Summary of Decisions of the Structural Engineering Committee SEC Meeting 8/2022 held on 28.6.2022

Case 13/2022

Issue: Large Diameter Bored Piles found on Grade III or better Sedimentary Rock (SILTSOTNE)

Recommendation: To accept the design parameters for large diameter bored piles founded on Sedimentary Rock which has (i) TCR not less than 90%, (ii) RMR value not less than 40, (iii) Fracture Index (FI) not more than 16.6 and (iv) Minimum Uniaxial Compressive Strength not less than 25 MPa or Point Load Index Strength PLI₅₀ not less than 1MPa within one time the pile base diameter below the pile base.

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

		Value
Design Parameters	Allowable Bearing Capacity	3,000kPa
	Total Core Recovery (TCR)	Not less than 90%
Acceptance Criteria	Weighted-Average of Rock Mass Rating (RMR) from top of Inferred Engineering Rockhead to 5m depth or three times the diameter of the pile base below the pile base whichever the deeper.	Not less than 40
	Fracture Index (FI) of Rock Materials below Inferred Engineering Rockhead of Grade III of better Rock	Not more than 16.6
	Uniaxial Compressive Strength (UCS) or Point Load Index Strength (PLI ₅₀) within one time pile base diameter below the pile base	Not less than 25MPa (UCS), Not less than 1MPa (PLI ₅₀)

(a) The founding rock materials should satisfy the acceptance criteria as below: