STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

POSITION DUTY STATEMENT

DOT PM-0924 (REV 01/2025)

CLASSIFICATION TITLE	OFFICE/BRANCH/SECTION	
Research Data Specialist II	District 8 Right of Way / Right of Way Engineering	
WORKING TITLE	POSITION NUMBER	REVISION DATE
GIS Lead & Data Analyst	908-400-5758-XXX	08/17/2026

As a valued member of the Caltrans team, you make it possible to improve lives and communities through transportation.

GENERAL STATEMENT:

Under the general direction of a Senior Transportation Surveyor, the incumbent's main function is to design spatial applications using the Department's geospatial analytical tools (ex: ESRI GIS applications, Arc GIS Pro, etc.) to deliver process' and products that solve complex problems and provides information to management. The incumbent will also oversee other products developed by peers and provide support and data for other staff to complete their duties. With an advanced level of knowledge the incumbent will lead and develop projects that study, analyze and develop conclusions based on the spatial analysis of various subjects, some of which are land use, transportation planning, land surveying, and project development.

CORE COMPETENCIES:

As a Research Data Specialist II, the incumbent is expected to become proficient in the following competencies as described below in order to successfully perform the essential functions of the job, while adhering to and promoting the Department's Mission, Vision, Values, Strategic Imperatives and Goals. Effective development of the identified Core Competencies fosters the advancement of the following Leadership Competencies: Change Commitment, Risk Appetite, Self-Development/Growth, Conflict Management, Relationship Building, Organizational Awareness, Communication, Strategic Perspective, and Results Driven.

- **Creativity and Innovation:** Thinks beyond the confines of traditional models to recognize opportunities, seek creative solutions and take intelligent risks. (Employee Excellence - Innovation)
- **Dealing with Ambiguity (Risk):** Can comfortably handle risk and uncertainty, as well as make decisions to act without having the total picture. (Prosperity - Integrity, Stewardship)
- **Continuous Professional Development:** Seeks to obtain knowledge and improve performance while supporting others in doing the same. (Employee Excellence - Pride)
- **Problem-solving and Decision-making :** Identifies problems and uses logical analysis to find information, understand causes, and evaluate and select or recommend best possible courses of action. (Employee Excellence - Innovation)
- **Teamwork and Collaboration:** Sets team structure. Organizes, leads, and facilitates team activities. Promotes team cooperation and encourages participation. Capable of cross functionality and working well with others on a team to achieve personal goals, team goals, and organizational goals. Takes responsibility for individual actions in order to achieve consistent results. (Equity - Collaboration, Stewardship)
- **Customer Focus:** Considers, prioritizes, and takes action on the needs of both internal and external customers. (Employee Excellence - Integrity)
- **Communication:** Expresses oneself clearly in all forms of communication. Gives feedback and is receptive to feedback received. Knows that listening is essential. Keeps others in the Division and other functional units informed as appropriate. (Employee Excellence - Collaboration)
- **Analytical Skills:** Approaches problems using a logical, systematic, and sequential approach. Weighs priorities and recognizes underlying issues. (Employee Excellence - Innovation)
- **Technical Expertise:** Depth of knowledge and skill in a technical area. (Employee Excellence - Collaboration, Innovation, Integrity)

TYPICAL DUTIES:

Percentage	Essential (E)/Marginal (M)[1]	Job Description
25%	E	Lead GIS development for the District 8 Right of Way Engineering (RWE) GIS Branch by identifying opportunities to enhance project reporting through advanced GIS mapping and dashboard solutions (e.g., Tableau).Serve as project intake coordinator for the D8 RWE GIS Branch, assisting units / divisions with proposed GIS projects and developing implementation plans. Ensure all GIS data and applications comply with Caltrans data governance standards and D8 RWE GIS workflows.

