| CLASSIFICATION TITLE                                  | OFFICE/BRANCH/SECTION                       |               |
|---|---|---------------|
| Senior Transportation Electrical Engineer, Supervisor | District 10 Construction, 501 District #910 |               |
| WORKING TITLE   | POSITION NUMBER                             | REVISION DATE |
| Senior Electrical Construction Engineer               | 910-501-3164                                |               |

As a valued member of the Caltrans leadership team, you make it possible for the Department to provide a safe and reliable transportation network that serves all people and respects the environment.

# GENERAL STATEMENT:

Under the general direction of a Supervising Transportation Engineer, incumbent will be responsible for planning, directing, and coordinating highway construction electrical work in the part of Central Region. Must possess a valid California Professional Electrical Engineers License.

# CORE COMPETENCIES:

As a Senior Transportation Electrical Engineer, Supervisor, 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.

- Change Leadership: Develops new and innovative approaches needed to improve effectiveness and efficiency of work products. Encourages others to value change. Considers impact and recommends changes. (Cultivate Excellence, Strengthen Stewardship and Drive Efficiency - Innovation)
- Dealing with Ambiguity (Risk): Can comfortably handle risk and uncertainty, as well as make decisions to act without having the total picture. (Cultivate Excellence, Strengthen Stewardship and Drive Efficiency Innovation, Integrity)
- Ethics and Integrity: Demonstrated concern to be perceived as responsible, reliable, and trustworthy. Respects the confidentiality of information or concern shared by others. Honest and forthright. Conforms to accepted standards of conduct. (Cultivate Excellence, Strengthen Stewardship and Drive Efficiency Integrity)
- 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. (Cultivate Excellence, Strengthen Stewardship and Drive Efficiency - Engagement, Integrity)
- Teamwork/Partnership: Develops, maintains, and strengthens partnerships with others inside or outside of the organization through effective communication and collaboration. (Cultivate Excellence, Strengthen Stewardship and Drive Efficiency - Engagement, Integrity)
- **Organizational Awareness:** Contributes to the organization by understanding and aligning actions with the organization's strategic plan, including the mission, vision, goals, core functions, and values. (Cultivate Excellence, Strengthen Stewardship and Drive Efficiency Engagement, 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. (Cultivate Excellence, Strengthen Stewardship and Drive Efficiency - Engagement, Integrity)
- Forward Thinking: Anticipates the implications and consequences of situations and takes appropriate actions to be prepared for possible contingencies. Anticipates and prepares for future developments. (Cultivate Excellence, Strengthen Stewardship and Drive Efficiency - Engagement, Innovation)
- Organizational Skills: Keeps work prioritized and organized. Logically approaches situations. (Cultivate Excellence, Strengthen Stewardship and Drive Efficiency - Integrity)

## TYPICAL DUTIES:

Percentage Job Description Essential (E)/Marginal (M)<sup>1</sup> 40% Е Serves as the first line supervisor to assigned staff. Assesses status of projects and develops work assignments accordingly. Provides staff direction on work to be performed. Provides direction that ensures complete, accurate, and timely contract records pertaining to electrical construction progress, job expenditures, budget programs, and ensure that work order balances are maintained in accordance with State and Federal regulations and laws. Е Ensure that project construction conforms to traffic control, project plans, specifications, environmental, 20% hazardous waste, and storm water pollution prevention criteria. 15% Е Provide leadership and supervision for field office and inspection staff. Exercise supervisory duties such as review and approve time sheets, prepare individual development plans, assure adequate training is provided, evaluate staff performance, oversee and conduct safety meetings and conduct disciplinary procedures all in a timely manner. Manage and monitor staffing resources including travel, operating expenses, and overtime, vehicle usage, and PRSM (workload). Е 10% Provide information for contract change orders, prepare comprehensive field reports, and other miscellaneous correspondence. Е Provide appropriate training and evaluation of subordinates to assure their development and the quality of 5% their performance.

- 5% E Coordinate electrical inspection consultant contract.
- 5% M Meet with private and public sector and the news media to ensure that they and the public are properly appraised of contract progress, and any special contract problems.

<sup>1</sup>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 Supervise a staff of electrical engineer and others engaged in transportation engineering work and development activities.

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS Must possess a valid certificate of registration as an Electrical Engineer.

Knowledge of: Various phases of transportation engineering, including planning processes and methods, systems planning, evaluation of alternatives, and facility locations and design, construction, operation and maintenance, transportation economics and financing; project management concepts; factors which influence the impact of transportation facilities on the environment, the community and the economy; principles and techniques of personnel management and supervision; Department's Equal Opportunity Policy and Objectives. Health and safety and labor relations programs and the processes available to meet their objectives.

Ability to: Plan and direct the work of others; analyze situations accurately and adopt an effective course of action; make effective presentations.

Incumbent needs to have knowledge of a manager's/supervisor's responsibility for promoting equal opportunity in hiring and employee development and promotion, and for maintaining a work environment that is free of discrimination and harassment.

Knowledge of safety and health policies and procedures as contained in the Department's Injury and Illness Prevision Program, and the supervisor role in maintaining an effective injury and illness prevention program.

Incumbent is required to have a moderate degree of analytical skill to determine if construction work meets specification requirements and to interpret plans and specifications correctly.

Incumbent analyzes special provisions, plan estimates, regulations, construction progress, and critical path method (CPM) scheduling and makes decisions based on these factors. Incumbent must have a thorough knowledge of scheduling, materials, safety practices, contract financing and record keeping. Ability to communicate and work under pressure is required.

