Pengembangan Metode Pengukuran Standar Volume Pekerjaan Mekanikal dan Miscellaneous Work Berbasis WBS pada Field of Play Stadion dengan Kontrak Terintegrasi Rancang Bangun untuk Meningkatkan Akurasi Perhitungan Volume Pekerjaan = Development of Standard Measurement Method Based on WBS for Mechanical and Miscellaneous Work Volumes of Stadium Field of Play with Integrated Design Build Contract to Increase Accuracy of Work Volumes Measurement

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Abstrak

Stadion merupakan salah satu bangunan gedung negara dengan klasifikasi khusus yang dalam pelaksanaannya memerlukan penyelesaian atau teknologi khusus. Pekerjaan yang kompleks pada proyek stadion menjadi salah satu alasan pemilihan kontrak rancang bangun di Indonesia. Perbedaan pemahaman pengukuran volume pekerjaan antar pihak proyek sering terjadi saat penggunaan kontrak rancang bangun, ini dikarenakan tidak adanya standar yang disepakati sehingga terjadi perselisihan. Tujuan penelitian ini meliputi penyusunan WBS pekerjaan mekanikal dan miscellaneous work pada field of play stadion, penyusunan pengembangan SMM berbasis WBS dan model hubungan antara WBS dan SMM terhadap akurasi perhitungan volume pekerjaan. Metode delphi dilakukan pada proses penyusunan WBS dan SMM berbasis WBS untuk mensurvei dan mengumpulan pendapat dari para ahli setelah dilakukan validasi pakar. Selain itu, penelitian ini menggunakan metode SEM untuk mendapatkan model hubungan antara standar metode pengukuran volume pekerjaan berbasis WBS terhadap tingkat akurasi perhitungan volume pekerjaan. Penelitian ini menghasilkan standar measurement method (SMM) yang berbasis WBS serta menghasilkan model matematis untuk hubungan antar variabel yaitu Y = 0.658 X1 + 0.245 X2 yang bermakna bahwa tingkat akurasi perhitungan volume pekerjaan mekanikal dan miscellaneous work pada field of play stadion dipengaruhi oleh WBS sebesar 0.658 dan SMM sebesar 0.245 dengan pengaruh signifikan ditandai dengan tanda positif.

.....The stadium is one of the state buildings with a special classification which in its implementation requires a special solution or technology. The complex work on the stadium project is one of the reasons for choosing a design contract in Indonesia. Differences in the understanding of the measurement of work volume between project parties often occur when using a design and build contract, this is because there is no agreed standard so that there is a dispute. The objectives of this study include the preparation of WBS for mechanical work and miscellaneous work on the field of play stadium, preparation of the WBS-based SMM development, and model of the relationship between WBS and QMS on the accuracy of calculating the volume of work. The Delphi method is carried out in the WBS-based WBS and QMS preparation process to survey and collect opinions from experts after expert validation has been carried out. In addition, this study uses the SEM method to obtain a model of the relationship between the standard WBS-based work volume measurement method and the level of accuracy of the work volume calculation. This study produces a standard measurement method (SMM) based on WBS and produces a mathematical model for the relationship between variables, namely Y = 0.658 X1 + 0.245 X2, which means that the level of accuracy in

calculating the volume of mechanical work and miscellaneous work in the field of play stadium is influenced by WBS of 0.658. and SMM of 0.245 with a significant effect marked with a positive sign.