

# FATALITY NARRATIVE

## Carpenter Falls 60 Feet from Bridge Concrete Form

**Industry:** Highway, Street, and Bridge Construction

**Task:** Dismantling bridge concrete form

**Occupation:** Journeyman carpenter

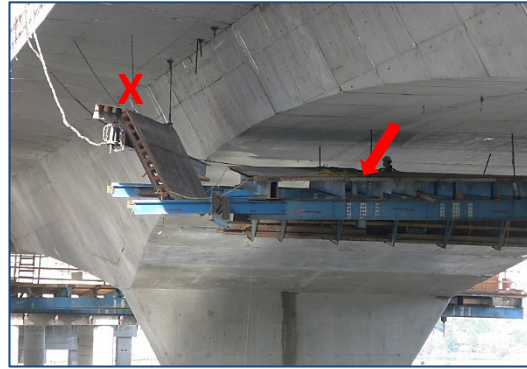
**Type of Incident:** Fall

**Incident Date:** March 12, 2015

**Release Date:** May 3, 2017

**SHARP Report No.:** 71-158-2017

In March 2015, a 34-year-old journeyman carpenter died when he fell 60 feet from a concrete form suspended below a bridge. The victim was employed by a joint venture company that was contracted by the state department of transportation to build a bridge across a lake. He was an experienced journeyman carpenter and a crew foreman on this project. On the day of the incident, a supervisor held a morning job safety analysis meeting with crew members to discuss hazards associated with the day's task. This task involved dismantling and removing concrete forms suspended underneath the bridge. The victim and another employee assigned to this task had done this work many times during the project. That morning, the two employees working from the concrete forms suspended under the bridge removed the north wing wall portion without incident. After lunch, the two employees began preparing to remove the south wing wall. It was supported by rods extending down from the bridge that were attached to the form by bolts. The plan was to lower the wing wall by using a machine on top of the bridge to lower the rods. Then a crane located on top of the bridge would hoist the wing wall up onto the bridge deck. One of the rods was lowered three feet. An attempt to lower another rod was made, but it would not lower. He and his coworker then decided to try and lift the wing wall with rigging attached to a chain hoist in hopes of lifting some of the weight



Incident scene showing the concrete form suspended below the bridge. The X indicates where the victim was working when he fell. The arrow indicates the anchor point of his retractable lifeline.

off the rod. When this did not relieve the pressure, they decided to cut the rod with a torch. Keeping the chain hoist in place, the victim wearing a full body harness with a retractable steel cable lanyard went to the top of the wing wall and cut the rod. Cutting the rod caused the wing wall to shift. The victim lost his balance and slid down the wing wall and fell into an opening between the wing wall and the main concrete form. His lanyard cable severed when it went over the steel edge of the main form and he fell 60 feet to a concrete pier below. The investigation identified that the victim's fatal fall was due to improper use of the retractable lanyard. The victim was working more than 6 feet above his anchor point and during the fall the cable went over a steel edge of the form, both of which the lanyard manufacturer warns against. Also, there were retractable lanyards located above the victim that could have been used as an anchor point.

[For a slideshow of this narrative, click here.](#)

### Requirements

- Forms intended for use where there is a free fall of over 10 feet must be equipped with adequate scaffolding and guardrails or employees working on forms must be protected from falls in accordance with chapter 296-155 WAC, Part C-1 during forming and stripping operations.  
See [WAC 296-155-689\(4\)](#)

### Recommendations

- When an unplanned situation arises that exposes workers to fall hazards, stop, regroup and discuss what should be done to address the issues. If changes to the fall protection work plan are needed, make those changes and retrain all those involved.

### Resources

Fall Protection in Bridge Construction, Inspection, and Maintenance: Fall Prevention Fact Sheets. American Road and Transportation Builders Assoc.  
[www.workzonesafety.org/training-resources/fall-prevention-fact-sheets](http://www.workzonesafety.org/training-resources/fall-prevention-fact-sheets)

This narrative was developed to alert employers and employees of a tragic loss of life of a worker in Washington State and is based on preliminary data ONLY and does not represent final determinations regarding the nature of the incident or conclusions regarding the cause of the fatality.

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