ERRATA for:

Comparison of Static and Dynamic Pile Load Tests at Thi Vai International Port in Viet Nam

Full Reference: Phan, T.L., Matsumoto, T., and Nguyen, H.H. (2013). *Comparison of Static and Dynamic Pile Load Tests at Thi Vai International port in Viet Nam*. International Journal of Geoengineering Case histories, http://casehistories.geoengineer.org, Vol.3, Issue 1, p.36-66. doi: 10.4417/IJGCH-03-01-04.

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ERRATA 1

Figure 26 and the related explanation on pages 58 and 59 should be replaced by the following (underlined part was modified):

Figure 26 shows the calculated distribution of the axial forces in the pile at the end of the third loading process, together with those at the working load in step 4 of the first loading process and in step 9 of the second loading process, and those at the maximum load (step 13) and full unloading step of the second loading process. The figure indicates that when unloading to zero from the maximum load, the residual axial force is again caused along the embedment pile length with a maximum value of 1000 kN at the pile tip which is much greater than 400 kN in the first full unloading step (step 8 in Figure 25). At the working load, the axial forces decrease with depth in the first and second loading processes, however, the axial force in the third loading process increases with depth to 25 m (neutral plane) and then decreases with increasing depth. It is clearly seen from comparison of the axial forces in the pile at the working load in three loading processes that the mobilised shear resistances decrease while the mobilised tip resistances increase with increase in the number of the loading processes. Such aspect should be considered when evaluating the pile capacity after the SLT, because the safety margin of the pile tip resistance decreases with increasing number of loading processes in which magnitude of the maximum applied force increases in each process. This aspect will be discussed again in later part for the TSP1, which was reused as a working pile in this site.

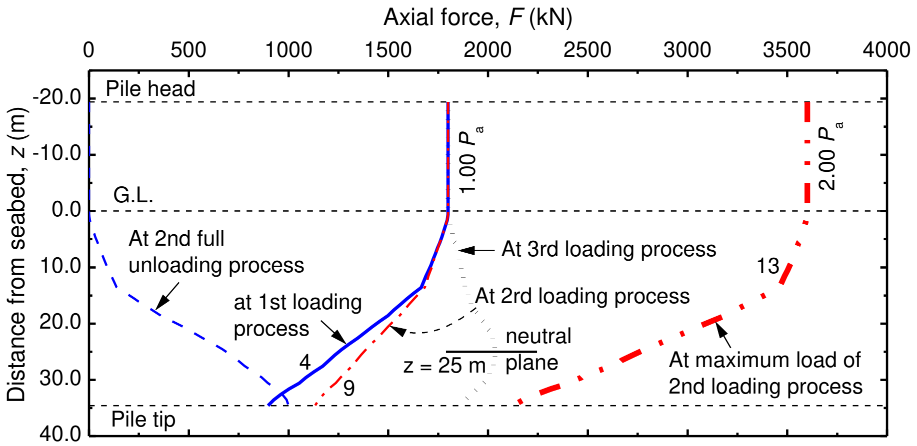

Figure 26. Calculated distributions with depth of the pile axial forces of the TSC1 at the BOR test.

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ERRATA 2

Figures 33 and 34 and the corresponding explanations on pages 63 and 64 should be replaced by the following (underlined parts were modified):

As previously mentioned, the TSP1 was actually used as a working pile after the SLT. Hence, in the analysis, the TSP1 was reloaded to the working load after completion of the SLT to predict the pile response when it is used as the working pile. The pile response at the end of the third loading process is indicated by the black dot line in Figure 33. <u>At the working load of the third loading process, P_a = 4002 kN, the pile axial force reaches a maximum value of 4552 kN at a depth z = 30.8 m (neutral plane) and the mobilized tip and shaft resistance are 3837 kN and 165 kN, respectively. At this applied force, the mobilized tip resistance reaches about 96 % of the applied load</u>, which is greater than that in the first loading process at step 4 (55 % of P_a) and the second loading process at step 9 (65 % of P_a). Because of the higher mobilised tip resistance during this multiple loading process, TSP1 will have smaller safety factor at the pile tip compared to that of the non-tested working piles with the same pile configuration, the same soil and driving conditions.

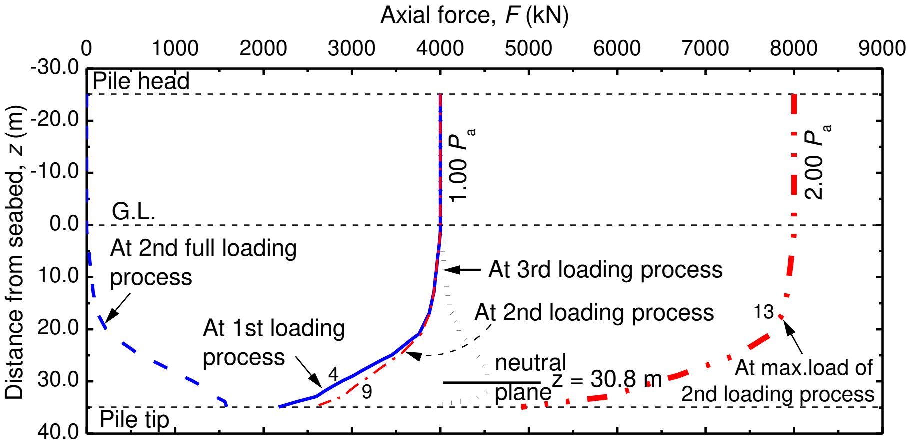


Figure 33. Calculated distributions with depth of the pile axial forces of the TSP1 at BOR test.

