

BRIDGE COLLAPSE

Cause Map

Cause Mapping is a Root Cause Analysis method that captures basic cause-and-effect relationships supported with evidence.

1 Problem

What When	Problem(s)	Bridge collapse, fatality
	Date	January 19, 2015
	Time	~10:30 pm
Where	Different, unusual, unique	Portion of bridge already removed, bridge being replaced
	Facility, site	I-75 near Cincinnati, OH
	Unit, area, equipment	Overpass
Impact to the Goals	Task being performed	Demolition of overpass
	Safety	1 fatality 1 injury
	Environmental	?
	Customer Service	?
	Regulatory	?
	Production/ Schedule	Significant traffic impact on busy interstate hwy
	Property/ Equipment	Damage to truck
	Labor/ Time	Significant clean up and investigation required

One worker killed and one driver injured

On the evening of January 19, 2015, an overpass on Interstate 75 near Cincinnati collapsed, killing a construction worker and injuring a driver. The overpass was undergoing construction when it unexpectedly collapsed onto the road below it, which was still open to traffic.

"What appears to have happened is, in essence, an industrial incident - a workplace incident with respect to a construction crew that's doing work out here. Something went wrong, and a tragedy has occurred as a result."

-Harry Black, Cincinnati City Manager

CAUSE MAPPING

Problem Solving • Incident Investigation • Root Cause Analysis

- Step 1 Problem** - What's the Problem?
- Step 2 Analysis** - Why did it happen?
- Step 3 Solutions** - What will be done?

Why?



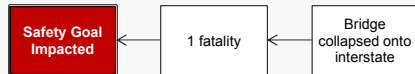
NOTE: Read the Cause Map from left to right with the phrase "Was Caused By" in place of each arrow.

2 Analysis

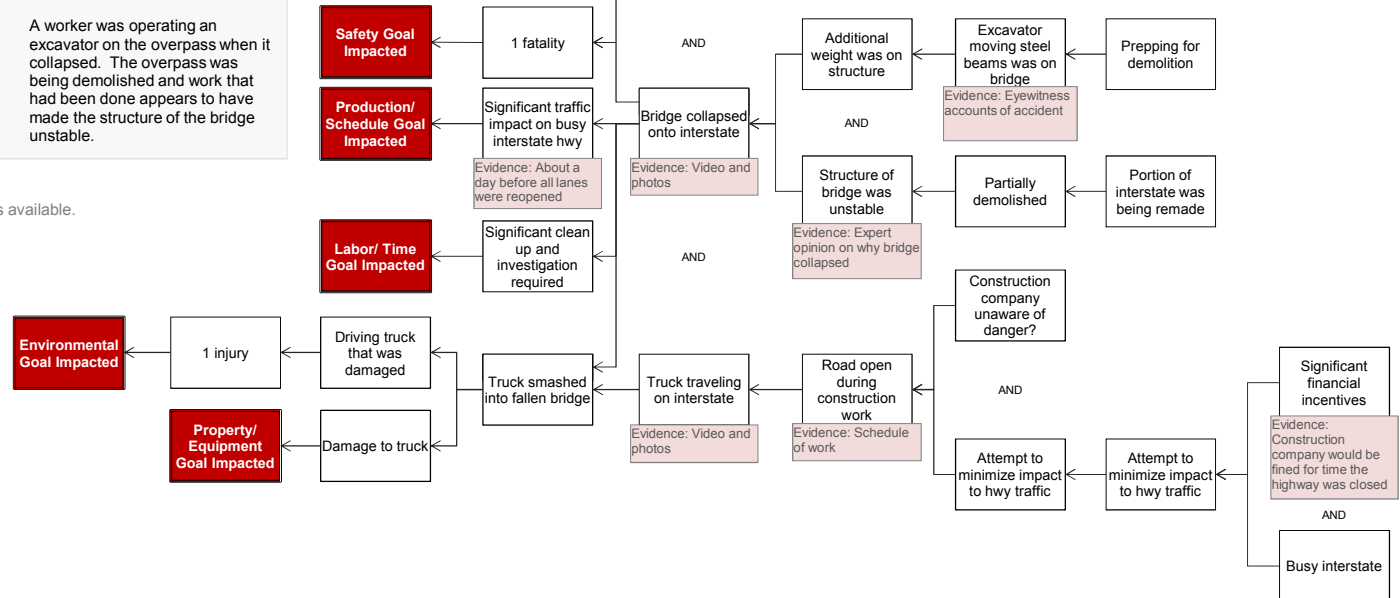
Basic Level Cause Map - Start with simple Why questions.

Basic Cause-and-Effect

A worker was operating an excavator on the overpass when it collapsed. The overpass was being demolished and work that had been done appears to have made the structure of the bridge unstable.



More Detailed Cause Map - Add detail as information becomes available.



For a free copy of our Root Cause Analysis Template in Microsoft Excel, used to create this page, visit our web site.

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