



## JOB DEMANDS ANALYSIS

**Company:** City of Burnaby Parks

**Location:** Various Community  
Recreation Facilities

**Job Title:** Recreation Clerk 2

**Classification:** Regular Duty

### Purpose of Activities

This is a public contact position that requires moderately complex clerical work that requires organizing and monitoring the efficient operation of office support services in a recreation facility. In addition, the Recreation Clerk 2 is responsible for verifying and recording daily cash receipts and for the supervision of one or more Recreation Clerk 1's.

### Tools and Equipment

The Recreation Clerk 2 will use the following tools and equipment to perform her duties:

- Computer (PC or mainframe)
- Transelect Debit/Credit Card Machine
- Point of Sale machine
- Photo copier, fax, laser printer, adding machine
- Telephone
- Safe
- Typewriter

### Usual Methods

#### Public Reception

The Recreation Clerk 2 will assist the public at the facility reception counter or over the telephone with community recreation program registration, drop in admissions and inquiries and City of Burnaby facility bookings. The Recreation Clerk 2 will also handle public inquiries and complaints.

#### Clerical Duties

The Recreation Clerk 2 will perform some or all of the facilities office support services depending on the size and volume of people that use the facility. This will include maintaining and ordering office supplies.



### Usual Methods (Continued)

#### Cash Receipt Reconciliation

The Recreation Clerk 2 receives, verifies and records cash receipts from the previous day or weekend. She will prepare summary schedules and bank deposit slips, as well as compile budget information for review.

#### Supervision of Recreation Clerk 1

The Recreation Clerk 2 is responsible for the supervision of the Recreation Clerk 1 in her facility. She will assign and supervise work, schedule Recreation Clerk 1 hours, hire and train as well as participate in the yearly performance review.

**The presence of \*\* indicates non-value added tasks. These are tasks that do not contribute to the stated purpose of the work.**

### Administrative Issues

The Recreation Clerk 2 will typically work a day or evening rotation from Monday to Friday. The hours of work vary from auxiliary to part-time to full-time. Rest periods and lunch breaks vary depending on the type of employment (auxiliary, part-time or full-time). The Recreation Clerk 2 is generally hired to work in a specific building (Bill Copeland Sports Centre/Burnaby Lake Arena, Willingdon Heights Community Centre, Kensington Complex, Bonsor Complex, Cameron Recreation Centre, Edmonds Community Centre, and Confederation Centre). Furniture at each workstation in each centre will vary from unadjustable to partially adjustable to fully adjustable (i.e. chair, keyboard trays, telephone headsets, etc.) as will the tasks performed by each individual Recreation Clerk 2.

### Activity Demand Variables

These variables are tasks that must be carried out by the employee and are implicitly or explicitly required as objectives of the job.

- Data entry (computer, type writer, adding machine)
- Telephone use (varies from centre to centre)
- Interaction with public (varies from centre to centre)
- Cash, debit/credit card and financial reconciliation
- Supervision of Recreation Clerk 1's and Registration Clerks
- Operation of general office equipment (computer, adding machine, photocopier, fax, Transelect Debit/Credit Card machine, safe, telephone, Point of Sale Computer etc.)
- Sitting at computer terminal or desk top workstation
- Standing at customer service counter
- Telephone use (may not have a headset)



### Worker Decision Variables

These variables are the sub-routines and cognitive/physical decisions made by the worker in carrying out the objectives of the job.

- Sitting posture at computer terminal and desk top
- Task organization
- Frequency of breaks from repetitive tasks
- Telephone use (trap telephone between ear and shoulder)

### Accommodative Considerations

1. People with injuries to the spine in any region may have difficulty with the static and largely seated postures.
2. People with shoulder injuries such as rotator cuff tendonitis, bursitis and instability may have difficulty with static loading and reaching activities.
3. People with any upper extremity problems may have difficulty with this position.
4. Post-whiplash and other neck problems may have difficulty with this position.
5. The sitting required for this position would aggravate individuals with hemorrhoids or suffering from vascular insufficiency in the legs
6. Individuals who do not cope in open low-autonomy work environments would have difficulty with this position.
7. Ability to hire, train and supervise staff is required.
8. Computer skills and knowledge of the Class Registration System are required at all facilities.

Prepared By: Jeffrey J. McGinn, Kinesiologist

February 23, 1999



## Summary of Stresses

### **Metabolic Stresses**

The aerobic energy system supplies the vast majority of energy required to complete the tasks in this position since the work can be characterized as being very sedentary. There are possible exceptions in localized regions of the body, specifically the upper extremities and possibly muscles around the spine and in the region of the neck and shoulder. The tasks are very static in nature and there are repeated actions that increase static load in some of the aforementioned areas for stabilization purposes. This can interfere with normal blood flow and thus, oxygenation. If this is the case, the tissues will be increasingly required to turn to the anaerobic energy system for their requirements. This can produce a sensation of fatigue and can also lead to tissue damage.

