



UNIVERSITY  
OF WOLLONGONG  
AUSTRALIA

**UOW SAFE@WORK**

# Roof Safety Survey BUILDING 9

Version 2



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# 1 Introduction

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The following document outlines the Roof Safety Survey (RSS) for Building 9 of the University of Wollongong located at Wollongong Campus Northfields Avenue Wollongong NSW 2522.

## 2 Purpose

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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.

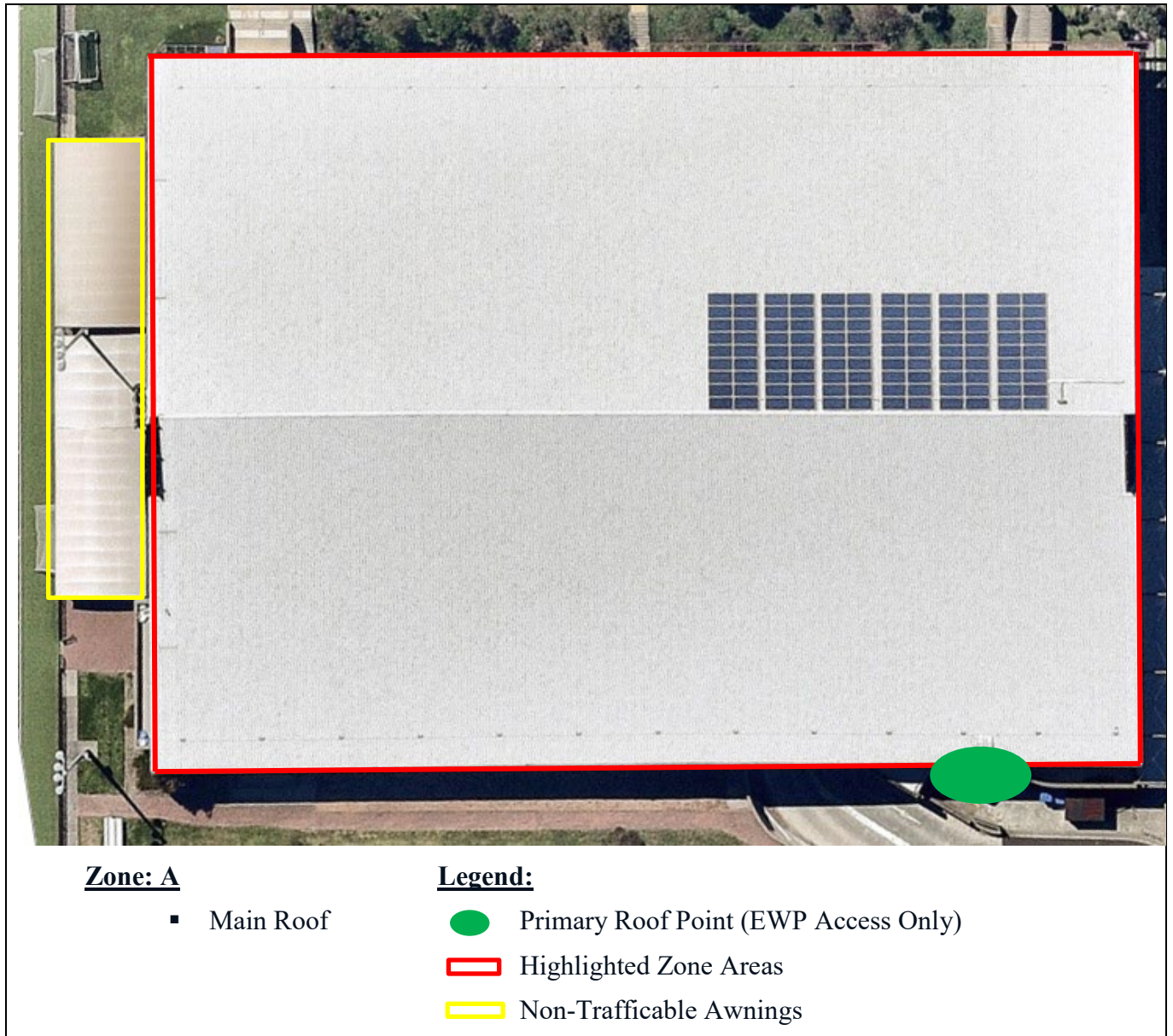
## 3 Disclaimer

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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



