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ERRATA

PTI DC10.5-12 Standard Requirements for Design and Analysis of Shallow Post-Tensioned Concrete Foundations on Expansive Soils

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DC-10 Slab-on-Ground Committee

The following errata items were added on 4/16/2014:

Page 6, Section 3.0 – Notation:

CR= prestress loss due to creep of concrete, ~~lb~~ kips.

ES = prestress loss due to the elastic shortening of concrete, ~~lb~~ kips.

Page 8, Section 3.0 – Notation:

M_L= maximum applied service load moment in long direction from either the center lift or edge lift; positive if producing tension at bottom of foundation, negative if producing tension at top of the foundation, ~~ft-lb/ft~~ ft-k/ft.

M_S= maximum applied service load moment in short direction from either the center lift or edge lift; positive if producing tension at bottom of foundation, negative if producing tension at top of the foundation, ~~ft-lb/ft~~ ft-k/ft.

P_e = effective prestress force in tendon after losses due to elastic shortening, creep and shrinkage of concrete, and steel relaxation, ~~lb~~ kips.

Page 9, Section 3.0 – Notation:

P_i = prestress force in tendon immediately after stressing and anchoring tendons considering effects of tendon friction, ~~lb~~ kips.

P_r= effective prestress force in concrete after losses due to tendon friction, elastic shortening, creep and shrinkage of concrete, steel relaxation, and subgrade friction, ~~lb~~ kips.

P_s = prestress force at jacking end immediately before anchoring tendons, ~~lb~~ kips.

RE = prestress loss due to steel relaxation, ~~lb~~ kips.

Page 10, Section 3.0 – Notation:

SG = reduction in compressive force on concrete cross section caused by subgrade friction, ~~lb~~ kips.

SH = prestress loss due to concrete shrinkage, ~~lb~~ kips.

V_L = maximum service shear force in long direction under service load from either center lift or edge lift, ~~lb~~ kips/ft.

V_S = maximum shear force in short direction under service load from either center lift or edge lift, ~~lb~~ kips/ft.

W_{slab} = foundation weight, ~~lb~~ kips.

Page 22, Section 5.1.3 – Modified unsaturated diffusion coefficient α':

$$\alpha'_{shrink} = (0.0029 - 0.000162S_S - 0.0122\gamma_{h\ swell}\gamma_{h\ shrink})F_f$$

Page 39, Section 8.3 – Edge Lift

Section 8.3.1 – Long and short direction : lower case "p" in the numerator changes to capital "P" and the exponent on y_m changes from 0.57 to 0.67

$$V_L = V_S = \frac{L^{0.07}h^{0.4}p^{0.03}P^{0.03}{e_m}^{0.16}{y_m}^{0.57\ 0.67}}{3S^{0.015}}$$

Page 40, Section R8.4 – Allowable stress: capital "S" changes to lower case "s" in the denominator of the equation

$$\frac{A_v}{Ss} = \frac{(v - v_c)b}{0.4f_y}$$