



Site: Christian Brothers College, 2020



Height Safety Systems

Height systems are designed following the risk assessment process, identifying work situations where a worker will need added protection through the use of PPE (personal protective equipment) and a physical connection with the structure they are working on.

Site Address: 214 Wakefield Street, Adelaide 5001 SA

RIS certifies that the systems as outlined in the site Roof Plan Layout for Christian Brothers College are certified* to meet the requirements of AS/NZS 1891.4.2009 Industrial Fall Arrest Systems & Devices Part 4: Selection, Use & Maintenance.

* Where items of non-conformance are listed on the certificate of inspection as per Appendix of document the items do NOT conform with AS/NZS 1891.4.2009 Industrial Fall Arrest Systems & Devices Part 4: Selection, Use & Maintenance or with AS/NZS 1657-2013 Fixed Platforms, walkways, stairways, ladders – Design, construction and installation. Details of why items are non-conformant will be clearly listed

Roof Layout





Safe Use

Step 1

Complete your site induction with the system owner and confirm that the users can demonstrate competence in the activity of working at heights by provision of a nationally recognised certification or equivalent.

Step 2

Develop and sign off on risk assessment/work method statement for the task, considering task specifics elements that will affect the user's safety:

- Type of work
- Length of time required to complete the work
- Surface conditions
- Materials to be used
- Ladder requirements
- Placement of the materials
- Additional hazards introduced by the task such as:
 - Working around plant and equipment
 - Working near energised electrical installations
 - Public safety and security
 - Dropped objects
- PPE, plant and equipment inspection pre-use (ladders, scaffold, scissor lifts etc)
- Rope length requirements for the work
- Anchor testing requirements
- Rescue requirements for any activity where fall arrest techniques are to be used

Safety Warning:

All height safety systems are designed to be used by competent trained persons only. The way all height systems are used will be relative to a range of variables not able to be captured in this operations manual. These user instructions are indicative only and may change depending on site conditions, types of work required to be completed and number of person involved in the task.

Progressing to complete work without assessing and controlling the risk relative to the work and the use of the systems is in contravention of work health and safety regulations and highly dangerous and not recommended. The above list is not exhaustive.



Safe Work Method Statement - Senior Campus

- **Ensure that all people working on roof have been competently trained in Height Safety and possess at a minimum a nationally recognised work safely at heights qualification that is less than 2 years old or equivalent.**
- **Make sure you possess and wear the correct equipment.**
- **INFORM MANAGEMENT OR SECURITY THAT WORK IS BEING CONDUCTED ON THE ROOF AREA BEFORE COMMENCEMENT OF ANY WORKS – ALWAYS WORK ON THE ROOF AREA WITH A SECOND PERSON.**

Rice Building/GYM:

Access is via a Portable Ladder and onto a flat section.

User must then use a Vertical Line Grab to go up to flat section of roof. Solar panel layout makes access to certain sections of the roof tricky and user must not go within 2m of live edge unattached.

There is also a section of the roof that is pitched over 15 degrees.

On the Gym roof there is a Horizontal Lifeline.

Flat Roof Sections:

- Inspect the intended work access areas and confirm the height safety systems have been inspected within the last 12 months (as per AS1891.4.2009).
- Prior to accessing the roof area, fit the Harness and connect a 300mm Shock Absorbing Lanyard to the rear attachment point on the Harness.
- Connect the loose end of the same Lanyard to a Rope Adjuster and rope. Ensure the rope is long enough to complete the task required.
- Store all excess rope and equipment in a backpack.
- Walk to the Anchor Point you wish to connect to.
- Connect the free end of rope to the Anchor Point via the Karabiner.
- Make sure the Adjustable Rope Grab & Rope is securely attached to the Anchor Point.
- Walk to the high side of the Anchor Point ensuring you are greater than 2 metres way from edge.

Note:

- Always attach to the Anchor Point that is directly behind you.
- Do not pass another Anchor without being attached to it.
- Using an Anchor that is not directly behind you will cause a pendulum effect.
- Keep your Lanyard and grab as high and tight as the work will permit do not allow any slack in the system.



