

**MENDOCINO COUNTY GOVERNMENT
CLASS SPECIFICATION**

CLASS TITLE:	SENIOR CIVIL ENGINEER
DEPARTMENT:	DEPARTMENT OF TRANSPORTATION
REPORTS TO:	DEPUTY DIRECTOR
CIVIL SERVICE:	YES
SEIU	

CLASS CODE: 2026
FLSA STATUS: E
DATE: 10/99 rev. 01/12
BARGAINING UNIT:

JOB SUMMARY:

Under general direction of a Deputy Director, assists with the administration and coordination of work within a division of the department; monitors the progress of different engineering projects and reviews the work of professional engineers; represents the department before official bodies, regulatory agencies, contractors and the general public. Incumbents in this class must be registered engineers with the state. Incumbents function as the lead engineer of a division and are responsible for considerable discretion and independent judgment in the coordination and prioritization of different projects within the assigned area of responsibility, which may include highways, land development, solid waste, traffic safety, bridge maintenance and construction, economic analysis including budget reviews, contract administration, and master planning.

DISTINGUISHING CHARACTERISTICS:

This is the advanced professional classification responsible for managing a major subdivision of the Engineering Division. This position is distinguished from the Civil Engineer by performing the most complex of duties and acting as a lead engineer on assigned projects and over assigned staff. This position is distinguished from a Deputy Director within the Department as the latter has overall responsibility of the operations and fiscal responsibility of the Division.

SUPERVISION EXERCISED: Exercises no supervision; serves as a lead worker over Civil Engineers and other support staff.

EXAMPLE OF DUTIES: *Duties may include but are not limited to the following:*

- Carry out lead worker responsibilities including: training in job skills, assigning and directing work, making recommendations in performance appraisal, and reporting problems to supervisor.
- Plan, organize, direct and control the operations of a subdivision of the Engineering Division.
- Assist with the preparation of engineering calculations for construction projects and master plans; may monitor the preparation of project feasibility studies involving the analysis of engineering, surveying, environmental and economic factors; assists with the preparation of cost estimates for construction quantities and materials, along with total project cost; ensures that engineering work is in compliance with state and federal requirements.
- Assist with the preparation of official reports for governmental agencies and departmental management; investigates and responds to inquiries and complaints from the public; represent the department before official bodies, governmental agencies and the general public.
- Assist with the preparation of unit budget and confer with management regarding division budget figures; assist with the development of procedures for the administration of section activities;
- Assist with the development of engineering software by subordinate professional staff.
- Prepare Requests for Proposals and quotations.
- Confer with management staff and subordinates regarding engineering master plans and operation priorities; makes recommendations as to problem areas and their solutions.
- May coordinate and review work necessary to gather fiscal data, plan, design, and accomplish the construction of complex projects; represents the department before governmental agencies and the public regarding such projects.
- May represent the department at technical meetings and public gatherings.
- Assist with prioritizing bridge maintenance and construction; may be assigned Bridge Engineering role.
- Design complex and difficult engineering projects; participate and direct the preparation of calculations, drawings and specifications for a wide variety of engineering projects.
- Prepare financial reports throughout design and construction phases of County projects to standards required by federal auditors for federal project reimbursement.
- Prepare road and bridge plans and specifications.
- Work with designers, contractors, right-of-way agents, consultants, and the general public for completion of projects through all phases of design and construction.
- Review Plans, Specification and Estimates (PS&E) for compliance with federal requirements to include minority business subcontracting, non-collusion provisions, prevailing wage rate requirements, etc.
- Prepare hydrology and hydraulics studies.
- Evaluate and analyze difficult engineering problems and recommends solutions; prepare comprehensive reports and makes recommendations for solutions.

- Analyze structures, highways, and other construction projects to determine the economic, engineering, and environmental feasibility.
- Review subdivision maps for compliance with established requirements; provide engineering advice to building officials; direct the identification and acquisition of easements and right-of-way.
- Investigate claims against the County and testify in court.
- Estimate right-of-way work and estimated costs related to storm damage and other emergencies.
- May train other staff
- Perform other related duties as assigned.

