

**COMPETENCY MODEL FOR
ELECTRICAL ENGINEERING DRAFTING TECHNICIAN
CLASS CODE 7532**

The following competencies have been identified as those that best separate superior from satisfactory job performance in the class of **ELECTRICAL ENGINEERING DRAFTING TECHNICIAN**. (Numbers refers to the order of competencies in the Competency Bank.)

1. Reading Comprehension
6. Attention to Detail
7. Self-Management
20. Job Knowledge
21. Technology Application
31. Results Orientation
33. Interpersonal Skills
44. Follow Written Directions

On the following pages are descriptions of each competency, including a definition, the level of the competency required for the class (*italicized*, **bolded**, and underlined), examples of behavioral indicators, and satisfactory and superior performance levels.

1. READING COMPREHENSION – Comprehends and correctly applies information presented in written form. Makes correct inferences; draws accurate conclusions.

Level of Competency Required by Job:

Level 1: Concrete, specific job-related information (work orders; instructions; material/equipment labels)

Level 2: General information related to field of work and assignments; (articles in trade publications; technical/instructional manuals; memos; letters; e-mails; reports)

Level 3: Abstract/complex information (highly technical articles/ reports in specialized area; legal or other regulatory material)

Examples of Behavioral Indicators:

- Follows written instructions correctly.
- Learns information presented in writing.
- Identifies relevant written information.
- Interprets written legal regulatory material accurately.

Performance Levels:

Satisfactory

Reads instructions correctly. Learns from manual and other printed material.

Superior

Learns from manual and may answer others' questions. Explains information presented in written form to others.

6. ATTENTION TO DETAIL – Extremely careful in addressing all aspects of each work assignment in order to produce “completed staff work” and/or avoid any negative outcomes.

Level of Competency Required by Job:

Level 1: Ensure all aspects of work assignment are completed as directed.

Level 2: Verify that each aspect of work assignment is properly completed; make logical inference regarding additional activities that may need to be performed to produce “completed staff work.”

Level 3: Include evaluation of final work/work product in its accomplishment; make adjustments as possible to improve.

Examples of Behavioral Indicators:

- Carefully checks all aspects of work for completion and accuracy before submitting.
- Identifies errors (for example, typo’s, computations, measurements, application of laws/rules/policies) and corrects them prior to submitting.
- Cross-checks work against available resources.
- Sets up a means of checks and balances to ensure work accuracy.
- Considers changes in final work product to ensure usability by recipient.
- Completes all revisions upon request.

Performance Levels:

Satisfactory

Ensures that each task accomplished represents “completed staff work.” No remaining details/inconsistencies for others to address.

Superior

All aspects of each task completed are verified to be correct. Identifies any foreseeable consequences of work that may need to be addressed and does so.

7. SELF MANAGEMENT – Organizes and plans for task accomplishment; manages time and works diligently to complete assigned work/fulfill responsibilities.

Level of Competency Required by Job:

Level 1: Order tasks for efficient performance; maintain awareness of time allotted and deadlines in order to ensure they are met.

Level 2: Plan and perform work in a way that maximizes efficient performance; establish and adjust priorities to ensure timely completion of most critical assignments.

Level 3: Allot time to responsibilities proportional to their prominence, priority, and impact.

Examples of Behavioral Indicators:

- Performs only work activities during work hours.
- Alters means of performing work when original approach proves to waste time.
- Keeps a “to do” list (with indication of priority and deadlines, if necessary).
- Requests assistance as necessary when it becomes clear that work will not be completed on time.
- Demonstrates a record of progress with respect to all assignments/responsibilities.
- Uses optimal means of communication for efficiency and effectiveness.

Performance Levels:

Satisfactory

Conducts self while at work in a manner that ensures work will be completed as scheduled, or provides explanation or secures assistance or adjustment of schedule if it will not be.

