

NOTATIONS

1	Major principal stress
2	Intermediate principal stress
3	Minor principal stress
σ_{yy}	Normal stress
τ	Shear resistance
σ_{xy}	Shear stress
J_1	First Invariant of stress
J_{2D}	Second Invariant of Deviatoric stress
E	Young's modulus of elasticity
G	Shear modulus
ν	Poisson's ratio
dv	Vertical displacement
du	Horizontal (Shear) displacement
ϵ_{yy}	normal strain
γ_{xy}	Engineering shear strain
ϵ_{xy}	Tensorial shear strain
ϕ	Basic friction angle
i_0	angle of asperity
i_{av}	Average dilation angle
$i_{0\sigma}$	dilation angle at zero normal stress
dV_{max}	Maximum dilation
$dv_{0\sigma}$	Maximum dilation under zero normal stress