Roof Safety Survey
BUILDING 2
Version 4
1 Introduction

The following document outlines the Roof Safety Survey (RSS) for Building 2 of the University of Wollongong located at Wollongong Campus Northfields Avenue Wollongong NSW 2522.

2 Purpose

This RSS is to be used as a general guideline to provide awareness and control measures for site personnel and contractors when accessing various roof areas. Personnel must make an assessment prior to accessing the roof. Should there be any potential for falls, all personnel must ensure the necessary fall prevention systems are utilised and operated in a “fall restraint” working mode. All ends users of Fall arrest equipment must be trained to a level of national recognition. All work practices and systems operations must be identified and documented in the risk assessment and safe work method statement.

3 Disclaimer

This document should be used as a general guide for roof access purposes only. Items detailed within this document were in situ at the time of inspection and may change. End users must use caution and evaluate the conditions as suitable to themselves.

Riverlands Roofing and Waterproofing (Louey Models Pty Ltd) accepts no responsibility for the actions of persons accessing these areas and or legislative compliance of fittings and fixtures of the site.
4 Roof Area Aerial Photo Zone Layout

Zone:
- Main Roof

Legend:
- Highlighted Zone Areas
- Main Roof Access Door
5 Risk Management

5.1 Risk Matrix

This risk assessment matrix below must be used reviewing in context with the University’s Risk Management Guidelines.

<table>
<thead>
<tr>
<th>Consequence</th>
<th>Description</th>
<th>Likelihood</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severe</td>
<td>Death or extensive injuries</td>
<td>Almost Certain</td>
<td>Is expected to occur in most circumstances</td>
</tr>
<tr>
<td>Major</td>
<td>Medical treatment</td>
<td>Likely</td>
<td>Will probably occur in most circumstances</td>
</tr>
<tr>
<td>Moderate</td>
<td>First aid treatment</td>
<td>Possible</td>
<td>May occur at some time</td>
</tr>
<tr>
<td>Minor</td>
<td>Injury report, no treatment</td>
<td>Unlikely</td>
<td>May occur, but probably will never</td>
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</table>

5.2 Risk Control

Risk control is a method of managing the risk with the primary emphasis on controlling the hazards at source. For a risk that is assessed as “high”, steps should be taken immediately to minimize risk of injury. The method of ensuring that risks are controlled effectively is by using the “hierarchy of controls”.

The Hierarchy of Controls are:

<table>
<thead>
<tr>
<th>Order No.</th>
<th>Control Type</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firstly</td>
<td>Eliminate</td>
<td>Removing the hazard, eg taking a hazardous piece of equipment out of service.</td>
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<tr>
<td>Secondly</td>
<td>Substitute</td>
<td>Replacing a hazardous substance or process with a less hazardous one, eg substituting a hazardous substance with a non-hazardous substance.</td>
</tr>
<tr>
<td>Thirdly</td>
<td>Isolation</td>
<td>Isolating the hazard from the person at risk, eg using a guard or barrier.</td>
</tr>
<tr>
<td>Fourthly</td>
<td>Engineering</td>
<td>Redesign a process or piece of equipment to make it less hazardous.</td>
</tr>
<tr>
<td>Fifthly</td>
<td>Administrative</td>
<td>Adopting safe work practices or providing appropriate training, instruction or information.</td>
</tr>
<tr>
<td>Sixthly</td>
<td>Personal protective equipment</td>
<td>The use of personal protective equipment could include using gloves, glasses, earmuffs, aprons, safety footwear, dust masks.</td>
</tr>
</tbody>
</table>

For more information on risk management visit:

https://www.uow.edu.au/about/services/safe-at-work/whs-framework
### 5.3 Contractors Risk Assessment

The below tables have been populated by the University with known hazards that may be applicable for roof work.

All contractors are required to establish their own risk assessment and SWP/SWMS/etc specific to each task they perform, taking into account hazards that may not have been identified by the University.

#### Assessment of Hazards

<table>
<thead>
<tr>
<th>Hazard No.</th>
<th>Description of Activity/Service Item</th>
<th>Description of Hazard (What has potential to cause injury or damage to property/environment?)</th>
<th>Current Controls (What is in place today that controls the risk? List any control measures already implemented)</th>
<th>Risk rating (With current controls in place)</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

#### Risk Control

<table>
<thead>
<tr>
<th>Hazard No.</th>
<th>Additional Control Description (What should be done in the future to control the risk? What can be done to eliminate or further reduce the risk?)</th>
<th>Control Type (Elimination, Substitution, Isolation, Engineering, Administration, PPE)</th>
<th>Person Responsible</th>
<th>Risk rating (With additional controls in place)</th>
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6 Roof Safety Survey Building 2

6.1 Building 2 General Information

*Note: Before commencing any work obtain Roof Permit from Facilities Management Division*

**Building:**

University of Wollongong Campus Building 2

**Description:**

Building 2 is a multi-storey building with a flat concrete roof surface that has a large number of services include air conditioning units, exposed pipe work roof ventilation ducts, antenna, fume cupboards and cooling tower with chemical hazards.

