

JOB DESCRIPTION AND POSITION CLASSIFICATION

CLASSIFICATION Transportation Surveyor (Caltrans)		DWR POSITION NUMBER 3260-3029-027	SAP POSITION NUMBER 50001223	MCR 1
APPOINTEE VACANT		SAP PERSONNEL NO. TBD	DIVISION/SECTION DOE / GB / Photogrammetry & Computer Mapping	
COLLECTIVE BARGAINING IDENTIFIER Management Related BU: ☐ Supervisory Related BU: ☐ Confidential Related BU: ☒ Rank and File BU: R09				
RESPONSIBILITIES EXERCISED ☐ Supervisory ☐ Lead Person		IMMEDIATE SUPERVISOR (Print) James Campbell	SUPERVISOR'S CLASSIFICATION Senior Land Surveyor	
APPROVED BY (Personnel Analyst's Name) Estevez Contreras			DATE 09/03/2026	
<i>Percent of Time</i>	<i>Activity</i>			
	POSITION SUMMARY Under the direction of the Senior Land Surveyor or Geomatics Branch Manager, the incumbent performs LiDAR point cloud registrations and classification, production and quality assurance of digital terrain models and digital elevation models generated from various point clouds (LiDAR, Structure from Motion, Sonar), field surveys and photogrammetric data sources, and computer-aided design (CAD) map assembly for production and quality assurance of digital data generated from various photogrammetric, LiDAR and sonar data sources. As Section workload changes, work in other Geomatics Branch Sections may be required on a temporary basis. ESSENTIAL FUNCTIONS This position requires that the incumbent work cooperatively with others, including the public, and maintain consistent, regular and punctual attendance. The specific essential duties are: 30% Use photogrammetric systems to make 3D maps and models. Performs aerial, ground based, and mobile LiDAR and sonar point cloud registration and classification. Assess point cloud registration and classification for accuracy and compliance to standards. Post process Smoothed Best Estimate of Trajectory for mobile LiDAR and sonar sensors. 25% Creates Digital Terrain Models (DTM). Prepares project materials for DTM from various field survey data, photogrammetric mapping data, LiDAR point cloud data and multibeam sonar data. Produces and analyzes contour maps using DTM data. Performs complex data conversions and adjustments into a variety of map projections, survey coordinate systems, and CAD/GIS. 10% Reviews photogrammetrically derived mapping products and LiDAR point cloud data, that are compiled into 3D CAD files, for compliance with the Standards and Symbols for Photogrammetric Mapping. Reviews CAD maps and GIS products for content, completeness, accuracy and adherence to specifications and standards. . Reviews GIS Shapefiles, geodatabases and GIS features for proper metadata and schema applications. Performs organization, manipulation, and			
SUPERVISOR'S STATEMENT: I HAVE DISCUSSED THE DUTIES OF THE POSITION WITH THE EMPLOYEE.				
SUPERVISOR'S NAME (Print) James Campbell		SUPERVISOR'S SIGNATURE ➤		DATE
EMPLOYEE'S STATEMENT: I HAVE DISCUSSED WITH MY SUPERVISOR THE DUTIES OF THE POSITION AND HAVE RECEIVED A COPY OF THE DUTY STATEMENT.				
EMPLOYEE'S NAME (Print) VACANT		EMPLOYEE'S SIGNATURE ➤		DATE

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	interpretation tasks for various types of satellite imagery, SAR and InSAR used as a source for feature and data extraction. Performs tasks in MS Outlook, Word, PowerPoint, Access and Excel. Uses different photogrammetric, GIS, and conventional survey software packages to transfers data between datums, projections, file formats.			
10%	Performs editing, digitizing, and map compilation. Performs stereoscopic review, employing aerial imagery, of CAD-based photogrammetric mapping. Edits CAD files to correct non-compliant features. Documents non-compliant and missing features. Performs map-assembly on compiled photogrammetric and LiDAR mapping.			
5%	Performs file management to access, move, copy, delete and archive CADD map, DTM, and 3D surface files. Maintains project folders and filing system. Provides work estimates for DTM creation and LiDAR point cloud registration and classification. Assists with writing procedure manuals and other work aids. Participates in Office tours showing photogrammetry and LiDAR operations to visitors along with other duties as assigned.			
5%	Reviews and completes photogrammetric projects, including the following: Scan aerial photographic negatives for conversion to digital imagery; utilize photogrammetric software on a high-end workstation, which processes digital imagery in a virtual environment, to prepare topographic maps and ortho-rectified georeferenced photomosaics; and maintain and update aerial photography archive including indexing and retrieval of data. Prepare flight plans, time and motion estimates, and cost estimates. Responsible for photogrammetric planning, including design of aerial photographic projects, contract planning, and base sheet preparation.			
5%	Develop plans and specifications for aerial photography contracts, task orders and projects. Check aerial photography for conformance to contract specifications. Check aerial photographs for scale, horizontal and vertical position, and photographic quality. Plan photo control points with sufficient distributions and locations in a flightstrip to meet aerotriangulation and stereomodel requirements.			
5%	Use computerized Geographic Information Systems (GIS) software and techniques to develop GIS databases for use in property rights and land records management.			
5%	Work as a member of a survey crew performing primary horizontal and vertical control, hydrographic, topographic and construction surveys typically on assignment away from headquarters. The work is in all types of terrain, including rugged topography where access is difficult. May be required to travel on public roadways including traveling to remote areas. The work may incorporate electronic measurement and recordation. The employee is usually responsible to a supervisor at the work site but may work independently. Perform special assignments and provides land and right of way information for engineers, land agents, Department legal staff, Attorney General's staff, and in direct response to questions from the general public. This position is in frequent contact with and is constantly visible to the public.			

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	OTHER RESPONSIBILITIES This position provides necessary support to the Divisions of Flood Management, Safety of Dams, Operations and Maintenance, Engineering, and/or the Public Affairs Office during governor declared emergencies, flood, dam, SWP, and other incidents and emergencies. Additionally, this position may participate in emergency operations in the capacity of area teams, field inspection, coordination, and assist agencies such as CalOES and FEMA in disaster work, including performing fieldwork to complete damage survey reports for droughts, flooding, earthquakes, and other emergencies. This position may also serve in one of the sections as established in the Incident Command System to assist the Department in performing its emergency preparedness, response, recover, and mitigation functions. These functions are established in the California State Emergency Plan and the Department's Administrative Orders. DIVERSITY, EQUITY AND INCLUSION All employees are responsible for contributing to an inclusive, safe, and secure work environment that values diverse cultures, perspectives, and experiences, and is free from discrimination. SPECIAL REQUIREMENTS This is mainly an office position and may require field duties which include the ability to perform the above-mentioned functions in rugged and inaccessible terrain, on water, and while encountering hazardous plants and animals. For safety reasons, the incumbent must have good vision, good hearing, and be able to move surveying equipment (up to 50 pounds) over great distances unassisted. May be required to use all-terrain vehicles, 4x4 vehicles, motorboats of varying size and kayaks for survey projects Must possess a valid California driver's license when conducting State business that requires driving a vehicle. May be required to travel on public roadways including traveling to remote areas. Travel on short notice and overnight lodging will be required on some trips. Range D of this classification requires possession of a valid California Land Surveyors License issued by the California Board of Registration of Professional Engineers and Land Surveyors. The Department of Water Resources is committed to its mission and employees, and we are grounded in our commitment to public safety. Regular, consistent, and predictable attendance is essential to the successful performance in this position.			