

POSITION DUTY STATEMENT

DOT PM-0924 (REV 01/2025)

CLASSIFICATION TITLE Senior Transportation Engineer, CT	OFFICE/BRANCH/SECTION Pavement Program/Pavement Management	
WORKING TITLE APCS Branch Chief	POSITION NUMBER 913-601-3161-005	REVISION DATE 07/07/2026

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 incumbent manages and directs staff responsible for supporting the Automated Pavement Condition Survey (APCS). The incumbent will be responsible for providing directions and support to staff performing engineering analysis and reviews of pavement related issues; preparing work plans and monitoring progress to ensure timely delivery of office tasks, projects, products, and other assignments to ensure deliverables are consistent with the overall vision, goals, and policies of the Pavement Program, Maintenance Division, and Department. The incumbent is responsible for developing, managing, and administering all contracts related to APCS, including support and coordination with internal and external stakeholders. The incumbent is responsible for developing and documenting business processes and engineering procedures for APCS quality assurance. The incumbent is responsible for overseeing development and maintenance of the Office websites. The incumbent will perform, coordinate, and monitor technical studies; prepare and review reports on complex problems/issues relating to pavement.

The Senior Transportation Engineer is expected to have strong managerial and engineering skills and be familiar with the policies, principles, and techniques of personnel management and supervision. The incumbent must be able to develop and manage contracts, coordinate with internal and external partners, write task orders, manage task orders, and process invoices and contract documents through EFIS and AMS Advantage for timely payment. Possession of a valid certificate of registration as a civil engineer issued by the California state board of Registration for Professional Engineers is required. Incumbent must possess and maintain a valid California Driver's License.

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. (Employee Excellence - Stewardship)
- **Decision Making**: Makes critical and timely decisions. Takes charge. Supports appropriate risk. Makes challenging and appropriate decisions. (Employee Excellence - 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. (Employee Excellence - Innovation)
- **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. (Employee Excellence - Innovation)
- **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. (Employee Excellence - Stewardship)
- **Understanding Others/Motivation**: Understands why groups do what they do and their motivation. Is able to look from multiple perspectives in order to understand others. (Employee Excellence - People First)
- **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. (Employee Excellence - Stewardship)
- **Workforce Management**: Hires and retains appropriate staff. Conducts workforce and succession planning. Provides feedback on performance. Addresses employee issues in a timely manner. (Employee Excellence - People First)
- **Technical Expertise**: Depth of knowledge and skill in a technical area. (Employee Excellence - Stewardship)

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TYPICAL DUTIES:

