SAFETY GUIDE - WORKING IN CEILING SPACES

March 2022

Disclaimer: The information contained in this document does not constitute legal advice and reliance should not be placed upon material presented to solve a specific Work Health and Safety issue.

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1. Introduction

This safety guide is for people who will undertake works within ceiling spaces or ceiling voids. In this document you will find information about how to safely access ceiling spaces, the hazards and risks that may be present when working in a ceiling space and practical controls that can be employed to eliminate or reduce such risks.

1.1 Consultation

Note: Consultation is required with all relevant stakeholders/interested parties (e.g. clients, workers, other contractors, etc.) to ensure compliance with the WHS Act NSW 2011 (Part 5 – Consultation, representation and participation):

- *Section 46 – Duty to consult with other duty holders*
- *Section 47 – Duty to consult workers*
- *Section 48 – Nature of consultation*
- *Section 49 – When consultation is required*

Consultation involves sharing information, giving workers a reasonable opportunity to express views and taking those views into account before making decisions on WHS matters.

You must consult on WHS matters so far as is reasonably practicable with workers who carry out work for you and who are (or are likely to be) directly affected. This includes consulting with your employees, contractors and subcontractors and their workers, employees of labour-hire companies assigned to you, outworkers, trainees and apprentices, work experience students and volunteers (if any), about health and safety decisions directly affecting them and which you influence or control. (Ref 1).

When working in the premises of another business, you must also consult with the person with management control about the nature and type of work and all WHS matters.

Example:

Complete a Pre-Start Safety Briefing or Toolbox Talk

2. Accessing the ceiling space to complete an initial inspection/risk assessment

Accessing ceiling spaces involves various hazards and risks. Firstly, check if the building has a Hazardous Materials/Asbestos Register.

Review → Hazardous Materials/Asbestos Register

2.1 Identifying hazards and managing risks

Before entering the ceiling space, it is important to carry out a risk assessment to identify any hazards or risks that may affect your ability to conduct the work safely.

Identifying the hazards and risks will assist you in ensuring you or your workers are undertaking the works in the ceiling space in the safest way possible.

During the hazard and risk identification process, the first item to review would be the work undertaken in the ceiling space. For example, is it electrical maintenance? Asbestos removal? Pest/vermin inspection and removal? Roofing repairs or structural alterations and additions?

Secondly, you should further review the access to the ceiling space and determine how you will get in and out safely in an emergency. What type of device will provide the clearest communication: direct contact with persons below, mobile phone, two-way radio etc. Are you going to be able to get materials or equipment in/out? Will you be able to fit within the ceiling space? Will others fit as well?

What is the workspace environment constructed from? Is it ceiling joists with plasterboard or suspended ceiling tile? Does the ceiling space have any lighting and is there adequate ventilation? These items will influence how you will complete your work activity risk assessment and raise awareness of the hazards and risks that you will need to control.

What is a hazard?
A hazard is something, including a person's behaviour, that has the potential to cause death, injury or illness.

Hazards can cause different types and severities of harm, ranging from minor discomfort to serious injury or death.

There are 6 types of hazards in the workplace:

- Biological
- Chemical
- Physical
- Safety
- Ergonomic
- Psychosocial

Hazards in a ceiling spaces generally include, but are not limited to:

- Working at heights (falling from height)
- Electrical wires/circuits (electric shock/electrocution)
- High temperatures/humidity (heat exhaustion/dehydration)
- Mechanical ducts/water or gas pipes (claustrophobia/suffocation)
- Hazardous materials like asbestos or insultation (lung disease/poisoning)
- Biological/pests or vermin present (poisoning)
- Working alone (isolation/disorientation)
- Manual handling (muscular skeletal disorders)
- Noise (hearing loss)

A **Hazard Identification Checklist** has been developed for working in ceiling spaces, see **Appendix A**.

2.2 Access the ceiling space via manhole/access panels

Accessing ceiling spaces via manhole/access panels comes with hazards and risks. Things to check before accessing include:

DON'T ENTER THE CEILING SPACE FURTHER UNTIL YOU HAVE DOCUMENTED AND COMPLETED THE RISK ASSESSMENT, SAFE WORK METHOD STATEMENT AND EMERGENCY PROCEDURES.

1. Opening a manhole/access panel

Set up a ladder on a stable base to open the manhole/access panel. A platform ladder is preferable, and in some instances, an A-frame ladder may be more suitable. Ensure the ladder is on stable footing and fully opened and in the locked position. Do not climb or work past the second-last rung of a ladder and never straddle the top of an A-frame ladder. Airborne contaminants, asbestos dust, insulation, pest/vermin faeces may all be present on the top of the manhole/access panel cover. Therefore, ensure you wear suitable PPE, including RPE, such as a hard hat, gloves, eye protection and appropriate respirator before opening the manhole/access panel. The manhole/access panel may also be constructed from asbestos.

Figure 1

2. Install and secure a ladder to access the ceiling space via a manhole/access panel

When setting up an extension ladder, first inspect the ladder for any damage. Ensure the ladder length extends at least 1M past the manhole/access panel and is stable and secure to avoid slipping.

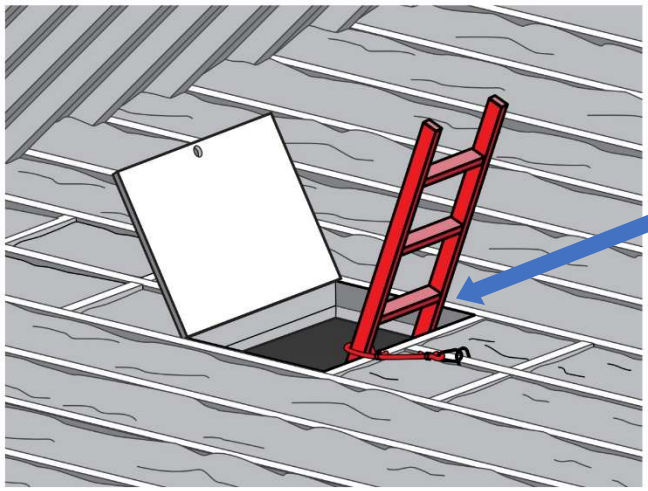


Figure 2

CAUTION - Using a platform ladder or an A-frame step ladder below the ceiling, will introduce a risk of injury to the worker trying to access the ceiling space. The ladder needs to extend through the opening and be adequately secured.

HAZARD = FALLS FROM HEIGHTS, FALLING OBJECTS, HAZARDOUS MANUAL TASKS

RISK = FATAL OR SERIOUS INJURY

3. Install suitable decking/material to gain safe access when entering/climbing into the ceiling space (refer to Section 4 Table 1, regarding suitable decking)

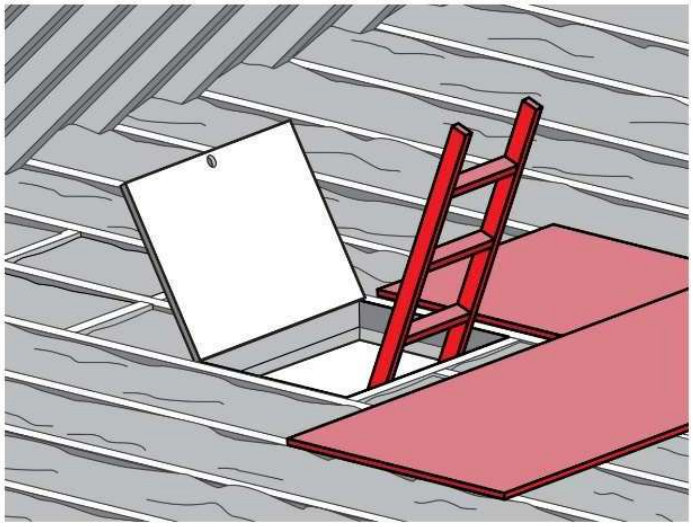


Figure 3

4. Now you have a deck in place to enter, inspect and assess the ceiling space. Measure the span between joists. Note the ventilation and lighting; you may need a torch. Review the Hazard Identification Checklist Appendix A.

2.3 Accessing a false/suspended ceiling space

If accessing a false/suspended ceiling space via ceiling tiles, the surroundings may not be structurally sound and must be assessed by a competent person. Working from a temporary work platform is your most effective control measure. Using an Elevated Work Platform (EWP) or a mobile scaffold to view the ceiling space are other options.

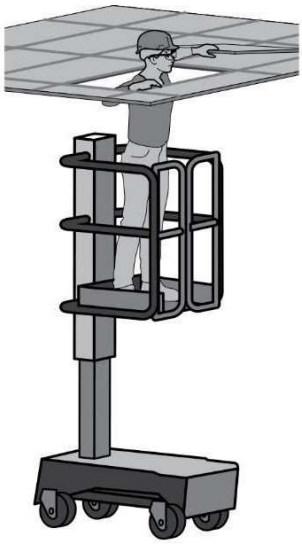


Figure 4

2.3 Access the ceiling space via the plant room

Entering a ceiling space via a plant room also comes with hazards and risks. Firstly, you should contact the building/operations/facility manager to obtain a copy of the building's hazard and risk register. This should identify any hazards and potential risks that you may come across by entering the ceiling space via a plant room. Generally, most building operations/facility managers have a hazardous materials register supported by a permit system that you may need to complete first before entering the area. The type of permit will be determined by the hazards and risks you may be exposed to. One or more permits may be required.

