



## ROOF INSPECTION AND MEASUREMENT

Inspection of a roof is often necessary where a problem has been identified, there is a leak, or before refurbishment.

### Stay off the roof

The best option is to avoid going up on the roof to conduct an inspection.

Remote inspections can be completed using mast photography or videography where only visual inspection is required. The operator remains at ground level and controls the direction and zoom of the camera that is elevated on a mast. The pictures are then fed live to a screen where they can be viewed immediately, see Figure 1.



At times measuring can take place without going onto the roof. Methods could include measuring from a secured ladder and using Google Earth or proprietary software to complete the roof area calculation.

Note: Operators must identify overhead hazards such as electrical cables and put in place measures to ensure the use of this equipment doesn't place the operator at risk.

Figure 1: Remote inspection mast with hand-held lightweight CCTV system (Image courtesy of Survey Support Ltd) UK.

### Safe position

If working from the ground is not possible, the work should be carried out from a safe place. This could be from an adjacent structure, using binoculars or from mobile access equipment, (see Figure 2), or a secured tower scaffold or ladder.

Some investigations can be carried out from below if the roof structure is exposed.



Figure 2: Powered access for inspecting a large fragile roof.

### Built in fall protection systems

Some modern roofs may have fall-protection systems installed to allow gutter cleaning, maintenance and inspection. If they have been maintained and inspected properly by the building owner, they should be used by those accessing the roof.

However, anyone working at height should be trained and competent to use the system and can identify any potential issues with the system before they are allowed on the roof.

### Going onto a roof

All roof work is potentially dangerous because of working at height. All hazards associated with working at height should be controlled, even if it is a short duration job.



## PREVENTING FALLS FROM HEIGHT



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Where working at height cannot be avoided, access to the roof should be planned and any hazards associated with the work should be identified, assessed and controlled.

Roof work should always be done with care and by people trained and experienced in assessing the hazards involved.

If the person inspecting the roof cannot avoid going onto a roof, they will be exposed to high risks, so high standards of safety and fall protection will be required.

In most circumstances where edge protection is not available or not practicable, a roof ladder, a safety harness and safety line used as a work positioning system, (see Figure 3), or a combination of both will be used.

For more information for working on a roof and assessing hazards associated with roof work, refer to the Ministry of Business, Innovation and Employment's (MBIE's) *Best Practice Guidelines for Working on Roofs*.



Figure 3: A safety harness and safety line used as a work positioning system.