



CLASS SPECIFICATION

Class Title: Engineering Aide II
Department: Public Works

Class Code: 325
Eff. Date: 4/1/86
Grade: 18
Revised: 11/18/13

GENERAL PURPOSE

Under general supervision of an administrative authority, performs complex and skilled survey, design, drafting, field inspections, and related work.

EXAMPLE OF DUTIES (Any one position does not include all of the duties listed; nor do the listed examples include all duties which may be found in positions of this class.)

Researches historical documents and Federal Emergency Management Agency maps on various County flood control projects; researches, updates, and maps all existing flood control easements, structures, and drainage channel features of the Davis County storm drainage system and creates maps using County aerial photos and GIS data. Compiles and interprets regulatory rules and guidelines.

Functions as the Davis County Public Works Permits Officer; reviews applications/requests for flood control permits, processes and issues permits, and provides construction monitoring for permitted projects. Prepares applications for Joint State/USACOE Stream Alteration permits as needed by the County to construct any flood control project on state waterways and USACOE jurisdictional wetlands; corroborates state, local, and county drainage systems. Meets with applicants, consultants, agency personnel, and the public as needed. Compiles and interprets regulatory rules and guidelines.

Provides construction management for Public Works facilities, including shops, office buildings, roads, bridges, parking lots, and Flood Control related facilities such as culverts, piping systems, and channels. Under the direction of an administrator or crewleader, works with equipment operators, truck drivers, and laborers to construct, service, and maintain roads and flood control facilities.

Assists in the design of roads, channels, bridges, pipelines and other flood control related facilities using AutoCAD, County aerial photography, and GIS data. Assists in the preparation of construction specifications, bid documents, work orders, and agreements. Reviews, processes, and issues road right-of-way excavation permits and inspects the related work in the unincorporated county area through its completion and warranty period.

Conducts field surveys, operates levels and GPS equipment, and transfers gathered data to electronic files and drawings. Performs calculations, prepares field notes, sets survey stakes and monuments; creates maps and drawings for reproduction and distribution.

Provide survey controls to establish location and elevation of County properties, flood control facilities and roads using GPS, levels, and Total Station equipment. Assists and works with the County Surveyor and Property Manager to establish property line control and prepare legal descriptions for easements and properties.

Assists in the preparation of cost estimates and prioritization of proposed flood control and roadway projects. Functions as the Roads Planner in creating and managing the Roadway Surface Management System (RSMS) or an equivalent program selected by administrators and supervisors.

Assists County GIS staff in mapping and revising flood control designated channel/storm drainage system, road facilities, and County properties and improvements.

Performs field measurements of all piezometer sites at dams and other flood control facilities and prepares data for reporting to the State Engineer's Office on a monthly basis; assists in revising EAP/SOP documents.

Manages and works with the other Public Works employees to operate, maintain, install, and repair the weather ALERT System, including the hardware (weather stations) in the field and software (computer) in the office.

Manages and services the Davis County Public Works hand-held radio system.

Operates a motor vehicle in a safe manner and in compliance with all Utah laws and regulations, and County rules of conduct.

Performs other related duties as assigned.

MINIMUM QUALIFICATIONS

1. Education and Experience:

Graduation from high school and two (2) years of college level or technical school course work in a closely related field, plus three (3) years of full-time computer-aided drafting experience, or an acceptable combination of related education/training and experience. Training and experience must include using AutoCAD.

2. Special Requirements:

Must demonstrate proficiency level using AutoCAD.

Employees driving a personal or a County vehicle for job related travel must possess a valid driver license and must operate a motor vehicle in a safe manner; new employees with an out-of-state license must obtain a valid Utah Driver License within sixty (60) days of hire date (exceptions for military personnel and their dependents).

Employees driving a personal vehicle while on county business must maintain the minimum vehicle liability insurance as specified in the Utah Code.

3. Necessary Knowledge, Skills and Abilities:

Considerable knowledge of: AutoCAD drafting software; basic algebra and geometry principles and adaptability to higher math skills; surveying and engineering principles including the use of instruments and terminology; construction surveying. Entry-level knowledge of site design software that runs in AutoCAD software.

This position may require the driving of a motor vehicle; skill in operating a motor vehicle in a safe manner; ability to insure motor vehicle is operating in a safe manner; knowledge of Utah motor vehicle rules and regulations.

Ability to: efficiently operate applicable computer hardware and software; read and interpret construction plans, maps, and survey field notes; perform complex math computations; communicate effectively (orally and in writing); follow written and oral instructions; establish and maintain effective working relationships with supervisors, other employees, other agencies, and the general public.