Somjai Jareunyod 2009: Software Development for Road Safety Audits of Existing Roads. Master of Engineering (Civil Engineering), Major Field: Civil Engineering, Department of Civil Engineering. Thesis Advisor: Associate Professor Chavalek Vanichavetin, Ph.D. 136 pages.

Road Safety Audit is a proactive strategy employed to identify potential hazardous locations on a road and recommend proper measures to enhance road safety at those locations. The purpose of this study is to develop a user friendly program, based on the Ministry of Communications Road Safety Audit Manual, which facilitates the processing of field observation data and the preparation of road safety audit report for existing roads. Visual Basic 6 was used as tool in the development of the program due to its easy to use format. Measures for various road safety aspects from past audits and studies as well as calculation procedures and tables to assist users in the assessment of road geometries were installed in the program. With general information concerning the project and field observation on safety aspects as inputs, the road safety audit report showing details of the project, safety problems including recommendations for improvements of program. A test run performed for road safety audit of Ratchadapisak Road showed that the developed program offered an accurate, more systematic, time save, and easy to use alternative to traditional procedure.