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LIST OF NOTATIONS

$C$: Cohesion

$[C]$: Damping matrix

$E$: Modulus of elasticity

$E_{str}$: Modulus of elasticity of the structural material

$f$: Natural frequency of fixed base structure

$F_s$: Total shear force

$F_n$: Total normal force

$F_x$: Forces in $x$ direction

$F_y$: Forces in $y$ direction

$\{F_v\}$: Force vector

$G$: Shear modulus of the soil

$G_{max}$: Largest value of the shear modulus

$k$: Stiffness of the structure

$k_s$: Shear spring stiffness

$k_n$: Normal spring stiffness

$K$: Bulk modulus

$[K]$: Stiffness matrix

$K_h$: Horizontal stiffness coefficient of the subsoil

$K_r$: Rocking stiffness coefficient of the subsoil

$K_{ss}$: Soil-structure relative rigidity

$m$: Mass of the structure

$[M]$: Mass matrix

$T$: Natural period of fixed-base structure

$T_{~}$: Natural period of soil-structure system

$T_n$: Normal traction at the model boundaries

$T_s$: Shear traction at the model boundaries

$u$: Lateral displacement at the top of the structure due to structural distortion

$u_n$: Incremental relative displacement vector in normal direction

$u_s$: Incremental relative displacement vector in shear direction

$\{u\}$: Nodal displacement

$\{\dot{u}\}$: Nodal velocity
\{\ddot{u}\} : Nodal acceleration
\Delta t : Time-step
\mu : Poisson’s ratio of the soil
\varnothing : Friction angle