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25%	E	Incumbent develops and performs advanced GIS research and analysis on project development and asset management efforts in support of District 8 and Caltrans. This advanced research and analysis is complex in nature, utilizing GIS methods and techniques which include python scripting, java scripting, development of geospatial data, imagery, applications, tools and models. Incumbent uses this advanced research and analysis to identify, assess and develop spatial data and application needs. Using sound conclusions the Incumbent develops applications, data management plans, and innovative technology based solutions to meet these needs.
25%	E	Train staff in the use of GIS reports and visualizations by developing clear documentation, including data dictionaries and metadata within the Enterprise Portal. Design, develop, and maintain geospatial databases for the District 8 Right of Way Engineering (RWE) GIS Branch using advanced GIS methods. Lead data collection efforts and coordinate with team members to integrate information from departmental geospatial, project management, asset management systems, and other authoritative sources, supporting both modern and legacy database environments.
15%	E	Participate in Enterprise Data Governance Committee, Statewide GIS, and other required meetings, including collaboration sessions and demonstrations. Design, develop, and maintain GIS services using the Department's Enterprise GIS platform in coordination with the HQ GIS unit. Apply advanced knowledge of server-based GIS systems to publish services and develop web mapping applications. Serve as the D8 RWE GIS data steward and primary publisher of web maps, ensuring data integrity, accessibility, and alignment with enterprise standards.
5%	M	Incumbent provides ArcGIS desktop and GIS tool training specific to Caltrans data and participates in outreach to identify user needs. The incumbent engages in partnership activities within District 8, Caltrans HQ, local government agencies and other partners related to the development of geo-spatial data and products.
5%	M	Incumbent will participate on committees and working groups as the representative of the District 8 RWE GIS unit.

[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

The incumbent works under the general supervision of a Senior Transportation Surveyor (Branch Chief). The incumbent will lead research projects and project intake activities. This position does not supervise other employees but will be required to be lead over other employees work at times.

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

This position requires the ability to independently and successfully perform complex research and analysis projects involving various types of digital spatial data, techniques, and methodologies associated with geographic information systems (GIS). The position requires the ability to work cooperatively and effectively with others. The position requires general understanding of journeyman level research and statistical methods. The work is complex, frequently requiring innovation, flexibility, good organization, teamwork and problem solving skills.

An RDS must have an advanced knowledge of GIS techniques and methodologies to develop data, tools, and models.
The following are the knowledge, abilities, and analytical requirements necessary for this position:
Experience with Environmental Systems Research Institute, Inc. (ESRI) enterprise and desktop GIS software products;
Communicate effectively at a level required for successful job performance;
Interact in a professional manner with all levels of department staff;
Compiles, makes or revises geospatial products, maps, charts, and diagrams;
Exercises good judgment in providing assistance, consultation, and communication with all levels of departmental staff and management,
including external entities such as consultants or vendors;
Assists in mentoring other staff who may be less knowledgeable or less experienced in GIS technology;
Advanced knowledge of GIS software and strong familiarity with relational database design as it applies to GIS software;
Strong knowledge of cartographic principles, spatial analysis, and databases;
Analyze situations accurately and take effective action;
Ability to train team members and end users on GIS data and applications;
Ability to conduct research into GIS issues and products as required;
Prepare reports;
Understand and practice current Safety procedures as described in the Code of Safe Surveying Practices and the Caltrans Illness and Injury
Prevention Program;

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Recognize and immediately report any possible hazards or safety violation that may adversely affect property, employees, or the general
public.
Ability to work independently and without direct supervision.

RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR
The RDS is responsible for assisting the supervisor in an office setting. Errors in judgment or decisions could result in project delays, rework or the production of unnecessary work. Inaccurate or incomplete work may result in added costs, or litigation, and reflect negatively on the program and the Department. The effects of poor decisions relating to any of these items could translate into additional delays, costs, or claims against the State of California.

