



**Disability Services  
Safety and Claims Management**  
Department of Executive Services  
Human Resources Division  
500 4<sup>th</sup> Avenue, Room 500  
Seattle, WA 98104  
(206) 477-3350  
(206) 296-0514 FAX

Employee :

Claim # :

## JOB ANALYSIS

|                   |  |                                    |   |
|-------------------|--|------------------------------------|---|
| Job Title:        | Transit Radio and Communications Specialist          |                                    |   |
| Department:       | Metro Transit  | Division:                          | Transit Facilities  |
| DOT Title:        | Radio-Communications Mechanician                     | DOT #:                             | 823.281-014   |
| SVP:              | 7  | Requestor:                         | Lena Williams – Metro Transit   |
| Worksite Address: | 2255 4 <sup>th</sup> Avenue South, Seattle, WA 98134 | Office Contact Name/ Phone/ Email: | Melda Hickman<br><a href="mailto:melda.hickman@kingcounty.gov">melda.hickman@kingcounty.gov</a> |
| Original Analyst: | Kyle Pletz, VRC, CDMS                                | Analysis Date:                     | 5/15/02   |
| Update Analyst:   | Jeff Casem, CRC                                      | Update Date:                       | 5/8/09, 5/13/19   |

☒ On-Site    ☐ Interview    ☐ Representative

### JOB DUTIES:

Install, maintains, troubleshoots and repairs electronic, communication, radio, security, public address, and closed-circuit television (CCTV) and allies systems in transit facilities, coaches and non-revenue vehicles.

### ESSENTIAL FUNCTIONS ACCORDING TO THE EMPLOYER:

All King County jobs require ability/essential function to:

Ability to demonstrate predictable, reliable, and timely attendance.

Ability to follow written and verbal directions and to complete assigned tasks on schedule.

Ability to read, write & communicate in English and understand basic math.

Ability to learn from directions, observations, and mistakes, and apply procedures using good judgement.

Ability to work independently or part of a team; ability to interact appropriately with others.

Ability to work with supervision, receiving instructions/feedback, coaching/counseling and/or action/discipline.

1. Supports the Data Radio and Automatic Vehicle Locator/Monitoring System.
2. Installs,repairs and removes mobile radio equipment on coaches and non-revenue vehicles.
3. Installs, maintains, troubleshoots and repairs electronic communications systems and mobile electronic communications which includes consoles and electronics, fiber optics, Closed Circuit Television (CCTV), simulcast radio systems, satellite receiver systems, base stations, antenna combiners, insulator cavities, transmission lines, antenna and microwave MUX equipment.
4. Calibrates equipment to FCC standards and manufactures specifications.
5. Interprets schematics, wiring diagrams, and technical manuals.
6. Performs work on fixed radio and portable two-way radio equipment.



**King County**

## King County Job Analysis

Job Title : Transit Radio and  
Communications Specialist

Employee :

DOT # : 823.281-014

Claim # :

### EXPERIENCE, QUALIFICATIONS, KNOWLEDGE, SKILLS:

#### JOB SPECIFIC REQUIREMENTS

3 years of experience maintaining repairing and installing electronic land mobile radios. Must possess a current FCC license. Associates degree in electronics or the equivalent of education and experience. Working knowledge of the principles of electrical and electronics theory; tools, materials, and procedures used in the operations, maintenance, troubleshooting, servicing and repair of communications equipment.

#### Machines, Tools, Special Equipment, Personal Protective Equipment Used:

Radios, CCTV, SCADA, drills, soldering iron, communication service monitors, electronics testing equipment , hand tools, computer, laptop computer , ladder, telephone, cellular telephone, fax machine, copy machine, plotter machine, service manuals, wires, cables, cart, radio microphone, tool box, County van and magnifying glass.

#### ENVIRONMENTAL FACTORS

Work is performed at various King County facilities and settings with a wide range of exposures. Transit Radio and Communications System Specialist can work in locations from bus yards, busses, automobiles, radio towers and mountain settings. The noise level is quiet to moderately loud.

## PHYSICAL REQUIREMENTS

| Frequency Scale   | Strength                                   | Work Pattern                                  |               |
|---|--|---|---------------|
| <b>N</b> = Never  | <input type="checkbox"/> Sedentary         | <input checked="" type="checkbox"/> Full-time |               |
| <b>S</b> = Seldom (1-10 %, up to 48 min)                | <input type="checkbox"/> Light             | <input type="checkbox"/> Part-time            |               |
| <b>O</b> = Occasional (11-33%, 49 min. – 2 hr 40 min)   | <input checked="" type="checkbox"/> Medium | <input type="checkbox"/> Seasonal             |               |
| <b>F</b> = Frequent (34-66%, 2 hr 41 min – 5 hr 20 min) | <input type="checkbox"/> Heavy             | 8 or 10                                       | Hours Per Day |
| <b>C</b> = Constant (67-100%, more than 5 hr 20 min)    | <input type="checkbox"/> Very Heavy        | 4 or 5  | Days Per Week |

#### Work Pattern (continued)

This job is considered LIGHT by the US Department of Labor, but adjusted to MEDIUM for this position.