Percentage		Job Description
Essential (E)/Marginal (M) ¹		
25%	E	Under the general direction of the Office Chief, supervises a staff of transportation professionals maintaining and supporting APCS and pavement management system activities, system engineering configurations, and Geographic Information System (GIS) development and analysis; performing engineering analyses and reviews for the development and update of Departmental guidance, practices, procedures related to pavement management and other pavement engineering issues. May also serve as a lead worker on assignments involving coordination with other engineers and staff. Prepares and updates work plans including scope, resource, and schedule estimates. Engages and communicates with staff to monitor progress and ensure timely delivery of projects, products, and tasks. Using quality management principles, implements and maintains continuous quality improvement processes for all assigned duties and responsibilities under management.
25%	E	Serves as the Contract Manager responsible for developing and administering all APCS contracts, including coordination with internal and external stakeholders. Supports and coordinates with the Office Chief, Subject Matter Experts (SMEs), and other functional and resource managers. Oversees projects to ensure conformance of the project schedule, cost, and deliverables with the established contract. Manages work plans and projects to ensure conformance of the project scope, cost, schedule, and deliverables with the established contract. Engages and communicates with staff to monitor progress and ensure timely delivery.
25%	E	Develops, analyzes, and documents improvements to APCS business processes and engineering procedures for quality assurance, including related Department practices, procedures, policies, and standards. Meets and coordinates with stakeholders to identify areas of improvement and ensure that changes to APCS pavement management best practices, policies, and procedures are practical and cost effective. Manages, coordinates, and provides training and presentations to staff, management, Districts/Regions, industry, local agencies, and the general public.
15%	E	Promotes uniformity in interpretation and implementation of standards, policies and procedures for pavement engineering, preservation, and management. Performs complex engineering analyses and reviews to evaluate and update established pavement policies and procedures detailed in the Department manuals, bulletins, directives, specifications, plans, guides, and other documentation. Develops and supports implementation of updated policies, standards, and best practices. Coordinates with other Headquarters functional units, Districts, industry, national organizations, and other stakeholders. Responds and assists with inquiries and interpretations of pavement standards and their application. Develop and update Departmental guidance, practices, procedures, and training related to pavement engineering issues. Responsible to develop and maintain supporting guidance, training, and documentation with timely updates. Develop and coordinate updates to information, data, and software applications on the PavEM Portal and other websites.
10%	M	Serves as Principal Investigator to develop special studies and complex engineering analyses to recommend and implement quality improvements and innovations to advance APCS and pavement management systems performance, policy, practices, and decision making throughout project planning and development. Coordinates and meets with stakeholders to identify areas of improvement and ensure recommended changes to pavement engineering, policies, and procedures are practical and cost effective. Performs analysis on complex problems and issues affecting the Department relating to pavement engineering, construction, and preservation. Provides technical engineering analysis and recommendations on pavement related issues, including proposed legislation affecting the Department. Attends and participates in task groups, technical meetings, and conferences. 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

Supervises a staff of Transportation Engineers and other professionals. Serves as a lead worker or project manager directing activities for APCS and pavement management related issues or studies as assigned by the Office Chief. Serves as coordinator and project manager for developing pavement related projects and products with the other staff, units, and specialists throughout Headquarters, Districts, external agencies, academia, industry representatives, and other stakeholders including the general public. Staff assigned to incumbent may occasionally on part time basis be assigned to and/or take technical direction from other Senior Transportation Engineers Specialists on a project while reporting to the incumbent.

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KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

- Knowledge of Caltrans' organization and Departmental policies, procedures, practices, and other factors that need to be considered in the engineering, materials, design, construction, preservation, maintenance, and rehabilitation of pavements.
- 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 maintenance operations with a particular emphasis on pavements.
- Knowledge of organizational relationships, both within and outside of Caltrans that pertain to the design, construction, operation, maintenance, and evaluation of performance of pavement structures.
- 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, preservation, and management.
- Ability to understand the needs of management and the engineering skills and abilities required to deliver the Department's workload requirements.
- Ability to, based on engineering experience and expertise, act independently and exercise good judgment on matters relating to the planning and engineering of pavement structures for transportation facilities.
- Ability to effectively communicate and coordinate both orally and in written form with management and employees of the Pavement program in the Corporate Headquarters, Districts, industry, and other personnel outside the organization.
- Ability to write specifications and special provisions in conformance with Department standards.
- 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 comprehend and analyze specification requirements, survey procedures, and test methods, as they relate to pavement engineering, preservation, 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.

RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

Based on engineering experience and expertise, this position is responsible for providing accurate and thorough guidance on pavement engineering, preservation, 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 Division of Maintenance, Department 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, preservation, 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. Errors can result in over-expending resources, inhibiting the Program to produce its deliverables efficiently, on time and within budget. Incomplete and inaccurate data will erode the ability of the Program to deliver cost effective support to the Program, to the Districts, to the Department, and to all other stakeholders.

PUBLIC AND INTERNAL CONTACTS

Incumbent must work well, and communicate with other personnel in the Division of Maintenance, other Department Headquarters functional units, Districts/Regions, 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 must be physically, mentally, and emotionally able to work in various office environments. 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, report writing, 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 intrastate and interstate to attend meetings, construction projects, and material production

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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.

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
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I have discussed the duties with, and provided a copy of this duty statement to the employee named above.

SUPERVISOR (Print)

SUPERVISOR (Signature)	DATE
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