Summary of Decisions of the Structural Engineering Committee
SEC Meeting 2/2015 held on 26.2.2015

(a) <u>Case 7/2015</u>

Issue:	Use of jacking method to install two single and one group of 5 (i.e. total 7 numbers) of trial precast prestressed spun concrete (PPSC) piles (500mm outer diameter and 125mm thick) founded on soil
Recommendation:	To accept the trial pile proposal for precast prestressed concrete (PPSC) piles (500mm outer diameter and 125mm thick Yang Cheng Pile) to be installed by jacking method.

(1) The trial pile proposal aims to verify the feasibility of jacked PPSC piles by assessing the followings:

(i) the proposed acceptance/termination criteria is appropriate to ensure the pile can achieve an allowable pile capacity of 1,800kN (i.e. an ultimate pile capacity of 5,400kN with a Factor of Safety of 3).

(ii) the appropriate installation method.

(iii) any effect of pile jacking operation on adjacent piles installed.

(iv) correlation between the mobilized shaft resistance and mean SPT-N value, and the mobilized end bearing resistance.

(2) Findings of the trial piles will be taken into account in the future foundation submission for the proposed residential development at Area 112, Tin Shui Wai, Yuen Long, T.S.W.T.L. 33.

Decision:	Having noted the background information and arguments together with the following clarifications, members endorsed the recommendation.

(a) Since the trial piles will not be re-used in this development, they should be cut down after the loading test.

(b) Pile shaft resistance in the fill and marine deposit layers should be ignored.

(c) Method of preventing the piles from buckling during installation should be considered.

(d) Pile founding level at SPT $N \geq 80$ should be one of the acceptance/termination criteria.

(e) Site supervision should cover all stages of pile installation including jacking and re-jacking for all piles.

(f) The proposed pile integrity test may not be sufficient for checking the pile integrity. RSE should consider providing further test.