- Building 2 is also the access point for Building 4.

**SafetyNet Risk Assessment Reference Number:**

- UOW01886

**Roof Access:**

**Main Roof Access:**

- Access to the building’s roof area is via the internal stairwell. Building 2’s roof access door is located at the top of the stairwell (western facing).

**Signage:**

- Various restricted areas

**Compliance Plates:**

- No systems are on this building

**Height of Building:**

- Multi storey

**Pitch:**

- \(< 5\) degrees

**Roof Construction:**

- Concrete construction
Structural Integrity:
- Sound

Vegetation:
- Yes (Western & Southern side have trees growing over the roof area)

Fall Arrest System:

<table>
<thead>
<tr>
<th>System</th>
<th>Certification Status</th>
<th>Certification By</th>
</tr>
</thead>
<tbody>
<tr>
<td>Various Anchor Points</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Horizontal Lifelines</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

*(End users must follow manufacturer’s instructions and use compatible attachments)*

Services:
- ☒ Gutters
- ☒ A/C Units
- ☒ Ducts
- ☒ Roof Ventilators
- ☒ Fume Cupboards
- ☒ Telco Towers
- ☒ Satellite Dishes
- ☒ Antenna
- ☒ Fiberglass Skylights
- ☒ Pipework
- ☒ Cooling Tower
- ☒ Roof Top Solar Panels

Existing Safety Systems:
- ☐ Horizontal Lifelines
- ☐ Vertical Lifelines
- ☒ Walkway
- ☐ Anchor Points
- ☒ Handrail
- ☐ Parapets

Work Activity & Frequency:
- Clean gutters/routine maintenance – 6 months
- Service A/C plant- monthly
6.2 Building 2 Safety Systems Aerial Photo Layout

The following aerial photo indicates access points and safety systems layout.

**Legend:**

- **MA**  Main Roof Access Door
- **FL**  Fixed Ladder (Access to Building 4)
- △ Cooling Tower Chemical Hazard
6.3 Building 2 Roof Photos

Main Roof

Building 2 internal staircase

Building 2 roof access door located at the top of the building's internal staircase

Building 2 roof area with cooling tower chemical storage

Building 2 roof area with ducts and cooling tower and walkway

Building 2 roof area with fume cuboids

Building 2 roof area with

Building 2 roof area with ducts and exposed pipework

Building 2 roof area with fixed ladder access to Building 4

Building 2 roof area with exposed pipework & services
7 Program Evaluation

Conditions that might warrant a review of the guidelines on a more frequent basis would include:

- changes to the roof
- change in the relevant legislation or Australian Standards
- organisational needs or WHS Committee concern.

8 Related Documents

- Managing the Risk of Falls Guidelines
- Working at Heights Rescue Plan
- Roof Access Permit
- Roof Access Procedure

9 References

9.1 Legislation

- NSW Work Health and Safety Regulation 2017 Part 4.4 Falls
- NSW Public Health Regulation 2012
- Public Health Amendment (Legionella Control) Regulation 2018

9.2 Australian Standards

- AS 1657: Fixed platforms, walkways, stairways and ladders - Design, construction and installation
- AS 1891.1: Industrial fall-arrest systems and devices - Harnesses and ancillary equipment
- AS 1891.2: Industrial fall-arrest systems and devices - Horizontal lifeline and rail systems
- AS 1891.3: Industrial fall-arrest systems and devices - Fall-arrest devices
- AS 1891.4: Industrial fall-arrest systems and devices - Selection, use and maintenance
- AS 2210.1: Safety, protective and occupational footwear - Guide to selection, care and use
- AS 3666: Air-handling & Water Systems for Buildings - Microbial Control
- AS 4994.1: Temporary edge protection - General requirements
- AS 4994.2: Temporary edge protection - Roof edge protection - Installation and dismantling
- AS 2550.10: Crane, Hoists and lifting equipment. section 5.9

9.3 Codes of Practice

- Managing the Risk of Falls at Workplaces (SafeWork NSW)
- NSW Guidelines for Legionella Control in Cooling Water Systems

10 Version Control Table

<table>
<thead>
<tr>
<th>Version Control</th>
<th>Date Released</th>
<th>Approved By</th>
<th>Amendment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>November 2012</td>
<td>Manager WHS</td>
<td>New document</td>
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<tr>
<td>2</td>
<td>February 2014</td>
<td>Manager WHS</td>
<td>Standards update and re-certification review</td>
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<tr>
<td>3</td>
<td>January 2018</td>
<td>Manager WHS</td>
<td>Scheduled review. No changes required.</td>
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<td>4</td>
<td>October 2020</td>
<td>Manager WHS</td>
<td>Document recreated by GO from Riverlands Roofing. All information reviewed/updated.</td>
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