D_D = design displacement, in in. (mm), at the center of rigidity of the isolation system in the direction under consideration, as prescribed by Eq. 17.5-1

D'_D = design displacement, in in. (mm), at the center of rigidity of the isolation system in the direction under consideration, as prescribed by Eq. 17.6-1

D_M = maximum displacement, in in. (mm), at the center of rigidity of the isolation system in the direction under consideration, as prescribed by Eq. 17.5-3

D'_M = maximum displacement, in in. (mm), at the center of rigidity of the isolation system in the direction under consideration, as prescribed by Eq. 17.6-2

D_{TD} = total design displacement, in in. (mm), of an element of the isolation system including both translational displacement at the center of rigidity and the component of torsional displacement in the direction under consideration, as prescribed by Eq. 17.5-5

D_{TM} = total maximum displacement, in in. (mm), of an element of the isolation system including both translational displacement at the center of rigidity and the component of torsional displacement in the direction under consideration, as prescribed by Eq. 17.5-6

d = longest plan dimension of the structure, in ft (mm)

E_{loop} = energy dissipated in kips-in. (kN-mm), in an isolator unit during a full cycle of reversible load over a test displacement range from Δ^+ to Δ^-, as measured by the area enclosed by the loop of the force-deflection curve

e = actual eccentricity, in ft (mm), measured in plan between the center of mass of the structure above the isolation interface and the center of rigidity of the isolation system, plus accidental eccentricity, in ft. (mm), taken as 5 percent of the maximum building dimension perpendicular to the direction of force under consideration

F^- = minimum negative force in an isolator unit during a single cycle of prototype testing at a displacement amplitude of Δ^-

F^+ = maximum positive force in kips (kN) in an isolator unit during a single cycle of prototype testing at a displacement amplitude of Δ^+

F_x = total force distributed over the height of the structure above the isolation interface as prescribed by Eq. 17.5-9

$k_{D\text{max}}$ = maximum effective stiffness, in kips/in. (kN/mm), of the isolation system at the design displacement in the horizontal direction under consideration, as prescribed by Eq. 17.8-3

$k_{D\text{min}}$ = minimum effective stiffness, in kips/in. (kN/mm), of the isolation system at the design displacement in the horizontal direction under consideration, as prescribed by Eq. 17.8-4

$k_{M\text{max}}$ = maximum effective stiffness, in kips/in. (kN/mm), of the isolation system at the maximum displacement in the horizontal direction under consideration, as prescribed by Eq. 17.8-5

$k_{M\text{min}}$ = minimum effective stiffness, in kips/in. (kN/mm), of the isolation system at the maximum displacement in the horizontal direction under consideration, as prescribed by Eq. 17.8-6

k_{eff} = effective stiffness of an isolator unit, as prescribed by Eq. 17.8-1

L = effect of live load in Chapter 17

T_D = effective period, in s, of the seismically isolated structure at the design displacement in the direction under consideration, as prescribed by Eq. 17.5-2

T_M = effective period, in s, of the seismically isolated structure at the maximum displacement in the direction under consideration, as prescribed by Eq. 17.5-4

V_b = total lateral seismic design force or shear on elements of the isolation system or elements below isolation system, as prescribed by Eq. 17.5-7

V_s = total lateral seismic design force or shear on elements above the isolation system, as prescribed by Eq. 17.5-8

y = distance, in ft (mm), between the center of rigidity of the isolation system rigidity and the element of interest measured perpendicular to the direction of seismic loading under consideration

β_D = effective damping of the isolation system at the design displacement, as prescribed by Eq. 17.8-7

β_M = effective damping of the isolation system at the maximum displacement, as prescribed by Eq. 17.8-8