

## **COUNTY OF SOLANO CLASS SPECIFICATION BUILDING TRADES MECHANIC**

### **CLASS SUMMARY:**

Under direction, performs a variety of building construction maintenance and repair tasks requiring journey level skill in the building trades. Employees in this class perform journey level work in the construction, repair and maintenance of County buildings and building support equipment. If required, provides technical expertise in support of building maintenance and repairs. Assignments cover the full spectrum of the building trades (e.g., carpentry, plumbing, electrical, masonry, painting, and locksmithing) from rough to finish work.

### **DISTINGUISHING CHARACTERISTICS:**

This class is distinguished from the:

- **Facilities Operations Supervisor** class which is a first line supervisory class responsible for the work unit engaged in the operations and maintenance of County owned buildings and support equipment, and which, depending on the unit supervised, may include heating, air conditioning, ventilating, refrigerating, electrical, plumbing, carpentry.
- **Building Trades Mechanic (Senior)** class under direction, performs the most difficult and/or specialized technical assignments which require considerable knowledge of trade skills required for the maintenance and repair of buildings, equipment and related systems. Employees in this advanced journey level class performs and/or leads the work of others in construction, repair, and maintenance of County buildings and building support equipment. Assignments cover the full spectrum of the building trades (e.g., carpentry, plumbing, electrical, masonry, painting, and locksmithing) from rough to finish work. Provides technical expertise in support of building maintenance and repairs.
- **Building Maintenance Assistant** class under supervision, assists in performing routine maintenance and minor construction tasks on buildings and building support equipment. Employees in this class assist Building Trades Mechanics in construction, repair, and maintenance of County buildings and building support equipment and, assist Stationary Engineers with heating, cooling, ventilating and refrigeration systems, or may assist other related classes.

### **SUPERVISION RECEIVED AND EXERCISED:**

- Supervision is provided by a Facilities Operations Supervisor.
- No supervision is exercised over others; however, may provide technical expertise, instruction, consultation, and/or advice to colleagues.
- May receive lead direction from a Building Trades Mechanic (Senior).

**ESSENTIAL DUTIES:** This class specification represents the core area of responsibilities; specific position assignments will vary depending on the needs of the department.

- Performs building trades carpentry work: Constructs, repairs, and/or installs rough and finish counters, cabinets, bookcases, shelving, desks, framing, stairs, concrete forms, fencing, and related hardware.
- Performs building trades' masonry work: pours and finishes concrete including sidewalks and equipment pads; lays blocks and ceramic tiles.
- Performs building trades painting work: prepares walls, ceilings, and floors to be finished including but not limited to patching, taping, sanding, and texture; applies finished flooring such as Vinyl Composition Tile (VCT) and tile; applies wall, door, cabinet, and furniture finishes such as paints, staining, sealers, polyurethanes, and varnishes.
- Performs building trades electrical work: Troubleshoots, repairs, and installs a variety of electrical systems and equipment; maintains and services electrical systems to include replacing switches, plugs and breakers, installing lighting, installing new circuits to include fasteners, boxes, conduit and associated hardware; inspects, repairs and installs a variety of lighting systems including incandescent, fluorescent, vapor, Light Emitting Diode (LED) and sodium lamps; installs and repairs photo cells, time clocks, automated clocks, relays, and electric locks; maintains and repairs decorative fountains; ensures that electrical systems and fixtures meet electrical code and safety requirements; uses Building Management Systems (BMS) as it pertains to automated lighting control systems excluding HVAC or Cogeneration Plant related systems.
- Performs building trades plumbing work: Installs and repairs plumbing and fixtures related to domestic water distribution and waste disposal systems; installs fixtures such as drinking fountains and toilets; maintains and services plumbing systems to include pipes, fittings, pumps, water heaters, showers, sinks, toilets and institutional plumbing fixtures; cuts, threads and fits plastic, metal, clay pipe, and repair electronic water management systems.
- Performs other building maintenance and servicing work: constructs, repairs and/or installs flooring and ceilings, glass and insulation; troubleshoots and maintains kitchen equipment to include warming ovens, steam kettles, dish washers, grease traps, hoods/filter, and laundry equipment.
- Conducts locksmithing activities including maintaining and repairing locking systems, keys, institutional locks, and locksets; maintains and services doors and door hardware to include closers, locks, and weather stripping.
- Provides technical direction and training to Building Maintenance Assistants.
- Provides technical expertise and/or consultation and advice to colleagues.
- Performs other duties as assigned.

**EDUCATION AND EXPERIENCE:**

- **Education:** High School Diploma, GED, or equivalent; **AND**
- **Experience:** Four (4) years of experience total including three (3) years of apprenticeship training in a program or under a journey worker in electrical, plumbing, carpentry or closely related building trade **AND** One (1) year of full-time paid experience at the level of a journey worker in electrical, plumbing, carpentry or closely related building trade. **OR**

Four (4) years of experience equivalent to a Solano County Building Maintenance Assistant.