# 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](#).

Step 1 – Consider the Consequences		Step 2 – Consider the Likelihood		Step 3 – Calculate the Risk					
What are the consequences of this incident occurring? Consider what <u>could reasonably</u> have happened as well as what actually happened. Look at the descriptions and choose the most suitable Consequence.		What is the likelihood of the consequence identified in step 1 happening? Consider this without new or interim controls in place. Look at the descriptions and choose the most suitable Likelihood.		1. Take step 1 rating and select the correct column 2. Take Step 2 rating and select the correct line 3. Circle the risk score where the two ratings cross on the matrix below.  H = High, M = Medium, L = Low					
CONSEQUENCES		LIKELIHOOD							
Consequence	Description	Likelihood	Description		CONSEQUENCES				
					Minor	Moderate	Major	Severe	
<b>Severe</b>	Death or extensive injuries	<b>Almost Certain</b>	Is expected to occur in most circumstances	<b>LIKELIHOOD</b>	<b>Almost Certain</b>	M	M	H	H
<b>Major</b>	Medical treatment	<b>Likely</b>	Will probably occur in most circumstances		<b>Likely</b>	L	M	H	H
<b>Moderate</b>	First aid treatment	<b>Possible</b>	May occur at some time		<b>Possible</b>	L	L	M	H
<b>Minor</b>	Injury report, no treatment	<b>Unlikely</b>	May occur, but probably never will		<b>Unlikely</b>	L	L	M	M

## 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:

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

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

Risk Control						
Hazard No.	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?)	Control Type (Elimination, Substitution, Isolation, Engineering, Administration, PPE)	Person Responsible	Risk rating (With <u>additional</u> controls in place)		
				Consequence	Likelihood	Risk

## 6 Roof Safety Survey Building 9

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### 6.1 Building 9 General Information

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

University of Wollongong Campus Building 9

**Description:**

Multi storey low pitched metal roof with solar panels and non-trafficable canopy awnings.

**SafetyNet Risk Assessment Reference Number:**

- UOW01615

**Roof Access:**

Roof access is from Elevated Work Platform only. Consideration must be made of AS 2550.10 – 2006 section 5.9 prior to any access of the roof.

**Main Roof Access: **EWP ACCESS ONLY****

- Access to the main roof is via loading dock at the front of the building. A yellow line marking on the loading dock ground indicates the required EWP position to meet roof platform (EWP to not exceed this line). The roof gutter extends 1900mm from building wall.
- The EWP must extend to meet the roof platform, when extended users **MUST** be connected to the EWP by a twin tailed lanyard and safety harness prior to collapsing the EWP handrail.
- Before transferring from the EWP to the roof platform users must retrieve the anchor strop from the roof with a long arm and hook. Users must connect to the anchor strop with second section of the twin tailed lanyard to safety harness prior to disconnection from EWP

**For a visual guide to accessing the roof via EWP see section [EWP Roof Access Process](#)**

**Signage:**

- Various restricted areas

**Compliance Plates:**

- Data Plate for Lifelines & Anchor point data tags

**Height of Building:**

- Multi storey

**Pitch:**

- < 5 degrees

**Roof Construction:**

- Metal

**Structural Integrity:**

- Sound

**Vegetation:**

- No

**Fall Arrest System:**

System	Certification Status	Certification By
Various Anchor Points	Current	Riverlands Roofing
Horizontal Lifelines Safetylink Advance Lifeline (Manufacture’s User Manual in link below) ( <a href="https://documents.uow.edu.au/content/groups/public/@web/@ohs/documents/doc/uow236522.pdf">https://documents.uow.edu.au/content/groups/public/@web/@ohs/documents/doc/uow236522.pdf</a> )	Current	Riverlands Roofing

