

Competency Model for Transportation Engineer (2020)
Class Code 7278

The following competencies have been identified as those that best separate superior from satisfactory job performance in the class of Transportation Engineer.

- 1. Reading Comprehension
- 3. Judgment and Decision Making
- 4. Analytical Ability
- 20. Job Knowledge
- 28. Supervision
- 33. Interpersonal Skills
- 49. Project 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 level.

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.

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.

4. ANALYTICAL ABILITY – Identifies, obtains, and evaluates relevant information to establish relationships or patterns, cite causes, and reach logical conclusions.

Level of Competency Required by Job:

Level 1: Recognize similarities/differences in current situation to those previously encountered and is guided accordingly. Apply existing policies correctly. Ask pertinent questions or otherwise seek additional information to formulate appropriate response.

Level 2: Consider multiple, varied factors when evaluating a situation or issue. Seek additional information to provide further insight. Reach conclusions that logically follow from the information obtained.

Level 3: **Consider a multitude of diverse factors, their interrelationships, the perspectives of others, alternative courses of action and their likely ramifications when evaluating information to reach a conclusion.**

Examples of Behavioral Indicators:

- Obtains the necessary amount of relevant information.
- Recognizes the impact of each type of information on conclusions.
- Evaluates the quality/source of information when considering it.
- States the shortcomings of the information and, therefore, the analysis.

Performance Levels:

Satisfactory

Recognizes available relevant information, seeks additional information to consider, and reaches a conclusion. Provides sound, convincing justification for conclusions, citing relevant data and facts.

Superior

Uses a great deal of existing and obtained information and data to develop and evaluate alternatives and arrive at a final conclusion. Provides compelling arguments in support of conclusions.

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 conditions in factors, such as complexity of a situation and/or vulnerability of the City to legal action, sufficient to dictate which issues require to be elevated to management for a decision.
2. Knowledge of civil engineering, electricity, electronic devices, and electric circuits sufficient to read, design, or check street or road construction plans, installations, and synchronization and other engineering designs.
3. Knowledge of fundamental mathematics, probability, and statistics along with data literacy sufficient to critique reports prepared by consultants or other agencies, or to plan data collection and analyses, such as license plate surveys, before and after studies, or traffic forecast model validations and confirmations.
4. Knowledge of common causes of traffic collisions and the effects of various factors, such as pavement friction, width of street, speed, driver reaction time, or pedestrian behavior, and appropriate use of traffic control devices, such as crosswalks, striping (on streets), regulatory or warning signs and traffic signals, sufficient to identify changes which, individually or combined, would decrease the probability of further collisions of the type under consideration, such as installing traffic signals or warning signs, cutting away foliage, or installing appropriate traffic control devices.
5. Knowledge of traffic engineering principles and references relating to safety in the streets, such as the Work Area Traffic Control Handbook (WATCH), Manual of Uniform Traffic Control Devices (MUTCD), and the California Supplement, sufficient to ensure compliance, the appropriate application of traffic control procedures, and respond to interrogatories, depositions, and required testimonies in court.
6. Knowledge of general traffic engineering principles used in planning, developing, and implementing traffic flows and patterns on streets and highways and related matters, such as planning for parking, parking lot design, Americans with Disabilities Act (ADA) standards, and access from private property, with the use of computer applications in transportation engineering, such as traffic signal timing optimization programs, statistical analysis software, highway capacity analysis, spreadsheet software, and travel forecasting programs, and “human factors” influencing effectiveness of traffic engineering applications, such as pedestrian behavior, color recognition, and pattern or shape recognition; and surface transportation modes in common use for intra-city transportation, including automobiles, buses, commuter rail, trains, taxicabs, shared ride services, paratransit, carpools, vanpools, bicycles, pedestrian travel and of their advantages and disadvantages in various situations sufficient to design and operate City streets, highways, and other transportation projects.
7. Knowledge of transportation planning quantitative methods, such as travel demand forecast techniques, system capacity calculations, and trip reduction assessment, sufficient to conduct long range transportation studies and to use in Environmental Impact Reports.