FLSA Exempt  
☐ Yes ☒ No

| Job Demand                  | Frequency and Weight (lbs.) |   |   |   |   | Activity Description  |
|-----------------------------|-----------------------------|---|---|---|---|---|
|                             | N                           | S | O | F | C |   |
| <b>Lifting</b><br>1-10 lbs. |                             |   | X |   |   | Occasionally for up to 15 seconds at a time for up to 20 minutes total in a work shift. Most commonly occurs with weights of 3-7 pounds while manipulating portable radios, hand tools, radio control heads, drill, laptop computer, spools of cable, service manuals and electronic testing equipment. |

**King County****King County Job Analysis**Job Title : Transit Radio and  
Communications Specialist

Employee :

DOT # : 823.281-014

Claim # :

| Job Demand                    | Frequency and Weight (lbs.) |   |   |   |   | Activity Description  |
|-------------------------------|-----------------------------|---|---|---|---|---|
|                               | N                           | S | O | F | C |   |
| <b>Carrying</b><br>1-10 lbs.  |                             |   | X |   |   | Occasionally for distances of up to 50 feet for up to 1 minute at a time and up to 15 minutes total in a work shift. Most commonly occurs with weights of 3-7 pounds while transporting tools, test equipment and radio equipment boxes to and from a cart, County vehicle and work site. |
| <b>Lifting</b><br>11-20 lbs.  |                             | X |   |   |   | Rare for up to 5 seconds at a time for up to 30 seconds total in a work shift. Most commonly occurs with weights of 11-15 pounds while moving radios, electronic testing equipment and toolboxes. The weight of toolboxes can vary greatly depending on size and amount of tools.         |
| <b>Carrying</b><br>11-20 lbs. |                             |   | X |   |   | Occasionally for distances of up to 50 feet for up to 1.5 minutes at a time and up to 10 minutes total in a work shift. Most commonly occurs with weights of 11-15 pounds while transporting tools, toolboxes and radios to and from County vehicles.                                     |
| <b>Lifting</b><br>21-50 lbs.  |                             | X |   |   |   | Rare for up to 5 seconds at a time for up to 30 seconds total in a work shift. Most commonly occurs with weights of 45 pounds while moving boxes of wire/cable, toolboxes and electronic testing equipment.   |
| <b>Carrying</b><br>21-50 lbs. |                             | X |   |   |   | Rare for distances of up to 10 feet for up to 20 seconds at a time and up to 2 minutes total in a work shift. Most commonly occurs with weights of 45 pounds while transporting boxes of wire/cable, toolboxes and electronic testing equipment.  |

| Physical Demands | Frequency |   |   |   |   | Activity Description  |
|------------------|-----------|---|---|---|---|---|
|                  | N         | S | O | F | C |   |
| <b>Standing</b>  |           |   |   |   | X | Continuously on flat carpet, concrete, wood, gravel/rock and uneven surfaces for up to 2.5 hours at a time for up to 8 hours total in a work shift. Most commonly occurs while operating electronic testing equipment, installing connectors on radios, and performing on-site work. Employee may also alternate sitting and standing when performing bench work. |



**King County**

## King County Job Analysis

Job Title : Transit Radio and  
Communications Specialist

Employee :

DOT # : 823.281-014

Claim # :

