

POSITION DUTY STATEMENT

PM-0924 (REV 01/2022)

CLASSIFICATION TITLE Transportation Engineer (Civil)	OFFICE/BRANCH/SECTION D3 Mtce Eng/Mtce Design	
WORKING TITLE Transportation Engineer HM5	POSITION NUMBER 903-600-3135	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 general direction of a Senior Transportation Engineer for the Office of Maintenance Engineering, the incumbent performs a variety of typical engineering duties. These duties include the delivery of Plans, Specifications and Estimate (PS&E) packages for facilities, roadway, bridges and culvert projects funded from a variety of sources, reviewing scoping documents and plan sets for accuracy and completeness, and developing specialized plans and mapping as needed by the field. The incumbent will perform various transportation engineering tasks understanding and applying Caltrans standards, manuals, guidelines, policies, directives and computer software applications. Travel is required. Frequent trips to the field for roadway inspection and project review are necessary. Possession of a valid California drivers license is required. California Professional Engineering license (Civil) is required for Range D.

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, Strengthen Stewardship and Drive Efficiency - Engagement, Innovation)
- **Decision Making:** Makes critical and timely decisions. Takes charge. Supports appropriate risk. Makes challenging and appropriate decisions. (Safety First, Cultivate Excellence - Equity, Integrity)
- **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. (Cultivate Excellence - Integrity, Pride)
- **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. (Safety First, Strengthen Stewardship and Drive Efficiency - Engagement, Equity, Integrity)
- **Teamwork/Partnership:** Develops, maintains, and strengthens partnerships with others inside or outside of the organization through effective communication and collaboration. (Cultivate Excellence, Strengthen Stewardship and Drive Efficiency - Engagement, Innovation)
- **Organizational Awareness:** Contributes to the organization by understanding and aligning actions with the organization's strategic plan, including the mission, vision, goals, core functions, and values. (Cultivate Excellence, Strengthen Stewardship and Drive Efficiency - Engagement, Equity)
- **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, Strengthen Stewardship and Drive Efficiency - Engagement, Innovation, Integrity)
- **Analytical Skills:** Approaches problems using a logical, systematic, and sequential approach. Weighs priorities and recognizes underlying issues. (Safety First, Cultivate Excellence - Engagement, Innovation, Pride)
- **Technical Expertise:** Depth of knowledge and skill in a technical area. (Safety First, Strengthen Stewardship and Drive Efficiency - Innovation, Integrity)

TYPICAL DUTIES:

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

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25%	E	Participate in the development and implementation of the District's Major Maintenance Program. Coordinate District HM5 inventory/data with field reviews and consultation with field staff to determine the optimal HM5 projects under the constraints of funding levels and State Highway System Management Plan (SHSMP) criteria. Develop and initiate projects to implement the Major Maintenance plan. Provide guidance to the design team in preparing plans, specifications and estimates for contracts.
25%	E	Development of plans, specifications and estimates (PS&E) and reports for Major Maintenance (HM), Minor A, and Minor B projects initiated by the Maintenance Program Advisors for the HM1, HM2, HM251, HM315, HM4 and HM5 programs. These projects typically have a one-year turnaround from project identification to contract award. Perform field reviews and collect engineering data. Request and obtain certification from various functional units as required and review technical studies, reports, schedules and estimate for Ready to List (RTL) submittal. Coordinate with safety and constructibility reviews, review and provide comments, correct errors and deficiencies to improve final plans, specifications and estimate.
20%	E	Review PS&E packages produced by other engineers in the Maintenance Engineering Office for completeness and accuracy. Review plans and scoping documents from other Units in the District for analysis of safety and maintenance needs.
15%	E	Participate as a member of the District Damage Assessment team during storm events tasked with inspection of storm damage locations to estimate damage, compute accurate estimates and recommend proper repair efforts.
10%	M	Provide assistance to Maintenance Program Advisors with field review and inspection of District pavements, culverts, bridges and facilities.
5%	E	Coordinate with and provide technical assistance to field maintenance and other functional units dealing with facilities, culverts, pavements and bridge repair.

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

The incumbent does not supervise, but, on occasion could act in a lead worker capacity.

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

-Must have knowledge of basic principles of physics, chemistry and mathematics as applies to civil engineering. Will be required to understand basic design engineering principles; make accurate engineering calculations, research and compile data and prepare calculations for a variety of routine transportation improvement projects.

-Knowledge of transportation design and construction principles; methods, materials, tools and equipment used in the maintenance of State highways.

-Ability to understand and adapt transportation design and construction principles to maintenance contracts.

-Must have the ability to use Computer Aided Design and Drafting (CADD) software, word processing and spreadsheet software, access and extract information from database, do mapping and drafting and make neat and accurate computations and engineering notes and prepare reports.

-The incumbent must be able to analyze situations accurately, identify potential conflicts and adopt an effective course of action; review project schedules and determine appropriate level and timing of review.

RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

The incumbent will be responsible to make accurate engineering calculations; take effective action to avoid delays; make sound decisions in the interpretation of contract plans and specifications. Omissions in plans and reports could lead to unnecessary change orders, claims, and delays; errors in judgment could result in a design project of lesser quality, which could increase project construction costs or increase the Department's exposure to tort liability.

PUBLIC AND INTERNAL CONTACTS

The incumbent must be able to establish and maintain a professional and cooperative relationship with those contacted in the course of the work, such as, with Region and District functions, contractors, local agencies and officials, regulatory agencies, utility companies and public stakeholders in order to transmit or obtain relevant engineering information. These contacts could be verbal or written, as needed, to perform assignments with the goal of protecting the State's interests and providing quality products on and for the State's infrastructure. Must be able to guide project teams to issue resolution and be able to build consensus with teams, identifying potential conflicts and using resolution techniques to resolve at the lowest level.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

Must be able to organize and prioritize large volumes of varied documents. Must be able to sit and/or stand for long duration and

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perform tasks utilizing a personal computer.

The workload is subject to frequent, substantial, and unexpected changes. For example, major changes or modification to a specific project scope may be added unexpectedly to previously planned work.

Must deal effectively with pressure, maintain focus and intensity, yet remain optimistic and persistent even under adversity. Must have the ability to multi-task, adapt to changes in priorities, and complete tasks or projects with short notice.

The position requires occasional periods of extended work hours under possibly arduous conditions during storm or emergency events. The incumbent must be of physical, mental and emotional strength to overcome these challenges and remain able to make calm and rational decisions regarding the appropriate strategy to follow. May be required to lift and carry samples of materials which weight up to 50 pounds.

Requirements are standard for office engineering work. Storm damage assessment duties require ability to travel to the field, inspect damage and communicate to other staff about the status of a road or structure.

WORK ENVIRONMENT

The majority of the work will be in the office delivering contract documents for Major Maintenance projects. Incumbent may be required to sit for long periods of time using a keyboard and video display terminal. While working in the office setting, the employee will work in a climate-controlled office under artificial light.

Some field work will be required. While in the field, the employee may be exposed to dirt, dust, loud noises, traffic uneven surfaces, plants and a variety of sometime extreme weather conditions and climates that occur in California. While responding to emergency or storm damage events, the employee may be subjected to extended hours and night work.

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
