

POSITION DUTY STATEMENT

PM-0924 (REV 04/2021)

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| CLASSIFICATION TITLE Transportation Engineer (Civil) | OFFICE/BRANCH/SECTION Division of Safety Programs / Safety Systems and Devices | |
| WORKING TITLE Traffic Safety Devices Engineer | POSITION NUMBER 913-350-3135-065 | EFFECTIVE DATE 10/01/2021 |

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: (PROVIDE A BRIEF SUMMARY OF THE MAIN PURPOSE AND FUNCTIONS OF THE POSITION. DESCRIBE THE SUPERVISORY RELATIONSHIPS INCLUDING THE CLASSIFICATION OF THE SUPERVISOR OR MANAGER TO WHOM THE INCUMBENT REPORTS. WHEN APPROPRIATE, IDENTIFY THE NEED FOR ANY CREDENTIAL OR LICENSE SUCH AS A DRIVER'S LICENSE.) *RED TEXT ONLY APPEARS ON THE SCREEN

Under the general direction of the Traffic Signs and Engineering Support Branch Chief (Senior Transportation Engineer), the incumbent is responsible for supporting the Division and districts to implement a Safe System approach on the State Highway system to meet traffic safety goals. The Safe System approach aims to eliminate fatal and serious injury collisions for all road users. It does so through a holistic view of the road system that first anticipates human mistakes and second keeps impact energy on the human body at tolerable levels.

This incumbent assists with: 1) the development of standard plans and standard specifications for traffic safety devices, 2) approval of new products, 3) preparing problem statements for proposed research, 4) maintaining the Traffic Safety Systems Guidance, 5) coordinating safety devices training, 6) responding to questions from the Districts, Divisions, Federal Highway Administration (FHWA), other agencies, consultants, and vendors regarding traffic safety devices, 7) reviewing and making recommendations for Traffic Investigation Reports from the Districts regarding safety device improvements, and 8) developing a statewide asset management plan for traffic safety devices.

CORE COMPETENCIES: (CLICK ON THE "VIEW COMPETENCIES" BUTTON TO SELECT CORE COMPETENCIES, GOALS, AND VALUES. AFTER SELECTIONS HAVE BEEN MADE, THEY WILL BE MERGED INTO THIS SECTION.)

View 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.

- **Flexibility and Managing Uncertainty** : Adjusts thinking and behavior in order to adapt to changes in the job and work environment. (Safety First - Engagement, Equity, Innovation, Integrity, Pride)
- **Decision Making**: Makes critical and timely decisions. Takes charge. Supports appropriate risk. Makes challenging and appropriate decisions. (Safety First - Engagement, Equity, Innovation, Integrity, Pride)
- **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. (Safety First - Engagement, Equity, Innovation, 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 - Engagement, Equity, Innovation, Integrity, Pride)
- **Teamwork/Partnership**: Develops, maintains, and strengthens partnerships with others inside or outside of the organization through effective communication and collaboration. (Safety First - Engagement, Equity, Innovation, Integrity, Pride)
- **Customer Focus**: Considers, prioritizes, and takes action on the needs of both internal and external customers. (Safety First - Engagement, Equity, Innovation, Integrity, Pride)
- **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. (Safety First - Engagement, Equity, Innovation, Integrity, Pride)
- **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 First - Engagement, Equity, Innovation, Integrity, Pride)
- **Technical Expertise**: Depth of knowledge and skill in a technical area. (Safety First - Engagement, Equity, Innovation, Integrity, Pride)

TYPICAL DUTIES:

Percentage Job Description (PROVIDE A DESCRIPTION OF DUTIES. RELATED DUTIES MAY BE GROUPED TOGETHER. TO ADD ADDITIONAL LINES OF DUTIES WITH DIFFERENT PERCENTAGES, CLICK ON THE "+" BUTTON.) *RED TEXT ONLY APPEARS ON THE SCREEN

Essential (E)/Marginal (M)¹

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| 30% | E | Assists with developing standard plans and specifications for traffic safety devices. This includes new and revised special provisions and standard specifications for guardrail end treatments, crash cushions, barriers, and other traffic safety devices. Provides responses to district inquiries regarding applications of standards and policies to proper uses of traffic safety devices. | + - |
| 25% | E | Provides technical support to the Highway Safety Features New Products Committee by assisting with writing approval letters and memos for new products, coordinating approval of vendors' drawings of traffic safety devices and updating approved products lists with current vendor submittal criteria, reauthorization dates and new products. Assist the statewide functional manager of the traffic safety devices program, will be responsible for recommending annual allocations for both district and headquarters needs. Recommend improvements to processes and procedures and set priorities for completing traffic safety devices investigations accurately. | + - |
| 15% | E | Provides technical support for milestones in implementing the latest crash testing guidelines published by AASHTO. This includes updating policies and standards for modified and new traffic safety devices, updating the Division's web site and the Department's web site of approved products. Review completed Traffic Investigation Reports recommending safety device improvements. Ascertain that the report's recommendations are logically derived from the relevant data and that the engineering analysis was adequate and appropriate. | + - |
| 10% | E | Assists with updating the Division's Traffic Safety Systems Guidance based on changes in standards, policies, and national crash testing guidelines. Prepares problem statements for research projects on behalf of the Roadside Safety Appurtenances Technical Advisory Panel, and monitors and supports research proposals from district customers and research pooled funded projects | + - |
| 10% | E | Manage and update curriculum and technical engineering materials for traffic safety devices training statewide. Develop curriculum to effectively convey key traffic investigation concepts and traffic engineering principles necessary to review and analyze traffic safety devices in the field and develop and perform quality assurance of statewide traffic investigations documentation, analysis, and recommendations. Provides consultation to Districts, Construction and Maintenance. | + - |
| 5% | E | -- Assist with development of a Transportation Asset Management Plan for traffic safety, including a baseline inventory and clear definition of safety devices. -- Prepare bill analysis, Deputy Directives, and provide responses to public requests, legislative inquiries, and requests from Caltrans Division of Legal on traffic safety issues. -- Work on a variety of special projects and assignments as needed by the Branch, Office, Deputy Division, and Division Chief. -- Participates in various meetings, workshops, conferences, and trainings. -- Maintain a Project and Service Portfolio monthly to monitor workload and establish priorities. -- Develop, maintain, and update a desk manual for which will help with training new employees and serve as a reference tool for team members. | + - |
| 5% | M | Perform other work commensurate with the Transportation Engineer Civil classification. May occasionally act as the Chief, Traffic Signs and Engineering Support Branch. | + - |

