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CE 417

Homework 39 (Problem 15.6)

Due Date: 04-23-2018

Question:

An asphalt plant can produce 360 tph. A project requires paving individual 11-1/2 ft lanes with a 2-in. lift averaging 110 lb/sy-in. What average paver speed will match the plant production? The haul route load limits are 15 tons per dump truck. How many trucks will be required if the total hauling cycle time is 55 min?

Solution:

**Final Solution:** Based on Plant Production rates, the asphalt paver would need to be traveling at a speed of just below 1.5 miles per hour. Also based of Plant Production rates, the cycle described would necessitate at minimum 22 trucks to maintain production speed. However, it is advisable to use at least 23 trucks in order to prevent from production stall in the event of incident in hauling materials.