### **Structural Stresses**

**Spine** – the sedentary nature of this work can place significant passive loads on the spinal structures. Prolonged sitting increases disc compression forces alone. If care is not taken to control posture, it is not unusual to have people adopt a flexed spine posture that requires no activity from the torso musculature, but increases asymmetrical disc compression, passive stretch on the posterior ligaments and disc fibres. This can contribute to disc integrity problems over time as well as contributing to deconditioning of the torso support musculature.

**Shoulders and Neck** – due to the static positions required and the frequent reaching for documents the muscles in the rotator cuff of the shoulder and the upper trapezius and scalene muscles of the neck maintain significant and often constant static load. Sorting of papers and the use of stamps and staplers requires the shoulders and neck to hold the arms above the desk. This can lead to the development of pain and eventually to tendonitis and even possibly contribute to adverse neural tension. If individuals are too low in their position with respect to the desk, this increases the load on the neck and shoulders further since the arms must be lifted and held above the level of the top of the desk. The position or lack of a document holder at the computer monitor screen requires that the clerk maintain an undesirable head position that contributes to muscle shortness and soreness.

**Arms and Hands** – Recreation Clerks may be required to perform significant data entry on a computer or adding machine throughout the day. Since the keyboard and adding machines are on the desk, it forces the Recreation Clerk to hold the hand in extension which increases pressure in the Carpal Tunnel and transmits constant static load to the lateral epicondyle (outside) of the elbow. This can increase the risk for developing Carpal Tunnel Syndrome and lateral epicondylitis (tennis elbow) respectively. There are other risks for the carpal tunnel including pinch grips in filing activities and stamping motions. High force motions like stapling and stamping are difficult from the seated posture since only the small muscles in the extremity and the mechanically inappropriate shoulder muscles are available to assist with the action.



## **Hips, Knees and Ankles**

Depending on the work site location, the Recreation Clerk 2 may be required to stand at the Customer Service Counter for long periods of time on tile or carpet over concrete. This will increase the compressive force on the joints of the ankles, knees and hips. In smaller community facilities, the Recreation Clerk 2 will be required to repeatedly stand from a sitting (computer or desk work station) position to assist the public at the Customer Service Counter. Sitting for long periods of time utilizing a poor sitting posture will shorten the hamstring muscle groups and pull the pelvis out of the desirable pelvic tilt position.

## **INTERVENTIONS**

Recommendations that could be implemented to increase productivity and lessen the risk of injury are listed below:

1. Encourage the Recreation Clerks to maintain an increased level of fitness away from work that will focus on cardiovascular endurance, muscular strength, muscular endurance and flexibility. This can help compensate for the lack of movement in the job.
2. Provide regular education in effective use of the body and neutral joint positions for this type of work.
3. Adjust monitor heights so that the individual is maintaining a neutral head position when looking at the screen (this varies according to individual visual bias).
4. Increase the size of the monitor and the font size displayed on the screen to decrease visual strain and static muscle tension.
5. Install a Vu-Ryte document holder to place under the monitor so that the documents can be positioned in front of the worker. This will also decrease the rotated neck posture in the current arrangement and eliminate the frequent reaching for documents.
6. Insure that the Recreation Clerk is maintaining a neutral elbow and shoulder position while working at the keyboard (chair height may need to be increased).
7. Provide a footrest if necessary to maintain normal contact with the floor.
8. Position the adding machine so that it is directly in front of the arm when in use.
9. Provide a telephone headset for those Recreation Clerks who are required to answer the telephone as part of their job.
10. Encourage Recreation Clerk to rest hands in the lap momentarily (less than five seconds) every few minutes to allow static load to abate.
11. Encourage employee to approach keying with more arm movement and avoid fixed arm positions. Do not use wrist rests.
12. Investigate alternate locations (lower) for the Transelect Debit/Credit Card machines.

