

Summary of Decisions of the Structural Engineering Committee  
SEC 2/2008 held on 21.02.2008

(a) Case 2/2008

- Issue: Mini-pile founded in CDG with structural casing to resist vertical load and lateral load
- Recommendation: Mini-pile (Ø323mm) founded in CDG with structural casing (Ø323mm x 10mm thick) to resist vertical load by soil friction and lateral loads by bending:
- (a) The design principle be accepted subject to the satisfactory verification by adequate trial piles,
  - (b) No composite action between the steel casing and the mini-pile core portion be allowed in the evaluation of structural capacity of the pile.
- Decision: Noting the background information provided and the rational approach on verification of the design principles, Members endorsed the recommendations subject to the following conditions:
- (a) Due consideration has to be given on the method of construction of the above specific use of minipiles, especially on the soil stability during casing withdrawal via control on grout pressure and grout volume. The integrity of the constructed pile has to be assured by proper workmanship and verification by suitable field tests;
  - (b) Suitable construction sequence has to be adopted to avoid adverse effects caused to adjacent piles when the grout of these adjacent piles has not been fully set; and
  - (c) Under the lateral load test for cycle 2, when the rate of recovery after the removal of the test loads is less than 0.1mm/hour observed in a period of not less than 15 minutes, the residual displacement at the head of the pile should not exceed  $D/120 + 4\text{mm}$ .