Penerapan Value Engineering Pada Pekerjaan Perbaikan Tanah Metode Downhole Deep Compaction Proyek Pembangunan Bandar Udara Internasional Dhoho Kediri (PT. Lancarjaya Mandiri Bersama) = Implementation of Value Engineering at Soil Improvement with Downhole Deep Compaction Method in Dhoho International Airport Kediri Project (PT. Lancarjaya Mandiri Bersama)

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Abstrak

Praktik keinsinyuran dilakuakan di Proyek Pekerjaan Perbaikan Tanah dengan metode Downhole Deep Compaction (DDC) dalam bagian proyek pembangunan Bandar Udara Internasional Dhoho Kediri. Praktik keinsinyuran difokuskan kedalam penerapan Value Engineering khususnya pada material filler DDC guna meningkatkan nilai fungsi dan efektifitas pelaksanaan proyek, serta efisiensi cost dengan cara mengganti material fiiler dari 100% crushed stone menjadi 100% coarse grained. Dilakukan pengujian laboratotium terhadap material filler 100% coarse grained dengan hasil uji Sieve Analysis adalah bergradasi baik, persentase hasil uji Los Angeles (Abration) adalah 47.90% dari batas maksimal 60%, presentase hasil uji flakiness index adalah 2,15% dari batas maksimal 30%. dan hasil uji soundness adalah 10.89% dari batas maksimal 15%. Serta dilakukan uji Static Loading Test pada tiang yg telah diisi dengan material filler 100% coarse grained dan mendapatkan nilai settlement 19.79 mm dari batas penerimaan maksimal settlement sebesar 100 mm untuk 200% beban kerja. Sehingga dapat disimpulkan material 100% coarse grained dapat digunakan sebagai material filler pekerjaan DDC PT. Lancarjaya Mandiri Bersama untuk proyek pembangunan Bandar Udara Internasional Dhoho Kediri.

.....Engineering Practice is carried out at the Soil Improvement Project using Downhole Deep Compaction (DDC) method in the construction project for the Dhoho International Airport Kediri. Engineering practice is focused on the application of Value Engineering, especially on DDC filler material in order to increase the functional value and effectiveness of project implementation, as well as cost efficiency by changing the filler material from 100% crushed stone to 100% coarse grained. Laboratory testing was carried out on 100% coarse grained filler material with the Sieve Analysis test results being well graded, the percentage of Los Angeles (Abration) test results was 47.90% of the maximum limit of 60%, the percentage of flakiness index test results was 2.15% of the maximum limit of 30 %. and the result of the soundness test is 10.89% of the maximum limit of 15%. The Static Loading Test was also carried out on piles filled with 100% coarse grained filler material and obtained a settlement value of 19.79 mm from the maximum acceptance limit for settlement of 100 mm for 200% workload. So it can be concluded that 100% coarse grained material can be used as a filler material for PT. Lancarjaya Mandiri Bersama for Dhoho International Airport Kediri development project.