

CALIFORNIA DEPARTMENT OF TRANSPORTATION
 Division of Traffic Operations
 POSITION DUTY STATEMENT
 PARF 51-4-065

CLASSIFICATION TITLE	DISTRICT/DIVISION/OFFICE	
RESEARCH ANALYST II – GENERAL	District 51, Division of Traffic Operations, Office of Performance	
CLASSIFICATION TITLE	POSITION NUMBER	EFFECTIVE
RESEARCH ANALYST II - GENERAL	913-350-5731-xxx	

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 general supervision of the Chief, Traffic Data Branch, the Research Analyst II is responsible for research and independent analysis relative to statistical work in the day-to-day operations of the Traffic Census Program, Truck Weight Study Program, and the Mobility Performance Report. Federal Highway Administration and Caltrans policies and procedures govern these programs.

TYPICAL DUTIES:

Percentage: Job Description

30% (E) Researches, constructively scrutinizes, and formulates standards to evaluate traffic census data collected at various locations on the State Highway System (SHS) for preparation of the Monthly Vehicle Miles of Travel Report for submittal to the Federal Highway Administration and other interested parties. Independently examines quantitative data from the SHS to ensure that federal data reporting requirements are met. Generates statistical studies of Monthly Vehicle Miles of Travel Report data to ensure data quality standards are met. Independently examines monthly reports of this data for the Federal Highway Administration (FHWA) to incorporate into the national Traffic Monitoring Program and Truck Weight Study.

30% (E) Provides program development of the Traffic Census program. Researches statewide and district workload standards for the Traffic Census program. Develops, implements, and monitors systems and procedures of the Traffic Census program. Communicates and coordinates with Caltrans Districts and Headquarters staff on Traffic Census and traffic count production. Coordinates with District and HQ staff to track the Traffic Census elements and infrastructure across the state. Applies exploratory research, which structures and identifies new resource problems impacting the allocation levels to the program. Conducts constructive research, which will develop solutions to any identified deficiencies in the Traffic Census program. Conducts constructive research, which will develop solutions to improve data production in Traffic Census. Creates technical research on resources available to districts for Traffic Census. Interpret data to calculate additional Traffic Census resource needs. Provides independent examination of the Traffic Census program and data analysis for data customers. This task ensures that Traffic Census resource needs are met. Provides contract management for contracts related to data reporting and analysis of the Traffic Census program and other traffic data programs. Seeking input and feedback from stakeholders to further improve

program functions, makes presentations to HQ and District staff regarding the Traffic Census program.

- 20% (E) Directs the production of the Mobility Performance Report (MPR) bottleneck maps as the project manager. Develops the excel bottleneck workbook. Directs bottleneck workbook processing and completion with District technical personnel to examine and evaluate District bottleneck data from PeMS. Generates District submissions, performs quantitative statistical research on submissions, and leads map production on verified workbooks with GIS personnel. Researches mapping with GIS personnel and District personnel through creation of KMZ, PDF, and JPEG map versions. This research ensures that the bottleneck mapping accurately reflects the actual bottlenecks on the ground. Examines changes to workbooks and iteratively maps bottlenecks for review by District personnel. Provides final version of maps in JPEG format to the MPR project manager. Coordinates the development of the aggregate statewide KMZ file with GIS personnel and coordinates the inclusion of the statewide KMZ file as a layer in CT Earth. Coordinates with GIS and District personnel to improve the reporting and mapping process.
- 10% (E) Using web authoring programs such as Dreamweaver, Front Page, and Adobe Illustrator, develops, and posts on Caltrans web site monthly travel statistical reports and graphs. Will also post the three annual publications produced by the Traffic Data Unit.
- 10% (M) Researches and develops speed monitoring data. Ensures data compiled is providing accurate speeds on the State Highway System. Creates a speed report from various locations illustrating hourly speeds and statistical summaries to California Highway Patrol and FHWA.

