

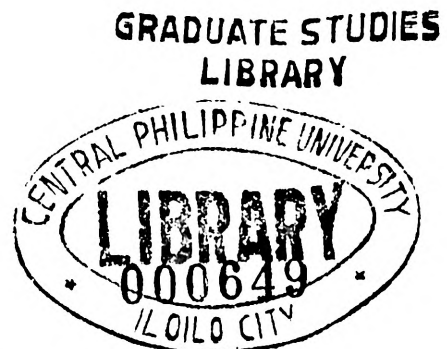
**PROPOSED STORM DRAINAGE SYSTEM OF THE
MUNICIPALITY OF KALIBO**

A SPECIAL PROBLEM

**Presented to
the Faculty of the Graduate Studies
Central Philippine University
Iloilo City**

**In Partial Fulfillment
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MASTER OF ENGINEERING**

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PROPOSED STORM-DRAINAGE SYSTEM OF THE MUNICIPALITY OF KALIBO

by

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ABSTRACT

Poor drainage system is one of the many causes of flooding and has been a problem in most cities and municipalities of our country where floods move at great speeds, causing destruction and casualties.

The town of Kalibo which is the capital of the province of Aklan is classified as a first class municipality and is the center of economic, social, political, religious activities and institution building of the province. Excess runoff becomes a serious issue in Kalibo whenever heavy rain falls. Drainage capacities of the creeks in the municipality were reduced due to encroachment of houses, buildings, people and animals. Predominantly, the effect of urbanization posed a threat to the municipality causing flood since it increases the excess water in the surface.

In the light of all these, a proposed storm drainage system was designed to mitigate the effects of flooding in Barangays Poblacion and Andagao of the Municipality of Kalibo, Aklan. Specifically, the study aims to: 1) design the main and secondary channels of the storm drainage system; 2) provide a schedule of work; and 3) provide a cost estimate for constructing the storm drainage system.

The following are the findings of the study: 1) there is a need for rehabilitation of the existing storm drainage system of the municipality of Kalibo because the existing

system was not properly designed; 2) there is a need for constructing a new storm drainage system to cope with the growing inhabitants and development of the municipality of Kalibo.

Based on the findings, the researcher proposed a storm drainage system that has lateral and main channels which are designed to accommodate a storm frequency of two years. Lateral channels are provided for all sides of the streets in the study area. Twelve main channels are provided to dispose the discharges from the laterals to the creeks or to the river. From the foregoing findings of the study, the following are recommended:

- 1) rehabilitation of the existing drainage structure since the existing drainage structure was not properly designed; and 2) constant declogging or cleaning of the existing drainage structures in order for the drainage system to work efficiently; construction of new drainage structure such as the drainage main and drainage laterals to solve the problem of excess runoff in the affected areas of Maagma Street, Oyo Torong Street and Roxas Avenue Extension in Barangay Andagao; 4) proper waste disposal and management should be implemented to avoid clogging of drainage structures; and 5) strict enforcement by the municipal government the provisions of the Zoning Ordinance and the National Building Code.