Roof Safety Survey

**GENERAL INFORMATION**

**CAMPUS:** Wollongong  
**BUILDING:** Building 68 Kooloobong Stage 2  
**DESCRIPTION:** Modern E shaped unit accommodation block comprising of three wings. Pitch and level of roof varies across each wing and short ladders are required to traverse the structure. Ladders lead down to balcony awnings. Anchor point and abseiling points across the roof. Ladder brackets and horizontal lifelines on awnings.

**RISK ASSESSMENT # :** UOW02677

**ROOF ACCESS:** Multiple Access points  
1. South Lower roof East  Window on 3rd Floor Eastern end Southern wing  
2. South upper Plant Room opposite Room 404  
3. Middle wing Through Room 416  
4. North wing Through Room 428  
5. Courtyard awning Via Ladder bracket  
6. Basketball court awning Via Ladder bracket  
7. Southern awning Via Ladder bracket

**SIGNAGE :** "Warning: No Access To Roof Without A UOW Roof Access Permit" on doors and window that leads to roof

**COMPLIANCE PLATES:** On doors/window at access points and beside ladder brackets

**SAFE WORK AREA:** Railed concrete roof area leading from Southern Plant Room where air-conditioning units are situated

**ROOFING SYSTEM:** Surface Mount Anchor points  
Surface Mount Abseil Anchor  
Surface Mount Static Line System

**HEIGHT OF BUILDING:** Four levels of residential units plus underground parking

**PITCH:** < 10°

**ROOF CONSTRUCTION:** Colourbond steel and concrete (plant area only)

**STRUCTURAL INTEGRITY:** Good

**VEGETATION:** Nil

**ADJOINING ROOFS:** Nil

**SERVICES:**

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gutters</td>
<td></td>
<td>Satellite Dishes</td>
</tr>
<tr>
<td>A/C Units</td>
<td>Yes</td>
<td>Antenna</td>
</tr>
<tr>
<td>Exhaust Fans</td>
<td>Yes</td>
<td>Skylights Domes</td>
</tr>
<tr>
<td>Ducts</td>
<td>Yes</td>
<td>Glass Skylights</td>
</tr>
<tr>
<td>Roof Ventilators</td>
<td>No</td>
<td>Pipework</td>
</tr>
</tbody>
</table>

**EXISTING SAFETY ITEMS:**

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horizontal Lifelines</td>
<td></td>
<td>Handrail 110</td>
</tr>
<tr>
<td>Anchor Points</td>
<td>Yes</td>
<td>Walkway Nil</td>
</tr>
<tr>
<td>Vertical Lifelines</td>
<td>No</td>
<td>Parapets 10 - 100</td>
</tr>
</tbody>
</table>

**WORK ACTIVITY DETAILS:**

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clean Gutters / Routine Maintenance</td>
<td>As required</td>
</tr>
<tr>
<td>Service A/C Plant</td>
<td>6 monthly</td>
</tr>
</tbody>
</table>

Note: Before commencing any work obtain Roof Permit from Facilities Management Division
## Roof Safety Survey

### Risk Assessment

**Building 68**

Note: The hazards identified do not include hazards that related to specific work tasks. These should be identified in the Safe Work Method Statement (SWMS) of the contractor.

