

PLANNING OF STUDENT BUS STOPS IN DUMAI CITY

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ABSTRACT

School transportation services require bus stop facilities that ensure safety, comfort, and easy access for students traveling to school. However, the Medang Kampai and Sungai Sembilan subdistricts in Dumai City do not yet have bus stop plans designed based on students' travel needs. This study aims to identify potential student demand, determine bus stop locations based on potential demand and land use, and formulate recommendations for student bus stop designs. The study employs a quantitative descriptive method using primary data obtained through questionnaires and field surveys. An analysis of potential demand was conducted for students whose distance from home to school exceeds 1.5 km. Subsequently, bus stop locations were determined based on the results of the potential demand analysis, land use, road geometry, and in accordance with the Decision of the Director General of Land Transportation No. 271/HK.105/DRJD/96. The research findings indicate that there are 152 students who are potential users of the school transportation service, comprising 96 students in Medang Kampai Subdistrict and 56 students in Sungai Sembilan Subdistrict. An analysis of potential demand identified four potential bus stop locations in each study area. Following a land-use analysis, recommendations were made for 11 bus stop locations in Medang Kampai Subdistrict and 12 bus stop locations in Sungai Sembilan Subdistrict. Additionally, design recommendations were developed for bus stops with dimensions of 6 m × 2,5m × 2,60 m, along with a vehicle stopping area 12 m long and 2,75 m wide.

Keywords: *Accessibility, School buses, Bus stop facilities, Bus stops for students, Bus stop planning, Urban transportation.*