

POSITION DUTY STATEMENT

DOT PM-0924 (REV 01/2025)

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|-----------------------------------------------------------------------------|---------------------------------------------------------------------------|-----------------------------|
| CLASSIFICATION TITLE<br>Supervising Bridge Engineer                         | OFFICE/BRANCH/SECTION<br>56/SM&I/Office of Structure Investigations North |                             |
| WORKING TITLE<br>Chief of the SM&I Office of Structure Investigations North | POSITION NUMBER<br>913-622-3184-001                                       | REVISION DATE<br>08/01/2026 |

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 State Bridge Maintenance Engineer and Deputy Division Chief of Maintenance for Structure Maintenance and Investigations (SM&I), a Principal Bridge Engineer, the incumbent supervises, oversees, directs and performs quality control of the work of the inspection seniors, inspection team leaders and inspectors in the SM&I Office of Structure Investigations North. The primary responsibilities of the office are: safety inspections, structural condition assessments, National Bridge Inventory (NBI) data, load postings, critical findings, emergency response and work recommendations for preservation, repairs, rehabilitations, retrofits and replacements of in-service bridges on the state and local agency highways within the boundaries of Caltrans Districts 1, 2, 3, 4, 5, 6 and 10 per 23 Code of Federal Regulations (CFR) Part 650 Subpart C National Bridge Inspection Standards (NBIS) and its associated references, the National Bridge Inspection Program (NBIP) Metrics, and the applicable Caltrans policies, procedures and manuals. The incumbent also assists and acts for the State Bridge Maintenance Engineer with any delegated duties, as needed.

CORE COMPETENCIES:

As a Supervising Bridge Engineer, 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.

- Change Leadership:** Develops new and innovative approaches needed to improve effectiveness and efficiency of work products. Encourages others to value change. Considers impact and recommends changes. (Safety - Stewardship)
- Decision Making:** Makes critical and timely decisions. Takes charge. Supports appropriate risk. Makes challenging and appropriate decisions. (Equity - 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. (Climate Action - 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. (Prosperity - Integrity)
- 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 - Innovation)
- Customer Focus:** Considers, prioritizes, and takes action on the needs of both internal and external customers. (Safety, Prosperity - 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. (Employee Excellence - Collaboration)
- Analytical Skills:** Approaches problems using a logical, systematic, and sequential approach. Weighs priorities and recognizes underlying issues. (Safety - Innovation)
- Commitment/Results Oriented:** Dedicated to public service and strives for excellence and customer satisfaction. Ensures results in their organization. (Employee Excellence - Stewardship)

TYPICAL DUTIES:

Percentage      Job Description  
Essential (E)/Marginal (M)<sup>1</sup>

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| 30% | E | Provide supervision, oversight, direction and quality control (~5% of the inspections) of the reporting of results of routine, NSTM, SFM, in-depth and special inspections, structural condition assessments, NBI data, scour observations, load postings and maintenance work recommendations for in-service highway bridges per the NBIS and its associated references, the NBIP Metrics and the applicable Caltrans policies, procedures and manuals.                                                                                                                                                                                   |
| 25% | E | Provide supervision, oversight, direction and quality control (~5% of the inspections) of the performance in the field of routine, NSTM, SFM, in-depth and special inspections, structural condition assessments, NBI data, scour observations and load posting hearings for in-service highway bridges per the NBIS and its associated references, the NBIP Metrics and the applicable Caltrans policies, procedures and manuals.                                                                                                                                                                                                         |
| 10% | E | Provide supervision, oversight, direction and quality control (~5% of the inspections) of the scheduling, planning and preparation for routine, Nonredundant Steel Tension Member (NSTM), Special Feature Member (SFM), in-depth and special inspections of in-service highway bridges per the NBIS and its associated references, the NBIP Metrics and the applicable Caltrans policies, procedures and manuals.                                                                                                                                                                                                                          |
| 10% | E | Participate in bridge maintenance strategy meetings to determine the appropriate course of action for repair, rehabilitation, retrofit and replacement of in-service highway bridges. Provide, or cause to be provided, technical assistance to the SM&I Office of Structural Design and Analysis in the preparation of plans and estimates for bridge maintenance projects. Participate in the performance year reviews of the Caltrans Bridge Inspection Program by the Federal Highway Administration (FHWA).                                                                                                                           |
| 10% | E | Develop and implement policies, procedures, manuals and guidance for safety inspections, structural condition assessments, NBI data, load postings, critical findings, emergency response and work recommendations for in-service highway bridges. Develop and deliver training for safety inspections, structural condition assessments, NBI data, load postings, critical findings, emergency response and work recommendations for in-service highway bridges.                                                                                                                                                                          |
| 5%  | E | Provide supervision, oversight and direction of responses to bridge emergencies due to traffic hits, fires, floods, earthquakes and critical findings of structural or safety-related deficiencies. Perform the role assigned by the SM&I Emergency Response Plan, as needed. The emergency response may include: establishing the level of the bridge emergency, deployment of inspection staff and equipment, damage inspections, structural condition assessments, NBI data, critical findings, bridge and route status reports, inspection reports and emergency work recommendations for temporary supports, repairs and restoration. |
| 10% | M | Perform miscellaneous duties related to the inspections and maintenance of highway structures as directed by the State Bridge Maintenance Engineer and/or the Division Chief of Maintenance.                                                                                                                                                                                                                                                                                                                                                                                                                                               |

