

ENGINEERING/ARCHITECTURAL TECHNICIAN

Schematic Code 16103 (31000119)

I. DESCRIPTION OF WORK

Positions in this banded class perform technical duties supporting engineers and other professionals in areas such as construction, materials testing, design, surveys, and/or program/regulatory compliance. Work functions may include: inspection for compliance and/or code; collection and analysis of field data; testing of materials; review, modification and/or design of plans; analysis of engineering related data, products, and/or functions. Work may include a leadership role.

II. ROLE DESCRIPTIONS BY COMPETENCY LEVEL

Contributing	Journey	Advanced
<p>Positions at this level perform entry-level technical duties in one or more major areas of a program supporting engineers and other professionals. Positions may require general knowledge of compliance and/or regulatory standards. Assignments at this level are routine in nature and follow established guidelines and procedures. Work is subject to review by higher-level technical and professional staff.</p>	<p>Positions at this level perform moderately complex technical duties in one or more major areas of a program supporting engineers and other professionals. Positions may require a working knowledge of compliance and/or regulatory standards. Assignments at this level may vary from established guidelines and procedures. Work is subject to review by higher-level technical and professional staff.</p>	<p>Positions at this level perform complex technical duties in one or more major areas of a program supporting engineers and other professionals. They implement activities either independently or through the coordination of work efforts of other employees. Positions review completed tasks and overall accomplishments for accuracy. Work requires advanced knowledge of compliance and/or regulatory standards. Positions may serve as a supervisor/technical resource to lower level staff. Work is subject to review by higher-level professional staff.</p>

III. COMPETENCIES

Competency	Definition
Knowledge - Technical	Technical skill and knowledge of engineering area(s) of assignment. Ability to keep current in equipment and standards and safety. Knowledge of specific codes and construction processes. Ability to use software packages to depict picture of engineering project. Specialized at the advanced level. May require knowledge and interpretation of federal and state regulations.
Inspecting	Ability to inspect specific areas such as highways, buildings/structures/facilities, the environment, or other related area; may require ability to test equipment and/or processes; ability to document findings and take some corrective actions.
Surveying	Ability to conduct accurate surveys, operate equipment and perform manual labor onsite. May require ability to perform geodetic surveying.
Testing	Ability to test products in a lab or field setting using specific guidelines. Ability to test or monitor testing procedures to ensure safety and compliance with design standards.
Communication	Ability to communicate technical information regarding programs and/or regulations to individuals and groups both within and outside work unit in a manner suited to the characteristics and needs of the audience. Ability to clearly and concisely convey information orally or in writing to individuals or groups. Ability to listen and respond appropriately to others.
Leadership	Ability to serve as crew leader. Ability to establish expectations and clear direction and expectations to meet goals and objectives of on-going work for a group of employees. Ability to motivate and engage employees through effective communication.

Note: Not all competencies apply to every position/employee; evaluate only those that apply. Competency statements are progressive.

IV. COMPETENCY STATEMENTS BY LEVEL

Knowledge – Technical

Technical skill and knowledge of engineering area(s) of assignment. Ability to keep current in equipment and standards and safety. Knowledge of specific codes and construction processes. Ability to use software packages to depict picture of engineering project. Specialized at the advanced level. May require knowledge and interpretation of federal and state regulations.

Contributing	Journey	Advanced
<p>Knowledge and understanding of general concepts, practices, and theories used in the technical specialty area under direct supervision.</p> <p>General knowledge of state and/or federal rules and regulations to determine compliance.</p> <p>General knowledge and skill in the use of equipment and software.</p>	<p>Working knowledge and understanding of concepts, practices, and theories used in the technical specialty area with limited supervision.</p> <p>Working knowledge of state and/or federal rules and regulations to determine compliance.</p> <p>Working knowledge and skill in the use of equipment and software.</p>	<p>Thorough expertise and understanding of concepts, practices, and theories used in the technical specialty area; ability to serve as technical expert while independently accomplishing assigned task.</p> <p>Thorough knowledge of state and/or federal rules and regulations for specific program area, to ensure compliance and provide guidance/interpretation.</p> <p>Thorough knowledge and skill in the use of equipment and/or software.</p>

Inspecting

Ability to inspect specific areas such as highways, buildings/structures/facilities, the environment, or other related area; may require ability to test equipment and/or processes; ability to document findings and take some corrective actions.

