



ENGINEERING TECHNICIAN I

CHARACTERISTICS OF WORK:

This is the entry-level occupational class for the engineering technician job series. This work requires strict compliance with set operating procedures, close supervision by higher-level technicians and/or professional engineers and nominal decision making; duties performed are mainly in the functional areas of projects, traffic control and safety, research and development, design, transportation studies, testing, and right-of-ways. Incumbents in this class receive general supervision from an administrative superior.

EXAMPLES OF WORK:

Examples of work performed in this classification include, but are not limited to, the following:

Inspects roadside development, untreated subbases and bases, in-grade preparation, surface treatment, pressure grouting, concrete structures, traffic stripe, traffic signs and utility adjustments.

Adjusts mix designs for moisture, silt and clay content, and restivity.

Develops sign layout for intermediate sign projects; performs sign and signal inventories.

Conducts minor time delay studies and traffic counts; operates survey instruments.

Drafts research features such as structures, cross-sections, illustrations of research equipment and instruments, and location maps; prepares original drawings of topographic maps.

Operates basic research instruments such as camera, visual aid equipment, and microscope to determine angularity of aggregates, pavement movement measurement devices, and nuclear density/moisture gauges.

Codes simple computer inputs; computes horizontal curve data.

Assists in the stake out of line and grade for research experimental features.

Determines earth work distribution and haul and shows on plans.

Drafts quantity recapitulation sheets based upon design project requirements.

Interprets simple real estate title transfers and liens which affect mercantile titles.

Assists in making field inspections, and in the layout of right-of-way projects for tracing, calculating, and conducting engineering and legal analysis.

Performs related or similar duties as required or assigned.

COMPETENCIES:

The following competencies describe the knowledge, skills, abilities, and attributes that lead to a successful employee in this position. An applicant will be expected to exhibit these competencies or the ability to reach competency achievement within a specified time. These competencies are linked to the essential functions of the job. Employees in this position may be evaluated on these competencies as part of the performance appraisal system. Example behaviors are listed below each competency and are used for illustrative purposes only. Specific behaviors may be identified and included later by the hiring agency. It is understood that some of these behaviors might not be acquired until a reasonable time after hire. Failure of an employee to successfully demonstrate some or all of these competencies, as deemed important by his or her reporting official, may result in the employee being placed on a performance improvement plan. If after a reasonable period of time, usually three (3) months, the employee fails to demonstrate successful performance, the employee may be terminated. These competencies include, but are not limited to, the following:

PUBLIC SECTOR COMPETENCIES:

Integrity: Demonstrates a sense of responsibility and commitment to the public trust through statements and actions.

Models and demonstrates high standards of integrity, trust, openness, and respect for others. Demonstrates integrity by honoring commitments and promises. Demonstrates integrity by maintaining necessary confidentiality.

Work Ethic: Is productive, diligent, conscientious, timely, and loyal.

Conscientiously abides by the rules, regulations, and procedures governing work. Meets deadlines. Work product is of a high quality. Follows through on assigned tasks until they are completed correctly. Takes ownership of tasks and duties.

Service Orientation: Demonstrates a commitment to quality public service through statements and actions.

Seeks to understand and meet and/or exceed the needs and expectations of customers. Treats customers with respect, responding to requests in a professional manner, even in difficult circumstances. Provides accurate and timely service. Develops positive relationships with customers. Obtains first-hand customer information and uses it to improve projects and/or services.

Accountability: Accepts responsibility for actions and results.

Is productive and carries fair share of the workload. Focuses on quality and expends the necessary time and effort to achieve goals. Demonstrates loyalty to the job and the agency and is a good steward for state assets.

Steadfastly persists in overcoming obstacles and pushes self for results. Maintains necessary attention to detail to achieve high level performance. Deals effectively with pressure and recovers quickly from setbacks.

Takes ownership of tasks, performance standards and mistakes. Knows the organization's mission and functions and how it fits into state government.

