



City of Phoenix UTILITY SPECIALTY TECHNICIAN

JOB CODE 53020

Effective Date : Rev. 07/09A

DISTINGUISHING FEATURES OF THE CLASS:

This classification is differentiated from the Utility Technician by the performance of specialized work. Incumbents work as part of a crew or working independently and are responsible for performing specialized work within the water distribution system or the wastewater collection system. The various activities require a thorough understanding of the water distribution and/or wastewater collection system. Some incumbents may be required to possess and become proficient in one or more of the functional areas in order to effectively perform a variety of job tasks. Incumbents working in the Support Services Section are required to be proficient in at least four of the six specialty areas and will be required to assist crews in other specialty areas on a periodic or routine basis. Incumbents in this classification may act as lead technicians on a crew. Work is performed under the general supervision of a Utility Foreman.

ESSENTIAL FUNCTIONS:

- Performs time sensitive specialized work within the blue stake crew operation, valve operations crews (e.g., exercise, shutdown), hydrant repair crew, large transmission main crew, tapping crew, flow testing crew, water compliance crew, or leak detection crew;
- Uses laptop for service order retrieval, to update/correct information, and input status upon completion;
- Uses quarter section maps and as-built maps;
- Sets up barricades and other warning devices to channel traffic around work site;
- Operates a utility/crew truck mounted with various small machines/equipment and hand tools;
- Operates power driven machinery such as jack hammers, tampers or other equipment;
- Compiles a variety of computerized reports;
- Cleans the job site when work is completed;
- Maintains regular and reliable attendance.
- Demonstrates superior seamless customer service, integrity, and commitment to innovation, efficiency, and fiscally responsible activity.

Blue Stake Operations:



City of Phoenix

- Upon receipt of job orders from the Blue Stake Center, works independently to locate and mark sewer, water, and reclaimed water lines for contractors or other utility companies in accordance with Arizona Blue Stake laws;
- Attends pre-job meetings with contractors;
- Ensures information on job orders is accurate by comparing between the City's QS mapping system and the GIS system to ensure accurate location;
- Contacts contractor for clarification of job orders or additional information as needed;
- Uses laptop to update job order status and write reports on incorrect or missing assets.

Valve Operations:

- Locates and operate valves for customer turn-ons and turn-offs, and opens valves for flushing of the water distribution system;
- Responds to emergencies and performs water main shut-downs;
- Makes small repairs (replace curb stops, small mains, replaces gaskets and water meters);
- Performs valve assessments (assesses valve condition and completes associated reports);
- Replaces and installs new valves/valve covers;
- Brings valve boxes to grade;
- Serves as primary back up for blue stake crews as needed;
- Hauls equipment and materials for other crews as needed.

Support Services Operations:

Flow Test

- Conducts flow tests of fire hydrants for contractors and City crews to ensure adequate fire protection;
- Works with Engineers, Consultants, and the Fire Department staff to evaluate pressure in zones for future installation of water infrastructure;
- Records water pressure readings;
- Calibrates and operates pressure gages, pito gages, flow devices, and diffusers;
- Completes daily flow test reports; analyzes results to determine the necessary steps to resolve flow test issues with customers and provides results to internal and external customers;
- Maintains and updates files and records of flow test data for future reference;
- Evaluates data and flow test, and field test results to identify and correct water flow and valve position problems.

Hydrant Repair



City of Phoenix

- Installs, maintains, repairs, and conducts field testing of fire hydrants to ensure proper operations for adequate fire protection;
- Inspects, identifies, and evaluates fire hydrants for repair or replacement;
- Uses various power and hand tools to repair and rebuild hydrants as needed;
- Raises, lowers, relocates fire hydrants to allow clearance for other utilities or improvement;
- Once work is completed, places hydrants in service by testing and flushing;
- Services and paints hydrants when major repairs are not needed.

Large Transmission Mains

- Performs routine and emergency large transmission main shut downs (valves 16 to 108);
- Conducts proper drain and fill procedures of large disaster transmission mains;
- Performs activities requiring knowledge of large and small mains, valves, pressure reducing valves, booster stations, storage reservoirs, pressure zones, and chlorine injection stations;
- Utilizing necessary chemicals, chlorinates and dechlorinates large mains in conjunction with and in support of contractors, Systems Operations and Remote Facilities Section, and Water Production Division;
- Uses truck-mounted hydraulic valve operating machine and electric hand-held machines;
- Communicates and coordinates with System Operations staff to ensure proper flow of water throughout the transmission and distribution system.

Large Wet Tap

- Installs and performs large diameter taps (4" to 12") to facilitate water main extensions and fire line installations;
- Meets with contractors, inspectors, customers to ensure that all city codes, requirements, and trench safety conditions are met;
- Through experience, efficiently operates the tapping machine to prevent damage to valve and main;
- Measures the distance of taps with measuring device;
- Sanitizes tapping machines prior to connection and installation of tap;
- Properly handles and disposes of hazardous materials (e.g., asbestos);
- Rebuilds and repairs tapping machines as needed.

