

## Working on Fragile Roof Surfaces



# Toolbox Talk

## Fragile Roof Surfaces

It is a common occurrence for scaffolders to install scaffold structures to existing buildings. These buildings often contain roof surfaces either as a part of, or adjacent to a Scaffer's working areas. However, an often overlooked hazard involved with these areas is the risk of falls through fragile surfaces, voids and other openings.

Every year, many workers lose their lives or experience life-changing injuries, by falling through unidentified fragile surfaces.

### The Law

**The Health and Safety at Work Act 1974;**  
The Health and Safety at Work Act 1974 (HASWA) lays down wide-ranging duties on employers.

#### The law states that an employer must:

- ❖ Ensure the health, safety and welfare at work of all employees
- ❖ Provide a safe place of work
- ❖ Provide information, instruction, training and supervision
- ❖ Provide safe access and egress to the workplace

### The Work at Height Regulations 2005

The primary piece of legislation intended to prevent death and injuries caused by work at height is 'The Work at Height Regulations 2005' (WAHR).

WAHR states that employers and those in control of any work at height activity must ensure that the work is properly planned, supervised and carried out by competent persons. In addition, Section 9 of the regulations focuses on fragile surfaces and specifies that dutyholders must:

- ❖ Ensure that no person passes across, near or works on a fragile surface where work can be carried out safely under appropriate alternate arrangements. **(AVOID)**
- ❖ (Where it is not possible to avoid work at height), ensure that suitable and sufficient platforms, coverings, guardrails etc. are provided and used. **(PREVENT)**
- ❖ Implement suitable and sufficient measures to minimise the distances and consequences of a potential fall. **(MITIGATE)**
- ❖ (Where any person may pass across, near or works on) ensure that prominent warning signs are affixed at the approach to the area. If this is not possible, then those working at height must be made aware by other means. **(WARNING)**



### Assessing the Risk

Employers and those in control of work at height are required to ensure that the task is properly planned. A crucial part of this is the carrying out of a suitable and sufficient risk assessment. This is to identify the potential hazards involved in the task and implement control measures which serve to reduce the risk to an acceptable level.

Site surveys should be carried out as a part of the Risk Assessment process, and should consider the risks associated with fragile roof surfaces. The result of the Risk Assessment and the required control measures should be communicated to scaffolding operatives prior to commencement of works.

**Remember** all roof surfaces should be considered fragile until a competent person has confirmed they are not. It will be necessary for the Client and Contractors to communicate and work closely together to identify hazards and manage the risk.

- ❖ Identify the Hazards
- ❖ Assess the Risks
- ❖ Control the Risks
- ❖ Record the findings
- ❖ Review the controls

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### Planning for Work at Height

#### Avoid

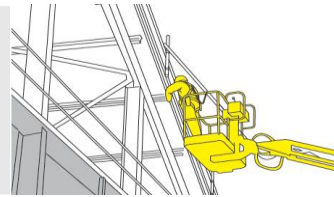
The first consideration when fragile surfaces are present in the workplace is to properly plan and consider alternate methods of working that may be used which do not require scaffold operatives to access, use or work near potentially fragile roof surfaces. This may be possible by using powered access to carry out the task, or pre-assembling sections of scaffold on the ground and lifting them into place.

#### Prevent

If works cannot be carried out in a manner that avoids working at height, then preventative measures may be required to reduce the likelihood of falls. This may include;

- ❖ Providing platforms, suitable covering or guardrails in place to restrict access to the fragile surface.
- ❖ Using a harness system with fall restraint lanyards which prevent operatives from accessing the fragile surface. (This will require suitable anchor points.)

Avoid fragile surfaces



Prevent falls



Mitigate falls



Warnings



#### Mitigate

Additional steps must be taken which provide further protection in case of a potential fall occurring. These are required to reduce the distance and consequences should a fall still occur through a fragile roof surface. This may include;

- ❖ Installation of safety netting, platform or birdcage-type scaffold directly below the fragile surface.
- ❖ Using a harness system with fall arrest lanyards which will arrest a fall. (This will require suitable anchor points the implementation of a rescue plan.)

