Nitikorn Klaychom 2010: Development of Road Condition Index for Local Road Maintenance Planning. Master of Engineering (Civil Engineering), Major Field: Civil Engineering, Department of Civil Engineering. Thesis Advisor: Associate Professor Pongsak Suriyavanagul, Ph.D. 102 pages.

The goal of this study is to develop a local road condition index, from the relationship between IRI and road distresses. Data pertaining pot holes, depressions, ruttings, unsatisfactory patchings, ravelings, cracks and IRI on 76.991 kilometers of local roads under the responsibility of five local administration organizations in Nonthaburi Province were collected and analyzed. Local road condition index model developed is $LRCI = 1.099 + 0.155X + 0.122Y$ with the coefficient of determination (R^2) of 0.813 and the standard error of estimate of 0.75. A systematic pavement condition evaluation process utilizing LRCI model can eliminate discrepancies of exiting method which relies on subjective judgment of individual evaluators. LRCI reflects the extent of pavement distress, section with high LRCI will earn top priority for maintenance. The application of LRCI model will thus enhance the effectiveness and efficiency of the local administration organizations maintenance and management scheme.

		/ /
Student's signature	Thesis Advisor's signature	