Worker fatally injured after fall from building

December 12, 2020

Albertan

The contents of this report

This document reports the Alberta Occupational Health and Safety (OHS) investigation of a fatal incident that occurred in December 2020. It begins with a short summary of what happened. The rest of the report covers this same information in greater detail.

Incident summary

On December 12, 2020, at approximately 10:24 a.m., a worker stepped onto an unsecured board and fell approximately 23.9 metres (m) sustaining fatal injuries.

Background information

Prime contractor

Trico Contract Management Inc. (Trico) was a branch under Trico Residential Inc. and was collectively known as Trico Homes. Trico Homes was originally founded in 1992 in Calgary, Alberta and was one of Calgary's top builders of single and multi-family homes. Trico had expanded its operations beyond Calgary into Cochrane, Airdrie, Chestermere, and Okotoks. The head office for Trico was at Kingsland Junction located at 7711 Macleod Trail southwest (SW), Calgary, Alberta.

Employer

Perma-Cast Concrete Contracting Ltd. (Perma-Cast) was in the business of building commercial and industrial foundations, parkades, high rise buildings, and water reservoirs. Perma-Cast had been in business for over 25 years, with its head office located in Calgary, Alberta. Perma-Cast was a member of the Calgary Construction Association. On the day of the incident, Perma-Cast employees were scheduled to work half a day, finishing around 12:00 p.m.

Lead Hand

The deceased worker was a Lead Hand and was employed by Perma-Cast as a carpenter since January 2018. On the day of the incident, the Lead Hand was part of the crew that was assigned the task of setting up tables on the seventh floor. The Lead Hand was directing the placement of the tables on the seventh floor.

Site Foreman

The Site Foreman started with Perma-Cast in October of 2018 as a carpenter and was the site foreman on the day of the incident. The Site Foreman had 20 years of relevant experience. The Site Foreman was assigning tasks to workers as they arrived on site. At the time of the incident, the Site Foreman was on the eighth floor sweeping off the deck and securing material for the weekend. The Site Foreman helped administer first aid.

Carpenter

The Carpenter started with Perma-Cast as a carpenter in September 2018 and had approximately 12 years of relevant experience. The Carpenter was assigned the task of stripping columns and working on railings.

Apprentice Carpenter

The Apprentice Carpenter started with Perma-Cast in May 2018 as a general labourer, progressing to a carpenter's apprentice, and had approximately 2.5 years of relevant experience. The Apprentice Carpenter was assigned the task of lowering the tables on the sixth floor. The Apprentice Carpenter helped administer first aid.

Crane Operator

The Crane Operator started with Perma-Cast in June 2020 as a rigger, with approximately one year of experience, and was an apprentice crane operator. On the day of the incident, the Crane Operator was operating the crane under the supervision of the Journeyman Crane Operator. The Crane Operator's main task on the day of the incident was moving tables from the sixth floor to the seventh floor.

Journeyman Crane Operator

The Journeyman Crane Operator started with Perma-Cast in 2017 and had 30 years of relevant experience. The Journeyman Crane Operator was being used as a rigger at the time of the incident. On the day of the incident, the Journeyman Crane Operator was part of the crew setting the tables on the seventh floor and was supervising the Crane Operator.

Crane Rigger

The Crane Rigger started with Perma-Cast in November 2017 as a labourer, progressing to a crane rigger, and had approximately 3.5 years of experience. On the day of the incident, the Crane Rigger was part of the crew setting tables on the seventh floor.

Work site, equipment and materials Work site

The incident occurred at Kingsland Junction located at 7650 4a Street SW, Calgary, Alberta. Kingsland Junction was a large phased project consisting of five buildings with both living units and commercial space.

At the time of the incident, the workers were using a crane to move tables from the sixth floor to the seventh floor in preparation of pouring concrete (Figure 1).



- Figure 1. The south side of the building where the incident occurred.
 - A. Incident location on the seventh floor.
 - B. The sixth floor platform where the tables were attached to the crane.