<sup>1</sup>ESSENTIAL 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

First-line or second-line supervisor of approximately 50 engineers, currently from the following classifications: Senior Bridge Engineer and Transportation Engineer (Civil). These classifications may change based on business need.

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

Knowledge of the standards, specifications, guides, manuals, metrics, policies, procedures and methods for safety inspection, structural condition assessment, NBI data, load rating, load posting and maintenance work for in-service highway bridges: the National Bridge Inspection Standards, the Specifications for the National Bridge Inventory (for inspections after August 2025), the Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges (for inspections before August 2025), the AASHTO Manual for Bridge Evaluation, the AASHTO Manual for Bridge Element Inspection, the FHWA Bridge Inspector's Reference Manual, the FHWA National Bridge Inspection Program Metrics, the AASHTO Movable Bridge Inspection Evaluation and Maintenance Manual, the SM&I Procedures Manual, the Caltrans Bridge Element Inspection Manual, the SM&I Policy and Procedures Memos, the SM&I Inspector Memos, the SM&I Load Rating Manual, and the Caltrans Maintenance Manual.

Knowledge of the access equipment and inspection tools for safety inspections of in-service highway bridges.

Knowledge of the material properties, analysis, design, construction, maintenance and repair of reinforced concrete, prestressed concrete, post-tensioned concrete, structural steel, timber and masonry bridges.

Knowledge of the Caltrans Safety and Health Manual, and the Code of Safe Operating Practices of the Caltrans Maintenance Program.

Knowledge of the Caltrans Emergency Operations Plan, DD-109 Bridge Emergency Response and the SM&I Emergency

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### Response Plan.

Knowledge of the SM&I computerized Bridge Management System (BMS) and Bridge Inspection Records Information System (BIRIS), as well as standard word processing and spreadsheet software.

Ability to: (i) perform safety inspections by visual observations and nondestructive testing of bridge elements using the appropriate access equipment and inspection tools, (ii) use engineering judgment and quantitative assessments to determine the structural condition, capacity, stability and serviceability; (iii) identify critical findings of structural or safety-related deficiencies that require immediate action to ensure public safety, (iv) take accurate field notes and report the inspection results in comprehensive reports; (v) collect, record and code NBI data; (vi) make appropriate work recommendations to address the severity and extent of defects in bridge elements, (vii) work independently and make decisions with minimum direction or supervision; (viii) travel and work statewide for extended periods of time; (ix) safely drive state vehicles and operate a variety of access equipment and inspection tools.

Ability to attain and maintain certification as a Team Leader per the NBIS.

Ability to make accurate and effective decisions during stressful situations, such as emergency response or while working in difficult conditions and environments.

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### RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

The incumbent will be required to make decisions and assessments during inspections, emergency response situations and/or using the results of inspections performed by others regarding the structural condition, capacity, stability and serviceability of highway bridges.

