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Physical Demands Analysis

Asphalt Rakeman

Prepared for:
Alberta Construction Association

Job Title:	Asphalt Rakeman	Assessment Location:	Silver Springs Gate NW, Calgary Alberta	Data Collection Date:	July 21, 2020
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Completed By:	Joanna Taets Von Amerongen	Submitted on:	October 13, 2020
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Disclaimer:	The Physical Demands noted in this report may vary depending on company and location. Please contact the company directly to confirm this physical demands analysis is an accurate representation of the specific job title for the specific location.
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Work Schedule:	Shift Duration: 6 days/week, 12 hours/day; may vary depending on volume and weather Break Schedule: Breaks are taken when trucks are not on site; flexible Shift Rotation: Day shifts (6:30 am to 6:30 pm), Night shifts (6 or 7 pm to 5 am) On call is required: No Overtime required: Yes; amount dependent on volume and weather
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Education / Experience:	Education required: Not applicable Hours required for position: Not applicable Tickets that may be required (not limited to): Basic Safety Orientation (BSO) and theory/practical training provided by Standard General on site, RSTS with WHMIS 2015.
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Labour Provider:	N/A
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Job Overview:	As an Asphalt Rakeman the worker is required to rake fresh asphalt and spread the asphalt using a rake or shovel.		
	% of shift	Job Task	Task Description
	1%	Individual Field Level Risk Assessment (IFLRA)	<ul style="list-style-type: none">Identifying hazards, exposures, plans for hazards and exposures, personal protective equipment (PPE) required.
	Up to 10%	Tailgate Meeting/Communication with Crew	<ul style="list-style-type: none">The crew's plan for the day including progress on site thus far, plan for remaining route and the day.
	~84%	Raking and Shovelling Asphalt	<ul style="list-style-type: none">Ensuring joints and asphalt are flush, raking along joints, raking asphalt to concrete, flattening asphalt to assist Roller.
	5%	Site/Equipment Clean Up	<ul style="list-style-type: none">Cleaning site from the shift's work, cleaning tools and equipment used throughout the shift.

Equipment/ Tools:	<ul style="list-style-type: none"> • Rake 6 ft. (6 lbs.) • Shovel 5 ft. (5 lbs.) • Scraper
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Exposures / Environment:	<ul style="list-style-type: none"> • Asphalt fumes • Oil fumes • Heat • Wind • Cold
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Personal Protective Equipment Required:	<ul style="list-style-type: none"> • Hard hat • Steel toed boots • Gloves • Safety goggles • Safety vest or high visibility stripes • Long pants
Personal Protective Equipment as Required:	<ul style="list-style-type: none"> • Masks worn within 6 feet due to COVID

NOC STRENGTH LEVEL KEY	
Strength Level	Definition
Limited (Lim)	Up to 5 kg (11 pounds)
Light (L)	5 kg to 10 kg (11 – 22 pounds)
Medium (M)	10 kg to 20 kg (22 – 44 pounds)
Heavy (H)	Greater than 20 kg (44 pounds plus)

**Strength Level Key based on the National Occupational Classification*

FREQUENCY KEY		
Frequency	% of Workday	Hours – Based on 8 hour Workday
Not Required (N/R)	0%	0
Rarely (R)	1 – 5%	<25 min/day
Occasionally (O)	6 – 33%	25 min to 2 hours 40 min/day
Frequently (F)	34 – 66%	2 hours 41 min to 5 hours 17 min/day
Constantly (C)	67 – 100%	5 hours 18 min to 8 hours/day

**Frequency Key based on WCB Alberta Recommendations*

Job Demand	Frequency / NOC Strength Level					Details/ Measurements
	N/R	R	O	F	C	
Material Handling:						
Floor to Waist Level Lifting			Up to 20 lbs.			Moving road construction signs out of way, lifting shovel/rake from ground, lifting asphalt filled shovel from ground.
Knee to Waist Level Lifting		Up to 20 lbs.				Moving road construction signs out of way, lifting shovel/rake, lifting asphalt filled shovel.
Waist to Waist Level Lifting	X					Not required
Waist to Chest Level Lifting	X					Not required
Waist to Shoulder Level Lifting	X					Not required
Waist to Overhead Level Lifting	X					Not required
Front Carry			Up to 15 lbs.			Carrying shovel with asphalt.
Right / Left-handed Carry (Dominant Hand)			Up to 6 lbs.			Carrying rake and shovel around site.
Shoulder Carry		Up to 6 lbs.				Carrying rake and shovel around site.
Static Pushing/Pulling (Force)		Heavy NOC Level				Against large piles of asphalt.
Dynamic Pushing/Pulling (Force)				Heavy NOC Level		Moving asphalt with rake and/or shovel; at waist, chest, or crown height.