CHECK THE BUILDING MANAGER OR CLIENT FOR A BUILDING HAZARD AND RISK REGISTER

COMPLETE A PERMIT IF REQUIRED.

Figure 5

GENERAL HAZARDS AND RISKS WHEN ACCESSING CEILING SPACES VIA PLANT ROOMS COULD INCLUDE:

- Hazardous substances
- Poor ventilation - vapours or fumes present, suffocation
- Dangerous equipment - high voltage, electrocution
- Noise
- Poor lighting
- Low headroom/overhead services
- Exclusion zones/tight narrow walkways
- Trips, slips and fall hazards
- Voids

2.4 Access the ceiling space via the roof

Accessing the ceiling space via the roof presents different hazards and risks to the access methods previously mentioned.

Firstly, if you are accessing a residential roof via an extension ladder, you should inspect the area to ensure you can set up your extension ladder safely and can stabilise and secure the ladder. Refer to Managing the Risk of Falls in Housing Construction Code of Practice for further information.

Secondly, if you are accessing the roof via an existing fixed ladder, you need to review the roof type and safety systems already in place. These include the ladder itself, anchor points, safety line ropes or platforms/walkways, access and egress.

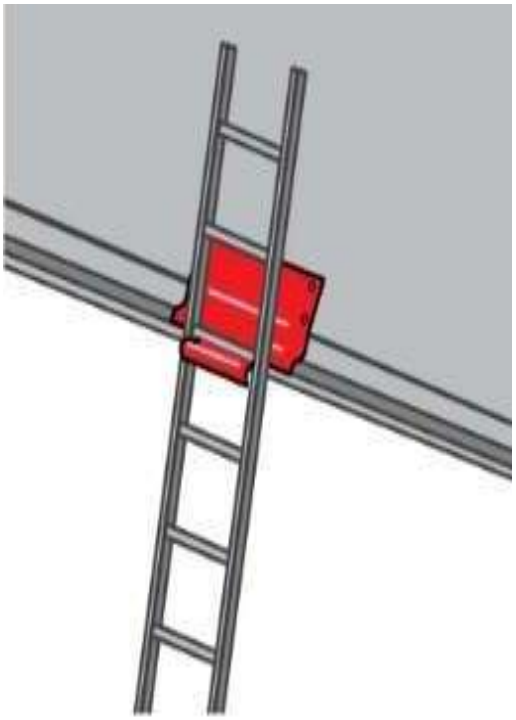
WHEN ACCESSING A ROOF, MOST BUILDINGS/CLIENTS HAVE A PERMIT SYSTEM TO COMPLETE. CHECK WITH THE BUILDING MANAGER FIRST.

REQUEST COMPLIANCE CERTIFICATE

Figure 6

Building managers/clients should have a Roof Access or Working at Height permit system that will need to be completed first. When completing any permit(s), ensure you ask the permit issuer for a copy of the compliance certificate for any roof safety item installed, such as the anchor points or safety line system.

If you need to gain access to the roof by installing a ladder yourself, you need to ensure it is in good working condition, installed safely and you must always maintain three points of contact when climbing/descending the ladder.



THINGS TO CHECK:

- **LADDER IS SUITABLE FOR THE JOB. THAT IT REACHES/EXTENDS AT LEAST 1 METRE PAST THE STEPPING OFF POINT/ACCESS POINT**
- **LADDER IS IN GOOD WORKING CONDITION**
- **THERE IS A STABLE BASE TO INSTALL THE LADDER ON**
- **THERE IS A LADDER ACCESS BRACKET IN PLACE OR YOU CAN TIE THE LADDER OFF TO MAKE SAFE**
- **PLACED AT 4:1 SLOPE**
- **THREE POINTS OF CONTACT IS MAINTAINED ON THE LADDER AT ALL TIMES**

Refer to SafeWork NSW for further information on Ladder Safety. Ph: 13 10 50.
https://www.safework.nsw.gov.au/

Figure 7

If you must work at height, you need to manage the risk of a fall. A fall-prevention device is the best way to prevent workers from falling. Examples include temporary work platforms, guardrails, fences, covers, scaffolding, Elevated Work Platforms (EWPs), workboxes and Building Maintenance Units (BMUs). All help to keep you safer when working at height.

When it's not possible to use a fall-prevention device, a work-positioning system can be used. A work-positioning system enables a person to be safely supported at the work location. Examples include industrial rope access and total restraint systems and edge protection.

Once you have safe access to the roof area, you must eliminate the risk of falling objects while the work is being carried out. Secure tools inside a bucket or attach them to a lanyard. Ensure any roofing materials you remove are secured to prevent flying (uplift) or falling off the roof during your assessment/works. As an added control, consider setting up an exclusion zone directly beneath where the work is being carried out with enough space to include the possible trajectory for a falling object.

It should be noted that “Working at Heights Training” should have been undertaken before attempting any works at heights. Workers also need to be competent in the safe use of safety harnesses and fall arrest systems applicable and relevant to the proposed work to be carried out. This should be determined by the risk assessment process and what requirements this process has identified. Common roof hazards include fragile and brittle roof materials and the presence of skylights, which all need to be managed.

When accessing a roof, refer to the SafeWork NSW Codes of Practices for Managing the Risks of Falls at Workplaces, Managing the Risk of Falls in Housing Construction and the Guide to Safe Solar Panel Installation for further information.

3. How to write a Safe Work Method Statement

Note: reference WHS Regulations 2017 (Division 2 – High-risk construction work – safe work method statements).

Once you have completed a risk assessment, you should be aware of, but not limited to the following:

- The work activity to be carried out.
- Access to the ceiling space.
- Restrictions/limitations of the workspace environment.
- Hazards present in the ceiling space.
- Emergency Response and rescue; and
- Some of the controls you can use/implement to ensure your work activities can becarried out safely.

A sample generic Safe Work Method Statement is included in Appendix B; this can assist you in writing a site-specific Safe Work Method Statement for your proposed works.

4. Controlling the risks

Now that you have identified any hazards associated with the work in the ceiling space, you need to think about how best to manage the risks they pose to worker safety. First, you must consider the hierarchy of controls needed to eliminate the risk. If it is not reasonably practicable to eliminate the threat, risk minimisation controls may be used.

WHS Regulation 2017 Clause 36 Hierarchy of control measures

(1) This clause applies if it is not reasonably practicable for a duty holder to eliminate risks to health and safety.

(2) A duty holder, in minimising risks to health and safety, must implement risk control measures in accordance with this clause.

(3) The duty holder must minimise risks, so far as is reasonably practicable, by doing one or more of the following:

> *(a) substituting (wholly or partly) the hazard giving rise to the risk with something that gives rise to a lesser risk,*
>
> *(b) isolating the hazard from any person exposed to it,*
>
> *(c) implementing engineering controls.*

(4) If a risk then remains, the duty holder must minimise the remaining risk, so far as is reasonably practicable, by implementing administrative controls.

(5) If a risk then remains, the duty holder must minimise the remaining risk, so far as is reasonably practicable, by ensuring the provision and use of suitable personal protective equipment.

Note. A combination of the controls set out in this clause may be used to minimise risks, so far as is reasonably practicable, if a single control is not sufficient for the purpose. (Ref 2).

4.1 Working at heights

Note: A PCBU must manage hazards and risks to health and safety associated with a fall by a person from one level to another that is reasonably likely to cause injury to the person or any other person (irrespective of the height). Reference WHS Regulations 2017 (clause 78 – Management of Risk of Fall and clause 79 – specific requirements to minimise fall risk).

Working at heights is the first major hazard of working in the ceiling space. If you don't have to work at heights, don't. Working from the ground or a solid construction is always the safest option. Some options to consider could include, but are not limited to:

Working from platform ladders if accessing a false/suspended ceiling space

This option can be used if you can gain safe access to the work area without having to leave the platform ladder.

