

**CALIFORNIA DEPARTMENT OF TRANSPORTATION
DUTY STATEMENT**

CLASSIFICATION TITLE Transportation Engineering Technician	DISTRICT/DIVISION/OFFICE District 1 – Maintenance Hydraulics	
WORKING TITLE Maintenance Hydraulics Technician	POSITION NUMBER 901-600-3175-XXXX	EFFECTIVE DATE January 2014

As a valued member of the Caltrans team, you make it possible for the Department to improve the mobility across California by being innovative and flexible; reporting to work as scheduled; working cooperatively with team members and others; and treating others fairly, honestly and with respect. Your efforts are important to each member of the team, as well as those we serve.

GENERAL STATEMENT: Under the general supervision of the District Hydraulics/Major Damage Engineer, a Senior Transportation Engineer, this position is responsible for performing a variety of non-professional transportation engineering work related to the District’s Culvert Inspection Program (CIP), which includes inspecting, recording and managing the District’s culvert inventory and related hydraulic facilities.

TYPICAL DUTIES:

PERCENTAGE

Essential (E)/Marginal (M)¹

JOB DESCRIPTION

- 50% (E) Culvert Inspection
Perform visual and video inspections of culverts and drainage facilities throughout the District. Record condition of facilities, note urgency of needed repairs, and provide recommendations on repair strategies. Use global positioning system (GPS) data collectors to record locations of drainage facilities. Maintain the culvert video inspection equipment and GPS equipment. Aid Caltrans Maintenance forces by providing video inspection necessary for determining the involvement of a drainage facility in a particular problem, and to help determine the feasibility of repairs. Aid Caltrans Construction forces by providing video inspection of drainage facilities when necessary to ensure contract compliance. Coordinate traffic control with Maintenance forces as needed to complete inspections within physically constrained locations.

- 20% (E) Database Management and Equipment Inventory
Manage the District CIP database. Input data from various inspections, reports, and other sources into databases and spreadsheets. Provide feedback to the Statewide CIP on possible improvements to the database. Provide vendor information and cost estimates to other staff regarding the purchasing or repair of culvert inspection equipment.

- 10% (E) Drainage Investigations
Investigate issues and public complaints related to State-owned hydraulic facilities, and provide recommendations on repair strategies.

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.

10% (E) Project Initiation and Development

Use the CIP database to identify culverts and drainage facilities to be included in future projects within the HM2-151 and SHOPP 151 project programs. Develop preliminary repair strategies and cost estimates. Assist in further developing HM2-151 projects, including the production of plan sheets and various documents.

10% (M) Support and Other Duties

Provide support to the Major Damage Coordinator regarding storm damage investigations, perform construction inspection on maintenance projects, and other technical duties as assigned.

SUPERVISION EXERCISED OVER OTHERS

The incumbent does not supervise other employees, but may have leadworker responsibility (at times) over other field staff.

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

- Knowledge of methods, materials, tools, and equipment used in the construction and maintenance of highway drainage facilities.
- Ability to make accurate engineering calculations and perform mathematical computations using calculators and personal computers.
- Ability to communicate effectively, orally and in writing, with co-workers and staff in other Caltrans functional units.
- Ability to prepare neat and accurate computations, notes, and reports.
- Ability to establish and maintain fair, courteous, and cooperative relationships with co-workers and others, and to create and maintain a professional workplace.
- Ability to analyze a variety of drainage problems and develop engineering solutions.
- Ability to read and interpret contract plans and specifications.
- Basic literacy in Microsoft Office applications (Excel, Access, Word).

CONSEQUENCE OF ERROR & RESPONSIBILITY FOR DECISIONS

Errors in judgment, calculations, and recommendations could result in increased costs, or adversely affect the health and safety of employees and the public.

PUBLIC AND INTERNAL CONTACTS

Contact with the public is minimal. Partnering and cooperation with field maintenance, and with other Departmental forces, is frequent.

WORK ENVIRONMENT

Work is largely outdoors, alongside highways and freeways. At times, will work adjacent to high-speed traffic. Work is often on steep slopes, slippery surfaces, and in and near flowing channels, at times exposed to sun, wind, rain, or snow. Exposure to heavy brush, including poison oak, and exposure to ticks, spiders, and snakes is common. Some work will be in climate-controlled offices under artificial lighting, and at a computer terminal. While working indoors, may spend hours at a time at a computer terminal. Field reviews during or immediately after large storm events, which requires driving/traveling under adverse conditions, including wind and rain, may be required.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

Employee must be able to regularly drag an 80 pound wheeled inspection camera up slopes as steep as 1:1. Must be able to traverse steep, rough, and brushy slopes to reach drainage facilities. Must be able to enter culverts for inspection, with appropriate safety gear and training. Must be able to also work at a computer terminal for hours at a time to complete work assignments. Must be able to work independently and in small teams. Must be able to work efficiently, and to effectively manage time and tasks. Extensive travel is often required, and employee must be able to work away from the office for weeks at a time.

I have read and understand the duties described above, and can perform them with/without reasonable accommodation. (If you believe you may require reasonable accommodation, please discuss this with the 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's Name

Signature Date

I have discussed the duties with and provided a copy of this duty statement to the employee named above.

Supervisor's Name

Signature Date