

The seal of James City County, Virginia, is circular. It features a central illustration of a three-masted sailing ship on the water. The text "James City County" is written in a circular path around the top of the seal. Below the ship, the year "1607" is inscribed. The number "276" is prominently displayed in the center of the seal, overlapping the ship's hull.

HVAC/ELECTRICAL TECHNICIAN

DEPARTMENT: General Services/HVAC

NATURE OF WORK:

Performs skilled technical work involving the installation, servicing, maintenance, and repair of the heating, ventilating, air conditioning, refrigeration, and other mechanical systems in County buildings.

Work is performed under the general supervision of the HVAC Lead Worker.

ESSENTIAL FUNCTIONS OF THE JOB:

Assists with the installation, servicing, maintenance, and repairs to boilers and burner control systems, valves, pumps, motors, and other related equipment as needed for proper operation.

Assists in installation, servicing, maintenance, and repairs to electrical and mechanical devices associated with heating, ventilating, air conditioning, and refrigeration systems.

Assists in the installation, servicing, maintenance, and repairs to electrical and mechanical functions associated with air-handling equipment, air compressors, and pneumatic control systems.

Maintains thermostats and temperature settings in all County buildings, to include the Courthouse.

Replaces filters, lubricates units, and adjusts all controls.

Assures mechanical rooms are clear of all materials not essential in the operation of all heating, ventilating, air conditioning, and refrigeration systems.

Installs new heating, ventilation, air conditioning, and refrigeration systems in special projects where temperature control is needed.

Assists in maintaining inventory of parts and supplies for HVAC systems and tools and equipment needed for repair and maintenance of electrical and mechanical systems.

Assists in performing air balancing in County facilities as needed.

Assists in installation, servicing, maintenance, and repairs kitchen equipment as necessary.

Assists with minor electrical repairs and maintenance.

Makes necessary plumbing repairs as called upon.

Performs emergency work on all heating, ventilating, air conditioning, and refrigeration and other mechanical systems in all County facilities to provide coverage of all facilities 24 hours a day, 365 days a year.

Coordinates with all departments and co-workers any repairs or maintenance that cannot be done during regular working days and schedules as necessary to be completed.

Assists in fabrication and installation of sheet metal fittings and duct work as necessary.

Performs preventative maintenance to equipment and repairs as necessary to equipment as assigned by HVAC Lead Technician.

Performs job safely in accordance with departmental safety procedures and County safety program. Operates equipment safely and reports any unsafe conditions or practices to supervisor.

Performs related work as required.

JOB LOCATION AND EQUIPMENT OPERATED:

Duties are performed at various County facilities. Requires frequent lifting, climbing, and working at varied heights. Operates a variety of equipment and hand tools.

REQUIRED KNOWLEDGE, SKILLS AND ABILITIES:

Thorough knowledge of proper procedures, methods, techniques, and equipment for the maintenance and repair of heating, ventilating, air conditioning, and refrigeration systems.

Knowledge of State and national safety procedures.

Ability to read and interpret blueprints and schematics.

Ability to lift and move heavy equipment.

Ability to follow instructions and work independently.

Ability to establish and maintain effective working relationships with other County employees.

Ability to work effectively as a team member.

MINIMUM QUALIFICATIONS:

High school diploma or equivalent, preferably including or supplemented by vocational, technical, or trade school training in mechanical maintenance; experience in the repair and maintenance of HVAC and refrigeration systems; or any equivalent combination of acceptable education and experience providing the knowledge, skills, and abilities cited above.

NECESSARY SPECIAL QUALIFICATIONS:

Must possess a valid Virginia driver's license with an acceptable driving record based upon James City County's criteria.

Must possess CFC certification. Must possess Journeyman HVAC certification.

Must work in inclement weather.

Must be able to work nights, weekends, and holidays as required.

Date: May 2005

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IDENTIFICATION OF GENERAL APTITUDES AND PHYSICAL REQUIREMENTS

Position Title HVAC/Electrical Technician Position Number 276 141 02
Department General Services Division _____

The Americans with Disabilities Act requires that we identify the general aptitudes and physical requirements needed to perform the job listed above. Individuals who have the position must be able to perform all essential job functions unaided or with reasonable accommodation.

I. Mental Abilities: General learning ability. The ability to “catch on” or understand instructions and underlying principles.

- Ability to understand and follow oral instruction
- Ability to understand and follow written instruction
- Ability to guide and/or give instructions
- Ability to make decisions in accordance with established procedures and policies
- Not essential to job function

II. Verbal Abilities: Ability to understand meanings of words and ideas associated with them and to use them effectively. To comprehend language, to understand relationships between words, and to understand meanings of whole sentences and paragraphs. To present information or ideas clearly.