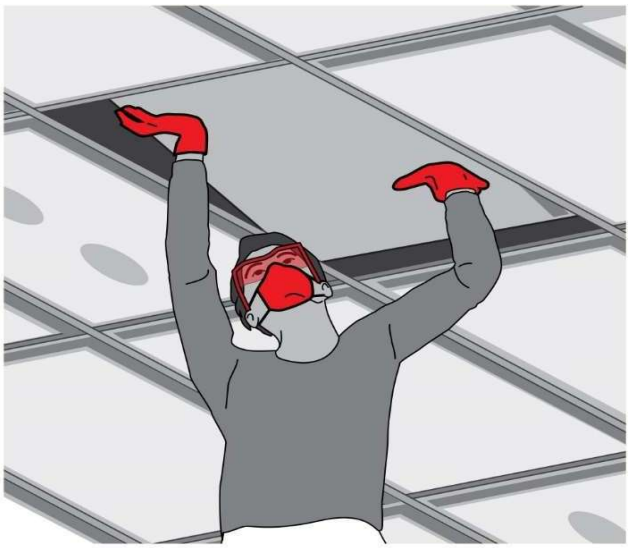


Figure 8

Note: Platform ladders, extension ladders, etc. should be sourced from an approved manufacturer or supplier that complies with Australian Standards and is inspected by a competent person before use. Refer to Section 8. Glossary for meaning of competent person.

Working from Mobile Scaffold if accessing a false/suspended ceiling space

This option can be used if you can gain safe access to the work area from within the confines of the scaffold and if it can be positioned to move in between work areas.

Figure 9

Working from a mechanical platform, e.g. EWP in a false/suspended ceiling

This option can be used if you can gain safe access to the work area, without having to leave the machine.

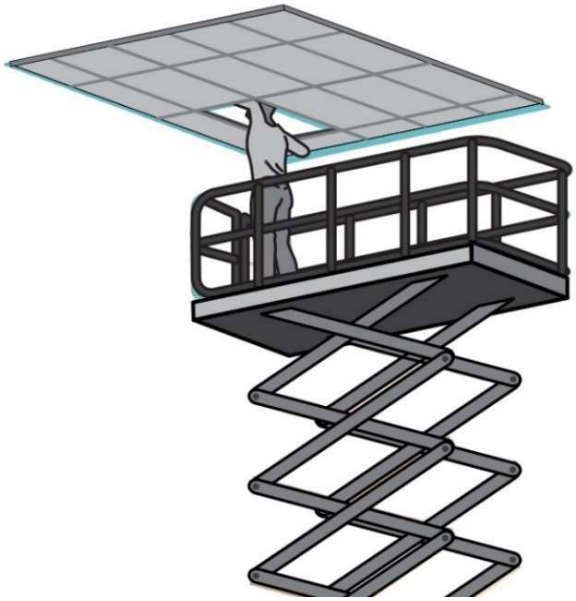


Figure 10

Working from planks or crawl boards on ceiling joists with catch scaffold beneath

This option can be used if you need to gain access via manhole/access panels. If using this option, various items need to be reviewed prior, see Table 1 below.

Figure 11

Table 1.

If you are going to use planks in the ceiling space, things to assess would include:

Type of Plank	**Structural Ply**	**Aluminium**
Details to consider	Thickness; Length; Load Capacity; What will you use for handrails/toe boards? Can you can fix or secure the ply?	Length; Weight of plank; Load Capacity; Slip resistance/fix or secure; Handrails/toe boards; Manufacturer's specifications; Span width.
Are you going to cover the full ceiling space?		
Will you need handrails or toe boards?		
Is the structure capable of these increased loads? Be sure to consider, the weight of equipment, materials and person/s completing the task. How many people will be on the planks at a time? (This will increase the live load).		
What will you use to secure tools and materials from falling?		
Is the scaffold wide enough to cover the full working area above?		
Exclusion zones in place during the works?		

Working from planks on ceiling joists with handrails installed

This option can be used if you need to gain access via manhole/access panels. If using this option, various items need to be reviewed prior, see Table 2 below.

Figure 12

Table 2.

If you are going to use planks in the ceiling space, an assessment would include:

Type of Plank	**Structural Ply**	**Aluminium**
Details to consider	Thickness; Length; Load Capacity; What will you use for handrails/toe boards? Can you can fix or secure the ply?	Length; Weight of plank; Load Capacity; Slip resistance/fix or secure; Handrails/toe boards; Manufacturer's specifications; Span width.
Is the structure capable of these increased loads? Be sure to consider, the weight of equipment, materials and person/s completing the task. How many people will be on the planks at a time? (This will increase the live load)		
Have you installed toe boards?		
What will you use to secure tools and materials from falling?		

Working from planks on ceiling joists with certified anchor points installed in the ceiling space with a safety harness

This option can be used for ceiling tile and grid or plasterboard type ceilings. Planks should be reviewed as per Table 1 or 2. Anchor points should be installed as per AS1891.4 Industrial fall-arrest systems and devices selection, use and maintenance. An emergency rescue plan would be required if using this option.

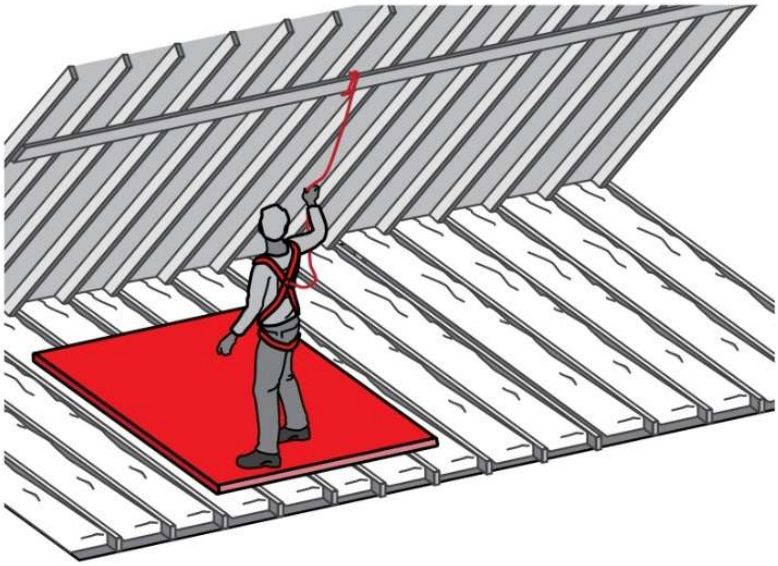


Figure 13

Working from the roof with certified anchor points installed

This option can be used for ceiling tile and grid or plasterboard type ceilings. Certified anchor points should be installed as per AS1891.4 Industrial fall-arrest systems and devices selection, use and maintenance.

When accessing a roof refer to Safework NSW Code of Practice - Managing the hazards and risks of falls at workplaces and Safework NSW Code of Practice – Guide to safe solar panel installation for further information.