| Physical Demands          | Frequency |   |   |   |   | Activity Description   |
|---------------------------|-----------|---|---|---|---|--|
|                           | N         | S | O | F | C |  |
| <b>Sitting</b>            |           |   |   |   | X | Continuously on a stool with back support, automobile seat or office chair for up to 2.5 hours at a time for up to 8 hours total in a work shift. Most commonly occurs while driving to various work sites in King County as well as performing bench and computer work. Employee may alternate sitting and standing when performing bench work.   |
| <b>Walking</b>            |           |   |   | X |   | Frequently on flat carpet, concrete, wood, gravel/rock and uneven surfaces for distances of up to ¼ mile for up to 20 minutes at a time for up to 4.5 hours total in a work shift. Most commonly occurs While performing on-site work at bus yards and radio towers. On a rare occasion the employee may need to hike up to 1 mile to a mountain site perform repairs or maintenance.  |
| <b>Climbing Stairs</b>    |           |   | X |   |   | Occasionally for up to 2 minutes at a time while climbing up to 4 flights at time for up to 16 minutes total in a work shift. Most commonly occurs while navigating through various King County facilities.  |
| <b>Climbing</b>           |           |   | X |   |   | Occasionally on a ladder to heights of up to 10 feet for up to 5 minutes at a time and up to 30 minutes total in a work shift. Most commonly occurs while maintaining or repairing electronic equipment in high locations. On a rare occasion the employee may need to climb up to 300 feet for up to 10 minutes at a time and up to 30 minutes total in a shift when maintaining or repairing electronic equipment on a radio tower.  |
| <b>Balancing</b>          |           |   | X |   |   | Occasionally on a ladder at heights of up to 6 feet for up to 30 minutes at a time for up to 1 hour total in a work shift. Most commonly occurs while maintaining or repairing electronic equipment in high locations. On a rare occasion the employee may need to balance on a radio tower ladder at heights of up to 300 feet for up to 1 hour at a time and up to 3 hours total in a shift when maintaining or repairing electronic equipment on a radio tower. The employee wears a climbing harness when working on radio towers but balance is still needed due to strong winds. |
| <b>Stooping / Bending</b> |           |   |   | X |   | Frequently on flat carpet, concrete, wood, gravel/rock and uneven surfaces for up to 30 minutes at a time for up to 3 hours total in a work shift. Most commonly occurs while performing radio installations in low locations as well as in busses and automobiles.  |



**King County**

## King County Job Analysis

Job Title : Transit Radio and  
Communications Specialist

Employee :

DOT # : 823.281-014

Claim # :

| Physical Demands                        | Frequency |   |   |   |   | Activity Description  |
|---|-----------|---|---|---|---|---|
|   | N         | S | O | F | C |   |
| <b>Kneeling</b>                         |           |   | X |   |   | Occasionally on flat carpet, concrete, wood, gravel/rock and uneven surfaces for up to 1 hour at a time for up to 2.5 hours total in a work shift. Most commonly occurs while repairing, installing and maintaining electronic equipment in small, awkward and low places. The employee may be able to alternate kneeling with crouching.               |
| <b>Crouching</b>                        |           |   | X |   |   | Occasionally on flat carpet, concrete, wood, gravel/rock and uneven surfaces for up to 1 hour at a time for up to 2.5 hours total in a work shift. Most commonly occurs while repairing, installing and maintaining electronic equipment in small, awkward and low places. The employee may be able to alternate crouching with kneeling.               |
| <b>Operating Controls With Feet</b>     |           |   |   | X |   | Frequently for 1.5 hours at a time for up to 3 hours total in a work shift while driving a County vehicle with an automatic transmission.   |
| <b>Reaching Above Shoulder Height</b>   |           |   | X |   |   | Occasionally for up to 10 minutes at a time for up to 30 minutes total in a work shift while installing, repairing and maintaining electronic equipment that may be in an overhead location. The Radio Equipment Specialist may also reach above the shoulder while wiring plugs on to the ends of cables and attaching cables to electronic equipment. |
| <b>Reach Waist to Shoulder</b>          |           |   |   |   | X | Continuously for up to 1.5 hours at a time for up to 7.5 hours total in a work shift while installing, repairing and maintaining electronic equipment as well as driving and performing bench work.   |
| <b>Reaching at Knee to Waist Height</b> |           |   | X |   |   | Occasionally for up to 15 minutes at a time for up to 1 hour total in a work shift while using electronic testing equipment as well installing and wiring cables.   |
| <b>Reaching at Floor to Knee Height</b> |           |   | X |   |   | Occasionally for up to 15 minutes at a time for up to 1 hour total in a work shift while repairing, installing and maintaining electronic equipment in small, awkward and low places.   |
| <b>Pushing and Pulling</b>              |           |   | X |   |   | Occasionally for distances of up to 150 feet for up to 5 minutes at a time with a force of up to 30 pounds and up to 30 minutes total in a work shift. Most commonly occurs while pushing a cart between a work van and a work site.  |



**King County**

## King County Job Analysis

Job Title : Transit Radio and  
Communications Specialist

Employee :