#### Warnings

Suitable signage should be placed in prominent locations and to the area directly approaching the fragile surface to ensure that scaffolders are aware of potentially fragile surfaces.

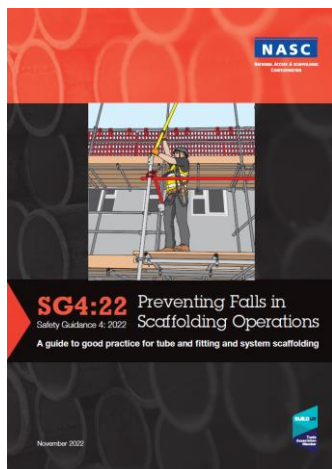
Prior to commencing work, scaffolders should receive task specific information which will contain the location of identified and suspected fragile surfaces.

Scaffolders should also receive a briefing on the results of the risk assessment and method statement specific to the works to be carried out. If any specialist equipment is required to be used, such as powered access or rescue kits etc. then further training will be required.

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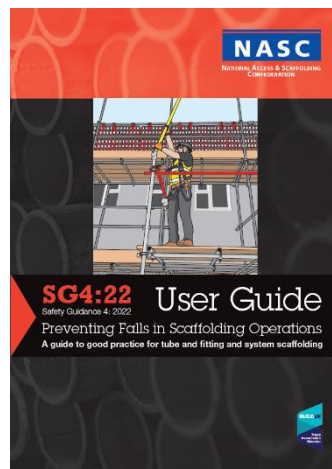
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### NASC SG4:22 – Preventing Falls In Scaffolding Operations



The NASC has produced a Safety Guidance (SG) document to aid employers and employees with the prevention of falls in the scaffolding industry. This document is available directly from the NASC website.

SG4:22 is also available in a handy pocket size (user guides) for workers to use and reference on sites if required.



### SG4:22 – Section 2.8 (Key Points)

- ❖ Falls through fragile surfaces remain one of the most common cause of work-related fatalities in the construction industry.
- ❖ Work at height should be properly planned and a risk assessment carried out.
- ❖ Work at height is to be avoided where other alternative means can be used to carry out the required works.
- ❖ If work at height cannot be avoided, then preventative measures must be implemented to prevent falls from occurring.
- ❖ Further measures should be considered which reduce the distance and consequences, should a fall occur.
- ❖ Suitable warning signage is required to signify the presence of fragile surfaces.
- ❖ Instruction and training should be provided to operatives on the location of fragile surfaces and if they are required to use specialist equipment.

- ❖ ALL roof surfaces are to be considered a fragile surface until it is confirmed they are not.
- ❖ If a potential fragile surface is found during scaffolding works that has not previously been identified during the planning stages, then work should cease immediately, and the situation should be reported to the employer.

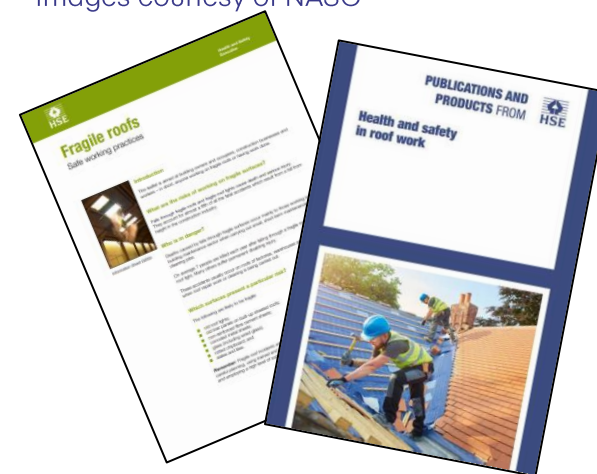
### Further Reading

The Health and Safety Executive Safe Working Practices Document (HSE GEIS5)

The Health and Safety Executive Guidance Document on Health and Safety in Roof Work (HSG33)

NASC SG4:22 – Preventing Falls in Scaffolding Operations

\*Images courtesy of NASC



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Feedback:

### Briefing Acknowledgement

Name	Date	Signed