

GE Reaves Engineering

CIVIL ENGINEERS

STRUCTURAL ENGINEERS

LAND SURVEYORS

LAND SURVEYING

Land surveying is the professional science and art of determining the physical boundaries, dimensions, and features of land. It plays a foundational role in protecting land rights and enabling economic development. Through accurate measurement and legal documentation, surveying transforms land into a **secure, tradeable, and usable asset**, making it central to wealth creation.

Professionalism and Regulation

Land surveyors are highly trained professionals who must:

- Gain years of experience under a Registered Professional Land Surveyor (RPLS),
- Pass rigorous exams, and
- Be licensed by their respective State Board.

Surveyors must adhere to **state-specific rules and regulations** and uphold **strict ethical standards**. Their conduct is often guided by principles such as **truth**, **integrity**, **and service to the public**, and professionally by what are often called the "Seven Dignities of a Call" in surveying:

- 1. Area Calculating the true extent of land parcels.
- 2. Bearing Defining the direction of property lines relative to true or magnetic north.
- 3. Distance Measuring exact linear space between points.
- 4. Artificial Corners Identifying man-made boundary markers.
- 5. **Natural Corners** Recognizing physical natural features used in defining boundaries.
- 6. **Adjoiners** Considering the relationship and boundaries of neighboring properties.
- 7. Coordinates Using geographic or grid systems to fix positions with precision.

These elements ensure accuracy, consistency, and legal reliability in every survey.

Determining Market Value and Location-Based Factors

Surveying helps assess land value by clearly identifying:

- Location in relation to roads, services, and amenities
- Land use restrictions or advantages (e.g., commercial zoning)

• Physical terrain, which affects usability and cost of development

Accurate surveying ensures that land is **properly evaluated**, making market assessments more transparent and credible, which is vital for equitable taxation and investment.

Protecting Land from Legal and Environmental Encroachments

Surveys also identify potential limitations on land use, such as:

- Flood plains, which may limit construction or reduce land value
- **Easements**, which grant others the right to access or use parts of a property (e.g., utility lines)
- Rights of way, ensuring access to adjoining parcels, roads, or public infrastructure

Identifying these factors early protects owners from unforeseen liabilities and supports long-term planning.