

LAND SURVEYOR

Essential Competencies

ENTRY LEVEL

Description: These competencies identify the Knowledge, Skills and Abilities required to independently conduct field surveys as chief of a survey crew and gather survey data for the preparation of survey plats. Work is assigned with detailed and specific instructions and guidance.

I. LAND TITLE/LAND RECORDS

- A. Understanding of Federal and State land survey and boundary law
- B. Performs and assists in research of public records to determine routine title and boundaries. Ability to read and interpret routine survey records and deeds
- C. Understanding of real estate law related to surveying

II. LAND SURVEYS

- A. Understanding of survey principles and practices
- B. Operation of total station, theodolite and electronic distance measuring equipment
- C. Performs intermediate surveying computations to include traversing, inversing, translation and rotation of data, simple curves, closures of figures and areas
- D. Understanding of surveying software and computer aided design (CAD) equipment in preparation of survey plats
- E. Inspects and reviews contract surveys for conformance with contract specifications
- F. Ability to prepare and write legal descriptions from deeds of record and from data acquired from field surveys

KNOWLEDGE, SKILLS AND ABILITIES

Knowledge of the principles and practices of cartography

Knowledge of Land Acquisition Procedures, Part VIII, Mapping Standards

Knowledge of algebra, geometry and trigonometry

DEVELOPMENTAL LEVEL

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Description: These competencies identify the Knowledge, Skills and Abilities required to independently serve as party chief in charge of difficult land surveys and serve as Contracting Officer's Technical Representative on routine survey contracts. Work is assigned with little instruction or guidance except for unprecedented survey problems.

I. LAND TITLE/LAND RECORDS

- A. Comprehensive knowledge of Federal and State land survey law and boundary law
- B. Performs independent research of public records to determine title and boundaries in difficult cases. Ability to read and interpret complex or ambiguous survey records and deeds
- C. Knowledge of real estate law related to surveying

II. LAND SURVEYS

- A. Knowledge of survey principles and practices
- B. Operation of global positioning system equipment
- C. Knowledge of survey software and CAD equipment necessary for performing survey computations and preparation of survey plats
- D. Independently inspects, reviews and approves payment on contract surveys and has comprehensive knowledge of Contracting Officer's Technical Representative responsibilities and Architectural and Engineering (A/E) contract requirements

KNOWLEDGE, SKILLS AND ABILITIES

All Knowledge, Skills and Abilities at the Entry Level Plus:

Ability to use sound judgment in applying surveying principles and techniques in the resolution of problems caused by inadequate and inconclusive data

Understanding of Federal land acquisition procedures

FULL PERFORMANCE LEVEL

Description: These competencies identify the Knowledge, Skills and Abilities required to conduct land surveys involving complications and complexities such as incorrect

prior surveys, unrecoverable monumentation and conflicting land records and survey data. Serves as Contracting Officer's Technical Representative on survey contracts involving areas with complex survey problems. Work is assigned with little or no guidance even on surveys with complex problems.

I. LAND TITLE/LAND RECORDS

- A. Ability to incorporate recent court decisions and opinions of survey law to current survey practice
- B. Ability to reconcile conflicting public records to produce defensible surveys necessary for litigation

II. LAND SURVEYS

- A. Comprehensive knowledge of survey principles and practices
- B. Ability to conduct land surveys involving multiple complications
- C. Comprehensive knowledge of softdesk and CAD equipment necessary for performing advanced survey computations and preparation of intricate survey plats
- D. Independently inspects, reviews and approves payment on contract surveys and resolves all contractor surveying problems that arise as well as disputes over payments. Also develops all Architectural and Engineering survey specifications

KNOWLEDGE, SKILLS AND ABILITIES

All Knowledge, Skills and Abilities at the Entry and Development Level Plus:

Ability to lead and instruct subordinates in the performance of survey tasks and completion of assigned survey projects