

Code: 2472

Title: SURVEY INSTRUMENTATION TECHNICIAN

SUMMARY: Performs technical survey engineering work as a member of a survey crew. This is distinguished from the Survey Aide classification, which assists technical survey crew members and performs basic survey engineering work of a routine nature in addition to manual labor. It is distinguished from the classification of Survey Party Chief which supervises and participates in skilled technical survey engineering work.

DUTIES/RESPONSIBILITIES: (Work assignments may vary depending on the department's needs and will be communicated to the applicant or incumbent by the supervisor.)

Obtains measurement data by operating various mechanical, optical and electronic survey instruments and devices;

Operates transits, a level, theodolites or electronic measuring devices to establish the location of lines and points;

Makes mathematical calculations to determine elevations and angles;

Gives instructions to aides in order to complete a particular task, by using verbal directions, hand signals and/or by radio;

Records a set of field notes, either manually or on electronic equipment;

Assists with training new survey crew members in technical aspects of survey operations;

Performs operator-level servicing, maintenance and calibration of mechanical, optical and electronic survey equipment;

Performs basic survey engineering tasks;

Operates and performs operator-level servicing of assigned County vehicles;

May act as Survey Party Chief in the absence of the incumbent.

KNOWLEDGE & SKILLS:

Knowledge of:

- surveying principles and methods;
- mechanical, optical and electronic surveying equipment and their uses, operations, maintenance and calibration;
- engineering and survey terminology;
- mathematical calculations including algebra, geometry and trigonometry;
- job-site safety precautions and traffic control procedures;
- construction procedures and techniques.

Skill in:

- operating and performing operator level servicing, maintenance and calibration of various types of mechanical, optical and electronic survey equipment;
- performing mathematical calculations, including algebra, geometry and trigonometry;
- collecting and recording data manually and in electronic systems;
- reading construction plans and specifications;
- directing other survey crew members;
- reading and interpreting maps, charts and related materials;
- implementing traffic control and related safety measures at work sites;
- communicating effectively;
- operating and performing operator-level servicing of assigned County vehicle.

MINIMUM QUALIFICATIONS:

EITHER:

(1) Three years of field surveying experience as a member of a survey party, which included the use of electronic survey equipment, e.g., GPS, DME, etc.

OR:

(2) Two years of experience with Pima County as a Survey Aide.

OTHER REQUIREMENTS:

Licenses and Certificates: Some positions, within this classification, may require possession of a valid Arizona Class D and Commercial Drivers License (CDL), with appropriate endorsements, as identified by the Appointing Authority. Failure to obtain/maintain the required licensure shall be grounds for termination.

Physical/Sensory Requirements: All positions require the ability to work outdoors in extremes of heat, cold and inclement weather, with exposure to dust, dirt, wind, construction activities and materials, and to traverse rough terrain on foot. All positions may encounter harmful/poisonous wildlife and plant materials.

This class specification is intended to indicate the basic nature of positions allocated to the class and examples of typical duties that may be assigned. It does not imply that all positions within the class perform all of the duties listed, nor does it necessarily list all possible duties that may be assigned.

Pima County

Revised 09/18/05(fn)

Updated 03/14/08(lg)