

POSITION DUTY STATEMENT

DOT PM-0924 (REV 01/2025)

CLASSIFICATION TITLE Senior Transportation Engineer, CT	OFFICE/BRANCH/SECTION Pavement Program - Office of Asphalt Pavements	
WORKING TITLE Senior Transportation Engineer	POSITION NUMBER 913-601-3161-014	REVISION DATE 08/06/2026

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

GENERAL STATEMENT:

Under the general direction of the Office Chief, a Supervising Transportation Engineer, the Senior Transportation Engineer will manage and oversee staff to analyze, provide/develop standard plans, specifications, special provisions, design methodologies, software, guidance, and other tools related to the engineering, construction, and rehabilitation of asphalt pavement. The incumbent is responsible for performing engineering analysis and review of asphalt materials to provide recommendations and direction to the Office Chief, Deputy Division Chief, Division Chief, other functional units in the Division, Headquarters, the Districts and external partners on the pavement standards contained in the Department manuals, specifications, plans and supporting documents. Partners with industry, academia, local agencies, and national/international organizations on asphalt materials related issues. The incumbent will perform, coordinate, and/or monitor technical studies and prepare and review reports on complex problems/issues relating to pavements and oversee teams, prepare work plans and monitor progress to assure timely delivery of office projects, products, and other assignments.

CORE COMPETENCIES:

As a Senior Transportation Engineer, CT, 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, Climate Action, Prosperity - Collaboration, Innovation, Integrity, Pride, Stewardship)
- Decision Making**: Makes critical and timely decisions. Takes charge. Supports appropriate risk. Makes challenging and appropriate decisions. (Safety, Climate Action, Prosperity - Collaboration, Innovation, Integrity, Stewardship)
- 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, Climate Action, Prosperity, Employee Excellence - Collaboration, Innovation, Integrity, People First)
- 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, Equity, Climate Action, Prosperity, Employee Excellence - Collaboration, Equity, Innovation, Integrity, People First, Stewardship)
- 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. (Equity, Prosperity, Employee Excellence - Collaboration, Equity, People First, Pride, Stewardship)
- 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. (Equity, Prosperity, Employee Excellence - Collaboration, Equity, Innovation, Integrity, People First, Pride, Stewardship)
- Interpersonal Effectiveness** : Effectively and appropriately interacts and communicates with others to build positive, constructive, professional relationships. Tailors communication style based on the audience. Provides and is receptive to feedback. (Prosperity, Employee Excellence - Collaboration, Equity, Integrity, People First, Pride, Stewardship)
- Vision and Strategic Thinking**: Communicates the "big picture". Models the department's Vision and Mission to others. Influences others to translate vision into action. Future oriented, and creates competitive and break through strategies and plans. (Safety, Climate Action, Prosperity - Collaboration, Innovation, Integrity, Pride, Stewardship)
- Technical Expertise**: Depth of knowledge and skill in a technical area. (Safety, Climate Action, Prosperity - Innovation, Integrity, Stewardship)

TYPICAL DUTIES:

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

ADA Notice

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30%	E	Supervises Transportation Engineers for the development and updating of statewide asphalt pavement engineering technical standards, methodologies, and procedures for inclusion in the specifications, plans, software and other engineering guides and tools. Keeps abreast of the “state of the practice” in asphalt materials areas and incorporates current technology into the standards, policies and procedures. Assists in the development and update of specialized training on asphalt pavement engineering, construction, and rehabilitation.
20%	E	Serves as a project manager and team leader. May also serve as lead worker on assignments that may involve more than one person. Using quality principles and tools, will implement and maintain continuous quality improvement processes for all the specific duties and responsibilities under their management. Prepares and maintains work plans for assigned projects and products. Tracks and manages progress to assure timely delivery of projects, products, and tasks. Coordinates arrangement of meetings, collects and reports status of projects on a regular basis.
20%	E	Serves as Chairperson for subtask groups and/or work product groups of asphalt pavement committees; which includes membership from Pavement Program, other Headquarters functional units, representatives from Districts and agencies, and representatives from the construction and material supply industry to coordinate the development and content of statewide specifications, plans, and test methods.
20%	E	Promotes uniformity in interpretation and implementation of standards, policies and procedures for asphalt pavement engineering, construction, and rehabilitation. Performs cursory engineering analyses and reviews to assure conformance to established asphalt pavement policies and procedures as detailed in the Department manuals, bulletins, directives specifications, plans, guides, and other tools for asphalt pavements. Communicates and consults the policies, standards, and best practices developed or approved by the Pavement Program with other functional units in the Corporate Headquarters, Regions/ Districts, industry, local agencies, national/international organizations, and other stakeholders interested in asphalt pavement issues. Assists Division managers and reviewers in responding to inquiries and providing interpretation of asphalt pavement standards and their application. Responds as necessary, to inquiries on asphalt pavement specifications, special provisions, plans, designs, software, and materials.
5%	M	Liaisons with Design, Traffic, Environmental, Construction, Structures, and Testing units on technical issues of mutual value regarding the engineering, construction, and testing standards, policies, and procedures and common materials used in building asphalt pavements or other asphalt related products.
5%	M	Evaluates and prepares (with respect to asphalt pavement engineering, construction, and rehabilitation) recommendations on proposed legislation affecting the Department; prepares routine and technical correspondence; attends and participates in task groups, technical meetings, and conferences both within and without the State; and, prepares technical papers for presentation and publication.