In order to estimate the load-displacement behaviour of the TSP1 when it is reused as a working pile after the two loading processes of the SLT, TSP1 was further loaded in the analysis from the working load in the third loading process until the pile reaches the ultimate bearing capacity. The calculated curve is shown in Figure 34, together with the SLT result. For comparison purposes, the calculated load-displacement curve of the TSP for a monotonic loading is also shown in the figure. <u>It can be seen from the figure that the yield load and the ultimate bearing capacity at a settlement of 0.1D of the TSP1 after the two cycles of loading are similar to those of the TSP1 subjected to only monotonic loading. This indicates that cyclic loading has no influence on the load-displacement curve at the pile head, if reduction of the shaft resistance due to cyclic loading does not occur</u>.

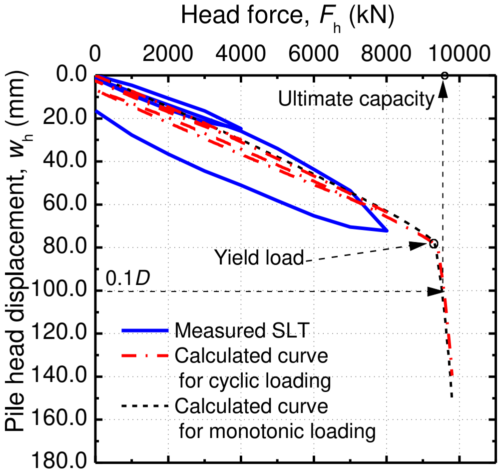
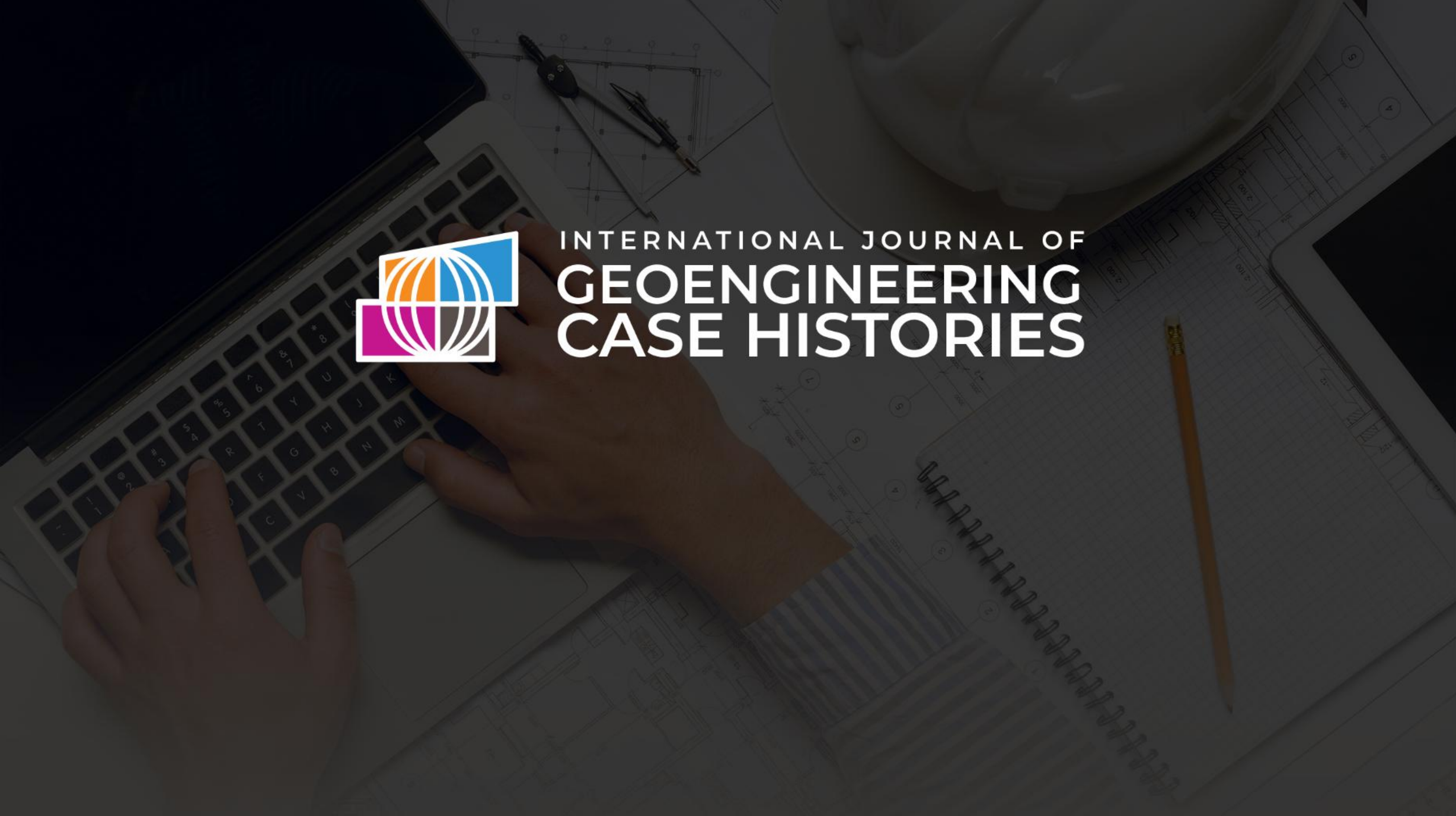


Figure 34. Calculated load-displacement curves with and without cyclic loading, together with the SLT result of TSP1.

ERRATA 3

Conclusion No. 4 on page 66 should be replaced by the following:

4. The piles which have been subjected to cyclic loading have similar yield and ultimate capacities to the piles subjected to monotonic loading, if reduction of the shaft resistance due to cyclic loading does not occur.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