UNIVERSITI TEKNOLOGI MARA

THE DEVELOPMENT OF SUPPLY CHAIN FRAMEWORK FOR IMPROVING CONSTRUCTION WASTE MANAGEMENT PROCESS: A CASE STUDY IN KLANG VALLEY

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Thesis submitted in fulfillment
of the requirements for the degree of
Master of Science

Faculty of Civil Engineering

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AUTHOR'S DECLARATION

I declare that the work in this thesis was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the result of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

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ABSTRACT

Construction Waste Management is part of a growing movement towards a sustainable world. Ninth Malaysia Plan had played a significant role in the demands of executing major residential housing project developments where it has been observed that the construction wastes was one of the priority waste streams. The lacking in the highlighting of the proper flows of construction waste process has called for a need to contextualize, explore and document its practice in the construction industry to identify the current existing process of construction waste management, the challenges and the major types and composition of construction waste generated. The aim of this research is to develop the supply chain framework. This aim was achieved through preliminary study and case studies methods where were conducted in the Klang Valley using the qualitative and quantitative methods. First, semi-structured interview was conducted among 20 contractors (G7) to identify the current existing process for construction waste management. The second method distributes the questionnaires and 60 responses from contractors (G7), clients and consultants were received on the challenges in the construction waste management process. Third method conducts the survey on the heap of waste through observation (visual estimation) to identify the major types and composition for construction waste generated. The main conclusions drawn from the findings gathered. The study proposes the supply chain framework to improve the construction waste management process whereby indirectly reducing the amount of construction waste from being directly disposed in landfills through reusing and recycling process.

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