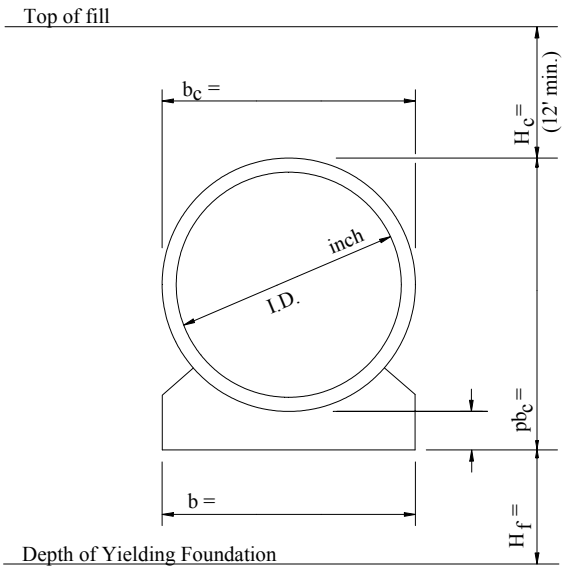
STRENGTH FOR _____" DIA. R/C PIPE WITH CONCRETE BEDDING

Watershed_____ Computed by_____ Date_____
Structure No._____ Checked by_____ Date_____



Reference: Technical Release No. 5

Assumption See E.S. – 113/1

1. Case "C" Exists (Yielding Foundations)
2. δ = 0.5 Homogeneous Fill and Foundation Material
   or _____ from Page _____ of NEH 6.
3. Positive Projection –

Incomplete Condition $\frac{H_c}{b_c} > \frac{H'_e}{b_c}$

From Soil Lab Report and E.S. – 114/3

Compaction = _____% Std. Proctor

Sample No. _____: γd = _____lb./ft.^{3}

ω = _____%

γm = (%Std. × γd) (1+ω) = lb./ft.^{3}

γm = (0.00) (0.00) = 0.00 lb./ft.^{3}

ϕ = _____ Kμ = _____

μ = _____ (0.19 max.)

K = _____ 2Kμ = _____

$$\rho = \frac{\rho \quad b_c}{b_c} = \frac{(\qquad)}{(\qquad)} = _____$$

$$\delta\rho = (\qquad)\ (\qquad) = 0.00$$

$$\frac{H_c}{b_c} = \frac{(\qquad)}{(\qquad)} = _____$$

$$2K\mu\frac{H_c}{b_c} = (\qquad)(\qquad) = 0.00$$

$$2K\mu\delta\rho = (\qquad)(\ 0.00\ ) = 0.00$$

Drwg. E.S. – 118/2 or 3

$2K\mu C_p$ = _____; $C_p = \frac{(\qquad)}{(\qquad)}$ = _____

Load Coefficient-Positve Projecting Conduits

Drwg. E.S. – 120/2 or 3; X_p = _____

Distribution-Verticle Load and Reaction

Drwg. E.S. – 121/1 or 2; T = _____

Parameter-Active Lateral Earth Pressure

$$F_{sr} = C_p X_p - KT$$

$$(\qquad)(\qquad) - (\qquad)(\qquad)$$

$$(0.00\qquad) - (0.00\qquad)$$

= _____

Required Strength Factor

Safety Factor

(s) for 0.001" Crack = 1.00

$$R_{eb} = \frac{(s)(\gamma m)(F_{sr})(b_c)^2}{1.431}$$

$$= \frac{(1.00)(\ 0.00\ )(\qquad)(\qquad)^2}{1.431}$$

A. R_{eb} = _____ for 0.001" Crack

Three-Edge Bearing Strength for AWWA C-301

B. $3000D$ = _____ (D is pipe I.D.)

R_{eb} *required* = _____
(largest of A and B)