

# **Solano County**

*675 Texas Street  
Fairfield, California 94533  
www.solanocounty.com*



## **Agenda - Final**

**Wednesday, December 14, 2016**

**6:30 PM**

**Solano County Board of Supervisors Chambers**

**Civil Service Commission**

## SOLANO COUNTY CIVIL SERVICE COMMISSION

*Regular Meeting  
December 14, 2016  
Wednesday - 6:30 p.m.  
Board of Supervisors Chambers*

### TO THE PUBLIC

*In compliance with the Americans with Disabilities Act (ADA of 1990), the County will provide accommodations for persons with disabilities who attend public meetings. If you have the need for an accommodation such as interpreters or materials in alternative format, please contact Antoinette Rasmussen at 707-784-2492.*

*If you wish to address the Commission on a matter not listed on the Agenda, you may do so under Items from the Public. The subject matter must be within the jurisdiction of the Commission.*

*If you wish to address any item listed on the Agenda, please submit a Speaker Card to the Recording Secretary of the Commission before the Commission considers the specific item. Cards are available on the podium in the Board Chambers.*

*Please limit your comments to five minutes.*

*For items not listed on the Agenda, please see Item #3, Items from the Public.*

1. Call to Order/Roll Call
2. Pledge Of Allegiance
3. Items from the Public

*This is your opportunity to address the Commission on a matter not heard on the Agenda, but it must be within the subject matter jurisdiction of the Commission. Please submit a Speaker Card before the first speaker is called and limit your comments to five minutes. Items from the public will be taken under consideration without discussion by the Commission and may be referred to staff.*

4. Approval of Minutes of the Commission

[CSC 16-0039](#) CSC Minutes of 11-9-16

**Attachments:** [11-9-2016](#)

5. Communications
6. Information Items (No Action Required by Commissioners)
7. Additions to, or deletions from, the Agenda
8. Approval of the Agenda

## SCHEDULED CALENDAR

*(All items under Scheduled Calendar require Commission Action)*

**[CSC 16-0041](#)** Request to adopt the amended skilled craft and service maintenance classifications of Building Maintenance Assistant, Building Trades Mechanic, Building Trades Mechanic (Senior), Stationary Engineer, Stationary Engineer (Senior).

**Attachments:** [Building Maintenance Assistant Add/Delete](#)  
[Building Maintenance Assistant Final](#)  
[Building Trades Mechanic Add/Delete](#)  
[Building Trades Mechanic Final](#)  
[Building Trades Mechanic Senior Add/Delete](#)  
[Building Trades Mechanic Senior Final](#)  
[Stationary Engineer Add/Delete](#)  
[Stationary Engineer Final](#)  
[Stationary Engineer Senior Add/Delete](#)  
[Stationary Engineer Senior Final](#)

**[CSC 16-0040](#)** Accept the Civil Service Commission regular meeting calendar for 2017

## MISCELLANEOUS ITEMS

9. Commission/Staff Comments

### Adjourn

*To the Civil Service Commission meeting of January 11, 2017 at 6:30 P.M., Board Chambers, 675 Texas Street, Fairfield, CA*



**MINUTES OF THE SOLANO COUNTY  
CIVIL SERVICE COMMISSION**

Regular Meeting  
Wednesday, November 9, 2016  
Board of Supervisors Chambers  
County Administration Center  
Fairfield, CA 94533

1.) Call to Order/Roll Call

Commissioner Neal called the meeting to order at 6:30pm. Roll was called, and the following Commissioners were present: Commissioner Neal, Commissioner Burton, Commissioner Petullo and Commissioner Riley. Commissioner Booe was absent. Commission Staff present were Marc Fox, Director of Human Resources and Commission Secretary; JoAnn Parker, Deputy County Counsel; and Antoinette Rasmussen, Recording Secretary.

2.) Pledge of Allegiance

3.) Items from the Public

There were no items from the public. No speaker cards.

4.) Approval of Minutes of the Commission

A motion to approve the minutes was made by Commissioner Riley with a second by Commissioner Petullo. The motion carried 4/0.

5.) Communications

There were no communication items.

6.) Information Items (No Action Required by Commissioners)

There were no information items.

7.) Additions to, or deletions from, the Agenda

There were no additions to or deletions from the agenda.

8.) Approval of the Agenda

A motion was made to approve the agenda by Commissioner Petullo with a second by Commissioner Burton. The motion carried 4/0.

## SCHEDULED CALENDAR

**ITEM CSC 16-0038**      **Receive an update on the decertification election process as it relates to bargaining unit 6, Health and Social Services Supervisors, and unit 16, Mid-Management.**

Director of Human Resources, Marc Fox gave a summary of what was discussed at the October 18, 2016 Civil Service Commission meeting. State Mediation and Conciliation Services verified that at least 30% of the employees in the unit submitted petitions to decertify. The mail ballot election will run from January 3, 2017 through January 27, 2017. If an individual marks incorrectly or loses their ballot; they can obtain a replacement ballot. The ballot will contain four choices.

**ITEM CSC 16-0037**      **Schedule the Civil Service Commission hearing on an allegation of workplace discrimination for February 1, February 2, and February 6, 2017.**

Mr. Fox stated that he recommended that the Commission schedule special meetings on February 1, 2, and 6 at 6:30 pm for the hearing on workplace discrimination. The hearing times would run from 6:30 p.m. to 10:30 p.m. each evening.

A motion was made to approve the scheduling of the Civil Service Commission hearing on an allegation of workplace discrimination for February 1, February 2, and February 6, 2017 by Commissioner Burton with a second by Commissioner Riley. The motion carried 4/0.

**ITEM CSC 16-0034**      **Request to adopt the amended classification specifications of Auditor-Appraiser (Entry), Auditor-Appraiser and Auditor-Appraiser (Senior)**

Principal Human Resources Analyst Charmie Junn explained to the Commission that these classifications are unique to the Assessor's office. Auditor-Appraisers inspect and analyze the value of equipment. This classification series was established in 1986 and only the Auditor-Appraiser (Senior) have been revised since. The changes made were to standardize the qualifications and reformatted for clarification. The meet and confer process has been concluded with SEIU.

A motion was made to adopt the amended classification specifications of Auditor-Appraiser (Entry), Auditor-Appraiser and Auditor-Appraiser (Senior) by Commissioner Burton with a second by Commissioner Petullo. The motion carried 4/0.

**Item CSC 16-0035**      **Request to adopt the amended classification specifications of Appraiser (entry), Appraiser and Appraiser (Senior)**

Mr. Fox stated that the details are essentially the same as the last item. Commissioner Neal stated that the auditor audits and the appraiser appraises.

A motion was made to adopt the amended classification specifications of Appraiser (Entry), Appraiser, and Appraiser (Senior) by Commissioner Riley with a second by Commissioner Burton. The motion carried 4/0.

**Item CSC 16-0036 Request to adopt the amendments to the Civil Service Rules sections referencing non-discrimination**

Mr. Fox stated that when an individual would like to file an equal employment opportunity complaint they can go directly to the Civil Services Commission or through an administrative process. All equal employment opportunity complaints go to the equal employment opportunity officer. The Civil Service Rules allow people to appeal to the Commission. Individuals also have the option of going to the Department of Federal Employment and Housing or the Equal Employment Opportunity Commission. This Civil Service Rule change was sent to all bargaining units and none of them requested to meet. Commissioner Riley stated that section 1.03 talks about applicants. Commissioner Riley asked if applicants are covered. Mr. Fox responded yes, applicants are covered as it relates to discrimination in the hiring process. Commissioner Riley asked if this means that individuals can no longer come to the Commission with a complaint as they have in the past. Mr. Fox responded they still can; they just cannot go multiple routes. Commissioner Neal asked if they can go a different route later. Mr. Fox responded they can for a different complaint. Commissioner Burton asked why section 2.01 is crossed out. Mr. Fox responded that the basis of why they can file has expanded, crossing this out leaves room for more and makes it so that the Civil Service Rules would not have to be revised again in the future. Commissioner Petullo stated that section 1.03 references the EEO policy which defines protected classes. This makes it that so only one document needs to be updated when a change occurs. California Law is more protective than federal law. Commissioner Riley asked why section 2.32 is changing. Mr. Fox responded that it reflects a change in the law. Commissioner Riley asked how this change relates to the Rules. Principal Human Resources Analyst Charmie Junn stated that this definition is part of the state law.

A motion was made to adopt the amendments to the Civil Services Rules sections referencing non-discrimination by Commissioner Petullo with a second by Commissioner Riley. Roll was called. The motion carried 4/0.

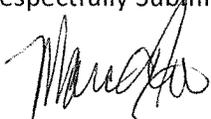
9.) Commission/Staff Comments

There were no Commission/staff comments.

10.)Adjourn

Commissioner Neal adjourned the meeting at 6:55 pm.

Respectfully Submitted,



Marc A. Fox

Director of Human Resources



# Solano County

675 Texas Street  
Fairfield, California 94533  
www.solanocounty.com

## Agenda Submittal

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**Agenda #:** **Status:** Agenda Ready

**Type:** CSC-Document **Department:** Civil Service Commission

**File #:** CSC 16-0041 **Contact:** Marc Fox, 784-2552

**Agenda date:** 12/14/2016 **Final action:**

**Title:** Request to adopt the amended skilled craft and service maintenance classifications of Building Maintenance Assistant, Building Trades Mechanic, Building Trades Mechanic (Senior), Stationary Engineer, Stationary Engineer (Senior).

