

# An analysis of the potential suitability of High Occupancy Toll Lanes and Rail in Honolulu

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# Abstract

Honolulu is currently facing a daunting level of congestion costing the city millions of dollars annually. In response, the City and County is pushing forward with a rail project designed to service the area from Kapolei to Downtown, and possibly extend to the University of Hawaii. Though the exact route or even the technology of the rail system has yet to be finalized, the feasibility of a rail system in Honolulu spanning from Downtown to Kapolei was determined to be highly questionable due to the low dwelling density throughout the corridor. In this paper, only heavy rail transit is considered, as it appears to be the current favored technology amongst rail proponents. A counter-proposal advocating High Occupancy Toll (HOT) lanes is even less convincing as a solution to Honolulu's congestion, based on the results observed in San Diego and, specifically, Honolulu's road current road network and commute patterns. A thorough analysis of transit-oriented development and policy complementing the highly successful rail system in Singapore suggest that the presence of rail system alone does not effectively manage automobile congestion. The experience in Singapore suggests that the aggregate effect of transit-oriented development and policy, including road value pricing, high density quality public housing, and stringent vehicle ownership quotas, effectively encourage public use of the rail transit system to the degree that it becomes an efficient means of transportation. It is recommended that Honolulu further consider such policies before constructing a rail system. It is also further recommended that any such construction take place in stages, beginning with the areas of predicted highest rates of ridership, due to the decadal time frames considered in significantly shifting public travel behavioral and development practices.