MATERIAL AND EQUIPMENT USED:

Surveying Equipment	Computer	Scientific Calculator	Vehicle
General Office Equipment	Camera	Transits/Levels	Theodolite (Data Collector)
Traffic Counters	Digital Odometer	Ball Bank Gauge	Radar Gun
Soils Testing Equipment	Lab Testing Equipment	Auto Desk software	Computer aided design (CAD)

MINIMUM QUALIFICATIONS REQUIRED:

Education and Experience:

Bachelor's degree from an accredited four-year college or university in Engineering; and, four years of progressively responsible experience; or, when also possessing required license, an equivalent combination of related education, training and experience related to engineering which provides the required knowledge, skills and abilities to perform the essential functions of the job.

Licenses and Certifications:

State Registered Civil Engineer License
Valid State Driver's License

KNOWLEDGE, SKILLS, AND ABILITIES:

Knowledge of:

- Advanced principles, practices and techniques of civil engineering.
- Statistics and advanced mathematics including algebra, analytic geometry, trigonometry, and calculus.
- Topographic and construction surveying, stress analysis, analytical mechanics and the strength, properties and uses of construction materials.
- Federal and state regulatory agency policies, functions and procedures.
- Procedures necessary to secure state and federal funds for transportation-related projects.
- Common methods and equipment utilized in engineering construction and of inspection methods utilized in reviewing such work.
- The legal requirements concerning the design, construction and inspection methodology necessary for major construction projects.
- Real Property descriptions.
- Civil engineering design and drafting methods and equipment.
- Recordkeeping, report preparation, filing methods and records management techniques.
- All computer applications and hardware related to performance of the essential functions of the job.
- Basic budgetary principles and practices.
- Methods and techniques of research, statistical analysis and report presentation.
- Computer Aided Design (CAD) software including Auto Desk software for performing design calculations.

Skill in:

- Using tact, discretion, initiative and independent judgment within established guidelines.
- Researching, compiling, and summarizing a variety of informational and statistical data and materials.
- Organizing work, setting priorities, meeting critical deadlines, and following up on assignments with a minimum of direction.
- Applying logical thinking to solve problems or accomplish tasks; to understand, interpret and communicate complicated policies, procedures and protocols.
- Communicating clearly and effectively, both orally and in writing.

Mental and Physical Abilities:

- Prepare designs and make accurate drawings and maps.

- Establish and maintain effective working relationships with a variety of individuals, regulatory agencies, and the general public.
- Write clearly and concisely in order to prepare technical reports, correspondence and maintain records.
- Inspect construction projects and assure compliance with plans and specifications.
- Read, understand and interpret complex technical and legal documents, maps, technical drawings and plans.
- Apply principles of logic and scientific reasoning to develop and evaluate alternative courses of action and determine appropriate solutions.
- Speak effectively before public groups and respond to questions.
- While performing the essential functions of this job the employee is frequently required to sit, use hands to finger, handle, or feel, reach with hands and arms, and speak and hear.
- While performing the essential functions of this job the employee is frequently required to stand, and lift and/or move up to 20 pounds.

Working Conditions:

- Work is performed in a normal office environment with some exposure to outdoor temperatures or dirt and dust.
- While performing the essential functions of this position the employee is occasionally exposed to work in high precarious places.
- The incumbent's working conditions are typically moderately quiet.

This class specification should not be interpreted as all inclusive. It is intended to identify the essential functions and requirements of this job. Incumbents may be requested to perform job-related responsibilities and tasks other than those stated in this specification. Any essential function or requirement of this class will be evaluated as necessary should an incumbent/applicant be unable to perform the function or requirement due to a disability as defined by the Americans with Disabilities Act (ADA). Reasonable accommodation for the specific disability will be made for the incumbent/applicant when possible.