Essential (E)/Marginal (M)¹

SUPERVISION EXERCISED OVER OTHERS

This position does not supervise other employees.

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

Knowledge of the Department's mission & vision, goals and values; organizational structure; Director's Policies and Deputy Directives; Division principles; and Office/Branch functions, procedures and processes is desirable.

Knowledge of statistical procedures and research methods including the ability to generate and interpret numerical and written data. Plan studies and investigations, write effectively, and prepare research and statistical reports as required. Incumbent should possess understanding and commitment of departmental policies and procedures to effectively design and implement research-related projects. Reason logically and creatively and use a variety of analytical techniques and computer software to resolve problems or provide traffic data. Develop and evaluate alternatives, consult with and advise interested parties on traffic data issues. Ability to develop PC base spreadsheets and databases. Knowledge of relational database concepts. Must be able to organize data and use statistical techniques in the initiation, coordination, and monitoring of data collection functions.

Knowledge of or ability to learn specific Web authoring software such as Dreamweaver, Front Page, and Adobe PageMaker and Photoshop.

Incumbent must have the ability to: adopt and apply formal research methods and principles to research problems of an applied practical nature and generate, formulate, and examine data; prepare research and statistical reports; assemble written and numerical data regarding general governmental problems; speak and write effectively; reason logically and creatively, and use a variety of statistical techniques to resolve or provide information regarding complex governmental and managerial problems; develop and evaluate alternatives; consult with and advise administrators or other interested parties on a wide variety of subject-matter areas; gain and maintain the confidence and cooperation of others; examine problems accurately; develop appropriate solutions and recommend effective optional courses of action; identify improvements, and originate and develop new solutions that depart from traditional and existing patterns; assume increased responsibility; be flexible; and work effectively with others.

CONSEQUENCE OF ERROR/RESPONSIBILITY FOR DECISIONS

As a member of the Traffic Data unit incumbent is responsible for maintaining a high level of service to other Headquarters units, Districts, our private partners, and the public. Failure to perform assigned tasks properly may result in sanctions against the State by the Federal government up to and including the loss of program funding. Improper reporting of data will affect other Caltrans programs since it is a basic element of most highway programs.

PUBLIC AND INTERNAL CONTACTS

Independently confers and consults with various programs with Headquarters (Maintenance, Operations, Information Services, Legal, Service Contracts, Transportation System Information, Public Affairs) and District offices. External contacts include Federal Highway Administration, California Highway Patrol, local agencies, private engineering, and planning firms and the public.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

Incumbent may be required to sit for long periods of time using a keyboard and video display terminal. Incumbent must be able to interact with many people. It is important that the incumbent work with others in a cooperative manner. Incumbent should be able to deal effectively with pressure, maintain focus, and intensity yet remain optimistic and persistent, even under adversity. Incumbent must be open to change and new information; adapt behavior and work methods in response to new information, changing conditions, or unexpected obstacles.

Incumbent must behave in a fair and ethical manner toward others and demonstrate a sense of responsibility and commitment to public service. Incumbent must value cultural diversity and other individual differences in the workforce.

Incumbent must have the ability to multi-task, adapt to changes in priorities, and complete tasks or projects with short notice. Incumbent should be able to concentrate in order to review and create documents and meet strict deadlines at times. Incumbent must grasp the essence of new information and master new technical and business knowledge that will meet the directives of the Division. Incumbent should understand new and long-range plans and be able to determine how best to be position the Division to achieve a competitive advantage in transportation research.

WORK ENVIRONMENT

The incumbent will primarily work in a high-rise building. Normally the employee will work in a climate-controlled office under artificial lighting. However, due to periodic problems with the heating and air conditioning, the building temperature may fluctuate. The environment is fast-paced, demanding and busy; and requires considerable flexibility in managing time, priorities and assignments.

I have read, and understand the duties listed above and can perform them either with or without reasonable accommodation. (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

Date

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

Chad Riding
Supervisor

Date