Copies of the logs are attached along with a test location sketch. Suggested design values are indicated in the following table.

Table 1 – Summary of Design Parameters

Material	Allowable Shaft Friction (kPa)	Allowable End Bearing (kPa)	Undrained Cohesion (kPa)	Angle of Friction (°)	Soil Modulus (MPa)	Undrained Passive Pressure (kPa)	Long Term Passive Pressure Coefficient (K_P)
Stiff silty clay	15	225	75	-	15	150	2.5
Very stiff silty clay	20	450	150	-	30	-	-
Hard silty clay/extremely low strength	25	600	200	-	50	-	-

A safety factor of 2.5 has been used to assess these allowable bearing pressures. Where limit state methods are used to design the piles, the unfactored ultimate geotechnical strength (R_{ug}) can be calculated by multiplying the allowable values by a factor of safety of 2.5. The R_{ug} values will need to be multiplied by a suitable geotechnical strength reduction factor (ϕ_g) to obtain the design geotechnical strength (R*g). Where no pile testing is carried out, a ϕ_g value of 0.5 is suggested.

Lateral modulus of subgrade reaction (k_s) parameters can be estimated using the following approximate relationship:

$$k_s = 1.3 \times \text{Soil Modulus / Pile Diameter}$$