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Physical Demands Analysis

Concrete Form Worker

Prepared for:
Alberta Construction Association

Job Title:	Concrete Form Worker	Assessment Location:	Sarcee Trail NW and 112 Avenue NW, Calgary Alberta	Data Collection Date:	July 22, 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: 5 days/week, 12 hours/day with 1 day/week, 8 hours/day. Break Schedule: Total of 1 hour break per day / 2-15 minute breaks with 1-30 minute lunch break. Shift Rotation: Not applicable On call is required: Not applicable Overtime required: Yes-dependent on weather and volume of work.
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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 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 a concrete form worker, the worker is required to prepare the site for concrete to be poured. This includes the possibility of clearing the site of any barriers, levelling the site, installing outlines using temporary wooden boards (cut to site dimensions) and stakes, as well as ensuring the site is ready for the concrete to be poured.		
	% of shift	Job Task	Task Description
	1-2%	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.
	1-2%	Site Review	<ul style="list-style-type: none">Review progress to date and discuss plan for the day. Ensure site is on time and update supervisor accordingly (if required).

	94-97%	Concrete Form Tasks	<ul style="list-style-type: none"> Working on site by preparing the outlined area for concrete to be poured. This involves installing wooden boards and stakes, ensuring the site is level and to the correct dimensions.
	1-2%	Clean site	<ul style="list-style-type: none"> Ensure all equipment and tools are placed back onto work truck, ensure safety by cleaning the site at the end of the work day.

Equipment/ Tools:	<ul style="list-style-type: none"> Boarder (90 lbs.) Compressor with Jack Hammer (60 lbs.) Crate (48 lbs.) Pry Bar (18 lbs.) Hilts Drill (23 lbs.) Pry Bar (18 lbs.) Drill (13 lbs.) Sledge Hammer (13 lbs.) Pick (6 lbs.) Leveller (5 lbs.) Shovel (4 lbs.) Stakes (4 lbs.)
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Exposures / Environment:	<ul style="list-style-type: none"> Vehicle exhaust 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 65 lbs.		Lifting wooden boards (and installing), stakes (and installing), various equipment, Standard General cones, crate and boarder cover from ground, completing site clean up.
Knee to Waist Level Lifting			*Up to 65 lbs.			Lifting wooden boards, stakes, various equipment and tools, Standard General cones, crate and boarder from elevated ground or from elevated position (dependent on site), completing site clean up.
Waist to Waist Level Lifting		Up to 18 lbs.				Lifting Standard General cones or barriers to/from site or adjusting for site access, completing site clean up.
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 65 lbs.				Carrying crate and boarder, wooden boards, various equipment and tools, Standard General cones around the site, completing site clean up.
Right / Left-handed Carry (Dominant Hand)			*Up to 65 lbs.			Carrying wooden boards, various equipment and tools, Standard General cones, stakes, etc. around the site, completing site clean up. This is dependent on worker’s preference for lifting.
Shoulder Carry			*Up to 65 lbs.			Carrying wooden boards, various equipment and tools, Standard General cones, stakes, etc. around the site, completing site clean up. This is dependent on worker’s preference for lifting.

Static Pushing/Pulling (Force)		Heavy NOC Level				Using electric drill to place holes in concrete to set up wooden board supports.
Dynamic Pushing/Pulling (Force)				Heavy NOC Level		Installing wooden boards and stakes into ground using a hammer (nailing, placing stakes in ground, etc.)

*Anything greater than 65 lbs., it is recommended the worker use assistive equipment or use a 2 person lifting method.

Job Demand	Frequency					Details/Measurements
	N/R	R	O	F	C	
Upper Extremity Work:						
Hand Gripping					X	Gripping power/hand tools, placing stakes and wooden boards, gripping various equipment, crate and boarder, cones, using leveller to check work, completing site clean up etc.
Pinch Gripping			X			Installing nails into wooden boards, attaching string to stakes.
Upper Extremity Coordination					X	Using power/hand tools, placing stakes and wooden boards, using various equipment, crate and boarder, cones, using leveller to check work, cutting wooden boards to site specific measurements, completing site clean up etc.
Reaching Forward				X		Reaching to access equipment and tools, installing wooden boards and stakes, cones, cutting wooden boards to site specific measurements, hammering nails into wooden boards installing/removing strings, and completing site clean up.
Overhead Shoulder Level Reaching		X				Removing string from stakes and wooden boards.
Below Shoulder Level Reaching					X	Reaching to access equipment and tools, installing wooden boards and stakes, cones, cutting wooden boards to site specific measurements, hammering nails into wooden boards, installing strings, and completing site clean up.
Throwing	X					Not required

