

CONSTRUCTION INSPECTOR TRAINEE

JOB DESCRIPTION

Classification Responsibilities: A Construction Inspector Trainee class is a training classification where incumbents will learn to perform highly skilled inspection work on a variety of civil engineering and public works projects completed by the City, private developers, and utility companies, ensuring the projects meet appropriate City and industry standards. Incumbents will participate in a structured training program, which includes on-the-job training and classroom curriculum/coursework, in combination with successful completion of formal written testing requirements. On-the-job training will be assigned in three assignment areas: horizontal, vertical, and right-of-way. Curriculum/coursework is based upon Public Infrastructure Inspections, which includes three modules: Testing, Measurement, and Inspection; Project Planning and Management; and Project Compliance and Documentation. This class is responsible for performing related duties as required.

Distinguishing Features: Throughout the training program, a Construction Inspector Trainee works under the direct supervision of the Chief Construction Inspector or under the functional supervision of a Construction Inspector II. The job duties of this class are performed both in the field and in an office. Work must be performed in an extremely efficient manner, with a minimal error rate. The Trainee will be eligible to promote to the Construction Inspector I classification by noncompetitive, criteria-based promotion after successfully completing the required classroom curriculum/coursework, on-the-job training, testing requirements, and successful performance appraisals. This class is subject to stand-by and/or call-out duty. This class is FLSA nonexempt.

QUALIFICATIONS

Employee Values: All employees of the City of Mesa are expected to uphold and exhibit the City's shared employee values of Knowledge, Respect, and Integrity.

Minimum Qualifications Required. Graduation from high school or GED. Any combination of training, education, and experience equivalent to one year of experience in any of the following areas: construction trades, construction management, construction inspections, civil engineering inspections, building inspections, materials testing, and/or paraprofessional engineering. An Associate's Degree in Construction Management, Engineering Science, Engineering Technology, or closely related field can substitute for the required experience.

Special Requirement. Must possess a valid Class D Arizona Driver's License by hire date. Due to the required access to all City buildings for this position, an individual receiving a conditional offer of employment from the City of Mesa must pass a background investigation through the City of Mesa Police Department, the Arizona Department of Public Safety, and Federal Bureau of Investigation prior to commencing employment with the City of Mesa to allow full, unescorted access to Police facilities (*by assignment*).

Substance Abuse Testing. Due to the safety and/or security sensitive nature of this classification, individuals shall be subject to pre-employment or pre-placement alcohol, drug, and/or controlled substance testing as outlined in City policy and procedures.

Preferred/Desirable Qualifications. Experience involving inspection and final acceptance of contract work, contract administration, working with non-City utilities, construction quality assurance, or public works certification program. Experience working with the public to resolve problems.

ESSENTIAL FUNCTIONS

This position requires that incumbents learn to perform the essential functions of the Construction Inspector I class. Most of these essential functions can be learned through the successful completion of the Construction Inspector training program. Employees in this class will perform and become able to independently perform the following essential functions:

Communication: Communicates with the general public, other City employees, various government agencies, non-City utilities (example: CenturyLink, Cox Communication, Salt River Project (SRP), etc.), and contractors in order to advise of ongoing or future construction work, interact with the public, and coordinate work between agencies, contractors, and other City departments. Responds to customer inquiries. Prepares record drawings, written documents, contractor evaluations, daily logs, weekly progress reports, and requests for letters of acceptance. Prepares written communications with clearly organized thoughts using proper sentence structure, punctuation, and grammar. Uses word processing, spreadsheet, and electronic mail software to prepare reports, give instructions, and analyze data.

Manual/Physical: Inspects City contracts, private developers' subdivision project work sites, and non-City owned utility projects for acceptable quality levels. Ensures compliance with Mesa's specifications and details, Maricopa Association of Governments (MAG) standard specifications and details for public works construction, including but not limited to: earthwork; sanitary sewers and water lines; irrigation pipes; storm drains; streetlights; electric, telephone, and dry utility trenches; paving and concrete flatwork; and bridges and structures, etc. Checks for City, county, Arizona Department of Transportation (ADOT), and non-City utility permits and ensures permits are obtained and closed out when work is complete. Coordinates survey requests and staking. Assists in monitoring of dust control and National Pollution Discharge Elimination System (NPDES) activities. Monitors trenching for alignment and grade, shoring, and manhole locations and compaction. Checks pipes, valves, and fire hydrants for proper location, type, and operations. Obtains samples of water for high and low chlorine tests for safe public consumption. Schedules pressure tests. Monitors conflicts with other utilities. Inspects forms for curbs, gutters, sidewalks, and driveways. Inspects installed equipment for conformance to specifications. Works in a hot, dusty environment, often standing for periods of two hours or more around construction equipment. Works in small, cramped areas, including confined spaces such as sanitary sewer and storm drain manholes, pipelines, and concrete vaults. Works at elevated levels up to 50 feet while performing inspections on bridges. Operates a motor vehicle, such as City-owned pickup trucks, requiring a standard Class D Arizona Driver's License to operate on City, county, and state highways for construction site inspection. Uses common hand tools, such as hammers, saws, screwdrivers, or similar tools. Digs up ground using a pick, shovel, or spade to locate necessary valves, and uses valve keys, wrenches, screwdrivers, or pick head to shut off water lines and fire hydrants, and to open manhole covers. Works with chemicals, such as chlorine used in water lines for disinfecting. Distinguishes colors of Blue Stake markings to determine location of utilities. Meets scheduling and attendance requirements.

