

POSITION DUTY STATEMENT

PM-0924 (REV 01/2022)

CLASSIFICATION TITLE Transportation Engineer (Civil)	OFFICE/BRANCH/SECTION Project Development/ Engineering Services / PID	
WORKING TITLE Transportation Engineer (Civil)	POSITION NUMBER 910-207-3135-XXX	REVISION DATE

As a valued member of the Caltrans leadership team, you make it possible for the Department to provide a safe and reliable transportation network that serves all people and respects the environment.

GENERAL STATEMENT:

Under the direction and supervision of a Senior Transportation Engineer, the Transportation Engineer is responsible for preparing Project Initiation Documents (PIDs). Responsibilities include collecting/analyzing data, documenting, conducting engineering feasibility studies, preparing conceptual plans based on preliminary geometric designs, calculating preliminary cost estimates, and writing PID reports. The incumbent may serve as a team leader, oversight engineer, or work independently on assigned projects. The incumbent performs activities requiring engineering knowledge and management skills for the preparation of plans, specifications, estimates, design drawings, written documents, presentations, and other related work for transportation projects. The main purpose of the duties is to be a premier engineering team delivering transportation projects for our project stakeholders and regional partners. In addition to the Department's values, we consider safety, efficiency, cost, quality, sustainability, environmental protection, aesthetics, and community values in all of the products we design. Ensures during the development of projects, the consideration, and when appropriate, the implementation of Smart Mobility and Complete Streets components, towards the Department's Mission to provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability.

As the incumbent progresses in experience, assignment will increase from average to high difficulty. Transportation Engineer (Civil) Range D requires registration as a Professional Engineer in the State of California.

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.

- **Creativity and Innovation:** Thinks beyond the confines of traditional models to recognize opportunities, seek creative solutions and take intelligent risks. (Cultivate Excellence - Innovation)
- **Dealing with Ambiguity (Risk):** Can comfortably handle risk and uncertainty, as well as make decisions to act without having the total picture. (Strengthen Stewardship and Drive Efficiency - Integrity)
- **Initiative:** Ability to identify what needs to be done and doing it before being asked or required by the situation. Seeks out others involved in a situation to learn their perspectives. (Strengthen Stewardship and Drive Efficiency - Engagement)
- **Conflict Management:** Recognizes differences in opinions and encourages open discussion. Uses appropriate interpersonal styles. Finds agreement on issues as appropriate. Deals effectively with others in conflict situation. (Strengthen Stewardship and Drive Efficiency - Pride)
- **Teamwork and Collaboration:** Sets team structure. Organizes, leads, and facilitates team activities. Promotes team cooperation and encourages participation. Capable of cross functionality and working well with others on a team to achieve personal goals, team goals, and organizational goals. Takes responsibility for individual actions in order to achieve consistent results. (Cultivate Excellence, Strengthen Stewardship and Drive Efficiency - Engagement)
- **Customer Focus:** Considers, prioritizes, and takes action on the needs of both internal and external customers. (Cultivate Excellence - Engagement)
- **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. (Cultivate Excellence - Engagement)
- **Planning and Results Oriented:** Organizes and executes work to meet organizational goals and objectives while meeting quality standards, following organizational processes, and demonstrating continuous commitment. (Cultivate Excellence, Enhance and Connect the Multimodal Transportation Network - Pride)

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- **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. (Cultivate Excellence, Enhance and Connect the Multimodal Transportation Network - Integrity)

TYPICAL DUTIES:

Percentage	Job Description
Essential (E)/Marginal (M) ¹	
50% E	Prepare and review PIDs in planning phase of the project development for projects to be programmed. Coordinate PID activities with functional units in the District, Headquarters, Regional, and Local agencies to ensure compliance with policies, standards, and requirements. Also coordinate with the Federal Highway Administration as required to produce quality PIDs and ensure compliance with Federal regulations and standards. Utilize Highway Design Manual and Project Development Procedures Manual as well as other design manuals in preparation of PIDs that form the basis for programming the projects so these projects can be successfully delivered through their life cycle. Will conduct field reviews.
15% E	Assist Project Development Teams (PDT) with addressing equity, environmental justice, public and permitting agency engagements, complete streets, Broadband Middle Miles Network (BMMN), and active transportation needs by collecting demographic and spatial data, analyzing potential project impacts to the underserved communities, documenting public and permitting agency inputs, and drafting summaries of these activities for inclusion in PID reports. Assists PDT on subsequent development phases to ensure equity/environmental justice/engagement/complete streets/BMMN efforts are accounting for and updates the Asset Management Team as needed.
10% E	Involved in the preparation and review of plans, designs, and reports as required in order to provide technical quality assurance (QA) and meet project schedules. Responsible to write reports, respond to correspondences, study alternatives, prepare preliminary project plans and cost estimates, and review PIDs for completeness and accuracy. Will produce (by utilizing, but not limited to, Microsoft Excel and Word, and Civil 3D) technical Engineering documentation such as memorandums, transmittal letters, project reports (i.e. Project Initiation DoComplete complex engineering mathematical calculations accurately (by utilizing but not limited to Microsoft Excel, Calculators, and Civil 3D) such as quantities, elevations, and distances. Prepare quality design drawings such as construction details, cross sections, and vertical profiles.
10% E	Will develop, review, and recommend alternatives for transportation projects or problems by using engineering knowledge and skills, and applying the appropriate design standards and guidelines. The purpose of this is to achieve project delivery milestones. These duties will be from project initiation to closeout. Various project management techniques such as monitoring the project cost, scope, and milestones/ schedules will be utilized. Duties will include documenting engineering decisions (by utilizing, but not limited to, Microsoft Word and Excel, Civil 3D, etc.) and performing tasks based on the allocated resources and duration.
10% E	Establish, collect, analyze and interpret engineering data utilizing computer aided applications and other computer applications as appropriate. Provide technical QA and support to Local Agencies and private developers in developing PIDs sponsored by these entities. Collect and record field data such as elevations and distances by using various survey instruments and other survey equipment. Research information relating to the project assignment through various records such as appraisal maps, as-built drawing, photo log, and various reports and databases. This information is needed to meet the delivery milestones and is important to the preliminary investigation process needed before start of design process. Customers/stakeholders can be Project Development Team, Supervisor, Locals, Headquarters, Executive level, Functional Units, Central Region Divisions, etc.
5% M	Attend various Design, Project Development, Project Management, and mandated training courses. May provide formal or informal training to others related to Design or Project Delivery. Participates in internal and external teams and committees related to project delivery and design. Attends meetings such as staff, safety, project, and public meetings. Performs various analyses and special projects as assigned by the Senior Transportation Engineer. May act in the absence of the Senior Transportation Engineer.

