Warning
You cannot undertake this activity in the rail corridor unless you have completed a pre work brief and work site protection plan.
Reference should also be made to the Protocol for Entering the ARTC Rail Corridor and the Business Rules for Working in the ARTC Rail Corridor
Minimum Personal Protective Equipment (PPE) requirements must also be met in line with the Personal Protective Equipment (PPE) Work Instruction.

Instructions

1. Where you work within 2 metres of a place where there is a risk of a fall from height, plan to do as much work as possible on solid ground or on a solid construction, well away from a place where a risk of fall may exist.

2. Where you cannot avoid working at height, and you are within 2 metres of an edge from which you could fall more than 2 metres, you must apply control measure (a), where this is not considered practical you must then apply control measure (b), where this is not considered practical you must then apply control measure (c). You may need to apply a combination of control measures.

   - (a) Use a fall prevention device (such as a scaffold or elevating work platform, or install a guard rail or place a cover over a hole)
   - (b) Use a work positioning system (such as a travel restraint system or rope access system)
   - (c) Use a fall-arrest system (such as a catch platform, safety net, or a fall arrest lanyard)

3. You must follow the:

   - Section 1 (General Requirements) and the Reference Section (Training, etc)
   - Other sections of the document, if they apply to your work:

   Section 2 – Scaffolding
   Section 3 – Elevating Work Platforms
   Section 4 – Travel Restraint Systems
   Section 5 – Rope Access Systems
   Section 6 – Fall Arrest Systems
   Section 7 – Fixed Ladders
   Section 8 – Portable Ladders
## Section 1 - General Requirements

<table>
<thead>
<tr>
<th>Where are the tasks involved?</th>
<th>What are the hazards and risks?</th>
<th>What are the control measures?</th>
<th>Related Documents</th>
</tr>
</thead>
</table>
| Work at Height                | Workers and/or members of the public falling from height due to:  
  - Adverse weather conditions  
  - Electric shock  
  - Exiting a vehicle in an area where a person could fall  
  - Falling over an edge or into a hole  
  - Losing balance  
  - Slipping on a steep or unstable surface  
  Workers and/or members of the public being hit by falling objects due to falling:  
  - From a worker’s hands  
  - When being raised and lowered  
  - Unstable natural materials on steep embankments  
  Workers hitting objects due to:  
  - Working under or near a structure  
  - Falling from height  
  Workers sustaining electric shocks due to touching, or getting too close to, powerlines. | Complete a site specific assessment of risk to determine PPE requirements. However, you must wear suitable head protection (such as a hard hat) when there is a risk of:  
  - Objects falling on your head.  
    For example, working below a work area, or steep embankment  
  - Your head hitting objects or obstructions.  
    For example, when falling from height, or when working under or near a bridge.  
  If your head protection could fall off, consider using a chin strap, so that your head remains protected.  
  When there is a risk of a fall and it has been decided that a harness must be used, you must remain connected to the work positioning system or the fall arrest system to be used (i.e. always remain tied off when there is a risk of a fall).  
  Restrict access to places within 2 metres of where a person or object could fall more than 2 metres, or where there is a risk of a person being hit by something falling.  
  For example, install warning tape, bunting, witches hats, fencing, pits covers and/or use an observer.  
  Provide:  
    - A controlled means of raising and lowering equipment.  
      For example, use ropes.  
    - A means of restraining objects and tools that could fall from height.  
      For example, use tool bags, tool belts and/or tethers.  
  Avoid:  
    - Working at height alone, whenever possible.  
    - Working at height during adverse weather conditions.  
      For example, strong winds, heavy rain, floods and thunder storms.  
    - Walking along the edge of a steep embankment, whenever possible.  
    - Exiting a vehicle where you could fall, such as near an unfenced edge of a bridge, steep embankment, or in a poorly lit and unfamiliar location. | Code of Practice – Managing the Risk of Falls |
### Section 1 - General Requirements

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</tr>
</thead>
</table>
|                             |                                 | If crossing a bridge (i.e. not working on, or from, the bridge):  
|                             |                                 |   - Travel in a rail vehicle,  
|                             |                                 |   - Use a fenced walkway,  
|                             |                                 |   - Use a travel restraint system and walk within the ‘4 foot’,  
|                             |                                 |   - Walk within the ‘4 foot’ where filled with ballast or grating or closely positioned sleepers **and** you are more than 2 metres from an edge from which you could fall more than 2 metres.  
|                             |                                 | If you do not have an electrical supply authority permit or other control measure, maintain a separation distance of 3 metres from power lines for voltages up to 132KV and 8 metres for voltages greater than 132KV. |
Sections 2 to 8

Ensure these specific requirements are followed as relevant to your work.

