

**COMPETENCY MODEL FOR
SENIOR ELECTRICAL ENGINEERING DRAFTING TECHNICIAN
CLASS CODE 7209**

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

- 3. Judgment and Decision Making
- 20. Job Knowledge
- 26. Electrical Understanding
- 28. Supervision
- 35. Team Work
- 48. Shares Knowledge and Information
- 52. Workforce Management
- 53. Leadership

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.

3. JUDGMENT AND DECISION MAKING – Accurately assesses situations, seeks new information if necessary, and applies all available information to reach sound conclusions/formulate effective response.

Level of Competency Required by Job:

- Level 1: Training and guidelines needed to respond to immediate situations within very specific function are provided (or supervisor available to assist).
- Level 2: **General information and guidance to assist in responding to a variety of situations across a range of circumstances are provided.**
- Level 3: Little guidance available for responding to a wide range of complex situations with far-reaching and/or enduring consequences.

Examples of Behavioral Indicators:

- Effectively responds to atypical situations.
- Asks questions or otherwise obtains additional relevant information to make a decision.
- Formulates a decision and necessary actions based on available facts.
- Correctly infers appropriate response based on information provided and existing policies, personal experience, and/or consultation with others.
- Discusses conclusions/possible responses with others before taking action as necessary.
- Considers impact of decisions on all affected parties.

Performance Levels:

Satisfactory

Correctly assesses routine and unusual situations and reaches appropriate conclusions for actions needed. Obtains additional information and/or consults with others as necessary.

Superior

Evaluates new situations accurately to establish an appropriate response or plan of action. Recognizes the impact on all affected parties, as well as the possible ramifications and/or repercussions of setting a precedent.

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 is concrete, factual, and/or procedural and may be defined by the organization. Situations in which it is applied are quite consistent.
- Level 2: **Knowledge is substantive and may be defined by an external trade, field, or profession. Situations in which it is applied vary and, as such, require breadth and depth of understanding.**
- Level 3: Knowledge is abstract, conceptual, and/or complex and may be supported by a well-defined academic discipline or authoritative sources (e.g., laws, ordinances, government guidelines/regulations/codes). Situations in which it is applied may vary greatly or be novel.

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.
- Sought out as a source of information by others.

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 details, conventions, nomenclature, and symbols used in different types of electrical engineering or communication drawings and plans in order to create and review electrical or communication designs and plans.
2. Knowledge of drafting techniques and their proper applications in order to create, review, and discuss electrical or communication designs and plans, and select the appropriate software for various drafting projects.
3. Knowledge of computer aided design and drafting (CADD) systems and 3D modeling software sufficient to create, review, and edit electrical or communication designs and plans with computer software.
4. Knowledge of the general design, characteristics, circuitry, and connections of electrical control and protection devices, equipment and apparatus, and various facilities (e.g., voltage regulators, circuit breakers, disconnecting switches, printed circuit boards, control circuits, metering circuits, instrument panels, transformers, electric motors, generators, and buildings) sufficient to properly design and check layouts of electrical or communication systems.
5. Knowledge of the proper use of electrical or communication materials and equipment (e.g., conduits, wires, and insulation) sufficient to create accurate electrical or communication drawings and plans, and ensure conformance to pertinent electrical or communication design standards and codes.
6. Ability to read and inspect wiring diagrams, schematics, plans, substructure maps, and specifications relating to electrical engineering or communication projects for the construction, alteration, and repair of various facilities (e.g., buildings, generating stations and substations) in order to ensure that designs and plans are accurate and in conformance with pertinent industry standards and codes.
7. Ability to prepare electrical or communication design drawings (such as lighting systems, equipment layout, conduit and grounding systems, and communication systems) and wiring diagrams (including single, 3-line, schematic, and logic) in order to prepare and supervise the preparation of electrical or communication designs, and ensure their conformance to established design standards.
8. Knowledge of the techniques of storage, organization, retrieval, and security of electronic drawings and records sufficient to ensure that the organization and confidentiality of drawings and records are consistently maintained.
9. Knowledge of safety principles and practices normally included in the field of electrical engineering or communication drafting sufficient to ensure that a safe working environment is maintained.

