

$$\text{Stability Number, } N = N(\beta, \lambda, U, D) \quad (1)$$

$$\beta = \text{Slope angle}$$

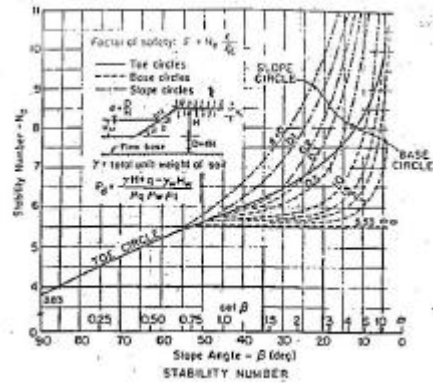
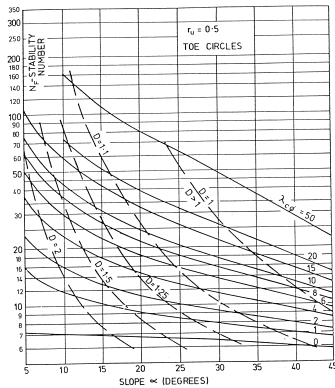
$D = \text{Depth factor}$

$$\lambda = \text{Factor related to soil strength}$$

$$\gamma H \tan \phi / c$$

$U = \text{Pore pressure ratio}$

$R_q = \text{Janbu-Hoek factor}$



i) Cousins ; $\lambda = 0.5$ Toe circle (COUSINS)

c) Janbu ; $\lambda = 0$ (JANBU)

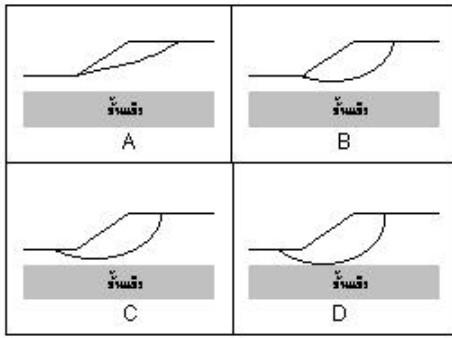
Factor of Safety

3. Parametric Study

Homogeneous slope ; Isotropic soil ; Rotation slip ; Parametric study ; Factor of Safety ; Cousins ; Simplified Bishop ; Total stress ($\phi=0$) and Effective stress ($\phi>0$)

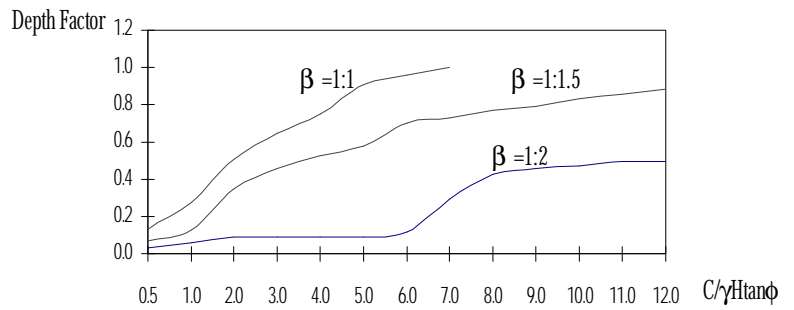
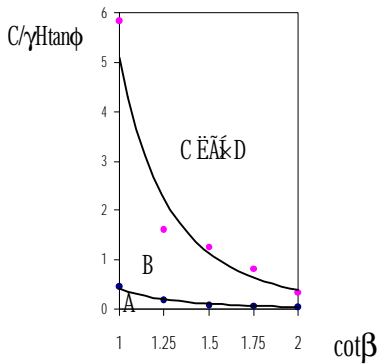
4. Parametric Study

Total stress ($\phi=0$) and Effective stress ($\phi>0$) ; Cousins ; Simplified Bishop ; Factor of Safety



