Managing the risk of falls while working on roofs in housing construction

Safe work method statements
For all work where there is a risk of a person falling more than 2 metres a safe work method statement must be prepared which details the fall hazards identified, the controls to be used and how they will be monitored and reviewed.

Note: If you are relying on lower order administrative controls (e.g. training, personal protective equipment) to manage the risk of a fall more than 2 metres, the safe work method statement must describe why fall prevention or fall arrest controls were not used.

Where the risk of falling is 3 metres or more (or roof slope over 26°)
Before you start work you must prepare a safe work method statement and have fall prevention controls (e.g. edge protection) in place.

If it is not practicable to use fall prevention controls you must use fall arrest controls (e.g. catch platform).

Note: Where there is a risk of falling 3 metres or more, the use of lower order administrative controls (e.g. training, personal protective equipment) on their own is not permitted.

How do I know if the fall risk is 3 metres or more?
To determine whether the fall risk is 3 metres or more, you should measure from the lowest edge of the roof or work area that you are working on.

Where the risk of falling is less than 3 metres
Before you start work you must identify any fall hazards and risks (e.g. working near the edge of a roof, slippery surfaces, a stack of bricks that could cause injury if a person fell onto them).

Where there are fall hazards, control measures must be implemented that are appropriate for the level of risk, for example catch platforms, a travel restraint system, no go areas, a method of working that keeps workers away from the live edge (the live edge is the edge a person could fall from) or training.
Fall risk of 3 metres or more (or roof slope over 26°)

Will the housing construction work involve a fall risk of 3 metres or more OR work on a roof with a slope over 26 degrees?

Refer to working below 3 metres flow chart.

Has a safe work method statement been prepared?

Do not start work until a safe work method statement has been prepared.

Are fall prevention or fall arrest controls in place?

Do not start work until controls are in place.

Start work
Managing the risk of falling 3 metres or more (or a roof slope over 26°) in housing construction

Note: This checklist does not refer to fall-arrest harness systems or safety nets as they are not control measures commonly used in housing construction work due to limitations on their safe use. Where used, a person conducting a business or undertaking (PCBU) should refer to s.306I and s.306J of the Work Health and Safety Regulation 2011 respectively.

<table>
<thead>
<tr>
<th></th>
<th>Has a safe work method statement been prepared?</th>
<th>YES</th>
<th>NO</th>
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<tbody>
<tr>
<td></td>
<td>Does it:</td>
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<td></td>
<td>• identify the work that is high risk construction work?</td>
<td>YES</td>
<td>NO</td>
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<td>• state hazards relating to the high risk construction work; and</td>
<td>YES</td>
<td>NO</td>
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<td>• state risks to health and safety associated with those hazards?</td>
<td>YES</td>
<td>NO</td>
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<td>• describe the measures to be implemented to control the risks?</td>
<td>YES</td>
<td>NO</td>
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<td>• describe how the control measures are to be implemented, monitored and reviewed?</td>
<td>YES</td>
<td>NO</td>
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<tr>
<td></td>
<td>Are workers aware of the requirements of the safe work method statement?</td>
<td>YES</td>
<td>NO</td>
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</table>

|   | Have workers been provided with any necessary personal protective equipment (PPE)? | YES | NO |

|   | Are fall prevention or fall arrest controls in place? | YES | NO |
| Note: | Fall arrest controls should only be used if fall prevention controls are not practicable. |

|   | If edge protection is being used: |
|   | • Has it been installed in accordance with the manufacturer's instructions, or been certified by a competent person? | YES | NO |
|   | • Can it withstand the impact of people falling against it? | YES | NO |
|   | • Is the top rail fitted to 900 mm high? | YES | NO |
|   | • Are lower rails or mesh fitted where required? | YES | NO |
|   | • Are appropriate controls in place where the slope of the surface is over 26 degrees? | YES | NO |

|   | If a travel restraint system is being used: |
|   | • Has it been installed by a competent person? | YES | NO |
|   | • Has it been checked within the last 6 months? | YES | NO |
|   | • Can the anchorage point withstand any expected load? | YES | NO |
|   | • Have workers been trained in the correct use of the system? | YES | NO |

|   | If a fall arrest platform is to be used: |
|   | • Does it provide an unobstructed landing area at least 675 mm wide? | YES | NO |
|   | • Is the platform the correct height below the working surface (no more than 1 metre for a slope less than 26 degrees, no more than 300 mm for slopes more than 26 degrees)? | YES | NO |
|   | • Does the platform have edge protection? | YES | NO |

|   | Have workers received training and instruction on: |
|   | • how to safely perform the tasks? | YES | NO |
|   | • emergency procedures. | YES | NO |

|   | Are workers being supervised to make sure they are performing the tasks in a safe manner? | YES | NO |
| Note: | Supervision should be appropriate to the level of a worker's experience. |

If you answer NO to any of the items on the checklist, review the controls before proceeding.

