

Achieving Sustainable Rapid Construction Using Lean Principles

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Abstract : There is the need to take the holistic approach in achieving sustainable construction for a contemporary practice. Sustainable construction is the practice that involved method of human preservation of the environment, whether economically or socially through responsibility, management of resources and maintenance utilizing support. This paper shows the correlation of achieving rapid construction with sustainable concepts using lean principles. Lean principles being used widely in the manufacturing industry, but this research will demonstrate the principles into building construction. Lean principle offers the benefits of stabilizing work flow and elimination of unnecessary work. Therefore, this principle contributes to time and waste reduction. The correlation shows that pulling factor provides the improvement of progress curve and stabilizing the time-quality relation. The finding shows the lean principles offer the elements of rapid construction synchronized with the elements of sustainability.

Keywords : sustainable construction, rapid construction, time reduction, lean construction

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