DOT # : 823.281-014

Claim # :

| Physical Demands                                   | Frequency |   |   |   |   | Activity Description  |
|--|-----------|---|---|---|---|---|
|  | N         | S | O | F | C |   |
| Handling/Grasping                                  |           |   |   | X |   | Frequently for up to 1.5 hours at a time for up to 4.5 hours total in a work shift while driving as well as using hand tools, radio microphones, electronic testing equipment, and tool boxes.  |
| Operating Controls with Hands                      |           |   |   | X |   | Frequently for 1.5 hours at a time for up to 4 hours total in a work shift while driving a County vehicle with an automatic transmission and using the computer mouse.  |
| Fingering  |           |   |   |   | X | Continuously for up to 2 minutes at a time for up to 6.5 hours total in a work shift while soldering, using electronic testing equipment, manipulating wires, typing, and clicking the computer mouse.  |
| Feeling  |           | X |   |   |   | Rare for up to 5 seconds at a time for up to 1 minute total in a work shift while checking for excessive heat or vibration on components to identify mechanical failures such as fan malfunction.   |
| Talking  |           |   | X |   |   | Occasionally for up to 1 minute at a time for up to 15 minutes total in a work shift while using a radio or telephone as well as conversing with co-workers and superiors.  |
| Hearing  |           |   |   | X |   | Frequently for up to 1.5 hours at a time for up to 4 hours total in a work shift. Most commonly occurs while conversing with co-workers and superiors, listening for mechanical failure of equipment, driving, aligning/testing radio equipment, and listening for hazards when working at sites with moving vehicles such as a bus yard. |
| Tasting/Smelling                                   |           |   |   |   | X | Continuously for up to 2.5 hours at a time for up to 9 hours total in a work shift while smelling for equipment failure, burning components and fire hazards.   |
| Near Acuity-Clarity of Vision at 20 Inches or Less |           |   |   | X |   | Frequently for up to 15 minutes at a time for up to 5.5 hours total in a work shift while soldering, performing computer duties, reading manuals, working on small electronic devices, and reading documents.   |
| Far Acuity-Clarity of Vision at 20 Feet or More    |           |   |   | X |   | Frequently for 1.5 hours at a time for up to 3.5 hours total in a work shift while driving a County vehicle and inspecting equipment on site or on coaches.   |
| Depth Perception-Three Dimensional Vision          |           |   |   |   | X | Continuously for up to 1.5 hours at a time for up to 6.5 hours total in a work shift while driving and soldering as well as repairing, installing and maintaining electronic equipment.   |



**King County**

## King County Job Analysis

Job Title : Transit Radio and  
Communications Specialist

Employee :

DOT # : 823.281-014

Claim # :

| Physical Demands  | Frequency |   |   |   |   | Activity Description   |
|---|-----------|---|---|---|---|--|
|   | N         | S | O | F | C |  |
| Visual Accommodation-Adjustment of Lens of Eye to Bring an Object Into Sharp Focus                                    |           |   | X |   |   | Occasionally for 1 minute at a time for up to 30 minutes total in a work shift while soldering, repairing, installing and maintaining small electronic components. A magnifying glass is available when working on small components. |
| Color Vision-Ability to Identify and Distinguish Colors   |           | X |   |   |   | Rare for up to 5 seconds at a time for up to 1 minute total in a work shift while identifying color coded wires and components.  |
| Field of Vision-Observing an Area That Can Be Seen Up and Down or Right or Left While Eyes are Fixed on a Given Point |           |   |   | X |   | Frequently for 1.5 hours at a time for up to 3 hours total in a work shift while driving a County vehicle.   |
| Night Vision-Seeing After Sundown with Minimal or no Supplemental Light Sources                                       |           |   | X |   |   | Occasionally for up to 1.5 hours at a time for up to 3 hours total in a work shift while driving at night when on call.  |

### Temperaments:

|   |  |   |   |   |   |  |
|---|--|---|---|---|---|--|
| Directing, controlling, or planning activities of others      |  |   | X |   |   |  |
| Performing repetitive or short-cycle work                     |  |   |   | X |   |  |
| Influencing People in their Opinions, Attitudes and Judgments |  | X |   |   |   |  |
| Performing a Variety of Duties                                |  |   |   |   | X |  |
| Expressing Personal Feelings                                  |  |   | X |   |   |  |
| Working Alone or Apart in Physical Isolation from Others      |  |   |   | X |   |  |
| Working Effectively Under Stress                              |  |   |   | X |   |  |
| Working Under Specific Instructions                           |  |   |   | X |   |  |
| Working With Others   |  |   |   | X |   |  |
| Making Judgments and Decisions                                |  |   |   | X |   |  |

### Workers Are Exposed to:



**King County**

## King County Job Analysis

Job Title : Transit Radio and  
Communications Specialist

Employee :