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

**Services:**

- |   |   |   |
|---|---|---|
| <input checked="" type="checkbox"/> Gutters | <input type="checkbox"/> Fume Cupboards     | <input type="checkbox"/> Fiberglass Skylights             |
| <input type="checkbox"/> A/C Units          | <input type="checkbox"/> Telco Towers       | <input type="checkbox"/> Pipework                         |
| <input type="checkbox"/> Ducts              | <input type="checkbox"/> Satellite Dishes   | <input type="checkbox"/> Cooling Tower                    |
| <input type="checkbox"/> Roof Ventilators   | <input checked="" type="checkbox"/> Antenna | <input checked="" type="checkbox"/> Roof Top Solar Panels |

**Existing Safety Systems:**

- |  |   |                                   |
|--|---|-----------------------------------|
| <input checked="" type="checkbox"/> Horizontal Lifelines | <input type="checkbox"/> Vertical Lifelines | <input type="checkbox"/> Walkway  |
| <input checked="" type="checkbox"/> Anchor Points        | <input type="checkbox"/> Handrail           | <input type="checkbox"/> Parapets |

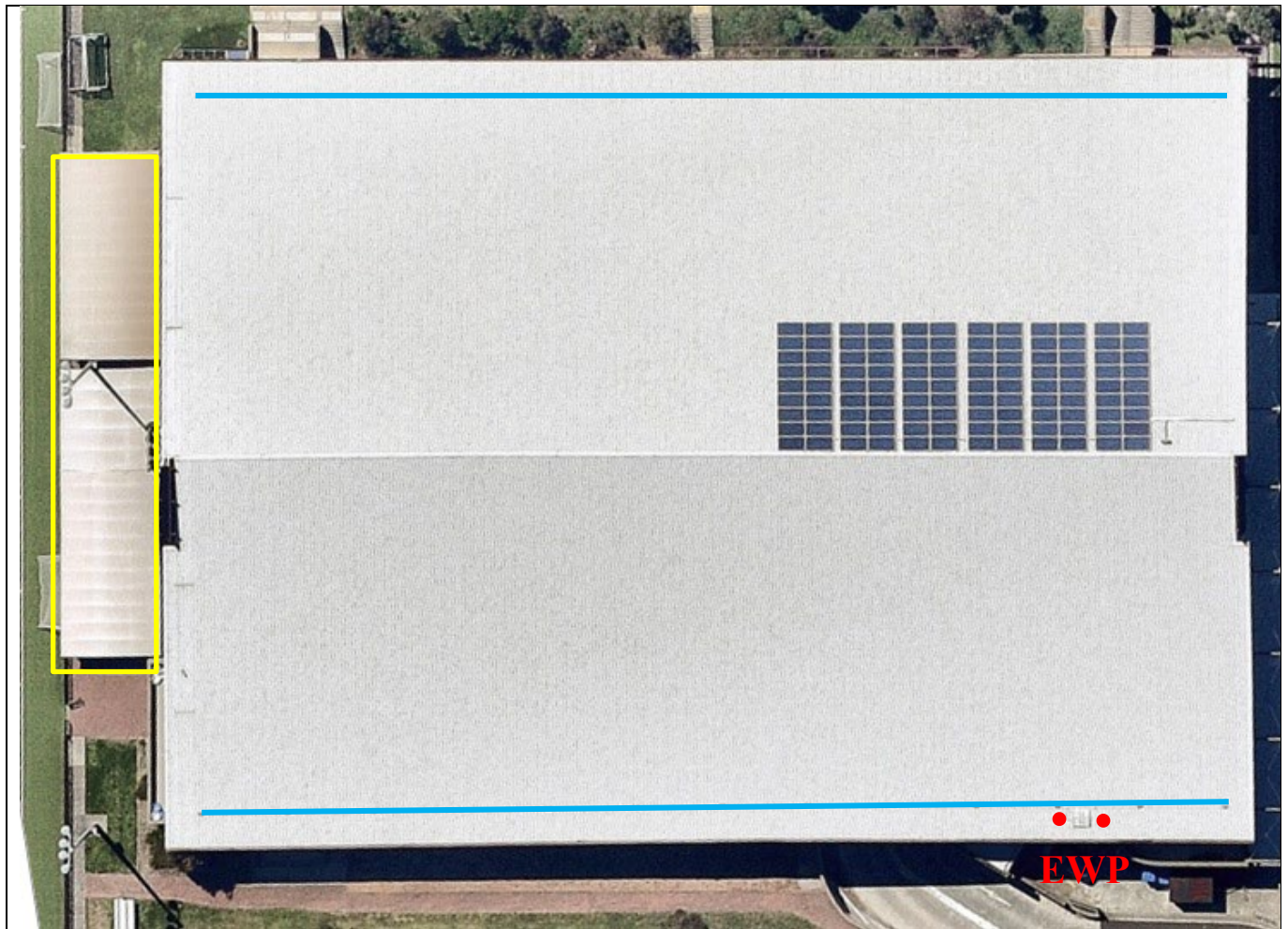
**Work Activity & Frequency:**

- Clean gutters/routine maintenance – 6 months
- Service A/C plant- monthly



## 6.2 Building 9 Safety Systems Aerial Photo Layout

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



**Legend:**




**EWP** Roof Access EWP Access Only

● Anchor Point








— Lifeline

Non-Trafficable Awning

### 6.3 Building 9 Roof Photos

		
<p>Building 9 Front façade loading dock. EWP roof access point</p>	<p>Building 9 roof area with lifeline (Certification by Riverlands Roofing Status Current)</p>	<p>Building 9 roof area with lifeline (Certification by Riverlands Roofing Status Current)</p>
		
<p>Building 9 roof area with lifeline (Certification by Riverlands Roofing Status Current)</p>	<p>Building 9 roof area with lifeline (Certification by Riverlands Roofing Status Current)</p>	<p>Building 9 with solar panels</p>
		
<p>Building 9 with solar panels</p>	<p>Building 9 Caution trip hazard around solar panels</p>	<p>Building 9 Caution trip hazard around solar panels</p>

## 6.4 EWP Roof Access Process

		
<p>Line marking to loading dock ground. Roof limit indicator. Position for EWP to meet roof platform. Gutter is 1900mm from building wall</p>	<p>Location of EWP in loading dock. Platform edge of EWP to not exceed line on ground</p>	<p>EWP clearance of gutter</p>
		