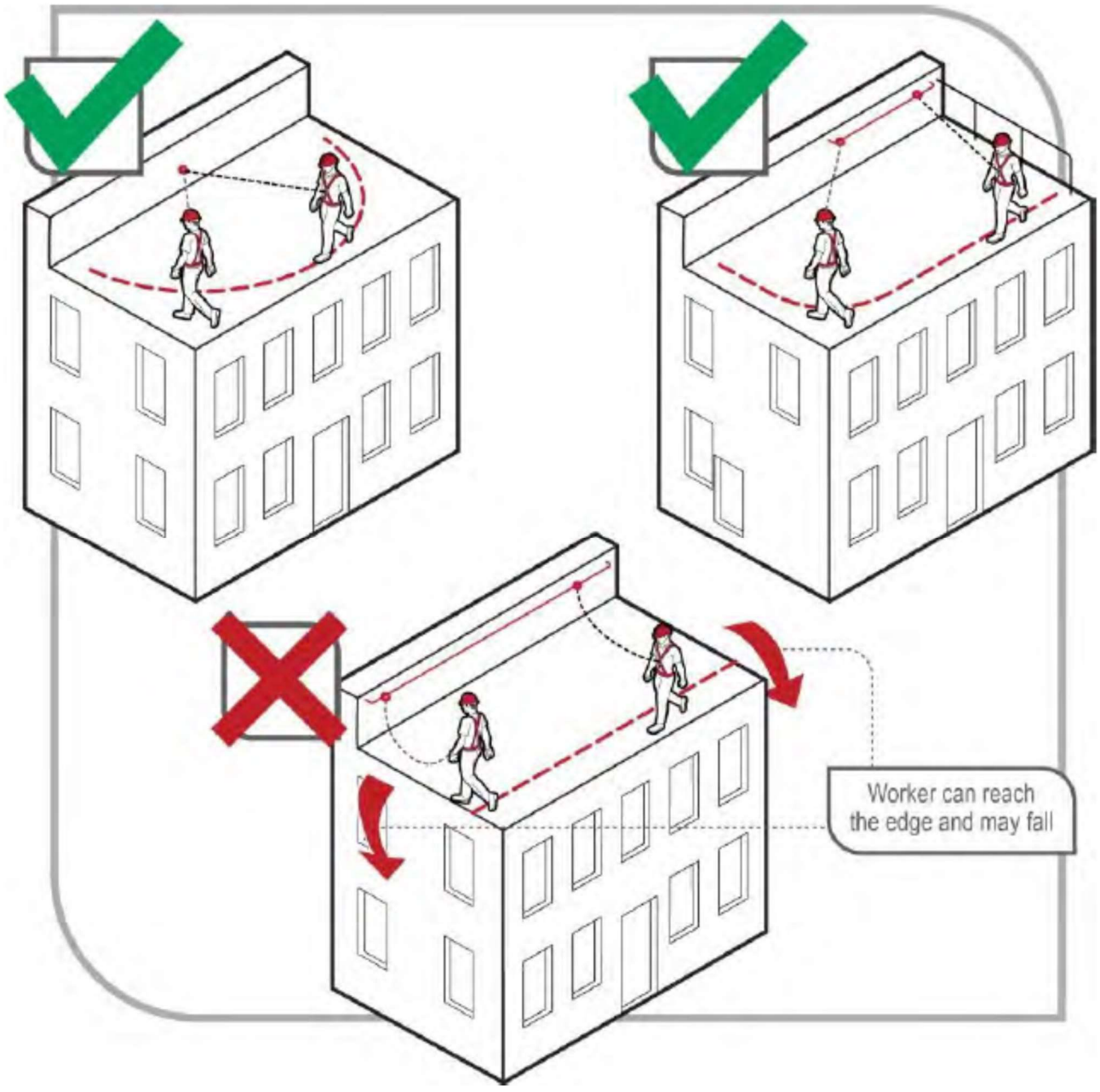


Figure 14 from Safework NSW

Working at heights – Falling Objects/Tool Safety

While working at heights there is a risk that tools, equipment and materials may fall. Plasterboard or ceiling tiles are not strong enough to withstand the force of a dropped tool and it can easily fall through. This introduces hazards and risks to person/s below who could be struck by a falling object, leading to a serious injury.

Note: reference WHS Regulations 2017 (clause 54 – Management of risk of falling objects and clause 55 – minimising risk associated with falling objects).

Therefore, **tool safety is important**.

1. Establish an exclusion zone in the immediate work area

2. To minimise the risk of falling objects the following types of tool restraints can be used:

Specifically-designed tool safety tethering belts.

Figure 15

Or something simpler yet still effective such as a holster.

Figure 16

Attaching a piece of rope or lanyard to a tool, then to your belt will work as well.

You could also tie tools with a lanyard/rope to a bucket or container and secure it to a rafter.

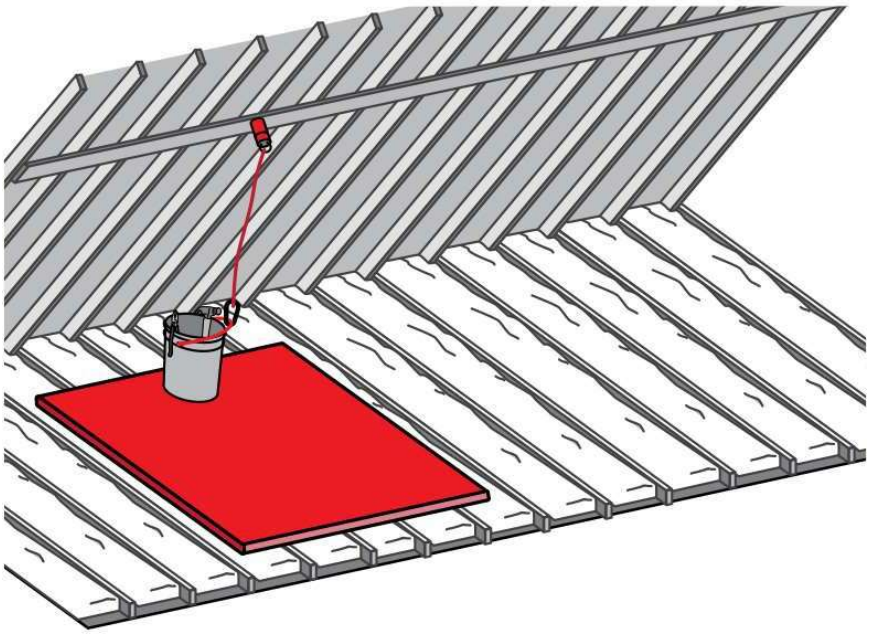


Figure 17

Consider using a spotter to pass tools/equipment up and down.

Based on the standard hierarchy of control, you must first consider the highest level of protection to keep you or your workers safe before using a lower order control.

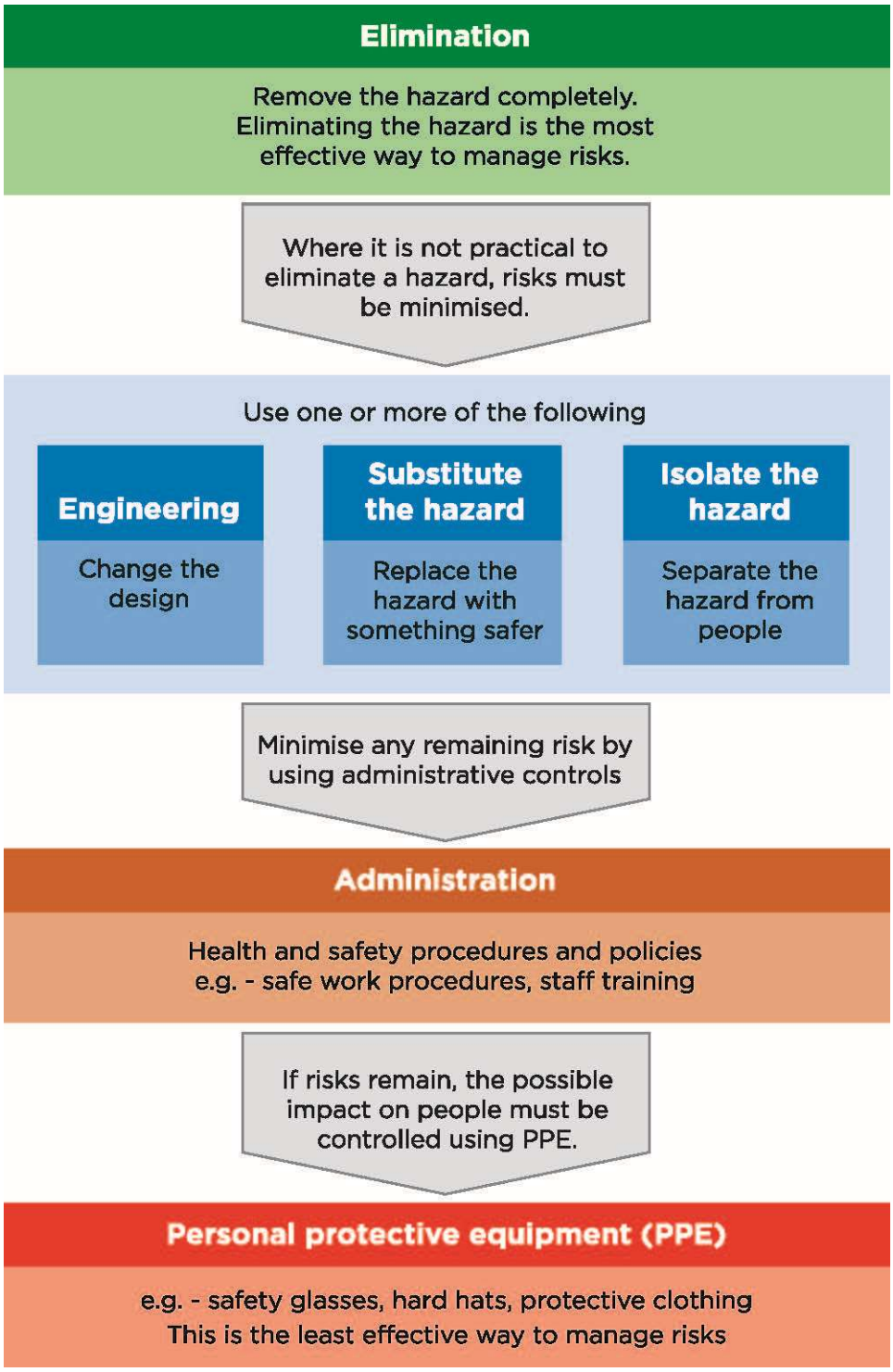


Figure 18 from Safework NSW

Personal protective equipment is considered the lowest form of control. However, some equipment or personal protective equipment that may be needed when accessing a ceiling space may include the following:

- Platform ladder
- Extension ladder
- Mobile scaffold
- Elevated work platform
- Torch/lighting stands
- Fan/s
- PPE equipment
    - Safety harness/lanyards
    - Dust masks/respirators
    - Gloves
    - Eye protection
    - Hearing protection
    - Knee pads
    - Coveralls
    - Suitable footwear

4.2 Electrical hazards

Electrical hazards exist in ceiling spaces. These can include:

- Exposed live electrical conductor/wiring
- Unenclosed joints in conductors (i.e. no connection boxes)
- Electrical connections where the condition of wiring has deteriorated
- Unused wiring left in the roof space that could be still connected to the switchboard
- Past electrical work not performed by a competent person and could be sub-standard and unsafe
- Solar Array DC and Service AC Cabling - cabling carrying significant DC voltage from solar arrays to inverters may travel through roof spaces in a way that does not comply with the Wiring Rules
- Roof spaces may also contain AC cables running to the switchboard which remain live (e.g. consumer's mains cable not installed in conduit)
- Cables, where insulation may have been damaged (e.g. chewed by rats or other rodents) also presents a hazard if cables are energised. Some older established dwellings/buildings may still have electrical wiring with vulcanised Indian rubber (VIR) or tough rubber sheathed (TRS) insulation. These types of insulation can severely degrade over time and might be at the end of their serviceable life, presenting an electric shock hazard to persons using appliances or when entering the roof space
- Metallised foil insulation which may have been energised due to poor installation practices. If not properly installed, foil insulation can cause areas of the roof space to become energised

Managing the electrical risks:

Turning off the source of electricity is the only certain way to ensure the electrical risks are minimised so far as reasonably practicable. This is generally done at the switchboard or the electricity meter box (for residential properties).