**Governing body:** Civil Service Commission

**District:**

**Attachments:** [Building Maintenance Assistant Add/Delete](#)  
[Building Maintenance Assistant Final](#)  
[Building Trades Mechanic Add/Delete](#)  
[Building Trades Mechanic Final](#)  
[Building Trades Mechanic Senior Add/Delete](#)  
[Building Trades Mechanic Senior Final](#)  
[Stationary Engineer Add/Delete](#)  
[Stationary Engineer Final](#)  
[Stationary Engineer Senior Add/Delete](#)  
[Stationary Engineer Senior Final](#)

Date	Ver.	Action By	Action	Result
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### **HUMAN RESOURCES' RECOMMENDATION:**

The Department of Human Resources (Human Resources) recommends the Civil Service Commission amend the skilled craft and service maintenance classifications of Building Maintenance Assistant, Building Trades Mechanic, Building Trades Mechanic (Senior), Stationary Engineer, Stationary Engineer (Senior).

### **SUMMARY:**

At the September 14, 2016, the Commission approved the amendments to the skilled craft and service maintenance classifications of Custodian, Custodian (Lead), Equipment Service Worker, Equipment Mechanic, Groundskeeper, Public Works Trainee, Public Works Maintenance Worker, and Public Works Maintenance Worker (Senior).

During that meeting Human Resources indicated that the remaining classification amendments would be presented at a subsequent Commission meeting. Attached for your review are the amended five (5) classifications of Building Maintenance Assistant, Building Trades Mechanic, Building Trades Mechanic (Senior), Stationary Engineer, Stationary Engineer (Senior).

### **DISCUSSION:**

The last revision of these skilled craft and service maintenance classifications was over 15 years ago. In

recognition of the changes in the industry and technology surrounding the skilled craft and service maintenance fields, Human Resources proposes to amend the above listed classifications to more accurately reflect the duties and responsibilities performed by county employees and clearly identify the minimum qualifications.

Human Resources initiated a classification study with the goal of reviewing and updating the skilled craft and service maintenance class specifications. The study included 89 incumbents in 13 classifications at the line staff level. Human Resources met with and distributed position description questionnaires to all identified incumbents. Upon completion and prior to returning to Human Resources, the questionnaires were reviewed by the managers, and approved by the department heads.

Each classification underwent a thorough job analysis, incorporating extensive input from the departments of General Services and Resource Management, the incumbents, and the associated employee organization representing the skilled craft and service maintenance workers in Unit 10, - Stationary Engineers, Local #39.

On September 14, 2016, the Commission approved eight (8) of the thirteen (13) classification amendments. Attached for your review are the remaining five (5) classifications of Building Maintenance Assistant, Building Trades Mechanic, Building Trades Mechanic (Senior), Stationary Engineer, Stationary Engineer (Senior).

The most significant changes proposed include:

- Standardization and consistency of language throughout the class specifications including essential duties, qualifications, knowledge, skills, and abilities, physical requirements, and, other requirements; and
- Standardization of the overall formatting

Attached are the add/delete and revised versions of the 5 finalized class specifications.

#### **ALTERNATIVES:**

The Civil Service Commission could elect not to approve the proposed class specification amendments, however, this is not recommended since the purpose of the amendments is to accurately reflect the duties and responsibilities performed by our employees and clearly identify the minimum qualifications.

#### **OTHER AGENCY INVOLVEMENT:**

On December 6, 2016 at the union's request, Human Resources met with Stationary Engineers, Local 39 and their designated member(s). During this meeting, the proposed class specification revisions were discussed and some changes made. The County concluded the meet and confer process as required under Government Code Section 3500 et al. The designated Stationary Engineers, Local 39 Union representative was provided final draft copies of all the revised classifications.

COUNTY OF SOLANO

**CLASS SPECIFICATION**  
**BUILDING MAINTENANCE ASSISTANT**

**CLASS SUMMARY:**

**Est. 01/05**

**DEFINITION**

Under ~~close~~ supervision, assists in performing routine entry-level maintenance and minor construction tasks on buildings and building support equipment. Employees in this class assist; performs related duties as required.

**DISTINGUISHING CHARACTERISTICS**

~~The Building Maintenance Assistant is an apprentice, pre-entry level classification, that assists Building Trades Mechanics in and Stationary Engineers in the 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. This classification provides on-the-job training to employees for advancement to the entry level in the building trades. Assignments are limited in scope, contain routine tasks, and are performed within a procedural framework established by higher level employees. As experience is acquired, the employee completes assigned duties performs with less immediate supervision, but with confirmation of accuracy of worked completed. This classification is distinguished from the Building Trades Mechanic (Entry) and Stationary Engineer (Entry) in that the latter classification have at least one year of experience in the building trades and are able to perform minor repairs and routine duties under general supervision.~~

**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 Trades Mechanic** class which 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. If required, provides technical expertise in support of building maintenance and repairs.
- **Stationary Engineer** class which under direction, operates, repairs, and maintains heating, cooling, ventilation and refrigeration systems and controls. Employees in this journey level class are responsible for operating, maintaining and repairing building support equipment in assigned County Facilities. Positions may be assigned to work in assist the County Cogeneration Plant.

**SUPERVISION RECEIVED AND EXERCISED:**

- Supervision is provided by a Facilities Operations Supervisor (s).

No supervision is exercised over others. However, may receive consultation, technical expertise, instruction, and/or advice from

Receives technical supervision from journey level Building Trades Mechanics and/or Stationary Engineers, or related classifications.

- May receive lead direction from a Building Trades Mechanic (Senior) or Stationary Engineer (Senior).

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

- Assists Building Trades Mechanics in performing the following:

constructing

~~Exercises no supervision.~~

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

~~Assist higher-level building trades employees in general repairs or building maintenance.~~

~~Construct~~ shelves, simple cabinets and ~~performing~~perform rough carpentry work; ~~as directed.~~  
repairing

~~Repair~~ and/or ~~constructing~~construct walls and ceilings using wood or metal stud and drywall; ~~assembling and disassembling office systems~~

- Assist in preparing furniture;
- refinish and building surfaces for refinishing or repainting furniture;
- painting of interior and/or exterior of building and structures;
- repair /or replace ceiling tiles or acoustic panels;

~~assembling/disassembling and/or moving of;~~ paint or varnish walls, floors, and trim; help move or erect scaffolding;

making

- Learns to make repairs to roofs, windows, screens, ~~Venetian~~ blinds, doors and stairwells;
- replacing or installing building related ~~replace and install towel racks, bulletin boards, broom racks and related fixtures~~ and equipment;
- installing and repairing ceilings, floors, roof tiles and drains;

~~replacing; replaces~~ linoleum, acoustical and floor ~~tiles; tile-~~

repairing

- Assist in the repair of leaky faucets, ruptured pipes, flush valves and toilets;
- repairing and replacing plumbing fixtures including toilets, urinals, faucets, drains, valves and piping;
- removing and installing lights fixtures, incandescent/fluorescent lights, and light ballasts;
- cleaning, testing and chemically treating decorative ponds and fountains;

replacing and repairing ~~replace pipe lagging and repair~~ sewer lines and related equipment; ~~-~~

- installing / or replacing building insulation;

performing

~~Perform~~ minor carpentry, electrical, and mechanical repairs on a variety of buildings and building equipment; ~~-~~

- Masonry, brick, concrete tile, and concrete installation.

Assists

~~Assist~~ Stationary Engineers in performing cleaning, to perform general maintenance, or and emergency repairs/maintenance on building equipment, including heating, cooling, ventilating and refrigeration systems.

- Assist Stationary Engineers in cleaning, testing and chemically treating heating and cooling water for HVAC systems.

Performs

~~Occasionally drive a truck or other~~ equipment in performance of regular duties as assigned.

**EDUCATION AND EXPERIENCE:**

- **Education:** High School Diploma, GED, or equivalent; **AND**
- **Experience:** No experience is required; however, applicants must be able to demonstrate required knowledge, skills and abilities.

**LICENSING, CERTIFICATION AND REGISTRATION REQUIREMENTS:**

- Applicants are required to possess 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:**

~~Install systems furniture and ergonomic accessories~~

**JOB RELATED AND ESSENTIAL QUALIFICATIONS**

**Knowledge of:**

Common tools, materials, equipment and methods used in carpentry, roofing, electrical, plumbing, painting and masonry trades.

- Customer service techniques.
- Basic 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.
- Standard office procedures, practices, equipment, computers, and software.
- Construction safety protocols and regulations.

**Skill and/or to:**

~~Drive a motor vehicle~~

**Ability to:**

Use a variety of ~~basic hand,~~ pneumatic, hydraulic power tools and ; ~~e.g., wrenches, screwdrivers, drills, grinders and other~~ related shop equipment need to support construction, repairs and maintenance activities.

- Operate 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.

Assist in performing work in a wide variety of maintenance and construction trades.

Follow ~~general and detailed~~ verbal and written directions and instructions.

- Communicate effectively both verbally and in writing.

Establish and maintain cooperative working relationships.

- Follow safe working practices.
- Demonstrate tact and diplomacy.
- Make routine arithmetical calculations.
- Determine the appropriate course of action in stressful and/or emergency situations.
- Maintain accurate records and document actions taken.
- Use modern office equipment to include computers, smartphones, and related software applications.

**PHYSICAL**  
**EDUCATION AND/OR EXPERIENCE**

**Experience:**

~~No experience is required~~

**Education:**

~~High school diploma or GED; applicants must be able to demonstrate required knowledge and abilities listed above.~~

**SPECIAL 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~~

~~Possession of a valid Class C California driver's license may be required.~~

**SUPPLEMENTAL INFORMATION**

~~Independent travel is required.~~

~~Incumbents must be able to work independently.~~

~~Incumbents must be able to perform heavy manual labor associated with building construction and maintenance tasks which may include lifting objects weighing more than 100 pounds. Working with a full range of body movements involving reaching, bending, grasping, climbing and working around equipment under high pressure and extreme temperature ranges.~~

~~Depending on assignment, candidates for some positions in this class may be required to pass a background investigation in accordance with applicable law, regulation and/or policy.~~

- ~~• Incumbents may 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 in all types of weather conditions including rainy, windy, cold, or hot weather; may be exposed to e.g. insects, rodents, snakes, bees, wasps, spiders, ants, etc.
- Work in an Industrial Area: 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 and 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 and may also be required to work weekends, holidays, irregular hours, on-call, and after normal business hours in or around hazardous and adverse conditions.

