

POSITION DUTY STATEMENT

PM-0924 (REV 04/2021)

CLASSIFICATION TITLE Transportation Engineer (Civil)	OFFICE/BRANCH/SECTION Division of Safety Programs / Safety Systems and Devices	
WORKING TITLE Transportation Engineer (Civil)	POSITION NUMBER 913-350-3135-002	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.

(PROVIDE A BRIEF SUMMARY OF THE MAIN PURPOSE AND FUNCTIONS OF THE POSITION. DESCRIBE THE SUPERVISORY

GENERAL STATEMENT: 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 direction of the Traffic Signs and Engineering Support Branch Chief (Senior Transportation Engineer), the Transportation Engineer (Civil) performs a wide variety of professional engineering work related to developing guidance for implementing pavement delineation, temporary traffic control and proven safety countermeasures including, but not limited to:

- 1) speed management techniques to help improve safety for motorized and non-motorized modes of transportation,
- 2) performing other work regarding pavement marking, rumble strips and state highway work zone issues,
- 3) conducting technical research, preparing legislative analyses, developing response letters to citizens, responding to legislative inquiries, preparing engineering reports, developing specifications, standard plans, construction details, and addressing other issues regarding pavement markings and temporary traffic control,
- 4) preparing staff research and reports for updates to the California Manual of Traffic Control Devices (CA MUTCD), and
- 5) preparing training materials for pavement delineation, temporary traffic control and proven safety countermeasures.

Responsible for supporting the Division and districts to utilize safety systems and devices to implement a Safe System approach on the State Highway System as well as providing uniform standards for regional partners and local roads to help California meet its Strategic Highway Safety Program and Highway Safety Improvement Program goals. The Safe System approach aims to eliminate fatal and serious injuries 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.

CLICK ON THE "VIEW COMPETENCIES" BUTTON TO SELECT CORE COMPETENCIES, GOALS, AND

CORE COMPETENCIES: 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)
- **Reliability:** Ability to demonstrate dependability in meeting commitments, and providing a consistent work product. Takes responsibility for individual actions in order to meet deadline demands. (Safety First - Engagement, Equity, Innovation, Integrity, Pride)
- **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. (Safety First - Engagement, Equity, Innovation, Integrity, 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. (Safety First - Engagement, Equity, Innovation, Integrity, Pride)
- **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. (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)
- **Conceptual Thinking:** Ability to find effective solutions to issues by taking the appropriate perspective (i.e., holistic, abstract, or theoretical). (Safety First - Engagement, Equity, Innovation, Integrity, 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. (Safety First - Engagement, Equity, Innovation, Integrity, Pride)

TYPICAL DUTIES:

Percentage	Essential (E)/Marginal (M) ¹	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		
45%	E	Provide support and/or oversee Markings and Temporary Traffic Control Devices (TCD) within the Traffic Control Devices branch. Coordinate with the Divisions of Maintenance, Design, Construction, Planning, and technical cooperation with the Transportation Laboratory and districts. Develop, revise, and update standard plans sheets, standard special provisions, and standard specifications and non-standard special provisions for markings and temporary traffic control pertaining to Sections 81, 84, and parts of Section 12 of Caltrans' standard specification and standard plans. Develop standards and provide updates to parts 3 and 6 of the California Manual on Uniform Traffic Control Devices (CA MUTCD) for markings and temporary traffic control devices.
20%	E	Provide support and/or oversee the evaluation of new products for Signs and Delineation and Safety Devices Authorized Material List (AML). Conduct comprehensive product analysis including needs assessments, cost-benefit, performance and conformance with Caltrans' standards, and health, safety, and environmental regulations. Ensure an objective, impartial, and consistent evaluation of the new product for use in construction, maintenance, and operations of the State transportation system. Represent Caltrans in meetings with members of private industry regarding new products. Monitor and review progress of product testing and coordinate evaluations involving other program advisers, headquarters units, districts, and product manufacturers.
15%	E	Provide support for statewide signing, pavement delineation and temporary TCD meetings and associated standards committees by planning, organizing, coordinating, preparing presentations, and presenting to ensure uniformity for standards used on all State facilities. Prepare technical training material and presentation for signing, pavement delineation and temporary TCD workshops and present materials to ensure new district staff get the necessary basic training. Develop signing, pavement delineation and temporary TCD related agenda items for California Traffic Control Devices Committee (CTCDC) and present at the CTCDC to obtain recommendation from the CTCDC voting members.
10%	E	Conduct technical research for signs, pavement delineation and temporary TCD and analyze/evaluate the findings to determine the need for new policies or revising existing policies. Review proposals from districts and other functional units on new standards for signs, pavement delineation and temporary traffic control on California State Highways. Provide technical support and prepare effective correspondence to districts and the public related to signs, pavement delineation and temporary TCD. Write response letters to internal and external stakeholders, prepare engineering reports and policy/guidelines for signs, pavement delineation and temporary TCD.
5%	E	-- Maintain a Project and Service Portfolio monthly to monitor workload and establish priorities. Develop, maintain, and update a desk manual that helps train new employees, and serves as a reference tool for team members. -- Undertake special tasks and studies related to signing, pavement delineation, temporary TCD, and new products. Participate in various Division meetings, workshops, conferences, trainings, and improvement teams. -- Review and/or prepare bill analysis, draft Deputy Directives, and provide response to public requests, legislative inquiries, and internal requests on sign, pavement delineation and temporary TCD issues.
5%	M	Perform other work commensurate with the Transportation Engineer Civil classification. Travel to remote worksites. May occasionally act as the Branch Chief for any one of the branches within the Office of Safety Systems and Devices.

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.

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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.

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

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 the Federal Highway Administration, 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.

ADA Notice

For individuals with sensory disabilities, this document is available in alternate formats. For alternate format information, contact the Forms Management Unit at (916) 445-1233, TTY 711, or write to Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

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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.

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.

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WORK ENVIRONMENT

The incumbent will work in a climate-controlled environment with artificial lighting for extended periods of time. Due to periodic problems with the heating and air conditioning, the building temperature will 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.

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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)

Sarju Patel

SUPERVISOR (Signature)

DATE