 Asphalt chunk  
elevated 50ft

Evidence

Data log

Solutions

Additional end of shift inspection from top side for all elevated road-decking demo jobs

Criteria	Pass	Status	Selected
Cost is per day. This solution is intended for example purposes only.			

 Asphalt was part of  
elevated roadway

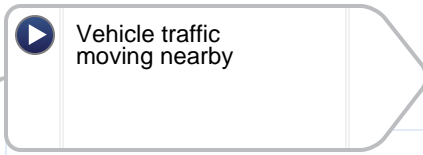
Evidence

Data log



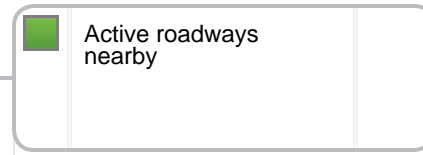
END

Terminated because:  
Desired state



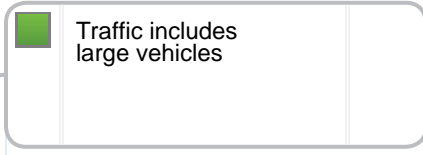
Evidence

GC statement



Evidence

Data log



END

Terminated because:  
Other causal paths more productive

Evidence

GC observation

Solutions

Temporarily reroute large vehicles until demo work is complete

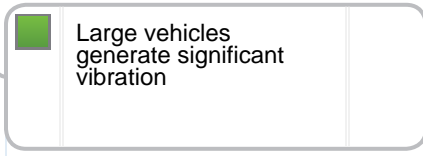
Criteria	Fail	Status	Identified

This solution is intended for example purposes only.



Evidence

Demo sub statement



END

Terminated because:  
Other causal paths more productive

Evidence

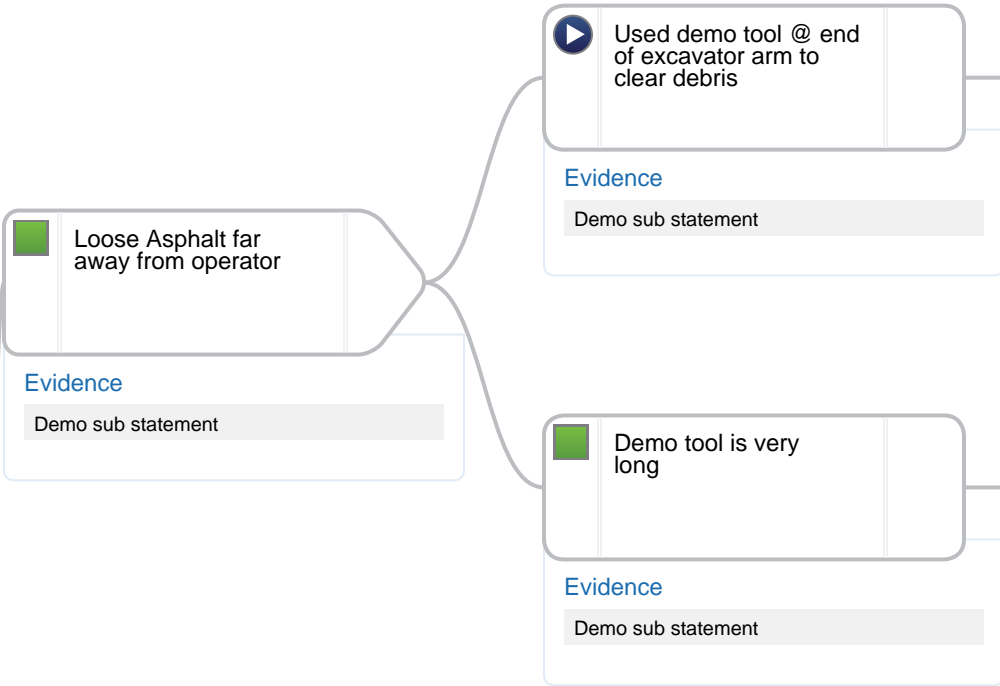
GC observation



END

Terminated because:

Other causal paths more productive



END

Terminated because:  
Other causal paths more  
productive

END

Terminated because:  
Other causal paths more  
productive





Large object fell

### Evidence

Data log

### Solutions

Erect a protective tunnel for sidewalk and road on all bridge demo jobs

Criteria	Fail	Status	Identified
This solution is intended for example purposes only.			