- 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:**

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Director of Human Resources

~~Established Date~~ Approved by the Civil Service Commission: ~~March, - January~~ 2005  
~~Date Adopted by the Board of Supervisors~~ ~~BOS Date:~~ March 1, 2005  
~~CSC Date:~~ March 9, 2005

I:\Classification\Class Specs\Building Maintenance Asst.doc

• Date(s) Revised:  
Class Code: 971050

## **COUNTY OF SOLANO**

### **CLASS SPECIFICATION**

### **BUILDING MAINTENANCE ASSISTANT**

#### **CLASS SUMMARY:**

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. As experience is acquired, the employee completes assigned duties with less immediate supervision, but with confirmation of accuracy of worked completed.

#### **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 Trades Mechanic** class which 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. If required, provides technical expertise in support of building maintenance and repairs.
- **Stationary Engineer** class which under direction, operates, repairs, and maintains heating, cooling, ventilation and refrigeration systems and controls. Employees in this journey level class are responsible for operating, maintaining and repairing building support equipment in assigned County Facilities. Positions may be assigned to work in assist the County Cogeneration Plant.

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

- Supervision is provided by a Facilities Operations Supervisor (s).

- No supervision is exercised over others. However, may receive consultation, technical expertise, instruction, and/or advice from Building Trades Mechanics and/or Stationary Engineers, or related classifications.
- May receive lead direction from a Building Trades Mechanic (Senior) or Stationary Engineer (Senior).

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

- Assists Building Trades Mechanics in performing the following:
  - constructing shelves, simple cabinets and performing rough carpentry work;
  - repairing and/or constructing walls and ceilings using wood or metal stud and drywall;
  - assembling and disassembling office systems furniture;
  - refinish or repainting furniture;
  - painting of interior and/or exterior of building and structures;
  - repair /or replace ceiling tiles or acoustic panels;
  - assembling/disassembling and/or moving of scaffolding;
  - making repairs to roofs, windows, screens, blinds, doors and stairwells;
  - replacing or installing building related fixtures and equipment;
  - installing and repairing ceilings, floors, roof tiles and drains;
  - replacing linoleum, acoustical and floor tiles;
  - repairing leaky faucets, ruptured pipes, flush valves and toilets;
  - repairing and replacing plumbing fixtures including toilets, urinals, faucets, drains, valves and piping;
  - removing and installing lights fixtures, incandescent/fluorescent lights, and light ballasts;
  - cleaning, testing and chemically treating decorative ponds and fountains;
  - replacing and repairing sewer lines and related equipment;
  - installing / or replacing building insulation;
  - performing minor carpentry, electrical, and mechanical repairs on a variety of buildings and building equipment;
  - Masonry, brick, concrete tile, and concrete installation.
- Assists Stationary Engineers in performing cleaning, general maintenance, or emergency repairs on building equipment, including heating, cooling, ventilating and refrigeration systems.
- Assist Stationary Engineers in cleaning, testing and chemically treating heating and cooling water for HVAC systems.
- Performs other duties as assigned.

**EDUCATION AND EXPERIENCE:**

- **Education:** High School Diploma, GED, or equivalent; **AND**
- **Experience:** No experience is required; however, applicants must be able to demonstrate required knowledge, skills and abilities.

**LICENSING, CERTIFICATION AND REGISTRATION REQUIREMENTS:**

- Applicants are required to possess 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:**

- Common tools, materials, equipment and methods used in carpentry, roofing, electrical, plumbing, painting and masonry trades.
- Customer service techniques.
- Basic 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.
- Standard office procedures, practices, equipment, computers, and software.
- Construction safety protocols and regulations.

**Skill and/or Ability to:**

- Use a variety of hand, pneumatic, hydraulic power tools and related shop equipment need to support construction, repairs and maintenance activities.
- Operate 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.
- Assist in performing work in a wide variety of maintenance and construction trades.
- Follow verbal and written directions and instructions.
- Communicate effectively both verbally and in writing.
- Establish and maintain cooperative working relationships.
- Follow safe working practices.
- Demonstrate tact and diplomacy.
- Make routine arithmetical calculations.
- Determine the appropriate course of action in stressful and/or emergency situations.
- Maintain accurate records and document actions taken.
- Use modern office equipment to include computers, smartphones, and 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 e.g. insects, rodents, snakes, bees, wasps, spiders, ants, etc.
- Work in an Industrial Area: 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 and 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 Approved by the Civil Service Commission: March, 2005
- Date Adopted by the Board of Supervisors: March, 2005
- Date(s) Revised:
- Class Code: 971050

## COUNTY OF SOLANO

### CLASS SPECIFICATION

#### BUILDING TRADES MECHANIC

#### CLASS SUMMARY:

Rev. 8/95

#### DEFINITION

Under direction, performs a variety of building construction maintenance and repair tasks requiring journey level skill in the building trades. ~~Employees in ; performs related work as required.~~

#### DISTINGUISHING CHARACTERISTICS

This class ~~perform~~describes 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 and window glazier) from rough to finish work. ~~This class is distinguished from Lead Building Trades Mechanic in that the latter has lead responsibility within the building repair section.~~

#### 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: **EXAMPLES OF DUTIES**

Duties may include but are not limited to the following:

- ~~1. Constructs, repairs, and/or installs rough and finish counters, cabinets, bookcases, shelving, desks, framing, stairs, concrete forms, fencing, and related hardware and attendant hardware; operates a variety of hand and power tools and specialized equipment including arc welding and cutting torch, backhoe, dumptruck, skiploader, and forklift when needed to perform a particular construction or repair job.~~

Performs building trades' masonry work:

- ~~2. Constructs repairs and/or installs flooring and ceilings, glass and insulation; 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), ~~tile~~, and ~~tile carpet~~; applies wall, door, cabinet, and furniture finishes such as paints, staining, sealers, polyurethanes, and varnishes.

Performs building trades electrical work:

- ~~3. 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:

- ~~4. 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 ~~commodes~~; cuts, threads and fits plastic, metal, and 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:

#### Building Trades Mechanic

### EXAMPLES OF DUTIES (Continued)

- ~~5. Prepares materials lists, estimates and charge slips; moves furniture incidental to maintenance activities.~~

### QUALIFICATION GUIDELINES

- Education: High School Diploma, GED, or equivalent; **AND**  
~~and/or Experience:~~ Four (4) years of experience total including three (3) years of apprenticeship training in a program or under

~~Considerable construction experience which included exposure to a variety of the building trades and which demonstrates possession of and competency in requisite knowledge, skills and abilities. Typical qualifying experience would be:~~

~~One year of experience as 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 craft field.~~

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: /Skills/Abilities

- ~~Considerable knowledge of the~~ methods, materials, machines, equipment and tools used in the building trades.
- ~~and their use;~~ building safety and the building code(s).

Safe; shop practices.

- Customer service techniques.

English composition, spelling, grammar, vocabulary.

- Skill in the methods and punctuation for both written and oral communications.
- Basic mathematics to determine amount/procedures 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 the building related software applications.
- Construction safety protocol/trades and regulations.

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

Use a variety in the use of basic/common specialty hand, pneumatic, hydraulic –and power tools and related shop equipment need to support construction, repairs and maintenance activities associated with the trades.

- 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.
- Ability to read and interpret building plans, and 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; recognize and analysis.
- Follow safe working procedures.
- Determine the appropriate course/respect limit of action in stressful authority 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 responsibility; 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 a variety of building trades in a variety of settings.

- 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.

### **SPECIAL REQUIREMENTS**

Possession of or ability to obtain a valid Class C driver's license may be required.

### **SUPPLEMENTAL INFORMATION**

Independent travel: ~~\_\_~~ will be required.

Incumbents are required to travel independently, to perform work at other work sites, etc. ~~must be able to perform heavy manual labor associated with building construction and maintenance tasks which may include lifting objects weighing up to 100 pounds and working with the full range of body movements involving reaching, bending, grasping and climbing.~~

Hours of Work: ~~\_\_~~

**Building Trades Mechanic**

**SUPPLEMENTAL INFORMATION (Continued)**

Incumbents may ~~work outdoors in all types of weather conditions and may also~~ be required to work weekends, holidays, irregular hours, on-call, and after normal business hours.~~in or around hazardous or adverse conditions.~~

Drug and Alcohol Testing: ~~Candidates applying for some 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 may be required to pass a background investigation in accordance with applicable policy. Depending on assignment, some incumbents~~ includes post-accident, as well as random and reasonable suspicion testing as required by law~~must be able to work in a jail environment and demonstrate working knowledge of security techniques and procedures.~~

**CLASS HISTORY AND CLASS INFORMATION:**

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

Date(s) Revised:

Class Code:873010~~Depending upon the needs of the department, certain specified building trades skills may be preferred.~~

\_\_\_\_\_  
Department Head

\_\_\_\_\_  
Date

Spec0702  
Rev. 8/95

## **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:

Class Code:873010

**COUNTY OF SOLANO**  
**CLASS SPECIFICATION**

**BUILDING TRADES MECHANIC - (Senior) ~~(LEAD)~~**

**CLASS SUMMARY:**

**Est. 03/95**

**DEFINITION**

Under direction, performs the most difficult and/or specialized technical assignments which require considerable knowledge of trade skills required for the ~~leads the work of others performing a variety of building construction, maintenance, and repair~~ of buildings, equipment and tasks requiring journey level skills in the building trades; performs related systems. ~~Employees in this advanced journey level work as required.~~

**DISTINGUISHING CHARACTERISTICS**

~~This class performs and/or leads the work of others in~~ is characterized by the responsibility to lead the work of Building Trades Mechanics who perform 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, ~~locksmithing, painting, welding and locksmithing~~) ~~from window glazier~~ and perform the full spectrum of rough to finish work. Provides technical expertise ~~This class is distinguished from Facilities Operations Supervisor in support of building maintenance and repairs that the latter has the full scope of supervisory responsibility.~~

**DISTINGUISHING CHARACTERISTICS:**

This class is distinguished from the:

- Facilities Operations Manager class which plans, organizes directs and oversees maintenance programs and operations for County facilities, including all building systems and components; custodial and landscape maintenance, construction and remodel projects, building security, energy management, cogeneration power distribution plant operations and maintenance.
- 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 class which 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. If required, provides technical expertise in support of building maintenance and repairs.
- Building Maintenance Assistant class which 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 Manager and/or Facilities Operations Supervisor
- No supervision is exercised over others.
- Provides lead, technical expertise, consultation, and advice to Building Trades Mechanics and/or Building Maintenance Assistants.

