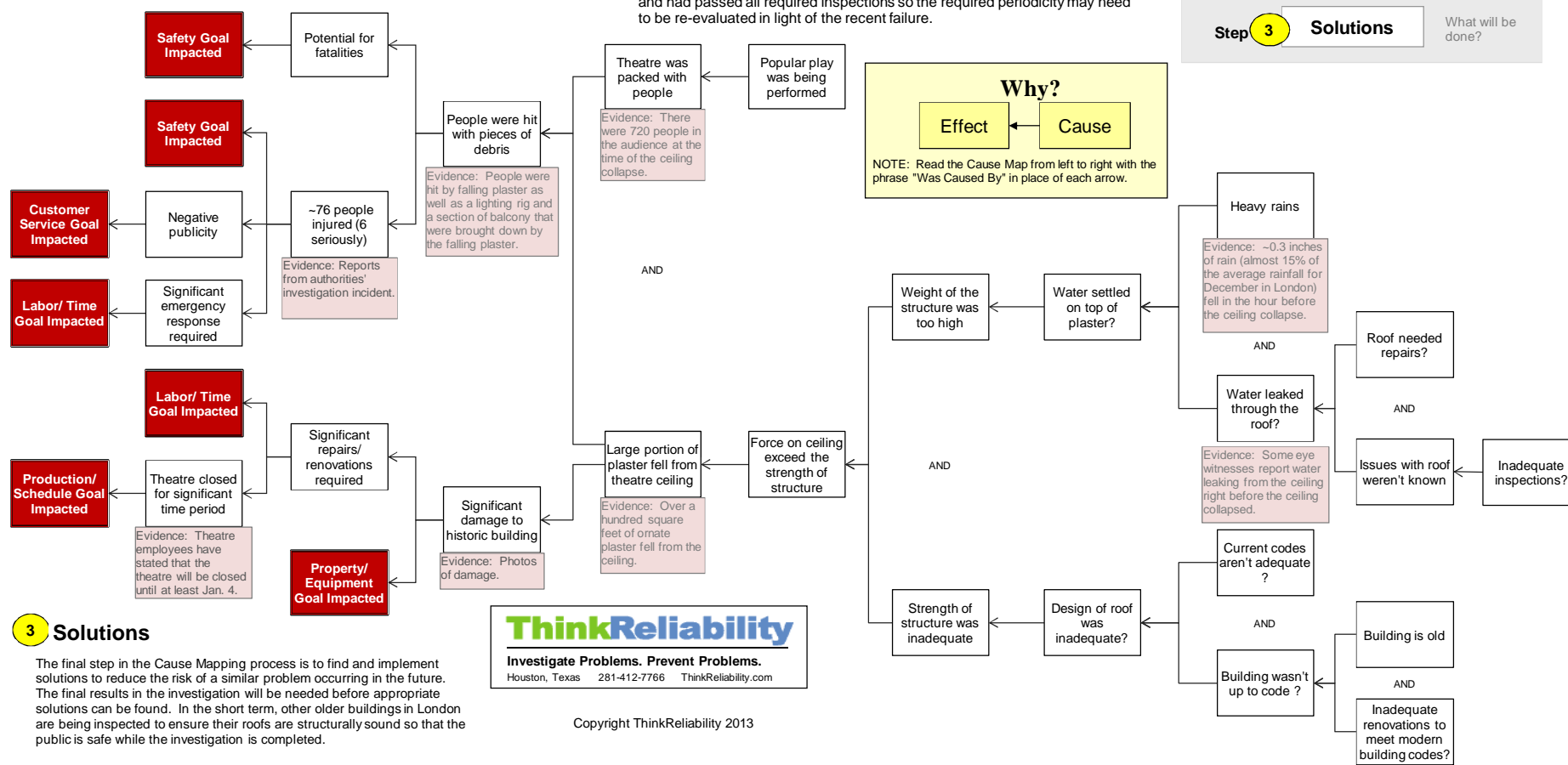


1 Problem

What	Problem(s)	Part of Apollo Theatre's ceiling collapsed, ~76 people injured
When	Date Time	December 19, 2013 ~8:15 pm
Where	Different, unusual, unique	Heavy rains, old building
	Facility, site	Apollo Theatre in London
	Unit, area, equipment	Plaster ceiling failed
	Task being performed	Play was being performed

Impact to the Goals	
Safety	~76 people injured (6 seriously) Potential for fatalities
Customer Service	Negative publicity
Production/ Schedule	Theatre closed for significant time period
Property/ Equipment	Significant damage to historic building
Labor/ Time	Significant emergency response required Significant repairs/ renovations required

2 Analysis



3 Solutions

The final step in the Cause Mapping process is to find and implement solutions to reduce the risk of a similar problem occurring in the future. The final results in the investigation will be needed before appropriate solutions can be found. In the short term, other older buildings in London are being inspected to ensure their roofs are structurally sound so that the public is safe while the investigation is completed.

Ceiling Collapse in London's 112-year-old Apollo Theatre Injures Dozens

On December 19, 2013, 76 people were injured when a large section of plaster fell from the ceiling of London's historic Apollo Theatre. Luckily there were no fatalities as a result, but six people were seriously injured in the accident.

Investigators have not announced what led to the ceiling collapse, but early speculation is that rain water leaked through the roof and settled onto the plaster. The theory is that the additional weight from the water was more than the ceiling could handle and it fell, taking a lighting rig and part of a balcony with it. If this was the case, there will need to be hard questions asked about the adequacy of current building codes and inspection requirements. Currently, the roof on the Apollo Theatre was only required to be inspected every 3 years. It appears that the Theatre was up to date on and had passed all required inspections so the required periodicity may need to be re-evaluated in light of the recent failure.

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

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?