



## **VIDEO ENGINEER CHIEF**

**DEPARTMENT:** Human Resources/Communications

### **NATURE OF WORK:**

Directs and manages technical aspects and operation of broadcast and industrial quality television production including the distribution, design and development, integration, and installation of microcomputer resources for County departments, the Community Video Center (CVC), the James City County Board Room, and public and private partners. Partners with Information Resources Management (IRM) to plan and implement video and internet convergence initiatives. Performs related technical and engineering duties and supervises engineering activities, video operations, and staff.

### **ESSENTIAL FUNCTIONS OF THE JOB:**

Supports County departments with video/audio design consultation, vendor selection, equipment specifications, installation, RFP development, and evaluation.

Provides direction with internet video convergence in partnership with IRM to maximize County business strategies, public information, internal and external communications, and work efficiency.

Installs, maintains, and repairs studio and Board Room equipment as needed. Oversees operation and maintenance of County and its financial partners (City and Schools contract services) cable channel broadcast equipment.

Oversees management of CVC and Board Room facilities to include maintenance, scheduling, repair, and improvements to electronic equipment.

Supervises engineering and video staff to facilitate efficient production work, enhance public information efforts, and produce quality video programs.

Plans long-range equipment and production strategies to anticipate future media trends and compatibility with legacy equipment.

Supports Emergency Management to include Emergency Operations Center audio/video/Information Technology needs, video conferencing, Reverse 911, and Public Information Officer functions.

Acts as staff liaison to Cable Communications Committee.

Performs routine maintenance and repair to all video and television production and related equipment; arranges and schedules major equipment repairs with manufacturers and/or local vendors; maintains all related audio/video equipment for the County and its partners; develops maintenance schedules for equipment, as required.

Coordinates planning, development, implementation, and maintenance of integrated computer systems to enable Communications staff to meet data and television operational needs.

Supervises and maintains department Local Area Network systems for data, video, and audio applications by troubleshooting hardware or enhancing hardware for compatibility.

Coordinates the engineering, design, and construction of any changes or additions to the Community Video Center, including studio, control room, and headend; Board Room control room; remote sites; and any cabling operation or equipment operation required.

Works effectively with County departments and appropriate staff to integrate computer and video technology literacy through hardware and software training.

Works effectively with Information Resources Management staff to ensure coordinated and efficient use of resources compatible with overall County broadcast and Information Technology standards and procedures.

Establishes and maintains records documenting preventative maintenance and repair procedures; conducts research and analysis of computer hardware and software to identify and recommend effective solutions.

Practices continuous learning through individual study, classroom training, seminars, and conferences.

Performs work safely in accordance with department safety procedures and the County Safety Program. Operates equipment safely and reports any unsafe work condition or practice to Supervisor.

May be required to report to work to serve customers during emergency conditions. May be assigned to report at a different time and location and to perform different duties as necessary.

Performs related work as required.

#### **JOB LOCATION AND EQUIPMENT OPERATED:**

Work is performed primarily at the Community Video Center and the County Board Room. Uses telephone, radio, calculator, copy and fax machines, computer keyboard and mouse; and, hand and power tools.

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

Thorough knowledge of the operation and maintenance of a variety of television, studio, remote equipment, and supporting computer systems, software, and hardware relating to television operations.

Thorough knowledge and understanding of the use, design, and operation of broadcast television, cable television, related technical television test equipment, and its integration with computer hardware and software.

Knowledge of future media trends and associated video/computer equipment.

Knowledge of cable franchising, fiber, and community broadband needs.

Knowledge of electrical theory and principles, including power requirements, power conditioning, wiring, and grounding.

Knowledge of design, maintenance, and repair techniques for mechanical, electro-mechanical, and electronic equipment.

Knowledge of the calibration, setup, general design, operation of television production, post-production, satellite reception, microwave reception and transmission, and cable transmission equipment.

Knowledge of troubleshooting techniques on the component, circuit, and system level.

Knowledge of operations of test equipment for the measurement of video, audio, Radio Frequency (RF), satellite, and microwave signals.

Knowledge of audio acoustics, feedback, equalization, reverberation, microphones, and sound system design.

Knowledge of County, School, City, and Federal Communications Commission (FCC) policies and procedures.

Knowledge of basic supervisory practices and theory.

Skill in facilitation and negotiation with diverse customers and business needs.

Skill in accurate record keeping of equipment repair histories, preventive maintenance, parts databases, and discrepancy logs.

Skill in fabricating and installing wiring, cables, equipment, and rack hardware.

Skill in basic drafting for the creation of electronic circuit diagrams and system wiring diagrams.

Ability to analyze technical system needs and to recommend appropriate actions based upon the analysis of the situation.

Ability to plan long-range equipment and production strategies with legacy equipment.

Ability to evaluate electronic equipment/system malfunctions and accurately diagnose and repair the problem.

Ability to write and present concise analyses, reports, equipment specifications, and general correspondence.

Ability to maintain detailed repair and parts databases on a computer.

Ability to make complex technical decisions quickly and accurately.

Ability to communicate and maintain an effective working relationship with County, City, and School staff, and the public and vendors.

Ability to organize long-term technical projects and ongoing technical operations.

Ability to work effectively and efficiently with minimal supervision.

**MINIMUM QUALIFICATIONS:**

Bachelor's degree in engineering or computer science with additional training in television electronics; considerable work experience in industrial, educational, or broadcast engineering and/or electronics. Current Certified Broadcast Television Engineer (CTBE) certification by the Society of Broadcast Engineers (SBE) and Society of Motion Picture Television Engineers (SMPTE) membership, COMPTia A+ Certification required. Microsoft Certified Systems Engineer (MCSE) certification desirable.

**NECESSARY SPECIAL QUALIFICATIONS:**

Requires a post-offer credential check.

Must be able to work a flexible schedule, including some nights and weekends, holidays, and during emergencies.

Requires the ability to travel among various work sites.

**OTHER POSITION INFORMATION:**

This is a supervisory position.

Date: December 2007

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# IDENTIFICATION OF GENERAL APTITUDES AND PHYSICAL REQUIREMENTS

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Position Title: Video Engineer Chief Position Number: 524  
Department: Human Resources Division: Communications

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:**

- Answer 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 other \_\_\_\_\_
- Not essential to job functions

**2. Hearing/Listening:**

- 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 checked="" type="checkbox"/> Other: <u>soldering guns, small tools and wires</u> |
| <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: Connecting wires and manipulating small tools.

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**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
<b>Lift</b>						✓		✓	
<b>Push/Pull</b>						✓		✓	
<b>Hold/Carry</b>						✓		✓	

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 checked="" type="checkbox"/> 2-3                |
| <input checked="" type="checkbox"/> Extension ladder            | <input type="checkbox"/> 3 or more flights             | <input type="checkbox"/> 3-4                           |
| <input checked="" type="checkbox"/> Other platform ladder _____ | <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+			
<b>Stand</b>		✓						✓	
<b>Sit</b>		✓						✓	
<b>Walk</b>		✓						✓	
<b>Run</b>									

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)

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

<b>Transmission</b>	<b>Standard</b>	<b>Automatic</b>	<b>Multi-Gears</b>
Car	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Van	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Small Truck	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Medium Truck	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Other (list) _____			