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

Performs lead worker duties over Building Trades Mechanics and Building Maintenance Assistants such as:

- administers and provides on-the-job training;
- passing on instructions received from supervisor and initiating work;
- distributing work among staff;
- monitoring status of work being performed and keeping supervisor informed of work progress;
- reviewing work of assigned staff, informing supervisor of customer feedback, work quality, conduct problems, and providing input on performance to supervisor;
- interpret administrative directions and incorporate into policies and procedures
- ensuring work is performed safely and efficiently;
- assist with periodic inspections of County facilities to determine operating condition, safety, and deficiencies.

Performs the same duties as the work being led such as the following:

building trades carpentry work: constructs, repairs, **EXAMPLES OF DUTIES**

Duties may include but are not limited to the following:

- ~~1. Plans and monitors the construction, repair and installation of equipment and materials in County buildings assigned to the Facilities Operations Division of the General Services Department.~~
- ~~2. Coordinates, plans, assigns, and monitors the work activities of assigned employees; confers with supervisor to establish needs and priorities.~~
- ~~3. Keeps records of disbursement inventories and maintains adequate stock of supplies and equipment related to building construction, repair and maintenance.~~
- ~~4. Constructs, repairs and/or installs rough and finish counters, finished cabinets, bookcases, shelving, desks, framing, stairs, concrete forms, fencing and related hardware; attendant hardware; operates a variety of hand and power tools and specialized equipment including backhoe, dump truck, skid loader, and forklift when needed to perform a particular construction or repair job.~~

building trades masonry work:

- ~~5. Constructs, repairs and/or installs flooring and ceiling counter tops, glass and insulation; pours and finishes concrete including sidewalks and equipment pads; lays blocks and ceramic tiles; performs a variety of patching on walls, floors, and ceilings using appropriate~~

materials; installs suspended ceilings.

- 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 Composite Tile (VCT) and tile; applies wall, door, cabinet, and furniture finishes such as paints, staining, sealers, polyurethanes, and varnishes;

building trades electrical work: **Building Trades Mechanic (Lead)**

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### **EXAMPLES OF DUTIES (Continued)**

- 6.** — 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;

building trades plumbing work:

- 7.** — Installs and repairs plumbing and fixtures related to 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, and clay pipe, and repair electronic water maintenance systems;

- 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 and

- **8.** — Trains employees in various trade skills and safe work methods; reviews the work of Building Trades Mechanics;
- coordinates with and oversees the work of vendors and contractors;
- maintains documentation for compliance with CAL/OSHA standards; keeps records of disbursement inventories; and maintains adequate stock of supplies and equipment related to building maintenance;
- coordinates work efforts of inter-related building systems with colleagues.
- performs other duties as assigned.

### **REQUIRED EDUCATION AND EXPERIENCE:**

- **Education:** High School Diploma, GED, or equivalent; **AND**

**Experience:** Five (5) years of experience including three (3) years of apprenticeship training in a program or under a journey worker ~~and assists supervisor in~~ electrical, plumbing, carpentry or closely related building trade **AND** two (2) years of full-time paid experience at the level of a journey worker in electrical, plumbing, carpentry or closely related building trade ~~performance evaluations.~~

## 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:

- ~~9. Performs periodic inspections of County facilities to determine operating condition, safety, and deficiency; maintains, reviews and updates the prevention maintenance program.~~

## QUALIFICATION GUIDELINES

### Education and/or Experience

~~Considerable building maintenance experience including exposure to a wide variety of building maintenance methods, procedures, techniques, and which demonstrates possession of and competency in requisite knowledge and abilities. Typical qualifying experience would be:~~

~~Two years of experience as a journey level Building Trades Mechanic involved in a wide variety of building maintenance methods, procedures, techniques.~~

### Knowledge of: /Abilities

- ~~Considerable knowledge of the~~ methods, materials, machines, equipment and tools used in the building trades.
- ~~and their use;~~ building safety and the building code (s).
- ~~Safecodes;~~ shop practices.
- ~~Standard; methods and accepted principles~~ procedures of leadership, on-the-job training, and work review.
- 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, etc.
- Modern office equipment to include: computers, smartphones and building related software applications.
- Construction safety protocols and regulations.

### Skill and/or Ability to:

- Distribute work and provide work directions, review work performance and conduct of staff, and provide on-trades and in-the-job training to staff led.
- Understand, interpret and explain regulations and policies governing assigned program operations.
- Identify and analyze problems and implement changes.
- Make decisions and independent judgments.
- Organize and prioritize work assignments.
- Collect and analyze data to identify needs and evaluate equipment effectiveness, draw logical conclusions and make appropriate recommendations and adjustments.

- Use a variety of common specialty hand, pneumatic, hydraulic and power tools and related shop equipment need to support construction, repairs and maintenance activities.
- Operates saws, drill presses, grinders, 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 associated with the trades. Ability to read and interpret building plans, and blueprints, and related schematics.

estimate materials required for a specific job; follow as well as provide written direction.

Perform a variety

- Ability to plan, organize and monitor the work of the Building Trades Mechanics section; understand, interpret and explain regulations and policies governing building trades operations in a variety of settings.
- Operate and maintain a variety of tools and forklifts properly and safely.
- Follow verbal public service agency; make decisions and written directions.

independent judgments; communicate effectively —

**Building Trades Mechanic (Lead)**

**Page three**

### **Knowledge/Abilities (Continued)**

- both verbally and in writing.
- Maintain accurate records and document actions taken.
- communicate effectively with people of diverse socio-economic backgrounds and temperaments; establish and maintain cooperative working relationships.
- understand program objectives in relation to departmental goals and procedures; demonstrate tact and diplomacy.
- Make routine arithmetical calculations and analysis.
- Follow; draw logical conclusions and train safe working procedures.
- Determine the make 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 recommendations; develop goals and objectives; monitor 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 working 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 ~~work of 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~~engaged in building trades activities; secure cooperation and teamwork among professional and/or support staff; maintain accurate records and document actions taken; organize and prioritize work assignments; research regulations, procedures and/or technical ~~reference~~ check and a physical on candidates prior to appointment to a position within this class. ~~activities; determine and evaluate levels of achievement and performance; recognize and respect limit of authority and responsibility; work effectively with others who have objectives counter to assigned role.~~

### **SPECIAL REQUIREMENTS**

Possession of a valid California Class C driver's license is required.

Independent travel: Incumbents are required to travel independently, to perform work at other work sites, ~~etc~~is required.

- 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 Approved by the Civil Service Commission: March, 1995

- Date Adopted by the Board of Supervisors: March, 1995
- Date(s) Revised:
- Date(s) Retitled and Previous Titles of the Class:
- Class Code: 874020

### **SUPPLEMENTAL INFORMATION**

~~Incumbents must be able to perform heavy manual labor associated with building construction and maintenance tasks which may include lifting objects weighing up to 100 pounds and working with the full range of body movements involving reaching, bending, grasping and climbing.~~

~~Incumbents may work outdoors in all types of weather conditions and may also be required to work in or around hazardous and adverse conditions.~~

~~Depending on assignment, candidates for some positions in this class may be required to pass a background investigation in accordance with applicable law, regulation and/or policy.~~

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**COUNTY OF SOLANO**  
**CLASS SPECIFICATION**  
**BUILDING TRADES MECHANIC - (Senior)**

**CLASS SUMMARY:**

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.

**DISTINGUISHING CHARACTERISTICS:**

This class is distinguished from the:

- **Facilities Operations Manager** class which plans, organizes directs and oversees maintenance programs and operations for County facilities, including all building systems and components; custodial and landscape maintenance, construction and remodel projects, building security, energy management, cogeneration power distribution plant operations and maintenance.
- **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** class which 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. If required, provides technical expertise in support of building maintenance and repairs.
- **Building Maintenance Assistant** class which 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 Manager and/or Facilities Operations Supervisor
- No supervision is exercised over others.

- Provides lead, technical expertise, consultation, and advice to Building Trades Mechanics and/or Building Maintenance Assistants.

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

Performs lead worker duties over Building Trades Mechanics and Building Maintenance Assistants such as:

- administers and provides on-the-job training;
- passing on instructions received from supervisor and initiating work;
- distributing work among staff;
- monitoring status of work being performed and keeping supervisor informed of work progress;
- reviewing work of assigned staff, informing supervisor of customer feedback, work quality, conduct problems, and providing input on performance to supervisor;
- interpret administrative directions and incorporate into policies and procedures
- ensuring work is performed safely and efficiently;
- assist with periodic inspections of County facilities to determine operating condition, safety, and deficiencies.

Performs the same duties as the work being led such as the following:

- 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;
- building trades masonry work: pours and finishes concrete including sidewalks and equipment pads; lays blocks and ceramic tiles;
- 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 Composite Tile (VCT) and tile; applies wall, door, cabinet, and furniture finishes such as paints, staining, sealers, polyurethanes, and varnishes;
- 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;
- building trades plumbing work: Installs and repairs plumbing and fixtures related to 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 maintenance systems;
- 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 and Building Trades Mechanics;
- coordinates with and oversees the work of vendors and contractors;
- maintains documentation for compliance with CAL/OSHA standards; keeps records of disbursement inventories; and maintains adequate stock of supplies and equipment related to building maintenance;
- coordinates work efforts of inter-related building systems with colleagues.
- performs other duties as assigned.

