

POSITION DUTY STATEMENT

DOT PM-0924 (REV 01/2025)

CLASSIFICATION TITLE Transportation Engineer (Civil)	OFFICE/BRANCH/SECTION D11/Planning & Local Assistance/Modeling & Travel Forecasting	
WORKING TITLE Transportation Engineer (Civil)	POSITION NUMBER 911-820-3135-012	REVISION DATE 04/09/2025

As a valued member of the Caltrans team, you make it possible to improve lives and communities through transportation.

GENERAL STATEMENT:

Under the direction of a Senior Transportation Planner, the Branch Chief of Modeling and Travel Forecasting, the incumbent assists with performing travel demand modeling analyses; computer coding; travel forecasting; analyzing various traffic studies and transportation reports, preparing traffic data, attending Project Development Team (PDT) and related meetings, and reviewing projects for consistency with long-range transportation plans. The Transportation Engineer's role helps provide support to other functional units and programs including, but not limited to, System Planning, Local Development-Intergovernmental Review, Preliminary Engineering Studies, and Capital Projects during various project development phases. The incumbent may also receive guidance from a lead Transportation Engineer Range D, or a designated lead person at an Associate level classification or above.

Range D requires possession of a valid certificate of registration as a Civil Engineer issued by the California State Board of Professional Engineers, Professional Engineers, Land Surveyor, and Geologists.

CORE COMPETENCIES:

As a Transportation Engineer (Civil), the incumbent is expected to become proficient in the following competencies as described below in order to successfully perform the essential functions of the job, while adhering to and promoting the Department's Mission, Vision, Values, Strategic Imperatives and Goals. Effective development of the identified Core Competencies fosters the advancement of the following Leadership Competencies: Change Commitment, Risk Appetite, Self-Development/Growth, Conflict Management, Relationship Building, Organizational Awareness, Communication, Strategic Perspective, and Results Driven.

- Change Leadership:** Develops new and innovative approaches needed to improve effectiveness and efficiency of work products. Encourages others to value change. Considers impact and recommends changes. (Employee Excellence - Integrity)
- Dealing with Ambiguity (Risk):** Can comfortably handle risk and uncertainty, as well as make decisions to act without having the total picture. (Safety - Collaboration)
- Ethics and Integrity:** Demonstrated concern to be perceived as responsible, reliable, and trustworthy. Respects the confidentiality of information or concern shared by others. Honest and forthright. Conforms to accepted standards of conduct. (Safety - Innovation)
- Problem-solving and Decision-making :** Identifies problems and uses logical analysis to find information, understand causes, and evaluate and select or recommend best possible courses of action. (Equity - Innovation, People First)
- Teamwork/Partnership:** Develops, maintains, and strengthens partnerships with others inside or outside of the organization through effective communication and collaboration. (Equity - Equity)
- Customer Focus:** Considers, prioritizes, and takes action on the needs of both internal and external customers. (Equity - Stewardship)
- Communication:** Expresses oneself clearly in all forms of communication. Gives feedback and is receptive to feedback received. Knows that listening is essential. Keeps others in the Division and other functional units informed as appropriate. (Employee Excellence - Innovation)
- Forward Thinking:** Anticipates the implications and consequences of situations and takes appropriate actions to be prepared for possible contingencies. Anticipates and prepares for future developments. (Safety - Equity)
- Thoroughness:** Ensures that work and information is complete and accurate. Ensures that assignment goals, objectives, and completion dates are met. Documents and reports on work progress. (Employee Excellence - Collaboration)

TYPICAL DUTIES:

Percentage	Job Description
Essential (E)/Marginal (M) ¹	

POSITION DUTY STATEMENT

DOT PM-0924 (REV 01/2025)

