

ABSTRACT

This research investigated the effects of road humps in residential environment at Taman Keramat in Kuala Lumpur, Malaysia. Traffic volume, noise level, and speed level were the variables selected to measure the traffic living environment. Questionnaires were used to evaluate the residents' perceptions regarding their living environment. Field surveys were administered to collect data on traffic volume, noise and speed levels at the three selected roads. Measurement on noise levels such as LAeq, LAFmax, and LAFmin and the traffic volume were undertaken for about 12 hours, while the speed levels were recorded during the morning and afternoon sessions. In addition, 328 questionnaires were distributed at the residential area, and 187 usable responses were received. The findings show that the highest traffic volume (563 vehicles per hour) and the highest noise level (75.6 dB(A)) were measured at Road 1. At 85th percentile, the speed after passing the road hump was slightly higher than the posted speed limit with speed of 32km/h (in the morning) and 31km/h (in the afternoon). For Road 2, there were more vehicles on the road in the afternoon compared to the morning, and the highest noise level recorded was 70 dB(A). At 85th percentile, the speed of the vehicles was found to be around 23 to 24 km/h when approaching and passing the road hump. While Road 3 indicated the highest average speed before and after the road hump (morning and afternoon session) and the highest noise level recorded was 72.9 dB(A). At 85th percentile, the speed of the vehicles when approaching and passing the road hump was 35 km/h and 34 km/h, respectively. In addition, the result from the questionnaire survey shows that 35.8 per cent of the respondents were extremely dissatisfied with the traffic volume at major roads, and the highest dissatisfaction came from the residents living in the flat and terrace type of houses. Vehicles passing along the roads made more noises compared to the noise braking and accelerating after the road humps. However, most of the respondents were satisfied with the current noise level. About 32.6 per cent of the respondents were also found to be dissatisfied with the overall speed at the residential roads, and the use of road humps did not seem to slow down the speed of the vehicles. Overall, the residents were satisfied with the current living condition although the traffic volume and speed level have proven to be the major problems concerning a healthy living environment. This contradicted the findings of the fieldwork survey, where noise level was found to be the main source of problem as it exceeded the permissible noise limit in the residential area. Finally, this research recommends with further research to be conducted on the effect of road hump in other residential areas in Kuala Lumpur. This includes suggestions on how to implement measures for a pleasant, harmonious and safe living environment for the community.