

# **SELECTION CRITERIA FOR MINOR ROAD CROSSINGS FOR THE EXPRESSWAYS**

J. N. Lodiwick

08/8845 H



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Master Of Engineering In Highway & Traffic Engineering

Department Of Civil Engineering

University Of Moratuwa

Sri Lanka

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Dissertation Submitted in partial fulfillment of the requirement for the degree Master  
of Engineering

Department of Civil Engineering

University of Moratuwa  
Sri Lanka

February 2011

## DECLARATION

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## **ABSTRACT**

Transportation network in a country plays a vital role in economic and social development. Government of Sri Lanka (GOSL) during past few decades have taken every effort to upgrade its transportation by strengthening the countries transportation infrastructure. In addition introduction of high speed links are one of the strategies used in this regard and few of them are now under construction under the jurisdiction of Road Development Authority.

Since these are newer to our country numerous types of problems have been encountered during preliminary and implementation stages causing impediments for the progress with additional project cost. Selection of crossing types for the minor roads for expressways is one of the problems under the above category which has caused severe problems in various stages.

Scope of this research is primarily aimed at an attempt to identify the cause of impacts with their scale of magnitude at minor crossing locations on expressways and then to resolve the problems concerned by addressing them through a systematic approach in finding optimum solution. No previous research has been found in this regard and was noted that there were no direct methods identified due to its complex nature.

Since the area of study observed to be very vast the research has been converged and focused within the scope of Colombo –Katunayake Expressway Project.

Methodology adopted in this process contains a series of case studies for the identification of impacts related to the particular locations and then to follow up a systematic criteria for the analysis. Since the problem is associated with several factors Analytical Hierarchy Process has been adopted for the selection of final solution.

Methodology proposed in this research will promote a way forward towards finding the optimum solution for secondary road crossings for expressways concerned for future projects. However necessary changes are to be incorporated in par with the issue related to the particular project locations in obtaining the best solution.

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## LIST OF ABBREVIATIONS

ADT	-	Average Daily Traffic
CKE	-	Colombo – Katunayake Expressway Project
EPC	-	Engineer, Procure, Construct – Contract
GOSL	-	Government of Sri Lanka
LAARC	-	Land Acquisition and Resettlement Committee
O/P	-	Overpass
RDA	-	Road Development Authority
SLLR&DC	-	Sri Lanka Land Reclamation & Development Corporation
UDA	-	Urban Development Authority
U/P	-	Underpass



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