STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

POSITION DUTY STATEMENT

PM-0924 (REV 7/2014)

CLASSIFICATION TITLE	OFFICE/BRANCH/SECTION	
Transportation Engineering Technician	Central Region Construction 501, District #931	
WORKING TITLE	POSITION NUMBER	EFFECTIVE DATE
DISTRICT LAB TESTER	931-501-3175-XXX	

As a valued member of the Caltrans team, you make it possible for the Department to provide a safe, sustainable, integrated, and efficient transportation system to enhance California's economy and livability. Caltrans is a performance-driven, transparent, and accountable organization that values its people, resources and partners, and meets new challenges through leadership, innovation and teamwork.

GENERAL STATEMENT:

Under the general supervision of a Senior Transportation Engineer, and lead direction from an Area Materials Engineer the Transportation Engineering Technician tests materials, performs R-values tests, California Test Methods, American Association of State Highway and Transportation Officials (AASHTO) test methods, and American Society for Testing and Materials (ASTM) test methods, at the Stockton Materials Lab. Numerous Cerifications in Material testing in California Test Methods, American Association of State Highway and Transportation Officials (AASHTO) test methods, and American Society for Testing and Materials (ASTM) will be required. May act in a lead worker capacity as needed.

TYPICAL DUTIES:

Percentage	Essential (E)/Marginal (M)[1]	Job Description
45%	E	Preparation of samples for testing of soil and aggregate material including the following but not limited to:Calculations pertaining to gradings and specific gravities, sample preparation, Sand Equivalent tests, Cleaness Value, Gradation Sieve Analysis, Los Angeles Ratler, Plasticity Index, Resistivity and R values. Test will be performed in accordance with California Test Methods, AASHTO test methods and ASTM test methods.
20%	E	Preparation of samples for testing of soil and aggregate material including the following but not limited to:Calculations pertaining to gradings and specific gravities, sample preparation, Sand Equivalent tests, Cleaness Value, Gradation Sieve Analysis, Los Angeles Ratler, Plasticity Index, Resistivity and R values. Test will be performed in accordance with California Test Methods, AASHTO test methods and ASTM test methods.
15%	E	Documentation of all sampling, testing and inspection results for contract records. Documention shall be provided in accordance with the required California Test Methods, AASHTO test methods and ASTM test methods.
10%	E	Preparation of samples for testing of Hot Mix Asphalt material including the following but not limited to: Optimum Binder Content for open grade HMA, Film Striping, Course and Fine Specific Gravity and Absorption and Flat and Elongated particles. Test will be performed in accordance with California Test Methods, AASHTO test methods and ASTM test methods.
5%	E	Physically assists in the maintenance and calibration of testing machines and equipment on a routine basis. Performs pavement sampling and coring to Material Design Engineers. Interprets contract specifications and determines applicable tests for samples to meet contract compliance.
5%	M	Performs other duties as required for maintaining and improving a smooth operation of the Stockton Materials Lab and Central Region Construction, such as preparing reports and correspondence.

[1]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

None. May act in absence of the supervisor for a short duration. May serve as a lead for functional guidance in training and assisting less experienced staff or volunteers.

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

Minimum Qualifications per the Classification Specifications (BU1 & 4 only) (Education and or Experience): Minimum qualifications are the minimum qualifications for Transportation Engineering Technician. Must have a complete knowledge of contract administration paper work and documentation. Must be able to communicate effectively in both

verbal and written form. Must be able to prepare reports and correspondence. Must be able to use and understand computers (Excel, Access and Microsoft Word are desirable). Must have knowledge of Caltrans Construction Manual. Ability to analyze and interpret management policies and/or directives. Good public speaker and ability to conduct training classes. Must have knowledge of methods, materials, tools, manuals, and equipment used in laboratory testing; methods of proportioning and handling of: aggregates, soils, hot mix asphalt and bituminous surfacing materials and the handling of asphaltic oils and emulsions.
Must have the ability to make accurate mathematical calculations; organize/arrange data to produce effective work products without repetitious direction; and possess interpersonal skills necessary to be an effective team member. Incumbent is expected to perform a variety of work with a certain degree of independence.
Ability to: to interpret specification requirements for materials and ability to perform standardized materials testing procedures. Must be capable of understanding test results and able to recognize deficiencies of materials being tested. Must have the ability to pass tests for Independent Assurance Test Certifications (IAT). Must have basic knowledge of spreadsheets and ability to use them to perform materials testing-related calculation. Basic math skills must include algebra and geometry. Basic writing skills are required for successful job performance.

The employee must be able to understand and follow instructions provided, both oral and written, and must be certified in California Test Method 105, 106, 125, 201, 202, & 217.

RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

Failure to understand and failure to incorporate appropriate standards, requirements and policies into work product may result in expensive waste of time and materials, cause additional work and project delays, and could result in excessive construction contract claims.
Acceptance or rejection of a contractor's materials and work is usually based on results of materials tests. It is imperative that tests are performed in accordance with accepted procedures and that the test are performed accurately. Errors in materials testing could cause the contractor undue cost and delay. Highway design is dependent on materials testing and errors in testing and interpretation of test results increases construction costs, cause defective highways, possible injury and/or damage, and potentially expose the State to liability issues.

PUBLIC AND INTERNAL CONTACTS

Incumbent must be able to communicate effectively with others including Department staff, technical/professional level staff of outside agencies, contractor's personnel and members of the public regarding construction projects.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

Must possess the ability to work outdoors in cold and hot weather. Must possess the ability to stand or sit for long periods of time operating various types of laboratory equipment. Must be able to transport samples and other laboratory equipment that is less than or equal to 75 pounds. Ability to work indoors under artificial light. Ability to work in lab conditions. May spend long hours on feet in the District Laboratory Facility. May be exposed to heat, cold, dust, and noise. Must be able to evaluate issues and make sound safety decisions.

The workload is subject to frequent, substantial, and unexpected changes. Ability to travel. Overtime and/or flexible hours may be required. Must be able to organize and prioritize. Must be able to concentrate, formulate effective strategies, be multi-tasked, adapt to changes in priorities, and complete task or projects with short notice. Ability to resolve emotionally charged issues reasonably and diplomatically. Must be able to develop and maintain cooperative working relationships.

The employee must be able to understand and follow instructions provided, both oral and written. The employee must have the ability to get certified in many of the materials tests.

Incumbent is responsible for his/her actions, decisions, quality of work, and proper use of State time, equipment and materials. Improper performance of duties and/or failure to adhere to established policies, procedures and guidelines could lead to adverse action and possible termination.

WORK ENVIRONMENT

Job will have exposure to equipment, machinery, heat, cold, dust, dirt, gas, chemicals, fumes, outdoor conditions, lab equipment, indoor conditions, humidity, and high decibels of noise. Hard hat and safety vest or approved safety shirt must be worn at all times in the field, no exceptions. While at the District 10 Materials Lab office employees will normally

work in a climate-controlled office under artificial light. However due to periodic problems with the heating and air conditioning, the building temperature may fluctuate. Lab work may not also be in a climate-controlled lab. Vacations may be restricted during peak times. Overtime may be required.

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.)

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