PUBLIC AND INTERNAL CONTACTS
The employee will routinely contact other Caltrans personnel, surveying/engineering consultants, personnel from other State agencies,personnel from other government agencies and the public.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS
Physical ~ Ability to handle frequent, substantial, or unexpected workload changes, which can dictate the rescheduling or reassigning of work, as needed; ~ Ability to work on a keyboard using fine motor manipulation; ~ Ability to sit for a long duration and to perform tasks using a personal computer; ~ Ability to perform activities requiring occasional bending, stooping, lifting, and kneeling.
Mental ~ Ability to multi-task and adapt to a change in priorities; ~ Ability to complete tasks or projects on short notice; ~ Ability to maintain sustained mental alertness and concentration for prolonged periods of time, while performing assigned tasks relating to various projects; ~ Ability to effectively communicate ideas, issues, and possible solutions, as they relate to a particular task or project.
Emotional ~ Ability to work with others to develop and maintain cooperative relationships, as the position requires interaction with surveying personnel, office personnel and the supervisor; ~ Ability to establish and maintain friendly, business-like relations with individuals contacted in the course of the work; ~ Ability to handle irate public individuals in a calm manner. ~ Ability to deal effectively with pressure, maintain focus and intensity, yet remain optimistic and persistent, even when working under adverse conditions; ~ Be open to change and adaptable in behavior and work methods, when presented with new ideas, changing conditions, or unexpected obstacles; ~ Behave in a fair and ethical manner towards others; ~ Demonstrate a sense of responsibility and commitment to public service; ~ Value cultural diversity and individual differences in the workforce.

WORK ENVIRONMENT
This position may be eligible for telework. The amount of telework is dictated by the Office of the Governor and based on Caltrans's evolving telework policy. All employees are expected to report to their designated headquarters location on their in-office days. Caltrans supports telework, recognizing that in-person attendance may be required based on operational needs. Employees are expected to be able to report to their worksites with minimum notification if an urgent need arises. The selected candidate will be required to commute to the headquartered location as needed to meet operational needs. Business travel may be required, and reimbursement considers an employee's designated headquartered location, primary residence, and may be subject to CalHR regulations or applicable bargaining unit contract provisions. All commute expenses to the headquartered location will be the responsibility of the selected candidate. Working hours will be set sometime between 7:00 a.m. and 5:00 p.m. ~ Normal work assignments are within District 8, which includes San Bernardino and Riverside Counties, but on occasion may include field work outdoors or temporary work assignments statewide; ~ Overtime may be required and vacations may be restricted, as departmental workload dictates; ~ Assigned outdoor tasks may occur in various types of terrain and weather conditions, and include exposure to dirt, noise, traffic, and moving across uneven surfaces.

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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.)

I agree that by providing my electronic signature for this form, I agree to conduct business transactions by electronic means and that my electronic signature is the legal binding equivalent to my handwritten signature. I hereby agree that my electronic signature represents my execution or authentication of this form, and my intent to be bound by it.

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

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POSITION DUTY STATEMENT

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CLASSIFICATION TITLE	OFFICE/BRANCH/SECTION	
Research Data Specialist I	District 8 Right of Way / Right of Way Engineering	
WORKING TITLE	POSITION NUMBER	REVISION DATE
GIS Lead & Data Analyst	908-400-5742-XXX	08/17/2026

As a valued member of the Caltrans team, you make it possible to improve lives and communities through transportation.

GENERAL STATEMENT:

Under the general direction of a Senior Transportation Surveyor, the incumbent will assist with leading a wide variety of geographic information systems (GIS) efforts for Caltrans District 8. The incumbent will perform advanced research and analysis based on GIS techniques and methodologies. With an advanced level of knowledge the incumbent will lead and develop projects that study, analyze and develop conclusions based on the spatial analysis of various subjects, some of which are land use, transportation planning, land surveying, and project development.

CORE COMPETENCIES:

As a Research Data Specialist I, the incumbent is expected to become proficient in the following competencies as described below in order to successfully perform the essential functions of the job, while adhering to and promoting the Department's Mission, Vision, Values, Strategic Imperatives and Goals. Effective development of the identified Core Competencies fosters the advancement of the following Leadership Competencies: Change Commitment, Risk Appetite, Self-Development/Growth, Conflict Management, Relationship Building, Organizational Awareness, Communication, Strategic Perspective, and Results Driven.