1 The requirements for the design and location of anchorage points and substantial clearances make fall arrest systems generally unsuitable for work on roofs and housing construction.
Fall risk less than 3 metres (roof slope under 26°)

Start

If the fall risk is more than 2 metres, has a safe work method statement been prepared?

Yes

No

Do not start work until a safe work method statement has been prepared.

Is there a hazard that could result in a fall? Examples include:

- unprotected edges
- objects which a worker could fall onto (e.g. vertical reinforcing steel or a stack of bricks)
- un-sheeted floor barriers and joists
- working on a brittle roof.

Yes

No

Have you assessed the risk of injury?

Yes

No

Do not start work until the risk has been assessed.

Are appropriate controls in place for the level of risk?

Yes

No

Do not start work until controls are in place. Controls should be implemented based on the outcomes of the risk assessment. These can include:

- catch platforms
- no go areas
- clear fall zones
- training and instruction for workers
- batten spacing layout
- location of materials on roof
- keeping away from the live edge when laying sheeting
- provision of a safe means access
- planed walkway on roof
- appropriate footwear
- penetration covers
- travel restraint systems
- edge protection

Note: A combination of controls could be used as a safe system of work.

Start work
Managing the risk of falling less than 3 metres (or a roof slope under 26°) in housing construction

For fall risks below 3 metres you must first identify if there are any fall hazards. If there are fall hazards you must assess the risks and put in place controls that are appropriate for the level of risk.

**Note:** This checklist does not refer to the different types of control measures that can be used, it is a checklist to assist with the risk assessment process.

<table>
<thead>
<tr>
<th></th>
<th>Question</th>
<th>YES</th>
<th>NO</th>
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<tbody>
<tr>
<td>1</td>
<td>Are there hazards that could result in a fall?</td>
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<td>2</td>
<td>Have you assessed the risk of injury?</td>
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<td>3</td>
<td>Have you considered the following in your risk assessment:</td>
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<td></td>
<td>• the design and layout of elevated work areas</td>
<td>YES</td>
<td>NO</td>
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<td></td>
<td>• the number and movement of people around the workplace</td>
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<td></td>
<td>• any unprotected or live edges</td>
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<td>• unguarded openings</td>
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<td>• trip hazards</td>
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<td>• weather conditions (e.g. wet weather, wind)</td>
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<td>• slippery surfaces</td>
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<td></td>
<td>• falling objects</td>
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<td>• type of work (e.g. carrying an awkward load, the amount of materials required to be moved)</td>
<td>YES</td>
<td>NO</td>
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<td>• tools and equipment workers will be using</td>
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<td>• suitability of footwear</td>
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<td>• duration of the job</td>
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<td>• housekeeping around the site (an injury as a result of a fall is likely to be worse if there is clutter around the site)</td>
<td>YES</td>
<td>NO</td>
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<td></td>
<td>• are new or inexperienced workers involved in the task</td>
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<td></td>
<td>• worker consultation</td>
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<td>4</td>
<td>If a worker could fall more than 2 metres has a safe work method statement been prepared?</td>
<td>YES</td>
<td>NO</td>
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<tr>
<td>5</td>
<td>Have you put in place control measures to address any hazards?</td>
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<td>6</td>
<td>Are the control measures suitable for the nature and duration of the work and the level of risk?</td>
<td>YES</td>
<td>NO</td>
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<td>7</td>
<td>Have workers received training and instruction on:</td>
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<td></td>
<td>• how to perform the task safely.</td>
<td>YES</td>
<td>NO</td>
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<td></td>
<td>• emergency procedures</td>
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<tr>
<td>8</td>
<td>Have workers been provided with any necessary PPE?</td>
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<td>9</td>
<td>Are workers being supervised to make sure they are performing the tasks in a safe manner?</td>
<td>YES</td>
<td>NO</td>
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<tr>
<td></td>
<td><strong>Note:</strong> Supervision should be appropriate to the level of a worker’s experience.</td>
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<td>10</td>
<td>Do you have a process to check whether the control measures are working?</td>
<td>YES</td>
<td>NO</td>
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If you answer NO to any of the items on the checklist, review the controls before proceeding.
Managing the risks of falls while working on roofs in housing construction

1. **3 metres or more:**
   - The working height is 3 metres or more and a fall prevention control is in place (edge protection) or hung scaffold.
   - Work is being carried out in accordance with the safe work method statement.
   - Perimeter containment screening i.e. mesh, has been used on the hung scaffold to control the risk of falling objects.
   - The ladder is set up on a solid, stable surface and secured at the top to prevent movement.