Install safety net at end of shift, under demo bridge to catch falling debris

Criteria	Pass	Status	Identified
This solution is intended for example purposes only.			




Asphalt chunk moved over the edge of bridge

### Evidence

Demo sub statement






Demo crew unaware of large asphalt chunk

Evidence

Demo sub statement



Large asphalt chunk not removed

Evidence

Demo sub statement



and  
or

▶ Demo crew didn't see loose asphalt?

Evidence

Demo sub statement

■ Limited visibility?



END

Terminated because:  
Other causal paths more productive

Actions

Provide evidence for this cause

▶ ~~Never looked for loose asphalt~~

END

Terminated because:  
Other causal paths more productive

Evidence

Statement from multiple crew members

▶ Visually checked with manlift

Evidence

Demo sub statement

■ Procedure

END


Terminated because:  
Other causal paths more productive

Evidence

Data log  
Demo sub statement



★ Near miss incident

 1800 lb asphalt chunk fell off of bridge

Evidence


Demo sub statement

Solutions

Install protective safety restraints over top of elevated roads to prevent asphalt movement after demo work


Criteria Pass Status Selected

This solution is intended for example purposes only.

 Gravity

Evidence

Statement from multiple crew members

 ~~Work crew accidentally pushed asphalt chunk over edge~~

Evidence

Demo sub statement





Asphalt chunk close to edge

Evidence

- Demo sub statement
- GC statement

Not found in inspection

Evidence

- GC statement

Terminated because:  
Other causal paths more productive

Terminated because:  
Other causal paths more productive

Asphalt being removed was near open edge of bridge

Evidence

- GC observation
- Statement from multiple crew members

Terminated because:  
Other causal paths more productive

Asphalt is on bridge

Evidence

- Data log

Terminated because:  
Other causal paths more productive



**Manlift inspection did not reveal the debris**

**Evidence**

Demo sub statement

and/or

**Incomplete inspection?**

**Actions**

Provide evidence for this cause

END

Terminated because:  
Other causal paths more productive

**Inadequate lighting?**

**Solutions**

Equip crews with high powered lighting for inspections

Criteria	Pass	Status	Selected
This solution is intended for example purposes only.			

**Actions**

Provide evidence for this cause

END

Terminated because:  
Other causal paths more productive

**Manlift not close enough to be effective?**

**Actions**

Provide evidence for this cause

END

Terminated because:  
Other causal paths more productive



**Potential for people to be under falling object**

**Evidence**  
GC statement

**General public has access to area**

**Evidence**  
Data log

**Located on public roadway**

**Evidence**  
Data log

**Area access not restricted**

**Evidence**  
GC statement

**Solutions**


Criteria	Fail	Status	Identified
This solution is intended for example purposes only.			

**1800 lb asphalt chunk existed**

**Evidence**  
Statement from multiple crew members


and/or



 Loosened by bridge demolition


Evidence

Data log

 Bridge section being demolished


Evidence

Data log

 Bridge deemed unsafe


Evidence


Data log

 Make way for new bridge

Evidence

Data log

 Terminated because:  
Other causal paths more productive


 Not enough space to reroute

Actions

Provide evidence for this cause

Terminate the cause

Set the cause type

 Not economical to reroute?

Actions

Provide evidence for this cause

Terminate the cause

Set the cause type



END

Terminated because:

Other causal paths more productive

END

Terminated because:

Other causal paths more productive



▶ Construction crews working in area

Evidence

Data log

▶ Rebuilding bridge & roadway

Evidence

Data log



END

Terminated because:

Desired state

