STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

POSITION DUTY STATEMENT

PM-0924 (REV 7/2014)

CLASSIFICATION TITLE	OFFICE/BRANCH/SECTION	
Transportation Engineering Technician	District 03/North Region Division of Project Development	
WORKING TITLE	POSITION NUMBER	EFFECTIVE DATE
Transportation Engineering Technician	903-200-3175-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:

Transportation Engineering Technician can be tasked in several engineering functions in the region. Based on annual workload and seasonal needs, the incumbent may be assigned by Caltrans to a variety of positions in an office or field environment. The incumbent TET is permanently assigned to the North Region Project Development (NRPD) and will be under the direct supervision of a NRPD, Senior Transportation Engineer, and may receive direction from a Project Engineer (Lead Worker). When the incumbent TET is temporarily assigned in North Region (NR) Construction, the incumbent will be under the direct supervision of a NR Construction, Senior Transportation Engineer, and may receive direction from a Resident Engineer (Lead Worker). In either environment, the incumbent will perform various transportation engineering tasks. Travel to project sites will be required. Possession of a valid California Drivers License is required when operating a state owned or leased vehicle.

TYPICAL DUTIES:

Percentage	Essential (E)/Marginal (M)[1]	Job Description
45%	E	When working in NRPD the incumbent will prepare project designs, plans, maps, estimates, specifications and reports under the direction of the engineer using computer programs and the latest Computer Aided Design and Drafting (CADD) software on the Caltrans engineering workstation. Gathers and analyzes technical information as a team member for the design of transportation projects. Performs mathematical calculations related to plans, maps, and estimates (quantities and costs). Assist in the preparation of roadway alignments, profile grades, superelevation, drainage facilities and other geometric features. Performs drafting of all types of plans, maps, working drawings and detailed drawings involved with transportation project contract plans, boundary line maps, as-built maps and utility conflict maps. Analyzes utility relocation plans as submitted by outside agencies and ensures data is retained in the Statewide Utility Database using Bentley Map. Act as the quality assurance technician for the branch, responsible for the accurate and efficient set up and delivery of project plans, maps, and estimates; prepares related reports and correspondence. Act as trainer for the branch with regard to the accurate and efficient set up and delivery of project plans, maps, and estimates; in that plans and maps are in conformance with the Plans Preparation Manual. Obtain and utilize the latest updates of the Plans Preparation Manual and drafting standards from HQ Division of Design and the CADD/GIS Support Office. Checks plans, maps, and estimates for completeness accuracy and conformity to standards. Attend project development team meetings, safety and constructability review meetings. Perform field work at project locations for design site investigations, utility verification, coordination and potholing.
45%	E	When working in North Region Construction the incumbent will make inspections of construction projects. Ensure compliance with plans and specifications, collect engineering data, assist in drafting and prepare specifications, change orders, contract estimates, and other documents and reports involved in the construction of projects. Check engineering calculations for accuracy; assist in the preparation of and processing of Extra Work Bills, checking against the Resident Engineers and Assistant Engineers' diaries, verify hours and dollar amounts against diaries, make field investigations and laboratory analysis of materials being used in construction projects and advise Resident Engineer of problems or situations on project sites.
10%	M	Perform special technical studies, investigations, and transportation engineering surveys or road inventories: prepares related 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.

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SUPERVISION OR GUIDANCE EXERCISED OVER OTHERS

This position does not supervise or act in a lead worker capacity; however responsibilities include a leadership role in the CAD and CADD technology aspects of project development within the design branch.

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

Knowledge of: methods, materials, and equipment used in construction, surveying, and maintenance of transportation facilities; standards of alignment, grade of highways and other transportation facilities. Incumbent must have extensive knowledge of Computer Aided Drafting and Design software, the Highway Design Manual and the Caltrans Plans Preparation Manual, and knowledge of word processing and spreadsheet software.

Ability to: prepare plans, and estimates for construction or maintenance of transportation facilities; make accurate, neat, and concise engineering calculations, documents, and correspondence; use Computer Aided Design and Drafting (CADD) software, word processing and spreadsheet software, access and extract information from databases, make nonprofessional engineering decisions; perform drafting and mapping. Work with others cooperatively in a project team relationship; communicate effectively, both written and oral, with supervisors, fellow workers, and others. Must have the ability to incorporate new procedures or techniques and be able to receive instruction from the transportation engineer supervisor, leadworker, or designer on a continuous basis.

Analytical Requirements: must be capable of understanding transportation-engineering problems; must have a solid understanding of Geometry and Trigonometry; must understand traverse computations by conventional calculations and by computer applications. Must be able to obtain and analyze information from field survey notes and computer aided design programs; using and processing this information into earthwork quantities. Must know how contract item quantities are computed, and know the method of payment. Must be familiar with safe field review practices.

RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

The incumbent is responsible for the timely initiation and prosecution of project development tasks assigned and that all work complies with all applicable manuals, circular letters and directives. The incumbent is required to coordinate work with Headquarters, other Regions/Districts, their functional units, as well as other involved departments.
Failure to diligently prosecute the above may delay projects, increase cost, and result in a less than satisfactory product.

PUBLIC AND INTERNAL CONTACTS

At all times this assignment requires working effectively with other people. This includes personnel at levels within the North Region, other Districts, Headquarters, local agencies, FHWA, private industry, and the general public.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

Employees will be required to sit for long periods of time using a keyboard and video display terminal. Employee must be congenial and tactful when dealing with others while effectively and cooperatively accomplishing tasks. Frequent telephone interaction is common and necessary. Employees will also work under field conditions, which will entail walking on uneven terrain under variable weather conditions.

WORK ENVIRONMENT

While working in the NRPD office, the incumbent will work in a climate-controlled office under artificial lighting. There will be periodic field trips to project sites, travel to meet with agencies, the public, and for training classes.

During the construction season, the individual may be loaned to construction to work as a construction inspector or materials tester, or in surveys. Incumbent may be required to live away from their permanent residence during the workweek.

When working outdoors, incumbent may be exposed to dirt, noise, uneven surfaces, and/or extreme heat or cold. During field work, use of heavy duty clothes and boots is required. Periodic overtime work and out of town overnight travel may be required. Travel may require the use of State supplied vehicles that vary in size.

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