Piles distribution

$d \geq (3 - 3.5)D$

Consulting the figure shown

$B_g = 2d + D$

Let d = 3D

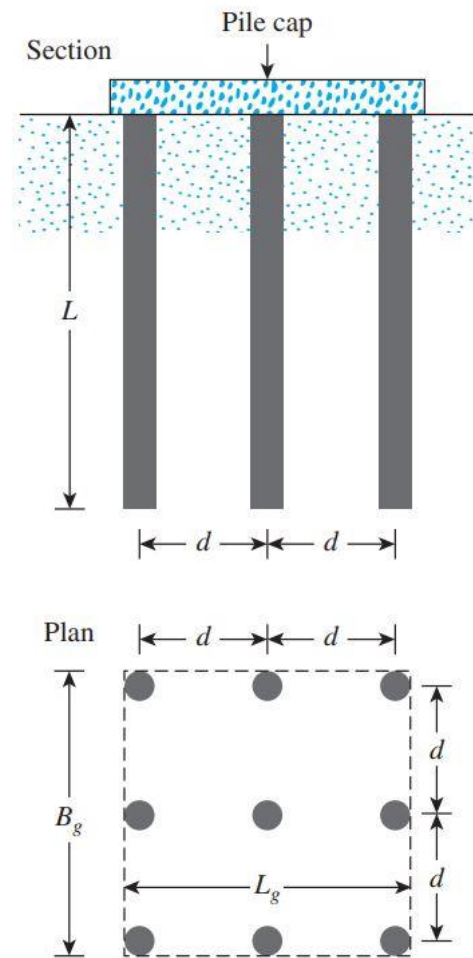$B_g = 2(3D) + D = 7D$

Similarly,
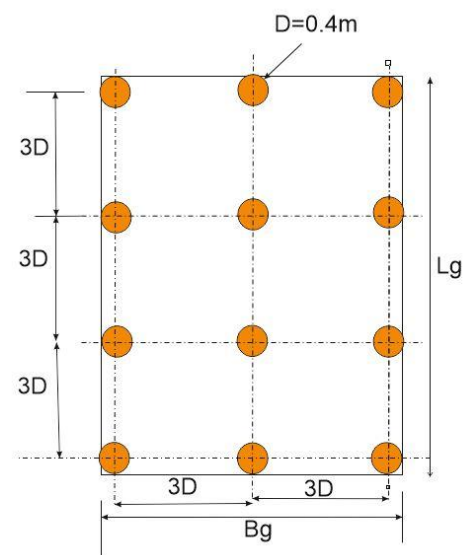
$L_g = 2d + D$

Let d = 3D

$L_g = 2(3D) + D = 7D$

Example:

Estimate the cap dimensions of the pile group

shown in the figure below

$B_g = 3D + 3D + D = 7D = 7 * 0.4m = 2.8m$

$L_g = 3D + 3D + 3D + D = 7D = 10 * 0.4m = 4m$

Example 2:

For the deep foundation shown in Figure, estimate the c-c distance between the piles.

$$d_L + d_L + d_L + D = L_g$$

$$3d_L + D = L_g$$

$$3d_L + 0.5 = 8m$$

$$d_L = 2.5m > 1.5m \ \ ok$$

Similarly,

$$d_B + d_B + d_B + D = B_g$$

$$3d_B + D = B_g$$

$$3d_B + 0.5 = 6m$$

$$d_B = 1.83m > 1.5m \ \ ok$$