8. Knowledge of environmental laws, such as National Environmental Protection Act, California Environmental Quality Act, and state laws and regulations affecting design or use of streets and highways sufficient to comply with requirements, such as those relating to air quality, noise pollution, or drainage.
9. Knowledge of land development requirements and approval process, including the Subdivision Map Act, B permit process, and procedures of City Commissions and Committees sufficient to assure implementation of traffic mitigation measures.
10. Knowledge of frequently used provisions of City and State laws, ordinances, codes, and regulations relating to operation of street and highway systems sufficient to ensure that City streets and highways comply with pertinent laws, ordinances, and codes.
11. Knowledge of traffic laws and regulations, such as the California Vehicle Code, sufficient to recommend changes in laws applicable in a particular location, such as speed zones, weight limits, preferential parking districts, or to comment on or to recommend changes in City or State laws.
12. Knowledge of reference sources for locating specific City, State, and federal laws, ordinances, codes, and regulations relating to traffic control, street use, street construction, or environmental protection sufficient to design and operate City streets, highways, and other transportation projects and respond to interrogatories, depositions, and required testimonies in court.
13. Knowledge of safety principles, practices, and regulations, such as Occupational Safety and Health Administration (OSHA), wearing hard hats or other protective gear when required, and keeping work areas clean and clear, sufficient to maintain a safe work site and respond to interrogatories, depositions, and required testimonies in court.
14. Knowledge of channels of communication, City departments and other governmental or intergovernmental agencies, such as the Planning Department, Department of Public Works Bureaus of Engineering, Street Lighting, and Street Services, CalTrans, Los Angeles County Metropolitan Transportation Authority (Metro), County of Los Angeles, and governments of independent cities adjacent to the City of Los Angeles, and City practices and procedures for transmitting information between City Departments, the City Council, Mayor's Office, and other governmental and private agencies sufficient to successfully implement transportation-related projects.
15. Knowledge of engineering economics sufficient to understand financial records, and to perform tasks such as doing cost-benefit analyses, preparing cost estimates for projects, or calculating liquidated damages.
16. Knowledge of funding sources, such as City, State, Federal, and other Transportation funding sources, including the City's Capital Improvement Program, and procedures and requirements to obtain funding, such as submitting budgets, special budget requests, requests for special City funding, grant application procedures, and monitoring and reporting requirements, sufficient to obtain and use funding for transportation-related projects.

17. Knowledge of processes used to accomplish provisions of cooperative agreements between the City and other governments and agencies, such as the Freeway Agreement, or agreements established by Memoranda of Understanding (MOUs), or funding agreements sufficient to satisfactorily execute agreements or MOUs.
18. Knowledge of City ordinances and regulations relating to selection of contractors sufficient to properly execute City contracting procedures.

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 teambuilding
- 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.

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.

49. PROJECT MANAGEMENT – Anticipates and plans for all aspects of a multi-faceted, discrete endeavor to ensure resources are available and actions are taken at proper times for successful completion.

Level of Competency Required by Job:

Level 1: Plan, coordinate, and oversee accomplishment of multi-step projects involving other employees.

Level 2: **Design, plan, coordinate, and manage large, multi-faceted projects involving employees from various segments of the organization representing different perspectives.**

Level 3: Design, plan, secure approval and resources, and manages large-scale, complex projects involving many employees representing a large number of diverse segments of the organization and perspectives, which may at times be in conflict.

Examples of Behavioral Indicators:

- Establishes project plans that gain management acceptance.
- Establishes realistic timeline and estimates of resources needed.
- Assembles appropriate team with complementary skills to efficiently execute all portions of a project.
- Secures necessary resources for successful project completion.
- Clearly designates roles/responsibilities/accountability.
- Addresses failure to perform or other problems in a timely and effective manner to minimize negative impact.

Performance Levels:

Satisfactory

Establishes acceptable project plan; assembles team with required skills; establishes personal responsibility/accountability. Ensures the necessary time and resources are available.

Superior

Designs efficient project plan to maximize benefits and minimize use of resources. Designates precise mix of people to best accomplish the project. Completes on time, with resources allocated.

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.