10. Ability to write and develop drafting standards, procedures, or policies in order to increase efficiency and ensure conformance with current drafting principles and practices.
11. Knowledge of memo and or letter preparation sufficient to communicate information in a clear and concise manner.

26. ELECTRICAL UNDERSTANDING – Comprehends the concept and the operation of flow of electrical current.

Level of Competency Required by Job:

- Level 1: **Know the properties of electricity relevant to the work environment and work to be performed in order to correctly perform work and recognize hazards that will be created by the failure to do so.**
- Level 2: Sufficient understanding of electricity to recognize problems and determine repair needed to prevent disaster/restore operation.
- Level 3: In-depth understanding of electrical principles and phenomena sufficient to design and/or oversee the installation of complex electrical systems

Examples of Behavioral Indicators:

- Ensures safe physical work environment by taking actions such as eliminating exposed electrical wire, faulty connections, empty sockets, and overloaded circuits.
- Recognizes the danger of fire from faulty electrical installations.
- Uses tools, equipment, and instruments properly to accomplish electrical work correctly and safely.
- Systems designed and/or for which installation is overseen perform as intended upon completion.

Performance Levels:

Satisfactory

Understands the operation of electricity sufficient to readily learn and perform electrical work.

Superior

Displays exceptional insight into the operation of electrical systems, and makes correct inferences regarding them. Promptly and accurately troubleshoots problem.

28. SUPERVISION – Ability to assume direct responsibility for all aspects of the performance of a work group, which requires knowledge and/or ability in the areas of:

- Planning and goal setting
- Creating a safe and positive work environment
- Establishing standards and training employees
- Motivating employees and team building
- Performance Management (assigning, monitoring, facilitating, reviewing and evaluating work, and providing feedback)
- Supporting and developing employees through delegation and participation
- Taking disciplinary action including progressive discipline
- Provisions of employees' MOU's and handling grievances
- Legal requirements including EEO, ADA, FLSA, FMLA, and Workers' Compensation provisions
- Civil Service Commission Rules and Policies related to the management of employees
- Administrative Code provisions related to the management of employees
- Budget processes sufficient to request and justify expenditures in a correct and timely manner

Level of Competency Required by Job:

- Level 1: **Supervises small workgroup of employees performing the same or highly related work.**
- Level 2: Supervises a larger workgroup of employees performing various types of work.
- Level 3: Supervises employees including provision of coaching and advice to subordinate supervisors.

Examples of Behavioral Indicators:

- Plans, assigns, and monitors work progress.
- Trains employees to do work.
- Evaluates work and gives positive and negative feedback.
- Displays knowledge of legal requirements including applicable Federal and State laws, Administrative Code provisions, Civil Service Commission Rules and Policies, and MOU provisions.

Performance Levels:

Satisfactory

Proficiency in supervision sufficient to supervise a workgroup in terms of task orientation, interpersonal concerns, and personnel administration.

Superior

Proficiency in supervision sufficient to serve as a resource to others and/or represent department position in a public forum.

35. TEAMWORK – Interacts effectively with others to achieve mutual objectives; readily offers assistance to others to facilitate their goal accomplishment.

Level of Competency Required by Job:

- Level 1: Work effectively as a member of a work unit or project team. Readily offer assistance to others when they have too much work or have too little.
- Level 2: **Work effectively as a team member in which different people have different roles/responsibilities and perspectives. Identify points for collaboration with co-workers; readily offer and request assistance.**
- Level 3: Work effectively as a part of an interdependent team (your work gets done only if the work of the whole team is done; evaluation of team performance is more relevant than individual performance).

Examples of Behavioral Indicators:

- Discusses work-related matters with co-workers.
- Offers and request assistance readily.
- Offers and is receptive to suggestions.
- Identifies problems with workflow that will prevent team from accomplishing its goals.
- Provides constructive criticism and feedback to team members to improve overall functioning of team.
- Assigns credit to team for accomplishments.

Performance Levels:

Satisfactory

Cooperates with co-workers and fulfills responsibilities as a member of a project team. Maintains a focus on common objectives and offers and requests assistance readily.

Superior

Sees the team as a whole; acknowledges that performance of the team is what in reality is evaluated by others. If anyone fails, everyone on the team fails.

48. SHARES KNOWLEDGE AND INFORMATION – Conveys all information relevant to each involved party in a thorough and timely manner.