Mental: Reads and interprets engineering plans, specifications and details, utility maps, barricade manuals, and related engineering plans and drawings for constructability and to ensure compliance with

project plans and specifications, and/or to advise contractors or developers of changes necessary for compliance. Compiles a punch list and monitors completion of punch list items. Initiates letters of acceptance or release of Certificate of Occupancy when all work meets specifications and standards. Monitors contractor's construction schedule, submittal of shop drawings and cut sheets, survey requests, and permits. Coordinates and schedules lab testing, utility shutdowns, tie-ins, and valve exercising. Notifies other City departments when their facilities will be affected by construction. Verifies progress payment requests and computes final quantities item-by-item from the contract bid schedule on City contract jobs, special improvement districts, and on a private development involving City cost sharing in order to determine the amount of money to be paid by contractor. Calculates solutions to mathematical problems involving ratios and proportions, fractions, percentages, unit weights, areas, and basic algebraic, geometric, and trigonometric formulae. Learns job-related material through classroom and on-the-job training regarding traffic safety, new materials, and methods of construction.

Knowledge and Abilities:

(Knowledge/Skills/Abilities are obtained through the successful completion of the various levels of the Inspection Training Program.)

Knowledge of:

general civil engineering and public works practices, including conduit installation and testing, water and sewer main installation and testing, backfill type and compaction standards, paving sub-grade standards, trench specifications, etc.;

public works construction practices and procedures;

types and quality of materials generally used in civil engineering and public works projects;

general terminology and mechanical drawing symbols used in civil engineering and public works plans and details;

Mesa standard specifications and details;

MAG standard specifications and details for public works construction;

general contract administration practices and procedures; and

computer software for word processing, spreadsheet analysis, and communication.

Ability to:

read and interpret construction plans, specifications and details, utility maps, and related engineering and architectural plans and drawings in order to ensure compliance with project specifications;

review and approve owned utility plans for conformance with MAG and City specifications;

calculate appropriate fees;

inspect project work sites to ensure acceptable quality levels, and compliance with MAG standards, and City procedures and standards in civil engineering and public works construction;

inspect sub-bases and Aggregate Base Course (ABC) bases for grade, compaction, moisture, and preparation for paving;

inspect asphaltic and portland cement concrete paving for thickness, density, smoothness, and conformance to design;

inspect forms for curbs, gutters, and sidewalks;

interact with contractors and construction personnel to ensure work activities and products meet required

quality levels and standards;
analyze construction problems, determine possible solutions, and select the option which best resolves the situation while maintaining quality standards;
organize assigned inspection activities to minimize backtracking, and increase efficiency; check project for City, county, ADOT, and Non-City Utility permits;
coordinate work sequences/schedules with contractors, private sector utilities, and other City departments/units;
calculate solutions to mathematical problems involving ratios, proportions, percentages, and basic algebraic, geometric, and trigonometric formulas;
write correspondence;
prepare clear, concise written reports;
lift, carry, and push 100 pounds (example: five-gallon buckets of concrete, wheelbarrows full of concrete, or ABC, etc.);
enter confined spaces, such as manholes, pipelines, tanks, etc.;
climb structures;
go up in elevators, manlifts, and buckets 50 feet above ground;
use a shovel to locate valves, meters, etc.;
turn a valve key to operate water valves, fire hydrants, etc.; and
establish and maintain effective working relationships with supervisors, contractors, construction personnel, and coworkers.

The duties listed above are intended only as general illustrations of the various types of work that may be performed. Specific statements of duties not included does not exclude them from the position if the work is similar, related, or a logical assignment to the position. Job descriptions are subject to change by the City as the needs of the City and requirements of the job change.

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EEO- Tech

JOB FCTN – TEC

INCREMENTS 64-200

PAY GRADE: 47

IND-9410

SWORN-No