

SOLUTION TO NOV. 1977 PROBLEM CORNER

To find walkway width (w)

Area of walkways =  $0.10(200)(500) = 10,000$  Sq. Ft.

THEREFORE:  $10,000 = 2(500)(w) + 3(200 - 2w)(w)$   
 $10,000 = 1,000w + 600w - 6w^2$

OR:  $6w^2 - 1,600w + 10,000 = 0$

USE QUADRATIC EQUATION WHERE:  $w = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$  (a = 6; b = -1,600; c = 10,000)

$$w = \frac{1600 \pm \sqrt{1,600^2 - 4(6)(10,000)}}{2(6)}$$

w = 260.26' or 6.40' = ANSWER  
(reject)