



ENGINEERING TECHNICIAN, CERTIFIED

CHARACTERISTICS OF WORK:

This is the first certification level in the engineering technician job series. This work requires strict compliance with set operating procedures, general supervision by a Senior Certified Engineering Technician or Professional Engineer, and general decision making. Duties performed are mainly in the functional areas of traffic control and safety, research and development, roadway design, right-of-ways, testing, transportation planning, bridges, and field work. Incumbents in this class perform general supervision of other engineering aides and technicians.

EXAMPLES OF WORK:

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

Evaluates manufacturers' certifications; assists in final clearance of materials on projects; checks test results for conformance to contract requirements.

Tests liquid membrane, epoxy adhesives and pavement markers; designs asphaltic pavement mixtures; and performs and interprets results of gyrator compaction.

Supervises all aspects of an intermediate construction project; inspects and exercises supervision over designated bridges; and supervises sign manufacturing process.

Performs structural steel shop drawing checks for complex structures; develops sign layouts for complex sign projects; prepares complex aerial mosaics.

Collects and codes input for computer analysis of geometrical problems and interprets data; reads computer printouts and develops maps for field use.

Coordinates and reviews the work of subordinate personnel in the office where located; interprets standard operating procedures and implements policy.

Assists in the preparation of cost estimates; supervises the preparation of condemnation plats and petitions.

Designs minor structures or modifies existing standard drawings; reviews preliminary and final construction plans; writes equipment specifications.

Coordinates and supervises major research items; assists in monitoring planning surveys; prepares and reviews survey data.

Operates highly specialized research instruments such as the skid measurement system, the dynaflect deflection measurement system and the Mays ride meter.

Maintains systems for reproduction of positive and negative orders of stick-up type.

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

cope 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.

MANAGEMENT COMPETENCIES:

Emotional Maturity: Conducts oneself in a professional, consistent manner when representing the organization.

Has the ability to work through adversity and hold self and others accountable for work actions. Takes risks appropriate to one's level of responsibility. Acts as a settling influence in a crisis. Exhibits the ability to work through challenges and create opportunities.

Macro-Oriented: Exercises good judgment and makes sound, well-informed decisions.

Understands and appropriately applies procedures, requirements, and regulations related to specialized areas of expertise. Understands the effects of decisions on the organization and on other organizations.

Acts as a change agent by initiating and supporting change within the agency when necessary.

Working Through Others: Supports, motivates, and is an advocate for staff

Creates effective teams; shows a willingness to get work done through others. Clearly and comfortably delegates work, trusting and empowering others to perform. Reinforces and rewards team efforts and positive behaviors. Is fair, yet firm with others. Monitors workloads and provides feedback.

Results Oriented: Plans effectively to achieve or exceed goals, sets and meets deadlines.

Identifies, analyzes, and solves problems. Develops standards of performance and know what and how to measure.

Resource Management: Acquires, effectively and efficiently administers, and allocates human, financial, material, and information resources. Demonstrates ability to plan, prioritize, and organize.

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. Conducts tests and evaluations.
2. Performs supervisory duties.
3. Performs office duties, including completing forms and reports and computing various quantities.

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.

Color Vision: Ability to identify colors.

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

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

EXPERIENCE/EDUCATIONAL REQUIREMENTS:

Certification:

Certification as an Engineering Technician (ET) from the Institute for the Certification of Engineering Technicians.

Documentation Required:

Applicant must attach a valid copy of his/her certification as an Engineering Technician (ET) from the Institute for the Certification of Engineering Technicians.

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.