Hazard	Controls
Electrical wiring/lights/ circuits - licensed electricians	Licensed electrician to identify and isolate all electrical sources to boards or meter boxes to the building/ property, verifies the effectiveness of the isolation and has installed a lockout lock or tag. Identify any hazards that may be introduced as a result of isolating the power to the affected property. Test Before You Touch, prior to carrying out any electrical works.
Electrical wiring/lights/circuits - non-electrical workers	Check the building or property appliances/lights etc .to ensure the electricity (circuit) has been turned off or removed to isolate the power source. In addition, use a volt stick to check wiring and any exposed metallic material (metalised or reflective foil insulation can become energised, resulting in electrocution, serious injury or death, if you encounter the exposed wire or metal). Note: Volt sticks should be used in accordance with manufacturers specification and instructions. If you are not sure power has been isolated, contact a licensed electrician to confirm power has been disconnected. Do not walk over cables, keep all tools clear of cables. Never assume cables are de-energised, treat all cables as live. Report any damaged wiring or circuits to the building manager/client so repair can be undertaken by a licensed electrician before works commence. Consider potential circuits on timers such as lights that may test dead but switch on during work and generator-backed circuits that may be labelled at the circuit breaker but not necessarily at the wiring. These could become live in a blackout or other power loss event.
Solar panels/battery banks - licensed electricians	Check if the property has a solar/battery storage system. If so, consult with the system owner regarding the proper isolation procedure and follow that procedure. Consult with manufacturer for specific isolation methods.

	Note: turning the power off to the inverter on a solar panel system does not turn off power to the panels themselves, they will still supply power to the inverter, so the wiring from the panels to the inverter will still be live.

4.3 High temperatures/humidity

Heat hazards exist in ceiling space. These can include:

Hazard	Controls
High temperatures	Monitor temperatures in the ceiling space. Re-schedule works to a milder day or earlier or later in the day when the temperatures are likely to be lower. Take extra fluids (water, electrolytes) into the ceiling space. Check the airflow is adequate. Provide natural and/or mechanical ventilation such as: fans, extraction unit, air- con system. Remove ceiling tiles if possible, to increase cross flow ventilation and airflow. PPE – Provide workers with cooling vests to wear.
Excessive duration in ceiling space during high temperatures	Reschedule works to a milder day or cooler part of the day. Limit the duration of time in the ceiling space. Rotate workers in/out of the ceiling space. Workers to stay hydrated.

4.4 Mechanical ducts/water and gas pipes

Mechanical hazards can exist in ceiling spaces. These can include:

Hazard	Controls
Ductwork	Identify ductwork locations within the ceiling space and any unguarded moving parts associated – avoid areas where you can hit objects with your head or body. Do not stand on ductwork or fans, these could be suspended and cannot take increased loads. Watch for sharp edges on ductwork or booker rods.
Water pipes	Identify pipework, look for any lagging, this could contain asbestos – do not touch or disturb in any way shape or form. Identify water pipe locations within the ceiling space – avoid areas for hitting objects with your head or tripping hazards. Do not stand on water pipes, these could burst. Check earthing.
Gas pipes	Identify gas pipe locations within the ceiling space – avoid areas for hitting objects with your head or tripping hazards. Do not stand or lean on gas pipes, these could fracture and cause a gas leak or a full rupture.

4.5 Hazardous materials/substances

Hazardous substances or materials hazards can exist in ceiling spaces. These can include:

Hazard	Controls
	Check the building's hazardous substance register (if available asbestos register must be available if built prior to 31/12/2003). If asbestos has been identified at the workplace, an asbestos management plan must be made available, regardless if the asbestos is naturally occurring or manufactured. The plan must include: • reference (or a link) to the asbestos register, and signage and labelling • safe work procedures and control measures • incident and emergency procedures • consultation arrangements, responsibilities and training details of workers undertaking asbestos removal or asbestos related work.
Asbestos	Avoid disturbing any hazardous building materials unless a building materials audit, Hazmat Report, asbestos register or NATA testing (report) has been completed or provided to determine if any of the existing building materials are class A (friable) or class B (non-friable) asbestos (e.g., cladding, pipe lagging, limpet/sprayed, guttering, etc.). Provide adequate information, training and instruction and supervision to workers involved. Wear suitable Australian Standards approved PPE that aligns to the nature of the work and associated hazards e.g., disposable coveralls, P2 mask/respirator, eye protection, gloves, etc.) when working in the ceiling space. Note: reference WHS Regulations NSW 2017 (Division 5 – Personal Protective Equipment).
Insulation such as: • **Asbestos (Class A – friable)** • **Synthetic Mineral Fibres(SMF)**	Asbestos - "As Above" Insultation installed pre-2000s could contain asbestos. Check the building's hazardous substance register if available.

Old insulation	Provide adequate information, training and instruction and supervision to workers involved Wear appropriate PPE/disposable coveralls, P2 mask/respirator, eye protection, gloves at all times when in the ceiling space. Do not disturb or remove SMF insulation unless necessary. Do not cut any SMF insulation unless necessary, if cutting is required use of hand tools should be used.
Metalised/reflective foil insulation	Use a volt stick to check wiring and any metalised or reflective foil insulation, that can become energised, resulting in electrocution, serious injury or death. Check the building's hazardous substance register if available.
Hazardous dust: • **Asbestos dust** • **SMF** • **Lead dust** • **Faecal dust**	Avoid touching or disturbing any hazardous building materials unless a building materials audit, register or NATA testing (report) has been completed or provided to determine if any of the existing building materials are hazardous. Avoid areas that may contain faeces – unless you are the professional engaged to clean the area. Provide adequate information, training and instruction and supervision to workers involved. Wear appropriate PPE/disposable coveralls, P2 mask/ respirator, eye protection and gloves at all times when in the ceiling space. Dispose of PPE correctly, wash hands with soap thoroughly.

4.6 Microbiological hazards

Biological hazards can exist in ceiling spaces. These can include:

Hazard	Controls
Mould	Avoid areas that may contain mould – unless you are the professional engaged to remove the mould. Wear appropriate PPE/disposable coveralls, P2 mask/ respirator, eye protection, gloves at all times when in the ceiling space. Dispose of PPE correctly, wash hands with soap thoroughly.
Pests/vermin/snakes/ possums and/or Rare Endangered or Threatened Species (RETS)	Avoid areas that may contain pests or vermin etc – unless you are the professional engaged to remove the animal. Provide adequate information, training and instruction and supervision to workers involved. Wear appropriate PPE/disposable coveralls, P2 mask/ respirator, eye protection, gloves at all times when in the ceiling space. Dispose of PPE correctly, wash hands with soap thoroughly.

4.7 Working alone (isolated work)

Note: reference Work Health and Safety Regulations 2017 (clause 48 – remote or isolated work)

You should never work alone in a ceiling space if there is no one on site or within the building.

Hazards can exist or arise when working alone in ceiling spaces. If an incident, accident or medical episode (e.g., diabetic, epilepsy, low blood pressure, etc.) were to arise you may be at risk if you are unable to contact emergency services.

NEVER WORK ALONE IN A CEILING SPACE IF THERE IS NO ONE ON SITE OR WITHIN THE BUILDING

If you are required to enter a ceiling space, **YOU MUST** tell/inform person/s on site you are entering the ceiling space to ensure that you are monitored. Should an incident arise, a first responder can gain access and retrieve you from the ceiling space in line with the site/task specific Emergency Rescue Plan.

Note also, you should inform person/s on site when you have completed works in the ceiling space, so they are aware their role of first responder is complete.