Recommended Personal Fall Protection Equipment per user:

Rice Building/GYM:

Flat Roof Sections:

- 1 x TRR01 Riggers Fall Arrest Harness
- 6 x L024T Karabiners – Twistlock 24mm opening
- 1 x ROPEK30M - 30m Kernmantle Rope with Rope Grab
- 1 x WL02-T - 2m Twin Lanyard with Shock Absorber
- 1 x WLSA01-T - 300mm Shock Absorber
- 1 x AK040 Backpack Kit Bag 50m capacity



Horizontal Lifeline:

Update or sign off the risk assessment/work method statement and advise responsible person work has been completed and controls are effective.

- Make Sure the Harness is fitted correctly.
- Connect the 2m Lanyard to your rear Dorsal D ring via the Karabiner.
- Connect the Personal Shock absorber to the frontal D ring of the Harness via the Karabiner.
- Once on the landing connect to the Lifeline.
- Walk to the Lifeline.
- Remove Karabiner from Shuttle.
- Open Shuttle mouth via lever.
- Place the Shuttle mouth around the Cable and close. Make sure the slot in the Shuttle will line up with the intermediate bracket.
- Connect the Karabiner to the Shuttle- the Shuttle is now safely connected to the line.
- Connect the 2m Shock Absorbing Lanyard to the Shuttle via the Karabiner.
- Make sure the user is connected to the Lifeline system.
- The user must stay connected to the Lifeline system while working at the gutter or within 2m of the edge.
- Caution should be employed at all times.
- Once work is complete- disconnect Shuttle from the lifeline system.
- Open the Shuttle via the lever.
- Remove Shuttle from around the cable.
- Connect the Karabiner to the Shuttle for storage.



Recommended Personal Fall Protection Equipment per user:

Horizontal Lifeline:

1 x HL911 Lifeline Glider

TRW01 Roof Workers Fall Arrest Harness

WLAD02 2m Shock Absorbing Lanyard

WLSA01 300mm Personal Shock Absorber

6 x LO24T Karabiners

15m Rope and Grab (RopeK01)

1 x AK040 Backpack Kit Bag 50m capacity



Access to 15 degree pitched roof RICE:

- Make Sure the Harness is fitted correctly.
- Connect the 2m Lanyard to your rear dorsal D ring via the Karabiner.
- Connect the Personal Shock Absorber to the frontal D ring of the Harness via the Karabiner.
- Access is via a Fixed Ladder and then going onto a pitched roof of 15 degrees.
- Walk to the Anchor Point in the starting section of the roof and find the Strop.
- Attach the Karabiner to the Anchor end of the rope and place the Karabiner through the Anchor ensuring your are connected
- Carefully walk over the pitch of the roof by letting out the Grab.
- Make your way to the next available Anchor Point by adjusting the Rope and Rope adjuster to allow movement.
- When you reach the next Anchor available to connect to, stop in a position where you can reach the Anchor safely.
- Redirect the Rope through the Anchor via a Karabiner. Continue on using this process until you reach your desired rigging location.
- Rig the rope access system in the desired configuration and position to suit the work and rescue requirements outlined by your safe work method statement.
- When repositioning the rope, ensure that the workers remain attached and connected to the nearest anchor point at all times.
- Repeat the same access and egress process for all other workers.

NOTE: When utilising the Adjustable Rope Grab & Rope system it is important that the user adjusts the Lanyard length (i.e. make sure the Rope and Shock Absorber are taut to prevent any working slack. It is advisable to have NO working slack.

- Perform the work required using care.



