

POSITION DUTY STATEMENT

DOT PM-0924 (REV 08/2024)

CLASSIFICATION TITLE Transportation Engineer Tech	OFFICE/BRANCH/SECTION 08/Construction - Southern Regional Lab
WORKING TITLE Lab Support Technician	POSITION NUMBER 908-500-3175-108
	REVISION DATE

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.

GENERAL STATEMENT:

The incumbent will perform laboratory and related field testing on soils, aggregates, asphalt mixes, asphalt binder, asphalt emulsion, Portland cement concrete, cement, and all related construction materials at the Southern Regional Laboratory (SRL), all Caltrans Districts, and Field laboratories under the supervision of a Senior Transportation Engineer. May receive direction from a Transportation Engineer, Materials & Research Engineering Associate, or Transportation Engineering Technician acting as lead worker. The incumbent must possess and maintain a valid driver's license when operating a State vehicle. The incumbent will be assigned work based on Divisional and/or Departmental needs and could be assigned to any office within District 8 which includes San Bernardino and Riverside Counties.

CORE COMPETENCIES:

As a Transportation Engineer Tech, 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 - Integrity)
- **Dealing with Ambiguity (Risk)**: Can comfortably handle risk and uncertainty, as well as make decisions to act without having the total picture. (Cultivate Excellence - Pride)
- **Continuous Professional Development**: Seeks to obtain knowledge and improve performance while supporting others in doing the same. (Strengthen Stewardship and Drive Efficiency, Advance Equity and Livability in all Communities - Equity, Pride)
- **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. (Strengthen Stewardship and Drive Efficiency - Integrity, Pride)
- **Teamwork/Partnership**: Develops, maintains, and strengthens partnerships with others inside or outside of the organization through effective communication and collaboration. (Strengthen Stewardship and Drive Efficiency - Engagement, Equity)
- **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. (Cultivate Excellence - Engagement, 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, Advance Equity and Livability in all Communities - Engagement)
- **Analytical Skills**: Approaches problems using a logical, systematic, and sequential approach. Weighs priorities and recognizes underlying issues. (Safety First, Strengthen Stewardship and Drive Efficiency - Engagement, Integrity)
- **Computer literacy and application**: Appropriate knowledge of computer applications and other tools necessary to successfully perform tasks. (Strengthen Stewardship and Drive Efficiency, Advance Equity and Livability in all Communities - Engagement, Integrity)

TYPICAL DUTIES:

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

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50%	E	Perform and conduct physical field and laboratory sampling and testing on highway construction materials including but not limited to asphalt binder, asphalt emulsion, asphalt concrete, soils, aggregates, aggregate base, Portland cement concrete, lean concrete base, etc. Lift up to 50 pounds when testing and sampling construction materials and moving equipment. Perform all applicable laboratory and field tests necessary for the purpose of verifying conformance to Standard Construction Plans, Standard Specifications, Standard Special Provisions, etc. Obtain and maintain all required certifications and competencies for various disciplines such as California Test Methods (CTM) series 100, 200, 300, 400, 500, and 600, Caltrans Lab Procedures (LP), American Association of State Highway and Transportation Officials (AASHTO), American Society for Testing Materials (ASTM), and Uniform Building Code (UBC). Participate in Caltrans and AASHTO proficiency sample testing and On-Site assessments.
20%	E	Witness, sample, and test at material production plants, field locations, and/or at applicable laboratories. Report the results to the Engineer. Submits accurate inspection and testing reports in a timely manner to ensure quality assurance and acceptance of materials. Gather and compile data, prepare reports, charts, and graphics.
20%	E	Assist in performing calibration of testing equipment used in the laboratory and the field. Notify supervisor of non-functioning equipment and make contact for repairs and maintenance as necessary. Assists with monitoring inventory of materials and equipment at the laboratory. Assist in budgeting and supplies for the laboratory, notifies supervisors of low quantities and assist with procurement of supplies, tools and equipments. Gathers data, enters data in DIME, prepares reports, charts, graphics and assists in copying and filing of test reports. Assist in maintaining and updating the Laboratory Quality Management System (QMS) and Caltrans Laboratory Accreditation Manual (CLAM).
10%	M	Share technical expertise with others, keep up to date with new technological changes and test methods, and keep pace with technological innovations related to field and lab activities. Maintain cordial and cooperative relations with those contacted in the course of work and communicate effectively, both orally and in writing with others within or outside the Department of Transportation organization. Develop new technical skills and knowledge related to tasks associated with the lab and field work. Perform special assignments and perform other duties appropriate for a Transportation Engineering Technician. May be called upon to perform various tasks at the discretion of 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