4.8 Hazardous manual tasks

Note: reference WHS Regulations NSW 2017 (Part4.2 – Hazardous manual tasks)

Due to the restricted nature of working in a confined space, manual handling hazards can exist, such as:

- Repetitive or sustained force
- High or sudden force
- Repetitive movement
- Sustained or awkward posture
- Vibration
- Cramp

Hazard	Controls
Gaining access	Ensure ladders/platform ladders/EWPs are positioned and secured to enable the worker to gain access to the ceiling space without lifting themselves up into the ceiling space.
Lifting materials	Plan the lift. Limit the weight of materials to be lifted into the ceiling i.e., lift one item at a time. Use mechanical means e.g., hoists, genie lifts, forklifts depending on ceiling opening size, pulley system, crane for large items onto roofs. Two man lifts for heavier items.
Moving equipment	Plan the movement. Use dolly trolleys where planks are installed. Push equipment rather than pulling. Two-man movements where possible.

4.9 Noise

Note: refence WHS Regulations NSW 2017 (Part 4.1 Noise).

Noise hazards can exist when working in ceiling spaces. These can include:

Hazard	Controls
Tool noise	Regular breaks during tasks. Isolate work area. Use manual or battery-operated tools. Wear appropriate hearing protection (PPE).
Plant noise	Shut down plant if possible. Isolate the area. If not, limit exposure – split up shifts, take regular breaks from the ceiling space, worker rotation. Wear appropriate hearing protection (PPE).

4.10 Other hazards

When working in multi-storey buildings, other fall hazards can be present from lift shafts, voids, skylights or services risers. In some cases, building safety mesh over these voids has not been installed, so this increases the fall risk. Additional controls and fall restraints must be used when assessing or working in these areas.

5. Emergencies - who is going to save you and what is the best course of action to take?

Note: reference WHS Regulations NSW 2017 (Division 4 – Emergency Plans)

You must prepare, maintain and implement an Emergency Rescue Plan that would also be referenced in the site-specific safe work method statement (control measures).

<table>
<tr><th colspan="4">WORKING IN CEILING SPACES – EMERGENCY RESCUE PLAN</th></tr>
<tr><td>Site Supervisor Name / Number:</td><td></td><td>Site Rescuers Name/s:</td><td></td></tr>
<tr><td></td><td></td><td>Site rescuers' training
Examples:
• First aid
• Confined space
• Fire fighting
• Working at heights</td><td>List:</td></tr>
<tr><td>Site Address:</td><td></td><td>Nearest cross street:</td><td></td></tr>
<tr><td>Work zone location:</td><td></td><td rowspan="2">Can Emergency Services have direct access to the work zone location?

Yes/No
(Circle)

Estimate Emergency Services response time:</td><td>Yes = Name of spotter to direct Emergency Services to area:</td></tr>
<tr><td>Communications with height workers(circle)</td><td>Verbal/visual
Mobile phone
Walkie talkies
Other: _____</td><td>No = nominate how</td></tr>
<tr><td>Removal Method:</td><td>Lowering to EWP
Lowering with safety harness
Lowering on stretcher</td><td>Rescue equipment (circle)</td><td>• Emergency rapid response kit
• EWP
• Platform ladder
• Safety harnesses
• Stretcher
• Rope
• Lanyard</td></tr>
</table>

6. Training

Note: reference WHS Regulations NSW 2017 (Division 1 – Information, training and instruction)

Before you start your works, you must make sure you and your workers are properly trained and supervised to carry out the works.

The following training must be carried out prior:

- General Construction Induction Training (White Card)
- Working at Heights Training Course – this is an external course from a registered training organisation (RTO)
- Asbestos Awareness Training
- Safe Work Method Statement review
- Carry out a safety briefing and make sure all the workers understand the Safe Work Method Statement and Emergency Rescue Plan

7. References and further information

- SafeWork NSW www.safeworknsw.gov.au
- Ref 1. SafeWork NSW Code of Practice – Work Health and Safety Consultation, Cooperation and Co-ordination
- Ref 2. WHS Regulation Clause 36 – Hierarchy of control measures
- SafeWork NSW Code of Practice - Managing Risks of Falls at Workplaces
- SafeWork NSW Code of Practice Managing the Risk of Falls in Housing Construction
- SafeWork NSW - Guide to safe solar panel installation
- SafeWork NSW Code of Practice - Confined Spaces
- SafeWork NSW Code of Practice – Managing Noise and Preventing Hearing Loss at Work
- AS 1657 - 2018 Fixed platforms, walkways, stairways and ladders - Design, construction and installation
- AS1891.4-2009 Industrial fall-arrest systems and devices Selection, use and maintenance.
- https://www.safework.nsw.gov.au/hazards-a-z/working-at-heights
- https://www.safework.nsw.gov.au/hazards-a-z/ladders
- https://www.safework.nsw.gov.au/safety-alerts/safety-alerts/electrical-hazards-when-working-in-ceiling-spaces
- https://www.safework.nsw.gov.au/hazards-a-z/mould
- https://www.safework.nsw.gov.au/hazards-a-z/confined-spaces
- https://www.safework.nsw.gov.au/hazards-a-z/working-in-extreme-heat
- https://www.safework.nsw.gov.au/__data/assets/pdf_file/0009/52884/Safe-use-of-synthetic-mineral-fibres-Code-of-practice.pdf
- https://www.safework.nsw.gov.au/hazards-a-z/remote-and-isolated-work

8. Glossary

Term	Description
Catch scaffold	A scaffold set up as a temporary platform located below a work area to catch a worker in the event of a fall.
Competent person	A person who has acquired through training, qualification or experience, the knowledge and skills to carry out the task.
Fall	A fall by a person from one level to another.
Fall Arrest System	Plant or material designed to arrest a fall.
Hazard	A situation or thing that has the potential to harm a person. Hazards at work may include noisy machinery, a moving forklift, chemicals, electricity, working at heights, a repetitive job, bullying and violence at the workplace.
High Risk Construction Work (HRCW)	Construction work for which a Safe Work Method Statement (SWMS) is required. WHS Regulation clause 291 provides a list of construction work that is considered to be high risk for the purposes of the WHS Regulation.
May	May indicates an optional course of action.
Must	Must indicates a legal requirement that must be complied with.
Person conducting a business or undertaking (PCBU)	A PCBU is an umbrella concept which intends to capture all types of working arrangements or relationships. A PCBU includes a company, unincorporated body or association, sole trader or self-employed person. Individuals who are in a partnership that is conducting a business will individually and collectively be a PCBU. A volunteer association (defined under the WHS Act, see below) or elected members of a local authority will not be a PCBU.
Risk	The possibility of harm (death, injury or illness) might occur when exposed to a hazard.
Risk 'control'	Taking action to eliminate health and safety hazards and risks so far as is reasonably practicable and, if that is not possible, minimising the hazards and risks so far as is reasonably practicable. Eliminating hazards will also eliminate any hazards and risks associated with that hazard.
Should	Should indicates a recommended course of action.
Worker	Any person who carries out work for a person conducting a business or undertaking, including work as an employee, contractor or subcontractor (or their employee). Self-employed person, outworkers, apprentice or trainee, work experience student, employee of a labour hire company placed with a 'host employer' or a volunteer.
Work place	Any place where work is carried out for a business or undertaking that includes any place where a worker goes, or is likely to be, while at work. This may include offices, factories, shops, construction sites, vehicles, ships, aircraft or other mobile structures on land or water.

Appendix A – Hazard Identification Checklist –Working in Ceiling Spaces

Section 1.0 Work Activities

1. Electrical and/or communications installation or maintenance?	Y ☐ N ☐ N/A ☐
2. Mechanical Installation or maintenance?	Y ☐ N ☐ N/A ☐
3. Fire Detection Installation/ maintenance?	Y ☐ N ☐ N/A ☐
4. Hydraulic services installation/maintenance?	Y ☐ N ☐ N/A ☐
5. Gas services installation/maintenance?	Y ☐ N ☐ N/A ☐
6. Inspection only, pre-purchase, pest, plant?	Y ☐ N ☐ N/A ☐
7. Removal of asbestos?	Y ☐ N ☐ N/A ☐
8. Installation or removal of insulation?	Y ☐ N ☐ N/A ☐
9. Vermin/pest removal?	Y ☐ N ☐ N/A ☐
10. Hotworks?	Y ☐ N ☐ N/A ☐
11. Structural alterations/additions?	Y ☐ N ☐ N/A ☐
12. Roofing repairs/access hatches?	Y ☐ N ☐ N/A ☐
13. Other please specifiy?.....	Y ☐ N ☐ N/A ☐