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

Directly supervises a staff of Transportation Engineers and other Transportation Professionals. Staff assigned to incumbent may occasionally on part time basis be assigned to and/or take technical direction from Senior Transportation Engineers Specialists on a project, but still report to the incumbent.

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

- Knowledge of Caltrans’ organization and Departmental policies; asphalt pavement policies (design, construction, rehabilitation, management, etc.), procedures, standards, and other factors that need to be considered in the engineering, construction, and rehabilitation of asphalt pavement.
- Knowledge and experience with Caltrans project development procedures both for capital outlay and maintenance projects, as well as, engineering experience related to design, construction and rehabilitation operations with a emphasis on asphalt pavements.
- Knowledge of organizational relationships, both within and outside of Caltrans that pertain to the design, construction, operation, rehabilitation, and evaluation of performance of asphalt pavement structures.
- Knowledge of climate and how it effects asphalt pavement.
- Knowledge of the basic principles of physics; chemistry and mathematics as applied to civil engineering; stress analysis; mechanics; strength of materials; properties and uses of engineering construction materials; methods and equipment of engineering construction.
- Knowledge of the basic principles of engineering economics, such as life cycle cost analysis and benefit/cost analysis, as applied to pavement type selection, planning, rehabilitation, and management.
- Ability to, based on engineering experience and expertise, to act independently and exercise good judgment on matters relating to the planning and engineering of asphalt pavement structures for transportation facilities.
- Ability to effectively communicate and coordinate both orally and in written form with management and employees of the

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Pavement Program, in Headquarters, Districts, industry, and other personnel outside the organization.

- Ability to write technical reports and be able to interpret results from technical studies.
 - Ability to assimilate technical and procedural input from various sources on a given subject, to evaluate that input, to develop alternative courses of action, and to make objective recommendations and to follow-up with implementation through written and oral communications.
 - Ability to use engineering software to analyze pavements and their performance.
 - Ability to comprehend and analyze specification requirements, survey procedures, and test methods, as they relate to pavement engineering, rehabilitation, and management; capable of developing workable, effective specifications; and, capable of analyzing survey/test results and understand the significance and application of said methods.
 - Ability to establish and maintain friendly and cooperative relations with those contacted in the course of the work, and to communicate effectively.
 - Ability to travel to meetings, and field sites throughout California and the nation.
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RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

Based on engineering experience and expertise, this position is responsible for providing accurate and thorough guidance on asphalt pavement engineering, rehabilitation, and management standards, policies and procedures. Before decisions are made and actions are taken to implement new products, materials and/or procedures, historical and research data is gathered from all pertinent functional areas in the Pavement Program, Headquarters, Districts, as well as from the Federal Highway Administration (FHWA), the industry, and other concerned Local, State, and Federal agencies. Caltrans' input is especially pertinent from the areas of engineering, materials testing, research, construction, operations, rehabilitation, and management. The consequences of not considering all pertinent factors and input in decisions and actions taken could result in significant economic loss to the State, inconvenience and economic loss to highway users, and loss of credibility with public agencies and the general public.

PUBLIC AND INTERNAL CONTACTS

Incumbent must work well, and communicate with other personnel in the Pavement Program, other Headquarters functional units, Districts, other state agencies, FHWA, and other Federal Agencies, Local Agencies, representatives of industry, academia, consultants, and the general public to provide the necessary analysis and recommendations on pavement structural sections for transportation projects.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

The incumbent may be required to sit for long periods of time, at their desk, using a keyboard, and video display terminal. Manual dexterity, and sustained periods of mental activity are needed for report reviewing, and writing; plus, for problem solving, analysis and reasoning. The incumbent may also be required to travel via airplanes, use rental cars, vans, and buses; stay overnight in motel/hotel accommodations; and, may be required to drive a motor vehicle. Employee may occasionally be required to move materials weighing up to 50 lbs, move large and/or cumbersome plans, and diagrams from one office location to another. The incumbent will need to establish and maintain friendly, and cooperative working relationships with those contacted in the course of the work, and communicate effectively by recognizing emotionally charged issues or problems, acknowledging the various responses, and responding appropriately and professionally to difficult situations.

WORK ENVIRONMENT

While at base of operation, the incumbent will work in a climate-controlled office under artificial lighting. Occasionally, the employee will be required to travel within and without the State to meetings, construction projects, and material production plants. The incumbent will also be required to occasionally work outdoors which may cause exposure to dirt, dust, noise, uneven ground surfaces, allergens in the air and/or hot or cold temperature extremes.

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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.)

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