Must have a complete knowledge of contract administration paperwork and documentation. Prefer incumbent who is able to use and understand computers. Must be able to prepare reports and correspondence. Incumbent is expected to have a good knowledge of all phases of engineering and departmental policies and operations; be familiar with all rules and regulations pertaining to the State and Highway Code, Construction Manual, Standard Specifications, Special Provisions, and other pertinent manuals, laws and codes.

Incumbent should have knowledge of methods, materials, tools and equipment used in electrical construction; scheduling; and safety practices. Incumbent is required to know methods and equipment used in construction of electrical facilities; principles and practices involved in utility relocation, environmentally sensitive areas, Storm Water Pollution Prevention Plans (SWPPP) and Cal/OSHA safety regulations. Incumbent must be able to calculate pay quantities on Contractor's contracts and communicate effectively orally and in writing. Must have the ability to make neat and accurate mathematical calculations and engineering notes; make sound decisions in the implementation of contract plans, specifications and various engineering activities; organize/ arrange data to produce effective work products without repetitious direction; and possess interpersonal skills necessary to be an effective team member.

Knowledge of: Basic principles of physics, chemistry, and mathematics as applied to electrical engineering; properties and uses of engineering materials; methods and equipment of engineering construction; engineering economics; hydrology and hydraulics.

Possess interpersonal skills necessary to be an effective team member.

Ability to: Inspect construction work and enforce compliance with plans and specifications.

Incumbent is expected to apply sound engineering judgment in evaluating a variety of problems, assess workloads, and set priorities and allocate staff.

Must have the ability to evaluate work methods and traffic conditions closely, both before and during the work, to assure safety.

### RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

The Senior Electrical Construction Engineer is responsible for all work in their assigned area and must answer for his/her decisions and those of subordinates. Errors in Judgement could result in:

- Time and cost overruns on contracts which could result in contractor claims and excessive expenditure of public funds.
- Use of inferior materials which require replacement and/or result in a finished product of poor quality.
- May result in expensive waste of time and materials.
- Cause additional work and/or project delays.
- Reduction in productivity.

The incumbent is responsible for his/her actions, decisions, quality of work, and proper use of State time, equipment, and materials. Improper performance of duties and/or failure to adhere to established policies, procedures, and guidelines could lead to adverse action and possible termination.

### PUBLIC AND INTERNAL CONTACTS

Incumbent must be able to communicate effectively with others including Department staff, technical/professional level staff of outside agencies, contractor's personnel and members of the public regarding construction projects. Has frequent contact with City and County representative, private contractors, traveling public, Senior Electrical Engineers and their staff, and other branches, both District and Headquarters, to provide a coordination of effort in processing estimates, payments and other documents that are handled by the Construction Field Office. Incumbent must be able to communicate effectively with Contractor's personnel, property owners and internal personnel. Good communicative skills are essential in carrying out the duties. Internally, must coordinate electrical construction activities with other functional managers on a continuing basis, as well as maintaining communications with Headquarters Construction.

### PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

Must possess the ability to lead, plan, and direct the work of others. Must be able to analyze situations accurately and adopt an effective course of action. Must be able to concentrate, formulate effective strategies, be multi-tasked, adapt to changes in priorities, and complete complex task or projects with short notice. Ability to resolve emotionally charged issues reasonably and diplomatically. Must be able to develop and maintain cooperative working relationships. Must be able to organize and prioritize. Must be able to prepare correspondence and reports. Must be able to communicate effectively and make effective presentations. Must be able to represent the Department of Transportation at meetings. Must be able to assign work, check work, give instructions and assistance, and maintain discipline. Must be able to provide technical oversight of consultants performing electrical engineering work under contract with the Department. Must be able to ensure that assigned projects are completed within scope, cost, schedule, budgeted resources and departmental standards and practices. Ability to develop personnel requirements and monitors use of personnel in meeting engineering projects and operations schedules.

Must possess the ability to work on uneven ground, climb, lift, carry, bend, squat, kneel, crouch, reach, pull, push, grasp, sit, stoop, crawl, and repetitive use of extremities. Must be able to transport variety of objects that are less or equal to 40 pounds. Hard hat, safety vest or approved safety shirt, and safety glasses must be worn at all times in the field, no exceptions. May be required to sit for long periods of time. May be required to stand for long periods of time.

The workload is subject to frequent, substantial, and unexpected changes. Workload may subject employee to night work, frequent changes of shift, frequent changes of work hours and workdays, and geographic transfer. Travel is required. A valid California Drivers License is desired. Overtime and/or flexible hours may be required. Vacations may be restricted during peak times. Use of computers and other various office equipment is required.

#### WORK ENVIRONMENT

The incumbent will be working in both an office and field environment. As such the incumbent will be required to travel throughout the District 10 area. Employees will also travel and work outdoors and may be exposed to dirt, noise, uneven surfaces, and/or extreme heat or cold. Job may have exposure to chemicals, equipment, machinery, heat, cold, dust, gas, fumes, outdoor conditions, indoor conditions, humidity, and high decibels of noise. Hard hat and safety vest or approved safety shirt must be worn at all times in the field, no exceptions. While at the Construction office employees will normally 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. Workload may subject employee to changes of shift, changes of work hours and workdays, and geographic transfer. Travel is required. Vacations may be restricted during peak times.

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.)

DATE

EMPLOYEE (Print)

EMPLOYEE (Signature)

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

SUPERVISOR (Print)

SUPERVISOR (Signature) DATE