Section 2.0 Access

1. Access to ceiling space via manhole/access panel?	Y ☐ N ☐ N/A ☐
2. Access to ceiling space via ceiling tiles?	Y ☐ N ☐ N/A ☐
3. Access to ceiling space via plant room door?	Y ☐ N ☐ N/A ☐
4. Access to ceiling space via roof?	Y ☐ N ☐ N/A ☐
5. Access and egress to the work area?	Y ☐ N ☐ N/A ☐
6. Entry space adequate to permit tools equipment and required materials?	Y ☐ N ☐ N/A ☐
7. Access via platform ladder?	Y ☐ N ☐ N/A ☐
8. Access via extension ladder?	
9. Access via mobile plant e.g. EWP?	Y ☐ N ☐ N/A ☐
10. Access via mobile scaffold?	Y ☐ N ☐ N/A ☐
11. Access via existing fixed access ladder? a. Handrails present? b. In good working order?	Y ☐ N ☐ N/A ☐ Y ☐ N ☐ N/A ☐ Y ☐ N ☐ N/A ☐

Section 3.0 Workspace Environment

1. Ceiling layout - joists and plasterboard?	Y ☐ N ☐ N/A ☐
2. Suspended/false ceiling?	Y ☐ N ☐ N/A ☐
3. Existing working boards - platforms present?	Y ☐ N ☐ N/A ☐
4. Roof or anchor points present? Evidence of recent Inspection?	Y ☐ N ☐ N/A ☐
5. Adequate lighting present?	Y ☐ N ☐ N/A ☐
6. Structural stability to take loads?	Y ☐ N ☐ N/A ☐
7. Clear exclusion zone beneath space available?	Y ☐ N ☐ N/A ☐
8. Roofing mesh present if accessing via roof?	Y ☐ N ☐ N/A ☐
9. Adequate ventilation present?	Y ☐ N ☐ N/A ☐
10. Is the ceiling void a confined space?	Y ☐ N ☐ N/A ☐

Section 4.0 Hazards

1. Working at heights?	Y ☐ N ☐ N/A ☐
2. Electrical?	Y ☐ N ☐ N/A ☐
3. Solar panels - alternate electricity supply i.e. battery banks/ inverters timed circuits/generator backups?	
4. Mechanical ducts?	Y ☐ N ☐ N/A ☐
5. Fire detection?	Y ☐ N ☐ N/A ☐
6. Water or gas piping?	Y ☐ N ☐ N/A ☐
7. Asbestos containing material present?	Y ☐ N ☐ N/A ☐
8. SMF Insulation or metalised foil Insulation present?	Y ☐ N ☐ N/A ☐
9. Evidence of pest - vermin/snakes/possums other animals present?	Y ☐ N ☐ N/A ☐
10. Hazardous dust present? e.g. lead, asbestos, faecal.	Y ☐ N ☐ N/A ☐
11. Visible dust present?	
12. Evidence of mould or water penetration?	Y ☐ N ☐ N/A ☐
13. Confined Space?	Y ☐ N ☐ N/A ☐
14. Oxygen levels to be monitored – 21% to be maintained	Y ☐ N ☐ N/A ☐
15. Temperature of work area to be monitored?	Y ☐ N ☐ N/A ☐
16. Manual handling - gaining access difficulties/lifting materials/equipment to work area?	Y ☐ N ☐ N/A ☐
17. Adequate space to work in?	Y ☐ N ☐ N/A ☐
18. Structural stability of work platforms?	Y ☐ N ☐ N/A ☐
19. Isolated work?	Y ☐ N ☐ N/A ☐
20. Are there any lifts, service risers, voids, penetrations?	Y ☐ N ☐ N/A ☐

Section 5.0 Emergency Response

1. Spotter present and monitoring works?	Y ☐ N ☐ N/A ☐
2. What is the communication method in an emergency?	Y ☐ N ☐ N/A ☐
3. Has the rescuer been trained? Is the training current?	Y ☐ N ☐ N/A ☐
4. First aid/firefighting equipment present?	Y ☐ N ☐ N/A ☐
5. Safe measures of lowering person/s to ground level?	Y ☐ N ☐ N/A ☐
6. How will emergency services be notified?	Y ☐ N ☐ N/A ☐
7. What is the likely response time for emergency services? Has the plan been tested?	Y ☐ N ☐ N/A ☐

Appendix B – Sample Safe Work Method Statement – Working in Ceiling Spaces

NOTE: Work must be performed in accordance with this SWMS.

This SWMS must be kept and be available for inspection until the high-risk construction work to which this SWMS relates is completed.
If the SWMS is revised, all versions should be kept.

If a notifiable incident occurs in relation to the high-risk construction work in this SWMS, the SWMS must be kept for at least two years from the date of the notifiable incident.

[PCBU Name, contact details]		**Principal Contractor (PC)**	[Name, contact details]
Works manager: **Contact phone:**		**Date SWMS provided to PC:**	
Work activity:	WORKING IN CEILING SPACES	**Workplace location:**	

High-risk construction work:	☒ Risk of a person falling more than two metres (*note:* in some jurisdictions, this is three metres)	☐ Work on a telecommunication tower	☐ Demolition of a load-bearing structure
	☒ Likely to involve disturbing asbestos	☐ Temporary load-bearing support for structural alterations or repairs	☒ Work in or near a confined space
	☐ Work in or near a shaft or trench deeper than 1.5 m or a tunnel	☐ Use of explosives	☐ Work on or near pressurised gas mains or piping
	☐ Work on or near chemical, fuel or refrigerant lines	☒ Work on or near energised electrical installations or services	☐ Work in an area that may have a contaminated or flammable atmosphere
	☐ Tilt-up or precast concrete elements	☐ Work on, in or adjacent to a road, railway, shipping lane or other traffic corridor in use by traffic other than pedestrians	☐ Work in an area with movement of powered mobile plant
	☒ Work in areas with artificial extremes of temperature	☐ Work in or near water or other liquid that involves a risk of drowning	☐ Diving work

Person responsible for ensuring compliance with SWMS:		**Date SWMS received:**	
What measures are in place to ensure compliance with the SWMS?	**Note: How do you intend to monitor SWMS Compliance**		
Person responsible for reviewing SWMS control measures:		**Date SWMS received by reviewer:**	
How will the SWMS control measures be reviewed?			
Review date:		**Reviewer's signature:**	

What are the tasks involved?	What are the hazards and risks?	What are the control measures?
List the work tasks in a logical order.	Identify the hazards and risks that may cause harm to workers or the public.	Describe what will be done to control the risk. What will you do to make the activity as safe as possible?
Note: HRCW activities are listed in this column.	Note: These hazards and risks refer to High-Risk construction work as defined in Clause 291.	Keep it simple and practical – this is what you will need to monitor your compliance against.
Before entering the ceiling space.	Exposure to hazardous substances and airborne contaminants	Request a hazardous substance register from the building owner/manager.
Before entering the ceiling space, isolate the electricity supply or circuits. Once electricity is turned off assess the ceiling space.	Electrocution	Obtain sign off from a licensed electrician that the electricity has been isolated or shut off. Check the building or property appliances/lights etc. to ensure the electricity (circuit) has been turned off or removed to isolate the power source. Use a volt stick to check wiring and any exposed metallic material (metalised or reflective foil insulation can become energised, resulting in electrocution, serious injury or death if you encounter the exposed wire or metal). Do not walk over cables. Keep all tools clear of cables. Never assume cables are de-energised, treat all cables as live. Report any damaged wiring or circuits to the building manager/client so repair can be undertaken by a licensed electrician before works commence. Consider potential circuits on timers such as lights that may test dead but switch on during work and generator-backed circuits that may be labelled at the circuit breaker but not necessarily at the wiring. These could become live in a blackout or other power loss event. Be aware of the location of electrical cables, fittings and equipment and avoid contact with them.
Conduct a pre-work risk assessment of the ceiling space – refer to Appendix A. Look within the ceiling space/cavity to identify hazards that may pose risks.	Falls from heights Falls through ceiling space falling object from heights hazardous substances in space	Review ceiling space from platform ladder through manhole/access panel. Review ceiling space from plant room access door.

