

## Unit 5: Land Description

### LECTURE OUTLINE

The legal description of a parcel of property is the exact location of the parcel according to an established system. The description is legally sufficient if a competent surveyor can locate the parcel using that description.

- I. Methods of describing real estate
  - A. Metes-and-bounds method (see Figure 5.1)
    1. Must have a specific point of beginning (POB)
    2. Must have measurements (metes = to measure)
    3. Must have linear boundaries (bounds = linear directions)
    4. Must completely enclose the area (return to the POB)
    5. Monuments are fixed objects used to identify the POB, all corners of the parcel, or ends of boundary segments.
  - B. Rectangular (government) survey system (see Figures 5.2 through 5.7)
    1. Established by Congress in 1785 (see Figure 5.2)
    2. Based on two intersecting lines
      - a. Principal meridians run north and south
      - b. Base lines run east and west
        - (1) Both principal meridians and base lines are located in reference to degrees of longitude and latitude.
        - (2) Each principal meridian is named and is crossed by its own base line.
        - (3) The rectangular survey system affects specific land areas within the boundaries.
    3. Tiers
      - a. Township lines are six miles apart and run east and west parallel to the base line (see Figure 5.3).
      - b. Tiers are six-mile-wide strips of townships that are numbered north and south of the base line.
    4. Ranges (see Figure 5.4)
      - a. Range lines are six miles apart and run north and south parallel to the principal meridian.



dimensions of the parcel and a spot survey includes the location of buildings on the land; legal descriptions should be copied with extreme care

A. Measuring Elevations

1. Condominium laws require a legal definition of the horizontal property rights included with each unit (air lots); the plat map references an official datum for elevation measurements
2. Subsurface rights are also defined using a datum; subsurface rights are measured below the datum rather than above.

B. Datum—the point of reference for measuring elevations

1. The United States Geological Survey (USGS) uses mean (average) sea level in New York Harbor.
2. Many large cities use official local datum rather than USGS datum.
3. Monuments—traditionally used to mark only surface measurements between points.
4. Benchmarks are monuments established as permanent reference points used primarily to mark datums.

C. Land Units and Measurements (see Figure 5.9). Most important measurements to remember are:

1. Mile is 5,280 feet
2. Square mile is 640 acres
3. Acre is 43,560 square feet