The sustainable idea is being gradually introduced into the theory and method of urban transportation system planning, and has become one hot point studied in 21st century. The problem about harmony between the traffic and the environment in urban is one key part of the sustainable urban transportation system planning. In this paper, the authors discuss the method used to analyze vehicle motors’ impact on air pollution in the urban transportation system planning. It’s content includes: the items and method of investigating motor vehicle exhaust emission; how to calculate the emission factor; how to choose and set the atmospheric pollutants diffuseness model in urban street; how to calculate the quantum of vehicle exhaust emission and the concentration of traffic pollutants diffuseness in street in traffic network, and how to evaluate traffic pollution of traffic network load, and so on.