What are the tasks involved?	What are the hazards and risks?	What are the control measures?
List the work tasks in a logical order.	Identify the hazards and risks that may cause harm to workers or the public.	Describe what will be done to control the risk. What will you do to make the activity as safe as possible?
These may include: • high temperatures/humidity • evidence of vermin/pests/animals • sharp objects • asbestos/hazardous materials/hazardous dust • type or no lighting • type of insulation material • accessibility to the work area (i.e., amped and awkward positions) • location of electrical wiring and water or gas piping • stability of ceiling joists/platforms etc. • Excessive noise generated from equipment • Type/size of materials and/or equipment that needs to enter the space • PPE requirements • Working alone		Review ceiling space through removal of ceiling tile within ceiling grid.
Develop an emergency rescue plan include – what emergency equipment is required to safely rescue the worker from the ceiling space?	Unable to rescue the worker Unable to provide first aid to the worker	Identify emergency responders. List emergency equipment required. List the communication method to be used when working within the ceiling space, e.g. spotter with visual view of the worker/s, voice, two–way radios, mobile phones, hand signals. Document the process of completing an emergency evacuation of the worker/s or providing first aid to the worker/s.
Set up exclusion zone beneath the works	Person/s hit by falling objects	Ensure an exclusion zone below the works has been set up. Cordon off the area below with safety bollards, safety tape and other barricades. Notify personnel below and in surrounding area that workers are above.
Entering/gaining access to the ceiling space	Falls from heights manual handling	Ensure ladders have been checked prior to use and in good working order. Ensure ladders are fit for purpose. Ensure the ladder is free of defects and rated for industrial use (120kgs)

What are the tasks involved?	What are the hazards and risks?	What are the control measures?
List the work tasks in a logical order.	Identify the hazards and risks that may cause harm to workers or the public.	Describe what will be done to control the risk. What will you do to make the activity as safe as possible?
		Make sure it is fully open, locked and on stable ground Never lean so far that your belt buckle is outside the ladder stiles Never work on the top two rungs Ensure ladders/platform ladders/EWPs are positioned and secured to enable the worker can gain access to the ceiling space without lifting themselves up into the ceiling space.
Set up work area in the ceiling space	Falls from heights Person/s hit by falling objects Manual handling – lifting equipment Manual handling – moving equipment	Wear appropriate footwear. Identify access paths – location of ceiling joists, method of travel to the work zone. Install working platforms e.g, aluminium planks with handrails, structural ply, check structural stability and load requirements of planks/existing beams/joists, ensure allowance for access and egress paths. Identify method of moving materials/equipment to work zone, equipment/materials to be tied to ceiling beams to stop them falling through ceiling. Install a safety line system to tie equipment too to stop from falling through the existing ceiling. Wear a safety harness and attached to certified anchor points. Install mobile scaffold as catch scaffold beneath the work area within the exclusion zone below, to reduce the height of fall through the ceiling. Working from mobile scaffold directly into ceiling space. Working from mechanical platform i.e. EWP boom/scissor lift directly into ceiling space. Limit the weight of materials to be lifted into the ceiling i.e., lift one item at a time. Use mechanical means e.g., hoists, genie lifts, forklifts depending on ceiling opening size, pulley system, crane for large items onto roofs. Two-man lifts for heavier items.

What are the tasks involved?	What are the hazards and risks?	What are the control measures?
List the work tasks in a logical order.	Identify the hazards and risks that may cause harm to workers or the public.	Describe what will be done to control the risk. What will you do to make the activity as safe as possible?
		Use dolly trolleys where planks are installed. Push equipment rather than pulling. Two-man movements where possible.
Carry out works in a ceiling space – high temperatures/humidity	Heat stress/dehydration	Monitor temperatures in the ceiling space. Reschedule works to a milder day or earlier or later in the day when the temperatures are likely to be lower. Take extra fluids (water, electrolytes) into the ceiling space, keep hydrated. Set up a fan into the ceiling space. Remove ceiling tiles if possible, to increase cross flow ventilation and airflow. Limit the duration of time in the ceiling space. Rotate workers in/out of the ceiling space. PPE – provide workers with cooling vests to wear.
Carry out works near mechanical ductwork/hydraulic pipes/gas pipes	Hitting objects Equipment failure/falling objects Lacerations Hazardous substances – asbestos Trip Hazards	Identify ductwork locations within the ceiling space – avoid areas for hitting objects with your head or body. Do not stand on ductwork or fans, these could be suspended and cannot take increased loads. Watch for sharp edges on ductwork or booker rods. Identify pipework. Look for any lagging, this could contain asbestos – do not touch or disturb. Identify water pipe locations within the ceiling space – avoid areas for hitting objects with your head or tripping hazards. Do not stand on water pipes, these could burst. Do not stand or lean on gas pipes, these could fracture and cause a gas leak or a full rupture.

What are the tasks involved?	What are the hazards and risks?	What are the control measures?
List the work tasks in a logical order.	Identify the hazards and risks that may cause harm to workers or the public.	Describe what will be done to control the risk. What will you do to make the activity as safe as possible?
Carry out works in a ceiling space – hazardous substances	Asbestos	Check the buildings hazardous substance register (if available). Do not touch any building materials unless a building materials audit, register or NATA testing report has been completed or provided to determine if any of the existing building materials are class A (friable) or class B (non- friable) asbestos (e.g., cladding, pipe lagging, limpet/sprayed, guttering, etc). Wear suitable Australian Standards approved personal protective equipment (PPE) that aligns to the nature of the work and associated hazards (e.g., disposable coveralls, P2 mask/respirator, eye protection, gloves, etc) when working in the ceiling space.
Carry out works in a ceiling space – hazardous substances Insulation, such as: • asbestos (Class A – friable) • synthetic mineral fibres (SMF) • old insulation	Inhalation Respiratory irritation Asbestosis	Check the buildings hazardous substance register if available. Wear appropriate PPE/disposable coveralls, P2 mask/respirator, eye protection, gloves at all times when in the ceiling space. Do not disturb or remove SMF insulation unless necessary. Do not cut any SMF insulation unless necessary, if cutting is required use of hand tools should be used.
Carry out works in a ceiling space – hazardous dust • asbestos dust • SMF • lead dust • faecal dust	Inhalation Respiratory irritation Asbestosis	Check the buildings hazardous substance register if available. Do not touch any building materials unless a building materials audit, register or NATA testing report has been completed or provided to determine if any of the existing building materials are hazardous. Do not touch faeces – unless you are the professional engaged to clean the area. Wear appropriate PPE/disposable coveralls, P2 mask/respirator, eye protection, gloves at all times when in the ceiling space. Dispose of PPE correctly, wash hands with soap thoroughly. Wear appropriate, well maintained and correctly-fitted PPE when working in dusty ceiling spaces, including: – a half-face (class P1 or P2) disposable particulate respirator, in accordance with AS/NZS 1715. – a head-covering and goggles, long-sleeved, loose-fitting clothing and gloves, to minimise skin contact with insulation material or dust.

What are the tasks involved?	What are the hazards and risks?	What are the control measures?
List the work tasks in a logical order.	Identify the hazards and risks that may cause harm to workers or the public.	Describe what will be done to control the risk. What will you do to make the activity as safe as possible?
		Keep your work areas clean and clear of fibres and dust and place waste in plastic bags capable of containing the dust. Check oxygen levels regularly, 21% to be maintained.
Carry out works in a ceiling space – mould or water penetration present	Mould exposure	Do not touch or disturb mould areas – unless you are the professional engaged to remove the mould. Wear appropriate PPE/disposable coveralls, P2 mask/respirator, eye protection, gloves at all times when in the ceiling space. Dispose of PPE correctly, wash hands with soap thoroughly.
Carry out works in a ceiling space – pests/vermin/snakes/ possums or other Rare Endangered or Threatened Species (RETS) present	Biological Hazards Animal faeces Air contamination	Inspect ceiling space prior to entering, contact a pest removal contractor to remove and clean before completing the works. Do not touch pests or vermin/animals – unless you are the professional engaged to remove the pests/vermin/animals. Wear appropriate PPE/disposable coveralls, P2 mask/respirator, eye protection, gloves at all times when in the ceiling space. Dispose of PPE correctly, wash hands with soap thoroughly.
Carry out works in a ceiling space – excessive noise	Hearing damage	Use manual tools within the ceiling space. Use battery operated equipment within ceiling space. Ensure hearing protection is worn during the works. Shutdown plant/air conditioners/fans if possible. If not, limit exposure – split up shifts, take regular breaks from the ceiling space, worker rotation.
Carry out works in a ceiling space – working alone/isolated work		Don't work in a ceiling space when you are on site/within a building alone. If working in an isolated area, ensure the building manager/owner/occupier or other person is notified and assign a first responder that can gain access and retrieve you from the ceiling space in line with the site/task specific Emergency Rescue Plan.
Carry out works in a ceiling space – tool/equipment/material safety	Falling objects Hitting persons	Restrain tools with specifically designed tool belts. Tools to be tied to ropes/lanyards and a bucket, secured to fixed

What are the tasks involved?	What are the hazards and risks?	What are the control measures?
List the work tasks in a logical order.	Identify the hazards and risks that may cause harm to workers or the public.	Describe what will be done to control the risk. What will you do to make the activity as safe as possible?
		structures i.e., rafters or ceiling grids. Exclusion zone beneath to be set up during the works. If a spotter is present and able, pass tool/equipment up/down to the worker.
Housekeeping during works in ceiling space and upon completion	Trip hazards	Once work has been completed: • Replace any insulation material that may have been disturbed or moved for access to the work area, ensuring that it is not covering any electrical fittings or equipment, especially downlights. • Dispose of debris and waste appropriately. • Do not leave any materials, equipment within ceiling space.
Completion of work in the ceiling space	Environmental hazards	When leaving the area, close and lock entry hatches, doors, plant room access doors. Replace ceiling tiles. Personal hygiene - wash your hands, face, neck and hair with soap and water. Dispose of any materials at a suitably licensed facility where required. If working alone, notify first responder of completion of works.

Name of Worker(s)	Signature of Worker(s)
Date SWMS received by Worker(s)	