Figure 5.16   Sight triangle detail.
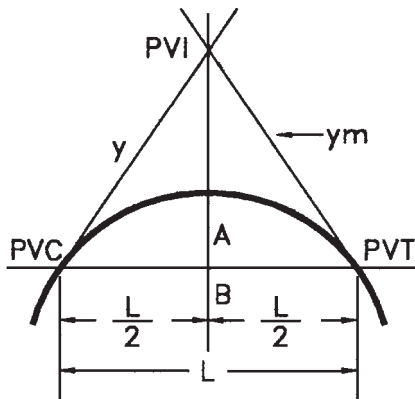

Figure 5.17   Vertical curve calculation.

Notice that the positive and negative values indicate the rise $(+)$ or fall $(-)$ of the slope.

Step 2. Determine *B,* the elevation of the intersection of the PVI and the secant between the PVC and PVT. This can be quickly determined by adding the elevation of the PVC and the elevation of the PVT and dividing their sum by 2.

Step 3. Calculate *ym*—that is, the vertical distance from the PVI to the vertical curve—by subtracting the elevation of *B* from the PVI and dividing by 2. This *ym* value can be used to calculate all other elevations on the curve.

Horizontal alignment

The design of horizontal curves is concerned with both the sight distance and the appropriate radius for the design speed and conditions. The horizontal curve is simply an arc of a circle connecting two tangents, which is why the cir-