TUGAS AKHIR

THE USE OF GREEN BUILDING MATERIALS IN THE CONSTRUCTION INDUSTRY

DISUSUN OLEH :

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NIM : 03118103

Under the Guidance of
Dr. Ir. H. SRI WIWOHO MUDJANARKO S.T., M.T., IPM.

CIVIL ENGINEERING STUDY PROGRAM

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THE USE OF GREEN BUILDING MATERIALS IN THE CONSTRUCTION INDUSTRY

ABSTRACT

The adverse impacts to the environment from the construction industry had lead to a growing realisation that there is a need for a more sustainable and responsible approach to the current practices. This growing attention pushes the government and professional bodies in Malaysia to be more proactive in alleviating this problem without restraining the need for development. But, have these borne fruits? Creating sustainable construction depends on the knowledge and involvement of all people involved in the industry. So, what is the level of understanding of this concept and application? This report aims to explore the issues of green building materials in the construction industry in Malaysia. Through intensive literature study, it has brought better understanding on the definition and purpose of using green building materials. In addition, this research includes the construction process work for green building materials, risk management for green building materials, design and construction relationships and environmental assessment of materials. This research also recommends some green building materials to be used in the construction industry in Malaysia. Data of this research were collected through questionnaire survey and interview with appropriate professionals. Recommendation will be proposed in order for the construction industry to move towards sustainability. In conclusion, it is necessary to raise the awareness of sustainable development and educate the organisations and public in order to create avenues for further action towards continual performance improvement.

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percentage

IEQ Indoor Environment Quality

IAQ Indoor Air Quality

VOCs Volatile Organic Compounds

CFCs Chlorofluorocarbons

MSDs Material Safety Data Sheets

AAC Autoclaved Aerated Concrete

NRNC Non-Residential New Construction

NREB Non-Residential Existing Building

RNC Residential New Construction

CO2 Carbon dioxide

CO Carbon monoxide

ROHs Restriction of Hazardous Substances UV

Ultra violet

BMTBase Metal Thickness

GBI Green Building Index

UBBL Uniform Building by Laws

ASHRAE

American Society of Heating, Refrigerating and Air -Conditioning Engineers

QLASSIC

Quality Assessment System in Construction IBS

Industrialize Building System

CVA Completion & Verification Assessment

APEO Association of Professional Engineers of Ontario

LEED Leadership in energy and Environmental Design

CVA Completion & Verification Assessment

DA Design Assessment

GBI Green Building Index

GBIAP GBI Accreditation Panel

MGBC Malaysia Green Building Confederation

IBS Industrialised Building System

GPMGreen Pages Malaysia

FiT Feed-in Tariff

NABERS

National Australian Built Environment Rating System

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