None.

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

Knowledge of various laboratory tests methods in strict accordance with detailed procedures. The work involved is of a highly technical nature and requires the ability to follow procedures and perform them repeatedly with precision and accuracy. Must have the ability to become certified in the various test procedures. Must be able to utilize mathematics to make calculations using percentages or ratios and plot data to evaluate test results.

Must have the ability to perform various testing methods with accuracy and timeliness; communicate effectively both orally and in writing with internal and external customers, contacts, and must recognize the importance of working as a team; make accurate engineering calculations; inspect construction work and enforce compliance with plans and specifications; analyze situations accurately and take effective action. Must have command of basic computer applications such as Lotus Notes, Microsoft, Excel, FileMaker Pro, Microsoft Word, and Caltrans custom-made applications.

RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

Must be able to effectively follow directions and testing procedures, and record and file data properly. Failure to adhere to this may result in inaccurate test results that could reduce the service life of the constructed facility or result in costly claims to the State.

PUBLIC AND INTERNAL CONTACTS

Maintain close communications with lead worker and supervisor. Has daily and frequent contact with fellow branch and office personnel regarding test results and inspection reports.

As a representative of the Department and the State of California, the incumbent is expected to maintain fair, impartial and effective relationship with clients, and conduct himself or herself in a professional and courteous manner at all times.

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PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

Physical activities vary and may be for a lengthy period of time. May be required to sit when using a keyboard and video display terminal and when entering and auditing data. While working in the laboratory, may be required to stand for extended periods of time to perform materials testing in and around test equipment; pull, push, bend, stoop and squat to examine testing equipment; maintain mental awareness and physical agility when working in the proximity of laboratory machinery. Requires manual dexterity to operate testing equipment and handle materials. May be required to be tested and fitted to wear a respirator while working in the laboratory. Will regularly be required to move equipment and test materials that require lifting up to 50 pounds.

May occasionally be required to travel to other Districts. When working you may be required to stand for long periods of time; pull, push and squat to examine testing equipment; maintain mental awareness and physical agility when working in the proximity of laboratory machinery.

Will be required to develop and maintain cooperative working relationship and respond appropriately to difficult situations. The incumbent must behave in a fair and ethical manner toward others and demonstrate a sense of responsibility and commitment to public service. The incumbent must value cultural diversity and other individual differences in the workforce. The incumbent must consider and respond appropriately to the needs, feelings, and capabilities of different people in different situations.

WORK ENVIRONMENT

This is a field and office position requiring the incumbent to work indoors and outdoors. While working indoors, performs tasks related to material testing, documentation and/or communications with other personnel. Material testing involves frequent lifting, pushing, pulling, bending, sitting, squatting, climbing, twisting and repetitive use of arms and hands. Work locations may be in the metropolitan area or in the remote sites in the vicinity of the construction projects and production of materials. Office space may be in the office building and/or trailers. Outdoor activity may increase exposure to moving traffic, loud noise, weather conditions of extreme heat and/or cold, dust, working on uneven terrain, adjacent to heavy equipment. May come in contact with hazardous materials, pesticides, chemicals; i.e., paints, cleaners, solvents, etc. May require working in the field at night, weekend and holidays. Night work require the ability to work with artificial lighting. Ability to maintain alertness to the environment is critical. Required to wear and utilize protective clothing, hard hat, safety shoes, vests, overalls, eye/hearing protection and respirator equipment.

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

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