Contributing	Journey	Advanced
<p>Ability to conduct routine inspections for compliance with contract agreements, standards/codes and specifications. May be subject to review.</p> <p>Ability to maintain standard records; ability to report needs and/or concerns.</p>	<p>Ability to independently conduct moderately complex inspections for compliance with contract agreements, standards/codes and specifications.</p> <p>Ability to maintain detailed records; ability to perform analysis of findings and may require ability to recommend some corrective actions.</p>	<p>Ability to independently conduct complex inspections for compliance with contract agreements, standards/codes and specifications. May require ability to serve as lead or resource.</p> <p>Ability to maintain detailed records; ability to analyze findings and recommends corrective actions. May be required to serve as lead or resource.</p>

Surveying

Ability to conduct accurate surveys, operate equipment and perform manual labor onsite. May require ability to perform geodetic surveying.

Contributing	Journey	Advanced
Ability to serve as survey crew member, assist with operating and maintaining equipment, staking out limits, checking alignment and grade; ability to stake and plot parameters; ability to perform land and property searches and plot information.	Ability to serve as survey crew leader, independently direct activities of other survey crewmembers in collecting field data on moderately complex surveys.	Ability to serve as survey crew leader, independently direct activities of other survey crewmembers in collecting field data on complex surveys.

Testing

Ability to test products in a lab or field setting using specific guidelines. Ability to test or monitor testing procedures to ensure safety and compliance with design standards.

Contributing	Journey	Advanced
Ability to perform entry-level technical work in a specific materials area or perform sampling, testing and inspection duties to determine the adherence to codes/standards. May require ability to exercise limited decision-making and judgment.	Ability to perform moderately complex technical work in either a specific materials area or perform a range of sampling, testing and inspection duties to determine the adherence to codes/standards. May require ability to exercise a wide range of decision-making and judgment.	Ability to perform the most complex technical work in either a specific materials area or perform a wide range of sampling, testing and inspection duties to determine the adherence to codes/standards. Ability to exercise a wide range of decision-making and judgment.

Communication

Ability to communicate technical information regarding programs and/or regulations to individuals and groups both within and outside work unit in a manner suited to the characteristics and needs of the audience. Ability to clearly and concisely convey information orally or in writing to individuals or groups. Ability to listen and respond appropriately to others.

Contributing	Journey	Advanced
<p>Ability to effectively use verbal and nonverbal skills to express routine or simple technical and/or program concepts and related facts in a clear, concise, organized and persuasive manner.</p> <p>Ability to use appropriate language that is easy for others to understand.</p> <p>Ability to communicate with other staff to ensure that tasks are completed correctly and in a timely manner.</p>	<p>Ability to effectively use verbal and nonverbal skills to express non-routine or moderately complex technical and/or program concepts and related facts in a clear, concise, organized and persuasive manner.</p> <p>Ability to modify delivery, language or material to account for the characteristics and needs of the audience.</p> <p>May require ability to lead co-workers in completing projects or surveys. Ability to report survey findings or project status to higher-level management.</p>	<p>Ability to effectively use verbal and nonverbal skills to express complex technical and/or program concepts and related facts in a clear, concise, organized and persuasive manner.</p> <p>Ability to modify delivery, language or material to account for the characteristics and needs of the audience.</p> <p>Ability to organize co-workers, outside employees, and/or contracted employees to correct concerns/issues.</p>

Leadership

Ability to serve as crew leader. Ability to establish expectations and clear direction and expectations to meet goals and objectives of on-going work for a group of employees. Ability to motivate and engage employees through effective communication.

Contributing	Journey	Advanced
<p>N/A</p>	<p>Ability to supervise crew and/or a separate program function of moderate complexity.</p>	<p>Ability to function in a full supervisory role for direct reports. May require ability to perform/supervise several administrative functions or supervise a separate function of considerable complexity.</p>

V. MINIMUM TRAINING & EXPERIENCE

Associate’s degree in the assigned discipline; or equivalent combination of training and experience. Some positions may require certification. All degrees must be received from appropriately accredited institutions.

Note: This is a generalized representation of positions in this class and is not intended to identify essential work functions per ADA. Examples of competencies are primarily those of the majority of positions in this class, but may not be applicable to all positions.