

Maps and Map Features

Two of the most useful resources to lend a new perspective on your community are planimetric maps and aerial photographs. **Planimetric maps** (or just “planimetrics”) are maps that show line drawings of ground features. For example, a planimetric map might show building outlines, edges of roadways, sidewalks, tree lines, bodies of water, manhole covers, fire hydrants, and other similar objects. A planimetric map does not usually contain elevation data. (**Topographic maps**, however, are designed to show elevation; they are made up of a system of lines to illustrate the “lay of the land.” Topographic maps can be an important source of information, but they may be a bit cluttered for use in the following activities.) Comparing planimetric maps can be one of the best ways to track changes in your community over time. Planimetric maps, which are usually drawn at a scale of 1 inch to 100 feet, can be obtained in the survey and mapping department of a municipality or at the city or county engineer’s office.

Aerial photographs are excellent tools to show the elements of your community. Unlike maps, which usually highlight a theme (such as roads) and de-emphasize or exclude other components of the community, aerial photographs offer an unbiased snapshot. If available from different time periods, aerial photographs also offer an excellent opportunity to track community change over time. An aerial photograph will not, however, reveal hidden elements (such as sewer lines) or artificial distinctions (such as zoning areas).

All maps have certain elements. A **title** should indicate the purpose or subject of the map, the time period it represents, and any other relevant information.

Scale is a crucial element to all maps. Scale lets a person know the ratio between the distance of features on the map and the distance of those same features on Earth. This ratio can be expressed in several ways, including a word statement, ratio, fraction, or graphic scale. Here are some examples of the ways to express scale. The

methods of illustrating scale are different, but the actual value of the measure remains the same.

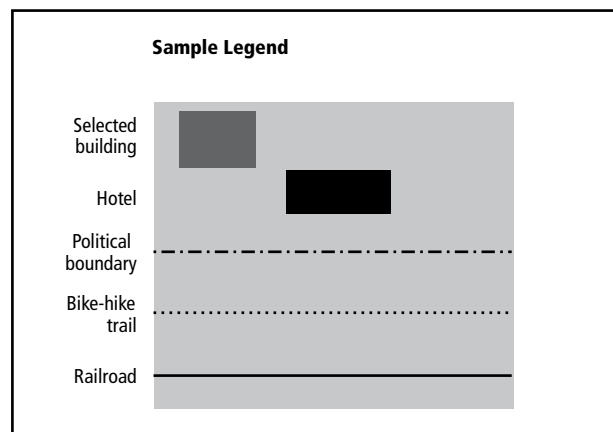
1 inch to 1 mile

1:63,360 (Read “1 inch equals 63,360 inches” [or 1 mile]; the unit of measure is constant.)

1/63,360 (Again, the unit must remain constant.)

This device allows the map user to measure distance on the map and then to translate the measurement to the distance on the ground. In this case, 1 inch equals 1 mile.)

Legends show map symbols (such as lines, circles, or other shapes and any corresponding colors) and explain what they represent (such as roads, trees, or cities).



The map should also include the names of any displayed political or physical **features** and a reference to the source where the information was gathered.

Orientation informs the map user of the map’s alignment relative to the Earth’s surface. Although most maps are oriented with north at the top of the map, this direction isn’t always true. Therefore, a map will usually contain a north arrow.

Source:

John Campbell, *Map Use and Analysis*, 4th ed. (New York: McGraw-Hill, 2001).