PJDC-Recreation Clerk 2

Referral: Lana Ho		Organization: City of Burnaby							Title: Recreation Clerk 2	
Dept.: Engineering		Division: Recreation & Culture							Contact:	
PHYSICAL DEMANDS		R E Q D	S I D E	FREQUENCY*				Max. Weight (kg)	Usual Weight (kg)	Date: February 18, 1999
				Sel 1	Low 2	Mod 3	High 4			
S T R E N G T H	Lifting - Floor to Knuckle	X			X			15	<1-3	cash drawers to/from storage, supplies
	Lifting - Knuckle to Waist	X			X			15	<1-3	cash drawers to/from storage, supplies
	Lifting - Waist to Shoulder	X			X			15	<1-3	cash drawers to/from storage, supplies
	Lifting - Over Head	X		X				15	<1-3	office supplies to storage shelf
	Carrying - With Handles	X			X			15	<1-3	office supplies
	Carrying - Without Handles	X			X			15	<1-3	change pails from lockers
	Pushing - Upper Extremity	X			X			<1-3	<1-3	office supplies on the desk top
	Pushing - Hip/Leg Assist	X			X			20		safe door, fitness supply carts
	Pulling - Upper Extremity	X			X			<1-3	<1-3	office supplies on the desk top
	Pulling - Hip/Leg Assist	X			X			20		safe door, fitness supply carts
	Reach - Shoulder or Above	X		X				15	<1-3	boxes/supplies to shelf
	Reach - Sho. or Above extnd									
	Reach - Below Shoulder	X					X	15	<1-3	type, count money, clerical duties
	Reach - Bel. Shoulder extnd									
	Handling	X					X	15	<1-3	money, paper, supplies, cash drawer
Gripping	X				X		20	<1-3	money, pens, paper, supplies, boxes	
Fine Finger Movements	X					X	mod	low	count money, computer use, etc.	
E	Aerobic (percent)	X					100	low level activity clerical work, assist public, sit, stand		
N	Anaerobic (percent)									
R	High Energy Expenditure									
G	Low Energy Expenditure	X					X	low level activity clerical work, sit, stand, walk		
P	Neck - Static Flexion	X					X	work below shoulders on desk top		
	Neck - Static Neutral	X					X	sit, stand, walk		
	Neck - Static Extension									
S	Neck - Rotation	X	L/R		X			possibly in computer use, watch front counter from desk		
T	Throwing									
U	Sitting	X					X	computer use, reconcile cash, general office duties		
R	Standing	X				X		on concrete/carpet floor		
E	Walking	X					X	to/from desk/counter, in building, on concrete/carpet		
+	Running/Jumping									
M	Climbing - Arms and Legs									
O	Climbing - Legs Only	X			X			stairs if any in the building		
B	Bending/Stooping	X			X			possibly at front counter, stock some shelves		
I	Crouching	X		X				possibly to stock shelves in work area		
L	Kneeling									
I	Crawling									
T	Twisting									
Y	Balancing									
G E N	Traveling									
	Work Alone	X					X	depends on facility, independent work		
	Interact with Public	X					X	assist people in the facility		
	Operate Equip/Machinery	X					X	computer, adding machine, debit/credit card, etc.		
	Irregular/Extended Hours	X					X	5:30a.m. to 10:00pm. Various shifts, usually days		
* Frequency Legend 1 = Seldom; Not Daily 2 = Low Daily Activity; < 1hr										
3 = Moderate Demand; Repetition 1 - 3 hrs daily 4 = High Frequency Demand; Repetition > 3 hrs daily										
The following shading denotes a HIGH RISK TASK: <div></div> Modifications should be considered										

**REQD** is marked with an X if the particular demand or category is relevant to the purpose of the job.

**SIDE** refers to the side or limb required to execute a task. If it is marked **E**, it indicates either side, the most common choice is listed first. **D** refers to dominant and **B** to both sides.

Referral:		Organization:						Title: see 1st page header	
Dept.:		Division:						Contact:	
PHYSICAL DEMANDS		R E Q D	S I D E	FREQUENCY*				COMMENTS	
				Sel. 1	Low 2	Mod. 3	High 4		
P E R C E P T I O N	Hearing - Conversations	X					X	coworkers, public, telephone	
	Hearing - Other Sounds	X					X	facility alarms, overhead PA	
	Vision - Far	X					X	office duties, county money, computer use, assist public	
	Vision - Near								
	Vision - Colour	X				X		count money, inspect for counterfeit bills	
	Vision - Depth	X					X	move from desk to front counter, move in work area	
	Perception - Spatial	X					X	move from desk to front counter, move in work area	
	Perception - Form	X				X		count money, give or make change, roll change	
	Feeling (Tactile)	X			X			inspect paper money for counterfeit bills	
	Reading	X					X	financial reports, computers screen, brochures	
W O R K E N V I R O N M E N T	Writing	X					X	financial reports, building stats	
	Speech	X					X	coworkers, public	
	Inside Work	X					X	in community recreation centre	
	Outside Work								
	Hot Conditions >25 deg. C	X		X				possibly in some buildings	
	Cold Conditions <10 deg.C								
	Humid	X		X				possibly in buildings with pools	
	Dust	X					X	general office dust	
	Vapor Fumes	X		X				chlorine in buildings with pools	
	Hazardous Machines								
	Proximity to Moving Object								
	Noise	X					X	ambient office noise, noise in common area of buildings	
	Electrical Hazard								
	Sharp Tools	X			X			scissors, stapler	
	Radiant/Thermal Energy								
	Slippery Conditions								
	Vibration and Related	X			X			stapler use	
	Chemical Irritants	X		X				chlorine in buildings with pools	
	Organic Substances	X		X				possibly with towel rentals	
	Medical Waste								
	Blood Products								
	Congested Worksite								
	Lighting - Direct	X					X	overhead fluorescent, incandescent, sun light	
	Lighting - Indirect	X		X				sun light, depends on building and work location	
	Lighting - Adjustable								
	Lighting - Fluorescent	X					X	overhead fluorescent lights	
	Lighting - Incandescent	X		X				possibly in some buildings	
	Lighting - Shadows etc.								

\* Frequency Legend      1 = Seldom; Not Daily    2 = Low Daily Activity; < 1hr  
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For detailed descriptions of each of the different categories, please refer to the reference guide or inquire with Human Effort at 1-888-4EFFORT