35%	E	Performs journey level transportation modeling, and computer-based engineering work in support of the District's need for traffic and travel analysis, computer coding, including Python, electronic calibration, travel forecasting and validation of travel demand models. Analyzes traffic flows and related data, utilizing complex modeling software, for project-specific and corridor-level traffic and travel forecasting for transportation engineering, using technology including Computer Aided Drafting/ Design (CADD), Geographic Information Systems (GIS), and electronic traffic simulation models. Uses and applies information from regional computer models, subregional computer models, and traffic simulation models, for specific projects and corridor analyses. Assists with preparing and reviewing various traffic related forecasts and data requests, including, but not limited to, Traffic Engineering Performance Assessment (TEPA), traffic volumes, traffic indices, Vehicles Miles Traveled (VMT) analyses, Level of Service (LOS) analyses, Highway Capacity Software analyses, intersection analyses, various Traffic Model output plots, as well as transit, mainline highway, and complete streets capacity evaluations, in support of Capital, Oversight, Project Initiation Document (PIDs), and Local Development- Intergovernmental Review (LD-IGR) projects. Collaborates and interacts with internal and external partners, consultants, and other project team members at Project Development Team meetings to discuss methodology of traffic studies, modeling and simulation results, relevant planned or programmed transportation projects, and future needs or opportunities as identified in State, Regional, or Local transportation and land use plans. Assists with reviewing proposed project travel demand volumes and distribution patterns and other traffic data to verify report findings. Coordinates with Project Managers to monitor the progress of the project traffic analyses and evaluate the multi-modal transportation system impacts of proposed improvements or mitigation measures. Provides necessary technical data, analysis, and recommendations in support of various project development phases including but not limited to Pre- PID, PID, and Project Review (PR). Communicates effectively, accurately, and efficiently, utilizing strong reasoning skills, to represent transportation concerns, challenges, opportunities, and alternative solutions, working collaboratively with PDT members to make recommendations. Assists with conducting Benefit-Cost Modeling and Analysis as needed for special projects and grant applications in support of System Planning and Forecasting activities.
30%	E	Provides guidance and training to others to develop and update traffic forecasts for each of the district's routes and detailed project specific forecasts. Provides support and information to other agencies and Caltrans branches that require project travel demand data or corridor analysis data. Assists with developing and updating traffic forecasts for each of the district's routes and project specific forecasts. Provides support and information to other Caltrans branches/programs and partner agencies that require project-specific travel demand data or corridor analysis data. Review and comment on the traffic volume forecasts and methodology used to develop Project Initiation Documents (PIDs), Transportation Concept Reports (TCRs), District System Management Plans (DSMP), Project Reports (PRs), Project Study Summary Reports (PSSRs), Traffic Impact Analyses (TIAs), Feasibility Studies, and other transportation reports. Assists with special projects for researching and studying alternative transportation solutions on specific corridors and developing project proposals for special funding opportunities. Conducts analyses of the methodology used to derive travel demand forecasts by comparing to established methods defined in the Highway Capacity, Highway Design Manuals, and other relevant standards or best practices. Gathers data from the Caltrans Traffic Operations Census and analyzes or projects the data using various software including Excel, Highway Capacity Software, Synchro, Vissim, Sidra, and TransCAD to determine current and future capacity, operational performance, travel demand, and deficiencies. Assists with field traffic surveys (including trucks, High Occupancy Vehicle (HOV), mixed flow, etc.), vehicle occupancy counts, bicycle and pedestrian counts, and collecting data for various studies.
20%	E	Attends and participates at meetings for PID and later phase project development, committees for regional and sub-regional modeling updates, local land development reviews, A&E contract consultant forecasting task orders, capital project traffic forecasting focus meetings, special task force committees, and PeMS and Traffic Census database meetings and/or training. Prepares travel demand data and research long-range corridor plans to help facilitate discussions at meetings. Communicates technical data orally, visually, and in writing as needed to project development teams, management, and the Executive team. Incumbent prepares and reviews various correspondence and reports, traffic studies, and project reports.

POSITION DUTY STATEMENT

DOT PM-0924 (REV 01/2025)

10%	E	Serves as a resource person in terms of providing transportation related information, compiling data and research, understanding corridor plans and proposed transportation projects, conducting transportation engineering and planning research, and handling other activities and tasks as needed in support of the Department's Mission, Vision, and Goals in developing an integrated and sustainable multi-modal transportation system. Incumbent plans and participates in performing field-based physical observation and tests, data collection, including field-based traffic surveys, field-based vehicle occupancy counts, vehicle classification counts, and collecting various traffic data. Tabulates and distributes data, and reviews data gathered by others for completeness relative to established standards.
5%	M	Participates in internal and external teams and committees. Provides backup support to other team members during absences. Performs other job-related duties within the scope of the classification.

¹ESSENTIAL FUNCTIONS are the core duties of the position that cannot be reassigned.
MARGINAL FUNCTIONS are the minor tasks of the position that can be assigned to others.

SUPERVISION OR GUIDANCE EXERCISED OVER OTHERS
Does not supervise. May have lead responsibility in limited tasks.

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS
Knowledge of federal and state transportation planning processes and principles, data analysis techniques, analyses of transportation investment priorities, understanding of transportation funding and mitigation strategies, database management proficiency, and thorough report reviewing and writing skills. Must be able to assess and document multi-modal transportation needs and opportunities, contribute toward efforts to identify and pursue project funding opportunities, and evaluate the effectiveness of transportation mitigation measures.