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

None.

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

Knowledge of: Basic principles of physics, chemistry, and mathematics as applied to civil engineering; engineering surveying; hydrology and hydraulics; stress analysis; mechanics; strength of materials; properties and uses of engineering construction materials; methods and equipment of engineering construction; engineering economics.

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Ability to: Do simple mapping and drafting and make neat and accurate computations and engineering notes; prepare reports; establish and maintain friendly and cooperative relations with those contacted in the course of the work; communicate effectively.

Additional Knowledge, Abilities, and Analytical Requirements**Knowledge of**

- Highway design, maintenance, traffic and construction policies, procedures, standards, and other factors relating to transportation facilities.
- Highway construction plans, and specifications.
- California Manual on Uniform Traffic Control Devices.
- Caltrans Highway Design Manual.
- Caltrans Project Development Procedures Manual.
- Caltrans organization, departmental policies, and procedures.
- Caltrans safety policies and procedures.

Ability to

- Communicate ideas, situations, plans and decisions effectively and clearly (both orally and in writing) with others.
- Analyze facts, data, and situations, use a variety of problem-solving techniques, develop new and innovative ideas, recommend solutions for improvements, and adopt an effective course of action.
- Offer sound technical recommendations to address the pavement marking and features.
- Be open-minded to all possible solutions to problems.
- Perform technical studies and investigations independently or as a member of a team.
- Organize ideas, judgments, documents, recommendations, and data to defend federal, state, and local government agencies' policies, standards, and specifications.
- Use Microsoft Office, drafting and graphic software.
- Understand how our decisions impact the disadvantaged and under-served within our state, and a commitment to eliminating the disproportionate impacts and burdens placed on these communities. Engage in meaningful conversations, understand, increase awareness of, and take appropriate action regarding the importance of uplifting diversity and equity in our work.

RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

The incumbent is responsible for independent action and initiative in carrying out the duties of this position. Based on engineering experience and expertise, the incumbent must be able to provide accurate and thorough recommendations on various engineering documents, reports, policies, manuals and publications. Decisions or recommendations inconsistent with laws, regulations, and policies may result in:

- Adverse consequences to motorists health and safety.
- Increased tort liability.
- Loss of credibility and public confidence in Caltrans as a responsible public agency.
- Inability to quantify performance in meeting the Department's strategic goals and safety and mobility commitments.
- Collision costs that impact California's economy and traffic safety culture.

PUBLIC AND INTERNAL CONTACTS

Engage with District Safety Programs staff to provide assistance and policy interpretation of matters concerning assigned responsibilities. The incumbent has frequent contact with various levels of staff in the headquarters divisions and twelve district offices. There is frequent contact with engineers and planners from FHWA, local agencies, other states, national experts, academia, the private sector, and occasionally foreign governments. The incumbent responds to questions from the public regarding the Department's traffic control practices. Also works with private transportations organizations and government agencies at the state, federal and local levels. The incumbent must be able to interact with others in a positive, open way that builds lasting relationships, respect all individuals and different points of view, and works across Headquarters and Districts to promote collaboration and share knowledge.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

The incumbent must have the ability to sit for extended periods of time using a keyboard and monitor, and maintain long periods of concentration. The incumbent must also be able to stand, walk, kneel, crouch, stoop, squat, twist, climb, and move materials weighing up to 30 pounds.

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The incumbent must be receptive to change and new information; adapt behavior and work methods in response to new information; changing conditions or unexpected obstacles; adjust rapidly to new situations warranting attention and resolution; and be prepared to meet deadlines and complete assignments in a timely manner.

The incumbent must be able to 1) develop and maintain cooperative working relationships, 2) treat others fairly and with respect, 3) take accountability for own work, including problems and issues, 4) respond appropriately to customer issues, concerns and complaints, 5) demonstrate a sense of responsibility and commitment to public service, and 6) value cultural diversity and individual differences in the workforce.

The incumbent must possess the ability to travel to different sites and locations and perform field reviews, observations, measurements, and studies in all sorts of weather; as well as walk on uneven terrain in the outdoors under live traffic environment.

WORK ENVIRONMENT

The incumbent will work in a climate-controlled office under artificial lighting. Due to periodic problems with heating and air conditioning, the building temperature may fluctuate.

The incumbent may be required to travel periodically within the state to district offices and to outdoor field locations for meetings or to make field observations to carryout assignments. While at field locations, the incumbent may be exposed to live-traffic in highway construction environments, including dirt, noise, uneven surfaces, heavy equipment, and adverse weather. The incumbent may be required to travel out-of-state.

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)

Sarju Patel

SUPERVISOR (Signature)

DATE

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