Superior

Seeks efficiencies in doing work to maximize productivity. Plans work carefully and follows the plan or makes adjustments if it is disrupted. Maintains personal responsibility for all work accomplishment.

20. JOB KNOWLEDGE – Knows information required to perform a specific job. Includes both widely available courses of study (for example, chemistry, human resources management, graphic arts) and City-specific information (parking regulation and ticketing practices; purchasing procedures; provisions of the City Charter).

Level of Competency Required by Job:

Level 1: Knowledge acquired after hire in a brief orientation, short training program, or through on-the-job training.

Level 2: Knowledge acquired through an apprenticeship or extensive training program, or long duration of job performance.

Level 3: Knowledge acquired through a prolonged external course of study and/or extensive training and experience within the City.

Examples of Behavioral Indicators:

- Performs work correctly/avoids technical (job content related) errors.
- Answers technical questions about work accurately.
- Asks few technical questions about the performance of routine work activities.
- Offers advice (“coaching”) to new employees regarding their work.
- Develops training programs for other employees.

Performance Levels:

Satisfactory

Sufficient job knowledge to perform work correctly independently. Answers technical questions about work correctly.

Superior

Expertise in technical job information sufficient to serve as a resource to others. May develop training manuals/programs and/or give internal and/or external presentations related to work.

Job Knowledge Areas

1. Knowledge of the general purpose of electrical control, protection devices and equipment such as voltage regulators, circuit breakers, disconnecting switches, printed circuit boards, instrument panels, transformers, electric motors, generators and their necessary circuitry such as communication or control circuits, lighting circuits, metering circuits, and connections using materials such as conduits and wires sufficient to correctly interpret, prepare, update and revise drawings, sketches, and diagrams using computer aided drafting software (e.g., MicroStation or AutoCAD) for the construction, installation, alteration, and repair of electrical equipment and communication, and electrical systems at various mechanical and power facilities, such as distribution stations, generating plants, pumping and water treatment plants, and substations.
2. Knowledge of National Electrical Code Symbols and nomenclature used in schematics, plans, substructure maps, specifications, wiring diagrams (e.g., single line and 3-line wiring diagrams) and electrical design drawings (e.g. lighting systems, equipment layout, conduit and grounding systems) such as circuit breakers, switches, and fuses in order to interpret, prepare, update, and revise drawings, sketches, and diagrams. using computer aided drafting software (e.g., MicroStation or AutoCAD) for the construction, installation, alteration, and repair of electrical equipment and communication and electrical systems at various mechanical and power facilities, such as distribution stations, generating plants, pumping and water treatment plants, and substations.
3. Knowledge of the capabilities of computer aided drafting including replacing manual drafting with a digital format, maintaining libraries of parts and assemblies (e.g. block or cell libraries) for reuse in similar designs, and importing/exporting information to exchange data with other software for the purpose of efficiently preparing, updating and revising drawings, sketches, and diagrams for the construction, installation, alteration, and repair of electrical equipment and communication and electrical systems at various mechanical and power facilities, such as distribution stations, generating plants, pumping and water treatment plants, and substations.

21. TECHNOLOGY APPLICATION – Correctly applies technology as required on the job; conceptualizes improvements in work through introducing and/or enhancing use of technology.

Level of Competency Required by Job:

Level 1: Expert in the use of technology required for own job. May identify additional applications for currently used technology to enhance own work and/or work of others.

Level 2: Identify additional technology to be applied to improve own work and/or work of others and/or enhanced use of current technology to improve the operations of an entire function or department.

Level 3: Identify new technology application to improve/enhance work of an entire function, department, or organization.

Examples of Behavioral Indicators:

- Demonstrates mastery of technical applications required for current work.
- Suggests additional applications of existing technology that improve productivity.
- Identifies new technology that can be applied to improve existing operations.
- Provides convincing justification for investment in new technology versus anticipated benefits.
- Presents compelling arguments to justify purchase of existing software (with or without modification) versus in-house development.

