

★ Near miss incident

**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 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.

**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.

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

Evidence  
GC statement

**General public has access to area**

Evidence  
Data log

**Area access not restricted**

Evidence  
GC statement

Solutions  
Reroute vehicle and pedestrian traffic  
Criteria Fail Status Identified  
This solution is intended for example purposes only.

**Construction crews working in area**

Evidence  
Data log

**Rebuilding bridge & roadway**

Evidence  
Data log

**Asphalt chunk moved over the edge of bridge**

Evidence  
Demo sub statement

**Gravity**

Evidence  
Statement from multiple crew members

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

Evidence  
Demo sub statement

**1800 lb asphalt chunk existed**

Evidence  
Statement from multiple crew members

**Located on public roadway**

Evidence  
Data log

**Asphalt was part of elevated roadway**

Evidence  
Data log

**Vibration**

Evidence  
Demo sub statement

**Asphalt chunk close to edge**

Evidence  
Demo sub statement  
GC statement

**Asphalt being removed was near open edge of bridge**

Evidence  
GC observation  
Statement from multiple crew members

**Asphalt is on bridge**

Evidence  
Data log

**Loosened by bridge demolition**

Evidence  
Data log

**Bridge section being demolished**

Evidence  
Data log

**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

**Terminated because: Desired state**

**Vehicle traffic moving nearby**

Evidence  
GC statement

**Active roadways nearby**

Evidence  
Data log

**Traffic includes large vehicles**

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.

**Large vehicles generate significant vibration**

Evidence  
GC observation

**Large asphalt chunk not removed**

Evidence  
Demo sub statement

**Not found in inspection**

Evidence  
GC statement

**Bridge deemed unsafe**

Evidence  
Data log

**Make way for new bridge**

Evidence  
Data log

**Terminated because: Other causal paths more productive**

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**Used demo tool @ end of excavator arm to clear debris**

Evidence  
Demo sub statement

**Loose Asphalt far away from operator**

Evidence  
Demo sub statement

**Demo tool is very long**

Evidence  
Demo sub statement

**Limited visibility?**

Actions  
Provide evidence for this cause

**Never looked for loose asphalt**

Evidence  
Statement from multiple crew members

**Procedure**

Evidence  
Data log  
Demo sub statement

**Incomplete inspection?**

Actions  
Provide evidence for this cause

**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

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

Actions  
Provide evidence for this cause

**Manlift inspection did not reveal the debris**

Evidence  
Demo sub statement

**Manlift inspection did not reveal the debris**

Evidence  
Demo sub statement

**Manlift inspection did not reveal the debris**

Evidence  
Demo sub statement

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