1. Speaking/Talking:

- Answering telephone, radio, or switchboard
- Communicating with County officials
- Communicating with general public
- Communicating with vendors
- Communicating with supervisors and/or with other employees
- Communicating with others _____
- Not essential to job function

2. Hearing/Listening:

- Ability to distinguish between different tones
- For communication with County officials, public, vendors, supervisors and/or other employees
- Not essential to job function

3. Reading: (ability to read and understand text)

- Essential to job function
- Not essential to job function

III. Numerical: Ability to perform arithmetic operations quickly and accurately.

- Ability to mentally perform accurate two digit calculations
- Ability to perform accurate calculations aided
by a calculator, adding machine or measurement device
- Not essential to job function

IV. Spatial Abilities: Ability to comprehend forms in space and understand relationships of plane and solid objects. May be used in such tasks as blue print reading and in solving geometry problems. Frequently described as the ability to “visualize” objects of two or three dimensions, or to think visually of geometric forms.

- Essential function
- Not essential function

V. Motor Coordination: Ability to coordinate eyes and hands or fingers rapidly and accurately in making precise movements with speed. Ability to make a movement response accurately and quickly.

1. Manual Dexterity: Ability to move the hands easily and skillfully. To work with the hands in placing and turning motions.

- | | |
|--|--|
| <input checked="" type="checkbox"/> Use telephone | <input checked="" type="checkbox"/> Manipulate computer keyboard and mouse |
| <input type="checkbox"/> Use switchboard | <input type="checkbox"/> Use postage machine |
| <input checked="" type="checkbox"/> Use radio/console | <input checked="" type="checkbox"/> Use hand tools |
| <input checked="" type="checkbox"/> Use a calculator | <input checked="" type="checkbox"/> Use power tools |
| <input checked="" type="checkbox"/> Use a copy machine | <input type="checkbox"/> Other: _____ |
| <input checked="" type="checkbox"/> Use a fax machine | <input type="checkbox"/> Not essential to job function |

2. Finger Dexterity: Ability to move the fingers and manipulate small objects with the fingers rapidly or accurately. For example: electrical wiring.

- Essential to job function
- Not essential to job function

Explain: _____

VI. Physical Demands:

1. Strength: The quality, state or property of being strong. The power to withstand strain, force or stress.

Please check (✓) in appropriate boxes below.

Ability to manipulate materials and/or equipment (lbs)						Frequency of Manipulation			
	5-	5-10	10-15	15-25	25-50	50+	Occasionally	Frequently	Continuously
Lift						✓		✓	
Push/Pull						✓		✓	
Hold/Carry						✓		✓	

Manipulation done from: ground to waist waist level waist to shoulder above shoulder
(Check all that apply)

Not essential to job function: Lift Push/Pull Hold/Carry (Check all that apply)

2. Climbing: To move up or mount by using the hands or feet.

- | <u>Ladders</u> | <u>Stairways</u> | <u>Steps</u> |
|--|--|--|
| <input checked="" type="checkbox"/> Step stool | <input checked="" type="checkbox"/> 1 flight | <input type="checkbox"/> 1-2 |
| <input checked="" type="checkbox"/> 8' to 10' step ladder | <input type="checkbox"/> 2 flights | <input type="checkbox"/> 2-3 |
| <input checked="" type="checkbox"/> Extension ladder | <input type="checkbox"/> 3 or more flights | <input checked="" type="checkbox"/> 4 or more steps |
| <input checked="" type="checkbox"/> Other <u>Scaffolding</u> _____ | <input type="checkbox"/> Other _____ | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Not essential to job function | <input type="checkbox"/> Not essential to job function | <input type="checkbox"/> Not essential to job function |

3. Ability to Stand, Sit, Walk, and Run:

Please check (✓) in appropriate boxes below.

	Duration (hours/day)						Occasionally	Frequently	Continuously
	0-1	1-3	3-5	5-7	7-9	9+			
Stand			✓					✓	
Sit		✓						✓	
Walk		✓						✓	
Run									

If walking or running, over what type of terrain? flat rough both

Not essential to job function: Stand Sit Walk Run (Check all that apply)

4. Stooping, Kneeling, Crouching, and/or Crawling:

To bend forward or down from the middle of the waist or the middle of the back, to bend downwards, to lower oneself and/or to move freely on hands and knees.

Daily Amounts

- 0-5x 5-20x 20-50x 50+x
 Other _____ Not essential to job function

5. Reaching, Handling, Fingering, and/or Feeling:

To stretch out, extend, or put forth a bodily part. To touch or grasp something, by extending or stretching. To touch, lift, hold or operate with the hands.

Daily Amounts

- 0-5x 5-20x 20-50x 50+x
 Other _____ Not essential to job function

6. Seeing: To perceive or comprehend by the sense of sight.

Essential to job function: These characteristics are necessary (Check all that apply)

- Peripheral vision
- Night vision
- Focus (distinctness or clarity)
- Color perception (discriminate between colors)
- Depth perception (determine distance relationship between objects)
- Not essential to job function

VII. Driving: The ability to transfer or convey in a vehicle.

Transmission	Standard	Automatic	Multi-Gears
Car	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Van	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Small Truck	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Medium Truck	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Large Truck	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Truck w/Equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Heavy Bus Equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Not essential to job function	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (list) _____			

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