Self Management Skills: Effectively manages emotions and impulses and maintains a positive attitude.

Encourage and facilitates cooperation, pride, trust and group identity. Fosters commitment and team spirit. Works effectively and cooperatively with others to achieve goals. Treats all people with respect, courtesy, and consideration. Communicates effectively. Remains open to new ideas and approaches. Avoids conflicts of interest. Promotes cooperation and teamwork. Continuously evaluates, adapts, and copes effectively with change. Allows self and others to make mistakes and learns from those mistakes. Adheres to high ethical standards.

Interpersonal Skills: Shows understanding, courtesy, tact, empathy, and concern to develop and maintain relationships.

Demonstrates cross-cultural sensitivity and understanding. Identifies and seeks to solve problems and prevent or resolve conflict issues. Encourages others through positive reinforcement. Expresses facts and ideas both verbally and in writing in a clear, convincing and organized manner, helping others translate vision into action.

Models appropriate behavior. Recognizes and develops potential in others; mentors. Builds constructive and effective relationships.

Communication Skills: Receives, attends to, interprets, and responds to verbal messages and expresses information to individuals or groups effectively.

Receives nonverbal cues, such as body language in ways that are appropriate to listeners and situations.

Takes into account the audience and nature of the information. Listens to others and responds appropriately.

May make oral presentations. Communicates ideas, suggestions and concerns as well as outcomes and progress throughout the course of an activity. Provides thorough and accurate information. Can accurately restate the opinions of others even when he/she disagrees.

Self-Development: Adapts behavior or work methods in response to new information, changing conditions, or unexpected obstacles.

Seeks efficient learning techniques to acquire and apply new knowledge and skills. Uses training, feedback, or other opportunities for self-learning and development. Develops and enhances skills to adapt to changing organizational needs. Remains open to change and new information and ideas. Is committed to and actively works to continuously improve himself/herself.

TECHNICAL COMPETENCIES:

Technical Proficiency: The ability and willingness to exhibit competency in the technical areas needed to do a specific job.

Reads, comprehends, and correctly applies all rules, regulations, and policies applicable to work assignments. Performs work with a minimum amount of supervision in areas that are familiar. Effectively ensures that contractors are properly following plans and specifications. Knows how to properly collect samples and certifications for all required testing. Applies appropriate data analysis techniques when verifying, updating, and correcting department data with limited supervision. Keeps him/herself abreast of new information that impacts his/her job duties. Follows proper procedures when running equipment checks. Runs equipment checks on a regular basis. Properly documents contractor activities. Demonstrates a willingness to seek technical advice and feedback from others. Demonstrates a sound working understanding of the specific knowledge area(s) in which he/she is certified (e.g., Class/Concrete, Erosion Control, Traffic Control).

Workflow Management: The ability and willingness to perform work within defined specifications and timelines and to manage conflicting priorities.

Operates under specific time constraints and within specified deadlines. Effectively prioritizes tasks in order to meet deadlines. Works on appropriate priorities to get the job done. Knows how to effectively use project software to manage tasks and resolve project schedule conflicts. Reports completed tasks and related problem situations to management on a regular basis (e.g., bi-weekly). Follows proper procedures when acquiring information and preparing field notes for pay items. Submits reports, calculations, and sketches to his/her project manager in an appropriate and timely manner. Turns in paperwork in a timely manner. Accurately enters quantities and material samples into site manager. Takes care of equipment and tools needed to do the job. Collects samples needed for testing in a timely manner.

Problem Solving/Decision Making: The ability and willingness to cooperate with other employees in identifying and solving problems in order to effectively and efficiently complete assigned tasks.