PERI Multiflex formwork table

The PERI Multiflex formwork table (table) was an adjustable system of girders, cross beams, plywood, and adjustable legs that was used to create a stable and level platform. The platform became the form for concrete to be poured onto, to create a slab for the floor or ceiling (Figure 2).



Figure 2. PERI Multiflex formwork table installed on the sixth floor.

Sequence of events

On Saturday, December 12, 2020, the workday began at approximately 6:30 a.m. when the Site Foreman unlocked the gates to the work site. The Apprentice Carpenter and the Site Foreman went through the hazard assessments and then the Site Foreman took the tablets and the sign out sheets to the sea-can. The Site Foreman waited at the sea-can to catch the other workers when they arrived to assign the tasks for the day. Most of the workers started around 7:00 a.m.

One of the tasks for the day was setting up the tables from the sixth floor to the seventh floor. The Site Foreman assigned the Lead Hand, the Journeyman Crane Operator, and the Crane Rigger this task with the assistance of the Crane Operator that morning.

The tables were placed starting from the west side of the floor to the east side. Approximately 16 tables were set in place before the 9:30 a.m. coffee break. The Lead Hand took their fall protection equipment and tool belt off and hung them up on a table before going downstairs for coffee.

The first table moved after coffee break was brought up from the sixth floor. The Journeyman Crane Operator guided the Crane Operator where to place the table via radio (Figure 3). The Journeyman Crane Operator was on the west side of the table, the Lead Hand was on the east side, and the Crane Rigger was at the north end.

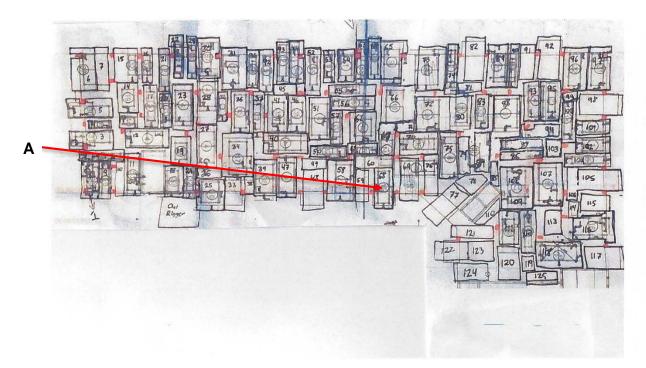


Figure 3. Diagram showing the location of the table, from the incident, on the seventh floor. The orange dots represent pillars. North is at the top of the diagram (drawing provided by Perma-Cast).

A. Location of table from the incident.

Before the table could be set down, the legs of the table had to be adjusted to the correct height. The Lead Hand moved toward the south end of the table and passed a tarp covered pillar (Figure 4). The Lead Hand stepped sideways to their left (east) and off of the concrete down onto a piece of unsecured plywood. The Journeyman Crane Operator heard the Lead Hand swear and both the Journeyman Crane Operator and the Crane Rigger saw the Lead Hand fall. The Carpenter, who was about half a metre away to the east of the Lead Hand, was standing next to a guardrail when the Lead Hand fell.



Figure 4. Incident location on the seventh floor.

- A. Tarped pillar where Lead Hand walked past.
- B. Area where the Lead Hand stepped onto a piece of unsecured plywood.

The Crane Rigger yelled to the Site Foreman, who was on the eighth floor, to come as someone had fallen to the ground. The Site Foreman called 911. When the Site Foreman got to the Lead Hand, the Apprentice Carpenter was about to start cardiopulmonary resuscitation (CPR) and asked the Site Foreman to help. The Journeyman Crane Operator went to the road to direct Emergency Services where to go. The Apprentice Carpenter and the Site Foreman continued to perform CPR until Emergency Services arrived. Emergency Services pronounced the Lead Hand deceased on site.

Completion

A review for enforcement action was completed on November 4, 2021, and it was determined that prosecution or an administrative penalty were not appropriate based on the circumstances surrounding this incident.

This investigation was completed on February 3, 2022.

Signatures

ORIGINAL REPORT SIGNED

Lead Investigator

February 3, 2022

ORIGINAL REPORT SIGNED

Manager

February 3, 2022