Leak Detection

- Performs various leak detection activities to determine water accountability due to water loss from non-surfacing leaks;
- Patrols various locations throughout the City to deploy and survey loggers;



City of Phoenix

- Monitors loggers to record readings and obtain leak correlation data in order to access and pinpoint leak areas;
- Reports leaks via computer and faxes information to area yards or contractor for leak repair;
- Provides daily and monthly reports on water loss and number of leaks found;
- Maintains inventory of loggers and contacts vendor for technical support or calibration of equipment.

Water Compliance

- Performs flushing of the water distribution system to maintain water quality;
- Performs complex unidirectional flushing when needed;
- Locates and operates valves and water meters and raises, lowers, and relocates meters to allow for clearance for other utilities or improvements;
- Sets meter boxes and water meters and records meter readings and other required meter identification information;
- Calibrates and operates turbidity and colorimeters;
- Maintains a knowledge of the operations and maintenance of all automatic flushing devices within the distribution system;
- Obtains bacteria sampling when needed;
- Completes, updates, and maintains files of all routine and non-routine flushing;
- Performs or assists in chlorination and dechlorination of water mains utilizing necessary chemicals as needed.

Required Knowledge, Skills and Abilities:

Knowledge of:

- Water distribution and/or wastewater collection systems.
- Methods and techniques used in the installation, maintenance, repair, testing and monitoring of water mains, and service connections. or methods and techniques used in the installation, maintenance, repair and cleaning of the wastewater.
- Safety issues inherent to the work (e.g., hard hat, vest policies, barricading, etc.).
- The different pressure zones within the water system.
- The contents and use of Material Safety Data sheets and technical manuals.

Skill in:

- The use of a variety of electronic locating devices and other specialty electronic devices.
- Reading and understanding variety of maps and graphs.



City of Phoenix

- The use and care of the tools and equipment used in the installation, maintenance, repair, monitoring and testing of the water distribution system and/or wastewater collection system.
- Operating a utility/crew truck mounted with various small machines/equipment and hand tools.
- Operating power driven machinery such as jack hammers, tampers or other equipment and hand tools.

Ability to:

- Understand and follow written and oral instructions in the English language.
- Use computers to access electronic files and programs.
- Read and interpret quarter section maps and as-built maps.
- Work in a variety of weather conditions with exposure to the elements.
- Set up or remove barricades, traffic cones or similar objects.
- Travel across rough, uneven or rocky surfaces (including excavation sites).
- Work in small, cramped spaces, such as ditches.
- Bend or stoop repeatedly or continually over time.
- Use a variety of hand tools, electronic devices, and power driven machinery such as jack hammers, tampers or other equipment.
- Use truck-mounted hydraulic machines and devices.
- Move heavy objects (50 pounds or more) long distances (more than 20 feet).
- Dig up the ground, move debris, dirt or other material using a pick, shovel, spade or other tools.
- Clean equipment and job site using appropriate materials.
- Coordinate the movement of more than one limb simultaneously (e.g., using a jack hammer to break pavement).
- Communicate orally with co-workers, customers of the public in face-to-face one-to-one settings.
- Observe or monitor objects to determine compliance with prescribed operating or safety standards.
- Measure distance using a tape measure or other measuring device.
- Work safely without presenting a direct threat to self or others.
- Communicate with various customers, contractors, engineers and other department staff.

Additional Requirements:

- Incumbents assigned to the Blue Stake operations are required to possess an Arizona Department of Environmental Quality Grade 1 in either Water Distribution OR Wastewater Collection at the time of application, and possess an Arizona Department of Environmental Quality Grade 1 certification in Water Distribution AND Wastewater Collection by the end of probation.



City of Phoenix

- Incumbents assigned to Water Distribution are required to possess an Arizona Department of Environmental Quality Grade 1 certification in Water Distribution at time of application and obtain an Arizona Department of Environmental Quality Grade II certification by the end of probation.
- Appropriate certification must be maintained as a condition of employment in this job classification.
- This classification requires the use of personal or City vehicles on City business. Individuals must be physically capable of operating the vehicles safely, possess a valid driver's license and have an acceptable driving record. Use of a personal vehicle for City business will be prohibited if the employee does not have personal insurance coverage.
- Some positions may be required to possess a commercial drivers license (CDL) and therefore, will require the employee to pass an Arizona Department of Transportation physical exam to obtain the appropriate CDL.
- Pre-employment drug testing is required and employees will be subject to unannounced alcohol and drug testing as a condition of continued employment.
- Some positions will require the performance of other essential and marginal functions depending upon work location, assignment, or shift.

ACCEPTABLE EXPERIENCE AND TRAINING:

One year of experience performing duties involving the installation, maintenance, repair, testing, monitoring, and/or blue stake locating activities for the water distribution system or wastewater collection system. Dependent on the specialty/operational area of assignment and the complexity of the tasks, this classification requires an additional six months to one year of experience performing job duties specifically related to one or more of the specialty areas that demonstrate a greater accountability and increased knowledge of the water distribution and/or wastewater collection system. Other combinations of experience and education that meet the minimum requirements may be substituted.