Errors in judgment or decisions could endanger the safety of the traveling public and/or cause reduction of mobility. Incomplete or delayed bridge inspections or reports may result in unidentified structural damage or deterioration, increased maintenance/operations costs, inaccurate project scope, unnecessary delays in rehabilitation or replacement projects and potential tort liability for the Department.

Errors in judgment and/or lack of knowledge regarding safety procedures could have life-threatening consequences for the incumbent and others.

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### PUBLIC AND INTERNAL CONTACTS

The incumbent is expected to have regular written and verbal contacts with Caltrans Districts 1, 2, 3, 4, 5, 6 and 10, Caltrans HQ divisions and offices, FHWA California Division Office, and local agencies and railroad companies/authorities within the boundaries of Caltrans Districts 1, 2, 3, 4, 5, 6 and 10.

The incumbent may be required to provide expert advice, recommendations and presentations on the inspections, maintenance and emergency response for highway bridges.

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### PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

The incumbent will be required to make decisions during emergency situations regarding employee, public or bridge safety with or without direction from their supervisor.

The incumbent must participate in safety training, and may have to administer first aid in the field in the event of an injury.

The incumbent must be able to wear personal protective equipment and respiratory protection equipment.

Hearing and sight are essential for job performance. The incumbent must be able to see traffic, equipment, obstructions, gages, controls, warning signs and warning lights, and hear traffic, equipment, directions and warning sounds.

The incumbent must be able to provide leadership and direction to the inspection team when working in the capacity of inspection team leader. The incumbent must be able to work as part of the inspection team when working in the capacity of team member.

The incumbent may need to operate a variety of access equipment, including under bridge inspection trucks, aerial lifts, traveler platforms, boats and unmanned aircraft systems. This will involve the ability to utilize motor skills to operate and manipulate hand and foot controls, gears and other vehicle parts that control the basket, motor or machinery.

The incumbent may need to operate inspection tools and equipment, which may weigh as much as 65 lbs. These operations require grasping, fine manipulation, reaching overhead with the tools or equipment, grinding, drilling, removing paint and debris,

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twisting, lifting, squatting, crouching, balancing or bending while carrying the tools and equipment in tight and confined spaces, on ladders, scaffolding or traveler platforms, observing defects and recording results.

The inspections may require the incumbent to walk up or down steep slopes, climb fences as high as 8 ft, and walk or crawl through narrow spaces or openings. The incumbent may have to climb interior or exterior ladders, catwalks or scaffolding, and perform his/her inspection duties at heights up to 700 ft above ground or water.

The incumbent may need to work in the water channels underneath the bridges. This will involve the ability to wade in water up to 3 ft deep, in currents with velocity up to 3 ft/sec and/or utilize flotation devices. The incumbent may have to perform inspections from boats or scaffolding or aerial lifts anchored to boats in strong water currents and under adverse weather conditions.

The incumbent may have to sit for long periods of time during travel or while in the office or teleworking.

WORK ENVIRONMENT

The work location will be approximately 75% in the office or telework and approximately 25% in the field at various sites within the boundaries of Caltrans Districts 1, 2, 3, 4, 5, 6 and 10.

The incumbent must be able to travel by driving a state vehicle or by using commercial transportation. The incumbent will be required to be away from the office for day or overnight trips. In addition, the incumbent may need to respond to bridge emergencies throughout the state.

While in the office, the incumbent will work in a climate-controlled environment under artificial lighting.

While in the field, the incumbent will work outdoors, near traffic, in lane closures, day or night. The incumbent may encounter the following environments and entities: sun, heat, cold, rain, sleet, snow, fog, wind, noise, dust, dirt, trash, exhaust gases, aerially-deposited lead, lead contained in the paint and primer coatings of bridge elements, chemicals, contaminated ground and water, unregulated human encampments, animals (such as snakes, birds, bats, spiders and rats) and their droppings, plants (such as poison oak, ivy and vines), various physical and terrain features at the highway structures (such as confined spaces, uneven surfaces, elevation breaks, waterways and heights), and a variety of sometimes extreme weather conditions and climates that occur in California.

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)

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|------------------------|------|
| SUPERVISOR (Signature) | DATE |
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