

CLASSIFICATION TITLE Transportation Engineer (Elect)	OFFICE/BRANCH/SECTION 59/DES/PPM&OE/OCCA&QP	
WORKING TITLE Construction Contract Quality Engineer (Electrical)	POSITION NUMBER 559-150-3609-xxx	REVISION DATE 09/23/2025

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

GENERAL STATEMENT:

Under the direction of the Branch Chief, a Senior Transportation Engineer (Supervisor), the incumbent performs Independent Quality Assurance (IQA) review (Electrical) for construction contract documents during project advertisement applying the Best Bid Standards (BBS) and assists the districts in finalizing the contract documents. Performs Independent Assurance (IA) review (Electrical) for projects after construction completion to validate the effectiveness of the BBS. The incumbent will also develop and update manual, guidance, and training materials for the Construction Contract Quality Management Program.

CORE COMPETENCIES:

As a Transportation Engineer (Elect), 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.

- **Managing Change:** Demonstrating support for organizational changes needed to improve the department's effectiveness; supporting, initiating, sponsoring and implementing change. (Employee Excellence - Collaboration, Innovation, Stewardship)
- **Dealing with Ambiguity (Risk):** Can comfortably handle risk and uncertainty, as well as make decisions to act without having the total picture. (Employee Excellence - Innovation, Integrity, Stewardship)
- **Ethics and Integrity:** Demonstrated concern to be perceived as responsible, reliable, and trustworthy. Respects the confidentiality of information or concern shared by others. Honest and forthright. Conforms to accepted standards of conduct. (Employee Excellence - Integrity, Stewardship)
- **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 - Collaboration, Innovation, 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. (Equity, Employee Excellence - Collaboration, Integrity)
- **Customer Focus:** Considers, prioritizes, and takes action on the needs of both internal and external customers. (Equity, Employee Excellence - Collaboration, Integrity, 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 - Collaboration, Integrity, People First)
- **Analytical Skills:** Approaches problems using a logical, systematic, and sequential approach. Weighs priorities and recognizes underlying issues. (Employee Excellence - Collaboration, Innovation, Stewardship)
- **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. (Employee Excellence - Collaboration, Integrity)

TYPICAL DUTIES:

Percentage Essential (E)/Marginal (M) ¹	Job Description
40% E	Perform IQA review during project advertisement utilizing the BBS for compliance with the State Contract Act, Departmental Standard Plans and Standard Special Provisions, Federal and State requirements and current Department policies. Document findings with the BBS in the Draft Contract Resolutions Database (DCRD) and assist the districts in finalizing the construction contract documents. Provide information to the AADD Coordinators as needed in the process of IQA and reviews, resolving the comments, and reviewing addenda.

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30%	E	Perform IA review to improve construction contract document quality and to validate the effectiveness of the BBS in minimizing additional costs and delays in construction. Document findings with the BBS in the DCRD. Update and improve the BBS by participating in BBS validation meetings and the annual change control meeting.
15%	E	Develop and update quality metrics and reports utilizing Microsoft Excel, PowerBI, Tableau, or other reporting software as necessary.
10%	E	Perform manual, guidance, and training material development for the Construction Contract Quality Management Program. Respond to inquiries from districts on Department policies, Federal and State requirements, project milestones, and associated guidance to process and finalize construction contract documents.
5%	M	Perform special projects or assignments as directed by the supervisor.

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
This staff position does not supervise others.

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

1. Must have the knowledge and the ability to apply mathematical and physical sciences gained from a Electrical Engineering education and transportation-related construction, design, and specification experience and practice.
2. Must have a thorough knowledge of Standard Specifications, Standard Special Provisions, Standard Plans, construction methods, materials, equipment, and the Plans Preparation Manual, familiarity with the State Contract Act, statutes, laws, policies, and practices relating to contract documents for transportation-related construction projects.
3. Must have the ability to review plans, specifications, and estimates (PS&E) prepared by other engineers and to identify technical inaccuracies and discrepancies. This requires independent review, study, and analysis that involve unique problems and solution identification.
4. Must have the ability to understand and convey technical engineering information both verbally and in writing.
5. Must have the ability to communicate problems as they arise during IQA reviews, reference comments with the BBS, and keep records of the discussion in the DCRD. A working knowledge of electronic data processing is desirable.

RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

Errors in contract quality standards could result in project delays, less competitive bids, protests from bidders, delays in the award process, or rejection of bids. This would result in increased costs due to re-advertisement of projects, construction delays and if delays are significant, a loss of transportation funds.

PUBLIC AND INTERNAL CONTACTS

This position regularly contacts Engineers in the Districts, Structures and other units concerning projects submitted to DES' Program/Project Management & Office Engineer (PPM&OE). Occasionally has contact with private contractors to determine availability of processes or equipment that may be needed, and to ensure addenda or contract documents have been received. Also works with local entities to coordinate project delivery and advertising schedules.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

Must be able to sit for prolonged periods using a keyboard and video display terminal. Sustained mental activity needed for report writing, problem solving, analysis and reasoning. Must be able to communicate verbally and in writing in a clear and concise manner. Must have the ability to develop and maintain cooperative working relationships and respond appropriately to difficult situations, and recognize emotionally charged issues and problems. Must be able to apply approved disciplinary and interpersonal techniques to remedy personnel issues and conflict in the workplace.

WORK ENVIRONMENT

While at their base of operation, 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. As a statewide organization, DES adjusts to periods of fluctuating workload to successfully deliver projects. Incumbent will be required to travel and perform fieldwork and will be exposed to dirt, uneven surfaces, extreme temperatures, noise, vibration, and odor associated with fieldwork. May work around bulky/ heavy materials and equipment used in the vicinity of inspection areas. May also be exposed to the motoring public. DES employees may be given temporary assignments on DES projects throughout the State as workload demands.

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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
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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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