#### **REQUIRED EDUCATION AND EXPERIENCE:**

- **Education:** High School Diploma, GED, or equivalent; **AND**
- **Experience:** Five (5) years of experience 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 two (2) years of full-time paid experience at the level of a journey worker in electrical, plumbing, carpentry or closely related building trade.

#### **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.
- Standard and accepted principles of leadership, on-the-job training, and work review.
- 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, etc.
- Modern office equipment to include: computers, smartphones and building related software applications.
- Construction safety protocols and regulations.

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

- Distribute work and provide work directions, review work performance and conduct of staff, and provide on-the-job training to staff led.

- Understand, interpret and explain regulations and policies governing assigned program operations.
- Identify and analyze problems and implement changes.
- Make decisions and independent judgments.
- Organize and prioritize work assignments.
- Collect and analyze data to identify needs and evaluate equipment effectiveness, draw logical conclusions and make appropriate recommendations and adjustments.
- Use a variety of hand, pneumatic, hydraulic power tools and related shop equipment need to support construction, repairs and maintenance activities.
- Operates saws, drill presses, grinders, 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 and train 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 working 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 Approved by the Civil Service Commission:** March, 1995
- **Date Adopted by the Board of Supervisors:** March, 1995
- **Date(s) Revised:**
- **Date(s) Retitled and Previous Titles of the Class:**
- **Class Code:** 874020

COUNTY OF SOLANO

**CLASS SPECIFICATION**  
**STATIONARY ENGINEER**

**CLASS SUMMARY:**

Est. 10/86

**DEFINITION**

Under direction, operates, repairs, and maintains heating, cooling, ventilation and refrigeration systems and controls. Employees in this , performs related duties as required.

**DISTINGUISHING CHARACTERISTICS**

This is a journey level class which is responsible for operating, maintaining and repairing building support equipment in an assigned County Facilities. Positions may be assigned to work the County Cogeneration Plant.

**DISTINGUISHING CHARACTERISTICS:**

~~building complex.~~—This class is distinguished from the:

- Facilities Operations Manager class which plans, organizes directs and oversees maintenance programs and operations for County facilities, including all building systems and components; custodial and landscape maintenance, construction and remodel projects, building security, energy management, cogeneration power distribution plant operations and maintenance.

Facilities Operations Supervisor class which is a first line Chief Stationary Engineer in that the latter has overall supervisory class responsible responsibility for the work unit engaged in the operations and maintenance of County owned stationary equipment throughout the County's buildings and support equipment, and which, depending on the unit supervised, may include heating, air conditioning, ventilating, refrigerating, electrical, plumbing, carpentry.

- Stationary Engineer (Senior) class which under direction, performs the most difficult and/or specialized technical assignments which require considerable knowledge of trade skills required to, operate, repair, and maintain heating, cooling, ventilation and refrigeration systems and building controls. Employees in this advanced journey level class are responsible for the operation, maintenance, and repair of the County Cogeneration Plant and/or providing lead direction to Stationary Engineers and Building Maintenance Assistants. Positions may be assigned to the County Cogeneration Plant or other County Facilities.
- Cogeneration Industrial Engine Mechanic which under general supervision, performs advanced journey work in operating, maintaining, inspecting, diagnosing, troubleshooting, making major and emergency repairs, overhauling, rebuilding, and overseeing contractor installation, etc. of internal combustion natural gas engines/generators and large industrial stationary engines, machinery, pump engines, motors, generators, and related equipment at County's Cogeneration Plant.

- Building Maintenance Assistant class which 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 Manager and/or 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 Stationary Engineer (Senior)

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

### EXAMPLES OF DUTIES

Duties may include but are not limited to the following:

1. Starts, stops, and adjusts automatic and manual low and high voltage, electric, electronic automated and pneumatic controls to operate the heating, cooling, ventilating and refrigeration systems within recommended or prescribed operating ranges.
2. Reads meters and gauges or automatic recording devices to verify operating conditions and records data such as temperature of equipment, hours of operation, fuel consumed, temperature or pressure, water levels, analyses of flue gases, and voltage load.
3. Adjusts manual controls or overrides automatic controls to bring equipment into recommended or prescribed operating ranges, switch to back up equipment or systems, or shut down equipment.

### Performs visual inspections and preventive maintenance

4. Visually inspects equipment at determined periodic intervals to detect malfunctions and/or the need for repairs, ~~adjustments or lubrication.~~
5. Analyzes, trends and Maintains equipment by testing, balancing and making adjustments to tightening fittings, repacking bearings and valves, replacing compressors, motors, pumps, valve gaskets, recorders and gauges, and cleaning or replacing burners or other components using hand and power tools; oils and lubricates equipment; makes repairs to all associated equipment related to the HVAC and air distribution systems, including intakes and exhaust.
- 6.5. Performs water treatment analyses on chilled, condenser and/or hot water and steam to maintain chemical control limits of the water, adds chemical additives, such as water softeners into treatment tank to prevent scale build up and to clean boiler lines.

- Maintains and repairs decorative fountains controls.

7.6. Records operation and maintenance actions taken during particular shift.

- Understand and interpret blueprints and building reference manuals.

- Coordinates with and oversees the work of vendors and contractors.
- Maintains documentation for compliance with CAL/OSHA standards; keeps records of disbursement inventories; and maintains adequate stock of supplies and equipment related to heating and air conditioning repair and maintenance.
- Maintains the cleanliness of air vents in secured facilities that requires the use of a lift.
- Provides technical expertise and/or consultation and advice to colleagues.
- Coordinates work efforts of inter-related building systems with colleagues.
- Performs other duties as assigned.

## **REQUIRED EDUCATION AND EXPERIENCE:**

**Stationary Engineer**

**Page two**

## **QUALIFICATION GUIDELINES**

- **Education:** High School Diploma, GED, or equivalent; **AND** **and/or Experience:** Four (4) years experience including three (3) years of apprenticeship training in a program, or under a journey worker in

Considerable heating, ventilating, air conditioning and/or refrigeration AND One (1) year of full-time paid experience at the level of a journey worker in heating, ventilating, air conditioning and/or refrigeration experience which included trouble shooting and analyzing problems concerning pneumatic, electric and electronic systems and which demonstrates possession of and competency in requisite knowledge and abilities.

- Journey worker certificate as a Stationary Engineer is highly desirable.

## **LICENSING, CERTIFICATION AND REGISTRATION REQUIREMENTS:**

- Applicants are required to possess, or obtain prior to employment, a valid California Driver's License, Class C.
- Applicants are required to possess a current Environmental Protection Agency, Section 608, Universal Certification.

**Note:** All licenses, certificates and registrations must be kept current while employed in this class.

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

### **Knowledge of: /Abilities**

~~Considerable knowledge of the theory and practice of heating, ventilating, air conditioning, electricity, hydraulics, thermal dynamics refrigeration and electronics; the installation, maintenance, operation, repair, and balancing of environmental systems.~~

- HVAC operations, maintenance and repair to include minor programming.

Installation, maintenance, operation, repair, and balancing

- Working knowledge of environmental systems.
- drafting and blueprint reading.
- ; pneumatic and electronic controls.

- ~~\_\_\_~~; ~~tools and equipment commonly used in the stationary engineering field;~~ chemistry, physics, and water treatment practices as they apply to stationary engineering equipment.
- Tools and equipment commonly used in the stationary engineering field.
- Automated controls systems operations and minor programming of; ~~equipment commonly found in~~ public buildings.

- Safe shop practices.
- Laws, regulations and policies applicable to work performed.
- 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 related software applications.
- Construction safety protocols and regulations.

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

- Read and interpret building plans, blueprints, ~~read~~ instructional mechanical plans, and related schematics.
- ~~blueprints,~~ diagnose mechanical operating troubles.
- ~~,~~ maintain accurate records and reports and documents actions taken.
- ~~,~~ comprehend and follow written and verbal instructions.
- ~~,~~ ~~communicate effectively with people of diverse socioeconomic backgrounds and temperaments,~~ establish and maintain cooperative working relationships.
- Demonstrate tact and diplomacy.
- ~~,~~ determine the appropriate course of action in in stressful and/or emergency situations.
- ~~,~~ ~~demonstrate tact and diplomacy,~~ collect and analyze data to identify needs and evaluate equipment effectiveness, draw logical conclusions and make appropriate recommendations and adjustments.
- ~~,~~ ~~understand and analyze testing procedures and test results, maintain accurate records and documents actions taken, organize and prioritize work assignments, make arithmetical calculations, research regulations, procedures and technical reference materials relating to equipment, determine and evaluate levels of authority and responsibility, work effectively with others who have objectives counter to assigned role.~~
- Understand and analyze testing procedures and test results.
- Organize and prioritize work assignments.
- Make routine arithmetical calculations and analysis.
- Research regulations, procedures and technical reference materials relating to equipment.
- Use modern office equipment to include computers and related software applications.
- Operate and maintain a variety of tools and forklifts properly and safely.

### **PHYSICAL**

#### **SPECIAL 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 and power tools.
- 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 e.g. insects, rodents, snakes, bees, wasps, spiders, ants, etc.
- Work in an Industrial Area: 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 and power tools and equipment.
- Traffic Hazards: Employees in this class will 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 of 50-75 feet. 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.

Possession of a valid Class C California driver's license may be required.

Independent travel: Incumbents are required to travel is required.

### **SUPPLEMENTAL INFORMATION**

Incumbents must be able to work independently, to perform work at other work sites, etc. Work may include lifting objects weighing more than 100 pounds and working around equipment under high pressure and extreme temperature ranges.