<table>
<thead>
<tr>
<th>What is the Activity/Service Item</th>
<th>What are the potential Hazards</th>
<th>What is the Risk Level</th>
<th>Risk Assessment &amp; Control Measures</th>
<th>Risk Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to Roof</td>
<td>Unauthorised access</td>
<td>M</td>
<td>All access points to roof are locked and made secure so are not accessible by unauthorised persons; signage</td>
<td>Risk Assessment and Roof Safety Survey</td>
</tr>
<tr>
<td>Gutter Maintenance on Roof and Awnings</td>
<td>Falling</td>
<td>H</td>
<td>Horizontal Lifeline &amp; Anchors Installed</td>
<td>Ensure horizontal lifeline &amp; anchors used correctly.</td>
</tr>
<tr>
<td>Air Conditioning Maintenance</td>
<td>Falling</td>
<td>H</td>
<td>Fall protection systems in place, keep within Safe work area</td>
<td>Temporary systems required - refer contractors SWMS</td>
</tr>
<tr>
<td>Antenna Maintenance</td>
<td>Falling &amp; Refer to SWMS for contractor</td>
<td>H</td>
<td>Fall protection systems in place</td>
<td>Temporary systems required - refer contractors SWMS</td>
</tr>
<tr>
<td>Exhaust Fan &amp; Vents Maintenance</td>
<td>Refer to SWMS of contractor</td>
<td>M</td>
<td>Currently not near a roof edge</td>
<td>Ensure that Contractors supply and follow their SWMS</td>
</tr>
<tr>
<td>General</td>
<td>Trip Hazard - Roof Sheeting</td>
<td>M</td>
<td>Safe Work Procedure</td>
<td>Walkway or minimum awareness in Safe Work Procedure</td>
</tr>
<tr>
<td>General</td>
<td>Trip Hazard - Horizontal Lifeline or Anchor Points</td>
<td>M</td>
<td>Signage &amp; System is visible</td>
<td>Be aware of location of horizontal lifeline &amp; anchor points</td>
</tr>
<tr>
<td>General</td>
<td>Climbing ladder</td>
<td>M</td>
<td>Maintain 3 points of contact; Signage; and Working at Heights Guidelines - Working from Ladders</td>
<td>Be aware of location of horizontal lifeline &amp; anchor points</td>
</tr>
<tr>
<td>General</td>
<td>Drops - falling objects</td>
<td>M</td>
<td>Parapet around building; Barricade surrounding area if required; Signage - Caution Workers Overhead; Working at Heights Guidelines - Falling Objects.</td>
<td>Measures to arrest fall of objects and isolate surrounding area</td>
</tr>
<tr>
<td>General</td>
<td>Environmental Hazards - Spiders, Wasps, and other insects</td>
<td>M</td>
<td>Appropriate PPE and insect repellent; Pest control as required</td>
<td>On-going pest control measures</td>
</tr>
<tr>
<td>General</td>
<td>Weather Trips/Slips - Wet Roofs</td>
<td>M</td>
<td>Safe Work Procedure, do not work on wet roofs</td>
<td>Do not work while roofs are wet or have dew</td>
</tr>
<tr>
<td>General</td>
<td>Weather - Windy Condition</td>
<td>M</td>
<td>Safe Work Procedure, do not work in high wind conditions</td>
<td>Do not work in windy conditions</td>
</tr>
<tr>
<td>General</td>
<td>Weather - Hot Conditions</td>
<td>M</td>
<td>Thermal Comfort Guidelines</td>
<td>Use suncream, hats and remain hydrated and take appropriate breaks</td>
</tr>
</tbody>
</table>
Reference Documentation

Legislation
NSW Work Health and Safety Regulation 2011 Part 4.4 Falls

Australian Standards
AS 1891.1 - 2007 : Industrial fall-arrest systems and devices - Harnesses and ancillary equipment
AS 1891.2 - 2001 : Industrial fall-arrest systems and devices - Horizontal lifeline and rail systems
AS 1891.3 - 1997 : Industrial fall-arrest systems and devices - Fall-arrest devices
AS 1891.4 - 2009 : Industrial fall-arrest systems and devices - Selection, use and maintenance
AS 2210.1 - 2010 : Safety, protective and occupational footwear - Guide to selection, care and use

Code of Practice
WorkCover - Safe Work on Roofs. Part 1 - Commercial and industrial buildings

UOW Documentation
Working at Heights Guidelines
Thermal Comfort Guidelines
UOW Roof Access Permit
UOW Roof Access Certificate

Other
WorkCover - Safe Working at Heights Guide 2006
S  Abseiling bracket
L  Ladder

A  Access Point
P  Compliance Plate

____ Safe Work Area
____ Horizontal Lifeline
Level 3 South from window looking east

Level 3 south access

North wing access

Exiting onto North wing

North wing looking east

Looking north to North roof

Ladder to patio roof
South wing - air conditioners

South wing - south west aspect

South wing - north west aspect

Eastern awning - ladder bracket

South wing - south west aspect

Eastern awning - lifelines

North wing - eastern aspect

Courtyard awning and lifeline
There are two possible situations when working on roofs, namely:

a) PITCHED ROOFS
b) FLAT ROOFS

There is no possibility of the user rolling or sliding off the roof as a result of a fall once positioned inside the 'safe zone' area of the roof.

For each situation the following guidelines must be followed:

**a) PITCHED ROOFS**

- If the possibility of rolling or sliding off the roof as a result of a fall is present, equipment must be installed in accordance with the manufacturers instructions to provide a vertical life line system. The following directions must be followed:

  1. Consult the roof safety system layout plan and plot your route accordingly. Care must be taken to ensure the correct route is followed as indicated on the system layout plan. Do not attempt to bypass consecutive anchor points.
  2. Fix and adjust safety harness as required.
  3. Secure the harness to the designated anchors.
  4. Attach rope line to first safety anchor anchorage point.
  5. Continue this process connecting the rope line onto each consecutive anchor point via karabiner clip until desired location is reached.
  6. The operator may now step onto the roof.
  7. If working on extreme edges, allow only enough rope line to get you within a safe walking distance of the edge. Continue this process connecting any slack rope is taken back through the adjuster.
  8. The operator must not step onto the roof until this connection has been made and checked and no slack rope is allowed will result in unacceptable pendulum, should the operator fall at this point.

**b) FLAT ROOFS**

There is no possibility of the user rolling or sliding off the roof as a result of a fall once positioned inside the 'safe zone' area of the roof.

