## Case 37/2021

Issue:	Shaft Grouted Frictional Steel H-Pile	
Recommendation:	(1)	To accept the rational design method for the design of steel H-pile using shaft grouted friction in soil:
	(	(a) The ultimate shaft friction resistance in Completely Decomposed Granite (CDG) to be 4.8 x SPT-'N' but limited to 192kPa with a factor of safety of 3. (i.e. allowable shaft friction resistance in CDG to be 1.6 x SPT-'N' but limited to 64kPa.)
		(b) The allowable pile capacity of shaft grouted friction for shaft grouted frictional steel H-pile is 6000kN for compression and 3000kN for tension.
		(c) The ultimate shaft friction capacity is subject to the satisfactory results of proof loading test on the proposed trial pile.
	(2)	Fo adopt a group reduction factor of 1.00 instead of a group reduction factor of 0.85.
Decision:	Havin const propo case-l super grout follow	ing noted the background information, the methodology of ruction, the quality control procedures and the testing psals, members endorsed the recommendations on a py-case basis subject to the condition that enhanced quality vision, adequate quality control of the post-pressurized ing works and result of proof test should be provided as vs:
	(	<ol> <li>The site supervision level shall be enhanced by increasing RSE's and RGE's T5 and RSC's T4 supervision during shaft grouting, water cracking, post-pressurized grouting and loading test;</li> </ol>
		(2) The post shaft-grouting to the steel H-pile grouted by the manchettes of each TAM pipe would be cracked open by the "water cracking" method at least after 4 hours of normal grouting and within 32 hours of the

(3) The satisfactory result of proof test on the trial pile and the performance review report.

normal grouting works;