

**A STUDY ON WASTAGE IN ASPHALT
CONCRETE PRODUCTION FACILITIES
IN SRI LANKA**

by

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ABSTRACT

In Sri Lanka, Hot Mix asphalt concrete has been used since early 1956 to provide an improved riding surface on important national roads, consisting of a mixture of fine sand and refinery bitumen. Over the past three decades, the usage has been increased associating the use of different blends of coarse and fine aggregates under various road rehabilitation programs.

With the increased concern, in the present environment for improved productivity and for enhanced usage, it is essential that wastage of scarce resources be controlled/minimized. Since it is observed that there are considerable amounts of different sizes of aggregates, thrown around in the immediate vicinity of many hot mix asphalt concrete production plants in Sri Lanka, it was decided to undertake a study in partial fulfillment of the requirements for the Degree of Master of Technology (construction management) to identify the causes and to make recommendations to control/minimize such wastage.

The research work undertaken to study the wastage associated in the production of hot mix asphalt concrete facilities, covered all five production plants operating in Sri Lanka during the period 1990-1994. The methodology adopted was to study and analyze the actual and theoretical data pertaining to one plant and to seek responses from all plant managers/engineers in-respect of the findings by a questionnaire survey, to establish facts which contributes to those what has been found by the data analysis.

Steps to control/minimize wastage of aggregates were proposed by interpreting the responses with regard to three phases of the total production process. The most prominent reason, which contributed, to the wastage was assessed to be the aggregates of improper sizes used in the production. Also measures that could minimize wastage were also proposed considering the technical aspects involved in the three phases of the production process. The requirements in-respect of pollution control due to operations of HMA facilities as specified by the Central Environment Authority of Sri Lanka, were also studied in this report.