STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

POSITION DUTY STATEMENT

PM-0924 (REV 7/2014)

CLASSIFICATION TITLE	OFFICE/BRANCH/SECTION	
Transportation Engineer CT/Civil	North Region – District 03 Office of Design North	
WORKING TITLE	POSITION NUMBER	EFFECTIVE DATE
Hydraulics Project Engineer	928-200-3135-	

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 direction of the Hydraulics Design Branch Chief (a Senior Transportation Engineer), the incumbent is responsible for the design and production of engineering reports, contract plans, estimates, and specifications for roadway improvement projects. Work independently and as a team leader within the structure of the Caltrans project development process.

TYPICAL DUTIES:

Percentage	Essential (E)/Marginal (M)[1]	Job Description
50%	E	Responsible to make engineering decisions on a daily basis necessary for solving hydrologic, hydraulic, and transportation engineering problems. Responsible for the design of drainage features associated with highway construction projects. Review or design of complex facilities. Conduct field work to gather hydraulic/hydrologic data. Perform roadway, cross drainage and open channel design/analysis. Responsible for Hydrology development. Conduct Floodplain analysis. Preparation and/or review Drainage Reports and Conceptual Storm Water Pollution Prevention Plan (SWPPP).
25%	E	Conducts drainage studies and prepares recommendations for issues arising from public complaints, encroachment permit applications, Intergovernmental review (IGR) and California Environmental Quality Act (CEQA) documents, tort liability (District Claims Officer or HQ Legal), and issues related to maintenance and other Caltrans functional units.
10%	E	Develop and maintain expertise in applicable software (including Drafting and Roadway Design software), engineering methods, and policy & procedures (including the Caltrans Storm Water Management Plan). Incumbent will be required to facilitate meetings across the North Region
10%	E	Conducts field investigations of drainage structures during storms. May serve on field reconnaissance teams for Major Damage Restoration (HA23). Reviews plans and scoping documents for constructability/hydraulic issues.
5%	M	Maintains accurate inventory of culvert, flooding, and other hydrographic records. Construction support (CCO evaluation, design).

[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 as a lead worker in performing duties.

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

Knowledge of basic principles of physics, chemistry, and mathematics as applied to civil engineering; hydrology and hydraulics engineering principles related to the design of highway cross-drainage, roadway drainage structures, and open

channels; factors which influence the impact of transportation facilities on the environment, the community and the economy. Experience with state-of-the-art hydraulic/hydrologic and Civil Engineering software desirable.

Ability to: understand construction contract plans, facilitate meetings, make effective presentations; prepare correspondence, and reports; communicate effectively both verbally and in writing; relate to and work with interdisciplinary project teams to identify and resolve project issues. Must have engineering computer work station training and experience. Experience in design, construction and surveys are helpful.

Analytical Requirements: include identifying potential conflicts, and adopting an effective courses of action; reviewing project schedules and determining appropriate level and timing of review; recognizing issues that are significant and implementing an effective course of action.

RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

Incumbent is responsible to make engineering decisions on a daily basis which are necessary for solving hydrologic, hydraulic, and transportation engineering problems. Omissions in plans and reports could lead to unnecessary change orders, claims, and delays; errors in judgment could result in a design product of lessor quality, which could increase project construction costs or increase the Department's exposure to tort liability.

PUBLIC AND INTERNAL CONTACTS

Contact with the Region and District functions, Headquarters personnel, outside agencies, and the public.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

Incumbent will be required to sit for long periods of time using a keyboard and video display terminal. Incumbent must be congenial and tactful when dealing with others while effectively accomplishing tasks. Ability to maintain a professional working relationship with Region and District functions, Headquarters personnel, outside agencies, and the public. Ability to facilitate meetings across the North Region. Must be able to guide project teams to issue resolution and be able to build consensus within teams.

WORK ENVIRONMENT

While at their base of operation, incumbent will work in a climate-controlled office under artificial lighting. Most of the time is spent in the Redding Design engineering office. Frequent telephone interaction is necessary. Incumbent will be subject to considerable fieldwork that may require the individual to live away from their permanent residence during the workweek. When working outdoors, employees may be exposed to dirt, noise, uneven surfaces, and/or extreme heat or cold.

This is a North Region Position and may include project assignments within the boundaries of District 1, 2, 3, 4 or other parts of the state. Out of town travel is required. Travel will be required to complete fieldwork, and to attend training and meetings.

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

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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