**LICENSING, CERTIFICATION AND REGISTRATION REQUIREMENTS:**

- Applicants are required to possess, or obtain prior to employment, a valid California Driver's License, Class C.

*Note: The driver's license must be kept current while employed in this class.*

## **REQUIRED KNOWLEDGE, SKILLS AND ABILITIES:**

### **Knowledge of:**

- Methods, materials, machines, equipment and tools used in the building trades.
- Building safety and the building code(s).
- Safe shop practices.
- Customer service techniques.
- English composition, spelling, grammar, vocabulary, and punctuation for both written and oral communications.
- Basic mathematics to determine amount of materials needed for a job, including but not limited to, square footage of areas to be worked on.
- Modern office equipment to include: computers, smartphones and building related software applications.
- Construction safety protocols and regulations.

### **Skill and/or Ability to:**

- Use a variety of basic hand, pneumatic, hydraulic power tools and related shop equipment need to support construction, repairs and maintenance activities.
- Operates saws, drill presses, grinders, basic hand and power tools, electric and pneumatic power tools, welders, air compressors, and other tools as needed to support construction, repair and maintenance activities.
- Read and interpret building plans, blueprints, and related schematics.
- Estimate materials required for a specific job.
- Perform a variety of building trades in a variety of settings
- Operate and maintain a variety of tools and forklifts properly and safely.
- Follow verbal and written directions.
- Communicate effectively both verbally and in writing.
- Maintain accurate records and document actions taken.
- Establish and maintain cooperative working relationships.
- Demonstrate tact and diplomacy.
- Make routine arithmetical calculations and analysis.
- Follow safe working procedures.
- Determine the appropriate course of action in stressful and/or emergency situations.
- Use modern office equipment to include: computers, smartphones and building related software applications.

## **PHYSICAL REQUIREMENTS:**

- **Mobility and Dexterity:** This class typically requires employees to perform the following: (1) balancing, stooping, kneeling, reaching, crawling, fingering, grasping, and repetitive motion;

(2) climbing and working safely on ladders and step ladders with a total weight that does not exceed the weight capacity of the ladder or the highest rated capacity of the harnesses and lanyards used for fall protection; and (3) standing or walking during normal work hours on uneven surfaces.

- Lifting, Carrying, Pushing and Pulling – Heavy work: This class typically requires employees to perform the following: exerting up to 100 pounds of force occasionally with assistance, and/or up to 50 pounds of force frequently, and /or up to 20 pounds of force constantly to move objects.
- Vision: This class requires employees to have close visual acuity, with or without correction, to prepare and analyze data and figures, view a computer terminal, read, and to distinguish between normal and off shade colors and to read gauges and meters in dimly lighted areas etc. Employees are also required to have depth perception and good eye-to-hand coordination in order to operate a motor vehicle and to operate a variety of hand, power tools and equipment.
- Hearing/Talking: This class requires employees to perceive the nature of sounds at normal speaking levels with or without correction, and have the ability to receive detailed information through oral communication. Employees in this class are also required to be able to communicate to express or exchange ideas. Detailed or important instructions must occasionally be conveyed to others accurately, loudly, and/or quickly.
- Other: This class typically requires employees to have sufficient sense of smell, and touch to observe equipment functions for normal and abnormal occurrences.

#### **WORKING CONDITIONS:**

- Outdoor Work: Employees in this class will often be working outdoors and thus may be subject to exposure to intense noises, fumes, odors, pollens, dust, inadequate lighting, and to unpleasant field conditions including rainy, windy, cold, or hot weather; may be exposed to insects, rodents, snakes, bees, wasps, spiders, ants, etc.
- Work in various Industrial Area(s): Employees in this class will often be working in an industrial area and thus will be subject to exposure to moving mechanical parts, electrical currents, toxic agents, fuel, oil, gases, smoke, fumes, odors, dust, and vibrations; employees may be subject to injuries when working with hand, power tools, and equipment.
- Traffic Hazards: Employees in this class may be required to operate a vehicle and thus may be subject to traffic hazards while driving.
- Working at Heights: Employees in this class may be required to work at heights 50-75 feet or more above the ground on equipment and structures.

#### **OTHER REQUIREMENTS:**

- Background Checks, Reference Checks and Physicals: The County will conduct a background check, a reference check and a physical on candidates prior to appointment to a position within this class.
- Independent Travel: Incumbents are required to travel independently, to perform work at other work sites, etc.
- Hours of Work: Incumbents may be required to work weekends, holidays, irregular hours, on-call, and after normal business hours.
- Drug and Alcohol Testing: Candidates applying for positions in this class are subject to, drug and alcohol testing as required under the Federal Omnibus Transportation Employee Testing

Act of 1991. Testing of incumbents includes post-accident, as well as random and reasonable suspicion testing as required by law.

**CLASS HISTORY AND CLASS INFORMATION:**

Date revision approved by the Civil Service Commission: August, 1995

Date(s) Revised: December, 2016

Class Code:873010