ANALISIS *WASTE MATERIAL* DENGAN PENERAPAN *LEAN CONSTRUCTION MANAGEMENT* (Studi Kasus: Proyek Pembangunan Gedung *Student Dormitory* Universitas Muhammadiyah Yogyakarta)

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ABSTRAK

Salah satu dampak buruk dari daur hidup proyek konstruksi ialah timbulnya *waste material*. *Waste material* merupakan sisa material, rusaknya material dan ketidaksesuaian spesifikasi material berupa *comsumable material* maupun *non comsumable material* yang dihasilkan oleh proyek konstruksi. Tujuan dari penelitian ini ialah untuk mengetahui indikator paling dominan yang menjadi penyebab terjadinya *waste material*, mengetahui tindakan yang diambil dalam meminimumkan *waste material*, mengetahui nilai bobot dan volume *waste material*, dan mengetahui presentase penerapan *Lean Construction* tinjauan *waste material* pada proyek tersebut. Penelitian ini menggunakan metode Fishbone Diagram, formulasi *if then*, matriks evaluasi, dan menghitung penerapan *Lean Construction* pada tinjauan *waste material*. Hasil dari analisis probabilitas *waste material* pada proyek konstruksi dari observasi di lapangan dan wawancara menghasilkan indikator *waste material* paling dominan adalah *Defect* nilai persentase sebesar 56,00%. Volume yang ditimbulkan oleh *waste material* pada proyek konstruksi selama dua minggu ialah sebesar 5,034 m^3. Dari perencanaan penerapan *lean construction* tinjauan *waste material* dua minggu pengamatan, bahwa proyek telah menerapkan *tools* dari *lean construction* sebesar 91,30%. Dengan meninjau dari total volume *waste material* selama dua minggu yang mana didapat adalah sebesar 56,44 m^3, pada kenyataannya penerapan *lean construction* di lapangan selama dua minggu observasi hanya mencapai 51,40 m^3, itu berarti terdapat kegagalan penerapan *lean construction* sebesar 0,23%.

Kata kunci: Diagram Fishbone, *If Then*, *Lean Construction*, *Waste Material*

ANALYSIS OF WASTE MATERIAL WITH THE APPLICATION OF LEAN CONSTRUCTION MANAGEMENT (Case Study: Yogyakarta Muhammadiyah University Student Dormitory Building Project)

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ABSTRACT

One of the negative impacts of the construction project life cycle is the emergence of waste material. Waste material is leftover material, damaged material and non-compliance with material specifications in the form of consumable materials and non-consumable materials produced by construction projects. The purpose of this research is to find out the most dominant indicators that cause waste material, to know the actions taken to minimize waste material, to know the value of the weight and volume of waste material, and to know the percentage of Lean Construction implementation of waste material review on the project. This study uses the Fishbone Diagram method, if then formulation, evaluation matrix, and calculates the application of Lean Construction in the waste material review. The results of the analysis of the probability of material waste in construction projects from field observations and interviews yielded the most dominant indicator of waste material being a defect with a percentage value of 56.00%. The volume generated by the waste material in the construction project for two weeks is 5.034 m3. From the planning for implementing lean construction, reviewing the waste material for two weeks of observation, that the project has implemented tools from lean construction by 91.30%. By reviewing the total volume of waste material for two weeks which was 56.44 m3, in fact the application of lean construction in the field during the two weeks of observation only reached 51.40 m3, which means that there was a failure of lean construction implementation of 0.23%. .

Keywords: Fishbone Diagram, If Then, Lean Construction, Waste Material