Recommended Personal Fall Protection Equipment per user:

Access to 15 degree pitched roof RICE:

- TRW01 Roof Workers Fall arrest Harness
- WLAD02 2m Shock Absorbing Lanyard
- WLSA01 300mm Personal Shock Absorber
- 6 x LO24T Karabiners
- 15m Rope and Grab (RopeK01)
- 1 x AK040 Backpack Kit Bag 50m capacity



Vertical Lifeline:

- Prior to accessing the roof area, fit the Harness and connect a 300mm personal Shock Absorber to the front attachment point on the Harness.
- Fit the Vertical Ladder Systems Traveller (Arresta Grab) to the 8mm Cable on the Ladder with the arrow on the Traveller pointing in the upwards direction.
- Place the 300mm Shock Absorber onto the Traveller arm and test the Traveller by loading the Shock Absorber to ensure the Traveller does not slip down on the 8mm cable.
- Connect the Arresta device to the frontal loops of your Harness.
- Climb the Fixed Ladder making sure that the Vertical Line Shuttle follows the user whilst climbing the ladder.
- Disconnect the SLVI from your front Harness and work within the Handrail system.
- Repeat the steps for egress making sure to connect the Arresta Karabiners through both loops of your Harness only at the front.
- Climb Ladder using 3 points of contact
- Remove device once safe and attached to the Strop.



Recommended Personal Fall Protection Equipment per user:

Vertical Lifeline:

- 1 x TRR01 Riggers Fall Arrest Harness
- 6 x L024T Karabiners – Twistlock 24mm opening
- 1x ROPEK15M 15m Kernmantle Rope with Rope Grab
- 1 x WL01-T twin 1.5m Webbing Lanyard with shock absorber
- 1 x WLSA01-T 300mm shock absorber
- 1 x AK040 Backpack kit Bag 50m capacity
- Arresta Line Grab



Smith OBrien:

Access is via a fixed staircase up through a Hatch onto a flat landing.

User can go across to Wakefield Building or over to the Obrien.

Pitch is under 15 degrees.

- Inspect the intended work access areas and confirm the height safety systems have been inspected within the last 12 months (as per AS1891.4.2009).
- Prior to accessing the roof area, fit the Harness and connect a 300mm Shock Absorbing Lanyard to the rear attachment point on the Harness.
- Connect the loose end of the same Lanyard to a Rope adjuster and rope.
- Ensure the rope is long enough to complete the task required.
- Store all excess rope and equipment in a backpack.
- Walk to the Anchor Point you wish to connect to.
- Connect the free end of rope to the Anchor Point via the Karabiner.
- Make sure the Adjustable Rope Grab & Rope is securely attached to the Anchor Point.
- Walk to the high side of the Anchor Point ensuring you are greater than 2 metres way from edge.

Note:

- Always attach to the Anchor Point that is directly behind you.
- Do not pass another Anchor without being attached to it.
- Using an Anchor that is not directly behind you will cause a pendulum effect.
- Keep your Lanyard and grab as high and tight as the work will permit do not allow any slack in the system.



Recommended Personal Fall Protection Equipment per user:

Smith OBrien:

- 1 x TRR01 Riggers Fall Arrest Harness
- 6 x L024T Karabiners – Twistlock 24mm opening
- 1 x ROPEK30M 30m Kernmantle Rope with Rope Grab
- 1 x WL02-T 2m Twin Lanyard with Shock Absorber
- 1 x WLSA01-T 300mm Shock Absorber
- 1 x AK040 Backpack Kit Bag 50m capacity



Food Tech Exhaust:

- Roof is pitched over 15 degrees and access is via a temporary Portable Ladder.
- Access is via Portable Ladder onto roof with multiple pitches. System is only for limited access to gutters and hot water services.
- Fit Harness.
- Climb Ladder making sure 3 points of contact
- Position the temporary Ladder at the roof entry point (Ladder Bracket location):
 - Ladder angle is at a ratio of 4 to 1.
 - Ladder is positioned 1m above the resting point and secured on the ladder bracket.
- Secure the base of the Ladder.
- With all required equipment secured in the backpack on the worker's back, climb the temporary Ladder. Always ensure that the worker maintains three points of contact on the Ladder. When within 1m of the top of the Ladder, stop in a position where you can reach the Roof Anchor Mounted Strop safely and at the same time maintain three points of contact.
- Connect the free end of the Twin Tail Lanyard with Karabiners on the rear of the Harness to the Anchor Strop via the Karabiner.
- Transition from the Ladder to the roof.
- Move to second Anchor Point- with the Strop.
- Inspect the intended work access areas and confirm the height safety systems have been inspected within the last 12 months (as per AS1891.4.2009).
- Prior to accessing the roof area, fit the Harness and connect a 300mm Shock Absorbing Lanyard to the front attachment point on the Harness.
- Connect the loose end of the same Lanyard to a Rope Adjuster and Rope. Ensure the Rope is long enough to complete the task required.
- Store all excess rope and equipment in a backpack.
- Connect the free end of the personal Shock Absorber on the front of the Harness to the Anchor Strop via the Karabiner.
- Make your way to the next available Anchor Point by adjusting the Rope and Rope adjuster to allow movement.
- When you reach the next Anchor available to connect to, stop in a position where you can reach the Anchor safely. Redirect the rope through the Anchor via a Karabiner. Continue on using this process until you reach your desired rigging location.



- Rig the rope access system in the desired configuration and position to suit the work and rescue requirements outlined by your safe work method statement.

NOTE: *If the roof slope is greater than 15 degrees the user must remain connected to an anchorage point at all times.*

NOTE: *When utilising the Adjustable Rope Grab & Rope system it is important that the user adjusts the Lanyard length (i.e. make sure the Rope and Shock Absorber are taut to prevent any working slack. It is advisable to have NO working slack.*

- Perform the work required using care.

NOTE: *When accessing the corners of the building connect the Karabiner to the Adjustable Rope and then connect the Karabiner to the diversion Anchor to prevent a pendulum effect.*

- Detach yourself from the Anchor Point only when you are back at the Ladder Bracket.
- Repeat the same access and egress process for all other workers.

Update or sign off the risk assessment/work method statement and advise responsible person work has been completed and controls are effective.



Recommended Personal Fall Protection Equipment per user:

Food Tech Exhaust:

- 1 x TRR01 Riggers Fall Arrest Harness
- 1 x WLSA01 300mm Shock Absorbing Lanyard
- 1 x WL01 1.5m Lanyard with Karabiner or Snap Hook or
- 1 x WL02-T 2m Twin Lanyard with Shock Absorber
- 1 X ROPEK01 15m Rope and Grab
- 3 x LO24NH Karabiners
- 1 x AK040 Backpack Kit Bag 50m capacity
- 1 x DRSE dorsal extension for working off of the dorsal D



Hurley Building:

Access is via Portable Ladder leading to a Strop and 2 x Lifelines on a near flat roof.

- Carry Ladder upstairs.
- Open Hatch door.
- Attach to Strop via Shock Absorber attached to front loops or Lanyard.
- Climb onto roof.
- Attach to Lifelines and detach from Strop.

Horizontal Lifeline:

- Update or sign off the risk assessment/work method statement and advise responsible person work has been completed and controls are effective.
- Make Sure the Harness is fitted correctly
- Connect the 2m Lanyard to your rear dorsal D ring via the Karabiner
- Connect the Personal Shock absorber to the frontal D ring of the Harness via the Karabiner
- Once on the landing connect to the Lifeline.
- Walk to Lifeline
- Remove Karabiner from Shuttle
- Open Shuttle mouth via lever
- Place the Shuttle mouth around the cable and close. Make sure the slot in the Shuttle will line up with the intermediate bracket.
- Connect the Karabiner to the Shuttle- the Shuttle is now safely connected to the line.
- Connect the 2m Shock Absorbing Lanyard to the Shuttle via the Karabiner.
- Make sure the user is connected to the lifeline system
- The user must stay connected to the lifeline system while working at the gutter or within 2m of the edge.
- Caution should be employed at all times.
- Once work is complete- disconnect Shuttle from the lifeline system.
- Open the Shuttle via the lever
- Remove Shuttle from around the cable.
- Connect the Karabiner to the Shuttle for storage.