2. **Less than 3 metres and less than 26° slope roof pitch:**
   - The working height is below 3 metres and fall prevention controls are not mandatory.
   - Work is being carried out in accordance with the safe work method statement.
   - A safe system of work is being used to lay the roof sheeting i.e. a worker on the roof is away from the live edge (the edge nearest the fall zone).
   - Work at the live edge is being carried out by a worker on a trestle platform.
   - A clear fall zone has been used as a control measure.
   - The worker at the window is completing a short duration task and is away from the live edge.
   - The ladder is set up on a solid, stable surface and secured at the top to prevent movement.

3. **Less than 3 metres and less than 26° slope roof pitch:**
   - There are no controls in place to prevent a person from falling.
   - The worker with their back to the live edge is at an increased risk of falling.
   - There are objects on the ground that could cause serious injury if the person fell on to them.
   - The ladder is not secured to prevent movement.
Which fall prevention control measure should I use — for example edge protection or a travel restraint system?
The chosen control must manage the risk while not introducing other risks.
The chosen fall prevention control must comply with the relevant section of the Work Health and Safety Regulation 2011 (refer sections s.306E to 3.06J).

Factors to consider when deciding on which method to adopt may include:
• the duration of the job (edge protection may not be reasonably practicable for short duration work)
• the skill level requirements of the workers (travel restraint systems require training and instruction, whereas edge protection removes reliance on the skill of the user)
• the location (it may not be reasonably practicable to fit edge protection around the work area)
• the number of workers (where several workers are working in the same area, individual travel restraints may prove ineffective or interfere with each other, introducing further risk. In these situations edge protection may be a better solution).

What are administrative controls?
Administrative controls may be used to support other control measures and may include ‘no go’ areas, permit systems, the sequencing of work and safe systems of work. Using administrative controls exclusively to minimise the risk of falls is only appropriate when it is not reasonably practicable to use a higher order control.
The use of administrative controls on their own is not permitted where there is a risk of falling three metres or more.

What is a safe system of work?
A safe system of work is a method of working that minimises the risk of a fall. It will usually involve more than one control measure. An example of a safe system of work is:
• laying roof sheeting in a way that keeps the worker away from the live edge
• ensuring there is a two metre clear fall zone around the roof perimeter
• training workers to ensure they understand the correct procedures to follow while up on the roof (for example, method for laying the roof sheeting, managing tools and equipment, use of correct footwear and no go zones).

What things should be considered when doing a risk assessment?
1. Identify any fall hazards by inspecting the workplace and consulting with workers. Examples include:
• unprotected edges
• unguarded openings
• fragile or brittle roof
• small lot hazards (e.g. falling into narrow gaps between boundary walls or falling onto perimeter fencing)
• trip hazards
• the slope of work surfaces
• slippery surfaces
• type of work (e.g. carrying an awkward load, amount of movement)
• objects on the ground a worker could fall onto
• tools, material and equipment used by workers
• capacity of the roof to support loads, including the weight of the workers.

2. Assess the risk of injury that may result from any fall hazards by understanding:
• How severe the harm could be by considering:
  – What types of harm could occur and how severe they could be (e.g. head injury, laceration)?
  – What factors would influence the severity of the harm (e.g. the distance a worker could fall)?
  – How many people could be harmed?
• How the hazards may cause harm by considering:
  – How effective are the controls in minimising or excluding all types of harm?
  – How work is actually done?
  – The design and layout of elevated work areas.
  – The number and movement of people at the workplace.
  – Weather conditions (e.g. wet weather, wind, amount of light).
  – Suitability of footwear for the conditions.
  – Are there a number of different hazards that in combination increase the risk (e.g. carrying an awkward load on a sloped roof in wet weather)?
  – Are there any infrequent or unusual situations that might occur (e.g. high winds could increase the risks to balance for workers on a sloped roof)?
• The likelihood of harm occurring:
  – How often are workers near the hazard and how close do they get to it?
  – How long are workers exposed to the hazard?
  – How experienced are workers?
  – Has an injury ever happened before at the workplace or elsewhere and how often?
3. **Control measures must be:**
   - appropriate for the level of risk
   - fit for purpose
   - suitable for the nature and duration of the work
   - set up, installed, used and maintained correctly
   - reviewed to make sure they are effective.

4. **Make sure workers:**
   - receive training and instruction on:
     - safe work procedures and control measures being used to prevent falls
     - correct use of tools and equipment
     - emergency procedures
   - are adequately supervised and are using control measures correctly.

**Are these the only rules for work at heights?**

There are also specific rules for working on ladders, trestles, scaffolding, and construction work (other than housing).

**Further guidance:**
- Chapter 6, Part 6.3 of the Work Health and Safety Regulation 2011
- *Managing the risk of falls at workplaces Code of Practice 2018*