- The operator must now step onto the roof and the rope line is attached to the harness via the rope line adjuster. The operator moves one step onto the roof.
- The operator moves up to the next safety anchor point, as indicated on the system layout plan, via dedicated shock absorber with karabiner clip onto front loop attachment of harness. The operator walks carefully to the next anchor point, as indicated on the system layout plan. Do not attempt to bypass consecutive anchor points.
- At all times, slack rope from the anchor point to the operator should be kept to a minimum.
- The operator is to walk carefully to the next anchor point, as indicated on the system layout plan. Do not attempt to bypass consecutive anchor points.
- The operator may now step onto the roof.
- If working on extreme edges, allow only enough rope line to get you within a safe walking distance of the edge. Continue this process connecting any slack rope is taken back through the adjuster.
- The operator must not step onto the roof until this connection has been made and checked and no slack rope is allowed will result in unacceptable pendulum, should the operator fall at this point.

When work is to be done on extreme edges, allow only enough rope line to get you within a safe walking distance of the edge. Continue this process connecting any slack rope is taken back through the adjuster.

**GENERAL PANTS TO FOLLOW:**

- Avoid working alone on a roof.
- All persons can be connected per personal preference.
- Tools should be lanyarded to prevent them slipping or falling off the roof if this is a possibility.
- At the ready, the rope brake assembly is usually attached to the rear anchor point on the harness.

**INSTRUCTION**

- The design is the property of Campbelltown NSW 2560
- Legal action will be taken against any person infringing the
- Copyright: This design is the property of Campbelltown NSW 2560

**NOTES**

- Access from ground only.
- New Ladders
- Existing or new install.
- Fixed Ladder with adjustable support
- New Ladders
- Anchor Points
- New Ladders

**EQUIPMENT**

- Fixed ladder 2 x 1.50m Height
- Handrail 1 x 2.0m length free standing
- Wire rope lanyard 1 x 3.0m length
- Steel purlin structure
- Ladder Access Bracket
- Anchor Points
- New Ladders
Fixed ladder picture only diagrammatic:

**Legend**
- Anchor Points
- New Ladders

**Overview**
- **Ladder Access Bracket**: Mounting point for the ladder system.
- **Roof anchor point**: Connection point for the roof anchor system.
- **Safety signs**: Symbols indicating safe and unsafe areas.
- **Wall, roof, floor, sheet metal**: Different materials used in the construction.
- **Safety plan**: Plan showing the safety measures to be taken.
- **System layout plan**: Layout of the height safety system.

**System Description**

**Anchor Points**
- **Ap**: Axis point.

**New Ladders**
- **Ap**: Axis point.

**Fixed Ladder**

**SAFETY POINTS TO FOLLOW**
- Avoid working alone on a roof.
- Ensure that the ladder is securely fixed before ascending or descending.
- Ensure that the safety equipment is in good condition.

**SHAFT SAFETY ONLY**

**Dimensions of roof fall**
- **Safety signs**: Symbols indicating safe and unsafe areas.
- **Wall, roof, floor, sheet metal**: Different materials used in the construction.
- **Safety plans**: Plans showing the safety measures to be taken.
- **System layout plans**: Layouts of the height safety system.

**Roof Access**

**Correct use of the Safemaster height safety system and equipment**

**General instructions**
- **Roofer in control**: Roofer responsible for the safety of the work.
- **Roofer in control**: Roofer responsible for the safety of the work.

**Anticipated hazards**
- **Risk assessment**: Evaluation of the risks associated with the work.
- **Risk control measures**: Measures taken to control the risks identified.

**Equipment**
- **Roofer in control**: Roofer responsible for the safety of the work.
- **Roofer in control**: Roofer responsible for the safety of the work.

**Installation**
- **Roofer in control**: Roofer responsible for the safety of the work.
- **Roofer in control**: Roofer responsible for the safety of the work.

**Safety equipment**
- **Roofer in control**: Roofer responsible for the safety of the work.
- **Roofer in control**: Roofer responsible for the safety of the work.

**Precautions**
- **Roofer in control**: Roofer responsible for the safety of the work.
- **Roofer in control**: Roofer responsible for the safety of the work.

**Safety plan**
- **Roofer in control**: Roofer responsible for the safety of the work.
- **Roofer in control**: Roofer responsible for the safety of the work.

**Supervision**
- **Roofer in control**: Roofer responsible for the safety of the work.
- **Roofer in control**: Roofer responsible for the safety of the work.

**System layout plan**
- **Roofer in control**: Roofer responsible for the safety of the work.
- **Roofer in control**: Roofer responsible for the safety of the work.

**Plan**
- **Roofer in control**: Roofer responsible for the safety of the work.
- **Roofer in control**: Roofer responsible for the safety of the work.

**Roof Access**
- **Roofer in control**: Roofer responsible for the safety of the work.
- **Roofer in control**: Roofer responsible for the safety of the work.

**Abseil to building structural engineers detail**

**Schedule**
- **Roofer in control**: Roofer responsible for the safety of the work.
- **Roofer in control**: Roofer responsible for the safety of the work.

**Full scale**
- **Roofer in control**: Roofer responsible for the safety of the work.
- **Roofer in control**: Roofer responsible for the safety of the work.

**Copyright**
- This design is the property of the owner. Legal action will be taken against any person infringing the copyright.