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

This position does not supervise; however, the incumbent may be given the authority to lead in the absence of the supervisor.

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The lead person's authority is limited to reviewing work, assigning tasks, providing input on employee performance, and preparing recommendations relating to work assignments.

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

The incumbent must be able to meet the following requirements:

Knowledge of:

- Transportation design and construction terminology, methods, and concepts such as horizontal and vertical alignments, structural sections, typical section, traffic operations, hydrology and hydraulics, surveying, maintenance and construction work.
- Project management techniques such as monitoring project scope, cost, and milestones/schedules.
- Conventional and state-of-the-art equipment and computers applicable to office and field office transportation engineering work.
- CADD systems and Engineering software to design, prepare, and modify drawings.

Ability to:

- Use office/field equipment, CADD systems, software, and computers applicable to design, preparation, and modification of drawings and perform field transportation engineering work.
- Perform accurate complex mathematical calculations.
- Effectively communicate both verbally and in writing at a level required for successful job performance.
- Prepare and organize technical reports and other project related documentation to produce effective work products without repetitious direction.
- Assist in planning and organizing project needs and directing others.
- Be an effective team member.
- Evaluate work methods and traffic conditions closely, both before and during the work, to assure safety when at project sites.
- Learn and understand functions and organization of other work units within the department, procedures, and policies (such as sexual harassment prevention, discrimination, ethics, workplace violence prevention, and state equipment usage).

Analytically to:

- Analyze situations accurately and take effective action.
 - Check accuracy of own work and work of others.
 - Understand engineering principles standards.
 - Develop, review and recommend project alternatives.
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RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

The incumbent is responsible to incorporate appropriate standards and for the technical information and engineering data upon which recommendations, conclusions, and decisions are based. Failure may result in expensive waste of time and materials, cause additional work, jeopardize project and programmed delivery, lead to loss of department credibility, increased liability, excessive contract claims, errors in payment, and affect the cost and schedule of improvement projects.

Incumbent is responsible for his/her actions, decisions, quality of work, and proper use of State time, equipment, and materials. Improper performance of duties and/or failures to adhere to established policies, procedures, and guidelines could lead to adverse action or possible termination.

PUBLIC AND INTERNAL CONTACTS

Frequent contact is required in person, in writing, by telephone, and through virtual meeting platforms with personnel within the Department, other agencies, private interests, political representatives, and the public at large.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

The incumbent must be able to meet the following requirements:

Physical Requirements:

- Sit for long periods of time using a keyboard, mouse, and video display terminal. Other physical requirements include, but are not limited to walking, climbing stairs, lifting/carrying objects without causing injury (i.e. books, binders, plan sheets, box(s) of plotter or printer paper, etc.), twisting, stretching, bending, stooping, and kneeling.
- Travel to and from project sites and meeting locations.

Mental Requirements:

- Grasp the essence of new information and master new technical knowledge.
 - Simultaneously work on several work assignments and/or deadlines.
 - Work within a noisy and occasionally distracting work environment.
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- Evaluate and understand critical calculations, data, and other material that may require long periods of mental concentration.

Emotional Requirements:

- Deal with all contacts in a calm and respectful manner.
 - Resolve emotionally charged issues reasonably and diplomatically.
 - Develop and maintain cooperative working relationships with all contacts.
 - Receptive to change, new information, and new situations.
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WORK ENVIRONMENT

The majority of the work performed while in office assignments will be in a climate-controlled office environment and within a work cubical or work area under artificial lighting.

Field assignments may have exposure to moving vehicles, fog, field work, earthwork, paving operations, weather conditions, equipment, machinery, heat, cold, dust, gas, fumes, outdoor conditions, humidity, uneven ground, heights, and high decibels of noise.

Overtime may be required, and vacation restricted during peak times and fiscal year-end closing.

One-day, overnight trips, or extended travel may be required.

The typical office working hours are between 7:30 a.m. and 4:15 p.m. Monday through Friday, and 40 hours per week.

May be required to go on loan or rotation to other units (i.e. Construction, Maintenance, Permits, Traffic, Office Engineer, PJD, etc.) based on workload needs.

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 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.

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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.)

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
