

## **ABSTRACT**

Transportation plays an important role in the growth and development of a community. It is one of the most essential factors that guarantees economic success in a region. In Kenya, one of the main modes of transportation is road transport because it is cheaper, more flexible and it is easily accessible by most people.

There has been a significant increase in the use of motor vehicles over the last few years. This has caused an increase in traffic congestion on the roads in the country particularly in the capital city, Nairobi. One of these roads is Langata road whose total length is about 15.5km. It is one of the busiest roads in Nairobi because it is used by residents of several areas mainly Langata, Karen, Rongai and Ngong to access the Central Business District which serves as the main economic hub of the city.

Purpose of this study is to measure the capacity of Langata road as well as to measure its level of service with the main focus being the stretch from the Barracks round-about up-to the T-Mall round-about. In this study I will look at the amount of traffic that is being handled by the road so as to determine if the road is underperforming and if so, make recommendations on how it can be improved.