<p>EWP extended to meet roof platform</p>	<p>EWP handrail must not be collapsed until users are connected to the EWP with twin tailed lanyard and safety harness prior to collapsing handrail</p>	<p>Roof anchor stop to be retrieved with long arm and hook from roof. Users must connect to the anchor stop with second section of the twin tailed lanyard to safety harness prior to disconnection from EWP</p>
		
<p>Transfer to safe working area from EWP</p>		

## 7 Program Evaluation

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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

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- [Managing the Risk of Falls Guidelines](#)
- [Working at Heights Rescue Plan](#)
- [Roof Access Permit](#)
- [Roof Access Procedure](#)

## 9 References

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### 9.1 Legislation

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- [NSW Work Health and Safety Regulation 2017 Part 4.4 Falls](#)

### 9.2 Australian Standards

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- 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 5532: Manufacturing requirements for single-point anchor device used for harness-based work at height
- AS 2550.10 – 2006 Crane, Hoists and lifting equipment. section 5.9

### 9.3 Codes of Practice

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- [Managing the Risk of Falls at Workplaces \(SafeWork NSW\)](#)
- [NSW Code of Practice for the Control of Legionnaires' Disease \(NSW Health\)](#)

## 10 Version Control Table

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Version Control	Date Released	Approved By	Amendment
1	03/12/2019		Document created by Gary O'Loughlin Riverland Roofing
2	29/04/2022	WHS Advisor	Document reviewed by Riverland Roofing

# 11 Appendix A: Sample Images

Before contractors use any Fall Arrest System (lifeline or Anchor point) users must complete the following:

- Locate the fall arrest systems data plate or data tag.
- Validate that the system is current and that a yearly certification has been completed.
- Complete a personal visual & physical inspection of the system.
- Users must never exceed the MAX LOAD or USERS of the system.



Fall Arrest System Data Plate



Anchor Point Data Tag