



## Ute Water Conservancy District Job Description

<b>Job Title:</b>	Engineering Technician II
<b>Job Code:</b>	Professional/Technical
<b>Salary Range:</b>	\$32.85 - \$42.21 hourly
<b>Department:</b>	Engineering
<b>Reports To:</b>	Project Engineer
<b>FLSA Status:</b>	Non-Exempt
<b>Compensation Factor(s):</b>	Education, Training & Experience; Merit System; Seniority
<b>Prepared Date:</b>	December 2021
<b>Revised Date:</b>	February 2025

### SUMMARY

This position reports to the Project Engineer and is responsible for performing field surveys for waterline designs, creating construction drawings for capital improvement projects, and performing construction management services in pursuit of the District's objectives by performing the following duties.

### ESSENTIAL DUTIES AND RESPONSIBILITIES

Performance of duties follows standards, policies, and plans established by the District as well as applicable federal, state, and local regulations.

- Responsible for performing field surveys for water line designs, creating construction drawings for capital improvement projects, and performing construction management services.
- Performs all essential duties of the Engineering Technician I position.
- Performs as a lead to the Engineering Technician I position. This position provides direction and training to the Engineering Technician I position.
- Accurately conducts field surveys and utility record acquisition to obtain data for projects and designs.
- Prepares projects relating to designs for raw water collection and conveyance, domestic water transmission and distribution, and storage systems.
- Processes data and develops preliminary and final project plans.
- Collects, maintains, and distributes distribution system features to GIS staff.
- Provides construction management oversight including field survey stakeout and verification, as well as surveying and drafting to generate "as-built" records.
- Prepares a variety of maps, records, models, drawings, exhibits, and other documentation for projects.

- Determines which surveyed items to illustrate and the method of illustration to use.
- Gathers and analyzes information from field surveys and utility records research to assist with planning for future projects, or to assess current projects.
- Coordinates with other agencies on the purchase, calibration and maintenance of equipment, development of coordinate systems, and integration of different surveying systems to maintain standards of accuracy.
- Manages and implements computer-aided drafting (CAD) and survey software, to include installation on workstations, resolution of errors, and employee training.
- Collaborates with Engineering department employees in coordinating construction schedules, inspecting waterline projects for compliance with design, safety, material specifications, and site clean-up standards.
- Collects samples for bacteriological testing when work is completed on waterline projects and submits samples to the water treatment laboratory to ensure District standards are met.
- Assists contractors with construction staking for design locations of project facilities.
- Coordinates and observes fieldwork for quality assurance including chlorine residual testing, pressure test, soil compaction, asphalt and concrete testing, etc. conducted by contractors.
- Performs field management of specialty projects, including daily construction reports, phone conferences, and design changes. Assists with contractor change orders and requests for information.
- Completes maps of finished construction projects, certifies compliance with project design specifications and standards, and coordinates distribution of record drawings with GIS staff.
- Coordinates new easements with outside land survey companies.
- Conducts research, surveys, and drafts existing easement and property descriptions for design projects, District records, obtaining new easements, etc.
- Regular or continuous public contact is an essential duty of this position. Interacts respectfully and professionally with all District employees, board members, and non-employees such as the public, customers, vendors, contractors, consultants, etc.
- This position is issued a District vehicle and is required to carry a District cellphone.
- Operates a motor vehicle and off-highway vehicle.
- Demonstrates reliable and consistent job attendance.
- Performs the essential functions listed on pages 3, 4, 5, 6, and 7 of this job description.

#### Drone Operation Responsibilities:

- Responsible for operating the District's drone, also referred to as an unmanned aerial system (UAS), by remote device which includes takeoff, staying on course, and landing safely.
- Conducts pre-flight and post-flight checks or tests, oversees operational performance, and assesses the drone's capabilities for the task assigned.
- Operates cameras or other equipment the drone contains.
- Track industry hardware and software emerging technology developments, and evaluate platform capabilities for program needs.
- Employ industry best practices for surveying and UAS methodologies for setting ground control points, photo collection, photo post processing, point cloud generation, point cloud clean up and orthomosaic generation.



- When performing drone operator responsibilities, follows Federal Aviation Administration (FAA) regulations as it pertains to UAS for public safety, industrial inspections, mapping, professional photography, videography, and beyond visual line of sight requirements/standards.

### **GENERAL DUTIES**

- General duties may be assigned. May assist in other areas as assigned.
- Management retains the discretion to add or change the duties of the position at any time.
- Performs construction inspection duties as required.
- Maintains all equipment used for the Children's Water Festival and other educational presentations.
- Assists with presentations for public education at the Children's Water Festival and other educational events as needed.

### **MINIMUM QUALIFICATIONS and REASONABLE ACCOMMODATION**

To perform this job successfully, an individual must perform each essential duty and all job requirements satisfactorily. The requirements detailed within this job description are representative of the knowledge, skills, certifications, licenses, registrations, and/or abilities required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential duties and responsibilities. To request an accommodation, please contact the Human Resources department. You may be asked to provide additional information, including medical documentation, regarding functional limitations and type of accommodation needed.

### **SUPERVISORY RESPONSIBILITIES**

- Performs as a lead, providing direction and training to the Engineering Technician I position
- May direct temporary, casual employee(s) during summer months.



**EDUCATION, EXPERIENCE, CERTIFICATES, LICENSES, and/or REGISTRATIONS**

Based on level, the Engineering Technician matrix of education, experience, certification and/or licensure is as follows. Gray indicates the requirements of the level II position.