Recommended Personal Fall Protection Equipment per user:

Hurley Building:

Horizontal Lifeline:

- 1 x HL911 Lifeline Glider
- TRW01 Roof Workers Fall Arrest Harness
- WLAD02 2m Shock Absorbing Lanyard
- WLSA01 300mm Personal Shock Absorber
- 6 x LO24T Karabiners
- 15m Rope and Grab (RopeK01)
- 1 x AK040 Backpack Kit Bag 50m capacity



User Competence and Risk Assessment

People that work at heights are exposed to the risk of falling. Falling from heights at work is one of the most common causes of serious injury and death in the Australian workplace. Installing safety systems is one element of managing these risks. In order to meet the full requirements of all State, Territory and Commonwealth Work Health and Safety Laws and Regulations, fall prevention system users must be competent in the use of the systems, and a risk assessment must be undertaken prior to use.

Every system will have subtle differences that may impact the way a user can operate the system effectively. Issues such as the work environment, type of work, access and other activities in close proximity to the work must be considered before beginning work, and must be part of a documented pre-start risk assessment. Work Health and Safety Regulations require that the person commissioning the work ensures that those completing the work (be they an employee, contractor or volunteer) have a thorough understanding of the risks involved with the work and can demonstrate competence in completing the task, including being prepared to react to a rescue scenario where fall arrest systems are utilised in a workplace.



Periodic Inspections Testing & Certification

The RIS Altitude products that form the system are tested and certified to the following Australian standards:

AS/NZS 1891.2	Industrial Fall Arrest Systems & Devices Part 2: Horizontal Lifeline and Rail Systems
AS/NZS 1891.3	Industrial Fall Arrest Systems & Devices Part 3: Fall Arrest Devices
AS/NZS 1891.4	Industrial Fall Arrest Systems & Devices Part 4: Selection, Use & Maintenance

Your RIS system(s) requires regular inspections to ensure they remain fit for use. Every location will have differences, and the inspection time frames will be relative to possible deterioration caused by many factors including but not limited to age, weathering, site conditions and usage factors. Inspection time frames may differ based on a risk assessment and depending on the product type.

As the manufacturer of the product, RIS recommends inspection time frames in alignment with Australian Standards recommendations of 12 months. RIS may recommend alternative inspection time frames in the following cases:

1. Frequently used systems
 - a. Any RIS systems that is used more than 5 times in 1 week
2. Infrequently used systems
 - a. Any RIS systems that is used less than 1 time in 12 months
3. Once off installation not to be used again

Inspections should be carried out by a competent height safety inspector that can demonstrate a capacity to inspect the systems thoroughly against the installation and certification criteria set out below:

- Has been trained and certified by RIS to undertake inspections and certification activity for RIS products.
- Demonstrates relevant industry experience in the inspection and use of height safety equipment.
- Can develop and implement a risk management approach to the inspection of the systems in order to inspect and review suitability prior to connecting to the anchor.
- Can demonstrate capacity to update and advise the owner at the time of the inspection regarding any defects and warranty issues.
- Works within the guidelines of the professional indemnity insurance carried by RIS that protects the systems owner from liability for the activities relevant to certification and inspection of new and existing systems.
- Provides a signed work method statement prior to the inspection relevant to the inspection, including the RIS systems recertification inspection criteria.

Appendix: Harness Fitting Guide



Harness Fitting Guide

STEP 1



Inspect Harness to ensure it is fit for use.
Locate the top of the harness and align it in its correct orientation taking out any twists in the webbing.

STEP 2



Sit the harness on like you would a jacket, one arm at a time.
Ensure the dorsal cleat ring (front) on the harness is located between your shoulder blades.

STEP 3



Connect the chest strap to secure harness to upper body.
Fit leg straps ensuring webbing is sitting flat against the legs.
Make sure you connect the left leg strap to the left leg buckle (NEVER CROSS THEM OVER).

STEP 4



Once harness is on adjust all straps to ensure the harness is fitted securely to the body.
It also have a work colleague check over the harness for you once fitted.



When using the front fall arrest webbing loops ensure they are always brought together and connected with an approved hardware.
Never use the front webbing loops singly.

Your harness is now fitted in a correct and secure manner and is now ready for use





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