DOT # : 823.281-014

Claim # :

| Physical Demands                | Frequency   |   |   |   |   | Activity Description |
|---------------------------------|---|---|---|---|---|----------------------|
|                                 | N   | S | O | F | C |                      |
| Outside Weather                 |   |   |   | X |   |                      |
| Extreme Cold                    |   |   | X |   |   |                      |
| Extreme Heat                    |   |   | X |   |   |                      |
| Wet                             |   |   | X |   |   |                      |
| Humidity/Dampness               |   |   | X |   |   |                      |
| Fumes                           |   |   | X |   |   |                      |
| Odors                           |   |   | X |   |   |                      |
| Dusts                           |   |   | X |   |   |                      |
| Mists                           |   |   | X |   |   |                      |
| Gases                           |   | X |   |   |   |                      |
| Moving Mechanical Parts         |   |   |   | X |   |                      |
| Vibration                       |   |   |   | X |   |                      |
| Working in High, Exposed Places |   |   | X |   |   |                      |
| Radiation                       |   |   | X |   |   |                      |
| Toxic or Caustic Chemicals      |   |   | X |   |   |                      |
| <b>Environmental Factors:</b>   |   |   |   |   |   |                      |
| Noise Intensity                 | <input type="checkbox"/> Very Quiet<br><input checked="" type="checkbox"/> Quiet<br><input checked="" type="checkbox"/> Moderate<br><input type="checkbox"/> Loud<br><input type="checkbox"/> Very Loud   |   |   |   |   |                      |
| Other:                          | Work is performed at various King County facilities and settings with a wide range of exposures. Transit Radio and Communications System Specialist can work in locations from bus yards, busses, automobiles, radio towers and mountain settings. The noise level is quiet to moderately loud. |   |   |   |   |                      |

### Analyst's Comments:

|  |
|--|
|  |
|--|

### Possible Employer Modifications:

|   |
|---|
| Ergonomic stool to provide additional back support and comfort when performing bench work.<br>Adjust workstation height to promote the option of sitting or standing while performing bench work. |
|---|





**King County**

## King County Job Analysis

Job Title : Transit Radio and  
Communications Specialist

Employee :

DOT # : 823.281-014

Claim # :

### Update Comments (if applicable):

**Note:** The information for this job analysis was gathered by either on-site observation, interview and / or is representative of the labor market as indicated on page one. Additional data may have been obtained from standardized industry resources such as the DOT, GOE, COJ, OOH, WOIS and O-NET. On occasion, practicality and feasibility prevent the direct observation and/or gathering of objective, quantifiable data. For this reason, a "best estimate" may have been used.

### Analyst:

### Update (if applicable):

Kyle Pletz, VRC, CDMS

Jeff Casem, CRC

May 13,  
2019

Vocational Consultant

Date

Vocational Consultant

Date

### Employer Verification:

### Employee Verification: (optional)

Name

Date

Name

Date



**King County**

## King County Job Analysis

Job Title : Transit Radio and  
Communications Specialist

Employee :

DOT # : 823.281-014

Claim # :

### MEDICAL PROVIDER:

- ☐ I agree that the employee can perform the physical activities described in this job analysis and can return to work. Date employee is released to return to work if different from today's date: \_\_\_\_\_
- ☐ I agree the employee can perform the described job but only with modifications (describe in comments section). Modifications are needed on a ☐ permanent basis or ☐ temporary basis.
- ☐ The employee **temporarily** cannot perform this job based on the following physical limitations:

Anticipated release date: \_\_\_\_\_

Treatment plan: \_\_\_\_\_

- ☐ The employee is **permanently** restricted from performing the physical activities described in this job analysis based on the following physical limitations (state objective medical findings):

### Comments:

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Print Name

- ☐ Attending Physician    ☐ Consulting Physician    ☐ Pain Program Physician
- ☐ IME Physican    ☐ PCE Therapist    ☐ OT / PT Therapist    ☐ PEP Physician



**King County**

## King County Job Analysis

Job Title : Translt Radlo and  
Communications Speclallst

Employee :

DOT # : 823.281-014

Claim # :

Update Comments (if applicable):

**Note:** The information for this job analysis was gathered by either on-site observation, interview and / or is representative of the labor market as indicated on page one. Additional data may have been obtained from standardized industry resources such as the DOT, GOE, COJ, OOH, WOIS and O-NET. On occasion, practicality and feasibility prevent the direct observation and/or gathering of objective, quantifiable data. For this reason, a "best estimate" may have been used.

**Analyst:**

Kyle Pletz, VRC, CDMS

Vocational Consultant

Date

**Update (if applicable):**

Jeff Casem, CRC

Vocational Consultant

May 13,  
2019

Date

**Employer Verification:**

MELDA HICKMAN

Name

Date

**Employee Verification: (optional)**

Name

Date