Level	Education	Experience	Certification	License
Engineering Technician II	Associate degree or higher in Civil Engineering, Engineering Technology, Construction Management, or a closely related field from an accredited institution	Three (3) years or more of experience in drafting and/or surveying.	A valid FAA Remote Pilot Certificate (also known as FAA Part 107 UAS license), or obtains such certificate within one (1) year from the date of hire into the position.	Valid Colorado Driver's License
Engineering Technician I	Technical certificate in Civil Drafting from an accredited institution. High School Diploma or General Education Degree.	Two (2) years or less of experience in drafting and/or surveying.		

**Required:** A minimum of two (2) years of experience in reading and interpreting engineering project plans.  
 A minimum of three (3) years of experience with computer-aided drafting (CAD) software Civil 3D.  
 Proficient with surveying (Trimble Business Center) software and surveying equipment which includes theodolite, survey level, total station, and survey grade GPS equipment.  
 Proficient in the use PDF editing software such as BlueBeam.  
 Proficient with navigating and interpreting GIS programs and field mapping applications such as ESRI ArcGIS Field Maps, Google Earth, and Google Maps.  
 Familiarity with quality assurance and quality control testing procedures.

**Preferred:** Valid State of Colorado Class I – IV Water Distribution System Operator certificate.  
 Familiarity with raw water collection and conveyance, domestic water distribution and transmission, and/or treatment systems.

Any equivalent combination of certifications, education, or experience that provides the required skills, knowledge, and abilities of the position.



## **LANGUAGE AND COMMUNICATION SKILLS**

- Communicates in English.
- Both verbal and written communication skills are critical to this position.
- Read, interpret, apply, and understand technical information and procedures, test results, drafting designs, governmental and District regulations.
- Writes daily progress reports for the Project Engineer.
- Creates and updates equipment procedure manuals.
- Presents information and responds to questions from District employees, board members, and non-employees.

## **COMPUTER SKILLS**

- Proficient in the use of computers and mobile devices, including software such as the Microsoft 365, telecommunications platforms, and PDF editing software such as BlueBeam.
- A minimum of three (3) years of experience with computer-aided drafting (CAD) software Civil 3D.
- Proficient with surveying (Trimble Business Center) software and surveying equipment which includes theodolite, survey level, total station, and survey grade GPS equipment.
- Proficient in navigating and interpreting GIS programs and field mapping applications such as ESRI ArcGIS Field Maps, Google Earth, and Google Maps.
- Operates a GPS/SPOT device when working remotely.

## **MATHEMATICAL SKILLS**

- Works with mathematical concepts in surveying such as elevation, contour lines, measurement points, etc.
- Calculates volume, size, water flows, and pressure.
- Applies math concepts involving algebra and trigonometry.

## **REASONING SKILLS**

- Uses discretion and tact when interacting with all District employees, board members, and non-employees.
- Applies common sense and sound judgment to perform the job duties and responsibilities.
- Exhibits excellent organizational skills, takes initiative, and efficiently multi-tasks.
- Works safely, maintaining attention to detail, concentration, focus, and alertness while performing essential duties.
- Works with a variety of variables to troubleshoot and solve intermediate to complex problems.
- Interprets an extensive variety of technical instructions in mathematical or diagram form.
- Understand, interpret, and prepare legal descriptions, records, maps, dedications, and metes and bounds descriptions.

## **INTERPERSONAL SKILLS**

- Displays excellent interpersonal skills and maintains rapport with all District employees, board members, and non-employees.
- Works independently and as part of a team in pursuit of the District's objectives.



## **PHYSICAL DEMANDS**

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job for eight (8) hours or more per day.

- Regularly required to talk and hear.
- Frequently required to sit and work at a computer, performing repetitive typing activities.
- Frequently required to sit, stand, walk, navigate uneven surfaces, climb earthen banks, excavations, ladders, steps, etc., and maintain balance while doing such.
- Frequently required to stoop, kneel, crouch, bend, twist, crawl, and work in awkward positions.
- Frequently exposed to wet environments and standing water.
- Occasionally climbs into and out of vaults and tanks, and up and down a ladder.
- Frequently lifts, carries, and/or moves up to 50 pounds, and occasionally up to 100 pounds with assistance.
- Specific vision requirements include close vision, distance vision, color vision, peripheral vision, depth perception, and adjusting focus.
- Must perform all physical demands with or without reasonable accommodations.

## **WORK ENVIRONMENT**

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job for eight (8) hours or more per day.

- This job is performed in an office setting as well as outdoors in various weather conditions including extreme heat and extreme cold.
- Position works approximately 50% of the time indoors and 50% of the time outdoors.
- The noise level in the work environment is usually moderate.
- Duties require working alone and in remote locations.
- Required to enter permit designated confined spaces, vaults, water tanks, and trench excavations.
- Drives in all types of weather conditions and is expected to work in close proximity to traffic.
- Temporary telecommuting arrangements may be approved based on extenuating circumstances such as a pandemic, inclement weather, special projects, business travel, reasonable accommodation, or other reasons at the District's sole and absolute discretion and only when approved by the General Manager in a written remote work agreement.

## **SAFETY REQUIREMENTS**

- This is a safety sensitive position subject to drug and alcohol screening.
- Employees are automatically enrolled and required to participate in the District's emergency communication platform.
- Follows safe work practices according to industry and District standards.
- Wears and uses personal protective equipment as required.
- Uses GPS/SPOT device when working in remote areas.
- Uses gas monitoring device and tests air quality.

## **HOURS**

- This is a non-exempt position.
- Typical work hours are Monday through Friday from 8:00am to 4:30pm.



- Must work a 40-hour work week and work overtime, with or without notice, when workload demand requires it.
- Requires flexible working hours to respond to emergencies, work rotating shifts, including early mornings, days, nights, holidays, and weekends, and fills in for absent employees when needed.