Level of Competency Required by Job:

- Level 1: Provide job-related information as it becomes available to others who are likely to need it or to whom it might be helpful.
- Level 2: Keep all involved parties informed of work/project progress and other new information. Tailors content, level of detail, and timing of information provided to the perspective of each recipient.
- Level 3: **Recognize different needs for different information and provide all affected parties with a description of the “big picture” as well as the breadth and detail of information relevant to their perspective.**

Examples of Behavioral Indicators:

- Provides thorough explanations with all relevant details.
- Uses multiple means of communicating (e.g., e-mail, telephone, meetings).
- Provides status reports of work/project progress to all involved parties.
- Informs others of changes at the earliest feasible time.
- Uses multiple addressees and “copies” others so all parties see exactly the same information and know who already has been informed.
- Draws from job knowledge and work experience to provide thorough descriptions and explanations. Carefully listens to (or reads) customer statement of the issue.

Performance Levels:

Satisfactory

Readily communicates new, job-related information to all employees to whom it is relevant. Provides a level of detail and explanation appropriate to the recipient.

Superior

Ensures that all involved parties are provided the maximum amount of information feasible in a timely manner as possible to facilitate work/project status. Shares job knowledge and Experience to service as a mentor or coach to others.

52. WORKFORCE MANAGEMENT – Structure workgroups and their interrelationships in a way that facilitates accomplishment of organizational goals; attracts talent and places individuals in positions to maximize productivity and staff development. Ensures proper training is provided.

Level of Competency Required by Job:

Level 1: **Ensure various workgroups are staffed sufficient to accomplish their respective missions and with complementary skills where appropriate.**

Level 2: Examine the structure of each workgroup to ensure optimal staffing, the interrelationships of workgroups to maximize coordination and efficiency, and the placement of individuals to optimally use or develop their capabilities; make adjustments as warranted.

Level 3: Ensure that structure, staffing, interrelationships, placement of individuals for productivity/development are optimal. Identify needed competencies and ensure well-qualified candidates are recruited. Identify problems with the operation and/or staff performance and determine a solution.

Examples of Behavioral Indicators:

- Considers the workforce and its operation as a whole.
- Recognizes the need to balance optimal placement of staff for the organization with individual developmental needs.
- Recognizes the tradeoffs of bringing in new staff versus developing existing staff.
- Re-assigns staff as warranted.
- Re-structures the organization as warranted.
- Addresses problem performers.

Performance Levels:

Satisfactory

Ensures efficient operation of the organization and makes necessary adjustments.
Balances productivity and staff development.

Superior

Redesigns organization as necessary to achieve maximum productivity and staff development. Balances bringing in new staff with developing current employees.

53. LEADERSHIP – Influences others toward goal accomplishment

Level of Competency Required by Job:

- Level 1: Assume responsibility for operations or a situation when necessary. Direct the actions of others or otherwise ensure required actions are taken. Remain responsible until relieved or situation is resolved.
- Level 2: Motivate others to continual activity focused on goal accomplishment. Provide clear objectives and articulate individual activities necessary to achieve them; ensure resources necessary to do so are available. Monitor work progress and provide feedback; assess results.
- Level 3: **Articulate a vision, convey it to others, and assign responsibilities (or assure they are assigned) for achieving it. Monitor progress, make adjustments as necessary, and evaluate results.**

Examples of Behavioral Indicators:

- Evaluates circumstances, determining what needs to be done, and ensuring individual responsibility for performing specific actions is assigned.
- Follows-up to ensure that specific actions have been taken and overall objective has been accomplished.
- Clearly communicates objectives and responsibility/individual actions necessary to achieve them.
- Monitors work in progress, provides feedback to those involved, and makes adjustments to work plans/processes to ensure goal attainment.
- Evaluates completed work for quality, thoroughness, and effectiveness to determine whether re-work or additional work is required to meet intended objectives and to provide learning for future assignments

Performance Levels:

Satisfactory

Assumes responsibility for work of others when required or necessary. Ensures actions taken to achieve objectives, and evaluates results to determine any follow-up needed.

Superior

Articulates vision/states clear objectives and assigns responsibility/motivates others toward achievement. Monitors progress; gives feedback; evaluates results; ensures follow-up.