- **Creativity and Innovation:** Thinks beyond the confines of traditional models to recognize opportunities, seek creative solutions and take intelligent risks. (Prosperity, Employee Excellence - Collaboration, Innovation, People First, Stewardship)
- **Decision Making:** Makes critical and timely decisions. Takes charge. Supports appropriate risk. Makes challenging and appropriate decisions. (Safety, Equity, Climate Action, Prosperity, Employee Excellence - Collaboration, Equity, Innovation, People First, Stewardship)
- **Continuous Professional Development:** Seeks to obtain knowledge and improve performance while supporting others in doing the same. (Equity, Prosperity, Employee Excellence - Collaboration, Equity, People First, Pride)
- **Problem-solving and Decision-making :** Identifies problems and uses logical analysis to find information, understand causes, and evaluate and select or recommend best possible courses of action. (Climate Action, Prosperity, Employee Excellence - Collaboration, Equity, Innovation, People First, Stewardship)
- **Relationship Building:** The ability to develop and maintain internal and external trust and professional relationships, which includes listening and understanding to build rapport. (Equity, Employee Excellence - Collaboration, Equity, Integrity, People First, Pride)
- **Customer Focus:** Considers, prioritizes, and takes action on the needs of both internal and external customers. (Equity, Prosperity, Employee Excellence - Collaboration, Equity, Integrity, People First, Pride, Stewardship)
- **Communication:** Expresses oneself clearly in all forms of communication. Gives feedback and is receptive to feedback received. Knows that listening is essential. Keeps others in the Division and other functional units informed as appropriate. (Equity, Prosperity, Employee Excellence - Collaboration, Equity, Integrity, People First, Pride)
- **Analytical Skills:** Approaches problems using a logical, systematic, and sequential approach. Weighs priorities and recognizes underlying issues. (Safety, Equity, Climate Action, Prosperity, Employee Excellence - Collaboration, Innovation, Integrity, Stewardship)
- **Technical Expertise:** Depth of knowledge and skill in a technical area. (Safety, Equity, Climate Action, Prosperity, Employee Excellence - Collaboration, Innovation, Stewardship)

TYPICAL DUTIES:

Percentage	Essential (E)/Marginal (M)[1]	Job Description
30%	E	With assistance from the branch chief the incumbent preforms the duty of project intake coordinator for District 8. As project intake coordinator the incumbent will assist business areas with proposed GIS projects. The incumbent will develop a project plan to implement the GIS project with guidance from the business area. The incumbent will have working knowledge of Caltrans data governance and workflows, so that the creation of new GIS data or applications adheres to Caltrans policy. These projects are often very complex or sometimes routine such as moving a dataset from excel to a geo-database.

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25%	E	Under the general supervision of the branch chief the incumbent develops and performs advanced GIS research and analysis on project development and asset management efforts. This advanced research and analysis is complex in nature, utilizing GIS methods and techniques which include python scripting, java scripting, development of geo-spatial data, imagery, applications, tools and models. Incumbent uses this advanced research and analysis to identify, assess and develop spatial data and application needs. Using sound conclusions the Incumbent develops applications, data management plans, and innovative technology based solutions to meet these needs.
15%	E	Under the general supervision of the branch chief the incumbent designs, develops and maintains geospatial databases using complex GIS methods and techniques. The incumbent will assist a team and gather the information to populate these databases from Department geospatial, project management, and asset management databases as well as other authoritative sources. These databases can consist of both modern and legacy types.
10%	E	Under the general supervision of the branch chief the incumbent designs, develops and maintains GIS services utilizing the Departments Enterprise GIS system operated and maintained by the HQ GIS unit. Working in conjunction with the HQ GIS unit the incumbent will use advanced knowledge of server based GIS systems to publish and create web mapping applications. Incumbent will be the business data steward of the unit and primary publisher of unit's web map.
10%	E	Under the general supervision of the branch chief the incumbent performs the duties of District 8 GIS Coordinator. These include the dissemination of GIS information to all GIS users in District 8. With the assistance of the branch chief the incumbent will lead GIS user group meetings.
5%	M	Under the general supervision of the branch chief the incumbent provides ArcGIS desktop and GIS tool training specific to Caltrans data and participates in outreach to identify user needs. The incumbent engages in partnership activities within District 8 of Caltrans, Caltrans HQ, local government agencies and other partners related to the development of geo-spatial data and products.
5%	M	Incumbent will assist the branch chief on committees and working groups as a representative 5% M of District 8's unit.

