

ABSTRAK

Studi Eksperimental Skala Kecil Tentang Penurunan Pelat Beton Bersirip Sebagai Model Jalan Beton di Tanah Lunak

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Pada penelitian ini dilakukan dengan tujuan untuk mengetahui perbandingan penurunan pelat beton tanpa sirip dengan pelat beton bersirip. Mutu beton yang digunakan adalah Fc'25 dengan pembuatan 9 benda uji yaitu, 3 buah pelat beton tanpa sirip, 3 buah pelat beton dengan dua sirip, dan 3 buah pelat beton dengan tiga sirip. Metodologi pengujian yang dilakukan adalah menganalisa hasil uji material seperti analisa saringan, berat jenis, kadar lumpur, dan faktor kepadatan. Setelah melakukan pengujian material terhadap beton dilakukan pengujian karakteristik pengujian tanah seperti, kadar air, berat jenis, batas-batas atterberg, volume berat isi, dan tes DCP. Yang selanjutnya dilakukan setelah pengujian material dan pengujian karakteristik tanah adalah menganalisis penurunan benda uji di tanah lunak terhadap beban yang diberikan yaitu > 500 kg setelah dikonversi. Setelah serangkaian metodologi pengujian yang sudah dijalankan didapatkan hasil perbandingan dari uji pembebanan yaitu, model pelat beton tanpa sirip memiliki hasil penurunan yang paling kecil dibandingkan dengan pelat beton bersirip.

Kata Kunci: Beton bersirip, Tanah lunak, Mutu beton Fc'25, Uji pembebanan.

ABSTRACT

Small Scale Experimental Study of Settlement of Finned Concrete Slabs as A Model for Concrete Roads in Soft Soil

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This research was conducted with the aim of determining the comparison of the settlement of non-finned concrete slabs with finned concrete slabs. The quality of concrete used was Fc'25 with the manufacture of 9 test objects, namely, 3 non-finned concrete slabs, 3 concrete slabs with two fins, and 3 concrete slabs with three fins. The testing methodology used was to analyze the results of material tests such as sieve analysis, specific gravity, mud content, and density factors. After conducting material testing on concrete, soil test characteristics were tested such as water content, specific gravity, atterberg limits, volumetric weight, and DCP tests. The next step after material testing and soil characteristic testing was to analyze the settlement of test objects in soft soil against the given load, which was > 500 kg after conversion. After a series of testing methodologies that had been carried out, the results of the comparison of the loading test were obtained, namely, the non-finned concrete slab model had the smallest settlement results compared to the finned concrete slab.

Keywords: Finned concrete, Soft soil, Concrete quality Fc'25, Loading test.