Exhibits ability to identify and address issues. Ensures that all problems encountered are addressed at the appropriate level and communicates all relevant information on a timely basis with accuracy and completeness. Exercises sound reasoning. Displays the ability and willingness to work with other offices or other divisions in order to collectively complete assigned tasks or problems as that arise. Accurately reviews plans and contract documents to find direction for specific items. Demonstrates a desire to find win-win solutions to conflict situations. Communicates problem situations to project engineers and contractors in a timely manner. Demonstrates the ability and willingness to take the lead when confronted with problem situations. Listens attentively when provided instructions by his/her supervisor. Follows the appropriate chain-of-command when problems arise. Demonstrates a willingness to listen to others' views and opinions when trying to solve a problem. Proactively provides advice and assistance to others when problem situations arise.

Stakeholder Relations: The ability and willingness to interact and communicate effectively with stakeholders.

Proactively provides stakeholders with proper information in an effort to reduce occurrences of future problems. Supports the agency mission and goals in all interactions with internal and external stakeholders. Acts as an advocate for agency policy. Communicates professionally and effectively with project managers and project engineers. Provides federal and state agencies with proper information to ensure the proper use of public interests. Operates state vehicles in a professional manner at all times. Demonstrates an awareness of public perception at all times.

ESSENTIAL FUNCTIONS:

These essential functions include, but are not limited to, the following. Additional essential functions may be identified and included by the hiring agency.

1. Performs and assists in the duties of various design and/or construction projects.
2. Performs general office duties.

MINIMUM QUALIFICATIONS:

These minimum qualifications have been agreed upon by Subject Matter Experts (SME's) in this job class and are based upon a job analysis and the essential functions. However, if a candidate believes he/she is qualified for the job although he/she does not have the minimum qualifications set forth below, he/she may request special consideration through substitution of related education and experience, demonstrating the ability to perform the essential functions of positions. Any request to

substitute related education or experience for minimum qualifications must be addressed to the State Personnel Board in writing, identifying the related education and experience which demonstrates the candidate's ability to perform all essential functions of the position.

PHYSICAL REQUIREMENTS: These physical requirements are not exhaustive, and additional job related physical requirements may be added to these by individual agencies on an as needed basis. Corrective devices may be used to meet physical requirements.

Moderate Work: May frequently exert force equivalent to lifting up to approximately 25 pounds and/or occasionally exert force equivalent to lifting up to approximately 50 pounds.

Vision: Requires the ability to perceive the nature of objects by the eye.

Near Acuity: Clarity of vision at 20 inches or less.

Midrange: Clarity of vision at distances of more than 20 inches and less than 20 feet.

Far Acuity: Clarity of vision at 20 feet or more.

Field of Vision: Ability to observe an area up or down, left or right while eyes are fixed on a given point.

Depth Perception: Three-dimensional vision. Ability to judge distance and space relationships so as to see objects where and as they actually are.

Accommodation: Ability to adjust focus.

Motor Coordination: While performing the duties of this job the incumbent is regularly required to use hands to finger, handle or feel objects, tools, or controls; and reach with hands and arms. The incumbent is frequently required to stand; walk; sit; and stoop kneel, crouch, or bend. The incumbent is occasionally required to climb or balance.

Speaking/Hearing: Ability to give and receive information through speaking and listening skills.

EXPERIENCE/EDUCATIONAL REQUIREMENTS:

Education:

Graduation from a standard four-year high school or equivalent (GED).

AND

Experience:

Two (2) years of experience directly related to the above described duties.

OR

Education:

Completion of two (2) years (sixty (60) semester hours) of college from an accredited college or university, eighteen (18) of which must have been in an engineering-related field.

Documentation Required

Applicant must attach a valid copy of his/her transcript or other evidence to verify completion of required coursework, where applicable.

Substitution Statement:

Directly related education and directly related experience may be substituted on an equal basis.

INTERVIEW REQUIREMENTS:

Any candidate who is called to an agency for an interview must notify the interviewing agency in writing of any reasonable accommodation needed prior to the date of the interview.

Additional essential functions and behavioral anchors may be identified and included by the hiring agency.