A Toe Sliding (TS) àš Toe circle á°° · ðÇÍŠ Failure Surface áÁÇÖÄÇ; ÁÑ ÁÑÉ³D; ÁÇÖ; Ñ Angle of Repose ÁÖ; «ð» ŠÁÑÉ³D; ÖÇÍŠ Ö ÇÖÖ ÖŠJ
 B Toe Circle (TC) àš Toe Sliding áµ;DÁÇÖÄÇ; ÁÑÇÍŠ á¹ÇÍŠ Failure Surface àšÁÑÉ³D; ÖÇÍŠ Ö ÇÖÖ ÖŠJ
 C Base Circle (BC) àšÁÑÉ³D · ðÇÍŠ Failure Surface µÑ¹ÉÇ¹ÇÍŠ Base ÇÍŠÁÖ ÇµáÁµÑŠà; ÖÇÍŠ ÇÍŠ ÁÖ Ç» ŠÁÑÉ³D; ÖÇÍŠ Ö ÇÖÖ Ç µÍ¹ÇÖŠJ
 D Full Circle (FC) àš Base Circle · ðÇÍŠ Failure Surface µÑŠÁÖ; ÖÇÍŠ ÇÍŠÁÖ Ç» ŠÁÑÉ³D; ÖÇÍŠ Ö ÇÖÖ ÇÖŠJ

ÁÛ ÖÁÑÉ³DÇÍŠ Failure Surface á°° µÇæ



(j) áÇŠ · ÖÁ; ÖÇÍŠ Á°° µÇæ

(c) ðDepth factor á¹; Á³ ÖÁ; Á°° C áÁD D

ÁÛ ÖÁ; ÖÇÍŠ Á°° µÇæ

Ö; ¼Á · ðÉÄÁ ÇÖ¼¹ ÁÇÖŠ Janbu áÁD Hoek&Bray àÉÇÖ Ö¹ ÇÖC Conservative (µÇ ÇÖÖ Ö; RE5) á Á°Ö Error ·DÁÖÖÖÁÉÁÁÖÖ ÇÍŠ¼¹ ÁÁÖµÁŠ; ÁÑÉ³D; ÖÁ; Á°° (j) Á³ Ö áÁD D) «ÖÖ Error ÇÍŠ¼¹ ÁÁÖµÁŠ ÁÖÖ ÇÖ-10% ÉÇ¹ ÇÍŠ Hoek&Bray ·DÁÛ áÇŠ -10 ÖÖ 20%

á¹; Á³ ÖÁ; ÁÇÖŠ Bishop «ÖÉÁÖÖÖ» àšá°° C áÁD D àÉÇÖ ÖÁÇÖŠ; ÑÖ Ö; RE5 á¹ · ÖÁ³ Ö áµÍÁÇŠáÁ; µÖ áÇŠ · ÖÁ; ÁÇÖŠ Bishop ÍÖ ðÖ ÇÖÖ¹ ÇÖÖÖ ÖÖÖ Ö ÍÖ ÖÖÖ¹; ÖÁ Ö Ç³ µÍ¹ ÇÖÖ ÖÁÖ; ·DÁ» · ÖÖá ÇÖÉÇ¹ á¼¹ ÁÇÖŠ Cousin ¹ ÉÉÇÖ; ÁÇÖŠ; ÑÖ Ö; RE5 ÁÖ; · ÖÖ ÖÖ; ÁÉÁÁÖÖ¹; ÖÁ; Á°°

ÉÁÖ ÁÇÖÁ¹; Á³ Ö Effective Stress á¼¹ ÁÇÖÉÁ · ÖÖÇÖÖÖÁÖ; áá ÇÖÖÉÁÁÖÖ ÇÍŠ¼¹ ÁÁÖ ·DÁµÁŠ; ÁÑÉ³D; ÖÁ; Á°° Á°Ç¼¹ ÁÇÖ àÉÇÖ ÖÖÖÁ»Á¹ ÁÑÉ³ÇÖÁÉÁÁÖÖ áÁµÁŠ Ö Ñ

5; ÖÉÖÖ¼¹ ÁÁÖÖÖÖÇÍŠ ÇÖÁÖ; Á³ ÖÖÖ ÁÖ Ö

