

GUIDELINES FOR CONSTRUCTION OF LOW VOLUME CONCRETE ROADS IN SRI LANKA

N.A.A.Priyantha

(06/8858)

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Department of Civil Engineering

University of Moratuwa
Sri Lanka

University of Moratuwa



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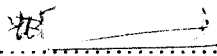
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ABSTRACT

The purpose of the study was to develop guidelines for construction of low volume concrete roads in Sri Lanka. It describes the most suitable way of preparation of subgrade, subbase, mixing and pouring of concrete, construction of shoulder and maintenance of concrete pavements. A survey was carried out to study current concrete road construction practice and identify their advantages and disadvantages. Incorrect construction of contraction joints were also observed in most of roads during the site visit and special attention was given to develop a new method to construct them. An experiment was carried out to study effective curing using coir dust and saw dust. The spraying Frequency of water for curing was determined through that experiment. A special tool was developed to measure surface undulation on local concrete pavements. A comparison of various kinds of concrete producing methods and their performance were included in the report. "Check lists" have been introduced for most of activities to enhance the quality of the pavement construction. Quality and cost control techniques in the field of low volume concrete road construction in Sri Lanka are also described.

Declaration of the candidate

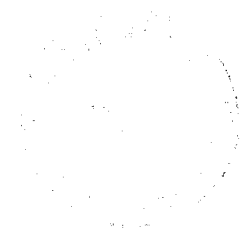
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Declaration of the supervisor

“I have supervised and accepted this thesis for the submission of the degree”

.....
Supervisor – Professor J.M.S.J. Bandara
Department of Civil Engineering
University of Moratuwa
Sri Lanka.

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Finally, I acknowledge and thank all those who have provided data and information to me in performing this research study.



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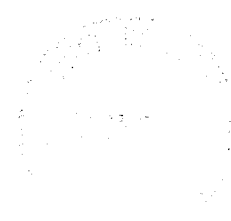


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List of Abbreviations

Abbreviation	Description
AASHTO	American Association of State Highway and Transportation Officials
BOQ	Bill of Quantities
CEA	Central Environmental Authority
dB	Decibels
ICTAD	Institute for Construction Training and Development
LHS	Left Hand Side
MPT	Maintenance and Protection of Traffic
MDG	Medium Density Overlay
RHS	Right Hand Side
SLRDC	Sri Lanka Land Reclamation and Development Corporation
VOC	Vehicle Operating Cost

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