Hours of Work: Incumbents may be required to work weekends, holidays, irregular hours,

- Depending on-call, and after normal business hours.

Drug and Alcohol Testing: Candidates applying assignment, candidates for some 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 may be required to pass a background investigation in accordance with applicable law, regulation and/or policy.

### **CLASS HISTORY AND CLASS INFORMATION:**

- Date revision approved by the Civil Service Commission: October, 1986
- Date(s) Revised:
- Class Code: 873040

Incumbents may work outdoors in all types of weather conditions and may also be required to work in or around hazardous and adverse conditions.

## COUNTY OF SOLANO CLASS SPECIFICATION STATIONARY ENGINEER

### CLASS SUMMARY:

Under direction, operates, repairs, and maintains heating, cooling, ventilation and refrigeration systems and controls. Employees in this journey level class is responsible for operating, maintaining and repairing building support equipment in assigned County Facilities. Positions may be assigned to work the County Cogeneration Plant.

### DISTINGUISHING CHARACTERISTICS:

This class is distinguished from the:

- **Facilities Operations Manager** class which plans, organizes directs and oversees maintenance programs and operations for County facilities, including all building systems and components; custodial and landscape maintenance, construction and remodel projects, building security, energy management, cogeneration power distribution plant operations and maintenance.
- **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.
- **Stationary Engineer (Senior)** class which under direction, performs the most difficult and/or specialized technical assignments which require considerable knowledge of trade skills required to, operate, repair, and maintain heating, cooling, ventilation and refrigeration systems and building controls. Employees in this advanced journey level class are responsible for the operation, maintenance, and repair of the County Cogeneration Plant and/or providing lead direction to Stationary Engineers and Building Maintenance Assistants. Positions may be assigned to the County Cogeneration Plant or other County Facilities.
- **Cogeneration Industrial Engine Mechanic** which under general supervision, performs advanced journey work in operating, maintaining, inspecting, diagnosing, troubleshooting, making major and emergency repairs, overhauling, rebuilding, and overseeing contractor installation, etc. of internal combustion natural gas engines/generators and large industrial stationary engines, machinery, pump engines, motors, generators, and related equipment at County's Cogeneration Plant.
- **Building Maintenance Assistant** class which 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 Manager and/or 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 Stationary Engineer (Senior)

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

- Starts, stops, and adjusts automatic and manual low and high voltage, electric, electronic automated and pneumatic controls to operate the heating, cooling, ventilating and refrigeration systems within recommended or prescribed operating ranges.
- Reads meters and gauges or automatic recording devices to verify operating conditions and records data such as temperature of equipment, hours of operation, fuel consumed, temperature or pressure, water levels, analyses of flue gases, and voltage load.
- Adjusts manual controls or overrides automatic controls to bring equipment into recommended or prescribed operating ranges, switch to back up equipment or systems, or shut down equipment.
- Performs visual inspections and preventive maintenance at determined intervals to detect malfunctions and/or the need for repairs.
- Analyzes, trends and maintains equipment by testing, balancing and making adjustments to tightening fittings, repacking bearings and valves, replacing compressors, motors, pumps, valve gaskets, recorders and gauges, and cleaning or replacing burners or other components using hand and power tools; oils and lubricates equipment; makes repairs to all associated equipment related to the HVAC and air distribution systems, including intakes and exhaust.
- Performs water treatment analyses on chilled, condenser and/or hot water and steam to maintain chemical control limits of the water, adds chemical additives, such as water softeners into treatment tank to prevent scale build up and to clean boiler lines.
- Maintains and repairs decorative fountains controls.
- Records operation and maintenance actions taken during particular shift.
- Understand and interpret blueprints and building reference manuals.
- Coordinates with and oversees the work of vendors and contractors.
- Maintains documentation for compliance with CAL/OSHA standards; keeps records of disbursement inventories; and maintains adequate stock of supplies and equipment related to heating and air conditioning repair and maintenance.
- Maintains the cleanliness of air vents in secured facilities that requires the use of a lift.
- Provides technical expertise and/or consultation and advice to colleagues.
- Coordinates work efforts of inter-related building systems with colleagues.
- Performs other duties as assigned.

**REQUIRED EDUCATION AND EXPERIENCE:**

- **Education:** High School Diploma, GED, or equivalent; **AND**
- **Experience:** Four (4) years experience including three (3) years of apprenticeship training in a program, or under a journey worker in heating, ventilating, air conditioning and/or refrigeration **AND** One (1) year of full-time paid experience at the level of a journey worker in heating, ventilating, air conditioning and/or refrigeration.

- Journey worker certificate as a Stationary Engineer is highly desirable.

**LICENSING, CERTIFICATION AND REGISTRATION REQUIREMENTS:**

- Applicants are required to possess, or obtain prior to employment, a valid California Driver's License, Class C.
- Applicants are required to possess a current Environmental Protection Agency, Section 608, Universal Certification.

**Note:** All licenses, certificates and registrations must be kept current while employed in this class.

**REQUIRED KNOWLEDGE, SKILLS AND ABILITIES:**

**Knowledge of:**

- Theory and practice of heating, ventilating, air conditioning, electricity, hydraulics, thermal dynamics refrigeration and electronics.
- HVAC operations, maintenance and repair to include minor programming.
- Installation, maintenance, operation, repair, and balancing of environmental systems.
- Drafting and blueprint reading.
- Pneumatic and electronic controls.
- Chemistry, physics, and water treatment practices as they apply to stationary engineering equipment.
- Tools and equipment commonly used in the stationary engineering field.
- Automated controls systems operations and minor programming of equipment commonly found in public buildings.
- Safe shop practices.
- Laws, regulations and policies applicable to work performed.
- 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 related software applications.
- Construction safety protocols and regulations.

**Skill and/or Ability to:**

- Read and interpret building plans, blueprints, instructional mechanical plans, and related schematics.
- Diagnose mechanical operating troubles.
- Maintain accurate records and reports and documents actions taken.
- Comprehend and follow written and verbal instructions.
- Establish and maintain cooperative working relationships.
- Demonstrate tact and diplomacy.

- Determine the appropriate course of action in stressful and/or emergency situations.
- Collect and analyze data to identify needs and evaluate equipment effectiveness, draw logical conclusions and make appropriate recommendations and adjustments.
- Understand and analyze testing procedures and test results.
- Organize and prioritize work assignments.
- Make routine arithmetical calculations and analysis.
- Research regulations, procedures and technical reference materials relating to equipment.
- Use modern office equipment to include computers and related software applications.
- Operate and maintain a variety of tools and forklifts properly and safely.

#### **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 and power tools.
- **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 e.g. insects, rodents, snakes, bees, wasps, spiders, ants, etc.
- **Work in an Industrial Area:** 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 and power tools and equipment.

- Traffic Hazards: Employees in this class will 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 of 50-75 feet 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: October, 1986
- Date(s) Revised:
- Class Code: 873040

COUNTY OF SOLANO

**CLASS SPECIFICATION**  
**STATIONARY ENGINEER (SENIOR)**

**CLASS SUMMARY:**

**Est. 3/95**

**DEFINITION**

Under direction, performs the most difficult and/or specialized technical assignments which require considerable knowledge leads the work of trade skills required to, operate, others in the operation, repair, and maintain maintenance of heating, cooling, ventilation and refrigeration systems, and building controls. Employees in this; performs related duties as required.

**DISTINGUISHING CHARACTERISTICS**

This class is characterized by the responsibility to lead the work of Stationary Engineers and/or perform advanced journey level class are responsible for the operation, maintenance, and repair of the County Cogeneration Plantwork requiring the application, complex methods and procedures associated with heating and/or providing lead direction to Stationary Engineers and Building Maintenance Assistants. Positions may be assigned to the County Cogeneration Plant or other County Facilities air conditioning work. It is distinguished from Facilities Operations Supervisor in that the latter has the full scope of supervisory responsibility.

**DISTINGUISHING CHARACTERISTICS:**

This class is distinguished from the:

- Facilities Operations Manager class which plans, organizes directs and oversees maintenance programs and operations for County facilities, including all building systems and components; custodial and landscape maintenance, construction and remodel projects, building security, energy management, cogeneration power distribution plant operations and maintenance.
- 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.

Cogeneration Industrial Engine Mechanic class which under direction performs work in operating, maintaining, inspecting, repairing of internal combustion natural gas engines/generators**EXAMPLES OF DUTIES**

Duties may include but are not limited to the following:

1. Plans and monitors heating and air conditioning maintenance and construction work in the Facilities Operations Division of the General Services Department.
2. Coordinates, plans, assigns, and leads the work activities of assigned employees; trains employees in various trade skills and safe work methods; confers with supervisor to establish needs and priorities.
3. Keeps records of disbursement inventories and maintains adequate stock of supplies and equipment related to heating and air conditioning repair and maintenance.

- 4. Adjusts and large industrial stationary engines, machinery, pump engines, motors, generators, and related equipment at County's Cogeneration Plant.
- Stationary Engineer class which under direction operates, repairs, and maintains heating, cooling, ventilation and refrigeration systems and controls. Employees in this journey level class are responsible for operating, maintaining and repairing building support equipment in assigned County Facilities. Positions may be assigned to work in assist the County Cogeneration Plant.

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

- Supervision is provided by a Facilities Operations Manager and/or Facilities Operations Supervisor.
- No supervision is exercised over others.
- Provides lead, technical expertise, consultation, and advice to Stationary Engineers and/or Building Maintenance Assistants.