Job Demand	Frequency					Details/Measurements
	N/R	R	O	F	C	
Positional Work:						
Trunk Flexion (Bending)					X	Using various equipment and tools on site (cutting wooden boards), measuring various aspects of site to ensure correct dimensions using leveller, installing wooden boards and stakes, applying string to stakes and wooden boards, completing site clean up etc.
Trunk Rotation (Twisting)			X			Installing stakes to ground and applying string to wooden boards/stakes.
Kneeling			X			Measuring and cutting wooden boards to site specific dimensions, measuring wooden boards at lower levels once installed.
Crawling	X					Not required
Crouching			X			Holding stakes while partner nails wooden boards into place, measuring wooden boards at lower levels once installed.
Squatting	X					Not required
Neck Flexion					X	Completing site specific measurements with wooden boards, installing wooden boards and stakes, attaching string to wooden boards and stakes, reviewing site progress to date, completing site clean up.
Neck Extension			X			Checking site and surroundings to ensure hazards are minimized.
Neck Rotation					X	Completing site specific measurements with wooden boards, installing wooden boards and stakes, attaching string to wooden boards and stakes, reviewing site progress to date, working in tandem with partner, completing site clean up.

Job Demand	Frequency					Details/Measurements
	N/R	R	O	F	C	
Static Work:						
Sitting		X				During breaks.
Static Standing				X		During IFLRA, site review, while installing wooden boards and stakes, measuring wooden boards.

Balancing				X		On site while installing wooden boards and stakes, completing site specific measurements, applying strings, using drill to create holes in concrete, around site on uneven ground.
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Job Demand	Frequency					Details/Measurements
	N/R	R	O	F	C	
Ambulation:						
Walking: Level Surfaces			X			Accessing site, on site during IFLRA and site review, while using equipment and tools to cut wooden boards, retrieving equipment and tools from work truck, site clean up.
Walking: Uneven Surfaces				X		On site while installing wooden boards and stakes, completing site specific measurements, applying strings, using drill to create holes in concrete, site clean up.
Walking: Slopes		X				Depending on site layout: on gravel or pavement.
Jumping	X					Not required.
Running	X					Not required.

Job Demand	Frequency					Details/Measurements
	N/R	R	O	F	C	
Climbing:						
Stairs		X				Dependent on site: buildings, commercial sites, etc.
Ladder		X				Dependent on site: buildings, commercial sites, etc.
Other			X			Accessing site from road way, throughout the site and accessing equipment/tools on work truck.

PHOTOS OF TASKS AND WORK ENVIRONMENT

Figure 1: Concrete Form Workers positioning stakes into ground to secure wooden board placement/height.



Figure 2: Concrete Form Workers hammering stakes into ground to secure wooden board placement/height.

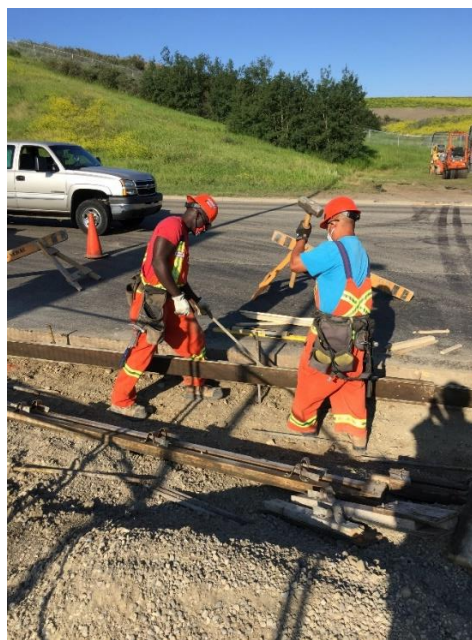


Figure 3: Hammering nails into wooden boards to secure in place.