[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

The incumbent works under the general supervision of a Senior Transportation Surveyor (Branch Chief). The incumbent will lead research projects and project intake activities. This position does not supervise other employees.

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

This position requires the ability to independently and successfully perform complex research and analysis projects involving various types of digital spatial data, techniques, and methodologies associated with geographic information systems (GIS). The position requires the ability to work cooperatively and effectively with others. The position requires general understanding of journeyman level research and statistical methods. The work is complex, frequently requiring innovation, flexibility, good organization, teamwork and problem solving skills.

An RDS must have an advanced knowledge of GIS techniques and methodologies to develop data, tools, and models.
The following are the knowledge, abilities, and analytical requirements necessary for this position:
Experience with Environmental Systems Research Institute, Inc. (ESRI) enterprise and desktop GIS software products;
Communicate effectively at a level required for successful job performance;
Interact in a professional manner with all levels of department staff;
Compiles, makes or revises geospatial products, maps, charts, and diagrams;
Exercises good judgment in providing assistance, consultation, and communication with all levels of departmental staff and management,
including external entities such as consultants or vendors;
Assists in mentoring other staff who may be less knowledgeable or less experienced in GIS technology;
Advanced knowledge of GIS software and strong familiarity with relational database design as it applies to GIS software;
Strong knowledge of cartographic principles, spatial analysis, and databases;
Analyze situations accurately and take effective action;
Ability to train team members and end users on GIS data and applications;
Ability to conduct research into GIS issues and products as required;
Prepare reports;
Understand and practice current Safety procedures as described in the Code of Safe Surveying Practices and the Caltrans Illness and Injury

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Prevention Program;
Recognize and immediately report any possible hazards or safety violation that may adversely affect property, employees, or the general
public.
Ability to work independently and without direct supervision.

RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR
The RDS is responsible for assisting the supervisor in an office setting. Errors in judgment or decisions could result in project delays, rework or the production of unnecessary work. Inaccurate or incomplete work may result in added costs, or litigation, and reflect negatively on the program and the Department. The effects of poor decisions relating to any of these items could translate into additional delays, costs, or claims against the State of California.

PUBLIC AND INTERNAL CONTACTS
The employee will routinely contact other Caltrans personnel, surveying/engineering consultants, personnel from other State agencies, personnel from other government agencies and the public.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS
Employee may be required to sit for long periods of time using a keyboard and video display terminal. He or she may also be required to move large or cumbersome plans and diagrams from one location or another. He or she may be required to stand for periods of time operating survey instruments or office devices such as optical scanners. May be required to drive long distances.

WORK ENVIRONMENT
This position may be eligible for telework. The amount of telework is dictated by the Office of the Governor and based on Caltrans's evolving telework policy. All employees are expected to report to their designated headquarters location on their in-office days. Caltrans supports telework, recognizing that in-person attendance may be required based on operational needs. Employees are expected to be able to report to their worksites with minimum notification if an urgent need arises. The selected candidate will be required to commute to the headquartered location as needed to meet operational needs. Business travel may be required, and reimbursement considers an employee's designated headquartered location, primary residence, and may be subject to CalHR regulations or applicable bargaining unit contract provisions. All commute expenses to the headquartered location will be the responsibility of the selected candidate. Working hours will be set sometime between 7:00 a.m. and 5:00 p.m. ~ Normal work assignments are within District 8, which includes San Bernardino and Riverside Counties, but on occasion may include field work outdoors or temporary work assignments statewide; ~ Overtime may be required and vacations may be restricted, as departmental workload dictates; ~ Assigned outdoor tasks may occur in various types of terrain and weather conditions, and include exposure to dirt, noise, traffic, and moving across uneven surfaces.

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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.)

I agree that by providing my electronic signature for this form, I agree to conduct business transactions by electronic means and that my electronic signature is the legal binding equivalent to my handwritten signature. I hereby agree that my electronic signature represents my execution or authentication of this form, and my intent to be bound by it.

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

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