Performance Levels:

Satisfactory

Knows and correctly applies current technology as required on the job. Extends use of current technology to improve efficiency of accomplishing additional tasks.

Superior

Recognizes opportunities to apply technology to improve work processes in a function, department, or the entire organization. Identifies and justifies specific technology for specific uses.

Technology Application Area

1. Uses computer aided drafting software such as AutoCAD and MicroStation and their associated functions including text, lines, shapes, and a cell or block library in order to prepare and revise drawings, sketches, and diagrams for the construction, installation, alteration, and repair of electrical equipment and communication and electrical systems at various mechanical and power facilities, such as distribution stations, generating plants, pumping and water treatment plants, and substations.

31. RESULTS ORIENTATION – Maintains a focus on objectives to be achieved and acts accordingly to ensure their accomplishment.

Level of Competency Required by Job:

Level 1: Remain focused on the task at hand and its purpose. May alter activities if the same result will be achieved. Does not become distracted by extraneous information, events, or details.

Level 2: Remain focused on the objectives to be achieved and take all reasonable actions necessary to achieve them. If initial activities to achieve objectives are unsuccessful, tries other approaches.

Level 3: Remain focused on outcome and not process, when possible, in the monitoring and evaluation of staff work. Encourage staff to maintain focus on the objectives of their work and not to be overly affected by nuisances or frustration.

Examples of Behavioral Indicators:

- Clearly understands the purpose/objectives of work assignments.
- Recognizes that there are typically many ways to achieve the same objective.
- Makes multiple attempts to achieve objectives when necessary.
- Does not become distracted by unimportant or irrelevant issues.
- Ignores distracters in order to maintain pursuit of the desired outcome.

Performance Levels:

Satisfactory

Maintains a focus on desired outcomes and makes every reasonable attempt to achieve them. Always recognizes the purpose or objective of work activities.

Superior

Maintains a clear focus on desired results, and is persistent in attempts to achieve them. Insistent that all work activities lead to goal accomplishment; expresses dissatisfaction with activities that have no apparent impact.

33. INTERPERSONAL SKILLS – Interacts effectively and courteously with others.

Level of Competency Required by Job:

Level 1: **Interact with members of the workgroup, supervision, and/or the public in a cordial, service-oriented manner.**

Level 2: Interact across department lines and with appointed City officials, and/or members of the public, at times under adversarial circumstances, in a cordial, respectful manner.

Level 3: Interact with appointed and elected City officials, department heads, representatives of external organizations, and/or the media in a cordial, effective manner.

Examples of Behavioral Indicators:

- Works well with others toward mutual objectives.
- Does not arouse hostility in others.
- “Disagrees without being disagreeable.”
- Elicits acceptance/cooperation from others.
- Affords all individuals respect, regardless of their role or status.
- Effectively addresses concerns of politicians or others who may have their “own agenda.”

Performance Levels:

Satisfactory

Behaves in a courteous, respectful, cooperative manner toward co-workers, other City employees, and members of the public.

Superior

Facilitates positive interpersonal relations within/among workgroups and toward members of the public. Adept at finding similarities and grounds for cooperation/mutual benefit.

44. FOLLOW WRITTEN DIRECTIONS – Performs work accurately as directed in writing.

Level of Competency Required by Job:

Level 1: *Perform tasks assigned in writing.*

Level 2: Perform work after reading instructional manual.

Level 3: Perform work after completion of training modules or programs presented in writing.

Examples of Behavioral Indicators:

- Correctly completes work assigned in writing.
- Answers questions and/or explains work to others who received the same instructions.
- Learns and applies information presented in writing (instruction manual; training program).
- Correctly infers details of work to be performed that were unclear or omitted as presented in writing.

Performance Levels:

Satisfactory

Correctly performs work assigned or for which training was provided in writing.

Superior

Understands instructions and training materials presented in writing to the extent that is able to answer questions or explain to others. Correctly infers unclear or omitted details as presented in writing.