

## INTISARI

GHEANIFA IRMA YUSTIKA, 2019, *Perbandingan Daya Dukung Fondasi Bore Pile Berdasarkan Metode dan Loading Test pada Proyek MTH 27 Office Suites*. (dibimbing oleh Dr. Eng. Iman Haryanto, S.T., M.T.)

Fondasi merupakan struktur terpenting dalam bangunan yang berfungsi untuk meneruskan beban struktur atas ke lapisan tanah. Nilai daya dukung fondasi diperoleh dengan cara empiris dan uji lapangan. Penelitian ini bertujuan untuk mendapatkan nilai daya dukung fondasi secara empiris dan berdasarkan data lapangan *loading test*, serta membandingkan nilai daya dukung fondasi dengan metode empiris dan lapangan.

Penelitian ini menggunakan metode Meyerhof untuk menghitung nilai daya dukung fondasi empiris berdasarkan data *Standard Penetration Test* (SPT) dan metode Bagemann untuk menghitung nilai daya dukung fondasi empiris berdasarkan data sondir. Sedangkan nilai daya dukung fondasi berdasarkan data lapangan dianalisis menggunakan metode Chin (1971) dan metode Mazurkiewicz (1972).

Hasil yang didapatkan dari analisis yang telah dilakukan adalah nilai daya dukung fondasi kelompok tiang ( $Q_{all}$ ) berdasarkan data sondir sebesar 5110,74 ton. Sedangkan nilai daya dukung fondasi kelompok tiang ( $Q_{all}$ ) berdasarkan data *Standard Penetration Test* (SPT) sebesar 235,89 ton. Nilai daya dukung fondasi kelompok tiang ( $Q_{all}$ ) hasil *loading test* menurut metode Chin (1971) sebesar 277,78 ton, sedangkan menurut metode Mazurkiewicz (1972) nilai  $Q_{all}$  tidak dapat diperoleh. Nilai daya dukung fondasi berdasarkan data *loading test* jauh lebih kecil daripada nilai daya dukung fondasi berdasarkan metode empiris.

**Kata kunci** : daya dukung fondasi, metode Meyerhof, metode Bagemann, sondir, *Standard Penetration Test* (SPT), *loading test*

### ABSTRACT

GHEANIFA IRMA YUSTIKA, 2019, *Comparison of Foundation Bearing Capacity Based on Empiric Method and Loading Test on MTH 27 Office Suites Project.* (supervised by Dr. Eng. Iman Hayanto, S.T., M.T.)

*Foundation is the most important structure in the building which has function to continue the upper structural load to the ground floor. The value of foundation bearing capacity obtained by empiric method and field test. The purposes of this research are to get the value of foundation bearing capacity based on empiric method and to get the value of foundation bearing capacity based on loading test data and also comparing the value of foundation bearing capacity based on empiric method with the field test data.*

*This research was using Meyerhof method to get the empirical value of foundation bearing capacity based on Standard Penetration Test (SPT) data and using Bagemann method to get the empirical value of foundation bearing capacity based on sondir data. While the value of foundation bearing capacity based on field test data was analyzed using Chin method (1971) and Mazurkiewicz method (1972).*

*The result obtained from the analysis that has been done is the value of foundation bearing capacity of a group pile ( $Q_{all}$ ) based on sondir data is 5110,74 ton. While the value of foundation bearing capacity of a group pile ( $Q_{all}$ ) based on Standard Penetration Test (SPT) is 2335,89 ton. The value of foundation bearing capacity of a group pile ( $Q_{all}$ ) based on loading test data using Chin method (1971) is 277,78 ton, while the analysis that using Mazurkiewicz method (1972) couldn't be obtained. The value of foundation bearing capacity based on loading test data is smaller than the value of foundation bearing capacity based on empiric method.*

**Keywords :** *bearing capacity of foundation, Meyerhof method, Bagemann method, sondir, Standard Penetration Test (SPT), loading test*