

شبكة المعلومات الجامعية التوثيق الإلكتروني والميكروفيلو

بسم الله الرحمن الرحيم





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شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



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جامعة عين شمس التوثيق الإلكتروني والميكروفيلم قسم

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Implementation of Lean Construction in Residential Compounds in Egypt

A Thesis Submitted in partial fulfillment of the requirements for Master degree of Science in architecture engineering

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Statement

This thesis is submitted as a partial fulfillment of Master of Science in Architectural Engineering. Faculty of Engineering in Ain Shams

The Author Carried out the wok included in this thesis and no part of it has been submitted for a degree or a qualification at any other science entity.

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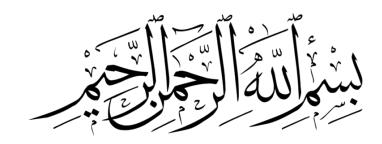
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وَنَزَّلْنَا مِنَ ٱلسَّمَآءِ مَآءً مُّبَرَكًا فَأَنْبَتُنَا بِهِ حَنَّتْ وَنَزَّلْنَا مِنَ ٱلسَّمَآءِ مَآءً مُّبَرَكًا فَأَنْبَتُنَا بِهِ حَنَّتْ

سوره - ق (٩)

And We send down from the sky blessed water whereby We give growth unto gardens and the grain of crops

Surat Qaf (9)

Acknowledgement

I would like to express all means of gratefulness and appreciation to my supervisors: Prof. Dr. Diaa Eldin Ibrahim and Prof. Dr Laila Khodeir without whom this thesis would not have been completed. I am grateful to you for believing in me, supporting me and bringing out the best I can.

Thank you for dedicating time and effort to review this work, and make sure it comes to light at its finest.

It is also unforgettable that this thesis and the research behind it would not have been possible without the support and help of Prof. Dr. Noha Nashaat (MSA university), Arch. Mohamed Helmy (Project manager), Arch. Sayed Touba (project manager), Special thanks to My father Arch. Ahmed Antar and My mother Dr. Sahar Abdelhalim who were always beside me and supporting me, my role models, they taught me persistence and dedication. Thank you for everything My brothers and my fiancé, there are no words big enough to express thanks and gratitude for your endless support, patience, sacrifices and unconditional love. For all you have done, Thank you. Many thanks to everyone who contributed —in a way or another— to the completeness of this work.

October 2021

Abstract

Among industries in Egypt, Construction industry is considered one of the most dynamic and challenging industries. This industry has unique and complex features as they differ from other industries in terms of size, variety, players, locations and types.

These factors render this construction a high-risk industry. There are numerous challenges facing today's construction manager. This thesis is focused on the construction of the residential compound as these kinds of projects are growing quickly in Egypt. Some are new to the industry, and some are centuries old.

For construction companies, lean construction refers to a company's ability to complete more projects annually while massively reducing its waste production. This results in an increase in profits and a simultaneous decrease in costs. And consequently, allows these companies to increase their income in short time compared to the traditional construction practices.

The lean construction is considered a neglected matter in Egypt although it can be very beneficial especially to residential compounds projects (According to interviews done).

This thesis discusses the problem of lacking a framework to implement lean management in the residential compounds' construction. The focus is to design a theoretical framework for the project manager to integrate the Lean Construction implementation in Residential Compounds' Construction in Egypt.

This research mainly depends on reviewing available literature, analyzing textbook using qualitative methods, reviewing and analyzing academic journals and magazines as well as published theses, conferences and seminars. In addition to the available organizations and governmental publications and data available over related websites.

Lean Management (LM) is a corner stone in the construction field. Yet; it did not spread in Egypt. LM is a management strategy that is adopted

by organizations that tend to support non-stop improvements, it is considered a long-term strategy to work that systematically aims to accomplish small and gradual changes to finally improve both their efficiency and quality.

This thesis is expected to propose a framework on implementing the lean construction in the residential compound project in Egypt.

Keywords:

- 1- Lean Construction (LC).
- 2- Lean Management (LM).
- 3- Project Management (PM).
- 4- Residential Compounds.

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