INTISARI

Proyek *Flyover* Tanjung Barat merupakan solusi dari kemacetan karena aktivitas pengendara melintasi jalur *Commuter Line* di daerah Tanjung Barat. Namun saat pelaksanaan terdapat salah satu permasalahan yaitu nilai tes PDA pada titik Q1 tidak memenuhi menimbulkan kekhawatiran *owner* terhadap kapasitas daya dukung fondasi. Maka *bore pile* yang semula berjumlah 4 diameter 100 cm kemudian dilakukan penambahan *bore pile* diameter 80 cm ditengah *pilecap* untuk penambahan kapasitas daya dukung.

Kapasitas daya dukung izin analisis statis berdasarkan data SPT menggunakan metode Meyerhof, Decourt,dan Reese and Wright. Analisis yang dilakukan berdasarkan *existing* dan *redesign*. Kemudian saran untuk efektivitas kapasitas kelompok tiang dengan cara variasi penambahan *bore pile* berdasarkan diameter yang dihitung menggunakan metode Reese and Wright.

Hasil dari kapasitas daya dukung izin analisis tiang tunggal D100 menggunakan perhitungan aplikasi *Microsoft Excel* berdasarkan tiga metode, terdapat salah satu metode yaitu Reese and Wright yang tidak memenuhi rencana dengan nilai 4078,65 kN lebih kecil dari 4300 kN. Penambahan *bore pile* D80 pada lapangan memiliki kapasitas daya dukung izin 3115,82 kN lebih besar dari 3000 kN. Kapasitas daya dukung izin kelompok tiang berdasarkan variasi diameter D70,D60,D50 dan D40 memiliki nilai paling kecil untuk D40 sebesar 17522,48 kN yang sudah memenuhi dengan rencana 17200 kN.

Kata kunci : daya dukung izin, tiang bor, daya dukung izin kelompok tiang, metode Meyerhof, metode Decourt, metode Reese and Wright

ABSTRAK

The Tanjung Barat Flyover Project is a solution to congestion due to motorist activities crossing the Commuter Line in the Tanjung Barat area. However, during the implementation there was one problem, namely the PDA test score at Q1 point did not meet the owner's concern about the carrying capacity of the foundation. Then the bore pile which originally amounted to 4 100 cm in diameter was then added to the bore pile with a diameter of 80 cm in the middle of the pilecap to increase the carrying capacity.

The carrying capacity of static analysis permits based on SPT data uses the Meyerhof, Decourt, and Reese and Wright methods. Analysis carried out based on existing and redesign. Then the suggestion for the effectiveness of the capacity of the pile group by varying the addition of bore piles based on the calculated diameter using the Reese and Wright method.

The results of the carrying capacity of the D100 single pile analysis permit using Microsoft Excel application calculations based on three methods, there is one method, namely Reese and Wright which does not fulfill the plan with a value of 4078.65 kN less than 4300 kN. The addition of D80 bore pile to the field has a permit carrying capacity of 3115.82 kN, greater than 3000 kN. The carrying capacity of the pile group permit based on the diameter variation of D70, D60, D50 and D40 has the smallest value for D40 of 17522.48 kN which has met the 17200 kN plan.

Key word: bearing capacity of the permit, bore pile, bearing capacity of the permit of the pile group, the Meyerhof method, the Decourt method, the Reese and Wright method