The Transportation Engineer must have the ability to work both independently and as part of an interdisciplinary team; communicate effectively both in written format and verbally; plan, organize and complete assigned work objectives; work effectively and efficiently with others; and establish and maintain cooperative relationships with the Department, as well as with the public and external agencies. Requires a high degree of analytical skills to properly evaluate and develop solutions to local and regional multi-modal transportation planning problems.

RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR
This position has a major responsibility for helping to ensure that the principles and practices of the State Planning Program are carried out in accordance with the Department's mission and federal and state laws. Failure could result in delay or significant loss of valuable planning time or denial of state and federal funding for transportation programs and projects.

PUBLIC AND INTERNAL CONTACTS
This position requires regular daily contact with District and Headquarters functions. The Transportation Engineer will also routinely assist in coordinating and communicating with local governmental agencies, regional transportation planning agencies, other state/federal agencies, community-based organizations, public transportation entities, private development staff or consultants, and the general public. The incumbent will handle communications with contacts and arrange information meetings, workshops, and focus meetings with these entities.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS
This position requires sufficient manual dexterity to operate a computer keyboard; the ability to sit for long periods; the ability to develop and maintain cooperative relationships; the ability to focus on difficult tasks for long periods of time. May occasionally require lifting large or heavy objects within work environment, such as printer paper, large reports, and computer equipment. Requires occasional bending, stooping, and kneeling. Must have the ability to multi-task, to adapt to changes in priorities, and to complete tasks or projects on short notice.

On occasion the incumbent will be required to travel, gather field data, and be exposed to traffic conditions in the field. The Division requires interaction with many people. Employees must work with others in a cooperative manner; adjust rapidly to new situations, which warrant attention and resolution; behave in a fair and ethical manner toward others; and demonstrate a sense of responsibility and commitment to public service.

WORK ENVIRONMENT
While at his/her base of operation, employee will work in a climate-controlled office under artificial light. However, due to periodic problems with the heating and air conditioning, the building temperature may fluctuate. Employee may work at workstations within shared cubicles. Employee may occasionally be required to travel for meetings and trainings, as well as conduct field visits. This position may be eligible for telework. The amount of telework is at the discretion of the Department and based on Caltrans's evolving telework policy. Caltrans supports telework, recognizing that in-person attendance may be required based on operational needs. Employees are expected to be able to report to their worksites with minimum notification if an urgent need

POSITION DUTY STATEMENT

DOT PM-0924 (REV 01/2025)

arises. The selected candidate will be required to commute to the headquartered location as needed to meet operational needs. Business travel may be required, and reimbursement considers an employee's designated headquartered location, primary residence, and may be subject to CalHR regulations or applicable bargaining unit contract provisions. All commute expenses to the headquartered location will be the responsibility of the selected candidate.

The Caltrans Transportation Engineer (Civil) Rotation Program is a mandatory 24 month to 33 months rotation assignment for all permanent, full-time Transportation Engineer (Civil) employees that have completed their probationary period hired by Caltrans Districts after June 22, 2018, or an earlier date as determined by the Districts. The purpose of Rotation Program is to provide opportunities for employees and Caltrans to benefit by participating in a standardized process that systematically engages newly hired engineers. Participants will develop well-rounded project delivery knowledge, skills, and abilities by rotating through diverse project delivery functional units. The Rotation Program includes mandatory core assignments in Design and Construction units, as well as a mandatory elective assignment. Each rotation assignment is typically between 6 to 12 months and will be based on workload needs and the employee's goals. Assignments may involve long term travel and can be located throughout the state. In addition to the Caltrans Transportation Engineer (Civil) Rotation Program, an incumbent may be required to go on loan to another project delivery function when there are temporary or peak staffing needs in those areas.

I have read, understand and can perform the duties listed above. (If you believe you may require reasonable accommodation, please discuss this with your hiring supervisor. If you are unsure whether you require reasonable accommodation, inform the hiring supervisor who will discuss your concerns with the Reasonable Accommodation Coordinator.)

I agree that by providing my electronic signature for this form, I agree to conduct business transactions by electronic means and that my electronic signature is the legal binding equivalent to my handwritten signature. I hereby agree that my electronic signature represents my execution or authentication of this form, and my intent to be bound by it.

EMPLOYEE (Print)

EMPLOYEE (Signature)

DATE

I have discussed the duties with, and provided a copy of this duty statement to the employee named above.

SUPERVISOR (Print)

SUPERVISOR (Signature)

DATE