shear and moment in perimeter basement walls
(b) In-plane shear in non-transfer diaphragms
(c) In-plane normal forces in diaphragms other than collectors
(d) Moment in shallow foundation members, including spread footings and mat foundations
(e) Moment in deep foundation members

A.7.3.3 Noncritical force-controlled actions shall be designated as actions in any component where failure will not result in: (a) collapse of the structure; (b) loss of the earthquake resistance of the structure; and (c) falling hazard.

COMMENTARY

loss. For these systems, material softening should be defined using a measure of mesh size, or the chosen material model parameters and mesh size should be shown, using an appropriate experimental data set, to provide accurate simulation of onset of strength loss.

RA.7—Action classification and criticality

RA.7.2 *Deformation-controlled actions*

RA.7.2.2 Similar to the requirements of 18.14.3.3, if columns are detailed with sufficient confinement and reinforcement detailing, column moment can be evaluated as a deformation-controlled action rather than as a force-controlled action.

RA.7.3 *Force-controlled actions*

RA.7.3.2 For diaphragm shear to be considered an ordinary force-controlled action, the shear should not be related to a transfer of force between lateral-force-resisting system components.

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