STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

POSITION DUTY STATEMENT

PM-0924 (REV 9/2013)

CLASSIFICATION TITLE	OFFICE/BRANCH/SECTION	
Electrical Engineering Technician II	07/Operations/Permits-Traffic Monitoring	
WORKING TITLE	POSITION NUMBER	EFFECTIVE DATE
Electrical Engineering Technician II	907-397-3627-003	03/03/2014

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 direction of a Transportation Engineer, Civil, the incumbent receives direction and oversight to install and remove traffic data collection equipment, facilitates accurate and timely collection of traffic data, assists in identification and completion of work assignments, repairs and maintains traffic monitoring equipment, investigates and remedies if necessary, questionable data collection. A valid class 'C' driver's license is desireable.

TYPICAL DUTIES:

Percentage	Essential (E)/Marginal (M)[1]	Job Description
60%	E	DATA COLLECTION - Incumbent sets, monitors, and observes placement and operating condition of various types of data collection equipment such as Pneumatic Tube Counters (PEEK), Loop Detector Equipment (ADR), Loop Detector Equipment (Wizard). Incumbent programs field equipment and retrieves data using a laptop computer. Maintains log of work performed, the analysis of information performed, identification of problems, field conditions of concern, and presents information to lead person for consideration and direction. The incumbent will travel across the district for Data Collection duties. This travel will be in both urban and rural areas frequently using congested highways.
25%	E	EQUIPMENT MAINTENANCE AND REPAIR – Receives reports of potential traffic data collection discrepancies and or missing data. Investigates in-field and determines if justified based upon known or observed field changes (construction or maintenance activities), and makes repairs to equipment if necessary. Where field equipment cannot be repaired into working order, the incumbent replaces or exchanges equipment in the field, and brings nonfunctioning equipment into the Traffic Monitoring Shop for testing and further analysis. Incumbent adjusts, calibrates various types of equipment, and troubleshoots using different types of electronic test equipment. Incumbent may solicit assistance when necessary in the repair and or maintenance of electronic equipment from an Electrical Engineer Technician III, the Transportation Engineer Civil, or the Division of Maintenance. This would include the repair and maintenance of Traffic Monitoring equipment. In the performance of their duties, to include maintenance and repair of equipment, the incumbent may be required to travel in urban and rural settings, and travel along congested highways. Travel will normally be limited within the District, and to the Burbank Traffic Monitoring shop.
10%	M	DATA PROCESSING – Upload data to/from laptop computers. Format reports for incorporation into database information systems. Generate and verify reports. Identify errors and work with Transportation Engineer Civil to formulate solutions and resolve issues/problems.
5%	M	CONTRACT OVERSIGHT – In combined effort with other Caltrans functional units, provide oversight to vendors and or contractors while they are installing, repairing, and/or monitoring equipment involved in traffic data collection activities.

[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.

ADA Notice For individuals with sensory disabilities, this document is available in alternate formats. For information, call (916) 654-6410, TTY 711, or write to Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

POSITION DUTY STATEMENT

SUPERVISION OR GUIDANCE EXERCISED OVER OTHERS

This position does not supervise other employees.

KNOWLEDGE, ABILITIES AND ANALYTICAL REQUIREMENTS

Knowledge of electrical, electronic, and associated systems, electrical and electronic materials, components, installation and construction methods.
Knowledge of state of the art technology, personal computers, power and lighting systems, highway traffic signal systems, communication systems, electrical control, schematic, and wiring diagrams.
Knowledge of Caltrans Safety and Health policies, practices, and procedures.
Ability to follow directions, prepare documents, plans, drawings, for electrical and electronic work.
Ability to use state of the art technology including personal computers (word processing, databases, spreadsheets, email systems, and other software as necessary for data collection)
Ability to work independently, perform manufacturing and repair of electrical and electronic equipment (of average difficulty).
Ability to work successfully with others
Extensive knowledge of Model 332/334 Controller Cabinets, Type 170 and Type 2070 Controllers, various traffic data collection equipment and the design of traffic monitoring stations (inductive loop detectors, piezo-electric axle sensors).
Ability to communicate effectively verbally and in writing.
Ability to assume increased responsibility.
Ability to analyze data to identify inconsistencies and identify cause.

RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

The position requires the ability to make decisions and take appropriate actions while working without constant supervision in the field. The consequences of incorrect decisions or actions can negatively impact the equipment, collection of data, and create a unsafe environment for the public. Failure to provide a timely response to problems or circumstances can further affect the collection and analysis of data, could result in missed deadlines, loss of funding, and subsequent non-delivery of transportation projects. Errors in judgment and decisions could affect public safety and/or result in tort liability for the Department.

PUBLIC AND INTERNAL CONTACTS

The incumbent will work with, and/or have contact with, Caltrans employees, vendors, utility companies, law enforcement agencies, and the general public. These interactions are not limited to oral, written, electronic, or participation in meetings.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

In adherence with sound safety practices, while performing the duties of this position, using various tools and/or personal computer; the incumbent may be required to bend, stoop, kneel, carry, stand, or sit for prolonged periods of time while lifting and placing a variety of traffic control equipment, crossing live traffic lanes, installing pneumatic rubber vehicle counters (tubes) with pavement nails (and hammer) and tape, placing Automatic Vehicle Detection (ADR) equipment that weighs approximately 10 to 15 pounds on the shoulders and securing with chain to existing features, working on or near live or dead electrical circuits, and verification of functional equipment. In addition, incumbent may operate a ½ or ¾ ton van with equipment, or work on a keyboard requiring manual dexterity.

The incumbent will generally be working alone, frequently adjacent to high volume/speed highways. On occasion the incumbent may be working independently on more remote highways, in rural areas, in mountainous areas requiring long drives.
Incumbent must have the ability to concentrate, to multi-task, adapt to changes in priorities, and complete tasks or projects with short notice. Must have the ability to grasp the essence of new information, master new technical knowledge, develop new insights into situations, formulate and apply effective strategies in the completion of the assigned duties.

Incumbent must be able to develop and maintain cooperative working relationships, function as part of a team to solve problems/issues and complete tasks as the duties may dictate. Must be able to adjust and adapt to change, deal effectively with pressure, maintaining focus and persistence, even under adverse conditions.

WORK ENVIRONMENT

This is predominately a field position in which incumbent will be required to travel and work outdoors, and may be

exposed to traffic conditions to include dirt, noise, uneven surfaces, high-speed traffic, high-volume traffic, and/or extremes in heat or cold temperatures in urban or rural areas.

Setting and of checking data collection devices/equipment may require the incumbent to cross live traffic lanes, which must be in accordance with sound safety practices.

While at their base of operation, the incumbent will 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.

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)

Lee Rennacker

SUPERVISOR (Signature)	DATE