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

- Performs lead duties over Stationary Engineers and Building Maintenance Assistant, such as:
  - administers and providing on-the-job training;
  - passing on instructions received from supervisor and initiating work;
  - distributing work among staff;
  - monitoring status of work being performed and keeping supervisor informed of work progress;
  - reviewing work of assigned staff, informing supervisor of customer feedback, work quality, conduct problems, and providing input on performance to supervisor;
  - interpret administrative directions and incorporate into policies and procedures;
  - ensuring work is performed safely and efficiently;
  - assist with periodic inspections of County facilities to determine operating condition, safety, and deficiencies.
- Perform duties associated with the operation and maintenance of the Cogeneration Plant and/or other County buildings such as the following:

starts, stops and adjusts automatic and manual low and high voltage, electric, maintains electronic automated and pneumatic controls to operate the heating, cooling, ventilating and refrigeration systems within recommended or prescribed operating ranges:-

5. Reads meters and gauges or automatic recording devices to verify operating conditions and records data such as temperature of equipment, hours of operation, fuel consumed, ~~temperature~~temperatures or pressure, water levels, ~~analyses~~analysis of flue gases, and voltage load:-

6. Adjusts manual controls or overrides automatic controls to bring equipment into recommended or prescribed operating ranges, switch to ~~back~~ break-up equipment or systems, or ~~shutdown~~shut-down equipment:-

  - analyzes, trends and maintains equipment by testing, balancing and making adjustments to tightening fittings, repacking bearings and valves, replacing compressors, motors, pumps, valve gaskets, recorders and gauges, and cleaning or replacing burners or other components using hand and power tools; oils and lubricates equipment; makes repairs to all associated equipment related to the HVAC and air distribution systems, including intakes and exhaust;
  - performs water treatment analysis on chilled, condenser and/or hot water and steam

to maintain chemical control limits of the water, adds chemical additives, such as water softeners into treatment tank to prevent scale build up and to clean boiler lines;

- performs visual inspections and preventative maintenance at determined intervals to detect malfunctions and/or the need for repairs;
- maintain and repair decorative fountain controls;
- performs preventative maintenance, repairs, and replacement of mechanical systems and components, including HVAC, refrigeration, and HVAC related pneumatic systems;

**Stationary Engineer (Senior)**

**Page two**

### **EXAMPLES OF DUTIES (Continued)**

- 7. Visually inspects equipment at periodic intervals to detect malfunctions or the need for repairs, adjustments, or lubrication;
- inspects, repairs, operates mechanical and electrical equipment operating parameters and conditions related to HVAC, refrigeration and mechanical systems;
- monitors, troubleshoots and maintains computer building management systems including operating systems, pressures, temperatures, trends, schedules, control logs, and alarms;
- performs minor programming adjustments to automated controls;

oversees the maintenance performed on generator engines, ~~evaluates~~evaluate engine operations and coordinates conditions and make recommendations concerning proper repair timelines as it pertains to the Cogeneration Plant; ~~repairs.~~

8. May perform complex and routine computer program modifications, commodity price updates, report generation, system operation changes and back-up;

9. May provide assistance, compile reports, advise and oversee services performed by outside contractors, vendors, government agencies and P.G.&E.;

10. Records operation and maintenance ~~actions~~action taken during particular shift;

- understand and interpret blueprints and building reference manuals;
- coordinates with and oversees the work of vendors and contractors;
- maintains documentation for compliance with CAL/OSHA standards; keeps records of disbursement inventories; and maintains adequate stock of supplies and equipment related to heating and air conditioning repair and maintenance;
- maintains the cleanliness of air vents in secured facilities that requires the use of a lift;
- performs the same duties as the work being led;
- coordinates work efforts of inter-related building systems with colleagues;
- performs other duties as assigned;

### **REQUIRED EDUCATION AND EXPERIENCE:**

#### **QUALIFICATION GUIDELINES**

• **Education:** High School Diploma, GED, ~~and/or~~ equivalent; AND

**Experience:** Five (5)

~~Considerable heating, ventilating, air conditioning and/or refrigeration experience which included trouble shooting and analyzing problems concerning pneumatic, electric and electronic systems and which demonstrates possession of and competency in requisite knowledge and abilities. Typical qualifying experience would be:~~

~~Two years of experience including three (3) years of apprenticeship training in a program or under as a journey worker in level Stationary Engineer involved in the maintenance and repair of heating, ventilating, air conditioning and/or refrigeration AND Two (2) years of full-time paid experience at the level of a journey worker in heating, ventilating, air conditioning and/or refrigerationsystems.~~

- ~~• Journey worker certificate as a Stationary Engineer is highly desirable.~~

#### **LICENSING, CERTIFICATION AND REGISTRATION REQUIREMENTS:**

- ~~• Applicants are required to possess, or obtain prior to employment, a valid California Driver's License, Class C.~~
- ~~• Applicants are required to possess a current Environmental Protection Agency, Section 608, Universal Certification.~~

~~*Note: All licenses, certificates and registrations must be kept current while employed in this class.*~~

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

##### **Knowledge of: /Abilities**

~~**Extensive knowledge of** the theory and practices of heating, ventilating, air conditioning, electricity, hydraulics, thermal dynamics refrigeration and electronics; ~~the installation, maintenance, operation, repair, and balancing of environmental systems.~~~~

- ~~• HVAC operations, maintenance and repair to include minor or major programming.~~

##### ~~**Installation, maintenance, operation, repair, and balancing**~~

- ~~• **Considerable knowledge of** environmental systems.~~
- ~~• drafting and blueprint reading.~~
- ~~• pneumatic and electronic controls.~~
- ~~• tools and equipment commonly used in the stationary engineering field.~~
- ~~• chemistry, physics, and water treatment practices as they apply to stationary engineering equipment.~~

~~**Automated controls systems operations and minor programming of** equipment commonly found ~~in~~ public buildings.~~

- ~~• Safe shop practices.~~
- ~~• Standard and accepted principles of leadership, on-the-job training, and work review.~~
- ~~• Laws, regulations and policies applicable to work performed.~~
- ~~• 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 related software applications.~~
- ~~• Construction safety protocols and regulations.~~

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

- Distribute work and provide work directions, review work performance and conduct of staff, and provide on-the-job training to staff led.

~~Ability to lead the work of others performing maintenance and/or construction work related to the repair and maintenance of heating and refrigeration systems in Solano County government~~

**Stationary Engineer (Senior)**

**Page three**

### **Knowledge/Abilities (Continued)**

- facilities; understand, interpret and explain regulations and policies governing assigned program operations.
  - ; identify and analyze problems and implement changes.
  - ; make decisions and independent judgments.
  - Organize and prioritize work assignments.
  - Read and interpret building plans, blueprints; ~~read~~ instructional mechanical plans, and related schematics.
  - blue prints; diagnose mechanical operating troubles.
  - ; maintain accurate records and reports and documents any action taken.
  - ; comprehend and follow written and verbal instructions.
  - ~~;~~ communicate effectively with people of diverse socio-economic backgrounds and temperaments; establish and maintain cooperative working relationships.
  - Demonstrate tact and diplomacy.
  - ; determine the appropriate course of action in in stressful and/or emergency situations.
  - Communicate effectively both verbally and in writing
  - ~~;~~ demonstrate tact and diplomacy; collect and analyze data to identify needs and evaluate equipment effectiveness; draw logical conclusions and make appropriate recommendations and adjustments.
  - ; understand and analyze testing procedures and test results.
  - Make routine; ~~maintain accurate records and document action taken;~~ organize and prioritize work assignments; make arithmetical calculations and analysis.
- ~~Research regulations;~~ project consequences of decisions; ~~determine and evaluate levels of achievement and performance;~~ recognize and respect limit of authority and responsibility; ~~interpret administrative direction and incorporate it into operating policies and procedures~~ and technical reference materials relating to equipment; ~~work effectively with others who have objectives counter to assigned role.~~
- Use modern office equipment to include computers, smart phones, and related software applications.
  - Operate and maintain a variety of tools and forklifts properly and safely

### **PHYSICAL**

#### **SPECIAL 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 and power tools.
- 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 e.g. insects, rodents, snakes, bees, wasps, spiders, ants, etc.
- Work in an Industrial Area: 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 and power tools and equipment.
- Traffic Hazards: Employees in this class will 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 of 50-75 feet 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.

Possession of a valid Class C California driver's license may be required.

Independent travel: is required.

#### **SUPPLEMENTAL INFORMATION**

Incumbents are required must be able to travel/work independently, to perform work at other work sites, etc. Work may include lifting objects weighing more than 100 pounds and working around equipment under high pressure and extreme temperature ranges.

Hours of Work: Incumbents may be required to work weekends, holidays, irregular hours,

- Depending on-call, and after normal business hours.

Drug and Alcohol Testing: Candidates applying assignment, candidates for some 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 may be required to pass a background investigation in accordance with applicable law, regulation and/or policy.~~

~~Incumbents may work outdoors in all types of weather conditions and may also be required to work in or around hazardous and adverse conditions.~~

\\caof01\hrdata\classification\classspe\stationary engineer senior.doc **CLASS HISTORY AND CLASS INFORMATION:**

- Date Approved by the Civil Service Commission: March, 1995
- Date Adopted by the Board of Supervisors: March, 1995
- Date(s) Revised:
- Class Code: 874030

Est 3/95

**COUNTY OF SOLANO**  
**CLASS SPECIFICATION**  
**STATIONARY ENGINEER (SENIOR)**

**CLASS SUMMARY:**

Under direction, performs the most difficult and/or specialized technical assignments which require considerable knowledge of trade skills required to, operate, repair, and maintain heating, cooling, ventilation and refrigeration systems, and building controls. Employees in this advanced journey level class are responsible for the operation, maintenance, and repair of the County Cogeneration Plant and/or providing lead direction to Stationary Engineers and Building Maintenance Assistants. Positions may be assigned to the County Cogeneration Plant or other County Facilities.