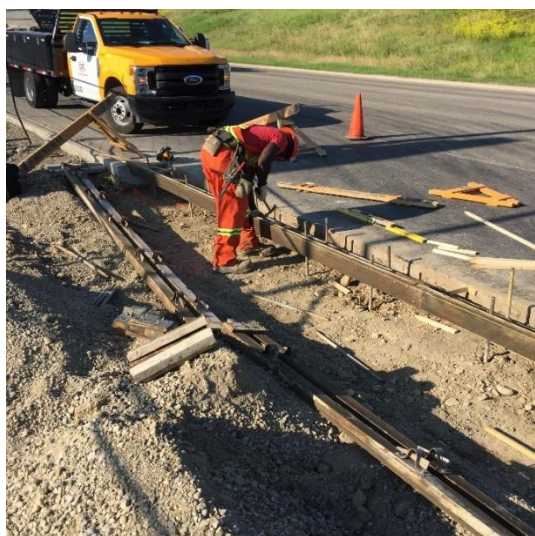
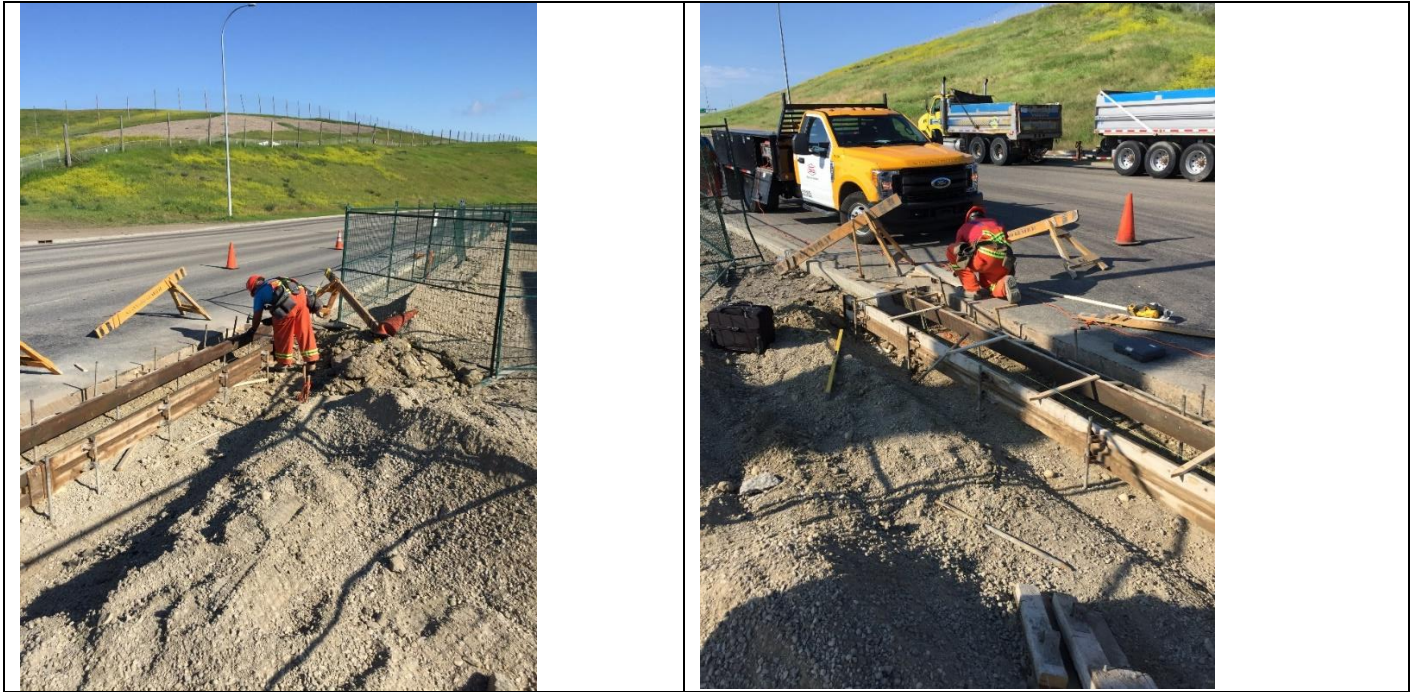


Figure 4: Crouching and forward bending positions demonstrated while drilling hole into cement.



Figure 5: Measuring distance from wooden boards to ensure concrete form workers following site measurement requirements.

Figure 6: Cutting wooden slats at appropriate length to place in between wooden boards and concrete.



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

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:	Concrete Form Worker
Data Collection Date:	July 22, 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