

**CONVERSION OF FARMING SYSTEM BUILDING INTO  
THREE STOREY REINFORCED CONCRETE  
AGRI-SCIENCE BUILDING IN CAVITE  
STATE UNIVERSITY, MAIN CAMPUS**

**Undergraduate Design Project Submitted to the Faculty  
Of the Cavite State University  
Indang, Cavite**

**In partial fulfillment of the requirements for  
the degree of Bachelor of Science in  
Civil Engineering**



00001262

*Conversion of farming system building into  
three storey reinforced concrete  
624.153 A12 2006  
DP-188*

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**March 2006**



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### ABSTRACT

**ALFARO, MARCELINA C., MEQUIN, DIVINA D., Conversion of Farming System Building into Three-Storey Reinforced Concrete Agri-Science Building in Cavite State University Main Campus.** Undergraduate Design Project. Bachelor of Science in Civil Engineering. Cavite State University, Indang, Cavite. April 2005. Adviser: Engr. Allan Rowel Alonalon.

The design project was conducted from June 2005 to March 2006 at Department of Civil Engineering, College of Engineering and Information Technology, Cavite State University, Indang, Cavite. The design project aimed to convert Farming System Building into Three-Storey reinforced concrete Agri-Science Building that includes architectural plan, structural plan, lighting and plumbing lay-out, cost estimate and scaled model of the building. This design project would serve as future reference for the future construction of the project.

Structural Aided Analysis and Design (STAAD Pro 2006) was used in the analysis of the three-dimensional structural frame. The basis for manual computation of the design were ultimate moments, shears and axial loads. The guidelines set by the National Structural Code of the Philippines (NSCP), National Building Code of the Philippines and American Concrete Institute (ACI) were followed in design computations. Safety, economy and aesthetic aspects were also considered in conceptualizing the design of the building.



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