<table>
<thead>
<tr>
<th>What are the tasks involved?</th>
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<th>Related Documents</th>
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</thead>
<tbody>
<tr>
<td>Scaffolding use</td>
<td>Workers and/or members of the public falling from height due to:</td>
<td>Use a competent person to inspect the scaffold before:</td>
<td>Manufacturer / Supplier Safe Use Instructions</td>
</tr>
<tr>
<td></td>
<td>- Incorrect set-up</td>
<td>- First use</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Scaffolding collapse</td>
<td>- After an incident that may affect its stability. For example, a severe storm or vandalism.</td>
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<tr>
<td></td>
<td>- Unauthorised access / interference</td>
<td>- After scaffold repairs</td>
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<tr>
<td></td>
<td>- Unsafe method used to access, or exit, scaffolding</td>
<td>- Every 30 days</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Scaffolding collapsing on workers, members of the public, rolling-stock and structures.</td>
<td>Ensure a safe means of entering and exiting complete and incomplete scaffolding. For example, use a ladder and/or ramp.</td>
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<tr>
<td></td>
<td></td>
<td>Prevent unauthorised access to incomplete, unsafe and/or unattended scaffolding. For example, attach danger tags, warning signs, warning tape, install witches hats and/or fencing.</td>
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<td></td>
<td></td>
<td>Where there is a risk of children accessing unattended scaffolding, install secure worksite fencing or control the risk by more effective means.</td>
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<td></td>
<td></td>
<td>Brief workers on the safe use scaffolding, and consider use of additional protection. For example, use a travel restraint system or fall-arrest system.</td>
<td></td>
</tr>
</tbody>
</table>
### Section 3 – Elevating Work Platforms (such as a cherry-picker or scissor lift)

<table>
<thead>
<tr>
<th>What are the tasks involved?</th>
<th>What are the hazards and risks?</th>
<th>What are the control measures?</th>
<th>Related Documents</th>
</tr>
</thead>
</table>
| Elevating Work Platform use | Workers and/or members of the public falling from height due to:  
- Ejection from equipment  
- Equipment roll over  
- Unauthorised access / interference  

Equipment or workers striking obstructions or objects during equipment movement. | Plan work to avoid equipment or workers hitting obstructions or objects. For example, use an observer when moving equipment.  
If using a work box or boom-type elevating platform, use a fall arrest system with a full body harness.  
Use equipment on stable surfaces. Deploy stabilisers and install outrigger foot plates where required.  
Prevent unauthorised access to unattended elevating work platforms (for example, remove keys from equipment and/or securely fence equipment).  
Appoint a competent person to establish a rescue plan, and appoint a dedicated and competent observer / rescuer with ready access to rescue equipment. | Manufacturer / Supplier Safe Use Instructions  
Work at Height Rescue Plan |
## Section 4 – Travel Restraint Systems (such as rail skates)

<table>
<thead>
<tr>
<th>What are the tasks involved?</th>
<th>What are the hazards and risks?</th>
<th>What are the control measures?</th>
<th>Related Documents</th>
</tr>
</thead>
</table>
| Travel Restraint System use | Workers falling from height due to:  
  - Anchor failure or poor condition  
  - Equipment connection failure  
  - Equipment failure  
  - Failure to select suitable equipment  
  - Incorrect adjustment or length of the fall restraint lanyard | Set-up the system so that you cannot access places where you could fall.  
Use a fall restraint lanyard and a full body harness and connect them to a robust anchor(s). | Manufacturer / Supplier Safe Use Instructions |
### Section 5 – Rope Access Systems (such as abseiling, controlled lowers using tripods or A-Frames)

<table>
<thead>
<tr>
<th>What are the tasks involved?</th>
<th>What are the hazards and risks?</th>
<th>What are the control measures?</th>
<th>Related Documents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rope Access System use</td>
<td>Workers falling from height due to:</td>
<td>Connect each rope to two independent and robust anchors.</td>
<td>Manufacturer / Supplier Safe Use Instructions</td>
</tr>
<tr>
<td></td>
<td>• Anchor failure or poor condition</td>
<td>Use a full body harness.</td>
<td>Work at Height Rescue Plan</td>
</tr>
<tr>
<td></td>
<td>• Equipment connection failure</td>
<td>Appoint a competent person to establish a rescue plan, and appoint a dedicated and competent observer / rescuer with ready access to rescue equipment.</td>
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</tr>
<tr>
<td></td>
<td>• Equipment failure</td>
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<tr>
<td></td>
<td>• Failure to select suitable equipment</td>
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<td></td>
<td>• Unauthorised interference with anchors or equipment</td>
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</tbody>
</table>
# Section 6 – Fall Arrest Systems

