

NEVADA IRRIGATION DISTRICT

SENIOR ENGINEERING TECHNICIAN - Range B43 – BOD 12/12/12

*Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are **not** intended to reflect all duties performed within the job.*

DEFINITION

To organize, assign and review the work of assigned personnel engaged in a variety of field and office technical engineering support duties including surveying, mapping and drafting; to perform duties requiring specialized knowledge; and to provide administrative support to assigned supervisor.

DISTINGUISHING CHARACTERISTICS

This is the advanced journey level in the Engineering Technician series. Positions at this level are distinguished from other classes within the series by the level of responsibility assumed, complexity of duties assigned, independence of action taken, by the amount of time spent performing the duties, and by the nature of the public contact made. Employees perform the most difficult and responsible types of duties assigned to classes within this series, including providing technical and functional supervision over assigned personnel. Employees at this level are required to be fully trained in all procedures related to assigned areas of responsibility.

SUPERVISION RECEIVED AND EXERCISED

Receives direction from higher level engineering supervisory personnel.

Exercises technical and functional supervision over assigned technical personnel.

ESSENTIAL FUNCTION STATEMENTS

Essential and other important responsibilities and duties may include, but are not limited to, the following:

Essential Functions:

1. Plan, prioritize, and review the work of staff assigned to a variety of technical field and office duties in support of surveying, drafting, mapping and related engineering activities.
2. Develop schedules and methods to accomplish assignments ensuring work is completed in a timely and efficient manner.
3. Participate in evaluating the activities of staff, recommending improvements and modifications.
4. Provide and coordinate staff training; work with employees to correct deficiencies.

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Essential Functions: *(Continued)*

5. Plan and determine appropriate control and procedures necessary to complete survey activities; perform reconnaissance of projects to determine best method of survey; direct survey field crews on assigned surveys.
6. Under direction, prepare analytical and statistical reports related to assigned operations and activities.
7. Research and organize a large variety of official records pertaining to surveying, drafting and mapping.
8. Prepare right-of-way plats and legal descriptions.
9. Provide internal and external customers with information, such as legal descriptions of parcels, address verification, property ownership, assessor's parcel numbers, zoning designations, easements, public right-of-way, and jurisdiction.
10. Calculate, analyze and evaluate various field and engineering data related to survey, geographic and mechanical, hydraulic and structural design.
11. Coordinate with outside vendors and contractors for the publication, distribution and management of documentation.
12. Research and acquire maps, legal descriptions, and deeds necessary to accomplish survey; participate in the reconnaissance of projects to determine best method of survey.
13. Coordinate and perform field work including surveying and staking of in-house projects using a variety of technical survey equipment; reduce field survey notes and computer traverses, grades, closures, distances and areas for office use; operate and maintain survey instruments and equipment.
14. Perform the most difficult work related to technical surveying, drafting and mapping duties.
15. Build and maintain positive working relationships with co-workers, other District employees and the public using principles of good customer service.
16. Perform related duties as assigned.

QUALIFICATIONS

Knowledge of:

Principles and practices of technical and functional supervision and training.

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Knowledge of: *(Continued)*

Modern electronic survey and survey data processing equipment.

Principles and practices of algebra, geometry and trigonometry as applied to the computation of angles, areas, distances and traverses.

Policies and regulations related to construction, extension, and maintenance of a variety of public works and utility systems and facilities.

Principles and practices of technical report writing and data presentation.

Survey and audit techniques and practices related to area of assignment.

Applicable equipment and instruments used in area of assignment.

Engineering maps and records.

Construction materials and methods.

Applicable Federal, State, and local laws, regulations, and codes.

Ability to:

Provide technical and functional supervision over assigned staff; effectively train staff.

Perform the most complex duties related to technical field and office engineering activities including surveying, drafting and mapping.

Perform technical research and solve technical engineering problems.

Prepare and maintain accurate and detailed records and prepare comprehensive reports.

Conduct comprehensive studies and develop appropriate recommendations.

Use CAD (Computer Aided Drafting), GIS (Geographic Information Systems), and GPS (Global Positioning System) and other computer applications related to technical engineering work.

Reduce, interpret and apply field notes in performing drafting work.

Compile and analyze technical information; problem-solve complicated engineering issues and identify alternatives and make related recommendations.

Perform engineering and mathematical calculations with speed and accuracy.

Perform database management tasks related to area of assignment.

Analyze spatial and tabular data using GIS software to produce maps and exhibits.

Establish and maintain effective working relationships with those contacted in the course of work.

Communicate clearly and concisely, both orally and in writing.

Responsibility to:

Obey safe work practices, procedures, and regulations including wearing protective equipment and safety devices.

Operate equipment in a careful and safe manner.

Acknowledge the use of safeguards by other employees.

Report any removal, displacement, damage, destruction, or tampering of safety devices, safeguards, notices or warnings.

Report any safety risks or hazards to your supervisor or other management personnel.

Report to your supervisor or other management personnel any work assignment that you feel would require you to perform the work in an unsafe manner.

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EXPERIENCE AND EDUCATION GUIDELINES

Any combination of experience and education that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:

Experience:

Three years of responsible journey experience similar to Engineering Technician II with the Nevada Irrigation District.

Education:

Equivalent to completion of an Associate's degree, with course work in mathematics, drafting, CAD, GPS, GIS, database management or a related field.

License and Certificate:

Possession of a valid California driver's license.

WORKING CONDITIONS

Environmental Conditions:

Work is generally performed in a temperature controlled office environment subject to typical office noise, with some work done outdoors with exposure to traffic, outdoor weather conditions including extreme heat and cold and to wet, and humid conditions.

Physical Conditions:

Essential functions may require maintaining mental condition necessary to sit while studying or preparing reports; bend, squat, climb, kneel and twist when performing installation/repair of equipment; perform simple and power grasping, pushing, pulling, and fine manipulation; and lift or carry weight of 25 pounds or less.

Mental Conditions:

Essential functions may require maintaining mental condition necessary to know and understand operations, and observe safety rules; intermittently analyze problem equipment; identify and locate equipment; interpret work orders; remember equipment location; explain jobs to others; handle conflict.