**DISTINGUISHING CHARACTERISTICS:**

This class is distinguished from the:

- **Facilities Operations Manager** class which plans, organizes directs and oversees maintenance programs and operations for County facilities, including all building systems and components; custodial and landscape maintenance, construction and remodel projects, building security, energy management, cogeneration power distribution plant operations and maintenance.
- **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.
- **Cogeneration Industrial Engine Mechanic** class which under direction performs work in operating, maintaining, inspecting, repairing of internal combustion natural gas engines/generators and large industrial stationary engines, machinery, pump engines, motors, generators, and related equipment at County's Cogeneration Plant.
- **Stationary Engineer** class which under direction operates, repairs, and maintains heating, cooling, ventilation and refrigeration systems and controls. Employees in this journey level class are responsible for operating, maintaining and repairing building support equipment in assigned County Facilities. Positions may be assigned to work in assist the County Cogeneration Plant.

**SUPERVISION RECEIVED AND EXERCISED:**

- Supervision is provided by a Facilities Operations Manager and/or Facilities Operations Supervisor.
- No supervision is exercised over others.
- Provides lead, technical expertise, consultation, and advice to Stationary Engineers and/or Building Maintenance Assistants.

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

- Performs lead duties over Stationary Engineers and Building Maintenance Assistant, such as:
  - administers and providing on–the–job training;
  - passing on instructions received from supervisor and initiating work;
  - distributing work among staff;
  - monitoring status of work being performed and keeping supervisor informed of work progress;
  - reviewing work of assigned staff, informing supervisor of customer feedback, work quality, conduct problems, and providing input on performance to supervisor;
  - interpret administrative directions and incorporate into policies and procedures;
  - ensuring work is performed safely and efficiently;
  - assist with periodic inspections of County facilities to determine operating condition, safety, and deficiencies.
- Perform duties associated with the operation and maintenance of the Cogeneration Plant and/or other County buildings such as the following:
  - starts, stops and adjusts automatic and manual low and high voltage, electric, electronic automated and pneumatic controls to operate the heating, cooling, ventilating and refrigeration systems within recommended or prescribed operating ranges;
  - reads meters and gauges or automatic recording devices to verify operating conditions and records data such as temperature of equipment, hours of operation, fuel consumed, temperature or pressure, water levels, analyses of flue gases, and voltage load;
  - adjusts manual controls or overrides automatic controls to bring equipment into recommended or prescribed operating ranges, switch to back up equipment or systems, or shutdown equipment;
  - analyzes, trends and maintains equipment by testing, balancing and making adjustments to tightening fittings, repacking bearings and valves, replacing compressors, motors, pumps, value gaskets, recorders and gauges, and cleaning or replacing burners or other components using hand and power tools; oils and lubricates equipment; makes repairs to all associated equipment related to the HVAC and air distribution systems, including intakes and exhaust;
  - performs water treatment analysis on chilled, condenser and/or hot water and steam to maintain chemical control limits of the water, adds chemical additives, such as water softeners into treatment tank to prevent scale build up and to clean boiler lines;
  - performs visual inspections and preventative maintenance at determined intervals to detect malfunctions and/or the need for repairs;
  - maintain and repair decorative fountain controls;
  - performs preventative maintenance, repairs, and replacement of mechanical systems and components, including HVAC, refrigeration, and HVAC related pneumatic systems;
  - visually inspects equipment at periodic intervals to detect malfunctions or the need for repairs, adjustments, or lubrication;

- inspects, repairs, operates mechanical and electrical equipment operating parameters and conditions related to HVAC, refrigeration and mechanical systems;
- monitors, troubleshoots and maintains computer building management systems including operating systems, pressures, temperatures, trends, schedules, control logs, and alarms;
- performs minor programming adjustments to automated controls;
- oversees the maintenance performed on generator engines, evaluates engine operations and coordinates proper repair timelines as it pertains to the Cogeneration Plant;
- perform complex and routine computer program modifications, commodity price updates, report generation, system operation changes and back-up;
- provide assistance, compile reports, advise and oversee services performed by outside contractors, vendors, government agencies and P.G.&E;
- records operation and maintenance actions taken during particular shift;
- understand and interpret blueprints and building reference manuals;
- coordinates with and oversees the work of vendors and contractors;
- maintains documentation for compliance with CAL/OSHA standards; keeps records of disbursement inventories; and maintains adequate stock of supplies and equipment related to heating and air conditioning repair and maintenance;
- maintains the cleanliness of air vents in secured facilities that requires the use of a lift;
- performs the same duties as the work being led;
- coordinates work efforts of inter-related building systems with colleagues;
- performs other duties as assigned;

**REQUIRED EDUCATION AND EXPERIENCE:**

- **Education:** High School Diploma, GED, or equivalent; **AND**
- **Experience:** Five (5) years of experience including three (3) years of apprenticeship training in a program or under a journey worker in heating, ventilating, air conditioning and/or refrigeration **AND** Two (2) years of full-time paid experience at the level of a journey worker in heating, ventilating, air conditioning and/or refrigeration.
- Journey worker certificate as a Stationary Engineer is highly desirable.

**LICENSING, CERTIFICATION AND REGISTRATION REQUIREMENTS:**

- Applicants are required to possess, or obtain prior to employment, a valid California Driver's License, Class C.
- Applicants are required to possess a current Environmental Protection Agency, Section 608, Universal Certification.

**Note:** All licenses, certificates and registrations must be kept current while employed in this class.

**REQUIRED KNOWLEDGE, SKILLS AND ABILITIES:**

**Knowledge of:**

- Theory and practices of heating, ventilating, air conditioning, electricity, hydraulics, thermal dynamics refrigeration and electronics.
- HVAC operations, maintenance and repair to include minor or major programming.
- Installation, maintenance, operation, repair, and balancing of environmental systems.
- drafting and blueprint reading.
- Pneumatic and electronic controls.
- Tools and equipment commonly used in the stationary engineering field.
- Chemistry, physics, and water treatment practices as they apply to stationary engineering equipment.
- Automated controls systems operations and minor programming of equipment commonly found in public buildings.
- Safe shop practices.
- Standard and accepted principles of leadership, on-the-job training, and work review.
- Laws, regulations and policies applicable to work performed.
- 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 related software applications.
- Construction safety protocols and regulations.

**Skill and/or Ability to:**

- Distribute work and provide work directions, review work performance and conduct of staff, and provide on-the-job training to staff led.
- Understand, interpret and explain regulations and policies governing assigned program operations.
- Identify and analyze problems and implement changes.
- Make decisions and independent judgments.
- Organize and prioritize work assignments.
- Read and interpret building plans, blueprints, instructional mechanical plans, and related schematics.
- Diagnose mechanical operating troubles.
- Maintain accurate records and reports and documents any action taken.
- Comprehend and follow written and verbal instructions.
- Establish and maintain cooperative working relationships.
- Demonstrate tact and diplomacy.
- Determine the appropriate course of action in stressful and/or emergency situations.
- Communicate effectively both verbally and in writing
- Collect and analyze data to identify needs and evaluate equipment effectiveness, draw logical conclusions and make appropriate recommendations and adjustments.
- Understand and analyze testing procedures and test results.
- Make routine arithmetical calculations and analysis.
- Research regulations, procedures and technical reference materials relating to equipment.

- Use modern office equipment to include computers, smart phones, and related software applications.
- Operate and maintain a variety of tools and forklifts properly and safely

**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 and power tools.
- **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 e.g. insects, rodents, snakes, bees, wasps, spiders, ants, etc.
- **Work in an Industrial Area:** 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 and power tools and equipment.
- **Traffic Hazards:** Employees in this class will 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 of 50-75 feet 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 Approved by the Civil Service Commission: March, 1995
- Date Adopted by the Board of Supervisors: March, 1995
- Date(s) Revised:
- Class Code: 874030



# Solano County

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## Agenda Submittal

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**Agenda #:** **Status:** Agenda Ready  
**Type:** CSC-Document **Department:** Civil Service Commission  
**File #:** CSC 16-0040 **Contact:** Marc Fox, 784-2552  
**Agenda date:** 12/14/2016 **Final action:**  
**Title:** Accept the Civil Service Commission regular meeting calendar for 2017

**Governing body:** Civil Service Commission

**District:**

**Attachments:**

Date	Ver.	Action By	Action	Result
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### **HUMAN RESOURCES' RECOMMENDATION:**

It is recommended that the Commission take the following action for the Civil Service Commission's regular meeting calendar for calendar year 2017:

- A. Accept the Civil Service Commission calendar for 2017, setting the meeting start time at 6:30 p.m.; and
- B. Approve cancellation of the Civil Service Commission meetings of July 12, 2017

### **SUMMARY:**

Civil Service Rule 3.01, Meetings of the Civil Service Commission, paragraph A provides that the Civil Service Commission shall meet at least monthly, normally on the second Wednesday of the month, at the hour and place designated by the President. The Commission may meet at other times at the call of the President or of a quorum of the Commission, providing four days notice is given.

### **DISCUSSION:**

The 2017 calendar year Civil Service Commission meeting calendar continues the Commission's regular meetings on the second Wednesday of each month, beginning at 6:30 p.m. The Director of Human Resources recommends that there is no scheduled meeting for July 2017 due to scheduled vacation. Additional special meetings may call as provided by the Civil Service Rules.

The 2017 Civil Service Commission meeting calendar will be:

- January 11, 2017 at 6:30 p.m.
- February 8, 2017 at 6:30 p.m.
- March 8, 2017 at 6:30 p.m.
- April 12, 2017 at 6:30 p.m.
- May 10, 2017 at 6:30 p.m.

- June 14, 2017 at 6:30 p.m.
- August 9, 2017 at 6:30 p.m.
- September 13, 2017 at 6:30 p.m.
- October 11, 2017 at 6:30 p.m.
- November 8, 2017 at 6:30 p.m.
- December 13, 2017 at 6:30 p.m.

**ALTERNATIVES:**

The Commission could elect to have a different meeting starting time; however, this is not recommended as Commissions previously expressed interest in maintaining the 6:30 p.m. meeting start time. The Commission could elect to hold a regular Commission meeting in July 2017; however, this is not recommended as Human Resources Department staff will be unavailable due to planned vacation.

**OTHER AGENCY INVOLVEMENT:**

Not applicable.