

ABSTRACT

Asphaltic concrete is the surfacing material almost exclusively used on roads in Trinidad and Tobago. Another material, hot rolled asphalt is a common surfacing material used on roads in Britain. The essential difference between hot rolled asphalt and asphaltic concrete is the gradation of the aggregates used. Hot rolled asphalt is gap graded, that is, it has a relatively high proportion of fine aggregates compared to the coarse aggregates. Asphaltic concrete on the other hand has a well graded mixture of both fine and coarse aggregates.

This report examines and compares these two types of surfacing materials with the view of assessing the mix better suited to the traffic and environmental conditions of Trinidad and Tobago. The report contains a review of the specifications governing the mixes. It indicates how the properties of the constituent materials influence the mixes. It gives the recipe method of design of hot rolled asphalt as well as the laboratory method for the design of both hot rolled asphalt and asphaltic concrete. The report also presents the results of laboratory tests carried out for the design of both mixes and discusses and compares these results. An examination is made of the types of problems encountered with bituminous surfacing. The report ends with a list of conclusions reached and recommendations made based on this study.

2.3 Summary

ASPHALTIC CONCRETE

3.1 Gradation Specification

3.2 Influence of Materials on Asphaltic

Concrete