

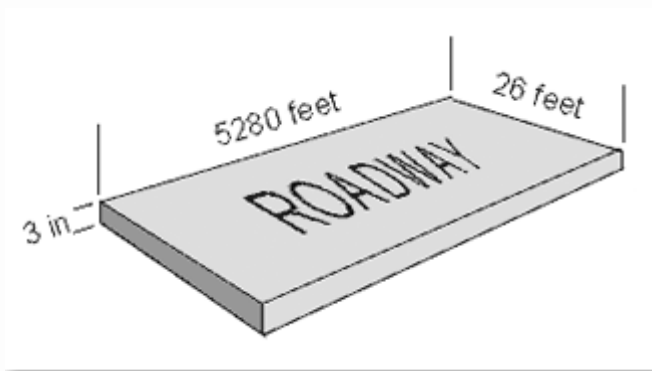
Measurements: Road Management Technician

Ada County Highway District

Job Description: Inspects pavement, calculates asphalt estimates and reports inspection data to the ACHD maintenance department.

Problem:

The Ada County Highway District Pavement Management Technician needs to know how many tons of asphalt will be needed on a section of road. The section of road measures 5,280 feet (1 mile) in length and 26 feet wide. The asphalt needs to be 3 inches in depth. Asphalt weighs 144 tons per 2,000 ft³.



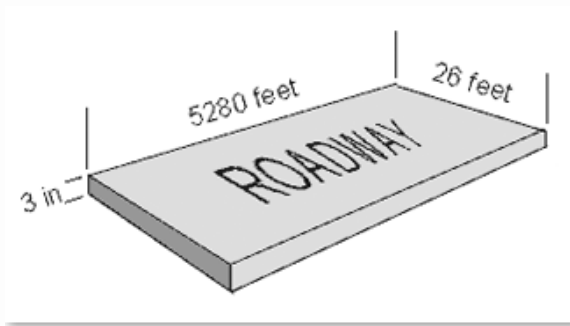
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Solution:

3 inches x 12 inches = .25 ft or $\frac{1}{4}$ ft

144 tons 2000 ft³ = .072 tons of asphalt per cubic foot

length x width x depth x weight per ft³ = tons of asphalt

5,280 ft x 26 ft x .25 ft x .072 tons = 2,471 tons of asphalt needed