

Summary of Decisions of the Structural Engineering Committee
SEC Meeting 4/2018 held on 13.6.2018

Case 18/2018

Issue: Design principle of mini-pile socketed into Grade III or better sedimentary rock (i.e. siltstone)

Recommendation: To accept the design parameter and founding criteria for the design of mini-piles (270mm diameter with 5 nos. of T50 Grade 500 rebar) socketed in Grade III or better sedimentary rock (i.e. siltstone) as follows:-

Design Parameter and Founding Criteria

		Value
Design Parameter	Allowable Bond Strength between Rock & Grout	150kPa
Acceptance Criteria for Siltstone	Uniaxial Compressive Strength (UCS)	Min. 15MPa
	Point Load Index (PLI ₅₀)	Min. 1MPa
	Total Core Recovery (TCR)	Min. 90%

Decision: Having noted the background information together with the clarifications made by the RSE, members endorsed the recommendations on a case-by-case basis subject to the following conditions:

- (a) The result of proof test on the trial pile should be found satisfactory. The trial pile should be load-tested up to 3 times of the design pile capacity to verify the design assumption and the frictional capacity of the rock socket.
- (b) To further monitor the capacity and performance of the rock socket, the extension of the reaction piles for the proof test should also be monitored throughout the loading test. The performance review report of the proof test should be submitted to the satisfaction of the Building Authority.