



شبكة المعلومات الجامعية
التوثيق الإلكتروني والميكرو فيلم

بسم الله الرحمن الرحيم



HANAA ALY



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التوثيق الإلكتروني والميكروفيلم



شبكة المعلومات الجامعية التوثيق الإلكتروني والميكروفيلم



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جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

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HANAA ALY



Ain Shams University
Faculty of Engineering
Department of Architecture

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

BY

HAYDY AHMED ANTAR MAHMOUD IBRAHIM

Bachelor of Architecture

University of Modern Science and art 2016

Supervised By

Prof.Dr. Diao El-Din Ibrahim

Associate Professor of Architecture

Faculty of Engineering

Department of Architecture

Ain Shams University

Prof. Dr. Laila Mohamed Khodeir

Professor at Project management

and Sustainable development

Faculty of Engineering

Department of Architecture

Ain Shams University

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Ain Shams University

Faculty of Engineering

Department of Architecture

2021

Implementation of Lean Construction in Residential Compounds in Egypt

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HAYDY AHMED ANTAR MAHMOUD IBRAHIM

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Examiner`s Committee

Prof.Dr. Sherif Mohamed Sabry Al-Attar

Professor of Architecture Engineering and

Dean of the Faculty of Engineering, Fayoum University

Prof.Dr. Akram Farouk Mohammed Abd Lateif

Professor of Architecture Engineering

Faculty of Engineering, Ain Shams University

Prof.Dr. Diao El-Din Ibrahim

Associate Professor of Architecture

Faculty of Engineering - Department of Architecture Ain Shams University

Prof. Dr. Laila Mohamed Khodeir

Professor at Project management and Sustainable development

Faculty of Engineering - Department of Architecture- Ain Shams University



Ain Shams University
Faculty of Engineering
Department of Architecture
2021

HAYDY AHMED ANTAR MAHMOUD IBRAHIM

Implementation of Lean Construction in Residential Compounds in Egypt

Examiner`s Committee

Name	Signature
Prof.Dr. Sherif Mohamed Sabry Al-Attar Professor of Architecture Engineering and Dean of the Faculty of Engineering, Fayoum University
Prof.Dr. Akram Farouk Mohammed Abd Lateif Professor of Architecture Engineering Faculty of Engineering, Ain Shams University
Prof.Dr. Diaa El-Din Ibrahim Associate Professor of Architecture Faculty of Engineering - Department of Architecture Ain Shams University
Prof. Dr. Laila Mohamed Khodeir Professor at Project management and Sustainable development Faculty of Engineering - Department of Architecture- Ain Shams University

Date:/...../2021

Approval date/...../2021	Stamp:
Approval of faculty committee date/...../2021	Approval of university committee date/...../2021



Ain Shams University
Faculty of Engineering
Department of Architecture

2021

HAYDY AHMED ANTAR MAHMOUD IBRAHIM

Implementation of Lean Construction in Residential Compounds in Egypt

Supervisors Committee

Name

Signature

Prof.Dr. Diao El-Din Ibrahim

Associate Professor of Architecture

.....

Faculty of Engineering - Department of Architecture

Ain Shams University

Prof. Dr. Laila Mohamed Khodeir

Professor at Project management and Sustainable

.....

development Faculty of Engineering

Department of Architecture - Ain Shams University

Date:/...../2021

Approval date/...../2021	Approval date/...../2021
Approval of faculty committee date/...../2021	Approval of faculty committee date/...../2021

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.

Student name

HAYDY AHMED ANTAR MAHMOUD IBRAHIM

Signature

.....

Date :/...../.....

Researcher Data

Name :	Haydy Ahmed Antar Mahmoud Ibrahim
Date of birth:	29 September 1993
Place of birth:	Egypt – Giza
Last academic degree:	Bachelor of Engineering
Field of specialization:	Department of Architecture
University issued the degree:	Modern Science and art
Date of issued degree:	
Current job:	Senior Architect

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

وَنَزَّلْنَا مِنَ السَّمَاءِ مَاءً مُبَارَكًا فَأَنْبَتْنَا بِهِ جَنَّاتٍ
وَحَبَّ الْحَصِيدِ

سوره - ق (۹)

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

Surat Qaf (9)

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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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