

Noppadol Numnoi 2010: Development of a Computer Program for Bicycle Route Planning in Sois Connecting Main Roads. Master of Engineering (Civil Engineering), Major Field: Civil Engineering, Department of Civil Engineering. Thesis Advisor: Associate Professor Chavalek Vanichavetin, Ph.D. 105 pages.

This study aims to develop a computer program for the planning of a bicycle route in sois connecting main roads. Factors considered having influences on use of bicycles were proposed. Information on how each sampled resident of Ladprao Soi 83, 87, 93, 94, 112, and 122 . Perceived on significant of each factor were obtained from the interviews. Factor analysis technique was employed to determine the main factors. These are (1) vehicular traffic volumes (2) bicycle traffic volumes (3) vehicle speeds (4) number of parking spots for bicycles (5) width of sois (6) length of sois.

The ranking index equation was then formulated from these main factors for the study area. A computer program was developed to facilitate future processes of similar nature.

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Thesis Advisor's signature