<table>
<thead>
<tr>
<th>What are the tasks involved?</th>
<th>What are the hazards and risks?</th>
<th>What are the control measures?</th>
<th>Related Documents</th>
</tr>
</thead>
</table>
| Fall Arrest System use (such as a catch platform, safety net, or fall arrest lanyard) | Workers falling from height due to:  
- Anchor failure or poor condition  
- Equipment connection failure  
- Equipment failure  
- Falling over an edge  
Workers striking objects or the ground during a fall due to:  
- Failure to select suitable equipment  
- Swing back  
- Swing down | If using:  
- A catch platform or safety net, ensure a competent person oversees set-up.  
- An anchorage line with a fall arrest lanyard, ensure that any potential free fall will be limited to a maximum of 60 cm.  
- An individual fall arrest system, ensure that any potential free fall will be limited to a maximum of 2 metres. | Manufacturer / Supplier Safe Use Instructions  
Work at Height Rescue Plan |

**Specific Requirements – Fall Arrest Systems**

Select suitable equipment that will effectively and safely arrest a fall. *(always calculate the total fall distance, including the tear out of lanyards)*

- Connect the lanyard to a robust anchor.
- Use a full body harness.
- Eliminate the risk of ‘swing back’ and ‘swing down’.
- Appoint a competent person to establish a rescue plan, and appoint a dedicated and competent observer / rescuer with ready access to rescue equipment.
### Section 7 – Fixed Ladders

<table>
<thead>
<tr>
<th>What are the tasks involved?</th>
<th>What are the hazards and risks?</th>
<th>What are the control measures?</th>
<th>Related Documents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed ladder use</td>
<td>Workers falling from height due to:</td>
<td>Inspect the ladder before use each shift.</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>• Electric shock</td>
<td>Use:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Equipment failure</td>
<td>• Platform chains, where provided.</td>
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<tr>
<td></td>
<td>• Exceeding equipment safe</td>
<td>• Three points of contact when climbing a ladder (use rungs, not stiles).</td>
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<tr>
<td></td>
<td>working capacity</td>
<td>• Travel restraint system or fall arrest system where practical and where this will reduce the risk of injury.</td>
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<td></td>
<td>• Inattention</td>
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<td></td>
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<tr>
<td></td>
<td>• Over reaching / worker feet or hands slipping</td>
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<td></td>
</tr>
</tbody>
</table>
## Section 8 – Portable Ladders

<table>
<thead>
<tr>
<th>What are the tasks involved?</th>
<th>What are the hazards and risks?</th>
<th>What are the control measures?</th>
<th>Related Documents</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Portable ladder use</strong></td>
<td>Workers falling from height due to:</td>
<td>General Requirements</td>
<td>Manufacturer / Supplier Safe Use Instructions</td>
</tr>
<tr>
<td></td>
<td>• Electric shock</td>
<td>• Inspect ladder before use each shift.</td>
<td>Code of Practice – Managing the Risk of Falls</td>
</tr>
<tr>
<td></td>
<td>• Equipment failure</td>
<td>• Get help to move, raise and lower the ladder.</td>
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<tr>
<td></td>
<td>• Equipment not levelled or not being placed on unstable surfaces</td>
<td>• Ensure ladder feet are placed on stable surfaces and are levelled.</td>
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<tr>
<td></td>
<td>• Exceeding equipment safe working capacity</td>
<td>• Foot the ladder unless or until it can be secured to a stable structure.</td>
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<td></td>
<td>• Inattention</td>
<td>For example, have a second person hold and help steady the ladder.</td>
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<tr>
<td></td>
<td>• Over reaching / worker feet or hands slipping</td>
<td>• Use three points of contact when climbing a ladder (use rungs, not stiles).</td>
<td></td>
</tr>
<tr>
<td>Ladder falling over during installation and removal, due to:</td>
<td>Workers falling from height due to:</td>
<td>• Do not exceed the safe working capacity of the ladder.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Adverse weather conditions</td>
<td>• Use a fibreglass ladder when performing work in an electric traction area, or in an area incorporating unprotected low voltage and high voltage electrical conductors.</td>
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</tr>
<tr>
<td></td>
<td>• Help not provided</td>
<td>• Use a travel restraint system or fall arrest system where practical and where this will reduce the risk of injury.</td>
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</tr>
<tr>
<td></td>
<td>• Poor technique</td>
<td>Specific Requirements - Extension Ladders</td>
<td></td>
</tr>
<tr>
<td>Hand or finger injury due to:</td>
<td>Workers falling from height due to:</td>
<td>• Place the ladder so that the:</td>
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<td></td>
<td>• Placing hands or fingers in, or on, moving ladder latching mechanisms</td>
<td>o Feet are 1 metre out from a stable structure that the ladder rests upon for every 4 metres in height.</td>
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<tr>
<td></td>
<td></td>
<td>o Head extends 1 metre above a stable structure (when using the ladder to access another level).</td>
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<tr>
<td></td>
<td></td>
<td>Use ropes to raise and lower the ladder, and to engage or disengage ladder latching mechanisms; do not place hands or fingers on, or in, the ladder latching mechanism.</td>
<td></td>
</tr>
</tbody>
</table>
### References