Job Demand	Frequency					Details/Measurements
	N/R	R	O	F	C	
Upper Extremity Work:						
Hand Gripping					X	Moving and manipulating asphalt with rake and shovel on site.
Pinch Gripping		X				Placing rake and shovel on paving truck.
Upper Extremity Coordination					X	Moving and manipulating asphalt with rake and shovel on site.
Reaching Forward					X	Moving and manipulating asphalt with rake and shovel on site.

Overhead Shoulder Level Reaching			X			Moving and manipulating asphalt with rake on site.
Below Shoulder Level Reaching					X	Moving and manipulating asphalt with rake on site.
Throwing	X					Not required

Job Demand	Frequency					Details/Measurements
	N/R	R	O	F	C	
Positional Work:						
Trunk Flexion (Bending)					X	While using rake and shovel.
Trunk Rotation (Twisting)				X		Pushing/pulling rake away from the workers body.
Kneeling	X					Not required
Crawling	X					Not required
Crouching	X					Not required
Squatting	X					Not required
Neck Flexion					X	Checking asphalt and surroundings on site, using rake and shovel, during tailgate meeting.
Neck Extension			X			Communicating with crew and watching paving truck.
Neck Rotation				X		Checking asphalt and surroundings on site, using rake and shovel, communicating with crew, during tailgate meeting.

Job Demand	Frequency					Details/Measurements
	N/R	R	O	F	C	
Static Work:						
Sitting		X				During breaks.
Static Standing			X			During raking and shoveling tasks, waiting for truck to dispose asphalt, during breaks. tailgate meeting, IFLRA.
Balancing					X	On site with curbs and slopes, using a staggered stance during raking/shoveling tasks.

Job Demand	Frequency					Details/Measurements
	N/R	R	O	F	C	
Ambulation:						
Walking: Level Surfaces				X		On site, during raking/shoveling tasks, behind paving truck.
Walking: Uneven Surfaces				X		On site, during raking/shoveling tasks, behind paving truck.
Walking: Slopes			X			On various sites
Jumping	X					Not required

Running	X					Not required
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Job Demand	Frequency					Details/Measurements
	N/R	R	O	F	C	
Climbing:						
Stairs	X					Not required
Ladder	X					Not required
Other		X				Stepping onto paving truck to access equipment

PHOTOS OF TASKS AND WORK ENVIRONMENT

Figure 1: Asphalt Rakeman ensuring asphalt is flush to the curb.



Figure 2: Asphalt Rakeman working behind paving truck, ensuring asphalt is flush to the curb.



Figure 3: Positioning rake to pull asphalt and level to the curb side.



Figure 4: Asphalt Rakemen demonstrating different positions/techniques when using rake.



If you have any questions, and/or would like to discuss this assessment and report further, I can be reached at (780) 429-4761.

Physical Demands Analysis
Job Title: Asphalt Rakeman
Date Prepared: August 18, 2020
Prepared for: Alberta Construction Association



Sincerely,

Joanna Taets Von Amerongen, BKin
Kinesiologist

SITE SPECIFIC JOB DEMAND ADDITIONS:

Job Demand	Frequency					Details/Measurements
	N/R	R	O	F	C	
Site Specific Job Demand:						
Writing		X				Filling out IFLRA.

Validation Agreement

Job Title:	Asphalt Rakeman
Data Collection Date:	July 21, 2020

We the undersigned have reviewed the Physical Demands Analysis for this position and agree that the physical demands documented in this report are representative of the true demands of the tasks associated with the job title as assessed on the date listed above.

Completed by:	Joanna Taets Von Amerongen, BKin	Lifemark Clinician Name
Approved by:	Matt Cooper, Paul Parsons	Management Representative
Approved by:		Worker Representative
Approved by:		Labour Provider Representative