#### Standards, Codes of Practice, Guidance:

- **Commonwealth Work Health and Safety Regulation**  
  (see Regulations 54, 55, 78, 79, 80, 81, 225, and Schedule 3)

- **Code of Practice – Managing the Risk of Falls**

#### Australian and Other Standards:

- AS 1418 - Cranes, Hoists and Winches series
- AS/NZS 1576 - Scaffolding series
- AS/NZS 1891 - Industrial Fall-Arrest Systems and Devices series
- AS/NZS 1892 - Portable Ladders series
- AS 2550 - Cranes, Hoists and Winches – Safe Use series
- AS/NZS 4488 - Industrial Rope Access Systems series
- AS/NZS 4576 - Guidelines for Scaffolding
- AS/NZS 4994 - Temporary Edge Protection series
- BSEN 1263 - Temporary Works Equipment – Safety Nets

#### ARTC Forms:

- Work at Height Rescue Plan

#### Plant / Equipment / Tools:

Minimum Personal Protective Equipment (PPE) requirements are specified within the Personal Protective Equipment Work Instruction.

For work at height, PPE requirements may include:

- Gloves
- Harness
- Head protection, including chin strap
- Rescue knife and suitable foot wear (for abseiling workers)
- Safety glasses

The following equipment must comply with Australian Standards (or equivalent standards):

- Load bearing equipment.
  For example, ropes, lanyards, karabiners, portable ladders and static lines.
- Permanent engineered anchors.
- PPE.
- Scaffolding (including when assembled).
## Training Requirements:

### Licencing Requirements

Check that workers, who are assigned work at height and set-up of work at height equipment, hold relevant high risk work licences (where required by law).

[Click here for high risk work licencing requirements.](#)

Some examples where high risk work licences are required:
- Operation of boom-type elevating work platforms.
  (this applies where the boom length is 11 or more metres).
- Forklift truck operation.
- Rigging work.
- Scaffold installation, dismantling and inspection.
  (this applies where a person or object could fall more than 4 metres from the scaffold).

### Training Requirements

Check that workers who are assigned work at height and set-up of work at height equipment, have received working at height training that is relevant to the task they will perform. Training must include:
- Conducting a risk assessment.
- Equipment use, set-up, dismantling, inspection and where required, maintenance.
- Planning and performing rescues (where required).
- Harness use, set-up and inspection (where required).

## Inspection / Testing requirements:

### Pre-Start Inspection Requirements - PPE

When completing pre-start inspections on PPE, check that:
- Correct equipment has been selected.
- Equipment is correctly adjusted and in good condition.
- Equipment will hold weights applied to them (For example, harnesses).
- Secure connections exist between different fall system components, including to anchors.

Two workers must check that a harness is correctly adjusted and that secure connections exist between different fall system parts, including to anchors.

### Pre-Start Inspection Requirements - Anchors

When completing pre-start inspections on anchors, check:
- Suitable and robust anchors have been selected
  - Hand rails are not to be used.
  - Anchors are in good condition.
    For example, they are not heavily corroded or subject to rot.
  - Anchors are likely to hold weights applied to them.
- Permanent engineered anchors are used, whenever possible and appropriate.